RESULTS

MAGNETICAL AND METEOROLOGICAL

OBSERVATIONS

THE ROYAL OBSERVATORY, GREENWICH,

1863.

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GREENWICH MAGNETICAL AND METEOROLOGICAL OBSERVATIONS,

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INTRODUCTION.

§ 1. *Buildings of the Magnetic Observatory.*

IN consequence of a representation by the Astronomer Royal, and a memorial by the Board of Visitors of the Royal Observatory, addressed to the Lords Commissioners of the Admiralty, an additional space of ground on the south-east side of the former boundary of the Observatory grounds was inclosed from Greenwich Park for the site of a Magnetic Observatory, in the summer of 1837, and the Magnetic Observatory was erected in the spring of 1838. Its nearest angle in its present form is about 174 feet from the nearest point of the S.E. dome, and about 30 feet from the office of Clerk of Works. It .is based on concrete and built of wood, united for the most part by pegs of bamboo; no iron was admitted in its construction, or in subsequent alterations. Its form, as originally built, was that of a cross with four equal arms, very nearly in the direction of the cardinal magnetic points as they were in 1838; the length within the walls, from the extremity of one arm of the cross to the extremity of the opposite arm, was 40 feet, the breadth of each arm 12 feet. In the spring of 1863, the northern arm was extended 8 feet. The height of the walls inside is 10 feet, and the ceiling of the room is about 2 feet higher. The northern arm of the cross is separated from the central square by a partition, so as to form an ante-room. The meridional magnet, for observations of absolute declination and of variations of declination (placed in its position in 1838), is mounted in the southern arm; and the theodolite by which its collimator is viewed, and by which circumpolar stars for determination of the astronomical meridian are also observed (for which observation an opening is made in the roof, with proper shutters) is in the southern arm, near the southern boundary of the central square. The bifilar magnet, for variations of horizontal magnetic force (erected at the end of 1840) is mounted near the northern wall of

the eastern arm.   The horizontal photographic cylinder, which receives the traces of the movements of the declination-magnet and the horizontal-force-magnet, is near the south-eastern re-entering angle of the building.   The balance-magnetometer for variations of vertical magnetic force (erected in 1841) is mounted near the northern wall of the western arm.   About 8 feet east of it, and close to that wall, is the self-registering barometer (erected in 1848); and the vertical photographic cylinder which receives the traces of both is east (magnetic) of the balance-magnetometer and south of the barometer.   The stands of the telescopes which are directed to the small reflectors of the horizontal-force and vertical-force magnetometers are near the theodolite, so that a person seated on a stool can conveniently command all three instruments.   The mean-time-clock is in the southern arm, near the south-west re-entering angle; the standard barometer is near it, in the western arm; the sidereal-time-clock is near the self-registering barometer; the fire-grate (constructed of copper, as far as possible) is near the north end of the west side of the ante-room.   Some of these fixtures may contain trifling quantities of iron; and, as the ante-room is used as a computing room, it is impossible to avoid the introduction of iron, in small quantities.   On the outside, near the north-east corner of the ante-room, a pole 79 feet in height is fixed, for the support of the conducting wires to the electrometers; the electrometers, &c., are planted in the window-seat at the north-end of the ante-room.   The apparatus for naphthalizing the gas used in the photographic registration was formerly fixed in a corner of the ante-room, but is now (1864) mounted in a small detached zinc-built room, erected in 1863, near the west side of the ante-room.

A small wooden building, in the direction S.S.E. (magnetic) from the Magnetic Observatory, 64 feet from its nearest angle, and very near the southern boundary of the grounds, was used till 1863 for the observation of Magnetic Dip; and another small building, in the direction S. (magnetic) from the Magnetic Observatory, 50 feet from the western angle of the southern arm, was used in 1861 and 1862 for the observation of Deflexions.   In 1863, these buildings were removed, and a range of seven rooms, usually called the Magnetic Offices, was erected near the southern fence of the grounds.   Since the summer of 1863, observations of Dip and Deflexion have been made in the westernmost of these rooms.

For better understanding of these descriptions, the reader is referred to the Descriptions of Buildings and Grounds with accompanying Maps, attached to the Volumes of Astronomical Observations for the years 1845 and 1862.

In 1864, a room was excavated below the whole of the Magnetic Observatory except the ante-room, and the bifilar-magnetometer and the balance-magnetometer were transferred to it, in positions vertically below their former positions; a new magnet and mounting being substituted in the latter instrument.   The theodolite, which is in the same place as before, is supported on a brick pier which rises from the floor of the basement room into the upper room.   For the meridional magnet, two

magnets are now used; one in the basement, which photographically registers the variations of declination; and one in the upper room, whose collimator is observed (as formerly) by the theodolite; these are in the same vertical, and about 10 inches north of the former position of the declination-magnet. The whole of the photographic apparatus, revolving cylinders, &c., is in the basement. The daily variation of temperature in the basement is usually about 1° of Fahrenheit; on very rare occasions it has amounted to 3°. The variation between summer and winter is about 6°, the temperature being maintained nearly at 60°.

§ 2. *Declination-Magnet and Apparatus for observing it.*

The theodolite with which the meridional magnet is observed is by Simms: the radius of its horizontal circle is 8·3 inches: it is divided to 5′, and reads to 5″, by three verniers, carried by the revolving frame of the theodolite. The fixed frame stands upon three foot-screws, which rest in brass channels let into a stone pier, that is firmly fixed in the ground and unconnected with the floor. The revolving frame carries the Y's (with vertical adjustment at one end) for a telescope with transit-axis: the length of the axis is $10\frac{1}{2}$ inches: the length of the telescope 21 inches: the aperture of the object glass 2 inches. The Y's are not carried immediately by the T head which crosses the vertical axis of the revolving frame, but by pieces supported by the ends of that T head, and projecting horizontally from it: the use of this construction is to allow the telescope to be pointed sufficiently high to see δ Ursæ Minoris above the pole. The eye-piece of the telescope carries only one fixed horizontal wire, and one vertical wire moved by a micrometer-screw. The opening in the roof of the building permits the observation of circumpolar stars, as high as δ Ursæ Minoris above the pole, and as low as β Cephei below the pole.

For supporting the magnet, a braced wooden tripod-stand is provided, resting on the ground and unconnected with the floor. Upon the cross-bars of the stand rests a double rectangular box (one box completely inclosed within another), both boxes being covered with gilt paper on their exterior and interior sides. On the southern side of the principal upright piece of the stand is a moveable upright bar, turning in the vertical E. and W. plane, upon a pin in its centre (which is fixed in the principal upright), and carrying at its top the pulleys for suspension of the magnet; this construction is adopted as convenient for giving an E. and W. movement to the point of suspension, by giving a motion to the lower end of the bar. The top of the upright piece carries a brass frame with two pulleys, whose axes are E. and W.: one of these pulleys projects beyond the north side of the principal upright, and from it depends the suspension skein: the other pulley projects on the south side: the suspension skein being brought from the magnet up to the north pulley is carried over it and over the south pulley, and is then attached

to a leathern strap, which passes downwards to a small windlass, carried by the lower part of the moveable upright. The height of the two pulleys above the floor is about 11 ft. 9 in., and the height of the magnet is about 3 ft. 0 in.,; so that the length of the free suspending skein is about 8 ft. 9 in.

The magnet was made by Meyerstein, of Göttingen: it is a bar 2 feet long, $1\frac{1}{2}$ inch broad, and about $\frac{1}{4}$ inch thick: it is of hard steel throughout. The magnet carrier was also made by Meyerstein, but it has since been altered by Simms. The magnet is not inserted endways in this support, but sideways, a double square hook being provided for sustaining it; and the upper part of the magnet carrier is simply hooked into the skein.

The suspending skein is of silk fibre, in the state in which it is first prepared by silk manufacturers for further operations; namely, when seven or more fibres from the cocoon are united by juxtaposition only (without twist) to form a single thread. The skein is strong enough to support perhaps three times the weight of the magnet, &c.

Upon the magnet there slide two brass frames, firmly fixed in their places by means of pinching-screws. One of these contains, between two plane glasses, a cross of delicate cobwebs; the other holds a lens of 13 inches focal length and nearly 2 inches aperture. This combination, therefore, serves as a collimator without a tube: the cross of cobwebs is seen very well with the theodolite-telescope, when the suspension-bar of the magnet is so adjusted as to place the object-glass of the collimator in front of the object-glass of the theodolite, their axes coinciding. The wires are illuminated by a lamp and lens in the night, and by a reflector in the day.

In order to diminish the extent of vibrations of the magnet, a copper bar, about one inch square, is bent into a long oval form, intended to contain within itself the magnet (the plane of the oval curve being vertical). A lateral bend is made in the upper half of the oval, to avoid interference with the suspension-piece of the magnet. The effect of this copper bar is very striking. It appears, from rough experiments, that every second vibration of the magnet (that is, when a direct and reverse swing have been finished) is reduced in the proportion of 5 : 2 nearly.

On mounting the photographic apparatus in June, 1847, the old torsion-circle and suspension-stirrup were removed, and a new suspension-stirrup was mounted, firmly united with an upright rod 7·9 inches in length, the top of which is connected by an adjustible circular horizontal movement (firmly clamped while in use) to an upright frame $5\frac{1}{2}$ inches high, to which are attached the necessary clips for carrying a concave mirror 5 inches in diameter, with its face vertical, and its lower edge 4 inches above the exterior wooden box. At the top of this frame is a torsion-circle with a hook, which is simply hooked into the end of the silk skein. The skein is necessarily shortened several inches, and the weight of the suspending apparatus is considerably increased. The support of the magnet by this new apparatus does not in any degree interfere with the facilities of observing with the telescope in the ancient method.

OBSERVATIONS RELATING TO THE PERMANENT ADJUSTMENTS OF THE DECLINATION
MAGNET AND ITS THEODOLITE.

1. Determination of the inequality of the pivots of the theodolite-telescope.

1862, December 26. The theodolite was clamped, so that the transit axis was at right angles to the astronomical meridian. The illuminated end of the axis of the telescope was first placed to the East: the level was applied, and its scale was read; the level was then reversed, and its scale was again read; it was then again reversed, and again read, and so on successively six times. The illuminated end of the telescope was then placed to the West, and the level was applied and read as before. This process was repeated four times, and the result was that when the level indicates the axis to be horizontal, the axis at the illuminated end is really too low by $0''{\cdot}3$ nearly.

2. Value of one revolution of the micrometer-screw of the theodolite telescope.

1862, December 26. The magnet was made to rest on blocks of wood, and its collimator was used as a fixed mark at an infinite distance. The micrometer was placed in different positions, and the telescope of the theodolite was then turned till the micrometer wire bisected the cross. The result of ten comparisons of theodolite-readings with large values and small values of the micrometer-reading was, that one revolution $= 1'.\,33''{\cdot}\,85$. This agrees with the result of observations made in preceding years.

3. Determination of the micrometer-reading for the line of collimation of the theodolite-telescope.

1862, December 26. The vertical axis of the theodolite had been adjusted to verticality, and the transit axis was made horizontal. The declination-magnet was made to rest on blocks, and the cross-wires carried by it were used as a collimator for determining the line of collimation of the telescope of the theodolite. The telescope was reversed after each observation. The mean of 20 double observations was $99^{r}{\cdot}994$.

4. Determination of the effect of the mean-time-clock on the declination-magnet.

The observations by which this has been determined are detailed in the volumes for 1840, 1841, 1844, and 1845. It appears that it is necessary to add $9''{\cdot}41$ to every reading of the theodolite.

5. Determination of the compound effects of the vertical-force-magnet and the horizontal-force-magnet on the declination-magnet.

The details applying to the effect of the horizontal-force-magnet and first vertical-force-magnet will be found in the volumes for 1840, 1841, 1844, and 1845. It appeared that it was necessary to subtract $55''\cdot22$ from all readings of the theodolite. In 1848 a new vertical-force-magnet was introduced, and the subtractive quantity was now found to be $42''\cdot2$.

6. Determination of the error of collimation for the plane glass in front of the boxes of the declination-magnet.

1862, December 26. The magnet was made to rest entirely on blocks. The micrometer-head of the telescope was to the East. The plane glass has the word " top " engraved on it, and this word is always kept upwards. The cross-wire carried by the collimator of the magnet was observed with the marked side of the glass alternately inside and outside the box. The result of 20 double observations was, that in the ordinary position of the glass $11''\cdot5$ is to be subtracted from all readings.

7. Determination of the error of collimation of the magnet-collimator, with reference to the magnetic axis of the magnet.

1862, December 27. Observations were made by placing the Declination-Magnet in its stirrup, with its collimator alternately W. and E. of it, and observing the collimator-wire by the theodolite-telescope; the moveable upright bar being so moved that the collimator in each observation was in the line of the theodolite-telescope. Sixteen pairs of observations were taken. The mean half excess of reading with collimator W. (its usual position) above that with collimator E. was $5'.\ 0''\cdot\ 2$. This was combined with the results of several preceding years, and $4'.\ 50''\cdot\ 7$ was adopted for use in 1863.

8. Miscellaneous causes of error.

In the volume for 1841, observations are exhibited shewing that the oval copper bar, or damper, had but little or no effect. Repeated observations, of less formal character, in succeeding years, have confirmed this result. The same bar has encircled the magnet throughout the year 1863. Observations made in the year 1865 appear to shew that the damper exercises a certain degree of drag on the needle, equivalent to a torsion-force of $\frac{1}{120}$.

In the volume for 1841, observations are exhibited shewing that the effect of the grate in the ante-room is insensible.

In the volume for 1842, observations are exhibited shewing that the iron attached to the electrometer pole has little or no effect on the magnet.

9. Calculation of the constant used in the reduction of the observations of the declination-magnet, the micrometer-head of the theodolite-telescope being East.

<div style="text-align:center">°   ′   ″</div>

Micrometer equivalent for reading for line of collimation, 99ʳ·994............—2. 36. 24·4

Correction for the plane glass in front of the box, in its usual position......—   11·5

Correction due to the compound effect of the horizontal force magnet and the

     vertical force magnet..—   42·2

           —2. 37. 18·1

Correction for the effect of the mean time clock................................+   9·4

           —2. 37.   8·7

The collimator West of the magnet.   Correction for error of collimation...+   4. 50·7

Constant used in the reduction of the observations.........................—2. 32. 18·0

10. Determination of the time of vibration of the declination-magnet under the action of terrestrial magnetism.

It is known, from constant observation, that the time of a single vibration is as nearly as possible 30ˢ; but no observations are recorded which merit distinct reference.

11. Fraction expressing the proportion of the torsion-force to the earth's magnetic force.

In the Introduction to the Magnetical Observations 1847, the process is given in great detail by which the torsion force of the skein then supporting the magnet was found to be $\frac{1}{100}$ of the earth's magnetic force: as determined by the proportion of the disturbance in the position of the magnet, produced by turning the torsion-circle through a measured angle, to that measured angle. For the skein which broke in 1848, a similar skein was substituted; and observations made in nearly every year to 1864, gave sensibly the same result.

DETERMINATION OF THE READINGS OF THE HORIZONTAL CIRCLE OF THE THEODOLITE CORRESPONDING TO THE ASTRONOMICAL MERIDIAN.

The error of the level is determined by application of the spirit-level at the time of observation: due regard being paid, in the reduction, to the inequality of pivots already found. One division of the level is considered = 1″·0526. The azimuth-reading is then corrected by this quantity;

<div style="text-align:center">Correction = Elevation of W. end of axis × tan star's altitude.</div>

The readings of the azimuth circle increase as the instrument is turned from N. to E., S., and W.; from which it follows that the correction must have the same sign as the elevation of the W. end.

The correction for the azimuth of the star observed has been computed independently in every observation, by a peculiar method, of which the principle is fully explained

in the volumes for 1840, 1841, 1843, 1844, 1845. The formula and table used are the following :—

Let $A_{,,}$ = seconds of arc in star's azimuth,

C_s = seconds of time in star's hour-angle,

$a_{,,}$ = seconds of arc in star's N.P.D. for the day of observation,

Then log. $A_{,,}$ = log. C_s + log. E + log. $(a_{,,} + F)$ + log. cos φ.

The values of log. E, F, and log. cos φ, are given in the following table :—

TABULATED VALUES of Log. Cos ϕ, for DIFFERENT VALUES of C_s, and of the QUANTITIES LOG. E and F, for the STARS POLARIS and δ URSÆ MINORIS.

Hour Angle.	Log. Cos ϕ for			
	Polaris.	Ursæ Minoris.	Polaris S.P.	δ Ursæ Min. S.P.
m				
1	9·99999	9·99999	9·99999	9·99999
2	999	999	999	999
3	999	999	999	999
4	998	998	998	998
5	996	996	997	997
6	994	994	996	996
7	992	992	994	995
8	990	989	992	993
9	988	986	990	991
10	985	983	988	989
11	981	979	985	987
12	978	975	982	984
13	974	971	979	981
14	970	966	975	978
15	966	961	972	975
16	961	955	968	971
17	956	950	964	968
18	951	944	959	964
19	945	937	955	960
20	939	930	950	956
21	932	923	945	951
22	926	915	939	946
23	919	908	933	941
24	912	900	928	936
25	904	891	922	930
26	896	882	915	925
27	888	873	909	919
28	880	863	902	912
29	871	853	894	906
30	9·99862	9·99843	9·99887	9·99900
Log. E	6·09721	6·13638	−6·03899	−6·00617
F	−186″ ·79	−944″ ·71	+181″ ·57	+886″ ·86

Observations for determining the readings for the astronomical meridian were made on the following days in 1863 :— January 8, 27, February 5, 28, April 1, 15, May 2, 16,

June 1, 17, July 27, August 8, 31, October 14, 31, December 2, and 12. As a check on the continued steadiness of the theodolite, observations of a fixed mark (a small hole in a plate of metal above the Observatory Library, illuminated by a reflector of sky-light in the day and by a lamp at night,) have been taken about thirty times at nearly equal intervals through the year.

The following is a description of the method of making and reducing the eye-observations of the declination-magnet :—

A fine horizontal wire (as stated above) is fixed in the field of view of the theodolite-telescope, and another fine vertical wire is fixed to a wire-plate, moved right and left by a micrometer screw. On looking into the telescope, the cross of the magnetometer is seen; and during the vibration of the magnet, this cross is seen to pass alternately right and left. The observation is made by turning the micrometer till its wire bisects the image of the magnet-cross at the pre-arranged times, and reading the micrometer. The verniers of the horizontal circle are read.

The mean-time clock is kept very nearly to Greenwich mean time (its error being ascertained each day), and the clock-time for each determination is arranged before-hand.

If the magnet is in a state of disturbance, the first observation is made by the observer applying his eye to the telescope about one minute before the pre-arranged time; he bisects the magnet-cross by the micrometer wire at 45^s, and again at 15^s before that time, also at 15^s and 45^s after that time. The intervals of these four observations are therefore the same as the time of vibration of the magnet, and the mean of all the times is the same as the Greenwich pre-arranged mean time.

The mean of each pair of adjacent readings of the micrometer is taken (giving three means), and the mean of these three is adopted as the result. In practice, this is done by adding the first and fourth readings to the double of the second and third, and dividing the sum by 6.

The number of instances in which the magnet was observed in a state of vibration during the year 1863 is very small. Indeed, since the introduction (1842, June 16) of the double box covered with gilt paper, for inclosing the magnet, instead of the flat drum with glass top furnished by Mr. Meyerstein, it is found that the magnet is seldom in a state of vibration; and it passes from one position of rest to another, sometimes through a large arc, without vibration. When the magnet is found to be thus free from vibration, two bisections only of the cross are made, one about 15^s before the time recorded, the other about 15^s after that time (30^s being nearly the time of a single vibration).

The adopted result is converted into arc, supposing $1^r = 1'. 33''\cdot85$, and the quantity thus deduced is added to the mean of the vernier-readings, from which is subtracted the constant given in article 9 of the permanent adjustments; the difference between this number and the adopted reading for the Astronomical South Meridian is taken;

and thus is deduced the magnetic declination, which is used in determining the zero for the photographic register.

§ 3. *Photographic self-registering Apparatus for Continuous Record of Magnetic Declination.*

The general principle adopted for all the photographic instruments is the same. The photographic paper is wrapped round a glass cylinder, and the axis of the cylinder is made parallel to the direction of the movement which is to be registered. The cylinder is turned by clock-work, with uniform velocity. The spot of light (for the magnets and barometer) or the boundary of the line of light (for the thermometers) moves, with the movements which are to be registered, in the direction of the axis of the cylinder, while the cylinder itself is turned round. Consequently, when the paper is unwrapped from its cylindrical form, there is traced upon it (though not visible till the proper chemical agents have been applied) a curve, of which the abscissa measured in the direction of a line surrounding the cylinder is proportional to the time, while the ordinate measured in the direction parallel to the axis of the cylinder is proportional to the movement which is the subject of measure.

In the instruments for registering the motions of the magnets and barometer, a line of abscissæ is actually traced on the paper, by a lamp giving a spot of light in an invariable position, the effect of which on the revolving paper is to trace a line surrounding the cylinder. For the thermometers this is not necessary, as the thermometer-scales are made to carry and to transfer to the photographic paper sufficient indications of the actual reading of the thermometers.

Every part of the cylinder-apparatus except those on which the spots of light fall is covered with a double case of blackened zinc, having a slit for each moveable spot of light and a hole for the invariable spot; and every part of the path of the photographic light is protected by blackened zinc tubes from the admixture of extraneous light.

In all the instruments, the following method is used for attaching, to the sheet of photographic paper, indications of the time when certain parts of the photographic trace were actually made, and for giving the means of laying down a time-scale applicable to every part of the trace. By means of a small moveable plate, arranged expressly for this purpose, the light which makes the trace can at any moment be completely cut off. An assistant, therefore, occasionally cuts off the light (registering in the proper book the clock-time of doing so), and after a few minutes withdraws the plate (again registering the time). The effect of this is to make a visible interruption in the trace, corresponding to registered times. By drawing lines from these points of interruption parallel to the axis of the cylinder, to meet the photographic line of

abscissæ, or an adopted line of abscissæ parallel to it, points are defined upon the line of abscissæ corresponding to registered times. The whole length of the photographic sheet (except where one end, in the cylindrical arrangement, laps over the other) corresponds to the known time of revolution of the cylinder. A scale being prepared beforehand, whose value for the time of revolution corresponds to the circumference of the cylinder, and the scale-reading for the registered time of interruption of light being applied to the foot of the ordinate corresponding to that interruption, the divisions of hours and minutes may be transferred at once from the scale to the line of abscissæ. In practice it is found that the length of the paper is not always the same, and it is necessary, therefore, to use a scale (a separate one for each separate instrument) which will admit of small expansion and contraction, preserving the proportion of its different parts unaltered. A scale of vulcanized caoutchouc, mounted on a small frame in which one end of the scale is fixed while the other is drawn by a screw, is found to answer extremely well.

One of the revolving cylinders is used for the photographic record of the Declination Magnet and the Horizontal Force Magnet. In the actual positions of these two magnets it was found that the line, drawn from the suspending skein of the declination-magnet to the center of the two suspending lines of the bifilar or horizontal-force-magnet, passed through the internal projection of the south-eastern re-entering angle of the building, but by so small a quantity that I judged it best to plant the apparatus for registry of the two instruments close to that re-entering angle. (In the preparation of the basement in 1864, to which allusion has been made in pages *iv* and *v*, this re-entering angle is cut away, so that the straight line from the suspending skein of the declination-magnet to the center of the bifilar magnet passes through a clear space, in which the registering apparatus is now placed). The first thing to be described is the arrangement of glass cylinders. One glass cylinder with a hemispherical extremity (in all respects similar to those used as shades or protectors of small clocks, works of art, &c.), $11\frac{1}{2}$ inches long in its cylindrical part, and $14\frac{1}{2}$ in circumference, is covered internally with a black pigment, and is stopped at the open end by insertion in a metallic cap, in the center of which is a short spindle and winch-arm. Round this cylinder the photographic paper is wrapped, and the moisture on the photographic paper agglutinates its overlapping ends with sufficient firmness. The cylinder and mounted paper are then covered by another glass cylinder with hemispherical end, whose open end is fixed, by friction, on the rim of the metallic cap to which the inner cylinder is attached, a collar of tape being inserted between. In this state the cylinders are placed in their working-mounting; the short spindle in the cap, and the large cylinder near its hemispherical end, rest upon friction-rollers, the axis of the cylinder being horizontal. The winch-arm is lodged in a fork at the end of the hour-hand of a timepiece, which is made for the purpose, not exceeding in size an ordinary box-chronometer, but with very strong wheels and powerful spring,

and with duplex escapement. In order to avoid the ordinary shake of the hour-hand of a clock, due to the play of the motion-wheels under the dial, the hour-hand is placed upon the central axis, and the second wheel, which is usually placed in the center and carries the minute hand, is placed on one side. The cylinder was orignally made to turn in twelve hours; but, as this construction sometimes required a change of the photographic sheet every twelve hours, the wheels of the time-piece were changed, to make the cylinder turn in twenty-four hours.

The light, by which the trace of the declination-magnet is made, originates in a lamp (formerly of camphine, but, since 1849, of coal-gas charged with the vapour of coal-naphtha) placed slightly out of the direction of a straight line drawn from the suspension-skein of the magnet to the center of the photographic sheet. Before the flame of the lamp is placed a small aperture, about $0^{in}\cdot3$ high and $0^{in}\cdot01$ broad, independent of the lamp, and supported by a part of the same frame which carries the magnet. The light from the aperture falls upon a concave mirror of speculum-metal, 5 inches in diameter, and about 26 inches from the aperture. This concave mirror is above the top of the box; it is carried by a part of the magnet-carrier, which, although it has a small movement of adjustment relative to the magnet-carrier, is in practice very firmly clamped to it, so that the mirror receives all the angular movements of the magnet. By the concave mirror, the light diverging from the aperture is made to converge to a place nearly on the surface of the cylinder of photographic paper whose distance from the mirror is about $11\cdot8$ feet. The form of the aperture, however, and the astigmatism caused by the inclined reflexion from the mirror, produce this effect, that the image is somewhat elongated in the vertical direction, and is at the same time slightly curved. To diminish the length there is placed near the cylinder a plano-convex cylindrical lens of glass, with its axis horizontal, and the image is thus reduced to a neat spot of light.

The spot of light from the concave mirror of the declination-magnet is received on the south side of the cylinder, near its west end.

Near the east end of the cylinder is placed a gas lamp, shining by reflexion through a small fixed aperture above the cylinder, from which the light falls upon a small cylindrical lens, by which a very delicate and well-defined photographic trace is marked upon the paper, in a fixed position, intermediate between the photographic curves of the declination and horizontal force magnets. This is the photographic base-line, or line of abscissæ, to which allusion has been made above.

For the declination-magnet, the values, in minutes and seconds of arc, of movements of the photographic spot in the direction of the ordinate, are thus deduced from a geometrical calculation founded on the measures of different parts of the apparatus. The distance of the cylinder from the concave mirror is about $11\cdot8$ feet, and a movement of $1°$ of the mirror produces a movement of $2°$ in the reflected ray; and the normal to the axis of the cylinder is inclined about $7°$ to the reflected ray. From this it is

found that 1° of movement of the mirror is represented by 4·99 inch upon the photographic paper. A small scale of pasteboard is prepared, whose graduations correspond in value to minutes and seconds so calculated. The zero of the ordinate-scale is found in the following manner. The time-scale having been laid down as is already described, and actual observations of the position of the magnet having been made with the eye and the telescope, (as has been fully described above), at certain registered times, there is no difficulty (by means of these registered times) in defining the points of the photographic trace which correspond to the observed positions. The pasteboard scale being applied as an ordinate to one of these points, and being slid up and down till the scale reading which represents the reading actually taken by the eye-observation falls on that point, the reading of the scale where it crosses the line of abscissæ is immediately found. The various readings given by different observations, so long as there is no instrumental change, will scarcely differ, and may be combined in groups, and thus an adopted reading for the line of abscissæ may be obtained. From this, with the assistance of the same pasteboard scale, there will be laid down without difficulty a new line, parallel to that line of abscissæ, whose ordinate would represent some whole number of degrees, or other convenient quantity.

§ 4. *Horizontal Force Magnet and Apparatus for observing it.*

The horizontal-force-magnet, furnished by Meyerstein of Göttingen, is, like the declination-magnet, 2 feet long, 1½ inch broad, and about ¼ inch thick. For its support, a wooden tripod-stand is planted in the eastern arm of the Magnetic Observatory, resting immediately on the ground, and not touching the floor. This tripod supports an upright plank, to the top of which a brass frame is attached, carrying two brass pulleys (with their axes in the same east and west line) in front of the plank, and two (in a similar position) at the back of the plank ; these constitute the upper suspension-piece. A small windlass is attached to the back of the plank at a convenient height. The magnet-carrier consists of two parts ; the upper part is a vertical plate, having a pair of small pulleys attached to it, (whose axes are perpendicular to the plate), and connected below with the torsion-circle ; the lower part is the magnet-stirrup, turning by stiff friction in the torsion-circle, and bearing a pointer above for reading its graduations, and bearing also a small plane mirror below, to which a fixed telescope is directed for observing by reflexion the graduations of a fixed scale (to be mentioned shortly). Under the two small pulleys of the vertical plate passes a skein of silk ; its two branches rise up and pass over the front pulleys of the suspension-piece, then over its back pulleys, and then descend and pass under a single large pulley, whose axis is attached to a string that passes down to the windlass. Supported by the two branches of the skein, the magnet swings freely, but the direction that it takes will depend on the angular position of its stirrup with respect to the

vertical plate; it is intended that the index should be brought to such a position on the torsion-circle that the two suspending branches should not hang in one plane, but should be so twisted that their torsion-force will maintain the magnet in a direction very nearly E. and W. magnetic (its marked end being W.), in which state an increase of the earth's magnetic force draws the marked end towards the N., till the torsion resistance is sufficiently increased to resist it, or a diminution allows the torsion-force to draw it towards the S. The magnet, with its plane mirror, hangs within a double rectangular box (one box completely inclosed within another) covered with gilt paper, similar to that used for the declination-magnet; in its S. side there is one long hole, covered with glass, through which the rays of light from the scale enter to fall on the plane mirror, and the rays reflected by the mirror pass to the fixed telescope. The vertical rod, (below the pointer for indications of torsion-circle), which carries the magnet-stirrup, passes through a hole in the top of the box. The height of the brass pulleys of the suspension-piece above the floor is $11^{ft.}\ 5^{in.}$; that of the pulleys of the magnet-carrier is $3^{ft.}\ 8^{in.}$; and that of the center of the plane mirror is about $2^{ft.}\ 11^{in.}$. The distance between the branches of the silk skein, where they pass over the upper pulleys, is $1^{in.} : 48$; at the lower part the distance between them is $0^{in.}\text{·}92$.

An oval copper bar embraces the magnet (exactly similar to that for the declination-magnet), for the purpose of diminishing its vibrations.

The scale, which is observed by means of the plane mirror, is fixed to the South wall of the East arm of the magnetic observatory. The numbers of the scale increase from East to West, so that when the magnet is inserted in the magnet-cell with its marked end towards the West, increasing readings of the scale (as seen with a fixed telescope directed to the mirror which the magnet carries) denote an increasing horizontal force. A normal from the magnet-mirror to the scale meets it at the division 40 nearly.

The telescope is fixed to a wooden tripod stand, whose feet pass through the floor without touching it, and are firmly connected with piles driven into the ground. Its position is such that an observer, sitting in a chair at a convenient place for observing the declination-magnet with the theodolite, can, by turning his head, look into the telescope which is directed to the mirror of this instrument. The angle between the normal to the scale (which usually coincides nearly with the normal to the axis of the magnet) and the axis of the telescope, is about 54°, and the plane of the mirror is therefore inclined to the axis of the magnet about 27°.

On 1847, August 21, the magnet-carrier for the photographic apparatus was mounted. It differs from that just described only in this respect, that the vertical plate with the two small pulleys is sufficiently raised to permit the descending rod to carry, between the torsion-circle and the top of the box, a concave mirror 4 inches in diameter. The form of this suspension is so exactly similar to that for the declination-magnet (the sole

differences being that the mirror is 4 inches in diameter, and that the suspending skein passes under two pulleys, as above described), that it is unnecessary here to give any further description of it.

OBSERVATIONS RELATING TO THE PERMANENT ADJUSTMENTS OF THE HORIZONTAL-FORCE-MAGNET.

1. Determination of the times of vibration and of the different readings of the scale for different readings of the torsion-circle, and the reading of the torsion-circle and the time of vibration when the magnet is transverse to the magnetic meridian.

To render the process intelligible, it may be convenient to premise the following explanation.

Suppose that the magnet is suspended in its stirrup which is firmly connected with the small plane mirror, with its marked end in a magnetic westerly direction (not exactly W., but in any westerly direction between N. and S.), and suppose that, by means of the telescope directed towards that mirror, the scale is read, or (which is the same thing) the position of the plane mirror and of the stirrup, and therefore that of the axis of the magnet, are defined. Now let the magnet be taken out of the stirrup and replaced with its marked end easterly. The terrestrial magnetic power will now act, as regards torsion, in the direction opposite to that in which it acted before, and therefore the magnet will not take the same position as before. But by turning the torsion-circle, which changes the amount and direction of the torsion-power produced by the oblique tension of the suspending cords, the magnet may be made to take the same position as before (which will be proved by the reading of the scale, as viewed in the plane mirror, being the same as before). The reading of the torsion-circle will be different from what it was before. The effect of this operation then is, to give us the difference of torsion-circle-readings for the same position of the magnet-axis with the marked end opposite ways, but it gives no information as to whether the magnet-axis is transverse to the meridian, inasmuch as the same operation can be performed whether the magnet-axis is transverse or not.

But there is another observation which will inform us whether the magnet-axis is or is not transverse. Let the time of vibration be taken in each position of the magnet. Resolve the terrestrial magnetic force acting on the poles of the magnet 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, with axis in the same position), 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 the time of vibration if there were no other force would be the same. But there is another force, namely the longitudinal force; and when the marked end is northerly, this tends from the center of the magnet's length, and when it is southerly it tends towards the center of the

magnet's length; and in a vibration of given extent this produces force, in one case increasing that from the torsion and in the other case diminishing it. The times of vibration therefore will 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.

The criterion then of the position truly transverse to the meridian (which position is necessary in order that the indications of our instrument may apply truly to changes of the magnitude of terrestrial magnetic force without regard to changes of direction) is this. Find the readings of the torsion-circle which, with magnet in reversed positions, will give the same readings of the scale as viewed by reflexion in the plane mirror, and will also give the same time of vibration for the magnet. With these readings of the torsion-circle the magnet is transverse to the meridian; and the difference of the readings of the torsion-circle is the difference between the position, when terrestrial magnetism acting on the magnet twists it one way, and the position when the same force twists it the opposite way, and is therefore double the angle due to the torsion-force of the suspending lines when they neutralize the force of terrestrial magnetism.

The following table exhibits the elements of one of the determinations made in 1863 :—

1863. Day.	The Marked end of the Magnet.							
	West.				East.			
	Torsion-Circle Reading.	Scale Reading.	Difference of Scale Readings for 1° of Torsion.	Mean of the Times of Vibration.	Torsion-Circle Reading.	Scale Reading.	Difference of Scale Readings for 1° of Torsion.	Mean of the Times of Vibration.
	°	div.	div.	s	°	div.	div.	s
January 2	138	19·34	11·10	22·26	227	17·75	8·55	21·10
	139	30·44	8·50	21·96	228	26·30	9·81	21·34
	140	38·94	8·81	21·92	229	36·11	8·20	21·44
	141	47·75	8·88	21·70	230	44·31	10·91	21·52
	142	56·63	8·38	21·84	231	55·22	8·78	21·72
	143	65·01	10·88	21·50	232	64·00	9·08	21·68
	144	75·89	7·67	21·48	233	73·08	9·75	21·80
	145	83·56	8·54	21·35	234	82·83	8·67	21·96
	146	92·10		20·92	235	91·50		22·04

The times of vibration and scale readings were sensibly the same, when the torsion-circle read 141°. 30′, marked end West, and 230°. 43′, marked end East, differing 89°. 13′. Half this difference, or 44°. 36′. 30″, is the angle of torsion when the magnet is transverse to the meridian.

The mean of several determinations gave 44°. 37′. 55″; the value which was used in the preceding year was 44°. 37′. 30″, and this value was adopted for the year 1863. The reading adopted for the torsion-circle, marked end of the magnet West, was 141°·30′ for the year.

2. Determination of the compound effect of the vertical-force-magnet and the declination-magnet on the horizontal-force-magnet, when suspended with its marked end towards the West.

The details of the experiments, made while the old vertical-force-magnet was in use, will be found in the volumes for 1841, 1842, 1843, 1844, 1845. The effect was to increase the readings by $0^{div.}487$. On mounting a new vertical-force-magnet in 1848, similar experiments were made, and the resulting number was $0^{div.}45$. These quantities are totally unimportant in their influence on the registers of changes of horizontal force.

3. Computation of the angle corresponding to one division of the scale, and of the variation of the horizontal force (in terms of the whole horizontal force) which moves the magnet through a space corresponding to one division of the scale.

It was found by accurate measurements, at the end of the year 1840, that the distance from $40^{div.}$ on the scale to the center of the face of the plane mirror is $8^{ft.}\ 5^{in.}\ 1$, and that the length of $30^{div.}9$ of the scale is exactly 12 inches; consequently the angle at the mirror subtended by one division of the scale is $13'.\ 12''\cdot32$, or, for one division of the scale, the magnet is turned through an arc of $6'.\ 36''\cdot16$.

The adopted angle of torsion as mentioned above is $44°.\ 37'.\ 30''$; consequently the variation of horizontal force (in terms of the whole horizontal force) for a disturbance through one division of the scale, computed by the formula, "Cotan. angle of torsion × value of one division in terms of radius," is $0\cdot001946$. This number has been used throughout the year 1863.

4. Determination of the correction for the effect of temperature on the horizontal force magnet.

In the Introduction to the volume of Magnetical and Meteorological Observations for 1847 will be found a detailed account of observations made in the years 1846 and 1847 for determination of this element. The principle adopted was that of observing the deflection which the magnet (to be tried) produces on another magnet; the magnet (to be tried) being carried by the same frame which carries the telescope that is directed to the plane mirror attached to the other magnet, and which also carries the scale that is viewed in these experiments by reflection in that plane mirror. The rotation of the frame was measured by a graduated circle about 23 inches in diameter. The magnet (to be tried) was always on the eastern side of the other magnet. It was enclosed in a copper trough, which was filled with water at different temperatures. One end of the magnet (to be tried) was directed towards the other magnet. The values found for correction of the results as to horizontal force found with the magnet at temperature $t°$, in order to reduce them to what they would have been if the

temperature of the magnet had been 32°, expressed as multiples of the whole horizontal force, were,*

When the marked end of the magnet (to be tried) was West,

$$0\cdot00007137 \ (t-32) + 0\cdot000000898 \ (t-32)^2$$

When the marked end of the magnet (to be tried) was East,

$$0\cdot00009050 \ (t-32) + 0\cdot000000626 \ (t-32)^2$$

The mean, or

$$0\cdot00008093 \ (t-32) + 0\cdot000000762 \ (t-32)^2$$

has been embodied in tables which have been used in the computation of the " Reduction of Magnetic Observations 1848–1857," attached to the Volume of Observations 1859, and in the computation for " Days of Great Magnetic Disturbance 1841–1857 " attached to the volume for 1862.

