RESULTS

OF THE

MAGNETICAL AND METEOROLOGICAL OBSERVATIONS

MADE AT

THE ROYAL OBSERVATORY, GREENWICH,

IN THE YEAR

1896:

UNDER THE DIRECTION OF

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ASTRONOMER ROYAL.

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INDEX.

RESULTS OF MAGNETICAL AND METEOROLOGICAL OBSERVATIONS—*continued.*

PAGE

RESULTS OF MAGNETICAL AND METEOROLOGICAL OBSERVATIONS—*continued.*

PAGE

RESULTS OF MAGNETICAL AND METEOROLOGICAL OBSERVATIONS—*concluded.*

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GREENWICH MAGNETICAL AND METEOROLOGICAL OBSERVATIONS,

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Introduction.

§ 1. *Personal Establishment and Arrangements.*

During the year 1896 the personal establishment in the Magnetical and Meteorological Department of the Royal Observatory consisted of William Carpenter Nash, Superintendent, aided by one Established Computer, David J. R. Edney, appointed on May 21, and four Computers. The Computers employed during the year were, David J. R. Edney, Albert Walter, Percival D. Beadle, Thomas Percy Marchant, and Cedric A. F. Davies.

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

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

The Magnetical and Meteorological Observatory was erected in the year 1838. Its northern face is distant about 170 feet south-south-east from the nearest point of the South-East Dome, and about 35 feet south from the carpenters' workshop. On its east stands the New Library (erected at the end of the year 1881), in the construction of which non-magnetic bricks were used, and every care was taken to exclude iron. The Magnetical and Meteorological Observatory is based on concrete and built of wood, united for the most part by pegs of bamboo; no iron was intentionally admitted in its construction, or in subsequent alterations. Its form is that of a cross, the arms of the cross being nearly in the direction of the cardinal magnetic points as they were in 1838. The northern arm is longer than the others, and is separated from them by a partition, and used as a computing room; the stove which warms this room, and its flue, are of copper. The remaining portion, consisting of the eastern, southern, and western arms, is known as the Upper Magnet Room. The upper declination magnet and its theodolite, for determination of absolute declination, are placed in the southern arm, an opening in the roof allowing circumpolar stars to be observed by the theodolite for determination of its reading for the astronomical meridian. Both the magnet and its theodolite are supported on piers built from the ground. In the eastern arm is placed the Thomson electrometer for photographic record of the variations of atmospheric electricity, its water cistern rests on four glass insulators supported by a platform fixed to the western side of the southern arm, near the ceiling. The Standard barometer is suspended near the junction of the southern and western arms. The sidereal clock, Grimalde and Johnson, is fixed at the junction of the eastern and southern arms, and there is in addition a mean solar chronometer, McCabe No. 649, for general use. A mean solar clock (Molyneux), transferred from the Astronomical Department, was set up in the northern arm during the year 1883.

Until the year 1863 the horizontal and vertical force magnets were also located in the Upper Magnet Room, the upper declination magnet being up to that time employed for photographic record of the variations of declination, as well as for absolute measure of the element. But experience having shown that the horizontal and vertical force magnets were exposed in the upper room to large variations of temperature, a room known as the Magnet Basement (in which the variations of temperature are very much smaller) was excavated in the year 1864 below the Upper Magnet Room, and the horizontal and vertical force magnets, as well as a new declination magnet for photographic record of declination, were mounted therein. The Magnet Basement is of the same dimensions as the Upper Magnet Room. The lower declination magnet and the horizontal force and vertical force magnets, as now located in the Basement, are used entirely for record of the variations of the respective magnetic elements. The declination magnet is suspended in the southern arm, immediately under the upper declination magnet, to avoid mutual interference; the horizontal and vertical force magnets are placed in the eastern and western arms respectively, in positions nearly underneath those which they occupied when in the Upper Magnet Room. All are mounted on or suspended from supports carried by piers built from the ground. A photographic barometer is fixed to the northern wall of the Basement, and an apparatus for photographic registration of earth currents is placed near the southern wall of the eastern arm. A mean solar clock of peculiar construction for interruption of the photographic traces at each hour is fixed to the pier which supports the upper declination theodolite. Another mean solar clock is attached to the western wall of the southern arm. For better ascertaining the variations of temperature of the Basement a Richard metallic thermograph was added in February, 1886. It is placed on the pier carrying the horizontal force magnet, and gives a continuous register of temperature on a scale of 5° to 1 inch, the scale for time being 24 hours to $5\frac{1}{3}$ inches. On the northern wall, near the photographic barometer, is fixed the Sidereal Standard clock of the Astronomical Observatory, Dent 1906, communicating with the chronograph and with clocks of the Astronomical Department by means of underground wires. This clock is placed in the Magnet Basement, because of its nearly uniform temperature.

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

A platform erected above the roof of the Magnet House is used for the observation of meteors. The sunshine instrument and a rain gauge are placed on a table on this platform, and there are also thermometers (placed in a louvre-boarded shed or screen, with free circulation of air) for observation of the temperature of the air in an exposed situation at a height of 20 feet above the ground. On 1896 February 6 the sunshine instrument was removed to the roof of the Octagon Room. (*See* page *liii.*)

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

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

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

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

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

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

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

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

Each piece weighs nearly 3 cwt.

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

In the year 1891 the Central Octagon of the new Physical Observatory was erected in the South Ground, and in the year 1893 the South Wing was added to the building, considerable masses of iron being introduced, viz., 10 tons in the case of the Central Octagon, the centre of which is about 115 feet from the declination magnet on a bearing 12° East of South (magnetic), and 16 tons in the South Wing at a mean distance of about 145 feet on a bearing 5° East of South (magnetic) from the declination magnet. The principal masses of iron were brought into the South Ground as follows :—on 1891 March 24 and 25, 7 and 3 tons respectively, and on 1893 February 11 and 14, $3\frac{3}{4}$ and $5\frac{1}{2}$ tons respectively. In no case could any disturbance of the magnetic registers be detected. On 1894 November 8 work for the erection of the North Wing was commenced, and the erection of the new Altazimuth building on the north side of the Magnetical Observatory was also commenced about the same time. Both buildings were in progress during the year 1895 : further considerable masses of iron being introduced, viz., 12 tons on January 16, $2\frac{1}{2}$ tons on April 2, $1\frac{1}{3}$ tons on December 16, for the new Physical Observatory, and 4 tons on March 29, 5 tons on May 2, 2 tons on June 7, $1\frac{1}{3}$ tons on June 21, for the new Altazimuth building. The principal masses of iron were placed in position in the North Wing of the Physical Observatory in July 1895, and this seems to have produced the increase of declination shown from August 1895, the permanent effect being an increase of about 4′. On 1896 February 19 the iron base and other parts of the new Altazimuth instrument were received, and were subsequently mounted in the new Altazimuth Pavilion, the total weight of iron being about 8 cwt. On 1896 October 27 and following days the iron castings of the new Thompson Photographic Equatorial were received, and were subsequently mounted in the central dome of the Physical Observatory at a distance of about 115 feet from the declination magnet. Their total weight is about 10 tons.

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* 1896.

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, 1½ inch broad, and about ¼ inch thick, attached by a pinching screw to the magnet carrier, also by Meyerstein, but since altered by Troughton and Simms. To a stalk extending upwards from the magnet carrier is attached the torsion circle, which consists of two circular brass discs, one turning independently of the other on their common vertical axis, the lower and graduated portion being firmly fixed to the stalk of the magnet carrier; to the upper portion carrying the vernier is attached, by a hook, the suspension skein. This is of silk, and consists of several fibres united by juxtaposition, without apparent twist; its length is about 6 feet.

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

The theodolite, by which the position of the upper declination magnet is observed, is by Troughton and Simms. It is planted about 7 feet north of the magnet. The radius of its horizontal circle is 8·3 inches, and the circle is divided to 5′, and read, by three verniers, to 5″. The theodolite has three foot-screws, which rest in brass channels let into the stone pier placed upon the brick pier which rises from the ground through the Magnet Basement. The length of the telescope is 21 inches, and the aperture of its object glass 2 inches: it is carried by a horizontal transit axis 10½ inches long, supported on Y's carried by the central vertical axis of the theodolite. The eye-piece has one fixed horizontal wire and one vertical wire moved by a micrometer-screw, the field of view in the observation of stars being illuminated through the pivot of the transit-axis on that side of the telescope which carries the micrometer-head. 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 1896 February 25 to be 100^{r}·240 ; on 1896 May 1, 100^{r}·228 ; on 1896 September 1, 100^{r}·212 ; on 1896 November 2, 100^{r}·219 ; and on 1896 December 1, 100^{r}·240. The value used throughout the year 1896 was 100^{r}·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 1894 December 10, which showed that in the ordinary position of the glass the theodolite readings were diminished by 20″·7. Two other sets of observations, made on 1895 December 12, and 1896 December 1, gave 20″·1 and 20″·9 respectively. The mean of these, 20″·6 has been added to all readings throughout the year 1896.

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 1896 was 26′. 5″·6, being the mean of determinations made on 1892 November 29, 1893 December 7, 1894 December 10, 1895 December 12, and 1896 December 2, giving respectively 26′. 7″·1, 26′. 6″·5, 26′. 1″·8, 26′. 8″·5, and 26′. 4″·0. With the collimator in its usual position, above the magnet, the quantity 26′. 5″·6 has been subtracted from all readings.

The effect of torsion of the suspending skein is eliminated by turning the lower portion of the torsion-circle until the torsion bar (an oak bar of the same size as the magnet, and weighted with lead weights to be also of equal weight), inserted in place of the magnet, rests in the plane of the magnetic meridian. The bar is thus inserted usually about once a month, and whenever the adjustment is found not to have been sufficiently close, the observed positions of the magnet are corrected for displacement of the magnet from the meridian by the torsion of the skein. Such correction is determined experimentally, with the magnet in position, by changing the reading of the torsion-circle by a definite amount, usually 90°, thus giving the skein that amount of azimuthal twist, and observing, with the theodolite, the change in the position of the magnet thereby produced, from which is derived the ratio of the couple due to torsion of the skein to the couple due to the earth's horizontal magnetic force. This ratio was found to be $\frac{1}{132}$ on 1894 December 10, $\frac{1}{133}$ on 1895 December 13, and $\frac{1}{140}$ on 1896 December 2. During the year 1896 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 1895 December 12 to be $30^{s}\cdot80$, on 1896 March 25, $30^{s}\cdot52$, and on 1896 December 2, $30^{s}\cdot77$.

The reading of the azimuthal circle of the theodolite corresponding to the astronomical meridian is determined about twice in each month by observation of the stars Polaris or δ Ursæ Minoris. The fixed mark is usually observed weekly. The concluded mean reading of the circle for the south astronomical meridian (deduced entirely from the observations of the polar stars), used from January 1 to June 5, was 27°. 2′. 50″·3, and from June 6 to December 31, 27°. 2′. 41″·8.

In regard to the manner of making observations with the upper declination magnet:—The observer on looking into the theodolite telescope sees the image of the diagonal cross of the magnet collimator vibrating alternately right and left. The time of vibration of the magnet being about 30 seconds, he first applies his eye to the telescope about one minute, or two vibrations, before the pre-arranged time of observation, and, with the vertical wire carried by the telescope-micrometer, bisects the magnet-cross at its next extreme limit of vibration, reading the micrometer. He similarly observes the next following extreme vibration, in the opposite direction, and so on, taking in all four readings. The mean of each pair of adjacent readings of the micrometer is taken, giving three means, and the mean of these three is adopted. In practice this is done by adding the first and fourth readings to twice the second and third, and dividing the sum by 6. Should the magnet be nearly free from vibration, two bisections only of the cross are made, one at the vibration next before the pre-arranged time, the other at the vibration following. The verniers of the theodolite-circle are then read. The excess of the adopted micrometer-reading above the reading for the line of collimation of the telescope being converted into arc and applied to the mean circle-reading, and also the corrections for collimation of the magnet and for collimation of the plane glass in front of its box, the concluded circle-reading corresponding to the position of the magnet is found. The difference between this reading and the adopted reading of the circle for the south astronomical meridian gives, when, as is usually the case, no correction for torsion of the skein is necessary, the observed value of absolute declination, afterwards used for determining the value of the photographed base line on the photographic register of the lower declination magnet. The times of observation of the upper declination magnet are usually $9^h. 10^m$, $13^h. 10^m$, $15^h. 10^m$, and $21^h. 10^m$ of Greenwich civil time, reckoning from midnight.

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

LOWER DECLINATION MAGNET.—The lower declination magnet is used simply for the purpose of obtaining photographic register of the variations of magnetic declination. It is by Troughton and Simms, and is of the same dimensions as the upper declination magnet, being 2 feet long, 1½ inch broad, and ¼ 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 ot changing the photographic sheet is noon, but on Sundays, and occasionally on other days, this rule is not strictly followed. To obviate any uncertainty that might arise on such occasions from the interference of the two ends of a trace slightly longer than 24 hours, it has been arranged that one revolution of the cylinder should be made in 26 hours. The actual length of 24 hours on the sheet is about 13·3 inches.

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

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

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

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

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

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

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

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

The present suspension skein was mounted on 1880 December 30. On 1895 December 31 the following observations were made for determination of the angle of torsion :—

1895, 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
Dec. 31	146	52·15		21·30	230. 30	49·79		20·72
			8·62				7·59	
	147	60·77		21·00	231. 30	57·38		20·96
			8·26				8·06	
	148	69·03		20·78	232. 30	65·44		21·22

From these observations it appeared that the times of vibration and scale readings were sensibly the same when the torsion circle read 146°. 53′, marked end west, and 231°. 47′, marked end east, the difference being 84°. 54′. Half this difference, or 42°. 27′, 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 1896 was 42°. 30′.

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 $30^{\text{div}}\cdot 85$ of the fixed scale is exactly 12 inches, and the distance of the centre of the face of the plane mirror from the scale 90·84 inches; consequently the angle at the mirror subtended by one division of the scale is 14′. 43″·2, or for change of one division of scale-reading the magnet is turned through an angle of 7′. 21″·6.

The variation of horizontal force, in terms of the whole horizontal force, producing angular motion of the magnet corresponding to change of one division of scale reading = cotan. angle of torsion × 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 0·002337, which value has been used throughout the year 1896 for conversion of the observed scale-readings into parts of the whole horizontal force.

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

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

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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°. 30′ the movement of the spot of light on the cylinder for a change of 0·01 of horizontal force is thus found to be 2·507 inches, and with this unit the cardboard scale for measure of the ordinates was prepared. The ordinates being measured for the times at which eye observations of the scale were made, combination of the measured ordinates with the observed scale readings converted into parts of the whole horizontal force, gives an apparent value of the base line for each observation. These being divided into groups, mean base line values are adopted, written on the sheets, and new base lines laid down, from which the hourly ordinates (see page *xxxii*) are measured, exactly in the same way as described for declination.

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

VERTICAL FORCE MAGNET.—The vertical force magnet, for measure of the variations of vertical magnetic force, is by Troughton and Simms. It is 1 ft. 6 in. long and lozenge shaped, being broad at the centre and pointed at the ends; it is mounted on a solid brick pier capped with stone, situated in the western arm of the basement, its position being nearly symmetrical with that of the horizontal force magnet in the eastern arm. The supporting frame consists of two pillars, connected at their bases, on whose tops are the agate planes upon which rest the extreme parts of the continuous steel knife edge, attached to the magnet carrier by clamps and pinching screws. The knife edge, eight inches long, passes through an aperture in the magnet. The axis of the magnet is approximately transverse to the magnetic meridian, its marked end being east; its axis of vibration is thus nearly north and south magnetic. The magnet carrier is of iron; at its southern end there is fixed a small plane mirror for use in eye observations, whose plane makes with the vertical plane through the magnet an angle of 52¾° nearly. A telescope fixed to the west side of the brick pier supporting the theodolite of the upper declination magnet is directed to the mirror, for observation by reflexion of the divisions of a vertical opal glass scale fixed to the pier that carries the telescope, very near to the telescope itself. The numbers of this fixed scale increase downwards, so that when the magnet is placed in its usual position with the marked end east, increasing readings of the scale, as seen in the telescope, denote increasing vertical force.

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

In the year 1882 Messrs. Troughton and Simms substituted for the old mirror of 4 inches diameter a much lighter mirror of 1 inch diameter, and also lowered the position of the knife-edge bar with respect to the magnet so as to permit of a diminution of the adjustable counterpoise weights which as well as the mirror appear to largely affect the temperature correction of this balance-magnet. The use of a smaller and much lighter mirror was rendered possible by the greater sensitiveness of the new photographic paper introduced in 1882 June.

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

The time of vibration of the magnet in the vertical plane is observed usually about once in each week. From 69 observations made during the course of the year this was found to be $18^{s}\cdot910$.

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 1896.

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 $T' = 16^{s}\cdot685$, $T = 18^{s}\cdot910$, and dip $= 67^{\circ}.\ 14'$, the change of vertical force corresponding to change of one division of scale reading was found to be 0·0004291, and this value has been used throughout the year 1896 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, 6·134 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, $9\frac{3}{4}$ inches in diameter, divided to 10′, and read by two verniers to 10″. The verniers (thin plates of metal, with notches instead of lines, for use with transmitted light) are carried by the horizontal axis, inside the front glass plate, their reading lenses, attached to the same axis, being outside. A suitable clamp with slow motion is provided. The microscopes and verniers can be illuminated by one gas lamp, the light from which falling on eight corresponding prisms is thereby directed to each separate microscope and vernier. The prisms are carried behind the back glass plate on a circular frame in such a way that, on reversion of the instrument in azimuth, the whole set of prisms can at one motion of the frame be shifted so as to bring each one again opposite to its proper microscope or vernier.

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.

d 2

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

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

Let m = Magnetic moment of deflecting or vibrating magnet.

X = Horizontal component of Earth's magnetic force.

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

u_1, u_2 the observed angles of deflexion.

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

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

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

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

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

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

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

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

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

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

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

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

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 = 0·000433 $(t - 0)$ + 0·00000148 $(t - 0)^2$; 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 = 2·44750 : at temperature 30° = 2·44782.

A new determination of K was made in 1897, the value found for log. K at temperature 10° centigrade being 2·44215. This value has been used from 1896 June.

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^{cms}·020. The coefficient of expansion of the scale for 1° centigrade is ·000018.

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

Additional observations were made with the Elliott instrument during the months of July to October in the Astronomer Royal's Garden (at a considerable distance from the new buildings) and in Greenwich Park in order to obtain determinations of Horizontal Magnetic Force sensibly free from any effect of the iron in the Observatory buildings.

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 no days in the year 1896 which are classed as days of great disturbance. Other days of lesser disturbance are January 3, 4, 5, 31, February 1, 4–5, 28, 29, March 4–5, 26–27, May 2–3, 3–4, 17–18, July 11–12, 23–24, August 1–2, 6–7, 29–30, September 18, 20, October 11–12, 12–13, November 7–8, December 3–4, 4–5. When two days are mentioned it is to be understood that the reference is usually to one set of photographic sheets extending from noon to noon and including the last half and the first half respectively of two consecutive civil days.

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

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

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

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

In order to economise space the daily values as exhibited in Tables III. and VII., both uncorrected and corrected, have been diminished by constants. The division ═══ in these Tables and in Table XI. indicates that the instrument has been disturbed for experiment or adjustment, or that for some reason the continuity of the values has been broken, the constants deducted being different before and after each break. In the interval between two breaks the values of u and c are each comparable throughout, remarking only that in certain cases it is to be understood that the values are to be taken 1000 greater or less for comparison with adjacent values. See, for example, c in Table III. on April 20, which should be taken as 1005 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

$$\text{H.F. in metrical measure} \times \sin 1' = 1{\cdot}8358 \times \sin 1' = 0{\cdot}0005340.$$

For variation of horizontal force, the factor is

$$\text{H.F. in metrical measure} = 1{\cdot}8358,$$

and for variation of vertical force

$$\text{V. F. in metrical measure} = \text{H. F. in metrical measure} \times \tan \text{dip},$$
$$= 1{\cdot}8358 \times \tan 67^\circ.\,14' = 4{\cdot}3743.$$

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

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

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

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

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

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

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

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

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

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

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

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

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 :—

1896.	a_5.	b_5.
Declination	−0′·08	−0′·06
Horizontal Force......	+0·5	−0·9
Vertical Force	+0·2	−0·4

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

SUMS OF SQUARES OF RESIDUALS OF DIURNAL INEQUALITIES.

For the Year 1896.	Declination.	Horizontal Force.	Vertical Force.
Sums of Squares of Observed Values (Table XII.)	265′·25	332411·9	18569·8
Sums of Squares of Residuals after the introduction of *m*	140·40	56286·0	6446·8
,, ,, a_1 and b_1	42·29	13972·0	2459·6
,, ,, a_2 and b_2	6·87	2979·1	309·8
,, ,, a_3 and b_3	0·79	768·6	41·5
,, ,, a_4 and b_4	0·14	50·2	7·5
,, ,, a_5 and b_5	0·03	37·1	4·9

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 (xix), and the results found for Greenwich are contained in Tables XX., XXI., and XXII., which it is interesting to compare with the values found from the records of all days, as given in Tables II., V., IX. and XII.

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

In the treatment of disturbed days it was formerly the custom to measure out for each element all salient points of the curves and to print the numerical values. But, since the year 1882, it has been considered preferable to give instead of these tables reduced copies of the actual photographic curves (reproduced by photo-lithography from full-sized tracings of the original photographs), adding thereto copies of the corresponding earth-current curves. In the present year no copies of earth-current curves have been given because of the interruption produced by the trains running on the City and South London Electric Railway. The registers thus exhibited are those for the days of lesser disturbance mentioned on page *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 1896, 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 (xxxvi).

An additional plate (X.) 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	2·507	63·68	6·134	155·80
On the Plates	2·580	65·53	1·379	35·02	3·374	85·69

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 [adopted dip = 67°. 14′]

= Horizontal Force × 2·3828

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	2·51	63·7	2·57	65·4
On the Plates -	1·47	37·4	1·38	35·0	1·42	36·0

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 1896	= 3·9815
Millimètre-milligramme-second,	or Metric unit, ,, ,, ,,	= 1·8358
Centimètre-gramme-second,	or C. G. S. unit, ,, ,, ,,	= 0·18358

Dividing therefore the scale values last given by 3·9815, 1·8358, and 0·18358 respectively, the following comparative scale values for each of the elements on the photographs and on the plates as referred to 0·01 of these units respectively are found :—

UNIT.	LENGTH OF 0·01 OF UNIT.											
	Declination.				Horizontal Force.				Vertical Force.			
	On the Photographs.		On the Plates.		On the Photographs.		On the Plates.		On the Photographs.		On the Plates.	
	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.
British - -	0·67	17·1	0·37	9·4	0·63	16·0	0·35	8·8	0·65	16·4	0·36	9·0
Metric - -	1·46	37·1	0·80	20·4	1·37	34·7	0·75	19·1	1·40	35·6	0·77	19·6
C. G. S. - -	14·6	371·	8·0	204·	13·7	347·	7·5	191·	14·0	356·	7·7	196·

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

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

§ 6. *Meteorological Instruments.*

STANDARD BAROMETER.—The standard barometer, mounted in 1840 on the southern wall of the western arm of the upper magnet room, is Newman No. 64. Its tube is 0^{in}·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 $- 0^{\text{in}}\cdot006$, 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 $- 0^{\text{in}}\cdot006$) did not exceed $0^{\text{in}}\cdot001$. (*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 $5^{\text{ft.}}\ 2^{\text{in.}}$ above Mr. Lloyd's reference mark in the then transit room, now the Astronomer Royal's official room. (*Philosophical Transactions*, 1831.)

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

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

The barometric scale is determined by experimentally comparing the measured movement on the paper with the observed movement of the standard barometer; one inch of barometric movement is thus found = $4^{in}\cdot39$ on the paper. Ordinates measured for the times of observation of the standard barometer, combined with the corrected readings of the standard barometer, give apparent values of the base line, from which mean values for each day are formed; these are written on the sheets and new base lines drawn, from which the hourly ordinates (see page *liv*) are measured as for the magnetic registers. As the diurnal change of temperature in the basement is very small, no appreciable differential effect is produced on the photographic register by the expansion of the column of mercury.

DRY AND WET BULB THERMOMETERS.—The dry and wet bulb thermometers and maximum and minimum self-registering thermometers, both dry and wet, are mounted on a revolving frame planned by the late Sir G. B. Airy. A vertical axis fixed in the ground, in a position about 14 feet south of the southern arm of the Magnetic Observatory, carries the frame, which consists of a horizontal board as base, of a vertical board projecting upwards from it and connected with one edge of the horizontal board, and of two parallel inclined boards (separated about 3 inches) connected at the top with the vertical board and at the bottom with the other edge of the horizontal board: the outer inclined board is covered with zinc, and the air passes freely between all the boards. The dry and wet bulb thermometers are mounted near the centre of the vertical board, with their bulbs about 4 feet from the ground; the maximum and minimum thermometers for air temperature are placed towards one side of the vertical board, and those for evaporation temperature towards the other side, with their bulbs at about the same level as those of the dry and wet bulb thermometers. A small roof projecting from the frame protects the thermometers from rain. The frame is turned in azimuth several times during the day (whether cloudy or clear) so as to keep the inclined side always towards the sun. In 1878 September, a circular board 3 feet in diameter was fixed, below the frame, round the supporting post, at a height of 2 feet 6 inches above the ground, with the object of protecting the thermometers from radiation from the ground. In the summer of 1886 experiments were made on days of extreme heat with the view of determining the effect of the circular board in this respect, an account of which will be found at the end of the Introduction to the volume for the year 1887. The effect of radiation with the circular board removed was found to be insensible.

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

The dry and wet bulb thermometers are Negretti and Zambra, Nos. 45354 and 45355 respectively. The correction $- 0^{\circ}\cdot 3$ has been applied to the dry bulb and wet bulb readings throughout the year.

The self-registering thermometers for temperature of air and evaporation are all by Negretti and Zambra. The maximum thermometers are on Negretti and Zambra's principle, the minimum thermometers are of Rutherford's construction. To the readings of Negretti and Zambra, No. 8527, used till December 14, for maximum temperature of the air a correction of $- 1^{\circ}\cdot 0$ has been applied, and to those of Negretti and Zambra, No. 83760 (used subsequently) no correction has been applied. To the readings of Negretti and Zambra, No. 38338, for minimum temperature of the air, a correction of $+ 0^{\circ}\cdot 2$ has been applied throughout. The readings of Negretti and Zambra, No. 79224, for maximum temperature of evaporation, and those of Negretti and Zambra, No. 2048, for minimum temperature of evaporation, required no correction.

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

In January 1887, three thermometers, a dry-bulb, a maximum, and a minimum, to which a wet-bulb thermometer was added in February, were mounted in a Stevenson screen, with double louvre-boarded sides, of the pattern adopted by the Royal Meteorological Society, which is fully described in the *Quarterly Journal* of the Society, Vol. X, page 92. The screen is planted 6 feet to the eastward of the revolving frame carrying the ordinary dry-bulb and wet-bulb thermometers, and its internal dimensions are, length 18 inches, width 11 inches, and height 15 inches, the bulbs of the thermometers placed in it being at a height of about 4 feet above the ground. The dry-bulb thermometer is Hicks No. 262495, to the readings of which a correction of $- 0^{\circ}\cdot 2$ has been applied. The wet-bulb is Hicks No. 268525, to the readings of which a correction of $+ 0^{\circ}\cdot 1$ has been applied. The maximum thermometer is Negretti and Zambra, No. 68725, which requires no correction. The minimum thermometer used till 1896 May 7 was Hicks No. 262739, to the readings of which the following corrections have been applied: below 34° 0°·0, 34° to 39° + 0°·1, 39° to 43° + 0°·2, 43° to 49° + 0°·3, 49° to 54° + 0°·4, 54° to 60° + 0°·5, 60° to 65° + 0°·6, and above 65° + 0°·7. To the readings of Negretti and Zambra No. 68873, introduced on 1896 May 8th, a correction of + 0°·2 has been applied. The observation of the dry and wet bulb thermometers is omitted on Sundays and a few other days.

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

At the beginning of the year 1886 three thermometers were mounted on the platform above the Magnet House, in a louvre-boarded shed or screen, so constructed as to give free circulation of air with protection from radiation. No. 45356, by Negretti and Zambra, is for eye observation of the temperature of the air, and required a correction of − 0°·3. No. 37467, also by Negretti and Zambra, is a self-registering maximum thermometer, and required a correction of − 0°·5. No. 342663, by Hicks, is a self-registering minimum thermometer, and required correction as follows: below 35° 0°·0, between 35° and 45° + 0°·1, between 45° and 55° + 0°·2, and above 55° + 0°·3. The bulbs of all these thermometers are 4 feet above the platform, and about 20 feet above the ground. The observation of the thermometer No. 45356 is omitted on Sundays and a few other days.

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

PHOTOGRAPHIC DRY-BULB AND WET-BULB THERMOMETERS.—The apparatus now in use was constructed in the year 1884 by Messrs. Negretti & Zambra from designs furnished by me, and was mounted in the year 1885, but from various causes it was not brought into regular use until 1887 January 1. Until February 1891 it stood nearly in the centre of the South Ground: it was then removed to the Magnet Ground, being placed in the position formerly occupied by the old apparatus, which had been previously dismantled. It is placed under a shed 8 feet square standing upon posts about 8 feet high. This shed is open to the north and is generally similar to that provided for the old apparatus, excepting that the roof inclines somewhat towards the south and that the protecting boards (fixed as far as necessary on the eastern, southern and western sides) are double, with spaces between to ensure a free circulation of air while screening the thermometers from the direct rays of the sun. The thermometers are further protected from sky and ground radiation by boards on the thermometer stand as described below. The photographic register is received on paper placed on a vertical ebonite cylinder 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, are separated horizontally by 5 inches, the tubes of the thermometers having a double bend above the bulbs, which are placed about 4 feet above the ground. The thermometers are carried by a vertical frame with independent vertical adjustment for each thermometer so that the register in summer or winter can be brought to a convenient part of the photographic sheet. The revolving cylinder is driven by a pendulum clock contained within the brass case covering the whole apparatus, excepting the thermometer bulbs which project below. It makes one revolution in 26 hours, and the time-scale is the same as that for all the other registers. As the cylinder revolves the light passing through the portion of the thermometer tubes not occupied by mercury imprints on the paper a broad band of photographic trace, corresponding to the dry bulb register, whose breadth in the vertical direction varies with the height of the mercury in the tube, and a narrower band below, corresponding to the wet bulb. When these are developed the traces are seen to be crossed by thin white lines, the horizontal lines corresponding to degrees and the vertical lines to hours, the lower boundary of each trace indicating the thermometric record corresponding to the upper surface of the thermometric column.

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

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

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

RADIATION THERMOMETERS.—These thermometers are placed in the Magnet Ground, south-east of the Magnet House. The thermometer for solar radiation is a self-registering mercurial maximum thermometer on Negretti and Zambra's principle, with its bulb blackened, and the thermometer enclosed in a glass sphere from which the air has been exhausted. The thermometer employed throughout the year was Negretti and Zambra, No. 72540. The thermometer for radiation to the sky is a self-registering spirit minimum thermometer of Rutherford's construction, by Horne and Thornthwaite, No. 3120. The thermometers are laid on short grass; they require no correction for index error.

EARTH THERMOMETERS.—These thermometers were made by Adie, of Edinburgh, under the superintendence of Professor J. D. Forbes. They are placed at the north-west corner of the photographic thermometer shed.

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

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

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

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

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

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

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

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

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

A new sheet of paper is applied to the instrument every day at noon. The scale of time is ordinarily the same as that of the magnetic registers. On 1893 April 22, Mr. Kullberg applied a special gearing to the clock, which is so arranged that the table carrying the record can either be driven at the usual rate, or 12 times as fast, in order to give a largely increased time scale for the register of wind pressure during gales, the ordinary sheet thus giving a register for two hours instead of 24. This arrangement continued in use until 1894 July, when the gearing was again modified so that the registering sheet could be carried at twenty-four times its usual rate instead of twelve times as at first arranged.

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

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

It is assumed, in accordance with the experiments made by Dr. Robinson, that the horizontal motion of the air is three times the space described by the centres of the cups. To verify this conclusion experiments were made in the year 1860 in Greenwich Park with the anemometer by Negretti and Zambra, which was in use from 1859 until the introduction of the larger instrument by Browning in 1866 October. The instrument was fixed to the end of a horizontal arm, which was made to revolve round a vertical axis. For more detailed account of these experiments see the Introduction for 1880 and for previous years. With the arm revolving in the direction N., E., S., W., opposite to the direction of rotation of the cups, for movement of the instrument through one mile 1·15 was registered; with the arm revolving in the direction N., W., S., E., in the same direction as the rotation of the cups, 0·97 was registered. This was considered to confirm sufficiently the accuracy of the assumption. The hemispherical cups of the instrument with which these experiments were made were each $3\frac{3}{4}$ inches in diameter, the distance between the centres of the opposite cups being 13·45 inches.

From 1889 April 22 to May 8, both of the above instruments were sent to Mr. W. H. Dines, who kindly tested them on his whirling machine then erected at Hersham. The particulars of these experiments are given at the end of the Introduction for 1889. The results appear to show that the instrumental results in the case of high velocities of the wind are too great for both anemometers, but it has been thought better for the sake of continuity not to apply any corrections to the recorded values, which consequently indicate velocities corresponding to three times the space described by the centres of the cups.

RAIN GAUGES.—During the year 1896 eight rain-gauges were employed, placed at different elevations above the ground, complete information in regard to which will be found at page (civ) of the Meteorological Section.

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

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

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

Gauges Nos. 6, 7, and 8 are also eight-inch circular gauges, placed on the ground south of the Magnetic Observatory; No. 6 is the old daily gauge, No. 7 the old monthly gauge, and No. 8 an additional gauge brought into use in July 1881, as a check on the readings of Nos. 6 and 7, the monthly amounts collected by these gauges having occasionally shown greater differences than seemed proper. On 1894 November 6, gauge No. 8 was shifted 61 feet eastwards. No. 6 is read daily, usually at 9^h, 15^h and 21^h Greenwich civil time, and Nos. 7 and 8 at 9^h only.

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

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

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

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

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

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

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

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

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

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

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

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 (lxvii) and (lxviii)) have been calculated from the corresponding mean hourly values of air and evaporation temperatures (pages (lxvi) and (lxvii)).

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 (lxv) and (cii), 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 (xxxix) to (lxi), and in the abstract table, page (lxv), is the mean found from oservations 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 (lxvi) and (lxvii), do not in some cases agree with the monthly means given in the daily results, pages (xxxviii) to (lx), and in the table on page (lxv), 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 (lxxxix), 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 (xcvi), 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 $0^{in}\cdot020$, 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 (c) and (ci) 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 1896 were Mr. Dyson, Mr. Hollis, Mr. Lewis, Mr. Nash, Mr. Edney, Mr. Walter, Mr. Beadle, Mr. Marchant and Mr. Davies. Their observations are distinguished by the initials FWD, H, L, N, E, W, B, M and D respectively.

W. H. M. CHRISTIE.

Royal Observatory, Greenwich,
1898 August 5.

ROYAL OBSERVATORY, GREENWICH.

RESULTS

OF

MAGNETICAL OBSERVATIONS,

1896.

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

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

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

1896.

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	16°	16°	16°	16°	16°	16°	16°	16°	16°	16°	16°	16°
d	′	′	′	′	′	′	′	′	′	′	′	′
1	58.2	57.6	55.3	57.8	59.0	58.1	55.9	57.3	55.7	54.0	54.4	53.9
2	58.6	57.5	56.5	58.5	60.4	57.4	56.0	56.8	56.4	54.9	54.5	53.7
3	57.3	57.5	56.8	57.3	60.1	57.2	56.5	56.1	57.6	55.2	54.3	53.9
4	56.5	56.5	55.6	56.3	58.2	58.2	57.0	56.2	56.8	54.7	54.1	51.8
5	57.2	58.6	55.2	57.4	59.3	58.8	56.4	56.3	56.0	55.5	53.1	53.5
6	56.9	57.6	56.0	57.6	59.5	58.8	56.2	55.8	56.9	55.1	54.0	53.4
7	58.7	58.3	55.1	57.6	60.7	58.6	56.2	55.8	56.0	54.9	53.8	54.2
8	57.8	58.0	56.5	58.1	59.2	59.4	56.5	55.5	55.7	54.0	54.3	53.9
9	59.7	57.4	56.2	59.5	58.5	59.1	57.0	55.8	56.7	56.1	54.9	54.0
10	58.1	57.5	56.6	57.6	58.6	58.4	57.2	56.9	56.5	55.3	53.6	53.6
11	58.3	57.3	57.6	59.1	59.0	57.8	57.4	55.7	56.1	57.0	54.1	53.5
12	57.6	57.3	58.2	57.9	58.8	57.9	57.3	56.6	55.9	58.3	54.0	53.6
13	58.2	55.4	56.9	58.2	58.4	58.1	56.5	56.5	55.1	56.4	54.5	54.5
14	58.1	57.0	56.7	58.5	58.3	57.8	56.8	55.5	55.5	55.6	54.0	51.0
15	58.3	56.8	56.8	58.2	59.9	56.7	56.8	55.6	54.7	55.1	53.5	52.6
16	58.0	57.1	57.2	58.9	58.7	55.9	56.5	56.5	54.2	55.9	53.5	53.8
17	59.1	57.9	57.7	59.0	58.1	57.0	56.4	56.7	53.9	56.0	53.7	53.6
18	57.7	57.3	57.5	59.2	57.3	57.8	56.3	55.1	57.1	56.2	53.5	53.4
19	57.8	57.7	57.5	58.6	58.8	57.3	57.0	55.8	55.2	57.7	53.6	53.7
20	57.2	57.4	58.9	57.8	59.5	57.0	57.2	55.9	55.4	54.6	53.1	53.6
21	58.5	56.8	56.5	57.3	59.8	56.8	56.5	59.7	55.4	53.6	53.6	53.9
22	57.8	56.6	56.8	56.6	60.0	56.6	56.9	56.9	54.9	54.5	53.4	54.0
23	57.6	57.5	57.3	57.6	57.6	58.0	56.5	56.0	55.9	55.2	53.4	54.4
24	58.3	57.4	56.8	58.0	58.8	56.7	55.1	56.4	55.5	54.9	53.3	53.8
25	57.9	57.0	56.9	56.6	58.5	57.5	56.9	54.8	55.6	54.8	53.6	53.2
26	58.1	57.2	56.3	57.6	57.4	56.9	56.5	55.4	55.5	55.3	53.5	53.5
27	57.8	55.3	57.2	58.1	57.9	55.7	57.6	56.0	56.0	54.9	53.4	53.3
28	57.9	56.0	57.5	58.0	57.8	56.1	56.9	55.9	55.5	55.1	53.6	53.8
29	58.5	56.9	58.1	58.1	57.8	57.4	57.6	55.6	55.3	55.1	53.8	53.9
30	56.5		58.5	58.1	57.3	57.7	57.5	54.9	55.1	56.1	53.7	54.0
31	56.8		58.5		57.2		57.1	55.7		54.7		53.7

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

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

1896.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	′	′	′	′	′	′	′	′	′	′	′	′
Midn.	0.5	0.6	0.4	2.3	2.4	3.3	3.2	1.8	1.0	0.2	0.6	0.1
1h	1.0	1.4	0.4	2.7	2.4	3.2	3.2	1.6	1.0	0.7	0.9	0.5
2	1.7	2.1	0.7	2.9	2.3	3.2	2.9	2.0	0.7	0.9	1.2	1.0
3	2.4	2.5	0.7	3.0	2.4	2.8	2.4	2.4	0.8	1.0	1.6	1.8
4	3.0	2.8	0.9	2.6	2.2	2.0	1.9	2.2	0.8	1.2	1.6	2.0
5	3.0	2.9	0.9	1.9	1.7	1.0	0.6	1.4	0.8	1.1	1.7	1.9
6	3.0	2.8	0.9	1.4	0.8	0.2	0.0	0.6	0.6	1.2	1.9	2.0
7	3.2	2.9	0.6	0.3	0.2	0.0	0.0	0.0	0.2	1.1	2.1	2.3
8	3.2	2.9	0.0	0.0	0.0	0.0	0.7	0.4	0.0	0.5	1.9	2.5
9	3.3	3.0	0.4	0.8	1.0	0.9	1.8	2.0	1.0	0.6	1.7	2.6
10	4.4	3.9	2.4	2.9	3.3	2.8	3.6	4.5	3.3	2.0	2.6	3.1
11	5.6	5.4	5.3	6.1	6.1	5.6	6.3	7.1	6.2	4.2	4.1	3.9
Noon.	6.5	7.0	8.2	9.4	8.2	8.0	8.8	9.3	8.5	6.2	5.2	4.8
13h	7.5	8.0	9.6	11.3	9.6	9.2	10.2	10.2	9.3	7.0	5.5	5.4
14	6.8	8.3	9.5	11.2	9.7	9.6	10.3	9.6	8.5	6.4	4.7	4.8
15	5.6	7.4	7.6	9.7	8.6	8.8	9.3	8.1	6.9	4.9	3.8	4.0
16	5.0	5.4	5.6	7.7	7.6	7.8	7.9	6.4	5.1	3.2	3.0	3.6
17	4.1	4.0	4.3	6.1	6.3	6.7	6.5	5.0	3.8	2.5	2.8	3.3
18	3.2	3.3	3.1	4.7	5.1	5.5	5.5	3.9	2.7	1.6	2.6	2.6
19	2.5	2.3	2.1	3.3	4.0	4.9	4.9	3.7	2.2	0.8	1.7	2.1
20	1.2	1.4	1.4	2.5	2.9	4.7	4.7	3.4	1.8	0.3	0.9	1.4
21	0.2	0.8	1.4	2.4	2.6	4.5	4.2	3.3	1.2	0.2	0.0	0.7
22	0.0	0.0	1.0	2.4	2.7	3.9	3.6	2.8	0.9	0.0	0.1	0.3
23	0.0	0.0	0.7	2.4	2.2	3.5	3.3	2.3	0.9	0.0	0.4	0.0
Means	3.20	3.38	2.84	4.17	3.93	4.25	4.41	3.92	2.84	1.99	2.19	2.36

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.)*

1896.

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	340	966	100	682	114	744	305	877	380	952	378	965	343	915	376	004	431	018	500	063	282	890	315	883
2	324	928	027	635	106	741	241	828	204	791	383	987	339	904	250	875	475	057	461	055	315	947	320	912
3	192	798	093	670	142	762	279	873	009	625	409	034	372	980	303	907	439	059	445	077	323	941	305	925
4	152	760	034	623	033	641	266	877	081	689	441	064	390	001	298	911	463	067	492	098	327	921	106	712
5	157	761	060	668	028	584	198	891	231	830	400	020	324	949	308	902	458	066	456	045	283	889	198	806
6	150	746	134	733	175	745	302	886	331	901	398	011	315	945	372	952	440	048	447	048	164	770	257	841
7	154	765	160	761	062	680	288	920	356	950	375	986	307	952	260	854	437	043	490	094	122	721	287	869
8	160	776	147	736	183	775	372	971	420	985	435	043	295	970	298	882	466	084	543	151	150	739	263	871
9	154	741	199	800	230	841	370	964	355	987	389	014	283	950	352	932	461	089	471	060	198	804	323	919
10	154	698	184	785	242	829	378	974	397	998	354	972	318	993	347	924	455	071	430	012	181	787	341	930
11	198	768	124	759	226	863	354	929	412	016	371	996	390	037	355	947	503	092	415	961	225	819	371	967
12	169	773	142	760	200	796	312	911	396	004	371	999	234	866	355	954	527	119	220	821	309	893	368	952
13	164	753	160	783	210	782	396	901	416	003	372	029	276	921	367	980	509	103	241	859	298	899	357	920
14	114	730	113	726	103	719	355	956	450	027	401	053	289	954	368	984	516	103	328	922	295	913	257	825
15	184	766	098	709	172	752	356	943	451	055	262	914	278	966	342	934	545	134	368	972	257	897	273	862
16	168	755	127	731	200	823	345	951	425	002	325	002	287	934	356	948	467	047	347	929	355	944	272	859
17	178	777	140	724	258	833	345	968	362	973	245	910	352	956	410	014	438	046	336	930	384	976	310	882
18	158	750	147	741	286	868	345	929	264	877	299	917	380	984	400	001	255	856	339	899	413	948	328	898
19	100	701	140	756	218	834	374	966	335	951	327	933	395	025	376	968	320	885	250	844	372	902	349	914
20	060	652	230	810	223	812	387	005	375	952	332	936	398	058	382	986	315	885	276	880	361	933	341	901
21	094	705	234	840	245	858	349	953	287	883	345	941	379	051	295	894	305	877	333	929	344	909	359	919
22	109	713	158	757	341	933	285	889	290	886	345	934	350	007	331	915	342	950	335	915	330	926	372	937
23	136	696	156	740	341	933	284	873	232	887	392	986	401	024	329	937	418	983	310	911	360	930	344	904
24	153	747	187	759	393	956	279	885	327	916	420	036	389	019	401	021	353	961	316	920	347	927	345	917
25	138	754	175	752	375	952	318	898	321	889	438	044	310	947	357	982	422	018	323	927	335	941	333	920
26	204	803	173	753	277	864	317	925	320	902	453	033	316	971	378	960	408	028	331	927	339	943	375	962
27	182	764	066	655	265	821	386	973	364	924	375	950	344	974	393	963	470	069	352	929	341	935	400	999
28	177	785	067	699	209	791	360	959	352	932	421	025	296	902	297	929	459	039	316	910	318	898	373	965
29	193	797	117	716	215	811	267	892	335	972	404	993	349	948	364	984	413	029	288	918	321	896	372	961
30	078	655			227	852	350	937	376	968	449	038	344	969	356	957	493	077	310	892	338	891	403	997
31	101	683			250	854			346	933			371	006	389	978			270	859			413	007

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.

1896.

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d 1	68°·9	67°·0	69°·0	66°·6	66°·6	67°·2	66°·6	68°·9	67°·2	66°·2	68°·1	66°·4
2	67·9	68·1	69·2	67·2	67·2	67·9	66·3	68·8	67·0	67·5	69·1	67·4
3	68·0	66·8	68·6	67·5	68·4	68·8	68·1	67·9	68·6	69·1	68·5	68·6
4	68·1	67·3	68·1	68·2	68·1	68·7	68·2	68·3	67·9	68·0	67·5	68·0
5	67·9	68·1	65·9	71·5	67·7	68·6	68·8	67·5	68·1	67·4	68·0	68·1
6	67·6	67·7	66·5	67·1	66·5	68·3	69·0	66·9	68·1	67·8	68·0	67·1
7	68·2	67·8	68·5	69·1	67·5	68·2	69·6	67·5	68·0	67·9	67·7	67·0
8	68·4	67·3	67·4	67·7	66·3	68·1	70·8	67·1	68·5	68·1	67·3	68·1
9	67·2	67·8	68·2	67·5	69·1	68·8	70·5	66·9	68·9	67·3	68·0	67·6
10	65·4	67·8	67·2	67·6	67·8	68·5	70·8	66·8	68·4	67·0	68·0	67·3
11	66·5	69·2	69·3	66·7	67·9	68·9	69·7	67·4	67·3	65·5	67·5	67·6
12	67·9	68·5	67·6	67·7	68·2	68·9	69·1	67·7	67·4	67·8	67·1	67·1
13	67·3	68·7	66·6	63·7	67·2	70·1	69·6	68·3	67·5	68·5	67·8	66·2
14	68·4	68·3	68·4	67·8	66·8	69·9	70·4	68·4	67·2	67·5	68·5	66·4
15	67·0	68·2	67·0	67·2	67·9	69·9	71·3	67·4	67·3	67·9	69·4	67·3
16	67·2	67·9	68·7	68·0	66·8	70·9	69·7	67·4	66·9	67·1	67·3	67·2
17	67·7	67·1	66·7	68·7	68·2	70·4	67·9	67·9	68·1	67·5	67·4	66·6
18	67·4	67·5	67·0	67·1	68·3	68·5	67·9	67·8	67·8	66·1	65·0	66·5
19	67·8	68·4	68·4	67·4	68·4	68·0	69·0	67·4	66·3	67·5	64·8	66·3
20	67·5	66·9	67·3	68·5	66·8	67·9	70·2	67·9	66·5	67·9	66·6	66·1
21	68·2	68·0	68·3	67·9	67·6	67·6	70·7	67·7	66·6	67·6	66·3	66·1
22	67·9	67·7	67·4	67·9	67·6	67·3	70·1	67·1	68·1	66·9	67·6	66·3
23	66·1	67·1	67·4	67·3	70·0	67·5	68·7	68·1	66·3	67·8	66·5	66·1
24	67·5	66·6	66·2	68·0	67·3	68·4	69·0	68·6	68·1	67·9	66·9	66·6
25	68·5	66·8	66·8	66·9	66·4	68·0	69·3	68·8	67·6	68·0	68·0	67·2
26	67·7	66·9	67·2	68·1	67·1	66·9	70·0	67·0	68·6	67·6	67·9	67·2
27	67·0	67·3	65·9	67·2	66·1	66·7	69·0	66·5	67·7	66·8	67·5	67·7
28	68·1	69·1	67·0	67·7	66·9	67·9	68·0	69·1	66·9	67·5	66·9	67·4
29	67·9	67·7	67·6	68·8	69·3	67·3	67·7	68·6	68·4	69·0	66·7	67·3
30	66·8		68·8	67·2	67·4	67·3	68·8	67·8	67·1	67·0	65·8	67·5
31	67·0		67·9		67·2		69·2	67·3		67·4		67·5
Means	67°·58	67°·71	67°·62	67°·66	67°·57	68°·38	69°·16	67°·77	67°·61	67°·52	67°·39	67°·09

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.)*

1896.

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.	31	50	80	90	134	143	219	221	161	168	119	134	170	187	222	236	227	234	128	145	58	79	5	17
1h	33	50	79	86	124	131	212	214	163	170	113	128	164	179	209	221	224	231	123	140	57	76	3	12
2	32	47	78	83	123	128	202	204	159	166	112	124	158	170	196	206	212	219	125	140	57	71	1	6
3	42	54	83	86	120	122	201	201	149	154	107	117	149	159	192	199	208	213	126	138	59	68	7	7
4	57	67	91	94	120	122	200	200	144	146	99	107	143	150	184	191	212	217	129	139	75	82	27	24
5	73	83	99	102	128	130	197	197	133	135	90	95	127	132	168	173	207	209	140	145	86	91	43	38
6	84	94	108	111	131	133	185	185	113	115	70	75	100	105	133	135	184	186	138	143	91	93	56	49
7	88	98	115	120	113	115	151	153	82	84	48	51	71	74	93	95	143	145	120	123	89	91	60	53
8	72	79	104	107	75	77	90	92	53	55	29	32	40	43	41	43	84	86	84	87	80	82	51	44
9	40	43	62	65	29	31	31	33	26	26	13	13	11	11	6	6	28	28	37	40	43	45	36	26
10	15	18	22	25	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4	4	14	16	21	11
11	1	1	0	0	6	6	0	0	5	5	4	2	18	18	33	33	31	31	0	0	0	0	10	0
Noon.	0	0	21	19	44	44	43	40	52	52	36	36	55	58	95	95	91	91	34	34	26	23	7	0
13h	4	4	45	43	84	84	102	97	112	112	69	69	100	103	151	151	149	149	59	59	48	43	15	8
14	15	18	73	68	118	115	156	148	146	146	107	110	155	160	174	176	181	181	81	84	59	56	19	12
15	35	38	74	69	134	129	205	195	189	189	140	145	190	197	188	193	199	199	89	92	66	63	29	22
16	38	41	66	59	144	137	236	224	222	222	164	169	193	203	207	214	208	210	97	100	72	69	36	29
17	38	38	71	62	156	146	263	246	247	247	196	204	194	204	225	232	207	209	109	112	76	73	33	28
18	44	47	87	75	165	150	278	258	255	253	213	221	209	221	241	248	223	225	122	125	80	80	32	29
19	55	58	110	98	172	160	276	254	260	258	213	223	229	241	249	259	237	239	138	141	77	77	37	37
20	59	64	125	111	173	161	270	248	245	243	206	216	227	242	251	261	241	243	142	145	79	81	35	35
21	63	68	106	89	167	155	256	236	218	216	182	194	210	227	248	260	242	244	149	152	72	74	22	22
22	34	44	90	78	168	161	237	222	195	195	165	180	194	214	233	247	236	238	143	148	61	68	6	8
23	12	31	88	93	163	168	224	219	175	180	144	159	181	201	227	241	236	243	129	141	56	73	0	9
Means corrected for Temperature.	47·3		76·4		114·5		170·4		147·4		116·8		145·8		171·5		177·9		107·4		65·6		21·9	

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

1896.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Midnight.	68·1	68·2	68·1	68·0	67·8	68·7	69·5	68·1	67·8	68·0	68·1	67·7	68·18
1h	68·0	68·1	68·0	68·0	67·8	68·7	69·4	68·0	67·8	68·0	68·0	67·6	68·12
2	67·9	68·0	67·9	68·0	67·8	68·6	69·3	67·9	67·8	67·9	67·8	67·4	68·03
3	67·8	67·9	67·8	67·9	67·7	68·5	69·2	67·8	67·7	67·8	67·6	67·2	67·91
4	67·7	67·9	67·8	67·9	67·6	68·4	69·1	67·8	67·7	67·7	67·5	67·1	67·85
5	67·7	67·9	67·8	67·9	67·6	68·3	69·0	67·7	67·6	67·6	67·4	67·0	67·79
6	67·7	67·9	67·8	67·9	67·6	68·3	69·0	67·6	67·6	67·5	67·3	67·0	67·77
7	67·7	68·0	67·8	68·0	67·6	68·2	68·9	67·6	67·6	67·4	67·3	66·9	67·75
8	67·6	67·9	67·8	68·0	67·6	68·2	68·9	67·6	67·6	67·4	67·3	66·9	67·73
9	67·4	67·9	67·8	68·0	67·5	68·1	68·8	67·5	67·6	67·4	67·3	66·8	67·68
10	67·4	67·9	67·7	68·0	67·5	68·1	68·8	67·5	67·5	67·3	67·3	66·8	67·65
11	67·3	67·8	67·7	67·9	67·5	68·1	68·8	67·5	67·5	67·3	67·2	66·8	67·62
Noon.	67·3	67·7	67·7	67·8	67·5	68·1	68·9	67·5	67·5	67·3	67·1	66·9	67·61
13h	67·3	67·7	67·7	67·7	67·5	68·1	68·9	67·5	67·5	67·3	67·0	66·9	67·59
14	67·4	67·6	67·6	67·6	67·5	68·2	69·0	67·6	67·5	67·4	67·1	66·9	67·62
15	67·4	67·6	67·5	67·5	67·5	68·3	69·1	67·7	67·5	67·4	67·1	66·9	67·63
16	67·4	67·5	67·4	67·4	67·5	68·3	69·2	67·8	67·6	67·4	67·1	66·9	67·63
17	67·3	67·4	67·3	67·2	67·5	68·4	69·2	67·8	67·6	67·4	67·1	67·0	67·60
18	67·4	67·3	67·1	67·1	67·4	68·4	69·3	67·8	67·6	67·4	67·2	67·1	67·59
19	67·5	67·3	67·2	67·0	67·4	68·5	69·3	67·9	67·6	67·4	67·2	67·2	67·63
20	67·5	67·2	67·2	67·0	67·4	68·5	69·4	67·9	67·6	67·4	67·3	67·2	67·63
21	67·5	67·1	67·2	67·1	67·4	68·6	69·5	68·0	67·6	67·4	67·3	67·2	67·66
22	67·7	67·3	67·4	67·3	67·5	68·7	69·6	68·1	67·6	67·5	67·5	67·3	67·79
23	68·1	68·0	67·9	67·7	67·7	68·7	69·6	68·1	67·8	67·8	67·9	67·6	68·08

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.*)

1896.

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	056	282	979	233	968	201	858	122	831	095	836	090	852	133	884	100	844	102	789	062	681	910	556	822
2	049	301	998	222	987	226	865	119	905	152	828	069	847	122	868	086	849	109	798	045	706	918	563	802
3	068	315	973	229	964	222	880	119	907	131	859	081	872	109	869	108	873	106	840	052	704	924	597	819
4	068	307	972	222	977	212	879	108	890	142	888	112	889	130	865	096	867	110	841	076	699	940	607	846
5	049	284	997	223	911	186	946	117	854	097	897	123	885	109	858	103	872	107	821	077	688	935	611	852
6	063	306	981	210	920	184	889	147	810	072	880	117	892	118	835	093	891	126	796	033	688	933	604	864
7	044	281	985	228	932	156	910	128	823	083	858	105	917	124	811	056	895	134	794	033	712	970	594	854
8	057	290	972	226	948	187	894	133	807	075	839	080	953	139	820	076	891	120	808	043	688	942	610	843
9	033	291	964	216	965	200	890	140	860	074	872	098	958	150	813	073	906	126	810	060	672	917	612	855
10	975	248	942	187	952	202	876	128	852	104	882	121	954	144	821	079	918	149	811	079	640	881	600	856
11	990	250	005	221	984	191	855	126	843	084	891	128	949	161	845	097	896	150	775	071	655	881	597	849
12	029	268	002	237	975	216	863	119	844	091	896	133	917	139	863	104	891	141	823	087	651	905	595	847
13	004	264	003	232	939	203	769	082	825	091	919	124	923	130	878	107	890	135	789	015	652	897	581	854
14	025	249	990	227	954	191	823	066	810	081	924	136	932	124	884	113	895	149	779	024	667	900	583	854
15	987	239	981	224	918	182	842	098	843	093	945	154	950	129	865	115	893	145	779	018	687	903	586	838
16	984	238	958	191	961	185	841	082	833	095	986	176	936	150	857	107	900	160	793	051	649	913	587	839
17	989	232	944	198	915	177	859	090	847	082	977	180	889	141	844	083	909	148	789	041	631	887	573	839
18	001	253	942	196	912	168	822	086	819	058	945	186	858	105	838	077	945	188	765	042	605	890	566	824
19	016	266	963	175	932	177	814	068	866	105	918	165	874	096	849	101	916	191	765	015	595	880	567	825
20	002	252	951	190	921	179	850	089	848	116	906	160	902	100	853	100	917	185	762	003	613	879	544	808
21	014	238	955	198	919	156	857	102	847	101	900	158	915	103	871	116	899	172	748	004	623	891	544	810
22	013	252	954	208	907	154	829	079	843	093	871	137	911	112	874	132	901	142	723	991	632	869	540	802
23	961	229	935	191	902	160	840	087	919	124	872	128	860	091	888	121	867	144	732	979	628	894	536	811
24	985	237	908	179	900	160	884	117	855	109	878	117	850	074	891	115	874	119	727	966	623	885	537	789
25	007	240	901	161	925	185	870	124	838	106	890	140	880	098	907	133	854	106	718	970	631	868	553	800
26	006	251	921	177	939	193	875	108	845	105	877	150	895	093	895	163	863	098	703	953	622	869	545	795
27	993	255	925	170	901	172	890	142	829	102	850	125	890	121	855	128	850	102	684	946	613	867	555	805
28	999	242	988	214	919	181	888	135	831	097	873	118	865	108	889	107	824	095	679	931	594	848	558	820
29	002	239	960	222	923	164	894	133	872	094	871	135	849	096	890	123	824	059	702	920	590	856	561	819
30	985	239			925	158	864	120	854	108	868	134	859	077	861	104	808	068	682	940	551	830	535	793
31	960	212			912	159			841	095			873	087	853	109			675	935			...	...

At the end of the year the magnet was readjusted, thus breaking the continuity of the values.

TABLE VIII.—MEAN TEMPERATURE for each CIVIL DAY within the box inclosing the VERTICAL FORCE MAGNET.

1896.

Day of Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d 1	68°·5	67°·2	68°·2	66°·7	66°·6	67°·2	65°·9	69°·0	67°·0	66°·3	68°·4	66°·6
2	67·3	68·5	67·9	67·2	67·5	67·8	66·2	68·9	66·9	67·5	69·2	67·9
3	67·5	67·1	67·0	67·9	68·6	68·7	68·0	67·9	68·2	69·2	68·8	68·7
4	67·9	67·4	68·1	68·4	67·3	68·6	67·8	68·3	67·7	68·1	67·8	67·9
5	68·1	68·5	66·2	71·1	67·7	68·5	68·6	67·6	68·1	67·1	67·5	67·8
6	67·7	68·4	66·7	67·0	66·8	68·0	68·5	66·9	68·1	68·0	67·6	66·9
7	68·0	67·8	68·6	68·9	66·9	67·5	69·4	67·6	67·9	67·9	67·1	66·9
8	68·2	67·2	67·9	67·9	66·5	67·8	70·3	67·1	68·4	68·1	67·2	68·2
9	67·0	67·3	68·1	67·5	69·1	68·5	70·1	66·9	68·8	67·4	67·6	67·7
10	66·3	67·6	67·4	67·3	67·3	67·9	70·2	67·0	68·3	66·4	67·8	67·1
11	66·9	69·0	69·4	66·4	67·8	68·0	69·2	67·3	67·2	65·2	68·5	67·3
12	67·9	68·1	67·8	67·1	67·5	68·0	68·7	67·8	67·4	66·7	67·2	67·3
13	66·9	68·4	66·7	64·4	66·6	69·5	69·4	68·4	67·6	68·5	67·6	66·3
14	68·6	68·0	68·0	67·7	66·4	69·2	70·1	68·4	67·2	67·6	68·2	66·4
15	67·3	67·7	66·7	67·1	67·4	69·3	70·7	67·3	67·3	67·9	69·0	67·3
16	67·2	68·2	68·6	67·8	66·8	70·2	69·1	67·4	66·9	67·0	66·7	67·3
17	67·7	67·2	66·8	68·2	68·1	69·6	67·3	67·9	67·8	67·3	67·1	66·6
18	67·3	67·2	67·1	66·7	67·9	67·8	67·4	67·9	67·7	66·1	65·7	67·0
19	67·4	69·2	67·6	67·2	67·9	67·4	68·7	67·3	66·2	67·4	65·7	67·0
20	67·4	67·9	67·0	67·9	66·5	67·3	69·8	67·5	66·5	67·8	66·6	66·7
21	68·6	67·6	68·0	67·6	67·2	67·0	70·3	67·6	66·3	67·1	66·5	66·6
22	67·9	67·2	67·4	67·4	67·4	66·6	69·7	67·0	67·8	66·5	68·0	66·8
23	66·5	67·1	66·9	67·5	69·5	67·1	68·3	68·2	66·1	67·5	66·6	66·2
24	67·3	66·4	66·8	68·2	67·2	67·9	68·6	68·6	67·5	67·9	66·8	67·3
25	68·2	66·9	66·9	67·2	66·5	67·4	68·9	68·5	67·3	67·3	68·0	67·5
26	67·6	67·1	67·2	68·2	66·9	66·3	69·8	66·5	68·0	67·4	67·5	67·4
27	66·8	67·6	66·4	67·3	66·3	66·2	68·3	66·3	67·3	66·8	67·2	67·4
28	67·7	68·5	66·8	67·5	66·6	67·6	67·7	68·9	66·4	67·3	67·2	66·8
29	68·0	66·8	67·8	67·9	68·7	66·7	67·5	68·2	68·1	68·9	66·6	67·0
30	67·2		68·3	67·1	67·2	66·6	68·9	67·7	66·9	66·9	66·0	67·1
31	67·3		67·5		67·2		69·1	67·1		66·9		...
Means	67°·55	67°·69	67°·48	67°·54	67°·35	67°·87	68°·79	67°·71	67°·43	67°·35	67°·39	67°·17

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.)*

1896.

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.	25	9	22	7	28	13	39	27	46	35	47	31	41	24	33	16	26	17	30	11	28	8	22	8
1h	14	2	14	3	20	7	31	19	35	24	43	29	35	20	23	10	21	14	23	4	17	1	14	4
2	9	1	9	0	13	4	28	18	30	21	41	29	28	17	19	8	16	9	19	4	12	0	6	0
3	6	0	9	2	11	4	26	18	32	25	39	31	27	18	17	8	17	12	14	1	10	4	3	2
4	5	1	11	6	13	6	23	17	33	29	41	35	30	23	14	7	13	8	12	4	8	4	1	4
5	2	0	10	5	15	10	26	22	36	34	46	42	34	29	18	13	14	12	10	4	5	6	2	7
6	2	2	11	8	20	15	31	25	41	39	43	39	35	32	25	22	20	18	12	8	5	8	3	10
7	5	8	12	9	28	25	40	34	42	40	43	41	39	39	30	30	27	27	18	16	5	10	4	11
8	5	10	13	10	29	26	36	30	36	34	35	35	32	34	27	29	24	24	19	19	6	11	3	12
9	4	11	11	10	23	20	24	20	21	21	21	24	22	26	19	23	15	15	16	18	2	9	1	12
10	3	12	7	6	10	10	11	7	6	6	9	12	13	15	8	12	5	7	6	8	0	7	0	11
11	0	11	0	3	0	0	2	0	0	0	0	0	3	5	0	2	0	0	0	0	1	6	0	9
Noon.	2	11	5	8	4	4	0	0	4	4	3	1	0	0	0	0	0	0	6	4	7	14	2	11
13h	11	16	14	15	15	15	9	12	22	20	11	7	7	2	11	8	10	10	17	13	11	18	7	14
14	27	32	28	29	34	36	29	34	44	42	29	23	26	19	27	22	25	23	31	27	22	27	15	20
15	34	39	42	45	53	57	46	53	61	59	39	33	44	35	43	36	39	37	46	40	30	35	22	27
16	37	42	54	60	69	73	56	65	74	72	52	44	56	45	52	45	49	47	51	45	30	35	22	27
17	36	41	58	66	70	76	63	72	86	84	61	51	67	56	57	48	50	48	49	43	30	35	27	30
18	40	40	57	65	63	69	67	78	89	87	69	59	69	56	61	50	50	48	49	41	32	33	30	31
19	43	41	53	59	60	64	63	74	87	85	71	59	67	52	57	46	48	46	46	38	33	32	29	26
20	39	35	42	48	56	60	62	71	77	75	68	56	64	47	58	45	45	40	41	33	32	28	28	25
21	32	26	33	39	48	50	54	61	64	62	61	47	58	38	55	38	40	35	36	28	30	24	27	21
22	28	20	26	29	42	39	47	50	60	56	56	40	56	34	51	34	34	29	29	21	30	20	24	18
23	30	14	28	17	35	22	46	40	56	47	54	38	50	28	43	26	30	23	30	13	31	15	25	13
Means corrected for Temperature.	17·7		22·9		29·4		35·3		41·7		33·6		28·9		24·1		22·9		18·5		16·3		14·7	

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

1896.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midnight.	68°·3	68°·3	68°·1	68°·1	67°·7	68°·3	69°·2	68°·2	67°·7	67°·9	68°·3	67°·9	68°·17
1h	68·1	68·2	68·0	68·0	67·7	68·2	69·1	68·0	67·6	67·9	68·1	67·7	68·05
2	67·9	68·1	67·8	68·0	67·6	68·1	68·9	67·9	67·6	67·7	67·9	67·5	67·92
3	67·8	68·0	67·7	67·9	67·5	67·9	68·8	67·8	67·5	67·6	67·7	67·3	67·79
4	67·7	67·9	67·6	67·8	67·4	67·8	68·7	67·6	67·5	67·4	67·5	67·2	67·68
5	67·6	67·9	67·6	67·7	67·3	67·7	68·6	67·6	67·4	67·3	67·3	67·0	67·58
6	67·5	67·8	67·6	67·8	67·3	67·6	68·5	67·4	67·4	67·2	67·2	66·9	67·52
7	67·4	67·8	67·5	67·8	67·3	67·6	68·4	67·4	67·3	67·1	67·1	66·9	67·47
8	67·3	67·8	67·5	67·8	67·3	67·5	68·3	67·3	67·3	67·0	67·1	66·8	67·42
9	67·2	67·7	67·5	67·7	67·2	67·4	68·2	67·2	67·3	66·9	67·0	66·7	67·33
10	67·1	67·7	67·4	67·7	67·2	67·4	68·3	67·2	67·2	67·0	67·0	66·7	67·33
11	67·0	67·5	67·4	67·6	67·2	67·5	68·3	67·3	67·3	67·0	67·1	66·8	67·33
Noon.	67·1	67·5	67·4	67·5	67·2	67·6	68·4	67·4	67·3	67·1	67·0	66·8	67·36
13h	67·3	67·6	67·4	67·4	67·3	67·7	68·6	67·5	67·3	67·2	67·0	66·9	67·43
14	67·3	67·6	67·3	67·3	67·3	67·8	68·7	67·6	67·3	67·2	67·1	67·0	67·46
15	67·3	67·5	67·2	67·2	67·3	67·8	68·8	67·6	67·4	67·3	67·1	67·0	67·46
16	67·3	67·4	67·2	67·1	67·3	67·9	68·8	67·7	67·4	67·3	67·1	67·0	67·46
17	67·3	67·3	67·1	67·1	67·3	68·0	68·9	67·8	67·4	67·3	67·1	67·1	67·48
18	67·5	67·3	67·1	67·0	67·3	68·0	69·0	67·9	67·4	67·4	67·3	67·2	67·53
19	67·6	67·4	67·1	67·0	67·3	68·1	69·1	68·0	67·4	67·4	67·4	67·4	67·59
20	67·7	67·4	67·2	67·1	67·3	68·1	69·2	68·0	67·5	67·4	67·5	67·4	67·65
21	67·8	67·4	67·3	67·2	67·3	68·2	69·3	68·1	67·5	67·4	67·6	67·5	67·72
22	68·0	67·5	67·5	67·4	67·4	68·3	69·4	68·2	67·5	67·4	67·8	67·5	67·82
23	68·3	68·2	68·0	67·8	67·6	68·3	69·4	68·2	67·6	67·8	68·1	67·8	68·09

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, 1896.	DECLINATION WEST in Arc.	HORIZONTAL FORCE in terms of the whole Horizontal Force (diminished by a Constant).	VERTICAL FORCE in terms of the whole Vertical Force (diminished by a Constant).	DECLINATION diminished by 16° and expressed as Westerly Force, in terms of GAUSS'S METRICAL UNIT.	HORIZONTAL FORCE (diminished by a Constant), in terms of GAUSS'S METRICAL UNIT.	VERTICAL FORCE (diminished by a Constant), in terms of GAUSS'S METRICAL UNIT.
January	16° 57'·9	757	1260	3092	1390	5512
February	16. 57·2	733	1207	3054	1346	5280
March	16. 56·9	808	1183	3038	1483	5175
April	16. 58·0	923	1110	3097	1694	4855
May	16. 58·7	924	1099	3135	1696	4807
June	16. 57·6	992	1130	3076	1821	4943
July	16. 56·7	970	1117	3028	1781	4886
August	16. 56·1	947	1104	2996	1739	4829
September	16. 55·7	1030	1130	2974	1891	4943
October	16. 55·4	960	1015	2958	1762	4440
November	16. 53·8	891	896	2873	1636	3919
December	16. 53·6	908	828	2862	1667	3622
Means	16° 56'·5	......	......	3015	......	......
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 1·8358 and 0·18358 respectively for the year, and of whole Vertical Force (applicable to column 6) are 4·3743 and 0·43743 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 1896.

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

Hour, Greenwich Civil Time.	Inequality of			Inequality of		
	DECLINATION WEST in Arc.	HORIZONTAL FORCE in terms of the whole Horizontal Force.	VERTICAL FORCE in terms of the whole Vertical Force.	DECLINATION expressed as WESTERLY FORCE in terms of GAUSS'S METRICAL UNIT.	HORIZONTAL FORCE in terms of GAUSS'S METRICAL UNIT.	VERTICAL FORCE in terms of GAUSS'S METRICAL UNIT.
Midnight.	0·36	135·7	14·2	19·2	249·1	62·1
1h	0·57	130·2	8·4	30·4	239·0	36·7
2	0·79	124·0	6·3	42·2	227·6	27·6
3	0·97	120·2	7·4	51·8	220·7	32·4
4	0·92	121·9	9·0	49·1	223·8	39·4
5	0·57	121·2	12·3	30·4	222·5	53·8
6	0·27	112·4	15·8	14·4	206·3	69·1
7	0·07	93·9	21·2	3·7	172·4	92·7
8	0·00	62·6	19·8	0·0	114·9	86·6
9	0·58	24·3	14·4	31·0	44·6	63·0
10	2·22	0·0	6·4	118·5	0·0	28·0
11	4·48	1·7	0·0	239·2	3·1	0·0
Noon.	6·50	34·7	1·7	347·1	63·7	7·4
13h	7·56	70·5	9·5	403·7	129·4	41·6
14	7·27	99·9	24·8	388·2	183·4	108·5
15	6·05	121·3	38·3	323·1	222·7	167·5
16	4·68	133·5	47·0	249·9	245·1	205·6
17	3·61	143·8	51·2	192·8	264·0	224·0
18	2·64	154·7	51·7	141·0	284·0	226·2
19	1·87	164·1	48·8	99·9	301·3	213·5
20	1·21	164·5	43·9	64·6	302·0	192·0
21	0·78	155·1	36·1	41·7	284·7	157·9
22	0·47	143·9	29·5	25·1	264·2	129·0
23	0·30	140·2	21·7	16·0	257·4	94·9
Means . . .	2·28	107·3	22·5	121·8	196·9	98·3
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 1·8358 and 0·18358 respectively, and of whole Vertical Force (applicable to column 6) are 4·3743 and 0·43743 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.)

1896.

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	5·0	190	10·9	254	9·1	192	16·9	272	11·8	182	10·7	251	8·6	289	16·7	329	8·8	222	12·3	306	6·3	200	6·8	186
2	6·1	136	16·7	352	9·7	215	11·1	296	29·9	614	9·4	294	7·3	302	18·1	595	8·2	259	8·3	212	4·4	84	5·5	103
3	21·1	316	10·4	184	13·1	153	12·1	272	29·0	577	10·9	322	10·8	432	11·4	279	14·8	354	10·1	268	5·7	109	15·4	287
4	15·8	165	13·2	260	19·0	300	14·2	343	12·4	290	5·8	154	10·6	362	9·4	240	13·2	260	6·3	185	8·8	148	25·9	438
5	13·7	186	14·1	266	16·2	343	14·3	302	9·5	246	8·1	265	12·0	397	8·9	247	10·9	304	7·1	192	11·1	294	11·2	225
6	13·1	208	7·4	135	7·9	192	12·3	293	10·4	254	6·5	136	12·7	344	13·0	346	13·2	335	6·7	200	20·0	452	6·3	87
7	12·8	151	5·5	102	16·2	331	11·3	269	9·9	227	7·3	231	8·2	365	17·9	399	10·9	252	7·6	229	15·2	444	3·9	143
8	7·9	141	8·2	214	11·5	268	12·9	303	9·7	229	10·6	339	8·5	168	11·3	336	11·0	317	9·9	172	16·0	386	2·1	61
9	16·5	222	11·3	265	8·0	143	10·7	289	7·8	193	15·2	192	10·6	225	12·4	325	13·7	357	16·2	374	10·7	252	3·9	117
10	13·5	111	11·5	200	10·6	158	10·0	256	9·6	135	11·3	250	12·0	283	12·3	332	13·4	270	15·4	291	9·4	313	6·3	62
11	8·2	110	9·1	71	9·7	200	11·0	312	10·3	232	13·3	275	17·2	387	12·0	339	11·8	327	15·3	327	5·7	214	6·5	86
12	8·6	133	11·0	77	12·3	449	10·6	291	10·6	260	10·0	290	13·7	507	12·1	321	12·0	337	18·8	370	5·4	162	3·4	65
13	8·7	280	14·3	29	20·0	226	10·3	307	10·3	273	9·6	205	10·7	432	8·9	229	12·2	292	12·5	259	5·7	118	10·2	350
14	10·5	136	15·6	323	20·3	250	11·4	201	14·5	364	14·8	462	12·7	271	9·7	260	9·2	311	9·5	152	6·7	147	19·6	270
15	8·8	147	11·0	259	10·0	384	12·3	233	10·1	245	9·3	325	12·5	363	12·6	258	11·4	270	10·4	150	6·7	212	9·0	238
16	6·5	113	7·9	259	7·0	155	11·5	229	12·2	299	20·7	368	14·4	391	9·4	195	11·4	326	8·4	217	7·7	118	4·4	105
17	10·1	310	9·4	217	11·4	222	11·6	395	20·2	503	12·1	420	9·5	195	9·5	442	13·9	358	7·3	190	5·5	150	4·0	89
18	10·2	184	7·6	204	9·7	162	9·5	278	16·3	596	10·7	238	10·0	214	12·1	285	21·3	895	6·3	195	9·7	187	4·7	69
19	13·6	227	7·6	285	9·1	198	11·4	311	8·0	418	8·6	217	11·3	189	11·7	234	10·1	367	7·3	295	5·7	55	3·2	72
20	13·5	221	6·5	188	12·8	266	10·3	286	12·9	457	11·0	149	12·4	221	9·9	340	19·1	454	7·8	145	3·3	110	3·6	26
21	4·8	203	11·7	139	9·6	241	20·8	384	10·1	308	7·5	192	10·2	203	11·0	700	10·0	287	10·1	158	8·0	120	3·7	80
22	11·9	116	12·0	106	12·1	160	23·2	496	8·5	502	10·1	242	9·3	100	12·7	255	9·6	324	5·1	190	4·0	93	3·5	79
23	9·8	115	5·0	147	10·6	248	17·9	326	10·0	470	12·2	225	13·3	444	15·0	264	8·8	275	8·4	211	2·9	92	7·9	105
24	6·5	112	5·3	150	10·8	308	15·7	377	10·1	241	12·0	238	14·0	347	14·3	309	10·5	266	8·3	243	4·0	138	5·5	94
25	6·6	231	10·9	83	13·4	264	14·5	538	11·3	300	10·9	220	15·0	392	17·1	242	7·9	252	7·7	177	3·5	105	7·2	91
26	10·6	123	8·1	183	19·0	369	14·1	391	11·6	230	13·7	342	11·3	387	9·1	197	11·4	291	7·4	216	4·6	88	4·0	182
27	9·7	217	16·3	276	18·3	458	14·5	292	11·8	269	8·9	365	14·4	259	8·9	199	11·0	252	6·8	127	5·0	155	12·8	270
28	5·3	155	24·1	456	15·4	382	13·3	307	13·7	185	13·0	270	9·0	261	11·7	247	9·6	243	7·1	118	4·2	82	8·2	185
29	7·0	125	15·8	156	12·6	343	12·2	354	8·6	318	12·8	277	10·6	201	12·5	341	10·5	236	6·9	151	3·8	73	4·2	204
30	14·6	233			13·9	355	12·2	240	10·0	240	8·9	204	8·5	178	12·1	331	7·7	239	8·3	157	2·6	77	3·9	104
31	14·0	376			19·9	413			9·3	185			11·0	172	9·6	314			8·0	196			5·1	77
Means	10·5	184	11·0	201	12·9	269	13·1	315	12·3	318	10·9	265	11·4	299	12·0	314	11·6	318	9·3	215	7·1	173	7·2	147

The mean of the twelve monthly values is, for Declination 10′·78, and for Horizontal Force 251·5.