This may be a convenient place for stating that observations made in the year 1864, in which the magnet has been heated by hot air instead of hot water, give a much larger value to the principal coefficient.

The method of observing with the horizontal-force magnet is the following :—

A fine vertical wire is fixed in the field of view of the telescope, which is directed to the plane mirror carried by the magnet.   On looking into the telescope, the graduations of the fixed scale, mentioned in page *xvi,* are seen ; and during the oscillations of the magnet, the divisions of the scale are seen to pass alternately right and left across the wire.   The clock-time, for which the position of the magnet is to be determined, is the same as that for the observation of declination.   The first observation is made by the observer applying his eye to the telescope 40^s before that time, and, if the magnet is in a state of vibration, he observes the next four extreme points of vibration of the scale, and the mean of these is adopted in the same manner as for the declination-observations ; but if it is at rest, then at 10^s before the pre-arranged time, he notes the division of the scale bisected by the wire ; and 20^s afterwards he notes whether the same division continues bisected, and if it does, that reading is adopted as the result.

The number of instances when the magnet was observed in a state of vibration during the year 1863 is very small.

Within the double box is suspended a thermometer, which is read at every hour of observation.   On one day also of every week, the readings of the thermometer are taken at 18^h, 21^h, 22^h, 23^h, 0^h, 1^h, 2^h, 3^h, 6^h, 9^h, and 12^h.   Commencing with the month of June, self-registering maximum and minimum thermometers were placed outside the box, and were read twice every day.   All these readings are printed in the tables, with this exception only, that, when there are two maxima and two minima, the absolute maximum and absolute minimum only are printed.

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* By inadvertence in printing the Introduction 1847, the letter *t* has been used in two different senses.

§ 5. *Photographic self-registering Apparatus for Continuous Record of Magnetic Horizontal Force.*

Much of the description of the photographic apparatus attached to the declination-magnet applies also to that which is attached to the horizontal-force-magnet. A concave mirror of speculum-metal, 4 inches in diameter, is carried by the magnet-carrier. The light of a lamp of naphthalized gas shines through a small aperture $0^{in.}\cdot 3$ high, and $0^{in.}\cdot 01$ broad (which is supported by the magnet-stand), at the distance of about 22 inches from the concave mirror, and is made to converge to a point, on the north surface and near the east end of the same revolving cylinder which receives the light from the concave mirror of the declination-magnet. A cylindrical lens parallel to the axis of the cylinder receives the somewhat elongated image of the source of light, and converts it into a well-defined spot. The motions of this spot parallel to the axis represent the angular movements of the magnet which are produced, by an ·increase of terrestrial magnetic force overcoming more completely the torsion-force of the bifilar suspension, or by a diminution of terrestrial force yielding to the torsion-force.

As the spot of light from the horizontal-force-mirror falls on the side of the cylinder opposite to that on which the light from the declination-mirror falls, the same time-scale will not apply to both; it is necessary to prepare a time-scale independently for each.

The following is the calculation by which the scale of horizontal force on the photographic sheet is determined. The distance between the surface of the concave mirror and the surface of the cylinder is 127·65 inches; consequently, one degree of angular motion of the magnet, producing two degrees of angular motion of the reflected ray, moves the spot of light through 4·4892 inches. Now the variation of horizontal force (in terms of the whole horizontal force) corresponding to one degree of angular motion of the magnet $= \sin 1° \times \cotan 44°. 37'. 30'' = 0·017682$ nearly. From these numbers it is immediately found that a movement of the spot of light through 0·25388 inch corresponds to a variation of horizontal force expressed by 0·001. With this fundamental number, the graduations of the pasteboard scale for measure of horizontal force have been prepared.

§ 6. *Vertical-Force-Magnet, and Apparatus for observing it.*

The vertical-force-magnet, like the other two magnets, is 2 feet long, $1\frac{1}{2}$ inch broad, and about $\frac{1}{4}$ inch thick. The magnet in use to 1848 was made by Robinson; that in use from 1848 to 1864 January 20 was by an unknown maker. Its supporting frame rests upon a block, connected with a tripod-stand which passes through the floor and rests immediately on the ground in the western arm of the Magnetic Observatory. Its position is as nearly as possible symmetrical with that of the

horizontal-force-magnet in the eastern arm. Upon the block is fixed the supporting frame, consisting of two pillars (connected at their bases) on whose tops are the agate planes upon which vibrate the knife-edges (to be mentioned immediately). The carrier of the magnet is a brass frame, to which are attached by clamps and pinching screws two steel knife-edges, each about $\frac{1}{2}$ inch long. In the frame first erected, the length of axis of vibration, from end to end of the knife-edges, was $2\frac{1}{2}$ inches; in the frame adapted to the photographic apparatus, and in use from 1848 to 1863, the length from end to end of the knife-edges is 7 inches. The axis of the magnet is as nearly as possible transverse to the meridian, its marked end being E. The axis of vibration is as nearly as possible N. and S. To the southern end of the brass frame, and projecting further south than the end of the knife-edge, is fixed a small plane mirror, whose plane makes with the axis of the magnet an angle of $54°$ nearly. The fixed telescope (to be mentioned) is directed to this mirror, and by reflexion at the surface of the mirror it views a vertical scale (to be mentioned shortly). The height of this mirror above the floor is about $2^{ft\cdot}\ 11^{in}$. Before the introduction of the photographic methods, the magnet was placed in a perforation of the brass frame midway between its knife-edges. But since the photographic method was introduced, the magnet has been placed excentrically; the distance of its southern face from the nearest end of the southern knife-edge being only $\frac{1}{2}$ inch, and a space of $4\frac{1}{2}$ inches in the northern part of the brass frame being left disposable. In this disposable space there is attached to the brass frame by three clips a concave mirror of speculum-metal, 4 inches in diameter, with its face at right angles to the length of the magnet, used in the photographic system (shortly to be described). Near the north end of the brass frame are fixed in it two-screw stalks, upon which are adjustible screw-weights; one stalk is horizontal, and the movement of its weight affects the position of equilibrium of the magnet (which depends on the equilibrium between the moments of the vertical force of terrestrial magnetism on the one hand and of the magnet's center of gravity on the other hand); the other stalk is vertical, and the movement of its weight affects the delicacy of the balance, and varies the magnitude of its change of position produced by a change in the vertical force of terrestrial magnetism.

The whole is inclosed in a double rectangular box covered with gilt paper, similar to those used for the declination-magnet and the horizontal-force-magnet. This box is based upon the block of wood above mentioned; and in it, in a space separated from the rest by a thin partition, the magnet can vibrate freely in the vertical plane. In the south side of the box is a hole covered by glass, through which pass the rays of light from the scale to the plane mirror, and through which they are reflected from the plane mirror to the telescope. And at the east end is a large hole covered by glass, through which passes the light from the lamp to the concave mirror, and through which it is reflected to the photographic cylinder (to be described hereafter)

The telescope is fixed to a wooden tripod stand, whose feet pass through the floor

without touching it, and are firmly connected with piles driven into the ground. Its position is symmetrical with that of the telescope by which the horizontal-force-magnet is observed; so that a person seated in a position proper for observing the declination-magnet can, by an easy motion of the head right and left, observe the vertical-force and horizontal-force-magnets.

The scale is vertical: it is fixed to the stand which carries the telescope, and is at a very small distance from the object-glass of the telescope. The wire in the field of view of the telescope is horizontal. The telescope being directed towards the mirror, the observer sees in it the divisions of the scale passing upwards and downwards over the fixed wire as the magnet vibrates. The numbers of the scale increase from top to bottom; so that, when the magnet is placed with its marked end towards the East, increasing readings (as seen with the fixed telescope) denote an increasing vertical force.

The vertical-force-magnet, introduced in 1864 and mounted in the new Basement, is 18 inches in length and pointed at the ends.

OBSERVATIONS RELATING TO THE PERMANENT ADJUSTMENTS OF THE VERTICAL-FORCE-MAGNET.

1. Determination of the compound effect of the declination-magnet, the horizontal-force-magnet, and the iron affixed to the electrometer pole, on the vertical-force-magnet.

The experiments applying to the magnets are given in the volumes for 1840–1841 to 1845: and those applying to the electrometer pole in the volume for 1842. It appears that no sensible disturbance is produced.

2. Determination of the time of vibration of the vertical-force-magnet in the vertical plane.

In the year 1863, vibrations of the vertical-force-magnet were observed on 91 different days, and with readings of various divisions of the scale. The mean times of vibration adopted were, from January to March 21, $15^{s}\cdot37$; from March 22 to June 22, $15^{s}\cdot05$; and from June 24 to 1864, January 20, $15^{s}\cdot52$.

3. Determination of the time of vibration of the vertical-force-magnet in the horizontal plane.

1863, January 5 and 6. The magnet with all its apparatus was suspended from a tripod in the Library, its broad side being in a plane parallel to the horizon; therefore, its moment of inertia was the same as when it is in observation. A telescope, with a wire in its focus, was directed to the reflector carried by the magnet. A scale of numbers was placed on the floor of the Library, at right angles to the long axis of the magnet, or parallel to the mirror. The magnet was observed only at times when it

was swinging through a small arc. From 1450 vibrations, the mean time of one vibra-
tion $= 24^s \cdot 131$. This number was used from January to June 23.

The experiments were repeated on 1863, June 23, when the mean of 1200 vibrations
gave $23^s \cdot 717$, and on 1864, January 25 and 26, when the mean of 1000 vibrations gave
$23^s \cdot 806$. The mean of these two numbers, giving weights proportional to the number
of observations viz. $23^s \cdot 758$, was used from 1863, June 24, to 1864, January 20.

4. Computation of the angle through which the magnet moves for a change of one
division of the scale; and calculation of the disturbing force producing a movement
through one division, in terms of the whole vertical force.

The distance from the scale to the mirror is $151 \cdot 2$ inches, and each division of the
scale $= \frac{12}{30 \cdot 9}$ inches. Hence the angle which one division subtends, as seen from the
mirror, is $8' . 49'' \cdot 79$; and therefore the angular movement of the normal to the mirror,
corresponding to a change of one division of the scale, is half this quantity, or
$4' . 24'' \cdot 90$.

But the angular movement of the normal to the mirror is not the same as the
angular movement of the magnet; but is less in the proportion of unity to the cosine
of the angle which the normal to the mirror makes with the magnet, or in the propor-
tion of unity to the sine of the angle which the plane of the mirror makes with the
magnet. This angle has been found to be $54°$: therefore, dividing the result just
obtained by sine $54°$, we have, for the angular motion of the magnet corresponding to
a change of one division of the scale, $5' . 27'' \cdot 43$.

From this, the value, in terms of the whole vertical force, of the disturbing force
producing a change of one division, is to be computed by the formula, "Value of
Division in terms of radius $\times$ cotan. dip $\times \frac{T'^2}{T^2}$" where T' is the time of vibration in
the horizontal plane, and T the time of vibration in the vertical plane.

From 1863, January to March 21, T' was assumed $= 24^s \cdot 131$, $T = 15^s \cdot 37$, dip $=
68° \cdot 8'$; from March 22 to June 22, $T' = 24^s \cdot 131$, $T = 15^s \cdot 05$, dip $= 68° \cdot 6'$; from
1863, June 24 to 1864, January 20, $T' = 23^s \cdot 758$, $T = 15^s \cdot 52$, dip $= 68° \cdot 5'$. Con-
sequently the change of vertical force (in terms of the whole vertical force) correspond-
ing to a change of one division of the scale, was, from 1863, January to March 21,
$0 \cdot 0015703$; from March 22 to June 22, $0 \cdot 0016405$; and from 1863, June 24, to 1864,
January 20, $0 \cdot 0014966$. These numbers have been used in the reduction of the
observations.

5. Investigation of the temperature-correction of the vertical-force-magnet.

In the Introduction to the Magnetical and Meteorological Observations for 1847
are given the details of observations for the effect of temperature on the vertical-force-
magnet, made in the same way as those for the horizontal-force-magnet described

above. The results for the thermometrical correction at temperature $t°$ of Fahrenheit, in terms of the whole vertical force, are—

With marked end of magnet West—

$$0\text{·}00012652 \times (t-32) + 0\text{·}000001619 \times (t-32)^2 ;$$

and with marked end East—

$$0\text{·}00018979 \times (t-32) + 0\text{·}000000726 \times (t-32)^2 ;$$

the mean being—

$$0\text{·}00015816 \times (t-32) + 0\text{·}000001172 \times (t-32)^2 ;$$

A table of the last quantity has been formed, and has been used in the "Reduction of the Observations from 1848 to 1857," attached to the Observations for 1859, and in the "Reductions on days of Great Magnetic Disturbance 1841–1857," attached to the volume for 1862.

It is proper to state that observations made in the year 1864, on the change of magnetic power produced when the magnet is heated by hot air, give a much larger value to the principal coefficient of the formula.

The method of observing with the vertical-force-magnet is the following :—

A fine horizontal wire is fixed in the field of view of the telescope, which is directed to the small plane mirror carried by the magnet. On looking into the telescope, the graduations of the fixed vertical scale are seen; and during the oscillations of the magnet, the divisions of the scale are seen to pass alternately upwards and downwards across the wire. The clock-time, for which the position of the magnet is to be determined, is the same as that for the other two magnets. The observer applies his eye to the telescope about two vibrations before the arranged time, and if the magnet is in motion he observes its places at four extreme vibrations; and the mean of these is taken as for the horizontal-force-magnet. But if the magnet is at rest, then at one-half time of vibration before the arranged time, and at an equal interval after the arranged time, the division of the scale is noted; if there is a slight difference, the mean is taken.

The number of instances in 1863 in which the magnet was found in a state of vibration is very small.

Within the double box is suspended a thermometer, which is read at every hour of observation, and also, on one day of every week, at the hours 18^h, 21^h, 22^h, 23^h, 0^h, 1^h, 2^h, 3^h, 6^h, 9^h, and 12^h, in the same manner as that of the horizontal-force-instrument.

From 1863, June, a maximum and a minimum thermometer were attached to the outside of the box, and were read twice daily; the absolute maximum and absolute minimum derived from these are printed, as well as the thermometer readings above-mentioned, in the same manner as those for the horizontal force.

§ 7. *Photographic self-registering Apparatus for Continuous Record of Magnetic Vertical Force.*

The concave mirror which is carried by the vertical-force-magnet has been described in the last article. At the distance of about 22 inches from that mirror, and external to the box, is the horizontal aperture, about $0^{in}\cdot3$ in length and $0^{in}\cdot01$ in breadth, carried by the same block which carries the supports of the agate plates. The lamp which shines through this aperture was originally carried by the same block; but the numerous disturbances shown in the photographic trace at the times of changing the lamp suggested the propriety of supporting it upon a different foundation; and since 1849, February, it has been carried by another wooden pier, of such a form as to admit of the lamp being placed very nearly in contact with the aperture-plate. The light reflected from the mirror passes through a cylindrical lens with its axis vertical, very near to the cylinder carrying the photographic paper, and finally forms a well-defined spot of light on the cylinder of paper, at the distance of 8·3 feet from the mirror. As the movements of the magnet are vertical, the axis of the cylinder is vertical. The cylinder is about $15\frac{1}{2}$ inches in circumference, or somewhat larger than that used for the declination and horizontal-force magnets. The forms of the exterior and interior cylinders, and the method of mounting the paper, are in all respects the same as for the declination and horizontal-force magnets ; but the cylinder is supported by being merely planted upon a circular horizontal plate (its position being defined by fitting a central hole in the metallic cap of the cylinder upon a central pin in the plate), which is turned by watchwork once in twenty-four hours. The trace of the vertical-force-magnet is on the west side of the cylinder.

On the east side, the cylinder receives the trace produced by the barometer (to be described hereafter). A pencil of light from the lamp which is used for the barometer shines through a fixed aperture with a small cylindrical lens, for tracing a photographic base-line upon the cylinder of paper, similar to that for the cylinder of the declination and horizontal-force magnets.

The scale for the ordinates of the photographic curve of the vertical force is thus computed. Remarking that the radius which determines the range of the motion of the spot of light is double the distance 8·3 feet, and is therefore = 199·2 inches, the formula used in the last section, when applied to $\frac{\text{disturbing force}}{\text{whole vertical force}} = 0\cdot01$, gives value of division $= 199\cdot2 \times \text{tan. dip.} \times \left(\frac{T}{T'}\right)^{2} \times 0\cdot01$. From 1863, January to March 21, dip. $= 68°\cdot8$; $T' = 24\cdot131$, $T = 15\cdot37$. From March 22 to June 22, the values are $68°6'$, $24\cdot131$, $15\cdot05$. From June 24 to 1864, January 20, they are $68°\cdot5'$, $23\cdot758$, $15\cdot52$. The corresponding scale-measures for $\frac{\text{disturbing force}}{\text{whole vertical force}} = 0\cdot01$ are $2\cdot0137$, $1\cdot9275$, $2\cdot1128$ inches. With these values, the pasteboard scales have been prepared.

§ 8. *Dipping Needles, and Method of observing the Magnetic Dip.*

For the construction, fittings, and use of Robinson's dip instrument, as well as for the immediate results of observations of dips, and for some unsatisfactory points in the results, I refer to the printed observations from 1843 to 1862, especially that last-mentioned.

With the view of removing all causes of possible error of observation which we can fully understand and control, I furnished Mr. Simms with plans for a new instrument, which, for distinction, is subsequently called Airy's instrument. The following description will probably suffice to convey an idea of its peculiarities :—

The form of the needles, the form of their axes, the form of the agate bearings, and the general arrangement of the relieving apparatus, are precisely the same as those in Robinson's and other needles. But the form of the observing apparatus is greatly modified, in order to secure the following objects :—

I. To obtain a microscopic view of the points of the needles, as in the instruments introduced by Dr. Lloyd and Major-General Sabine.

II. To possess at the same time the means of observing the needles while in a state of vibration.

III. To have the means of observing needles of different lengths.

IV. To give an illumination to the field of view of each microscope, directed from the side opposite to the observer's eye, so that the light may enter past the point of the needle into the object glass of the microscope, forming a black image of the needle-point in a bright field of view.

V. To give facility for observing by day or night.

With these views, the following form is given to the apparatus :—

The needle, and the bodies of the microscopes, are inclosed in a square box. The base of the box, two vertical sides, and the top, are made of gun-metal (carefully selected to insure its freedom from iron); but the sides parallel to the plane of vibration of the needle are of glass. Of the two glass sides, that which is next the observer is firmly fixed ; it is hereafter called " the graduated glass-plate." The other glass side can be withdrawn, to open the box, for inserting the needle, &c.

An axis, whose length is perpendicular to the plane of vibration of the needles, and is as nearly as possible in the line of the axis of the needle, supported on two bearings (of which one is cemented in a hole in the graduated glass-plate, the other being upon a horizontal bar near to the agate support of the needle-axis), carries a transverse arm, about 11 inches long, or rather two arms, projecting about $5\frac{1}{2}$ inches on each side of the axis. Each of these projecting arms has a long opening, or slot, about 1 inch wide, extending from the neighbourhood of the center-work nearly to the end of the arm. Through this opening the tube of a microscope passes, in a direction parallel to the axis of the needle, and is firmly fixed by a shoulder-bearing on one side of the

d 2

arm, and a circular nut, working in a thread cut upon the microscope-tube, on the other side of the arm. The microscope can thus be fixed at any distance from the central axis, within the limits of the length of the projecting arm. In 1863, between February 24 and May 11, the slot for a single moveable microscope on each side was changed for three fixed microscopes on each side, adapted in position to the lengths of the needles to be mentioned shortly.

The microscope-tube thus carried is not the entire microscope, but so much as contains the object-glass and the field-glass. Upon the plane side of the field-glass (which is turned towards the object-glass), a series of parallel lines is engraved by etching with fluoric acid. The object-glass is so adjusted that the image of the needle-point is formed upon the plane side of the field-glass; and thus the parallel lines can be used for observing the needle in a state of vibration; and, one of them being adopted as standard, the lines can be used for reference to the graduated circle (to be mentioned). All this requires that there be an eye-glass also for the microscope.

The axis of which we have spoken is continued through the graduated glass-plate, and there it carries another transverse arm parallel to the former, and generally similar to it. In each part of this slides a short eye-piece, carrying the eye-glass. In 1863, at the time mentioned above, the slotted arm and moveable eye-socket were changed for an arm with three sockets. Thus, reckoning from the observer's eye there are the following parts :—

(1.) The eye-glass.

(2.) The graduated glass-plate (its graduations, however, not intervening in this part of the glass, the graduated circle being so large as to include all the microscopes).

(3.) The field-glass, on the further surface of which the parallel lines are engraved.

(4.) The object-glass.

(5.) The needle.

(6.) The removeable glass side of the box.

(7.) The illuminating reflector, to be described hereafter.

The optical part of the apparatus being thus described, we may proceed to speak of the graduated circle.

The graduations of the circle (whose diameter is about $9\frac{3}{4}$ inches) are etched on the inner surface of the graduated glass-plate. These divisions (as well as the parallel lines on the field glasses of the microscopes) are beautifully neat and regular, and are, I think, superior to any that I have seen on metal. The same piece of metal which carries the transverse arms supporting the microscope bodies carries also two arms with verniers for reading their graduations. These verniers (being adapted to transmitted light) are thin plates of metal, with notches instead of lines. The reading of the verniers is very easy. The portion of the axis which is external to the graduated glass-plate (towards the observer), and which has there, as already stated, two arms for carrying the microscope eye-glasses, has also two arms for carrying the lenses by

which the verniers and glass-plate graduations are viewed. These four arms are the radii of a circle, which can be fixed in position by a clamp, attached to the gun-metal casing of the graduated glass-plate, and furnished with the usual slow-motion screw.

The entire system of the two arms carrying the microscope-bodies, the two arms carrying the microscope eye-glasses, the two arms carrying the verniers, and the two arms carrying the reading-glasses for the verniers, is turned rapidly by means of a button on the external side of the graduated glass-plate, or is moved slowly by means of the slow-motion screw just mentioned.

It now remains only to describe the illuminating apparatus. On the outside of the removeable glass plate, there are supports for the axis of a metallic circle turning in a plane parallel to the plane of needle-vibration. This circle has four slotted radii, and in these slots or openings there slide small frames carrying prismatic glass reflectors, each of which can turn on an axis, in the plane of the circle, but transverse to the radius. Two of these reflectors are for the purpose of sending light through the verniers, and therefore are fixed in radial distance ; the other two are for sending light past the ends of the needle through the microscopes, and therefore require adjustment on change of needle and corresponding change of position of microscopes. These have now been changed for fixed reflectors, corresponding to the fixed microscopes. The circle can be turned by a small winch near the observer's hand. At present, the winch is removed, as its axis was found to be slightly magnetic. At each observation, it is necessary to turn the circle which carries the reflectors ; but this is the work of an instant.

The light which illuminates the whole is a gas-burner, in the line of the axis of rotation. Its rays fall upon the glass prisms, and each of these is adjusted, by turning on its axis, to throw the reflected light in the required direction.

The whole of the apparatus, as thus described, is planted upon a horizontal plate admitting of rotation in azimuth : the plate is graduated in azimuth, and verniers are fixed to the gun-metal tripod stand. The gas-pipe is led down the central vertical axis, and there communicates by a rotatory joint with the fixed gas-pipes.

The needles which are used with this instrument are—

B_1, a plain needle..
B_2, a plain needle.. each 9 inches ong.
B_3, a loaded needle with adjustible load ....
B_4, a needle whose plane passes through the axis of the needle

C_1, a plain needle..
C_2, a plain needle.. each 6 inches long.
C_3, a loaded needle with adjustible load ....
C_4, a needle whose plane passes through the axis of the needle

D_1, a plain needle..
D_2, a plain needle.. each 3 inches long.
D_3, a loaded needle with adjustible load ....
D_4, a needle whose plane passes through the axis of the needle

It is believed that the results of the observations with this instrument are somewhat but not very greatly, more consistent than those with the old instrument. The advantage gained appears to arise from the greater certainty of readings of graduations, and from the greater facility of repeating observations whose means are adopted for use.

Many discordances have been removed by regrinding the agate edges on which the needle-axes turn, in the year 1864.

§ 9. *Observations for the absolute Measure of the Horizontal Force of Terrestrial Magnetism.*

The apparatus with which these observations were made from 1845 to 1862, February, is the same which was used in the investigation of corrections of horizontal-force-magnet and vertical-force-magnet for temperature. A description of it will be found in the Introduction to the Greenwich Magnetic Observations, 1862. It is unnecessary here to allude further to it than to remark that it appears, from the comparison of nearly simultaneous observations of the old apparatus and the Kew instrument (now in use) exhibited in the Introduction 1862, pages xxxviii and xxxix, that to make the old and the new series comparable, the results of the old series ought to be diminished by $\frac{1}{117}$ part.

In the spring of 1861, the Unifilar Instrument, similar in all respects (as is understood) to those used in and issued by the Kew Observatory, was procured by the conrteous application of Major-General Sabine, from the makers, Messrs. J. T. Gibson and Son; and after having been subjected to the usual examinations, at the Kew Observatory, for determination of its constants (for which I am indebted to the kindness of Balfour Stewart, Esq.), was mounted at the Royal Observatory. Observations with this instrument commenced on 1861, June 11, and were continued through the year; and, after some slight modifications of its verniers, it is still maintained in use (1864).

The deflected magnet (whose use is merely to ascertain the proportion which the power of the deflecting magnet at a given distance bears to the power of terrestrial magnetism) is 3 inches long, carrying a small plane mirror. The deflecting magnet is 4 inches long; it is a hollow cylinder, carrying in its internal tube a collimator, by means of which its time of vibration is observed in another apparatus. The frame which supports the suspension-piece of the deflected magnet carries also the telescope directed to the magnet-mirror; it rotates round the vertical axis of a horizontal graduated circle whose external diameter is 10 inches. The deflecting magnet is always used with its end towards the deflected magnet. In the reduction of the observations, the precepts contained in the Skeleton Form prepared by the Kew Observatory have received the strictest attention.

The following is the explanation of the method of reduction.

The distance of the centers of the deflected and deflecting magnet being r_0, it is supposed (from observations made at Kew, of which the details have not reached me) that the magnetism of the deflecting magnet is so altered by induction that the following multipliers ought to be used in computing the Absolute Force:—

At distance 1·0 foot, factor is 1·00031
1·1   1·00023
1·2   1·00018
1·3   1·00014
1·4   1·00011
1·5   1·00009

The correction of the magnetic power for temperature t_0 of Fahrenheit, reducing all to 35° of Fahrenheit, is

$$0·000131261\,(t_0-35) + 0·00000025g\,(t_0-35)^2$$

A_1 is $\frac{1}{2}$(distance)^3 × sine deflection, corrected by the two last-mentioned quantities, for distance 1 foot; A_2 is the similar expression for distance 1·3 foot; A'_2 is $\frac{A_2}{(1\cdot3)^2}$; P is $\frac{A_1-A_2}{A_1-A'_2}$. A mean value of P is adopted from various observations; then $\frac{m}{X} = A_1 \times \left(1 - \frac{P}{1}\right)$ for smaller distance, or $= A_2 \times \left(1 - \frac{P}{1\cdot69}\right)$ for larger distance. The mean of these is usually adopted for the true value of $\frac{m}{X}$.

For computing the value of mX from observed vibrations, it is necessary to know K, the moment of inertia of the magnet as mounted. The value of log. π^2K furnished by Mr. Stewart is 1·66073 at temperature 30° and 1·66109 at temperature 90°. Then, putting T for the time of the magnet's vibration as corrected for induction, temperature, and torsion-force, the value of mX is $= \frac{\pi^2K}{T^2}$. From the combination of this value of mX with the former value of $\frac{m}{X}$, m and X are immediately found.

The computation of the values of m and X has, to the year 1857, been made in reference to English measure only, using the foot and the grain as the units of length and weight; but, for comparison with foreign observations of the Absolute Intensity of Magnetism, it is desirable that X should be expressed also in reference to French measure, in terms of the millimètre and milligramme. If an English foot be supposed equal to α times the millimètre, and a grain be equal to β times the milligramme, then it is seen that, for the reduction of $\frac{m}{X}$ and mX to French measure, these must be multiplied by α^3 and $\alpha^2\beta$ respectively. Hence X^2 must be multiplied by $\frac{\beta}{\alpha}$, and X by $\sqrt{\frac{\beta}{\alpha}}$. Assuming that the mètre is equal to 39·37079 inches, and the gramme equal to 15·43249 grains, log. $\sqrt{\frac{\beta}{\alpha}}$ will be found to be $= 9·6637805$, and the factor for reducing the English values of X to French values will be 0·46108 or $\frac{1}{2\cdot1689}$. The

values of X in French measure thus derived from those in English measure are given in the proper table.

§ 10. *Explanation of the Tables of Indications of the Magnetometers.*

The Indications are derived entirely from the measures of the ordinates of the Photographic Curves, except in a few instances in which the results are marked with an asterisk, in which case the results are those given by eye-observations, usually because the photographic process has failed.

Telescope-observations of the Magnetometers have usually been made four times every day, except on Sundays, on which days two or three observations only have been taken ; but, though these observations are employed in forming the base lines on the photographic sheets, their immediate results are not necessarily given in the Tables.

For each photographic record, a new base-line, representing a convenient reading in round numbers of the element to which it applies, has been drawn on the sheet. Then the Assistant, who is charged with the translation of the curve-ordinates into numbers, remarks the salient points of the curve, or the points which if connected by straight lines would produce a polygon not sensibly differing from the photographic curve ; to each of these he applies the pasteboard scale proper for the element under consideration ; the base of the pasteboard scale determines the time on the time-scale, and the reading of the pasteboard scale for the point of the photographic curve gives the quantity which is to be added to the value for the new base-line. The ordinate-reading so formed is printed without alteration in the Tables. It is particularly to be remarked that the indications for horizontal force and vertical force are *not corrected for temperature.*

In measuring the ordinates of the Vertical Force Curves, the same difficulty that is mentioned in preceding volumes has still occasionally been felt. Apparently without cause, the curve is dislocated ; one part being raised above or depressed below the contiguous part, in the direction of the ordinate, usually by small quantities. In all cases the displacement is accompanied by vibration, the original position being at the extremity of the arc of vibration, and the new position being at its center ; showing that there has been no want of delicacy in the movement, and that the change is precisely the same as would be caused by the quiet application of a small weight upon one end of the magnet.

In translating the ordinates into numbers on these occasions, two ordinates have been taken for the same abscissa ; these are connected, in the printed Indications, by a brace, and the difference of the numbers indicates the amount of the disturbance.

§ 11. *Standard Barometer.*

The Barometer is a standard, by Newman, mounted in 1840.   It is fixed on the South wall of the west arm of the Magnetic Observatory.   The graduated scale which measures the height of the mercury is made of brass, and to it is affixed a brass rod, passing down the inside of one of the upright supports, and terminating in a conical point of ivory; this point in observation is made just to touch the surface of the mercury in the cistern, and the contact is easily seen by the reflected and the actual point appearing *just* to meet each other.   The rod and scale are made to slide up and down by means of a slow-motion screw.   The scale is divided to $0^{in.}05$.

The vernier subdivides the scale divisions to $0^{in.}002$; it is moved by a slow-motion screw, and in observation is adjusted so that the ray of light passing under the back and front of the semi-cylindrical plate carried by the vernier, is a tangent to the highest part of the convex surface of the mercury in the tube.

The tube is $0^{in.}565$ in diameter; the correction for the effect of capillary attraction is therefore only $+ 0^{in.}002$.   The cistern is of glass.

At the bottom of the instrument are three screws, turning in the fixed part of the support, and acting on the piece in which the lower pivot of the barometer-frame turns, for adjustment to verticality: this adjustment is examined weekly.

The readings of this barometer are considered to be coincident with those of the Royal Society's flint-glass standard barometer.

All observations of this barometer have been corrected for the difference of temperature of the mercury in the tube at the time of observation from 32°, by the application of the corrections contained in the table for barometers whose scales are engraved upon a rod of brass reaching from the level of the mercury to the vernier.   (See the report of the Committee of Physics and Meteorology approved by the Royal Society.)

No correction is required for the difference of capacities of the tube and the cistern; for, as the mercury rises or falls in the cistern by the falling or rising of the mercury in the tube, so the termination of the scale is adjusted to the surface of the mercury in the cistern, and the distance between the surfaces of the mercury in the cistern and the tube is at once measured.

The height of the cistern above the mean level of the sea is 159 feet.   This element is founded upon the determination of Mr. Lloyd, in the *Phil. Trans.*, 1831; the elevation of the cistern above the brass piece inserted in a stone in the transit-room (to which Mr. Lloyd refers) being $5^{ft}.2^{in}$.

The barometer has been read at 21^h, 0^h, 3^h, 9^h (astronomical), on every day, excepting on Sundays, and on Good Friday and Christmas Day, on which days fewer observations have been taken.   Every reading has been reduced to the reading which would have been obtained at the temperature 32° of the mercury and scale, by application of the correction given in Table II. (pages 82 to 87) of the Report of the Committee

of Physics of the Royal Society, The mean of the reduced readings has then been taken for each civil day, and finally converted into mean daily reading, by application of the correction inferred from Mr. Glaisher's paper in the *Philosophical Transactions* 1848, Part I.

In the printed record of the barometrical and all other meteorological observations, the day is to be understood, generally, as defined in civil reckoning.

§ 12. *Photographic self-registering Apparatus for continuous Record of the readings of the Barometer.*

In the description of the Photographic self-registering Apparatus for continuous Record of Magnetic Vertical Force, the vertical cylinder covered with photographic paper and revolving in 24 hours is described. North of the surface of this cylinder, at the distance of about 30 inches, is a large syphon barometer, the bore of the upper and lower extremities of its arms being about 1·1 inch. A glass float in the quick-silver of the lower extremity is partially supported by a counterpoise acting on a light lever (which turns on delicate pivots), so that the wire supporting the float is constantly stretched, leaving a definite part of the weight of the float to be supported by the quicksilver. This lever is lengthened to carry a vertical plate of opaque mica with a small aperture, whose distance from the fulcrum is eight times the distance of the point of attachment of the float wire, and whose movement, therefore, is four times the movement of the column of a cistern-barometer. Through this hole the light of a lamp, collected by a cylindrical lens, shines upon the photographic paper.

The scale of time is established by means of occasional interruptions of the light, and the scale of measure is established by comparison with ocasional eye-observations, exactly as for the photographic registers of the magnetometers.

This barometer was brought into use in 1848, but its indications were not satis-factory till the mercury was boiled in the tube by Messrs. Negretti and Zambra on 1853, August 18, since which time they have appeared unexceptionable. Results of the indications are printed in the *Maxima and Minima of the Barometer*, near the end of the Meteorological Results.

§ 13. *Thermometers for ordinary Observation of the Temperature of the Air and Evaporation.*

The Dry-Bulb Thermometer, the Wet-Bulb Thermometer, the Maximum Self-Registering Thermometers, both dry and wet, and the Minimum Self-Registering Thermometers, dry and wet, all for determination of the temperature of the air and of evaporation, are mounted on a revolving frame whose fixed vertical axis is planted in the ground. From the year 1846 to 1863 the post forming the vertical axis was about 23 feet south (magnetic) of the S.S.E. angle of the south arm of the Magnetic

Observatory; in 1863 it was moved to a position about 35 feet south (astronomical) of the south angle.   A frame revolves on this post, consisting of a horizontal board as base, of a vertical board projecting upwards from it connected with one edge of the horizontal board, and of two parallel inclined boards (separated about three 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.   The air passes freely between all these boards.

The dry and wet-bulb thermometers are attached to the outside, and near the center of the vertical board; the maximum and minimum thermometers for air towards one vertical edge, and those for evaporation towards the other vertical edge, with their bulbs at almost the same level, and near to those of the dry and wet-bulb thermometers; their bulbs are about 4 feet above the ground and projecting from 2 inches to 3 inches below the horizontal board.   Above the thermometers is a small projecting roof to protect them from rain.   The frame is always turned with the inclined side towards the sun.   It is presumed that the thermometers are thus sufficiently protected.

The graduations of all the thermometers used in the Royal Observatory rest fundamentally upon those of a Standard Thermometer, the property of Mr. Glaisher, which derives its authority from comparison with original thermometers constructed by the late Rev. R. Sheepshanks about the years 1840–1843, in the course of his preparations for the construction of the National Standard of Length.   The whole of the radical determinations of Freezing Point, Boiling Point, and Subdivision of Volume of Tube, were made by Mr. Sheepshanks with the utmost care : it is believed that these were the first original thermometers that had been constructed in England for many years.   Mr. Glaisher's thermometer has been used as the standard of reference for all the thermometers used in the Royal Observatory since 1840.

The Dry-Bulb Thermometer is by Newman.   The corrections required for its readings, as found by comparison with the standard above-mentioned, are as follows :—

Below $32°$ subtract $0°.5$
Between 32 and $43°$ 0.6
        44 and 47 .... 0.7
        48 and 56 .... 0.9
        57 and 61 .... 1.1
        62 and 74 .... 1.3
        75 and 80 .... 1.5
        81 and 86 .... 1.8
        87 and 95 .... 2.0
        96 and 100 .... 2.2

The Wet-Bulb Thermometer is by Negretti and Zambra. Its bulb is of the same size as that of the Dry-Bulb Thermometer. A piece of muslin is wrapped round the bulb, and a skein of cotton is led from it into a cup of rain-water, by which it is maintained in a state of moisture. In frosty weather the muslin is moistened some time before each observation. The corrections which the readings of this thermometer are found to require are as follows:

$$
\begin{array}{ll}
\text{Below} \quad 32^{\circ} & \text{subtract } 0^{\circ}\cdot4 \\
\text{Between } 32 \text{ and } 36^{\circ} \ \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots & 0\cdot3 \\
\qquad\quad 37 \text{ and } 40 \ \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots & 0\cdot2 \\
\qquad\quad 41 \text{ and } 55 \ \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots & 0\cdot1 \\
\qquad\quad 56 \text{ and } 75 \ \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots & 0\cdot0 \\
\text{Above} \quad 75 & \text{add } 0\cdot1
\end{array}
$$

The eye-readings of the dry-bulb and wet-bulb thermometers have usually been taken at the hours (astronomical reckoning) 21^{h}, 0^{h}, 3^{h}, 9^{h}, and corrected by application of the numbers given above; then their mean has been taken, and a correction applied, in order to obtain the true diurnal mean. This correction is derived from the numbers in Mr. Glaisher's paper in the Philosophical Transactions for 1848.