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, 1896.	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	7·5	98	42	39·9	489	316
February	8·3	120	66	44·9	559	469
March	9·6	168	76	60·7	896	517
April	11·3	258	78	66·0	1599	491
May	9·7	258	87	59·5	1491	505
June	9·6	223	59	57·1	1390	298
July	10·3	242	56	60·6	1535	300
August	10·2	261	50	57·6	1631	324
September	9·3	244	48	57·4	1430	305
October	7·0	152	45	41·0	935	299
November	5·5	93	35	29·2	422	248
December	5·4	53	31	29·3	302	187
Means	8′·64	180·8	56·1	50′·27	1056·6	354·9

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, 1896.	m	a_1	b_1	a_2	b_2	a_3	b_3	a_4	b_4
				DECLINATION WEST.					
	′	′	′	′	′	′	′	′	′
January	3·20	− 2·74	− 0·10	+ 0·18	+ 1·11	− 0·40	− 0·08	+ 0·21	+ 0·14
February	3·38	− 2·85	− 0·44	+ 0·40	+ 1·50	− 0·38	− 0·35	0·00	+ 0·35
March	2·84	− 3·02	− 1·89	+ 1·20	+ 1·67	− 0·73	− 0·88	+ 0·31	+ 0·23
April	4·17	− 2·65	− 2·32	+ 1·53	+ 2·40	− 0·73	− 0·73	+ 0·24	+ 0·15
May	3·93	− 2·35	− 2·45	+ 1·20	+ 1·86	− 0·61	− 0·37	+ 0·23	− 0·07
June	4·25	− 1·63	− 3·01	+ 1·32	+ 1·58	− 0·59	− 0·35	0·00	+ 0·11
July	4·41	− 2·18	− 2·99	+ 1·55	+ 1·48	− 0·56	− 0·31	− 0·04	+ 0·23
August	3·92	− 2·68	− 2·12	+ 1·62	+ 1·30	− 1·06	− 0·42	− 0·02	− 0·06
September	2·84	− 2·93	− 1·68	+ 1·50	+ 1·34	− 0·81	− 0·53	+ 0·38	+ 0·14
October	1·99	− 2·27	− 0·65	+ 0·93	+ 1·28	− 0·58	− 0·52	+ 0·33	+ 0·25
November	2·19	− 1·85	− 0·23	+ 0·35	+ 0·78	− 0·35	− 0·07	+ 0·40	+ 0·19
December	2·36	− 1·97	− 0·26	+ 0·03	+ 0·62	− 0·35	− 0·04	+ 0·06	+ 0·14
For the Year	2·28	− 2·42	− 1·51	+ 0·98	+ 1·41	− 0·60	− 0·39	+ 0·18	+ 0·15
				HORIZONTAL FORCE.					
January	47·3	+ 17·2	+ 13·6	− 26·5	− 4·4	+ 5·0	− 8·3	− 1·6	+ 6·9
February	76·4	+ 26·2	+ 7·2	− 22·8	− 1·9	+ 7·2	− 13·2	− 2·0	+ 14·6
March	114·5	+ 48·0	− 29·8	− 23·6	+ 14·6	+ 6·2	− 21·8	+ 4·4	+ 7·3
April	170·4	+ 81·0	− 51·8	− 46·1	+ 31·2	+ 8·5	− 16·4	+ 4·9	+ 7·2
May	147·4	+ 59·1	− 76·6	− 37·5	+ 27·6	+ 1·3	− 6·4	+ 1·0	+ 7·5
June	116·8	+ 55·0	− 73·9	− 30·6	+ 13·0	− 2·0	− 3·2	− 0·5	+ 2·7
July	145·8	+ 66·4	− 72·9	− 21·5	+ 26·6	− 2·3	− 14·5	− 3·2	+ 6·5
August	171·5	+ 79·8	− 71·4	− 15·8	+ 33·7	− 9·6	− 18·3	+ 7·5	+ 5·8
September	177·9	+ 77·9	− 44·7	− 22·8	+ 36·3	− 3·5	− 27·4	+ 6·9	+ 9·8
October	107·4	+ 56·0	− 7·5	− 24·4	+ 11·0	+ 1·9	− 17·1	+ 2·7	+ 9·4
November	65·6	+ 20·6	+ 0·8	− 20·3	+ 5·0	+ 7·7	− 9·8	+ 2·0	+ 7·6
December	21·9	0·0	+ 3·2	− 18·2	− 4·1	+ 4·8	− 4·4	+ 2·2	+ 4·3
For the Year	107·3	+ 48·9	− 33·6	− 25·9	+ 15·7	+ 2·1	− 13·4	+ 2·0	+ 7·5
				VERTICAL FORCE.					
January	17·7	− 5·0	− 19·1	− 6·2	− 0·5	+ 2·4	+ 0·1	− 2·0	+ 0·3
February	22·9	− 2·1	− 27·3	− 14·6	0·0	+ 2·8	+ 1·2	− 1·1	− 1·4
March	29·4	− 1·7	− 28·3	− 18·2	− 2·0	+ 7·3	− 1·1	− 4·0	+ 0·1
April	35·3	+ 7·8	− 25·7	− 18·9	− 3·5	+ 5·8	− 1·6	− 2·6	+ 1·4
May	41·7	+ 9·0	− 26·0	− 21·8	− 0·8	+ 5·6	− 3·3	− 0·2	+ 0·9
June	33·6	+ 11·7	− 8·7	− 16·8	− 1·8	+ 3·3	− 1·0	− 0·7	+ 1·2
July	28·9	+ 5·6	− 10·4	− 16·7	− 3·5	+ 6·3	+ 0·6	− 0·5	− 0·4
August	24·1	+ 1·9	− 14·8	− 13·3	− 5·2	+ 6·6	− 1·5	− 2·2	+ 0·8
September	22·9	+ 2·5	− 15·5	− 12·4	− 1·5	+ 6·2	− 1·0	− 1·6	+ 1·4
October	18·5	− 3·0	− 16·5	− 9·7	− 0·6	+ 5·8	− 0·8	− 3·2	+ 1·2
November	16·3	− 3·8	− 14·6	− 5·7	+ 0·4	+ 1·6	− 2·5	− 1·1	− 0·1
December	14·7	− 3·2	− 10·8	− 5·1	− 1·6	+ 1·6	− 1·1	− 0·3	− 0·5
For the Year	22·5	+ 1·7	− 18·1	− 13·3	− 1·7	+ 4·6	− 1·0	− 1·6	+ 0·4

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, 1896.	m	c_1	α	α'	c_2	β	β'	c_3	γ	γ'	c_4	δ	δ'
						DECLINATION WEST.							
	′	′	° ′	° ′	′	° ′	° ′	′	° ′	° ′	′	° ′	° ′
January	3·20	2·74	267. 50	270. 12	1·13	9. 18	14. 2	0·41	259. 13	266. 19	0·25	55. 19	64. 47
February	3·38	2·89	261. 12	264. 41	1·55	14. 47	21. 45	0·52	227. 21	237. 48	0·35	0. 41	14. 37
March	2·84	3·56	237. 58	240. 5	2·06	35. 47	40. 1	1·14	219. 35	225. 56	0·38	53. 11	61. 39
April	4·17	3·53	228. 47	228. 47	2·85	32. 28	32. 28	1·03	225. 0	225. 0	0·28	57. 26	57. 26
May	3·93	3·39	223. 48	222. 56	2·21	32. 45	31. 1	0·71	238. 58	236. 22	0·24	107. 16	103. 48
June	4·25	3·43	208. 25	208. 32	2·06	39. 50	40. 4	0·69	238. 57	239. 18	0·11	2. 12	2. 40
July	4·41	3·70	216. 1	217. 24	2·14	46. 27	49. 13	0·64	241. 34	245. 43	0·23	349. 46	355. 18
August	3·92	3·42	231. 38	232. 33	2·08	51. 14	53. 4	1·14	248. 17	251. 2	0·06	196. 10	199. 50
September	2·84	3·38	240. 11	238. 52	2·02	48. 19	45. 41	0·97	236. 56	232. 59	0·40	70. 4	64. 48
October	1·99	2·36	254. 3	250. 31	1·59	35. 59	28. 55	0·77	228. 1	217. 25	0·42	52. 31	38. 23
November	2·19	1·86	262. 47	259. 9	0·85	23. 59	16. 43	0·36	259. 28	248. 34	0·44	64. 53	50. 21
December	2·36	1·98	262. 22	261. 26	0·62	2. 28	0. 36	0·35	263. 36	260. 48	0·15	24. 27	20. 43
For the Year	2·28	2·86	238. 1	238. 1	1·72	34. 55	34. 55	0·71	236. 57	236. 57	0·23	49. 35	49. 35
						HORIZONTAL FORCE.							
January	47·3	22·0	51. 37	53. 59	26·9	260. 31	265. 15	9·7	148. 43	155. 49	7·0	346. 40	356. 8
February	76·4	27·2	74. 43	78. 12	22·9	265. 16	272. 14	15·0	151. 21	161. 48	14·8	352. 4	6. 0
March	114·5	56·5	121. 51	123. 58	27·7	301. 47	306. 1	22·7	164. 7	170. 28	8·5	30. 58	39. 26
April	170·4	96·1	122. 36	122. 36	55·7	304. 7	304. 7	18·4	152. 33	152. 33	8·7	34. 16	34. 16
May	147·4	96·8	142. 22	141. 30	46·6	306. 22	304. 38	6·5	168. 42	166. 6	7·6	7. 35	4. 7
June	116·8	92·1	143. 20	143. 27	33·3	293. 5	293. 19	3·8	212. 4	212. 25	2·7	348. 31	348. 59
July	145·8	98·6	137. 40	139. 3	34·2	321. 4	323. 50	14·7	188. 48	192. 57	7·2	334. 0	339. 32
August	171·5	107·1	131. 48	132. 43	37·3	334. 52	336. 42	20·6	207. 47	210. 32	9·5	51. 56	55. 36
September	177·9	89·8	119. 50	118. 31	42·8	327. 53	325. 15	27·7	187. 18	183. 21	12·0	35. 10	29. 54
October	107·4	56·5	97. 39	94. 7	26·8	294. 13	287. 9	17·3	173. 34	162. 58	9·8	15. 52	1. 44
November	65·6	20·6	87. 40	84. 2	20·9	283. 47	276. 31	12·5	142. 0	131. 6	7·8	15. 5	0. 33
December	21·9	3·2	359. 42	358. 46	18·7	257. 23	255. 31	6·5	132. 18	129. 30	4·8	26. 34	22. 50
For the Year	107·3	59·4	124. 31	124. 31	30·3	301. 19	301. 19	13·6	171. 0	171. 0	7·7	15. 8	15. 8
						VERTICAL FORCE.							
January	17·7	19·7	194. 36	196. 58	6·2	265. 4	269. 48	2·4	87. 49	94. 55	2·0	278. 18	287. 46
February	22·9	27·4	184. 22	187. 51	14·6	270. 4	277. 2	3·1	67. 24	77. 51	1·8	219. 17	233. 13
March	29·4	28·4	183. 21	185. 28	18·3	263. 38	267. 52	7·3	98. 17	104. 38	4·0	271. 5	279. 33
April	35·3	26·9	163. 5	163. 5	19·2	259. 25	259. 25	6·1	105. 28	105. 28	3·0	297. 39	297. 39
May	41·7	27·5	160. 55	160. 3	21·8	267. 47	266. 3	6·5	120. 10	117. 34	1·0	347. 31	344. 3
June	33·6	14·6	126. 45	126. 52	16·9	263. 49	264. 3	3·4	106. 53	107. 14	1·4	329. 58	330. 26
July	28·9	11·8	151. 57	153. 20	17·1	258. 11	260. 57	6·3	84. 33	88. 42	0·6	236. 31	242. 3
August	24·1	15·0	172. 41	173. 36	14·3	248. 40	250. 30	6·8	102. 46	105. 31	2·4	289. 43	293. 23
September	22·9	15·7	170. 38	169. 19	12·5	263. 0	260. 22	6·3	99. 26	95. 29	2·1	310. 14	304. 58
October	18·5	16·8	190. 22	186. 50	9·7	266. 21	259. 17	5·8	98. 18	87. 42	3·4	290. 6	275. 58
November	16·3	15·1	194. 41	191. 3	5·7	273. 47	266. 31	2·9	148. 2	137. 8	1·1	266. 11	251. 39
December	14·7	11·3	196. 30	195. 34	5·3	252. 40	250. 48	2·0	123. 37	120. 49	0·6	209. 51	206. 7
For the Year	22·5	18·2	174. 45	174. 45	13·4	262. 34	262. 34	4·7	102. 12	102. 12	1·7	283. 54	283. 54

TABLE XVII.—SEPARATE RESULTS of OBSERVATIONS of MAGNETIC DIP made in the Year 1896.

Greenwich Civil Time, 1896.	Needle.	Magnetic Dip.	Observer.
d h		° ′ ″	
Jan. 3.15	C 1	67.11.24	N
7.15	D 1	67.12.58	N
9.15	C 2	67.14.45	N
14.15	B 1	67. 8.55	N
15.13	B 2	67.10.27	N
15.14	D 2	67.12.18	N
17.15	D 2	67.14.21	N
18.12	B 2	67. 9.47	N
22.14	B 1	67.11.33	N
23.16	C 2	67.11.35	N
28.15	D 1	67.13.13	N
30.16	C 1	67.10.16	N
Feb. 4.16	C 2	67.13. 5	N
5.13	B 2	67.12.38	N
7.15	B 1	67. 9.36	N
10.16	C 1	67. 9.45	N
11.16	D 1	67.11.51	N
13.15	D 2	67.12.56	N
17.15	D 2	67.11.38	N
20.16	D 1	67.10. 0	N
22.12	C 1	67.10.49	N
24.16	B 1	67. 7.40	N
25.16	B 2	67.10. 3	N
28.16	C 2	67.12.47	N
Mar. 4.16	B 1	67.12.53	N
6.15	B 2	67. 9.49	N
9.15	C 2	67.10.31	N
9.16	D 1	67.10.19	N
12.16	D 2	67.14.13	N
14.13	C 1	67.10.45	N
16.16	C 1	67.11.30	N
19.16	D 2	67.10.56	N
23.16	D 1	67.10.33	N
24.12	C 2	67.10.14	N
24.15	B 2	67.10. 8	N
30.15	B 1	67.10.34	N
Apr. 4.13	C 1	67.10.27	N
7.16	D 1	67.10.54	N
9.15	D 2	67.11. 1	N
9.16	C 2	67.10. 0	N
13.16	B 1	67. 8.20	N
14.15	B 2	67. 7.24	N
16.13	B 2	67.10.30	N
17.12	B 1	67.10.36	N
21.15	C 2	67. 9.38	N
22.12	D 2	67.11.30	N
23.16	D 1	67.12.22	N
28.15	C 1	67. 9.16	N

Greenwich Civil Time, 1896.	Needle.	Magnetic Dip.	Observer.
d h		° ′ ″	
May 1.13	C 2	67.10. 5	N
4.15	B 2	67. 9.14	N
6.15	B 1	67. 8.28	N
8.16	C 1	67. 6.56	N
11.16	C 1	67. 7. 8	N
12.16	D 2	67. 7.58	N
14.16	D 1	67. 9.34	N
18.16	D 1	67.11.55	N
20.16	D 2	67. 8. 8	N
22.13	C 1	67. 8.43	N
26.16	B 1	67. 6.53	N
27.13	B 2	67. 6.45	N
29.16	C 2	67. 8. 4	N
June 2.12	B 1	67. 7.47	N
8.16	D 2	67. 8. 1	E
9.16	D 1	67.10.53	N
11.13	D 2	67.10. 4	N
11.15	C 1	67. 8.30	N
11.16	C 2	67. 8.39	N
15.16	B 2	67. 7. 5	N
17.13	B 2	67. 8.11	N
17.16	C 2	67. 8.10	N
19.15	D 2	67. 7.30	N
19.16	C 1	67. 7.47	N
22.16	D 1	67.10.36	N
30.16	B 1	67. 7.18	N
July 1.16	C 1	67. 8. 4	N
6.15	D 1	67. 9.24	N
8.16	C 2	67. 8.14	N
9.16	D 2	67. 8.55	N
13.16	B 1	67. 8.44	N
15.16	B 2	67. 7.58	N
18.13	B 2	67. 7.16	N
21.12	B 1	67. 6.34	N
21.13	C 2	67. 7.13	N
22.12	D 2	67. 8. 6	N
27.15	D 1	67. 7.57	N
29.16	C 1	67. 7.27	N
Aug. 1.13	C 2	67. 8.12	N
4.16	B 2	67. 6.20	N
6.15	B 1	67. 8.50	N
11.16	C 1	67. 7.54	N
12.15	D 2	67. 7.57	N
12.16	D 1	67. 7.26	N
18.15	D 1	67. 9.58	N
19.15	D 2	67. 8. 4	E
21.12	C 1	67. 9.27	E
22.12	C 1	67. 8.46	E
25.15	B 1	67. 8.15	E
27.15	B 2	67. 7.40	E
31.12	C 2	67. 9.52	N

Greenwich Civil Time, 1896.	Needle.	Magnetic Dip.	Observer.
d h		° ′ ″	
Sept. 1.16	B 1	67. 7.57	N
2.15	B 2	67. 6.29	N
7.16	C 2	67. 7.38	N
10.15	D 1	67. 7.40	N
11.16	D 2	67. 8.10	N
12.11	C 1	67. 9.14	N
15.15	C 1	67. 8. 0	E
21.15	D 1	67.10.21	E
21.16	D 2	67. 8.32	E
24.15	C 2	67. 9.23	E
29.12	B 1	67. 7.22	E
29.15	B 2	67. 6.40	E
Oct. 2.15	C 1	67. 8. 4	E
3.15	D 1	67. 8. 6	E
7.15	D 2	67.10. 2	E
9.15	C 2	67. 9.39	E
13.15	B 1	67. 6. 2	E
16.15	B 2	67. 8.16	E
17.11	B 2	67. 6.55	E
20.16	B 1	67. 7. 0	N
22.15	C 2	67. 9.31	E
24.12	D 2	67. 9.31	E
27.15	D 1	67. 9.28	E
29.15	C 1	67. 6.39	E
30.12	C 1	67. 8.41	E
Nov. 3.15	C 2	67. 7.42	E
5.15	B 2	67. 7.17	E
7.12	B 1	67. 6.34	E
13.14	C 1	67. 8.39	N
13.15	D 2	67. 9. 9	N
13.16	D 1	67.10.23	N
17.15	D 1	67. 8.13	E
18.15	D 2	67. 9.14	E
21.12	C 1	67. 8. 5	N
21.13	B 1	67. 8.33	N
27.11	C 2	67. 8.28	N
27.12	B 2	67. 6. 6	N
Dec. 3.15	B 1	67. 6.29	N
5.11	B 2	67. 7.43	E
10.15	D 1	67. 9. 8	N
11.12	C 2	67. 9.43	N
11.15	D 2	67.10.25	N
14.15	C 1	67. 8.30	N
18.15	C 1	67. 9.19	E
21.15	D 2	67. 8. 6	E
22.12	C 2	67. 8.47	E
22.15	D 1	67. 8.46	E
28.15	B 2	67. 5.35	E
30.12	B 1	67. 7.59	E

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 E are those of Mr. Nash and Mr. Edney.

TABLE XVIII.—MONTHLY and YEARLY MEANS of MAGNETIC DIP in the Year 1896.

Monthly Means of Magnetic Dip.

Month, 1896.	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. 10. 14	2	67. 10. 7	2	67. 10. 50	2
February	67. 8. 38	2	67. 11. 20	2	67. 10. 17	2
March	67. 11. 43	2	67. 9. 59	2	67. 11. 7	2
April	67. 9. 28	2	67. 8. 57	2	67. 9. 52	2
May	67. 7. 41	2	67. 7. 59	2	67. 7. 36	3
June	67. 7. 32	2	67. 7. 38	2	67. 8. 9	2
July	67. 7. 39	2	67. 7. 37	2	67. 7. 45	2
August	67. 8. 32	2	67. 7. 0	2	67. 8. 42	3
September	67. 7. 39	2	67. 6. 35	2	67. 8. 37	2
October	67. 6. 31	2	67. 7. 35	2	67. 7. 48	3
November	67. 7. 33	2	67. 6. 41	2	67. 8. 22	2
December	67. 7. 14	2	67. 6. 39	2	67. 8. 54	2
Means	67. 8. 22	Sum 24	67. 8. 11	Sum 24	67. 8. 54	Sum 27

Month, 1896.	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. 13. 10	2	67. 13. 5	2	67. 13. 19	2
February	67. 12. 56	2	67. 10. 56	2	67. 12. 17	2
March	67. 10. 23	2	67. 10. 26	2	67. 12. 34	2
April	67. 9. 49	2	67. 11. 38	2	67. 11. 15	2
May	67. 9. 5	2	67. 10. 44	2	67. 8. 3	2
June	67. 8. 24	2	67. 10. 44	2	67. 8. 32	3
July	67. 7. 44	2	67. 8. 41	2	67. 8. 30	2
August	67. 9. 2	2	67. 8. 42	2	67. 8. 1	2
September	67. 8. 30	2	67. 9. 1	2	67. 8. 21	2
October	67. 9. 35	2	67. 8. 47	2	67. 9. 46	2
November	67. 8. 5	2	67. 9. 18	2	67. 9. 11	2
December	67. 9. 15	2	67. 8. 57	2	67. 9. 16	2
Means	67. 9. 40	Sum 24	67. 10. 5	Sum 24	67. 9. 52	Sum 25

The monthly means have been formed without reference to the hour at which the observation on each day was made.
In combining the monthly results, to form annual means, weights have been given proportional to the number of observations.

COLLECTED YEARLY MEANS of MAGNETIC DIP for each of the NEEDLES, and GENERAL MEAN for the Year 1896.

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. 8. 22	67. 8. 16	
	B 2	24	67. 8. 11		
6-inch Needles	C 1	27	67. 8. 54	67. 9. 17	67. 9. 10
	C 2	24	67. 9. 40		
3-inch Needles	D 1	24	67. 10. 5	67. 9. 58	
	D 2	25	67. 9. 52		

TABLE XIX.—DETERMINATIONS of the ABSOLUTE VALUE of HORIZONTAL MAGNETIC FORCE in the Year 1896.

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

Greenwich Civil Time, 1896.		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. 14	1·0 1·3	48·8	9. 55. 3 4. 30. 4	5·778 5·775	100 100	47·3 48·1	N
February	19. 15	1·0 1·3	50·0	9. 55. 29 4. 30. 22	5·768 5·769	100 100	48·9 49·3	N
March	17. 15	1·0 1·3	57·2	9. 54. 9 4. 29. 46	5·770 5·771	100 100	56·6 56·0	N
April	16. 15	1·0 1·3	53·2	9. 53. 35 4. 29. 39	5·765 5·764	100 100	52·1 52·1	N
May	15. 16	1·0 1·3	62·8	9. 52. 28 4. 28. 55	5·770 5·768	100 100	63·6 63·8	N
June	18. 16	1·0 1·3	69·0	9. 53. 17 4. 29. 25	5·775 5·777	100 100	69·8 70·7	N
July	21. 15	1·0 1·3	74·9	9. 52. 26 4. 29. 6	5·774 5·777	100 100	76·1 76·6	N
August	13. 15	1·0 1·3	65·1	9. 53. 7 4. 29. 9	5·776 5·776	100 100	66·0 66·7	N
September	14. 16	1·0 1·3	62·1	9. 53. 27 4. 29. 26	5·777 5·771	100 100	62·6 62·7	N
October	14. 15	1·0 1·3	49·4	9. 52. 36 4. 28. 38	5·779 5·781	100 100	49·9 50·1	N
November	16. 15	1·0 1·3	49·9	9. 52. 47 4. 29. 22	5·778 5·774	100 100	49·3 49·8	N
December	15. 12	1·0 1·3	45·9	9. 52. 53 4. 29. 47	5·778 5·773	100 100	45·3 46·0	N

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

The initial N is that of Mr. Nash.

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

Computation of the Values of Horizontal Force in Absolute Measure, from observations made with the Gibson Instrument in Library.

Greenwich Civil Time, 1896.		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. 14	0·08630	0·08639	−0·00243	−0·00363	8·93749	5·7848	0·13625	0·3442	3·9754	1·8330	1·8320
Feb.	19. 15	0·08638	0·08650	−0·00344		8·93797	5·7766	0·13751	0·3449	3·9790	1·8346	1·8345
Mar.	17. 15	0·08630	0·08642	−0·00338		8·93755	5·7754	0·13771	0·3448	3·9818	1·8359	1·8349
Apr.	16. 15	0·08616	0·08632	−0·00462		8·93695	5·7724	0·13814	0·3448	3·9865	1·8381	1·8365
May	15. 16	0·08614	0·08623	−0·00254		8·93668	5·7723	0·13823	0·3447	3·9881	1·8389	1·8353
June	18. 16	0·08635	0·08648	−0·00378		8·93785	5·7593	0·14022	0·3460	3·9919	1·8406	1·8413
July	21. 15	0·08632	0·08647	−0·00440		8·93774	5·7689	0·13882	0·3454	3·9860	1·8379	1·8366
Aug.	13. 15	0·08627	0·08634	−0·00209		8·93728	5·7766	0·13759	0·3447	3·9824	1·8362	1·8343
Sept.	14. 16	0·08627	0·08638	−0·00327		8·93739	5·7762	0·13765	0·3448	3·9823	1·8362	1·8348
Oct.	14. 15	0·08596	0·08594	+0·00051		8·93549	5·7866	0·13601	0·3434	3·9835	1·8367	1·8387
Nov.	16. 15	0·08599	0·08618	−0·00541		8·93620	5·7834	0·13649	0·3438	3·9824	1·8362	1·8347
Dec.	15. 12	0·08595	0·08626	−0·00874		8·93626	5·7848	0·13624	0·3438	3·9810	1·8356	1·8361
Means	...	...	...	...	...	...	...	...	...	3·9834	1·8367	1·8358

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 1896.

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

Greenwich Civil Time, 1896.	Place of Observation.	Distances of Centres of Magnets.	Temperature Centigrade.	Observed Deflexion.	Mean of the Times of Vibration of Deflecting Magnet.	Number of Vibrations.	Temperature Centigrade.	Observer.
d h		cms.	°	° ′ ″	s		°	
January 20. 15	Library	30 40	9·1	19. 45. 27 8. 11. 58	4·244 4·244	100 100	8·6 9·1	N
February 14. 14	Library	30 40	11·4	19. 44. 52 8. 10. 40	4·246 4·247	100 100	11·1 11·5	N
March 20. 16	Library	30 40	12·8	19. 40. 10 8. 9. 40	4·239 4·240	100 100	12·5 12·9	N
April 15. 14	Library	30 40	12·0	19. 40. 57 8. 9. 8	4·240 4·239	100 100	11·3 12·2	N
May 19. 16	Library	30 40	17·6	19. 34. 32 8. 6. 45	4·242 4·251	100 100	17·2 18·1	N
June 16. 15	Library	30 40	24·8	19. 33. 42 8. 7. 20	4·222 4·221	100 100	24·0 25·0	N
July 2. 13	Garden	30 40	18·5	19. 47. 7 8. 12. 29	4·226 4·228	100 100	16·6 18·6	N
July 2. 16	Library	30 40	17·3	19. 41. 5 8. 9. 43	4·225 4·210	100 100	17·6 17·6	N
July 14. 14	Park	30 40	29·3	19. 39. 56 8. 8. 42	4·242 4·242	100 100	32·0 29·4	N
August 14. 16	Library	30 40	19·8	19. 39. 29 8. 8. 45	4·216 4·215	100 100	19·6 20·6	N
August 17. 16	Garden	30 40	21·1	19. 40. 42 8. 8. 23	4·238 4·232	100 100	26·8 22·6	N
August 28. 14	Park	30 40	17·6	19. 44. 41 8. 11. 7	4·230 4·226	100 100	18·1 17·9	N
September 22. 15	Library	30 40	15·3	19. 40. 2 8. 8. 59	4·209 4·210	100 100	14·7 15·4	N
September 24. 15	Park	30 40	14·3	19. 47. 49 8. 11. 46	4·222 4·219	100 100	15·4 14·1	N
October 9. 14	Park	30 40	16·2	19. 45. 46 8. 10. 49	4·233 4·229	100 100	16·6 15·6	N
October 19. 16	Library	30 40	11·2	19. 41. 35 8. 9. 31	4·214 4·210	100 100	10·8 11·1	N
October 22. 12	Park	30 40	8·3	19. 49. 56 8. 12. 38	4·219 4·213	100 100	9·1 9·8	N
November 19. 15	Library	30 40	9·4	19. 42. 54 8. 10. 19	4·204 4·209	100 100	8·6 9·2	N
December 24. 12	Library	30 40	4·7	19. 45. 7 8. 10. 12	4·202 4·200	100 100	4·1 5·1	N

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

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

From Observations made with the Elliott Instrument in Library.

Greenwich Civil Time, 1896.	In C.G.S. 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.	In Metric Measure. Value of Horizontal Force. As observed.	Reduced to Mean of Month.
d h						s					
Jan. 20. 15	4581·8	4582·2	− 0·14	+ 2·78	3·66000	4·2417	2·18682	838·3	0·18340	1·8340	1·8378
Feb. 14. 14	4585·1	4575·5	+ 4·31		3·65984	4·2417	2·18684	838·2	0·18344	1·8344	1·8367
Mar. 20. 16	4571·0	4569·5	+ 0·66		3·65889	4·2333	2·18859	839·0	0·18401	1·8401	1·8408
Apr. 15. 14	4571·9	4562·7	+ 4·17		3·65861	4·2347	2·18829	838·4	0·18401	1·8401	1·8396
May 19. 16	4561·5	4554·0	+ 3·41		3·65770	4·2358	2·18811	837·3	0·18416	1·8416	1·8408
June 16. 15	4576·3	4577·4	− 0·52		3·65951	4·2031	2·18898	839·9	0·18396	1·8396	1·8398
July 2. 16	4585·2	4580·9	+ 1·94		3·66010	4·2069	2·18814	839·7	0·18366	1·8366	1·8367
Aug. 14. 16	4585·4	4578·0	+ 3·32		3·65998	4·2022	2·18913	840·5	0·18390	1·8390	1·8377
Sept. 22. 15	4576·5	4569·1	+ 3·32		3·65913	4·2022	2·18907	839·7	0·18406	1·8406	1·8410
Oct. 19. 16	4572·5	4564·4	+ 3·65		3·65871	4·2088	2·18767	837·9	0·18386	1·8386	1·8402
Nov. 19. 15	4573·1	4567·5	+ 2·51		3·65890	4·2049	2·18844	838·8	0·18398	1·8398	1·8392
Dec. 24. 12	4570·5	4555·6	+ 6·68		3·65820	4·2032	2·18876	838·5	0·18420	1·8420	1·8418
Means ...	...	...	...	...	...	...	...	...	0·18389	1·8389	1·8393

From Observations made with the Elliott Instrument in the Park and Garden.

Greenwich Civil Time, 1896.	Apparent Value of A_1.	Apparent Value of A_2.	Apparent Value of P.	Mean Value of P.	Log. $\frac{m}{X}$	Corrected Time of Vibration of Deflecting Magnet.	Log. m X.	Value of m.	Value of Horizontal Force X.	As observed.	Reduced to Mean of Month.
d h						s					
July 2. 13	4610·5	4609·5	+ 0·47	+ 4·01	3·66219	4·2163	2·18621	839·8	0·18281	1·8281	1·8310
July 14. 14	4611·2	4601·6	+ 4·26		3·66184	4·2175	2·18608	839·4	0·18286	1·8286	1·8278
Aug. 17. 16	4593·0	4577·9	+ 6·77		3·65987	4·2163	2·18627	837·7	0·18332	1·8332	1·8320
Aug. 28. 14	4599·4	4594·5	+ 2·18		3·66095	4·2164	2·18619	838·6	0·18307	1·8307	1·8305
Sept. 24. 15	4602·9	4592·5	+ 4·64		3·66102	4·2135	2·18675	839·2	0·18317	1·8317	1·8322
Oct. 9. 14	4600·0	4588·4	+ 5·21		3·66069	4·2226	2·18488	837·1	0·18285	1·8285	1·8271
Oct. 22. 12	4596·5	4586·4	+ 4·55		3·66043	4·2143	2·18651	838·4	0·18325	1·8325	1·8348
Means ...	...	...	...	...	...	...	...	...	0·18305	1·8305	1·8308

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 1, 2, 21, 24, 29, February 7, 18, 20, 23, 24, March 11, 16, 17, 18, 21, April 7, 14, 16, 20, 30, May 5, 6, 9, 26, 29, June 2, 7, 20, 23, 24, July 2, 9, 17, 19, 31, August 5, 13, 16, 27, 28, September 8, 9, 10, 25, 28, October 6, 7, 18, 25, 26, November 3, 12, 22, 24, 25, December 8, 12, 18, 19, 24.

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 1·8358 and 4·3743 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.)

1896.

Hour, Greenwich Civil Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	For the Year.
Midnight	2′·6	0′·4	2′·3	3′·3	4′·0	3′·8	3′·5	2′·4	3′·1	1′·7	0′·4	0′·3	1′·75
1h	3·3	0·9	2·4	3·7	3·9	3·4	3·5	2·2	3·2	1·4	0·5	0·8	1·86
2	3·6	0·9	2·4	4·0	3·8	3·2	3·2	2·4	3·4	1·7	0·9	1·2	1·99
3	3·7	1·0	2·3	3·8	3·4	2·9	3·2	2·0	3·0	1·8	1·0	1·1	1·86
4	3·9	1·0	2·3	3·7	2·7	2·4	2·5	1·7	2·6	1·9	1·2	1·5	1·71
5	4·0	1·1	2·1	3·4	1·7	1·1	1·3	1·1	2·3	1·6	1·2	1·6	1·31
6	3·8	0·7	2·0	2·5	0·7	0·0	0·3	0·6	1·6	1·3	0·7	1·3	0·72
7	3·6	0·7	1·4	0·9	0·2	0·0	0·0	0·0	0·7	0·7	0·7	1·4	0·29
8	3·1	0·4	0·3	0·0	0·0	0·5	0·5	0·3	0·0	0·0	0·3	1·4	0·00
9	2·8	0·6	0·0	0·1	0·9	1·9	1·7	1·3	1·1	0·3	0·0	1·4	0·44
10	3·8	1·5	1·8	2·1	3·1	3·6	3·3	3·6	4·1	2·5	1·1	1·5	2·10
11	5·3	3·1	5·1	5·3	5·5	6·2	5·6	6·4	7·6	4·6	2·5	2·4	4·40
Noon	6·7	4·2	7·8	6·8	7·7	8·7	8·1	8·4	10·3	6·6	3·7	3·0	6·26
13h	7·2	5·3	9·1	10·9	9·1	9·5	9·6	9·4	11·0	6·9	4·0	3·6	7·40
14	6·7	5·3	9·0	10·6	9·5	9·4	9·7	8·6	9·9	6·3	3·3	3·1	7·05
15	5·7	4·7	7·5	9·6	8·4	8·4	8·6	7·1	7·9	4·8	2·4	2·5	5·90
16	4·7	3·0	5·7	8·1	7·2	7·4	6·8	5·4	5·5	3·5	2·0	2·2	4·55
17	4·3	2·6	4·3	6·7	6·1	6·6	5·5	4·2	4·6	3·1	1·6	1·8	3·71
18	3·9	2·1	3·9	5·8	5·2	6·2	5·0	3·3	4·1	2·9	1·4	1·5	3·20
19	3·7	1·4	3·5	5·4	5·0	5·9	4·8	3·2	4·2	2·5	1·1	1·3	2·93
20	3·2	0·9	2·9	5·0	4·8	5·7	4·3	3·1	3·5	2·3	0·9	1·1	2·57
21	2·9	0·6	2·8	4·7	4·4	5·1	4·3	2·6	3·4	2·1	0·8	0·9	2·31
22	2·8	0·5	2·8	4·5	4·2	4·9	4·5	2·7	3·1	1·9	0·1	0·7	2·15
23	1·8	0·1	2·7	4·3	3·8	4·7	3·8	2·6	3·1	1·4	0·1	0·5	1·84
24	0·0	0·0	2·7	3·9	4·0	4·1	3·5	1·9	3·0	1·2	0·3	0·0	1·48
Means 0h—23h	4′·05	1′·79	3′·60	4′·80	4′·39	4′·65	4′·32	3′·53	4′·30	2′·66	1′·33	1′·59	2′·85
Means 1h—24h	3′·94	1′·77	3′·62	4′·82	4′·39	4′·66	4′·32	3′·50	4′·30	2′·64	1′·32	1′·57	2′·83

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.)

1896.

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.	76	140	97	178	123	226	146	268	106	195	123	226	133	244	197	362	211	387	172	316	85	156	14	26	114·0	209·5
1^h	84	154	82	151	135	248	148	272	100	184	107	196	128	235	195	358	212	389	154	283	78	143	16	29	110·3	202·7
2	73	134	73	134	124	228	142	261	94	173	101	185	120	220	176	323	222	408	137	252	73	134	13	24	102·7	188·8
3	80	147	75	138	126	231	157	288	90	165	90	165	118	217	166	305	211	387	138	253	73	134	2	4	100·9	185·3
4	94	173	87	160	124	228	161	296	82	151	90	165	121	222	156	286	205	376	142	261	80	147	9	17	103·0	189·3
5	100	184	104	191	130	239	155	285	72	132	84	154	111	204	146	268	197	362	144	264	86	158	21	39	102·9	189·2
6	110	202	118	217	135	248	159	292	68	125	55	101	89	163	134	246	179	329	137	252	96	176	32	59	99·7	183·3
7	124	228	112	206	123	226	142	261	46	84	25	46	71	130	104	191	135	248	125	229	92	169	34	62	84·8	155·8
8	114	209	102	187	90	165	104	191	20	37	6	11	45	83	60	110	74	136	83	152	72	132	30	55	57·1	104·8
9	78	143	68	125	34	62	46	84	4	7	0	0	10	18	10	18	18	33	37	68	36	66	18	33	20·3	37·3
10	41	75	30	55	0	0	10	18	0	0	2	4	0	0	0	0	0	0	10	18	18	33	4	7	0·0	0·0
11	9	17	0	0	1	2	0	0	2	4	37	68	26	48	24	44	44	81	0	0	0	0	0	0	2·3	4·5
Noon	0	0	18	33	46	84	29	53	28	51	67	123	63	116	88	162	112	206	30	55	32	59	6	11	33·7	61·9
13^h	34	62	56	103	99	182	97	178	56	103	91	167	75	138	140	257	183	336	58	106	64	117	20	37	71·5	131·3
14	44	81	72	132	140	257	158	290	80	147	133	244	117	215	177	325	215	395	89	163	82	151	17	31	100·7	185·1
15	59	108	82	151	153	281	195	358	116	213	158	290	151	277	194	356	223	409	106	195	92	169	19	35	119·4	219·3
16	71	130	74	136	155	285	214	393	146	268	170	312	153	281	214	393	233	428	106	195	103	189	30	55	129·5	237·9
17	70	129	81	149	162	297	229	420	177	325	180	330	167	307	206	378	237	435	116	213	108	198	38	70	138·0	253·4
18	83	152	93	171	172	316	232	426	201	369	200	367	190	349	212	389	239	439	145	266	110	202	45	83	150·6	276·6
19	97	178	106	195	178	327	228	419	213	391	210	386	196	360	218	400	259	475	170	312	102	187	52	95	159·5	292·9
20	93	171	117	215	180	330	234	430	192	352	204	375	203	373	214	393	275	505	168	308	98	180	46	84	159·1	292·2
21	81	149	117	215	182	334	236	433	180	330	189	347	195	358	214	393	265	486	170	312	90	165	39	72	153·6	282·0
22	64	117	120	220	172	316	229	420	162	297	176	323	187	343	194	356	233	428	160	294	76	140	27	50	140·4	257·8
23	46	84	139	255	176	323	224	411	159	292	172	316	178	327	194	356	236	433	159	292	74	136	16	29	138·1	253·7
24	26	48	124	228	183	336	221	406	156	286	156	286	167	307	202	371	237	435	164	301	80	147	14	26	134·6	247·2
Means 0^h-23^h	71·9	132·0	84·3	154·9	123·3	226·5	153·1	281·1	99·8	183·1	111·2	204·2	118·6	217·8	151·4	277·9	184·1	338·0	114·8	210·8	75·8	139·2	22·8	42·0	99·7	183·1
1^h-24^h	69·8	128·1	85·4	157·0	125·8	231·0	156·2	286·9	101·8	186·9	112·6	206·7	120·0	220·5	151·6	278·2	185·2	340·0	114·5	210·2	75·6	138·8	22·8	42·0	100·5	184·7

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.)

1896.

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.	12	52	17	74	27	118	30	131	54	236	33	144	21	92	32	140	26	114	23	101	14	61	6	26	20·9	91·4
1^h	0	0	13	57	19	83	30	131	50	219	35	153	21	92	32	140	28	122	17	74	4	17	0	0	17·0	74·7
2	5	22	9	39	20	87	32	140	52	227	33	144	20	87	32	140	22	96	15	66	8	35	2	9	17·1	75·0
3	3	13	14	61	20	87	34	149	54	236	35	153	22	96	34	149	24	105	20	87	4	17	5	22	18·7	81·9
4	9	39	14	61	22	96	34	149	52	227	44	192	32	140	41	179	26	114	18	79	6	26	7	31	21·7	95·1
5	9	39	12	52	20	87	38	166	56	245	44	192	34	149	41	179	28	122	20	87	6	26	11	48	22·9	100·0
6	11	48	10	44	22	96	38	166	58	254	42	184	36	157	47	206	32	140	20	87	6	26	13	57	24·2	106·1
7	13	57	12	52	30	131	48	210	58	254	44	192	38	166	49	214	38	166	22	96	8	35	13	57	27·4	119·8
8	11	48	16	70	32	140	39	171	50	219	38	166	32	140	47	206	45	197	22	96	12	52	17	74	26·4	115·6
9	9	39	16	70	26	114	32	140	28	122	26	114	20	87	35	153	29	127	18	79	8	35	17	74	18·3	80·2
10	13	57	8	35	14	61	16	70	14	61	10	44	12	52	15	66	8	35	6	26	4	17	13	57	7·4	32·4
11	17	74	0	0	0	0	6	26	0	0	0	0	6	26	0	0	0	0	0	0	2	9	13	57	0·0	0·0
Noon	25	109	4	17	0	0	0	0	4	17	2	9	0	0	2	9	0	0	4	17	0	0	11	48	0·6	2·8
13^h	27	118	4	17	12	52	8	35	12	52	8	35	0	0	18	79	8	35	14	61	4	17	9	39	6·6	29·0
14	37	162	10	44	28	122	32	140	26	114	20	87	18	79	32	140	16	70	20	87	16	70	15	66	18·8	82·4
15	43	188	18	79	46	201	48	210	40	175	30	131	30	131	46	201	24	105	28	122	23	101	19	83	29·2	127·9
16	44	192	28	122	50	219	57	249	48	210	39	171	36	157	44	192	32	140	28	122	21	92	17	74	33·3	145·7
17	44	192	34	149	46	201	63	276	56	245	45	197	42	184	42	184	30	131	24	105	25	109	22	96	35·7	156·4
18	43	188	32	140	44	192	69	302	58	254	43	188	41	179	44	192	28	122	19	83	25	109	18	79	35·0	153·0
19	41	179	36	157	40	175	63	276	62	271	45	197	37	162	42	184	32	140	15	66	27	118	14	61	34·1	149·5
20	35	153	30	131	38	166	61	267	60	262	45	197	33	144	40	175	30	131	9	39	20	87	10	44	30·6	133·7
21	33	144	27	118	34	149	57	249	62	271	41	179	29	127	38	166	28	122	11	48	20	87	10	44	28·8	126·0
22	27	118	16	70	32	140	52	227	64	280	37	162	29	127	38	166	26	114	11	48	18	79	12	52	26·5	115·9
23	24	105	5	22	28	122	46	201	64	280	39	171	27	118	34	149	24	105	11	48	14	61	12	52	23·6	103·5
24	22	96	1	4	23	101	42	184	56	245	35	153	21	92	26	114	20	87	7	31	6	26	6	26	18·4	80·6
Means 0^h—23^h	22·3	97·3	16·0	70·0	27·1	118·3	38·9	170·0	45·1	197·1	32·4	141·8	25·7	112·2	34·4	150·4	24·3	106·4	16·5	71·8	12·3	53·6	11·9	52·1	21·9	95·8
1^h—24^h	22·7	99·2	15·4	67·1	26·9	117·6	39·4	172·2	45·2	197·5	32·5	142·1	25·7	112·2	34·1	149·3	24·1	105·3	15·8	68·9	11·9	52·1	11·9	52·1	21·8	95·3

ROYAL OBSERVATORY, GREENWICH.

MAGNETIC DISTURBANCES

AND

EARTH CURRENTS.

1896.

MAGNETIC DISTURBANCES in DECLINATION, HORIZONTAL FORCE, and VERTICAL FORCE, recorded at the ROYAL OBSERVATORY, GREENWICH, in the Year 1896.

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).

1896.

January 3^d 0^h to 6^d 0^h. See Plate I.

6^d 3^h to 4^h Wave in Dec. (− 4′), followed till 16^h by small fluctuations in Dec. and H.F. 16^h to 18^h Wave in Dec. (− 13′). 16^h to 19^h Two successive waves in H.F. (− ·0018) and (− ·0014). 21^h to 22^h Double wave in Dec. (− 6′ to + 4′): sharp wave in H.F. (+ ·004): wave in V.F. (− ·0004).

7^d 0^h to 12^h Small fluctuations in Dec. and H.F., with waves, in Dec. 0^h to $1\frac{1}{2}^h$ (− 5′), 2^h to 3^h (− 5′): in H.F. $9\frac{1}{2}^h$ to 11^h (− ·0025). 20^h to 22^h Serrated wave in Dec. (− 14′): 21^h to 22^h Double wave in H.F. (+ ·0016 to − ·0012), followed by small fluctuations in Dec. and H.F.

8^d 0^h to 4^h Small fluctuations in Dec. 0^h to 2^h Wave in H.F. (+ ·002). 17^h to 19^h Two successive waves in Dec. (− 4′) and (− 6′). 17^h to 22^h Small fluctuations in H.F.

9^d $8\frac{1}{2}^h$ to 12^h Two successive waves in Dec (+ 4′) and (+ 7′). 13^h to $15\frac{1}{2}^h$ Double wave in H.F. (− ·0015 to + ·0012), followed by a wave (− ·0016) till 16^h, and by small fluctuations till 24^h.

9^d 22^h to 10^d 1^h Wave in Dec. (− 9′), with small superposed fluctuations.

10^d 2^h to 4^h Double wave in Dec. (− 4′ to + 3′): in H.F. small. $13\frac{1}{2}^h$ to 15^h Wave in Dec. (− 6′): in H.F. (− ·002). 18^h to $19\frac{1}{2}^h$ Wave in Dec. (− 6′): in H.F. (− ·0016), followed by small fluctuations till 24^h.

11^d 19^h to 24^h Fluctuations in Dec. (± 2′): in H.F. small.

12^d 0^h to 2^h Wave in Dec. (− 5′). 0^h to 1^h Double wave in H.F. (+ ·001 to − ·001). 20^h to 21^h Double wave in Dec. (+ 4′ to − 3′): small fluctuations in H.F.

13^d 6^h to $8\frac{1}{2}^h$ Shallow wave in Dec. (+ 5′): in H.F. (+ ·0012). 16^h to 20^h Wave in H.F. (− ·0025). 21^h to $23\frac{1}{2}^h$ Wave in Dec. (− 8′): in H.F. (− ·0015): in V.F. (− ·0005).

14^d $7\frac{1}{2}^h$ to 9^h Wave in Dec. (+ 3′): in H.F. (− ·0014). $11\frac{1}{2}^h$ to $13\frac{1}{2}^h$ Wave in H.F. (− ·0025). 13^h to 14^h Wave in Dec. (+ 4′). 14^h to 15^h Wave in H.F. (− ·001). $17\frac{1}{2}^h$ to 19^h Double-crested wave in Dec. (− 4′): wave in H.F. (− ·0016). 22^h to 23^h Wave in Dec. (− 6′): in H.F. (+ ·0017).

15^d 0^h to 9^h Small occasional fluctuations in Dec. and H.F. $21\frac{1}{2}^h$ to $23\frac{1}{2}^h$ Double-crested wave in H.F. (+ ·0024): small fluctuations in Dec.

16^d 15^h to $17\frac{1}{2}^h$ Small fluctuations in Dec.: wave in H.F. (− ·002). 21^h to 24^h Wave in H.F. (− ·0015).

1896.

January 17^{d} $0\frac{1}{2}^{h}$ to 2^{h} Sharp wave in Dec. (+ 12′): double wave in H.F. (− ·0016 to + ·0016): decrease of V.F. (− ·0008). $6\frac{1}{2}^{h}$ to $8\frac{1}{2}^{h}$ Wave in Dec. (+ 7′): in H.F. (− ·002), followed by small rapid fluctuations. $14\frac{1}{2}^{h}$ to 16^{h} Sharp wave in Dec. (− 20′): in H.F. (− ·0024), with superposed fluctuations: in V.F. (+ ·0007). $17\frac{1}{2}^{h}$ to 19^{h} Wave in H.F. (− ·002). 18^{h} to 20^{h} Wave in Dec. (− 10′).

18^{d} 0^{h} to $1\frac{1}{2}^{h}$ Sharp wave in Dec. (− 12′): in H.F. (− ·0024): in V.F. small. 17^{h} to 18^{h} Wave in Dec. (− 3′): in H.F. small. 19^{h} to 20^{h} Wave in Dec. (− 8′): double wave in H.F. (− ·0012 to + ·001).

19^{d} $2\frac{1}{2}^{h}$ to 4^{h} Wave in Dec. (− 8′), followed till 5^{h} by a small wave (− 3′). 8^{h} to $10\frac{1}{2}^{h}$ Shallow wave in H.F. (− ·002). $12\frac{1}{2}^{h}$ to 14^{h} Wave in H.F. (− ·004). $16\frac{1}{2}^{h}$ to $17\frac{1}{2}^{h}$ Wave in Dec. (− 10′): increase of H.F. (+ ·0025). 20^{h} to $22\frac{1}{2}^{h}$ Two successive waves in Dec. (− 9′) and (− 8′): irregular double wave in H.F. (− ·0015 to + ·0012). 12^{h} to 23^{h} Small fluctuations also in Dec., H.F. and V.F.

20^{d} 12^{h} to 15^{h} Fluctuations in Dec., H.F. and V.F. $15\frac{1}{2}^{h}$ to 17^{h} Wave in H.F. (− ·003). 16^{h} to 21^{h} Three successive waves in Dec. (− 6′), (− 7′) and (− 13′), the last steep at commencement. 20^{h} to 22^{h} Serrated wave in H.F. (+ ·002): in V.F. small.

21^{d} $16\frac{1}{2}^{h}$ to 18^{h} Small wave in Dec. (− 3′): in H.F. (− ·0014).

22^{d} 0^{h} to 4^{h} Fluctuations in Dec. and H.F. $16\frac{1}{2}^{h}$ to 18^{h} Wave in Dec. (− 9′). 22^{h} to 23^{h} Sharp wave in Dec. (− 14′), in H.F. (+ ·003).

23^{d} 20^{h} to 22^{h} Double-crested wave in Dec. (− 7′): small wave in H.F.

24^{d} 0^{h} to $1\frac{1}{2}^{h}$ Double wave in Dec. (+ 3′ to − 3′): in H.F. (+ ·001 to − ·001): decrease of V.F. (− ·0003).

25^{d} 16^{h} to 21^{h} Fluctuations in Dec., with wave $18\frac{1}{2}^{h}$ to 21^{h} (− 6′). 17^{h} to 21^{h} Long wave in H.F. (− ·002), with superposed fluctuations.

26^{d} $22\frac{1}{2}^{h}$ to 27^{d} 1^{h} Wave in Dec. (− 9′): in H.F. (− ·001), followed by small fluctuations in Dec. till 4^{h}. 18^{h} to 24^{h} Small fluctuations in Dec. and H.F.

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

29^{d} 20^{h} to 23^{h} Small fluctuations in Dec. and H.F. 23^{h} to 24^{h} Wave in H.F. (+ ·0016).

30^{d} 0^{h} to 1^{h} Wave in H.F. (− ·0014): 1^{h} to 7^{h} Three successive waves in Dec. (− 8′), (− 5′) and (− 6′). 1^{h} to $5\frac{1}{2}^{h}$ Long irregular wave in H.F. (− ·0025), with superposed fluctuations. 6^{h} to 17^{h} Small fluctuations in Dec., H.F. and V.F. $10\frac{1}{2}^{h}$ to $11\frac{1}{2}^{h}$ Wave in Dec. (− 6′). 13^{h} to $14\frac{1}{2}^{h}$ Wave in H.F. (− ·0025). $17\frac{1}{2}^{h}$ to 20^{h} Wave in Dec. (− 10′), with superposed fluctuations. $17\frac{1}{2}^{h}$ to $19\frac{1}{2}^{h}$ Wave in H.F. (− ·0035). $21\frac{1}{2}^{h}$ to 24^{h} Three successive waves in Dec. (− 6′), (− 5′) and (− 6′): in H.F. (− ·0014), (− ·0013) and (− ·0025).

30^{d} 23^{h} to 31^{d} 2^{h} Wave in V.F. (− ·0007).

31^{d} 0^{h} to 12^{h} Small fluctuations in Dec. and H.F.

31^{d} 12^{h} to February 1^{d} 12^{h}. See Plate II.

February 1^{d} 16^{h} to $18\frac{1}{2}^{h}$ Sharp wave in Dec. (− 15′), followed till 20^{h} by a double-crested wave (− 8′). 16^{h} to 20^{h} Two successive double waves in H.F. (− ·002 to + ·0015) and (− ·002 to + ·0016), followed by fluctuations till 22^{h}. 20^{h} to $21\frac{1}{2}^{h}$ Fluctuations in Dec., followed till 24^{h} by double-crested wave (− 6′). 21^{h} to 24^{h} Shallow wave in V.F. (− ·0004).

2^{d} $4\frac{1}{2}^{h}$ to 6^{h} Small wave in Dec. (− 5′). 7^{h} to 11^{h} Two successive waves in H.F. (− ·0014) and (− ·0025). $7\frac{1}{2}^{h}$ to 10^{h} Double wave in Dec. (+ 4′ to − 4′) 11^{h} to 24^{h} Frequent fluctuations in Dec. and H.F., with sharp wave 20^{h} to 21^{h} in Dec. (− 16′): in H.F. (+ ·005): small wave in V.F. 22^{h} to $23\frac{1}{2}^{h}$ Double-crested wave in Dec. (− 5′): in H.F. (− ·002).

3^{d} 0^{h} to 5^{h} Fluctuations in Dec. (± 2′): in H.F. (± ·001). 1^{h} to 2^{h} Double wave in H.F. (− ·001 to + ·001). 3^{h} to $5\frac{1}{2}^{h}$ Double wave in Dec. (− 5′ to + 5′). 12^{h} to 16^{h} Fluctuations in Dec. and H.F., with wave in Dec. 13^{h} to 14^{h} (+ 6′). 16^{h} to $17\frac{1}{2}^{h}$ Double-crested wave in H.F. (− ·002), followed by a serrated wave (− ·0025) till 20^{h}; by a double-crested wave (− ·0022) till $20\frac{1}{2}^{h}$; and by a long irregular wave (− ·003) till 4^{d} $0\frac{1}{2}^{h}$. $16\frac{1}{2}^{h}$ to $19\frac{1}{2}^{h}$ Wave in Dec. (− 18′), followed till 21^{h} by a double wave (+ 6′ to − 7′). Small fluctuations throughout in V.F.

4^{d} 0^{h} to 12^{h} Fluctuations in Dec. (± 2′): in H.F. (± ·001); with wave in Dec. 0^{h} to 1^{h} (+ 8′), and double wave in H.F. till 2^{h} (+ ·0016 to − ·0016). 0^{h} to 1^{h} Decrease of V.F. (− ·0008).

4^{d} 12^{h} to 5^{d} 12^{h}. See Plate II.

1896.

February 5^{d} 12^{h} to 14^{h} Small fluctuations in Dec. and H.F. 15^{h} to 16^{h} Wave in Dec. (− 10′) : in H.F. (− ·003) : in V.F. small. 22^{h} to 23^{h} Double wave in H.F. (− ·0015 to + ·0025) : in Dec. and V.F. small.

6^{d} $1\frac{1}{2}^{d}$ to $2\frac{1}{2}^{h}$ Wave in Dec. (− 3′) : small in H.F. 19^{h} to 21^{h} Shallow wave in Dec. (− 6′), followed by fluctuations in Dec. and H.F.

8^{d} 0^{h} to 6^{h} Small occasional fluctuations in Dec. and H.F. $16\frac{1}{2}^{h}$ to $18\frac{1}{2}^{h}$ Wave in Dec. (− 11′) : in H.F. (− ·0026) : in V.F. (+ ·0003), followed by fluctuations in Dec. and H.F. 20^{h} to 22^{h} Wave in Dec. (− 6′).

9^{d} 0^{h} to 5^{h} Fluctuations in Dec. (± 3′). 2^{h} to 4^{h} Wave in H.F. (+ ·002). 13^{h} to 15^{h} Wave in Dec. (+ 5′). $18\frac{1}{2}^{h}$ to 20^{h} Shallow wave in Dec. (− 4′). 22^{h} to 24^{h} Wave in H.F. (+ ·0035). $22\frac{1}{2}^{h}$ to $23\frac{1}{2}^{h}$ Small wave in Dec. (− 4′).

10^{d} 0^{h} to $2\frac{1}{2}^{h}$ Double-crested wave in Dec. (− 6′) : small fluctuations in H.F. $21\frac{1}{2}^{h}$ to 23^{h} Double wave in H.F. (− ·001 to + ·0012).

10^{d} 22^{h} to 11^{d} 2^{h} Long wave in Dec. (− 10′), steep at commencement.

11^{d} 2^{h} to 4^{h} Small wave in Dec. (− 4′). 20^{h} to 24^{h} Small fluctuations in Dec. and H.F., with wave in H.F. 23^{h} to 24^{h} (+ ·002). 11^{d} 23^{h} to 12^{d} 1^{h} Double wave in Dec. (− 5′ to + 3′).

12^{d} 12^{h} to 24^{h} Fluctuations in Dec. (± 3′) : in H.F. (± ·001).

13^{d} 0^{h} to $1\frac{1}{2}$ Wave in Dec. (− 6′) : in H.F. (+ ·0012). 12^{h} to 18^{h} Small fluctuations in Dec. and H.F. $18\frac{1}{2}^{h}$ to $20\frac{1}{2}^{h}$ Wave in Dec. (− 9′). 21^{h} to 24^{h} Sharp wave in Dec. (− 23′) : double wave in H.F. (− ·0025 to + ·002).

14^{d} 12^{h} to 15^{h} Small fluctuations in Dec. and H.F., with long double-crested wave in H.F. (− ·003). 15^{h} to 17^{h} Wave in Dec. (+ 10′) : in H.F. (− ·004). 17^{h} to 19^{h} Double wave in H.F. (− ·002 to + ·002). $17\frac{3}{4}^{h}$ Decrease of Dec. (− 8′). $18\frac{1}{2}^{h}$ to 20^{h} Two successive waves in Dec. (− 7′) and (− 4′). 14^{h} to 20^{h} Long shallow wave in V.F. (+ ·0006). 20^{h} to 21^{h} Double wave in H.F. (− ·0014 to + ·0012) : wave in Dec. (− 8′), followed by fluctuations in Dec., H.F. and V.F. till 24^{h}.

15^{d} 0^{h} to 1^{h} Double wave in H.F. (− ·0012 to + ·001). 12^{h} to 16^{h} Small fluctuations in Dec. $12\frac{1}{2}^{h}$ to $13\frac{1}{2}^{h}$ Wave in H.F. (− ·002), followed by fluctuations till 16^{h}. 16^{h} to 17^{h} Wave in Dec. (− 6′). 19^{h} to 20^{h} Wave in Dec. (− 9′) : in H.F. (+ ·0016), followed by small fluctuations. $22\frac{1}{2}^{h}$ to 24^{h} Wave in Dec. (− 4′). Small fluctuations also in V.F.

16^{d} 0^{h} to 2^{h} Shallow wave in Dec. (− 4′).

17^{d} 0^{h} to 8^{h} Fluctuations in Dec. (± 2′) : in H.F. (± ·001) : in V.F. small. $13\frac{1}{2}^{h}$ to 17^{h} Shallow double wave in H.F. (+ ·0012 to − ·0014).

18^{d} 15^{h} to 24^{h} Occasional small fluctuations in Dec. and H.F.

19^{d} 0^{h} to 6^{h} Fluctuations in Dec. (± 3′), with waves. $1\frac{1}{2}^{h}$ to $2\frac{1}{2}^{h}$ (+ 4′), and 4^{h} to $5\frac{1}{2}^{h}$ (+ 4′). 9^{h} to $11\frac{1}{2}^{h}$ Wave in H.F. (− ·0025) : in Dec. small. 21^{h} to $22\frac{1}{2}^{h}$ Wave in Dec. (− 4′) : in H.F. small.

21^{d} $20\frac{1}{2}^{h}$ to 22^{d} 2^{h} Three successive waves in Dec. (− 4′), (− 5′) and (− 8′), the last double-crested : fluctuations in H.F.

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

23^{d} 16^{h} to 17^{h} Wave in Dec. (− 4′) : 20^{h} to 21^{h} Wave in Dec. (− 4′) : small fluctuations in H.F.

24^{d} 22^{h} to 24^{h} Double wave in Dec. (− 4′ to + 3′) : two successive waves in H.F. (+ ·001) and (+ ·0012).

25^{d} 18^{h} to 26^{d} 12^{h} Loss of V.F. register. 25^{d} 21^{h} to $22\frac{1}{2}^{h}$ Wave in Dec. (− 9′) : in H.F. (+ ·0014).

26^{d} $0\frac{1}{2}^{h}$ to 2^{h} Wave in H.F. (+ ·0014) : in Dec. small. $3\frac{1}{2}^{h}$ to 6^{h} Double wave in Dec. (+ 4′ to − 3′) : in H.F. small. 12^{h} to 24^{h} Small fluctuations in Dec. and H.F. $19\frac{1}{2}^{h}$ to $20\frac{1}{2}^{h}$ Decrease of H.F. (− ·0025).

27^{d} 0^{h} to 2^{h} Flat-crested wave in Dec. (− 10′) : decrease of H.F. (− ·002), and of V.F. (− ·0008). 4^{h} to 5^{h} Wave in Dec. (+ 5′). $8\frac{1}{2}^{h}$ to $12\frac{1}{2}^{h}$ Two successive waves in H.F. (− ·0025) and (− ·0016). $10\frac{1}{2}^{h}$ to $11\frac{1}{2}^{h}$ Wave in Dec. (+ 5′). 12^{h} to $13\frac{1}{2}^{h}$ Wave in Dec. (+ 5′). 16^{h} to 17^{h} Wave in Dec. (− 5′) : in H.F. (− ·002). 20^{h} to 24^{h} Fluctuations in Dec. (± 3′). 21^{h} to 22^{h} Decrease of H.F. (− ·0035).

28^{d} 0^{h} to 29^{d} 0^{h}. See Plate II.

29^{d} 0^{h} to Mar. 1^{d} 0^{h}. See Plate III.

March 1^{d} 0^{h} to 3^{h} Fluctuations in Dec. (± 2′). 0^{h} to $1\frac{1}{2}^{h}$ Wave in H.F. (+ ·0025). $3\frac{1}{2}^{h}$ to $5\frac{1}{2}^{h}$ Double wave in Dec. (−4′ to + 3′). 20^{h} to $21\frac{1}{2}^{h}$ Two successive waves in Dec. (− 6′) and (− 4′). 20^{h} to 21^{h} Sharp wave in H.F. (+ ·0016).

2^{d} $2\frac{1}{2}^{h}$ to $3\frac{1}{2}^{h}$ Wave in Dec. (+ 7′) : in H.F. (+ ·0012) : in V.F. (− ·0004). 12^{h} to 21^{h} Small fluctuations in Dec. and H.F., with wave in Dec. 20^{h} to 21^{h} (− 5′). 23^{h} to $23\frac{1}{2}^{h}$ Decrease of Dec. (−4′).

1896.

March 3^d 14^h to 15^h Wave in H.F. (− ·0012). 18^h to 19^h Wave in Dec. (− 4′).

3^d $20\frac{1}{2}^h$ to 4^d 1^h Three successive waves in Dec. (− 5′), (− 8′) and (− 8′). 3^d 21^h to 22^h Wave in H.F. (+ ·0016), followed by fluctuations : small wave in V.F.

4^d 1^h to 3^h Fluctuations in Dec. (± 3′). 1^h to $2\frac{1}{2}^h$ Wave in H.F. (+ ·003) : in V.F. (− ·0004).

4^d 6^h to 5^d 6^h. See Plate III.

5^d 18^h to 20^h Wave in Dec. (− 12′) : double wave in H.F. (− ·0016 to + ·0014).

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

6^d $23\frac{1}{2}^h$ to 7^d $4\frac{1}{2}^h$ Three successive waves in Dec. (− 8′), (− 9′) and (− 12′).

7^d 0^h to $1\frac{1}{2}^h$ Double wave in H.F. (+ ·001 to − ·001), followed by a wave (− ·002) till 3^h. 0^h to 7^h Long wave in V.F. (− ·0015), with superposed fluctuations. 3^h to 4^h Decrease of H.F. (− ·0025), followed by small fluctuations. $4\frac{1}{2}^h$ to 5^h Decrease of Dec. (− 5′), followed by fluctuations till 10^h. 8^h to 9^h Wave in H.F. (− ·002). $15\frac{1}{2}^h$ to 17^h Wave in H.F. (− ·002). 19^h to $20\frac{1}{2}^h$ Wave in Dec. (− 12′), followed till 22^h by two successive waves (− 3′) and (− 3′). $19\frac{1}{2}^h$ to 21^h Wave in H.F. (+ ·003). 22^h to 24^h Wave in Dec. (− 10′) : in H.F. (− ·0015) : in V.F. small.

8^d $1\frac{1}{2}^h$ to 3^h Wave in Dec. (+ 7′). 2^h to $2\frac{1}{2}^h$ Decrease of V.F. (− ·0004).

9^d 0^h to 3^h Small fluctuations in Dec. and H.F. 18^h to 20^h Wave in Dec. (− 5′) : small fluctuations in H.F. 21^h to 23^h Double wave in Dec. (+ 4′ to − 5′) : in V.F. small.

10^d 21^h to 24^h Small fluctuations in Dec. and H.F.

12^d 2^h to 7^h Two successive waves in Dec. (− 6′) and (− 10′), followed till $10\frac{1}{2}^h$ by a shallow wave (− 6′), with rapid superposed fluctuations. 2^h to 4^h Fluctuations in H.F. (± ·001). 4^h to 6^h Wave in V.F. (− ·0005). 5^h to $7\frac{1}{2}^h$ Two successive waves in H.F. (− ·0015) and (− ·001), followed till 10^h by rapid fluctuations. 13^h to 16^h Small rapid fluctuations in Dec. and H.F., with wave in H.F. 14^h to $15\frac{1}{2}^h$ (− ·002), followed till 17^h by two successive sharp waves (− ·0034) and (− ·0024). $15\frac{1}{2}^h$ to $16\frac{1}{2}^h$ Double wave in Dec. (+ 4′ to − 14′), followed by wave (− 7′) till 17^h. 14^h to 19^h Wave in V.F. (+ ·0017).

13^d 14^h to 15^h Small wave in Dec. (+ 3′) : double wave in H.F. (+ ·0012 to − ·001). 13^d 21^h to 14^d 2^h Long wave in Dec. (− 21′) : in V.F. (− ·0005). 13^d 21^h to 23^h Double-crested wave in H.F. (+ ·002). 23^h to $23\frac{1}{2}^h$ Decrease of H.F. (− ·0015), followed by fluctuations till 14^d 3^h.

14^d 2^h to $3\frac{1}{2}^h$ Wave in Dec. (+ 5′). 8^h to 10^h Wave in H.F. (− ·0015). 15^h to 17^h Wave in Dec. (− 7′) : in H.F. (− ·002) : in V.F. small. 18^h to 23^h Small fluctuations in Dec. and H.F., with wave in Dec. $19\frac{1}{2}^h$ to $20\frac{1}{2}^h$ (− 4′).

14^d $23\frac{1}{2}^h$ to 15^d 2^h Two successive waves in H.F. (+ ·0015) and (+ ·002). 15^d 0^h to 1^h Wave in Dec. (− 8′). 0^h to 3^h Shallow double-crested wave in V.F. (− ·0006). 2^h to 12^h Very small rapid fluctuations in Dec. and H.F. $13\frac{1}{2}^h$ to $14\frac{1}{2}^h$ Wave in Dec. (−4′) : in H.F. (− ·001). 16^h to 20^h Occasional fluctuations in Dec. and H.F.

20^d 12^h to 22^h Small fluctuations in Dec. and H.F., with wave in H.F. $17\frac{1}{2}^h$ to $19\frac{1}{2}^h$ (−·002).

22^d 1^h to $2\frac{1}{2}^h$ Wave in Dec. (+5′) : in H.F. (+ ·0015) : in V.F. small. $12\frac{1}{2}^h$ to $13\frac{1}{2}^h$ Wave in Dec. (+3′) : in H.F. small, followed by fluctuations in both elements till 21^h.

23^d 0^h to 1^h Wave in Dec. (+ 8′) : in H.F. (+ ·0028) : in V.F. (− ·0005). 1^h to $2\frac{1}{2}^h$ Small wave in Dec. (+ 3′).

24^d $22\frac{1}{2}^h$ to 25^d $0\frac{1}{2}^h$ Wave in Dec. (+3′) : in H.F. (+ ·001). Decrease of V.F. (− ·0004). 25^d $15\frac{1}{2}^h$ to $16\frac{1}{2}^h$ Wave in Dec. (− 4′) : in H.F. (+ ·0012). 17^h to 19^h Small fluctuations in H.F. $19\frac{1}{2}^h$ to 21^h Double-crested wave in Dec. (− 7′) : two successive waves in H.F. (+ ·0012) and (+ ·001). $21\frac{1}{2}^h$ to $22\frac{1}{2}^h$ Double wave in Dec. (− 3′ to + 3′), followed by double-crested wave (− 5′) till 24^h : fluctuations in H.F.

26^d 1^h to $3\frac{1}{2}^h$ Two successive double waves in Dec. (+ 3′ to − 3′) and (− 4′ to + 3′) : double wave in H.F. (+ ·001 to − ·001) : $1\frac{1}{2}^h$ to 2^h and $3\frac{1}{2}^h$ to 4^h decrease of V.F. (− ·0004) and (− ·0004), followed by small fluctuations till 9^h in all elements. 9^h to 11^h Wave in H.F. (− ·0018).

26^d 12^h to 27^d 12^h See Plate III.

27^d 13^h to 15^h Wave in Dec. (+ 5′). 14^h to $15\frac{1}{2}^h$ Wave in H.F. (− ·002). $17\frac{1}{2}^h$ to 19^h Double-crested wave in Dec. (− 9′) : double wave in H.F. (− ·0022 to + ·0024) : small wave in V.F. 19^h to 22^h Fluctuations in Dec. and H.F., with wave in H.F. $19\frac{1}{2}^h$ to 21^h (− ·002).

27^d $22\frac{1}{2}^h$ to 28^d 2^h Double wave in Dec. (+ 9′ to − 10′). 27^d $22\frac{1}{2}^h$ to 28^d $0\frac{1}{2}^h$ Double wave in H.F. (+ ·003 to − ·0016), followed till 2^h by wave (− ·0016) : shallow wave in V.F. (− ·0007). 28^d $3\frac{1}{2}^h$ to 5^h Double wave in Dec. (− 4′ to + 3′) : wave in H.F. (− ·0014) : in V.F. small. 5^h to 12^h Small rapid fluctuations in Dec. and H.F. 12^h to 13^h Wave in Dec. (− 4′) : double wave in H.F. (− ·001 to + ·001). 16^h to 18^h Wave in Dec. (− 10′). $16\frac{1}{2}^h$ to 17^h Sharp double wave in H.F. (− ·002 to + ·0017). $17\frac{1}{2}^h$ to $19\frac{1}{2}^h$ Two successive waves in H.F. (+ ·001) and (+ ·0035). $18\frac{1}{2}^h$ to 20^h Sharp double wave in Dec. (− 10′ to + 5′). 22^h to $23\frac{1}{2}^h$ Wave in H.F. (− ·002). $22\frac{1}{2}^h$ to 24^h Wave in Dec. (+ 6′). Small fluctuations throughout in V.F.

1896.

March 29d 0h to 1h Wave in H.F. (− ·0014). 1h to 2½h Double wave in Dec. (+ 3′ to − 6′): small wave in V.F. 13h to 16h Small rapid fluctuations in Dec., H.F. and V.F. 17½h to 18h Wave in Dec. (− 6′). in H.F. (+ ·0015). 19½h to 21h Wave in H.F. (+ ·0016): in Dec. small.

30d 0h to 3h Double wave in Dec. (+ 4′ to − 4′).

31d 12h to 18h Small fluctuations in Dec. and H.F. 18½h to 20½h Wave in Dec. (− 10′): in H.F. (− ·002). 21½h to 22½h Wave in Dec. (+ 4′). 22h to 24h Two successive waves in H.F. (+ ·0016) and (+ ·002). 22½h to 23½h Double wave in Dec. (+ 5′ to − 7′).

April 1d 0h to 11h Small fluctuations in Dec. and H.F. 12h to 16h Loss of Dec. register. 22½h to 23½h Wave in Dec. (+ 4′): shallow wave in H.F. (+ ·001).

2d 6h to 12h Loss of Dec. and H.F. registers. 2d 23½h to 3d 0½h Wave in H.F. (+ ·001).

3d 0h to 2h Wave in Dec. (− 7′). 11h to 17h Occasional fluctuations in Dec. and H.F. 17½h to 19h Shallow wave in H.F. (− ·0012). 20h to 21h Sharp wave in Dec. (− 8′): in H.F. (+ ·0018). 22h to 24h Wave in Dec. (− 6′): in H.F. (− ·0012).

4d 2½h to 4h Wave in Dec. (+ 5′). 3h to 4½h Wave in H.F. (+ ·0025). 3h to 7h Long wave in V.F. (− ·001). 4h to 6h Double wave in Dec. (+ 3′ to − 5′). 15h to 16h Small double wave in H.F. 18½h to 21h Wave in Dec. (− 10′): double wave in H.F. (− ·001 to + ·001). 21h to 24h Small fluctuations in Dec. and H.F.

5d 2h to 4h Wave in Dec. (+ 4′): in H.F. (+ ·001). 5h to 6h Wave in Dec. (+ 6′), followed by small fluctuations in Dec. and H.F. till 15h. 15h Decrease of Dec. (− 4′): increase of H.F. (+ ·002). 15h to 16½h Wave in V.F. (+ ·0004).

8d 7h to 11h Small fluctuations in Dec. and H.F. 15½h to 17h Wave in H.F. (− ·0018): in Dec. small.

9d 2½h to 3½h Wave in Dec. (+ 3′), followed by small fluctuations in Dec. and H.F. till 14h. 20½h to 22h Wave in Dec. (− 5′).

10d 0h to 6h Occasional fluctuations in Dec. and H.F. 17½h to 20h Double wave in H.F. (+ ·0012 to − ·0018). 18h to 22h Two successive waves in Dec. (− 5′) and (− 8′). 23h to 23½h Wave in Dec. (+ 5′). 18h to 21h Shallow wave in V.F. (+ ·0003). 21h to 23½h Serrated wave in H.F. (− ·0015). 23h to 24h Decrease of V.F. (− ·0003).

11d 0½h to 2h Double-crested wave in Dec. (+ 7′). 3h to 4½h Wave in Dec. (+ 5′): in H.F. small.

12d 0h to 1½h Wave in Dec. (+ 4′). 0h to 2h Wave in H.F. (+ ·0016). 2h to 3½h Shallow wave in Dec. (− 3′): 4h to 6h Wave in H.F. (− ·0012).

13d 0h to 1h Two successive waves in Dec. (+ 3′) and (+ 3′): in H.F. (+ ·001) and (+ ·001).

15d 0h to 4h Small fluctuations in Dec. and H.F., with wave in Dec. 1½h to 3h (− 3′). 20h to 22h Shallow wave in Dec. (+ 4′).

17d 10h to 17h Small rapid fluctuations in H.F.

18d 2h to 12h Small fluctuations in Dec. and H.F. 12h to 14h Wave in H.F. (− ·002).

19d 2h to 4h Small wave in Dec. (+ 3′) 14h to 16h Double wave in H.F. (+ ·001 to − ·001).

21d 2h to 4h Serrated wave in Dec. (+ 5′): in H.F. (− ·0012). 12h to 17h Small rapid fluctuations in H.F., with wave 15h to 16h (+ ·002). 13½h to 15h Wave in Dec. (+ 4′). 17h to 18h Wave in H.F. (− ·0015): decrease of Dec. (− 7′). 19½h to 20h Decrease of Dec. (− 14′), followed by a double wave till 21½h (− 5′ to + 4′). 20h to 21h Sharp wave in H.F. (+ ·0025), followed by double-crested wave (− ·0015) till 22½h. Small fluctuations in V.F.

21d 23½h to 22d 1½h Sharp double-crested wave in Dec. (+ 14′): wave in H.F. (− ·0015). 0h to 1h Decrease of V.F. (− ·001). 3h to 12h Small rapid fluctuations in Dec. and H.F. with wave in H.F. 3h to 5h (− ·002). 15h to 24h Fluctuations in Dec. (± 2′): in H.F. (± ·001), with wave 17h to 18h in Dec. (− 5′). 18½h to 19h Double wave in Dec. (− 6′ to + 3′): sharp wave in H.F. (+ ·003): slight decrease of V.F. 21h to 23h Double wave in Dec. (− 5′ to + 14′). 21h to 22h Wave in H.F. (+ ·003): decrease of V.F. (− ·0007). 23h to 24h Small double wave in Dec.

23d 1h to 4h Two successive waves in Dec. (+ 4′) and (+ 5′). 2½h to 4½h Double wave in H.F. (− ·001 to + ·0018). 2½h to 6h Wave in V.F. (− ·001). 5h to 10h Small rapid fluctuations in Dec. and H.F. 14h to 19h Five successive waves in H.F. (− ·0016), (− ·0012), (− ·001), (− ·0015) and (− ·0016). 18h to 20h Wave in Dec. (− 9′). 21½h to 22½h and 23h to 24h Waves in H.F. (+ ·0012) and (+ ·0015): in Dec. small.

1896.

April 24^d 3^h to 4^h Wave in Dec. (+ 4′) : in H.F. (− ·0014) : small fluctuations in Dec., H.F. and V.F. till 15^h. 16^h to 18^h Two successive waves in H.F. (− ·002) and (− ·003). $18\frac{1}{2}^h$ to 21^h Serrated wave in Dec. (− 11′). 22^h to 23^h Two successive waves in Dec. (+ 9′) and (+ 6′), followed till 25^d 1^h by wave (− 9′). $22\frac{1}{2}^h$ to $23\frac{1}{2}^h$ Wave in H.F. (+ ·0035).

25^d $2\frac{1}{2}^h$ to 5^h Shallow wave in H.F. (− ·0015). $5\frac{1}{2}^h$ to $7\frac{1}{2}^h$ Wave in H.F. (− ·0015), followed by small rapid fluctuations in Dec. and H.F. till 15^h. $18\frac{1}{2}^h$ to $19\frac{1}{2}^h$ Sharp wave in Dec. (− 9′) : in H.F. (+ ·0036) : in V.F. small. $20\frac{1}{2}^h$ to 23^h Wave in Dec. (− 7′) : two successive waves in H.F. (+ ·0015) and (+ ·002).

26^d 0^h to $2\frac{1}{2}^h$ Double wave in Dec. (− 4′ to + 7′). 0^h to $1\frac{1}{2}^h$ Wave in H.F. (+ ·0012). 3^h to 4^h Wave in Dec. (+ 4′). 13^h to 19^h Small fluctuations in H.F. $19\frac{1}{2}^h$ to 21^h Wave in Dec. (− 6′) : in H.F. (− ·0012).

27^d 19^h to $20\frac{1}{2}^h$ Wave in Dec. (− 7′) : double wave in H.F. (− ·001 to + ·0012).

28^d 0^h to 1^h Wave in Dec. (+ 5′). 2^h to $3\frac{1}{2}^h$ Wave in H.F. (− ·0012) ; and 5^h to 7^h (− ·0016). $20\frac{1}{2}^h$ to $21\frac{1}{2}^h$ Wave in Dec. (− 5′). 21^h to 22^h Wave in H.F. (+ ·001).

29^d 0^h to 6^h Small fluctuations in Dec. and H.F. 8^h to $9\frac{1}{2}^h$ Wave in H.F. (− ·0012). 21^h to $22\frac{1}{2}^h$ Small wave in Dec. and H.F.

May 1^d 17^h to 22^h Small fluctuations in H.F. 20^h to 22^h Wave in Dec. (− 6′).

2^d 12^h to 4^d 12^h. See Plate IV.

7^d 1^h to 14^h Small fluctuations in Dec. and H.F.

10^d $3\frac{1}{2}^h$ to 5^h Wave in Dec. (+ 4′). 18^h to $19\frac{1}{2}^h$ Wave in H.F. (− ·0012).

11^d 14^h to 16^h Double wave in H.F. (− ·0012 to + ·0014). 17^h to 18^h Wave in Dec. (− 4′) : in H.F. (− ·0012). $18\frac{1}{2}^h$ to $19\frac{1}{2}^h$ Wave in H.F. (− ·0012), followed by small fluctuations.

12^d 4^h to 6^h Wave in H.F. (− ·0016). 5^h to $6\frac{1}{2}^h$ Wave in Dec. (+ 4′). $13\frac{1}{2}^h$ to 15^h Wave in H.F. (− ·002). $16\frac{1}{2}^h$ to $18\frac{1}{2}^h$ Two successive waves in H.F. (+ ·002) and (+ ·0025). $17\frac{1}{2}^h$ to $18\frac{1}{2}^h$ Wave in Dec. (− 6′). 20^h to 21^h Two sharp waves in Dec. (− 4′) and (− 4′) : wave in H.F. (+ ·0024).

13^d $0\frac{1}{2}^h$ to $1\frac{1}{2}^h$ Wave in Dec. (+ 4′). 14^h to 19^h Small fluctuations in H.F.

14^d 5^h to 12^h Loss of Dec. and H.F. registers. 17^h to $18\frac{1}{2}^h$ Wave in H.F. (− ·0014).

15^d 0^h to 1^h Wave in Dec. (− 4′) : in H.F. small. 2^h to 7^h Fluctuations in Dec. (± 2′). 6^h Decrease of H.F. (− ·001). $17\frac{1}{2}^h$ to 18^h Decrease of H.F. (− ·001). 20^h to 22^h Small fluctuations in H.F. 22^h to 24^h Double wave in H.F. (− ·001 to + ·001).

15^d 23^h to 16^d 1^h Wave in Dec. (+ 4′). 16^d 3^h to 4^h Wave in H.F. (− ·0012). $3\frac{1}{2}^h$ to 5^h Wave in Dec. (+ 5′). $19\frac{1}{2}^h$ to 21^h Wave in H.F. (+ ·002). $20\frac{1}{2}^h$ to 22^h Wave in Dec. (− 4′).