The dew-point has been inferred exclusively from the simultaneous observations of the dry-bulb and wet-bulb thermometers, by multiplying the difference between the readings of these thermometers by a factor peculiar to the temperature of the air, and subtracting the product from the reading of the dry-bulb thermometer. These factors have been 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-bulb and wet-bulb thermometers. The first part of this investigation was published in full, in the volume for 1844, pages 67-72; it was based upon all the observations made up to that time. Subsequently, the comparison was extended to include all the simultaneous observations of these instruments made at the Royal Observatory, Greenwich, from 1841 to 1854, with some observations taken at high temperatures in India, and others at low and medium temperatures at Toronto. The results at the same temperature were found to be the same at these different localities, so far as the climatic circumstances permitted comparison. (See Glaisher's Hygrometrical Tables, 3rd Edition). The following table exhibits the result of the entire comparison; it has been used in forming the dew-points in the present volume.

Table of Factors by which the Difference of Readings of the Dry-Bulb and Wet-Bulb Thermometers is to be Multiplied in order to produce the Difference between the Readings of the Dry-Bulb and Dew-Point Thermometers.

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	2·23	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		

The maximum self-registering thermometer is a mercurial thermometer, of the construction invented by Messrs. Negretti and Zambra. There is a small detached piece of glass in the tube, just above a bent part of the tube (near the bulb), through which the piece of glass cannot pass down. The column of mercury in rising lifts the glass up and passes freely; but in descending it is unable to pass the glass, and the lower mass of mercury descends, leaving a vacant space below the glass, and leaving a portion of the mercury above it. The piece of glass operates as an efficient valve. The graduation of this thermometer is sensibly correct. There is a similar thermometer for the maximum wet-bulb reading; its readings are too high by $0°\cdot4$.

The minimum self-registering thermometer is an alcohol thermometer, of the construction known as Rutherford's. A sliding glass index allows the alcohol in rising to pass above it, but is drawn down by the peculiar action of the upper surface of the fluid when it sinks. The readings of that which gives the minimum temperature of the air require an additive correction $0°\cdot5$; those of the minimum wet-bulb temperature require corrections varying from $+2°\cdot2$ at $24°$ to $-0°\cdot2$ at $71°$.

The numbers in the printed columns of Mean Daily Value of Dry Thermometer are found by combining two numbers derived from different sources. One is the corrected mean of four observations taken in the day, as is described above. The

other is the mean of the maximum and minimum corrected by a small quantity depending on the month, given in Mr. Glaisher's paper. The adopted mean temperature is the mean of those two numbers, weights being given proportional to the number of observations from which they are derived.

For the Mean Daily value of Dew Point, the dew-point is found from the observations at 21^h, 0^h, 3^h, 9^h, in the manner above described, and by use of the table of factors given above, and the mean of these dew-points is corrected by a number given in the paper in the Philosophical Transactions 1848.

§ 14. *Photographic self-registering Apparatus for continuous Record of the Readings of the Dry-Bulb and Wet-Bulb Thermometers.*

About 28 feet south (magnetic) of the south-east angle of the south arm of the Magnetic Observatory, and about 25 feet east of the thermometers for eye-observations, is a shed 10 feet square, standing upon posts 9 feet high, under which are placed the photographic thermometers, the dry-bulb thermometer towards the east, and the wet-bulb thermometer towards the west. The bulbs of the thermometers are eight inches in length, and 0·4 inch internal bore, and their centers are about 4 feet above the ground. The bulb of one of the thermometers is covered with muslin throughout its whole length, which is kept moist by means of capillary passage of water along cotton wicks leading to a vessel filled with water.

There are small adjustments admitting the raising or dropping of the thermometers, so that the register of their changing readings may be on a convenient part of the paper. The thermometer frames are covered by plates having longitudinal apertures, so narrow, that any light which may pass through them is completely, or almost completely, intercepted by the broad flat column of mercury in the thermometer-tube. Across these plates a fine wire is placed at every degree; and at the decades of the degrees, and also at 32°, 52°, and 72°, a coarser wire is placed. A gas lamp is placed about 9 inches from each thermometer (east of the dry bulb and west of the wet bulb), and its light, condensed by a cylindrical lens, whose axis is vertical, shines through the thermometer-tube above the surface of the mercury, and forms a well-defined line of light upon the photographic paper, which is wrapped around the cylinder. As the cylinder revolves under this light, it receives a broad sheet of photographic trace, whose breadth (in the direction of the axis of the cylinder) varies with the varying height of the mercury in the thermometer-tube. The light in its passage is intercepted by the wires placed across the tube at every degree, and there are, therefore, left upon the paper corresponding lines in which there is no photogenic action.

The cylinder revolves in 48 hours; the daily photographic traces of the two thermometers are thus simultaneously registered on opposite sides of the cylinder without intermixing. The length of the cylinder is $13\frac{1}{2}$ inches, and its circumference is 19 inches.

§ 15. *Thermometers for Solar Radiation and Radiation to the Sky.*

The thermometer for Solar Radiation is placed in an open box about 10 feet south of the south-west angle of the south arm of the Magnetic Observatory. The box is about 13 inches high; the bulb of the thermometer is about 10 inches above the bottom of the box, fully exposed to the sun's rays.

The thermometer is a self-registering maximum mercurial thermometer of Negretti and Zambra's construction; its bulb is blackened, and enclosed in a glass sphere from which the air has been exhausted. Its graduations are correct, and the numbers inserted in the tables are those read from the instrument without alteration. The thermometer is read at 9^h a.m., noon, 3^h p.m., and occasionally at 9^h p.m.; the highest of these readings is adopted as the maximum for the day.

Near to this thermometer, within the same box, and at the same height, is placed a thermometer with blackened bulb, which is not enclosed in an exhausted sphere. An instrument of this form and in this position was exclusively used to the year 1859. Simultaneous readings of both instruments are now taken, with the view of rendering the series of observations which terminated in 1859 (made with exposed bulb) comparable with that which commenced in 1859, and is still continued (made with bulb inclosed in an exhausted sphere).

The thermometer for radiation to the sky is placed about 12 feet west of the Solar Radiation thermometer, with its bulb resting on short grass, and fully exposed to the sky. It is a self-registering minimum spirit thermometer of Rutherford's construction, made by Negretti and Zambra. Its graduation is correct, and the numbers inserted in the table are those read from the scale without alteration. It is read every day at 9^h a.m., and occasionally at 9^h p.m.

This thermometer was out of order on February 9, 13, 16, April 28, May 6, 19, 22, 29, June 19, July 1, 4, 17, August 26, September 7, and December 31.

§ 16. *Thermometers sunk below the Surface of the Soil at different Depths.*

These thermometers were made by Messrs. Adie of Edinburgh, under the immediate superintendence of Professor (now Principal) J. D. Forbes. The graduation was made by Professor Forbes himself.

The thermometers are four in number. They are all 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 is attached in its whole length to a slender piece of wood, which is planted in the hole with it. The place of the hole is 20 feet south of the extremity of the south arm of the Magnetic Observatory, and opposite the center of its south front.

The soil consisted of beds of sand ; of flint-gravel with a large proportion of sand ; and of flints with a small proportion of sand, cemented almost to the consistency of pudding-stone.   Every part of the gravel and sand extracted from the hole was perfectly dry.

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 the tubes, from the bulb to the graduated scale, is very small.   In that part to which the scale is attached, the tube is larger.

The thermometer No. 1 was dropped into the hole to such a depth that the center 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 center of its bulb was 12 French feet below the surface ; No. 3 and No. 4 till the centers 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, carying 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, the parts 8·5, 10·0, 11·0, and 14·5 inches, respectively are tube with narrow bore.

The projecting parts of the tubes are protected by a wooden case or box fixed to the ground ; the sides of the box are perforated with numerous holes, and it has a double roof.   In the North face of this box is a large plate of glass through which the thermometers are read.   Within the box are two smaller thermometers one (No. 5) whose bulb is sunk one inch in the ground, and one (No. 6) whose bulb is in the free air nearly in the center of the box.

The fluid of the four long thermometers is alcohol tinged with a red colour.

The values of $1°$ on the scales of Nos. 1, 2, 3 and 4, are respectively $2^{in·}$, $1^{in·}1$, $0^{in·}9$, and $0^{in·}55$; and the ranges of the scales, as first mounted, were, $43°·0$ to $57°·7$, $42°·0$ to $56°·8$, $39°·0$ to $57°·5$, and $34°·2$ to $64°·5$.

These ranges for Nos. 2, 3, and 4, were found to be insufficient in some years, particularly those of Nos. 3 and 4, or the thermometers sunk to the depth of 6 feet and 3 feet.

In 1857, June 22, Messrs. Negretti and Zambra removed from Nos. 3 and 4 a quantity of fluid corresponding to the extent of $5°$ on their scales, and the scales of these two thermometers were lowered by that linear extent, making the readings the same as before.

In subsequent years it was found that the amount of fluid removed was somewhat too great, for now at the lower end of the scale the 6-foot thermometer sometimes falls below the limit of its scale or $43\frac{1}{2}°$; and the 3-foot thermometer below $39°·7$; in which cases the alcohol sinks into the capillary tube.

The readings at the early part of the series were at times defective at high tempera-

tures, but always complete at low temperatures; now, they are always complete at high temperatures, and are at times defective at low temperatures. The two combined however, will enable us to complete all readings.

These thermometers are read once a day, at noon, and the readings appear in the printed volumes as read from their scales without correction.

§ 17. *Thermometers immersed in the Water of the Thames.*

The self-registering maximum and minimum thermometers for determining the highest and lowest temperatures of the water of the Thames are by Messrs. Negretti and Zambra, and are observed every day at 10 a. m.

A strong wooden trunk is firmly fixed to the side of the Dreadnought Hospital Ship, about 5 feet in length, and closed at the bottom; the bottom and the sides, to the height of 3 feet, are perforated with a great number of holes, so that the water can easily flow through; the thermometers are suspended within this trunk so as to be about 2 feet below the surface of the water, and 1 foot from the bottom of the trunk.

The regular observations are made under the superintendence of the Medical Officers of the Ship.

These thermometers were out of order on August 7 and 8.

§ 18. *Osler's Anemometer.*

This anemometer is self-registering: it was made by Newman, but has received several changes since it was originally constructed. A large vane, which is turned by the wind, and from which a vertical spindle proceeds down nearly to the table in the north-western turret of the ancient part of the Observatory, gives motion by a pinion upon the spindle to a rackwork carrying a pencil. This pencil makes a mark upon a paper affixed to a board which is moved uniformly in a direction transverse to the direction of the rack-motion. The movement of the board is effected by means of a rack connected with the pinion of a clock. The paper has lines printed upon it corresponding to the positions which the pencil must take when the direction of the vane is N., E., S., or W.; and also has transversal lines corresponding to the positions of the pencil at every hour. The first adjustment for azimuth was obtained by observing from a certain point the time of passage of a star behind the vane-shaft, and computing from that observation the azimuth; then on a calm day drawing the vane by a cord to that position, and adjusting the rack, &c., so that the pencil position on the sheet corresponded to that azimuth.

For measuring the pressure of the wind, the shaft of the vane carries a plate one foot square, which is supported by horizontal rods sliding into grooves, and is urged in opposi-

tion to the wind by three springs, so arranged that only one comes into play when the wind is light, and the others necessarily act in conjunction with the first as the plate is driven further and further by the force of the wind. A cord from this plate passes over a pulley, and communicates with a copper wire passing through the center of the spindle, which at the bottom communicates with another cord passing under a pulley and held in tension by a slight spring: and by this a pencil is moved transversely to the direction in which the paper fixed to the board is carried by the clock. Lines are printed upon the paper corresponding to different values of the pressure; the intervals of these lines were adjusted by applying weights of 1 lb., 2 lbs., &c., to move the pressure-plate in the same manner as if the wind pressed it.

A fresh sheet of paper is applied to this instrument every day at 22^h mean solar time.

§ 19. *Whewell's Anemometer.*

Although this instrument was actually read in the year 1863 and some results derived from it were published in weekly reports to the Registrar General, yet, as no observations are published in the present volume it appears unnecessary here to describe it at length. A full description of it, and a comparison of its results with those of Robinson's Anemometer (to be mentioned immediately) will be found in the Introduction 1862, pages xlix, l, li, and lii.

§ 20. *Robinson's Anemometer.*

This anemometer is self-registering, and was made by Messrs, Negretti and Zambra on the principles described by Dr. Robinson in the Transactions of the Royal Irish Academy, vol xxii. It is furnished with four hemispherical cups [each being 3·75 inches in diameter], attached to the extremities of two arms at right angles to each other, and revolving in a horizontal plane by the excess of pressure of the wind on their concave over that on their convex surfaces.

The distance between the centers of opposite cups is 13·45 inches, and their centers describe 42·24 inches in each revolution, indicating, according, to the theory, a horizontal movement of the air of 126·72 inches for each revolution, and of one mile for 500 revolutions. The accuracy of this theory was verified by experiments made in 1860 (to be described immediately). The horizontal arms are connected with a vertical spindle, upon which is an endless screw, working in a toothed wheel connected with a train of wheels, furnished with indices capable of registering one mile and decimal multiples of a mile up to 1,000 miles. The instrument is read every day at 22^h.

In the year 1860, on July 3, 4; and 13, experiments were made in Greenwich Park to ascertain the correctness of the theory of Robinson's anemometer; the point to be

verified being that the scale of the instrument, founded on the supposition that the horizontal motion of the air is about three times the space described by the centers of the cups, is correct.

A post about 5 feet high with a vertical spindle in the top was erected, and on this spindle turned a horizontal arm, carrying at the extremity of its longer portion Robinson's anemometer, and on its shorter portion a counterpoise. The distance from the vertical spindle of the post to the vertical axis of the anemometer was $17^{ft.}\ 8^{in.}\cdot 7$. The reading of the dial was taken, and then the arm was made to revolve in the horizontal plane 50 or 100 times, an attendant counting the number of revolutions, and the reading of the dial was again taken. In this manner 1,000 revolutions were made in the direction N.E.S.W.N., and 1,000 revolutions in the direction N.W.S.E.N. In some of the experiments the air was sensibly quiet, and in others there was a little wind; the result was,

For a movement of the instrument through one mile,

Beam revolving N.E.S.W. (opposite to the direction of rotation of the Anemometer-cups) .... } 1·15 was registered

Beam revolving N.W.S.E. (in the same direction as the Anemometer-cups) .... } 0·97 was registered

The results from rapid revolutions and from slow revolutions were sensibly the same.

This may be considered as confirming in a very high degree the accuracy of the theory.

§ 21. *Rain Gauges.*

The rain-gauge connected with Osler's anemometer is 50 feet 8 inches above the ground, and 205 feet 6 inches above the mean level of the sea. It exposes to the rain an area of 200 square inches (its horizontal dimensions being 10 by 20 inches).

The collected water passes through a tube into a vessel suspended in a frame by spiral springs, which lengthen as the water increases, until 0·24 of an inch is collected in the receiver; it then discharges itself by means of the following modification of the syphon. A copper tube, open at both ends, is fixed in the receiver, in a vertical position, with its end projecting below the bottom. Over the top of this tube a larger tube, closed at the top, is placed loosely. The smaller tube thus forms the longer leg, and the larger tube the shorter leg of a syphon. The water, having risen to the top of the smaller tube, gradually falls through it into the uppermost portion of a tumbling bucket, fixed in a globe under the receiver. When full, the bucket falls over, throwing the water into a small pipe at the lower part of the globe; the water completely fills the bore of the pipe; its descent causes an imperfect vacuum in the globe, sufficient to cause a draught in the longer leg of the syphon, and the whole contents run off. After leaving the globe, the water is received in a pipe attached to the

building, which carries it away. The springs then shorten and raise the receiver. The ascent and descent of the water-vessel move a radius-bar which carries a pencil; and this pencil makes a trace upon the paper carried by the sliding-board of the self-registering anemometer.

The scale of the printed paper was adjusted by repeatedly filling the water-vessel until it emptied itself, then weighing the water, and thus ascertaining its bulk, and dividing this bulk by the area of the surface of the rain receiver.

A second gauge, with an area 77 square inches nearly, is placed close to the preceding, the receiving surface of both being on the same horizontal plane.

A third gauge is placed on the roof of the Octagon room, at 38 feet $4\frac{1}{2}$ inches above the ground, and 193 feet $2\frac{1}{2}$ inches above the mean level of the sea. It is a simple cylinder gauge, 8 inches in diameter and about $50\frac{1}{4}$ inches in area. The height of the cylinder is $13\frac{1}{2}$ inches; at the depth of 1 inch from the top within the cylinder is fixed a funnel (an inverted cone) of 6 inches perpendicular height; with the point of this funnel is connected a tube, $\frac{1}{5}$ of an inch in diameter, and $1\frac{1}{2}$ inch in length; $\frac{3}{4}$ of an inch of this tube is slightly curved, and the remaining $\frac{3}{4}$ of an inch is bent upwards, terminating in an aperture of $\frac{1}{8}$ of an inch. By this arrangement, the last few drops of water remain in the bent part of the tube, and the water is some days evaporating. The upper part of the funnel or bore of the cone is connected with a brass ring, which has been turned in a lathe, and this is connected with a circular piece 6 inches in depth, which passes outside the cylinder, and rests in a water joint, attached to the inner cylinder, and extending all round.

A fourth gauge is placed on the top of the Library; it is a funnel, whose diameter is 6 inches; its exposed area is $28\frac{1}{4}$ inches nearly. The water passes into a cylinder, from which it is poured into a circular vessel, the diameter of which is $3\frac{1}{4}$ inches; and therefore 3·4 inches of this corresponds to 1 inch of rain. The receiving surface of the gauge is 22 feet 4 inches above the ground, and 177 feet 2 inches above the mean level of the sea.

A fifth gauge is planted on the roof of the Photographic Thermometer stand, 10 feet above the ground, and 164 feet 10 inches above the mean level of the sea. Its construction is the same as that of the third gauge.

A sixth gauge is a self-registering rain-gauge on Crosley's construction, made by Watkins and Hill. The surface exposed to the rain is 100 square inches. The collected water falls into a vibrating bucket, whose receiving concavity is entirely above the center of motion, and which is divided into two equal parts by a partition whose plane passes through the axis of motion. The pipe from the rain-receiver terminates immediately above the axis. Thus that part of the concavity which is highest is always in the position for receiving water from the pipe. When a certain quantity of water has fallen into it, it preponderates, and, falling, discharges its water into a cistern below; then the other part of the concavity receives the rain, and after a time

preponderates. Thus the bucket is kept in a state of vibration. To its axis is attached an anchor with pallets, which acts upon a toothed wheel by a process exactly the reverse of that of a clock-escapement. This wheel communicates motion to a train of wheels, each of which carries a hand upon a dial-plate; and thus inches, tenths, and hundredths are registered. Sometimes, when the escapement has obviously failed, the water which has descended to the lower cistern has again been passed through the gauge, in order to enable an assistant to observe the indication of the dial-plates without fear of an imperfection in the machinery escaping notice. The gauge is placed on the ground, 21 feet South of the Magnetic Observatory, and 156 feet 6 inches above the mean level of the sea.

The seventh and eighth gauges are placed near together, about 16 feet south of the Magnetic Observatory, 5 inches above the ground, and 155 feet 3 inches above the mean level of the sea. They are similar in construction and area to No. 3. These cylinders are sunk about 8 inches in the ground.

All these gauges, except No. 7, are read at 22^h daily; in addition, Crosley's gauge and No. 8 are read daily at 9^h p.m., and No. 7 at the end of each month only, to check the summation of the daily readings of No. 8.

Gauges Nos. 1, 2, 3, 5, 8 were made by Messrs. Negretti and Zambra; No. 4 by Troughton; No. 6 by Watkins and Hill; and No. 7 is an old gauge.

§ 22. *The Actinometer.*

The Actinometer used in former years is described in the Introduction to the *Magnetical and Meteorological Observations*, 1847. It has not been used for several years, and will probably require some modifications before it is again used.

§ 23. *Electrical Apparatus.*

The electrical apparatus consists of two parts, namely, the Moveable Apparatus, which is connected with a pole nearly 80 feet high planted 2 feet East of the northeast angle of the north arm of the Magnetic Observatory (before its extension in 1862); and the Fixed Apparatus, which is mounted in a projecting window in the ante-room of the Magnetic Observatory.

On the top of the pole is fixed a projecting cap, to which are fastened the ends of two iron rods, which terminate in a pit sunk in the ground, and are kept in tension by attached weights. These rods are to guide the moveable apparatus in its ascents and descents. Near the bottom of the pole is fixed a windlass; the rope upon which it acts passes over a pulley in the cap, and is used to raise the moveable apparatus, which when raised to the top is suspended on a hook.

The moveable apparatus consists of the following parts :—A plank in a nearly vertical position is attached to perforated iron bars, which slide upon the iron rods On the upper part of this plank is a cubical box. The box incloses a stout pillar of glass, having a conical hollow in its lower part. In the bottom of the box there is a large hole through which a cone of copper passes into the conical hollow of the glass pillar. In a space below the box a gas-lamp is placed, by the flame of which the copper cone and the lower part of the glass pillar are kept in a state of warmth. A copper wire is fastened round the glass pillar ; its end is carried to a similar glass pillar, warmed in the same manner, near the north-western turret of the Octagon room; by this wire, whose length is about 400 feet, the atmospheric electricity is collected. To this wire, near the box, is attached another copper wire $0\cdot1$ inch in diameter, and about 73 feet long, at the end of which is a hook ; a loaded brass lever connected with the fixed apparatus presses upon this hook, and thus keeps the wire in a state of tension, and at the same time establishes the electrical communication between the long horizontal wire and the fixed apparatus.

The fixed apparatus consists of these parts :—A glass bar, nearly 3 feet long, and thickest at its middle, is supported in a horizontal position, its ends being fixed in pieces of wood projecting downwards from the roof of the window. Near to each end is placed a small gas-lamp, whose chimney encircles the glass, and whose heat keeps the glass in a state of warmth proper for insulation. A brass collar surrounds the center of the glass bar ; it carries one brass rod, projecting vertically upwards through a hole in the roof of the window-recess, to which rod are attached a small umbrella and the loaded lever above-mentioned ; and it carries another rod projecting vertically downwards, to which is attached a horizontal brass tube in an East and West direction. On the North and South sides of this tube there project four horizontal rods, through the ends of which there pass vertical rods, which can be fixed by screws at any elevation ; these are placed in connexion with the electrometers, which rest on the window seat.

The electrometers during the year 1863 consisted of a Double Gold Leaf Electrometer of the ordinary construction ; two Volta's Electrometers, denoted by Nos. 1 and 2; a Henley's Electrometer; a Ronald's Spark Measurer ; a Dry-pile Apparatus ; and a Galvanometer,

Volta 1 and Volta 2 are of the same construction ; each is furnished with a pair of straws 2 Paris inches in length; those of the latter being much heavier than those of the former : each instrument is furnished with a graduated ivory scale, whose radius is 2 Paris inches, and it is graduated into half Paris lines. In the original construction of these instruments it was intended that each division of No. 2 should correspond to five of No. 1 : the actual relation between them has not yet been determined by observations at the Royal Observatory. The straws are suspended by hooks of fine copper wire to the suspension-piece, and they are at the distance of half a line from each other.

Henley's Electrometer is supported on the West end of the large horizontal tube by means of a vertical rod fixed in it. On each side of the upper part of this rod is affixed a semicircular plate of ivory, whose circumference is graduated; at the centers of these ivory plates two pieces of brass are fixed, which are drilled to receive fine steel pivots, carrying a brass axis, into which the index or pendulum is inserted; the pendulum terminates with a pith ball. The relation between the graduations of this instrument and those of the other electrometers has not been determined. This instrument has seldom been affected till Volta 2 has risen to above 100 divisions of its scale.

The spark measurer is similar in its construction to that at the Observatory at Kew. It consists of a vertical sliding rod terminated by a brass ball, which ball can be brought into contact with one of the vertical rods before referred to, also terminating in a ball; and it can be moved from it or towards it by means of a lever, with a wooden handle. During the operation of separating the balls, an index runs along a graduated scale, and exhibits the distance between the balls, and this distance measures the length of the spark.

The electrometers and the spark-measurer were originally constructed under the superintendence of Francis Ronalds, Esq., but have since received small alterations.

The dry-pile apparatus was made by Watkins and Hill; it is placed in connexion with the brass bar by a system of wires and brass rods. The indicator, which vibrates between the two poles, is a small piece of gold leaf. This instrument is very delicate, and it indicates at once the quality of the electricity. When the inclination of the gold leaf is such that it is directed towards the top of either pile, it remains there as long as the quantity of electricity continues the same or becomes greater: the position is sometimes expressed in the notes by the words " as far as possible." The angle which the gold leaf makes with the vertical at this time is about 40°.

The galvanometer was made by Gourjon of Paris, and consists of an astatic needle, composed of two large sewing needles, suspended by a split silk fibre, one of the needles of the pair vibrating within a ring formed by 2,400 coils of fine copper wire. The connexions of the two portions of wire forming these 2,400 coils are so arranged that it is possible to use a single system of 1,200 coils of single wire, or a system of 1,200 coils of double wire, or a system of 2,400 coils of single wire : in practice the last has always been used. A small ball communicating by a wire with one end of the coils is placed in contact at pleasure with the electric conductor, and a wire leading from the other end of the coil communicates with the earth. An adjustible circular card, graduated to degrees, is placed immediately below the upper needle; the numeration of its divisions proceeds in both directions from a zero. One of these directions is distinguished by the letter A, and the other by the letter B; and the nature of the indication represented by the deflection of the needle towards A or towards B will be ascertained from the following experiment. A voltaic battery being formed by means of a silver coin and a copper coin, having a piece of blotting paper moistened with

saliva between them: when the copper touches the small ball, and the wire which usually communicates with the earth is made to touch the silver, the needle turns towards A; when the silver touches the small ball, and the wire is made to touch the copper, the needle turns towards B.

§ 24. *Explanation of the Tables of Meteorological Observations.*

The mean daily value of the difference between dew-point temperature and air-temperature is the difference between the two numbers in the sixth and seventh columns. The Greatest and Least are the greatest and least among the differences corresponding to the times of observation in the civil day, or they are found from the absolute maxima and minima, as determined by comparing the observations of the self-registering wet-bulb thermometers with those of the self-registering dry-bulb thermometers.

The difference between the mean temperature for the day and the mean for the same day of the year on an average of forty-three years, is found by comparison with a table of results deduced by Mr. Glaisher from forty-three years' observations, made at the Royal Observatory, ending 1856.

Little explanation of the results deduced from Osler's Anemometer appears to be necessary. It may be understood generally that the greatest pressure occurred in gusts of short duration.

Robinson's Anemometer is read off every day at 22^h (10^h A.M.).

The register of rain is read at 9^h P.M. from the Cylinder Rain-gauge partly sunk in the ground, described above as the "eighth." If, however, there appears to be any doubt as to the correctness of the results, reference is made to a Rain-gauge of similar construction and placed near to it, called above the "seventh."

For understanding the divisions of time under the heads of Electricity and Weather, the following remarks are necessary:—The day is divided by columns into two parts (from midnight to noon, and from noon to midnight), and each of these parts is roughly subdivided into two or three parts by colons (:). Thus, when there is a single colon in the first column, it denotes that the remarks before it apply (roughly) to the interval from midnight to 6 A.M., and those following it to the interval from 6 A.M. 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.

The following is the explanation of the notation employed for record of electrical observations, it being premised that the quality of the Electricity is always to be supposed positive when no indication of quality is given:—

g cur. denotes	*galvanic currents*		s denotes		*strong*
m	...	*moderate*	sp	...	*sparks*
N	...	*negative*	v	...	*variable*
P	...	*positive*	w	...	*weak.*

The duplication of the letter denotes an intensity of the modification described: thus, s s is very strong; v v, very variable.

The Clouds and Weather are described generally by Howard's Nomenclature; the figure denotes the proportion of sky covered by clouds, the whole sky being represented by 10. The notation is as follows:

a denotes	*aurora borealis*	
ci ...	*cirrus*	
ci-cu ...	*cirro-cumulus*	
ci-s ...	*cirro-stratus*	
cu ...	*cumulus*	
cu-s ...	*cumulo-stratus*	
d ...	*dew*	
h-d ...	*heavy dew*	
f ...	*fog*	
sl-f ...	*slight fog*	
th-f ...	*thick fog*	
fr ...	*frost*	
glm ...	*gloom*	
gt-glm ..	*great gloom*	
h-fr ...	*hoar frost*	
h ...	*haze*	
hl ...	*hail*	
so-ha ...	*solar halo*	
l ...	*lightning*	
li-cl ...	*light clouds*	
lu-co ...	*lunar corona*	
lu-ha ...	*lunar halo*	
m ...	*meteor*	
ms ...	*meteors*	
n ...	*nimbus*	
r ...	*rain*	
th-r ...	*thin rain*	
oc-r ...	*occasional rain*	
fr-r ...	*frozen rain*	

h-r denotes	*heavy rain*	
shs-r ...	*showers of rain*	
c-r ...	*continued rain*	
c-h-r ...	*continued heavy rain*	
m-r ...	*misty rain*	
fr-m-r ...	*frequent misty rain*	
sl-r ...	*slight rain*	
h-shs ...	*heavy showers*	
fr-shs ...	*frequent showers*	
fr-h-shs ...	*frequent heavy showers*	
li-shs ...	*light showers*	
oc-shs ...	*occasional showers*	
sq ...	*squall*	
sqs ...	*squalls*	
fr-sqs ...	*frequent squalls*	
h-sqs ...	*heavy squalls*	
fr-h-sqs ...	*frequent heavy squalls*	
sc ...	*scud*	
li-sc ...	*light scud*	
sl ...	*sleet*	
sn ...	*snow*	
sl-sn ...	*slight snow*	
s ...	*stratus*	
t ...	*thunder*	
t-s ...	*thunder storm*	
v ...	*variable*	
w ...	*wind*	
st-w ...	*strong wind*	

The foot-notes show the means and extremes of readings, and their departure in each month from average values, as found from the preceding Twenty-two Years' Observations; those relating to Humidity have been calculated from the Second Edition of Glaisher's Hygrometrical Tables.

§ 25. *Details of the Chemical Operations for the Photographic Records.*

Mr. Glaisher has drawn up the following account of the Chemical Processes employed in the Photographic Operations for the self-registration of the Magnetical and Meteorological Indications.

CHEMICAL PREPARATION AND TREATMENT OF THE PHOTOGRAPHIC PAPER FOR PRIMARIES.

The paper used is similar to that made by Whatman; it is made by his successor Hollingsworth; it is strong and of even texture, and is prepared expressly for Photographic purposes.

First Operation.—Preliminary Preparation of the Paper.

The chemical solutions used in this process are the following:—

(1.) Sixteen grains of Iodide of Potassium are dissolved in one ounce of distilled water.

(2.) Twenty-four grains of Bromide of Potassium are dissolved in one ounce of distilled water.

(3.) When the crystals are dissolved, the two solutions are mixed together, forming the iodising solution. The mixture will keep through any length of time. Immediately before use, it is filtered through filtering paper.

A quantity of the paper, sufficient for the consumption of several weeks, is treated in the following manner, sheet after sheet.

The sheet of paper is pinned by its four corners to a horizontal board. Upon the paper, a sufficient quantity (about 50 minims, or $\frac{5}{48}$ of an ounce troy) of the iodising solution is applied, by pouring it upon the paper in front of a glass rod, which is then moved to and fro till the whole surface is uniformly wetted by the solution. Or, the solution may be evenly distributed by means of a camel's hair brush.

The paper thus prepared is allowed to remain in a horizontal position for a few minutes, and is then hung up to dry in the air; when dry, it is placed in a drawer, and may be kept through any length of time.

Second Operation.—Rendering the Paper sensitive to the Action of Light.

A solution of Nitrate of Silver is prepared by dissolving 50 grains of crystallized Nitrate of Silver in one ounce of distilled water. In hot weather a few drops of Acetic Acid are added.

Then the following operation is performed in a room illuminated by yellow light.

The paper is pinned as before upon a board somewhat smaller than itself, and (by means of a glass rod, as before,) its surface is wetted with 50 minims of the nitrate of silver solution. It is allowed to remain a short time in a horizontal position, and, if any part of the paper still shines from the presence of a part of the solution unabsorbed into its texture, the superfluous fluid is taken off by the application of blotting paper.

The paper, still damp, is immediately placed upon the interior glass cylinder, and is covered by the exterior glass cylinder, and the united cylinders are mounted upon the revolving apparatus, to receive the spot of light formed by the mirror, which is carried by the magnet; or to receive the line of light passing through the thermometer tube.

Third Operation.—Development of the Photographic Trace.

When the paper is removed from the cylinder, it is placed as before upon a board, and a saturated solution of Gallic Acid, to which a few drops of Aceto-Nitrate of Silver are added, (in hot weather this solution is used at the temperature of the air, in cold weather it is heated to the temperature of 70° or 80°, or even higher if the weather is very cold,) is spread over the paper by means of a glass rod, and this action is continued until the trace is fully developed. When the trace is well developed, the paper is placed in a vessel with water, and repeatedly washed with several waters; a brush being passed lightly over both sides of the paper to remove any crystalline deposit.

Fourth Operation.—Fixing the Photographic Trace.

The Photograph is placed in a solution of Hyposulphite of Soda, made by dissolving four or five ounces of the Hyposulphite in a pint of water; it is plunged completely in the liquid, and allowed to remain from one to two hours, until the yellow tint of the Iodide of Silver is removed. After this the sheet is washed repeatedly with water, allowed to remain immersed in water for 24 hours, and afterwards placed within folds of linen cloths till nearly dry. Finally it is placed between sheets of blotting-paper, and is pressed.

CHEMICAL PREPARATION AND TREATMENT OF THE PHOTOGRAPHIC PAPER FOR SECONDARIES.

The paper used is made by Rive; it is a strong wove paper of tolerably even texture, thin, but able to bear a great deal of wear.

First Operation.—Preliminary Preparation of the Paper.

The chemical solution required for this purpose is as follows:—

Two grains of Chloride of Ammonium are dissolved in one ounce of distilled water.

A sufficient quantity of this solution is placed in a flat-bottomed porcelain dish, and sheets of paper, one by one, are plunged within it; care being taken that no air bubbles remain between the paper and the solution; this may be prevented by slight pressure over the sheet by means of a bent glass rod. When a few sheets are thus immersed, they are turned over, and are taken out and hung to dry. Any number of sheets may thus be prepared.

An equally good result is obtained, by spreading over one side by means of a glass rod, as in the preparation of the Primaries, a solution of Chloride of Ammonium made by dissolving five grains in one ounce of distilled water.

Second Operation.—*Rendering the Paper sensitive to the Action of Light.*

The solution required for this purpose is as follows :

> To a filtered solution of Nitrate of Silver, (made by dissolving 50 grains of Crystallized Nitrate of Silver in one ounce of distilled water,) some strong solution of Ammonia is added; the whole becomes at first of a dark brown colour, but when a sufficient quantity of Ammonia is added the solution becomes perfectly clear; a few crystals of Nitrate of Silver are then added till the solution is a little dull, forming "Ammoniacal Nitrate of Silver;" it is then ready for use.

The following operation is performed in a room illuminated by yellow light :—

> By means of a glass rod this solution is spread over the paper, whilst pinned on a board; the paper is dried before a fire, and is then in a fit state to be used for producing a Secondary.

Third Operation.—*Formation of the Photographic Copy.*

A sheet of the paper so prepared is placed in a printing frame with its prepared side upwards, upon a bed of blotting paper resting upon a sheet of plate-glass; the Primary is then placed on the paper with its own face downwards; and as it is necessary, for obtaining a correct copy of the Primary, that it should be in close contact with the prepared surface, a second sheet of plate-glass is placed over it, and the two are pressed together by clamps and screws. The whole is then exposed to the light (the Primary to be copied being above the paper on which the copy is to be made). The time required to produce a copy depends, in a great measure, upon the thickness of the paper on which the Primary is made, and on the actinic quality of the light; a period of five minutes in a bright sunshine, or one hour in clear daylight, is generally sufficient.

Fourth Operation.—*Fixing the Photographic Secondary.*

When an impression has been thus obtained, it is necessary that the undecomposed Salts of Silver remaining in the paper be removed.

For this purpose the Secondary is at once plunged into water and well washed on both sides, passing a camel's hair brush over every part of it ; it is then plunged into a solution of Hyposulphite of Soda (made by dissolving two or three ounces of the Hyposulphite in a pint of water), and is left through a period varying from half an hour to an hour. It is then removed, and washed in plain water several times ; and running water is allowed to pass over it for twenty-four hours.

The sheets are then placed within the folds of drying cloths, till nearly dry, and finally between sheets of blotting paper.

The process of obtaining a Tertiary from a Secondary is in every respect the same as that of obtaining a Secondary from a Primary.

§ 26. *Personal Establishment.*

The personal establishment during the year 1863 has consisted of James Glaisher, Esq., F.R.S., Superintendent of the Magnetical and Meteorological Department, and Mr. Thomas Downs, Assistant.

Three or four computers have usually been attached to the Department.

ROYAL OBSERVATORY, GREENWICH.

RESULTS

OF

MAGNETICAL OBSERVATIONS.

1863.

ROYAL OBSERVATORY, GREENWICH.

INDICATIONS

OF

MAGNETOMETERS.

1863.