17^d 0^h to $0\frac{1}{2}^h$ Decrease of H.F. (− ·0012). 2^h to 3^h Wave in H.F. (− ·0012).

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

18^d 12^h to 21^h Fluctuations in H.F., with three successive waves 17^h to 20^h (− ·0012), (− ·0016) and (− ·0012). 20^h to 21^h Wave in Dec. (− 3′).

18^d $23\frac{1}{2}^h$ to 19^d $0\frac{1}{2}^h$ Wave in Dec. (+ 5′) : in H.F. (+ ·0016) : in V.F. small. $3\frac{1}{2}^h$ to 5^h Wave in H.F. (+ ·0016). 5^h to 10^h Small fluctuations in Dec. and H.F., with wave in H.F. 8^h to 10^h (− ·002). $16\frac{1}{2}^h$ to 17^h Wave in H.F. (− ·0012). 19^h to $20\frac{1}{2}^h$ Shallow wave in Dec. (− 3′). $22\frac{1}{2}^h$ to $23\frac{1}{2}^h$ Wave in Dec. (+ 4′) : in H.F. (− ·0012).

20^d 0^h to 2^h Shallow wave in Dec. (− 4′). 7^h to 8^h Wave in Dec. (− 4′) : in H.F. (− ·0012). $9\frac{1}{2}^h$ to 12^h Wave in H.F. (− ·0034). $10\frac{1}{2}^h$ to $11\frac{1}{2}^h$ Wave in Dec. (+ 5′). 13^h to $14\frac{1}{2}^h$ Wave in H.F. (− ·0018), followed till 17^h by two successive double-crested waves (− ·002) and (− ·0016). 18^h to $19\frac{1}{2}^h$ Wave in H.F. (− ·0016). $19\frac{1}{2}^h$ to $21\frac{1}{2}^h$ Two successive sharp waves in Dec. (− 13′) and (− 8′) : in H.F. (− ·0024) and (− ·002), followed by fluctuations in Dec. and H.F. till midnight. $20\frac{1}{2}^h$ Slight decrease of V.F.

21^d 1^h to 3^h Double wave in Dec. (+ 4′ to − 4′) : in H.F. (+ ·0016 to − ·001) : wave in V.F. (− ·0005). 14^h to 15^h Wave in H.F. (− ·002). $20\frac{1}{2}^h$ to $21\frac{1}{2}^h$ Wave in H.F. (− ·0014) : in Dec. small.

21^d $21\frac{1}{2}^h$ to 22^d 1^h Double wave in Dec. (− 4′ to + 4′). $22\frac{1}{2}^h$ to 24^h Wave in H.F. (− ·0016) 22^d 0^h and 3^h Slight decrease of V.F. $3\frac{1}{2}^h$ to 6^h Double wave in H.F. (− ·001 to + ·001). $6\frac{1}{2}^h$ to 8^h Wave in Dec. (+ 5′). $18\frac{1}{2}^h$ to $19\frac{1}{2}^h$ Wave in Dec. (− 7′) : in H.F. (+ ·0018). 20^h to $20\frac{1}{2}^h$ Small wave in Dec. (+ 3′) : small double wave in H.F. (+ ·0008 to − ·001).

23^d 7^h to 14^h Small fluctuations in Dec. and H.F. 15^h to 17^h Two successive waves in H.F. (− ·0014) and (− ·002). 20^h to 22^h Three successive waves in Dec. (− 5′), (− 3′) and (− 4′). 20^h to $21\frac{1}{2}^h$ Wave in H.F. (+ ·0026).

1896.

May 24d 0h to 4h Long wave in Dec. (− 6′). $3\frac{1}{2}$h to 4h Decrease of V.F. (− ·0003), and small wave in H.F. 14h to 15h Wave in H.F. (− ·0018), followed by small fluctuations till 19h. $20\frac{1}{2}$h to 21h Small wave in H.F. (− ·001). $20\frac{1}{2}$h to $21\frac{1}{2}$h Wave in Dec. (+ 4′).

25d 0h to 5h Two successive waves in Dec. (+ 4′) and (+ 5′). $11\frac{1}{2}$h to $12\frac{1}{2}$h Wave in H.F. (− ·0012) $19\frac{1}{2}$h to 20h Wave in Dec. (− 4′): in H.F. (+ ·0014).

29d 18h to 23h Small fluctuations in H.F.

30d 19h to 24h Occasional small fluctuations in Dec. and H.F.

31d 2h to 4h Wave in Dec. (+ 4′).

June 2d 21h to 22h Decrease of Dec. (− 3′): of H.F. (− ·001).

3d 16h to 17h Wave in H.F. (+ ·001). 21h to 24h Small fluctuations in Dec. and H.F., with two successive waves in Dec. 22h to 24h (− 3′) and (− 3′).

5d 1h to 2h Wave in Dec. (+ 3′).

6d 10h to 18h Loss of register in Dec., H.F. and V.F.

8d $2\frac{1}{2}$h to $4\frac{1}{2}$h Wave in Dec. (− 5′). $19\frac{1}{2}$h to $19\frac{3}{4}$h Very sharp wave in H.F. (+ ·0018). $20\frac{1}{2}$h to $21\frac{1}{2}$h Double wave in H.F. (+ ·001 to − ·001), followed by fluctuations in Dec. and H.F. till 24h.

8d $23\frac{1}{2}$h to 9d 2h Double wave in H.F. (− ·002 to + ·001). 9d 0h to 1h Decrease of Dec. (− 5′): small wave in V.F. 13h to 15h Double wave in H.F. (− ·002 to + ·002), followed by rapid fluctuations till 18h. $14\frac{1}{2}$h Decrease of Dec. (− 6′). $15\frac{1}{2}$h to 16h Wave in Dec. (− 5′). $18\frac{1}{2}$h to 20h Double wave in H.F. (+ ·0018 to − ·0014), followed by fluctuations till 23h. 19h to 21h Wave in Dec (− 7′). $21\frac{1}{2}$h to 23h Sharp wave in Dec. (− 13′): small fluctuations in V.F.

10d 1h to $2\frac{1}{2}$h Wave in Dec. (+ 4′). 6h to 8h Wave in Dec. (+ 4′). 15h to 17h Fluctuations in H.F. (± ·001).

12d $15\frac{1}{2}$h to 17h Wave in H.F. (− ·0012).

13d $16\frac{1}{2}$h to $17\frac{1}{2}$h Wave in H.F. (− 001).

14d 2h to $3\frac{1}{2}$h Wave in Dec. (+ 5′). 14h to 15h Fluctuations in H.F. $15\frac{1}{2}$h to 18h Two successive sharp waves in H.F. (+ ·0034) and (+ ·0065): small double wave in V.F. (− ·0003 to + ·0004), followed by an increase (+ ·0004). $16\frac{1}{2}$h to $17\frac{1}{2}$h Wave in Dec. (− 4′). $17\frac{1}{2}$h to $18\frac{1}{2}$h Sharp decrease of Dec. (− 18′), followed by a small wave (+ 5′). 18h to $23\frac{1}{2}$h Fluctuations in H.F. (± ·001): small fluctuations in Dec.

15d 2h to 3h Wave in Dec. (+ 3′): in H.F. (+ ·001).

16d 9h to 24h Rapid fluctuations in Dec., H.F. and V.F. $9\frac{1}{2}$h to $10\frac{1}{2}$h Wave in H.F. (− ·0016). 12h to $13\frac{1}{2}$h Double wave in H.F. (− ·0016 to + ·003), followed till $14\frac{1}{2}$h by sharp serrated wave in H.F. (+ ·0034), and by fluctuations till 18h. $14\frac{1}{2}$h to $15\frac{1}{2}$h Wave in Dec. (− 6′). 18h to $19\frac{1}{2}$h Two successive waves in Dec. (− 8′) and (− 5′): wave in H.F. (+ ·0026). 20h to 21h Sharp wave in H.F. (+ ·0018): in Dec. small. 16d 22h to 17d $0\frac{1}{2}$h Long wave in Dec. (− 14′), sharp at commencement. 16d $22\frac{1}{2}$h to 17d 1h Long wave in H.F. (− ·0016).

17d $14\frac{1}{2}$h to $15\frac{1}{2}$h Double-crested wave in H.F. (− ·0016), followed till 16h by a wave (− ·0012). 17h to 18h Wave in Dec. (− 4′): in H.F. (+ ·0016). 21h to 24h Small fluctuations in Dec. 23h to 24h Wave in H.F. (+ ·001).

18d 2h to 4h Shallow wave in Dec. (+ 4′). 3h to 4h Decrease of H.F. (− ·001). 12h to 20h Occasional small fluctuations in H.F. $20\frac{1}{2}$h to 22h Wave in H.F. (+ ·002): small double wave in Dec.

19d $23\frac{1}{2}$h to 20d $0\frac{1}{2}$h Small wave in Dec. (+ 3′).

21d 16h to 24h Occasional small fluctuations in H.F.

26d 15h to $15\frac{1}{2}$h Increase of H.F. (+ ·0018). $17\frac{1}{2}$h to $18\frac{1}{2}$h Wave in H.F. (+ ·001). 22h to 23h Wave in Dec. (− 3′): in H.F. (+ ·0014).

27d 0h to 1h Fluctuations in Dec., H.F. and V.F. 1h to $2\frac{1}{2}$h Double wave in Dec. (− 5′ to + 3′): in H.F. small. 2h to 4h Wave in V.F. (− ·0005). 22h to 23h Small wave in Dec. (− 3′). $22\frac{1}{2}$h to $23\frac{1}{2}$h Wave in H.F. (+ ·001).

29d 15h to 24h Fluctuations in H.F. (± ·001), with waves $18\frac{1}{2}$h to $20\frac{1}{2}$h (− ·0016) and $20\frac{1}{2}$h to $21\frac{1}{2}$h (− ·0016). $21\frac{1}{2}$h to 23h Double-crested wave in H.F. (− ·002).

30d $2\frac{1}{2}$h to 5h Two successive waves in Dec. (− 4′) and (− 3′), followed by a decrease till 6h (− 5′): in H.F. small. $17\frac{1}{2}$h to 19h Wave in H.F. (+ ·0012).

1896.

July 1^d 3^h to $4\frac{1}{2}^h$ Wave in Dec. (− 3′). 13^h to 21^h Occasional small fluctuations in H.F.

3^d $15\frac{1}{2}^h$ to $16\frac{1}{2}^h$, 17^h to 18^h and $18\frac{1}{2}^h$ to 21^h Double waves in H.F. (− ·0014 to + ·001), (+ ·001 to − ·001) and (+ ·0024 to − ·0024). 20^h to 21^h Wave in Dec. (− 4′). $21\frac{1}{2}^h$ to $22\frac{1}{2}^h$ Wave in Dec. (− 9′): in H.F. (− ·0022): small fluctuations in V.F.

4^d 0^h to 24^h Small rapid fluctuations in Dec., H.F. and V.F. 2^h to $3\frac{1}{2}^h$ Two successive waves in Dec. (+ 4′) and (+ 8′). 18^h to 20^h Wave in H.F. (+ ·002). 22^h to 23^h Wave in Dec. (− 4′). $23\frac{1}{2}^h$ to 24^h Wave in Dec. (+ 5′): in H.F. (+ ·0014).

5^d $0\frac{1}{2}^h$ to 2^h Wave in Dec. (+ 15′): in H.F. (+ ·0016). 0^h to 3^h Double wave in V.F. (+ ·0003 to − ·0007). $2\frac{1}{2}^h$ to 5^h Long wave in Dec. (+ 6′), with superposed fluctuations. $3\frac{1}{2}^h$ to 6^h Wave in H.F. (+ ·002): small fluctuations in Dec. and H.F. till 13^h. 13^h to $14\frac{1}{2}^h$ Wave in H.F. (− ·0025), followed by small fluctuations till 21^h. 14^h to 15^h Small double wave in Dec. 19^h to 21^h Two successive waves in H.F. (+ ·0018) and (+ ·002). 20^h to $20\frac{1}{2}^h$ Wave in Dec. (− 4′).

6^d 1^h to $2\frac{1}{2}^h$ Double wave in Dec. (+ 6′ to − 6′): small wave in V.F. (− ·0003). 3^h to 21^h Fluctuations in H.F.: in Dec. small.

7^d 0^h to 2^h Fluctuations in Dec. (± 2′): shallow wave in H.F. (− ·001). 15^h to 24^h Small occasional fluctuations in H.F. 21^h to 22^h Wave in Dec. (− 4′).

8^d 0^h to 3^h Fluctuations in Dec. (± 3′): in H.F. small. 13^h to 20^h Fluctuations in H.F. (± ·001).

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

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

12^d $18\frac{1}{2}^h$ to 20^h Double-crested wave in Dec. (− 6′): in H.F., also double-crested (+ ·0026). $22\frac{1}{2}^h$ to $23\frac{1}{2}^h$ Wave in Dec. (+ 6′): in H.F. small: decrease of V.F. (− ·0005).

13^d 2^h to 4^h Wave in Dec. (+ 6′), followed by fluctuations till 8^h. 16^h to 22^h Fluctuations in H.F. (± ·001). 21^h to 22^h Wave in Dec. (− 6′).

14^d 1^h to $2\frac{1}{2}^h$ Wave in Dec. (+ 5′): in H.F. (+ ·0014), followed by wave (+ ·001) till $3\frac{1}{2}^h$. $1\frac{1}{2}^h$ to 4^h Shallow wave in V.F. (− ·0005). 6^h to 8^h Small fluctuations in Dec. 12^h to 16^h Small fluctuations in H.F. 20^h to 24^h Small fluctuations in Dec. and H.F.

14^d 23^h to 15^d $1\frac{1}{2}^h$ Wave in H.F. (− ·0016), followed by a smaller wave till 3^h and fluctuations till 4^h. 15^d 0^h to $2\frac{1}{2}^h$ Double wave in Dec. (+ 3′ to − 3′), followed by small fluctuations till 5^h. 0^h to 2^h Decrease of V.F. (− ·0004). 10^h to $11\frac{1}{2}^h$ Wave in H.F. (− ·002). 14^h to 18^h Small fluctuations in H.F. 21^h to $22\frac{1}{2}^h$ Wave in H.F. (+ ·0012).

16^d 2^h to 5^h Long shallow wave in Dec. (+ 4′). 15^h to 16^h Wave in H.F. (− ·0012) $17\frac{1}{2}$ to $18\frac{1}{2}$ Wave in Dec. (− 4′): in H.F. (+ ·0016). 21^h to 22^h Wave in Dec. (− 8′): in H.F. (+ ·0018).

23^d 0^h to 2^h Double wave in Dec. (− 4′ to + 3′).

23^d 12^h to 24^d 12^h. See Plate V.

24^d $12\frac{1}{2}^h$ to $13\frac{1}{2}^h$ Wave in H.F. (+ ·0015). 13^h to 21^h Fluctuations in H.F. (± ·001): in Dec. small. 19^h to $20\frac{1}{2}^h$ Wave in Dec. (− 4′): in H.F. small.

25^d 12^h to 20^h Small fluctuations in H.F., with sharp wave 16^h to 17^h (+ ·0024). $18\frac{1}{2}^h$ to 20^h Wave in Dec. (− 6′).

26^d 14^h to 16^h Small fluctuations in H.F. 22^h to 24^h Wave in Dec. (− 5′): in H.F. (+ ·0012).

27^d 7^h to 11^h Small rapid fluctuations in Dec. and H.F., with wave in H.F. $10\frac{1}{2}^d$ to $11\frac{1}{2}^h$ (− ·0014). 12^h to 21^h Fluctuations in H.F., with waves 14^h to $14\frac{1}{2}^h$ (− ·0017) and 16^h to 17^h (− ·0014). 12^h to 18^h. Very small fluctuations in Dec.

29^d 13^h to 17^h Small fluctuations in H.F.

30^d 15^h to 21^h Small fluctuations in H.F.

August 1^d 12^h to 2^d 12^h. See Plate VI.

2^d 15^h to 16^h Double wave in H.F. (− ·0015 to + ·0014). $16\frac{1}{2}^h$ to 18^h Wave in Dec. (− 8′): double wave in H.F. (− ·0022 to + ·002): small wave in V.F. 18^h to 23^h Small fluctuations in H.F. 23^h to 24^h Wave in H.F. (+ ·0014).

3^d 0^h to 1^h Wave in Dec. (− 5′): in H.F. small. 3^h to 4^h Wave in Dec. (+ 5′). 3^h to 5^h Shallow wave in V.F. (− ·0003). $11\frac{1}{2}^h$ to $12\frac{1}{2}^h$ Wave in H.F. (− ·0024). 14^h to 17^h Three successive waves in H.F. (− ·0014), (− ·0018) and (− ·0018): small fluctuations in Dec. and V.F. till 16^h, and small double wave in Dec. 16^h to $16\frac{1}{2}^h$. 21^h to 24^h Small fluctuations in Dec. and H.F.

4^d 0^h to 8^h Fluctuations in Dec. and H.F., with wave in H.F. 5^h to 7^h (− ·0012), and in Dec. $5\frac{1}{2}^h$ to $7\frac{1}{2}^h$ (+ 6′). 12^h to 17^h Fluctuations in H.F. (± ·001). 17^h to $18\frac{1}{2}^h$ Wave in H.F. (− ·0012).

1896.

August $6^d\ 12^h$ to $7^d\ 12^h$. See Plate VI.

$7^d\ 12^h$ to 22^h Frequent small fluctuations in Dec. and H.F., with double-crested wave in H.F. 14^h to 16^h (− ·002). 22^h to 24^h Irregular double wave in Dec. (− 6′ to + 5′). 22^h to 23^h Wave in H.F. (+ ·0018), followed till $8^d\ 1^h$ by double-crested wave (+ ·0026). $7^d\ 23^h$ to 24^h Decrease of V.F. (− ·0004).

$8^d\ 3^h$ to 5^h Wave in Dec. (+ 6′). $12\frac{1}{2}^h$ to 14^h Wave in Dec. (+ 4′) : in H.F. (+ ·0018). 16^h to 17^h Wave in H.F. (+ ·001), followed by small double wave. 21^h to 22^h Double wave in Dec. (+ 5′ to − 4′) : in H.F. (− ·0012 to + ·0008) : in V.F. small.

$8^d\ 23\frac{1}{2}^h$ to $9^d\ 1^h$ Wave in Dec. (+ 5′) : small increase of H.F. : slight decrease of V.F. $9^d\ 13^h$ to 20^h Small fluctuations in H.F. 21^h to 24^h Two successive waves in H.F. (− ·0014) and (− ·0012).

$9^d\ 23\frac{1}{2}^h$ to $10^d\ 1^h$ Wave in Dec. (+ 4′). $10^d\ 3^h$ to $4\frac{1}{2}^h$ Wave in Dec. (+ 4′). $4\frac{1}{2}^h$ to $5\frac{1}{2}^h$ Double-crested wave in H.F. (− ·0014). 5^h to $5\frac{1}{2}^h$ Small wave in Dec. (− 4′). 6^h to 8^h Double wave in Dec. (+ 3′ to − 5′). 8^h to 18^h Small fluctuations in H.F.

$11^d\ 0^h$ to 1^h Wave in Dec. (− 3′) : in H.F. (− ·001). 18^h to $18\frac{1}{2}^h$ Increase of H.F. (+ ·001).

$12^d\ 17\frac{1}{2}^h$ to $18\frac{1}{2}^h$ Shallow wave in Dec. (− 3′) : in H.F. (− ·001). $19\frac{1}{2}^h$ to 21^h Wave in Dec. (− 6′) : in H.F. (+ ·001).

$13^d\ 23\frac{1}{2}^h$ to $14^d\ 1^h$ Wave in H.F. (+ ·0014).

$15^d\ 15^h$ to 23^h Occasional small fluctuations in H.F.

$17^d\ 18\frac{1}{2}^h$ to 23^h Small rapid fluctuations in H.F., with waves $19\frac{1}{2}^h$ to 21^h (− ·002); 22^h to 23^h (+ ·0012). $19\frac{1}{2}^h$ to 24^h Very small fluctuations in Dec.

$18^d\ 1^h$ to 3^h Double wave in H.F. (− ·0016 to + ·001). $1\frac{1}{2}^h$ to 3^h Sharp wave in Dec. (+ 18′). 2^h to 6^h Long wave in V.F., sharp at commencement (− ·001). 4^h to 5^h Decrease of H.F. (− ·002). 22^h to 23^h Wave in Dec. (+ 3′) : in H.F. (+ ·001).

$19^d\ 13^h$ to 21^h Small fluctuations in H.F. 20^h to $21\frac{1}{2}^h$ Wave in Dec. (− 4′).

$20^d\ 3\frac{1}{2}^h$ to 9^h Prolonged double wave in Dec. (+ 3′ to − 3′). $16\frac{1}{2}^h$ Increase of H.F. (+ ·0014). $17\frac{1}{2}^h$ to $19\frac{1}{2}$ Double wave in H.F. (+ ·0016 to − ·0016). 18^h to 20^h Wave in Dec. (− 5′).

$21^d\ 0^h$ to 1^h Double wave in H.F. (− ·001 to + ·0012), followed by fluctuations in Dec. and H.F. till 2^h. 2^h to 3^h Wave in Dec. (+ 8′) : in H.F. (+ ·0028) : decrease of V.F. (− ·0008). 4^h to 5^h Increase of Dec. (+ 14′) : decrease of H.F. (− ·002). 5^h to $5\frac{1}{2}$ Sharp decrease of H.F. (− ·0028), followed by wave till 10^h (− ·003), with superposed fluctuations. 3^h to 10^h Small fluctuations in V.F. 5^h to 6^h, $6\frac{1}{2}^h$ to 7^h and 9^h to 10^h Waves in Dec. (− 5′), (− 9′) and (− 6′). 13^h to 21^h Small fluctuations in Dec., H.F. and V.F.

$22^d\ 9^h$ to 10^h Wave in H.F. (− ·001). 14^h to 16^h Wave in H.F. (− ·0018), with superposed fluctuations.

$23^d\ 14^h$ to 16^h Fluctuations in H.F. 16^h to 17^h Wave in H.F. (− ·0012). 19^h to 21^h Double-crested wave in Dec. (− 8′). 20^h to 21^h Wave in H.F. (+ ·0014). $23\frac{1}{2}^d$ to $24^d\ 0\frac{1}{2}^h$ Wave in Dec. (− 6′).

$24^d\ 3^h$ to 5^h Wave in Dec. (+ 5′) 13^h to 16^h Fluctuations in H.F. $16\frac{1}{2}^h$ to 18^h Wave in H.F. (− ·002). $24^d\ 22\frac{1}{2}^h$ to $25^d\ 3^h$ Long serrated wave in Dec. (− 12′) : shallow wave in V.F. (− ·0008). $24^d\ 23\frac{1}{2}^h$ to 24^h Decrease of H.F. (− ·002).

$25^d\ 3\frac{1}{2}^h$ to 5^h Wave in H.F. (− ·0012). 12^h to 19^h Small fluctuations in H.F. and V.F. $19\frac{1}{2}^h$ to 21^h Two successive waves in Dec. (− 3′) and (− 5′). $20\frac{1}{2}^h$ to 21^h Wave in H.F. (+ ·0012).

$29^h\ 12^h$ to $30^d\ 12^h$. See Plate VI.

$31^d\ 23^h$ to 24^d Wave in Dec. (+ 4′) : in H.F. small.

September $1^d\ 6^h$ to $7\frac{1}{2}^h$ Shallow wave in Dec. (+ 3′).

$2^d\ 22^h$ to 24^h Wave in H.F. (+ ·003) : slight decrease of V.F.

$3^d\ 0^h$ to 3^h Small fluctuations in Dec. and H.F. 3^h to 4^h Wave in H.F. (+ ·0016). $11\frac{1}{2}^h$ to $12\frac{1}{2}^h$ Wave in H.F. (− ·002). 12^h to 14^h Wave in Dec. (+ 6′). 12^h to 18^h Small rapid fluctuations in H.F., with waves $13\frac{1}{2}^h$ to $14\frac{1}{2}^h$ (− ·0018); $15\frac{1}{2}^h$ to $16\frac{1}{2}^h$ (+ ·0014), followed till $17\frac{1}{2}^h$ by two successive sharp waves (+ ·0028) and (+ ·0026) : small fluctuations in Dec. and V.F.

$3^d\ 23^h$ to $4^d\ 1^h$ Wave in Dec. (− 7′) : in H.F. (+ ·0026). $3\frac{1}{2}^h$ to 5^h Wave in Dec. (+ 4′) : in H.F. (+ ·001) : in V.F. small.

$4^d\ 12^h$ to 24^h Occasional small fluctuations in H.F.

$5^d\ 0^h$ to 22^h Fluctuations in Dec. and H.F., with wave in H.F. $8\frac{1}{2}^h$ to 10^h (− ·0016). $20\frac{1}{2}^h$ to $21\frac{1}{2}^h$ Wave in Dec. (− 6′), followed by a small double wave till 22^h : small double-crested wave in H.F.

1896.

September 6d 7h to 10h Wave in H.F. (— ·002). 14h to 15½h Double-crested wave in H.F. (— ·0016), followed by two successive waves till 17½h (— ·0014) and (— ·0016), and by small fluctuations till 24h. 13h to 20h Fluctuations in Dec. (± 2′). 16h to 18h Double wave in Dec. (+ 3′ to — 5′).

8d 1h to 2h Small double wave in Dec. and H.F. 18h to 22h Small fluctuations in H.F. 20h to 21h Wave in Dec. (— 4′).

9d 21h to 22h Decrease of Dec. (— 3′) : small wave in H.F.

11d 20h to 24h Small fluctuations in H.F.

12d 0½h to 2h Wave in Dec. (+ 7′) : in H.F. and V.F. small. 16½h to 18h Wave in H.F. (— ·0012).

12d 22h to 13d 0½h Wave in Dec. (— 4′).

13d 1½h to 3h Double wave in Dec. (+ 3′ to — 5′) : wave in H.F. (+ ·0018) : in V.F. (— ·0004). 4h to 7h Shallow wave in Dec. (+ 4′). 20h to 21h Wave in Dec. (— 4′) : in H.F. small. 23h to 24h Wave in Dec. (+ 6′) : in H.F. (+ ·002) : decrease of V.F. (— ·0004).

14d 21h to 22h Wave in Dec. (— 4′) : in H.F. small.

15d 0h to 1h Wave in Dec. (+ 4′) : in H.F. (— ·001) : 19½h to 20½h Wave in Dec. (— 6′)

16d 0h to 4h Fluctuations in Dec. and H.F., with wave in Dec. 1½h to 3h (+ 9′) : in V.F. small. 13h to 19h Occasional fluctuations in H.F. 20½h to 21½h Wave in Dec. (— 5′).

17d 0h to 1h Small double wave in H.F. 0½h to 1½h Wave in Dec. (+ 4′). 18½h to 19h Sharp wave in H.F. (+ ·0024). 20h to 22½h Double wave in Dec. (— 8′ to + 6′). 20½h to 21½h Double-crested wave in H.F. (+·0014) : decrease of V.F. (— ·0006).

18d 0h to 19d 0h. See Plate VII.

20d 0h to 21d 0h. See Plate VII.

21d 19½h to 21½h Two successive waves in Dec. (— 6′) and (— 3′) : wave in H.F. (+ ·0019).

22d 17h to 20h Small fluctuations in H.F. 19h to 19½h Decrease of Dec. (— 4′). 21h to 22½h Double-crested wave in Dec. (— 4′). 22h to 23h Wave in H.F. (+ ·0014).

23d 16h to 24h Small fluctuations in H.F.

24d 1h to 3h Wave in Dec. (— 5′). 1½h to 2h Decrease of H.F. (— ·0014). 16h to 19h Long wave in H.F. (— ·0024) : small fluctuations in Dec.

26d 1½h to 2h Wave in Dec. (+ 3′). 23h to 23½h Wave in H.F. (+ ·001) : in Dec. and V.F. small.

29d 12h to 13h Wave in Dec. (+ 3′) : in H.F. small. 16½h to 18½h Small double wave in H.F. 21½h to 22½h Double wave in Dec. (— 4′ to + 3′). 22h to 23h Wave in H.F. (— ·001).

October 1d 0h to 18h Small fluctuations in Dec. and H.F. 18h to 20½h Two successive waves in Dec. (— 13′) and (— 8′). Double wave in H.F. (+ ·0026 to — ·0014), followed by a wave (— ·0012) : small fluctuations in V.F. 22½h to 23½h Wave in Dec. (+ 4′).

3d 15h to 16½h Wave in H.F. (— ·0012). 20h to 22h Fluctuations in Dec. (± 2′) : in H.F. (± ·001).

8d 15½h to 17h Wave in Dec. (— 6′) : in H.F. (— ·0012). 20h to 22h Shallow wave in Dec. (— 5′). 20h to 23h Double wave in H.F. (— ·001 to + ·0027). 22h to 23½h Wave in Dec. (— 8′) : decrease of V.F. (— ·0007).

9d 1h to 4h Double wave in Dec. (+ 11′ to — 4′). 1h to 3h Two successive waves in H.F. (+ ·0024) and (+ ·0008). 1h to 4h Wave in V.F. (— ·0006). 16h to 17½h Wave in Dec. (— 12′) : double wave in H.F. (— ·0014 to + ·0012). 18h to 24h Fluctuations in Dec. (± 3′) : in H.F. (± ·001), with wave 21h to 23h (+ 0026).

10d 0h to 1h Increase of Dec. (+ 12′), followed by wave (— 4′) till 3h and by fluctuations (± 3′) till 5h. 8h to 11h Wave in H.F. (— ·0036). 14½h to 15½h Wave in H.F. (— ·0024). 15h to 16½h Shallow double-crested wave in Dec. (— 4′). 18h to 21h Irregular wave in Dec. (— 7′). 18h to 20h Double wave in H.F. (— ·0012 to + ·0014).

10d 23h to 11d 2h Double wave in Dec. (— 5′ to + 11′).

11d 0h to 1½h Two successive waves in H.F. (+ ·0014) and (+ ·0014) : wave in V.F. (— ·0006). 3½h to 5½h Wave in Dec. (+ 8′). 4h to 8h Long double wave in H.F. (+ ·002 to — ·001).

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

13d 14h to 15h Wave in H.F. (— ·0016). 17h to 18h Wave in Dec. (— 6′). 18h to 19½h Serrated wave in H.F. (— ·0016), followed by fluctuations till 20h. 18½h to 22h Long irregular wave in Dec. (— 8′). 20h to 22½h Double wave in H.F. (+ ·001 to — ·0018). 22h to 24h Wave in Dec. (— 4′).

1896.

October 14^{d} $14\frac{1}{2}^{h}$ to 15^{h} Decrease of Dec. (− 5′). $14\frac{1}{2}^{h}$ to 16^{h} Wave in H.F. (− ·0016). 19^{h} to $20\frac{1}{2}^{h}$ Wave in Dec. (− 7′) : small double wave in H.F. 21^{h} to $22\frac{1}{2}^{h}$ Wave in Dec. (− 8′) : in H.F. (+ ·001).

15^{d} $15\frac{1}{2}^{h}$ to 17^{h} Wave in Dec. (− 7′) : small double wave in H.F. $17\frac{1}{2}^{h}$ to 19^{h} Wave in Dec. (− 9′) : double wave in H.F. (− ·001 to + ·001). $20\frac{1}{2}^{h}$ to 22^{h} Double-crested wave in Dec. (− 5′). 21^{h} to $21\frac{1}{2}^{h}$ Sharp wave in H.F. (+ ·0018).

16^{d} 0^{h} to 12^{h} Fluctuations in Dec. and H.F. 13^{h} to 14^{h} Small wave in Dec. (− 3′) : in H.F. (− ·0012). 20^{h} to $21\frac{1}{2}^{h}$ Wave in H.F. (+ ·002). 21^{h} to 22^{h} Double-crested wave in Dec. (− 4′).

17^{d} $2\frac{1}{2}^{h}$ to 5^{h} Double wave in Dec. (− 3′ to + 3′) : in H.F. (+ ·001 to − ·0014).

19^{d} 4^{h} to 8^{h} Double wave in H.F. (+ ·001 to − ·0025). 10^{h} to $10\frac{1}{2}^{h}$ Sharp wave in H.F. (+ ·0014) : in Dec. small.

20^{d} 17^{h} to 19^{h} Double wave in H.F. (− ·0012 to + ·001) : small wave in Dec. 20^{h} to $21\frac{1}{2}^{h}$ Double wave in H.F. (− ·0007 to + ·0016). $20\frac{1}{2}^{h}$ to $21\frac{1}{2}^{h}$ Wave in Dec. (+ 6′), followed by fluctuations in Dec. and H.F. till 24^{h}. 21^{h} Decrease of V.F. (− ·0003). 20^{d} $23\frac{1}{2}^{h}$ to 21^{d} 1^{h} Wave in Dec. (− 9′) : in H.F. (+ ·001).

21^{d} 21^{h} to 22^{h} Wave in H.F. (+ ·0014) : in Dec. small.

23^{d} $2\frac{1}{2}^{h}$ to 4^{h} Shallow wave in Dec. (+ 3′). $6\frac{1}{2}^{h}$ to $7\frac{1}{2}^{h}$ Wave in Dec. (+ 4′).

24^{d} 17^{h} to 22^{h} Occasional small fluctuations in H.F.

31^{d} $1\frac{1}{2}^{h}$ to $4\frac{1}{2}^{h}$ Double wave in Dec. (+ 4′ to − 4′). $1\frac{1}{2}^{h}$ to 4^{h} Shallow wave in H.F. (+ ·0014).

November 4^{d} $18\frac{1}{2}^{h}$ to $19\frac{1}{2}^{h}$ Decrease of Dec. (− 6′). 20^{h} to $21\frac{1}{2}^{h}$ Wave in Dec. (− 5′) : in H.F. small.

5^{d} $18\frac{1}{2}^{h}$ to $19\frac{1}{2}^{h}$ Wave in H.F. (− ·0014) : in Dec. small, followed by fluctuations till 22^{h}. $22\frac{1}{2}^{h}$ to 23^{h} Wave in Dec. (− 4′) : increase of H.F. (+ ·0017). 5^{d} $23\frac{1}{2}^{h}$ to 6^{d} 2^{h} Double-crested wave in Dec. (− 13′), with sharp commencement. 5^{d} $23\frac{1}{2}^{h}$ to 6^{d} 1^{h} Two successive waves in H.F. (+ ·0022) and (+ ·0016). 5^{d} 23^{h} to 24^{h} Decrease of V.F. (− ·0006).

6^{d} 4^{h} to 12^{h} Fluctuations in Dec. (± 4′). 7^{h} to 9^{h} Double-crested wave in H.F. (+ ·003), followed by rapid fluctuations till 10^{h}. $10\frac{1}{2}^{h}$ to 14^{h} Two successive waves in H.F. (− ·003) and (− ·0016). $19\frac{1}{2}^{h}$ to 21^{h}. Wave in Dec. (− 9′). 20^{h} to $21\frac{1}{2}^{h}$ Wave in H.F. (+ ·0024).

7^{d} $3\frac{1}{2}^{h}$ to $5\frac{1}{2}^{h}$ Wave in Dec. (− 6′). 5^{h} to 8^{h} Long double wave in H.F. (+ ·0014 to − ·0016).

7^{d} 12^{h} to 8^{d} 12^{h}. See Plate IX.

8^{d} 13^{h} to 14^{h} Wave in H.F. (+ ·0016). 14^{h} to 16^{h} Double wave in H.F. (+ ·0019 to − 0012). $13\frac{1}{2}^{h}$ to 15^{h} Double wave in Dec. (+ 4′ to − 8′). 18^{h} to 19^{h} Wave in Dec. (− 5′) : in H.F. (+ ·0016). 19^{h} to 20^{h} Wave in Dec. (− 14′) : double-crested wave in H.F. (+ ·003). 20^{h} to $21\frac{1}{2}^{h}$ Double-crested wave in Dec. (− 4′) : two successive small waves in H.F.

9^{d} 0^{h} to $1\frac{1}{2}^{h}$ Wave in Dec. (+ 6′), followed by fluctuations in Dec. and H.F. till 11^{h}. $18\frac{1}{2}^{h}$ to $19\frac{1}{2}^{h}$ Sharp wave in Dec. (− 14′) : double wave in H.F. (− ·002 to + ·001) : in V.F. small. $20\frac{1}{2}^{h}$ to $21\frac{1}{2}^{h}$ Wave in Dec. (+ 4′) : in H.F. (+ ·0016). 9^{d} $23\frac{1}{2}^{h}$ to 10^{d} $1\frac{1}{2}^{h}$ Double wave in Dec. (+ 3′ to − 6′) : wave in H.F. (+ ·001).

10^{d} 17^{h} to 18^{h} Wave in Dec. (− 6′). 23^{h} to 24^{h} Wave in Dec. (+ 4′) : in H.F. (+ ·0016).

13^{d} 2^{h} to 4^{h} Wave in Dec. (+ 4′) : in H.F. small.

14^{d} $20\frac{1}{2}^{h}$ to $22\frac{1}{2}^{h}$ Double wave in Dec. (− 5′ to + 3′).

15^{d} 15^{h} to 17^{h} Shallow wave in H.F. (− ·0012).

16^{d} 20^{h} to 21^{h} Wave in Dec. (− 10′), with sharp commencement : in H.F (+ ·0026) : in V.F. small.

17^{d} 2^{h} to 4^{h} Shallow wave in Dec. (− 4′).

18^{d} 8^{h} to 11^{h} Small fluctuations in Dec. and H.F. $20\frac{1}{2}^{h}$ to 22^{h} Wave in Dec. (− 7′) : double wave in H.F. (− ·0012 to + ·001).

20^{d} 23^{h} to 21^{d} 1^{h} Fluctuations in Dec. (± 2′) : small double wave in H.F.

21^{d} 19^{h} to 22^{h} Fluctuations in Dec. (± 3′.) $21\frac{1}{2}^{h}$ to 23^{h} Wave in H.F. (+ ·0018). 22^{h} to $23\frac{1}{2}^{h}$ Wave in Dec. (− 4′).

26^{d} $20\frac{1}{2}^{h}$ to 22^{h} Wave in Dec. (− 3′).

27^{d} 19^{h} to 21^{h} Shallow wave in Dec. (− 4′).

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

1896.

December 1^d $17\frac{1}{2}^h$ to 19^h Wave in Dec. (− 6′) : in H.F. (− ·002), followed by a shallow wave till 20^h. $23\frac{1}{2}^h$ to 24^h Small wave in Dec. (− 3′).

3^d 12^h to 5^d 12^h. See Plate IX.

5^d 22^h to 23^h Wave in Dec. (− 6′).

6^d 0^h to 1^h Small double wave in Dec. and H.F. 15^h to 23^h Fluctuations in Dec. (± 2′) : in H.F. small, with wave $18\frac{1}{2}^h$ to 20^h (+ ·0018).

10^d $19\frac{1}{2}^h$ to 21^h Wave in Dec. (− 7′).

11^d 0^h to 2^h Irregular shallow wave in H.F. (+ ·0014).

13^d $5\frac{1}{2}^h$ to 11^h Two successive shallow waves in H.F. (+ ·0012) and (+ ·0014). $7\frac{1}{2}^h$ to 9^h Wave in Dec. (+ 4′). 12^h to $13\frac{1}{2}^h$ Wave in H.F. (− ·002). 15^h to 16^h Small rapid fluctuations in Dec. and H.F. $20\frac{1}{2}^h$ to $21\frac{1}{2}^h$ Wave in H.F. (− ·0012), followed by double wave (+ ·0014 to − ·0018). 21^h to $22\frac{1}{2}^h$ Two successive waves in Dec. (− 12′) and (− 5′). 13^d 21^h to 14^d 5^h Small fluctuations in V.F. 13^d $23\frac{1}{2}^h$ to 14^d $1\frac{1}{2}^h$ Double wave in Dec. (+ 7′ to − 11′) : in H.F. (− ·002 to + ·003).

14^d 2^h to 3^h Wave in H.F. (− ·0016), followed by fluctuations till 7^h. $2\frac{1}{2}^h$ to 4^h Wave in Dec. (+ 8′). 12^h to 13^h Wave in Dec. (+ 5′). 12^h to 14^h Wave in H.F. (− ·0012). 17^h to $18\frac{1}{2}^h$ Wave in Dec. (− 4′). 17^h to 18^h Wave in H.F. (− ·0014). $22\frac{1}{2}^h$ to 24^h Fluctuations in Dec. (± 3′). 14^d 23^h to 15^d 1^h Wave in H.F. (+ ·0015).

15^d 8^h to 16^h Small fluctuations in Dec. 13^h to 15^h Wave in H.F. (− ·0016). $15\frac{1}{2}^h$ to 16^h Wave in Dec. (+ 3′) $17\frac{1}{2}^h$ to $20\frac{1}{2}^h$ Two successive waves in Dec. (− 10′) and (− 11′), followed by small fluctuations till 24^h. $17\frac{1}{2}^h$ to 19^h Wave in H.F. (− ·0016), followed by a double wave (− ·0016 to + ·003) till 21^h : small fluctuations till 23^h.

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

17^d $20\frac{1}{2}^h$ to $22\frac{1}{2}^h$ Small double wave in Dec. (+ 2′ to − 3′) : in H.F. (− ·001 to + ·001).

20^d 10^h to 21^h ; 21^d 10^h to 15^h and 21^d 18^h to 22^d 12^h Loss of V.F. register.

24^d $23\frac{1}{2}^h$ to 25^d $0\frac{1}{2}^h$ Wave in Dec. (− 4′).

25^d 21^h to 23^h Shallow wave in Dec. (− 4′) : serrated wave in H.F. (+ ·001).

26^d 1^h to 2^h Shallow wave in Dec. (− 3′).

27^d 20^h to 24^h Two successive irregular waves in Dec. (− 5′) and (− 8′). $20\frac{1}{2}^h$ to $21\frac{1}{2}^h$ Double wave in H.F. (− ·001 to + ·001), followed by long serrated wave (− ·0015) till $23\frac{1}{2}^h$.

28^d 3^h to $4\frac{1}{2}^h$ Sharp wave in Dec. (+ 14′) : decrease of V.F. (− ·0005).

29^d 15^h to 18^h Fluctuations in Dec. (± 2′) : shallow wave in H.F. (− ·0016).

30^d $0\frac{1}{2}^h$ to $2\frac{1}{2}^h$ Small double wave in Dec.

EXPLANATION OF THE PLATES.

The magnetic motions figured on the Plates are—

(1.) Those for days of great disturbance—None in 1896.

(2.) Those for days of lesser disturbance—January 3, 4, 5, 31–February 1, 4–5, 28, 29, March 4–5, 26–27, May 2–3, 3–4, 17–18, July 11–12, 23–24, August 1–2, 6–7, 29–30, September 18, 20, October 11–12, 12–13, November 7–8, December 3–4, 4–5.

(3.) Those for four quiet days, January 1, April 20, August 16, 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 $0^{\text{in}}{\cdot}80 = \overset{\text{mm.}}{20{\cdot}4}$ in the declination curve, by $0^{\text{in}}{\cdot}75 = \overset{\text{mm.}}{19{\cdot}1}$ in the horizontal force curve, and by $0^{\text{in}}{\cdot}77 = \overset{\text{mm.}}{19{\cdot}6}$ in the vertical force curve.

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

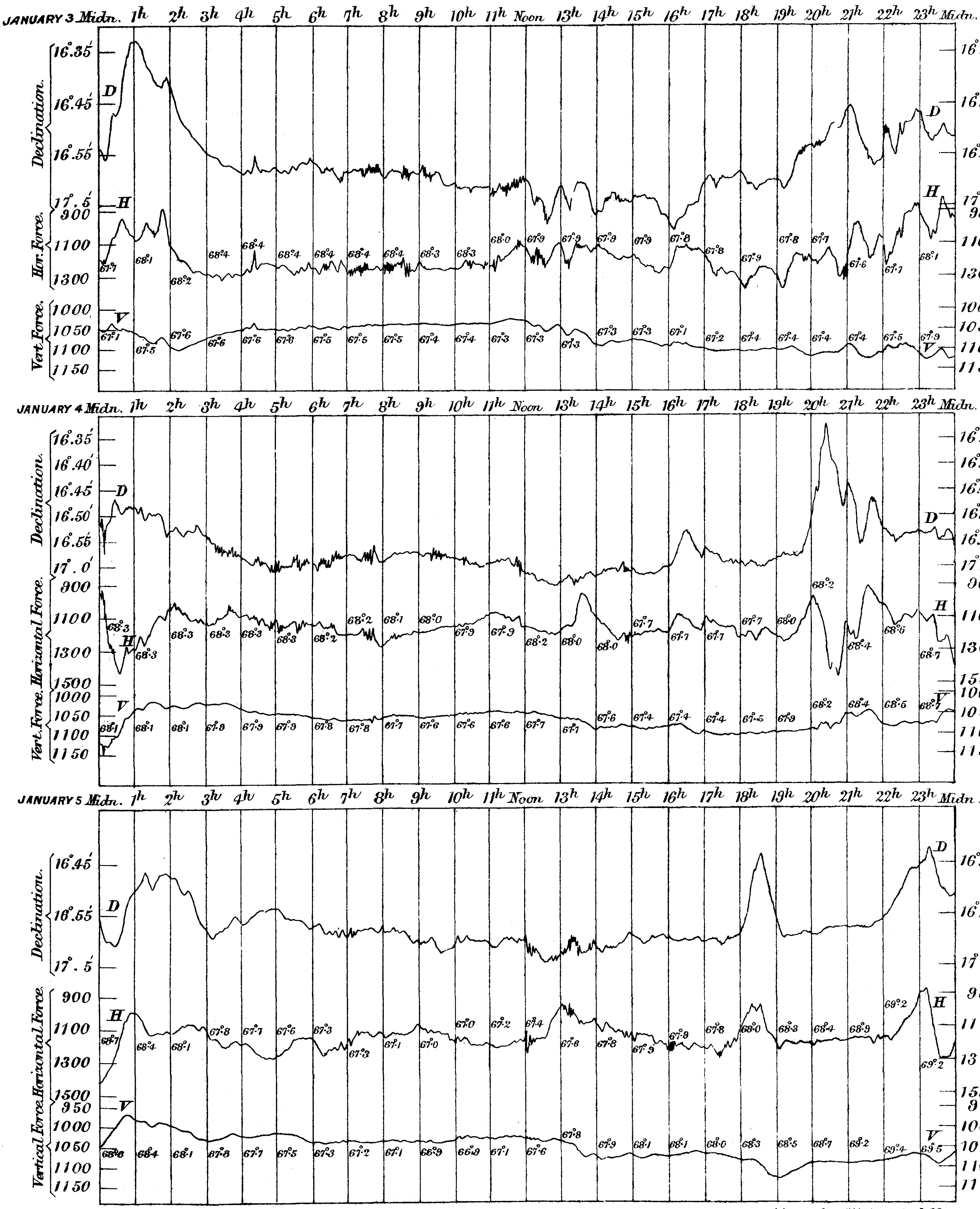
The earth current registers are not given on the plates in consequence of interference with the records caused by the running of trains on the City and South London Electric Railway.

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

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

Plate I.

Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1896.



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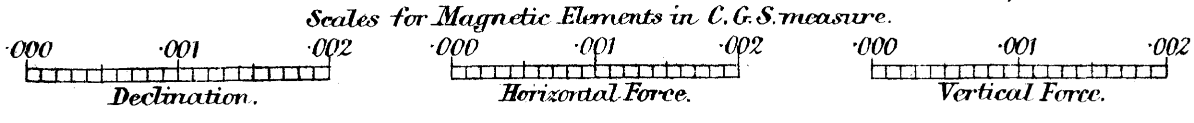
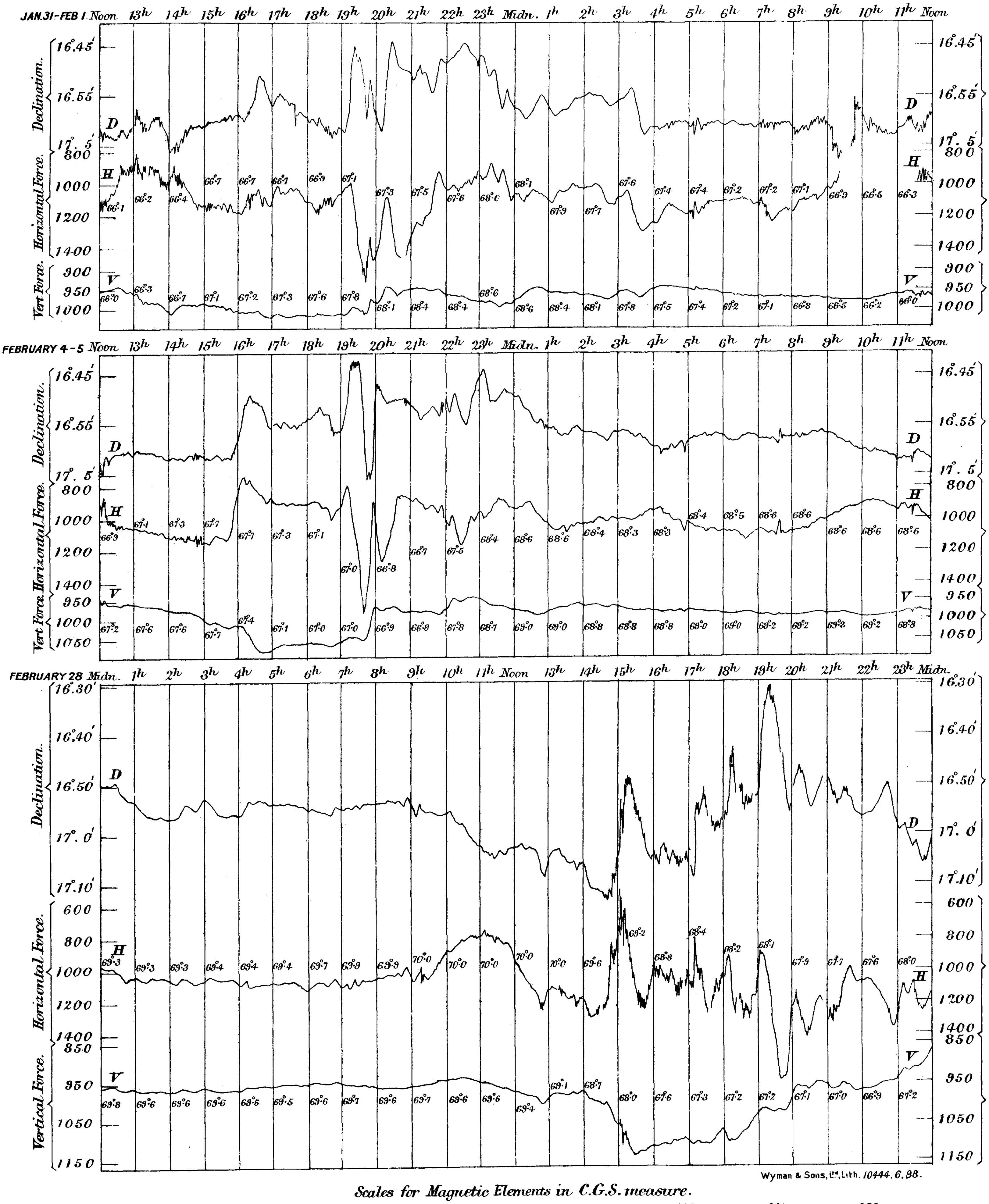
Scales for Magnetic Elements in C. G. S. measure.



Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1896.



Wyman & Sons, Ltd, Lith. 10444. 6. 98.

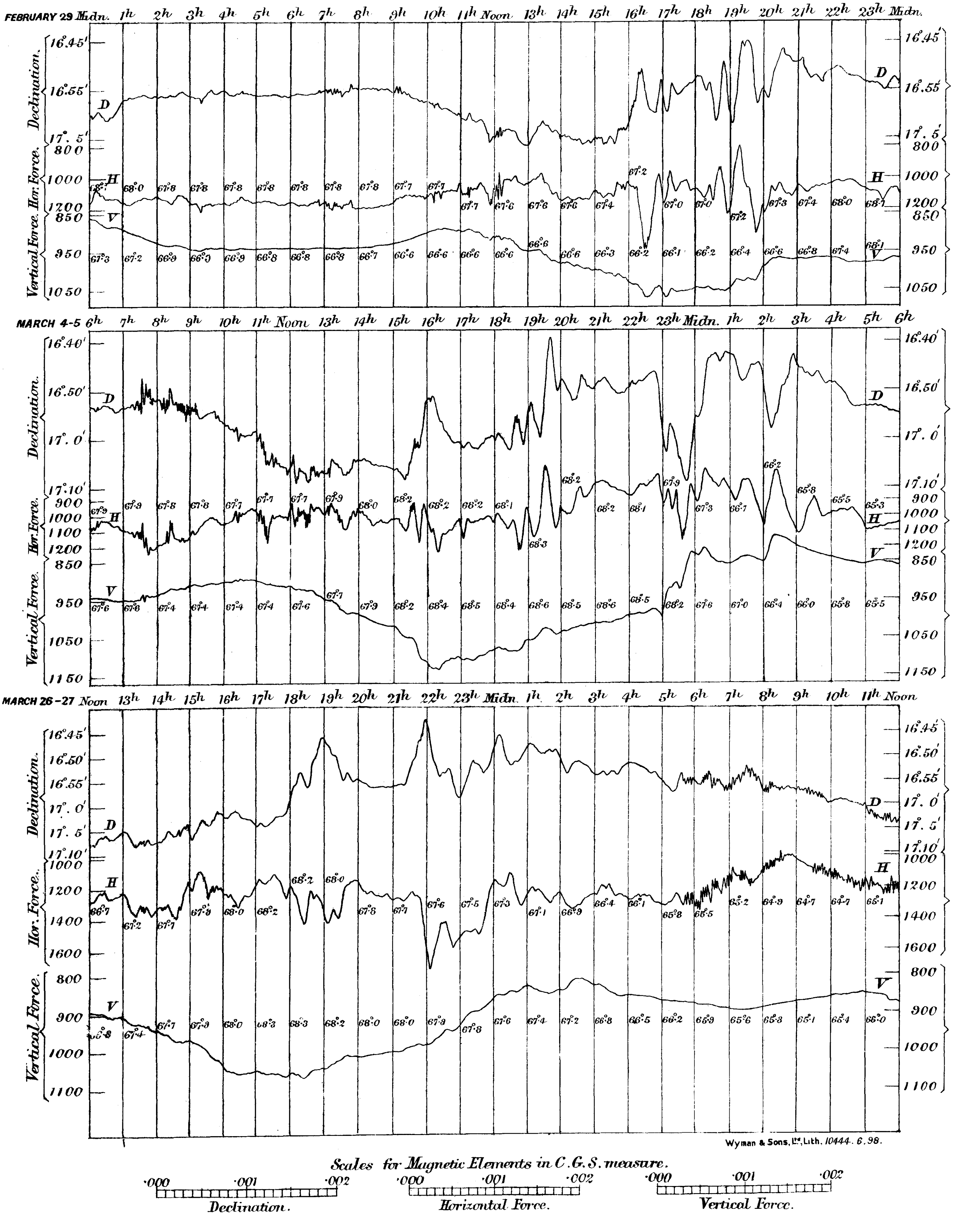
Scales for Magnetic Elements in C.G.S. measure.

·000 ·001 ·002 Declination.

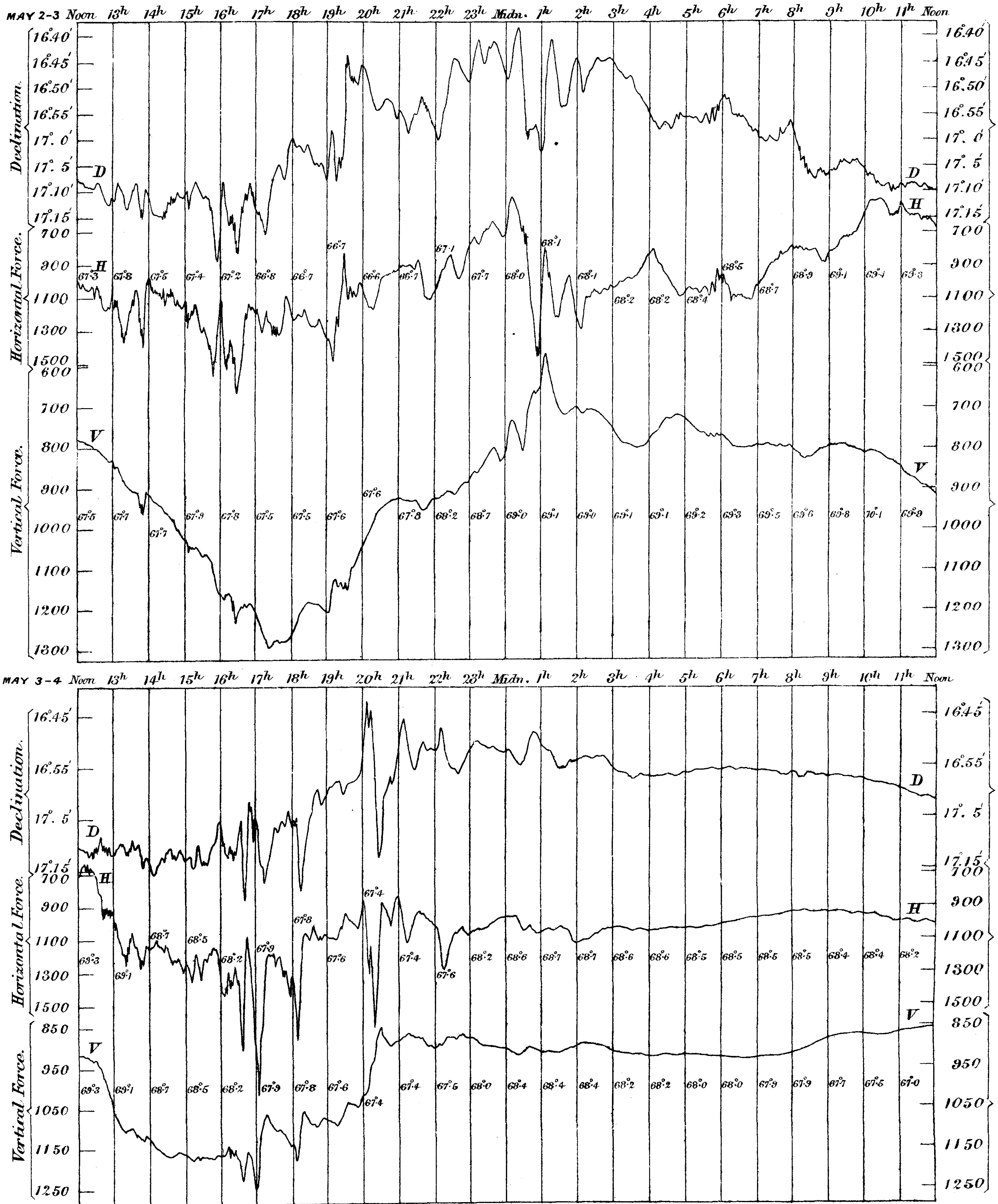
·000 ·001 ·002 Horizontal Force.

·000 ·001 ·002 Vertical Force.

Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1896.

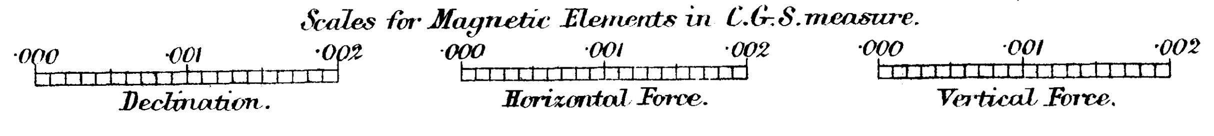


Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1896.

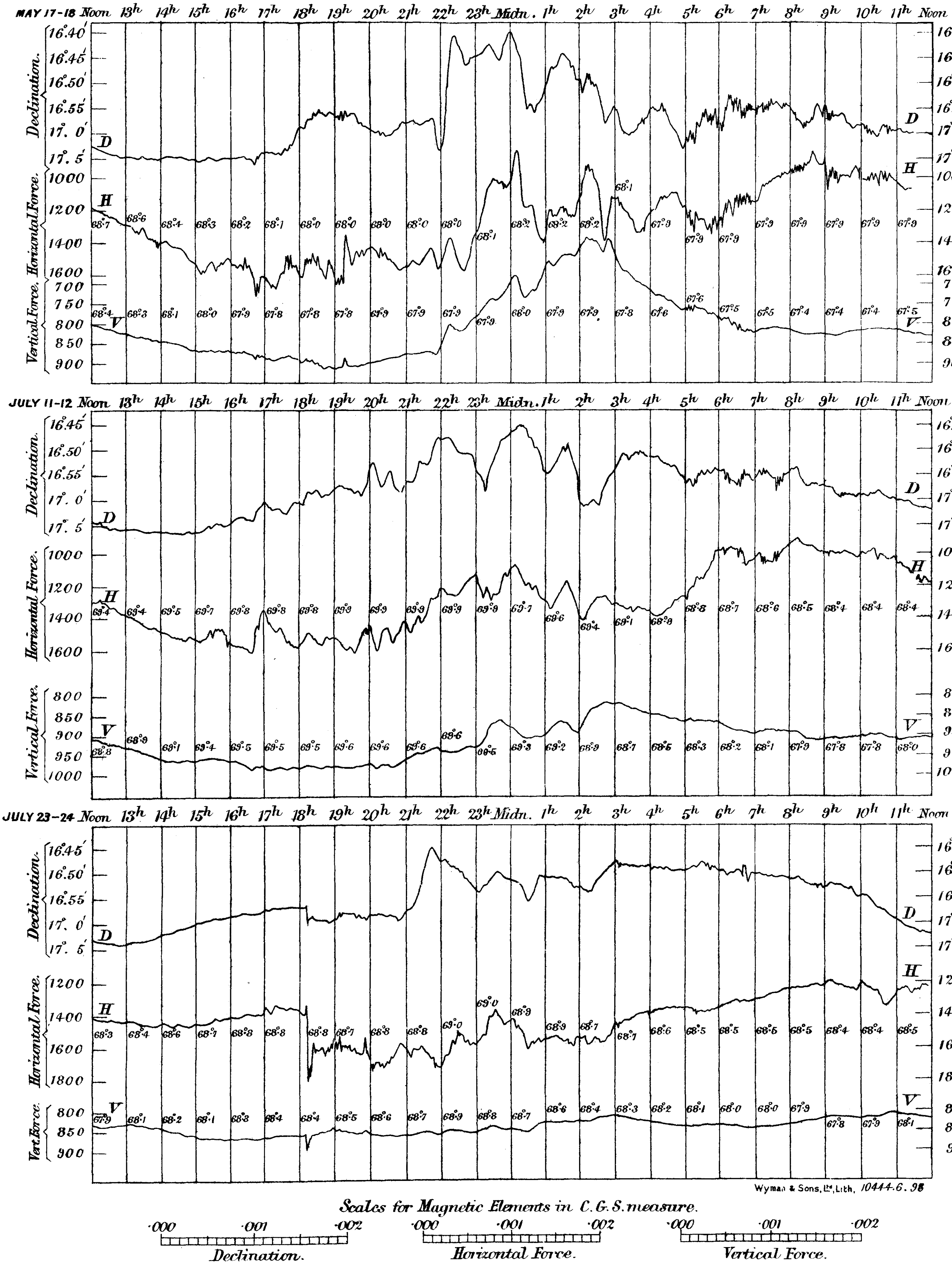


Wyman & Sons, Ltd, Lith, 10444. 6. 98

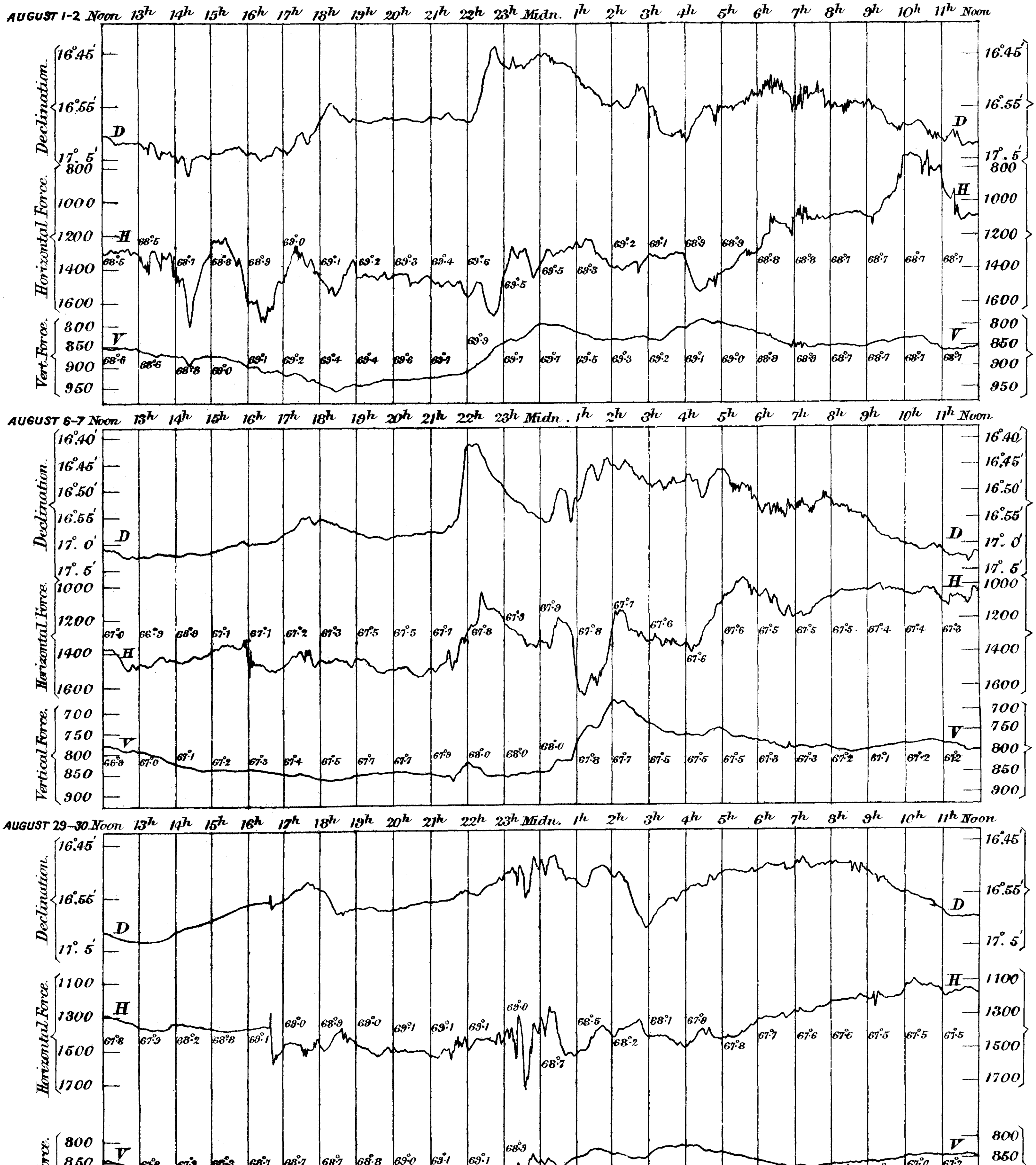
Scales for Magnetic Elements in C.G.S. measure.



Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1896.

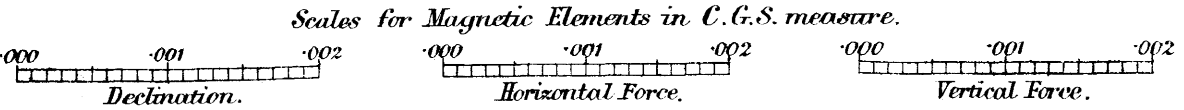


Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1896.

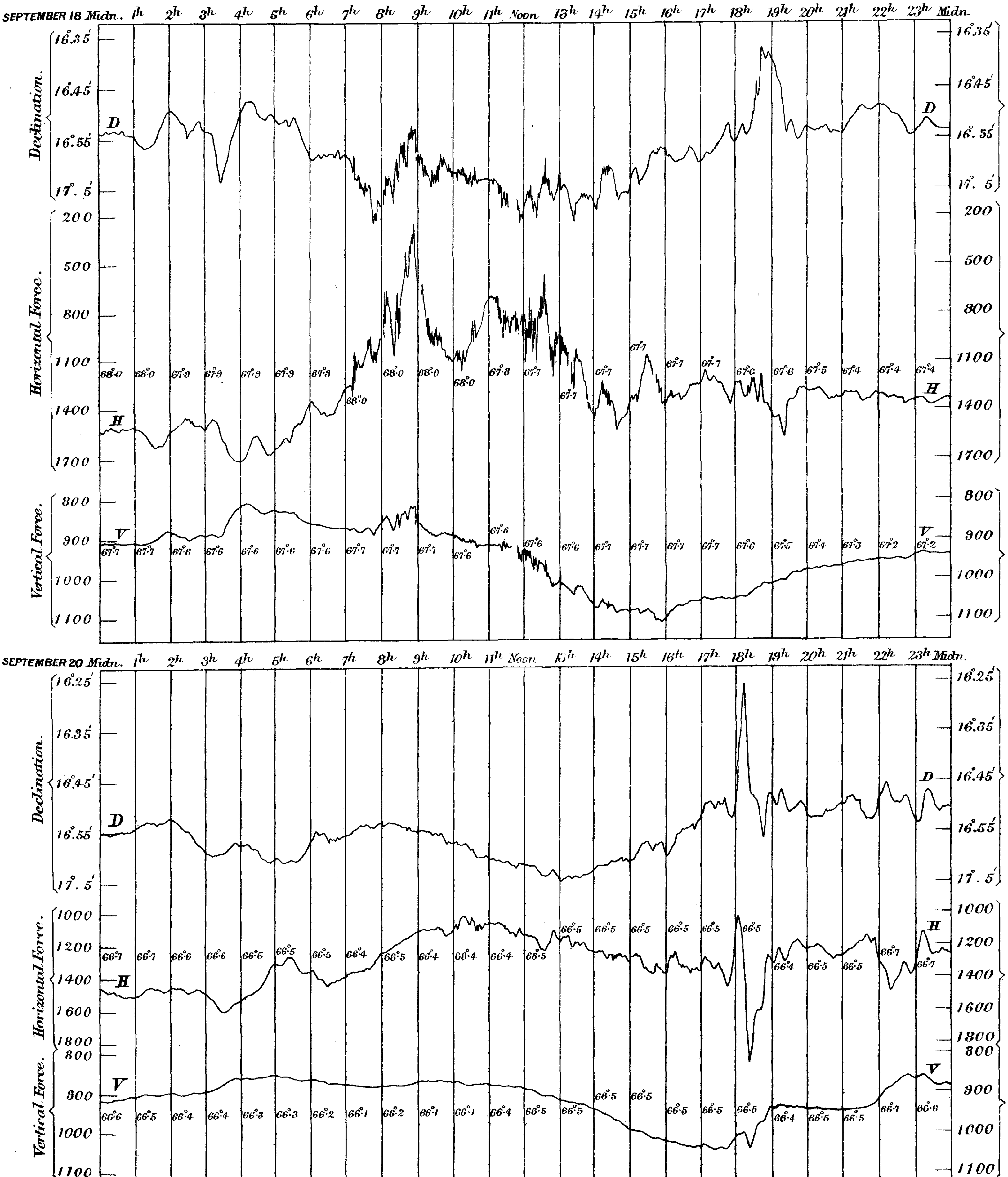


Wyman & Sons, Lt^d. Lith 10444. 6. 98.

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

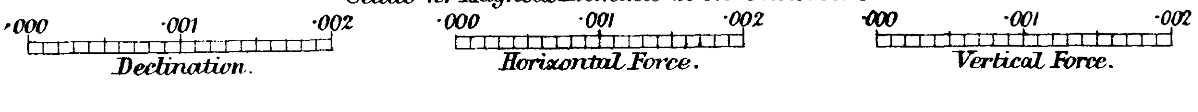


Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1896.

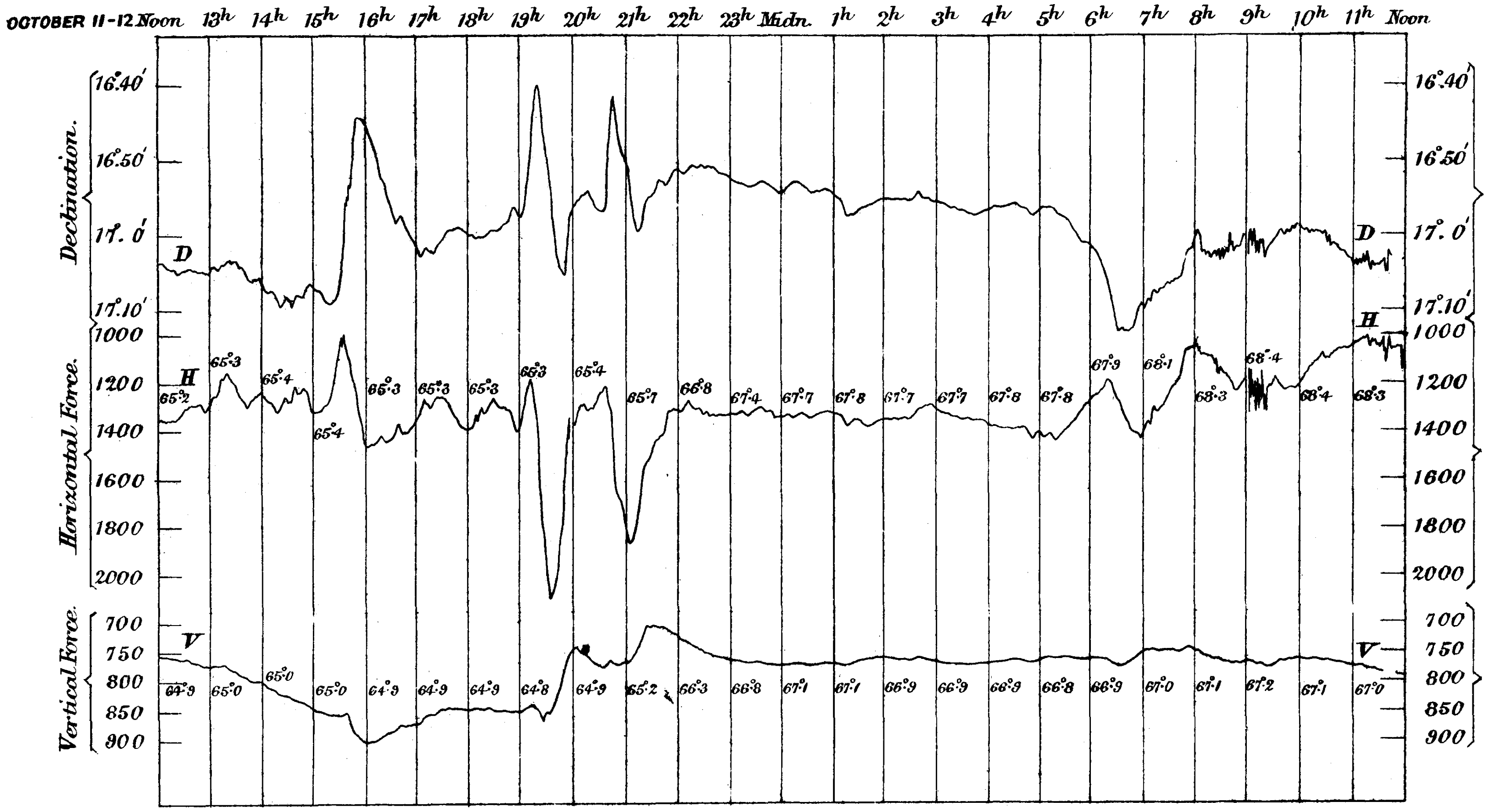


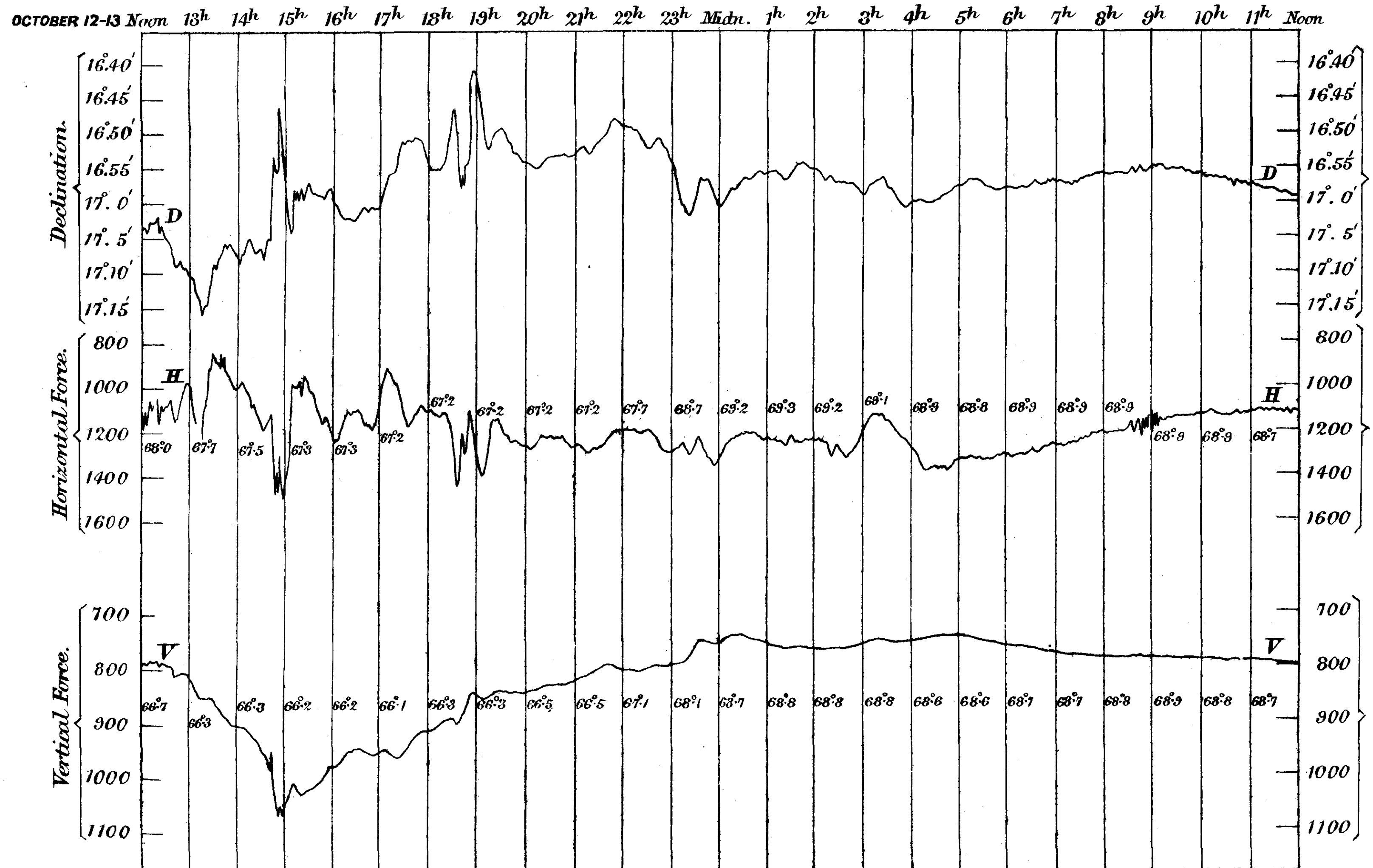
Wyman & Sons, Ltd, Lith, 10444.6.98.

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



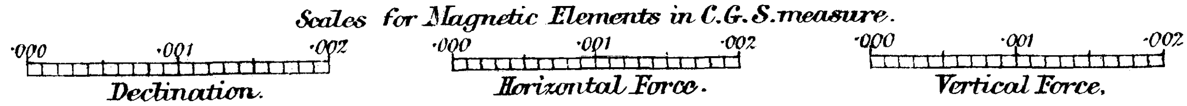
Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1896.





Wyman & Sons, Ltd, Lith. 10444. 6. 98.

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



Magnetic Disturbances recorded at the Royal Observatory, Greenwich, 1896.

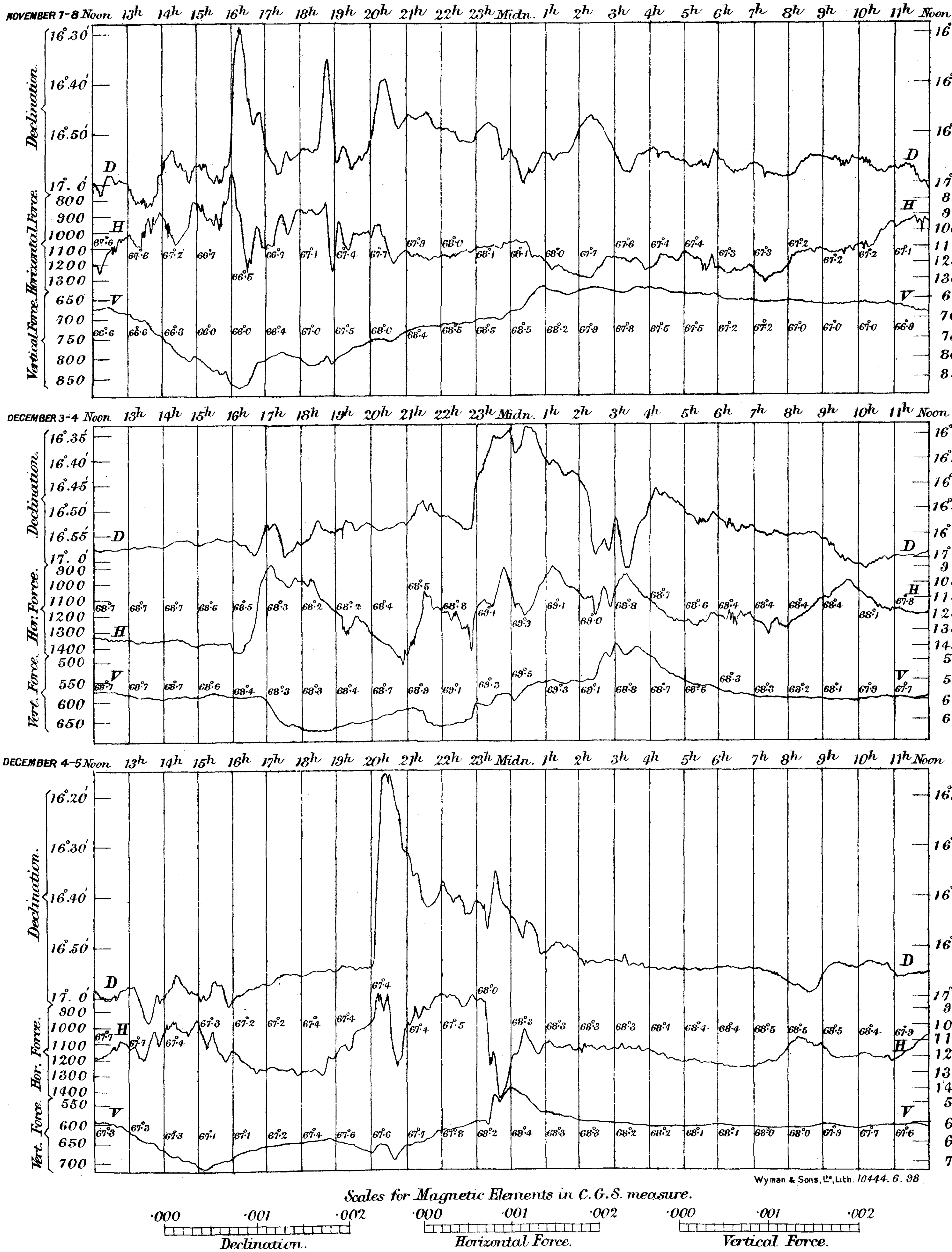


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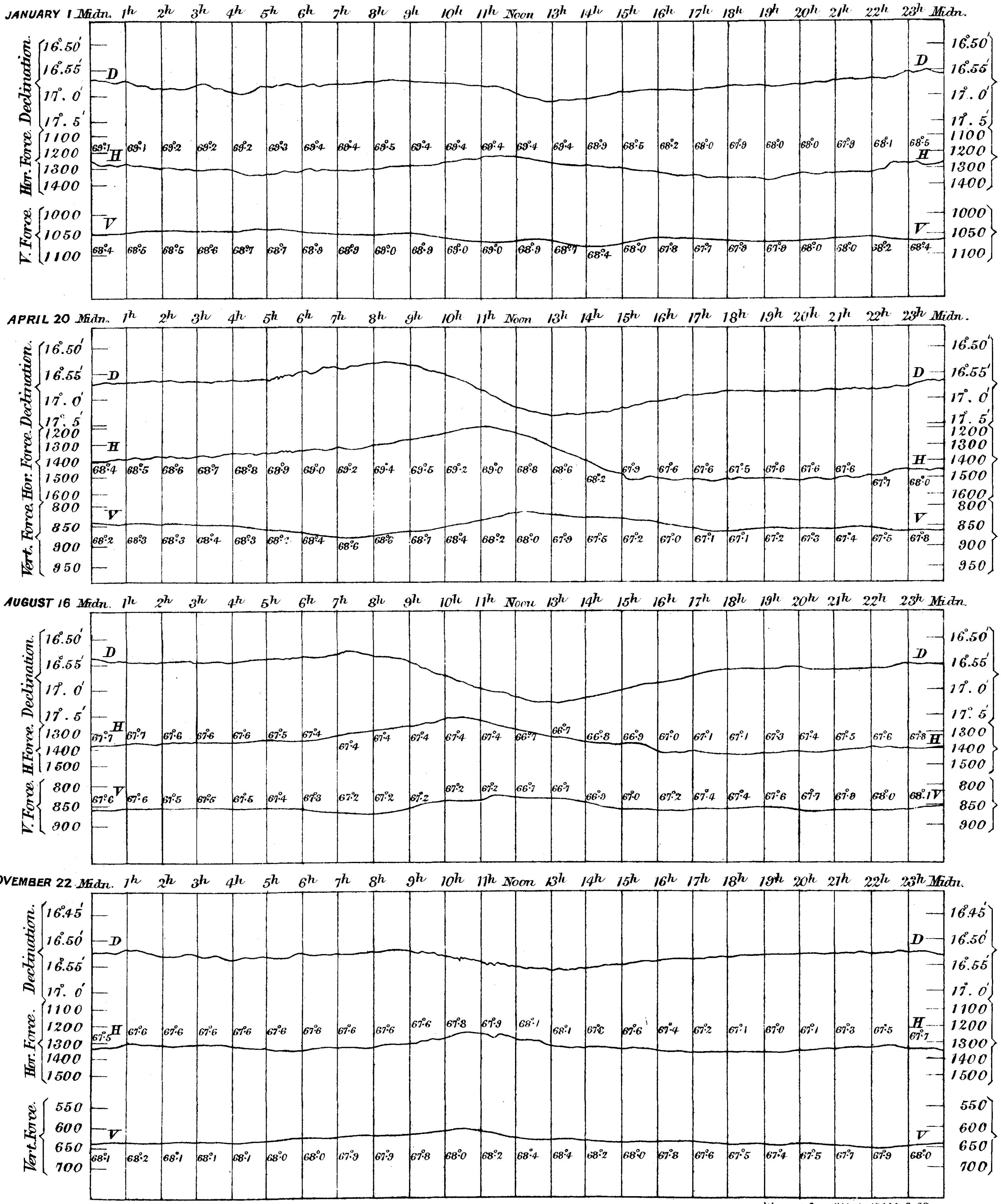
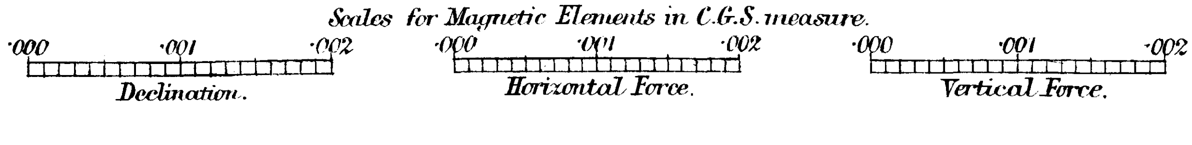
Plate X.

Types of Magnetic Diurnal Variations at four Seasons of the year recorded at the Royal Observatory, Greenwich. 1896.



Wyman & Sons, Ltd, Lith 10444.6.98

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



ROYAL OBSERVATORY, GREENWICH.

RESULTS

OF

METEOROLOGICAL OBSERVATIONS.

1896.

MONTH and DAY, 1896.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.	Of Evaporation. Mean of 24 Hourly Values	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
Jan. 1	...	30·004	49·2	39·2	10·0	44·6	+ 6·1	44·0	43·3	1·3	3·6	0·0	95	54·1	31·9	0·000	0·5	mP
2	...	30·010	51·3	43·7	7·6	48·0	+ 9·5	47·1	46·1	1·9	3·4	0·6	94	51·9	41·8	0·018	1·5	wP : mP
3	...	30·031	43·8	38·6	5·2	41·6	+ 3·1	41·1	40·5	1·1	2·4	0·0	96	44·1	38·6	0·000	1·0	vP
4	Perigee	30·120	42·9	38·1	4·8	40·6	+ 2·2	40·3	40·0	0·6	1·6	0·0	98	44·2	38·1	0·000	0·0	vP
5	...	30·376	39·7	36·8	2·9	38·4	+ 0·1	37·4	36·0	2·4	3·7	0·7	92	41·8	36·5	0·000	1·5	wP : mP : mP
6	In Equator	30·470	38·1	36·0	2·1	37·1	— 1·1	35·6	33·6	3·5	4·0	2·2	87	39·6	35·2	0·000	4·5	wP : mP : mP
7	Last Quarter	30·509	36·4	32·2	4·2	34·1	— 4·0	33·1	31·4	2·7	4·9	0·6	89	46·2	31·9	0·004	0·0	vP
8	...	30·533	44·8	34·1	10·7	39·4	+ 1·4	38·3	36·9	2·5	6·0	0·0	91	51·4	32·2	0·000	0·5	... : vP
9	...	30·681	39·4	32·5	6·9	35·7	— 2·2	33·1	29·1	6·6	8·9	5·3	76	69·0	26·9	0·000	1·5	vP : sP : sP
10	...	30·601	36·8	33·9	2·9	35·2	— 2·7	33·3	30·3	4·9	8·6	0·3	82	45·8	30·2	0·038	0·0	mP : mP : ...
11	...	30·451	42·0	36·0	6·0	39·1	+ 1·2	38·6	38·0	1·1	3·0	0·0	96	45·0	32·4	0·024	0·5	... : vP, sN : vP
12	Greatest Declination S.	30·158	38·8	36·4	2·4	37·6	— 0·3	36·2	34·3	3·3	5·0	1·4	88	39·2	34·7	0·000	1·5	mP : vP
13	...	29·740	43·7	37·3	6·4	39·7	+ 1·7	38·2	36·3	3·4	6·8	0·7	88	56·6	32·7	0·019	0·2	ssN, vP : sP
14	New	29·368	48·0	36·0	12·0	41·7	+ 3·5	40·1	38·1	3·6	5·3	0·9	88	48·0	30·0	0·072	0·8	vP, sN : vP, wN
15	...	29·432	52·3	34·6	17·7	43·4	+ 5·1	41·4	39·0	4·4	13·0	0·7	84	69·5	29·7	0·089	0·5	vP, mN : vP, ssN
16	...	29·813	49·2	38·2	11·0	43·6	+ 5·1	40·5	36·8	6·8	9·2	4·6	77	59·7	31·1	0·000	1·5	mP : sP : mP
17	...	29·980	52·9	43·3	9·6	47·3	+ 8·8	45·0	42·5	4·8	8·8	2·0	84	78·5	37·0	0·000	0·0	mP : sP
18	...	30·046	47·0	43·2	3·8	45·7	+ 7·2	43·4	40·8	4·9	6·7	2·2	84	51·3	36·3	0·000	0·0	wP : mP
19	In Equator	30·149	48·9	32·6	16·3	43·9	+ 5·4	41·6	38·9	5·0	10·7	1·9	82	61·7	24·5	0·000	0·0	mP : sP : ssP
20	Apogee	30·276	41·0	28·3	12·7	34·7	— 3·7	33·9	32·6	2·1	4·1	0·0	92	68·2	22·2	0·000	0·5	sP : ssP
21	...	30·228	38·0	34·5	3·5	36·4	— 1·9	35·2	33·5	2·9	5·8	1·3	90	39·2	31·8	0·003	1·5	mP, wN : sP : sP
22	...	30·090	43·3	32·7	10·6	38·1	— 0·2	36·8	35·0	3·1	5·9	0·3	89	64·5	26·4	0·000	0·0	... : sP : vP
23	First Quarter	30·130	39·8	29·9	9·9	35·5	— 2·9	34·6	33·3	2·2	4·1	0·0	92	45·2	23·8	0·000	0·5	sP : vP : sP
24	...	29·975	46·7	39·0	7·7	41·5	+ 3·0	39·1	36·1	5·4	10·5	2·3	82	84·3	32·0	0·007	1·5	mP : mP : vP
25	...	29·784	51·0	42·0	9·0	47·3	+ 8·5	46·7	46·0	1·3	2·6	0·6	96	52·9	39·8	0·255	0·0	vP, wwN : mP
26	...	30·010	49·1	40·4	8·7	47·0	+ 8·0	46·2	45·3	1·7	2·9	0·4	94	65·3	36·0	0·000	0·0	mP : vP
27	Greatest Declination N.	30·156	48·2	41·0	7·2	44·0	+ 4·7	43·4	42·7	1·3	3·4	0·0	95	55·4	35·8	0·000	1·0	mP
28	...	30·250	48·0	34·0	14·0	43·8	+ 4·3	41·9	39·7	4·1	9·9	0·2	86	63·2	27·0	0·111	0·2	vP, wN : vP
29	...	30·633	41·7	31·5	10·2	35·3	— 4·4	34·7	33·8	1·5	3·7	0·5	94	56·5	24·7	0·000	0·8	sP : vP : vP, wN
30	Full	30·701	41·1	30·2	10·9	36·0	— 3·8	35·1	33·7	2·3	4·6	0·0	92	66·0	24·9	0·000	0·0	vP
31	...	30·619	42·4	36·3	6·1	39·2	— 0·6	37·4	35·1	4·1	6·6	2·2	86	51·9	31·0	0·000	0·2	mP : vP : sP
Means	...	30·172	44·4	36·2	8·2	40·5	+ 2·0	39·1	37·4	3·1	5·8	1·0	89·0	55·2	31·8	Sum 0·640	0·7	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 30in·172, being 0in·394 *higher* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 52°·9 on January 17; the lowest in the month was 28°·3 on January 20; and the range was 24°·6.
The mean of all the highest daily readings in the month was 44°·4, being 1°·3 *higher* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 36°·2, being 2°·6 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 8°·2, being 1°·3 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 40°·5, being 2°·0 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1896.	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	SSE	SSW	...	...	...	166	v : 10 : 9	10 : 10, sc : v, th.-r
2	0·0	7·9	SSW : SW	SW	...	...	...	250	10, li.-shs : 10, th.-r	10 : 10
3	0·0	7·9	SW	SSE : ENE : ESE	...	...	...	134	10 : 10	10, glm : 10, f : 10, f
4	0·0	7·9	E : ESE	ESE	...	...	...	274	10 : 10	10 : 10
5	0·0	7·9	ESE	ESE	...	...	...	258	10 : 10	10 : 10
6	0·0	8·0	ESE	ESE : ENE	...	...	...	146	10 : 10	10 : 10
7	0·1	8·0	NE	NNE	...	...	...	227	10,slt.-sn: 10, slt.-sn: 9	10 : 10
8	0·1	8·0	N : NNE	NNE	...	...	...	321	10 : 10	10, oc.-th.-r : v, li.-cl : v
9	1·0	8·1	NNE : NE	NE : NNE	...	...	...	361	10 : v : 3, ci.-cu	p.-cl : v, slt.-sn : p.-cl
10	0·0	8·1	NNE	N : NNE	...	...	...	219	10 : 10	v : 10, sl : 10, sl
11	0·0	8·1	NNE : NE	NNE	...	...	...	250	10, fq.-th.-r : 10, slt.-r, sc	10, slt.-r : 10, oc.-slt.-r: 10
12	0·0	8·2	N : NW : WSW	W : WSW	...	...	...	207	10 : 10, glm, slt.-f	10, glm, slt.-sh : 10
13	0·0	8·2	WSW : W : WNW	W : WSW : SW	...	...	...	330	10, slt.-r : 1, li.-cl : p.-cl	7,cu.-s,li.-cl: p.-cl : 10, shs.-r
14	0·0	8·2	SSW : WSW : N	N : SW	...	...	...	381	10, oc.-shs : 10, glm, sh.-r	10, oc.-slt.-r : v : v
15	0·7	8·3	SSW : SW	WSW : WNW : W	...	...	...	591	10, oc.-shs : 10, oc.-shs	v,shs.-r, st.-w: v, sq, hy.-r: 0
16	0·6	8·3	WSW : W	WSW : W	6·0	0·0	1·35	553	p.-cl : 0 : v, ci.-cu	v, ci.-cu : v : 10
17	0·2	8·3	WSW	W : WSW	3·0	0·0	0·38	370	p.-cl : 9	10 : p.-cl : v
18	0·0	8·4	WSW	WSW	3·8	0·0	0·37	346	10 : v : 10	10 : 10
19	0·3	8·4	WSW	NNE : NE : Calm	0·9	0·0	0·02	157	10 : 10 : 10,gt.-glm,f	v, glm : 0 : 0, slt.-f
20	2·7	8·5	Calm : ENE	E : ENE : ESE	0·6	0·0	0·00	96	0, ho.-fr, slt.-f : 0, slt.-f	1, li.-cl : 10 : 10, slt.-f
21	0·0	8·5	ENE : NNE	NE : SW	0·2	0·0	0·00	98	10, slt.-f : 10, slt.-f : 10, slt.-f,glm	10, slt.-f : 10
22	0·7	8·6	WSW	W : NW : N	0·4	0·0	0·03	202	10 : v,f,ho.-fr,m : v	10, glm : 10, th.-r : 10
23	0·0	8·6	NE : SE	SE : SSE	0·2	0·0	0·00	116	1,li.-cl,ho.-fr: tk.-f : 10, f	10 : v, slt.-r : p.-cl
24	3·6	8·7	SSW	SSW	3·8	0·0	0·49	353	10, th.-r : 10 : 2, ci.-cu	6, th.-cl : 10,oc.-slt.-r: 10
25	0·0	8·7	SSW	SW	3·3	0·0	0·61	386	10, fq.-r : 10, slt.-r : 10, slt.-r	10, r : 10, fq.-r : 10, slt.-r
26	0·7	8·8	N : NNE	NE : SE	1·0	0·0	0·02	127	10 : 10	v, h : 10 : 10
27	0·0	8·8	SE : S	SSW	2·7	0·0	0·15	241	10 : v	v : v, h, th.-cl: 10, slt.-r
28	0·4	8·9	SW : NNE	NNE : W	3·0	0·0	0·08	202	10 : 10, shs.-r : 7, ci.-cu, glm	v, li.-cl : 1, li.-cl, m: p.-cl, f
29	0·1	8·9	WSW	Variable	0·0	0·0	0·00	125	f, ho.-fr: p.-cl, slt.-f: 1, slt.-f	1,li.-cl,slt.-f: v, f, ho.-fr: f
30	1·9	9·0	WSW	W : WSW	0·3	0·0	0·00	178	tk.-f : v, f	0 : 10
31	0·0	9·0	WSW : N	N	0·8	0·0	0·00	127	p.-cl : 10, glm : 10	10 : 10
Means	0·4	8·4	...	...	...	...	...	251		
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°·1, being 1°·9 *higher* than
The mean *Temperature of the Dew Point* for the month was 37°·4, being 2°·0 *higher* than
The mean *Degree of Humidity* for the month was 89·0, being 0·2 *greater* than
The mean *Elastic Force of Vapour* for the month was 0in·224, being 0in·017 *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·6, being 0gr·2 *greater* than
The mean *Weight of a Cubic Foot of Air* for the month was 559 grains, being 5 grains *greater* than
} the average for the 50 years, 1841–1890.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·051. The maximum daily amount of *Sunshine* was 3·6 hours on January 24.

The highest reading of the *Solar Radiation Thermometer* was 84°·3 on January 24; and the lowest reading of the *Terrestrial Radiation Thermometer* was 22°·2 on January 20.

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 0·0.

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

The *Pressure Apparatus* of Osler's Anemometer was under repair until January 15. The mean daily *Horizontal Movement of the Air* for the month was 251 miles; the greatest daily value was 591 miles on January 15; and the least daily value was 96 miles on January 20.

Rain fell on 9 days in the month, amounting to 0in·640, as measured by gauge No. 6 partly sunk below the ground; being 1in·349 *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1896.	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.		
Feb. 1	Perigee	30·447	39·0	36·4	2·6	38·0	− 1·7	36·2	33·8	4·2	5·8	2·4	85	39·0	35·0	0·000	0·8	mP : sP : mP
2	In Equator	30·410	39·0	30·5	8·5	35·6	− 4·1	33·9	31·3	4·3	6·0	1·8	84	64·7	24·5	0·000	0·0	mP : sP
3	...	30·513	41·8	29·4	12·4	34·3	− 5·4	33·4	31·9	2·4	6·2	0·7	90	71·7	23·0	0·000	0·0	mP : sP
4	...	30·439	41·0	34·2	6·8	37·3	− 2·5	35·8	33·7	3·6	6·9	1·5	87	62·1	27·5	0·000	0·2	mP : sP
5	...	30·392	47·0	34·3	12·7	41·4	+ 1·6	40·5	39·4	2·0	2·9	0·7	93	50·0	27·3	0·000	0·8	sP
6	Last Quarter	30·388	42·9	35·2	7·7	40·5	+ 0·8	39·5	38·2	2·3	5·3	0·7	92	43·9	27·0	0·000	0·2	mP : vP : sP
7	...	30·304	44·5	35·8	8·7	40·7	+ 1·3	39·6	38·2	2·5	5·1	0·0	91	48·1	28·0	0·000	1·0	vP
8	Greatest Declination S.	30·064	54·1	34·3	19·8	44·4	+ 5·3	42·4	40·0	4·4	10·0	0·8	85	84·3	29·5	0·000	0·8	mP
9	...	30·056	53·2	41·5	11·7	48·8	+10·1	47·4	45·9	2·9	8·0	0·4	90	77·4	33·4	0·109	0·0	wwP : mP : vP
10	...	30·255	51·0	35·1	15·9	43·5	+ 5·1	42·5	41·3	2·2	9·7	0·0	92	79·9	34·6	0·000	1·0	ssP : vP : mP
11	...	30·298	50·1	39·2	10·9	44·5	+ 6·2	43·3	41·9	2·6	6·1	0·2	91	79·7	34·2	0·000	3·0	mP
12	...	30·159	56·2	38·4	17·8	45·8	+ 7·3	42·2	38·1	7·7	16·8	0·7	75	96·0	34·0	0·030	0·0	wP : mP : vP, wN
13	New	30·261	48·7	40·0	8·7	44·2	+ 5·4	41·9	39·2	5·0	9·5	1·8	82	87·7	36·0	0·000	0·0	vP
14	...	30·298	43·2	36·1	7·1	40·6	+ 1·4	37·8	34·3	6·3	9·7	2·9	79	50·9	29·0	0·000	0·5	wP : vP, wwN
15	...	30·275	48·0	39·0	9·0	43·7	+ 4·1	41·8	39·6	4·1	8·4	1·5	85	54·0	38·5	0·000	1·5	mP : sP : vP
16	Apogee: In Equator	30·444	40·9	36·2	4·7	38·9	− 0·9	37·0	34·4	4·5	6·0	1·7	85	44·0	36·0	0·000	1·2	mP
17	...	30·344	42·2	33·0	9·2	36·5	− 3·3	34·6	31·9	4·6	7·1	1·7	84	88·6	29·6	0·000	5·2	wP : mP : sP
18	...	30·083	37·1	31·0	6·1	34·0	− 5·7	33·8	33·5	0·5	2·1	0·0	98	42·0	31·0	0·000	4·5	mP : sP : ssP
19	...	29·708	55·5	33·5	22·0	43·8	+ 4·2	41·9	39·7	4·1	9·4	0·0	86	90·0	29·2	0·000	0·2	vP : mP
20	...	29·550	54·0	46·4	7·6	49·3	+ 9·8	47·6	45·8	3·5	6·2	1·3	88	63·4	41·2	0·051	0·8	vP, vN
21	First Quarter	29·602	47·7	41·5	6·2	46·2	+ 6·7	45·9	45·6	0·6	2·4	0·0	98	47·7	40·0	0·107	0·0	vP, vN
22	...	29·825	42·7	32·5	10·2	37·3	− 2·3	35·2	32·3	5·0	8·8	1·3	83	87·3	26·7	0·000	0·2	mP, sN : mP
23	Greatest Declination N.	30·137	40·0	28·8	11·2	33·5	− 6·3	31·4	27·5	6·0	11·2	2·0	78	89·0	23·8	0·000	0·8	wP
24	...	30·277	40·4	26·7	13·7	32·7	− 7·2	30·7	26·6	6·1	10·1	0·0	78	93·4	20·0	0·000	1·0	mP
25	...	30·122	34·0	24·3	9·7	29·5	−10·5	27·7	21·7	7·8	11·2	1·6	71	74·7	17·4	0·000	0·0	mP : wP : sP
26	...	29·907	35·2	25·0	10·2	30·5	− 9·6	29·0	24·8	5·7	8·4	3·0	78	47·0	20·0	0·000	0·8	ssP
27	...	30·016	43·9	33·9	10·0	38·3	− 1·8	35·7	32·2	6·1	11·4	2·4	79	71·0	30·4	0·000	2·2	sP : vP : mP
28	Full	29·977	54·1	43·0	11·1	48·6	+ 8·4	46·3	43·8	4·8	9·0	1·5	84	61·2	39·0	0·010	0·0	vP
29	Perigee: In Equator	29·926	52·9	44·3	8·6	49·1	+ 8·9	46·9	44·5	4·6	7·3	2·3	84	55·2	41·8	0·048	0·7	vP, wwN
Means	...	30·154	45·5	35·2	10·4	40·4	+ 0·9	38·7	36·2	4·2	7·8	1·2	85·3	67·0	30·6	Sum 0·355	0·9	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 30in·154, being 0in·355 *higher* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 56°·2 on February 12; the lowest in the month was 24°·3 on February 25; and the range was 31°·9.
The mean of all the highest daily readings in the month was 45°·5, being 0°·2 *higher* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 35°·2, being 0°·9 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 10°·4, being 0°·6 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 40°·4, being 0°·9 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1896.	Daily Duration of Sunshine.	Sun above Horizon.	WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Least.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	CLOUDS AND WEATHER. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
Feb. 1	0·0	9·1	Calm : NNE	NE : S	0·0	0·0	0·00	78	10 : 10, glm	10 : 10
2	2·5	9·2	Calm : N : NE	NE : SE	0·0	0·0	0·00	107	10 : 10 : 2	0 : 0 : 0, ho.-fr
3	4·3	9·2	ENE : E	ESE	3·0	0·0	0·05	194	0, ho.-fr : 0	1, li.-cl : 0, ho.-fr : 10
4	0·1	9·3	SE : WSW	WSW	0·3	0·0	0·00	160	10 : 10	2 : 0 : 0
5	0·0	9·3	WSW	WSW	1·3	0·0	0·04	252	0 : 10 : 10	10 : p.-cl : 10
6	0·0	9·4	WSW : SW	SW	1·3	0·0	0·01	178	10 : 10	10 : 0, ho.-fr
7	0·0	9·4	SW	SW	2·3	0·0	0·08	237	10 : 10	10 : 10
8	2·6	9·5	SSW	SSW : SW	6·2	0·0	0·70	430	0, d : 1, li.-cl : p.-cl	1, li.-cl, so.-ha : 10
9	0·7	9·6	SW : W : WSW	WSW	3·3	0·0	0·18	279	10 : 10, oc.-r : 10, th.-r	v : 0, slt.-f : 0, f
10	1·4	9·6	WSW	WSW : SW	1·9	0·0	0·05	188	f : tk.-f : 1, li.-cl, f	v : 10 : v, d
11	1·7	9·7	WSW	WSW : SW	2·2	0·0	0·07	291	10 : p.-cl : v	v, glm : 0 : 0, d
12	7·0	9·8	WSW	WSW	4·1	0·0	0·26	416	10 : 10 : 1, li.-cl	3, li.-cl : v : 10, shs.-r
13	2·2	9·8	WSW : NE	NE	0·7	0·0	0·03	215	10 : 1, li.-cl, cu.-s	10 : 10
14	0·0	9·9	ENE : SE : S	SW : WSW	0·3	0·0	0·02	175	10 : 10	10, oc.-th.-r : 10
15	0·0	9·9	NW : N : NE	NNE : NE	1·0	0·0	0·04	197	10 : 10	10 : 10, slt.-sh
16	0·0	10·0	NE	NE : ENE : E	0·6	0·0	0·02	191	10 : 10	10 : 10, l
17	4·3	10·1	E : ESE	ESE	1·6	0·0	0·06	231	10 : 10 : p.-cl	1, li.-cl : 0 : 10
18	0·0	10·1	ESE	ESE : E	0·9	0·0	0·03	170	10 : 10, slt.-f	10 : v, tk.-f
19	2·3	10·2	E : SSE	SSE : S	2·2	0·0	0·03	188	f : p.-cl, slt.-f : 9, ci.-cu	8, ci.-cu, li.-cl : 10 : 8, th.-cl, shs.-r
20	0·0	10·3	S : SSE : SSW	SSW : S : SSE	1·3	0·0	0·02	170	v, oc.-slt.-r : 10 : 10	10 : 10, slt.-r : 10
21	0·0	10·3	S : WSW	Calm : ESE	0·6	0·0	0·00	103	10, oc.-r : 10, r, glm, slt.-f	10, m.-r, slt.-f : 10, th.-r : v
22	7·9	10·4	ESE	ENE	3·5	0·0	0·13	287	10 : p.-cl : 0	1, cu.-s, li.-cl : 0, ho.-fr
23	7·7	10·5	ENE : E	E : ENE	3·5	0·0	0·20	291	0, ho.-fr : 0	0 : 0, ho.-fr
24	8·2	10·5	ENE : E	E	2·7	0·0	0·20	279	0, ho.-fr : 0	0 : v
25	1·6	10·6	ENE : E	ESE : E : NE	2·7	0·0	0·08	219	v : 10, ho.-fr : 10	v, ci.-s : 0 : p.-cl
26	0·0	10·7	NNW : N : NNE	NNE : N	2·6	0·0	0·16	223	10, ho.-fr : 10	10, slt.-sn : 10, sc : 10
27	2·1	10·7	N : NE	NW : WSW	1·4	0·0	0·11	249	10 : 10 : p.-cl	10 : 10, slt.-r
28	0·0	10·8	WSW : W	W : NW	3·5	0·0	0·34	411	10 : 10, li.-shs : 10, slt.-r, sc	10 : v
29	0·0	10·8	NW : SW : WSW	WNW : W	2·8	0·0	0·16	329	10 : 10, li.-shs : 10, slt.-r	10 fq.-r : 10, oc.-slt.-r : 10
Means	2·0	10·0	...	...	...	...	0·11	232		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 38°·7, being 0°·9 *higher* than
The mean *Temperature of the Dew Point* for the month was 36°·2, being 0°·6 *higher* than
The mean *Degree of Humidity* for the month was 85·3, being 0·7 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·214, being 0in·006 *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·5, being 0gr·1 *greater* than
The mean *Weight of a Cubic Foot of Air* for the month was 559 grains, being 6 grains *greater* than
} the average for the 50 years, 1841–1890.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·196. The maximum daily amount of *Sunshine* was 8·2 hours on February 24.

The highest reading of the *Solar Radiation Thermometer* was 96°·0 on February 12; and the lowest reading of the *Terrestrial Radiation Thermometer* was 17°·4 on February 25.

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

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

The *Greatest Pressure of the Wind* in the month was 6·2 lbs. on the square foot on February 8. The mean daily *Horizontal Movement of the Air* for the month was 232 miles; the greatest daily value was 430 miles on February 8; and the least daily value was 78 miles on February 1.

Rain fell on 6 days in the month, amounting to 0in·355, as measured by gauge No. 6 partly sunk below the ground; being 1in·129 *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1896.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
Mar. 1	...	29.519	52.1	39.2	12.9	47.8	+ 7.6	45.8	43.6	4.2	11.1	1.3	87	56.9	35.0	0.075	2.5	wP : vP, wwN : sP
2	...	29.343	48.8	36.8	12.0	42.6	+ 2.2	39.4	35.5	7.1	12.0	3.2	77	74.1	33.0	0.000	0.8	mP
3	...	28.794	48.5	37.0	11.5	42.8	+ 2.3	40.1	36.8	6.0	13.2	3.0	80	88.1	32.3	0.301	1.0	vP, vN : vP, vN : mP
4	...	28.725	48.1	34.9	13.2	39.0	− 1.7	36.8	33.9	5.1	10.9	1.2	83	82.4	30.0	0.173	3.0	wP : vP, ssN : ssN, vP
5	...	29.277	49.2	35.0	14.2	42.8	+ 1.9	39.6	35.7	7.1	13.4	1.6	77	80.0	29.3	0.009	0.0	vP, ssN : vP
6	Last Quarter	29.524	53.8	44.4	9.4	49.2	+ 8.1	46.4	43.4	5.8	10.0	2.0	81	64.0	39.9	0.017	1.5	mP, ssN : wP
7	Greatest Declination S.	29.811	50.2	40.5	9.7	45.8	+ 4.8	43.4	40.7	5.1	13.0	0.0	83	51.2	34.9	0.444	5.0	mP : vP, vN : vP, wN
8	...	29.762	55.7	50.2	5.5	52.9	+12.0	51.2	49.5	3.4	6.6	0.2	89	62.7	48.2	0.016	1.5	wP : mP
9	...	29.790	59.1	45.2	13.9	52.5	+11.7	50.4	48.3	4.2	10.1	0.6	86	80.0	42.0	0.226	0.0	wP : mP, wN : wN, vP
10	...	30.095	54.1	36.6	17.5	44.2	+ 3.5	41.4	38.1	6.1	12.8	0.2	79	99.4	31.8	0.003	1.0	vP : mP
11	...	29.907	59.1	43.3	15.8	51.1	+10.5	48.7	46.2	4.9	8.4	1.8	84	94.1	40.8	0.077	3.0	wP : mP : vP, sN
12	...	29.907	47.5	36.6	10.9	42.8	+ 2.1	40.4	37.5	5.3	8.8	2.4	82	64.5	33.0	0.019	2.0	vP, vN : mP
13	...	29.797	44.3	33.9	10.4	39.1	− 1.8	36.2	32.4	6.7	11.0	3.1	78	73.0	28.1	0.000	0.0	mP : wP
14	New: In Equator.	29.670	53.9	39.4	14.5	44.8	+ 3.6	42.2	39.2	5.6	9.0	4.1	81	88.0	37.3	0.026	0.0	vP, vN
15	Apogee	29.705	53.0	32.1	20.9	43.3	+ 1.9	41.1	38.5	4.8	12.0	0.6	83	94.0	25.3	0.003	3.5	mP : vP, wwN
16	...	29.635	55.9	43.9	12.0	49.3	+ 7.8	45.7	41.9	7.4	18.0	2.3	76	95.9	40.0	0.016	3.0	wP, vN : mP
17	...	29.727	56.8	41.3	15.5	48.3	+ 6.7	46.0	43.5	4.8	12.0	2.0	84	101.1	36.8	0.008	5.8	mP
18	...	29.476	52.0	37.7	14.3	45.6	+ 4.0	44.8	43.9	1.7	2.9	0.9	94	52.0	37.0	0.885	3.8	vP, vN
19	...	29.772	48.1	33.2	14.9	40.1	− 1.4	38.2	35.7	4.4	9.5	0.5	85	67.3	27.7	0.000	1.0	vP
20	...	29.737	49.3	38.4	10.9	45.1	+ 3.7	43.4	41.4	3.7	8.4	1.7	87	58.8	33.0	0.134	4.0	wP
21	Greatest Declination N.	29.665	54.0	46.4	7.6	50.1	+ 8.7	48.8	47.4	2.7	4.8	1.0	91	64.7	45.1	0.119	3.5	wP, wwN : vP, mN
22	First Quarter	29.814	67.7	46.5	21.2	55.2	+13.7	51.6	48.2	7.0	16.9	0.0	78	120.2	40.7	0.000	1.5	vP : mP : vP
23	...	29.836	62.7	43.3	19.4	52.1	+10.3	49.4	46.6	5.5	12.9	0.0	82	101.2	38.1	0.000	0.0	mP, wwN
24	...	29.673	63.7	44.3	19.4	52.8	+10.7	50.1	47.4	5.4	9.7	1.7	82	108.5	39.1	0.075	0.8	vP, vN
25	...	29.555	62.4	47.4	15.0	53.2	+10.8	49.9	46.6	6.6	14.1	2.5	78	110.0	42.7	0.000	2.8	wP : wP : mP
26	...	29.585	53.3	45.2	8.1	47.9	+ 5.0	43.8	39.3	8.6	18.3	1.7	73	101.9	41.6	0.080	1.5	wP : vP, vN
27	...	29.753	50.2	36.5	13.7	44.4	+ 1.1	39.7	34.2	10.2	17.0	2.5	67	87.3	30.5	0.010	0.5	vP, ssN : vP : sP
28	In Equator: Perigee.	29.486	46.2	35.3	10.9	39.9	− 3.8	37.4	34.1	5.8	9.2	2.2	80	57.8	29.4	0.242	2.5	mP : vN, vP : sP
29	Full	29.607	43.0	37.0	6.0	39.1	− 5.0	37.2	34.7	4.4	6.7	2.5	85	63.0	33.2	0.030	2.2	vP, vN
30	...	29.882	51.0	33.2	17.8	40.6	− 4.0	37.8	34.3	6.3	15.5	2.8	79	105.8	28.0	0.003	2.0	sP
31	...	30.004	51.0	36.3	14.7	42.1	− 2.9	39.3	35.9	6.2	12.6	1.2	79	96.0	31.8	0.005	0.0	sP : vP, vN
Means	...	29.640	53.1	39.7	13.3	46.0	+ 4.3	43.4	40.5	5.6	11.3	1.6	81.6	82.1	35.3	Sum 2.996	1.9	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was $29^{in}.640$, being $0^{in}.113$ *lower* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was $67^{\circ}.7$ on March 22 ; the lowest in the month was 32 1 on March 15 ; and the range was $35^{\circ}.6$.
The mean of all the highest daily readings in the month was $53^{\circ}.1$, being $3^{\circ}.4$ *higher* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was $39^{\circ}.7$, being $4^{\circ}.7$ *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was $13^{\circ}.3$, being $1^{\circ}.4$ *less* than the average for the 50 years, 1841–1890.
The mean for the month was $46^{\circ}.0$, being $4^{\circ}.3$ *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1896.	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	WSW	WSW : WNW	4·5	0·0	0·50	454	v : 10 : 10, r	10, slt.-r : v, li.-cl : 0
2	1·5	10·9	WSW : W	W : SW	5·8	0·0	0·72	493	0, d : 0 : v	10 : v, ci.-cu : v, w
3	2·5	11·0	SW : WSW	WSW : SW	18·0	0·0	2·24	667	10, w, li.-shs : 10, st.-w, hy.-r, hl : v, w	10, sq, glm, r, sn, t : v : 0
4	1·2	11·1	WSW : SW	WSW : W	8·9	0·0	0·94	477	v, li.-cl : 0 : 10, shs.-r, hl	8 : v, hy.-r, sn : 0
5	0·4	11·1	WSW : WNW	WNW : WSW	7·4	0·0	1·07	515	10 : 5, cu.-s	8, cu.-s, w : p.-cl : 10, slt.-r
6	0·0	11·2	WSW : W	WSW : W	20·0	0·0	2·67	754	10, sh.-r : 10 : 10, w, sc	10, st.-w, sc : 10, st.-w, oc.-slt.-r : v, st.-w, sh.-r
7	0·0	11·2	WNW : WSW	WSW	8·3	0·0	0·56	343	v, w : 10 : 10, r, t	10, r : 10, hy.-r : 10, c.-r
8	0·0	11·3	WSW	WSW	9·8	0·0	1·44	599	10, slt.-r : 10, slt.-r : 10, w, sc	10, w : 10, w : 10
9	0·2	11·4	WSW : WNW	W : NNE	5·3	0·0	0·29	376	10 : 10 : 10, slt.-sh	10, r : 10, r : v
10	2·3	11·4	N : NE : SE	SW	1·8	0·0	0·08	183	10 : 10, f : v	v, cu.-s, th.-cl : th.-cl, so.-ha : 10
11	0·7	11·5	SW : WSW	W : N	3·2	0·0	0·23	339	10, slt.-shs : v, ci.-cu	9 : 10 : 10, r
12	0·0	11·6	ESE : ENE	NE : SE	1·4	0·0	0·05	189	10, slt.-r : 10, slt.-r	10 : 10 : v
13	0·0	11·6	SE	SSE : SE	1·1	0·0	0·03	157	v : 10 : 9	10 : 10
14	0·3	11·7	SSE : SW	WSW : N	2·5	0·0	0·08	199	10 : 10, sh.-r : 10	9, hy.-sh : v, sh.-r : 10
15	1·0	11·8	W : SW	SW	8·4	0·0	0·62	321	v, ho.-fr : 9 : v	v : 10, fq.-th.-r, sc, w : v
16	1·5	11·8	SW	W : WSW	27·5	0·0	2·22	714	10 : 10, oc.-li.-shs, w : 10, oc.-r, st.-w	p.-cl, g : 0, w
17	0·7	11·9	SW	SW	5·8	0·0	0·58	439	0 : 0 : v	10, shs.-r, sc : 10
18	0·0	12·0	SW : N : NNE	NNE	3·7	0·0	0·21	297	10, r : 10, c.-r : 10, c.-r	10, c.-r : 10, r : v, m
19	1·7	12·0	N : W : S	SSE : SSW	0·4	0·0	0·02	154	0, ho.-fr : 0 : 0, f, h	1, li.-cl, h : 0 : 0, ho.-fr
20	0·0	12·1	SSW : SW	SSW	6·0	0·0	0·80	421	0 : 10, slt.-shs : 10, oc.-slt.-r	10, slt.-shs : 10, fq.-r : 10, c.-r
21	0·0	12·2	SSW : SW	SSW	2·7	0·0	0·29	292	10, c.-r : 10, oc.-r : 10, fq.-m.-r	v : 10, fq.-th.-r
22	8·6	12·2	Calm : SE	SW	0·7	0·0	0·02	136	10 : 1, ci.-cu, li.-cl : 0	0 : 0 : 0, m, l
23	2·8	12·3	Calm : WSW	WSW : SW	0·4	0·0	0·01	175	p.-cl : tk.-f : 3, cu.-s, li.-cl, h	5, cu.-s : 0 : 0
24	6·0	12·4	Calm : ESE	ESE : SSE	2·5	0·0	0·04	170	10 : v, li.-shs, m : v, sh.-r	1, li.-cl : 2, li.-cl : v, sh.-r
25	4·3	12·4	S : SW	SSW	3·4	0·0	0·10	278	v : v, ci.-s, sc	v, li.-cl : v, li.-cl
26	1·8	12·5	SSW : WSW : WNW	WNW : WSW : SSW	11·0	0·0	0·89	503	10 : 10, slt.-r : v, w	v, w : 10, prh, r : 10, r
27	4·1	12·6	WSW : NW	NNW : WSW	14·0	0·0	1·56	534	10, shs.-r, st.-w : p.-cl, w	10, slt.-r : 0
28	0·4	12·6	SSW : NW	NNW : NW	13·0	0·0	1·21	484	0 : 10, sc : 10, fq.-r, hl, t	10, fq.-hy.-shs, sn : v, oc.-shs : 0
29	0·0	12·7	NW : N	N : NNE	5·7	0·0	1·14	444	v : 10, shs.-r : 10, oc.-slt.-r	10, fq.-slt.-r : v, li.-cl
30	4·3	12·8	N : NNE	NNE	4·3	0·0	0·35	322	v, d : p.-cl : v	4, cu, li.-cl : v, li.-cl
31	3·5	12·8	N : NE	NNE : NNW	1·7	0·0	0·05	212	10 : p.-cl : 9, cu.-s	v : 0, h, so.-ha : v, li.-shs
Means	1·6	11·8	...	...	...	...	0·68	376		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 43°·4, being 4°·1 *higher* than
The mean *Temperature of the Dew Point* for the month was 40°·5, being 4°·2 *higher* than
The mean *Degree of Humidity* for the month was 81·6, being 0·5 *greater* than
The mean *Elastic Force of Vapour* for the month was 0in·252, being 0in·038 *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·9, being 0gr·4 *greater* than
The mean *Weight of a Cubic Foot of Air* for the month was 543 grains, being 7 grains *less* than
} the average for the 50 years, 1841–1890.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·136. The maximum daily amount of *Sunshine* was 8·6 hours on March 22.

The highest reading of the *Solar Radiation Thermometer* was 120°·2 on March 22; and the lowest reading of the *Terrestrial Radiation Thermometer* was 25°·3 on March 15.

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

The *Proportions of Wind* referred to the cardinal points were N. 6, E. 3, S. 9, and W. 13.

The *Greatest Pressure of the Wind* in the month was 27·5 lbs. on the square foot on March 16. The mean daily *Horizontal Movement of the Air* for the month was 376 miles; the greatest daily value was 754 miles on March 6; and the least daily value was 136 miles on March 22.

Rain fell on 22 days in the month, amounting to 2in·996, as measured by gauge No. 6 partly sunk below the ground; being 1in·535 *greater* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1896.	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.		
April 1	...	29.929	49.6	36.5	13.1	45.0	− 0.4	42.4	39.4	5.6	12.1	2.9	81	59.8	30.5	0.020	0.5	vP, vN : vP
2	...	29.998	49.0	33.6	15.4	41.2	− 4.5	37.4	32.7	8.5	15.1	3.0	72	96.3	27.5	0.000	1.5	sP : vP : vP
3	Greatest Declination S.	29.981	50.0	37.7	12.3	43.5	− 2.5	41.2	38.5	5.0	9.9	1.5	82	86.2	32.7	0.000	0.0	sP : mP
4	...	29.997	52.6	37.1	15.5	45.1	− 1.1	43.4	41.4	3.7	10.8	0.2	87	70.8	28.0	0.135	0.0	mP : vP, vN
5	Last Quarter	30.008	53.2	47.0	6.2	50.0	+ 3.8	48.4	46.7	3.3	8.6	0.6	89	63.2	42.0	0.022	0.0	mP, wwN : mP
6	...	30.034	57.3	45.5	11.8	51.3	+ 5.1	47.6	43.8	7.5	10.4	4.2	76	87.5	40.2	0.000	0.0	mP
7	...	30.083	62.0	48.2	13.8	54.4	+ 8.3	49.4	44.5	9.9	14.4	6.5	69	103.4	44.0	0.000	0.0	mP : vP, wwN
8	...	30.084	65.1	48.3	16.8	55.7	+ 9.8	50.9	46.4	9.3	16.3	4.2	71	100.5	38.9	0.000	5.0	mP : vP
9	...	30.088	57.2	48.5	8.7	52.3	+ 6.7	48.0	43.6	8.7	12.9	3.6	73	83.9	40.0	0.000	0.5	vP
10	In Equator	30.052	56.0	41.5	14.5	49.6	+ 4.1	45.8	41.8	7.8	16.4	3.2	75	94.0	37.5	0.074	1.5	mP : vP, sN
11	Apogee	29.780	54.8	41.4	13.4	48.0	+ 2.5	44.0	39.6	8.4	15.6	3.1	73	89.9	37.3	0.063	0.0	vP, vN
12	...	29.694	54.3	39.9	14.4	44.9	− 0.8	40.7	35.8	9.1	16.0	3.7	71	99.6	33.9	0.090	4.0	mP : vP, ssN
13	New	29.934	52.6	36.0	16.6	43.8	− 2.2	38.5	32.2	11.6	17.4	5.5	63	108.1	31.2	0.000	0.5	mP : vP
14	...	29.886	48.0	38.2	9.8	43.5	− 2.9	41.9	40.0	3.5	8.1	0.9	88	70.2	30.9	0.077	1.5	mP, vN : vP
15	...	30.018	52.5	38.0	14.5	44.4	− 2.5	41.2	37.5	6.9	13.2	0.9	76	103.8	31.7	0.026	0.8	vP, ssN : sP
16	...	29.987	50.6	37.5	13.1	44.8	− 2.5	42.6	40.0	4.8	10.9	0.0	84	74.5	32.7	0.048	2.2	vP, vN
17	...	29.963	59.1	40.3	18.8	49.7	+ 2.0	45.1	40.2	9.5	18.4	0.9	70	111.0	37.0	0.000	0.0	sP : vP : vP
18	Greatest Declination N.	30.178	58.2	42.2	16.0	50.3	+ 2.2	47.2	43.9	6.4	11.6	1.9	79	99.9	37.7	0.000	0.0	mP : vP, wwN
19	...	30.248	63.2	39.7	23.5	51.9	+ 3.6	48.3	44.7	7.2	17.3	0.0	76	102.7	35.9	0.000	0.5	wP : mP
20	First Quarter	30.260	57.0	39.2	17.8	49.6	+ 1.1	46.4	43.0	6.6	13.5	2.3	78	115.7	34.0	0.000	6.5	mP
21	...	30.294	57.4	37.0	20.4	46.6	− 1.9	43.0	38.9	7.7	16.3	0.5	75	119.3	31.7	0.000	0.0	mP : wP : sP
22	...	30.125	65.1	33.7	31.4	49.8	+ 1.3	45.1	40.1	9.7	19.1	1.2	70	97.5	31.5	0.000	0.0	vP
23	...	30.033	56.1	40.5	15.6	48.4	0.0	45.1	41.5	6.9	15.8	1.5	77	105.6	35.0	0.000	0.0	mP : sP
24	In Equator	30.058	58.8	34.3	24.5	46.9	− 1.5	43.4	39.4	7.5	14.6	1.2	76	97.0	30.9	0.000	4.0	sP : wP
25	...	29.908	62.0	45.5	16.5	52.6	+ 4.2	48.8	45.0	7.6	16.2	1.5	76	108.3	38.9	0.000	0.0	wP : mP
26	Perigee	29.893	68.2	50.2	18.0	57.0	+ 8.6	51.9	47.2	9.8	18.5	3.4	69	117.7	46.3	0.000	0.8	wP : mP : sP
27	Full	29.894	69.0	46.1	22.9	56.3	+ 7.8	52.5	49.0	7.3	12.8	2.1	77	125.2	42.4	0.000	2.2	mP : wP : mP
28	...	29.690	63.2	46.0	17.2	54.9	+ 6.3	48.6	42.6	12.3	22.4	3.8	63	125.7	41.0	0.000	4.5	wP : vP, wN
29	...	29.558	59.7	43.2	16.5	49.6	+ 0.8	44.4	38.8	10.8	19.2	3.5	66	123.3	37.5	0.005	1.5	mP, sN : vP, vN
30	Greatest Declination S.	29.710	58.8	39.2	19.6	47.5	− 1.5	42.7	37.4	10.1	18.2	4.1	69	124.0	35.0	0.000	0.5	mP : vP
Means	...	29.979	57.4	41.1	16.3	49.0	+ 1.8	45.2	41.2	7.8	14.7	2.4	75.0	98.8	35.8	Sum 0.560	1.3	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29in.979, being 0in.238 *higher* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 69°.0 on April 27; the lowest in the month was 33°.6 on April 2; and the range was 35°.4.
The mean of all the highest daily readings in the month was 57°.4, being 0°.2 *higher* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 41°.1, being 2°.2 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 16°.3, being 2°.0 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 49°.0, being 1°.8 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1896.	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	0·0	12·9	W : WNW : NNW	NNE	3·6	0·0	0·37	305	10, li.-shs : 10, oc.-shs : 10, fq.-shs	10 : 0
2	3·6	13·0	N : NNE	N : NNE	3·9	0·0	0·43	323	1, ho.-fr : p.-cl : v	10 : 10, slt.-sh : v
3	1·1	13·0	NNE : ENE	ENE : NNE	0·4	0·0	0·02	139	10 : 10 : v, so.-ha	10 : 0, h
4	0·0	13·1	N : NNW : WSW	W : NW : NNW	1·8	0·0	0·05	209	10 : 10 : 10, oc.-slt.-r	10, shs.-r : 10, m.-r : 10, th.-r
5	0·0	13·2	N : NNE	NNE : NNW	2·4	0·0	0·06	209	10, oc.-shs : 10, shs.-r : 10, th.-r	10 : 10 : v, th.-cl
6	0·0	13·2	WNW : NNW : N	NNW	1·0	0·0	0·04	195	10 : v, th.-cl : 10	10 : 10
7	2·1	13·3	NNW	N : WSW	1·1	0·0	0·02	151	10 : 10 : 7, th.-cl, h	8, cu.-s : 10 : 10
8	0·9	13·4	N	W : N : WSW	1·9	0·0	0·04	189	p.-cl : p.-cl, so.-ha	v, li.-cl : v : v
9	0·0	13·4	WSW : NNW : WNW	WNW : WSW	1·1	0·0	0·03	182	10 : 10 : 10, th.-cl	10, th.-cl : 10 : 10
10	2·6	13·5	WSW : W	W : NW : WSW	3·2	0·0	0·16	305	10 : p.-cl : v	v, hy.-sh : 2, th.-cl : 0
11	0·2	13·6	WSW : WNW	WNW	15·0	0·0	1·24	559	v : 10, shs.-r, st.-w : v, shs.-r, so.-ha	v, oc.-shs : 10, oc.-shs : v
12	1·8	13·6	WNW	WNW : NNW	22·5	0·0	1·46	536	0 : v : 10, shs.-r, hl	v, shs.-r, hl, w : v, shs.-r, st.-w : 0
13	6·4	13·7	NNW	NNW	5·6	0·0	0·66	387	0 : 0 : v, cu.-s	v, cu.-s : p.-cl : 0
14	0·0	13·7	WSW : SW	SW : ENE : ESE	1·8	0·0	0·00	148	10 : 10, slt.-r : 10, c.-r	10, gt.-glm : 10, oc.-r : 10, r
15	5·2	13·8	ENE : NNE	NE : S	1·9	0·0	0·07	219	10, th.-r : p.-cl : 8, cu.-s	9, cu.-s : 0 : 0
16	0·0	13·9	S : SW	SW : WNW	9·6	0·0	0·42	359	0 : 10 : 10, fq.-shs	10, oc.-slt.-r : 10, oc.-slt.-r : v, shs.-r
17	2·0	13·9	WSW : WNW : NW	NW : NNW : WSW	3·5	0·0	0·12	289	0 : 1 : 8, cu.-s, h	7, cu.-s : p.-cl : v, th.-cl, h, m
18	1·4	14·0	WSW : WNW	WNW : NNW : SE	0·8	0·0	0·00	160	2, d : 10, slt.-r : p. cl	10 : 8, th.-cl : 3, h, m
19	0·4	14·1	SSW : WSW	NNW : N : NE	1·3	0·0	0·02	147	0 : 10, f : 10, f	10 : 10 : 10
20	0·4	14·1	NE : ENE	E : ESE	1·8	0·0	0·05	210	10 : 8 : v	10 : v : 0
21	6·5	14·2	ESE : ENE	E : SE	1·8	0·0	0·03	168	v : 10, f : 7, cu.-s	1, li.-cl : 0, so.-ha : 0, lu.-ha
22	0·6	14·2	ESE : SW : NW	NNW : NNE	3·3	0·0	0·07	188	v, ho.-fr : 0, h : 1, li.-cl, h	1, li.-cl, h : v : v
23	3·1	14·3	NNE	NNE : NE	3·0	0·0	0·14	213	1 : 10 : 9, slt.-r	p.-cl : 0 : 0
24	5·7	14·4	NNE : Calm : ENE	SSE : SW	1·8	0·0	0·04	141	0, ho.-fr : 0 : 3, li.-cl, h	v, th.-cl : 7, th.-cl : v, th.-cl, lu.-ha
25	3·7	14·4	SW : WSW	WSW	2·3	0·0	0·13	289	10 : p.-cl : v	6, cu.-s : 10 : 10
26	0·9	14·5	WSW : W	NW	2·1	0·0	0·11	291	10 : 10	10 : v, li.-cl, so.-ha : 0
27	0·6	14·5	WSW	WSW	7·9	0·0	0·47	387	0 : v : 10	10 : 10, w : v
28	8·0	14·6	WSW : W	WSW	5·8	0·0	0·65	433	10 : v : v, cu.-s	8, cu : 0
29	7·3	14·7	WSW	WSW : NW	7·9	0·0	0·49	372	p.-cl : p.-cl, slt.-sh : 3, cu.-s, slt.-sh	v, slt.-sh, w : v : 0
30	2·1	14·7	WSW : NNW	N : NNE	3·7	0·0	0·12	239	p.-cl, d : v, ci.-cu	4, cu.-s : v, l
Means	2·2	13·8	...	...	...	...	0·25	265		
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°·2, being 1°·3 *higher* than
The mean *Temperature of the Dew Point* for the month was 41°·2, being 1°·0 *higher* than
The mean *Degree of Humidity* for the month was 75·0, being 1·6 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·259, being 0in·010 *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·9, being *the same as*
The mean *Weight of a Cubic Foot of Air* for the month was 546 grains, being 3 grains *greater* than
} the average for the 50 years, 1841–1890.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·161. The maximum daily amount of *Sunshine* was 8·0 hours on April 28.

The highest reading of the *Solar Radiation Thermometer* was 125°·7 on April 28; and the lowest reading of the *Terrestrial Radiation Thermometer* was 27°·5 on April 2.

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

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

The *Greatest Pressure of the Wind* in the month was 22·5 lbs. on the square foot on April 12. The mean daily *Horizontal Movement of the Air* for the month was 265 miles; the greatest daily value was 559 miles on April 11; and the least daily value was 139 miles on April 3.

Rain fell on 10 days in the month, amounting to 0in·560, as measured by gauge No. 6 partly sunk below the ground; being 1in·101 *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1896.	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	...	30·019	56·7	37·3	19·4	45·2	− 4·0	41·0	36·2	9·0	16·6	3·2	71	122·2	33·5	0·010	1·5	mP : vP, sN : sP
2	...	30·164	52·1	35·9	16·2	45·0	− 4·4	40·7	35·7	9·3	15·1	4·1	70	101·9	31·3	0·000	0·0	sP : vP, wN
3	...	30·221	60·8	41·5	19·3	50·1	+ 0·4	44·2	37·9	12·2	19·2	6·2	64	131·4	35·0	0·000	0·0	mP : vP
4	Last Quarter	30·234	62·2	35·8	26·4	49·0	− 1·0	43·9	38·4	10·6	22·4	1·1	66	135·0	27·2	0·000	0·0	mP : vP
5	...	30·131	67·0	36·4	30·6	51·2	+ 0·9	45·4	39·4	11·8	21·2	1·8	64	130·1	30·7	0·000	0·5	vP : wP
6	...	30·102	60·4	44·2	16·2	52·3	+ 1·7	47·3	42·2	10·1	16·2	4·4	69	120·0	39·9	0·000	1·5	mP
7	...	30·137	67·6	44·2	23·4	54·0	+ 3·2	49·6	45·3	8·7	17·6	2·9	72	137·5	41·1	0·000	0·8	mP : wP, wwN
8	In Equator: Apogee	30·060	62·8	44·5	18·3	51·7	+ 0·7	48·3	44·9	6·8	13·9	2·7	78	132·9	44·5	0·000	2·2	mP
9	...	30·002	66·7	44·2	22·5	55·5	+ 4·3	48·7	42·2	13·3	26·3	2·9	61	134·0	43·0	0·000	0·0	wP : vP, vN : vN, wP
10	...	30·022	71·3	43·7	27·6	57·8	+ 6·3	50·7	44·3	13·5	24·5	4·8	61	137·6	39·0	0·000	0·0	wP
11	...	30·123	72·3	45·4	26·9	58·1	+ 6·4	52·2	46·9	11·2	21·2	2·5	67	140·1	39·2	0·000	0·0	mP : wP
12	New	30·196	78·1	46·0	32·1	62·9	+10·9	54·9	48·1	14·8	24·1	4·0	58	143·5	39·6	0·000	0·5	mP : wP : vP, vN
13	...	30·153	71·7	48·4	23·3	57·5	+ 5·2	52·3	47·6	9·9	19·1	3·2	69	131·5	45·0	0·000	1·5	wP : mP : wP
14	...	29·994	76·1	44·9	31·2	59·7	+ 7·1	53·5	48·0	11·7	27·0	2·1	66	124·0	39·8	0·000	0·5	wP, wwN : vP
15	Greatest Declination N.	29·954	70·6	47·6	23·0	57·6	+ 4·8	52·2	47·3	10·3	18·5	4·0	69	117·3	41·8	0·000	2·2	mP
16	...	30·035	63·0	45·3	17·7	53·0	− 0·1	47·2	41·4	11·6	17·9	4·6	65	126·0	41·9	0·000	0·8	mP
17	...	30·038	69·2	45·2	24·0	57·9	+ 4·6	52·5	47·6	10·3	17·5	3·1	69	118·5	41·7	0·000	0·0	wP, wwN : mP
18	...	30·007	78·4	55·9	22·5	63·4	+ 9·8	58·1	53·7	9·7	19·7	3·8	71	136·9	54·7	0·000	0·0	wP, wwN
19	...	29·900	69·7	50·6	19·1	58·7	+ 4·8	52·7	47·4	11·3	20·9	3·2	67	132·2	45·5	0·010	0·8	wP : vP : mP
20	First Quarter	29·768	57·4	42·4	15·0	50·1	− 4·1	45·0	39·6	10·5	19·0	6·5	68	111·5	37·0	0·048	2·2	wP : vP, vN : vP, vN
21	...	29·910	62·3	40·3	22·0	50·2	− 4·4	43·5	36·4	13·8	21·1	5·5	60	126·0	34·6	0·000	0·0	mP : vP, wwN
22	In Equator	29·772	56·5	45·2	11·3	52·0	− 3·0	50·4	48·8	3·2	8·8	0·4	89	73·7	38·9	0·155	0·0	mP,vN : wP,wwN : wP,wwN
23	...	29·850	62·7	52·9	9·8	57·7	+ 2·4	55·2	53·0	4·7	9·5	0·8	84	87·1	52·0	0·043	1·0	wwP : wP
24	Perigee	30·150	64·0	46·0	18·0	54·7	− 0·9	48·6	42·7	12·0	20·0	4·4	64	125·0	44·0	0·000	3·5	wP : wP, wwN
25	...	30·274	60·2	44·1	16·1	52·5	− 3·2	48·1	43·7	8·8	15·2	4·2	72	94·7	42·2	0·000	5·5	wP : wP, wwN
26	Full	30·177	65·2	45·0	20·2	54·1	− 1·8	49·1	44·2	9·9	17·5	2·7	69	132·5	42·2	0·000	0·5	wP : mP
27	...	30·081	67·0	43·9	23·1	55·8	− 0·2	50·1	44·8	11·0	19·3	2·2	67	125·0	41·2	0·000	2·7	mP : vP, wN : mP, wwN
28	Greatest Declination S.	30·094	68·0	48·3	19·7	56·5	+ 0·5	51·2	46·3	10·2	18·5	2·7	69	130·3	46·8	0·000	3·8	mP, wwN
29	...	29·969	77·7	47·4	30·3	59·6	+ 3·4	53·4	47·9	11·7	25·8	2·1	66	129·9	46·0	0·000	0·0	vP, wwN
30	...	29·973	62·7	46·0	16·7	56·1	− 0·4	51·2	46·6	9·5	14·3	2·1	71	105·2	44·0	0·000	0·2	mP : wP, wwN : mP
31	...	29·986	70·2	41·9	28·3	56·0	− 0·8	49·8	44·0	12·0	24·3	1·5	64	136·0	39·9	0·000	0·8	vP, wwN : mP, wwN
Means	...	30·048	66·1	44·5	21·6	54·7	+ 1·6	49·4	44·3	10·4	19·1	3·2	68·4	123·5	40·7	Sum 0·266	1·1	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 30in·048, being 0in·262 *higher* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 78°·4 on May 18; the lowest in the month was 35°·8 on May 4; and the range was 42°·6.
The mean of all the highest daily readings in the month was 66°·1, 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 44°·5, being 0°·8 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 21°·6, being 1°·2 *greater* than the average for the 50 years, 1841–1890.
The mean for the month was 54°·7, being 1°·6 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1896.	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.		
May 1	3·2	14·8	NNE	NNE	6·7	0·0	0·26	326	p.-cl, d : p.-cl : 8, cu	v, sh.-r, hl : p.-cl : 0
2	0·0	14·8	NNE	NNE	3·5	0·0	0·14	301	0 : 10 : 10	10, slt.-shs : v, th.-cl
3	6·8	14·9	NNE	NE	2·2	0·0	0·11	283	10 : p.-cl : 7, cu.-s	10 : 10, slt.-r : 0
4	9·9	14·9	N : NE	NE : Calm	2·5	0·0	0·08	209	1, ho.-fr : 2, li.-cl : 1, li.-cl	1, cu.-s : 0 : 1, s
5	4·0	15·0	WSW : NNE	NNE : ESE	2·4	0·0	0·05	155	v, ho.-fr : p.-cl : 1, th.-cl, m, h	8, th.-cl, so.-ha : 10 : v
6	0·8	15·1	NNE : ENE	ENE : NE	2·0	0·0	0·09	236	10 : 10	10 : 10
7	7·2	15·1	NNE : ENE	ENE : NE	2·9	0·0	0·23	324	p.-cl : p.-cl : 2, cu, cu.-s	v, cu : 10 : 10
8	6·3	15·2	NNE	NNE	3·0	0·0	0·25	327	10 : 10 : v	3, cu, li.-cl : v : v
9	11·1	15·2	NE : ENE	ENE	7·5	0·0	0·72	379	10 : p.-cl : 0	0 : 0
10	13·7	15·3	NE : ENE	E : NE	3·9	0·0	0·29	299	0 : 0	0 : 0
11	11·5	15·3	NE : ENE	ENE : ESE	3·4	0·0	0·19	273	p.-cl : v : 1	0 : 0
12	12·1	15·4	NE : ENE : E	NE	5·8	0·0	0·06	173	0, d : 0	0 : v
13	8·1	15·4	NE	ENE : ESE	1·7	0·0	0·04	175	v : 10 : 0	0 : 1, th.-cl
14	10·5	15·5	SSW : WSW	NW : NNW : WSW	1·2	0·0	0·02	162	v : p.-cl, h : 0, h	1, li.-cl : 0 : 0
15	1·8	15·5	WSW : W : N	NE	2·5	0·0	0·09	245	0 : 0, h, m : v	10, t : 10 : v
16	0·2	15·6	N : NNE	NNE : SE	2·2	0·0	0·09	251	10 : 10	8, so.-ha : v
17	0·1	15·6	SSE : SW : N	N : NE	0·8	0·0	0·02	110	10 : 10, th.-cl	10 : 10
18	0·8	15·7	Calm : S : SW	SW : SSW	0·6	0·0	0·01	119	10 : 9, cu.-s	10 : p.-cl
19	3·5	15·7	WSW : N	N : NNW : WSW	4·5	0·0	0·11	247	10 : v : v, shs.-r	8, cu, cu.-s : p.-cl, so.-ha : v, th.-cl
20	3·1	15·8	WSW : WNW	NNW	15·0	0·0	1·48	525	10 : v, shs.-r, w	v, sh.-r, st.-w : 8, oc.-slt.-shs, w : p.-cl
21	7·9	15·8	NNW	N : NNE	6·1	0·0	0·66	316	1, li.-cl, d : 0 : 6, cu.-s, li.-cl	p.-cl : v, th.-cl
22	0·0	15·9	WNW : SW	WSW : NNE	1·0	0·0	0·00	158	10, r : 10, c.-r : 10, oc.-slt.-r	10, oc.-slt.-r : 10, gt.-glm, slt.-f, oc.-shs : 10
23	0·0	15·9	NNE	NNW : N	3·1	0·0	0·05	159	10, oc.-slt.-r : 10	10, hy.-r, t : 10 : 10
24	8·5	16·0	N : NNE	NE : NNE	6·0	0·0	0·45	403	10 : v : 1, li.-cl	p.-cl : 3, ci.-cu : 2, li.-cl, lu.-ha
25	4·1	16·0	NNE	NE : ESE	2·2	0·0	0·10	272	10 : v, cu.-s	10 : 10
26	3·9	16·0	NE : ENE	ENE : NE	3·7	0·0	0·28	355	9 : 10 : 8, cu, cu.-s	8, cu, cu.-s : 6, so.-ha : v, li.-cl
27	10·9	16·1	NE : NNE	NE : ENE	4·7	0·0	0·46	379	p.-cl : 2 : v, li.-cl	7, cu.-s : p.-cl : v
28	12·4	16·1	NE : NNE	NE	4·3	0·0	0·58	418	10 : p.-cl	v : v
29	3·0	16·1	NNE : N : WSW	NW : NNE : NE	3·1	0·0	0·12	205	10 : 10 : 10, th.-cl	9, th.-cl : v : 0
30	1·2	16·2	NE : NNE	NNE : SE	3·8	0·0	0·28	266	10 : 10	10 : 0
31	11·6	16·2	Calm : Variable	SE	0·9	0·0	0·04	116	p.-cl : p.-cl, f : 0	0 : 0
Means	5·7	15·6	...	...	...	...	0·24	263		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was $49^{\circ}\cdot4$, being $0^{\circ}\cdot2$ *higher* than
The mean *Temperature of the Dew Point* for the month was $44^{\circ}\cdot3$, being $1^{\circ}\cdot0$ *lower* than
The mean *Degree of Humidity* for the month was 68·4, being 6·6 *less* than
The mean *Elastic Force of Vapour* for the month was $0^{in}\cdot292$, being $0^{in}\cdot011$ *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was $3^{grs}\cdot3$, being $0^{gr}\cdot1$ *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 541 grains, being 3 grains *greater* than
} the average for the 50 years, 1841–1890.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·370. The maximum daily amount of *Sunshine* was 13·7 hours on May 10.

The highest reading of the *Solar Radiation Thermometer* was $143^{\circ}\cdot5$ on May 12; and the lowest reading of the *Terrestrial Radiation Thermometer* was $27^{\circ}\cdot2$ on May 4.

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

The *Proportions of Wind* referred to the cardinal points were N. 14, E. 10, S. 3, and W. 3. One day was calm.

The *Greatest Pressure of the Wind* in the month was 15·0 lbs. on the square foot on May 20. The mean daily *Horizontal Movement of the Air* for the month was 263 miles; the greatest daily value was 525 miles on May 20; and the least daily value was 110 miles on May 17.

Rain fell on 5 days in the month, amounting to $0^{in}\cdot266$, as measured by gauge No. 6 partly sunk below the ground; being $1^{in}\cdot737$ *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1896.	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.		
June 1	...	29·772	78·7	39·8	38·9	59·5	+ 2·3	52·6	46·5	13·0	25·5	0·7	62	140·1	37·2	0·000	0·0	vP : vP, wwN : mP
2	...	29·559	84·9	48·4	36·5	66·1	+ 8·4	57·2	50·0	16·1	34·2	2·9	57	144·3	44·3	0·000	0·0	vP : mP
3	Last Quarter	29·592	73·2	59·0	14·2	65·5	+ 7·5	60·5	56·4	9·1	14·4	5·5	73	101·2	56·6	0·007	0·0	mP : vP, wN : vP, wwN
4	In Equator	29·631	82·7	55·9	26·8	68·3	+10·1	60·2	53·9	14·4	27·0	2·7	60	140·9	50·9	0·115	0·8	wP : wP : vP, ssN
5	Apogee	29·643	76·2	53·5	22·7	62·9	+ 4·6	57·0	52·0	10·9	22·5	0·8	68	139·0	49·5	0·058	4·2	vP, wN : wP : mP
6	...	29·635	76·7	51·4	25·3	61·8	+ 3·5	54·5	48·2	13·6	26·4	2·6	61	142·8	47·2	0·012	7·5	vP, wwN
7	...	29·451	65·2	51·3	13·9	57·4	− 0·8	53·9	50·7	6·7	14·1	1·4	78	115·1	49·0	0·170	11·5	mP : vP, vN : vP, ssN
8	...	29·411	74·6	53·1	21·5	61·6	+ 3·4	56·7	52·5	9·1	21·2	0·6	73	141·2	51·7	0·122	14·0	vP, vN : wP : wP
9	...	29·344	73·3	55·0	18·3	62·4	+ 4·2	59·0	56·1	6·3	15·7	0·8	80	134·0	52·5	0·102	1·0	wwP : wP : wP, wwN
10	...	29·356	60·9	56·0	4·9	58·4	+ 0·2	57·7	57·1	1·3	2·7	0·4	96	66·7	56·0	1·044	0·0	vP, vN
11	New: Greatest Declination N.	29·665	72·3	55·4	16·9	63·4	+ 5·0	59·7	56·6	6·8	16·2	0·2	79	113·5	55·4	0·020	1·0	vP : mP : vP, wwN
12	...	29·929	81·0	54·2	26·8	66·3	+ 7·7	60·3	55·5	10·8	19·7	2·0	68	133·3	52·4	0·000	3·0	wP
13	...	29·916	81·2	55·3	25·9	67·1	+ 8·3	61·6	57·2	9·9	21·1	1·1	70	144·0	50·0	0·000	0·0	mP : wP : mP
14	...	29·883	77·0	57·3	19·7	66·6	+ 7·7	62·9	59·9	6·7	15·6	0·8	79	138·7	55·3	0·000	0·0	wP, wwN
15	...	29·752	83·9	57·5	26·4	69·4	+10·4	64·4	60·5	8·9	22·8	0·8	73	145·8	56·7	0·000	0·8	wP
16	...	29·599	86·7	60·1	26·6	71·7	+12·7	65·1	60·1	11·6	23·1	0·8	67	145·6	57·5	0·000	2·2	wP : wP : mP
17	...	29·584	70·2	57·1	13·1	63·5	+ 4·4	60·4	57·8	5·7	13·3	1·4	82	121·0	56·8	0·039	0·0	mP : wP, wN : mP
18	In Equator: First Quarter	29·881	77·1	50·5	26·6	62·4	+ 3·2	56·1	50·7	11·7	23·9	1·6	66	138·2	47·0	0·000	3·2	mP : wP, wN
19	...	30·057	78·0	55·7	22·3	63·9	+ 4·4	56·2	49·8	14·1	24·3	6·8	60	143·0	53·3	0·000	0·8	wP, wwN
20	Perigee	30·056	74·0	52·3	21·7	62·1	+ 2·2	55·5	49·8	12·3	20·9	2·8	64	127·8	47·5	0·000	2·0	mP : wwP, wwN : wP
21	...	30·011	73·0	52·3	20·7	61·6	+ 1·3	53·5	46·5	15·1	22·7	2·2	58	125·0	48·5	0·000	6·0	wP, wwN
22	...	30·020	71·5	48·6	22·9	60·8	+ 0·1	53·5	47·1	13·7	20·7	5·7	61	125·2	42·0	0·000	1·5	mP
23	...	29·932	78·7	54·0	24·7	65·1	+ 4·1	58·3	52·8	12·3	20·6	5·4	64	140·9	49·0	0·000	4·5	wP, wwN
24	Greatest Declination S.	29·829	74·0	58·1	15·9	63·1	+ 1·9	60·1	57·6	5·5	14·4	2·1	82	126·5	54·2	0·107	0·0	wP : vP, ssN : mP
25	Full	29·860	67·6	52·7	14·9	59·4	− 1·9	55·9	52·8	6·6	12·6	1·5	79	137·0	49·0	0·082	0·0	vP, vN : mP
26	...	29·990	69·2	51·4	17·8	58·7	− 2·7	52·9	47·7	11·0	17·6	3·8	68	130·0	48·0	0·000	0·0	mP
27	...	29·960	76·7	46·8	29·9	62·2	+ 0·8	57·5	53·5	8·7	17·5	1·5	73	109·2	44·2	0·000	0·0	wP
28	...	29·896	77·0	56·6	20·4	67·0	+ 5·7	60·8	55·8	11·2	21·1	4·3	67	130·2	51·5	0·034	0·0	wP, wwN
29	...	30·042	68·7	52·3	16·4	60·3	− 0·9	52·8	46·2	14·1	19·4	8·2	60	130·0	47·4	0·000	1·8	mP
30	...	29·842	73·5	53·5	20·0	61·5	+ 0·3	55·2	49·8	11·7	24·3	2·2	66	134·6	48·7	0·027	5·2	wP : vP, vN
Means	...	29·770	75·3	53·5	21·8	63·3	+ 3·9	57·7	53·0	10·3	19·9	2·5	69·8	130·2	50·3	Sum 1·939	2·4	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29in·770, being 0in·041 *lower* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 86°·7 on June 16; the lowest in the month was 39°·8 on June 1; and the range was 46°·9.
The mean of all the highest daily readings in the month was 75°·3, being 4°·4 *higher* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 53°·5, being 3°·6 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 21°·8, being 0°·8 *greater* than the average for the 50 years, 1841–1890.
The mean for the month was 63°·3, being 3°·9 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1896.	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	12·8	16·2	Calm : NE : SE	SE	2·7	0·0	0·05	120	10 : tk.-f : 0	0 : 0
2	9·8	16·3	Calm : NE : SE	SSE : SSW : SW	2·7	0·0	0·10	168	0 : v, li.-cl, so.-ha : 3, li.-cl	2, cu, li.-cl : v : v, slt.-r
3	0·1	16·3	Calm : WSW : NNE	Variable : Calm	0·5	0·0	0·00	84	10 : 10 : v, sh.-r	10, oc.-slt.-r : 10, oc.-shs : 10
4	7·7	16·3	WSW : WNW	SW : WSW	2·5	0·0	0·06	183	10, li.-sh : v, th.-cl : v	v, so.-ha : 9 : 10, hy.-r, l, t
5	10·2	16·4	Variable : SW : WSW	SW : SSW	2·8	0·0	0·20	294	10, oc.-r : p.-cl : 6, cu, cu.-s	5, cu, cu.-s : 0
6	9·7	16·4	SSW : SE	SW : SSW	2·6	0·0	0·11	206	p.-cl : 2 : v, cu	7, cu, ci.-s : li.-cl : v, slt.-r
7	4·8	16·4	S : SSE : SE	S : SSW : SSE	4·7	0·0	0·30	262	10 : 10, shs.-r : v, oc.-slt.-r	v, shs.-r : v : 10, r
8	9·0	16·4	S : SSW : SW	S : SE : E	1·4	0·0	0·05	202	10, hy.-r : p.-cl	v : v, so.-ha : v, th.-cl
9	0·7	16·4	NE : E	E : SE : N	3·3	0·0	0·14	265	10, slt.-r : 10, oc.-slt.-r	10 : 10, r
10	0·0	16·5	N : NNE	N	4·5	0·0	0·32	330	10, r : 10, r	10, c.-hy.-r, sc : 10, c.-r : 10, oc.-r
11	5·6	16·5	N : NNW	NW : WNW : WSW	1·7	0·0	0·07	181	10, oc.-shs : p.-cl : 8, cu.-s, ci.-cu	4, li.-cl, h : v, h : 10, m
12	7·0	16·5	WSW : SW	SW : SSW	0·8	0·0	0·02	165	10 : p.-cl : 1, cu.-s, ci.-s	1, cu, li.-cl : p.-cl : 10
13	11·6	16·5	Calm : ENE : ESE	ESE	2·7	0·0	0·04	185	1, d : li.-cl, m : 2, ci, th.-cl	1, th.-cl : 0 : 0
14	9·0	16·5	ENE : NE	ENE : E	2·7	0·0	0·10	250	10 : 10 : v	0 : 0
15	9·5	16·5	NE	ENE : ESE : SE	2·3	0·0	0·07	217	p.-cl : p.-cl : 0	5, cu, li.-cl : v, li.-cl : li.-cl, l
16	12·4	16·5	ESE : SSE : SSW	SSW : SW	2·0	0·0	0·08	197	p.-cl : 1, li.-cl : 1, li.-cl	1, cu, li.-cl : 1, li.-cl
17	3·2	16·6	SSW : SW	SW : WSW : W	6·2	0·0	0·31	314	0 : p.-cl : v, m.-r, sc	10, li.-shs : 10, slt.-shs : v
18	10·0	16·6	WSW : NW	W : WSW	1·5	0·0	0·05	222	0, d : p.-cl	3, cu.-s, li.-cl : li.-cl : th.-cl
19	8·9	16·6	WSW	WSW : W	2·3	0·0	0·14	258	p.-cl : p.-cl : 6, cu	v : v, li.-cl
20	7·3	16·6	WSW	WSW	4·3	0·0	0·31	337	2 : p.-cl : v, cu, so.-ha	v : v, slt.-r : 0
21	9·8	16·6	WSW : WNW	NW : N	3·2	0·0	0·23	302	li.-cl : v, li.-cl : v, cu.-s	v : v, ci.-cu : p.-cl
22	4·3	16·6	NNW : SW	NW : SW	1·5	0·0	0·06	194	p.-cl : p.-cl	10 : 10
23	1·7	16·6	WSW : W	WSW : W	2·7	0·0	0·18	273	10 : 10	v : v, ci.-cu, li.-cl
24	0·6	16·6	WSW	N	2·8	0·0	0·01	142	10 : 10, shs.-r : 10, r, t	10, t.-sm, l, r : v, li.-cl : 10
25	2·5	16·6	N : NE	NE : NNE	2·3	0·0	0·20	262	10, shs.-r : 10, hy.-r, l, t : 10	9, cu, li.-cl : 9 : v
26	6·2	16·5	N : NNE	NNE : ENE	2·0	0·0	0·13	228	10 : 10 : 8, cu	p.-cl : 0 : 0′
27	0·9	16·5	Calm : SSW	NE : SSW : WSW	0·3	0·0	0·00	98	p.-cl : v, th.-cl	10 : 10
28	2·4	16·5	WSW : WNW : NNW	N	3·5	0·0	0·27	270	10 : p.-cl : 10, sh.-r	v : v, th.-cl
29	6·3	16·5	N : NNW	NNW : WSW : SW	3·7	0·0	0·41	334	p.-cl, d : 1, li.-cl : 7, cu.-s	8, cu, cu.-s : v, li.-cl : p.-cl
30	6·8	16·5	WSW	NW	9·3	0·0	0·85	462	1, li.-cl : p.-cl : 10, sh.-r	8, cu, ci.-s, ci.-cu, oc.-shs : v, cu.-s
Means	6·4	16·5	...	...	...	...	0·16	233		
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°·7, being 2°·7 *higher* than
The mean *Temperature of the Dew Point* for the month was 53°·0, being 1°·9 *higher* than
The mean *Degree of Humidity* for the month was 69·8, being 4·2 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·403, being 0in·028 *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 4grs·5, being 0gr·3 *greater* than
The mean *Weight of a Cubic Foot of Air* for the month was 526 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 5·5.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·386. The maximum daily amount of *Sunshine* was 12·8 hours on June 1.