Left panel (January 1)

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Jan. 1		Jan. 1				Jan. 1		
h m	o ' (†) "	h m	(†)	h m		h m	o	o
0. 20	20. 56. 0	3. 0	·1113*			3. 0	53 ·0	
0. 35	57. 20	4. 22	·1127			9. 0	53 ·5	
0. 41	56. 45	4. 38	·1121			21. 0	52 ·2	
0. 53	57. 55	5. 8	·1151					
1. 17	56. 15	5. 50	·1143					
	***	6. 43	·1143					
2. 9	55. 25	7. 22	·1133					
2. 27	56. 55	8. 4	·1136					
2. 47	57. 55	8. 20	·1126					
3. 0	56. 35	9. 2	·1137					
3. 9	57. 40	9. 57	·1132					
3. 28	55. 0	10. 23	·1136					
3. 36	55. 35	10. 47	·1095					
3. 44	54. 35	11. 25	·1136					
4. 0	58. 25	11. 38	·1127					
4. 8	20. 56. 55	11. 50	·1136					
4. 22	21. 0. 25	12. 16	·1116					
4. 26	21. 3. 30	12. 44	·1134					
4. 49	20. 57. 25	13. 0	·1134					
5. 3	21. 0. 25	13. 15	·1137					
5. 19	20. 57. 55	13. 25	·1134					
5. 34	57. 50	13. 45	·1144					
5. 45	56. 20	14. 5	·1134					
5. 54	56. 10	14. 31	·1139					
6. 5	53. 45	15. 23	·1131					
6. 17	53. 0	16. 21	·1134					
6. 43	53. 55		***					
7. 1	52. 25	16. 47	·1124					
7. 15	53. 10	17. 7	·1128					
7. 36	51. 55		***					
7. 47	53. 50	18. 31	·1130					
8. 23	49. 15	18. 52	·1126					
10. 6	52. 50	19. 13	·1131					
10. 12	52. 5		***					
10. 29	52. 0	20. 31	·1129					
10. 42	47. 15	21. 10	·1136					
10. 59	55. 30		(†)					
11. 21	56. 15							
11. 37	49. 45							
11. 51	53. 0							
12. 10	50. 55							
12. 26	52. 40							
12. 41	50. 45							
12. 53	48. 30							
13. 8	51. 50							
13. 22	52. 25							
13. 42	57. 55							
14. 7	52. 30							
14. 53	54. 10							
15. 23	53. 35							
15. 33	54. 15							
15. 43	53. 40							
15. 52	55. 0							
16. 4	53. 55							
16. 54	54. 25							
17. 5	20. 53. 10							
17. 31	21. 0. 5							

Right panel (January 1–2)

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Jan. 1								
h m	o ' "	h m		h m		h m	o	•
17. 47	20. 57. 30							
17. 52	57. 30							
18. 16	54. 10							
	***							
18. 53	56. 0							
19. 36	51. 25							
	***							
20. 39	53. 10							
20. 52	52. 15							
	***							
21. 47	54. 55							
22. 11	53. 50							
22. 44	56. 20							
23. 6	55. 55							
23. 22	56. 30							
23. 27	54. 55							
23. 59	56. 50							
Jan. 2		Jan. 2				Jan. 2		
0. 0	20. 56. 50		(†)					
0. 25	58. 0	1. 0	·1135*			1. 0	55 ·0	
0. 38	56. 25	2. 58	·1172			3. 0	55 ·0	
0. 51	57. 40	3. 50	·1166			9. 0	51 ·0	
1. 23	57. 30	4. 52	·1178			21. 0	43 ·5	
2. 7	54. 35	5. 18	·1155					
2. 52	53. 50	5. 40	·1157					
3. 18	54. 30	6. 0	·1170					
4. 4	51. 45	6. 13	·1174					
4. 22	52. 30	6. 36	·1171					
4. 39	52. 25	7. 12	·1174					
4. 57	54. 35		***					
5. 8	53. 40	8. 54	·1177					
5. 27	47. 45	9. 20	·1184					
5. 46	45. 10	9. 45	·1178					
6. 30	53. 40	10. 11	·1182					
7. 9	52. 45	10. 28	·1196					
7. 50	52. 35	10. 52	·1187					
8. 6	51. 50	11. 9	·1188					
8. 39	51. 20	11. 25	·1187					
9. 23	51. 50	11. 45	·1182					
9. 32	51. 0	12. 32	·1179					
9. 52	51. 35	13. 24	·1181					
10. 6	50. 45	13. 48	·1186					
10. 32	52. 45	14. 23	·1179					
10. 41	53. 40	14. 44	·1183					
11. 23	50. 25	15. 17	·1182					
11. 37	51. 50	15. 40	·1190					
12. 3	51. 35	16. 21	·1188					
12. 9	51. 40	16. 45	·1184					
12. 26	50. 0	17. 15	·1189					
12. 38	51. 55	18. 27	·1186					
12. 50	51. 45	19. 35	·1191					
13. 4	52. 35	20. 5	·1187					
13. 36	52. 10	20. 16	·1188					
13. 47	52. 50	20. 33	·1185					
14. 0	50. 30	20. 54	·1186					
14. 8	50. 10	21. 13	·1181					
14. 41	53. 25	21. 36	·1182					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

January 1 and 2. The Horizontal Force Magnet was under adjustment, and the observations on these days are comparable only among themselves, and do not form part of the series beginning January 3d. 2h. 30m.   January 1 to 4. The Vertical Force Magnet was in the hands of Mr. Simms.

Left half:

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers.	
							Of H.F. Magnet.	Of V.F. Magnet.
Jan. 2		Jan. 2					°	°
h m	° ′ ″	h m		h m		h m		
14. 49	20. 53. 15	21. 45	·1186					
14. 59	54. 40		(†)					
15. 35	52. 50							
16. 0	54. 25							
16. 57	51. 55							
17. 4	52. 10							
17. 30	51. 45							
17. 38	52. 35							
17. 51	51. 45							
18. 23	51. 50							
18. 39	52. 30							
19. 56	50. 40							
20. 3	51. 5							
20. 48	51. 10							
21. 5	55. 40							
21. 27	55. 15							
21. 49	53. 25							
22. 0	54. 35							
22. 21	54. 45							
23. 51	59. 55							
23. 59	58. 50							
Jan. 3		Jan. 3				Jan. 3		
0. 0	20. 58. 50		(†)			1. 0	45 ·0	
0. 23	56. 0	1. 0	·1182*			3. 0	47 ·0	
0. 52	57. 5	2. 30	·1087			9. 0	47 ·0	
1. 5	56. 20	2. 56	·1099			21. 40	45 ·9	
1. 31	57. 30	3. 31	·1096					
1. 57	57. 10	3. 45	·1100					
2. 24	56. 5	4. 6	·1098					
2. 39	52. 50	4. 15	·1103					
2. 54	52. 35	4. 38	·1098					
3. 15	55. 0	5. 15	·1098					
4. 7	54. 25	5. 34	·1103					
4. 18	53. 15	6. 8	·1099					
4. 31	53. 50	6. 37	·1103					
5. 27	51. 20	6. 55	·1098					
5. 38	52. 50	7. 38	·1103					
6. 20	51. 30	7. 52	·1102					
6. 51	51. 25	8. 8	·1104					
7. 6	49. 20	8. 29	·1099					
7. 56	52. 50	8. 38	·1101					
8. 13	53. 0	9. 5	·1089					
8. 27	49. 40	10. 7	·1100					
8. 36	49. 20	10. 45	·1098					
8. 47	50. 40	11. 14	·1105					
9. 7	47. 55	12. 15	·1087					
10. 9	52. 20	12. 36	·1095					
10. 25	51. 30	12. 51	·1088					
10. 39	52. 55	13. 21	·1105					
10. 52	52. 0	13. 53	·1100					
11. 0	52. 30	14. 12	·1102					
11. 40	49. 20	14. 32	·1097					
11. 54	49. 25	14. 52	·1101					
12. 21	45. 0	15. 31	·1100					
12. 27	46. 55	17. 53	·1103					
12. 35	51. 0	18. 10	·1108					
12. 41	52. 0	18. 35	·1102					

Right half:

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers.	
							Of H.F. Magnet.	Of V.F. Magnet.
Jan. 3		Jan. 3					°	°
h m	° ′ ″	h m		h m		h m		
12. 51	20. 50. 20	19. 20	·1102					
13. 8	50. 0	20. 0	·1106					
13. 30	52. 45	21. 45	·1104					
13. 56	48. 55		(†)					
14. 8	50. 0	23. 15	·1100					
14. 19	52. 0	23. 34	·1102					
14. 31	52. 40	23. 59	·1096					
14. 42	53. 45							
15. 37	52. 25							
	***							
17. 5	50. 35							
17. 23	51. 20							
17. 42	50. 15							
17. 58	51. 0							
18. 17	57. 45							
18. 48	51. 50							
19. 7	50. 40							
	***							
21. 2	51. 55							
21. 30	53. 35							
21. 40	53. 20							
21. 54	54. 25							
22. 21	53. 35							
22. 35	55. 30							
23. 9	53. 50							
23. 32	55. 0							
23. 55	58. 0							
23. 59	57. 40							
Jan. 4		Jan. 4				Jan. 4		
0. 0	20. 57. 40	0. 0	·1096			8. 39	48 ·1	
0. 10	56. 0	0. 51	·1099			21. 0	46 ·9	
0. 52	56. 0	1. 29	·1105					
1. 8	58. 10	1. 51	·1103					
1. 26	55. 0	3. 1	·1105					
2. 8	53. 25	3. 19	·1099					
2. 31	54. 25	3. 35	·1098					
3. 9	55. 5	3. 49	·1081					
3. 22	56. 10	4. 8	·1088					
3. 35	53. 5	4. 20	·1089					
3. 49	53. 0	4. 50	·1099					
4. 6	51. 40	5. 21	·1102					
4. 26	52. 50	5. 29	·1100					
5. 39	52. 50	5. 55	·1104					
5. 54	54. 20	6. 26	·1099					
6. 22	52. 40	6. 45	·1099					
6. 32	53. 10	7. 7	·1081					
6. 49	51. 45	7. 29	·1107					
7. 13	39. 30	7. 42	·1106					
7. 40	50. 0	8. 8	·1086					
7. 53	49. 35	9. 15	·1100					
8. 14	50. 55	9. 45	·1100					
9. 5	50. 20	10. 17	·1094					
9. 27	45. 20	10. 23	·1108					
9. 39	48. 15	10. 40	·1101					
10. 6	49. 5	11. 2	·1110					
10. 17	52. 30	11. 29	·1101					
10. 43	49. 25	11. 43	·1102					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half:

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Jan. 4		Jan. 4						
h m	o ′ ″	h m		h m		h m	o	o
10.59	20.50.40	11.53	·1098					
11. 7	49.55	12.15	·1098					
12.23	52.50	12.28	·1101					
12.53	50.30	13.52	·1103					
13.10	50.50	14.22	·1100					
13.42	54. 5	16. 8	·1105					
13.58	52.25	18.47	·1110					
14.50	53. 0	18.58	·1108					
15. 9	51. 5	19. 9	·1111					
15.41	52.20	20. 2	·1108					
	***	21.22	·1107					
17.24	51.20	21.37	·1102					
	***	21.50	·1117					
18.53	52.35	22.50	·1112					
19. 8	51.35	23. 9	·1113					
19.35	51.45	23.18	·1108					
20.31	52.40	23.22	·1102					
21. 3	53.35	23.25	·1107					
21.33	53.50	23.59	·1108					
22. 2	54.55							
22.10	54.35							
22.26	55.45							
22.53	54.35							
23. 8	57. 0							
23.27	57. 0							
23.35	54.45							
23.50	56.25							
23.59	55.20							
Jan. 5		Jan. 5				Jan. 5		
0. 0	20.55.20	0. 0	·1108			1. 0	48·0	
0.57	55.25	0.24	·1111			3. 0	49·0	
1.17	53.55	0.40	·1107			9. 0	50·5	
1.30	55.40	(†)				21. 0	46·5	
1.40	55.25	1. 0	·1099*					
2. 0	54.50	3. 0	·1073*					
2.18	56. 0	4.55	·1093					
2.27	58.20	5.17	·1092					
2.38	57. 5	5.39	·1095					
2.53	57.35	5.51	·1088					
3.22	53. 0	6. 5	·1093					
4.42	55.50	6.18	·1083					
5. 8	53.15	6.55	·1070					
5.27	52.20	7.38:	·1093					
6.13	56. 0	8.20	·1090					
6.37	48.45	9. 8	·1090					
6.50	47. 0	9.30	·1095					
7. 8	41.30	9.50	·1086					
8. 8	53. 0	10. 5	·1089					
8.58	52. 0	10.17	·1081					
9.22	49.55	10.45	·1099					
9.40	50.10	10.59	·1094					
10. 2	48.20	11. 8	·1096					
10.10	50. 0	11.25	·1091					
10.21	47.55	11.37	·1093					
10.37	47.10	11.56	·1087					
10.50	49.45	13.17	·1096					
11. 0	48.10	13.35	·1094					
	***							

Right half:

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Jan. 5		Jan. 5						
h m	o ′ ″	h m		h m		h m	o	o
11.23	20.48.15	13.50	·1096					
11.39	50. 0	16.30	·1100					
12. 9	50.20	17.45	·1100					
12.37	51.55	18.20	·1102					
13.21	52.10	18.53	·1100					
13.30	51.55	20. 7	·1099					
14. 4	53.30	20.45	·1103					
14.50	52.50	21.32	·1098					
15. 5	51.35	22.10	·1095					
15.24	52.55	22.50	·1097					
16. 7	52.10	23.11	·1092					
16.39	53.15	23.59	·1089					
17.45	52.45							
18. 9	51.35							
18.48	52.40							
19. 9	52.45							
20. 5	51. 0							
20.53	53.30							
21.30	52.20							
21.47	50.45							
	(†)							
Jan. 6		Jan. 6				Jan. 6		
	(†)	0. 0	·1089			1. 0	47 ·9	
1. 0	20.58.42*	0.15	·1088			3. 0	49 ·0	
1.25	54.45	0.27	·1089			9. 0	50 ·9	
1.56	54. 5	0.43	·1094			21. 0	45 ·5	
2.14	56.20	0.50	·1093			22. 0	45 ·5	
	***	1.30	·1099			23. 0	45 ·5	
3.14	53. 5	2. 0	·1101					
3.56	55.30	2.40	·1107					
4.24	53.10	3.22	·1098					
4.40	50.10		***					
5.24	55. 0	3.50	·1099					
5.37	53.45	4. 8	·1086					
5.48	54.35	4.22	·1089					
	***	4.54	·1084					
6.53	53.10	5.18	·1094					
7.18	50.15	5.35	·1086					
7.27	51. 5	5.47	·1092					
7.52	46.20		***					
8. 5	48. 0	6.26	·1096					
8.13	48.20	6.42	·1093					
8.36	50.55	7.13	·1084					
9. 2	49.40	7.23	·1088					
10.22	51.20	7.45	·1083					
10.47	50.25	8.10	·1089					
11. 9	46.45	8.21	·1085					
11.23	47.55	8.47	·1087					
11.37	46.45	8.59	·1092					
11.58	49. 5	9.12	·1090					
12.25	47. 0	9.43	·1092					
13. 2	50.45	9.52	·1090					
13.24	50.45	10. 5	·1093					
13.43	49.40	10.25	·1092					
14.20	51.50	10.38	·1094					
14.47	51.30	10.58	·1093					
15.24	52. 5	11.17	·1098					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

January 5. The Vertical Force Magnet was received from Mr. Simms, it was suspended in the Library for the determination of its time of vibration in the horizontal plane, and placed in position on January 8 for observation.

Left panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Jan. 6		Jan. 6						
h m	o ' "	h m		h m		h m	o	o
15.46	20.49.45	12. 2	·1099					
16.54	49.45	12.28	·1095					
17.14	51.20	12.54	·1097					
17.33	51.15	13.19	·1092					
***		14. 5	·1089					
18.19	48.30	14.22	·1093					
18.28	49. 0	15. 0	·1092					
18.55	48.15	15.22	·1097					
19.51	49.40	15.30	·1095					
21.34	50. 0	15.49	·1098					
22.35	50.50	16.25	·1096					
22.36	53.45	17.10	·1099					
22.49	56. 0		***					
22.53	54. 5	18.23	·1106					
23.22	52.10	19. 7	·1101					
23.59	53.20	19.39	·1103					
		20.30	·1097					
		21.23	·1094					
		21.37	·1098					
		21.58	·1095					
		22. 2	·1087					
		22. 8	·1095					
		22.53	·1093					
		23. 1	·1097					
		23.13	·1095					
		23.54	·1096					
		23.59	·1097					
Jan. 7		Jan. 7				Jan. 7		
0. 0	20.53.20	0. 0	·1097			0. 0	45·5	
0.38	54.15		***			1. 0	46·0	
1.11	53. 0	0.32	·1101			2. 0	47·0	
2. 6	53.35	1.11	·1100			3. 0	47·5	
2.53	50.50	1.58	·1101			6. 0	49·2	
3.21	52.30	3. 9	·1094			9. 0	48·7	
4.13	50.15	4.29	·1102			12. 0	46·5	
5. 6	49. 0	5.17	·1102			21. 0	43·0	
5.51	49.40	5.37	·1105			22. 0	43·0	
6.28	49. 0	5.52	·1103			23. 0	43·5	
8. 7	50.50	6. 4	·1105					
9.36	49.20	6.58	·1099					
9.54	46. 0	7.24	·1102					
10.24	48.15	7.51	·1099					
10.39	47.20	8.38	·1096					
12.22	49.10	9.12	·1097					
13.17	48.15	9.38	·1093					
13.54	48.55	10. 8	·1102					
14. 4	47.20	10.29	·1097					
14.15	47.55	10.42	·1099					
15.42	43.45	11. 8	·1095					
16. 9	46.15	11.40	·1100					
16.32	45.25	13.28	·1098					
17.37	49.30	13.52	·1100					
18.21	50. 0	14.13	·1116					
***		14.27	·1115					
19.54	48.45	14.50	·1102					
20.55	49. 5	15.30	·1100					
***		17.45	·1101					

Right panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Jan. 7		Jan. 7						
h m	o ' "	h m		h m		h m	o	o
22.14	20.52.50	19.15	·1106					
22.37	51.45	19.34	·1110					
23.19	54.15	19.45	·1107					
23.36	56.20	20. 7	·1111					
23.44	55.35	20.25	·1107					
23.59	56.50	20.50	·1099					
		21.21	·1094					
		23. 8	·1105					
		23.24	·1109					
		23.37	·1104					
		23.59	·1106					
Jan. 8		Jan. 8		Jan. 8		Jan. 8		
0. 0	20.56.50	0. 0	·1106	0. 0	(†)	0. 0	44·0	
1. 3	20.56.35	0. 8	·1106	2.30	·01990	1. 0	45·0	
1.21	21. 0.40	0.17	·1101	3.30	·01967	2. 0	46·0	
1.36	21. 0.35	0.54	·1103	4.20	·01895	3. 0	47·2	
2. 0	20.56.45		(†)	5.30	·01860	9. 0	49·9	50·7
2.59	53.35	1.39	·1091	5.59	·01857	21. 0	43·0	44·0
3.22	56. 0	2.23	·1100	8. 6	·01737			
3.34	54. 5	2.38	·1107	10. 4	·01667			
3.43	58.50	2.49	·1105	10.25	·01690			
4. 0	46.35	3. 6	·1106	10.41	·01685			
4.11	52.35	3.20	·1108	11.38	·01700			
4.45	59.30	3.32	·1101	13.55	·01800			
5. 0	20.57.35	3.38	·1107	14.55	·01807			
5.23	21. 1. 0	3.52	·1076	17.45	·01917			
5.43	20.57. 5	4. 5	·1097	19. 4	·01977			
5.54	52.25	4.20	·1107	21.44	·02035			
6. 8	51.20	4.39	·1107	23.59	·02050			
6.15	54.20	4.54	·1102					
6.39	47.30	5.19	·1106					
7. 2	47.25	5.27	·1097					
7.17	44. 0	5.35	·1101					
7.38	23.35	5.50	·1090					
7.50	31.10	6.11	·1092					
8. 1	35.40	6.32	·1071					
***		6.53	·1081					
8.22	36.45	7.27	·1072					
8.44	43.20	7.44	·1097					
9. 6	45.35	8. 7	·1077					
9.20	44. 5	8.18	·1071					
9.37	45. 0	8.38	·1077					
10. 5	31.40	8.55	·1077					
10. 9	26.35	8.58	·1084					
10.18	24.30	9.15	·1078					
10.28	33. 5	9.26	·1083					
11. 2	46.45	9.40	·1077					
	***	9.51	·1075					
12.39	49.10	10. 5	·1063					
13. 7	47.10	10.24	·1097					
13.42	49. 5	10.47	·1091					
14. 3	46. 5	11.12	·1089					
14.11	46.20	11.21	·1093					
14.47	41. 0		***					
15.22	44.25	12.35	·1093					
15.36	44.15	12.50	·1096					
15.52	47.25		***					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Jan. 8		Jan. 8						
h m	o ′ ″	h m		h m		h m	o	o
16. 12	20. 47. 5	13. 41	·1091					
***		14. 15	·1123					
17. 33	51. 55	14. 49	·1103					
18. 23	49. 50	15. 18	·1109					
18. 35	50. 25	15. 40	·1108					
19. 39	49. 20	16. 6	·1115					
***		16. 21	·1115					
21. 52	50. 10	16. 31	·1118					
22. 7	51. 55	16. 49	·1117					
22. 51	50. 15	17. 17	·1104					
23. 20	52. 0	17. 25	·1108					
23. 38	51. 50	18. 7	·1100					
23. 55	53. 35	18. 35	·1102					
23. 59	52. 40	18. 45	·1099					
		19. 46	·1106					
		20. 11	·1102					
		20. 22	·1105					
		20. 45	·1102					
		21. 8	·1096					
		21. 47	·1098					
			***					
		22. 53	·1092					
		23. 5	·1097					
		23. 59	·1102					
Jan. 9		Jan. 9		Jan. 9		Jan. 9		
0. 0	20. 52. 40	0. 0	·1102	0. 0	·02050	1. 0	44 ·2	45 ·2
0. 6	52. 0	0. 35	·1105	0. 55	·02093	3. 0	46 ·9	47 ·2
0. 27	52. 55	0. 43	·1103	(†)		9. 0	48 ·0	47 ·7
0. 47	52. 40	1. 4	·1105	1. 0	·02077*	21. 0	43 ·7	44 ·0
1. 6	54. 50	1. 23:	·1101	1. 20	·02013			
1. 18	53. 5	1. 46	·1112	1. 43	{·02010 / ·01952}			
1. 41	52. 35	2. 6	·1111					
1. 52	54. 45	2. 13	·1107	2. 41	·01890			
3. 5	50. 50	2. 37	·1113	4. 16	·01785			
4. 44	51. 5	3. 4	·1114	7. 53	·01710			
5. 13	49. 40	3. 16	·1116	9. 15	·01722			
5. 57	52. 0	3. 33	·1116	9. 23	·01713			
6. 9	50. 35	3. 51	·1113	10. 10	·01727			
7. 8	49. 45	4. 20	·1115	12. 28	·01695			
7. 52	50. 0	4. 58	·1112	15. 27	·01710			
8. 13	47. 30	5. 23	·1115	15. 52	·01688			
8. 32	46. 55	5. 41	·1111	17. 15	·01750			
9. 11	48. 30	5. 49	·1112	23. 21	·01937			
9. 28	46. 20	6. 2	·1102	23. 35	·01920			
9. 45	40. 45	6. 26	·1106	23. 45	·01940			
9. 54	42. 20	7. 3	·1105	23. 59	·01938			
10. 7	40. 55	7. 13	·1107					
10. 26	48. 10	7. 34	·1105					
10. 47	49. 30	7. 43	·1107					
11. 13	48. 30	8. 19	·1098					
12. 37	49. 5	8. 22	·1093					
12. 54	47. 55	9. 0	·1087					
13. 30	50. 20	9. 20	·1092					
13. 47	49. 30	9. 30	·1082					
14. 11	50. 25	9. 38	·1080					
14. 22	49. 55	9. 45	·1083					
14. 42	51. 40	9. 53	·1079					

Right half:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Jan. 9		Jan. 9						
h m	o ′ ″	h m		h m		h m	o	o
14. 55	20. 50. 45	10. 13	·1094					
15. 10	51. 25	10. 23	·1087					
15. 22	55. 0	10. 38	·1098					
15. 44	47. 35	10. 56	·1100					
15. 54	46. 15	11. 5	·1098					
16. 42	49. 35	11. 58	·1103					
17. 15	49. 20	12. 43	·1105					
17. 38	50. 40	12. 52	·1102					
18. 9	50. 5	13. 9	·1104					
18. 39	51. 15	13. 28	·1108					
20. 9	50. 5	14. 1:	·1106					
20. 20	49. 5	14. 30	·1109					
20. 24	51. 20	14. 50	·1106					
20. 36	49. 25	15. 15	·1112					
20. 43	51. 15	15. 33	·1125					
21. 44	51. 0	16. 6	·1112					
22. 14	52. 55	16. 44	·1107					
***		17. 7	·1114					
23. 5	52. 25	17. 30	·1117					
23. 23	53. 40	18. 23	·1111					
23. 36	57. 25	18. 35	·1113					
23. 51	53. 45	19. 31	·1109					
23. 59	57. 20	20. 7	·1110					
			***					
		20. 39	·1113					
			***					
		21. 7	·1107					
		21. 33	·1106					
			***					
		21. 57	·1105					
		22. 43	·1096					
		23. 4	·1097					
		23. 19	·1101					
		23. 31	·1108					
		23. 45	·1098					
		23. 52	·1103					
		23. 59	·1099					
Jan. 10		Jan. 10		Jan. 10		Jan. 10		
0. 0	20. 57. 5	0. 0	·1099	0. 0	·01938	1. 0	46 ·0	46 ·0
0. 12	53. 0	0. 23	·1099	0. 56	·01960	3. 0	48 ·0	47 ·1
0. 28	53. 50	0. 39	·1105	2. 3	·01925	9. 0	47 ·0	47 ·5
1. 15	53. 15	1. 11	·1110	2. 17	·01930	21. 30	44 ·0	44 ·8
1. 26	54. 35	2. 16	·1110	2. 57	·01900			
1. 50	52. 10	2. 31	·1115	4. 5	·01820			
1. 51	54. 15	2. 45	·1108	5. 38	·01780			
2. 18	52. 5	3. 4	·1113	8. 53	·01775			
2. 26	53. 50	3. 47:	·1112	9. 21	·01800			
2. 37	51. 45	4. 25	·1094	9. 40	·01790			
3. 15	50. 40	4. 46	·1097	10. 21	·01820			
4. 3	53. 35	5. 8	·1108	11. 55	·01793			
4. 39	51. 0	5. 17	·1099	12. 38:	·01777			
4. 57	48. 50	5. 43	·1105	13. 17	·01757			
5. 25	49. 5	6. 18	·1101	13. 56	·01775			
6. 9	52. 30	6. 33	·1103	19. 0	·01853			
6. 22	51. 5	6. 53	·1104	22. 18	·01890			
6. 56	51. 55	7. 13	·1099	23. 59	·01877			
7. 23	49. 15	***						

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Jan. 10		Jan. 10						
7. 48	20. 48. 0	7. 57	·1104					
8. 11	48. 35	8. 30	·1098					
8. 46	46. 50	8. 37	·1101					
8. 58	44. 25	9. 0	·1085					
9. 5	46. 50	9. 13	·1081					
9. 31	47. 0	9. 22	·1082					
9. 37	44. 35	9. 45	·1053					
9. 53	29. 35	9. 59	·1058					
10. 5	22. 50	10. 5	·1057					
10. 16	27. 0	10. 17	·1077					
10. 22	26. 0	10. 31	·1074					
10. 36	35. 30	10. 52	·1083					
10. 54	42. 25	11. 30	·1093					
11. 58	48. 35	11. 59	·1092					
12. 9	48. 5	12. 22	·1112					
12. 23	49. 10	13. 2	·1101					
12. 52	54. 25	14. 6	·1106					
13. 0	55. 0	14. 15	·1102					
13. 33	49. 10	14. 50	·1107					
13. 58	48. 25	15. 23	·1104					
14. 19	51. 40	15. 59	·1107					
15. 8	51. 20	16. 48	·1108					
16. 4	50. 15	18. 12	·1114					
18. 17	49. 10	18. 40	·1113					
***		18. 59	·1118					
19. 23	50. 50		***					
19. 48	49. 45	20. 2	·1104					
20. 39	51. 25	20. 15	·1098					
***		20. 36	·1099					
21. 12	54. 15	20. 47	·1089					
***		20. 56	·1095					
22. 0	53. 0		***					
22. 11	51. 20	21. 22	·1088					
23. 39	54. 35	21. 35	·1088					
23. 56	57. 55	21. 46	·1086					
23. 59	57. 20	21. 59	·1094					
		22. 15	·1092					
		22. 24	·1094 (†)					
Jan. 11		Jan. 11		Jan. 11		Jan. 11		
0. 0	20. 57. 25		(†)	0. 0	·01877	9. 0	45·0	46·0
0. 17	51. 45	0. 9	·1092	0. 59	·01895	21. 0	40·0	41·5
1. 2	53. 35	0. 45	·1106	1. 7	·01900			
1. 19	56. 0	0. 59	·1104	2. 23	·01905			
1. 35	55. 5	1. 10	·1111	3. 3	·01896			
1. 45	56. 30	1. 27	·1105	4. 15	·01935			
2. 3	54. 0	1. 38	·1107	4. 32	·01917			
2. 27	53. 45	2. 3	·1097	5. 28	·01890			
2. 44	51. 40		***	7. 3	·01847			
3. 22	55. 20	2. 52	·1104	7. 51	·01845			
3. 33	52. 30	3. 30	·1074	8. 13	·01820			
3. 39	51. 35	3. 41	·1077	9. 29	·01810			
3. 55	42. 50	3. 49	·1074	9. 48	·01797			
4. 15	41. 25	4. 0	·1086	9. 57	·01800			
4. 35	47. 55	4. 8	·1081	10. 14	·01780			
4. 50	47. 40	4. 23	·1099	12. 57	·01775			
5. 18	51. 10	4. 38	·1089	13. 27	·01740			

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Jan. 11		Jan. 11		Jan. 11				
6. 54	20. 49. 0	5. 0	·1099	14. 32	·01760			
7. 50	34. 45	5. 15	·1101	15. 20	·01805			
8. 11	48. 55	5. 37	·1098	16. 0	·01830			
8. 23	47. 50	5. 49	·1099	17. 54	·01850			
8. 39	45. 5	5. 56	·1105	18. 20	·01830			
9. 10	45. 10	6. 8	·1099	19. 22	·01857			
9. 42	43. 45	6. 17	·1103	20. 50	·01850			
10. 0	39. 30	6. 37	·1095	21. 0	{·01870 / ·01807}			
10. 12	48. 15	6. 55	·1100	21. 45	·01800			
10. 27	47. 5	7. 13	·1089	21. 52	·01737			
11. 7	51. 0	7. 24	·1100	23. 18	·01793			
12. 8	44. 30	7. 38	·1099	23. 59	·01780			
13. 7	55. 10	7. 59	·1129					
13. 27	53. 5	8. 24	·1097					
13. 45	55. 35	8. 52	·1104					
14. 9	52. 55	9. 22	·1098					
14. 33	49. 25	9. 32	·1110					
15. 26	51. 55	9. 44	·1108					
15. 53	50. 20	10. 0	·1131					
16. 8	51. 50	10. 16	·1112					
16. 24	50. 10	10. 23	·1117					
16. 39	53. 35		***					
17. 8	54. 40	11. 17	·1102					
17. 27	53. 0	11. 30	·1107					
17. 58	55. 35	12. 0	·1100					
18. 23	55. 15	12. 9	·1103					
19. 12	52. 15	12. 25	·1100					
20. 36	53. 50	12. 37	·1103					
20. 51	57. 0	12. 46	·1098					
21. 4	53. 20	13. 7	·1107					
21. 15	55. 20	13. 20	·1104					
21. 35	52. 55	14. 7	·1113					
21. 51	55. 45	14. 17	·1109					
22. 17	53. 35	14. 25	·1110					
22. 42	53. 40	14. 38	·1101					
23. 5	50. 40	14. 56	·1098					
23. 23	53. 45	15. 7	·1105					
23. 38	52. 45	15. 27	·1106					
23. 52	54. 50	15. 51	·1116					
23. 59	54. 0	16. 10	·1110					
		16. 18	·1114					
		16. 34	·1113					
		16. 52	·1116					
		17. 0	·1113					
		17. 36	·1120					
		18. 33	·1112					
		19. 11	·1116					
			***					
		20. 22	·1097					
		20. 27	·1099					
		20. 40	·1076					
		21. 6	·1096					
		21. 16	·1096					
		21. 35	·1109					
		21. 41	·1102					
			***					
		22. 7	·1097					
		22. 23	·1100					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
h m	o ' "	h m		h m		h m	o	o
		Jan. 11						
		22. 54	·1096					
		23. 5	·1103					
		23. 28	·1090					
		23. 53	·1084					
			(†)					
Jan. 12		Jan. 12		Jan. 12		Jan. 12		
0. 0	20. 54. 0		(†)	0. 0	·01780	1. 0	42 ·8	43 ·0
0. 24	51. 25	1. 0	·1095	3. 2	·01763	3. 0	44 ·5	45 ·0
0. 40	51. 35	1. 14	·1094	3. 29	·01732	9. 0	46 ·5	46 ·2
0. 54	55. 0	1. 49	·1103	3. 53	·01740	21. 0	47 ·2	48 ·0
1. 21	53. 40	2. 0	·1100	4. 26	·01700			
1. 50	55. 10	2. 21	·1113	4. 43	·01710			
2. 0	53. 30	2. 32	·1103	5. 14	·01665			
2. 39	51. 0		***	8. 0	·01563			
3. 9	51. 45	3. 8	·1115	8. 8	·01573			
3. 24	49. 20	3. 34	·1086	8. 29	·01520			
3. 37	41. 25	3. 56	·1116	10. 57	·01506			
3. 49	38. 20	4. 8	·1114	11. 55	·01470			
4. 9	44. 20	4. 35	·1078	14. 18	·01490			
4. 26	41. 5	5. 0	·1115	14. 47	·01455			
4. 52	24. 50	5. 11	·1116	16. 0	·01470			
5. 13	41. 20	5. 21	·1097	16. 47	·01455			
5. 33	30. 35	5. 30	·1094	17. 33	·01470			
5. 45	36. 20	5. 46	·1114	18. 51	·01460			
	***	6. 0	·1102	20. 25	·01460			
6. 24	48. 5	6. 9	·1095	21. 27	·01422			
7. 5	49. 15		***	23. 0	·01405			
7. 23	45. 45	6. 46	·1096	23. 59	·01420			
7. 29	47. 30		***					
7. 45	45. 35	7. 9	·1092					
8. 0	38. 0	7. 22	·1094					
8. 19	51. 35	7. 32	·1103					
8. 30	46. 30	7. 44	·1102					
8. 36	46. 50	7. 56	·1096					
8. 59	47. 25	8. 13	·1141					
9. 37	46. 50	8. 27	·1108					
10. 12	44. 30	8. 35	·1111					
10. 30	47. 5	8. 41	·1106					
10. 49	45. 0	8. 51	·1106					
11. 2	48. 45	9. 6	·1113					
11. 17	49. 0	9. 15	·1109					
11. 35	52. 55	9. 29	·1111					
11. 54	50. 15	10. 25	·1100					
12. 23	49. 30	10. 40	·1103					
12. 39	47. 0	10. 54	·1118					
13. 38	49. 55	11. 13	·1107					
14. 9	55. 30	11. 29	·1118					
14. 45	49. 35	11. 55	·1116					
14. 55	50. 50	12. 13	·1109					
15. 8	49. 55		***					
15. 39	51. 45	13. 11	·1104					
15. 53	54. 55		***					
16. 41	47. 30	14. 3	·1105					
17. 10	47. 25	14. 23	·1115					
	***	14. 49	·1108					
17. 38	51. 10	15. 4:	·1109					
17. 47	48. 15	15. 9	·1105					
	***							

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Jan. 12		Jan. 12		h m		h m	o	o
h m	o ' "	h m						
18. 58	20. 51. 55	15. 30	·1103					
	***		***					
19. 55	49. 30	16. 10	·1111					
	***	16. 19	·1119					
20. 23	48. 35	16. 22	·1115					
20. 37	54. 5	17. 22	·1108					
	***		***					
21. 42	50. 20	17. 45	·1111					
22. 0	51. 0	17. 51	·1105					
22. 10	53. 25	18. 4	·1115					
	***		***					
22. 39	53. 30	18. 53	·1116					
	***	19. 21	·1105					
23. 7	55. 25	19. 28	·1105					
23. 22	53. 0	19. 38	·1100					
23. 43	57. 30		***					
23. 51	56. 0	20. 18	·1095					
23. 59	59. 10	20. 39	·1104					
			***					
		21. 10	·1099					
		21. 35	·1102					
			***					
		22. 8	·1095					
		22. 24	·1096					
		22. 32:	·1091					
		22. 50	·1089					
			***					
		23. 25	·1054					
			***					
		23. 59	·1075					
Jan. 13		Jan. 13		Jan. 13		Jan. 13		
0. 0	20. 59. 10	0. 0	·1075	0. 0	·01420	1. 0	49 ·0	50 ·0
1. 8	54. 30	0. 8	·1080	3. 0	·01450	3. 0	50 ·0	50 ·7
1. 23	55. 25	0. 13	·1078	3. 51	·01415	9. 0	49 ·5	50 ·0
1. 52	53. 55	0. 37	·1085	7. 12	·01343	21. 0	45 ·5	46 ·0
2. 9	55. 10		***	9. 42	·01354	22. 0	45 ·5	46 ·5
2. 40	52. 10	1. 10	·1092	10. 50	·01390	23. 0	45 ·8	46 ·5
2. 54	49. 20	1. 24	·1098	11. 13	·01380			
3. 19	47. 45		***	11. 49	·01403			
4. 14	48. 30	2. 1	·1105	15. 18	·01465			
4. 35	50. 5	2. 34	·1090	17. 9	·01490			
5. 7	49. 5		***	19. 15	·01540			
5. 20	49. 30	3. 23	·1109	20. 54	·01560			
6. 43	47. 20		***	21. 15	·01585			
7. 7	49. 30	4. 19	·1106	22. 27	·01627			
7. 34	47. 35		***	23. 59	·01642			
7. 45	47. 45	5. 47	·1110					
7. 58	46. 20	5. 54	·1107					
8. 27	46. 40	6. 17	·1107					
8. 52	48. 45	6. 30	·1110					
9. 9	47. 45	7. 23	·1100					
9. 34	48. 40	7. 34	·1104					
9. 48	45. 10	7. 49	·1099					
10. 3	49. 5	7. 57	·1101					
10. 28	34. 50		***					
11. 6	47. 50	8. 42	·1105					
11. 26	43. 30	9. 1	·1102					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — OfH.F. Magnet.	OfV.F. Magnet.	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — OfH.F. Magnet.	OfV.F. Magnet.
Jan. 13 h m	o ′ ″	**Jan. 13** h m		h m		h m	o	o	**Jan. 14** h m	o ′ ″	**Jan. 14** h m		**Jan. 14** h m		h m	o	o
11.47	20.41.50	9.30	·1105						7.41	20.47.10	8.18	·1124	22.40	·01610			
12.21	47.45		***						7.45	45.15	8.36	·1146		(†)			
13.39	49.15	10.17	·1095						8. 5	37.10	9.16	·1102					
14. 0	51. 0	10.26	·1100						8.16	39.40	9.41	·1109					
	***	10.47	·1095						8.27	35.40	10.10	·1104					
14.51	50.35	10.56	·1102						8.53	50.35	10.41	·1110					
15.30	53.55	11.22	·1096						9.13	46.25	10.53	·1108					
15.50	55.30	11.57	·1113						9.34	45.10	11. 7	·1117					
16.16	52.55	12. 9	·1106						9.52	47.15	11.16	·1114					
16.27	50.45		***						10.23	44.50	11.30	·1121					
16.37	51.40	13.17	·1105						10.49	48.55	11.40	·1118					
17. 0	50. 0	13.26	·1110						11.53	47. 0	12. 8	·1124					
	***	13.40	·1105						12.12	37.35	12.18	·1128					
17.58	49.20		***						12.26	40.50	12.48	·1109					
18.37	50.25	14.18	·1108						12.46	41.30		***					
18.57	49. 5	14.30	·1105						13. 3	46.10	13.23	·1120					
20. 9	49.35	14.41	·1107						13.19	51. 5	13.40	·1108					
20.25	50.25	15. 8	·1098						13.40	46.25	13.53	·1115					
20.39	53. 0	15.58	·1106						14. 2	49.45	14.18	·1111					
21.25	50. 0	16.27	·1116						15. 6	51.15	14.33	·1114					
21.37	51.20	16.38	·1114						15.21	49.10	14.44	·1111					
22. 7	49.15	16.54	·1119						15.59	48.20	15.19	·1112					
22.20	51.35	17.45	·1112						16.24	51.45	15.39	·1115					
22.48	51. 0	17.59	·1114						16.54	52.50	16.47	·1110					
23. 3	52.30		***						17. 3	54. 0	17.11	·1115					
23.36	51.35	19.31	·1115						17.26	52.50	17.31	·1114					
23.59	50.10	19.50	·1112							***	18.10	·1120					
		20. 2	·1112						18.53	50.15	18.25	·1117					
		20.40	·1081						19.26	52. 5	18.39	·1119					
			***						20. 8	50. 0	19. 1	·1117					
		21.30	·1098							***	19.24	·1121					
		21.42	·1098						21.36	49.40	20. 7	·1112					
		22. 5	·1105						21.40	50.35		***					
			***						21.54	48.45	20.53	·1112					
		23.33	·1099						22.17	50.55	21.45	·1093					
		23.51	·1098						22.28	49.40	22.10	·1106					
		23.59	·1101						22.37	53.30		***					
									22.54	53. 5	23. 9	·1097					
									23.36	56. 0		***					
									23.45	54.35	23.59	·1100					
									23.59	56. 5							
Jan. 14 0. 0	20.50.10	**Jan. 14** 0. 0	·1101	**Jan. 14** 0. 0	·01642	**Jan. 14** 0. 0	46·0	47·0	**Jan. 15** 0. 0	20.56. 5	**Jan. 15** 0. 0	·1100	**Jan. 15** (†)		**Jan. 15** 0. 0	45·0	46·5
0. 8	52. 5	0. 7	·1103	2.15	·01664	1. 0	46·0	47·0	0.27	55.50	0. 9	·1101	0.10	·01600	1. 0	45·8	47·0
0.12	53.55	1.39	·1105	4.16	·01615	2. 0	47·5	48·0	1. 5	54.15		***	2. 8	·01585	2. 0	47·5	48·0
0.19	53. 0	2. 0	·1100	4.40	·01593	3. 0	48·0	49·0	1.39	55. 0	2. 0	·1113	5.26	·01435	3. 0	48·0	48·5
1.21	52.45		***	4.58	·01590	6. 0	49·1	49·0	1.54	53.50		***	5.48	·01438	9. 0	48·0	47·6
1.41	54.20	2.47	·1107	6.57	·01490	9. 0	47·5	48·0	3.53	48.35	3.24	·1115	6.40	·01400	21. 7	44·1	44·5
1.54	53.30	3. 4	·1106	8.14	·01465	12. 0	46·6	46·8	4.22	43.40	3.31	·1112	6.49	·01403			
	***	3. 6	·1111	8.43	·01465	21. 0	43·9	44·5	4.42	44. 5		***	7.19	·01380			
2.59	51.35	3.15	·1110	9.15	·01440	22. 0	44·3	45·0	4.50	46.15	4.14	·1107	7.26	·01380			
4. 9	48. 0	3.41	·1111	9.40	·01463	23. 0	44·8	45·4	5.25	43.30	4.49	·1118	7.57	·01356			
4.18	48.35	4.20	·1106	10.42	·01480				5.41	40. 0	4.55	·1117	8.59	·01350 / ·01455			
4.28	46.35	4.42	·1086	12.45	·01473				5.58	45.35	5. 6	·1118	12.12	·01465			
4.50	39.25	5.27	·1111	13. 2	·01488				6.37	47. 0	5.22	·1113	17.59	·01566			
5. 9	43. 0	5.40	·1108	13.48	·01485				6.50	41. 0	5.37	·1099	21. 5	·01605			
5.22	43. 0		***	16.36	·01555				7. 6	45.40	5.55	·1112					
5.51	49.25	7. 5	·1109	17.26	·01557												
6.13	49.55	7.32	·1112	21.10	·01654 / ·01563												
6.36	48.50	7.51	·1107	22. 0	·01600												
7.12	48.55	8.13	·1125														

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Upper section

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
h m	° ′ ″	m		h m		h m	°	°	h m	° ′ ″	h m		h m		h m	°	°
Jan. 15		Jan. 15		Jan. 15					Jan. 16		Jan. 16						
7. 11	20.45. 5	6. 8	·1111		(†)				7. 23	20.44.45	9. 9	·1112					
7. 28	37.10	6.24	·1117	23. 35	·01550				7. 36	46.40	9.39	·1112					
7. 56	47.25	6.44	·1106	23. 59	·01533				7. 47	45.45	10. 6	·1115					
8. 8	46.10	6.55	·1122						8. 1	47. 5	10.18	·1114					
8. 23	47.45	7.18	·1119						8.14	45.30	11. 6	·1127					
8. 35	46.55	7.34	·1138						8.28	46.45	11.20	·1122					
8. 45	48.50	7.45	·1136						9.37	47.50	11.47	·1127					
9. 8	47.55	8. 0	·1118						9.51	46.35	12. 9	·1120					
10. 23	48.45	8.12	·1119						10.14	46. 0	13. 1	·1118					
11. 36	47.55	8.22	·1112						10.37	47.40		***					
12. 7	49.10	8.35	·1116						10.53	42. 0	13.49	·1121					
12. 36	48.45	8.47	·1113						11. 5	43.35	14. 1	·1126					
13. 34	49. 0	9.13	·1117						11.21	43.25	14.22	·1112					
14. 5	50.25	9.42	·1113						12. 4	46. 5	14.36	·1111					
14. 23	50.45	10.13	·1118							***	15. 1	-·1136					
14. 37	53. 0	10.20	·1116						13.22	49.30	15.21	·1135					
15. 2	49.50		***						14. 4	46.35	15.55	·1125					
15. 39	50.25	10.47	·1120						14.23	50. 5	16.56	·1134					
16. 2	49.40	11.14	·1117						14.54	46. 0	17.20	·1127					
17. 4	49.40	11.25	·1121						15.42	50. 0	18. 5	·1127					
17. 26	50.50	13.15	·1120						15.59	52.10	18.15	·1125					
18. 41	51.25	13.54	·1123						16.54	48.55	18.56:	·1132					
19. 9	52.25	14. 9	·1120						17.53	20.57.35	19.43:	·1111					
19. 37	51.30	14.16	·1121						18. 4	21. 0. 0	20. 3	·1115					
19. 53	52. 5	14.47	·1118						18.37	20.55.35	20.36	·1113					
21. 21	48.35	16.51	·1124						18.53	54.45	21.25	·1116					
21. 42	48.30		***						19. 8	53.15	22.29	·1102					
	(†)	17.31	·1121						19.39	53.45	23.14	·1110					
23. 46	50. 0	18. 0	·1124						19.53	50.40	23.59	·1113					
23. 59	50.25	18.26	·1123						20.24	49.30							
		19.15	·1126							***							
		20. 3	·1118						22.20	49.55							
		20.22	·1120							***							
		20.43	·1116						23.12	51.30							
			(†)							***							
									23.40	54. 0							
									23.59	52. 5							

Lower section

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Jan. 16		Jan. 16		Jan. 16		Jan. 16			Jan. 17		Jan. 17		Jan. 17		Jan. 17		
0. 0	20.50.25	0. 0	·1114	0. 0	·01533	1. 0	46·0	47·0	0. 0	20.52. 5	0. 0	·1113	0. 0	·01540	1. 0	46·5	47·0
0. 43	53.20	1. 7	·1117	2.12	·01551	3. 0	47·2	47·8	0. 4	51.45	0.30	·1112	1.18	·01530	3. 0	47·5	48·0
1. 2	53. 0	1.45	·1108	4.39	·01423	9. 0	47·5	47·3	0.28	56.10	0.48	·1112	1.30	·01540	9. 0	47·8	47·3
1. 21	54.15	2. 8	·1108	5.59	·01390	21. 0	43·5	44·0	0.39	54.35	1. 3	·1106	2.15	·01510	23.10	44·0	45·0
2. 9	49.20	2.37	·1118	6.14	·01410				0.51	55.40	1.35	·1116	4.36	·01355			
2. 37	51. 0	2.56	·1122	6.48	·01377				1.10	53.30	1.45	·1112	6.35	·01300			
3. 0	51. 5	3.43	·1120	10.51	·01335				1.35	54.55	2. 8	·1118	9.14	·01265			
3. 9	49.30	4.28	·1118	13.44	·01353				2.15	50.40	2.41	·1117	11.33	·01270			
3. 36	50.20	5. 0:	·1109	14.17	·01345				2.36	51. 5	3.17	·1122	14.18:	·01365			
4. 29	48.35	5.30	·1114	14.35	·01360				3.56	48.50		***	18. 2	·01577			
4. 42	46.15	5.56	·1106	15. 0	·01347				4.24	49.25	5. 7	·1130	20. 7	·01620			
5. 16	46.30	6. 8	·1097	15.57	·01370				4.54	48.30	6.40	·1122	23.15	·01630			
5. 30	48. 5	6.33	·1136	16.48	·01370				8. 9	48.10	7. 8	·1124	23.59	·01624			
5. 39	46.50	6.57	·1105	18. 3	·01413				8.45	49. 0	8.11	·1117					
5. 43	48. 0	7.11	·1097	18.20	·01408				9.23	39.25	8.46	·1120					
5. 54	45. 0	7.24	·1096	20.20	·01480				10. 7	47.40	8.56	·1117					
6. 15	27.40	7.30	·1100	23.40	·01560				10.13	46.45	9.17	·1120					
6. 49	42.45	7.44	·1097		(†)					***	9.27	·1125					
6. 57	43.15	8. 0	·1102	23.59	·01540				11.12	48.50	10.17:	·1119					
7. 7	46.40	8. 9	·1099														
7. 15	46.15	8.24	·1104														

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left section

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Jan. 17		Jan. 17						
h m	° ′ ″	h m		h m		h m	°	°
11.29	20.47.10	11. 8	·1125					
11.40	48. 0	12. 7	·1121					
12.27	47.55	12.30	·1126					
12.45	50. 0	12.44	·1125					
13.40	49.30	13. 5	·1127					
16. 8	48.25	14.55	·1129					
16.38	48.50	16.28	·1127					
17.38	47.35	17.24	·1129					
18.11	49. 5	18.10	·1124					
18.32	47.50	18.30	·1128					
19. 4	48.15	18.50	·1124					
20.18	46. 0	20.35	·1124					
20.51	45.50	20.44	·1122					
21.23	47.20	22.52	·1115					
21.43	46. 5	23.55	·1115					
21.50	47.35	23.59	·1114					
22.55	48.40							
23.43	51.55							
23.54	51.20							
23.59	51.45							
Jan. 18		Jan. 18		Jan. 18		Jan. 18		
0. 0	20.51.50	0. 0	·1114	0. 0	·01624	7.45	45·8	46·4
0. 8	51.25	0.13	·1111	1.57	·01610	21. 0	46·2	47·0
0.26	53.10	0.47	·1116	4.12	·01464			
1.40	52.20	0.57	·1114	5.52	·01370			
2. 3	53.50	2. 4	·1122	9.28:	·01317			
2.11	52.40	2.15	·1118	14.42	·01373			
4. 5	46.55	2.51	·1119	21.27	·01290			
4.23	42.40	3. 5	·1117	23.59	·01300			
5.28	49.10	3.25	·1118					
8.20	48.15		***					
10.37	48.30	4. 7	·1109					
10.54	45.35	4.19	·1113					
11.22	48.20	4.46	·1116					
11.40	47. 0	5. 6	·1115					
12.33	48.35	5.40	·1116					
14.52	49. 0	9. 2	·1118					
17.11	48. 5	10.13	·1116					
17.38	49.15	10.36	·1118					
19. 9	47.20	10.49	·1122					
20.37	46.50	11.14	·1118					
23.59	52.15	12.53	·1115					
		13. 1	·1113					
		14.11	·1112					
		14.50	·1114					
		17.15	·1115					
		17.37	·1113					
		18. 9	·1116					
		19.12	·1116					
		19.18	·1114					
		20.26	·1112					
		20.46	·1106					
		21.23	·1105					
		21.31	·1107					
		22.31	·1107					
		23. 3	·1102					

Right section

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
h m	° ′ ″	Jan. 18		h m		h m	°	°
		23.52	·1099 (†)					
Jan. 19		Jan. 19		Jan. 19		Jan. 19		
0. 0	20.52.15		(†)	0. 0	·01300	1. 0	49·8	50·7
1. 4	53.55	0.45	·1099	1.57	{·01270	3. 0	50·8	51·7
1.43	53.10	1. 7	·1101		{·01300	9. 0	53·0	52·2
2.16	51. 0	1.15	·1099	4. 4	·01300	21. 0	50·2	50·5
4.26	47. 5	1.53	·1102	9.40	·01205			
5.11	48. 0	2. 8	·1098	15. 9	·01300			
6.17	46.35	2.30	·1102	20. 8	·01350			
6.54	47.10	2.48	·1103	21. 6	·01330			
7.13	46.15	3. 2	·1097	21.37	·01327			
7.37	46.50	3.37	·1097	22.41	·01285			
8. 5	45.45	4.10	·1092	23.59	·01275			
8.33	46.25	5. 5	·1093					
9. 9	43.10	5.25	·1098					
9.23	45.15	7.12	·1099					
9.41	41.35	7.32:	·1096					
10. 4	42. 0	8.15	·1099					
10.41	46.40	8.33	·1096					
12.23	48.20	9.14	·1106					
14.35	49. 5		***					
15. 9	50.35	10.22	·1095					
15.36	48.10	10.33	·1098					
15.59	47.35	10.49	·1096					
16.14	48.45	11. 5	·1100					
16.28	47.25	11.13	·1098					
16.47	48.15	13.31	·1101					
17.15	47.40	13.48	·1103					
19.58	46.40	15. 9	·1103					
20.52	47.10	16.15	·1104					
21.32	46.50	16.58	·1102					
22.49	49.15	17.45	·1105					
23.39	53.10	17.52	·1099					
23.59	53.35	19.48	·1099					
		20.17	·1096					
		21. 4	·1094					
		21.20	·1089					
		22.45	·1085					
		23.15	·1087					
		23.20	·1090					
		23.46	·1089					
		23.59	·1089					
Jan. 20		Jan. 20		Jan. 20		Jan. 20		
0. 0	20.53.35	0. 0	·1089	0. 0	·01275	1. 0	51·3	50·2
1.25	52. 0	0.11	·1091	2.54	{·01280	3. 0	52·0	50·5
2. 5	50.35	0.40	·1089		{·01360	9. 0	49·0	48·0
3. 5	49.55	0.56	·1084	4.30	·01335	21. 0	43·2	43·9
3.54	48.25	2. 4	·1085	4.52	·01350	22. 0	43·3	44·0
9.10	46.50	3. 7	·1089	6.42	·01343	23. 0	44·0	44·2
13.23	48.30	3.55	·1089	11.10	·01438			
14.17	48.45	5.18	·1093	14.40	·01543			
14.37	50.50	6. 7	·1089	22. 0	·01577			
15. 8	49.15	8.31	·1091	23.59	·01620			
18.47	48.50	8.58	·1093					
20.58	47. 5	10.52	·1095					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Band 1 (Jan. 20 – Jan. 21)

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet.	Of V.F. Magnet.
Jan. 20		Jan. 20		h m		h m	°	°	Jan. 21		Jan. 21		h m		h m	°	°
22.28	20. 48. 55	10.58	·1098						23.54	20. 50. 0	14.51	·1091					
23.59	52. 0	11.16	·1095						23.59	51. 15	14.56	·1089					
		11.58	·1096								15.51	·1094					
		12. 8	·1098								16.29	·1088					
		12.48	·1097								16.42	·1093					
		13.31	·1100								17.43	·1101					
		15.30	·1104								18.22	·1093					
		15.53	·1104								19.17	·1090					
		16.46	·1105								19.37	·1091					
		17. 9	·1105								19.38	·1085					
		19. 2	·1102									***					
		20.37	·1100								20.54	·1085					
		21. 8	·1097								21.11	·1083					
		22. 5	·1093								22.30	·1077					
		22.23	·1094								22.40	·1077					
		22.44	·1092								23. 2	·1072					
		23.21	·1092								23.12	·1076					
		23.59	·1094								23.46	·1071					
											23.59	·1077					

Band 2 (Jan. 21 – Jan. 22)

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force	Greenwich Mean Solar Time	Vertical Force	Greenwich Mean Solar Time	Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force	Greenwich Mean Solar Time	Vertical Force	Greenwich Mean Solar Time	Of H.F. Magnet.	Of V.F. Magnet.
Jan. 21		Jan. 21		Jan. 21		Jan. 21			Jan. 22		Jan. 22		Jan. 22		Jan. 22		
0. 0	20. 52. 0	0. 0	·1094	0. 0	·01620	0. 0	45·0	45·0	0. 0	20. 51. 15	0. 0	·1077	0. 0	·01400	0. 0	51·5	52·2
1.24	52. 10	0.43	·1096	1.48	·01640	1. 0	46·0	46·3	0.11	53. 30	0. 3	·1078	2.29	·01290	1. 0	52·5	52·8
3. 0	49. 30	1.33	·1095	2.48	·01563	2. 0	47·3	47·5	0.26	51. 20	0.25	·1068	2.55	·01260	3. 0	54·9	54·0
4. 9	48. 30	1.58	·1101	3.40	·01470	3. 0	48·9	49·4	0.48	50. 55	0.38	·1066	4.41	·01217	9. 0	55·8	54·9
4.58	49. 25	2.38	·1101	4.30	·01335	6. 0	50·7	50·7	1. 7	52. 50	0.43	·1066	9.39	·01155	21. 0	53·2	52·0
5. 6	48. 35	2.45	·1098	5.56	·01207	9. 0	50·5	50·8	1.33	53. 20	2.48	·1078	12.26	·01150			
5.27	50. 40	2.53	·1099	7. 2	{·01170 / ·01285}	12. 0	49·1	49·0	2. 0	50. 45	3.34	·1078	18. 3	·01277			
6.24	48. 40	2.55	·1093	11.38:	·01227	21. 0	49·0	49·5	2.52	50. 25	3.42:	·1080	20.39	·01300			
	***	3. 7	·1090	16.45	·01347	22. 0	50·0	50·5	4.29	48. 20	5. 3	·1078	23.12	·01380			
9. 8	48. 55	3.27	·1093	21.27	·01350	23. 0	50·4	51·0	5.51	47. 55	5.34	·1080	23.59	·01360			
9.42	49. 35	5. 0	·1092	23.13	·01390				6. 3	48. 35	6. 9	·1075					
10. 0	48. 0	5. 5	·1104	23.59	·01400				6.22	47. 45	6.29	·1080					
10.23	48. 50	5.38:	·1092						6.38	48. 55	7.15	·1075					
10.36	47. 55	6. 2	·1097						7.22	47. 55	7.37	·1078					
11.12	48. 0	6.16	·1097						8.14	47. 30	8. 0	·1073					
11.39	47. 15	6.36	·1100						9.26	48. 5	8.32	·1075					
11.57	46. 5	7. 4	·1095						10. 8	47. 30	8.57	·1079					
12.21	47. 20	7.47	·1095						15.30	49. 20	9. 8	·1077					
12.39	46. 35	7.54	·1097						19.31	48. 15	9.30	·1086					
13.22	48. 50	8. 0	·1094						19.43	46. 40	9.38	·1075					
13.45	48. 5	8.32	·1093						19.51	48. 20	10.29	·1080					
14. 7	49. 20	9.23	·1091						19.57	47. 25	10.37	·1078					
	***	9.32	·1092						20.21	47. 25	11. 2	·1081					
15.39	47. 45	9.53	·1086						20.27	45. 35	11.46	·1078					
15.57	48. 40	10.10	·1091						20.37	47. 10	12. 4	·1084					
16.17	47. 25	10.17	·1082						21.32	47. 15	12.16	·1080					
16.54	53. 40	10.26	·1088						22.25	48. 0	12.23	·1082					
17.21	49. 55	10.37	·1087							(†)	12.32	·1077					
	***	11.13	·1088								12.40	·1081					
18. 4	47. 20	11.31	·1093								12.46	·1075					
18.58	47. 25	12. 8	·1092								13. 0	·1080					
	***	13.13	·1095								13.10	·1075					
20.40	46. 10	13.40	·1094								13.50	·1081					
21.35	46. 55	13.46	·1087								14. 7	·1079					
	***	13.54	·1092								14.16	·1080					
22.23	48. 40	14. 7	·1090								18.14	·1083					
23.15	50. 5	14.37	·1092								18.58	·1086					
23.27	51. 0	14.44	·1087														

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
h m	o ′ ″	h m		h m		h m	o	o
		Jan. 22						
		19.44	·1084					
		19.52	·1088					
		20. 1	·1086					
		20.29	·1085					
		20.37	·1089					
		21.23	·1089					
		22.22	·1084					
		23.59	·1083					
Jan. 23		Jan. 23		Jan. 23		Jan. 23		
0. 0	20.48. 5	0. 0	·1083	0. 0	·01360	1. 0	54 ·0	54 ·0
0.37	50.10	0. 7	·1083	0.29	·01375	3. 0	54 ·7	54 ·7
4. 6	48.15	0.45	·1082	1.15	·01330	9. 0	53 ·8	53 ·0
6. 7	48.45		***	2. 4	·01330	21. 0	46 ·6	47 ·0
6.37	48. 0	2.13	·1091	3.22	·01280			
7. 5	48.40		***	4.45	·01155			
7.37	47.55	4. 4	·1096	5.52	{·01150			
7.57	48.40	4.32	·1101		·01275}			
8. 8	47.50	4.58	·1100	7.28	·01235			
9. 3	47.35	5.52	·1101	9.45	·01250			
9.24	49.20	5.57	·1104	13.20	·01420			
9.50	43. 0	6.23	·1100	14.12	·01430			
10. 0	44.20	6.54	·1101	15.50	·01540			
10.36	43.45	7.41	·1101	21.14	·01535			
11. 9	47. 5	7.52	·1106	22.30	·01555			
11.21	44.35	8. 9	·1102	22.45	·01565			
11.28	46. 5	8.24	·1101	23.59	·01575			
11.39	43.50	8.31	·1098					
11.53	44.25	8.59	·1100					
12.26	41.55	9.32	·1096					
12.47	41.55	9.56	·1103					
13.53	49. 5	10. 4	·1097					
14.10	44.30	10.22	·1094					
***		10.34	·1088					
14.56	40.55	10.54	·1091					
15.49	45.45	11.13	·1080					
15.58	44.35	11.32	·1078					
16. 8	47.40	11.58	·1092					
16.21	41.50	12.13	·1082					
17. 3	48.30	12.36	·1078					
17.27	48. 5	12.57	·1082					
17.42	49.40	13.30	·1076					
18. 3	48. 5	13.52	·1081					
18.25	49.45	14. 7	·1078					
19. 7	50.45	14.17	·1089					
19.13	51.50	14.27	·1090					
19.26	49.15	14.34	·1086					
19.58	55. 0	14.43	·1087					
20.44	51.40	14.52	·1083					
21.22	51. 0	15. 4	·1087					
22.48	52.15	15.35:	·1084					
23. 8	53.45	16.23	·1093					
23.22	53.30	16.56	·1092					
23.49	55.30	17. 7	·1096					
23.59	54.35	17.17	·1094					
		17.29	·1098					
		17.56	·1099					
		18.22	·1094					

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
h m	o ′ ″	h m		h m		h m	o	o
		Jan. 23						
		18.52	·1099					
		18.57	·1097					
		19. 7	·1098					
		19.12	·1091					
		19.29	·1097					
		19.33	·1095					
		20.10	·1099					
		20.32	·1097					
		21. 8	·1096					
		22.10	·1094					
		22.39	·1089					
		22.57	·1090					
			***					
		23.55	·1069					
			(†)					
Jan. 24		Jan. 24		Jan. 24		Jan. 24		
0. 0	20.54.35		(†)	0. 0	·01575	1. 0	49 ·0	49 ·2
0.21	53.50	0.27	·1073	2.49	·01500	3. 0	50 ·5	50 ·8
0.26	55. 5	0.30	·1077	4.44	·01347	9. 0	50 ·5	49 ·9
0.37	54.10	0.37	·1075	6. 6	·01300	22.35	45 ·0	45 ·4
1.21	54.30	0.39	·1081	6.47	·01330			
1.37	53.10	0.51	·1082	7.47	·01323			
2.37	55.15	1. 3	·1087	9.10	·01263			
3.13	49. 0	1.24	·1087	9.33	·01143			
3.26	50.25	2. 7	·1105	9.45	·00960			
4.14	51.35	2.23	·1110	10. 5	·01075			
4.42	50.25	2.53	·1094	10.14	·00955			
5.23	52.55	3.28	·1110	10.23	·00940			
5.36	51.30	4.14	·1111	10.35	·01010			
5.52	51.45	4.45	·1103	10.44	·00995			
6.11	48.25	5. 3	·1105	11.15	·01076			
6.22	49.10	5.19	·1101	11.37:	·01060			
6.28	52.40	5.30	·1101	12. 3:	·01132			
6.36	53. 0	5.40	·1109	12.15	·01065			
6.38	52. 5	6.10	·1078	12.35	·01212			
6.45	56. 0	6.23	·1082	12.40	·01200			
6.53	51.45	6.35	·1094	12.56	·01267			
6.57	53.45	6.41	·1082	13. 2	·01260			
7. 4	20.52. 5	6.48	·1089	13. 8	·01290			
7.10	21. 7.30	6.52	·1074	15. 0	·01257			
7.31	20.49.45	7. 2	·1090	15.44	·01296			
7.42	56.55	7. 7	·1087	16. 2	·01290			
8. 2	48.15	7.15	·1104	16.27:	·01326			
8. 8	49.25	7.26	·1084	17.12	·01214			
8.24	43.40	7.44	·1081	17.24	·01218			
8.37	47.20	8. 0	·1065	17.49	·01137			
8.50	42.20	8. 8	·1066	18.39:	·01280			
9. 1	39.30	8.24	·1064	20.38	·01417			
9.21	50.30	8.29	·1069	23.59	·01550			
9.26	47.15	8.35	·1061					
9.27	58.20	8.45	·1056					
9.37	47.10	9. 0	·1059					
9.44	57.20	9.16	·1073					
9.58	42.55	9.27	·0971					
10. 5	56.10	9.37	·1006					
10.15	44. 0	9.43	·0968					
10.25	31. 5	10. 0	·1045					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Jan. 24		Jan. 24						
10. 27	20. 37. 50	10. 1	·1014					
10. 38	28. 35	10. 6	·1017					
10. 40	29. 25	10. 10	·1010					
10. 52	23. 50	10. 19	·1072					
11. 11	34. 25	10. 24	·1054					
11. 25	31. 40	10. 31	·1062					
11. 39	31. 0	10. 38	·1058					
11. 47	34. 35	10. 52	·1071					
11. 56	35. 0	11. 15	·1034					
12. 1	38. 30	11. 24	·1031					
12. 9	33. 5	11. 34	·1037					
12. 14	32. 50	11. 37	·1034					
12. 22	29. 15	11. 52	·1059					
12. 28	34. 40	11. 53	·1038					
12. 41	49. 45	12. 17	·1105					
12. 57	35. 0	12. 39	·1037					
13. 9	42. 10	12. 52	·1064					
13. 15	41. 20	12. 54	·1056					
13. 28	45. 40	13. 7	·1069					
13. 39	44. 20	13. 15	·1061					
13. 54	47. 15	13. 33	·1053					
14. 17	45. 25	13. 48	·1055					
14. 22	44. 10	13. 51	·1051					
14. 24	44. 55	14. 2	·1064					
14. 39	42. 40	14. 7	·1060					
14. 45	44. 30	14. 10	·1066					
14. 56	40. 45	14. 24	·1071					
15. 12	38. 45	14. 31	·1067					
15. 19	40. 50	14. 37	·1069					
15. 37	35. 30	14. 45	·1065					
15. 53	42. 40	14. 51	·1068					
16. 0	37. 15	15. 4	·1068					
16. 7	38. 10	15. 10	·1073					
16. 10	36. 25	15. 31	·1077					
16. 29	37. 35	15. 38	·1076					
16. 41	42. 0	15. 47	·1082					
16. 50	20. 41. 30	15. 59	·1080					
17. 3	21. 0. 0	16. 4	·1083					
17. 13	20. 57. 5	16. 8	·1073					
17. 19	59. 35	16. 34	·1099					
17. 26	57. 45	17. 2	·1062					
17. 37	50. 35	17. 22	·1117					
17. 41	50. 20	17. 25	·1114					
17. 53	46. 45	17. 32	·1119					
18. 2	48. 5	17. 37	·1115					
18. 7	46. 25	17. 40	·1118					
18. 12	48. 20	17. 46	·1109					
18. 18	46. 15	17. 49	·1110					
18. 25	49. 10	18. 7	·1083					
18. 34	46. 5	18. 14	·1072					
18. 39	50. 0	18. 20	·1077					
18. 47	48. 0	18. 23	·1071					
	***	18. 30	·1080					
19. 46	48. 5	18. 35	·1069					
	***	18. 44	·1083					
21. 21	51. 55	18. 53	·1075					
	***	18. 56	·1079					
22. 55	52. 35	19. 1	·1076					

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Jan. 24		Jan. 24						
23. 48	20. 53. 30	19. 5	·1081					
23. 59	53. 10	19. 18	·1080					
		19. 24	·1085					
		19. 34	·1082					
		19. 57	·1084					
		20. 5	·1080					
		20. 10	·1087					
		20. 14	·1081					
		20. 20	·1085					
		20. 23	·1082					
		20. 27	·1085					
		20. 48	·1082					
		20. 53	·1080					
		21. 10	·1084					
		21. 14	·1080					
		21. 23	·1083					
		21. 24	·1078					
		22. 6	·1081					
		22. 24	·1086					
		22. 42	·1084					
		23. 15	·1086					
		23. 51	·1091					
		23. 59	·1089					
Jan. 25		Jan. 25		Jan. 25		Jan. 25		
0. 0	20. 53. 10	0. 0	·1089	0. 0	·01550	9. 0	48 ·2	49 ·0
0. 19	53. 15	0. 8	·1093	1. 26	·01596	21. 0	47 ·0	47 ·5
0. 44	58. 35	0. 21	·1094	2. 10	·01652			
1. 20	57. 5	0. 33	·1104	2. 21	·01650			
1. 39	56. 50	0. 38	·1100	2. 32	·01658			
2. 1	58. 0	0. 45	·1105	2. 52	·01640			
2. 12	59. 25	0. 59	·1095	7. 45	·01514			
2. 22	55. 10	1. 7	·1101	9. 25	·01510			
2. 36	55. 55	1. 38	·1056	9. 38	·01500			
2. 48	53. 45	2. 13	·1090	9. 52	·01524			
3. 10	51. 20	2. 27	·1075	10. 34	·01457			
3. 23	53. 5	2. 38	·1092	10. 45	·01460			
3. 54	54. 30	2. 52	·1080	11. 24	·01426			
5. 13	52. 55	3. 16	·1091	11. 36	·01390			
5. 27	53. 40	3. 20	·1088	13. 15	·01373			
5. 47	52. 20	3. 28	·1095	13. 32	·01350			
6. 12	51. 50	3. 37	·1093	14. 17	·01348			
6. 29	52. 45	4. 27	·1103	15. 1	·01400			
6. 58	52. 50	4. 38	·1101	21. 54	·01428			
7. 8	54. 40	4. 50	·1105	23. 55	·01518			
7. 53	47. 50	5. 5:	·1095	23. 59	·01510			
8. 22	47. 25	5. 26	·1104					
8. 34	48. 40	5. 35	·1102					
9. 0	47. 40	5. 47	·1106					
9. 14	43. 55	6. 1	·1104					
9. 28	37. 35	6. 12	·1105					
9. 46	20. 25	6. 23	·1086					
10. 2	34. 50	6. 30	·1094					
10. 13	35. 55	6. 39	·1087					
10. 35	35. 40	6. 53	·1098					
10. 51	44. 15	7. 0	·1095					
11. 7	43. 35	7. 8	·1101					
11. 30	45. 20	7. 17	·1089					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
h m	o ' ''	h m		h m		h m	o	o	h m	o ' ''	h m		h m		h m	o	o
Jan. 25		Jan. 25									Jan. 25						
11.53	20.35.30	7.25	.1092								23.15	.1071					
12. 3	35.50	7.32	.1078								23.59	.1076					
12.23	32.25	7.38	.1088														
13. 2	44.40	7.53	.1081						Jan. 26		Jan. 26		Jan. 26		Jan. 26		
13.16	46.35	***							0. 0	20.56.30	0. 0	.1076	0. 0	.01510	1. 0	49·5	49·5
13.21	48.50	8.32	.1087						0. 4	20.59.40	0.10	.1068	1.35	.01580	3. 0	51·0	50·7
13.31	41.30	9.31	.1055						0.11	21. 2.50	0.16	.1075	2. 0	.01560	9. 0	51·6	50·8
14. 1	37.25	9.52	.1101						0.21	0.45	0.25	.1077	2.10	.01620	21.10	52·2	53·0
14.23	38.20	10. 0	.1088						0.26	6. 5	0.31	.1074	2.45	.01637			
14.58	47.55	10.15	.1089						0.29	3.55	0.36	.1081	4.19	.01488			
15.28	46.40	10.27	.1063						0.33	7.30	0.42	.1073	5.41	.01420			
15.51	48.30	10.37	.1071						***		0.45	.1076	5.53	.01428			
16. 7	47. 0	10.52	.1074						0.50	21. 3. 5	0.49	.1066	6. 7	.01404			
16.46	49.45	11.14	.1074						***		0.52	.1073	6.15	.01410			
***		11.23	.1090						1. 0	20.56.55	1. 2	.1068	6.30:	.01357			
17.54	50.50	11.35	.1084						1. 4	58.40	1.10	.1048	6.42	.01344			
18. 8	49.10	11.48	.1094						1. 8	54. 0	1.35	.1077	7. 0	.01305			
18.27	50. 0	11.59	.1090						1.19	52. 5	1.42	.1058	8.34	.01273			
19.10	48.45	12.15	.1095						1.31	20.54.40	1.51	.1073	9.22	.01230			
19.27	49.45	12.31	.1081						1.38	21. 2.35	2. 2	.1038	9.35	.01230			
19.54	49.20	12.56	.1074						1.45	20.56.35	2.15	.1073	10.12	.01165			
20.24	51.55	13. 4	.1079						1.56	21. 3.55	2.20	.1037	10.25	.01190			
20.40	50.55	13. 9	.1103						2. 9	0.35	2.44	.1051	10.43	.01179			
21. 1	56. 0	13.49	.1074						2.15	21. 7. 0	2.50	.1059	12. 0	.01246			
21.25	20.57.50	13.52	.1075						2.30	20.52.40	3. 7	.1060	13.40	.01264			
21.46	21. 0. 5	14. 3	.1058						***		3.14	.1052	14.30:	.01217			
21.53	20.58. 5	14. 9	.1060						2.52	45.55	3.22	.1063	15.41	.01257			
22. 9	21. 1.30	14.15	.1057						3. 0	48.55	3.37	.1048	18.19	.01250			
22.32	20.56. 5	14.35	.1069						3. 5	48.10	3.53	.1056	23. 0	.01120			
22.42	58.10	14.45	.1087						3.10	53. 0	3.57	.1048	23.59	.01133			
22.55	54.40	15. 4	.1078						3.21	50.10	4.14	.1054					
23.12	59.10	15.40	.1083						3.36	56. 0	4.25	.1044					
23.27	53.45	15.53	.1080						3.45	52.50	4.47	.1043					
23.41	57.35	***							3.51	54.25	4.56	.1050					
23.47	54.40	16.56	.1084						4. 0	52.25	5. 8	.1047					
23.52	58. 5	17. 2	.1081						4. 8	54.10	5.17	.1051					
23.56	54.55	17.11	.1085						***		5.24	.1048					
23.59	56.30	17.37	.1085						4.27	53.30	5.42	.1045					
		17.44	.1082						4.37	54.25	5.48	.1049					
		18. 9	.1090						4.54	52.45	5.59	.1046					
		18.13	.1088						5. 5	54.10	6.12	.1061					
		18.39	.1090						5.15	52. 0	6.21	.1048					
		18.46	.1085						5.28	55.15	6.29	.1078					
		19.13	.1092						5.42	52.25	6.33	.1051					
		19.41	.1085						5.51	53.20	6.44	.1051					
		19.59	.1086						6. 8	41.25	6.56	.1080					
		20.12	.1076						6.20	48.30	7.15	.1058					
		20.22	.1074						6.28	38. 5	7.23	.1060					
		20.30	.1076						6.33	45.30	7.29	.1056					
		20.49	.1056						6.37	39.20	7.37	.1061					
		21. 2	.1056						6.51	32.30	7.59	.1048					
		21.20	.1073						6.57	39.55	8. 8	.1052					
		21.44	.1057						7. 7	41.55	8.23	.1039					
		22.18	.1076						7.15	38.15	8.37	.1051					
		22.29	.1073						7.28	39.45	8.39	.1074					
		22.48	.1077						7.38	46.10	8.47	.1056					
		22.54	.1071						7.41	45. 0	8.59	.1067					
		23. 1	.1074						7.50	46.55	9. 7	.1067					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Jan. 26 / Jan. 27 (left half)

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Jan. 26		Jan. 26						
7. 57	20.44. 5	9. 18	·1055					
8. 6	46. 10	9. 46	·1079					
8. 15	45. 50	10. 15	·1053					
8. 23	41. 20	10. 25	·1088					
8. 36	31. 5	10. 41	·1065					
8. 38	38. 55		***					
8. 48	38. 0	11. 54	·1063					
9. 13	48. 5	12. 30:	·1070					
9. 26	44. 15	13. 2	·1066					
9. 38	46. 0	13. 26	·1073					
10. 3	53. 15	13. 33	·1072					
10. 24	43. 5	13. 45	·1077					
10. 38	48. 25	13. 55	·1078					
10. 54	42. 50	14. 1	·1075					
11. 16	44. 0	14. 29	·1081					
11. 37	47. 25	14. 56	·1078					
13. 6	48. 50	15. 10	·1074					
13. 28	51. 5	15. 32	·1074·					
13. 51	59. 40	15. 46	·1073					
14. 47	48. 45	15. 56	·1068					
15. 20	48. 20	16. 43	·1067					
16. 1	52. 5	17. 5	·1072					
***		17. 14	·1068					
17. 2	52. 5	17. 31	·1075					
***		17. 46	·1075					
17. 42	50. 10	17. 53	·1072					
17. 51	51. 50	18. 19	·1077					
18. 7	50. 10	18. 30	·1074					
***		19. 33	·1072					
18. 25	51. 5	19. 47	·1066					
***		19. 52	·1070					
18. 50	48. 40	20. 7	·1073					
***		20. 9	·1068					
19. 32	49. 30	20. 22	·1072					
19. 39	50. 55	20. 31	·1066					
19. 53	49. 50	20. 37	·1068					
20. 0	50. 55	20. 52	·1061					
***		21. 29	·1060					
20. 51	50. 30	21. 37	·1063					
***		21. 52	·1059					
21. 39	52. 35	22. 2	·1064					
***		22. 26	·1067					
22. 2	51. 15	22. 38	·1066					
***		22. 55	·1071					
22. 44	53. 50	23. 8	·1066					
22. 55	57. 40	23. 24	·1072					
23. 14	52. 55	23. 32	·1067					
23. 38	52. 30	23. 39	·1074					
23. 41	53. 45	23. 59	·1071					
23. 59	53. 40							
Jan. 27		Jan. 27		Jan. 27		Jan. 27		
0. 0	20.53. 40	0. 0	·1071	0. 0	·01133	1. 0	53·0	53·5
0. 9	57. 25	0. 8	·1079	0. 15	·01080	3. 0	53·6	53·9
0. 18	55. 40	0. 28	·1067	1. 33	·01080	9. 0	52·2	52·0
0. 23	57. 55	0. 46	·1073	2. 5	{·01103 / ·01180}	21. 0	44·0	44·5
0. 24 ***	53. 25 ***	1. 8	·1070			22. 0	44·5	44·8