The highest reading of the *Solar Radiation Thermometer* was 145°·8 on June 15; and the lowest reading of the *Terrestrial Radiation Thermometer* was 37°·2 on June 1.

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

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

The *Greatest Pressure of the Wind* in the month was 9·3 lbs. on the square foot on June 30. The mean daily *Horizontal Movement of the Air* for the month was 233 miles; the greatest daily value was 462 miles on June 30; and the least daily value was 84 miles on June 3.

Rain fell on 14 days in the month, amounting to 1in·939, as measured by gauge No. 6 partly sunk below the ground; being 0in·083 *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1896.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit)	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
July 1	In Equator	29·805	64·0	53·7	10·3	57·5	− 3·8	53·2	49·3	8·2	12·0	1·2	74	101·5	50·2	0·075	0·0	vP, wN
2	...	29·797	65·8	48·5	17·3	56·6	− 4·8	52·2	48·1	8·5	14·2	4·0	73	98·0	43·5	0·000	0·0	mP
3	Last Quarter: Apogee.	29·716	77·5	54·9	22·6	63·7	+ 2·0	59·0	55·0	8·7	23·3	0·0	74	132·2	50·0	0·110	3·0	wP : wP, vN
4	...	29·806	77·0	55·6	21·4	64·7	+ 2·8	56·7	50·1	14·6	30·1	1·3	59	134·3	51·1	0·000	0·0	mP : wP, vN
5	...	29·965	77·0	56·2	20·8	65·0	+ 2·9	57·0	50·4	14·6	24·3	4·2	59	122·0	51·1	0·000	0·0	wP : wP, wwN
6	...	29·947	84·4	54·9	29·5	68·2	+ 6·0	60·5	54·5	13·7	27·5	2·5	61	147·3	49·7	0·000	0·0	wwP : wP : mP
7	...	29·745	87·3	54·8	32·5	70·4	+ 8·3	62·8	57·0	13·4	26·4	2·7	63	149·5	50·0	0·025	0·0	mP : wP : vP, ssN
8	Greatest Declination N.	29·727	85·8	60·2	25·6	69·6	+ 7·6	62·6	57·2	12·4	29·4	1·1	64	148·8	55·6	0·000	0·0	wP
9	...	29·755	86·3	60·0	26·3	71·0	+ 9·0	61·8	54·8	16·2	31·6	5·7	56	157·5	57·0	0·000	0·0	wP
10	New	29·904	77·1	56·5	20·6	67·1	+ 5·0	61·8	57·6	9·5	16·3	2·7	72	133·0	56·0	0·000	0·0	wP : vP, wN : wP
11	...	30·108	75·8	51·6	24·2	63·0	+ 0·7	56·9	51·7	11·3	20·2	2·4	67	152·8	46·9	0·000	0·0	wP : wP, wwN : mP
12	...	30·068	82·7	50·2	32·5	65·2	+ 2·6	58·7	53·4	11·8	26·5	1·0	66	150·5	44·3	0·000	0·0	mP : wP, wN
13	...	30·009	87·9	54·2	33·7	70·3	+ 7·4	60·2	52·4	17·9	37·4	2·4	53	152·6	49·8	0·000	0·0	wP, wwN
14	...	29·844	91·1	54·9	36·2	72·6	+ 9·5	61·6	53·4	19·2	35·2	5·9	51	154·0	50·5	0·000	0·0	vP, wN
15	In Equator: Perigee.	29·798	78·4	58·3	20·1	68·3	+ 5·1	61·4	56·0	12·3	21·3	4·0	64	139·4	58·0	0·142	0·0	mP : vP, vN
16	...	29·927	58·3	54·2	4·1	56·1	− 7·1	54·3	52·6	3·5	5·9	1·4	88	61·8	54·0	0·072	1·0	vP : vP, wN : mP
17	First Quarter	30·047	66·8	52·9	13·9	59·2	− 3·9	54·1	49·5	9·7	16·2	2·8	71	115·7	47·0	0·000	0·0	mP
18	...	30·065	76·5	52·0	24·5	63·5	+ 0·5	57·1	51·7	11·8	19·6	4·6	65	126·4	50·4	0·000	0·0	vP
19	...	30·019	80·1	59·8	20·3	68·9	+ 5·9	63·3	58·9	10·0	19·2	3·8	70	122·0	55·4	0·000	4·0	wP : vP : wP, wwN
20	...	29·850	85·7	60·8	24·9	72·5	+ 9·5	64·0	57·7	14·8	26·9	5·3	59	145·2	56·0	0·000	0·0	wP
21	Greatest Declination S.	29·685	90·3	56·9	33·4	72·5	+ 9·5	62·0	54·2	18·3	33·4	2·3	52	153·0	52·6	0·000	0·0	vP : vP, wN
22	...	29·791	72·1	57·2	14·9	63·6	+ 0·7	55·8	49·3	14·3	23·4	4·6	60	133·4	56·7	0·000	1·0	mP : vP, wwN : mP
23	...	29·864	77·0	48·5	28·5	62·2	− 0·6	54·3	47·5	14·7	23·6	4·9	58	138·6	42·8	0·000	4·0	mP : wwP, wwN : wP
24	Full	29·785	78·7	54·5	24·2	64·8	+ 2·2	58·4	53·1	11·7	21·3	0·8	66	149·7	50·5	0·000	1·2	wP, wwN
25	...	29·648	80·0	56·6	23·4	69·1	+ 6·7	59·3	51·7	17·4	30·3	7·4	54	132·7	52·0	0·000	4·8	wP : wP, vN : wP
26	...	29·579	74·7	56·2	18·5	64·4	+ 2·1	60·7	57·6	6·8	15·8	1·1	78	117·2	56·2	0·265	10·0	wP : vP, ssN
27	...	29·805	71·6	52·7	18·9	60·5	− 1·8	53·9	48·1	12·4	22·0	1·8	64	135·4	49·5	0·000	1·0	mP : vP, wwN : mP
28	In Equator	29·962	73·2	50·5	22·7	60·7	− 1·6	53·0	46·2	14·5	24·5	5·8	59	126·2	42·9	0·000	0·0	mP : vP
29	...	29·775	76·4	47·3	29·1	61·6	− 0·7	54·9	49·1	12·5	26·2	2·5	64	138·0	42·9	0·000	0·2	wP
30	Apogee	29·646	75·0	58·7	16·3	65·6	+ 3·3	60·4	56·1	9·5	17·9	2·3	72	137·0	58·7	0·000	0·8	wP : vP
31	...	29·717	71·6	56·1	15·5	63·0	+ 0·7	60·0	57·5	5·5	12·4	0·6	82	133·0	53·0	0·376	0·0	vP, vN : mP
Means	...	29·844	77·6	54·8	22·8	65·2	+ 2·8	58·4	53·0	12·2	23·0	3·0	65·1	133·5	51·1	Sum 1·065	1·0	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29^in·844, being 0^in·051 *higher* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 91°·1 on July 14; the lowest in the month was 47°·3 on July 29; and the range was 43°·8.
The mean of all the highest daily readings in the month was 77°·6, 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 54°·8, being 1°·7 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 22°·8, being 1°·9 *greater* than the average for the 50 years, 1841–1890.
The mean for the month was 65°·2, being 2°·8 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1896.	Daily Duration of Sunshine.	Sun above Horizon.	WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Least.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	CLOUDS AND WEATHER. A.M.	P.M.
	hours.	hours.			lbs.	lbs.	lbs.	miles.		
July 1	0·3	16·5	W : WNW : NW	WNW : NW	5·0	0·0	0·31	357	10, li.-shs : 10, shs.-r : 10	10 : 10, hy.-shs : 8, ci.-cu
2	0·4	16·5	W	WNW : WSW	1·3	0·0	0·08	250	10 : 10,slt.-shs: 10, glm, oc.-slt.-r	10 : v
3	2·4	16·4	W : WSW	WSW : W	6·0	0·0	0·38	313	10 : 10	v, cu, cu.-s : 10, r : 10, r
4	11·1	16·4	WNW : W	W	10·5	0·0	1·46	555	v : p.-cl : 4, li.-cl	1, th.-cl, w : 0, w : 1, th.-cl
5	12·6	16·4	WNW : NNW	NW : SSW	3·3	0·0	0·19	226	0 : 0 : 2, th.-cl	0 : 0
6	14·1	16·4	SW : WSW	SW : SSW	1·8	0·0	0·03	188	0 : 1, li.-cl : 0	0 : 0
7	4·0	16·3	Calm : Variable	SSW : WSW	2·1	0·0	0·03	126	0 : p.-cl : 4, ci. ci.-cu	8, th.-cl : 10, oc.-slt.-shs : 10, shs.-r
8	7·5	16·3	Calm : WSW	WSW : SW	2·0	0·0	0·10	197	10 : 1, th-cl	8,th.-cl,so.-ha : 10 : 10, shs.-r
9	12·1	16·3	SW : SSW	SSW : SW	2·8	0·0	0·20	275	10 : 8 : 1, li.-cl	2, ci.-cu, li.-cl : 0 : 0
10	2·8	16·3	SW : WSW : NW	NNE : NE : E	3·1	0·0	0·16	254	10 : 10, glm : 9, cu.-s	v : v
11	13·4	16·2	ENE : NE	E : ESE	2·2	0·0	0·07	193	0, d : 2, li.-cl	0 : 0
12	12·0	16·2	Calm : Variable	SSE : S : SSW	1·2	0·0	0·03	131	1, li.-cl : 1, th.-cl	0 : 1, li.-cl : 0
13	12·4	16·2	Calm : SSE : E	S : SE	1·9	0·0	0·02	115	0 : 0	0 : 1, s : 0
14	5·8	16·1	Calm : Variable	WSW : SW : N	0·7	0·0	0·00	129	0 : v, ci.-s, m	3, th.-cl, so.-ha : 10
15	2·2	16·1	N	N : NNE	5·7	0·0	0·42	329	10 : 10 : 9, cu, ci.-cu	10, hy.-sh : 10,hy.-sh,l,t : 10
16	0·0	16·1	N	N : NNE	6·8	0·0	1·65	499	10 : 10, oc.-slt.-shs, sc, w	10,fq.-shs,w : 10,oc.-li.-shs,w : 10
17	2·9	16·0	NNE : N	N : NNE : NE	3·7	0·0	0·50	347	10 : 10	7, cu.-s : v
18	4·2	16·0	N	N : NE : SSW	0·9	0·0	0·02	150	v : 10 : 5,cu.-s,li.-cl	8,th.-cl,so.-ha : v : v
19	1·6	16·0	N : NNW	NW : SSW	0·4	0·0	0·00	124	10 : 10	10 : v : p.-cl
20	6·2	15·9	SW	SSW : S : SSE	0·8	0·0	0·05	180	1, li.-cl : 0 : 2, ci.-cu, li.-cl	p.-cl : 2, li.-cl : 1, li.-cl
21	10·2	15·9	SSE: SW: WSW	WSW : W	2·6	0·0	0·25	259	0 : 0	v, ci.-cu, li.-cl : v, so-ha : v
22	1·3	15·8	NNW : NW : WNW	WNW : NW : NNW	2·3	0·0	0·32	320	10 : 9, cu.-s	10 : 10 : 2, ci.-cu
23	6·5	15·8	SW : WSW	SW	2·7	0·0	0·17	251	3 : 1, li.-cl : v,cu,cu.-s	10 : v,th.-cl,so.-ha : v, li.-cl
24	7·6	15·7	SW : WSW	SW : S	1·9	0·0	0·07	226	p.-cl : p.-cl	p.-cl : 0, lu.-ha, prs
25	2·0	15·7	SSE : SSW	SSW : S : SW	11·2	0·0	0·54	301	8, slt.-sh : p.-cl : 10, w	10, slt.-sh : v : v, lu.-ha
26	1·9	15·7	SW : SSW	SW : WSW	2·6	0·0	0·15	262	10, li.-shs : 10, oc.-r	10, hy.-r, l : v, hy.-sh
27	7·7	15·6	WSW : W	W : NNW : N	2·1	0·0	0·10	239	p.-cl : p.-cl	v, cu, cu.-s : 8, so.-ha : v
28	10·4	15·6	N	Variable	0·7	0·0	0·00	151	p.-cl : v, li.-cl : 1, th.-cl	1, th.-cl : 1, li.-cl : 0
29	10·2	15·5	SSE : SSW : SW	SW : S	3·2	0·0	0·18	220	p.-cl : 0 : 1, li.-cl	v, li.-cl : 10, slt.-shs
30	1·5	15·5	S: SSE: Variable	Variable : ESE	0·8	0·0	0·01	132	10 : 10	10, n : 10 : 10, slt.-sh
31	2·4	15·4	ENE : NE	ESE : NE	1·3	0·0	0·06	198	10, c.-r : 10, c.-r : v, n	p.-cl : 2, li-cl
Means	6·1	16·0	...	...	...	...	0·24	242		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 58°·4, being 0°·6 *higher* than
The mean *Temperature of the Dew Point* for the month was 53°·0, being 0°·9 *lower* than
The mean *Degree of Humidity* for the month was 65·1, being 8·7 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·403, being 0in·013 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 4grs·4, being 0gr·2 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 526 grains, being 1 grain *less* than
} the average for the 50 years, 1841–1890.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 5·3.
The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·382. The maximum daily amount of *Sunshine* was 14·1 hours on July 6.
The highest reading of the *Solar Radiation Thermometer* was 157°·5 on July 9; and the lowest reading of the *Terrestrial Radiation Thermometer* was 42°·8 on July 23.
The mean daily distribution of *Ozone* for the 12 hours ending 9h. was 0·3; for the 6 hours ending 15h. was 0·5; and for the 6 hours ending 21h. was 0·2.
The *Proportions of Wind* referred to the cardinal points were N. 7, E. 3, S. 9, and W. 11. One day was calm.
The *Greatest Pressure of the Wind* in the month was 11·2 lbs. on the square foot on July 25. The mean daily *Horizontal Movement of the Air* for the month was 242 miles; the greatest daily value was 555 miles on July 4; and the least daily value was 115 miles on July 13.
Rain fell on 7 days in the month, amounting to 1in·065, as measured by gauge No. 6 partly sunk below the ground; being 1in·405 *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1896.	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.		
Aug. 1	Last Quarter	29.812	74.2	49.2	25.0	61.9	− 0.3	56.6	52.1	9.8	18.2	1.2	71	134.3	46.0	0.000	0.0	vP : wP
2	...	29.913	68.0	53.0	15.0	59.3	− 2.8	56.1	53.3	6.0	11.9	0.6	81	121.7	49.0	0.005	2.0	wP, wwN : wP
3	...	29.863	70.2	48.3	21.9	60.0	− 2.1	55.3	51.2	8.8	18.2	2.1	72	122.0	43.6	0.013	0.2	mP : wP, vN
4	...	29.806	70.7	53.8	16.9	60.1	− 2.1	54.2	49.0	11.1	20.9	2.7	67	127.6	50.0	0.000	0.8	vP
5	Greatest Declination N.	29.900	67.6	48.7	18.9	57.4	− 4.9	51.5	46.1	11.3	21.1	3.1	66	133.1	45.0	0.000	0.0	mP : vP
6	...	29.965	67.5	52.2	15.3	58.9	− 3.5	52.5	46.8	12.1	20.3	5.6	65	123.5	45.7	0.000	0.0	vP
7	...	29.920	69.8	48.5	21.3	58.9	− 3.6	53.4	48.5	10.4	19.4	2.5	68	115.2	44.5	0.000	0.0	vP
8	...	29.855	61.4	50.5	10.9	56.5	− 6.0	54.0	51.7	4.8	10.5	2.8	84	75.7	45.8	0.340	0.0	wP : vP, ssN : vP, wwN
9	New	29.870	63.2	51.9	11.3	56.7	− 5.8	55.0	53.5	3.2	8.0	1.3	89	94.6	50.3	0.411	0.0	wP : vP, vN : vP, wN
10	...	29.986	68.0	54.6	13.4	60.7	− 1.8	58.1	55.8	4.9	10.3	1.5	84	113.3	52.0	0.117	0.0	wwP : vP, ssN : mP
11	In Equator: Perigee.	30.079	72.0	52.4	19.6	61.2	− 1.3	57.1	53.5	7.7	17.1	0.6	77	117.2	50.0	0.000	0.0	vP
12	...	30.052	73.6	56.6	17.0	64.7	+ 2.2	59.4	55.0	9.7	18.0	3.2	71	119.0	52.7	0.000	0.0	mP : sP : mP
13	...	29.935	76.2	55.5	20.7	65.2	+ 2.8	59.5	54.8	10.4	18.2	1.7	70	127.3	52.2	0.000	0.5	mP : vP : vP
14	...	29.778	73.0	55.8	17.2	63.1	+ 0.8	57.4	52.6	10.5	22.5	2.8	69	131.2	50.0	0.031	1.5	wP : vP
15	First Quarter	29.821	66.9	49.9	17.0	57.8	− 4.3	52.9	48.5	9.3	16.0	4.2	71	112.1	46.0	0.033	0.0	mP : vP, vN
16	...	29.934	73.6	47.1	26.5	59.2	− 2.8	53.1	47.7	11.5	23.8	2.9	66	126.0	43.7	0.000	2.0	mP
17	...	29.944	72.7	47.1	25.6	59.2	− 2.6	53.9	49.1	10.1	20.5	2.1	70	133.0	44.0	0.000	0.2	mP : wP : mP
18	Greatest Declination S.	29.831	63.0	56.5	6.5	59.2	− 2.4	57.7	56.4	2.8	5.1	0.8	91	80.0	52.3	0.171	1.8	wP
19	...	29.684	67.9	53.6	14.3	59.1	− 2.3	54.9	51.1	8.0	15.8	1.2	75	98.9	50.1	0.182	0.0	mP : vP : vP, vN
20	...	29.729	69.7	52.9	16.8	60.6	− 0.7	56.6	53.2	7.4	14.8	0.8	77	111.1	50.6	0.000	0.2	wP : mP : vP
21	...	29.706	70.1	52.4	17.7	58.6	− 2.5	56.1	53.9	4.7	10.8	1.3	84	121.1	49.2	0.210	0.8	wP : vP, ssN : mP
22	...	29.904	68.0	51.2	16.8	58.7	− 2.3	54.1	50.0	8.7	17.5	1.6	73	117.0	47.3	0.000	1.0	wP : mP : mP
23	Full	29.959	74.7	55.4	19.3	63.1	+ 2.2	59.7	56.8	6.3	12.8	3.1	80	97.7	51.2	0.059	0.5	vP : vP, ssN
24	...	29.800	71.2	59.6	11.6	63.5	+ 2.7	61.6	60.0	3.5	9.9	0.6	89	113.3	57.0	0.100	2.5	... : wP : wwP
25	In Equator	29.605	68.6	52.2	16.4	59.3	− 1.5	56.1	53.3	6.0	14.9	0.9	81	123.2	51.0	0.354	0.0	wwP : vP, ssN : vP, vN
26	...	29.487	62.1	48.3	13.8	53.1	− 7.7	49.2	45.3	7.8	14.8	2.1	75	101.8	46.0	0.026	0.0	wP, vN : vP, ssN
27	Apogee	29.739	67.1	45.7	21.4	54.2	− 6.5	50.2	46.3	7.9	18.5	1.9	74	113.8	42.5	0.000	0.0	mP : vP
28	...	30.002	66.2	47.5	18.7	56.2	− 4.4	51.5	47.1	9.1	16.7	3.1	71	106.8	43.7	0.000	1.2	mP : vP
29	...	29.981	69.3	49.4	19.9	57.4	− 2.9	53.1	49.2	8.2	14.6	3.8	74	126.3	45.0	0.000	5.6	wP : mP
30	...	29.771	66.8	50.2	16.6	59.2	− 0.9	55.3	51.8	7.4	14.2	1.0	77	93.3	46.2	0.000	9.2	wP
31	Last Quarter	29.724	66.1	53.9	12.2	59.8	− 0.1	56.8	54.2	5.6	10.1	0.8	83	84.8	52.0	0.011	0.0	wP : wP : wP, wN
Means	...	29.850	69.0	51.7	17.3	59.4	− 2.2	55.3	51.5	7.9	15.7	2.1	75.6	113.4	48.2	Sum 2.063	1.0	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29^in^.850, being 0^in^.068 *higher* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 76°.2 on August 13; the lowest in the month was 45°.7 on August 27; and the range was 30°.5.
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 51°.7, being 1°.3 *lower* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 17°.3, being 2°.5 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 59°.4, being 2°.2 *lower* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1896.	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	5·7	15·3	NE : NNE : N	NE : SE	0·9	0·0	0·02	134	p.-cl : 10 : 9, cu.-s	p.-cl, so.-ha : 7, th.-cl, ci.-s : 4, ci.-s
2	0·8	15·3	SE : ENE : NE	NE	0·3	0·0	0·00	146	10 : 10 : 10, oc.-slt.-shs	v : v, th.-cl : 0
3	1·3	15·2	NE	NE : SW	0·8	0·0	0·01	109	10 : v, th.-cl	10, li.-shs : 10, shs.-r
4	4·8	15·2	NW : NNW	NNW : NNE	2·4	0·0	0·13	244	10 : p.-cl	7, cu.-s, ci.-cu : v : v, li.-cl
5	5·3	15·1	NNE	NNE	2·8	0·0	0·22	310	10 : v, cu, cu.-s	10 : 10 : v
6	1·8	15·1	N : NNE	NNE : S	2·2	0·0	0·15	266	10 : 10 : v, cu.-s, li.-cl	9, cu.-s : 10 : v
7	0·2	15·0	NNE	NE : N : NW	1·4	0·0	0·01	142	8 : p.-cl, m : 5, th.-cl	10, th.-cl : 10
8	0·0	15·0	WSW : N : NE	SE : ENE : NE	1·3	0·0	0·03	159	10 : 10, oc.-slt.-r : 10, oc.-slt.-r, t	10, hy.-r, l, t : 10, fq.-slt.-r : v
9	0·2	14·9	N : NNE	NE : N	4·4	0·0	0·41	337	10 : 10 : 9, n, sc, hy.-r	10, fq.-hy.-r, sc : 10
10	0·6	14·9	N : NNE	NNE : N	3·3	0·0	0·16	290	10, shs.-r : 10 : vv, fq.-shs	v, r, t : v, sh.-r : 0, m, h
11	1·1	14·8	N : W : NW	NW : N	2·2	0·0	0·07	217	0, d : p.-cl, m : 2, li.-cl, h	v, ci.-cu : v : 0
12	0·2	14·7	NNW	N : NW	1·2	0·0	0·05	212	0 : p.-cl : v, th.-cl	10, th.-cl : v, li.-cl
13	3·0	14·7	WSW : W	W : WSW	3·1	0·0	0·15	273	0 : v : 9, ci.-cu	8, cu.-s : p.-cl : 1, th.-cl
14	3·7	14·6	WSW	NW : NNW	3·1	0·0	0·20	314	p.-cl : 10, li.-shs : v, shs.-r	v, cu.-s : 1, li.-cl : 0
15	2·4	14·6	WSW : W : NW	N : NNE	4·4	0·0	0·15	271	1, li.-cl : 10 : 10	10, hy.-sh : v, sh.-r : 0
16	6·5	14·5	N : WSW : W	W : NW : N	3·2	0·0	0·15	247	0 : v, cu, li.-cl	v : 0
17	5·4	14·4	Calm : SE	WSW : W	1·0	0·0	0·00	134	0 : 10 : 3, ci.-cu, cu.-s	3, cu.-s, ci.-s : li.-cl, ci.-s : v, lu.-ha
18	0·0	14·4	WSW : W	SW : WSW	0·8	0·0	0·02	196	10, slt.-r : 10, fq.-r : 10, th.-r	10, th.-r : 10, th.-r : v
19	0·2	14·3	WSW : N	W : N	2·6	0·0	0·05	166	10 : p.-cl, h : v, h, gt.-glm	10 : 10, r : 10, c.-r, l, t
20	5·8	14·3	NNE : N	NNE : SSE : WSW	0·4	0·0	0·00	124	10 : p.-cl	10 : v, h
21	1·9	14·2	WSW	WSW : N	1·6	0·0	0·05	220	p.-cl : p.-cl	10, r : 10, th.-r : p.-cl
22	3·4	14·1	N	NNW : NW	1·7	0·0	0·07	203	p.-cl : p.-cl	9, cu : v, li.-cl
23	0·3	14·1	SW : WSW	WNW : NNW : W	1·5	0·0	0·03	200	10 : 10 : 10, th.-r, slt.-f	10 : 10, r : v, lu.-ha
24	0·0	14·0	SW : WSW	SW : WSW	6·5	0·0	0·61	380	10 : 10 : 10, shs.-r	10, fq.-shs, w : 10, r
25	3·4	13·9	WSW : SW	SW : N	5·6	0·0	0·08	249	10, r : 10 : 9, cu.-s	7, cu, li.-cl : v, t.-sm, r : p.-cl, l
26	4·6	13·9	NNW : WNW	WNW : W : WSW	3·7	0·0	0·23	284	10, shs.-r : v	9, cu.-s, slt.-sh : v, shs.-r, so.-ha : v
27	5·4	13·8	N	NNW : N	4·2	0·0	0·29	291	p.-cl : p.-cl	v, cu, sh.-r : v, slt.-r : v, ci.-cu
28	1·2	13·8	NNW : SW : WSW	WNW : WSW	1·7	0·0	0·04	215	10 : 10 : 5, cu.-s, th.-cl, so.-ha	6, th.-cl, so.-ha : v : 2, li.-cl
29	3·4	13·7	WSW	SW : S	2·3	0·0	0·14	275	10 : 10 : p.-cl	10 : 10 : 1, li.-cl
30	0·3	13·7	SSE : SSW	SW : SSW : SSE	2·3	0·0	0·10	230	0 : 0 : v, th.-cl, so.-ha	10 : 10
31	0·0	13·6	SSE : NE : W	Calm : Variable	0·0	0·0	0·00	92	10 : 10, m : 10, slt.-r, slt.-f	10, slt.-r, slt.-f : 10 : v, oc.-slt.-r, l, slt.-f
Means	2·4	14·5	...	...	...	...	0·12	224		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 55°·3, being 2°·3 *lower* than
The mean *Temperature of the Dew Point* for the month was 51°·5, being 2°·7 *lower* than
The mean *Degree of Humidity* for the month was 75·6, being 1·2 *less* than
The mean *Elastic Force of Vapour* for the month was $0^{\mathrm{in}}\cdot381$, being $0^{\mathrm{in}}\cdot040$ *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was $4^{\mathrm{grs}}\cdot3$, being $0^{\mathrm{gr}}\cdot4$ *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 532 grains, being 4 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 6·9.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·162. The maximum daily amount of *Sunshine* was 6·5 hours on August 16.

The highest reading of the *Solar Radiation Thermometer* was 134°·3 on August 1; and the lowest reading of the *Terrestrial Radiation Thermometer* was 42°·5 on August 27.

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

The *Proportions of Wind* referred to the cardinal points were N. 13, E. 3, S. 4, and W. 10. One day was calm.

The *Greatest Pressure of the Wind* in the month was 6·5 lbs. on the square foot on August 24. The mean daily *Horizontal Movement of the Air* for the month was 224 miles; the greatest daily value was 380 miles on August 24; and the least daily value was 92 miles on August 31.

Rain fell on 15 days in the month, amounting to $2^{\mathrm{in}}\cdot063$, as measured by gauge No. 6 partly sunk below the ground; being $0^{\mathrm{in}}\cdot287$ *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1896.	Phases of the Moon.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit)	TEMPERATURE. Of the Air. Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 50 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean.	Greatest.	Least.	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Amount of Ozone.	Electricity.
		in.	°	°	°	°	°	°	°	°	°	°		°	°	in.		
Sept. 1	Greatest Declination N.	29·694	64·3	52·7	11·6	58·0	− 1·7	56·7	55·5	2·5	6·7	0·8	91	95·7	49·5	0·312	0·0	vP, vN : mP
2	...	29·652	64·5	51·8	12·7	56·2	− 3·5	54·9	53·7	2·5	10·1	0·6	91	116·3	51·0	0·049	1·7	... : vP, ssN : wP, vN
3	...	29·700	68·1	51·8	16·3	57·7	− 1·9	54·0	50·6	7·1	16·6	1·2	78	113·2	50·9	0·000	6·5	wP : mP
4	...	29·664	63·5	57·4	6·1	60·2	+ 0·8	58·9	57·7	2·5	5·1	0·6	92	79·3	52·9	0·507	10·5	... : vN, wP : vP, vN
5	...	29·524	71·5	57·4	14·1	62·5	+ 3·2	59·9	57·7	4·8	11·9	0·4	85	120·8	56·0	0·335	10·3	vP, vN : mP, wN
6	...	29·766	60·6	55·8	4·8	58·2	− 0·9	56·4	54·8	3·4	5·9	1·5	88	70·0	55·6	0·073	0·2	wwP : wP
7	New	29·844	67·7	55·0	12·7	60·2	+ 1·3	57·9	55·9	4·3	9·0	1·7	86	104·0	54·0	0·000	0·8	wP
8	In Equator: Perigee	29·683	70·0	58·1	11·9	62·8	+ 4·1	60·7	58·9	3·9	9·4	0·6	87	118·5	54·8	0·087	4·0	wP : mP : vP, ssN
9	...	29·480	70·6	57·0	13·6	62·5	+ 4·0	60·1	58·1	4·4	11·7	0·4	86	125·2	54·9	0·122	11·0	vP, ssN : wP : mP
10	...	29·477	62·9	55·6	7·3	57·6	− 0·7	57·0	56·5	1·1	3·2	0·2	96	77·8	52·0	1·095	0·0	wP : vP, vN : vP, vN
11	...	29·584	67·5	51·8	15·7	59·0	+ 0·9	57·2	55·6	3·4	6·5	1·5	89	86·8	49·5	0·087	2·0	wP : vP : wP, wN
12	...	29·554	64·3	50·1	14·2	60·3	+ 2·3	58·6	57·1	3·2	6·7	0·9	90	89·2	49·3	0·121	12·0	wwP : wwP : vP, ssN
13	...	29·166	64·2	55·7	8·5	59·4	+ 1·5	57·7	56·2	3·2	9·1	0·6	90	94·1	53·0	0·678	14·8	vP, vN
14	First Quarter: Greatest Dec. S.:	29·310	67·0	55·5	11·5	60·7	+ 2·9	58·0	55·6	5·1	10·6	2·3	84	101·8	52·3	0·008	7·2	wwP : wP
15	...	29·676	68·3	54·9	13·4	59·7	+ 2·0	56·7	54·1	5·6	13·3	0·9	83	114·9	51·3	0·039	1·2	wP : mP
16	...	29·849	68·5	50·6	17·9	57·6	+ 0·1	54·9	52·5	5·1	16·2	1·4	83	119·9	46·1	0·259	0·8	wP : vP, vN
17	...	29·849	63·4	54·8	8·6	58·8	+ 1·5	55·7	52·9	5·9	9·3	3·4	81	86·8	50·9	0·028	0·0	wP
18	...	29·555	65·9	52·4	13·5	59·7	+ 2·8	57·0	54·6	5·1	9·4	1·3	84	96·5	49·0	0·200	0·8	wP, ssN : wP : vP, sN
19	...	29·585	64·8	45·8	19·0	53·9	− 2·6	49·3	44·8	9·1	18·4	3·1	71	116·9	41·9	0·000	3·0	mP
20	...	29·534	61·0	44·6	16·4	51·2	− 4·9	47·8	44·3	6·9	15·0	1·7	78	103·2	42·8	0·024	2·2	wP : vP, ssN
21	In Equator: Full	29·571	60·9	40·3	20·6	49·6	− 6·1	47·7	45·7	3·9	12·7	0·2	87	110·1	38·2	0·303	0·8	wP : mP : vP, vN
22	...	29·120	67·1	52·0	15·1	56·9	+ 1·5	55·9	55·0	1·9	6·7	0·2	94	107·7	48·5	0·192	6·2	wP : vP, wwN : mP
23	...	29·288	61·7	48·5	13·2	55·6	+ 0·4	51·4	47·4	8·2	17·7	0·2	74	110·0	45·0	0·012	2·0	wP, wN : vP : sP
24	Apogee	29·648	60·8	43·7	17·1	51·9	− 3·2	47·9	43·9	8·0	15·4	3·4	75	99·2	40·5	0·000	1·8	mP
25	...	28·916	61·2	51·2	10·0	54·1	− 0·9	52·3	50·5	3·6	6·8	1·6	87	95·2	48·5	0·866	5·2	vP, vN
26	...	29·626	56·0	49·7	6·3	52·7	− 2·2	50·7	48·7	4·0	9·6	1·3	87	72·3	47·8	0·011	1·2	mP
27	...	29·587	65·0	48·3	16·7	56·0	+ 1·1	54·5	53·1	2·9	5·7	0·6	90	90·0	46·0	0·132	4·1	wP : wP : mP, wN
28	...	29·725	59·7	44·1	15·6	50·4	− 4·4	46·1	41·6	8·8	15·6	3·8	73	111·2	41·0	0·000	0·7	wP : vP : vP, sN
29	Greatest Declination N.	29·947	59·6	43·4	16·2	50·6	− 4·0	47·9	45·1	5·5	11·4	2·6	82	105·2	40·5	0·002	0·0	mP : vP : wP
30	Last Quarter	30·226	64·0	46·5	17·5	53·5	− 0·9	51·4	49·3	4·2	12·9	0·0	86	109·0	42·0	0·000	0·0	vP
Means	...	29·593	64·5	51·2	13·3	56·9	− 0·3	54·5	52·2	4·7	10·6	1·3	84·9	101·4	48·5	Sum 5·542	3·7	...
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·593, being 0in·213 *lower* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 71°·5 on September 5; the lowest in the month was 40°·3 on September 21; and the range was 31°·2.
The mean of all the highest daily readings in the month was 64°·5, being 2°·8 *lower* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 51°·2, being 2°·1 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 13°·3, being 4°·9 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 56°·9, being 0°·3 *lower* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1896.	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	0·2	13·5	NNE	NNE : NE	3·0	0·0	0·13	207	10 : 10, hy.-r : 10, r	9 : 10 : 10, fq.-r
2	1·3	13·4	SW	WSW : SW	0·6	0·0	0·01	159	10, shs.-r : 10, m : v	v, r : 10, shs.-r : 10
3	3·5	13·4	WSW	WSW : SW : SSW	2·0	0·0	0·08	241	10 : 10 : 9, cu.-s	v, cu, li.-cl : 2, li.-cl : v
4	0·0	13·3	S : SSE	SSE : SE : ESE	0·8	0·0	0·00	148	10 : 10, r : 10,c.-hy.-r	10, fq.-r : 10 li.-shs : 10 c.-hy.-r
5	5·1	13·2	SSE : SSW : S	S : SE : NNE	0·8	0·0	0·01	159	10,c.-hy.-r : 10, r : v,hy.-shs	7, cu.-s, li.-cl, sh-r : 8,cu-s,slt.-sh : 10
6	0·0	13·2	NNE	NNE : N	2·2	0·0	0·17	272	10, shs.-r : 10, fq.-r	10, oc.-r : 10
7	0·4	13·1	NNE : NE	ENE : E : NE	0·4	0·0	0·00	178	10 : 10	10 : 10
8	1·9	13·0	E : ESE	E	2·3	0·0	0·07	202	10 : th.-cl : 9, th.-cl	v, ci.-cu, li.-cl : v, oc.-shs : p.-cl, t.-sm, hy.-r
9	4·3	13·0	SE : SSE : SSW	SW : SSW	4·6	0·0	0·27	253	10, t.-sm : p.-cl : v, cu	8, shs.-r : p.-cl : 0
10	0·0	12·9	SSE : SE : WNW	WNW : W	1·2	0·0	0·00	192	v : 10 : 10, hy.-r, glm, t	10, c.-r : 10,fq.-hy.-shs : 10, th.-r
11	1·2	12·9	WSW : SW : SSW	SW : SSW	2·2	0·0	0·03	175	1, li.-cl : p.-cl : 10, r	10, shs-r : v : 0
12	0·0	12·8	SW : SSW : SSE	S : SSW	3·9	0·0	0·14	228	10 : p.-cl : 10	10, oc.-slt.-shs : v,fq.-shs,l : 10, hy.-r
13	1·2	12·7	SSW : SW	SW : WSW	4·9	0·0	0·32	329	10, fq.-hy.-shs : 10, fq.-shs	10, li.-shs : 10,fq.-hy.-shs : 2, li.-cl
14	1·8	12·7	WSW	SW : SSW : WSW	6·4	0·0	0·57	437	p.-cl : p.-cl : 9,cu,cu.-s	10 : 10,li.-shs,sc : p.-cl
15	2·9	12·6	WSW : SW	WSW : SW	2·7	0·0	0·09	259	p.-cl : p.-cl : v, li.-cl	v, li.-shs : 10, shs.-r : v, oc.-slt.-r
16	6·8	12·6	WSW	WSW	5·8	0·0	0·27	346	0 : 0 : 2, li.-cl	v, hy.-r : p.-cl : li.-cl
17	0·0	12·5	WSW : SW	SW	5·4	0·0	0·35	373	10 : 10 : 10, oc.-slt.-r	10, fq.-r : 10, shs-r
18	0·1	12·4	SW : WSW	WSW : SW	4·4	0·0	0·25	319	10, hy.-sh : 10, shs.-r : 10	10 : 10, r : v, r
19	8·1	12·3	WSW	WSW	3·7	0·0	0·23	335	0 : 0 : 1, li.-cl	v, li.-cl : 2, li.-cl : 0
20	6·2	12·3	WSW : WNW	WNW : WSW	4·3	0·0	0·05	241	0, hy.-d : 1, li.-cl : p.-cl	v, hy.-r,hl, l,t : p.-cl : 0, m
21	2·4	12·2	WSW : SW	SW : SSE	2·4	0·0	0·04	197	2, hy.-d : p.-cl : 8, ci.-cu, li.-cl	p.-cl : 10, r : 10, th.-r
22	1·3	12·2	S : SSW	SW : WSW	17·0	0·0	1·43	546	10, r : 10 : 10, r	v, th.-r,li.-sc,w : v,r,st.-w,sc : 10, st.-w
23	4·0	12·1	WSW : W	W : WNW	21·0	0·0	3·10	830	10, g, oc.-shs : 9, st.-w : 9,cu.-s,st.-w	p.-cl, st.-w : 0, w : 0
24	5·9	12·0	W	W : WSW : SW	3·2	0·0	0·26	359	0 : 0 : 3, cu, li.-cl	5, cu, ci.-cu : v,th.-cl,slt.-sh, lu.-ha : 10
25	0·3	11·9	SW : S : WSW	W : NNW	24·0	0·0	1·95	585	10,c.-hy.-r,w : v,slt.-r,hy.-sh : 10,fq.-shs, sc	10, shs.-r, st.-w, sc : 10,shs,-r,st.-w : 10, w
26	0·0	11·9	WNW : WSW	SW : WSW	3·4	0·0	0·21	270	10 : 10 : 10, shs.-r	10, shs.-r : 10, shs.-r : v
27	0·8	11·8	WSW : SW : SSW	SW : WSW	12·0	0·0	0·67	423	p.-cl : p.-cl : 10, li.-sc	10, oc.-th.-r, sc : 10, c.-r : li.-cl
28	7·7	11·7	WSW : SW : WNW	W : WSW	3·9	0·0	0·40	366	0, hy.-d : 1, li.-cl : 3, li.-cl	v, li.-cl : 0, d
29	1·3	11·7	SW : SSW	SSW : S	2·0	0·0	0·05	185	10 : 10, slt.-r : 9, ci.-cu,li.-cl, slt.-r	p.-cl : 10
30	6·6	11·6	Calm : NNE	NE : ESE	0·4	0·0	0·00	105	10 : p.-cl, f, hy.-d : v, slt.-f	6, cu : 1, li.-cl : 0, f
Means	2·5	12·6	...	...	...	...	0·37	297		
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°·5, being 0°·3 *higher* than
The mean *Temperature of the Dew Point* for the month was 52°·2, being 0°·8 *higher* than
The mean *Degree of Humidity* for the month was 84·9, being 4·1 *greater* than
The mean *Elastic Force of Vapour* for the month was 0in·391, being 0in·012 *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 4grs·4, being 0gr·2 *greater* than
The mean *Weight of a Cubic Foot of Air* for the month was 530 grains, being 3 grains *less* than
} the average for the 50 years, 1841–1890.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·200. The maximum daily amount of *Sunshine* was 8·1 hours on September 19.

The highest reading of the *Solar Radiation Thermometer* was 125°·2 on September 9; and the lowest reading of the *Terrestrial Radiation Thermometer* was 38°·2 on September 21.

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

The *Proportions of Wind* referred to the cardinal points were N. 3, E. 4, S. 10, and W. 13.

The *Greatest Pressure of the Wind* in the month was 24·0 lbs. on the square foot on September 25. The mean daily *Horizontal Movement of the Air* for the month was 297 miles; the greatest daily value was 830 miles on September 23; and the least daily value was 105 miles on September 30.

Rain fell on 23 days in the month, amounting to 5in·542, as measured by gauge No. 6 partly sunk below the ground; being 3in·291 *greater* than the average fall for the 50 years, 1841-1890.

MONTH and DAY, 1896.	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	...	30.255	54.7	41.6	13.1	48.9	− 5.2	47.9	46.8	2.1	6.0	0.0	93	67.0	40.1	0.000	0.0	wP : vP, mN : vP, wN
2	...	29.965	61.1	47.7	13.4	54.6	+ 0.8	52.5	50.5	4.1	6.8	0.8	86	78.8	43.0	0.000	3.0	mP
3	...	29.775	61.2	53.7	7.5	57.3	+ 3.8	56.2	55.2	2.1	5.3	0.0	93	74.0	53.0	0.023	4.8	wP : wP : mP
4	...	29.409	62.0	45.9	16.1	55.2	+ 2.0	53.6	52.1	3.1	6.6	1.1	90	75.7	44.0	0.092	5.2	wP : wP, wwN : vP, ssN
5	In Equator	29.421	55.3	42.8	12.5	47.3	− 5.7	44.6	41.6	5.7	11.0	3.1	81	100.0	39.5	0.046	0.5	wP : vP, mN : mP
6	New	29.484	57.0	43.9	13.1	51.6	− 1.1	50.1	48.6	3.0	5.3	1.0	90	59.0	40.7	0.566	9.5	wP : wP, vN
7	Perigee	29.539	61.0	44.7	16.3	53.2	+ 0.7	50.9	48.6	4.6	12.0	0.0	84	97.9	43.0	0.275	3.0	mP : mP, sN : wwP
8	...	29.430	63.0	52.7	10.3	58.0	+ 5.9	54.0	50.4	7.6	12.0	5.1	76	112.0	50.0	0.006	6.0	wwP : wP
9	...	29.641	63.4	48.5	14.9	53.7	+ 2.0	50.3	47.0	6.7	15.2	1.2	78	113.0	43.1	0.018	0.8	wP : mP : mP, wN
10	...	29.557	62.8	46.6	16.2	52.2	+ 0.9	49.7	47.2	5.0	13.7	0.0	83	100.8	41.7	0.003	4.2	wP : mP
11	Greatest Declination S.	29.553	46.6	37.4	9.2	41.8	− 9.2	39.4	36.4	5.4	7.3	3.6	82	54.0	33.0	0.000	0.0	... : mN : mP
12	...	29.677	45.7	37.2	8.5	42.1	− 8.5	40.5	38.5	3.6	5.7	1.8	88	48.0	32.1	0.449	0.2	mP, wN : ... : vP
13	First Quarter	29.971	48.8	37.0	11.8	43.5	− 6.8	41.8	39.8	3.7	7.8	0.8	87	65.4	32.8	0.181	0.8	mP : sP : vP, vN
14	...	30.032	56.7	41.8	14.9	48.7	− 1.4	47.4	45.8	2.9	7.8	0.7	91	93.2	39.8	0.342	0.2	vP, vN : mP, ssN : ...
15	...	29.910	60.9	50.4	10.5	53.3	+ 3.4	51.8	50.3	3.0	8.4	0.4	90	106.3	49.4	0.000	0.8	... : wP : wwP
16	...	29.659	55.0	47.0	8.0	52.6	+ 2.8	51.6	50.6	2.0	5.3	0.6	94	56.7	46.0	0.157	0.2	... : wP
17	...	29.568	54.7	44.9	9.8	48.4	− 1.2	46.2	43.8	4.6	8.0	2.1	85	85.7	42.0	0.024	1.0	wP : mP : vP
18	In Equator	29.203	49.2	34.8	14.4	43.3	− 6.2	40.6	37.4	5.9	11.6	1.3	80	87.2	33.0	0.034	1.3	vP, vN : mP : sP
19	...	29.062	45.7	33.9	11.8	39.9	− 9.4	38.6	36.9	3.0	5.7	0.9	90	66.2	32.0	0.048	1.5	mP : vP, vN : vP, ssN
20	...	29.091	46.0	38.8	7.2	41.8	− 7.2	40.3	38.4	3.4	6.1	1.4	89	55.0	37.8	0.151	0.0	vP, ssN : vP, vN : mP
21	Apogee : Full	29.259	51.2	38.8	12.4	43.0	− 5.8	41.7	40.1	2.9	6.9	0.5	90	85.2	34.6	0.000	0.0	mP
22	...	29.516	48.0	35.8	12.2	41.1	− 7.4	39.2	36.8	4.3	9.9	0.7	85	69.8	31.0	0.000	0.0	mP : sP : sP
23	...	29.737	49.5	35.8	13.7	41.2	− 7.0	39.5	37.4	3.8	9.9	1.0	87	81.0	30.0	0.000	1.5	mP : sP : vP
24	...	29.457	52.0	37.5	14.5	44.9	− 3.0	42.8	40.4	4.5	7.0	2.9	85	64.0	32.1	0.183	6.7	mP : mP, ssN : vP, ssN
25	...	29.174	50.0	37.1	12.9	43.4	− 4.2	40.1	36.2	7.2	12.8	1.6	76	86.0	34.3	0.138	4.3	vP, vN
26	Greatest Declination N.	29.367	51.1	36.1	15.0	42.7	− 4.7	39.5	35.6	7.1	14.3	2.2	77	98.3	32.1	0.006	1.5	mP, mN : sP, ssN
27	...	29.571	51.0	37.6	13.4	42.3	− 5.0	39.8	36.7	5.6	13.9	0.9	81	87.9	34.0	0.061	1.0	ssN, vP : sP : sP
28	...	29.570	49.2	32.7	16.5	40.1	− 7.1	38.0	35.3	4.8	11.1	0.5	83	80.5	28.7	0.000	0.0	mP : sP, sN
29	Last Quarter	29.441	46.8	31.5	15.3	38.2	− 8.8	37.1	35.6	2.6	7.6	0.0	91	68.0	30.6	0.000	0.0	mP : sP : mP
30	...	29.551	49.9	32.7	17.2	40.1	− 6.9	38.9	37.3	2.8	8.4	0.0	90	84.3	29.0	0.000	2.0	wP : sP : mP
31	...	29.494	47.8	35.7	12.1	40.9	− 5.9	39.1	36.8	4.1	8.0	1.0	86	72.6	33.7	0.000	0.0	mP : sP
Means	...	29.559	53.5	40.7	12.7	46.6	− 3.4	44.6	42.4	4.2	8.9	1.2	85.8	79.8	37.6	Sum 2.803	1.9	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29in·559, being 0in·157 *lower* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 63°·4 on October 9; the lowest in the month was 31°·5 on October 29; and the range was 31°·9.
The mean of all the highest daily readings in the month was 53°·5, being 4°·2 *lower* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 40°·7, being 2°·6 *lower* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 12°·7, being 1°·7 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 46°·6, being 3°·4 *lower* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1896.	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	0·0	11·6	Calm	W : SW : SSW	0·1	0·0	0·00	73	f : tk.-f : th.-cl, f, glm	10, slt.-f : 10, slt.-f : 10
2	0·4	11·5	SW : WSW	WSW : SW	0·9	0·0	0·00	172	p.-cl, d : 8, cu, cu.-s	10 : 10
3	0·0	11·4	SW : WSW	SW	0·8	0·0	0·01	184	10, r : 10, oc.-r : 10	10 : 10, slt.-sh : p.-cl
4	0·4	11·4	SW	SSW : SW : WSW	6·7	0·0	0·68	441	10 : 10, shs.-r : 10, fq.-m.-r	10, shs.-r : v, shs.-r : 0
5	8·0	11·3	SW : WSW	SW : WSW	11·5	0·0	0·92	515	0, d : 1, li.-cl : 3, li.-cl, cu.-s	v, n, r, t, w : v, l : 10
6	0·0	11·2	SW : SSW	SW : SSW	16·0	0·0	1·08	503	v : 10 : 10, r	10, c.-r, sc : 10, c.-r, st.-w : 10, r
7	1·5	11·2	W : WSW : S	S : ESE : SW	11·0	0·0	0·48	306	10 : v : v	10, hy.-r : 10, r, w : v
8	0·1	11·1	SW	SW	11·3	0·0	1·32	586	10, w : 10 : 10	10, slt.-r : 10, oc.-slt.-r : v
9	6·9	11·0	SW : SSW	SW : S	3·7	0·0	0·22	302	0, d : 1, li.-cl : 2, li.-cl	1, cu, li.-cl : 1, li.-cl : v, li.-cl, sh.-r
10	5·1	11·0	SSE : S : SW	WSW	4·0	0·0	0·27	297	p.-cl, f : 10, li.-shs : v, fq.-shs	v, li.-cl : 0 : v
11	0·0	10·9	WSW : NW : NNW	NNW : N	4·2	0·0	0·21	293	10 : 10 : 10, glm, oc.-slt.-r	10, glm : 10
12	0·0	10·9	NW : NNW : N	N : NNE	8·5	0·0	0·63	374	10 : 10 : 10, r	10, c.-r : 10, fq.-shs : p.-cl
13	0·8	10·8	N	NNE	5·7	0·0	0·70	402	v, li.-cl, d : p.-cl : v	10 : 10, r : 10, r
14	1·2	10·7	ENE : NNE : NE	NE : NNE	4·4	0·0	0·32	302	10, fq.-r : v, hy.-r : v	v, slt.-r, sc : 10, slt.-shs : 10
15	0·6	10·7	NE : SSW	NNE	3·6	0·0	0·14	214	10, oc.-r : 10 : p.-cl	10, gt.-glm, sc : 10 : 10, oc.-th.-r
16	0·0	10·6	NNE	NNE : NE	9·8	0·0	1·48	587	10, shs.-r : 10, shs.-r : 10, oc.-slt.-r	10, fq.-th.-r, sc : 10 : 10
17	2·2	10·5	NNE	N : W : WSW	4·0	0·0	0·22	312	10 : p.-cl : v	10 : 10, r : 10
18	4·0	10·5	WSW : W : WNW	W : WSW : SSW	4·2	0·0	0·33	388	10, r : p.-cl : 8, cu.-s, li.-cl	p.-cl : 0, h
19	0·1	10·4	SSW : S	SSW : S : NNW	2·2	0·0	0·05	239	v, ho.-fr : 2, li.-cl : 10, fq.-shs	10, fq.-r : 10, slt.-f
20	0·0	10·3	NNW : NW	WNW : W : WSW	2·5	0·0	0·12	299	10 : 10, shs.-r : 10, fq.-slt.-r	10 : 9, slt.-f : 9, slt.-f
21	1·7	10·3	WSW : NNE : NE	NNE : N	0·4	0·0	0·00	168	10 : 10 : p.-cl	v, ci.-cu, cu.-s : 3, th.-cl : 2, li.-cl
22	1·4	10·2	N	N	1·0	0·0	0·01	189	p.-cl : p.-cl : 10, slt.-r	v, li.-cl : 1, li.-cl : 0, h, m, ho.-fr
23	2·3	10·2	NNE : N	N : SSW	0·8	0·0	0·00	170	v : 10 : v	p.-cl : p.-cl, slt.-f
24	0·0	10·1	SSW : SW	SW : WSW	6·3	0·0	0·47	423	p.-cl : 10 : 10, fq.-r	10 : 10, hy.-r : 10, oc.-r
25	4·8	10·0	SW : WSW	WSW : SW	14·0	0·0	0·91	519	p.-cl : 10, hy.-r : v	v, sq, hy.-r, l, t, st.-w : 0 : v, w
26	6·6	10·0	WSW	WSW : SW	6·2	0·0	0·35	387	10 : 10, slt.-r : v	v, w : 1, th.-cl : v, r
27	5·3	9·9	SSE : WSW	W : WSW : SW	2·4	0·0	0·05	239	10, r : 10 : v, li.-cl, so.-ha	1, cu.-s, li.-cl : 1, li.-cl, l
28	3·3	9·8	WSW	WSW : Calm	0·0	0·0	0·00	124	0, ho.-fr : 0, ho.-fr : 2, li.-cl	3, ci.-s, so.-ha : 1, li.-cl, slt.-f : 0, f
29	1·8	9·8	Calm	NE	0·0	0·0	0·00	116	0, f, ho.-fr : 0, f, ho.-fr : 1, li.-cl, tk.-f	1, li.-cl, so.-ha : 1, li.-cl, slt.-f : 0, slt.-f, ho.-fr
30	3·0	9·7	NE : ENE	NE : NNE	2·1	0·0	0·09	263	0, f, ho.-fr : p.-cl : 8, cu.-s	v : v
31	2·3	9·7	N	N	3·0	0·0	0·14	280	10 : 10 : 3, li.-cl	v : v
Means	2·1	10·6	...	...	...	...	0·36	312		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 44°·6, being 3°·4 *lower* than
The mean *Temperature of the Dew Point* for the month was 42°·4, being 3°·5 *lower* than
The mean *Degree of Humidity* for the month was 85·8, being 0·2 *greater* than
The mean *Elastic Force of Vapour* for the month was 0in·271, being 0in·038 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 3grs·1, being 0gr·4 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 541 grains, being 2 grains *greater* than
} the average for the 50 years, 1841–1890.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 6·8.
The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·194. The maximum daily amount of *Sunshine* was 8·0 hours on October 5.
The highest reading of the *Solar Radiation Thermometer* was 113°·0 on October 9; and the lowest reading of the *Terrestrial Radiation Thermometer* was 28°·7 on October 28.
The mean daily distribution of *Ozone* for the 12 hours ending 9h. was 1·1; for the 6 hours ending 15h. was 0·4; and for the 6 hours ending 21h. was 0·4.
The *Proportions of Wind* referred to the cardinal points were N. 9, E. 3, S. 8, and W. 10. One day was calm.
The *Greatest Pressure of the Wind* in the month was 16·0 lbs. on the square foot on October 6. The mean daily *Horizontal Movement of the Air* for the month was 312 miles; the greatest daily value was 587 miles on October 16; and the least daily value was 73 miles on October 1.
Rain fell on 19 days in the month, amounting to 2in·803, as measured by gauge No. 6 partly sunk below the ground; being 0in·008 *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1896.	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.		
Nov. 1	...	29.589	47.7	37.8	9.9	43.0	− 3.7	41.8	40.4	2.6	5.3	0.9	90	66.0	32.8	0.075	0.2	mP : mP : vP, vN
2	In Equator	29.667	47.8	39.5	8.3	44.0	− 2.5	42.9	41.6	2.4	5.9	0.0	91	52.0	34.7	0.073	0.8	vN, wP : mP
3	...	29.795	46.6	38.7	7.9	42.0	− 4.3	40.0	37.5	4.5	9.2	0.7	85	74.3	34.3	0.000	0.0	mP : sP
4	Perigee	30.142	48.3	32.5	15.8	39.3	− 6.8	37.3	34.7	4.6	10.3	2.0	84	79.3	27.2	0.000	0.2	sP
5	New	30.312	47.1	32.5	14.6	39.9	− 6.0	37.5	34.4	5.5	12.4	0.5	81	84.5	28.4	0.000	0.8	mP
6	...	30.159	47.6	30.2	17.4	37.3	− 8.2	35.9	34.0	3.3	8.0	0.0	88	79.6	26.9	0.000	0.0	mP
7	...	29.751	43.1	27.4	15.7	34.4	−10.7	34.2	33.9	0.5	2.2	0.0	99	46.1	26.0	0.279	1.5	mP : wP : wP, wN
8	Greatest Declination S.	29.512	45.9	38.1	7.8	41.5	− 3.1	40.0	38.1	3.4	8.8	0.0	89	58.2	34.7	0.204	4.5	wP, wN : wP, wN : wP
9	...	30.053	47.7	34.2	13.5	39.2	− 4.8	37.2	34.6	4.6	9.5	1.6	84	81.3	29.6	0.000	0.2	wP : ... : mP
10	...	30.213	45.2	30.8	14.4	37.8	− 5.8	35.4	32.1	5.7	11.0	2.5	81	62.8	28.7	0.000	0.8	wP
11	...	30.051	48.5	36.5	12.0	43.2	0.0	40.4	37.1	6.1	8.8	3.1	79	54.0	32.5	0.000	0.2	wP
12	First Quarter	29.885	50.9	39.6	11.3	44.6	+ 1.7	42.1	39.2	5.4	8.8	3.2	81	62.0	35.4	0.000	0.8	wP
13	...	29.746	50.2	35.6	14.6	42.2	− 0.6	40.6	38.7	3.5	9.0	0.5	88	79.9	29.1	0.000	1.0	wP
14	In Equator	29.470	47.1	42.2	4.9	44.3	+ 1.7	43.5	42.6	1.7	4.6	0.0	94	51.2	40.2	0.363	0.2	wP, vN : wP : wwP, wN
15	...	29.173	46.7	39.2	7.5	42.5	0.0	40.7	38.6	3.9	10.6	0.5	86	58.1	35.8	0.111	0.8	wP : wP : wwP, vN
16	...	29.633	48.9	39.4	9.5	42.8	+ 0.4	41.1	39.1	3.7	9.0	0.2	86	75.5	37.0	0.000	0.2	wP, wN : wP : wP
17	Apogee	29.817	44.7	42.2	2.5	43.5	+ 1.2	41.5	39.1	4.4	5.1	2.4	84	45.7	39.1	0.000	0.8	wwP : wP : wP
18	...	29.755	46.6	41.1	5.5	43.3	+ 1.1	41.3	38.9	4.4	7.5	0.9	84	55.4	40.3	0.029	0.0	wwP : wP
19	...	29.907	45.1	33.4	11.7	39.5	− 2.7	37.5	34.9	4.6	8.4	1.3	84	61.7	30.0	0.000	0.8	wP
20	Full	29.952	49.4	37.4	12.0	45.9	+ 3.8	43.1	39.9	6.0	12.0	0.9	80	63.8	33.0	0.037	2.2	wP
21	...	30.297	48.7	34.5	14.2	42.4	+ 0.3	40.5	38.2	4.2	6.5	1.2	86	64.3	31.0	0.000	0.0	wP
22	Greatest Declination N.	30.405	48.8	42.1	6.7	45.7	+ 3.5	44.4	42.9	2.8	4.8	1.5	90	53.4	40.0	0.000	0.0	wP : wP : wP, wwN
23	...	30.417	42.1	35.5	6.6	39.2	− 2.9	39.0	38.7	0.5	2.1	0.0	98	45.9	34.3	0.000	0.2	wP
24	...	30.429	41.6	38.0	3.6	39.9	− 2.2	37.8	35.1	4.8	7.6	2.5	83	43.8	34.0	0.000	0.8	wP
25	...	30.340	41.1	38.8	2.3	39.9	− 2.1	37.8	35.1	4.8	6.4	3.0	83	53.8	38.0	0.000	0.2	wP
26	...	30.123	40.0	36.3	3.7	38.0	− 3.9	36.2	33.8	4.2	5.8	2.8	85	43.5	35.6	0.000	0.8	wP
27	...	29.876	43.6	33.8	9.8	38.4	− 3.2	36.6	34.2	4.2	9.9	0.5	85	80.0	30.2	0.023	1.0	wP
28	Last Quarter	29.802	38.0	31.3	6.7	34.3	− 7.0	32.0	28.1	6.2	9.7	3.2	77	44.4	29.0	0.000	1.5	wP
29	In Equator	30.105	39.0	29.8	9.2	35.6	− 5.4	32.4	27.5	8.1	14.2	3.4	71	76.2	26.0	0.000	4.5	wP
30	...	30.141	39.0	26.5	12.5	32.3	− 8.4	29.0	21.7	10.6	14.4	8.5	63	72.5	24.0	0.000	0.5	wP : mP : mP
Means	...	29.951	45.6	35.8	9.7	40.5	− 2.7	38.7	36.2	4.4	8.3	1.6	84.6	62.3	32.6	Sum 1.194	0.9	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29in.951, being 0in.207 *higher* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 50°.9 on November 12; the lowest in the month was 26°.5 on November 30; and the range was 24°.4.
The mean of all the highest daily readings in the month was 45°.6, 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 35°.8, being 1°.8 *lower* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 9°.7, being 1°.6 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 40°.5, being 2°.7 *lower* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1896.	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	0·1	9·6	N : NNE	NE	1·7	0·0	0·00	185	10 : 10	v, th.-cl : v, th.-cl : 10, r
2	0·0	9·5	NNE	NNE	3·1	0·0	0·20	323	10, oc.-r : 10, fq.-slt.-r	10, slt.-r : v : 10
3	1·9	9·5	N	NNE	2·2	0·0	0·03	227	10 : p.-cl : 4, ci.-s, th.-cl, so.-ha	p.-cl : v
4	4·4	9·4	NNE : NE	NE : ENE	1·5	0·0	0·02	194	0 : 0, ho.-fr : 3, li.-cl	2, li.-cl : 0
5	6·9	9·4	ENE : E	E : ENE	3·6	0·0	0·20	284	p.-cl, ho.-fr : 0 : 1, ci.-s	0 : 0, ho.-fr
6	6·4	9·3	NE	ENE : NE	0·8	0·0	0·00	199	0, ho.-fr : 0	3, th.-cl : 0, h : 0, slt.-f
7	0·0	9·2	WSW	WSW : SW	0·7	0·0	0·00	220	f : 10, tk.-f, ho.-fr : 10, f	10 : 10, r
8	0·3	9·2	SW : NNE	NNE : N	8·0	0·0	1·20	536	10, r, w : 10, oc.-slt.-r, sc	v, slt.-r : 0
9	3·7	9·1	NNE : N	NNE : N : SW	5·0	0·0	0·45	351	2, li.-cl : 1, li.-cl	1, li.-cl, li.-sc : 0 : 0, slt.-f
10	1·2	9·1	WSW	W : WSW	1·2	0·0	0·00	232	p.-cl, ho.-fr : 3, li.-cl	4, li.-cl, h : 2, li.-cl : 0
11	0·0	9·0	WSW	WSW	1·5	0·0	0·05	276	10 : 10	10 : 10
12	0·0	9·0	WSW	SW : SSE : SSW	0·1	0·0	0·00	143	10 : 10	9, ci.-cu : 10 : v
13	2·5	8·9	SSW : S	SSW : S : SW	1·2	0·0	0·02	178	0, ho.-fr : 0, slt.-f : p.-cl	8 : 10, slt.-r
14	0·0	8·9	Calm : N : WSW	SSW	4·1	0·0	0·25	226	10, r : 10, f : 10, f	10 : 10, r : 10, r
15	1·1	8·8	W : WNW	WSW : SW : SSW	3·0	0·0	0·18	319	0 : 1, li.-cl	10 : 10, c.-r
16	3·9	8·8	NE : NNE : ENE	ENE : NNE	2·7	0·0	0·19	329	10, slt.-r : 10 : p.-cl	1, li.-cl : 10 : 10
17	0·0	8·7	NE : NNE	N : NNE	2·9	0·0	0·22	325	10 : 10	10 : 10
18	0·0	8·7	NNE : N : WSW	WSW : W : NNW	1·6	0·0	0·04	198	10 : 10, glm	10, r : 10, th.-r : v
19	0·9	8·6	NW : WSW	WSW : SW	1·8	0·0	0·04	227	0, ho.-fr : 0 : 5, th.-cl	3, th.-cl : 0 : v
20	0·2	8·6	SW : WSW : W	NW	3·5	0·0	0·22	335	10, sh.-r : 10 : 10	v, li.-cl : 2, li.-cl, lu.-co : v, th.-cl, h, slt.-f
21	0·1	8·5	WSW	WSW : W : NNW	1·0	0·0	0·01	209	0, ho.-fr : p.-cl : 9, ci.-cu	li.-cl : 10 : 10
22	0·0	8·5	W : SW : Calm	Calm : SE	0·0	0·0	0·00	76	10, slt.-f : 10, slt.-f : 10, f, gt.-glm	10, f, glm : 10, slt.-f
23	0·0	8·4	Calm : SE	SE	0·0	0·0	0·00	69	10, f : 10, tk.-f : 10, slt.-f	10, slt.-f : 10, slt.-f
24	0·0	8·4	SE : ESE	ESE : E : ENE	0·9	0·0	0·01	169	10 : 10	10 : 10
25	0·0	8·3	E : ENE	ENE : NE	3·7	0·0	0·32	360	10 : 10	10 : 10
26	0·0	8·3	NE	NE	4·7	0·0	0·71	498	10 : 10	10 : 10
27	5·3	8·2	NE : ENE	NE : NNE : ENE	11·2	0·0	0·49	427	v : p.-cl, ho.-fr : 0	v : 10, m.-r : 10, r, w
28	0·0	8·2	E : ESE	E : ENE	5·8	0·0	1·04	497	10, w : 10 : 10	10 : v : v
29	5·2	8·2	E	E : ESE	6·7	0·0	0·81	455	10, w : 2, li.-cl, w	0 : 0
30	6·1	8·1	ESE	SE	2·4	0·0	0·07	241	0, ho.-fr : 0	0 : 0, ho.-fr
Means	1·7	8·8	...	...	...	...	0·23	277		
Number of Column for Reference.	19	20	21	22	23	24	25	26	27	28

The mean *Temperature of Evaporation* for the month was 38°·7, being 2°·9 *lower* than
The mean *Temperature of the Dew Point* for the month was 36°·2, being 3°·5 *lower* than
The mean *Degree of Humidity* for the month was 84·6, being 2·9 *less* than
The mean *Elastic Force of Vapour* for the month was 0in·214, being 0in·030 *less* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was 2grs·5, being 0gr·3 *less* than
The mean *Weight of a Cubic Foot of Air* for the month was 555 grains, being 7 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 6·4.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·190. The maximum daily amount of *Sunshine* was 6·9 hours on November 5.

The highest reading of the *Solar Radiation Thermometer* was 84°·5 on November 5; and the lowest reading of the *Terrestrial Radiation Thermometer* was 24°·0 on November 30.

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

The *Proportions of Wind* referred to the cardinal points were N. 9, E. 9, S. 4, and W. 7. One day was calm.

The *Greatest Pressure of the Wind* in the month was 11·2 lbs. on the square foot on November 27. The mean daily *Horizontal Movement of the Air* for the month was 277 miles; the greatest daily value was 536 miles on November 8; and the least daily value was 69 miles on November 23.

Rain fell on 9 days in the month, amounting to 1in·194, as measured by gauge No. 6 partly sunk below the ground; being 1in·072 *less* than the average fall for the 50 years, 1841–1890.

MONTH and DAY, 1896.	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.		
Dec. 1	...	29·773	39·1	28·8	10·3	34·7	− 5·9	32·3	28·4	6·3	9·6	4·4	77	44·6	25·3	0·008	1·5	mP
2	...	29·501	42·0	35·9	6·1	39·0	− 1·6	38·2	37·2	1·8	3·7	0·9	94	42·1	34·0	0·503	0·0	wP, wN
3	Perigee	29·374	51·3	40·4	10·9	46·0	+ 5·2	44·9	43·7	2·3	4·6	0·2	92	77·0	39·5	0·417	2·8	vN, mP : sP : mP, vN
4	New	28·951	48·2	43·4	4·8	46·1	+ 5·0	44·7	43·1	3·0	4·8	1·5	90	50·0	39·0	0·405	5·4	mP : vP, vN : mP, vN
5	Greatest Declination S.	28·771	47·0	40·2	6·8	44·1	+ 2·8	42·1	39·7	4·4	7·6	1·8	84	59·2	36·3	0·120	2·6	vN, wP, : mP : vP, vN
6	...	28·584	49·8	40·2	9·6	43·8	+ 2·5	42·7	41·4	2·4	5·3	0·9	91	79·2	37·8	0·134	5·2	wwP, vN : mP
7	...	29·061	45·6	35·8	9·8	41·9	+ 0·9	40·1	37·8	4·1	8·8	0·0	86	46·2	32·0	0·014	0·0	mP, wwN : sP, wN : sP
8	...	29·556	46·8	33·6	13·2	41·1	+ 0·5	39·4	37·3	3·8	6·4	1·7	87	53·5	29·9	0·004	1·5	mP : sP : mP, vN
9	...	29·458	48·3	42·5	5·8	45·8	+ 5·5	43·9	41·7	4·1	7·4	1·8	86	51·1	40·2	0·066	1·5	wP, wN : mP, ssN : vN, wP
10	...	29·693	49·5	39·2	10·3	45·8	+ 5·9	43·9	41·7	4·1	7·5	1·3	86	65·0	36·0	0·034	0·8	wP : mP : wP
11	...	29·717	48·4	38·3	10·1	45·6	+ 5·8	44·2	42·6	3·0	5·0	1·1	89	49·7	34·5	0·020	2·2	wP : mP
12	First Quarter: In Equator	29·648	45·9	35·2	10·7	40·7	+ 0·8	39·7	38·5	2·2	5·3	0·5	92	48·7	30·8	0·126	4·5	sP : vP, vN
13	...	29·485	43·9	36·2	7·7	40·8	+ 0·7	38·9	36·5	4·3	6·4	1·4	86	58·0	32·4	0·200	1·5	mP : sP : vP, ssN
14	Apogee	29·006	41·8	37·5	4·3	39·5	− 0·7	38·4	37·0	2·5	4·2	0·9	91	43·7	34·4	0·161	0·0	wP, vN : vP, vN : mP
15	...	29·479	39·6	29·2	10·4	37·3	− 3·0	35·9	34·0	3·3	7·5	1·4	88	51·2	27·3	0·031	0·2	vP, vN : sP : sP
16	...	29·593	36·2	29·2	7·0	33·1	− 7·1	32·5	31·3	1·8	4·0	0·3	93	51·9	26·5	0·005	0·8	mP : sP : mP
17	...	29·477	32·7	26·9	5·8	29·7	−10·3	29·5	28·8	0·9	2·2	0·0	96	38·7	26·9	0·000	0·0	sP
18	...	29·385	33·0	28·0	5·0	30·8	− 8·9	30·2	28·5	2·3	4·2	0·8	91	35·1	26·1	0·000	0·0	mP : sP : sP
19	Greatest Declination N.	29·627	35·3	27·4	7·9	32·6	− 6·7	32·0	30·8	1·8	3·0	0·0	93	38·2	25·8	0·000	2·0	mP : sP
20	Full	30·008	36·2	29·1	7·1	33·0	− 6·0	32·6	31·8	1·2	3·0	0·0	95	45·1	27·4	0·021	0·0	mP : sP
21	...	29·935	36·2	31·7	4·5	34·5	− 4·3	33·5	31·9	2·6	5·0	0·3	90	37·0	29·5	0·043	0·5	vP : sP
22	...	29·932	39·7	31·2	8·5	34·5	− 4·1	33·5	31·9	2·6	5·5	1·0	90	58·0	28·8	0·000	1·5	mP : sP
23	...	30·032	37·4	31·4	6·0	35·0	− 3·4	34·0	32·4	2·6	5·3	0·0	90	46·3	27·6	0·000	0·0	sP
24	...	29·956	42·6	31·8	10·8	37·6	− 0·7	35·9	33·6	4·0	7·8	1·5	86	54·8	28·0	0·280	1·7	sP : sP : mP, vN
25	...	29·983	43·1	38·3	4·8	41·1	+ 2·8	39·2	36·8	4·3	6·6	1·3	85	46·2	34·3	0·020	3·0	wP, vN : mP : sP
26	In Equator	30·060	51·5	41·1	10·4	47·2	+ 8·8	45·7	44·1	3·1	5·7	1·3	90	52·0	37·0	0·112	5·8	mP, wN : wP
27	Last Quarter	30·153	51·3	39·9	11·4	45·5	+ 7·1	42·4	38·8	6·7	10·7	3·0	78	51·3	36·0	0·000	3·3	wP : mP : mP
28	...	29·806	51·1	41·4	9·7	46·1	+ 7·6	44·7	43·1	3·0	5·9	1·5	90	58·0	35·7	0·231	5·2	vP, vN : mP
29	...	30·102	44·3	33·0	11·3	39·1	+ 0·5	37·5	35·4	3·7	5·7	0·8	87	46·7	30·3	0·000	1·5	mP : sP : mP
30	...	29·879	49·8	44·2	5·6	47·5	+ 8·9	46·2	44·8	2·7	5·3	0·7	91	51·2	40·3	0·000	5·0	wP : mP : wP
31	Perigee	29·887	49·2	43·6	5·6	47·3	+ 8·7	45·0	42·5	4·8	7·8	1·9	84	68·7	40·3	0·042	1·7	wP, wN, : mP, wN : mP
Means	...	29·606	43·8	35·6	8·1	40·2	+ 0·6	38·8	37·0	3·2	5·9	1·1	88·6	51·6	32·6	Sum 2·997	2·0	...
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day.

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

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

The mean reading of the *Barometer* for the month was 29in·606, being 0in·185 *lower* than the average for the 50 years, 1841–1890.

TEMPERATURE OF THE AIR.

The highest in the month was 51°·5 on December 26; the lowest in the month was 26°·9 on December 17; and the range was 24°·6.
The mean of all the highest daily readings in the month was 43°·8, being 0°·2 *lower* than the average for the 50 years, 1841–1890.
The mean of all the lowest daily readings in the month was 35°·6, being 0°·8 *higher* than the average for the 50 years, 1841–1890.
The mean of the daily ranges was 8°·1, being 1°·1 *less* than the average for the 50 years, 1841–1890.
The mean for the month was 40°·2, being 0°·6 *higher* than the average for the 50 years, 1841–1890.

MONTH and DAY, 1896.	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	1·5	8·1	ESE : SE	ESE	2·2	0·0	0·12	278	0, ho.-fr : 0 : 5, cu.-s, li.-cl	10 : 10 : 10, r
2	0·0	8·1	ESE	SE	1·3	0·0	0·04	211	10, c.-r : 10, th.-r : 10, th.-r	10, fq.-r : 10, fq.-r : 10, c.-hy.-r
3	0·4	8·0	SE : S : SW	SW : S	3·2	0·0	0·10	238	10, c.-hy.-r : 10, r : 10	v : p.-cl : 10, r
4	0·1	8·0	SW : S : SSE	SE : SSE	13·0	0·0	0·92	410	v : 10 : 10, hy.-r	10, c.-hy.-r : v, m.-r : 10, hy.-r, st.-w
5	0·5	8·0	SW : WSW	SW : SSW : SSE	18·0	0·0	1·22	515	10, fq.-r, g : 10, oc.-r, w : 10	v : v, shs.-r : 10
6	1·0	8·0	SE : SSE	S : SE : E	4·8	0·0	0·30	245	10, th.-r : 10, r	p.-cl : p.-cl, slt.-r : v, f
7	0·0	7·9	NE : W : WNW	WNW : W	7·0	0·0	0·58	374	10 : 10, f, glm : 10, sc	10, slt.-r : p.-cl, w : 0
8	0·0	7·9	W : WSW : SW	SSW : S	3·2	0·0	0·15	270	0, ho.-fr : 0 : 9	9, cu.-s, slt.-r : 10 : 10
9	0·0	7·9	S : SSW	SW : WSW : W	12·0	0·0	1·05	514	10, oc.-th.-r : 10 : 10	10 : 10, li.-shs, w, sc : 10, th.-r, w
10	0·0	7·9	W : WSW : SW	SSW : SW	6·5	0·0	0·58	387	10, r, w : p.-cl : 9	10, fq.-r : 10, fq.-r : 10, slt.-r
11	0·0	7·8	SSW : S : W	W : NW : WSW	3·0	0·0	0·21	296	10, oc.-r : 10, oc.-r	10, fq.-r, glm : v : 1
12	0·0	7·8	WSW : SSW	SSW : W	5·6	0·0	0·40	345	0 : 10, sc	10, r : 10, r : v
13	1·5	7·8	W : WSW	WSW : SSW : SE	4·7	0·0	0·23	322	0 : 1, li.-cl, h	1, li.-cl, h : 10, slt.-r : 10, r
14	0·0	7·8	ESE : ENE : NE	NNE : N	8·3	0·0	0·82	440	10, r, w : 10, r, w : 10	10 : 10, sc
15	0·3	7·8	N : NNE	N : SW : SSW	2·3	0·0	0·08	220	10 : 10, sh.-r, glm : 10, sh.-r	4, p.-cl : 0, f : 0, f, ho.-fr
16	0·0	7·8	SSW	Calm : SSW : WSW	0·1	0·0	0·00	145	9, ho.-fr : 10, glm, slt.-r : v, li.-cl, h	10, glm, f : 10, tk.-f : 10, f
17	0·0	7·7	WSW	SW	0·4	0·0	0·01	202	10, f : 10, ho.-fr : 10	v, s : v, slt.-sn : 9
18	0·0	7·7	W : SW : NE	NE : N	0·7	0·0	0·01	161	10, slt.-sn : 10, glm : 10, gt.-glm	10 : 10 : v, m
19	0·0	7·7	N : NNW	NNW : N	3·0	0·0	0·16	251	10 : 10	10 : 10, slt.-sn : 10
20	0·0	7·7	N : NNW : W	NNE : N : NNW	1·2	0·0	0·02	173	10 : 10 : 10, sn	v : 10 : 10
21	0·0	7·7	NNW	NW : W : WSW	0·7	0·0	0·00	174	10, sl : 10, glm, sl : 10, gt.-glm, slt.-sn	10, glm, oc.-slt.-r : 10, glm : v
22	0·5	7·7	SW : SSE : S	SSW : SE	0·3	0·0	0·00	140	p.-cl, ho.-fr : p.-cl	5, ci.-cu, li.-cl : p.-cl, f
23	0·0	7·7	SE : N	N	0·1	0·0	0·00	91	10, ho.-fr : p.-cl : 10	10, slt.-f : 10, slt.-f
24	0·7	7·7	WSW : SW : SSW	SSW	5·2	0·0	0·17	280	0 : 0, ho.-fr : 5, ci.-cu	10 : 10, r : 10, hy.-r
25	0·0	7·7	SSW : NNW : N	NW : SW : SSW	4·7	0·0	0·27	321	10, oc.-shs : p.-cl : 3, th.-cl, f	5, th.-cl : v
26	0·0	7·8	SSW	SW	7·0	0·0	0·84	519	10 : 10 : 10, r	10 : 10, w
27	0·0	7·8	WSW	WNW : WSW : SW	4·7	0·0	0·32	362	10 : p.-cl : 1, th.-cl, h	v, th.-cl : p.-cl
28	0·0	7·8	SW	SW : WNW : NNE	11·0	0·0	0·92	488	10, w, r : 10, r, w : 10, r, w, sc	10, r : 10, w
29	0·3	7·8	NNE : N : WSW	SSW : S : SW	3·7	0·0	0·15	252	v, ho.-fr : v, m : 10, glm, slt.-f	3, li.-cl : 10
30	0·0	7·8	SW	SW	9·0	0·0	1·03	547	10 : 10, sc	10, th.-r : 10, w
31	1·9	7·8	WSW : W	WSW	7·0	0·0	0·64	465	10, shs.-r, w : 10 : p.-cl	10, oc.-slt.-r, sc : v
Means	0·3	7·8	...	...	...	...	0·37	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 $38^{\circ}\cdot8$, being $0^{\circ}\cdot5$ *higher* than
The mean *Temperature of the Dew Point* for the month was $37^{\circ}\cdot0$, being $0^{\circ}\cdot5$ *higher* than
The mean *Degree of Humidity* for the month was 88·6, being 0·1 *greater* than
The mean *Elastic Force of Vapour* for the month was $0^{in}\cdot220$, being $0^{in}\cdot004$ *greater* than
The mean *Weight of Vapour in a Cubic Foot of Air* for the month was $2^{grs}\cdot5$, being *the same as*
The mean *Weight of a Cubic Foot of Air* for the month was 549 grains, being 4 grains *less* than
} the average for the 50 years, 1841–1890.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 8·1.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·036. The maximum daily amount of *Sunshine* was 1·9 hours on December 31.

The highest reading of the *Solar Radiation Thermometer* was $79^{\circ}\cdot2$ on December 6; and the lowest reading of the *Terrestrial Radiation Thermometer* was $25^{\circ}\cdot3$ on December 1.

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

The *Proportions of Wind* referred to the cardinal points were N. 7, E. 3, S. 10, and W. 11.

The *Greatest Pressure of the Wind* in the month was 18·0 lbs. on the square foot on December 5. The mean daily *Horizontal Movement of the Air* for the month was 311 miles; the greatest daily value was 547 miles on December 30; and the least daily value was 91 miles on December 23.