Jan. 27 (right half)

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Jan. 27		Jan. 27		Jan. 27		Jan. 27		
0. 47	20. 54. 55	1. 25	·1071	3. 0	{·01146 / ·01420}	23. 0	46·0	46·0
0. 54	56. 50	1. 40	·1060					
1. 27	56. 35	1. 45	·1061		{·01370			
1. 39	54. 5	2. 9	·1050	4. 25	{·01480			
2. 15	53. 55	2. 18	·1058	6. 45	·01420			
2. 43	56. 10	2. 26	·1058	8. 45	·01445			
2. 58	54. 55	2. 44	·1070	9. 18	·01443			
3. 7	56. 20	2. 48	·1064	9. 45	·01417			
3. 15	52. 15	3. 17	·1062	19. 41	·01453			
3. 27	51. 5	3. 38	·1073	22. 11	·01487			
3. 36	52. 10	4. 0	·1048	23. 59	·01540			
3. 40	51. 0	4. 22	·1068					
3. 53	51. 45	4. 30	·1067					
4. 9	44. 45	4. 38	·1072					
4. 27	46. 30	5. 10	·1061					
4. 58	51. 5	5. 23	·1065					
5. 10	49. 55	5. 40	·1058					
5. 26	50. 55	5. 53	·1075					
5. 39	44. 15	6. 12	·1066					
5. 52	47. 5	6. 25	·1081					
6. 5	46. 50	6. 59	·1068					
6. 11	44. 10	7. 53	·1070					
6. 24	46. 40	8. 7	·1065					
6. 33	46. 55	8. 16	·1065					
6. 51	49. 30	8. 29	·1060					
7. 0	49. 0	9. 0	·1062					
7. 47	48. 40	9. 22	·1095					
8. 2	49. 30	9. 41	·1065					
8. 17	48. 25	9. 59	·1075					
8. 38	45. 45	10. 17	·1063					
8. 49	47. 35	10. 26	·1065					
8. 58	46. 5	10. 45	·1063					
9. 11	35. 40	11. 3	·1065					
9. 34	43. 50	11. 38	·1062					
9. 48	36. 0	11. 44	·1067					
10. 4	35. 15	11. 58	·1062					
10. 41	45. 0	12. 37:	·1069					
11. 3	43. 5	13. 8	·1065					
***		13. 29	·1070					
11. 53	45. 15	13. 44	·1068					
12. 4	44. 10	14. 0	·1073					
12. 28	46. 30	14. 26	·1067					
13. 8	49. 5	15. 0	·1067					
13. 24	47. 55	15. 30	·1073					
13. 37	48. 55	15. 58	·1075					
15. 54	47. 50	16. 32	·1075					
16. 31	49. 55	16. 52	·1073					
16. 55	47. 45	16. 57	·1067					
18. 51	48. 50	18. 25	·1069					
***		19. 14	·1071					
19. 58	48. 5	20. 3	·1061					
***		20. 10	·1063					
21. 22	46. 10	21. 26	·1066					
21. 32	47. 50	21. 38	·1063					
21. 41	47. 15	21. 46	·1066					
22. 48	53. 50	22. 0	·1064					
23. 8	55. 25	22. 13	·1065					
23. 23	54. 45	***						

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Readings of Thermometers — Of V.F. Magnet
h m	° ′ ″	h m		h m		h m	°	°
Jan. 27		Jan. 27						
23. 40	20. 56. 30	23. 10	·1061					
23. 59	55. 0	23. 18	·1064					
		23. 59	·1064					
Jan. 28		Jan. 28		Jan. 28		Jan. 28		
0. 0	20. 55. 0	0. 0	·1064	0. 0	·01540	0. 0	46·5	46·8
0. 10	53. 50	0. 8	·1064	2. 0	·01585	1. 0	47·0	47·2
0. 40	54. 55	0. 20	·1069	3. 28	·01510	2. 0	47·8	48·0
1. 7	53. 35	0. 28	·1065	4. 29	·01418	3. 0	48·5	48·8
1. 14	52. 30	0. 45	·1068	7. 8	·01180	6. 0	51·0	50·6
1. 19	53. 25	1. 28	·1066	9. 4	·01155	9. 0	50·1	49·4
2. 5	51. 50	1. 41	·1067	9. 27	·01180	12. 0	48·7	48·2
3. 17	49. 45	2. 12	·1073	10. 15	·01165	18. 0	46·9	47·7
3. 39	50. 55	2. 53	·1070	12. 21	·01180	21. 0	47·7	48·6
3. 50	49. 40	2. 54	·1063	12. 33	·01207	22. 0	48·2	48·0
4. 1	50. 25	3. 35	·1064	13. 15	·01166	23. 0	49·0	49·3
4. 44	49. 0	3. 40	·1070	14. 22	·01230			
5. 14	49. 30	3. 54	·1064	17. 35	·01340			
5. 50	48. 55	4. 18	·1066	18. 40	·01348			
***		4. 28	·1064	20. 15	·01390			
6. 41	51. 10	4. 48	·1068	22. 4	·01417			
7. 8	48. 55	5. 8	·1069	22. 52	·01410			
7. 32	49. 20	5. 16	·1072	23. 59	·01365			
7. 44	48. 30	5. 38	·1068					
8. 9	48. 15	5. 55	·1073					
8. 33	48. 0	6. 43	·1073					
8. 41	49. 5	6. 56	·1065					
9. 0	46. 25	7. 15	·1068					
9. 12	36. 35	7. 31	·1070					
9. 23	34. 55	7. 39	·1069					
9. 30	37. 0	8. 2	·1073					
9. 41	37. 0	8. 30	·1063					
10. 0	44. 30	8. 40	·1067					
10. 30	43. 10	9. 8	·1053					
10. 52	46. 15	9. 33	·1070					
11. 33	47. 30	9. 40	·1066					
11. 52	46. 25	9. 50	·1072					
12. 9	47. 55	10. 16	·1057					
12. 25	45. 45	***						
12. 39	53. 5	12. 9	·1069					
13. 22	45. 0	12. 22	·1063					
13. 55	44. 40	12. 41	·1093					
14. 24	48. 15	12. 58	·1078					
15. 41	46. 45	13. 22	·1062					
16. 9	47. 15	13. 31	·1062					
17. 0	46. 25	13. 45	·1058					
17. 14	47. 35	14. 15	·1064					
17. 33	46. 40	14. 32	·1065					
17. 48	48. 30	14. 45	·1064					
17. 56	48. 15	***						
18. 7	49. 30	17. 30	·1064					
18. 16	48. 20	17. 49	·1072					
***		17. 59	·1071					
18. 43	46. 35	18. 13	·1076					
18. 54	47. 20	***						
18. 58	46. 15	18. 37	·1076					
***		19. 2	·1067					
19. 39	47. 20	19. 41	·1070					
***		19. 43	·1062					

Right panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Readings of Thermometers — Of V.F. Magnet
h m	° ′ ″	h m		h m		h m	°	°
Jan. 28		Jan. 28						
20. 53	20. 46. 5	20. 18	·1063					
21. 38	47. 10	20. 25	·1065					
	***	20. 37	·1063					
22. 59	51. 20	21. 38	·1060					
23. 11	50. 35	22. 14	·1059					
23. 20	51. 55	22. 57	·1056					
23. 42	51. 30	23. 6	·1053					
23. 59	52. 5	23. 14	·1055					
		23. 20	·1053					
		23. 59	·1053					
Jan. 29		Jan. 29		Jan. 29		Jan. 29		
0. 0	20. 52. 5	0. 0	·1053	0. 0	·01365	0. 0	51·0	50·7
0. 48	55. 0	0. 14	·1054	1. 31	·01322	1. 0	51·5	51·8
1. 0	54. 50	0. 29	·1057	1. 41	·01325	3. 0	53·1	53·3
1. 9	55. 20	(†)	(†)	2. 52	·01280	9. 0	54·7	54·1
1. 30	54. 45	1. 0	·1064*	3. 38	·01327	21. 0	52·0	52·3
1. 43	58. 25	1. 2	·1057	4. 0	·01420			
2. 6	55. 0	1. 20	·1060	5. 0	·01320			
***		1. 24	·1062	5. 44	·01293			
2. 54	20. 56. 5	1. 33	·1067	6. 3	·01277			
***		1. 49	·1057	6. 12	·01280			
3. 32	21. 0. 35	2. 36	·1056	6. 26	·01265			
3. 47	20. 53. 30	2. 52	·1051	7. 26	·01260			
3. 54	40. 30	3. 1	·1052	7. 49	·01287			
4. 0	42. 0	3. 30	·1028	8. 8	·01245			
4. 8	38. 10	3. 35	·1029	8. 57	·01188			
4. 18	44. 45	3. 52	·1046	9. 10	·01200			
4. 27	49. 5	3. 55	·1044	9. 45	·01167			
4. 34	48. 50	4. 6	·1052	10. 45	·01195			
4. 54	53. 15	4. 30	·1043	10. 57	·01180			
5. 0	51. 50	4. 37	·1044	12. 4	·01197			
5. 7	53. 25	4. 51	·1039	12. 25	·01180			
5. 23	46. 20	4. 54	·1041	13. 15	·01212			
5. 33	48. 15	5. 7	·1037	13. 58	·01212			
5. 47	54. 55	5. 20	·1047	14. 30	·01180			
5. 58	56. 25	5. 27	·1046	15. 3	·01130			
6. 9	50. 15	5. 38	·1051	15. 55	·01150			
6. 20	53. 55	5. 58	·1034	16. 50	·01205			
6. 30	47. 30	6. 8	·1054	21. 54	·01320			
6. 43	57. 55	6. 16	·1038	23. 59	·01327			
6. 52	57. 10	6. 31	·1063					
6. 58	58. 30	6. 57	·1044					
7. 8	20. 54. 30	7. 8	·1047					
7. 21	21. 2. 5	7. 28	·1016					
7. 38	20. 53. 45	7. 39	·1028					
7. 41	55. 0	8. 2	·1017					
7. 53	38. 30	***	***					
8. 5	51. 20	8. 27	·1027					
8. 9	42. 35	8. 54	·1018					
8. 15	42. 10	9. 2	·1022					
8. 27	35. 20	9. 12	·1019					
8. 55	42. 0	9. 23	·1024					
9. 2	41. 25	9. 42	·1016					
9. 8	42. 50	10. 10	·1030					
9. 32	43. 10	10. 29	·1027					
9. 39	44. 35	10. 45	·1046					
9. 54	42. 5	10. 56	·1044					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Jan.29		Jan.29						
10. 12	20.45. 5	11. 8	·1036					
	***	11.43	·1026					
10.37	44.15	12. 5	·1039					
10.45	47.20	12.21	·1033					
10.53	44.20	12.51	·1033					
11. 2	44.25	13.24	·1042					
11.20	38.35	13.43	·1040					
11.44	35.15	14. 7	·1048					
12. 8	42.25	14.32	·1070					
12.19	42.40	14.59:	·1056					
12.30	40.25	15.17	·1064					
12.38	42.35	15.53	·1041					
12.45	42.55		***					
13.21	48.55	16.55	·1049					
13.38	46.50	17.10	·1054					
13.52	46.55	17.25	·1054					
14.38	53.50	17.32	·1051					
15.15	45.30	18. 0	·1054					
15.38	51.35	18.15	·1050					
16. 7	46.25	18.46	·1048					
16.20	47.15	19. 2	·1052					
16.36	46.30	19. 8	·1049					
16.48	48. 5	19.25	·1055					
17. 6	46.45	20.10	·1052					
17.26	48. 0	20.22	·1048					
17.38	47. 0	20.47	·1052					
	***	21.22	·1047					
18.17	47.10	22.13	·1046					
18.45	49. 0		***					
18.57	48.15	23.13	·1050					
19. 7	49.55	23.59	·1045					
19.20	48.15							
	***							
20.36	46.30							
	***							
21.29	46.10							
	***							
22.28	48.25							
22.33	49.40							
	***							
23.14	53. 0							
23.34	51.15							
	***							
23.59	51.30							
Jan.30		Jan.30		Jan.30		Jan.30		
0. 0	20.51.40	0. 0	·1045	0. 0	·01327	1. 0	53·9	53·4
0.27	53.55	0.26	·1052	2. 8	·01300	3. 0	54·4	54·0
1. 2	54.50	0.43	·1049	2.32	·01306	9. 0	55·4	54·8
1.14	54. 5	0.46	·1051	6.56	·01260	21. 0	52·3	52·6
1.38	56. 5	1. 2	·1050	7.23	·01265			
2. 7	53.40	1.27	·1053	9.17	·01240			
2.35	54.20	1.38	·1056	10.40	·01225			
3.48	51.25	2.16	·1055	11.42	·01257			
4.14	51.50	2.50	·1059	12.40	·01182			
4.37	50.25	3.42	·1061	13.53	·01156			
6. 8	50.45	3.53	·1059	14.10:	·01080			
6.53	52.40	4. 8	·1060	14.30	·01112			

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Jan.30		Jan.30		Jan.30				
7.22	20.49.10	4.37	·1058	15.15:	·01088			
7.48	50.30		***	16. 5	·01133			
8.23	48.35	5.52	·1062	16.45	·01130			
9.54	46.30	6. 8	·1068	17. 7	·01147			
10.19	46.35	6.26	·1065	21.29	·01280			
10.41	43.15	6.44	·1058	21.45	·01293			
10.57	45. 0	6.50	·1062	23.59	·01337			
11.19	47.50	7. 7	·1049					
11.31	51.55	7.22	·1047					
11.55	45.55	7.31	·1052					
12.11	48.50	7.58	·1053					
12.36	46.45	8.13	·1050					
12.53	47.35	8.27	·1055					
13.31	40. 0		***					
13.52	55.50	8.45	·1051					
14.20	38.15	8.53	·1055					
14.33	41.55	9.15	·1049					
15.13	38.20	9.32	·1046					
15.42	42.35	9.42	·1051					
16. 4	41.55	9.59	·1050					
16.15	46.40	10. 4	·1053					
16.22	44. 0	10.20	·1051					
16.38	49.15	10.28	·1055					
16.54	46. 5	10.35	·1055					
17. 4	45.15	10.51:	·1062					
17.27	50.45	11.11	·1053					
17.38	47.55	11.19	·1056					
17.42	49. 0	11.33	·1049					
	***	11.59	·1062					
18.17	46.55	12.27	·1046					
18.28	49. 5	12.52	·1047					
18.38	46. 0		***					
18.44	49.25	13.20	·1051					
	***	13.38	·1043					
19. 0	51. 5	13.57	·1059					
	***	14.15	·1040					
19.16	54.35	14.38	·1071					
	***	14.53	·1070					
19.59	50.50	15. 0	·1075					
20. 8	49. 0	15.13	·1065					
20.20	48.25	15.39	·1052					
20.25	52.25	15.45	·1053					
20.30	50.40	16. 0	·1040					
20.35	53.20	16.22	·1046					
20.41	50.15	16.30	·1058					
20.59	51.20	16.43	·1047					
21.15	48.25	16.59	·1045					
21.28	48.55	17.25	·1055					
21.35	47.30	17.34	·1049					
21.44	50.15	17.39	·1052					
22. 5	49.30	17.45	·1051					
22.17	47.55	18.18	·1060					
	***	18.35	·1052					
22.38	51.20	18.44	·1063					
23. 2	51. 0	19. 5	·1066					
	***	19.45	·1048					
23.21	57. 0	19.54	·1052					
23.31	56. 5	20. 2	·1044					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol ⁝ attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Jan. 30		Jan. 30							Jan. 31		Jan. 31						
23. 55	20. 57. 35	20. 41	·1042	h m		h m	°	°	9. 18	20. 51. 0	12. 0	·1057	h m		h m	°	°
23. 59	50. 30	21. 4	·1035						9. 27	42. 35	12. 9	·1052					
		21. 17	·1042						9. 39	51. 50	12. 14	·1053					
		21. 25	·1039						9. 54	49. 25	12. 28	·1044					
		21. 37	·1044						10. 20	39. 20	12. 46	·1051					
			***						10. 31	41. 20	13. 0	·1041					
		22. 13	·1045						10. 36	40. 55	13. 28	·1053					
		22. 21	·1053							***	13. 49	·1050					
		22. 25	·1051						10. 56	46. 35	14. 37	·1048					
		22. 30	·1055						11. 4	46. 50	15. 23	·1054					
		22. 41	·1050						11. 23	54. 30	15. 58	·1055					
		23. 0	·1045						11. 44	45. 10	16. 10	·1053					
		23. 11	·1052						11. 58	43. 15	16. 28	·1057					
		23. 52	·1020						12. 5	43. 55	16. 40	·1055					
		23. 59	·1024						12. 12	42. 40	17. 21	·1060					
									12. 22	44. 10		***					
Jan. 31		Jan. 31		Jan. 31		Jan. 31			12. 28	43. 55	18. 59	·1063					
0. 0	20. 50. 25	0. 0	·1024	0. 0	·01337	1. 0	53 ·1	53 ·0	12. 53	52. 25	19. 13	·1067					
0. 33	47. 30	0. 2	·1025	1. 11	·01380	3. 0	53 ·6	54 ·3	13. 7	51. 10	19. 19	·1064					
0. 51	51. 55	0. 8	·1021	1. 35	·01407	9. 0	51 ·9	52 ·5	13. 26	52. 20	19. 28	·1068					
0. 54	51. 30		(†)	1. 54	·01390	21. 30	45 ·8	46 ·5		***	19. 49	·1069					
1. 6	53. 55	1. 0	·1057*	3. 38	·01370				13. 50	51. 0	20. 10	·1065					
1. 9	53. 30	1. 22	·1053	3. 47	·01367				14. 23	51. 45		***					
1. 35	20. 59. 35	1. 43	·1043	4. 39	·01323				14. 39	54. 20	21. 31	·1062					
1. 41	21. 0. 5	1. 49	·1051	5. 14	·01278				14. 52	53. 35	22. 0	·1060					
1. 50	20. 56. 55	2. 8	·1044	6. 10	·01264				15. 0	54. 25	22. 9	·1063					
1. 58	55. 30	2. 15	·1048	6. 30	·01235				15. 12	52. 50	22. 22	·1059					
2. 2	56. 50	2. 23	·1042	6. 39	·01235				15. 29	52. 30	22. 38	·1065					
2. 8	55. 45	2. 28	·1045	7. 5	·01227					***	23. 12	·1062					
2. 13	56. 30	2. 32	·1041	8. 39	·01263				15. 59	53. 15	23. 59	·1059					
	***	2. 44	·1050	9. 4	·01226				16. 12	54. 20							
2. 46	51. 45	3. 13	·1048	9. 33	·01250				16. 33	53. 15							
2. 51	53. 15	3. 27	·1035	10. 14	·01235				16. 42	54. 25							
3. 2	49. 25	3. 40	·1045	10. 41	·01247				16. 57	52. 45							
3. 9	48. 10	3. 47	·1045	11. 2	·01230				17. 22	53. 10							
3. 27	47. 20	3. 55	·1052	11. 11	·01240				17. 32	54. 35							
3. 41	37. 55	4. 7	·1050	11. 28	·01215				17. 43	52. 40							
3. 51	37. 10	4. 30	·1052	12. 43	·01267				17. 50	53. 30							
4. 0	38. 15	4. 58	·1045	13. 0	·01263					***							
4. 8	40. 40	5. 36	·1045	13. 42	·01286				18. 36	52. 30							
4. 15	41. 25	5. 45	·1066	17. 48	·01520					***							
5. 2	52. 50	5. 52	·1048	22. 42	·01550				19. 22	52. 45							
5. 15	50. 0	6. 11	·1086		(†)					***							
5. 38	51. 5	6. 24	·1058						20. 48	51. 0							
5. 48	40. 35	6. 32	·1063						21. 5	52. 35							
5. 55	42. 30	6. 46	·1053						21. 26	52. 0							
6. 3	30. 25	7. 3	·1033							***							
6. 19	38. 30	7. 23	·1037						22. 8	54. 10							
6. 23	39. 30	7. 52	·1035							***							
6. 40	44. 40	8. 19	·1051						22. 26	53. 25							
	***	8. 47	·1096						22. 38	55. 55							
7. 3	48. 45	9. 18	·1053						22. 55	50. 15							
7. 10	47. 5	9. 31	·1061						23. 15	51. 15							
7. 53	53. 45	10. 9	·1033						23. 26	50. 5							
8. 14	49. 40	10. 23	·1038						23. 39	50. 50							
8. 36	41. 20	10. 41	·1029						23. 59	50. 20							
8. 48	51. 5	11. 13	·1060														
9. 7	49. 50	11. 29	·1043														

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Feb. 1

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
h m	° ' "	h m		h m		h m	°	°
0. 0	20.50.20	0. 0	·1059	8.30	·01421*	8.30	48·7	49·0
1. 5	52.45	0.20	·1063	21. 0	·01485*	21. 0	47·1	47·9
	***	1.37	·1062					
2.54	52.25		***					
3.58	49. 5	1.55	·1060					
4.14	49.55	2.28	·1062					
4.32	49. 0	3. 1	·1061					
5.18	50.40	3.32	·1057					
6.13	47. 5	3.49	·1059					
6.37	48.10	3.58	·1058					
6.56	47. 0	4.20	·1064					
7.13	46.55	4.46	·1061					
7.35	44.45		***					
8. 3	45.40	5.20	·1061					
8.22	47.30	5.28	·1059					
8.27	46. 0		***					
9. 8	48.10	6.47	·1059					
10.12	47. 5	7.22	·1067					
10.26	48.50	7.32	·1066					
10.43	40.55	7.49:	·1074					
10.54	46.30	8. 9	·1066					
11. 8	41.55	8.49	·1059					
11.54	45.50	9.28	·1063					
12.15	43.40	9.42	·1060					
12.39	45.40	9.55	·1063					
13. 0	44.45	10.15	·1059					
13.40	46. 0	10.23	·1060					
14. 9	48.15	10.39	·1048					
14.32	46.55	11. 0	·1078					
15.15	47.35	11.14	·1064					
16. 8	48.20	11.30	·1072					
16.34	47.25	11.45	·1071					
17. 1	48.45	12.10	·1055					
17.25	47.20	12.54	·1060					
	***	13.14:	·1059					
18.58	47.30	13.32	·1063					
19.23	49.20	14. 0:	·1059					
20.25	47.10	14.23	·1063					
20.39	48.35	14.30	·1060					
	***	14.53	·1063					
21.34	48.20	16.14	·1063					
	***	16.26	·1065					
22.24	50.15	16.44	·1064					
22.53	49.10		***					
23.59	52.50	18.10	·1066					
		18.23	·1070					
		19. 7	·1062					
		19.15	·1067					
		20. 3	·1070					
		20.24	·1067					
		20.56	·1070					
		21.42	·1063					
		21.47	·1065					
		22.14	·1056					
		22.23	·1059					
			***					
		23.59	·1067					

Feb. 2

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
h m	° ' "	h m		h m		h m	°	°
0. 0	20.52.50	0. 0	·1067		(†)	1. 0	50·1	50·0
0.12	52.15		(†)	1. 0	·01465*	3. 0	51·8	51·4
0.40	53. 0	0.53	·1064	1.25	·01452	9. 0	53·0	53·0
1. 9	52.55	1.22	·1057	3.33	·01370	21. 0	51·1	51·2
1.41	51. 5	1.35	·1060	3.54	·01344			
3. 2	52.20	1.53	·1063	4.36	·01346			
3.17	51.25		(†)	5.11	·01293			
	***	2.54	·1063	6.48	·01200			
3.49	52.10		***	8.56	·01153			
4.23	41.40	3.48	·1059	9.23	·01125			
4.37	40.25	4. 1	·1039	11.53	·01125			
5.13	48.30	4.15	·1035	12.19	·01096			
5.39	46.55	4.44	·1057	12.47	·01080			
5.47	47.40	5. 0:	·1060	13. 3	·01098			
	***	5.39	·1052	14.43	·01123			
6.. 5	46.50	6. 0	·1057	20.58	·01180			
	***	6.12	·1055	22.15	·01220			
6.33	48.40	6.36	·1058	23.59	·01200			
6.41	48. 0	6.52	·1054					
	***	7.39	·1058					
7.51	48.20	8. 0	·1051					
8. 6	44.40	8.19	·1054					
8.20	45.30	8.25	·1051					
8.33	36.25	8.59	·1086					
8.37	37.15	9.17	·1059					
8.51	34. 0	9.25	·1059					
9.17	45.35	9.44	·1048					
9.23	45. 0	10. 4	·1054					
9.27	46.15	10.20	·1051					
9.36	45.30	10.38	·1058					
9.48	46.45	10.44	·1054					
10. 0	45.50	11. 9	·1048					
10.12	47.20	11.29	·1054					
10.33	46. 5	11.50	·1077					
10.40	47.40	12. 7	·1066					
10.55	45. 5	12.16	·1072					
11.18	45. 0	12.34	·1052					
11.28	46.45	12.55	·1055					
11.46	45. 5	13.18	·1052					
11.56	49.50	13.32	·1055					
12.19	44. 0	13.40	·1054					
12.30	46.40	14.15	·1056					
12.46	42. 5	14.28	·1058					
13. 8	47. 0	15.13	·1061					
13.34	46. 0	15.17	·1060					
13.47	47. 5	15.52	·1059					
14.37	49.30	16. 8	·1061					
14.53	48.20	16.38	·1059					
15.45	48.30	17. 1	·1060					
16. 3	50. 0	17.34	·1060					
16.21	48. 0	18.14	·1056					
16.37	49.35	18.57	·1062					
16.53	48.45	19. 1	·1060					
17.49	48.40	19.12	·1064					
18. 0	49.30		***					
18.38	48.30	19.45	·1056					
19.30	48.55	19.55	·1059					
19.26	47.50	20. 2	·1057					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

February 1. The photographic trace for the Vertical Force Magnet was totally lost, owing to a chemical error in the preparation of the paper.

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Of V.F. Magnet
Feb. 2		Feb. 2						
h m	° ′ ″	h m		h m		h m	°	°
19.55	20.48.20	20.23	·1058					
20. 7	47.25	20.50	·1056					
	***	21.15	·1059					
21. 5	46. 5	21.44	·1056					
21.56	46.40	22.15	·1058					
22.28	48.15	22.54	·1058					
23. 2	49.10	23. 8	·1060					
23.25	52.35	23.43	·1054					
23.54	51.20	23.59	·1052					
23.59	51.40							
Feb. 3		Feb. 3		Feb. 3		Feb. 3		
0. 0	20.51.40	0. 0	·1052	0. 0	·01200	1. 0	53·0	52·9
0. 5	51.45	0.49	·1052	1.35	·01140	3. 0	53·9	54·0
0.30	50.40	1. 0	·1092	2.39	·01143	9. 0	53·1	52·9
0.36	51.45	1.29	·1090	2.50	·01137	21. 0	43·9	44·8
0.58	51.50	1.42	·1095	3. 7	{·01140 / ·01330}	22. 0	44·3	44·9
1.11	50. 0	2.40	·1096			23. 0	44·7	45·0
1.57	51.10	3.22	·1094	4.49	·01234			
2.18	51. 0		***	6.59	·01168			
2.37	51.40	5.15	·1098	11.33	·01144			
2.50	50.35	5.55	·1102	13.27	·01240			
3.57	48.50	6. 7	·1100	13.38	·01270			
4. 8	49. 0	6.14	·1103	15.44	·01368			
	***	6.45	·1103	21.34	·01420			
5.24	47.25	7.24	·1093	23.59	·01520			
	***	7.35	·1094					
6.49	48.50		***					
7. 3	47.20	8. 9	·1085					
	***	8.28	·1092					
7.38	47.45	8.57	·1086					
8. 5	45.30	9.22	·1094					
8.19	46.55	9.52	·1098					
8.24	48.35	10. 5	·1097					
8.56	46.25	10.30	·1120					
9. 4	48. 5	10.38	·1113					
9.19	47.50	10.52	·1114					
9.30	48.35	11.26	·1092					
9.51	46.10	12. 0	·1098					
10.15	37.15	12.21	·1096					
11.18	43. 0	12.29	·1099					
11.34	41. 5	12.40	·1098					
12.17	45.50	13. 0	·1100					
12.39	47. 0	13.21	·1098					
12.48	45.20	13.43	·1100					
13.13	44.45	13.59	·1110					
13.32	46.35	14. 8	·1107					
13.52	46.50	14.38	·1109					
14. 7	49.40	15.16	·1106					
14.50	43.10	15.19	·1102					
15.28	46.40	16.12	·1101					
15.43	46. 5	16.19	·1103					
16. 9	48. 5	17. 2	·1107					
17. 7	46.50	17.45	·1106					
17.19	48. 0	18.23	·1110					
17.36	47. 0	19.13	·1107					
	***	19.25	·1110					
18.15	48. 5		***					
	***							

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Of V.F. Magnet
Feb. 3		Feb 3						
h m	° ′ ″	h m		h m		h m	°	°
19.33	20.48.45	20.25	·1107					
19.39	47.40		***					
	***	21.26	·1108					
20.51	47.10	21.47	·1104					
21.33	48.40		***					
21.57	48.10	22.46	·1102					
22.29	49.35	23.30	·1100					
22.47	49.10	23.59	·1101					
23. 2	49.45							
	***							
23.59	50.20							
Feb. 4		Feb. 4		Feb. 4		Feb. 4		
0. 0	20.50.20	0. 0	·1101	0. 0	·01520	0. 0	45·5	45·8
0.34	50.55	1.21	·1100	0.17	{·01520 / ·01470}	1. 0	46·0	46·6
1.25	49.50	1.32	·1102			2. 0	46·8	47·3
2. 5	51.50	2.17	·1105	3.35	·01483	3. 0	47·5	47·9
	***		***	7.13	·01280	6. 0	50·1	50·2
3.28	49.35	3. 7	·1101	8.23	·01240	9. 0	51·0	51·8
4.10	49.35	3.22	·1102	11.15	·01195	12. 0	51·0	51·3
4.42	45.30	3.53	·1099	11.30	·01158	18. 0	50·7	51·1
5. 2	47.30	4.12	·1090	11.55	·01140	21. 0	50·5	51·5
5.22	44.40		***	18.22	·01135	22. 0	50·7	51·8
	***	4.57	·1102	19.35	·01117	23. 0	51·0	51·8
5.52	48.10	5.16	·1096	23.59	·01103			
5.59	48. 0	5.50	·1104					
	***	5.58	·1102					
6.19	49.45	6.12	·1103					
6.32	49.10	6.19	·1104					
7. 0	50.40	6.55	·1101					
7.23	47.55	7.18	·1094					
7.34	47.45	7.40	·1096					
7.43	49.20	7.57	·1094					
8. 3	47.30	8.20	·1098					
9.15	47.25	8.46	·1098					
9.30	45.20	9.16	·1101					
9.50	46.55	9.50	·1101					
9.56	46.20	10. 8	·1097					
	***	10.37	·1100					
10.59	45.35	10.54	·1098					
11.13	46.50	11.14	·1099					
11.26	50.35	11.23	·1120					
11.39	45.50	11.34	·1107					
11.45	45. 0	11.45	·1112					
12. 0	42.15	12. 0	·1104					
	***	12.10	·1105					
12.22	42.55	12.24	·1101					
12.31	40.40	12.40	·1102					
12.43	39.15	12.56	·1101					
14. 0	45.40	13.14	·1095					
14.18	43.55	13.32	·1095					
14.52	45. 0	13.58	·1099					
15. 7	46.55	14.27	·1097					
15.35	47.35	14.50	·1100					
15.52	46.25	15.15	·1100					
16.19	46.30	15.31	·1103					
16.37	48.35	16.42	·1100					
16.57	46.25	17.36	·1104					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

February 3ᵈ. 1ʰ. HORIZONTAL FORCE.—Just before this time a displacement appears on the Photographic Sheet to the amount of 0·004, caused, it is supposed, by a displacement of the slit in front of the gas light. Therefore all readings this year to February 3ᵈ. 0ʰ. 49ᵐ. require increasing by 0·004 to reduce them to the series beginning at 1ʰ on this day.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Feb. 4		Feb. 4						
h m	o ′ ″	h m		h m		h m	o	o
17. 28	20. 48. 35	17. 45	·1100					
17. 35	48. 10	17. 53	·1104					
17. 47	48. 55	18. 5	·1103					
17. 55	47. 5	18. 15	·1105					
18. 1	48. 10	18. 30	·1103					
18. 14	46. 40	18. 49	·1103					
19. 6	46. 35	19. 7	·1107					
20. 49	47. 45	19. 32	·1103					
21. 5	46. 40		***					
21. 23	48. 35	21. 13	·1097					
	***	22. 2	·1097					
22. 7	49. 15	22. 10	·1099					
22. 15	48. 15		***					
22. 21	49. 30	22. 57	·1098					
22. 40	50. 50	23. 30	·1097					
23. 3	49. 55	23. 42	·1095					
23. 32	50. 25	23. 59	·1095					
23. 59	51. 40							
Feb. 5		Feb. 5		Feb. 5		Feb. 5		
0. 0	20. 51. 35	0. 0	·1096	0. 0	·01103	0. 0	51 ·3	52 ·0
0. 27	50. 55		***	0. 55	·01120	1. 0	51 ·6	51 ·9
0. 47	50. 10	1. 15	·1098	2. 41	·01180	3. 0	53 ·0	54 ·0
1. 35	52. 0	2. 11	·1099	3. 17	·01183	9. 0	54 ·5	54 ·0
2. 21	50. 30	2. 43	·1095	5. 38	·01118	21. 0	52 ·0	52 ·7
2. 55	51. 45	3. 8	·1095	9. 12	·01063			
3. 22	50. 5	3. 26	·1090	11. 45	·01100			
3. 37	50. 55	3. 50	·1090	15. 45	·01221			
4. 45	49. 10	4. 34	·1095	17. 56	·01255			
5. 44	49. 0	5. 8	·1097	21. 5	·01240			
6. 18	47. 30	5. 42	·1097	22. 30	·01260			
6. 46	48. 45	6. 8	·1094	23. 59	·01163			
7. 37	47. 40	6. 31	·1098					
8. 40	47. 15	7. 31	·1097					
9. 0	46. 25	11. 3	·1097					
9. 5	47. 15	11. 16	·1100					
10. 47	46. 50	11. 59	·1098					
10. 59	47. 15	12. 9	·1100					
12. 11	46. 45	12. 33	·1095					
12. 21	46. 0	12. 40	·1094					
12. 59	43. 55	12. 45	·1097					
13. 36	41. 35	13. 4	·1095					
13. 51	43. 30	13. 15	·1100					
14. 2	43. 0	13. 27	·1098					
14. 32	43. 50	13. 29	·1091					
14. 45	44. 45	13. 45	·1092					
15. 20	44. 0	13. 55	·1090					
15. 47	46. 0	14. 47	·1091					
	***	15. 11	·1089					
18. 2	46. 5	18. 7	·1098					
18. 10	47. 5	18. 14	·1101					
18. 23	45. 20		***					
18. 36	46. 45	20. 32	·1107					
	***	20. 38	·1109					
			***					
19. 11	46. 0							
19. 26	47. 25	21. 20	·1108					
	***	21. 43	·1100					
20. 0	45. 45	21. 51	·1102					

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Feb. 5		Feb. 5						
h m	o ′ ″	h m		h m		h m	o	o
20. 9	20. 46. 55	22. 12	·1092					
	***		***					
20. 37	45. 20	23. 8	·1087					
	***	23. 19	·1093					
21. 24	47. 30	23. 59	·1082					
21. 44	46. 10							
	***							
22. 25	50. 5							
22. 53	49. 55							
23. 12	49. 0							
23. 22	53. 25							
23. 56	51. 50							
23. 59	51. 5							
Feb. 6		Feb. 6		Feb. 6		Feb. 6		
0. 0	20. 51. 5	0. 0	·1079	0. 0	·01163	1. 0	54 ·1	54 ·7
0. 13	49. 15	0. 25	·1082	3. 16	·01077	3. 0	54 ·9	55 ·7
0. 36	52. 40	0. 35	·1086	5. 49	·01080	9. 0	55 ·4	55 ·3
0. 53	51. 45	1. 27	·1086	6. 34	·01112	21. 0	51 ·5	52 ·8
1. 12	52. 20	1. 38	·1090	7. 57	·01065			
1. 17	52. 0	1. 56	·1089	9. 16	·01050			
1. 32	54. 25	2. 4	·1091	9. 50	·01066			
	***	2. 30	·1089	11. 15	·01050			
1. 54	53. 55	2. 46	·1084	12. 37	·01050			
2. 17	55. 0		***	13. 23	·01027			
2. 33	54. 55	3. 27	·1083	15. 39	·01113			
2. 53	52. 55	3. 51	·1091	16. 37	·01120			
3. 35	53. 0	4. 32	·1090	17. 29	·01096			
3. 50	53. 50	4. 55	·1081	17. 58	·01125			
4. 11	53. 40	5. 4	·1082	20. 36	·01203			
4. 36	54. 15	5. 17	·1077	21. 30	·01220			
4. 56	52. 55	5. 44	·1081	22. 3	·01240			
5. 18	52. 50	5. 53	·1078	23. 25	·01238			
5. 26	51. 50	5. 59	·1079	23. 52	·01237			
5. 45	54. 0	6. 13	·1068	23. 59	·01250			
5. 53	53. 30	6. 27	·1079					
6. 4	56. 5	6. 35	·1072					
6. 20	51. 45	7. 1	·1083					
6. 30	53. 25	7. 26	·1088					
6. 41	47. 45	7. 47	·1080					
6. 54	46. 50	7. 57	·1090					
7. 5	47. 20	8. 24	·1091					
7. 11	47. 5	8. 32	·1098					
7. 26	50. 0	8. 47	·1101					
7. 39	49. 50	8. 55	·1086					
7. 58	46. 40	9. 20	·1076					
8. 23	48. 0	9. 37	·1077					
	***	9. 52	·1090					
8. 57	47. 0	10. 14	·1088					
9. 2	45. 10	10. 49	·1095					
9. 23	44. 5	11. 14	·1089					
9. 35	44. 50	11. 45	·1095					
9. 42	44. 5	12. 14	·1091					
10. 2	46. 20	12. 53	·1111					
10. 23	46. 0	13. 29	·1091					
10. 32	44. 35	13. 34	·1094					
11. 11	43. 20	13. 54	·1094					
12. 10	46. 15	13. 59	·1097					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner.   The Symbol *** denotes that the magnet has been generally in a state of agitation.   The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded.   A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
Feb. 6		Feb. 6						
12.34	20.47.35	14. 7	·1093					
12.52	44.45	14.13	·1098					
13. 6	45.55	14.19	·1094					
13.21	43.30	14.59	·1097					
13.54	47. 5	15. 5	·1094					
	***	15.20	·1101					
14.33	47.25	15.52	·1103					
14.59	48.40	15.59	·1098					
15.16	46.20	16. 2	·1104					
15.32	50. 0	16.11	·1101					
15.49	47.55	16.28	·1114					
16. 5	51.40	16.39	·1115					
16.22	51.45	16.45	·1112					
16.35	51.20	17.12	·1119					
16.46	59.20	17.33	·1102					
17.25	49.10	17.40	·1099					
17.40	51.35	18.15	·1100					
	***	18.32	·1097					
18. 3	52.55	18.50	·1101					
18.20	51.35	19. 2	·1094					
18.51	47.35	19.14	·1100					
18.58	49.10	19.35	·1098					
19. 7	48. 0	20. 0	·1103					
19.11	45.25		***					
19.24	47. 0	20.27	·1104					
	***	20.38	·1098					
20. 1	46.45		***					
20. 7	48. 0	21. 3	·1097					
	***	21.22	·1090					
20.24	46.20		***					
20.32	48. 0	22. 0	·1076					
20.51	46. 0	22. 7	·1078					
21. 7	50.15	22.22	·1071					
	***	22.31	·1075					
21.39	47. 0		***					
21.47	49.15	23. 5	·1072					
	***	23.20	·1073					
22.21	53.50	23.28	·1086					
22.30	53.15	23.45	·1082					
22.39	55. 5	23.59	·1099					
22.52	55.10							
23. 0	56.45							
23.22	54. 0							
23.27	52.40							
23.37	56. 5							
23.41	55.30							
23.52	53.30							
23.59	57. 5							
Feb. 7		Feb. 7		Feb. 7		Feb. 7		
0. 0	20.57. 5	0. 0	·1099	0. 0	·01250	1. 0	54·8	55·0
0. 5	58.15		***	0.34	·01257	3. 0	56·0	56·2
0.14	59.30	0.38	·1069	0.45	·01270	9. 0	55·5	55·6
0.20	56.50	0.45	·1073	1. 8	·01260	22.30	50·5	51·7
0.24	57.55	1. 0	·1040	1.23	·01286			
0.35	20.55.40	1.59	·1080	2. 8	·01270			
0.46	21. 4.25	2. 2	·1078	2.39	·01243			
1. 9	20.55. 5	2.11	·1085	3. 0	·01260			
			***					