Rain fell on 22 days in the month, amounting to $2^{in}\cdot997$, as measured by gauge No. 6 partly sunk below the ground; being $1^{in}\cdot227$ *greater* than the average fall for the 50 years, 1841–1890.

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

MAXIMA.		MINIMA.		MAXIMA.		MINIMA.	
Greenwich Civil Time, 1896.	Reading.	Greenwich Civil Time, 1896.	Reading.	Greenwich Civil Time, 1896.	Reading.	Greenwich Civil Time, 1896.	Reading.
d h m	in.	d h m	in.	d h m	in.	d h m	in.
January 1. 9. 20	30·043	January 2. 5. 10	29·980	April 15. 22. 45	30·119	April 16. 21. 55	29·832
9. 21. 5	30·742	14. 9. 0	29·149	21. 8. 10	30·348	23. 4. 30	30·000
14. 21. 10	29·607	15. 14. 30	29·247	24. 9. 10	30·113	26. 4. 40	29·856
20. 10. 10	30·308	22. 13. 5	30·058	27. 0. 0	29·985	29. 15. 15	29·520
23. 10. 30	30·165	25. 16. 0	29·742	May 4. 7. 35	30·286	May 5. 17. 50	30·054
27. 10. 15	30·197	28. 4. 20	30·089	7. 8. 5	30·169	9. 17. 0	29·974
30. 0. 30	30·740	February 2. 6. 0	30·357	12. 8. 55	30·256	14. 17. 30	29·917
February 3. 11. 0	30·549	9. 4. 0	29·964	16. 22. 30	30·061	20. 11. 50	29·676
11. 11. 25	30·346	12. 17. 20	30·090	21. 7. 20	29·949	22. 16. 0	29·718
14. 0. 0	30·340	15. 4. 0	30·214	25. 7. 10	30·308	27. 15. 35	30·028
16. 11. 0	30·479	20. 5. 0	29·522	28. 7. 55	30·118	29. 16. 45	29·836
24. 11. 30	30·308	26. 4. 0	29·860	31. 5. 40	30·032	June 2. 15. 20	29·499
27. 11. 25	30·078	28. 4. 25	29·962	June 4. 7. 10	29·669	4. 18. 40	29·589
29. 0. 0	30·028	March 4. 11. 20	28·659	5. 23. 0	29·683	9. 4. 25	29·312
March 6. 9. 20	29·600	6. 17. 35	29·466	9. 22. 50	29·399	10. 18. 30	29·318
7. 10. 40	29·903	8. 20. 55	29·724	12. 23. 0	29·967	17. 11. 0	29·547
9. 11. 15	29·831	9. 19. 15	29·756	19. 22. 0	30·105	24. 18. 25	29·783
10. 10. 5	30·165	11. 15. 30	29·839	26. 8. 50	30·019	28. 13. 20	29·860
12. 11. 40	29·944	14. 16. 10	29·616	29. 11. 0	30·077	30. 12. 20	29·763
15. 9. 0	29·762	16. 10. 50	29·475	July 1. 21. 5	29·871	July 3. 17. 25	29·646
17. 1. 40	29·830	18. 12. 10	29·421	6. 6. 0	30·010	8. 2. 25	29·673
19. 22. 30	29·865	21. 5. 25	29·622	11. 23. 25	30·128	15. 1. 25	29·773
23. 10. 25	29·878	26. 6. 0	29·493	17. 21. 40	30·100	21. 16. 50	29·631
26. 17. 40	29·700	27. 1. 10	29·410	23. 6. 15	29·903	26. 14. 5	29·543
27. 15. 50	29·890	28. 11. 35	29·314	28. 8. 0	30·006	30. 16. 55	29·623
31. 12. 0	30·040	April 1. 9. 50	29·879	August 2. 11. 0	29·945	August 4. 2. 40	29·785
April 4. 8. 30	30·040	4. 18. 50	29·949	6. 10. 5	29·984	8. 12. 40	29·834
8. 9. 30	30·115	12. 15. 55	29·580	11. 7. 45	30·120	14. 16. 40	29·734
13. 23. 0	30·012	14. 16. 0	29·816	16. 7. 10	29·980	16. 17. 40	29·882

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

MAXIMA.		MINIMA.	
Greenwich Civil Time, 1896.	Reading.	Greenwich Civil Time, 1896.	Reading.
d h m	in.	d h m	in.
August 17. 7. 25	29·988	August 19. 17. 0	29·635
20. 22. 15	29·762	21. 17. 0	29·655
23. 0. 0	29·999	26. 4. 25	29·450
28. 22. 20	30·044	September 2. 17. 15	29·632
September 3. 22. 45	29·738	5. 3. 35	29·466
6. 22. 25	29·877	9. 4. 40	29·440
12. 0. 30	29·656	13. 15. 50	29·084
17. 8. 5	29·948	18. 21. 10	29·496
19. 9. 20	29·619	20. 14. 30	29·489
21. 7. 0	29·672	22. 16. 0	28·944
24. 9. 20	29·730	25. 10. 0	28·556
26. 9. 25	29·699	26. 17. 25	29·606
27. 1. 0	29·705	27. 15. 15	29·447
30. 23. 15	30·330	October 4. 16. 25	29·257
October 6. 8. 0	29·577	6. 20. 40	29·348
7. 9. 20	29·660	8. 6. 10	29·325
9. 19. 15	29·676	11. 3. 0	29·484
14. 8. 25	30·082	16. 10. 50	29·609
16. 21. 0	29·696	19. 14. 0	29·019
23. 9. 10	29·768	25. 7. 10	29·109

MAXIMA.		MINIMA.	
Greenwich Civil Time, 1896.	Reading.	Greenwich Civil Time, 1896.	Reading.
d h m	in.	d h m	in.
October 27. 23. 30	29·686	October 29. 2. 15	29·355
30. 10. 50	29·579	31. 14. 35	29·473
November 5. 11. 0	30·362	November 8. 5. 20	29·343
10. 9. 5	30·255	14. 23. 0	29·035
17. 9. 40	29·841	18. 15. 10	29·715
19. 10. 0	29·945	20. 4. 0	29·823
24. 10. 0	30·461	27. 21. 20	29·670
30. 1. 35	30·222	December 5. 1. 5	28·406
December 5. 19. 0	28·943	6. 1. 50	28·495
8. 10. 30	29·594	9. 6. 0	29·393
10. 10. 0	29·754	10. 18. 0	29·660
11. 23. 55	29·822	12. 20. 0	29·425
13. 11. 0	29·630	14. 5. 10	28·782
15. 23. 30	29·665	18. 5. 10	29·343
20. 20. 0	30·029	22. 9. 0	29·917
23. 21. 30	30·100	25. 1. 0	29·684
25. 19. 55	30·179	26. 21. 15	29·951
27. 16. 55	30·258	28. 15. 25	29·560
29. 10. 35	30·186	31. 0. 30	29·710

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 1896.
[Extracted from the preceding Table.]

MONTH, 1896.	Readings of the Barometer.		Range.
	Highest.	Lowest.	
	in.	in.	in.
January	30·742	29·149	1·593
February	30·549	29·522	1·027
March	30·165	28·659	1·506
April	30·348	29·520	0·828
May	30·308	29·676	0·632
June	30·105	29·312	0·793
July	30·128	29·543	0·585
August	30·120	29·450	0·670
September	30·330	28·556	1·774
October	30·082	29·019	1·063
November	30·461	29·035	1·426
December	30·258	28·406	1·852

The highest reading in the year was $30^{in}·742$ on January 9. The lowest reading in the year was $28^{in}·406$ on December 5.
The range of reading in the year was $2^{in}·336$.

MONTHLY RESULTS of METEOROLOGICAL ELEMENTS for the YEAR 1896.

MONTH, 1896.	Mean Reading of the Barometer.	Temperature of the Air. Highest.	Lowest.	Range in the Month.	Mean of Daily Maxima.	Mean of Daily Minima.	Mean of the Daily Ranges.	Monthly Mean.	Excess of Mean above Average of 50 Years.	Mean Temperature of Evaporation.	Mean Temperature of the Dew Point.	Mean Degree of Humidity. (Saturation = 100.)
	in.	°	°	°	°	°	°	°	°	°	°	
January ...	30·172	52·9	28·3	24·6	44·4	36·2	8·2	40·5	+ 2·0	39·1	37·4	89·0
February ...	30·154	56·2	24·3	31·9	45·5	35·2	10·4	40·4	+ 0·9	38·7	36·2	85·3
March	29·640	67·7	32·1	35·6	53·1	39·7	13·3	46·0	+ 4·3	43·4	40·5	81·6
April	29·979	69·0	33·6	35·4	57·4	41·1	16·3	49·0	+ 1·8	45·2	41·2	75·0
May	30·048	78·4	35·8	42·6	66·1	44·5	21·6	54·7	+ 1·6	49·4	44·3	68·4
June	29·770	86·7	39·8	46·9	75·3	53·5	21·8	63·3	+ 3·9	57·7	53·0	69·8
July	29·844	91·1	47·3	43·8	77·6	54·8	22·8	65·2	+ 2·8	58·4	53·0	65·1
August	29·850	76·2	45·7	30·5	69·0	51·7	17·3	59·4	− 2·2	55·3	51·5	75·6
September.	29·593	71·5	40·3	31·2	64·5	51·2	13·3	56·9	− 0·3	54·5	52·2	84·9
October ...	29·559	63·4	31·5	31·9	53·5	40·7	12·7	46·6	− 3·4	44·6	42·4	85·8
November.	29·951	50·9	26·5	24·4	45·6	35·8	9·7	40·5	− 2·7	38·7	36·2	84·6
December..	29·606	51·5	26·9	24·6	43·8	35·6	8·1	40·2	+ 0·6	38·8	37·0	88·6
Means	29·847	Highest. 91·1	Lowest. 24·3	Annual Range. 66·8	58·0	43·3	14·6	50·2	+ 0·8	47·0	43·7	79·5

MONTH, 1896.	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.	Rain. Amount collected in Gauge No. 6 whose receiving Surface is 5 inches above the Ground.	Wind. From Osler's Anemometer. Number of Hours of Prevalence of each Wind referred to different Points of Azimuth. N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Number of Calm or nearly Calm Hours.	Mean Daily Pressure on the Square Foot.	From Robinson's Anemometer. Mean Daily Horizontal Movement of the Air.
	in.	grs.	grs.				in.	h	h	h	h	h	h	h	h	h	lbs.	miles.
January ...	0·224	2·6	559	0·7	8·0	9	0·640	125	107	64	63	56	162	146	9	12	...	251
February ...	0·214	2·5	559	0·9	6·3	6	0·355	58	88	137	62	67	149	108	22	5	0·11	232
March	0·252	2·9	543	1·9	7·3	22	2·996	88	42	25	40	73	270	153	52	1	0·68	376
April	0·259	2·9	546	1·3	6·9	10	0·560	165	75	48	21	21	118	153	117	2	0·25	265
May	0·292	3·3	541	1·1	5·0	5	0·266	202	267	94	26	15	45	42	36	17	0·24	263
June	0·403	4·5	526	2·4	5·5	14	1·939	102	66	66	45	69	160	127	57	28	0·16	233
July	0·403	4·4	526	1·0	5·3	7	1·065	122	48	34	45	101	186	132	50	26	0·24	242
August ...	0·381	4·3	532	1·0	6·9	15	2·063	228	90	18	19	28	128	145	71	17	0·12	224
September.	0·391	4·4	530	3·7	7·5	23	5·542	40	45	37	42	78	295	153	23	7	0·37	297
October ...	0·271	3·1	541	1·9	6·8	19	2·803	173	100	8	12	39	268	92	31	21	0·36	312
November.	0·214	2·5	555	0·9	6·4	9	1·194	106	187	100	56	28	115	87	26	15	0·23	277
December..	0·220	2·5	549	2·0	8·1	22	2·997	115	23	21	96	107	226	116	38	2	0·37	311
Sums	...	...	...	...	...	161	22·420	1524	1138	652	527	682	2122	1454	532	153	...	...
Means	0·294	3·3	542	1·6	6·7	...	...	...	...	...	...	...	...	...	...	...	...	274

The greatest recorded pressure of the wind on the square foot in the year was 27·5 lbs. on March 16.
The greatest recorded daily horizontal movement of the air in the year was 830 miles on September 23.
The least recorded daily horizontal movement of the air in the year was 69 miles on November 23.

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

Hour, Greenwich Civil Time.	1896.												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	30·172	30·185	29·644	29·994	30·057	29·782	29·852	29·857	29·593	29·578	29·937	29·570	29·852
1h.	30·167	30·179	29·641	29·991	30·055	29·780	29·849	29·856	29·592	29·575	29·935	29·561	29·848
2	30·165	30·173	29·639	29·987	30·053	29·774	29·844	29·854	29·590	29·568	29·936	29·562	29·845
3	30·161	30·167	29·633	29·982	30·052	29·770	29·843	29·851	29·588	29·561	29·935	29·563	29·842
4	30·157	30·163	29·632	29·977	30·051	29·771	29·846	29·849	29·586	29·557	29·935	29·561	29·840
5	30·152	30·165	29·633	29·979	30·055	29·773	29·849	29·852	29·587	29·555	29·939	29·560	29·842
6	30·155	30·165	29·634	29·986	30·061	29·777	29·854	29·858	29·595	29·554	29·942	29·563	29·845
7	30·160	30·168	29·640	29·989	30·066	29·781	29·858	29·862	29·599	29·561	29·951	29·568	29·850
8	30·168	30·174	29·642	29·989	30·065	29·781	29·859	29·863	29·603	29·567	29·963	29·575	29·854
9	30·177	30·178	29·648	29·990	30·063	29·778	29·856	29·863	29·605	29·571	29·972	29·585	29·857
10	30·182	30·180	29·649	29·992	30·060	29·778	29·855	29·862	29·604	29·571	29·977	29·591	29·858
11	30·182	30·184	29·649	29·989	30·057	29·777	29·853	29·857	29·599	29·567	29·975	29·592	29·857
Noon	30·174	30·176	29·646	29·983	30·049	29·770	29·849	29·851	29·593	29·560	29·966	29·581	29·850
13h.	30·165	30·164	29·639	29·976	30·043	29·765	29·843	29·846	29·586	29·552	29·959	29·573	29·843
14	30·160	30·153	29·634	29·967	30·035	29·760	29·837	29·842	29·579	29·547	29·953	29·566	29·836
15	30·163	30·145	29·629	29·959	30·029	29·754	29·831	29·837	29·575	29·545	29·949	29·565	29·832
16	30·166	30·140	29·626	29·953	30·026	29·751	29·826	29·834	29·573	29·544	29·948	29·566	29·829
17	30·171	30·142	29·628	29·954	30·023	29·750	29·821	29·830	29·577	29·550	29·946	29·567	29·830
18	30·177	30·148	29·633	29·956	30·025	29·753	29·823	29·831	29·585	29·556	29·948	29·565	29·833
19	30·182	30·151	29·640	29·966	30·030	29·756	29·828	29·837	29·594	29·558	29·947	29·568	29·838
20	30·187	30·155	29·644	29·976	30·041	29·763	29·833	29·846	29·602	29·558	29·949	29·568	29·843
21	30·192	30·155	29·647	29·983	30·049	29·774	29·844	29·853	29·608	29·559	29·950	29·566	29·848
22	30·193	30·156	29·650	29·987	30·054	29·779	29·849	29·856	29·611	29·557	29·950	29·565	29·851
23	30·194	30·155	29·650	29·991	30·058	29·780	29·851	29·856	29·614	29·555	29·952	29·562	29·852
24	30·191	30·157	29·649	29·992	30·058	29·778	29·852	29·855	29·613	29·552	29·952	29·552	29·850
Means { 0h.–23h.	30·172	30·163	29·640	29·979	30·048	29·770	29·844	29·850	29·593	29·559	29·951	29·569	29·845
Means { 1h.–24h.	30·173	30·162	29·640	29·979	30·048	29·770	29·844	29·850	29·594	29·558	29·951	29·569	29·845
Number of Days employed.	31	28	31	30	31	30	31	31	30	31	30	27	...

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

Hour, Greenwich Civil Time.	1896.												Yearly Means.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
	°	°	°	°	°	°	°	°	°	°	°	°	°
Midnight	39·4	38·7	43·9	45·4	48·8	57·9	59·7	55·9	55·0	44·8	39·9	39·3	47·4
1h.	39·4	38·4	43·7	44·8	48·2	57·0	59·0	55·2	54·4	44·3	39·3	39·1	46·9
2	39·3	38·4	43·3	44·3	47·7	56·3	58·2	54·5	54·2	44·0	38·9	38·9	46·5
3	39·3	38·3	43·0	43·9	47·3	55·8	57·4	54·1	53·9	43·8	38·8	38·6	46·2
4	39·3	38·1	42·8	43·7	47·0	55·3	57·1	53·7	53·7	43·6	38·7	38·3	45·9
5	39·3	38·1	42·9	43·5	47·0	55·7	57·2	53·6	53·6	43·5	38·4	38·2	45·9
6	39·4	38·0	42·7	43·8	48·0	57·4	58·5	54·4	53·4	43·4	38·2	38·3	46·3
7	39·4	38·1	43·0	45·3	50·0	59·5	60·7	56·0	54·1	43·4	38·0	38·6	47·2
8	39·6	38·3	44·0	47·6	52·9	62·4	63·7	57·9	55·7	44·4	38·2	38·8	48·6
9	39·9	39·2	45·3	49·7	56·1	65·0	66·8	60·1	57·6	45·9	38·9	39·2	50·3
10	40·6	40·3	46·9	51·3	58·6	66·8	68·8	61·8	58·9	47·7	40·4	40·1	51·8
11	41·4	41·6	48·3	52·5	60·6	68·6	70·8	63·3	59·8	49·5	41·9	41·1	53·3
Noon	42·3	43·2	49·3	53·2	62·4	70·1	72·7	64·8	60·9	50·9	43·3	41·8	54·6
13h.	42·9	44·0	50·4	54·5	62·9	71·0	73·7	65·6	61·3	51·2	43·9	42·5	55·3
14	43·1	44·4	50·9	55·1	63·4	71·6	74·1	65·7	61·4	51·4	43·8	42·6	55·6
15	42·8	44·3	50·5	55·4	63·0	71·4	73·8	65·5	60·8	50·7	43·4	42·2	55·3
16	42·4	43·7	49·8	55·0	62·3	70·4	73·0	65·1	60·4	50·1	42·7	41·7	54·7
17	41·7	42·5	48·9	53·7	61·3	69·4	71·9	64·0	59·2	48·8	41·9	41·4	53·7
18	41·2	41·6	47·6	52·3	59·6	67·9	69·9	62·9	58·0	47·9	41·3	41·3	52·6
19	40·7	41·0	46·7	50·6	57·3	66·1	67·6	61·2	57·0	47·2	41·0	41·1	51·5
20	40·2	40·4	46·0	49·0	54·7	63·7	65·0	59·4	56·3	46·5	40·7	41·0	50·2
21	39·8	40·0	45·3	47·8	52·5	61·4	63·0	58·1	55·8	45·8	40·7	40·6	49·2
22	39·5	39·7	44·8	46·8	51·0	60·2	61·5	57·3	55·5	45·4	40·4	40·3	48·5
23	39·4	39·4	44·4	46·0	50·0	59·0	60·5	56·5	55·2	44·9	40·1	40·2	48·0
24	39·3	39·1	43·8	45·3	49·0	58·2	59·7	55·8	54·7	44·5	39·7	39·8	47·4
Means { 0h.–23h.	40·5	40·4	46·0	49·0	54·7	63·3	65·2	59·4	56·9	46·6	40·5	40·2	50·2
Means { 1h.–24h.	40·5	40·4	46·0	48·9	54·7	63·3	65·2	59·4	56·9	46·6	40·5	40·2	50·2
Number of Days employed.	31	29	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.	1896. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Midnight	38·2	37·6	42·4	43·3	46·3	55·4	56·3	53·6	53·7	43·5	38·4	38·1	45·6
1h.	38·2	37·5	42·0	43·0	45·9	54·9	56·0	53·1	53·2	43·1	37·9	37·9	45·2
2	38·1	37·4	41·8	42·5	45·5	54·4	55·5	52·7	53·0	42·8	37·6	37·7	44·9
3	38·2	37·3	41·5	42·2	45·2	54·1	55·0	52·5	52·8	42·7	37·5	37·5	44·7
4	38·4	37·2	41·4	42·1	44·9	53·8	54·6	52·2	52·6	42·5	37·5	37·3	44·5
5	38·5	37·1	41·4	42·0	44·9	54·0	54·7	52·1	52·5	42·5	37·2	37·3	44·5
6	38·5	37·1	41·3	42·3	45·5	55·1	55·7	52·5	52·3	42·3	37·0	37·4	44·7
7	38·6	37·1	41·5	43·4	46·8	56·4	56·9	53·6	52·8	42·4	37·0	37·7	45·4
8	38·7	37·1	42·4	44·7	48·5	57·3	58·2	54·6	53·8	43·1	37·0	37·8	46·1
9	38·9	37·7	43·3	45·8	50·3	58·7	59·5	55·7	54·8	44·1	37·5	38·2	47·0
10	39·4	38·5	43·9	46·6	51·7	59·5	60·2	56·5	55·4	45·5	38·6	38·8	47·9
11	40·0	39·5	44·8	47·3	53·0	60·3	60·8	57·1	55·8	46·6	39·6	39·6	48·7
Noon	40·5	40·5	45·4	47·7	53·6	61·0	61·2	57·7	56·3	47·5	40·4	40·1	49·3
13h.	40·9	41·0	45·9	48·2	54·1	61·1	61·4	57·9	56·6	47·7	40·6	40·6	49·7
14	41·0	41·3	46·0	48·5	54·0	61·2	61·6	58·0	56·8	47·7	40·5	40·6	49·8
15	40·6	41·2	45·9	48·6	53·8	61·3	61·6	58·1	56·6	47·3	40·3	40·4	49·6
16	40·3	40·8	45·6	48·3	53·3	60·8	61·3	57·9	56·7	47·0	40·0	40·0	49·3
17	39·9	40·2	45·0	47·7	52·8	60·3	61·0	57·6	55·9	46·2	39·4	39·8	48·8
18	39·5	39·6	44·3	46·9	52·0	59·7	60·3	57·2	55·4	45·7	39·2	39·6	48·3
19	39·1	39·1	43·9	46·2	50·9	59·0	59·5	56·4	54·9	45·3	39·2	39·4	47·7
20	38·8	38·7	43·5	45·3	49·5	57·9	58·8	55·6	54·5	44·7	38·9	39·3	47·1
21	38·5	38·5	43·2	44·7	48·3	57·1	58·1	55·0	54·2	44·2	39·0	39·1	46·7
22	38·3	38·3	43·0	44·1	47·5	56·5	57·7	54·6	54·0	43·8	38·8	38·9	46·3
23	38·1	38·1	42·7	43·6	47·0	56·0	56·9	54·0	53·7	43·4	38·5	38·9	45·9
24	38·1	37·9	42·3	43·2	46·4	55·5	56·4	53·6	53·4	43·2	38·2	38·6	45·6
Means 0h.–23h.	39·1	38·7	43·4	45·2	49·4	57·7	58·4	55·3	54·5	44·6	38·7	38·8	47·0
Means 1h.–24h.	39·1	38·7	43·4	45·2	49·4	57·7	58·4	55·3	54·5	44·6	38·6	38·9	47·0
Number of Days employed.	31	29	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.	1896. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Midnight	36·6	36·1	40·6	40·9	43·6	53·2	53·3	51·4	52·4	42·0	36·4	36·5	43·6
1h.	36·6	36·3	40·0	40·9	43·4	53·0	53·3	51·1	52·0	41·7	36·1	36·3	43·4
2	36·5	36·0	40·0	40·4	43·1	52·6	53·1	50·9	51·8	41·4	35·9	36·1	43·2
3	36·8	35·9	39·7	40·2	42·9	52·5	52·8	50·9	51·7	41·4	35·8	36·0	43·1
4	37·2	36·0	39·7	40·2	42·6	52·3	52·3	50·7	51·5	41·2	35·9	35·9	43·0
5	37·5	35·7	39·6	40·2	42·6	52·4	52·4	50·6	51·4	41·3	35·6	36·1	42·9
6	37·3	35·8	39·6	40·5	42·7	53·0	53·2	50·6	51·2	41·0	35·3	36·2	43·0
7	37·6	35·7	39·7	41·2	43·4	53·7	53·6	51·3	51·5	41·2	35·6	36·5	43·4
8	37·5	35·4	40·5	41·5	44·1	53·0	53·6	51·7	52·0	41·6	35·3	36·5	43·6
9	37·6	35·7	41·0	41·7	44·9	53·6	53·6	51·8	52·3	42·0	35·6	36·9	43·9
10	37·9	36·2	40·5	41·7	45·5	53·6	53·5	52·0	52·3	43·1	36·3	37·1	44·1
11	38·2	36·9	41·0	42·1	46·3	53·8	53·1	51·9	52·3	43·5	36·7	37·7	44·5
Noon	38·3	37·3	41·2	42·2	46·1	53·9	52·6	51·8	52·3	43·9	36·9	38·0	44·5
13h.	38·6	37·5	41·2	42·1	46·6	53·6	52·4	51·7	52·5	44·1	36·7	38·3	44·6
14	38·5	37·7	40·9	42·2	46·1	53·3	52·5	51·7	52·8	43·9	36·6	38·2	44·5
15	38·0	37·6	41·1	42·1	46·0	53·7	52·7	52·1	53·0	43·7	36·6	38·2	44·6
16	37·8	37·4	41·2	41·9	45·6	53·4	52·6	52·0	53·5	43·7	36·7	37·9	44·5
17	37·6	37·4	40·8	41·8	45·4	53·3	52·8	52·3	52·9	43·4	36·3	37·8	44·3
18	37·4	37·1	40·7	41·4	45·3	53·2	52·9	52·4	53·1	43·3	36·6	37·5	44·2
19	37·1	36·7	40·7	41·6	45·1	53·2	53·1	52·3	53·0	43·2	36·9	37·3	44·2
20	37·0	36·5	40·7	41·3	44·5	53·1	53·7	52·2	52·8	42·7	36·6	37·2	44·0
21	36·8	36·5	40·8	41·3	44·1	53·4	54·0	52·2	52·7	42·4	36·9	37·2	44·0
22	36·7	36·5	40·9	41·0	43·8	53·3	54·4	52·2	52·6	41·9	36·8	37·1	43·9
23	36·4	36·4	40·7	40·9	43·8	53·3	53·8	51·7	52·2	41·7	36·4	37·2	43·7
24	36·5	36·4	40·5	40·8	43·6	53·1	53·5	51·5	52·1	41·7	36·3	37·0	43·6
Means 0h.–23h.	37·4	36·5	40·5	41·3	44·5	53·2	53·1	51·6	52·3	42·5	36·3	37·1	43·9
Means 1h.–24h.	37·4	36·5	40·5	41·3	44·5	53·2	53·1	51·6	52·3	42·5	36·3	37·1	43·9

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.	1896. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
Midnight	90	91	88	85	82	84	80	86	91	90	88	90	87
1h.	90	93	86	86	84	86	82	87	92	91	89	90	88
2	90	92	88	86	85	88	83	87	92	90	90	91	88
3	91	92	88	86	85	89	85	89	92	91	90	91	89
4	93	92	89	87	85	90	84	89	92	91	91	92	90
5	94	91	88	88	85	89	84	90	92	92	90	92	90
6	93	92	89	88	83	85	83	87	92	91	90	93	89
7	94	91	88	86	79	82	78	85	91	92	91	93	87
8	93	90	87	80	73	72	70	80	88	90	90	93	84
9	92	88	85	74	66	66	63	74	83	87	89	92	80
10	90	86	80	70	62	63	58	70	79	85	86	90	77
11	89	84	76	68	60	59	54	66	77	80	83	88	74
Noon	86	80	74	66	55	57	50	63	73	78	78	87	71
13h.	85	77	71	63	55	53	47	60	73	77	75	86	69
14	83	77	70	62	54	52	47	60	74	76	75	85	68
15	84	77	71	61	54	53	47	62	76	78	77	86	69
16	84	78	73	62	54	55	49	62	78	79	80	87	70
17	87	83	74	64	56	56	50	65	80	82	82	88	72
18	87	85	77	67	59	59	54	68	83	85	84	87	75
19	87	85	81	72	63	64	60	73	86	87	86	87	78
20	89	87	82	75	68	69	67	78	88	87	86	86	80
21	90	88	85	79	73	76	73	80	90	88	86	88	83
22	90	89	86	81	77	78	78	83	90	88	88	89	85
23	90	90	87	83	80	82	79	84	90	89	87	90	86
24	90	90	88	85	82	83	81	87	91	90	88	90	87
Means 0h.–23h.	89	87	82	76	70	71	67	76	85	86	85	89	80
Means 1h.–24h.	89	87	82	76	70	71	67	76	85	86	85	89	80

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 1896.

Month, 1896.	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	...	...	...	...	...	0·2	1·7	2·0	4·2	3·8	1·2	...	...	...	...	...	13·1	259·1	0·051	18
February	...	...	...	0·1	4·6	6·3	6·3	8·8	8·8	7·1	7·6	5·8	1·2	...	...	...	56·6	288·7	0·196	26
March	...	...	0·3	0·8	2·4	3·7	3·9	6·1	9·0	7·7	6·7	4·7	4·2	0·3	...	...	49·8	366·9	0·136	37
April	...	0·2	4·0	7·0	8·5	7·4	6·4	4·5	5·0	5·0	6·0	6·2	3·9	2·5	...	...	66·6	414·9	0·161	48
May	...	4·4	7·5	12·0	15·6	15·9	16·7	17·4	17·0	14·5	13·9	13·5	10·2	9·9	8·2	1·5	178·2	482·1	0·370	57
June	2·2	9·2	12·0	15·0	13·4	13·2	13·6	14·7	14·0	14·4	16·0	14·4	13·4	14·0	10·2	1·1	190·8	494·5	0·386	62
July	0·6	8·3	15·1	15·4	16·7	17·5	13·8	15·8	15·0	14·5	13·5	13·5	12·8	10·4	6·1	0·7	189·7	496·8	0·382	60
August	...	0·6	5·6	5·6	5·4	6·4	5·5	7·3	8·0	6·7	5·7	5·4	5·4	4·5	0·8	...	72·9	449·1	0·162	52
September	...	...	...	6·0	8·6	8·2	8·2	7·0	9·7	8·7	8·7	7·0	2·7	0·5	...	...	75·3	376·9	0·200	41
October	...	...	...	1·1	4·1	7·4	9·9	9·0	7·5	10·0	7·2	6·1	1·5	...	...	...	63·8	328·7	0·194	30
November	...	...	...	...	0·4	5·1	9·0	8·9	9·3	8·7	7·1	1·7	...	...	...	...	50·2	264·4	0·190	20
December	...	...	...	...	...	0·8	2·8	1·6	0·8	1·1	1·4	0·2	...	...	...	...	8·7	242·7	0·036	16
For the Year	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1015·7	4464·8	0·227	...

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 1896.

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

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

JANUARY.

Days of the Month.	Readings of Thermometers in Stevenson's Screen, 4 feet above the ground. Maximum.	Minimum.	9^h	Noon.	15^h	21^h	Excess above readings of Thermometers on ordinary stand, 4 feet above the ground. Maximum.	Minimum.	9^h	Noon.	15^h	21^h
d	°	°	°	°	°	°	°	°	°	°	°	°
1	48.9	39.6	43.0	47.7	48.6	45.5	−0.3	+0.4	0.0	−0.2	−0.1	+0.1
2	50.4	45.2	48.6	49.8	49.8	45.7	−0.9	+0.1	−0.1	−0.1	+0.1	−0.2
3	46.5	38.4	41.5	41.8	41.3	39.1	+0.5	−0.2	+0.1	0.0	−0.1	+0.1
4	42.9	37.7	40.5	42.4	41.7	40.8	0.0	−0.4	−0.1	−0.2	0.0	+0.1
5	41.1	37.2	...	...	...	...	+0.1	−0.3	...	...	...	...
6	38.1	35.8	36.8	37.8	37.2	36.2	0.0	−0.3	+0.1	+0.1	−0.2	+0.1
7	37.1	31.8	33.7	35.3	33.6	32.8	+0.6	−0.4	−0.2	−0.6	−0.1	+0.1
8	44.1	32.1	41.2	44.1	42.1	38.2	−0.7	−0.9	−0.1	−0.1	+0.1	+0.1
9	39.0	33.0	34.9	37.3	37.5	34.3	+0.3	+0.5	−0.1	−0.8	−0.1	−0.1
10	36.8	33.7	34.8	36.3	35.9	34.0	0.0	−0.2	−0.1	−0.3	0.0	+0.1
11	41.9	33.9	38.4	40.7	41.5	39.5	−0.1	−0.1	0.0	−0.2	−0.1	+0.1
12	39.7	36.3	...	...	...	...	0.0	−0.1	...	...	...	...
13	43.5	37.2	37.8	41.6	42.8	39.5	−0.2	−0.4	−0.1	−0.3	−0.1	0.0
14	48.0	38.5	47.6	40.0	40.7	38.9	0.0	−0.1	−0.1	−0.2	0.0	0.0
15	52.0	34.6	46.6	49.8	49.6	39.8	−0.3	0.0	−0.1	+0.1	+0.1	+0.1
16	49.6	38.1	40.8	45.4	46.7	49.1	+0.5	−0.1	+0.1	−0.2	0.0	+0.2
17	52.0	44.2	47.1	49.6	50.8	44.2	−0.9	+0.5	−0.2	−0.1	+0.1	+0.1
18	47.0	43.5	45.6	45.7	45.8	46.4	+0.1	+0.3	−0.1	0.0	+0.1	0.0
19	48.3	37.1	...	...	...	...	−0.6	−1.4	...	...	...	...
20	41.0	28.3	29.1	37.3	40.8	35.0	0.0	0.0	0.0	−0.8	+0.1	0.0
21	37.9	33.9	34.8	36.2	37.4	36.6	−0.1	−0.6	−0.2	−0.2	−0.3	−0.1
22	43.1	32.6	33.8	39.8	42.7	40.5	−0.2	−0.1	−0.3	−0.2	−0.1	0.0
23	40.8	29.8	30.4	36.0	39.1	37.5	+0.1	−0.1	−0.3	−0.5	−0.3	−0.4
24	45.7	37.2	40.7	44.6	43.3	41.1	−1.0	−0.1	0.0	−0.6	−0.1	0.0
25	50.9	40.7	47.6	49.1	49.8	48.5	−0.1	−0.1	−0.1	−0.3	−0.1	+0.1
26	49.0	44.3	...	...	...	...	−0.1	+0.1	...	...	...	...
27	48.0	40.3	41.6	45.8	47.6	45.0	−0.2	−0.1	0.0	−0.2	0.0	0.0
28	48.1	38.2	43.8	44.4	44.5	38.6	+0.1	+0.9	−0.2	−0.1	+0.1	+1.0
29	40.8	31.6	34.7	36.9	40.0	33.8	−0.9	+0.1	0.0	−1.4	−0.3	+0.1
30	40.8	30.0	32.5	35.5	40.6	38.7	−0.3	−0.2	−0.2	−0.3	0.0	0.0
31	42.3	36.2	38.1	42.0	41.8	39.5	−0.1	−0.1	−0.5	0.0	−0.1	0.0
Means	44.4	36.5	39.5	42.0	42.7	40.0	−0.2	−0.1	−0.1	−0.3	−0.1	+0.1

Days of the Month.	Readings of Thermometers on the Roof of the Magnet House, 20 feet above the ground. Maximum.	Minimum.	9^h	Noon.	15^h	21^h	Excess above readings of Thermometers on ordinary stand, 4 feet above the ground. Maximum.	Minimum.	9^h	Noon.	15^h	21^h
d	°	°	°	°	°	°	°	°	°	°	°	°
1	48.6	39.1	43.6	48.6	48.6	45.3	−0.6	−0.1	+0.6	+0.7	−0.1	−0.1
2	51.2	44.8	49.5	50.1	49.7	46.0	−0.1	−0.3	+0.8	+0.2	0.0	+0.1
3	46.3	38.3	42.2	41.8	41.2	39.0	+0.3	−0.3	+0.8	0.0	−0.2	0.0
4	42.6	37.2	40.6	42.6	41.8	40.7	−0.3	−0.9	0.0	0.0	+0.1	0.0
5	41.2	37.1	...	...	...	...	+0.2	−0.4	...	...	...	...
6	37.9	35.6	36.7	37.8	37.6	36.2	−0.2	−0.5	0.0	+0.1	+0.2	+0.1
7	36.7	31.2	33.7	35.7	33.6	32.7	+0.2	−1.0	−0.2	−0.2	−0.1	0.0
8	44.4	32.6	41.6	44.4	42.2	38.7	−0.4	−0.4	+0.3	+0.2	+0.2	+0.6
9	40.8	32.9	35.6	37.7	37.8	34.5	+2.1	+0.4	+0.6	−0.4	+0.2	+0.1
10	36.4	33.3	35.0	36.4	35.8	33.9	−0.4	−0.6	+0.1	−0.2	−0.1	0.0
11	41.7	33.5	38.5	40.4	41.5	39.0	−0.3	−0.5	+0.1	−0.5	−0.1	−0.4
12	39.5	36.2	...	...	...	...	−0.2	−0.2	...	...	...	...
13	43.5	36.8	37.5	41.9	43.0	39.5	−0.2	−0.8	−0.4	0.0	+0.1	0.0
14	48.0	38.1	48.0	39.9	40.6	39.1	0.0	−0.5	+0.3	−0.3	−0.1	+0.2
15	52.3	34.4	46.8	49.7	49.4	39.9	0.0	−0.2	+0.1	0.0	−0.1	+0.2
16	49.8	37.2	40.8	45.4	47.0	49.8	+0.7	−1.0	+0.1	−0.2	+0.3	+0.9
17	52.5	43.2	46.7	49.6	50.9	43.9	−0.4	−0.5	−0.6	−0.1	+0.2	−0.2
18	47.2	42.4	45.7	45.7	45.6	46.5	+0.3	−0.8	0.0	0.0	−0.1	+0.1
19	48.7	37.1	...	...	...	...	−0.2	−1.4	...	...	...	...
20	42.3	27.9	30.1	37.7	41.7	34.9	+1.3	−0.4	+1.0	−0.4	+1.0	−0.1
21	37.8	33.7	34.7	36.5	37.8	36.7	−0.2	−0.8	−0.3	+0.1	+0.1	0.0
22	43.3	31.6	34.0	39.7	42.6	40.7	0.0	−1.1	−0.1	−0.3	−0.2	+0.2
23	40.7	28.9	30.4	37.0	39.7	38.9	0.0	−1.0	−0.3	+0.5	+0.3	+1.0
24	46.5	38.4	41.2	44.8	43.3	42.0	−0.2	+1.1	+0.5	−0.4	−0.1	+0.9
25	50.9	41.2	48.1	49.5	50.3	48.7	−0.1	+0.4	+0.4	+0.1	+0.4	+0.3
26	49.5	43.7	...	...	...	...	+0.4	−0.5	...	...	...	...
27	48.9	39.9	42.1	46.9	48.9	45.5	+0.7	−0.5	+0.5	+0.9	+1.3	+0.5
28	49.0	38.1	43.9	44.3	44.6	38.8	+1.0	+0.8	−0.1	−0.2	+0.2	+1.2
29	42.8	30.9	34.3	38.9	40.1	35.7	+1.1	−0.6	−0.4	+0.6	−0.2	+2.0
30	41.2	30.0	32.4	35.5	40.4	38.9	+0.1	−0.2	−0.3	−0.3	−0.2	+0.2
31	42.5	36.1	38.6	42.5	42.0	39.5	+0.1	−0.2	0.0	+0.5	+0.1	0.0
Means	44.7	36.2	39.7	42.3	42.9	40.2	+0.2	−0.4	+0.1	0.0	+0.1	+0.3

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

FEBRUARY.

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

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

MARCH.

Days of the Month.	Readings of Thermometers in Stevenson's Screen, 4 feet above the ground.						Excess above readings of Thermometers on ordinary stand, 4 feet above the ground.					
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°
1	52·0	43·8	...	...	...	...	−0·1	+0·4	...	...	...	...
2	48·1	37·0	41·2	46·8	47·5	44·0	−0·7	+0·2	−0·2	0·0	0·0	+0·1
3	47·1	37·0	43·9	44·3	45·8	37·0	−1·4	0·0	−0·4	−0·3	+0·1	−0·4
4	46·8	34·8	40·9	41·8	45·3	36·6	−1·3	−0·1	0·0	−0·5	−0·2	+0·1
5	48·5	34·9	43·5	46·3	47·8	43·4	−0·7	−0·1	0·0	−0·4	−0·4	+0·1
6	53·3	42·7	48·0	50·6	52·9	52·0	−0·5	0·0	+0·1	+0·1	+0·1	−0·1
7	52·7	41·0	44·3	44·3	44·8	49·8	0·0	+0·5	0·0	−0·1	−0·1	0·0
8	55·2	49·6	...	...	...	...	−0·5	+0·2	...	...	...	...
9	58·3	48·7	52·5	57·0	55·1	48·7	−0·8	0·0	−0·1	−0·5	+0·1	−0·2
10	52·2	36·4	37·0	48·5	50·8	42·8	−1·9	−0·2	−0·4	−1·9	0·0	−0·1
11	58·0	42·6	50·0	54·7	56·6	52·1	−1·1	−0·1	+0·1	0·0	−0·1	+0·1
12	51·7	40·0	41·5	42·8	45·0	40·0	−0·7	−0·1	−0·2	−0·3	−0·6	−0·2
13	43·5	33·9	38·3	43·1	43·5	39·6	−0·8	0·0	−0·4	−0·3	+0·1	−0·1
14	52·9	39·1	44·5	49·7	49·7	44·8	−1·0	0·0	−0·2	−0·3	−0·2	+0·2
15	52·0	32·0	...	...	...	...	−1·0	−0·1	...	...	...	...
16	55·1	45·0	49·8	53·8	52·6	45·5	−0·8	−0·1	−0·1	−0·1	−0·4	+0·1
17	55·5	41·4	47·0	54·9	50·8	51·6	−1·3	+0·1	+0·1	−0·1	+0·1	+0·1
18	52·0	39·3	47·1	44·2	43·7	39·7	0·0	−0·2	−0·1	−0·3	−0·3	0·0
19	47·1	33·8	37·0	43·5	46·1	40·1	−1·0	+0·6	0·0	−0·9	−0·6	+0·2
20	48·6	38·5	47·2	47·8	48·6	47·1	−0·7	+0·2	−0·2	−0·2	0·0	−0·3
21	54·0	46·6	49·2	50·2	51·4	51·8	0·0	+0·2	−0·1	−0·3	0·0	+0·1
22	66·7	47·1	...	...	...	...	−1·0	+0·6	...	...	...	...
23	61·7	43·6	48·5	57·4	59·9	50·0	−1·0	+0·3	+0·1	−0·6	−0·5	+0·2
24	63·0	44·9	51·5	56·8	62·6	55·0	−0·7	+0·6	−0·1	−0·8	−0·4	−0·5
25	61·0	48·6	52·8	57·2	57·5	48·6	−1·4	+0·4	+0·1	+0·2	0·0	+0·1
26	51·9	45·2	46·8	49·5	51·2	45·7	−1·4	0·0	+0·1	0·0	0·0	+0·1
27	50·0	39·7	42·8	46·6	47·8	41·0	−0·2	+0·5	−0·3	−0·5	−0·1	−0·1
28	46·2	35·2	41·2	42·8	40·7	39·8	0·0	−0·1	−0·4	−0·2	−0·2	+0·1
29	42·2	37·1	...	...	...	...	−0·8	+0·1	...	...	...	...
30	49·1	33·7	39·9	45·0	48·6	39·7	−1·9	+0·5	−0·7	−0·7	−1·3	+0·1
31	49·1	36·3	41·2	43·5	47·8	41·6	−1·9	0·0	−0·4	−0·8	−0·4	−0·3
Means	52·4	40·3	44·9	48·6	49·8	44·9	−0·9	+0·1	−0·1	−0·4	−0·2	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	51·9	43·1	...	...	...	...	−0·2	−0·3	...	...	...	...
2	48·2	36·1	41·7	46·7	47·7	43·9	−0·6	−0·7	+0·3	−0·1	+0·2	0·0
3	47·6	36·1	43·9	44·6	45·8	37·2	−0·9	−0·9	−0·4	0·0	+0·1	−0·2
4	47·0	34·0	41·7	42·3	45·5	36·3	−1·1	−0·9	+0·8	0·0	0·0	−0·2
5	48·4	33·8	43·9	46·4	47·9	43·6	−0·8	−1·2	+0·4	−0·3	−0·3	+0·3
6	53·3	42·5	48·1	50·5	53·2	52·5	−0·5	−0·2	+0·2	0·0	+0·4	+0·4
7	52·5	40·1	44·6	44·4	45·3	50·0	−0·2	−0·4	+0·3	0·0	+0·4	+0·2
8	55·2	49·9	...	...	...	...	−0·5	+0·5	...	...	...	...
9	58·6	48·4	52·7	57·4	54·7	48·6	−0·5	−0·3	+0·1	−0·1	−0·3	−0·3
10	53·8	36·1	37·7	50·5	51·8	44·5	−0·3	−0·5	+0·3	+0·1	+1·0	+1·6
11	58·3	43·1	51·0	54·9	56·9	52·5	−0·8	+0·4	+1·1	+0·2	+0·2	+0·5
12	51·5	40·1	42·2	43·6	45·8	39·8	−0·9	0·0	+0·5	+0·5	+0·2	−0·4
13	44·5	32·2	39·1	44·5	44·1	39·7	+0·2	−1·7	+0·4	+1·1	+0·7	0·0
14	53·3	38·6	46·0	50·4	49·7	44·4	−0·6	−0·5	+1·3	+0·4	−0·2	−0·2
15	52·5	30·7	...	...	...	...	−0·5	−1·4	...	...	...	...
16	55·2	44·4	50·2	54·2	53·3	45·4	−0·7	−0·7	+0·3	+0·3	+0·3	0·0
17	55·7	41·1	47·5	55·5	51·5	51·6	−1·1	−0·2	+0·6	+0·5	+0·8	+0·1
18	51·8	38·1	47·4	43·4	43·1	38·5	−0·2	−1·4	+0·2	−1·1	−0·9	−1·2
19	48·6	32·1	37·5	44·6	47·4	42·6	+0·5	−1·1	+0·5	+0·2	+0·7	+2·7
20	49·7	38·9	48·9	47·8	49·0	47·4	+0·4	+0·6	+1·5	−0·2	+0·4	0·0
21	54·4	46·4	50·0	50·7	51·6	51·9	+0·4	0·0	+0·7	+0·2	+0·2	+0·2
22	68·2	46·5	...	...	...	...	+0·5	0·0	...	...	...	...
23	62·5	44·6	49·0	58·0	60·5	49·7	−0·2	+1·3	+0·6	0·0	+0·1	−0·1
24	66·3	44·1	53·4	59·0	65·5	56·6	+2·6	−0·2	+1·8	+1·4	+2·5	+1·1
25	61·5	48·1	53·2	57·1	57·5	48·4	−0·9	−0·1	+0·5	+0·1	0·0	−0·1
26	51·1	45·2	46·7	49·2	51·1	45·9	−2·2	0·0	0·0	−0·3	−0·1	+0·3
27	49·9	39·1	42·9	46·6	47·6	40·7	−0·3	−0·1	−0·2	−0·5	−0·3	−0·4
28	45·7	34·3	40·7	42·7	40·7	39·9	−0·5	−1·0	−0·9	−0·3	−0·2	+0·2
29	42·3	36·3	...	...	...	...	−0·7	−0·7	...	...	...	...
30	49·9	32·3	40·2	45·4	47·9	39·5	−1·1	−0·9	−0·4	−0·3	−2·0	−0·1
31	49·5	35·6	40·2	43·4	47·5	42·7	−1·5	−0·7	−1·4	−0·9	−0·7	+0·8
Means	52·9	39·7	45·4	49·0	50·1	45·1	−0·4	−0·4	+0·4	0·0	+0·1	+0·2

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.						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	49.0	38.9	47.6	47.1	48.2	39.3	−0.6	−0.1	0.0	0.0	−0.2	+0.1	1	49.0	38.1	47.9	46.7	48.4	39.7	−0.6	−0.9	+0.3	−0.4	0.0	+0.5
2	48.1	34.1	44.7	45.7	47.3	41.1	−0.9	+0.5	+0.7	−0.3	−0.2	0.0	2	48.3	33.0	44.5	46.0	47.4	41.4	−0.7	−0.6	+0.5	0.0	−0.1	+0.3
3	49.0	38.0	...	...	...	...	−1.0	+0.3	...	...	...	...	3	51.0	37.1	...	...	...	...	+1.0	−0.6	...	...	...	...
4	52.0	37.2	42.1	49.8	51.3	48.6	−0.6	+0.1	−0.6	−0.1	0.0	−0.1	4	52.1	36.5	43.2	50.0	51.3	48.6	−0.5	−0.6	+0.5	+0.1	0.0	−0.1
5	52.2	48.1	...	...	...	...	−1.0	+0.2	...	...	...	...	5	53.2	47.5	...	...	...	...	0.0	−0.4	...	...	...	...
6	57.9	46.2	...	...	...	...	+0.6	+0.7	...	...	...	...	6	56.8	45.9	...	...	...	...	−0.5	+0.4	...	...	...	...
7	60.7	48.5	52.8	57.8	59.3	56.1	−1.3	+0.3	+0.1	−0.3	−0.2	+0.2	7	61.3	48.4	53.0	57.5	59.9	56.4	−0.7	+0.2	+0.3	−0.6	+0.4	+0.5
8	63.7	50.6	55.9	58.8	62.0	52.7	−1.4	+0.7	+0.1	−0.3	−0.5	+1.0	8	64.4	49.9	55.4	59.5	62.6	53.5	−0.7	0.0	−0.4	+0.4	+0.1	+1.8
9	55.8	49.0	51.8	55.0	54.5	51.2	−1.4	+0.7	+0.1	0.0	−0.2	+0.2	9	56.2	48.5	52.2	54.9	54.7	51.0	−1.0	+0.2	+0.5	−0.1	0.0	0.0
10	54.7	42.8	54.3	52.9	54.6	47.6	−1.3	+0.5	+0.4	−0.3	−0.5	+0.1	10	56.5	41.1	53.7	52.7	54.7	47.6	+0.5	−1.2	−0.2	−0.5	−0.4	+0.1
11	53.8	41.9	47.8	52.7	52.8	47.4	−1.0	+0.5	−0.1	0.0	−0.4	−0.2	11	53.9	40.4	46.6	52.5	53.0	48.2	−0.9	−1.0	−1.3	−0.2	−0.2	+0.6
12	53.2	40.3	...	...	...	...	−1.1	+0.4	...	...	...	...	12	53.4	39.3	...	...	...	...	−0.9	−0.6	...	...	...	...
13	51.0	36.3	45.7	47.0	49.8	44.5	−1.6	+0.3	−0.1	+0.3	−0.2	+0.6	13	51.0	35.7	44.5	46.9	49.7	44.6	−1.6	−0.3	−1.3	+0.2	−0.3	+0.7
14	47.7	38.2	43.2	45.2	46.6	44.5	−0.3	0.0	+0.3	+0.1	−0.1	0.0	14	48.8	37.3	43.8	45.9	46.5	44.4	+0.8	−0.9	+0.9	+0.8	−0.2	−0.1
15	51.1	39.0	44.1	48.6	49.1	41.1	−1.4	−0.3	−1.0	−0.9	−0.6	+0.2	15	52.3	38.7	46.3	48.4	49.4	40.4	−0.2	−0.6	+1.2	−1.1	−0.3	−0.5
16	50.2	37.8	45.5	47.6	47.4	48.0	−0.4	+0.3	+0.1	0.0	−0.2	−0.1	16	50.1	36.8	46.0	47.7	47.9	48.1	−0.5	−0.7	+0.6	+0.1	+0.3	0.0
17	58.7	40.6	50.0	54.0	56.9	51.0	−0.4	+0.3	+0.1	+0.2	+0.4	+0.6	17	58.2	39.5	50.0	53.1	56.4	51.4	−0.9	−0.8	+0.1	−0.7	−0.1	+1.0
18	57.4	42.4	54.5	54.5	56.3	48.4	−0.8	+0.2	+1.1	−0.1	−0.1	+0.5	18	57.9	41.3	54.3	54.9	57.0	47.7	−0.3	−0.9	+0.9	+0.3	+0.6	−0.2
19	62.5	39.4	...	...	...	...	−0.7	−0.3	...	...	...	...	19	63.2	39.2	...	...	...	...	0.0	−0.5	...	...	...	...
20	56.2	43.2	50.3	53.6	51.8	43.5	−0.8	+0.3	−0.9	−0.6	−0.8	+0.5	20	59.5	41.3	52.6	56.3	54.2	42.5	+2.5	−1.6	+1.4	+2.1	+1.6	−0.5
21	55.9	37.7	48.1	52.9	55.9	43.1	−1.5	+0.7	+0.4	−0.8	−1.1	0.0	21	59.2	35.8	48.6	54.8	59.2	42.1	+1.8	−1.2	+0.9	+1.1	+2.2	−1.0
22	64.9	33.7	50.5	58.8	63.7	51.6	−0.2	0.0	0.0	0.0	0.0	+0.1	22	65.3	34.0	51.0	59.0	64.2	51.5	+0.2	+0.3	+0.5	+0.2	+0.5	0.0
23	55.1	43.3	47.5	51.8	54.5	44.9	−1.0	+0.9	−0.2	−0.2	−0.3	+0.2	23	56.5	42.1	47.7	52.3	55.1	44.7	+0.4	−0.3	0.0	+0.3	+0.3	0.0
24	58.1	34.3	48.3	54.5	57.3	45.9	−0.7	0.0	+0.3	−0.1	−0.6	+0.1	24	59.1	33.2	47.7	55.1	59.1	45.4	+0.3	−1.1	−0.3	+0.5	+1.2	−0.4
25	61.0	45.2	55.8	58.1	59.5	52.0	−1.0	+0.3	+0.1	0.0	−0.2	+0.1	25	61.4	44.2	55.0	58.4	59.7	51.8	−0.6	−0.7	−0.7	+0.3	0.0	−0.1
26	66.7	51.2	...	...	...	...	−1.5	+0.3	...	...	...	...	26	67.5	50.5	...	...	...	...	−0.7	−0.4	...	...	...	...
27	67.8	46.5	55.9	60.4	65.0	55.6	−1.2	+0.4	−0.3	+0.4	−0.3	+0.9	27	68.3	45.5	56.8	60.3	65.1	54.4	−0.7	−0.6	+0.6	+0.3	−0.2	−0.3
28	62.0	48.8	55.9	58.5	60.6	49.8	−1.2	−0.5	+0.5	−0.1	−0.5	+0.1	28	61.5	48.4	55.5	57.7	59.2	49.0	−1.7	−0.9	+0.1	−0.9	−1.9	−0.7
29	58.6	43.4	52.9	49.8	56.5	48.1	−1.1	+0.2	−0.2	+0.4	−0.9	+0.1	29	58.2	42.2	51.8	48.7	55.0	47.7	−1.5	−1.0	−1.3	−0.7	−2.4	−0.3
30	56.7	39.3	47.7	52.8	54.9	45.8	−2.1	+0.1	+0.3	−1.1	−1.5	0.0	30	57.7	37.6	48.6	52.7	55.7	45.7	−1.1	−1.6	+1.2	−1.2	−0.7	−0.1
Means	56.4	41.9	49.7	52.8	54.8	47.6	−1.0	+0.3	0.0	−0.2	−0.4	+0.2	Means	57.1	41.0	49.9	53.0	55.2	47.4	−0.3	−0.6	+0.2	0.0	0.0	0.0

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

MAY.

Days of the Month.	Readings of Thermometers in Stevenson's Screen, 4 feet above the ground.						Excess above readings of Thermometers on ordinary stand, 4 feet above the ground.					
	Maximum.	Minimum.	9h	Noon.	15h	21h	Maximum.	Minimum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°
1	53·9	37·1	45·6	50·7	53·8	44·0	−2·8	−0·2	−0·8	−1·3	−2·2	0·0
2	50·8	36·2	46·1	48·5	49·3	43·9	−1·3	+0·3	−0·8	−0·4	−0·4	+0·2
3	59·0	41·2	...	...	...	...	−1·8	−0·9	...	...	...	...
4	60·1	35·2	50·4	57·8	58·5	45·5	−2·1	−0·6	−0·2	−2·9	−1·2	+0·5
5	64·7	36·1	54·6	63·2	61·5	50·2	−2·3	−0·3	+0·9	−1·2	−1·2	0·0
6	59·1	44·1	50·7	55·8	57·6	52·7	−1·3	−0·1	−1·0	−0·9	−0·4	0·0
7	63·7	44·2	57·5	63·1	61·4	50·8	−3·9	0·0	+0·1	−0·8	−1·4	−0·1
8	60·8	44·1	49·5	57·8	57·4	48·2	−2·0	−0·4	−1·2	−0·8	−1·9	−0·1
9	64·2	44·1	58·1	64·4	62·6	53·1	−2·5	−0·1	−0·7	−1·1	−1·8	+0·1
10	69·2	43·9	...	...	...	...	−2·1	+0·2	...	...	...	...
11	69·0	43·4	59·0	68·7	68·0	54·3	−3·3	−2·0	−1·6	−1·8	−1·7	−0·2
12	75·8	45·8	65·3	72·5	73·9	66·8	−2·3	−0·2	0·0	−1·6	−1·1	+0·1
13	71·8	48·2	53·8	63·1	69·5	51·6	+0·1	−0·2	−1·9	−1·5	−0·6	−0·2
14	74·9	44·7	60·0	69·1	74·3	57·4	−1·2	−0·2	+1·3	+0·3	−1·4	+0·5
15	68·4	48·4	65·8	68·1	62·4	51·9	−2·2	+0·8	−0·1	−0·8	−1·1	−0·2
16	60·1	45·6	50·9	56·5	58·7	49·0	−2·9	−1·6	−1·3	−1·2	−0·9	−0·1
17	67·5	44·9	...	...	...	...	−1·7	−0·3	...	...	...	...
18	75·0	54·9	66·7	73·9	66·6	60·1	−3·4	−1·0	−0·1	−1·3	−0·1	+0·3
19	67·1	51·8	56·9	62·0	65·3	57·1	−2·6	−0·3	−0·2	−1·7	−0·4	+0·3
20	58·2	44·2	53·2	52·0	52·4	46·1	+1·1	−1·5	+0·2	−0·5	−0·3	+0·1
21	60·0	39·2	51·5	53·7	59·5	52·6	−2·3	−1·1	−0·1	−0·1	−0·2	+0·2
22	56·2	44·2	50·7	53·8	55·5	54·8	−0·3	−1·0	+0·3	+0·1	−0·3	0·0
23	59·5	52·9	...	...	...	...	−3·2	0·0	...	...	...	...
24	65·1	48·0	...	...	...	...	+1·1	+0·2	...	...	...	...
25	58·3	42·2	...	...	...	...	−1·9	−1·9	...	...	...	...
26	62·7	44·8	51·9	59·8	60·5	51·0	−2·5	−0·2	−0·8	−1·9	−1·1	+0·3
27	65·8	42·4	60·1	64·5	62·5	53·5	−1·2	−1·5	−1·5	−0·6	−0·4	+0·5
28	65·6	47·5	59·1	63·5	63·7	51·8	−2·4	−0·8	−1·3	−1·2	−1·0	−0·2
29	75·7	46·6	57·5	67·8	72·5	57·9	−2·0	−0·8	0·0	−1·5	−0·8	+0·3
30	60·8	47·4	57·6	58·7	57·7	49·4	−1·9	−1·8	−1·5	−1·0	−0·5	+0·1
31	68·2	41·4	...	...	...	...	−2·0	−0·5	...	...	...	...
Means	64·2	44·3	55·5	61·2	61·9	52·2	−1·9	−0·6	−0·5	−1·1	−0·9	+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	54·4	37·0	45·4	51·4	53·1	43·9	−2·3	−0·3	−1·0	−0·6	−2·9	−0·1
2	50·6	35·0	46·4	48·4	49·0	43·7	−1·5	−0·9	−0·5	−0·5	−0·7	0·0
3	60·8	41·4	...	...	...	...	0·0	−0·7	...	...	...	...
4	61·3	34·4	48·2	56·7	59·0	44·4	−0·9	−1·4	−2·4	−4·0	−0·7	−0·6
5	65·2	35·8	54·0	60·7	61·9	49·7	−1·8	−0·6	+0·3	−3·7	−0·8	−0·5
6	61·5	43·1	51·5	57·4	59·1	52·5	+1·1	−1·1	−0·2	+0·7	+1·1	−0·2
7	67·2	42·4	56·4	64·8	60·3	50·8	−0·4	−1·8	−1·0	+0·9	−2·5	−0·1
8	59·8	43·4	50·0	56·7	56·9	47·8	−3·0	−1·1	−0·7	−1·9	−2·4	−0·5
9	66·4	43·3	57·7	65·9	64·5	52·5	−0·3	−0·9	−1·1	+0·4	+0·1	−0·5
10	72·2	43·1	...	...	...	...	+0·9	−0·6	...	...	...	...
11	73·3	44·3	59·4	70·4	70·1	52·9	+1·0	−1·1	−1·2	−0·1	+0·4	−1·6
12	77·4	44·6	65·9	73·2	75·2	63·5	−0·7	−1·4	+0·6	−0·9	+0·2	−3·2
13	70·4	47·4	54·8	62·3	70·4	52·9	−1·3	−1·0	−0·9	−2·3	+0·3	+1·1
14	75·5	43·5	60·8	68·7	74·1	56·7	−0·6	−1·4	+2·1	−0·1	−1·6	−0·2
15	69·5	46·4	65·9	69·5	62·8	51·5	−1·1	−1·2	0·0	+0·6	−0·7	−0·6
16	61·8	46·2	51·2	57·7	59·0	48·1	−1·2	−1·0	−1·0	0·0	−0·6	−1·0
17	68·4	44·2	...	...	...	...	−0·8	−1·0	...	...	...	...
18	76·5	55·6	69·0	75·0	66·9	59·9	−1·9	−0·3	+2·2	−0·2	+0·2	+0·1
19	68·2	51·6	56·9	61·7	65·0	56·7	−1·5	−0·5	−0·2	−2·0	−0·7	−0·1
20	56·9	43·5	52·0	53·8	51·7	45·4	−0·2	−2·2	−1·0	+1·3	−1·0	−0·6
21	60·6	39·1	51·0	54·0	60·1	51·7	−1·7	−1·2	−0·6	+0·2	+0·4	−0·7
22	56·5	44·3	51·0	54·7	56·2	54·7	0·0	−0·9	+0·6	+1·0	+0·4	−0·1
23	62·6	52·3	...	...	...	...	−0·1	−0·6	...	...	...	...
24	62·6	47·3	...	...	...	...	−1·4	−0·5	...	...	...	...
25	59·5	43·3	...	...	...	...	−0·7	−0·8	...	...	...	...
26	64·2	44·0	52·9	60·9	62·4	50·1	−1·0	−1·0	+0·2	−0·8	+0·8	−0·6
27	67·3	43·3	59·6	65·1	63·6	52·7	+0·3	−0·6	−2·0	0·0	+0·7	−0·3
28	65·9	47·8	57·4	63·0	63·8	50·9	−2·1	−0·5	−3·0	−1·7	−0·9	−1·1
29	76·8	45·2	58·7	69·0	73·1	57·4	−0·9	−2·2	+1·2	−0·3	−0·2	−0·2
30	60·1	47·3	58·0	59·3	58·0	47·9	−2·6	−1·9	−1·1	−0·4	−0·2	−1·4
31	69·1	41·1	...	...	...	...	−1·1	−0·8	...	...	...	...
Means	65·2	43·9	55·6	61·7	62·3	51·6	−0·9	−1·0	−0·4	−0·6	−0·5	−0·5

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	76·0	39·2	65·7	73·3	73·3	58·9	−2·7	−0·6	+0·1	−1·4	−2·1	+0·1
2	83·0	47·7	69·9	78·3	80·5	65·1	−1·9	−0·7	−1·1	−2·5	−0·8	+0·1
3	71·3	58·7	66·6	68·3	68·9	63·6	−1·9	−0·3	−0·3	+0·6	0·0	+0·1
4	79·8	55·5	72·9	79·8	75·4	66·2	−2·9	−0·4	0·0	−0·2	−1·3	−0·2
5	72·8	57·2	63·4	66·0	71·0	58·5	−3·4	−0·2	−0·5	−1·4	−1·5	+0·1
6	73·0	49·7	63·4	68·3	68·8	58·0	−3·7	−1·7	−0·6	−1·1	−0·9	−0·2
7	64·5	51·0	...	...	...	...	−0·7	−0·3	...	...	...	...
8	72·0	52·3	62·7	67·5	67·8	58·9	−2·6	−0·8	+0·3	+0·2	−0·9	0·0
9	69·9	55·7	63·5	67·6	67·5	58·5	−3·4	+0·7	−0·9	−1·1	−1·2	−0·2
10	60·3	55·7	56·7	57·9	59·9	57·2	−0·6	−0·7	−0·3	−0·1	−0·1	−0·3
11	71·0	54·7	62·8	68·0	69·5	64·8	−1·3	−0·7	+0·2	−0·7	−0·6	−0·1
12	78·0	53·3	69·1	76·1	77·6	63·8	−3·0	−0·9	+0·6	−0·8	−0·3	−0·2
13	78·8	57·0	72·8	76·7	74·8	61·8	−2·4	+1·7	+0·1	−1·5	−1·8	+0·2
14	75·9	57·0	...	...	...	...	−1·1	−0·3	...	...	...	...
15	82·2	56·2	68·7	78·7	80·5	68·7	−1·7	−1·3	−0·2	−1·5	−2·0	−0·2
16	83·8	60·7	75·8	81·3	81·5	67·1	−2·9	+0·6	+0·7	−0·4	−1·0	+0·1
17	68·9	59·2	68·5	63·9	64·5	60·7	−0·9	+0·1	−0·1	−0·3	−0·3	+0·1
18	73·4	49·5	64·3	67·6	72·7	61·7	−3·7	−1·0	−0·3	−2·4	−3·3	+0·2
19	76·4	54·6	64·6	69·5	72·4	60·2	−1·6	−1·1	−0·1	−0·2	−0·3	−0·3
20	72·0	55·0	64·8	64·8	69·7	62·0	−2·0	+2·7	−0·8	−1·8	−1·6	+0·2
21	69·3	52·0	...	...	...	...	−3·7	−0·3	...	...	...	...
22	68·8	46·7	61·5	67·8	65·8	62·0	−2·7	−1·9	−0·2	−0·9	−0·6	+0·1
23	75·8	54·9	66·3	69·6	72·7	65·7	−2·9	+0·9	−0·6	−1·3	−0·9	+0·1
24	71·0	57·4	63·0	66·2	64·8	60·2	−3·0	−0·8	−0·7	−0·7	+0·1	+0·2
25	68·2	53·3	57·2	64·2	63·1	54·7	+0·6	−1·2	−0·5	−1·1	−0·8	+0·1
26	66·7	52·8	59·1	60·7	65·3	56·5	−2·5	+1·0	−0·6	−1·0	−1·7	+0·1
27	74·2	47·2	63·7	68·8	72·5	65·0	−2·5	+0·4	−0·6	−0·7	−0·2	+0·1
28	75·0	60·6	...	...	...	...	−2·0	−1·3	...	...	...	...
29	66·0	52·2	59·7	63·6	64·9	60·0	−2·7	−0·1	0·0	−1·1	−0·7	+0·1
30	71·7	52·2	62·6	67·5	68·8	58·5	−1·8	−1·3	−0·4	−0·9	−0·6	+0·1
Means	73·0	53·6	65·0	69·3	70·5	61·5	−2·3	−0·3	−0·3	−0·9	−1·0	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	76·5	38·1	63·5	72·7	74·7	58·4	−2·2	−1·7	−2·1	−2·0	−0·7	−0·4
2	82·5	47·5	69·8	79·7	79·6	65·1	−2·4	−0·9	−1·2	−1·1	−1·7	+0·1
3	72·2	58·7	68·7	68·9	69·4	63·7	−1·0	−0·3	+1·8	+1·2	+0·5	+0·2
4	81·0	55·2	73·7	80·5	75·8	66·0	−1·7	−0·7	+0·8	+0·5	−0·9	−0·4
5	74·2	57·2	63·7	66·7	71·3	58·0	−2·0	−0·2	−0·2	−0·7	−1·2	−0·4
6	73·7	50·2	63·7	69·5	69·0	57·5	−3·0	−1·2	−0·3	+0·1	−0·7	−0·7
7	64·5	50·2	...	...	...	...	−0·7	−1·1	...	...	...	...
8	74·4	52·4	64·7	68·2	69·2	58·6	−0·2	−0·7	+2·3	+0·9	+0·5	−0·3
9	72·8	54·2	64·7	69·7	69·6	58·4	−0·5	−0·8	+0·3	+1·0	+0·9	−0·3
10	60·5	54·4	56·5	57·6	59·7	56·6	−0·4	−2·0	−0·5	−0·4	−0·3	−0·9
11	73·3	55·0	63·0	68·7	70·6	64·7	+1·0	−0·4	+0·4	0·0	+0·5	−0·2
12	80·5	53·3	70·8	77·8	79·7	64·0	−0·5	−0·9	+2·3	+0·9	+1·8	0·0
13	81·4	55·4	75·9	79·0	77·3	60·5	+0·2	+0·1	+3·2	+0·8	+0·7	−1·1
14	77·2	56·3	...	...	...	...	+0·2	−1·0	...	...	...	...
15	83·4	56·7	68·5	77·8	81·8	68·5	−0·5	−0·8	−0·4	−2·4	−0·7	−0·4
16	84·8	59·3	76·7	81·0	81·0	66·4	−1·9	−0·8	+1·6	−0·7	−1·5	−0·6
17	69·0	58·4	67·7	64·1	65·1	59·7	−0·8	−0·7	−0·9	−0·1	+0·3	−0·9
18	75·4	49·2	66·3	68·7	75·1	60·5	−1·7	−1·3	+1·7	−1·3	−0·9	−1·0
19	75·2	55·2	64·9	70·1	74·9	60·0	−2·8	−0·5	+0·2	+0·4	+2·2	−0·5
20	73·0	51·1	65·8	65·6	70·8	61·7	−1·0	−1·2	+0·2	−1·0	−0·5	−0·1
21	70·5	51·2	...	...	...	...	−2·5	−1·1	...	...	...	...
22	69·9	47·5	62·9	68·4	66·5	61·6	−1·6	−1·1	+1·2	−0·3	+0·1	−0·3
23	76·4	53·2	66·9	71·4	73·6	65·4	−2·3	−0·8	0·0	+0·5	0·0	−0·2
24	73·3	57·3	64·6	67·7	63·3	59·3	−0·7	−0·9	+0·9	+0·8	−1·4	−0·7
25	66·5	53·3	58·3	63·6	63·1	53·9	−1·1	−1·2	+0·6	−1·7	−0·8	−0·7
26	66·2	51·5	57·8	60·9	66·1	55·9	−3·0	−0·3	−1·9	−0·8	−0·9	−0·5
27	75·3	45·8	65·2	70·6	74·9	65·1	−1·4	−1·0	+0·9	+1·1	+2·2	+0·2
28	75·8	60·5	...	...	...	...	−1·2	−1·4	...	...	...	...
29	67·4	52·0	60·5	64·7	65·4	59·7	−1·3	−0·3	+0·8	0·0	−0·2	−0·2
30	71·9	52·6	63·1	69·0	68·7	58·1	−1·6	−0·9	+0·1	+0·6	−0·7	−0·3
Means	74·0	53·1	65·7	70·1	71·4	61·1	−1·3	−0·9	+0·5	−0·1	−0·1	−0·4

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

JULY.

Days of the Month.	Readings of Thermometers in 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	62·8	54·2	58·2	60·8	59·7	54·6	−1·2	0·0	−0·4	−0·9	−0·2	+0·4
2	64·7	48·3	54·4	58·2	59·9	58·5	−1·1	−0·2	0·0	−0·2	−0·6	+0·2
3	75·7	54·7	63·0	70·5	73·0	60·5	−1·8	−0·2	−0·7	−0·2	−0·9	−0·2
4	75·7	55·5	63·6	69·4	75·0	62·8	−1·3	−0·1	−0·1	−1·5	−2·0	+0·3
5	75·0	56·2	...	...	...	...	−2·0	0·0	...	...	...	...
6	82·5	54·6	70·0	79·5	81·5	65·2	−1·9	−0·3	+0·3	0·0	−1·2	−0·2
7	84·0	54·7	75·5	82·3	81·5	69·7	−3·3	−0·1	+1·6	+0·9	−0·2	0·0
8	82·6	61·3	74·2	80·1	78·5	63·7	−3·2	+1·1	+0·1	−2·3	−1·1	+0·1
9	82·1	61·8	74·1	80·9	79·5	68·5	−4·2	+1·8	+0·4	−0·6	−1·9	+0·1
10	75·8	61·4	68·1	73·0	74·7	63·8	−1·3	+1·3	−0·9	−0·5	−1·2	−0·4
11	72·4	51·6	66·8	70·8	70·7	58·1	−3·4	0·0	−1·1	−1·2	−2·7	−0·6
12	80·0	50·1	...	...	...	...	−2·7	−0·1	...	...	...	...
13	85·1	54·0	75·7	81·5	84·7	66·7	−2·8	−0·2	+1·5	−1·2	−1·2	−0·2
14	87·6	54·9	73·8	82·0	86·6	72·8	−3·5	0·0	+0·8	−2·7	−2·6	−0·3
15	76·2	61·8	67·1	75·8	70·4	61·8	−2·2	−0·1	−0·8	−1·4	0·0	−0·1
16	62·0	53·7	55·8	55·1	54·2	55·1	−0·7	−0·5	0·0	−0·2	−0·1	0·0
17	65·4	53·8	58·5	62·9	63·1	57·0	−1·4	−0·1	−0·4	−1·3	−0·6	0·0
18	74·4	52·6	64·6	70·5	73·0	62·6	−2·1	+0·6	+0·5	−1·0	−1·0	+0·2
19	80·0	60·2	...	...	...	...	−0·1	+0·4	...	...	...	...
20	83·3	60·8	77·4	79·8	79·1	69·1	−2·4	0·0	+0·5	−0·3	−0·9	−0·1
21	87·5	56·7	76·4	84·0	84·6	70·6	−2·8	−0·2	+0·6	−2·4	−1·1	0·0
22	70·1	57·8	62·6	65·5	67·4	63·0	−2·0	−0·1	−0·9	−1·5	−0·9	+0·1
23	72·5	48·2	65·5	69·8	70·5	60·7	−4·5	−0·3	+0·7	−0·2	−1·1	+0·1
24	76·2	54·5	69·7	72·9	71·1	61·9	−2·5	0·0	0·0	−1·0	−1·6	+0·1
25	80·1	56·2	74·3	76·1	73·0	69·0	+0·1	−0·4	−0·8	−0·7	−0·6	−0·1
26	73·0	60·0	...	...	...	...	−1·7	+0·8	...	...	...	...
27	69·0	52·5	60·3	64·8	66·7	59·5	−2·6	−0·2	−0·2	−1·2	−0·8	+0·1
28	71·1	53·5	62·6	67·8	69·6	58·3	−2·1	+3·0	−0·1	0·0	−1·0	0·0
29	74·2	47·3	65·8	71·9	73·5	59·2	−2·2	0·0	+0·2	−1·2	−2·1	−0·2
30	73·0	58·7	65·2	68·8	69·7	64·0	−2·0	0·0	+0·1	−0·1	−0·6	−0·1
31	69·8	58·2	60·3	67·4	68·8	58·5	−1·8	−0·3	−0·4	−0·5	−1·9	−0·3
Means	75·6	55·5	66·8	71·9	72·6	62·8	−2·2	+0·2	0·0	−0·9	−1·1	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	63·5	53·2	58·6	61·9	59·9	53·8	−0·5	−1·0	0·0	+0·2	0·0	−0·4
2	65·7	47·6	54·6	58·5	60·6	57·9	−0·1	−0·9	+0·2	+0·1	+0·1	−0·4
3	76·2	54·0	65·1	71·0	73·9	60·4	−1·3	−0·9	+1·4	+0·3	0·0	−0·3
4	76·3	55·3	63·9	69·2	75·7	62·4	−0·7	−0·3	+0·2	−1·7	−1·3	−0·1
5	76·3	55·4	...	...	...	...	−0·7	−0·8	...	..	...	...
6	83·4	54·3	70·6	79·4	81·9	65·2	−1·0	−0·6	+0·9	−0·1	−0·8	−0·2
7	85·5	53·6	76·1	82·2	83·2	69·9	−1·8	−1·2	+2·2	+0·8	+1·5	+0·2
8	84·2	60·1	76·3	81·4	79·5	62·9	−1·6	−0·1	+2·2	−1·0	−0·1	−0·7
9	83·0	59·5	73·8	79·8	79·8	68·0	−3·3	−0·5	+0·1	−1·7	−1·6	−0·4
10	75·3	59·3	68·5	73·0	75·0	63·7	−1·8	−0·8	−0·5	−0·5	−0·9	−0·5
11	73·1	50·6	67·7	70·4	72·1	56·9	−2·7	−1·0	−0·2	−1·6	−1·3	−1·8
12	81·2	48·5	...	...	...	...	−1·5	−1·7	...	...	...	...
13	86·2	53·2	75·2	80·4	85·6	65·9	−1·7	−1·0	+1·0	−2·3	−0·3	−1·0
14	90·5	54·4	73·6	84·0	88·3	72·5	−0·6	−0·5	+0·6	−0·7	−0·9	−0·6
15	77·1	61·0	67·9	75·4	70·0	61·4	−1·3	−0·9	0·0	−1·8	−0·4	−0·5
16	61·5	53·3	55·7	53·9	53·3	55·0	−1·2	−0·9	−0·1	−1·4	−1·0	−0·1
17	66·1	53·8	59·1	63·5	64·4	56·7	−0·7	−0·1	+0·2	−0·7	+0·7	−0·3
18	75·9	50·7	64·7	70·1	74·2	62·7	−0·6	−1·3	+0·6	−1·4	+0·2	+0·3
19	80·7	59·6	...	...	...	...	+0·6	−0·2	...	...	...	...
20	84·6	60·8	78·7	81·6	79·9	68·7	−1·1	0·0	+1·8	+1·5	−0·1	−0·5
21	88·5	56·6	76·9	84·2	84·7	70·0	−1·8	−0·3	+1·1	−2·2	−1·0	−0·6
22	70·4	57·6	64·0	67·0	67·9	61·9	−1·7	−0·3	+0·5	0·0	−0·4	−1·0
23	74·6	47·2	67·2	70·8	70·5	60·2	−2·4	−1·3	+2·4	+0·8	−1·1	−0·4
24	77·0	54·2	69·4	72·7	71·9	61·4	−1·7	−0·3	−0·3	−1·2	−0·8	−0·4
25	78·7	55·8	75·1	76·4	73·3	68·2	−1·3	−0·8	0·0	−0·4	−0·3	−0·9
26	74·0	58·3	...	...	...	...	−0·7	−0·9	...	...	...	...
27	70·6	51·7	60·6	66·8	67·7	59·0	−1·0	−1·0	+0·1	+0·8	+0·2	−0·4
28	71·3	49·7	60·5	67·7	69·0	58·0	−1·9	−0·8	−2·2	−0·1	−1·6	−0·3
29	74·7	47·0	66·7	71·2	73·7	58·9	−1·7	−0·3	+1·1	−1·9	−1·9	−0·5
30	75·1	58·4	68·2	69·4	70·4	63·7	+0·1	−0·3	+3·1	+0·5	+0·1	−0·4
31	71·6	56·3	60·7	69·1	69·9	57·3	0·0	−2·2	0·0	+1·2	−0·8	−1·5
Means	76·5	54·5	67·4	72·3	73·2	62·3	−1·2	−0·7	+0·6	−0·5	−0·5	−0·5

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.					
	Maxi-mum.	Mini-mum.	9h	Noon.	15h	21h	Maxi-mum.	Mini-mum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°
1	72·0	49·2	62·1	68·1	70·9	61·0	−2·2	0·0	+0·1	−1·3	−0·8	+0·2
2	66·1	54·5	...	...	...	...	−1·9	0·0	...	...	...	...
3	68·1	48·2	...	...	...	...	−2·1	−0·1	...	...	...	...
4	68·3	55·1	62·3	63·7	67·5	55·1	−2·4	+0·5	+0·5	−1·0	−1·0	−0·1
5	65·8	48·7	60·4	65·1	63·2	56·3	−1·8	0·0	−0·3	−1·7	−0·5	−0·1
6	66·0	52·3	57·1	64·5	63·4	59·1	−1·5	+0·1	−0·4	−0·4	−0·8	−0·1
7	68·2	48·7	60·5	65·0	62·1	58·6	−1·6	+0·2	+0·2	−1·3	−0·3	0·0
8	61·0	50·4	57·8	59·8	57·3	56·0	−0·4	−0·1	−0·5	−0·2	−0·4	0·0
9	62·2	51·8	...	...	...	...	−1·0	−0·1	...	...	...	...
10	67·0	54·8	59·9	63·5	64·2	59·6	−1·0	−0·3	−0·5	−0·9	−0·5	+0·1
11	71·0	52·2	57·7	67·1	70·0	62·9	−1·0	−0·2	+0·1	−0·7	−0·9	+0·5
12	72·2	57·1	62·2	68·0	70·4	66·5	−1·4	+0·5	−0·3	−0·8	−0·6	+0·5
13	74·8	55·0	66·1	68·9	69·6	65·1	−1·4	−0·5	+0·1	−0·3	−1·2	+0·1
14	71·2	58·0	61·5	66·8	69·1	61·6	−1·8	−0·5	−0·1	−1·5	−0·7	+0·4
15	65·8	50·0	58·4	63·0	64·8	55·6	−1·1	+0·1	−0·3	−0·4	−1·1	+0·2
16	71·2	45·9	...	...	...	...	−2·4	−1·2	...	...	...	...
17	71·1	46·4	60·1	67·1	69·4	58·2	−1·6	−0·7	+1·2	+0·7	−0·5	+0·2
18	61·7	56·1	57·5	59·6	61·7	59·4	−1·3	−0·7	−0·3	−0·6	−0·6	+0·1
19	66·6	53·4	60·4	65·2	65·0	54·8	−1·3	−0·3	+0·1	−0·3	−0·2	−0·2
20	68·7	53·0	64·3	67·3	66·4	59·2	−1·0	+0·1	+0·3	−0·6	−0·3	+0·6
21	67·3	54·9	60·8	65·7	59·5	56·5	−2·8	+2·5	0·0	−1·0	−0·2	+0·4
22	66·5	51·3	59·5	63·4	63·7	57·0	−1·5	+0·1	−0·4	−0·9	−0·3	+0·5
23	73·8	55·5	...	...	...	...	−0·9	+0·1	...	...	...	...
24	69·5	59·8	62·9	67·5	66·1	60·9	−1·7	+0·2	−0·3	−0·3	−0·4	−0·1
25	66·3	53·2	62·3	64·5	64·3	53·5	−2·3	−0·2	+0·1	−1·1	−1·0	+0·1
26	60·8	48·9	54·8	58·8	56·6	50·9	−1·3	−0·4	−0·1	−0·9	−0·3	+0·1
27	65·6	45·5	55·2	58·9	62·5	53·5	−1·5	−0·2	+0·1	−0·6	−0·3	0·0
28	64·7	47·5	55·1	60·5	63·8	56·8	−1·5	0·0	+0·1	−0·7	−0·6	+0·2
29	66·2	48·5	58·4	64·6	63·2	55·5	−3·1	−0·9	−0·3	−2·3	−0·8	0·0
30	65·9	50·2	...	...	...	...	−0·9	0·0	...	...	...	...
31	65·2	55·2	61·3	62·1	64·7	57·0	−0·9	−0·4	0·0	−0·6	0·0	0·0
Means	67·4	52·0	59·9	64·3	64·8	58·0	−1·6	−0·1	0·0	−0·8	−0·6	+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.					
	Maxi-mum.	Mini-mum.	9h	Noon.	15h	21h	Maxi-mum.	Mini-mum.	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°	°	°
1	72·3	48·1	62·7	67·0	70·0	60·5	−1·9	−1·1	+0·7	−2·4	−1·7	−0·3
2	67·1	53·9	...	...	...	...	−0·9	−0·6	...	...	...	...
3	70·6	47·4	...	...	...	...	+0·4	−0·9	...	...	...	...
4	69·8	54·2	62·5	64·5	68·2	54·9	−0·9	−0·4	+0·7	−0·2	−0·3	−0·3
5	66·3	48·2	59·3	64·4	62·5	55·9	−1·3	−0·5	−1·4	−2·4	−1·2	−0·5
6	66·1	51·4	57·0	63·0	63·5	59·0	−1·4	−0·8	−0·5	−1·9	−0·7	−0·2
7	69·2	47·3	61·5	64·2	62·2	58·2	−0·6	−1·2	+1·2	−2·1	−0·2	−0·4
8	61·5	49·5	58·2	59·9	57·1	55·9	+0·1	−1·0	−0·1	−0·1	−0·6	−0·1
9	62·2	51·4	...	...	...	...	−1·0	−0·5	...	...	...	...
10	66·5	54·6	60·8	63·2	64·5	59·1	−1·5	−0·5	+0·4	−1·2	−0·2	−0·4
11	72·4	51·9	58·5	68·5	71·1	62·6	+0·4	−0·5	+0·9	+0·7	+0·2	+0·2
12	73·2	56·3	63·4	69·1	71·4	66·3	−0·4	−0·3	+0·9	+0·3	+0·4	+0·3
13	75·7	55·0	67·5	70·0	71·0	65·0	−0·5	−0·5	+1·5	+0·8	+0·2	0·0
14	71·5	58·0	61·4	68·6	69·9	60·9	−1·5	−0·5	−0·2	+0·3	+0·1	−0·3
15	66·4	48·7	58·7	63·5	65·3	55·8	−0·5	−1·2	0·0	+0·1	−0·6	+0·4
16	72·4	46·8	...	...	...	...	−1·2	−0·3	...	...	...	...
17	72·7	46·4	59·7	65·7	71·0	57·7	0·0	−0·7	+0·8	−0·7	+1·1	−0·3
18	63·1	56·3	57·8	60·4	62·4	59·2	+0·1	−0·5	0·0	+0·2	+0·1	−0·1
19	67·8	53·0	61·1	66·0	66·3	54·6	−0·1	−0·7	+0·8	+0·5	+1·1	−0·4
20	68·8	52·9	62·1	67·8	67·6	59·1	−0·9	0·0	−1·9	−0·1	+0·9	+0·5
21	69·5	53·0	62·2	68·2	59·4	55·4	−0·6	−0·4	+1·4	+1·5	−·03	−0·7
22	67·6	50·3	59·9	64·6	64·5	57·2	−0·4	−0·9	0·0	+0·3	+0·5	+0·7
23	75·4	56·3	...	...	...	...	+0·7	+0·9	...	...	...	...
24	70·8	59·3	63·9	68·3	66·6	60·5	−0·4	−0·3	+0·7	+0·5	+0·1	−0·5
25	68·8	52·1	62·7	66·1	66·5	53·0	+0·2	−1·3	+0·5	+0·5	+1·2	−0·4
26	61·6	48·4	54·7	59·3	57·5	50·4	−0·5	−0·9	−0·2	−0·4	+0·6	−0·4
27	65·7	44·5	54·7	59·7	63·9	53·0	−1·4	−1·2	−0·4	+0·2	+1·1	−0·5
28	66·2	46·7	56·4	61·4	64·4	56·3	0·0	−0·8	+1·4	+0·2	0·0	−0·3
29	68·5	48·7	59·9	66·6	64·5	55·1	−0·8	−0·7	+1·2	−0·3	+0·5	−0·4
30	66·6	49·5	...	...	...	...	−0·2	−0·7	...	...	...	...
31	66·9	55·4	62·4	63·8	66·0	57·4	+0·8	−0·2	+1·1	+1·1	+1·3	+0·4
Means	68·5	51·4	60·4	65·c	65·5	57·7	−0·5	−0·6	+0·4	−0·2	+0·1	−0·2

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

SEPTEMBER.

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

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

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

NOVEMBER.

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

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

DECEMBER.

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

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 1896.

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

FEBRUARY.

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

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

APRIL.

Days of the Month.	9^h	Noon.	15^h	21^h	9^h	Noon.	15^h	21^h
d	°	°	°	°	°	°	°	°
1	45·9	46·0	43·5	37·5	+ 0·5	− 0·1	0·0	+ 0·5
2	39·1	39·4	40·4	38·9	+ 0·9	− 0·1	− 0·1	0·0
4	40·3	46·2	47·2	47·6	− 0·4	+ 0·5	+ 0·6	0·0
7	49·1	51·1	52·9	52·7	+ 0·4	+ 0·1	+ 0·3	+ 0·6
8	52·1	53·0	54·0	49·1	+ 0·4	0·0	− 0·5	+ 0·5
9	47·1	48·8	49·1	47·8	+ 0·4	+ 0·7	− 0·2	+ 0·4
10	48·6	49·2	51·0	43·5	+ 0·6	+ 0·2	− 0·2	0·0
11	45·6	45·1	46·0	44·6	− 0·1	− 0·3	− 0·6	− 0·1
13	39·1	40·1	42·0	39·1	0·0	− 0·4	− 0·2	+ 0·4
14	42·1	44·2	45·1	43·8	+ 0·4	0·0	− 0·4	− 0·1
15	40·0	43·2	44·1	39·8	− 0·9	− 0·5	− 0·5	+ 0·3
16	43·1	43·2	42·7	47·6	+ 0·7	+ 0·2	+ 0·5	+ 0·1
17	45·9	47·1	48·1	45·9	0·0	+ 0·4	+ 0·6	+ 0·5
18	49·8	49·3	50·5	45·9	+ 0·8	− 0·2	0·0	0·0
20	47·5	48·1	46·6	41·1	− 0·7	− 0·9	− 0·9	+ 0·4
21	45·2	46·8	47·5	40·1	+ 0·1	− 0·8	− 0·6	+ 0·1
22	44·4	50·1	53·5	48·1	0·0	+ 0·4	+ 0·1	+ 0·3
23	46·2	47·6	47·9	41·0	− 0·1	− 0·2	− 0·7	+ 0·3
24	43·9	47·3	49·9	44·1	+ 0·4	− 0·6	+ 0·2	+ 0·3
25	48·3	51·5	54·1	49·7	− 0·4	+ 0·1	− 0·3	0·0
27	53·2	56·8	59·1	51·8	− 0·1	+ 0·4	+ 0·4	+ 0·3
28	48·8	49·1	49·4	45·3	+ 0·5	+ 0·5	+ 0·2	+ 0·4
29	46·1	46·3	47·6	42·8	0·0	+ 0·9	− 0·4	+ 0·5
30	43·7	46·1	46·3	43·0	+ 0·8	− 0·3	− 0·4	+ 0·3
Means	45·6	47·3	48·3	44·6	+ 0·2	0·0	− 0·1	+ 0·2

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	41·1	44·7	46·1	39·9	− 0·6	− 0·6	− 0·8	+ 0·2
2	41·3	42·6	43·5	40·3	− 0·2	− 0·1	+ 0·3	+ 0·5
4	45·1	47·2	47·8	43·3	+ 0·3	− 1·3	− 0·4	+ 0·4
5	47·1	51·3	51·1	45·4	+ 0·7	− 0·6	− 0·5	+ 0·1
6	47·1	49·3	50·2	48·0	− 0·4	− 0·9	− 0·2	0·0
7	50·6	54·1	54·2	48·2	+ 0·5	− 0·6	− 0·8	+ 0·1
8	47·1	52·1	52·7	46·5	− 0·9	− 0·6	− 1·4	+ 0·2
9	51·3	52·1	52·0	47·0	− 0·5	− 0·4	0·0	+ 0·6
11	53·6	59·1	59·1	50·6	− 0·5	− 0·6	− 0·6	+ 0·2
12	58·4	60·4	61·0	56·3	0·0	− 0·6	− 0·5	+ 0·3
13	50·0	55·7	59·2	50·2	− 0·4	− 0·9	0·0	+ 0·2
14	55·2	60·2	60·1	54·6	+ 0·6	+ 0·5	0·0	+ 0·7
15	56·2	58·8	57·0	47·1	+ 0·5	− 0·6	− 0·2	+ 0·2
16	46·2	49·9	51·1	46·5	− 0·9	− 0·5	− 0·4	+ 0·2
18	59·9	63·1	59·8	55·8	+ 0·2	− 0·3	+ 0·1	+ 0·1
19	54·9	53·8	54·3	49·2	+ 0·2	− 0·9	− 0·1	+ 0·5
20	44·7	47·1	46·6	42·7	− 0·2	− 0·2	− 0·3	+ 0·4
21	43·1	44·8	48·2	46·0	+ 0·2	+ 0·3	− 0·1	+ 0·1
22	49·1	51·9	53·3	54·0	+ 0·2	+ 0·2	− 0·4	+ 0·1
26	47·4	51·8	51·8	47·8	− 0·8	− 0·8	− 1·2	0·0
27	52·3	54·2	53·4	50·0	− 1·0	− 0·4	− 0·2	+ 0·3
28	52·1	54·9	54·3	49·3	− 0·3	− 0·1	− 0·9	− 0·4
29	52·7	59·3	59·9	51·8	0·0	− 1·0	− 0·2	+ 0·3
30	52·3	52·9	51·8	47·9	− 1·2	− 0·8	− 0·2	+ 0·2
Means	49·9	53·0	53·3	48·3	− 0·2	− 0·5	− 0·4	+ 0·2

JUNE.

Days of the Month.	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°
1	55·4	59·8	60·1	54·1	+ 0·4	− 1·2	− 0·6	+ 0·6
2	60·1	64·1	65·1	58·0	− 0·8	− 1·2	+ 0·2	+ 1·1
3	60·2	62·8	63·0	60·4	+ 0·3	+ 0·4	0·0	+ 0·2
4	64·1	65·0	64·5	58·9	+ 0·4	+ 0·4	− 0·5	+ 0·3
5	57·1	56·4	59·8	54·8	− 0·4	− 1·0	− 0·1	+ 0·4
6	57·1	57·9	55·3	53·1	− 0·4	− 0·1	− 0·2	+ 0·2
8	57·1	59·1	57·8	57·1	+ 0·4	+ 0·2	− 0·4	+ 0·4
9	60·9	60·1	61·4	57·4	− 0·3	− 0·4	− 0·1	− 0·3
10	56·1	56·8	59·3	56·8	0·0	− 0·2	+ 0·1	+ 0·1
11	59·1	61·4	62·1	61·8	+ 0·4	− 0·4	− 0·6	+ 0·1
12	63·1	65·8	66·6	59·1	+ 0·7	− 0·6	+ 1·0	+ 0·1
13	65·4	65·1	63·5	59·8	+ 0·2	− 1·3	− 1·0	0·0
15	62·6	69·2	68·9	65·2	− 0·1	− 1·3	− 0·9	− 0·4
16	67·6	69·1	68·8	63·1	+ 0·5	+ 0·4	− 0·7	+ 0·1
17	61·1	62·1	63·4	58·9	+ 0·4	− 0·1	+ 0·6	− 0·2
18	57·4	57·1	59·6	56·1	− 0·3	− 1·0	− 1·7	+ 0·1
19	57·0	58·1	59·9	56·7	+ 0·1	+ 0·3	+ 0·2	− 0·2
20	56·4	57·1	59·9	55·4	− 0·3	− 1·3	− 0·3	+ 0·7
22	53·9	56·8	56·8	56·1	− 0·1	− 0·2	− 0·2	0·0
23	59·1	60·1	62·8	61·1	− 0·2	− 0·8	− 0·3	+ 0·5
24	60·1	61·4	61·4	57·8	− 0·4	− 0·8	− 0·3	+ 0·5
25	54·3	57·9	57·9	50·7	− 0·4	− 0·5	− 0·6	+ 0·2
26	52·6	53·9	56·6	52·3	− 0·3	− 0·5	− 0·8	− 0·1
27	57·1	61·3	62·8	61·7	− 0·6	− 0·8	+ 0·2	+ 0·2
29	52·3	54·7	55·5	54·9	+ 0·2	− 0·6	− 0·1	+ 0·4
30	58·1	61·1	57·4	52·3	+ 0·1	− 0·3	+ 0·1	+ 0·1
Means	58·7	60·5	61·2	57·4	0·0	− 0·5	− 0·3	+ 0·2

JULY.

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

AUGUST.

Days of the Month.	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°
1	56·2	59·4	60·1	57·4	− 0·1	− 1·5	− 0·2	+ 0·4
4	55·4	54·1	56·0	52·8	+ 0·4	− 0·5	− 0·1	0·0
5	52·5	54·1	53·1	51·9	− 0·2	− 0·9	− 0·4	− 0·1
6	52·1	54·6	53·8	53·1	+ 0·3	+ 0·2	− 0·7	− 0·2
7	54·1	56·9	55·4	53·4	0·0	− 0·8	+ 0·2	+ 0·4
8	55·5	55·1	56·8	54·3	− 0·6	+ 0·2	− 0·2	+ 0·2
10	57·9	61·3	60·8	57·3	− 0·1	− 0·6	+ 0·1	+ 0·4
11	55·1	59·5	61·8	59·8	+ 0·1	− 0·4	0·0	+ 0·7
12	58·5	59·7	61·4	62·1	+ 0·1	− 0·1	− 0·3	+ 0·6
13	60·9	60·1	61·1	60·3	+ 0·5	0·0	− 0·6	+ 0·3
14	59·9	62·1	57·1	54·8	+ 0·1	− 1·3	− 0·4	+ 0·8
15	54·2	55·1	58·0	53·1	+ 0·4	+ 0·4	− 0·1	+ 1·1
17	53·4	57·3	59·1	56·1	+ 0·4	+ 0·1	− 0·3	+ 0·6
18	57·1	58·4	60·9	58·2	+ 0·1	− 0·2	− 0·3	+ 0·1
19	53·4	56·6	56·8	53·4	− 0·4	+ 0·3	− 0·6	− 0·3
20	57·6	58·7	59·1	56·1	− 0·8	− 0·7	− 0·3	+ 0·2
21	56·9	59·8	58·4	55·0	− 0·3	− 0·5	− 0·4	+ 0·3
22	55·1	55·6	55·2	53·1	+ 0·1	− 0·8	− 0·7	0·0
24	61·3	62·8	64·0	60·2	− 0·6	− 0·1	− 0·7	+ 0·2
25	56·7	56·1	57·1	51·1	− 0·2	− 1·3	− 1·2	0·0
26	49·2	50·4	49·1	49·1	− 0·5	− 1·0	− 0·3	+ 0·3
27	51·1	51·9	52·1	51·3	+ 0·1	− 0·6	− 0·3	0·0
28	51·7	54·1	56·1	52·1	− 0·1	− 0·6	+ 0·4	+ 0·4
29	53·1	57·1	57·3	52·4	− 0·6	− 1·5	− 0·5	− 0·1
31	58·3	57·8	59·5	56·0	+ 0·5	− 0·6	+ 0·1	0·0
Means	55·5	57·1	57·6	55·0	− 0·1	− 0·5	− 0·3	+ 0·3

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

SEPTEMBER.

Days of the Month.	Readings of the Wet-bulb Thermometer in Stevenson's Screen, 4 feet above the ground. 9ʰ	Noon.	15ʰ	21ʰ	Excess above readings of the Thermometer on ordinary stand, 4 feet above the ground. 9ʰ	Noon.	15ʰ	21ʰ
d	°	°	°	°	°	°	°	°
1	56·4	56·2	60·6	57·1	− 0·4	+ 0·1	+ 0·2	− 0·1
2	54·1	57·1	55·4	55·1	− 0·1	− 0·3	− 0·7	0·0
3	52·1	54·3	55·8	54·9	− 0·1	− 0·9	− 0·7	+ 0·1
4	58·2	59·1	59·1	59·0	0·0	+ 0·4	− 0·2	+ 0·2
5	59·4	60·6	60·8	58·7	+ 0·4	− 0·1	+ 0·1	− 0·2
7	57·2	58·7	59·9	58·6	− 0·5	− 0·4	− 0·1	− 0·8
8	60·6	61·9	62·0	60·0	− 0·2	− 1·2	+ 0·1	+ 0·2
9	61·6	61·9	60·7	58·1	− 0·1	− 0·3	− 0·4	0·0
10	61·1	56·1	55·7	57·2	− 0·5	− 0·1	0·0	+ 0·1
11	58·2	60·9	62·1	57·2	+ 0·3	− 0·2	− 0·4	+ 0·2
12	59·1	59·7	60·1	59·5	+ 0·3	+ 0·3	+ 0·2	+ 0·2
14	57·4	59·1	60·4	61·1	− 0·1	+ 0·1	− 0·3	+ 0·2
15	55·9	58·0	60·5	59·1	+ 0·6	+ 0·3	− 0·4	0·0
16	55·4	57·6	57·1	56·2	0·0	+ 1·1	0·0	+ 0·2
17	56·6	58·1	57·2	56·8	− 0·1	− 0·6	+ 0·2	+ 0·6
18	58·5	58·7	57·8	55·4	+ 0·3	− 0·7	+ 0·1	+ 0·3
19	50·5	52·6	51·0	48·6	− 0·4	− 0·6	− 0·4	+ 0·4
21	48·1	51·5	51·8	49·2	+ 0·3	− 0·1	0·0	+ 0·1
22	54·9	57·0	60·2	53·7	+ 0·2	+ 0·3	− 0·3	+ 0·3
23	51·5	51·3	49·7	46·4	+ 0·4	0·0	+ 0·1	+ 0·4
24	48·4	50·6	51·6	50·2	+ 0·3	− 0·1	+ 0·1	+ 0·5
25	54·6	55·7	52·1	50·1	+ 0·1	+ 0·4	0·0	+ 0·2
26	49·0	50·1	50·7	55·1	+ 0·3	+ 0·2	− 0·4	+ 0·2
28	45·5	47·4	48·1	45·3	− 0·3	− 0·4	− 0·7	+ 0·2
29	47·0	49·9	51·8	50·3	0·0	− 0·2	− 0·1	0·0
30	51·6	54·5	54·7	48·6	0·0	− 1·2	− 0·4	+ 0·3
Means	54·7	56·1	56·4	54·7	0·0	− 0·2	− 0·2	+ 0·1

OCTOBER.

Days of the Month.	9ʰ	Noon.	15ʰ	21ʰ	Excess 9ʰ	Noon.	15ʰ	21ʰ
d	°	°	°	°	°	°	°	°
1	45·3	51·6	51·6	50·4	+ 0·1	− 0·2	+ 0·2	0·0
2	53·1	55·7	56·1	53·2	− 0·2	− 0·6	− 0·2	− 0·2
3	56·8	57·7	58·0	55·4	− 0·3	− 0·4	− 0·4	0·0
5	43·6	45·0	44·8	44·8	0·0	− 1·2	− 0·2	+ 0·1
6	49·6	51·9	52·1	55·5	+ 0·1	+ 0·2	0·0	+ 0·1
7	46·4	49·1	50·1	58·3	+ 0·2	0·0	0·0	+ 0·2
8	54·3	55·2	54·1	50·1	− 0·1	− 0·4	+ 0·1	+ 0·4
9	49·3	54·2	53·3	48·7	0·0	− 0·5	− 0·4	+ 0·2
10	53·2	53·5	51·7	45·3	+ 0·2	− 0·9	0·0	+ 0·3
12	42·2	43·1	43·9	40·7	+ 0·1	0·0	0·0	+ 0·3
13	39·4	44·1	44·8	45·1	+ 0·3	+ 0·1	+ 0·3	+ 0·4
14	44·5	49·4	50·4	50·1	− 0·2	− 0·3	+ 0·3	+ 0·4
15	51·5	52·1	53·1	52·3	− 0·2	− 0·5	− 0·3	0·0
16	53·0	53·8	53·0	47·8	+ 0·1	+ 0·4	+ 0·2	+ 0·2
17	46·2	49·6	48·3	45·1	− 0·3	− 0·2	− 0·1	+ 0·1
19	40·0	42·4	41·7	39·9	+ 0·2	+ 0·3	− 0·2	+ 0·2
20	38·6	41·2	43·1	40·9	0·0	− 0·2	0·0	+ 0·3
21	40·7	43·0	45·1	41·6	− 0·2	− 0·7	+ 0·1	+ 0·3
22	39·6	42·0	42·3	37·8	− 0·2	− 0·4	− 0·4	+ 0·4
23	38·8	42·3	42·1	36·1	− 0·3	− 0·5	+ 0·1	+ 0·4
24	43·1	49·1	49·1	42·9	0·0	0·0	0·0	+ 0·1
26	40·5	43·1	43·1	38·6	0·0	− 0·5	0·0	+ 0·4
27	38·6	43·5	43·4	38·6	+ 0·2	− 0·8	− 0·4	− 0·5
28	37·1	41·6	42·4	37·1	+ 0·4	− 1·2	− 0·3	+ 0·2
29	31·8	38·1	42·1	36·7	+ 0·1	− 0·5	− 0·1	+ 0·5
30	37·3	44·5	43·8	39·5	0·0	− 0·6	+ 0·2	+ 0·1
31	36·4	42·0	42·8	40·1	+ 0·2	− 0·8	+ 0·4	+ 0·2
Means	44·1	47·4	47·6	44·9	0·0	− 0·4	0·0	+ 0·2

NOVEMBER.

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

DECEMBER.

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

(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.

1896.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	52·43	51·65	50·86	50·05	49·52	49·35	49·65	50·56	51·70	52·60	53·08	52·98
2	52·42	51·61	50·81	50·01	49·50	49·35	49·67	50·58	51·75	52·64	53·10	52·97
3	52·37	51·58	50·77	49·99	49·51	49·34	49·70	50·67	51·79	52·66	53·11	52·98
4	52·37	51·56	50·74	49·97	49·48	49·36	49·73	50·66	51·81	52·68	53·11	52·95
5	52·33	51·55	50·74	49·95	49·49	49·35	49·75	50·70	51·85	52·69	53·12	52·95
6	52·30	51·52	50·71	49·95	49·48	49·31	49·78	50·74	51·89	52·71	53·10	52·92
7	52·29	51·47	50·67	49·92	49·46	49·35	49·82	50·76	51·93	52·74	53·10	52·91
8	52·28	51·47	50·65	49·90	49·45	49·37	49·87	50·80	51·97	52·79	53·11	52·90
9	52·24	51·45	50·63	49·86	49·50	49·37	49·86	50·83	52·00	52·80	53·12	52·87
10	52·22	51·43	50·60	49·87	49·44	49·35	49·87	50·87	52·00	52·80	53·12	52·87
11	52·21	51·39	50·60	49·83	49·43	49·38	49·91	50·92	52·05	52·78	53·13	52·85
12	52·18	51·35	50·54	49·81	49·43	49·40	49·94	50·96	52·08	52·81	53·14	52·80
13	52·15	51·33	50·51	49·79	49·41	49·41	49·96	51·01	52·11	52·84	53·13	52·79
14	52·14	51·29	50·49	49·78	49·41	49·41	50·00	51·04	52·16	52·86	53·13	52·76
15	52·14	51·27	50·46	49·75	49·38	49·43	50·02	51·08	52·20	52·88	53·14	52·74
16	52·09	51·23	50·46	49·73	49·37	49·45	50·02	51·11	52·22	52·92	53·14	52·70
17	52·08	51·20	50·43	49·72	49·37	49·45	50·12	51·16	52·24	52·92	53·13	52·66
18	52·05	51·16	50·39	49·70	49·38	49·45	50·10	51·18	52·28	52·94	53·12	52·64
19	52·02	51·15	50·35	49·70	49·37	49·47	50·18	51·22	52·28	52·94	53·12	52·62
20	51·96	51·14	50·33	49·68	49·36	49·48	50·18	51·26	52·32	52·93	53·14	52·58
21	51·95	51·10	50·31	49·66	49·35	49·50	50·21	51·30	52·33	52·96	53·11	52·56
22	51·92	51·05	50·30	49·65	49·35	49·51	50·23	51·33	52·36	52·98	53·10	52·54
23	51·89	51·04	50·26	49·63	49·35	49·52	50·26	51·38	52·40	52·99	53·08	52·52
24	51·87	51·00	50·25	49·62	49·34	49·55	50·29	51·43	52·42	53·01	53·08	52·50
25	51·86	50·95	50·24	49·61	49·35	49·55	50·33	51·46	52·45	53·02	53·07	52·49
26	51·84	50·93	50·18	49·59	49·33	49·56	50·36	51·49	52·48	53·05	53·05	52·49
27	51·80	50·91	50·17	49·56	49·35	49·59	50·37	51·51	52·52	53·04	53·05	52·45
28	51·79	50·90	50·13	49·58	49·34	49·61	50·43	51·55	52·53	53·04	53·01	52·43
29	51·73	50·88	50·11	49·55	49·35	49·64	50·45	51·58	52·55	53·04	53·01	52·37
30	51·70		50·08	49·52	49·35	49·64	50·49	51·63	52·59	53·07	53·00	52·38
31	51·68		50·05		49·37		50·54	51·67		53·06		52·35
Means	52·07	51·26	50·45	49·76	49·41	49·45	50·07	51·11	52·18	52·88	53·10	52·69

The mean of the twelve monthly values is 51°·20.

(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.

1896.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	50·78	48·72	47·60	47·21	47·67	49·80	53·00	56·00	57·13	56·91	55·10	51·98
2	50·69	48·67	47·52	47·20	47·70	49·90	53·09	56·03	57·19	56·94	55·02	51·89
3	50·57	48·62	47·49	47·23	47·77	49·93	53·28	56·16	57·18	56·90	54·92	51·81
4	50·48	48·59	47·42	47·25	47·79	50·04	53·36	56·21	57·16	56·86	54·82	51·70
5	50·37	48·53	47·43	47·28	47·85	50·08	53·47	56·30	57·24	56·79	54·72	51·60
6	50·28	48·50	47·40	47·30	47·90	50·20	53·59	56·38	57·19	56·74	54·60	51·49
7	50·21	48·47	47·32	47·32	47·90	50·23	53·71	56·45	57·20	56·72	54·48	51·37
8	50·15	48·42	47·30	47·33	47·97	50·38	53·80	56·50	57·20	56·74	54·40	51·30
9	50·07	48·39	47·29	47·33	48·10	50·47	53·87	56·57	57·18	56·69	54·30	51·20
10	50·01	48·31	47·22	47·36	48·07	50·51	53·97	56·67	57·11	56·60	54·20	51·19

(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.*

	1896.											
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
11	49·96	48·25	47·20	47·34	48·10	50·67	54·00	56·71	57·22	56·48	54·09	51·02
12	49·90	48·20	47·16	47·33	48·13	50·81	54·10	56·78	57·17	56·51	54·00	50·91
13	49·84	48·13	47·12	47·35	48·18	50·91	54·20	56·82	57·13	56·42	53·87	50·81
14	49·80	48·10	47·11	47·39	48·24	51·01	54·30	56·84	57·21	56·40	53·76	50·70
15	49·76	48·08	47·10	47·39	48·28	51·14	54·37	56·86	57·20	56·37	53·63	50·60
16	49·69	48·00	47·11	47·40	48·32	51·28	54·37	56·90	57·15	56·31	53·54	50·51
17	49·61	47·93	47·10	47·40	48·41	51·31	54·48	56·97	57·15	56·23	53·41	50·42
18	49·56	47·90	47·10	47·43	48·52	51·46	54·62	56·95	57·16	56·17	53·29	50·40
19	49·48	47·89	47·10	47·50	48·57	51·56	54·76	56·97	57·10	56·09	53·17	50·30
20	49·40	47·89	47·07	47·48	48·63	51·65	54·87	57·00	57·09	55·98	53·10	50·23
21	49·33	47·82	47·07	47·50	48·72	51·77	55·00	57·05	57·08	55·94	53·00	50·18
22	49·27	47·77	47·08	47·52	48·81	51·91	55·03	57·05	57·08	55·90	52·87	50·10
23	49·20	47·78	47·07	47·53	48·93	52·06	55·17	57·10	57·08	55·80	52·74	50·02
24	49·17	47·72	47·10	47·58	49·02	52·16	55·27	57·12	57·07	55·78	52·62	49·97
25	49·14	47·68	47·11	47·59	49·13	52·28	55·40	57·14	57·10	55·70	52·56	49·92
26	49·10	47·66	47·10	47·59	49·23	52·38	55·49	57·10	57·12	55·64	52·43	49·88
27	49·03	47·62	47·10	47·60	49·34	52·55	55·52	57·10	57·10	55·57	52·35	49·75
28	48·98	47·63	47·10	47·63	49·41	52·69	55·62	57·13	57·03	55·46	52·22	49·67
29	48·90	47·60	47·12	47·61	49·52	52·79	55·73	57·16	57·00	55·34	52·13	49·57
30	48·82		47·16	47·63	49·60	52·88	55·83	57·17	57·00	55·31	52·03	49·50
31	48·80		47·15		49·67		55·90	57·18		55·18		49·39
Means	49·69	48·10	47·20	47·42	48·50	51·23	54·49	56·79	57·13	56·21	53·58	50·63

The mean of the twelve monthly values is 51°·75.

(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.

	1896.											
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	47·32	46·61	45·59	47·51	49·00	53·58	58·93	62·00	60·30	58·27	53·10	49·00
2	47·40	46·54	45·50	47·43	49·13	53·75	58·97	61·91	60·27	58·16	52·90	48·76
3	47·49	46·48	45·48	47·40	49·28	53·87	59·10	62·04	60·20	58·08	52·69	48·22
4	47·58	46·40	45·51	47·34	49·32	54·10	59·09	62·00	60·11	57·92	52·52	48·21
5	47·67	46·29	45·60	47·30	49·42	54·28	59·03	62·00	60·09	57·77	52·40	47·90
6	47·71	46·18	45·60	47·30	49·46	54·59	59·12	61·98	60·02	57·70	52·20	47·83
7	47·73	46·07	45·60	47·26	49·52	54·77	59·19	61·93	60·03	57·61	52·00	47·82
8	47·77	45·98	45·62	47·30	49·61	55·10	59·26	61·83	60·05	57·50	51·67	47·89
9	47·70	45·93	45·62	47·33	49·76	55·33	59·38	61·80	60·05	57·46	51·53	47·89
10	47·63	45·87	45·67	47·50	49·93	55·50	59·51	61·80	60·09	57·29	51·33	47·92
11	47·59	45·90	45·86	47·61	50·12	55·97	59·71	61·65	60·20	57·10	51·14	47·87
12	47·49	45·91	46·00	47·76	50·33	56·09	59·99	61·57	60·15	56·92	50·97	47·87
13	47·35	45·98	46·10	47·89	50·57	56·20	60·21	61·49	60·22	56·91	50·75	47·90
14	47·27	46·02	46·28	47·98	50·85	56·30	60·43	61·39	60·18	56·61	50·48	47·82
15	47·19	46·09	46·37	47·98	51·12	56·50	60·61	61·30	60·10	56·48	50·40	47·75

(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.*

1896.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
16	47·10	46·10	46·47	47·98	51·39	56·73	60·65	61·31	60·02	56·28	50·35	47·70
17	47·00	46·12	46·50	47·96	51·70	56·90	60·94	61·30	60·00	56·06	50·24	47·61
18	46·99	46·17	46·52	47·93	51·97	57·21	61·20	61·20	59·97	55·91	50·12	47·55
19	46·90	46·18	46·51	47·99	52·12	57·54	61·31	61·18	59·83	55·80	50·09	47·40
20	46·90	46·18	46·62	47·96	52·30	57·77	61·41	61·17	59·77	55·68	50·05	47·27
21	46·92	46·11	46·70	47·99	52·50	57·98	61·48	61·14	59·69	55·52	50·00	47·03
22	46·91	46·10	46·70	48·06	56·69	58·20	61·40	61·07	59·60	55·36	49·90	46·87
23	46·88	46·14	46·70	48·14	52·80	58·38	61·50	61·00	59·48	55·10	49·78	46·70
24	46·80	46·19	46·79	48·25	52·87	58·45	61·63	60·99	59·30	54·93	49·70	46·52
25	46·71	46·12	46·92	48·35	52·90	58·52	61·78	60·86	59·10	54·70	49·62	46·36
26	46·65	46·08	47·06	48·40	52·95	58·60	61·82	60·80	59·00	54·50	49·55	46·20
27	46·60	45·96	47·25	48·49	53·03	58·73	61·83	60·73	58·90	54·26	49·50	46·05
28	46·59	45·81	47·40	48·60	53·10	58·85	61·89	60·72	58·69	54·03	49·40	45·97
29	46·59	45·68	47·53	48·70	53·18	58·86	61·99	60·64	58·57	53·78	49·28	45·92
30	46·66		47·60	48·83	53·25	58·93	62·03	60·55	58·48	53·60	49·13	45·98
31	46·67		47·53		53·38		61·99	60·43		53·32		46·01
Means	47·15	46·11	46·36	47·88	51·28	56·59	60·56	61·35	59·75	56·15	50·76	47·35

The mean of the twelve monthly values is 52°·61.

(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.

1896.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	44·10	42·90	42·20	45·60	49·60	56·11	62·01	65·00	60·48	56·57	48·10	43·51
2	44·47	42·75	42·70	45·49	49·50	56·60	61·74	64·80	60·49	56·46	48·06	42·83
3	44·72	42·60	42·85	45·27	49·30	57·19	61·48	64·81	60·38	56·39	48·20	42·31
4	44·92	42·23	42·90	45·20	49·27	57·99	61·38	64·45	60·30	56·45	48·10	42·96
5	44·90	41·96	42·80	45·20	49·40	58·31	61·57	64·21	60·48	56·60	47·80	43·49
6	44·80	41·89	42·71	45·52	49·64	58·83	62·00	63·90	60·51	56·27	47·39	43·88
7	44·51	42·00	42·90	45·90	50·10	59·10	62·51	63·70	60·69	55·80	46·84	44·00
8	44·30	42·10	43·23	46·38	50·45	59·32	63·14	63·41	60·70	55·59	46·05	44·10
9	44·04	42·30	43·85	46·98	51·02	59·40	63·66	63·00	60·89	55·84	46·13	43·92
10	43·72	42·75	44·50	47·41	51·55	59·50	64·10	62·71	60·82	55·80	46·00	44·10
11	43·39	43·01	44·81	47·56	52·15	59·82	64·60	62·52	60·90	55·59	45·67	44·30
12	43·20	43·22	45·00	47·48	52·80	59·70	64·80	62·50	60·70	55·10	45·59	44·52
13	43·11	43·33	45·20	47·31	53·37	60·00	65·11	62·63	60·61	54·30	45·70	44·44
14	43·00	43·50	45·03	46·91	54·09	60·43	65·50	62·78	60·62	53·00	45·60	44·00
15	43·10	43·51	44·92	46·70	54·45	61·22	65·98	62·88	60·54	53·03	45·82	43·83
16	43·19	43·55	44·89	46·55	54·70	62·00	66·00	62·75	60·47	53·30	45·93	43·67
17	43·20	43·52	45·02	46·51	54·81	62·56	65·81	62·52	60·32	53·50	45·89	43·18
18	43·43	43·39	45·38	46·59	55·01	63·00	65·23	62·35	60·20	53·50	45·92	42·69
19	43·70	43·16	45·51	46·73	55·18	62·83	64·90	62·35	60·07	53·14	46·01	42·15
20	43·81	43·08	45·20	46·95	55·32	62·79	65·04	62·20	59·70	52·49	45·89	41·75

(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.*

1896.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
21	43·50	43·33	44·93	47·37	55·16	62·75	65·33	62·01	59·21	51·98	45·72	41·46
22	43·15	43·70	45·20	47·68	54·72	62·70	65·42	61·80	58·60	51·60	45·58	41·32
23	42·91	43·70	45·63	47·77	54·44	62·50	65·72	61·61	58·47	51·26	45·68	41·12
24	42·70	43·29	46·26	47·93	54·40	62·45	65·62	61·60	58·31	50·90	45·70	40·93
25	42·68	42·70	46·73	47·90	54·45	62·50	65·62	61·72	57·70	50·49	45·60	40·95
26	42·99	42·13	47·15	48·10	54·55	62·35	65·65	61·69	57·50	50·22	45·42	41·00
27	43·41	41·60	47·40	48·50	54·69	62·25	65·62	61·32	57·43	49·82	45·21	41·39
28	43·75	41·38	47·21	49·00	54·85	62·17	65·30	60·90	57·35	49·55	44·96	41·97
29	43·95	41·63	46·50	49·49	55·12	62·23	65·00	60·62	57·10	49·05	44·55	42·30
30	43·63		46·12	49·62	55·50	62·27	64·80	60·53	56·81	48·70	44·13	42·44
31	43·20		45·70		55·84		64·90	60·50		48·25		42·63
Means	43·66	42·77	44·85	47·05	53·08	60·70	64·37	62·57	59·61	53·24	46·11	42·81

The mean of the twelve monthly values is 51°·74.

(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.

1896.

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

(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.*

1896.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
26	45·0	35·0	48·5	53·0	56·1	61·9	69·0	57·0	54·0	49·2	40·8	41·2
27	44·0	37·0	46·1	54·0	56·8	62·3	64·0	56·0	56·6	44·0	38·2	42·5
28	44·2	42·8	43·9	53·4	57·3	66·3	62·7	57·1	53·0	42·0	37·9	43·2
29	39·0	44·0	42·0	51·0	58·1	62·6	63·5	58·2	51·7	40·6	38·7	38·0
30	38·0		42·0	49·7	59·5	63·7	66·9	60·0	54·0	41·8	35·6	43·8
31	39·5		43·3		56·9		65·2	60·0		42·0		44·0
Means	41·3	40·6	45·3	48·1	55·4	64·1	66·2	61·0	57·6	48·5	41·3	39·7

The mean of the twelve monthly values is 50°·76.

(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.

1896.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	47·0	37·9	50·0	48·6	49·2	69·9	62·5	67·6	58·6	51·7	44·1	37·0
2	49·9	36·0	46·0	45·3	50·8	76·0	58·8	60·7	60·4	58·5	45·6	39·3
3	42·9	36·9	44·1	46·2	54·8	70·9	71·1	67·2	60·3	60·9	43·4	48·4
4	43·3	38·0	43·1	48·5	55·3	76·2	69·4	64·0	61·2	60·2	42·3	46·2
5	39·0	42·1	45·6	50·8	60·3	68·8	68·2	63·3	65·2	52·8	43·8	44·9
6	38·0	41·9	50·0	55·3	57·2	70·3	75·3	64·0	59·6	53·0	41·1	45·3
7	37·0	43·0	45·7	56·7	63·2	61·1	81·8	65·8	63·2	53·4	34·0	43·1
8	43·8	48·1	53·3	57·0	58·1	67·9	78·7	61·7	66·8	62·2	42·4	44·7
9	37·5	48·7	56·0	55·2	62·9	70·0	78·8	60·2	67·5	58·9	42·1	47·0
10	36·8	48·5	46·3	53·6	66·0	59·2	72·7	64·3	58·2	57·1	41·0	47·7
11	41·1	44·2	54·2	51·8	67·0	66·2	70·4	65·6	61·4	43·0	45·5	47·2
12	37·9	47·4	43·3	49·9	69·8	73·5	73·0	67·1	62·8	44·4	47·0	43·7
13	40·5	46·2	42·7	47·2	63·0	76·3	76·2	68·2	59·8	46·3	46·1	41·0
14	41·6	42·0	49·1	46·2	68·0	73·1	80·6	66·9	63·5	50·4	43·6	40·1
15	48·8	44·3	46·1	47·8	68·0	75·3	76·5	63·8	63·3	55·3	44·1	39·0
16	43·9	40·1	52·8	47·9	57·0	80·8	57·8	64·6	63·8	54·3	46·0	35·2
17	49·0	40·0	54·6	52·3	63·7	67·0	64·1	66·5	63·0	51·9	43·5	30·3
18	45·7	35·8	45·1	54·1	73·0	68·0	69·5	61·9	63·2	45·8	43·1	32·3
19	45·5	47·0	41·7	54·1	60·2	71·0	70·5	62·9	58·8	44·5	39·9	34·2
20	38·0	50·7	48·0	53·8	55·1	66·9	80·0	65·6	54·7	42·0	47·6	33·7
21	37·0	45·9	50·1	52·1	55·0	67·3	86·1	67·8	56·5	44·6	43·0	34·2
22	37·8	39·0	59·0	55·0	54·3	68·0	67·3	62·5	57·7	44·0	45·5	35·0
23	35·7	37·0	54·9	51·0	60·3	71·3	70·7	64·2	58·8	45·0	41·3	34·3
24	43·7	36·2	55·3	52·3	60·3	68·9	73·5	68·1	56·0	49·9	39·1	37·0
25	48·9	32·7	57·1	58·0	58·0	63·7	75·7	65·0	58·0	47·4	40·6	41·5
26	46·9	33·2	49·0	60·2	61·3	61·9	72·8	58·8	54·2	47·9	38·2	48·0
27	45·9	39·1	46·9	60·7	63·4	67·8	65·9	58·2	62·6	46·1	40·2	43·9
28	43·8	50·0	43·2	58·2	63·1	70·5	66·3	60·1	54·0	44·3	34·4	48·1
29	35·8	49·3	41·5	52·0	66·5	65·2	71·1	64·5	54·9	37·0	37·8	35·2
30	35·7		44·6	51·3	61·4	68·6	70·7	65·1	58·0	46·0	35·6	49·1
31	40·2		43·9		63·5		67·9	63·2		42·1		46·7
Means	41·9	42·1	48·5	52·4	61·0	69·4	71·7	64·2	60·2	49·7	42·1	41·1

The mean of the twelve monthly values is 53°·69.

ABSTRACT of the CHANGES of the DIRECTION of the WIND, as derived from the Records of OSLER'S ANEMOMETER in the Year 1896.

(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. 5¾	1. 6	S.S.E.	E.S.E.		45
1. 7	1. 12	E.S.E.	S.S.W.	90	
1. 15¼	1. 16	S.S.W.	S.W.	22½	
1. 19½	1. 20	S.W.	S.S.W.		22½
2. 2¾	2. 3¼	S.S.W.	S.W.	22½	
2. 11	2. 11½	S.W.	W.S.W.	22½	
2. 18¼	2. 19	W.S.W.	S.W.		22½
3. 12½	3. 12¾	S.W.	S.S.E.		67½
3. 15	3. 15¼	S.S.E.	S.E.		22½
3. 16	3. 16¼	S.E.	E.N.E.		67½
3. 19½	3. 21	E.N.E.	E.S.E.	45	
6. 5	6. 8	E.S.E.	S.E.	22½	
6. 13	6. 14	S.E.	E.S.E.		22½
6. 19¼	6. 20½	E.S.E.	N.E.		67½
7. 4½	7. 5	N.E.	N.N.E.		22½
7. 8	7. 9	N.N.E.	N.E.	22½	
7. 21¾	7. 22	N.E.	N.N.E.		22½
9. 11	9. 12	N.N.E.	N.E.	22½	
9. 21½	9. 22¾	N.E.	N.N.E.		22½
10. 12	10. 14	N.N.E.	N.		22½
10. 15½	10. 16	N.	N.N.E.	22½	
11. 9½	11. 10	N.N.E.	N.E.	22½	
11. 15¼	11. 16	N.E.	N.N.E.		22½
11. 23	12. 0	N.N.E.	N.		22½
12. 5	12. 5½	N.	N.N.W.		22½
12. 8	12. 9½	N.N.W.	W.S.W.		90
12. 12	12. 12¼	W.S.W.	W.	22½	
12. 16	12. 17¼	W.	W.S.W.		22½
13. 5	13. 6	W.S.W.	W.	22½	
13. 10¾	13. 11¼	W.	W.N.W.	22½	
13. 13	13. 13¼	W.N.W.	W.		22½
13. 15¼	13. 17	W.	W.S.W.		22½
13. 21	13. 23½	W.S.W.	S.S.W.		45
14. 2	14. 10¼	S.S.W.	N.	157½	
14. 22¼	14. 23½	N.	S.S.W.		157½
15. 4½	15. 6	S.S.W.	S.W.	22½	
15. 13	15. 16	S.W.	W.N.W.	67½	
15. 19¼	15. 19½	W.N.W.	W.		22½
16. 1½	16. 2	W.	W.S.W.		22½
16. 9½	16. 10	W.S.W.	W.	22½	
16. 12	16. 13	W.	W.S.W.		22½
16. 19½	16. 20	W.S.W.	W.	22½	
16. 22½	17. 1	W.	W.S.W.		22½
17. 12	17. 12¼	W.S.W.	W.	22½	
17. 17½	17. 19½	W.	W.S.W.		22½
19. 12	19. 13	W.S.W.	N.N.E.	135	
19. 15½	19. 16½	N.N.E.	N.E.	22½	
19. 19¾	19. 20½	N.E.	S.E.	90	
19. 21½	19. 21¾	S.E.	S.	45	
19. 23¼	19. 23½	S.	W.S.W.	67½	
Jan.—*cont.*					
20. 0¾	20. 1	W.S.W.	W.N.W.	45	
20. 4½	20. 9½	W.N.W.	E.N.E.	135	
20. 20	20. 20¼	E.N.E.	E.S.E.	45	
20. 23	20. 23¼	E.S.E.	N.E.		67½
21. 1¼	21. 1½	N.E.	E.N.E.	22½	
21. 3	21. 4	E.N.E.	N.N.E.		45
21. 13¼	21. 16	N.N.E.	S.W.	202½	
22. 2	22. 4	S.W.	W.S.W.	22½	
22. 13	22. 18	W.S.W.	N.	112½	
22. 20½	22. 22½	N.	N.E.	45	
23. 8¾	23. 9¾	N.E.	S.E.	90	
23. 11¾	23. 12	S.E.	E.N.E.		67½
23. 14	23. 14½	E.N.E.	S.E.	67½	
23. 17	23. 18	S.E.	S.S.E.	22½	
23. 23	24. 1	S.S.E.	S.S.W.	45	
25. 11¾	25. 12	S.S.W.	S.W.	22½	
26. 0	26. 1	S.W.	W.S.W.	22½	
26. 2½	26. 3½	W.S.W.	N.	112½	
26. 9½	26. 10	N.	N.N.E.	22½	
26. 12¾	26. 13	N.N.E.	N.E.	22½	
26. 18¾	26. 19	N.E.	S.E.	90	
27. 6½	27. 11	S.E.	S.S.W.	67½	
28. 0½	28. 2	S.S.W.	S.W.	22½	
28. 5½	28. 5¾	S.W.	N.N.E.	157½	
28. 17	28. 18	N.N.E.	N.		22½
28. 20½	28. 20¾	N.	W.		90
29. 2	29. 2¼	W.	W.S.W.		22½
29. 11½	29. 12¼	W.S.W.	N.	112½	
29. 13¾	29. 14	N.	N.E.		315
29. 16	29. 16¼	N.E.	N.N.E.	337½	
29. 18	29. 19	N.N.E.	W.N.W.		90
29. 21½	29. 22	W.N.W.	W.S.W.		45
30. 13	30. 15	W.S.W.	W.	22½	
30. 18	30. 18¼	W.	W.S.W.		22½
31. 9½	31. 10	W.S.W.	N.	112½	
			Sums	3037½	1755
February.					
1. 3	1. 3¼	N.	S.W.		135
1. 5	1. 5¼	S.W.	E.	225	
1. 6	1. 6¼	E.	N.N.E.		67½
1. 13	1. 13½	N.N.E.	N.E.	22½	
1. 16¼	1. 16¾	N.E.	S.S.E.	112½	
2. 2½	2. 2¾	S.S.E.	N.N.E.		135
2. 3¾	2. 4¾	N.N.E.	W.S.W.		135
Feb.—*cont.*					
2. 5¾	2. 6	W.S.W.	N.	112½	
2. 8	2. 8¼	N.	N.E.	45	
2. 13¾	2. 14	N.E.	E.N.E.	22½	
2. 16½	2. 16¾	E.N.E.	E.S.E.	45	
2. 21¾	2. 22½	E.S.E.	E.N.E.		45
3. 6½	3. 7¼	E.N.E.	E.	22½	
3. 11½	3. 11¾	E.	E.S.E.	22½	
3. 22	3. 23	E.S.E.	S.E.	22½	
4. 7	4. 9½	S.E.	W.S.W.	112½	
6. 3	6. 4	W.S.W.	S.W.		22½
7. 14	7. 14½	S.W.	S.S.W.		22½
8. 13	8. 13½	S.S.W.	S.W.	22½	
9. 5½	9. 5¾	S.W.	W.S.W.	22½	
10. 17	10. 17½	W.S.W.	S.W.		22½
10. 22	10. 22¾	S.W.	W.S.W.	22½	
11. 17	11. 18	W.S.W.	S.W.		22½
11. 23	12. 0	S.W.	W.S.W.	22½	
13. 4	13. 6½	W.S.W.	N.E.	157½	
13. 21¾	13. 22	N.E.	E.N.E.	22½	
14. 3½	14. 6	E.N.E.	S.	112½	
14. 11½	14. 12½	S.	S.W.	45	
14. 13	14. 14	S.W.	W.S.W.	22½	
15. 0½	15. 9	W.S.W.	N.N.E.	135	
15. 19½	15. 20	N.N.E.	E.N.E.	45	
15. 21	15. 21½	E.N.E.	N.E.		22½
15. 23	16. 0	N.E.	E.	45	
16. 2	16. 3	E.	N.E.		45
16. 14	16. 15	N.E.	E.N.E.	22½	
16. 18	16. 19	E.N.E.	E.	22½	
17. 4	17. 5	E.	E.S.E.	22½	
19. 4¾	19. 5	E.S.E.	S.S.E.	45	
19. 21	19. 22	S.S.E.	S.	22½	
20. 1½	20. 2½	S.	S.S.E.		22½
20. 9	20. 10¾	S.S.E.	S.S.W.	45	
20. 15	20. 16	S.S.W.	S.		22½
20. 20½	20. 21	S.	S.E.		45
20. 22	20. 23	S.E.	S.	45	
21. 6¼	21. 6½	S.	W.S.W.	67½	
21. 9	21. 9½	W.S.W.	S.S.W.		45
21. 12	21. 12¼	S.S.W.	N.N.E.		180
21. 15½	21. 15¾	N.N.E.	E.S.E.	90	
22. 10	22. 12	E.S.E.	E.N.E.		45
23. 8½	23. 9	E.N.E.	E.	22½	
23. 17	23. 18	E.	E.N.E.		22½
24. 8	24. 9	E.N.E.	E.	22½	
25. 0	25. 0½	E.	E.N.E.		22½
25. 7	25. 8	E.N.E.	E.	22½	
25. 20	25. 23	E.	N.		90
26. 7¾	26. 8	N.	N.N.E.	22½	
26. 14	26. 14½	N.N.E.	N.		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				
27. 9	27. 9½	N.	N.E.	45	
27. 10½	27. 11¾	N.E.	N.		45
27. 12¾	27. 13¼	N.	N.W.		45
27. 14½	27. 15½	N.W.	W.S.W.		67½
28. 8	28. 8¾	W.S.W.	W.	22½	
28. 14	28. 15½	W.	N.W.	45	
29. 4	29. 4¼	N.W.	N.N.W.	22½	
29. 6	29. 6½	N.N.W.	S.W.		112½
29. 9	29. 10	S.W.	W.S.W.	22½	
29. 12	29. 13	W.S.W.	W.	22½	
			Sums	2092½	1462½
March.					
1. 0	1. 1	W.	W.S.W.		22½
1. 16	1. 16¾	W.S.W.	W.N.W.	45	
1. 20	1. 21	W.N.W.	W.S.W.		45
2. 8	2. 9	W.S.W.	W.	22½	
2. 13½	2. 14	W.	W.S.W.		22½
2. 17	2. 18	W.S.W.	S.W.		22½
3. 8	3. 9	S.W.	W.S.W.	22½	
3. 16	3. 17	W.S.W.	S.W.		22½
4. 10	4. 11	S.W.	W.S.W.	22½	
4. 16½	4. 18½	W.S.W.	W.	22½	
4. 21½	4. 22	W.	W.S.W.		22½
5. 4	5. 5	W.S.W.	W.	22½	
5. 7½	5. 8	W.	N.W.	45	
5. 15	5. 18	N.W.	W.S.W.		67½
6. 2	6. 2¾	W.S.W.	W.	22½	
6. 5½	6. 7	W.	W.S.W.		22½
6. 20	6. 23½	W.S.W.	N.W.	67½	
7. 1	7. 1¾	N.W.	W.N.W.		22½
7. 4¾	7. 5	W.N.W.	W.		22½
7. 10½	7. 11	W.	W.S.W.		22½
7. 13	7. 13½	W.S.W.	S.W.		22½
7. 17½	7. 17¾	S.W.	W.S.W.	22½	
9. 8	9. 9½	W.S.W.	W.N.W.	45	
9. 11¼	9. 12	W.N.W.	W.		22½
9. 15½	9. 16	W.	W.S.W.		22½
9. 18	9. 20¾	W.S.W.	N.N.E.	135	
10. 2	10. 3	N.N.E.	N.		22½
10. 6¾	10. 7	N.	N.E.	45	
10. 10¾	10. 11	N.E.	S.S.E.		247½
10. 12¾	10. 15¼	S.S.E.	S.W.	67½	
11. 4	11. 5	S.W.	W.S.W.	22½	
11. 13	11. 14	W.S.W.	W.	22½	
11. 19½	11. 21	W.	N.	90	
11. 22½	11. 23¼	N.	E.S.E.	112½	
12. 1½	12. 2½	E.S.E.	E.N.E.		45
12. 12¾	12. 13	E.N.E.	S.	112½	
12. 14	12. 14½	S.	N.E.		135
12. 20½	12. 21	N.E.	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				
12. 22	12. 22¼	E.N.E.	S.E.	67½	
13. 3	13. 3½	S.E.	E.		45
13. 5	13. 6	E.	S.E.	45	
13. 10	13. 11	S.E.	S.S.E.	22½	
13. 18	13. 19	S.S.E.	S.E.		22½
14. 0	14. 1	S.E.	S.S.E.	22½	
14. 6	14. 11	S.S.E.	W.S.W.	90	
14. 15½	14. 18	W.S.W.	N.	112½	
15. 2¼	15. 2½	N.	W.		90
15. 5	15. 5¼	W.	S.W.		45
16. 10¾	16. 12	S.W.	W.	45	
16. 18	16. 20	W.	W.S.W.		22½
17. 2	17. 4	W.S.W.	S.W.		22½
18. 6¼	18. 7½	S.W.	N.	135	
18. 10	18. 11	N.	N.N.E.	22½	
19. 2½	19. 2¾	N.N.E.	N.		22½
19. 8	19. 9	N.	W.	270	
19. 10¾	19. 11	W.	S.	270	
19. 11¾	19. 12¼	S.	W.S.W.	67½	
19. 13	19. 13½	W.S.W.	S.S.W.		45
19. 15½	19. 16	S.S.W.	S.S.E.		45
19. 18½	19. 18¾	S.S.E.	S.S.W.	45	
20. 7½	20. 8	S.S.W.	S.W.	22½	
20. 16	20. 17	S.W.	S.S.W.		22½
20. 22	20. 23	S.S.W.	S.W.	22½	
21. 16½	21. 18	S.W.	S.S.W.		22½
22. 1	22. 2	S.S.W.	S.E.		67½
22. 11¾	22. 13	S.E.	S.W.	90	
22. 20½	22. 23	S.W.	W.S.W.	382½	
23. 19	23. 19¼	W.S.W.	S.W.		22½
24. 1	24. 1½	S.W.	S.		45
24. 3½	24. 5	S.	E.N.E.		112½
24. 8	24. 8½	E.N.E.	E.S.E.	45	
24. 20	24. 21	E.S.E.	S.S.E.	45	
25. 0½	25. 1	S.S.E.	S.	22½	
25. 5	25. 6½	S.	S.W.	45	
25. 16½	25. 17	S.W.	S.S.W.		22½
26. 6	26. 7	S.S.W.	W.S.W.	45	
26. 9	26. 10	W.S.W.	W.N.W.	45	
26. 15½	26. 16	W.N.W.	W.S.W.		45
26. 18	26. 19½	W.S.W.	S.S.W.		45
26. 23½	27. 1	S.S.W.	W.S.W.	45	
27. 2½	27. 2¾	W.S.W.	N.W.	67½	
27. 12	27. 12¼	N.W.	N.N.W.	22½	
27. 18	27. 19½	N.N.W.	W.S.W.		90
27. 23	28. 0	W.S.W.	S.W.		22½
28. 2	28. 3	S.W.	S.S.W.		22½
28. 8	28. 11	S.S.W.	N.W.	112½	
29. 3½	29. 6	N.W.	N.	45	
31. 8	31. 9½	N.	N.E.	45	
31. 12½	31. 13	N.E.	N.N.E.		22½
31. 18¼	31. 18½	N.N.E.	S.W.	202½	
31. 20½	31. 21	S.W.	N.N.W.	112½	
31. 23	31. 23¼	N.N.W.	N.W.		22½
			Sums	3622½	1777½

Greenwich Civil Time.		Change of Direction.		Amount of Motion.	
From	To	From	To	Direct.	Retrograde.
				°	°
April.					
d h	d h				
1. 0	1. 1	N.W.	W.		45
1. 3	1. 3½	W.	W.N.W.	22½	
1. 5½	1. 6½	W.N.W.	N.N.W.	45	
1. 10¼	1. 10½	N.N.W.	N.	22½	
1. 11½	1. 12¼	N.	N.E.	45	
1. 22	1. 23	N.E.	N.		45
3. 7	3. 8¼	N.	E.N.E.	67½	
3. 15	3. 16¼	E.N.E.	S.E.	67½	
3. 18	3. 18¼	S.E.	N.N.E.		112½
4. 1	4. 2	N.N.E.	N.		22½
4. 3	4. 4	N.	N.N.W.		22½
4. 5½	4. 5¾	N.N.W.	W.S.W.		90
4. 13	4. 13½	W.S.W.	W.N.W.	45	
4. 14¾	4. 15	W.N.W.	N.W.	22½	
4. 18½	4. 19½	N.W.	N.N.W.	22½	
5. 0	5. 1	N.N.W.	N.	22½	
5. 7	5. 7½	N.	N.N.E.	22½	
5. 17½	5. 18½	N.N.E.	N.	337½	
5. 21	5. 22	N.	N.N.W.		22½
6. 2	6. 2¾	N.N.W.	W.N.W.		45
6. 4½	6. 4¾	W.N.W.	N.N.W.	45	
6. 9½	6. 10	N.N.W.	N.	22½	
6. 13½	6. 14	N.	N.N.W.		22½
7. 3¾	7. 4	N.N.W.	W.N.W.		45
7. 6	7. 6½	W.N.W.	N.N.W.	45	
7. 13	7. 14	N.N.W.	N.	22½	
7. 20	7. 20¼	N.	W.S.W.		112½
7. 23	7. 23½	W.S.W.	N.	112½	
8. 11	8. 11¼	N.	N.W.		45
8. 12¼	8. 13	N.W.	W.		45
8. 15¼	8. 16	W.	W.N.W.	22½	
8. 17½	8. 19½	W.N.W.	N.	67½	
8. 21¾	8. 22	N.	W.S.W.		112½
9. 4½	9. 5½	W.S.W.	N.N.W.	90	
9. 8½	9. 9	N.N.W.	W.N.W.		45
9. 12	9. 12¼	W.N.W.	N.W.	22½	
9. 15	9. 15½	N.W.	W.		45
9. 18	9. 18¼	W.	S.W.		45
9. 19¾	9. 20½	S.W.	W.	45	
10. 0	10. 1	W.	W.S.W.		22½
10. 6	10. 7	W.S.W.	W.	22½	
10. 14½	10. 14¾	W.	N.W.	45	
10. 18¼	10. 20	N.W.	W.		45
10. 21¼	10. 21½	W.	W.S.W.		22½
11. 8	11. 8½	W.S.W.	W.N.W.	45	
12. 15¾	12. 16¼	W.N.W.	N.N.W.	45	
13. 22	13. 23	N.N.W.	W.S.W.		90
14. 5½	14. 6	W.S.W.	S.W.		22½
14. 14¼	14. 14¾	S.W.	E.N.E.		157½
14. 17¾	14. 18½	E.N.E.	S.E.	67½	
14. 20	14. 20½	S.E.	E.		45
14. 23½	15. 0½	E.	E.N.E.		22½
15. 3	15. 5	E.N.E.	N.N.E.		45
15. 17	15. 17½	N.N.E.	E.	67½	
15. 19¼	15. 21	E.	S.	90	
16. 3½	16. 4½	S.	S.S.W.	22½	
16. 7	16. 8	S.S.W.	S.W.	22½	
16. 21½	16. 23	S.W.	W.N.W.	67½	
17. 0¼	17. 0½	W.N.W.	W.		22½

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

Greenwich Civil Time. From	Greenwich Civil Time. To	Change of Direction. From	Change of Direction. To	Amount of Motion. Direct.	Amount of Motion. Retrograde.
				°	°
April—*cont.*					
d h	d h				
17. 7¼	17. 8¾	W.	N.W.	45	
17. 21½	17. 22½	N.W.	W.S.W.		67½
18. 1	18. 1½	W.S.W.	S.W.		22½
18. 8	18. 8¼	S.W.	W.S.W.	22½	
18. 10	18. 10¼	W.S.W.	W.N.W.	45	
18. 15	18. 15¼	W.N.W.	N.W.	22½	
18. 20½	18. 20¾	N.W.	E.S.E.	157½	
19. 0½	19. 0¾	E.S.E.	S.	67½	
19. 3½	19. 3¾	S.	S.W.	45	
19. 4¾	19. 5	S.W.	S.S.W.		22½
19. 6	19. 6½	S.S.W.	W.S.W.	45	
19. 11	19. 11½	W.S.W.	N.N.W.	90	
19. 17	19. 18	N.N.W.	N.	22½	
19. 19¾	19. 20	N.	N.E.	45	
20. 8	20. 9	N.E.	E.N.E.	22½	
20. 13	20. 14	E.N.E.	E.	22½	
21. 16	21. 17	E.	S.E.	45	
21. 21	21. 21½	S.E.	E.S.E.		22½
22. 2¾	22. 3¾	E.S.E.	S.W.	112½	
22. 8½	22. 10	S.W.	N.W.	90	
22. 13	22. 14¼	N.W.	N.N.W.	22½	
22. 17½	22. 18½	N.N.W.	N.N.E.	45	
22. 21½	22. 22	N.N.E.	N.E.	22½	
22. 23¾	23. 0	N.E.	N.N.E.		22½
23. 5	23. 5¼	N.N.E.	W.N.W.		90
23. 6½	23. 8½	W.N.W.	N.N.E.	90	
23. 18½	23. 19	N.N.E.	N.E.	22½	
23. 22	23. 23	N.E.	N.N.E.		22½
24. 6¾	24. 7½	N.N.E.	N.E.	22½	
24. 11	24. 11½	N.E.	S.E.	90	
24. 16½	24. 16¾	S.E.	S.W.	90	
25. 4	25. 5	S.W.	W.S.W.	22½	
26. 13	26. 13¼	W.S.W.	N.W.	67½	
26. 23	27. 0	N.W.	S.W.		90
27. 7	27. 8	S.W.	W.S.W.	22½	
28. 6	28. 7	W.S.W.	W.	22½	
28. 13	28. 13½	W.	W.S.W.		22½
28. 22	28. 23	W.S.W.	S.W.		22½
29. 6	29. 7	S.W.	W.S.W.	22½	
29. 13	29. 14¾	W.S.W.	N.W.	67½	
29. 17¼	29. 18½	N.W.	W.S.W.		67½
29. 20	29. 20¼	W.S.W.	N.W.	67½	
29. 21½	29. 21¾	N.W.	S.W.		90
29. 22¾	29. 23½	S.W.	N.W.	90	
30. 0¾	30. 1¼	N.W.	W.S.W.		67½
30. 6½	30. 9	W.S.W.	N.	112½	
30. 18	30. 19	N.	N.N.E.	22½	
			Sums	3555	2047½
May.					
3. 12	3. 13	N.N.E.	N.E.	22½	
4. 2	4. 3	N.E.	N.		45
4. 9	4. 10	N.	N.E.	45	
4. 16¾	4. 17	N.E.	S.E.	450	

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				
5. 2	5. 2¼	S.E.	W.S.W.	112½	
5. 4	5. 5	W.S.W.	S.W.		22½
5. 7	5. 7½	S.W.	W.S.W.	22½	
5. 9	5. 9½	W.S.W.	N.N.E.	135	
5. 15	5. 15¼	N.N.E.	E.S.E.	90	
5. 23½	6. 0¼	E.S.E.	N.E.		67½
6. 4	6. 4½	N.E.	N.N.E.		22½
6. 8	6. 9	N.N.E.	N.E.	22½	
8. 1	8. 2	N.E.	N.N.E.		22½
8. 20	8. 21	N.N.E.	N.E.	22½	
9. 10	9. 12	N.E.	E.	45	
9. 20	9. 21	E.	E.N.E.		22½
10. 1	10. 2	E.N.E.	N.E.		22½
10. 10	10. 12	N.E.	E.	45	
10. 21	11. 0	E.	N.E.		45
11. 10	11. 11	N.E.	E.N.E.	22½	
11. 14	11. 15	E.N.E.	E.	22½	
11. 16½	11. 17	E.	E.S.E.	22½	
12. 1½	12. 1¾	E.S.E.	N.E.		67½
12. 7	12. 8	N.E.	E.N.E.	22½	
12. 10	12. 11	E.N.E.	E.	22½	
12. 21½	12. 22	E.	N.E.		45
13. 17½	13. 18	N.E.	E.S.E.	67½	
13. 23¾	14. 0	E.S.E.	S.S.W.	90	
14. 4	14. 5¼	S.S.W.	W.S.W.	45	
14. 12¼	14. 13	W.S.W.	N.W.	67½	
14. 16¾	14. 17	N.W.	N.N.W.	22½	
14. 18½	14. 20½	N.N.W.	W.S.W.	270	
15. 6½	15. 7	W.S.W.	W.	22½	
15. 8½	15. 8¾	W.	N.N.W.	67½	
15. 10¼	15. 11	N.N.W.	N.N.E.	45	
15. 14	15. 15	N.N.E.	N.E.	22½	
15. 23	16. 0	N.E.	N.		45
16. 11	16. 13	N.	N.N.E.	22½	
16. 16	16. 17	N.N.E.	N.E.	22½	
16. 20	16. 21½	N.E.	S.S.E.	112½	
17. 1	17. 1½	S.S.E.	W.S.W.	90	
17. 6	17. 7	W.S.W.	S.W.		22½
17. 10	17. 10½	S.W.	N.	135	
17. 16	17. 18	N.	N.E.	45	
18. 2¾	18. 3	N.E.	S.S.E.	112½	
18. 3¾	18. 4¼	S.S.E.	S.S.W.	45	
18. 10¾	18. 11	S.S.W.	S.W.	22½	
19. 0	19. 1	S.W.	W.S.W.	22½	
19. 6¼	19. 7¼	W.S.W.	N.	112½	
19. 13½	19. 14	N.	N.N.E.		22½
19. 18	19. 19	N.N.E.	N.E.		22½
19. 21	19. 23	N.E.	W.S.W.		67½
20. 5	20. 6	W.S.W.	W.N.W.	45	
20. 8	20. 8½	W.N.W.	N.W.	22½	
20. 13½	20. 13¾	N.W.	N.N.W.	22½	
21. 12	21. 12¼	N.N.W.	N.	22½	
22. 0	22. 1	N.	W.		90
22. 4	22. 5	W.	S.W.		45
22. 12	22. 13	S.W.	W.	45	
22. 16	22. 16¾	W.	S.S.E.		112½
22. 17¾	22. 18	S.S.E.	S.W.	67½	
22. 19½	22. 19¾	S.W.	N.	135	
23. 1	23. 2	N.	N.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.
				°	°
May—*cont.*					
d h	d h				
23. 12	23. 13	N.N.E.	N.W.		67½
23. 17	23. 18	N.W.	N.	45	
24. 4	24. 5	N.	N.N.E.	22½	
24. 9¾	24. 10	N.N.E.	N.E.	22½	
24. 19	24. 20	N.E.	N.N.E.		22½
24. 23	25. 0	N.N.E.	N.		22½
25. 5¾	25. 6	N.	N.N.E.	22½	
25. 8½	25. 9	N.N.E.	N.E.	22½	
25. 14	25. 14½	N.E.	E.	45	
25. 21	25. 22	E.	N.E.		45
26. 10½	26. 11	N.E.	E.N.E.	22½	
26. 17	26. 18	E.N.E.	N.E.		22½
27. 2	27. 3	N.E.	N.N.E.		22½
27. 8½	27. 9	N.N.E.	N.E.	22½	
28. 14	28. 15	N.E.	N.N.E.		22½
29. 4	29. 5	N.N.E.	N.		22½
29. 9	29. 9¼	N.	W.S.W.		112½
29. 12½	29. 12¾	W.S.W.	N.W.	67½	
29. 15½	29. 19	N.W.	N.E.	90	
30. 7½	30. 8	N.E.	N.N.E.		22½
30. 19	30. 20	N.N.E.	S.E.	112½	
31. 0½	31. 0¾	S.E.	S.S.E.	22½	
31. 2½	31. 2¾	S.S.E.	W.S.W.	90	
31. 3½	31. 3¾	W.S.W.	S.S.W.		45
31. 4½	31. 4¾	S.S.W.	N.E.		157½
31. 6½	31. 6¾	N.E.	S.S.E.	112½	
31. 8	31. 9	S.S.E.	N.E.	247½	
31. 10	31. 10½	N.E.	E.	45	
31. 13	31. 13¼	E.	S.E.	45	
			Sums	4027½	1395
June.					
1. 23¾	2. 0¼	S.E.	N.N.E.	247½	
2. 3¾	2. 4	N.N.E.	E.	67½	
2. 5¾	2. 6	E.	N.N.E.		67½
2. 7	2. 8	N.N.E.	N.E.	22½	
2. 9½	2. 10¾	N.E.	S.E.	90	
2. 12¾	2. 13	S.E.	S.S.E.	22½	
2. 14	2. 14½	S.S.E.	S.S.W.	45	
2. 17	2. 17½	S.S.W.	S.W.	22½	
2. 19	2. 19½	S.W.	S.S.W.		22½
3. 0¾	3. 1	S.S.W.	S.S.E.		45
3. 2	3. 3	S.S.E.	W.S.W.	90	
3. 9¼	3. 9½	W.S.W.	N.	112½	
3. 13	3. 13½	N.	E.N.E.	427½	
3. 20¾	3. 21	E.N.E.	S.W.	157½	
4. 19	4. 21	S.W.	S.E.		90
4. 21½	4. 22	S.E.	W.S.W.	112½	
4. 23	5. 0	W.S.W.	S.E.	247½	
5. 1½	5. 3½	S.E.	W.S.W.	112½	
5. 12½	5. 13	W.S.W.	S.W.		22½
5. 20	5. 21	S.W.	S.S.W.		22½
6. 3¾	6. 4	S.S.W.	S.E.		67½
6. 6½	6. 7	S.E.	S.S.W.	67½	

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.	Retro-grade.
				°	°
June—*cont.*					
d h	d h				
6. 12	6. 12¼	S.S.W.	S.W.	22½	
6. 16½	6. 17	S.W.	S.S.W.		22½
6. 21	6. 22	S.S.W.	S.		22½
7. 0¾	7. 1	S.	S.S.E.		22½
7. 2¾	7. 3	S.S.E.	S.E.		22½
7. 8	7. 8½	S.E.	S.S.E.	22½	
7. 11	7. 12	S.S.E.	S.	22½	
7. 18	7. 19	S.	S.S.E.		22½
8. 0	8. 1	S.S.E.	S.	22½	
8. 6	8. 7	S.	S.W.	45	
8. 11	8. 12	S.W.	S.		45
8. 14	8. 14½	S.	S.E.		45
8. 18	8. 20	S.E.	E.		45
8. 23	9. 0	E.	N.E.		45
9. 7	9. 9½	N.E.	E.	45	
9. 20	9. 21	E.	S.E.	45	
9. 22½	9. 23	S.E.	N.		135
10. 1	10. 1½	N.	N.N.W.		22½
10. 15	10. 16	N.N.W.	N.	22½	
11. 7	11. 9	N.	N.W.		45
11. 20½	11. 20¾	N.W.	S.W.		90
13. 1½	13. 5¼	S.W.	N.E.		180
13. 7	13. 7½	N.E.	E.S.E.	67½	
14. 0	14. 1	E.S.E.	E.N.E.		45
14. 6	14. 7	E.N.E.	N.E.		22½
14. 12	14. 14	N.E.	E.	45	
15. 1	15. 2	E.	N.E.		45
15. 13	15. 14	N.E.	E.	45	
15. 21	15. 21½	E.	S.E.	45	
15. 22¾	15. 23	S.E.	E.S.E.		22½
16. 2	16. 4	E.S.E.	S.S.E.	45	
16. 7	16. 8	S.S.E.	S.S.W.	45	
16. 13	16. 16	S.S.W.	S.W.	22½	
17. 19½	17. 20½	S.W.	W.	45	
18. 1	18. 2	W.	W.S.W.		22½
18. 6½	18. 7¼	W.S.W.	W.N.W.	45	
18. 11½	18. 12	W.N.W.	W.S.W.		45
21. 6	21. 7	W.S.W.	N.W.	67½	
21. 9	21. 10	N.W.	W.N.W.		22½
21. 16	21. 16½	W.N.W.	N.W.	22½	
21. 19	21. 20½	N.W.	N.	45	
22. 0	22. 1	N.	N.N.W.		22½
22. 3¾	22. 4	N.N.W.	S.W.		112½
22. 6½	22. 7½	S.W.	N.N.W.	112½	
22. 13	22. 14	N.N.W.	N.W.		22½
22. 20	22. 22	N.W.	W.S.W.		67½
24. 11¾	24. 12	W.S.W.	N.	112½	
24. 13	24. 13½	N.	S.S.W.	202½	
24. 15	24. 15¼	S.S.W.	N.	157½	
25. 3	25. 4	N.	N.E.	45	
25. 14	25. 15	N.E.	N.N.E.		22½
25. 17½	25. 18	N.N.E.	N.E.	22½	
26. 0	26. 1½	N.E.	N.		45
26. 7	26. 8	N.	N.N.E.	22½	
26. 13½	26. 14	N.N.E.	N.E.	22½	
26. 22½	26. 23	N.E.	N.W.	270	
26. 23¾	27. 0	N.W.	S.E.	180	
27. 4	27. 4¼	S.E.	S.W.	90	
27. 6	27. 6¼	S.W.	S.S.W.		22½

Greenwich Civil Time.		Change of Direction.		Amount of Motion.	
From	To	From	To	Direct.	Retro-grade.
				°	°
June—*cont.*					
d h	d h				
27. 9	27. 9¼	S.S.W.	W.S.W.	45	
27. 10¼	27. 10½	W.S.W.	S.S.W.		45
27. 12¼	27. 13¼	S.S.W.	N.E.	202½	
27. 14	27. 16	N.E.	S.S.W.	157½	
27. 21¾	27. 22	S.S.W.	S.W.	22½	
28. 4¾	28. 5	S.W.	W.N.W.	67½	
28. 7	28. 7½	W.N.W.	N.W.	22½	
28. 12	28. 12¼	N.W.	N.	45	
29. 8	29. 9	N.	N.N.W.		22½
29. 12¼	29. 12½	N.N.W.	N.W.		22½
29. 19½	29. 20½	N.W.	S.W.		90
29. 22	29. 22½	S.W.	W.S.W.	22½	
30. 11½	30. 13	W.S.W.	N.W.	67½	
30. 22	30. 23½	N.W.	W.		45
			Sums	4522½	1867½
July.					
1. 4	1. 4½	W.	W.N.W.	22½	
1. 7	1. 8	W.N.W.	N.W.	22½	
1. 15	1. 15½	N.W.	W.N.W.		22½
1. 17¼	1. 17½	W.N.W.	N.E.	112½	
1. 18¾	1. 19	N.E.	S.S.W.	157½	
1. 20	1. 21½	S.S.W.	N.W.	112½	
1. 23½	2. 0	N.W.	W.N.W.		22½
2. 1¼	2. 1½	W.N.W.	W.		22½
2. 12	2. 12¼	W.	W.N.W.	22½	
2. 22	2. 22½	W.N.W.	W.S.W.		45
3. 16	3. 17	W.S.W.	W.	22½	
4. 2	4. 3	W.	W.N.W.	22½	
4. 9	4. 10	W.N.W.	W.		22½
5. 0½	5. 2	W.	W.N.W.	22½	
5. 6	5. 7	W.N.W.	N.N.W.	45	
5. 12½	5. 13	N.N.W.	N.W.		22½
5. 16½	5. 17	N.W.	W.N.W.		22½
5. 19	5. 19¼	W.N.W.	S.S.W.		90
6. 0	6. 1	S.S.W.	S.W.	22½	
6. 12	6. 13	S.W.	S.S.W.		22½
7. 0	7. 1	S.S.W.	S.S.E.		45
7. 3½	7. 3¾	S.S.E.	E.N.E.	270	
7. 10	7. 12	E.N.E.	S.	112½	
7. 15½	7. 16½	S.	S.S.E.		22½
8. 0	8. 2¼	S.S.E.	N.E.	247½	
8. 3	8. 3½	N.E.	W.S.W.		157½
8. 5	8. 5¼	W.S.W.	E.		157½
8. 5¾	8. 6	E.	S.E.	45	
8. 7¼	8. 9	S.E.	W.S.W.	112½	
8. 13	8. 13½	W.S.W.	S.W.		22½
9. 2	9. 3	S.W.	S.S.W.		22½
9. 9	9. 10	S.S.W.	S.W.	22½	
10. 5½	10. 6	S.W.	W.S.W.	22½	
10. 9½	10. 10½	W.S.W.	N.W.	67½	
10. 12½	10. 13	N.W.	N.N.E.	67½	
10. 16½	10. 17	N.N.E.	N.E.	22½	
10. 20½	10. 21½	N.E.	E.N.E.	22½	