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
Feb. 7		Feb. 7		Feb. 7				
1.37	20.52.30	2.47	·1071	4. 1	·01170			
1.41	53.25	3. 0	·1082	4.25	·01180			
1.54	52.55		***	5.12	·01153			
2. 3	55.10	3.30	·1070	5.34	·01160			
2.13	56. 0	3.56	·1068	6.32	·01120			
2.22	54.45	4.13	·1063	8.11	·01090			
2.24	56. 5	4.19	·1072	8.33	·01095			
2.39	53.40	4.38	·1077	8.49	·01032			
2.49	56.30	4.50	·1059	9.42	·01045			
2.58	54.25	4.56	·1073	10.45	·01043			
3. 9	55.30	5. 8	·1067	11.24	·01058			
3.23	53.55	5.19	·1067	12.19	·01042			
3.38	53.20	5.34	·1082	14. 5	·01075			
3.54	49.40	5.52	·1069	15.26	·01128			
4. 4	48.50	6. 7	·1070	16.55	·01130			
4.12	50.30	6.39	·1082	18.26	·01175			
4.19	49.15	7.18	·1081	20.30	·01280			
4.25	49.40	7.31	·1075	21.49	·01305			
4.39	46.45	7.53	·1079	23.59	·01345			
4.45	42.15	8. 2	·1075					
4.52	44. 0	8.16	·1111					
5.19	33.40	8.22	·1107					
5.23	34.40	8.29	·1128					
5.30	34. 5	8.53	·1084					
5.41	41.50	9. 2	·1095					
5.45	41.25	9.16	·1082					
5.58	45.30	9.32	·1097					
6.15	46.45	9.48	·1082					
6.22	47.30	10. 8	·1081					
6.31	45.55	10.20	·1085					
6.52	48.10	10.25	·1078					
7. 6	48.45	10.55	·1071					
	***		***					
7.49	47. 0	11.39	·1085					
7.58	44.25	11.58	·1095					
8.11	32. 0	12.26	·1077					
8.17	39.45	12.32	·1080					
8.35	53.15	12.52	·1078					
8.59	40.30	13.16	·1079					
9.15	43.45	13.43	·1089					
9.24	40.40	14.14	·1088					
9.30	40.15	14.21	·1090					
9.45	43.30	14.43	·1086					
10. 2	40. 5	14.52	·1091					
10.22	35. 0	15.11	·1090					
11.13	45.40	15.22	·1093					
11.31	45.55	16. 7	·1100					
11.42	42.35		***					
11.54	43.45	16.40	·1100					
12.15	41.35	17.13	·1119					
12.19	44.10	17.26	·1112					
12.42	46.55	17.37	·1114					
12.54	46. 0	17.43	·1108					
13.11	46.55	18.16	·1104					
13.18	49. 5	18.36	·1089					
13.47	50.35	19. 4	·1088					
14.21	48.30	19.14	·1082					
14.38	50. 0	19.24	·1092					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half of table:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Feb. 7		Feb. 7						
h m	° ′ ″	h m		h m		h m	°	°
14. 51	20. 48. 55	19. 32	·1087					
15. 23	49. 20	19. 43	·1093					
15. 46	54. 35	20. 1	·1090					
	***	20. 31	·1093					
16. 14	58. 25		***					
16. 43	49. 55	21. 12	·1082					
16. 54	49. 0		***					
17. 6	51. 45	21. 52	·1078					
17. 19	49. 20	22. 31	·1081					
17. 24	50. 40	22. 37	·1064					
	***	22. 48	·1072					
18. 23	49. 25	23. 17	·1072					
18. 45	47. 40	23. 59	·1076					
19. 0	48. 55							
19. 10	46. 15							
19. 23	49. 10							
19. 33	46. 55							
19. 39	48. 15							
	***							
19. 52	48. 45							
19. 58	46. 35							
	***							
20. 42	48. 35							
	***							
21. 17	46. 20							
21. 23	48. 40							
21. 34	50. 40							
21. 42	48. 45							
21. 49	51. 5							
	***							
22. 13	49. 35							
22. 19	47. 50							
22. 32	51. 30							
22. 54	49. 0							
22. 58	50. 55							
23. 9	51. 50							
23. 39	50. 25							
23. 59	52. 30							
Feb. 8		Feb. 8		Feb. 8		Feb. 8		
0. 0	20. 52. 30	0. 0	·1076	0. 0	·01345	8. 25	49 ·2	50 ·4
0. 28	52. 55	0. 9	·1087	1. 15	·01377	21. 0	42 ·0	43 ·9
1. 0	52. 45	0. 14	·1073	2. 3	·01370			
1. 19	56. 5	0. 40	·1085	2. 33:	·01418			
1. 35	56. 55	1. 0	·1083	3. 23:	·01400			
1. 56	50. 5	1. 13	·1094	4. 3	·01420			
2. 33	51. 55	1. 26	·1087	5. 6	·01375			
2. 45	50. 30	1. 33	·1091	5. 42	·01380			
3. 20	49. 40	1. 45	·1075	6. 5:	·01357			
3. 33	50. 55	1. 48	·1081	6. 26:	·01390			
3. 53	45. 30	2. 1	·1071	6. 45	·01362			
4. 6	46. 40	2. 23	·1086	7. 15	·01343			
4. 13	45. 25	2. 55:	·1087	7. 44	·01340			
4. 31	48. 40	3. 41	·1071	8. 35	·01360			
4. 56	48. 0	4. 2	·1086	8. 51	·01360			
5. 23	44. 45	4. 13	·1082	9. 31	·01325			
5. 43	46. 10	4. 32	·1089	9. 41	·01340			
5. 55	43. 40	5. 7	·1083	10. 22	·01345			

Right half of table:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Feb. 8		Feb. 8		Feb. 8				
h m	° ′ ″	h m		h m		h m	°	°
6. 20	20. 15. 25	5. 52	·1090	10. 34	·01325			
6. 39	28. 20	6. 3	·1060	11. 30	·01320			
6. 47	25. 0	6. 30	·1126	11. 49	·01340			
7. 1	26. 30	6. 43	·1105	12. 40	·01340			
7. 10	32. 5	6. 47	·1112	12. 53	·01347			
7. 22	30. 15	7. 2	·1112	13. 33	·01307			
7. 42	45. 30	7. 16	·1095	13. 55	·01307			
7. 52	42. 0	7. 25	·1099	14. 15	·01337			
7. 58	44. 30	7. 47	·1064	15. 35	·01362			
8. 6	43. 5	7. 55	·1072	21. 0	·01384			
8. 25	43. 55	8. 10:	·1064	22. 15	·01373			
8. 48	37. 55	8. 17	·1065	23. 59	·01457			
8. 58	44. 55	8. 52	·1102					
9. 4	42. 30	8. 58	·1089					
9. 10	46. 30	9. 5	·1095					
9. 21	45. 20	9. 12	·1085					
9. 32	47. 0	9. 20	·1095					
9. 45	41. 10	9. 32	·1072					
9. 58	43. 40	9. 53	·1086					
10. 13	44. 45	10. 9	·1084					
10. 23	43. 10	10. 23	·1109					
10. 36	46. 30	10. 36	·1100					
11. 2	40. 25	10. 43	·1107					
11. 15	41. 35	11. 3	·1107					
11. 45	37. 55	11. 40	·1084					
11. 54	40. 0	12. 1	·1093					
12. 10	41. 25	12. 21	·1091					
12. 33	35. 0	12. 37	·1094					
12. 41	31. 55	13. 8	·1063					
12. 57	36. 40	13. 27	·1101					
13. 4	36. 5	13. 37	·1094					
13. 33	51. 5	13. 52	·1093					
13. 47	48. 40	13. 58	·1099					
14. 0	41. 30	14. 7	·1098					
14. 9	39. 55	14. 12	·1102					
14. 26	46. 40	14. 40	·1092					
14. 41	47. 30	14. 53	·1096					
15. 8	45. 30	15. 37:	·1089					
15. 25	45. 45		***					
15. 50	47. 25	16. 45	·1097					
	***	17. 1	·1093					
16. 32	48. 5	17. 9	·1098					
17. 9	47. 0	17. 15	·1096					
17. 50	49. 5	17. 44	·1100					
18. 1	47. 30	17. 46	·1098					
18. 15	49. 15	17. 58	·1098					
18. 26	47. 0	18. 7	·1103					
18. 39	48. 5	18. 12	·1097					
18. 48	46. 55	18. 45	·1101					
18. 57	48. 0	18. 53	·1099					
21. 5	46. 15	19. 15	·1097					
21. 32	47. 55	19. 23	·1099					
22. 2	49. 0	20. 14	·1099					
22. 9	47. 40	20. 20	·1097					
22. 17	49. 5	21. 44	·1093					
22. 35	50. 35	21. 46	·1090					
22. 43	49. 50	21. 53	·1093					
	***	21. 59	·1086					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol ⁚ attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Feb. 8		Feb. 8						
h m	o ′ ″	h m		h m		h m	o	o
23.20	20.54.25	22.4	.1090					
23.35	52.40	22.17	.1085					
23.45	53.0	22.32	.1084					
23.59	51.35	22.42	.1090					
		23.8	.1086					
		23.19	.1080					
		23.30	.1083					
		23.37	.1081					
		23.59	.1089					
Feb. 9		Feb. 9		Feb. 9		Feb. 9		
0.0	20.51.35	0.0	.1089	0.0	.01457	1.0	44.0	45.2
0.17	55.40	0.6	.1086	1.45	.01470	3.0	46.1	47.7
0.25	52.55	0.33	.1089	3.13	.01600	10.8	48.0	47.0
0.32	53.15	0.52	.1095		.01490	21.0	44.4	44.2
0.34	54.30	0.53	.1089	6.21	.01070			
0.50	55.45	1.20	.1081	11.28	.00967			
1.17	52.0	1.40	.1086	12.33	.00993			
1.39	52.10	1.53	.1081	13.18	.00990			
2.6	52.30	2.12	.1098	13.49	.01016			
2.18	50.55	2.22	.1093	14.11	.01014			
2.31	48.30	2.26	.1099	15.42	.01063			
2.39	44.35	2.49	.1094	18.26	.01112			
2.43	46.35	2.58	.1103	18.55	.01110			
	***	3.4	.1099	22.10	.01182			
3.7	45.0	3.25	.1112	22.49	.01200			
	***	3.54	.1104	23.59	.01220			
3.27	40.30	4.13	.1106					
3.34	43.10	4.22	.1110					
3.39	42.50	4.35	.1108					
4.0	48.25	4.39	.1111					
4.10	47.45	5.45	.1113					
4.17	48.30	6.15	.1112					
	***	6.42	.1108					
4.45	48.55	7.7	.1110					
5.1	48.10							
5.51	48.40	10.8	.1112*					
6.2	47.45	21.0	.1114*					
6.35	49.20	21.31	.1113					
6.58	49.5		***					
7.12	47.35	22.2	.1110					
7.23	48.10	22.10	.1107					
7.53	47.5	22.23	.1108					
8.11	47.0	22.45	.1097					
8.21	45.55	22.50	.1099					
8.43	45.15	23.8	.1090					
8.57	46.10	23.23	.1096					
9.12	46.0	23.49	.1101					
9.19	44.55	23.59	.1102					
9.33	45.30							
9.42	44.15							
9.55	45.55							
10.6	44.0							
10.39	45.45							
10.45	45.0							
11.4	45.55							
11.21	43.40							
11.48	46.40							

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Feb. 9								
h m	o ′ ″	h m		h m		h m	o	o
12.0	20.45.5							
12.19	46.25							
12.24	44.55							
12.32	46.40							
12.48	44.25							
12.56	44.55							
13.34	43.5							
13.55	47.50							
14.14	46.30							
14.32	46.0							
14.48	48.25							
14.56	47.5							
15.27	48.35							
15.42	49.40							
16.0	48.30							
16.13	49.35							
16.35	50.15							
16.37	51.50							
16.54	51.45							
17.17	48.40							
17.28	49.10							
17.39	47.45							
18.23	51.35							
18.35	49.50							
	***							
19.15	48.55							
19.20	51.30							
	***							
19.48	52.10							
19.53	51.25							
20.22	50.35							
20.30	49.0							
20.52	48.5							
21.24	50.0							
21.34	47.45							
21.42	50.20							
	***							
22.9	48.45							
	***							
22.23	51.10							
	***							
22.49	52.35							
23.4	51.40							
23.15	51.10							
23.39	50.30							
23.43	52.30							
23.57	52.25							
23.59	52.40							
Feb. 10		Feb. 10		Feb. 10		Feb. 10		
0.0	20.52.40	0.0	.1102	0.0	.01220	1.0	47.0	47.0
0.13	53.25	0.11	.1102	1.25	.01240	3.0	48.7	48.7
0.31	52.20		(†)	3.2	.01276	9.0	52.4	51.9
0.55	53.20	0.53	.1105	5.22	.01130	21.0	48.8	49.0
1.12	52.35	1.14	.1105	6.0	.01124	22.0	49.3	49.4
1.28	53.35	2.0	.1106	6.15	.01140	23.0	49.8	49.7
1.38	53.0	2.5	.1109	6.26	.01128			
1.45	53.35	2.54	.1100	9.2	.01044			

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Feb. 10		Feb. 10		Feb. 10					Feb. 10		Feb. 10						
h m	o ′ ″	h m		h m		h m	o	o	h m	o ′ ″	h m		h m		h m	o	o
1.59	20.53.15	3.1	·1105						17.54	20.52.0	21.9	·1099					
2.7	54.20	3.7	·1101	9.36	·01006				17.59	54.0	21.27	·1091					
2.20	52.40	3.27	·1099	13.48	·00968				18.8	53.20	21.38	·1095					
2.41	52.15	3.49	·1103	14.53	·00978				18.16	54.50	21.44	·1090					
2.53	51.10	3.59	·1099	15.42	·00955				18.27	53.45	21.46	·1095					
2.59	53.15	4.9	·1103	16.29	·00980				18.54	55.5	21.53	·1091					
3.5	52.5	4.23	·1106	16.54	·00977				19.2	54.25	22.2	·1094					
3.37	50.20	4.30	·1104	19.8	·01025				19.18	54.30	22.40	·1080					
3.45	50.35	5.5	·1101	21.55	·01125				19.27	53.30	22.59	·1084					
4.8	49.45	5.25	·1089	23.59	·01130				19.47	53.50	23.7	·1083					
4.26	50.0	5.37	·1092						20.2	51.10	23.28	·1090					
4.37	50.45	5.50	·1084						20.33	48.55	23.38	·1082					
***		6.4	·1082						20.39	47.30	23.59	·1089					
5.17	48.40	6.19	·1092						20.45	49.35							
5.38	45.0	6.25	·1091						21.32	51.35							
5.49	44.40	6.40	·1106						21.54	49.5							
5.54	42.10	7.0	·1100						22.3	50.40							
6.5	40.15	7.35	·1094						22.9	49.15							
6.16	42.55	8.8	·1096						22.12	51.10							
6.26	37.50	8.14	·1094						22.21	50.5							
6.37	41.45	8.21	·1096						22.37	53.45							
6.52	49.40	8.43	·1097						23.2	54.0							
6.58	·43.25	8.53	·1110						23.11	53.5							
7.20	44.10	9.7	·1107						23.28	54.10							
7.28	45.30	9.16	·1114						23.43	54.0							
7.43	45.45	9.38	·1105						23.52	53.20							
7.51	46.55	9.45	·1107						23.56	55.10							
8.0	47.0	10.13	·1099						23.59	54.15							
8.11	49.0	10.38	·1103														
8.14	48.35	10.45	·1101														
8.35	48.50	11.1	·1103														
8.47	46.50	11.9	·1102														
9.15	48.30	11.35	·1105														
9.23	49.55	11.40	·1103														
9.40	47.5	11.52	·1104														
9.53	48.35	12.57	·1101						Feb. 11		Feb. 11		Feb. 11		Feb. 11		
10.15	48.10	13.7	·1104						0.0	20.54.15	0.0	·1089	0.0	·01130	0.0	50.3	50.0
10.43	49.20	13.55	·1102						0.5	53.10	0.5	(†)	0.33	·01128	1.0	50.5	50.0
11.38	49.35	14.3	·1104						0.33	54.5	0.54	·1097	1.30:	·01100	3.0	51.4	50.8
12.15	49.0	14.18	·1102						0.51	56.45	1.5	·1099	2.45	·01150	6.0	52.9	51.8
12.34	48.45	15.20	·1119						1.0	55.45	1.20	·1093	3.47	{ ·01100 / ·01163 }	9.0	52.5	51.0
12.42	48.10	15.59	·1100						1.23	58.0	1.26	·1097			12.0	49.7	48.5
13.11	48.50	16.26	·1111						1.33	56.55	1.52	·1089	4.55	·01110	18.0	47.3	47.4
13.21	49.55	16.37	·1108						1.39	57.45	2.6	·1079	5.56	{ ·01080 / ·01200 }	21.0	47.4	47.7
13.47	49.15	17.5	·1110						1.56	54.0	2.13	·1086			22.0	47.9	47.7
14.9	49.55	17.32	·1116						1.57	56.35	2.18	·1083	8.50	·01153	23.0	48.8	49.0
14.20	49.5	17.45	·1114						***		2.39	·1082	9.8	·01170			
14.33	49.30	17.55	·1115						2.17	57.10	3.0	·1096	10.48	·01180			
14.47	51.20	18.20	·1104						2.31	54.20	3.3	·1090	11.8	·01193			
15.2	55.50	18.38	·1105						3.5	53.0	3.32	·1094	11.27	·01175			
15.27	49.35	19.2	·1093						3.16	53.25	4.0	·1093	11.53	·01180			
15.37	49.10	19.26	·1103						***		***		12.39	·01227			
15.48	46.30	***							4.0	51.0	4.29	·1100	13.15:	·01210			
16.11	50.10	19.46	·1105						4.13	51.0	5.30	·1101	13.45	·01243			
16.20	49.45	20.14	·1097						4.41	49.40	5.39	·1102	15.40	·01350			
16.35	52.20	20.22	·1105						5.26	49.30	6.40	·1103	17.18	·01420			
17.7	51.35	20.38	·1106						6.35	50.20	6.48	·1100	***				
17.21	49.25	21.1	·1099						6.43	49.30	***		21.30	·01436			
									7.12	49.40	7.59	·1103	23.59	·01380			
									7.26	49.5	8.37	·1097					
									8.2	49.0	8.50	·1090					
									8.12	47.45	9.20	·1092					
									8.34	48.10	9.36	·1096					
									8.43	46.5	9.50	·1095					
											10.8	·1104					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left panel — Feb. 11

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.
Feb. 11		Feb. 11	
h m	o ′ ″	h m	
9. 0	20. 46. 20	10. 22	·1098
9. 15	45. 45	10. 58	·1101
9. 38	47. 55	11. 14	·1132
9. 53	45. 50	11. 26	·1112
10. 17	48. 40	11. 40	·1114
10. 38	48. 25	12. 0	·1101
***		12. 14	·1105
11. 7	46. 45	12. 34	·1086
11. 21	49. 55	12. 50	·1110
11. 29	47. 30	13. 10	·1114
11. 51	44. 10	13. 30	·1110
12. 11	39. 15	13. 40	·1105
***		14. 0	·1097
12. 41	44. 5	14. 29	·1097
13. 3	43. 40	15. 5	·1102
13. 12	42. 50	15. 20	·1100
13. 25	35. 30	15. 41	·1101
14. 6	47. 35	***	
14. 42	48. 0	16. 14	·1108
15. 4	47. 0	16. 42	·1107
15. 23	48. 25	16. 52	·1101
15. 34	50. 0	17. 0	·1104
15. 51	49. 55	17. 17	·1103
16. 5	50. 55	17. 53	·1113
16. 16	49. 50	***	
16. 36	51. 20	18. 44	·1108
16. 47	49. 10	18. 58	·1099
17. 38	51. 10	***	
17. 45	50. 0	19. 47	·1102
18. 29	49. 35	20. 8	·1096
18. 36	50. 30	20. 25	·1096
19. 12	49. 0	20. 38	·1091
19. 21	49. 55	20. 54	·1094
***		21. 14	·1096
20. 13	48. 50	21. 27	·1092
***		21. 46	·1096
21. 2	47. 30	22. 1	·1096
21. 16	50. 15	22. 30	·1088
21. 26	47. 10	22. 35	·1091
***		22. 44	·1089
22. 6	50. 25	22. 55	·1093
22. 20	49. 5	23. 8	·1089
22. 30	48. 55	23. 50	·1086
22. 58	53. 0	23. 59	·1083
23. 15	52. 20		
***			
23. 37	53. 55		
23. 50	53. 5		
23. 59	54. 0		

Left panel — Feb. 12

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force H. F.	Greenwich Mean Solar Time.	Vertical Force V. F.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Feb. 12		Feb. 12		Feb. 12		Feb. 12		
h m	o ′ ″	h m		h m		h m	o	o
0. 0	20. 54. 0	0. 0	·1083	0. 0	·01380	0. 0	49 ·2	49 ·6
0. 8	54. 15	0. 30	·1086	0. 38	·01420	1. 0	49 ·5	50 ·4
0. 23	56. 0	0. 42	·1094	1. 58	·01376	2. 0	50 ·5	51 ·2
0. 32	54. 55	1. 12	·1085	2. 23	·01380	3. 0	51 ·5	52 ·0
0. 41	58. 40	1. 44	·1093	3. 7	·01367	9. 0	51 ·8	51 ·8
0. 47	58. 20	2. 1	·1091	5. 17	·01190	21. 0	43 ·0	44 ·5
1. 0	55. 0	2. 10	·1097	5. 56	·01153			

Right panel — Feb. 12

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force H. F.	Greenwich Mean Solar Time.	Vertical Force V. F.
Feb. 12		Feb. 12		Feb. 12	
h m	o ′ ″	h m		h m	
1. 23	20. 53. 40	2. 28	·1096	6. 40	⎰ ·01095 / ⎱ ·01203
1. 33	54. 55	2. 47	·1090	8. 17	·01138
1. 39	54. 5	2. 54	·1094	9. 16	·01130
2. 0	53. 10	3. 9	·1089	10. 0	·01100
2. 9	54. 30	3. 22	·1101	10. 47	·01100
2. 13	53. 35	***		11. 57	·01120
2. 21	54. 10	3. 48	·1108	13. 25	·01170
2. 42	52. 0	***		13. 34	·01200
2. 53	53. 55	4. 21	·1105	15. 33	·01280
3. 12	50. 5	4. 58	·1113	17. 56	·01420
4. 10	50. 55	5. 38	·1090	21. 26	·01423
5. 0	49. 0	5. 51	·1105	22. 30	·01407
5. 22	41. 0	6. 7	·1110	23. 59	·01465
5. 27	40. 5	6. 17	·1112		
5. 39	35. 0	6. 45	·1107		
5. 58	39. 55	7. 19	·1107		
6. 5	40. 30	7. 32	·1104		
6. 19	46. 25	8. 2	·1106		
6. 41	49. 55	8. 21	·1100		
7. 0	50. 10	8. 33	·1099		
7. 17	49. 30	8. 47	·1099		
7. 34	50. 0	9. 22	·1112		
8. 24	48. 0	10. 14	·1095		
8. 45	39. 20	***			
	(†)	10. 55	·1097		
9. 0	36. 30	11. 15	·1100		
9. 40	44. 40	11. 23	·1099		
9. 58	43. 5	11. 56	·1102		
10. 9	43. 25	12. 7	·1105		
10. 26	40. 30	12. 29	·1103		
11. 7	47. 10	12. 59	·1104		
11. 30	47. 30	13. 16	·1102		
11. 41	48. 25	13. 45	·1106		
11. 53	47. 55	13. 50	·1104		
12. 26	49. 35	14. 23	·1106		
12. 45	49. 15	14. 38	·1105		
13. 6	50. 0	15. 53	·1108		
13. 18	49. 10	16. 11	·1111		
13. 43	48. 50	17. 8	·1111		
13. 50	49. 30	17. 16	·1110		
15. 11	48. 25	18. 8	·1111		
18. 19	49. 35	***			
19. 51	48. 5	19. 8	·1113		
20. 54	47. 10	***			
21. 3	48. 5	21. 24	·1106		
21. 25	47. 35	21. 30	·1107		
21. 52	48. 50	21. 46	·1105		
22. 4	48. 30	22. 14	·1104		
22. 30	50. 30	22. 28	·1100		
22. 44	49. 40	22. 52	·1100		
23. 2	51. 5	23. 1	·1104		
23. 13	51. 0	23. 31	·1103		
23. 24	53. 15	23. 59	·1103		
23. 38	52. 20				
23. 45	52. 45				
23. 59	53. 0				

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Feb. 13 (left panel)

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
h m	o ′ ″	h m		h m		h m	o	o
0. 0	20. 53. 0	0. 0	·1103	0. 0	·01465	1. 0	45·3	46·7
0. 21	53. 35	0. 30	·1108	2. 2:	·01116	3. 0	49·3	51·0
0. 30	55. 0	0. 51	·1102	4. 30	·01340	9. 0	51·9	52·4
0. 51	53. 5	1. 27	·1104	6. 0	·01153	21. 0	43·9	46·0
1. 5	52. 30	1. 45	·1111	7. 33	{·01080			
1. 53	55. 20	2. 5	·1106		·01160}			
2. 14	53. 0	2. 16	·1110	9. 30	·01075			
2. 20	53. 5	2. 41	·1107	11. 25	·01065			
2. 35	51. 35	3. 16	·1109	13. 27	·01083			
2. 55	52. 35	4. 22	·1098	15. 15	·01145			
3. 21	51. 40	5. 23	·1104	20. 10	·01400			
3. 50	51. 45	5. 43	·1099	21. 0	·01425			
4. 32	49. 45	6. 16	·1106	21. 22	·01460			
4. 49	51. 0	6. 35	·1105	23. 59	·01570			
5. 26	48. 15	7. 36	·1105					
5. 39	49. 5	8. 44	·1108					
6. 4	47. 50	10. 42	·1108					
6. 25	47. 30	11. 0	·1113					
7. 32	49. 50	11. 25	·1105					
10. 24	48. 15	11. 45	·1106					
10. 43	48. 30	12. 9:	·1116					
11. 13	45. 0	13. 0	·1107					
11. 46	48. 25	15. 12	·1111					
12. 0	46. 20	16. 59	·1115					
13. 32	49. 0	17. 52	·1118					
14. 49	49. 0	19. 30	·1114					
15. 30	48. 15	20. 15	·1116					
16. 0	48. 55	21. 8	·1109					
17. 13	48. 30	22. 21	·1104					
17. 53	47. 55	23. 12	·1102					
19. 14	48. 20	23. 48	·1109					
19. 25	49. 0	23. 59	·1106					
20. 49	48. 15							
21. 23	48. 30							
22. 22	52. 5							
23. 0	48. 25							
23. 53	55. 0							
23. 59	54. 20							

Feb. 14 (right-top panel — Declination and Horizontal Force)

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force ...
h m	o ′ ″	h m	
15. 42	20. 49. 20	9. 52	·1102
16. 0	49. 0	10. 15	·1102
18. 36	49. 30	11. 0	·1108
19. 8	48. 25	11. 17	·1108
20. 8	47. 55	11. 40	·1111
20. 39	46. 50	12. 15	·1110
21. 5	47. 30	14. 8	·1112
21. 14	49. 0	14. 23	·1114
21. 35	48. 5	17. 0	·1118
21. 40	49. 0	18. 4	·1118
22. 14	50. 20	19. 5	·1119
22. 47	53. 35	20. 53	·1108
23. 0	52. 25	21. 26	·1108
23. 59	54. 0	21. 42	·1110
		22. 50	·1104
		23. 0	·1106
		23. 19	·1104
		23. 59	·1108

Feb. 15 (right panel)

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force ...	Greenwich Mean Solar Time.	Vertical Force ...	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
0. 0	20. 54. 0	0. 0	·1108	0. 0	·01498	8. 42	45·8	47·0
0. 39	54. 55	1. 8	·1116	1. 45:	·01583	21. 0	37·8	40·3
0. 54	54. 10	1. 33	·1117	3. 25	·01500			
1. 9	55. 0	1. 53	·1113	8. 35:	·01145			
1. 31	54. 0	2. 22	·1115	11. 38	·01120			
1. 39	54. 20	2. 35	·1113	14. 56	·01180			
1. 57	52. 35	3. 30	·1113	21. 1	·01438			
2. 25	52. 25	4. 1	·1111	21. 21	·01462			
4. 2	49. 30	4. 31	·1114	21. 45	·01456			
5. 7	48. 35	5. 10	·1109	22. 43	·01484			
	***	5. 31	·1113	23. 59	·01573			
6. 24	48. 35	5. 52	·1108					
7. 4	49. 30	7. 8	·1109					
7. 30	48. 50	7. 47	·1112					
8. 6	49. 20	8. 9	·1109					
8. 40	43. 10	8. 22	·1114					
9. 26	47. 50	8. 37	·1108					
9. 55	48. 5	8. 48	·1114					
10. 48	46. 5	8. 59	·1115					
	***	9. 34	·1112					
11. 30	47. 25		***					
12. 3	46. 0	10. 23	·1114					
12. 43	48. 30	10. 39	·1110					
13. 1	48. 15	10. 48	·1113					
13. 27	50. 55	10. 55	·1112					
13. 41	49. 15	11. 14:	·1117					
13. 57	49. 15	11. 41	·1109					
14. 8	52. 20	12. 22	·1114					
14. 52	47. 50	13. 25	·1114					
15. 7	48. 45	13. 39	·1121					
15. 30	46. 55	14. 3	·1117					
16. 2	48. 50	14. 36	·1123					
	***	14. 55	·1119					
18. 12	47. 15	15. 22	·1119					
	***	15. 32	·1121					
20. 9	48. 5	15. 53	·1116					
20. 54	47. 10	16. 34	·1119					
21. 5	49. 10		***					

Feb. 14 (bottom-left panel)

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force ...	Greenwich Mean Solar Time.	Vertical Force ...	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
0. 0	20. 54. 20	0. 0	·1106	0. 0	·01570	1. 0	46·9	47·8
0. 40	51. 35	0. 28	·1103		(†)	3. 0	49·0	48·9
1. 9	53. 0	0. 50	·1104	1. 0	·01569*	9. 0	49·0	48·0
1. 39	51. 30	1. 10	·1108	1. 39	·01526	22. 53	40·0	41·7
2. 22	51. 0	1. 42	·1106	2. 29	·01517			
2. 26	52. 30	2. 13	·1111	3. 0	·01473			
3. 1	50. 0	2. 27	·1108	3. 15	·01470			
4. 5	49. 30		***	6. 8:	·01260			
6. 48	49. 25	3. 0	·1113	8. 15	·01204			
8. 33	48. 15	4. 24	·1116	10. 21	·01223			
9. 39	45. 30	4. 38	·1114	13. 28	·01324			
10. 20	47. 25	5. 20	·1114	16. 5	·01440			
10. 27	46. 40	5. 47	·1110	22. 14	·01433			
10. 41	49. 0	6. 46	·1108	23. 59	·01498			
11. 0	47. 50	7. 13	·1111					
11. 30	49. 0	8. 2	·1108					
12. 53	50. 0	8. 17	·1110					
14. 50	49. 45	9. 17	·1107					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Feb. 15		Feb. 15						
h m	o ′ ″	h m		h m		h m	o	o
21. 45	20. 49. 50	18. 12	·1125					
22. 0	49. 15	19. 30	·1119					
22. 36	52. 0		***					
22. 45	51. 30	21. 2	·1123					
***		21. 30	·1119					
23. 37	54. 15	22. 0	·1114					
23. 59	54. 10	22. 25	·1114					
		22. 45	·1111					
		23. 59	·1108					
Feb. 16		Feb. 16		Feb. 16		Feb. 16		
0. 0	20. 54. 10	0. 0	·1108	0. 0	·01573	1. 0	43 ·2	44 ·0
0. 37	53. 15	0. 30	·1115	0. 45	·01586	3. 0	47 ·6	47 ·8
0. 53	54. 30	0. 45	·1113	1. 52	·01578	9. 0	51 ·5	51 ·8
1. 6	53. 30	1. 4	·1116	2. 15:	·01600	21. 0	40 ·2	42 ·5
1. 26	55. 55	1. 28	·1116	3. 22	·01500			
1. 40	55. 35	1. 53	·1112	4. 42	·01230			
2. 3	52. 50	2. 16	·1115	7. 33	·01048			
2. 20	53. 20	2. 34	·1108	10. 6 {	·00980 / ·01080			
3. 5	52. 45	3. 38	·1107					
3. 43	50. 0	4. 25	·1108	10. 57	·01060			
5. 24	48. 0		***	13. 36	·01083			
5. 38	48. 5	5. 32	·1106	16. 8	·01220			
6. 4	45. 45	5. 59	·1099	16. 15	·01242			
6. 23	45. 50	6. 22	·1102	20. 7	·01463			
6. 32	43. 15	6. 50	·1098	21. 53	·01460			
6. 40	43. 45	7. 25	·1100	23. 12	·01495			
6. 49	43. 10	7. 40	·1096	23. 59	·01540			
7. 27	48. 55	8. 8	·1100					
7. 56	47. 25	8. 22	·1099					
8. 9	48. 0	8. 43	·1101					
8. 29	47. 5	9. 11	·1099					
8. 36	47. 45	9. 37	·1102					
9. 27	47. 0	10. 20	·1102					
9. 38	48. 0	10. 53	·1104					
9. 56	47. 25	11. 9	·1102					
10. 28	46. 55	11. 19	·1105					
11. 40	46. 40	11. 37	·1105					
11. 53	45. 5	11. 52	·1110					
12. 30	47. 0	12. 22	·1105					
12. 53	51. 35	13. 9	·1114					
13. 23	47. 40	13. 51	·1108					
13. 45	46. 35	15. 0	·1106					
14. 1	47. 30	16. 22	·1110					
15. 26	49. 20	16. 37	·1112					
15. 52	50. 50	17. 37	·1113					
16. 13	49. 30	18. 27	·1116					
16. 21	50. 10	19. 3	·1115					
16. 39	48. 20	19. 16	·1119					
16. 49	49. 15		(†)					
17. 20	48. 5	21. 0	·1102*					
17. 34	49. 5	22. 45	·1099					
18. 40	47. 55	23. 17	·1098					
19. 3	48. 30	23. 28	·1101					
19. 15	47. 50	23. 59	·1092					
20. 4	46. 15							
20. 24	46. 30							
20. 48	45. 35							