Greenwich Civil Time.		Change of Direction.		Amount of Motion.	
From	To	From	To	Direct.	Retro-grade.
				°	°
July—*cont.*					
d h	d h				
11. 0	11. 1	E.N.E.	N.E.		22½
11. 11½	11. 11¾	N.E.	E.	45	
11. 13	11. 13½	E.	E.S.E.	22½	
12. 3½	12. 3¾	E.S.E.	N.E.		67½
12. 6¼	12. 6½	N.E.	N.N.E.		22½
12. 8¼	12. 9½	N.N.E.	S.E.	112½	
12. 12½	12. 13	S.E.	S.	45	
13. 6½	13. 6¾	S.	N.E.		135
13. 7¼	13. 7½	N.E.	S.E.	90	
13. 8¾	13. 9	S.E.	E.		45
13. 12¼	13. 13½	E.	S.	90	
13. 15	13. 16	S.	S.E.		45
13. 21½	13. 23	S.E.	S.	45	
14. 5	14. 5¾	S.	E.S.E.		67½
14. 7½	14. 7¾	E.S.E.	N.N.E.		90
14. 9¾	14. 10¼	N.N.E.	W.S.W.	225	
14. 17	14. 17½	W.S.W.	S.W.		22½
14. 19½	14. 19¾	S.W.	N.N.W.	112½	
14. 21	14. 22	N.N.W.	N.N.E.	45	
15. 4	15. 4½	N.N.E.	N.		22½
15. 12	15. 12¼	N.	N.N.E.	22½	
15. 23	15. 23½	N.N.E.	N.		22½
17. 17	17. 18	N.	N.N.E.	22½	
17. 20	17. 20½	N.N.E.	N.E.	22½	
17. 23	17. 23½	N.E.	N.		45
18. 15	18. 16¼	N.	N.E.	45	
18. 18	18. 18¼	N.E.	N.		45
18. 19½	18. 19¾	N.	S.S.W.	202½	
18. 22½	18. 23	S.S.W.	W.N.W.	90	
19. 0½	19. 1	W.N.W.	N.N.W.	45	
19. 7	19. 8	N.N.W.	N.	22½	
19. 12½	19. 13	N.	W.N.W.		67½
19. 17	19. 18½	W.N.W.	S.S.W.		90
20. 0	20. 1	S.S.W.	S.W.	22½	
20. 14	20. 14½	S.W.	S.		45
20. 17	20. 17¼	S.	S.S.W.	22½	
20. 19	20. 19½	S.S.W.	S.S.E.		45
21. 2½	21. 3	S.S.E.	S.W.	67½	
21. 18	21. 18½	S.W.	W.	45	
21. 21	21. 21½	W.	W.S.W.		22½
22. 1¾	22. 2¼	W.S.W.	N.W.	67½	
22. 8½	22. 9½	N.W.	W.N.W.		22½
22. 11	22. 12	W.N.W.	W.S.W.		45
22. 13½	22. 15	W.S.W.	W.N.W.	45	
22. 18¼	22. 18½	W.N.W.	N.W.	22½	
22. 23	23. 0½	N.W.	S.W.		90
24. 20	24. 22	S.W.	S.S.E.		67½
25. 7	25. 9	S.S.E.	S.S.W.	45	
25. 15	25. 16	S.S.W.	S.		22½
25. 18½	25. 19½	S.	S.W.	45	
26. 20½	26. 21	S.W.	W.S.W.	22½	
27. 5	27. 6	W.S.W.	W.	22½	
27. 16	27. 20	W.	N.	90	
28. 12	28. 12½	N.	E.S.E.	112½	
28. 17½	28. 18½	E.S.E.	S.W.	112½	
28. 20¼	28. 20½	S.W.	S.S.E.		67½
28. 23	28. 23¼	S.S.E.	S.E.		22½
29. 1½	29. 2½	S.E.	S.W.	90	
29. 21	29. 23	S.W.	S.		45

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.
				°	°
July—*cont.*					
d h	d h				
30. 2¾	30. 3	S.	S.E.		45
30. 4½	30. 6	S.E.	S.	45	
30. 9	30. 9¼	S.	S.W.	45	
30. 11	30. 12	S.W.	W.	405	
30. 13	30. 15	W.	S.W.		405
30. 21	30. 21½	S.W.	E.S.E.		112½
30. 23½	31. 0	E.S.E.	E.N.E.		45
31. 4	31. 5	E.N.E.	N.E.		22½
31. 11	31. 13	N.E.	E.S.E.	67½	
31. 21½	31. 22	E.S.E.	N.E.		67½
			Sums	4297½	2722½
August.					
1. 1½	1. 1¾	N.E.	N.N.E.		22½
1. 5¾	1. 6	N.N.E.	N.N.W.		45
1. 8	1. 8½	N.N.W.	N.N.E.	45	
1. 11	1. 12	N.N.E.	N.E.	22½	
1. 15½	1. 17	N.E.	S.E.	90	
2. 1¾	2. 2	S.E.	E.N.E.		67½
2. 7	2. 7½	E.N.E.	N.E.		22½
3. 1½	3. 2¼	N.E.	N.		45
3. 4½	3. 5	N.	N.E.	45	
3. 15	3. 18½	N.E.	S.W.		180
3. 19½	3. 19¾	S.W.	S.S.W.		22½
3. 22½	4. 0½	S.S.W.	N.N.W.	135	
4. 2	4. 3	N.N.W.	W.N.W.		45
4. 4½	4. 6	W.N.W.	N.N.W.	45	
4. 15½	4. 16	N.N.W.	N.N.E.	45	
4. 19	4. 20	N.N.E.	N.E.	22½	
5. 0	5. 1	N.E.	N.N.E.		22½
6. 18	6. 20½	N.N.E.	S.S.W.	180	
6. 21¼	6. 21½	S.S.W.	S.S.E.		45
6. 22½	6. 23	S.S.E.	S.S.W.	45	
7. 0	7. 0½	S.S.W.	N.N.E.	180	
7. 12½	7. 13	N.N.E.	N.E.	22½	
7. 14	7. 14¼	N.E.	N.		45
7. 19	7. 19½	N.	N.N.W.		22½
7. 21¼	7. 23	N.N.W.	W.S.W.		90
8. 4¼	8. 4½	W.S.W.	W.	22½	
8. 5¾	8. 6	W.	N.	90	
8. 9	8. 10	N.	N.E.	45	
8. 13	8. 13½	N.E.	S.E.	90	
8. 14½	8. 15¼	S.E.	N.E.		90
8. 21	8. 22	N.E.	N.N.E.		22½
9. 1	9. 2	N.N.E.	N.		22½
9. 10½	9. 11¼	N.	N.E.	45	
9. 13	9. 14	N.E.	N.		45
10. 6	10. 8	N.	N.N.E.	22½	
10. 16¾	10. 17	N.N.E.	N.		22½
11. 5	11. 6	N.	W.S.W.		112½
11. 9½	11. 10	W.S.W.	W.N.W.	45	
11. 11	11. 11¼	W.N.W.	N.W.	22½	
11. 17	11. 18	N.W.	N.N.W.	22½	
12. 21	12. 21½	N.N.W.	N.W.		22½

Greenwich Civil Time. From	To	Change of Direction. From	To	Amount of Motion. Direct.	Retrograde.
				°	°
Aug.—*cont.*					
d h	d h				
12. 22½	12. 23	N.W.	W.N.W.		22½
13. 0	13. 2	W.N.W.	S.W.		67½
13. 5	13. 8	S.W.	W.S.W.	22½	
13. 13	13. 14	W.S.W.	W.	22½	
13. 18½	13. 19	W.	W.S.W.		22½
14. 12	14. 13	W.S.W.	N.W.	67½	
14. 17	14. 18½	N.W.	N.N.W.	22½	
14. 22	14. 22½	N.N.W.	N.W.		22½
14. 23	15. 2	N.W.	W.S.W.		67½
15. 6	15. 8½	W.S.W.	N.W.	67½	
15. 12	15. 13	N.W.	N.N.W.	22½	
15. 15	15. 16	N.N.W.	N.N.E.	45	
15. 19	15. 20	N.N.E.	N.		22½
16. 3½	16. 3¾	N.	W.S.W.		112½
16. 7	16. 7¼	W.S.W.	W.N.W.	45	
16. 8¾	16. 9	W.N.W.	W.		22½
16. 14	16. 19	W.	N.	90	
17. 3¼	17. 3½	N.	S.E.	225	
17. 10½	17. 12	S.E.	W.S.W.	112½	
18. 14	18. 15	W.S.W.	S.W.		22½
19. 0	19. 1	S.W.	W.S.W.	22½	
19. 3	19. 3¼	W.S.W.	N.	112½	
19. 9½	19. 10	N.	N.N.W.		22½
19. 11	19. 11½	N.N.W.	W.		67½
19. 16½	19. 18½	W.	N.		270
19. 22¾	19. 23	N.	N.N.E.	22½	
20. 9¾	20. 10	N.N.E.	N.		22½
20. 14	20. 16	N.	S.S.E.	157½	
20. 18	20. 19½	S.S.E.	W.S.W.	90	
21. 17	21. 19	W.S.W.	N.	112½	
22. 11	22. 11½	N.	N.N.W.		22½
23. 1	23. 1½	N.N.W.	S.W.		112½
23. 8	23. 9	S.W.	W.S.W.	22½	
23. 11	23. 12	W.S.W.	W.N.W.	45	
23. 13	23. 14	W.N.W.	N.W.	22½	
23. 15¾	23. 16½	N.W.	S.W.		90
23. 18	23. 20	S.W.	W.	45	
23. 22	24. 0	W.	S.W.		45
24. 16	24. 17	S.W.	W.S.W.	22½	
25. 9½	25. 10	W.S.W.	S.W.		22½
25. 19½	25. 20¼	S.W.	N.N.W.	112½	
26. 3	26. 6	N.N.W.	W.N.W.		45
26. 10½	26. 11	W.N.W.	W.		22½
26. 22	26. 23	W.	N.	90	
27. 20	27. 22	N.	N.N.W.		22½
28. 5	28. 6	N.N.W.	S.W.		112½
28. 10	28. 12	S.W.	W.N.W.	67½	
28. 19	28. 19½	W.N.W.	W.S.W.		45
29. 13	29. 14	W.S.W.	S.W.		22½
29. 21	29. 22	S.W.	S.		45
30. 0¼	30. 1	S.	S.S.E.		22½
30. 7	30. 8	S.S.E.	S.S.W.	45	
30. 20½	30. 21¼	S.S.W.	S.S.E.		45
31. 4½	31. 4¾	S.S.E.	N.E.	247½	
31. 8½	31. 10	N.E.	W.	225	
31. 12½	31. 14½	W.	S.S.E.	247½	
31. 21¾	31. 24	S.S.E.	N.	202½	
			Sums	3712½	2677½

Greenwich Civil Time. From	To	Change of Direction. From	To	Amount of Motion. Direct.	Retrograde.
				°	°
September.					
d h	d h				
1. 0½	1. 2¾	N.	N.N.E.	382½	
1. 12	1. 13	N.N.E.	N.E.	22½	
2. 0¾	2. 1¼	N.E.	S.W.	180	
2. 12	2. 13	S.W.	W.S.W.	22½	
2. 18½	2. 19½	W.S.W.	S.W.		22½
3. 2	3. 3	S.W.	W.S.W.	22½	
3. 14	3. 15	W.S.W.	S.W.		22½
3. 23	4. 0	S.W.	S.S.W.		22½
4. 4	4. 4½	S.S.W.	S.		22½
4. 10	4. 11	S.	S.S.E.		22½
4. 17	4. 18	S.S.E.	S.E.		22½
5. 2	5. 3½	S.E.	S.S.W.	67½	
5. 5½	5. 6	S.S.W.	S.S.E.		45
5. 8	5. 9	S.S.E.	S.	22½	
5. 12½	5. 13	S.	S.E.		45
5. 18¼	5. 18½	S.E.	E.S.E.		22½
5. 19½	5. 20	E.S.E.	E.N.E.		45
5. 20¾	5. 22	E.N.E.	N.N.E.		45
7. 7	7. 9	N.N.E.	N.E.	22½	
7. 13	7. 14	N.E.	E.N.E.	22½	
7. 21	7. 22	E.N.E.	N.E.		22½
8. 0¾	8. 1	N.E.	E.	45	
8. 3¼	8. 3½	E.	E.S.E.	22½	
8. 4	8. 4½	E.S.E.	S.S.E.	45	
8. 5¾	8. 6	S.S.E.	E.		67½
8. 23¾	9. 0	E.	S.E.	45	
9. 7	9. 8	S.E.	S.	45	
9. 9½	9. 10	S.	S.S.W.	22½	
9. 11	9. 12	S.S.W.	S.W.	22½	
9. 22	10. 0	S.W.	S.S.E.		67½
10. 5	10. 5½	S.S.E.	S.E.		22½
10. 9	10. 10	S.E.	W.N.W.	157½	
10. 12	10. 13	W.N.W.	N.W.	22½	
10. 16	10. 19	N.W.	W.		45
10. 22½	10. 23½	W.	W.S.W.		22½
11. 7	11. 8	W.S.W.	S.W.		22½
11. 10	11. 10½	S.W.	S.S.W.		22½
11. 12	11. 12½	S.S.W.	S.W.	22½	
12. 2	12. 5	S.W.	S.S.E.		67½
12. 12	12. 12½	S.S.E.	S.S.W.	45	
13. 8	13. 9	S.S.W.	S.W.	22½	
14. 21	14. 22	S.W.	W.S.W.	22½	
15. 0½	15. 1½	W.S.W.	S.W.		22½
15. 20	15. 21	S.W.	W.S.W.	22½	
16. 3	16. 4	W.S.W.	S.W.		22½
16. 7	16. 8	S.W.	W.S.W.	22½	
17. 3	17. 5	W.S.W.	S.W.		22½
18. 5	18. 7½	S.W.	W.	45	
18. 9½	18. 10½	W.	W.S.W.		22½
18. 16½	18. 18	W.S.W.	S.W.		22½
18. 21	18. 22	S.W.	W.S.W.	22½	
19. 18	19. 19	W.S.W.	S.W.		22½
20. 7	20. 8	S.W.	W.S.W.	22½	
20. 10	20. 10½	W.S.W.	W.	22½	
20. 13	20. 13½	W.	N.W.	45	
20. 14½	20. 14¾	N.W.	N.N.W.	22½	
20. 16	20. 18	N.N.W.	W.N.W.		45
20. 19	20. 19¼	W.N.W.	W.		22½
20. 20¼	20. 21	W.	W.S.W.		22½

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

Greenwich Civil Time.		Change of Direction.		Amount of Motion.	
From	To	From	To	Direct.	Retrograde.
				°	°
Sept.—*cont.*					
d h	d h				
21. 1	21. 2	W.S.W.	S.W.		22½
21. 18¼	21. 20¼	S.W.	S.E.		90
21. 21¼	21. 21½	S.E.	S.W.		270
22. 16	22. 18	S.W.	W.S.W.	22½	
23. 3	23. 4	W.S.W.	W.	22½	
24. 14	24. 14½	W.	W.S.W.		22½
24. 17	24. 18	W.S.W.	S.W.		22½
25. 0	25. 1	S.W.	S.S.W.		22½
25. 7	25. 11	S.S.W.	W.	67½	
25. 13½	25. 14	W.	N.W.	45	
25. 16	25. 17	N.W.	N.N.W.	22½	
26. 1	26. 2	N.N.W.	N.W.		22½
26. 5½	26. 7½	N.W.	W.S.W.		67½
26. 9	26. 10	W.S.W.	S.W.		22½
28. 4	28. 5	S.W.	W.S.W.	22½	
28. 7	28. 8	W.S.W.	W.N.W.	45	
28. 11	28. 11½	W.N.W.	W.		22½
28. 14	28. 15	W.	W.S.W.		22½
28. 23	29. 0	W.S.W.	S.W.		22½
29. 9	29. 10½	S.W.	S.S.W.		22½
29. 15	29. 16	S.S.W.	S.		22½
29. 23¼	30. 0¼	S.	S.E.		45
30. 2¼	30. 2½	S.E.	N.E.		90
30. 3	30. 4	N.E.	N.N.E.	337½	
30. 8	30. 8½	N.N.E.	N.E.	22½	
30. 14½	30. 15	N.E.	E.S.E.	67½	
30. 18	30. 19	E.S.E.	S.E.	22½	
30. 22¾	30. 23	S.E.	N.N.E.		112½
			Sums	2227½	1845
October.					
1. 2¼	1. 2¾	N.N.E.	S.S.E.	135	
1. 5	1. 5½	S.S.E.	W.	112½	
1. 6½	1. 9¾	W.	E.S.E.		157½
1. 12½	1. 13	E.S.E.	W.N.W.	180	
1. 17¾	1. 18	W.N.W.	S.W.		67½
1. 19½	1. 19¾	S.W.	S.		45
1. 22½	1. 23	S.	S.W.	45	
3. 4	3. 5	S.W.	W.S.W.	22½	
3. 13	3. 14	W.S.W.	S.W.		22½
5. 4	5. 5	S.W.	W.S.W.	22½	
5. 12	5. 12¼	W.S.W.	S.W.		22½
6. 6	6. 7	S.W.	S.S.W.		22½
6. 12	6. 13	S.S.W.	S.W.	22½	
6. 22½	6. 23	S.W.	W.	45	
7. 4	7. 5	W.	W.S.W.		22½
7. 9½	7. 13¾	W.S.W.	E.S.E.		135
7. 16	7. 17	E.S.E.	S.W.	112½	
9. 4	9. 5	S.W.	S.S.W.		22½
9. 11	9. 12	S.S.W.	S.W.	22½	
9. 18	9. 19	S.W.	S.		45
10. 0	10. 0½	S.	S.S.E.		22½
10. 7	10. 10½	S.S.E.	W.S.W.	90	
11. 2	11. 5	W.S.W.	N.W.	67½	
Oct.—*cont.*					
11. 14	11. 15	N.W.	N.	45	
11. 22	11. 23	N.	N.W.		45
12. 1½	12. 2½	N.W.	N.N.W.	22½	
12. 5½	12. 7	N.N.W.	W.		67½
12. 8	12. 8¼	W.	N.	90	
13. 11	13. 12	N.	N.N.E.	22½	
13. 22	13. 23	N.N.E.	N.E.	22½	
14. 5	14. 5½	N.E.	N.N.E.		22½
14. 8	14. 9	N.N.E.	N.E.	22½	
15. 7	15. 7½	N.E.	S.W.	180	
15. 10¾	15. 11½	S.W.	S.	315	
15. 13	15. 13¼	S.	N.N.E.		157½
16. 18	16. 19	N.N.E.	N.E.	22½	
16. 22	16. 23	N.E.	N.N.E.		22½
17. 11	17. 12	N.N.E.	N.		22½
17. 15	17. 15½	N.	N.N.W.		22½
17. 17	17. 19	N.N.W.	W.		67½
17. 20½	17. 21	W.	W.S.W.		22½
18. 2	18. 4	W.S.W.	N.W.	67½	
18. 6	18. 8	N.W.	W.		45
18. 14½	18. 17	W.	S.W.		45
18. 22	18. 23	S.W.	S.S.W.		22½
19. 3	19. 4	S.S.W.	S.		22½
19. 8	19. 9	S.	S.S.W.	22½	
19. 13	19. 13½	S.S.W.	S.		22½
19. 16¾	19. 17	S.	N.N.W.	157½	
19. 17½	19. 18¼	N.N.W.	S.W.	247½	
19. 19	19. 19½	S.W.	W.	45	
19. 21	19. 21½	W.	N.N.W.	67½	
20. 6	20. 7	N.N.W.	N.W.		22½
20. 10½	20. 11	N.W.	W.N.W.		22½
20. 15	20. 16	W.N.W.	W.		22½
20. 18½	20. 19	W.	W.S.W.		22½
21. 3	21. 5	W.S.W.	N.E.	157½	
21. 13½	21. 14	N.E.	N.		45
21. 15½	21. 17¼	N.	N.N.E.	22½	
22. 5	22. 5½	N.N.E.	N.		22½
23. 17½	23. 17¾	N.	S.E.		225
23. 18½	23. 19	S.E.	S.S.W.	67½	
24. 1	24. 2	S.S.W.	S.W.	22½	
25. 13	25. 14	S.W.	W.S.W.	22½	
25. 16	25. 17	W.S.W.	S.W.		22½
26. 0	26. 1	S.W.	W.S.W.	22½	
26. 16	26. 17	W.S.W.	S.W.		22½
27. 0½	27. 1	S.W.	S.E.		90
27. 3	27. 4	S.E.	W.S.W.	112½	
27. 17	27. 18	W.S.W.	S.W.		22½
27. 23	28. 0	S.W.	W.S.W.	22½	
28. 16	28. 17	W.S.W.	E.S.E.		135
28. 20¾	28. 21	E.S.E.	N.N.E.		90
29. 12	29. 12½	N.N.E.	N.E.	22½	
30. 19½	30. 20	N.E.	N.N.E.		22½
30. 23	31. 0	N.N.E.	N.		22½
			Sums	2700	2002½
November.					
1. 6	1. 7	N.	N.E.	45	
1. 22½	1. 23	N.E.	N.N.E.		22½
2. 22	2. 23	N.N.E.	N.		22½
3. 12	3. 13	N.	N.N.E.	22½	
4. 10	4. 11	N.N.E.	N.E.	22½	
4. 17	4. 18	N.E.	E.N.E.	22½	
5. 9	5. 10	E.N.E.	E.	22½	
5. 16	5. 17	E.	E.N.E.		22½
6. 0	6. 1	E.N.E.	N.E.		22½
6. 12	6. 12½	N.E.	E.N.E.	22½	
6. 14	6. 15	E.N.E.	N.E.		22½
6. 23	6. 23¼	N.E.	N.N.E.		22½
7. 0¾	7. 1	N.N.E.	S.S.W.	180	
7. 2	7. 2¼	S.S.W.	W.S.W.	45	
7. 15	7. 16	W.S.W.	S.W.		22½
8. 1½	8. 2	S.W.	N.N.E.	157½	
9. 20	9. 21	N.N.E.	N.		22½
9. 22½	9. 23	N.	W.S.W.		112½
10. 10	10. 11	W.S.W.	W.	22½	
10. 13½	10. 14	W.	W.S.W.		22½
12. 8	12. 9	W.S.W.	S.W.		22½
12. 15¼	12. 15½	S.W.	S.S.E.		67½
12. 17	12. 18	S.S.E.	S.	22½	
12. 19	12. 19½	S.	S.S.W.	22½	
13. 3	13. 4	S.S.W.	S.		22½
13. 6½	13. 7½	S.	W.S.W.	67½	
13. 8½	13. 9	W.S.W.	S.E.		112½
13. 10¾	13. 11	S.E.	S.S.W.	67½	
13. 21	13. 21½	S.S.W.	S.W.	22½	
14. 0½	14. 1	S.W.	S.S.W.		22½
14. 1¾	14. 4¼	S.S.W.	E.N.E.	225	
14. 5½	14. 6	E.N.E.	N.		67½
14. 9	14. 9½	N.	S.W.		135
14. 14	14. 17	S.W.	S.S.W.		22½
14. 22½	14. 23	S.S.W.	W.	67½	
15. 2	15. 3	W.	W.N.W.	22½	
15. 11½	15. 12	W.N.W.	W.		22½
15. 13	15. 13¼	W.	W.S.W.		22½
15. 15	15. 16	W.S.W.	S.W.		22½
15. 22½	15. 23	S.W.	N.E.		180
16. 9	16. 10	N.E.	E.N.E.	22½	
16. 15½	16. 16½	E.N.E.	N.N.E.		45
18. 2	18. 4	N.N.E.	N.		22½
18. 7½	18. 7¾	N.	W.N.W.		67½
18. 8½	18. 9	W.N.W.	W.S.W.		45
18. 18	18. 21	W.S.W.	N.N.W.	90	
18. 23	19. 0	N.N.W.	N.W.		22½
19. 2	19. 2½	N.W.	W.S.W.		67½
19. 16	19. 17	W.S.W.	S.W.		22½
20. 3½	20. 5½	S.W.	W.	45	
20. 10	20. 11½	W.	N.W.	45	
20. 22	21. 0	N.W.	W.S.W.		67½
21. 14½	21. 17½	W.S.W.	N.N.W.	90	
21. 22¼	21. 22½	N.N.W.	W.		67½
22. 6	22. 6¼	W.	S.W.		45
22. 10	22. 11½	S.W.	S.S.E.		67½
22. 15¾	22. 16	S.S.E.	S.E.		22½
24. 9	24. 9½	S.E.	E.S.E.		22½
24. 15½	24. 16	E.S.E.	E.N.E.		45

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

Greenwich Civil Time.		Change of Direction.		Amount of Motion.	
From	To	From	To	Direct.	Retrograde.
Nov.—*cont.*				°	°
d h	d h				
25. 0	25. 0½	E.N.E.	E.	22½	
25. 4	25. 4½	E.	E.N.E.		22½
25.20	25.20½	E.N.E.	N.E.		22½
27.17	27.18	N.E.	N.N.E.		22½
27.21	27.22	N.N.E.	E.N.E.	45	
28. 1	28. 2	E.N.E.	E.	22½	
28. 4	28. 5	E.	E.S.E.	22½	
28.11¾	28.12	E.S.E.	E.		22½
28.14½	28.15	E.	E.N.E.		22½
28.18	28.19	E.N.E.	E.	22½	
29.20	29.21	E.	E.S.E.	22½	
30.12	30.12½	E.S.E.	S.E.	22½	
			Sums	1552½	1777½
December.					
1. 0	1. 1	S.E.	E.S.E.		22½
2.13	2.15	E.S.E.	S.E.	22½	
3. 2	3.10	S.E.	S.W.	90	
3.15	3.16	S.W.	S.		45
4. 5	4. 7	S.	S.S.E.		22½
4.10	4.12	S.S.E.	S.E.		22½
5. 0	5. 3	S.E.	S.W.	90	
5.16	5.22	S.W.	S.E.		90
6.11	6.13	S.E.	S.	45	
6.14¼	6.15½	S.	S.E.		45
6.20½	6.21	S.E.	E.		45
6.22¼	6.23	E.	N.E.		45
7. 2¼	7. 3½	N.E.	W.		135
7. 5½	7. 6	W.	N.W.	45	
7. 9	7. 9½	N.W.	W.N.W.		22½
7.15	7.15½	W.N.W.	W.		22½
7.22½	8. 0	W.	W.S.W.		22½
8. 5½	8. 6¼	W.S.W.	S.W.		22½

Greenwich Civil Time.		Change of Direction.		Amount of Motion.	
From	To	From	To	Direct.	Retrograde.
Dec.—*cont.*				°	°
d h	d h				
8.14	8.15	S.W.	S.S.W.		22½
8.16	8.17	S.S.W.	S.		22½
9. 2¼	9. 9	S.	S.W.	45	
9.17	9.19	S.W.	W.S.W.	22½	
9.22	10. 0	W.S.W.	W.	22½	
10. 3	10. 4	W.	W.S.W.		22½
10. 6	10. 7	W.S.W.	S.W.		22½
10.11	10.12	S.W.	S.S.W.		22½
11. 9	11.11½	S.S.W.	W.	67½	
11.15	11.15½	W.	N.W.	45	
11.17	11.17¾	N.W.	W.		45
11.21	11.22	W.	W.S.W.		22½
12. 3½	12. 6	W.S.W.	S.S.W.		45
12.19	12.20	S.S.W.	W.	67½	
13. 9	13.10	W.	W.S.W.		22½
13.13	13.14	W.S.W.	S.W.		22½
13.16	13.17	S.W.	S.S.W.		22½
13.19	13.21	S.S.W.	S.E.		67½
14. 1	14. 2	S.E.	E.S.E.		22½
14. 4	14. 6	E.S.E.	E.N.E.		45
14. 8	14.10	E.N.E.	N.N.E.		45
14.16	14.17	N.N.E.	N.		22½
15.20	15.21	N.	S.W.		135
15.23	15.23¼	S.W.	S.S.W.		22½
16.10	16.11	S.S.W.	W.S.W.	45	
16.12½	16.13½	W.S.W.	N.N.E.	135	
16.14½	16.15	N.N.E.	S.		202½
16.17½	16.18	S.	S.S.W.	22½	
16.20	16.21	S.S.W.	W.S.W.	45	
17.11	17.12	W.S.W.	S.W.		22½
17.23	18. 0	S.W.	W.	45	
18. 4½	18. 5	W.	S.W.		45
18. 9	18.10	S.W.	N.E.	180	
18.16	18.17	N.E.	N.N.E.		22½
18.19	18.20	N.N.E.	N.		22½
19. 1	19. 2	N.	N.N.W.		22½
20. 4½	20. 5	N.N.W.	W.		67½
20. 5¾	20. 6¼	W.	N.W.	45	

Greenwich Civil Time.		Change of Direction.		Amount of Motion.	
From	To	From	To	Direct.	Retrograde.
Dec.—*cont.*				°	°
d h	d h				
20. 9	20.10	N.W.	N.N.W.	22½	
20.12½	20.13½	N.N.W.	N.N.E.	45	
20.15½	20.16	N.N.E.	N.N.W.		45
21.12½	21.12¾	N.N.W.	N.W.		22½
21.14	21.14½	N.W.	N.N.W.	22½	
21.15½	21.15¾	N.N.W.	W.		67½
21.17	21.17½	W.	N.W.	45	
21.18	21.20	N.W.	W.S.W.		67½
21.22	21.23	W.S.W.	S.W.		22½
22. 2	22. 4	S.W.	S.E.		90
22. 6½	22. 7	S.E.	S.	45	
22.12	22.12¼	S.	S.S.W.	22½	
22.13½	22.15½	S.S.W.	S.E.		67½
23. 2	23. 2½	S.E.	N.		135
23.19¾	23.20	N.	W.		90
23.20½	23.21¾	W.	N.	90	
23.22¾	23.23	N.	W.S.W.	247½	
24. 5	24. 6	W.S.W.	S.W.		22½
24. 9½	24.10	S.W.	S.S.W.		22½
25. 1½	25. 3	S.S.W.	N.N.W.	135	
25.12	25.12½	N.N.W.	N.W.		22½
25.15	25.15½	N.W.	S.W.		90
25.20	25.21	S.W.	S.S.W.		22½
26.12	26.13	S.S.W.	S.W.	22½	
26.23	27. 0	S.W.	W.S.W.	22½	
27.11	27.12	W.S.W.	W.N.W.	45	
27.13¾	27.14	W.N.W.	W.		22½
27.15¼	27.16	W.	W.S.W.		22½
27.20	27.21	W.S.W.	S.W.		22½
28.15	28.18½	S.W.	N.	135	
29. 7½	29. 7¾	N.	W.S.W.		112½
29.11	29.14	W.S.W.	S.		67½
29.16½	29.17	S.	S.S.W.	22½	
29.21	29.22	S.S.W.	S.W.	22½	
31. 0	31. 1	S.W.	W.S.W.	22½	
			Sums	2047½	2655

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

EXCESS of MOTION in each MONTH.

1896.	Direct. °	Retrograde. °	1896.	Direct. °	Retrograde. °
January	1282½		July	1575	
February	630		August	1035	
March	1845		September	382½	
April	1507½		October	697½	
May	2632½		November		225
June	2655		December		607½

The whole excess of direct motion for the year was 13410°.

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	1896.												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	9·2	8·9	13·8	8·9	8·4	7·0	8·6	7·9	11·2	11·5	9·9	13·5	9·9
2	9·3	7·7	13·3	8·7	8·0	6·7	8·3	7·5	10·7	11·1	10·0	13·1	9·5
3	10·1	8·0	14·3	8·7	8·4	7·0	7·9	7·4	11·0	11·4	10·3	13·1	9·8
4	10·2	7·9	13·0	8·7	9·1	7·1	8·3	7·9	10·8	11·5	10·7	13·1	9·9
5	10·2	8·1	14·0	8·7	9·0	7·5	8·2	7·5	11·4	11·4	11·2	12·5	10·0
6	10·0	8·2	14·2	9·0	9·8	7·3	8·3	7·8	11·4	12·0	11·6	12·8	10·2
7	10·0	8·2	15·4	9·1	10·1	7·6	8·1	8·1	10·0	11·3	10·4	12·3	10·1
8	10·1	8·5	14·6	10·6	11·2	9·2	9·5	9·3	10·6	12·0	10·9	13·0	10·8
9	10·7	9·1	15·3	11·4	11·6	10·3	9·6	9·5	11·3	12·5	10·8	12·4	11·2
10	10·6	9·6	16·4	11·9	12·2	10·6	10·8	10·5	12·1	12·7	11·1	13·1	11·8
11	11·5	10·2	18·3	12·8	13·0	11·2	11·1	11·4	13·1	13·9	12·5	12·8	12·6
Noon.	11·4	10·7	19·3	12·1	12·7	11·1	11·4	11·2	13·4	13·5	13·0	11·9	12·6
h 13	11·8	11·1	19·5	13·0	13·3	11·8	12·0	11·5	14·6	15·5	13·5	13·0	13·4
14	12·1	11·9	19·3	12·9	12·9	12·6	11·8	11·0	15·7	15·9	14·0	13·7	13·6
15	12·2	11·8	18·7	13·2	13·3	13·1	11·6	11·0	15·7	15·8	13·0	12·7	13·5
16	11·4	11·8	17·0	13·1	13·5	13·3	12·1	10·7	14·6	14·6	12·2	12·1	13·0
17	11·2	10·9	16·6	13·9	13·7	13·2	12·2	10·7	13·9	14·4	12·3	12·2	12·9
18	10·8	10·8	15·8	13·4	13·5	12·4	12·1	10·2	14·1	14·0	12·1	13·3	12·7
19	10·1	10·6	14·5	12·3	12·7	10·9	11·2	10·5	12·4	13·6	12·0	13·1	12·0
20	10·3	10·3	15·0	11·4	10·7	10·0	10·1	9·2	12·1	13·3	11·7	13·2	11·4
21	9·8	10·2	15·6	10·4	10·2	9·3	9·9	8·6	12·2	13·2	11·8	13·8	11·2
22	9·5	9·8	14·1	10·0	8·7	8·3	9·6	8·0	11·7	12·4	10·8	13·3	10·5
23	9·6	9·6	13·9	10·5	9·0	8·5	9·6	8·1	11·6	12·7	10·6	13·6	10·6
Midnight.	9·2	8·4	13·5	10·0	8·5	7·5	9·2	8·0	11·9	11·8	10·4	13·5	10·2
Means	10·5	9·7	15·6	11·0	11·0	9·7	10·1	9·3	12·4	13·0	11·5	13·0	11·4
Greatest Hourly Measures	40	26	49	35	39	28	30	25	42	39	31	36	...
Least Hourly Measures	1	0	1	0	0	0	0	0	0	0	1	2	...

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.)

1896.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d												
1	+ 999	+ 971	+ 787	+ 879	+1079	+ 600	+ 597	+ 762	+ 267	+ 489	+ 766	+ 701
2	+ 677	+ 907	+ 941	+1197	+1212	+ 628	+ 819	+ 387	...	+ 750	+ 202	+ 308
3	+1048	+1095	+ 491	+ 938	+ 707	+ 693	+ 405	+ 249	+ 453	+ 586	+1125	+ 461
4	+ 663	+1151	+ 743	+ 631	+ 912	+ 356	+ 230	+ 626	...	+ 284	+1226	− 27
5	+ 594	+1210	+ 882	+ 622	+ 842	+ 390	+ 437	+ 871	+ 277	+ 659	+ 820	+ 164
6	+ 759	+1093	+ 696	+ 839	+ 700	+ 522	+ 390	+ 814	+ 213	+ 127	+ 627	+ 242
7	+1173	+ 994	+ 718	+ 769	+ 679	+ 131	+ 692	+ 684	+ 370	+ 510	+ 506	+ 903
8	...	+ 867	+ 557	+ 850	+ 805	+ 276	+ 550	+ 478	+ 375	+ 245	+ 182	+ 917
9	+1106	+ 855	+ 704	+ 811	+ 265	+ 262	+ 449	+ 121	+ 580	+ 648	+ 571	+ 185
10	...	+1230	+ 883	+ 797	+ 477	− 35	+ 501	+ 530	+ 383	+ 577	+ 476	+ 495
11	...	+ 934	+ 570	+ 664	+ 648	+ 710	+ 514	+ 940	+ 471	...	+ 331	+ 648
12	+1039	+ 955	+ 544	+ 829	+ 630	+ 435	+ 559	+1032	+ 245	...	+ 323	+ 665
13	+1035	+1017	+ 667	+ 982	+ 663	+ 513	+ 406	+ 670	+ 270	+ 661	+ 265	+ 943
14	+ 911	+ 517	+ 491	+ 122	+ 344	+ 291	+ 450	+ 617	+ 277	...	+ 87	+ 243
15	+ 813	+1057	+ 804	+1042	+ 643	+ 513	+ 524	+ 766	+ 482	...	+ 180	+ 883
16	+1057	+ 793	+ 652	+ 531	+ 675	+ 505	+ 635	+ 662	+ 373	...	+ 308	+1087
17	+1096	+ 789	+ 763	+1089	+ 474	+ 600	+ 794	+ 607	+ 446	+ 709	+ 258	+1427
18	+ 896	+1284	− 135	+ 733	+ 285	+ 574	+ 693	+ 357	+ 358	+ 998	+ 269	+1112
19	+1263	+ 944	+1120	+ 496	+ 558	+ 446	+ 520	+ 693	+ 748	+ 610	+ 399	+1108
20	+1372	+ 432	+ 594	+ 741	+ 436	+ 434	+ 360	+ 709	+ 558	+ 577	+ 371	+1250
21	+1164	+ 305	+ 373	+ 827	+ 652	+ 406	+ 472	+ 390	+ 419	+1001	+ 459	+1037
22	...	+ 655	+ 863	+ 810	+ 174	+ 701	+ 657	+ 673	+ 408	+1074	+ 448	+1140
23	+1425	+ 585	+ 704	+1023	+ 312	+ 450	+ 474	+ 574	+ 754	+1124	+ 524	+1344
24	+ 975	+ 720	+ 707	+ 888	+ 340	+ 753	+ 373	+ 260	+ 886	+ 653	+ 485	+ 761
25	+ 565	+ 887	+ 624	+ 620	+ 369	+ 735	+ 159	+ 126	+ 149	+ 840	+ 425	+ 721
26	+ 850	+1517	+ 562	+ 730	+ 540	+ 875	+ 355	+ 512	+ 816	+ 930	+ 421	+ 507
27	+ 774	+1250	+ 950	+ 629	+ 628	+ 459	+ 858	+ 898	+ 408	+ 832	+ 475	+ 827
28	+ 853	+ 861	+ 620	+ 588	+ 732	+ 385	+ 872	+ 691	+ 815	+1195	+ 308	+ 300
29	+1131	+ 655	+ 96	+ 590	+ 560	+ 827	+ 442	+ 580	+ 710	+1128	+ 352	+ 982
30	+ 968		+1318	+1000	+ 669	+ 494	+ 418	+ 447	+ 639	+ 734	+ 670	+ 559
31	+1045		+1008		+ 620		+ 403	+ 267		+1016		+ 507
Means ...	+ 972	+ 915	+ 687	+ 776	+ 601	+ 498	+ 516	+ 580	+ 470	+ 729	+ 462	+ 723

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.	1896.												Yearly Means.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Midnight.	+ 904	+ 876	+ 734	+ 858	+ 704	+ 527	+ 573	+ 634	+ 453	+ 602	+ 415	+ 664	+ 662
1h.	+ 724	+ 873	+ 722	+ 794	+ 656	+ 601	+ 571	+ 577	+ 421	+ 532	+ 405	+ 536	+ 618
2	+ 762	+ 871	+ 666	+ 803	+ 609	+ 564	+ 514	+ 595	+ 355	+ 599	+ 385	+ 406	+ 594
3	+ 762	+ 805	+ 572	+ 794	+ 554	+ 534	+ 542	+ 569	+ 335	+ 576	+ 359	+ 382	+ 565
4	+ 721	+ 762	+ 541	+ 763	+ 496	+ 423	+ 579	+ 516	+ 322	+ 571	+ 379	+ 441	+ 543
5	+ 746	+ 768	+ 585	+ 686	+ 512	+ 460	+ 566	+ 513	+ 267	+ 560	+ 369	+ 455	+ 541
6	+ 796	+ 801	+ 625	+ 746	+ 568	+ 597	+ 599	+ 579	+ 275	+ 533	+ 405	+ 495	+ 585
7	+ 913	+ 881	+ 742	+ 786	+ 664	+ 612	+ 629	+ 647	+ 350	+ 651	+ 407	+ 685	+ 664
8	+ 981	+ 939	+ 741	+ 868	+ 707	+ 611	+ 691	+ 696	+ 425	+ 715	+ 405	+ 819	+ 716
9	+ 1011	+ 986	+ 483	+ 818	+ 692	+ 537	+ 625	+ 663	+ 470	+ 773	+ 417	+ 883	+ 696
10	+ 1060	+ 928	+ 670	+ 682	+ 641	+ 528	+ 541	+ 678	+ 504	+ 784	+ 479	+ 884	+ 698
11	+ 1061	+ 918	+ 525	+ 598	+ 607	+ 427	+ 472	+ 577	+ 557	+ 753	+ 515	+ 862	+ 656
Noon.	+ 1036	+ 901	+ 710	+ 698	+ 526	+ 413	+ 435	+ 570	+ 576	+ 687	+ 503	+ 893	+ 662
13h	+ 1071	+ 923	+ 610	+ 692	+ 466	+ 380	+ 411	+ 444	+ 525	+ 788	+ 516	+ 881	+ 642
14	+ 1081	+ 891	+ 597	+ 719	+ 476	+ 249	+ 376	+ 500	+ 457	+ 829	+ 528	+ 855	+ 630
15	+ 1068	+ 907	+ 662	+ 775	+ 512	+ 424	+ 335	+ 278	+ 496	+ 814	+ 541	+ 840	+ 638
16	+ 1088	+ 982	+ 701	+ 708	+ 550	+ 439	+ 430	+ 577	+ 450	+ 926	+ 546	+ 864	+ 688
17	+ 1087	+ 1014	+ 652	+ 730	+ 583	+ 474	+ 307	+ 512	+ 529	+ 860	+ 548	+ 875	+ 681
18	+ 1099	+ 1014	+ 787	+ 773	+ 545	+ 441	+ 413	+ 557	+ 655	+ 855	+ 551	+ 842	+ 711
19	+ 1126	+ 1021	+ 885	+ 835	+ 576	+ 499	+ 461	+ 563	+ 631	+ 840	+ 511	+ 775	+ 727
20	+ 1063	+ 1021	+ 836	+ 847	+ 594	+ 542	+ 445	+ 592	+ 583	+ 766	+ 488	+ 827	+ 717
21	+ 1077	+ 995	+ 799	+ 877	+ 705	+ 556	+ 548	+ 706	+ 560	+ 815	+ 479	+ 842	+ 747
22	+ 1088	+ 954	+ 819	+ 893	+ 741	+ 544	+ 683	+ 705	+ 569	+ 870	+ 493	+ 735	+ 758
23	+ 1011	+ 927	+ 827	+ 870	+ 738	+ 562	+ 646	+ 679	+ 505	+ 798	+ 447	+ 600	+ 718
24	+ 889	+ 878	+ 728	+ 861	+ 702	+ 524	+ 585	+ 614	+ 504	+ 603	+ 393	+ 658	+ 662
Means 0h.–23h.	+ 972	+ 915	+ 687	+ 776	+ 601	+ 498	+ 516	+ 580	+ 470	+ 729	+ 462	+ 723	+ 661
Means 1h.–24h.	+ 972	+ 915	+ 687	+ 776	+ 601	+ 498	+ 517	+ 579	+ 472	+ 729	+ 461	+ 722	+ 661
Number of Days employed.	27	29	31	30	31	30	31	31	28	26	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 $0^{in}\cdot020$. The scale employed is arbitrary: the sign + indicates positive potential.)

Hour, Greenwich Civil Time.	1896.												Yearly Means.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Midnight.	+ 685	+ 502	+ 682	+ 766	+ 433	+ 324	+ 620	+ 490	+ 403	+ 517	+ 200	+ 427	+ 504
1^h	+ 620	+ 524	+ 661	+ 656	+ 427	+ 532	+ 573	+ 438	+ 382	+ 406	+ 248	+ 256	+ 477
2	+ 565	+ 512	+ 616	+ 773	+ 433	+ 453	+ 290	+ 442	+ 310	+ 546	+ 229	+ 101	+ 439
3	+ 450	+ 392	+ 536	+ 761	+ 253	+ 419	+ 421	+ 433	+ 267	+ 521	+ 189	+ 129	+ 398
4	+ 257	+ 408	+ 437	+ 711	+ 100	+ 219	+ 650	+ 405	+ 232	+ 537	+ 269	+ 246	+ 373
5	+ 373	+ 422	+ 384	+ 470	+ 177	+ 289	+ 441	+ 365	+ 138	+ 522	+ 196	+ 262	+ 337
6	+ 382	+ 438	+ 444	+ 526	+ 160	+ 496	+ 264	+ 374	+ 128	+ 446	+ 269	+ 284	+ 351
7	+ 673	+ 512	+ 518	+ 388	+ 167	+ 415	+ 291	+ 432	+ 216	+ 672	+ 269	+ 525	+ 423
8	+ 715	+ 578	+ 456	+ 619	+ 177	+ 428	+ 661	+ 473	+ 314	+ 816	+ 282	+ 703	+ 518
9	+ 842	+ 714	− 10	+ 637	+ 203	+ 417	+ 689	+ 492	+ 351	+ 836	+ 278	+ 797	+ 521
10	+ 905	+ 604	+ 431	+ 509	+ 357	+ 517	+ 627	+ 550	+ 329	+ 768	+ 343	+ 744	+ 557
11	+ 800	+ 614	+ 81	+ 387	+ 533	+ 412	+ 520	+ 429	+ 411	+ 547	+ 456	+ 689	+ 490
Noon.	+ 785	+ 726	+ 506	+ 631	+ 523	+ 411	+ 570	+ 435	+ 489	+ 488	+ 486	+ 761	+ 568
13^h	+ 860	+ 976	+ 304	+ 641	+ 323	+ 407	+ 589	+ 137	+ 446	+ 615	+ 503	+ 735	+ 545
14	+ 740	+ 856	+ 314	+ 734	+ 160	+ 102	+ 514	+ 309	+ 386	+ 693	+ 513	+ 700	+ 502
15	+ 650	+ 684	+ 521	+ 853	+ 350	+ 507	+ 244	− 213	+ 427	+ 641	+ 526	+ 705	+ 491
16	+ 1067	+ 728	+ 623	+ 853	+ 377	+ 517	+ 671	+ 647	+ 319	+ 776	+ 497	+ 682	+ 646
17	+ 1098	+ 768	+ 430	+ 733	+ 337	+ 534	+ 271	+ 510	+ 401	+ 592	+ 422	+ 688	+ 565
18	+ 1092	+ 642	+ 678	+ 723	− 97	+ 385	+ 427	+ 570	+ 569	+ 622	+ 428	+ 665	+ 559
19	+ 1148	+ 656	+ 864	+ 806	+ 377	+ 492	+ 520	+ 462	+ 528	+ 635	+ 372	+ 601	+ 622
20	+ 780	+ 750	+ 696	+ 777	+ 477	+ 576	+ 330	+ 460	+ 476	+ 534	+ 358	+ 717	+ 578
21	+ 1080	+ 834	+ 636	+ 702	+ 437	+ 514	+ 453	+ 705	+ 466	+ 635	+ 290	+ 726	+ 623
22	+ 1230	+ 748	+ 863	+ 811	+ 363	+ 367	+ 877	+ 753	+ 499	+ 748	+ 291	+ 524	+ 673
23	+ 1055	+ 778	+ 880	+ 844	+ 327	+ 382	+ 866	+ 751	+ 422	+ 740	+ 190	+ 331	+ 631
24	+ 997	+ 902	+ 709	+ 834	+ 340	+ 313	+ 740	+ 672	+ 467	+ 636	+ 127	+ 499	+ 603
Means 0^h–23^h	+ 786	+ 640	+ 523	+ 680	+ 307	+ 421	+ 516	+ 452	+ 371	+ 619	+ 338	+ 542	+ 516
Means 1^h–24^h	+ 799	+ 657	+ 524	+ 682	+ 303	+ 421	+ 521	+ 460	+ 374	+ 624	+ 335	+ 545	+ 520
Number of Days employed.	4	5	14	9	3	12	7	12	18	13	9	19	...

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.	1896.												Yearly Means.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Midnight.	+ 940	+ 952	+ 830	+ 914	+ 746	+ 660	+ 560	+ 781	+ 553	+ 844	+ 507	+ 1072	+ 780
1h.	+ 889	+ 947	+ 822	+ 871	+ 685	+ 654	+ 570	+ 710	+ 522	+ 796	+ 472	+ 1008	+ 745
2	+ 862	+ 943	+ 758	+ 832	+ 628	+ 645	+ 579	+ 734	+ 468	+ 777	+ 452	+ 919	+ 716
3	+ 861	+ 888	+ 715	+ 825	+ 588	+ 609	+ 578	+ 693	+ 502	+ 739	+ 431	+ 788	+ 685
4	+ 847	+ 834	+ 805	+ 803	+ 544	+ 548	+ 558	+ 621	+ 528	+ 696	+ 426	+ 744	+ 663
5	+ 835	+ 846	+ 855	+ 803	+ 553	+ 559	+ 602	+ 648	+ 475	+ 687	+ 443	+ 776	+ 673
6	+ 897	+ 895	+ 808	+ 853	+ 607	+ 649	+ 696	+ 770	+ 503	+ 722	+ 464	+ 840	+ 725
7	+ 981	+ 987	+ 885	+ 964	+ 713	+ 746	+ 727	+ 849	+ 567	+ 742	+ 466	+ 945	+ 798
8	+1021	+1044	+ 972	+ 984	+ 767	+ 749	+ 699	+ 904	+ 613	+ 694	+ 457	+ 991	+ 825
9	+1026	+1058	+ 852	+ 911	+ 740	+ 677	+ 607	+ 847	+ 677	+ 769	+ 477	+ 1000	+ 803
10	+1053	+ 997	+ 798	+ 777	+ 648	+ 551	+ 516	+ 852	+ 815	+ 827	+ 537	+ 1111	+ 790
11	+1081	+ 987	+ 818	+ 697	+ 582	+ 396	+ 458	+ 771	+ 797	+1077	+ 541	+ 1211	+ 785
Noon.	+1079	+ 957	+ 882	+ 736	+ 484	+ 393	+ 395	+ 729	+ 745	+1027	+ 510	+ 1151	+ 757
13h.	+1126	+ 924	+ 795	+ 728	+ 456	+ 358	+ 359	+ 687	+ 672	+1121	+ 521	+ 1189	+ 745
14	+1149	+ 910	+ 727	+ 733	+ 478	+ 346	+ 335	+ 694	+ 608	+1113	+ 534	+ 1199	+ 735
15	+1113	+ 959	+ 637	+ 758	+ 507	+ 331	+ 361	+ 696	+ 642	+1117	+ 548	+ 1176	+ 737
16	+1059	+1028	+ 612	+ 718	+ 545	+ 349	+ 360	+ 648	+ 652	+1230	+ 567	+ 1211	+ 748
17	+1072	+1055	+ 687	+ 710	+ 579	+ 417	+ 318	+ 620	+ 722	+1266	+ 601	+ 1220	+ 772
18	+1087	+1087	+ 828	+ 786	+ 584	+ 476	+ 409	+ 632	+ 815	+1174	+ 603	+ 1166	+ 804
19	+1113	+1099	+ 963	+ 855	+ 569	+ 491	+ 444	+ 687	+ 880	+1108	+ 570	+ 1114	+ 824
20	+1105	+1064	+1008	+ 876	+ 588	+ 492	+ 479	+ 734	+ 848	+1064	+ 544	+ 1095	+ 825
21	+1068	+1024	+ 957	+ 937	+ 724	+ 566	+ 576	+ 771	+ 768	+1070	+ 560	+ 1150	+ 848
22	+1048	+1003	+ 877	+ 925	+ 764	+ 654	+ 626	+ 735	+ 675	+1079	+ 579	+ 1217	+ 848
23	+ 998	+ 959	+ 785	+ 874	+ 757	+ 669	+ 583	+ 681	+ 597	+ 958	+ 557	+ 1202	+ 802
24	+ 890	+ 869	+ 692	+ 864	+ 712	+ 661	+ 540	+ 617	+ 472	+ 903	+ 507	+ 1080	+ 734
Means 0h.–23h.	+1013	+ 977	+ 820	+ 828	+ 618	+ 541	+ 516	+ 729	+ 652	+ 946	+ 515	+ 1062	+ 768
Means 1h.–24h.	+1011	+ 973	+ 814	+ 826	+ 617	+ 541	+ 516	+ 722	+ 648	+ 948	+ 515	+ 1063	+ 766
Number of Days employed.	19	23	6	20	26	16	24	16	6	9	21	8	...

AMOUNT of RAIN COLLECTED in each MONTH of the YEAR 1896.

MONTH, 1896.	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	9	0·172	0·161	0·386	0·488	0·614	0·640	0·649	0·687
February	6	0·138	0·150	0·212	0·312	0·395	0·355	0·374	0·427
March	22	1·749	1·545	2·301	2·598	2·927	2·996	2·963	3·055
April	10	0·195	0·153	0·309	0·433	0·555	0·560	0·552	0·590
May	5	0·161	0·137	0·195	0·259	0·268	0·266	0·260	0·267
June	14	1·179	1·153	1·570	1·830	1·902	1·939	1·894	1·893
July	7	0·751	0·695	0·907	1·036	1·076	1·065	1·013	1·046
August	15	1·271	1·158	1·600	1·909	1·966	2·063	1·944	1·973
September	23	4·211	4·038	4·723	5·192	5·400	5·542	5·454	5·501
October	19	1·387	1·541	2·108	2·440	2·688	2·803	2·768	2·747
November	9	0·720	0·684	0·966	1·054	1·173	1·194	1·187	1·178
December	22	1·992	2·053	2·468	2·533	2·880	2·997	2·936	2·872
Sums	161	13·926	13·468	17·745	20·084	21·844	22·420	21·994	22·236
Height of receiving Surface above the ground	...	ft. in. 50. 8	ft. in. 50. 8	ft. in. 38. 4	ft. in. 21. 6	ft. in. 10. 0	ft. in. 0. 5	ft. in. 0. 5	ft. in. 0. 5
Height of receiving Surface above mean sea level	...	ft. in. 205. 6	ft. in. 205. 6	ft. in. 193. 2	ft. in. 176. 4	ft. in. 164. 10	ft. in. 155. 3	ft. in. 155. 3	ft. in. 155. 3

ROYAL OBSERVATORY, GREENWICH.

OBSERVATIONS

OF

LUMINOUS METEORS.

1896.

Month and Day, 1896.		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	12	20. 6. ±	F.W.D.	Jupiter × 4	Bluish-white	...	Bright	...	1
July	13	23. 40. ±	D.	Jupiter × 2	Bluish-green	2·0	Broken	150(?)	2
July	22	0. 46. ±	H. & L.	1	...	4·0	...	30	3
,,		0. 47. ±	H. & L.	3	...	2·0	...	...	4
August	10	22. 8. 13	B.	2	Bluish-white	0·5	Slight	8	5
,,		22. 9. 59	B.	1	Bluish-white	0·5	Slight	10	6
,,		22. 18. 7	B.	2	Bluish-white	0·4	None	7	7
,,		22. 20. 53	B.	2	Bluish-white	0·5	Slight	10	8
,,		22. 23. 58	B.	1	Bluish-white	1·0	Slight	7	9
,,		22. 31. 2	B.	1	Bluish-white	1·0	Train	15	10
,,		22. 37. 52	W.	1	Bluish-white	0·6	Slight	10	11
,,		22. 45. 54	W.	1	Bluish-white	1·0	Train	10	12
,,		22. 51. 10	B.	2	Bluish-white	0·5	Train	10	13
,,		22. 53. 1	B.	1	Bluish-white	0·5	Train	15	14
,,		23. 5. 18	W.	2	Bluish-white	0·5	None	5	15
,,		23. 9. 21	W.	1	Bluish-white	1·0	Slight	...	16
,,		23. 11. 6	B.	2	Bluish-white	0·5	Train	10	17
,,		23. 13. 58	W.	2	Bluish-white	0·8	Slight	10	18
,,		23. 16. 5	B.	>1	Bluish-white	1·0	Train	15	19
,,		23. 16. 36	B.	1	Bluish-white	1·5	Train	20	20
,,		23. 23. 3	W.	2	Bluish-white	0·8	Slight	10	21
,,		23. 26. 21	B.	>1	Bluish-white	0·8	Train	12	22
,,		23. 29. 21	W.	>1	Bluish-white	1·0	Train	15	23
,,		23. 37. 51	B.	1	Bluish-white	0·7	Train	15	24
,,		23. 39. 34	W.	>1	Yellowish	1·0	Brilliant	20	25
,,		23. 43. 39	B.	1	Bluish-white	1·0	Train	10	26
,,		23. 48. 7	W.	2	Bluish-white	0·5	None	8	27
,,		23. 51. 8	B.	3	Bluish-white	0·3	None	8	28
August	11	0. 1. 58	B.	2	Bluish-white	0·7	Train	12	29
,,		0. 1. 58	B.	2	Bluish-white	0·7	Train	10	30
,,		0. 5. 58	W.	2	Bluish-white	0·7	None	5	31

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

No. for Reference.	Path of Meteor through the Stars.
1	Observed moving about 15° below the Pole from W. to E.: commencement of flight not seen.
2	Shot across the sky from E.N.E. to W.S.W. passing about 15° from the Zenith.
3	From o Cassiopeiæ towards ϵ Persei : the path was broken at the first part of its flight.
4	From π Cassiopeiæ towards a point a little to the left of β Andromedæ.
5	From α Lacertæ towards ζ Cygni.
6	From α Lacertæ towards ν Cygni.
7	From midway between β Cassiopeiæ and α Cygni towards the latter.
8	From κ Cygni towards α Lyræ.
9	From κ Aquilæ towards α Capricorni.
10	From α Cephei towards θ Cygni.
11	From a little above τ Ursæ Majoris to a point midway between α and β Ursæ Majoris.
12	From a little below η Ursæ Minoris towards ι Draconis.
13	From σ Pegasi towards ζ Aquarii.
14	From a point a little below γ Pegasi towards δ Aquarii.
15	From 72 Cassiopeiæ towards λ Draconis.
16	From a little above β Ursæ Majoris travelled in a Westerly direction and disappeared behind trees.
17	From o Andromedæ towards μ Cygni.
18	From 42 Camelopardi towards δ Aurigæ.
19	From β Aquarii towards θ Capricorni.
20	From λ Aquilæ fell vertically downwards.
21	From γ Camelopardi towards κ Draconis.
22	From ν Cygni towards β Cygni.
23	From a point near β Cassiopeiæ towards α Lacertæ.
24	From η Pegasi towards ϵ Pegasi.
25	From a point near α Camelopardi moved in the direction of 23 Ursæ Majoris.
26	From 1 Lacertæ towards μ Cygni.
27	From a point between γ and β Cephei towards γ Ursæ Minoris.
28	From α Andromedæ towards ω Piscium.
29	From β Andromedæ towards ζ Andromedæ.
30	Moved simultaneously with the above, and parallel to it, towards η Andromedæ.
31	From about 1° below η Draconis to a point between A^1 Draconis and θ Boötis.

Month and Day, 1896.	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		°	
August 11	0. 9. 18	W.	1	Bluish-white	0·7	None	15	1
"	0. 13. 21	W.	3	Bluish-white	0·5	None	15	2
"	0. 14. 59	W.	1	Bluish-white	0·8	Brilliant	25	3
"	0. 16. 8	B.	2	Bluish-white	0·5	None	17	4
"	0. 17. 57	B.	2	Bluish-white	0·5	None	10	5
"	0. 23. 34	W.	1	Bluish-white	0·5	None	5	6
"	0. 25. 27	B.	> 1	Bluish-white	1·0	Brilliant	12	7
"	0. 31. 4	B.	1	Bluish-white	0·7	Train	12	8
"	0. 33. 39	B.	2	Bluish-white	1·5	None	20	9
"	0. 37. 26	B.	2	Bluish-white	0·5	Train	8	10
"	0. 42. 16	W.	1	Bluish-white	1·0	Brilliant	20	11
"	0. 45. 39	B.	2	Bluish-white	0·8	Train	15	12
"	0. 50. 45	B.	2	Bluish-white	0·5	Train	7	13
"	0. 51. 15	W.	1	Bluish-white	0·8	Train	15	14
"	0. 51. 41	B.	2	Bluish-white	0·5	Train	10	15
"	0. 55. 4	W.	2	Bluish-white	0·6	None	8	16
"	1. 3. 26	B.	Jupiter	Reddish-yellow	1·5	Slight	20	17
"	1. 14. 20	W.	> 1	Bluish-white	1·0	Slight	20	18
"	1. 22. 46	W.	> 1	Bluish-white	0·8	Brilliant	15	19
"	1. 27. 52	B.	1	Bluish-white	0·6	Train	8	20
"	1. 35. 56	W.	1	Bluish-white	0·6	None	10	21
"	1. 39. 7	B.	2	Bluish-white	0·5	Slight	12	22
"	22. 25. 30	N.	1	White	0·5	Brilliant	15	23
"	22. 26. 35	N.	3	Bluish-white	0·3	None	5	24
"	22. 46. 0	B.	2	Bluish-white	0·5	Bright	10	25
"	22. 53. 49	B.	3	Bluish-white	0·5	Slight	8	26
"	22. 56. 44	B.	1	Bluish-white	0·8	Bright	15	27
"	23. 0. 11	B.	1	Bluish-white	1·0	Bright	15	28
"	23. 5. 14	B.	Jupiter × 2	Reddish	4·0	Slight	15	29
"	23. 11. 58	B.	2	Bluish-white	1·0	Bright	15	30
"	23. 12. 13	B.	1	Bluish-white	1·5	Bright	25	31
"	23. 17. 30	B.	> 1	Bluish-white	1·0	Brilliant	25	32

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

No. for Reference.	Path of Meteor through the Stars.
1	From a point a little below Polaris towards α Draconis.
2	From a point a little below β Cephei towards δ Ursæ Minoris.
3	From α Andromedæ passed between β and η Pegasi towards γ Delphini.
4	From a point midway between ζ and μ Cygni towards β Delphini.
5	From γ Aquilæ fell vertically downwards.
6	From a little to the N. of a point midway between α and δ Persei to a point a little below δ Persei.
7	From β Cassiopeiæ towards α Lacertæ.
8	From a point midway between ι and μ Pegasi towards a point between ζ and ε Pegasi.
9	From near δ Andromedæ towards γ Pegasi.
10	From γ Andromedæ towards α Trianguli.
11	From a point between β and γ Cassiopeiæ towards ρ Draconis.
12	From a point between ο Pegasi and 25 Aquarii towards γ Capricorni.
13	From a point between 51 Andromedæ and μ Cassiopeiæ towards ν Andromedæ.
14	From a point between σ and β Cassiopeiæ to a point midway between α and ζ Cephei.
15	From a point between γ and 51 Andromedæ moved towards 50 Andromedæ.
16	From a point between β and θ Cephei to a point midway between δ and ξ Draconis.
17	From ξ Ceti to a point midway between δ and ο Ceti.
18	From a point a little above λ Draconis to a point midway between ζ and ε Ursæ Majoris.
19	From a point between α and δ Persei to a point midway between β Persei and η Tauri.
20	From a point between γ Andromedæ and π Persei to a point midway between α and δ Arietis.
21	From a point between δ and ε Cassiopeiæ moved towards Polaris.
22	From a little above α Andromedæ towards α Pegasi.
23	Passed to the right of δ Cygni and across α Lyræ.
24	From the direction of α Lyræ passed with slightly curved path towards ζ Ursæ Majoris.
25	From κ Cassiopeiæ towards δ Cephei.
26	From δ Andromedæ towards a point a little below β Andromedæ.
27	From δ Andromedæ in the direction of α Pegasi.
28	From a point midway between δ and ι Cephei towards 33 Cygni.
29	Appeared as a pear-shaped ball of fire with a short wavy tail, moving slowly from a point a little above β Ophiuchi towards θ Ophiuchi.
30	Fell nearly vertically downwards from θ Aquilæ.
31	Fell vertically downwards from α Ophiuchi.
32	From a point about 10° above α Andromedæ moved in the direction of ω Piscium.

Month and Day, 1896.		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		°	
August	11	23. 24. 32	B.	1	Bluish-white	1·0	Brilliant	25	1
	”	23. 35. 45	B.	2	Bluish-white	0·5	Slight	15	2
	”	23. 40. 2	B.	1	Bluish-white	0·8	Bright	20	3
	”	23. 45. 23	B.	2	Bluish-white	1·0	Bright	15	4
	”	23. 57. 56	B.	2	Bluish-white	1·0	Bright	20	5
August	12	0. 5. 1	B.	2	Bluish-white	0·8	Bright	12	6
	”	0. 28. 7	B.	3	Bluish-white	0·6	None	10	7
	”	0. 42. 58	B.	1	Bluish-white	0·8	Bright	20	8
	”	0. 50. 36	B.	>1	Bluish-white	2·0	Bright	30	9
	”	0. 55. 43	B.	1	Bluish-white	1·5	Bright	25	10
	”	1. 1. 31	B.	4	Bluish-white	0·4	None	8	11
	”	1. 10. 13	B.	3	Bluish-white	0·5	None	10	12
	”	1. 13. 13	B.	2	Bluish-white	0·7	Bright	15	13
	”	1. 21. 2	B.	2	Bluish-white	0·8	Slight	15	14
	”	1. 26. 33	B.	2	Bluish-white	0·7	Bright	15	15
	”	1. 29. 38	B.	3	Bluish-white	0·5	None	12	16
	”	1. 31. 41	B.	1	Bluish-white	0·8	Bright	20	17
	”	1. 35. 14	B.	2	Bluish-white	2·0	Brilliant	35	18
	”	1. 41. 1	B.	3	Bluish-white	0·5	None	10	19
	”	1. 53. 19	B.	2	Bluish-white	0·7	Bright	15	20
	”	1. 55. 53	B.	2	Bluish-white	0·5	Bright	10	21
	”	2. 0. 41	B.	3	Bluish-white	0·5	None	12	22
	”	2. 3. 14	B.	2	Bluish-white	1·0	Bright	12	23
	”	2. 21. 43	B.	3	Bluish-white	0·5	None	10	24
	”	2. 30. 3	B.	1	Bluish-white	1·0	Bright	15	25
	”	23. 49. 44	W.	1	Bluish-white	0·5	Bright	10	26
	”	23. 59. 7	W.	>1	Bluish-white	0·8	Slight	25	27
August	13	0. 10. 59	W.	1	Bluish-white	0·6	None	15	28
	”	0. 11. 14	W.	>1	Bluish-white	0·8	Slight	20	29
	”	0. 17. 12	W.	2	Bluish-white	1·0	None	10	30
	”	0. 18. 54	W.	2	Bluish-white	1·0	None	25	31

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

No. for Reference.	Path of Meteor through the Stars.
1	From a point midway between ω and ι Pegasi towards ϕ Aquarii.
2	From ν Cygni to a point between β and γ Lyræ.
3	From η Pegasi to ζ Pegasi.
4	From ζ Cephei towards o Cygni.
5	From a point between χ Aquarii and ι Ceti towards δ Aquarii.
6	From a little to the N. of γ Persei moved towards β Camelopardi.
7	From ζ Aquarii moved towards δ Aquarii.
8	From α Cassiopeiæ towards o Andromedæ.
9	From a point a little below Polaris towards α Draconis.
10	Moved from ϵ Pegasi towards ζ Cygni.
11	From α Lacertæ in the direction of λ Andromedæ.
12	From β Cassiopeiæ moved towards α Lacertæ.
13	From a point midway between Polaris and Capella fell nearly vertically downwards.
14	Moved from ν Piscium in the direction of θ Ceti.
15	From ζ Cephei moved towards ν Cygni.
16	From α Andromedæ moved in the direction of α Pegasi.
17	From δ Ursæ Minoris towards ζ Draconis.
18	From ξ Cygni moved in the direction of α Aquilæ.
19	From ω Andromedæ towards μ Andromedæ.
20	From ζ Andromedæ moved in the direction of δ Piscium.
21	From λ Persei towards ϵ Aurigæ.
22	From δ Andromedæ moved in the direction of α Cassiopeiæ.
23	Moved from ϕ Andromedæ in the direction of ι Andromedæ.
24	From ξ Piscium fell nearly vertically downwards.
25	From a point about 20° below the Pleiades fell nearly vertically downwards.
26	From a little below ϵ Cassiopeiæ towards ξ Andromedæ.
27	From a point a little below γ Pegasi fell at an angle of 45° towards the Western horizon.
28	From a point between ι and δ Cephei to a point a little below θ Cephei.
29	From a point a little above α Lyræ moved towards δ Herculis.
30	From a point a little below δ Cygni towards β Cygni.
31	From a point a little to the E. of α Lyræ moved in the direction of δ Herculis.

Month and Day, 1896.		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		°	
August	13	0. 23. 4	W.	> Jupiter	Yellowish	2·0	Brilliant	20	1
	„	0. 29. 4	W.	2	Bluish-white	0·5	None	25	2
	„	0. 34. 12	W.	2	Bluish-white	0·8	None	8	3
	„	0. 41. 42	W.	2	Bluish-white	1·0	Slight	30	4
	„	0. 50. 14	W.	2	Bluish-white	0·8	None	8	5
	„	0. 51. 32	W.	1	Bluish-white	1·0	Bright	30	6
	„	1. 0. 18	W.	1	Bluish-white	0·8	Slight	20	7
	„	1. 9. 54	W.	2	Bluish-white	0·7	Slight	20	8
	„	1. 16. 54	W.	> 1	Bluish-white	0·8	Bright	25	9
	„	1. 26. 7	W.	1	Bluish-white	0·8	Slight	20	10
	„	1. 35. 51	W.	1	Bluish-white	0·8	Slight	10	11
	„	1. 41. 53	W.	2	Bluish-white	0·5	Slight	10	12
	„	1. 44. 2	W.	2	Bluish-white	0·5	None	15	13
	„	1. 50. 10	W.	2	Bluish-white	0·5	None	10	14
	„	1. 55. 22	W.	2	Bluish-white	0·8	None	10	15
	„	1. 59. 48	W.	1	Bluish-white	1·0	Brilliant	25	16
	„	2. 3. 0	W.	1	Bluish-white	0·8	Slight	25	17
	„	2. 7. 24	W.	2	Bluish-white	0·7	None	25	18
	„	2. 8. 35	W.	> 1	Bluish-white	1·0	Brilliant	25	19
October	27	20. 34. ±	B.	1	Bluish-white	1·5	None	15	20
November	4	17. 0. ±	B.	> 1	Reddish-white	1·0	None	25	21
November	10	19. 40. ±	D.	Mars × 2	Bluish-white	3·0	Slight	30	22
November	12	23. 26. 31	B.	1	Bluish-white	2·0	Brilliant	35	23
	„	23. 57. 46	B.	2	Bluish-white	1·0	Bright	15	24
November	13	0. 5. 29	M.	2	Bluish-white	1·0	None	20	25
	„	0. 23. 42	B.	1	Bluish-white	0·8	None	8	26
	„	1. 0. 14	B.	3	Bluish-white	1·0	None	10	27
	„	1. 9. 40	M.	4	Bluish-white	0·5	None	7	28

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

No. for Reference.	Path of Meteor through the Stars.
1	From θ Pegasi moved towards a point about midway between α Pegasi and α Andromedæ.
2	From a point between β and η Pegasi towards a point between ε Pegasi and ζ Cygni.
3	From ψ Cygni to a point between η and θ Cephei.
4	Started a little between ζ Draconis and moved towards η Herculis.
5	From ζ Cassiopeiæ to a point below φ Andromedæ.
6	From θ Persei towards κ Andromedæ.
7	From a point midway between ζ and η Draconis to a point between β Draconis and η Herculis.
8	From ζ Draconis in the direction of τ Herculis.
9	From a point between ζ and η Draconis towards η Herculis.
10	From a point a little to the North of Capella towards a point between β and θ Aurigæ.
11	From a point between η and γ Persei towards φ Andromedæ.
12	From a point a little above γ Draconis moved in the direction of θ Herculis.
13	From α Cephei moved towards δ Cygni.
14	From a point between Capella and ε Persei moved towards a point between β and τ Tauri.
15	From a point a little above β and γ Ursæ Minoris passed between them towards ι Draconis.
16	From φ Draconis to a point between β and γ Draconis.
17	From β Draconis moved in the direction of π Herculis.
18	From ρ Ursæ Majoris to a point near β Ursæ Majoris.
19	From ζ Ursæ Minoris moved towards θ Draconis.
20	From α Arietis moved slowly towards the Pleiades.
21	From near α Aquilæ fell downwards in a S.E. direction; when about half-way through its course the meteor divided into two parts, one of which lagged behind, being separated at its disappearance about 2° from the other.
22	From ε Cassiopeiæ towards Capella.
23	From near γ Andromedæ moved towards η Pegasi.
24	From near β Aurigæ towards ζ Persei.
25	From β Ursæ Minoris towards α Cephei.
26	From Castor moved in the direction of Procyon.
27	From ζ Orionis moved in the direction of Sirius.
28	From θ Andromedæ towards δ Andromedæ.

Month and Day, 1896.		Greenwich Civil Time.	Observer.	Apparent Size of Meteor in Star-Magnitudes.	Colour of Meteor.	Duration of Meteor in Seconds of Time.	Appearance and Duration of Train.	Length of Meteor's Path in Degrees.	No. for Reference.
		h m s				s		°	
November	13	1. 15. 22	E.	2	Bluish-white	1·5	Bright	15	1
,,		1. 26. 15	B.	3	Bluish-white	0·5	None	12	2
November	15	0. 40. 40	D.	...	White	1·0	None	10	3
,,		1. 7. 50	D.	...	Bluish-white	2·0	Bright	45	4
,,		1. 27. 30	D.	...	White	0·5	None	7	5
,,		1. 32. 30	D.	...	Bluish-white	1·0	Bright	30	6
,,		1. 37. 0	D.	...	Greenish	1·0	Bright: remained visible for 4^s	20	7
,,		1. 50. 20	D.	...	Bluish	1·0	Slight	10	8
,,		2. 1. 10	D.	...	Bluish	2·0	Bright	40	9
,,		2. 7. 50	D.	...	White	1·0	Bright	15	10
,,		2. 11. 40	D.	...	White	1·0	Bright	30	11
,,		2. 18. 0	D.	...	Bluish	2·0	Bright	50	12
November	29	18. 37. ±	M.	3	Bluish-white	1·0	None	10	13
December	11	19. 8. 8	M.	3	Bluish-white	1·5	Slight	15	14
,,		22. 10. 25	M.	4	Bluish-white	0·8	None	17	15
,,		22. 15. 51	M.	5	Bluish-white	0·6	None	10	16
,,		22. 17. 1	B.	2	Bluish-white	0·4	None	5	17
,,		22. 22. 13	B.	1	Bluish-white	1·0	None	15	18
,,		22. 23. 25	B.	1	Bluish-white	1·0	None	12	19
,,		22. 25. 22	M.	4	Bluish-white	0·5	None	8	20
,,		22. 29. 38	M.	3	Bluish-white	1·0	None	8	21
,,		22. 33. 0	M.	5	Bluish-white	0·8	None	7	22
,,		22. 35. 27	B.	2	Bluish-white	0·8	None	12	23
,,		22. 35. 40	M.	2	Bluish-white	1·5	Slight	15	24
,,		22. 39. 2	B.	2	Bluish-white	0·8	Bright	15	25
,,		22. 42. 18	M.	5	Bluish-white	0·7	None	8	26
,,		22. 48. 17	M.	3	Bluish-white	1·0	None	7	27
,,		22. 49. 13	B.	3	Bluish-white	0·5	None	5	28
,,		22. 53. 52	M.	4	Bluish-white	0·8	None	8	29
,,		22. 59. 39	B.	2	Bluish-white	0·8	None	10	30

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

No. for Reference.	Path of Meteor through the Stars.
1	From near α Lyncis towards ν Ursæ Majoris.
2	From β Canis Minoris towards θ Canis Majoris.
3	From κ Ursæ Majoris towards β Ursæ Majoris.
4	From near ε Orionis towards γ Eridani.
5	From β Leporis towards v^1 Eridani.
6	From a point near Aldebaran towards θ Ceti.
7	From near α Lyncis towards κ Ursæ Majoris.
8	From about midway between Sirius and β Leporis moved towards the latter.
9	From near γ Leonis passed across δ Leonis.
10	From α Ceti to a point near ζ Ceti.
11	From a point midway between Castor and Pollux towards Regulus.
12	From a point near γ Cancri moved towards β Leonis.
13	From a point a little above δ Ursæ Majoris passed across that star and moved towards α Canum Venaticûm.
14	From ε Aurigæ towards a point midway between α and β Persei.
15	From near β Tauri towards Aldebaran.
16	From a point near o Ursæ Majoris towards β Aurigæ.
17	From a point between γ Geminorum and α Orionis towards 8 Monocerotis.
18	From β Tauri towards a point midway between α Arietis and Aldebaran.
19	From a point between ζ and β Tauri to a point a little below Aldebaran.
20	From 55 Aurigæ towards θ Geminorum.
21	From a point near Castor towards α Lyncis.
22	From β Ursæ Majoris towards ψ Ursæ Majoris.
23	From a point a little above ν Eridani towards δ Eridani.
24	From 23 Ursæ Majoris moved in a broken path towards β Ursæ Minoris.
25	From o Eridani towards γ Eridani.
26	From 21 Lyncis to a point near o Ursæ Majoris.
27	From 31 Lyncis towards κ Ursæ Majoris.
28	From a point between χ Aurigæ and μ Geminorum towards ι Tauri.
29	From a point a little above γ Geminorum towards α Orionis.
30	From κ Ceti towards ρ Ceti.

Month and Day, 1896.		Greenwich Civil Time.	Observer.	Apparent Size of Meteor in Star-Magnitudes.	Colour of Meteor.	Duration of Meteor in Seconds of Time.	Appearance and Duration of Train.	Length of Meteor's Path in Degrees.	No. for Reference.
		h m s				s		°	
December	11	23 0 13	M.	4	Bluish-white	0·6	None	9	1
"		23 5 14	M.	2	Bluish-white	1·5	None	15	2
"		23 7 7	B.	1	Bluish-white	1·5	Slight	15	3
"		23 8 35	M.	4	Bluish-white	0·6	None	16	4
"		23 11 23	M.	3	Bluish-white	0·6	None	15	5
"		23 14 35	M.	4	Bluish-white	0·5	None	7	6
"		23 15 23	B.	3	Bluish-white	0·3	None	5	7
"		23 16 10	M.	3	Bluish-white	0·7	None	8	8
"		23 18 30	B.	1	Bluish-white	1·5	Slight	15	9
"		23 19 10	M.	2	Bluish-white	1·5	Slight	10	10
"		23 27 54	M.	2	Bluish-white	1·5	None	20	11
"		23 30 49	M.	4	Bluish-white	0·8	None	9	12
"		23 37 22	M.	3	Bluish-white	0·7	None	10	13
"		23 40 20	M.	3	Bluish-white	0·6	None	8	14
"		23 43 23	M.	4	Bluish-white	0·7	None	20	15
"		23 52 43	M.	3	Bluish-white	0·6	None	9	16
"		23 57 14	M.	2	Bluish-white	0·9	None	8	17
December	12	0 3 9	M.	3	Bluish-white	1·0	None	13	18
"		0 9 7	M.	4	Bluish-white	0·7	None	10	19
"		0 13 39	M.	2	Bluish-white	1·5	Slight	20	20
"		0 47 48	M.	3	Bluish-white	1·0	None	5	21
"		0 52 46	M.	2	Bluish-white	0·6	None	15	22

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

No. for Reference.	Path of Meteor through the Stars.
1	From a point midway between o and 23 Ursæ Majoris towards ι Ursæ Majoris.
2	From γ Camelopardi moved towards and passed across γ Cephei.
3	From a point between ζ and κ Orionis towards α Leporis.
4	From λ Draconis towards α Draconis.
5	From a point midway between λ and α Draconis towards ι Draconis.
6	From a point a little above β Ursæ Majoris towards δ Ursæ Majoris.
7	From a point between α Orionis and η Leporis towards γ Leporis.
8	From a point a little above ϵ Ursæ Majoris moved in a direction parallel to a line joining ϵ and ζ Ursæ Majoris.
9	From a point midway between κ Geminorum and β Cancri passed to the left of Procyon.
10	From a point about 3° above α Cancri towards μ Ursæ Majoris.
11	From a point near o Ursæ Majoris towards β Ursæ Minoris.
12	From a point about 5° above 31 Lyncis towards 23 Ursæ Majoris.
13	From a point a little below ξ Leonis fell vertically downwards.
14	From a point midway between θ and o Ursæ Majoris towards 23 Ursæ Majoris.
15	From 23 Ursæ Majoris towards β Ursæ Minoris.
16	From a point between α Lyncis and κ Ursæ Majoris towards λ Ursæ Majoris.
17	From a little above α Lyncis towards μ Ursæ Majoris.
18	From a point about 5° above ϵ Leonis moved towards δ Leonis.
19	From a little below γ Leonis towards δ Leonis.
20	From a point a little above 22 Monocerotis moved towards a point about 10° above Sirius.
21	From a point near Castor towards ι Geminorum.
22	From ζ Ursæ Majoris towards β Draconis.