Right half:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Feb. 16								
h m	o ′ ″	h m		h m		h m	o	o
21. 27	20. 48. 25							
21. 39	48. 5							
22. 34	51. 10							
23. 29	55. 55							
23. 39	57. 50							
23. 52	57. 45							
23. 59	56. 45							
Feb. 17		Feb. 17		Feb. 17		Feb. 17		
0. 0	20. 56. 45	0. 0	·1092	0. 0	·01540	1. 0	44 ·5	45 ·2
0. 13	55. 35		(†)	2. 24:	·01600	3. 0	48 ·3	48 ·9
0. 27	56. 15	0. 37	·1096	6. 0	·01120	9. 0	52 ·0	51 ·0
0. 39	55. 30	1. 0	·1099	6. 42 {	·01070 / ·01125	21. 0	41 ·5	43 ·0
1. 8	55. 55	1. 42	·1098	7. 17	·01065	22. 0	41 ·0	42 ·3
1. 20	54. 45	2. 4:	·1095	8. 10	·01030	23. 0	41 ·5	43 ·0
1. 34	55. 25	2. 53	·1100	10. 52	·00990			
2. 12	53. 0		***	12. 0	·00992			
2. 52	52. 20	4. 0	·1100	14. 0	·01048			
3. 21	51. 5	4. 37	·1098	16. 49	·01190			
4. 8	50. 40	5. 22	·1096	17. 0	·01223			
4. 26	49. 35	6. 4	·1098	19. 37	·01355			
4. 41	50. 0	6. 35	·1103	19. 52	·01380			
5. 45	46. 30	6. 52	·1098	21. 30	·01478			
5. 55	46. 40	7. 26	·1095	22. 8	·01462			
6. 11	46. 5	7. 53	·1096	23. 59	·01525			
6. 32	47. 20	9. 8	·1098					
7. 6	48. 25	10. 19	·1097					
8. 29	47. 30	11. 17	·1099					
11. 8	47. 10	11. 43	·1098					
11. 23	46. 15	12. 9	·1108					
11. 40	46. 20	12. 45	·1098					
11. 50	47. 10	13. 23	·1103					
12. 15	43. 0	13. 53	·1102					
12. 38	46. 15		***					
13. 19	46. 0	15. 38	·1102					
15. 3	49. 20	16. 36	·1107					
15. 25	49. 0	17. 25	·1110					
15. 53	50. 55	17. 45	·1109					
16. 19	49. 0	18. 45	·1113					
16. 38	49. 30	20. 23	·1112					
16. 56	48. 30	21. 28	·1112					
17. 41	47. 55	22. 9	·1105					
18. 0	46. 50	22. 44	·1103					
18. 19	47. 15	23. 59	·1101					
18. 57	46. 55							
	***							
20. 3	47. 55							
20. 28	46. 25							
20. 39	47. 30							
21. 5	47. 20							
22. 12	49. 25							
23. 8	52. 5							
23. 59	53. 50							
Feb. 18		Feb. 18		Feb. 18		Feb. 18		
0. 0	20. 53. 50	0. 0	·1101	0. 0	·01525	0. 0	42 ·5	43 ·0
0. 34	55. 20	0. 15	·1102	3. 0	·01646	1. 0	43 ·3	43 ·8
0. 45	54. 20	0. 25	·1106	4. 1:	·01580	2. 0	44 ·8	45 ·2
			(†)					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Feb. 18		Feb. 18		Feb. 18		Feb. 18			Feb. 18		Feb. 18						
h m	o ′ ″	h m		h m		h m	o	o	h m	o ′ ″	h m		h m		h m	o	o
0. 54	20. 55. 30	1. 0	·1098*	5. 12	·01427	3. 0	46 ·3	47 ·0	19. 9	20. 47. 40	23. 59	·1086					
1. 9	55. 30	1. 30	·1101	6. 15	·01320	6. 0	50 ·1	50 ·5	19. 23	47. 0							
1. 24	56. 55	1. 44	·1105	8. 0	·01145	9. 0	50 ·8	50 ·7	20. 7	47. 0							
1. 29	56. 20	2. 12	·1096	9. 20	·01067	12. 0	49 ·5	49 ·5	20. 29	47. 30							
1. 40	57. 50	2. 37	·1102	9. 32	·01070	19. 0	47 ·4	47 ·8	21. 42	47. 15							
1. 58	55. 25	2. 45	·1098	9. 55	·01056	21. 0	47 ·0	47 ·5		***							
2. 38	55. 0	3. 0	·1107	10. 59	·01027	22. 0	47 ·1	47 ·8	23. 40	51. 5							
2. 46	53. 25	3. 7	·1104	12. 37	·00995	23. 0	47 ·5	48 ·0	23. 59	51. 30							
2. 54	54. 45	3. 15	·1107	15. 34	·00995												
3. 7	53. 30	3. 20	·1102	21. 1	{ ·01080												
3. 23	54. 35	3. 28	·1104		·01230				Feb. 19		Feb. 19		Feb. 19		Feb. 19		
3. 39	53. 20	3. 43	·1103	22. 14	·01243				0. 0	20. 51. 30	0. 0	·1086	0. 0	·01283	0. 0	48 ·2	48 ·8
3. 46	55. 50	3. 46	·11c8	22. 21	·01263				0. 57	51. 55	0. 23	·1089	1. 0	{ ·01277	1. 0	48 ·9	49 ·0
4. 14	54. 5	4. 28	·1090	23. 59	·01283				2. 59	50. 45	2. 0	·1090		·01304	2. 0	49 ·6	49 ·9
4. 25	53. 0	4. 47	·1092						3. 7	53. 35	3. 0	·1091	3. 0	·01280	3. 0	50 ·4	50 ·8
4. 41	53. 25	5. 13	·1088						3. 17	52. 30	3. 15	·1107	3. 9	·01300	9. 0	52 ·5	53 ·0
4. 56	51. 55	5. 26	·1093						3. 25	51. 50	3. 17	·1097	4. 39	·01216	21. 0	48 ·2	48 ·9
5. 23	48. 0	5. 41	·1093						3. 32	52. 15	3. 33	·1096	5. 30	·01170			
5. 42	50. 35	6. 17	·1083						4. 0	51. 50	3. 41	·1101	10. 18	·01095			
5. 58	51. 0	6. 36	·1084						5. 24	51. 25	3. 44	·1097	12. 49	·01100			
6. 9	52. 30	6. 55	·1093						5. 50	49. 20		***	19. 0	·01200			
6. 19	51. 55	7. 14	·1088						6. 9	49. 25	4. 45	·1097	23. 8	·01320			
6. 45	49. 25	7. 41	·1091						6. 52	50. 0	4. 56	·1099	23. 59	·01327			
6. 54	50. 10	8. 3	·1082						8. 6	49. 40	5. 23	·1099					
7. 11	49. 5	8. 45	·1089						8. 33	49. 55	5. 38	·1093					
7. 20	49. 40	9. 12	·1077						8. 54	48. 30	6. 23	·1094					
7. 30	47. 50	9. 28	·1087						9. 6	50. 10		***					
8. 1	47. 0	9. 45	·1079						9. 21	48. 20	8. 37	·1094					
8. 12	45. 30	9. 52	·1081						10. 52	48. 45	8. 49	·1092					
8. 29	46. 25	10. 15	·1075						11. 20	48. 5	9. 15	·1095					
8. 45	45. 10	10. 33	·1079						14. 20	49. 45	9. 30	·1094					
9. 39	43. 45	10. 51	·1071						16. 24	49. 15	10. 0	·1097					
9. 51	41. 45	11. 0	·1074						16. 52	48. 10	10. 9	·1095					
9. 59	43. 0	11. 21	·1068						17. 35	49. 0	10. 16	·1097					
10. 11	41. 50	11. 40	·1074						18. 7	47. 30	10. 55	·1095					
10. 25	38. 50	11. 52	·1069						18. 39	49. 5	11. 22	·1097					
10. 51	35. 35	12. 0	·1072						19. 14	47. 15	11. 36	·1096					
11. 15	35. 20	12. 9	·1068						19. 46	48. 30	13. 15	·1097					
11. 30	37. 45	12. 15	·1072						20. 9	47. 30		***					
11. 53	39. 30	12. 24	·1070						20. 21	48. 20	14. 30	·1099					
12. 0	38. 0	12. 58	·1080						20. 35	47. 30	16. 18	·1101					
12. 14	39. 30	13. 16	·1079						21. 26	47. 0	16. 30	·1100					
12. 22	38. 0	13. 34	·1086						22. 23	48. 10		***					
12. 26	38. 50	13. 58	·1086						22. 39	50. 0	17. 55	·1098					
12. 36	36. 35	14. 45	·1088						23. 5	49. 25	18. 34	·1102					
13. 3	41. 35	15. 9	·1102						23. 59	53. 0	18. 53	·1102					
13. 37	41. 20	15. 42	·1096									***					
14. 0	42. 20	16. 26	·1098								19. 49	·1099					
14. 53	43. 30	17. 23:	·1106								19. 59	·1096					
15. 7	45. 5	18. 0	·1098									***					
15. 20	45. 15		***								20. 29	·1094					
15. 32	42. 20	19. 18	·1089								21. 16	·1092					
15. 52	41. 0	19. 41	·1089								21. 47	·1094					
16. 25	45. 40	21. 2	·1080								22. 25	·1088					
16. 55	46. 30	21. 23	·1081								22. 40	·1091					
17. 28	45. 0	22. 0	·1085								23. 12	·1085					
18. 15	46. 25	23. 23	·1c84								23. 49	·1085					
18. 30	49. 0		(†)								23. 59	·1087					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol ⁚ attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Feb. 20	Feb. 20	Feb. 20		Feb. 20		Feb. 20			Feb. 21	Feb. 21	Feb. 21						
h m	° ' "	h m		h m		h m	°	°	h m	° ' "	h m		h m		h m	°	°
0. 0	20.53. 0	0. 0	·1087	0. 0	·01327	1. 0	49·3	49·2	10.23	20.44.15	8.45	·1095					
0.58	54.45	0.23	·1084	3.45	·01365	3. 0	50·9	50·7	11. 1	45.35	8.55	·1093					
1.43	52.10	1.23	·1090	7.45	·01202	9. 0	51·5	51·0	11.40	44.25	9. 0	·1095					
2.45	51.45	2. 7	·1094	9.22	·01168	21. 0	45·1	45·9	12.29	46. 0	9.13	·1088					
2.53	52.25		***	13. 0	·01183				14. 3	45.45	9.16	·1091					
3.18	51.20	2.49	·1091	17.30	·01298				15.15	47. 0	9.25	·1086					
3.40	51.40	3. 0	·1093	19.40	·01380				18.17	46.40	9.46	·1099					
5.40	50. 0	3.23	·1089	20. 0	·01410				18.29	47. 0	10. 1	·1095					
7.17	49.45	3.43	·1092	22.26	·01420				19.25	46.20	10.28	·1096					
7.43	48. 0	4. 0	·1088	23.59	·01463				20.34	44.20	10.50	·1093					
8.20	49. 5	4.17	·1089						21.32	43.50	11.10	·1097					
8.30	47.45	4.31	·1087						23.24	49. 0	11.35	·1094					
8.53	48.30	5.56	·1091						23.30	50. 0	13.46	·1096					
9.19	47.50	7.21	·1090						23.40	49.25	13.58	·1099					
9.50	48.45	7.40	·1086						23.59	50. 0	14. 8	·1097					
11.19	47.55	8.44	·1094								15. 3	·1099					
11.29	48.15	8.59	·1089								15.34	·1102					
15.27	49.45	9.28	·1089								16.49	·1103					
15.44	48.50	9.51	·1091								17. 0	·1104					
15.56	49.30	10.11	·1090								17.57	·1104					
16.56	49. 5	10.35	·1091								19. 6	·1106					
18.27	47.55	11. 0	·1089								20.30	·1099					
19.27	47.50	11.21	·1091								20.37	·1099					
20.48	46. 0	15.11	·1096								21.14	·1095					
21.47	47. 0	15.53	·1098								22. 2	·1089					
23.17	50.35	16.54	·1100								22.33	·1088					
23.29	50. 5	17.37	·1102								22.43	·1090					
23.40	52. 0	18. 7	·1102								23.10	·1081					
23.59	51.10	18.23	·1101								23.31	·1086					
		19. 7	·1103								23.59	·1085					
		20.17	·1103														
		20.45	·1099														
		21.35	·1098						Feb. 22		Feb. 22		Feb. 22		Feb. 22		
									0. 0	20.50. 0	0. 0	·1085	0. 0	·01427	8.30	48·8	48·8
		21.45	·1096						0.19	52.25	0.19	·1089	3.31	·01500	21. 0	44·2	45·1
		21.54	·1097						0.55	54.15		***	4.22	·01490			
		22.18	·1094						1.23	53.15	1. 8	·1095	4.40	·01466			
		22.23	·1096						1.37	55.50	1.25	·1091	7.39	·01430			
		23.32	·1094						1.42	55.30	2. 1	·1106	8.50	·01480			
		23.33	·1089						1.59	57.55	2.16	·1096	9.23	·01460			
		23.54	·1090						2.15	54.35		***	9.27	·01477			
		(†)							2.31	57. 0	2.52	·1098	9.37	·01450			
									3. 0	56.35		***	9.49	·01457			
									3. 8	57. 0	3.24	·1089	10.25	·01360			
Feb. 21	Feb. 21	Feb. 21		Feb. 21		Feb. 21											
0. 0	20.51.10	(†)		0. 0	·01463	1. 0	47·5	48·0	3.25	55.35	3.39	·1090	10.55	·01415			
0.12	51.55	0. 9	·1090	0.48	·01480	3. 0	51·0	51·0	3.33	55.55	3.58	·1083	11. 4	·01355			
0.22	51.40	0.28	·1090	2.12	·01555	9. 0	52·0	51·3	3.50	52.30	4.10	·1086	11.41	·01277			
0.26	53.15	0.36	·1095	4.38	·01320	22. 0	46·4	46·8	4. 2	54.50	4.17	·1082	12. 0	·01280			
1.25	53.30	1. 1	·1092	7.21	·01098				4.23	54.50	4.23	·1086	12.15	·01268			
3.22	49.35	1.30	·1094	10.45	·01048				5.12	51.45	4.40	·1078	12.35	·01290			
6.23	48. 5	1.44	·1092	13.24	·01090				6.45	50.15	5. 2	·1081	12.51	·01270			
6.41	48.35	2.28	·1091	18.45	·01265				7. 9	48.35	5.39	·1091	13.17	·01300			
7.30	48.10	2.54	·1093	21. 0	·01360				7.27	49.55	5.59	·1094	13.38	·01290			
7.52	48.30	3.24	·1092	22.40	·01370				7.39	47.40	6.15	·1089	13.57	·01320			
8.59	46.35	3.49	·1093	23.59	·01427				7.44	48.30	6.32	·1088	14.12	·01294			
9.11	47.30	5.15	·1091						7.58	46.40	6.45	·1089	15.18	·01356			
9.35	47. 0	5.54	·1094						8.17	46.55	6.49	·1095	17.41	·01415			
9.40	43.15	6.37	·1092						8.31	47.30		***	18.33	·01400			
10. 0	45. 5	6.45	·1094						8.37	49. 0	7.43	·1079	19.57	·01475			

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Feb. 22		Feb. 22		Feb. 22				
h m	o ' "	h m		h m		h m	o	o
8.56	20.41.55	7.52	·1085	22.57	·01500			
9. 4	43.50	7.57	·1084	23.35	·01550			
9.21	44.15	8.16	·1088	23.59	·01553			
9.52	25.25	8.27	·1067					
10.12	31.10	8.46	·1053					
10.19	30. 5	8.59	·1062					
10.25	33.45	9.12	·1063					
10.40	25.20	9.26	·1052					
11. 0	43. 5	9.32	·1066					
11. 6	37.15	9.39	·1060					
11.11	42.30	9.44	·1068					
11.15	41.15	9.55	·1084					
11.20	43.25	10. 0	·1078					
11.53	37.40	10. 7	·1082					
12. 6	36.30	10.30	·1041					
12.26	31.50	10.48	·1060					
12.37	36.10	11. 0	·1092					
12.39	35.55	11. 8	·1080					
12.49	44.35	11.11	·1088					
13. 7	34.30	11.28	·1047					
13.14	36. 0	11.35	·1051					
13.24	34.30	11.39	·1048					
13.26	36.20	11.55	·1066					
13.30	35.35	12. 4	·1069					
13.44	46.45	12.30	·1052					
13.56	48.45	12.41	·1082					
14. 4	44.25	12.49	·1064					
14.24	38. 5	12.55	·1070					
14.39	40.40	13. 8	·1082					
14.49	38.50	13.23	·1081					
14.54	39.55	13.40	·1058					
15. 2	39. 0	13.58	·1082					
15.15	40.15	14.20	·1074					
	***	14.39	·1073					
15.52	42. 0	14.47	·1066					
16.26	42.20	14.58	·1066					
16.55	44. 5	15.15	·1071					
17.23	48.30	15.40	·1071					
17.32	48.15		***					
17.41	50.55	15.50	·1073					
18. 4	51.55	16.37	·1075					
18.12	50.20	16.46	·1073					
18.30	49.10	16.58	·1075					
18.37	47.35	17.22	·1066					
18.53	47.45	17.44	·1074					
19. 8	47. 0	18. 6	·1079					
	***	18.23	·1089					
19.36	48.20	18.30	·1086					
19.47	47.10	18.45	·1091					
	***	19. 2	·1088					
20.10	46. 0	19.11	·1091					
20.20	47.25	19.16	·1088					
20.32	46.30	19.25	·1089					
	***							
20.57	48. 0	20. 4	·1085					
21. 5	47.15	20.12	·1090					
21.37	49.10	20.23	·1085					
21.43	47.35		***					

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Feb. 22		Feb. 22						
h m	o ' "	h m		h m		h m	o	o
21.55	20.53.20	21.39	·1075					
22.15	49. 0	21.53	·1088					
22.37	54. 5	22.13	·1070					
23. 7	53. 0	22.34	·1071					
23.38	57.40	22.49	·1052					
23.59	54. 0	23.41	·1101					
			(†)					
Feb. 23		Feb. 23		Feb. 23		Feb. 23		
0. 0	20.54. 0		(†)	0. 0	·01553	1. 0	48 ·0	48 ·0
0.20	52.20	0.32	·1101	0.40	·01586	3. 0	50 ·1	50 ·5
0.25	53.30	0.40	·1102	1. 3 {·01580 / ·01460}		9. 0	51 ·5	51 ·1
0.44	53.30	0.52	·1094			21. 0	49 ·7	50 ·2
0.55	51.55	0.55	·1102	3. 0	·01380			
1. 3	55. 5	1.14	·1100	3.57	·01370			
1.16	55.25	1.25	·1095	5. 1	·01292			
1.34	53.25	1.38	·1096	5.18	·01300			
3. 0	51.20	1.46	·1102	7.15	·01235			
3.23	52. 0	1.58	·1100	7.34	·01237			
4.17	50.55	2.14	·1104	7.52	·01190			
4.24	51.30	2.59	·1102	8.11	·01160			
	***		***	9.35	·01178			
5.19	46.45	3.52	·1105	10.22	·01160			
5.24	47.35	4. 0	·1112	11.50	·01100			
5.33	46.40	4.22	·1099	12.22	·01115			
6. 4	47.50	4.28	·1103	21.27	·01190			
6.13	46.55		***	23.27	·01240			
6.52	47.15	4.50	·1086	23.59	·01242			
6.55	45.30	5. 9	·1079					
7. 6	44. 0	5.25	·1096					
7.12	39.35	5.31	·1092					
7.18	41.45	5.38	·1097					
7.23	40.35	6.14	·1090					
7.36	49. 5	6.23	·1097					
7.48	42.55		***					
8. 1	47.45	7. 8	·1099					
8.19	46.30	7.14	·1093					
8.26	42. 0	7.21	·1104					
8.33	40.25	7.25	·1102					
8.37	37.40	7.35	·1132					
8.51	41. 0	7.47	·1111					
9. 0	40.35	8. 0	·1123					
9.25	45.10	8.25	·1098					
9.45	42.50	8.55	·1100					
9.56	43. 5	9. 7	·1095					
10. 4	41.10	9.38	·1096					
10.15	44.30	9.58	·1089					
10.25	40.25	10.19	·1112					
10.38	38.30	10.26	·1108					
10.43	39. 5	10.36	·1127					
10.56	45.50	10.54	·1124					
11. 8	43.45	11. 7	·1116					
11.27	44.40	11.22	·1125					
11.37	43.50	12. 0	·1095					
11.48	44.35	12.19	·1102					
12. 0	42.55	12.35	·1097					
12.10	46. 0	13. 0	·1100					
12.29	47.30	13.15	·1097					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol ⁚ attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left panel:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Feb. 23		Feb. 23						
h m	o ′ ″	h m		h m		h m	o	o
12.36	20.46.5	13.38	·1097					
13.0	45.0	13.55	·1100					
13.27	46.50	14.5	·1097					
13.48	47.25	15.45	·1096					
14.0	46.20	16.14	·1100					
14.57	47.30	16.22	·1098					
15.26	47.15	17.0	·1096					
15.41	48.25	17.11	·1099					
16.2	46.35	17.15	·1098					
16.17	47.30	17.46	·1098					
16.36	45.55	18.3	·1101					
17.10	47.30	18.10	·1097					
17.18	46.30	18.33	·1101					
17.31	46.10	19.10	·1095					
17.39	47.55	19.45	·1101					
17.53	46.0	19.53	·1096					
18.0	47.35	20.1	·1102					
18.13	46.30	20.11	·1099					
18.20	47.50	20.22	·1100					
18.46	48.0	20.46	·1095					
19.7	49.30	21.2	·1093					
19.48	48.40	21.17	·1097					
19.55	46.35	21.29	·1092					
20.2	48.30	21.33	·1095					
20.49	47.0	21.44	·1090					
21.19	47.50	21.53	·1093					
21.30	46.45	22.0	·1090					
21.35	48.10	22.15	·1090					
21.45	47.5	22.22	·1088					
22.3	49.40	22.53	·1088					
	***	22.57	·1084					
22.40	48.0	23.14	·1085					
22.45	49.30	23.20	·1091					
	***	23.36	·1092					
23.14	50.0	23.51	·1089					
23.22	52.5	23.59	·1088					
23.59	52.35							
Feb. 24		Feb. 24		Feb. 24		Feb. 24		
0.0	20.52.35	0.0	·1088	0.0	·01242	1.0	51·5	52·0
0.10	52.5	0.11	·1085	1.45	·01222	3.0	53·1	53·2
0.27	52.25	1.15	·1086	2.38	·01240	9.0	52·3	52·0
0.39	53.40	1.33	·1091	4.36	·01213	21.0	46·8	47·6
0.47	53.0	1.45	·1087	5.19	·01180	22.0	46·9	47·8
1.10	52.50	2.9	·1089	6.30	·01183	23.0	47·2	48·0
1.33	54.40	2.31	·1099	7.7	·01170			
1.47	53.15	2.39	·1095	12.18	·01170			
2.9	56.30	2.42	·1096	16.0	·01280			
2.19	54.45	2.50	·1094	16.23	·01240			
2.27	54.0	3.14	·1102	17.43	·01307			
2.37	55.40	3.39	·1092	21.5	·01450			
3.0	55.15	3.56	·1090	23.59	·01546			
3.40	52.25	4.23	·1096					
3.53	52.30	4.32	·1094					
4.14	51.0	5.3	·1101					
4.41	51.15	5.27	·1099					
5.2	50.20	5.32	·1099					
5.13	50.55	5.52	·1093					

Right panel:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Feb. 24		Feb. 24						
h m	o ′ ″	h m		h m		h m	o	o
5.32	20.48.15	6.3	·1095					
6.0	44.40	6.29	·1084					
6.16	41.20	7.9	·1098					
6.25	40.30	7.36	·1089					
	***	7.45	·1092					
7.7	47.30	8.8	·1086					
7.19	45.5	8.28	·1085					
7.36	47.30	8.43	·1089					
8.22	48.30	9.1	·1100					
8.41	47.5	9.23	·1088					
8.52	48.55	9.51	·1099					
9.5	47.50	10.7	·1100					
9.15	44.45	10.29	·1097					
9.21	45.40	10.48	·1103					
9.57	46.5	11.21	·1095					
10.7	46.50	11.30	·1099					
10.32	47.20	11.40	·1097					
11.7	43.55	11.55	·1102					
11.21	46.25	12.6	·1101					
11.38	43.30	12.14	·1103					
11.47	44.30	12.41	·1096					
12.34	42.0	12.58	·1096					
12.51	45.25	13.7	·1103					
13.12	46.55		***					
13.23	45.15	13.45	·1098					
13.33	45.40	14.3	·1100					
13.53	46.0	14.14	1098					
14.7	47.25	14.39	·1102					
14.35	47.30		***					
14.52	43.50	15.30	·1100					
15.23	43.25	15.37	·1102					
15.36	40.40	15.50	·1102					
15.57	48.50	16.13	·1122					
16.23	40.35	16.29	·1111					
16.42	39.50	17.35	·1100					
16.55	38.15	17.41	·1103					
17.12	41.55	17.47	·1099					
	***	17.56	·1103					
18.5	45.0	18.33	·1102					
18.32	43.55	18.45	·1108					
18.57	44.5	19.4	·1112					
19.12	45.0	19.23	·1105					
	***	19.32	·1106					
19.43	44.20	19.38	·1104					
19.53	45.5	20.7	·1107					
20.3	44.30	20.28	·1098					
20.9	46.20	20.37	·1097					
	***	20.43	·1100					
20.38	46.0	20.51	·1095					
20.45	48.25	21.9	·1093					
21.0	47.20	21.33	·1096					
21.45	51.55	21.40	·1098					
21.56	50.0	21.55	·1087					
22.15	53.10	22.8	·1089					
22.29	53.40	22.37	·1084					
22.38	53.0	22.45	·1087					
22.45	54.45	23.6	·1082					
22.58	55.25	23.15	·1085					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

E 2

Left section

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Feb. 24		Feb. 24						
23. 4	20.54.35	23.22	.1082					
23.15	56.45	23.32	.1082					
23.40	55.20	23.39	.1079					
23.59	58.20	23.45	.1080					
		23.59	.1074		•			
Feb. 25		Feb. 25		Feb. 25		Feb. 25		
0. 0	20.58.20	0. 0	.1074	0. 0	.01546	0. 0	48.8	49.0
0.23	20.58.55	0.15	.1069	0.36	.01567	1. 0	49.5	50.0
0.31	21. 0.45	0.38	.1077	1. 5	.01540	2. 0	50.4	50.8
0.57	20.59.40	0.45	.1080	1.40	.01540	3. 0	51.7	52.0
1.15	57. 0	1.23	.1092	2. 9	.01530	6. 0	53.1	53.0
1.21	58. 5	1.35	.1092	2.47	.01540	9. 0	52.6	52.6
1.36	20.56.45	1.46	.1100	3.52	.01500	12. 0	51.9	51.8
1.51	21. 1.10	2. 0	.1092	5.33	.01390	19. 0	49.0	49.1
2.15	20.57.30	2.10	.1099	6. 0	.01320	21. 0	48.0	48.2
2.24	55. 0	2.24	.1094	6.39	.01282	22. 0	48.0	48.5
2.37	57.30	2.38	.1101	7.27	.01264	23. 0	49.0	49.0
2.55	58. 0	2.44	.1097	7.39	.01293			
3.16	58.35	2.58	.1108	7.55	.01266			
3.28	55.50	3. 8	.1100	8. 3	.01260			
3.46	55.25	3.17	.1099	8.11	.01223			
4. 0	56.35	3.29	.1092	8.18	.01240			
4.33	55.40	4.14	.1098	8.23	.01190			
4.47	57.35	4.47	.1097	8.30	.01210			
5. 8	48.30	5. 0	.1076	8.41	.01160			
5.22	45.15	5.17	.1079	9. 0	.01177			
5.26	46.50	5.47	.1105	9. 7	.01148			
5.39	43.15	5.54	.1095	9.18	.01180			
5.45	47.50	6. 6	.1101	9.40	.01086			
5.54	45.40	6.16	.1084	9.45	.01113			
6. 7	50.30	6.28	.1097	9.55	.01100			
6.16	46. 0	6.36	.1093	10. 5	.01080			
6.27	50. 0	6.40	.1106	10.37	.01073			
6.37	48.50	6.53	.1091	11.36	.01135			
6.38	46.35	7.10	.1102	12. 4	.01138			
6.42	47.45	7.15	.1096	12.21	.01143			
6.52	44.20	7.25	.1104	12.39	.01080			
7. 6	49.50	7.37	.1076	12.53	.01075			
7.15	44.50	7.43	.1084	13.16	.01100			
7.27	50.45	8. 0	.1070	14. 8	.01060			
7.36	46. 0	8.10	.1099	15.23	.01130			
7.42	45.15	8.15	.1068	15.58	.01115			
8. 5	37. 0	8.22	.1089	16.15	.01063			
8.10	49.55	8.25	.1063	17.15	.01060			
8.18	43.10	8.35	.1098	18. 7	.01097			
8.20	51. 5	8.46	.1061	18.42	.01100			
8.30	35.25	8.58	.1067	19. 5	.01156			
8.41	46.30	9. 8	.1035	19.30	.01177			
8.49	42. 0	9.30	.1143	21.33	.01317			
9. 6	39. 5	9.40	.1081	22.24	.01394			
9.25	0.25	9.44	.1094	23.59	.01440			
9.37	33.30	9.48	.1084					
9.39	36. 5	9.54	.1096					
9.47	29.30	10. 3	.1071					
9.50	34.20	10.13	.1086					
9.54	33.30	10.22	.1077					

Right section

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Feb. 25		Feb. 25						
10. 1	20.39.40	10.31	.1077					
10.12	31.20	10.58	.1058					
10.22	33. 0	11.11	.1066					
10.34	31.25	11.23	.1067					
10.48	36. 0	11.36	.1074					
11. 0	38.20	11.53	.1064					
11.11	35. 0	12.23	.1076					
11.20	36. 0	12.30	.1093					
11.32	35.15	12.39	.1085					
11.51	44.20	12.52	.1096					
12.20	37. 5	13. 0	.1084					
12.37	53.45	13.14	.1095					
12.51	46.50	13.29	.1080					
12.58	44.20	13.43	.1082					
13.12	34. 5	13.50	.1086					
13.25	42.25	14.12	.1081					
13.28	41. 5	14.33	.1085					
13.52	38.25	14.43	.1074					
14. 0	35.10	14.47	.1078					
14.15	35. 0	14.58	.1074					
14.24	33.20	15.18	.1082					
15. 2	46.15	15.28	.1080					
15.22	46. 5	15.46	.1084					
15.43	41.55	16.24	.1083					
15.55	47.30	16.40	.1089					
16.10	50.45	17. 2	.1114					
16.34	47. 5	17.13	.1112					
16.49	45.35	17.30	.1118					
	***	18. 0	.1108					
17.15	45. 5	18.25	.1105					
17.25	48.20	18.43	.1098					
17.45	48.20	19.15	.1063					
18.32	58.30	19.31	.1062					
18.51	54.55	19.37	.1074					
18.58	51.35	19.52	.1080					
19.11	51.35	20.10	.1069					
19.15	48.55	20.24	.1081					
19.21	52. 0	20.32	.1072					
	***	20.37	.1078					
19.45	50.10	20.46	.1074					
19.55	48.40	20.56	.1077					
20. 4	51. 0	21.10	.1074					
20.18	50.30	21.23	.1083					
20.25	49.35	21.42	.1077					
20.32	51.15	21.49	.1082					
20.46	49. 0	22.10	.1079					
21. 5	51.30	22.16	.1069					
21.22	49.15	22.25	.1073					
21.36	51.20	22.45	.1061					
21.48	51.30	23. 0	.1060					
21.53	53.10	23. 7	.1063					
21.58	50.20	23.18	.1052					
	***	23.24	.1057					
22.23	53.30	23.38	.1051					
22.40	53.10	23.53	.1056					
22.51	55.30	23.59	.1059					
23. 8	54. 0							
23.30	55.55							

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol ⦂ attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left panel — Feb. 25 / Feb. 26

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
h m	° ′ ″	h m		h m		h m	°	°
Feb. 25								
23.47	20.55.55							
23.59	58.20							
Feb. 26		**Feb. 26**		**Feb. 26**		**Feb. 26**		
0. 0	20.58.20	0. 0	.1059	0. 0	.01440	0. 0	49.5	49.7
0. 9	21. 0.45	0. 8	.1067	0.18	.01457	1. 0	50.3	51.0
0.15	20.59. 0	0.12	.1063	1. 5	.01520	3. 0	52.5	52.8
0.28	20.58.10	0.22	.1068	3.14	.01405	9. 0	52.5	52.0
0.32	21. 0.10	0.38	.1049	3.25	.01420	21. 0	48.6	49.5
0.47	20.55.45		***	4.45:	.01272			
0.55	56.30	1.10	.1077	6. 6	.01263			
1. 4	52.30	1.23	.1075	6.25	.01210			
1. 9	54.55	1.33	.1086	8. 7	.01155			
1.25	53.10		***		.01280			
1.30	55. 0	2.23	.1080	9. 5	.01230			
1.35	53.30	2.53	.1088	9.12	.01180			
1.45	54.50	3.14	.1074	9.25	.01190			
1.58	53.45	3.32	.1104	9.38	.01160			
2. 9	53.50	3.38	.1094	9.59	.01215			
2.41	51.20	3.41	.1096	10.15	.01180			
2.52	52.15	3.49	.1088	10.55	.01220			
3. 4	51.10	4. 4	.1100	12. 0	.01213			
3. 8	52. 5	4.22	.1094	12.42	.01155			
3.18	46.30	4.25	.1098	13.11	.01142			
3.22	46. 0		***	14.52	.01252			
3.27	41.15	5. 5	.1079	21.25	.01385			
3.34	44.40		***	23.27	.01435			
3.38	44.10	5.25	.1084	23.59	.01443			
3.45	46. 5		***					
3.57	42.55	5.46	.1080					
4.57	47.50	5.58	.1073					
5. 8	46.35	6. 8	.1079					
5.23	47.25	6.19	.1113					
5.41	45. 0	6.34	.1081					
6.13	30. 5	6.41	.1089					
6.25	43. 5	6.50	.1069					
6.39	38. 0	7. 0	.1078					
6.47	42.30	7.31	.1086					
6.56	36.25	7.52	.1075					
7.18	33. 0	8.35	.1077					
7.40	38.15	8.45	.1093					
9. 1	45. 0	8.56	.1069					
9. 7	50. 0	9. 0	.1087					
9.14	49. 5	9. 7	.1074					
9.18	53.50	9.13	.1089					
9.27	43.35	9.19	.1076					
9.40	49.30	9.30	.1108					
10. 0	39.20	9.45	.1076					
10.18	48. 0	9.58	.1085					
10.31	46.10	10. 7	.1108					
10.40	46.10	10.23	.1084					
10.49	44.40	10.38	.1084					
11.12	46.25	11. 1	.1092					
11.25	43.20	11. 8	.1088					
11.37	46.55	11.17	.1088					
11.45	47.15	11.30	.1103					
11.55	46.40	12. 0	.1094					
12. 7	49.40	12.14	.1103					

Right panel — Feb. 26

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature
h m	° ′ ″	h m	
12.15	20.48.15	12.19	.1114
	***	12.23	.1103
12.39	51.40	12.32:	.1104
12.51	48.55	12.43	.1098
13.21	48. 5	12.54	.1105
13.33	44. 5	13. 6	.1104
14. 1	42.35	13.20	.1097
14.20	44.50	13.43	.1111
14.46	44.15	13.54	.1108
15.13	47.10	14.35	.1089
15.32	46.10	14.51	.1093
	***	15.20	.1094
17. 7	48. 0		***
17.41	47.10	16. 1	.1096
18. 7	47.55	16.40	.1097
18.53	45.55	17.46	.1095
19.22	49. 5	18. 5	.1099
19.30	48.20	18.22	.1097
19.46	48.25		***
19.49	47. 0	18.47	.1100
19.56	48.55	19.13	.1083
20. 0	47.10	19.27	.1087
	***	19.39	.1086
20.22	45.55	19.45	.1082
20.45	45. 0	19.50	.1086
20.56	47.55	20.10	.1088
21. 7	47.20	20.24	.1083
21.40	50. 0	20.40	.1090
22. 0	46.50	21.25	.1090
22.10	48. 5	21.30	.1089
22.22	46.55	21.48	.1091
22.27	48.50	22.15	.1077
22.44	47. 0	22.37	.1086
22.49	48.30		***
	***	23. 7	.1092
23.25	49.40	23.12	.1096
23.29	51.30	23.16	.1091
23.37	51. 5	23.52	.1093
23.59	52.35		(†)

Right panel — Feb. 27

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
h m	° ′ ″	h m		h m		h m	°	°
0. 0	20.52.35		(†)	0. 0	.01443	1. 0	51.4	51.9
0. 7	53.55	0.19	.1091	0.23	.01433	3. 0	53.5	54.0
0.10	52.15	0.30	.1100	2. 8	.01420	9. 0	54.5	54.0
0.23	56.50	0.43	.1087	2.45	.01390	21. 0	45.3	47.3
0.34	56.35	0.59	.1084	2.45	.01410			
0.55	51.30	1.25	.1088	3.10	.01380			
1.21	52.40	1.39	.1096	4. 8	.01306			
1.42	51.40	1.52	.1099	4.15	.01340			
1.52	52.10		***	5. 0	.01270			
2.55	51.35	3.22	.1097	7.56	.01160			
3.13	49.20	3.42	.1101	9.22	.01173			
3.20	50.55	4. 9	.1101	9.33	.01155			
4.23	48.55	4.32	.1103	9.57	.01160			
4.40	49.15	4.42	.1108	10. 7	.01180			
5.30	48. 5	5. 7	.1106	10.27	.01160			
5.56	48.35	5.37	.1107	11. 0	.01200			
8.55	47.30	5.44	.1110	13.16	.01260			

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Feb. 27		Feb. 27		Feb. 27					Feb. 28		Feb. 28		Feb. 28				
h m	° ′ ″	h m		h m		h m	°	°	h m	° ′ ″	h m		h m		h m	°	°
9.24	20.47.45	5.50	.1108	15.37	.01385				2.43	20.54.55	2.20	.1112	6.12	.01240			
9.34	34.50	6.51	.1106	17.6	.01457				2.52	55.20		***	9.11	.01175			
9.39	36.5	7.52	.1109	20.30	.01480				3.8	51.55	3.8	.1095	10.49	.01130			
9.51	37.10	8.4	.1107	23.59	.01625				3.23	51.10	3.32	.1105	13.10	.01132			
10.19	49.40	8.20	.1110						3.42	52.0	3.44	.1104	17.41	.01413			
10.34	43.50	8.40	.1108						5.30	50.0	4.18	.1107	19.30	.01508			
10.40	38.45	8.53	.1111							(†)	4.37	.1106	21.26	.01515			
10.52	39.0	9.21	.1110						6.0	50.35	5.2	.1110	21.54	.01500			
11.9	42.30	9.37	.1120						6.27	41.55	5.23	.1110	23.59	.01565			
11.30	42.45	10.0	.1090						6.38	42.15	5.52:	.1115					
11.38	41.55	10.7	.1094						6.51	43.45	6.19	.1093					
11.54	43.50	10.21	.1082						6.56	43.30	6.23	.1099					
12.8	46.40	10.30	.1086						7.11	46.35	6.27	.1093					
12.25	44.0	11.2	.1103						7.19	45.20	6.31	.1100					
12.49	42.55	11.14	.1099						7.55	49.5	6.42	.1100					
13.12	43.45	11.23	.1099						8.7	48.20	6.49	.1093					
13.33	42.40	11.43	.1092						8.22	49.25	6.54	.1098					
13.54	42.20	12.4	.1094						9.0	48.0	7.0	.1095					
14.7	43.40	12.32	.1100						9.23	47.55	7.9	.1098					
14.23	43.50	12.52	.1106						9.30	46.30	7.14	.1096					
14.29	47.0	13.20	.1100						9.45	46.0	7.23	.1103					
15.10	46.45	13.30	.1103						10.13	48.40	7.34	.1094					
15.38	46.15	13.51	.1101						10.44	47.55	7.38	.1095					
16.15	47.10	14.9	.1101						11.23	47.50	7.45	.1086					
16.31	44.55	14.24	.1097						11.40	47.0	8.5	.1091					
17.13	46.50	15.22	.1106						11.51	45.30	8.11	.1096					
18.14	46.30	15.50	.1105						12.4	47.0	8.32	.1090					
19.56	47.20		***						12.22	44.0	9.10	.1100					
20.4	46.0	16.38	.1109						12.42	47.5	9.49	.1098					
20.26	47.35	17.1	.1106							***	10.11	.1102					
20.41	47.0	17.31	.1108						13.22	44.50	10.24	.1100					
21.24	47.35	18.16	.1108							***	11.9	.1100					
21.52	46.0	19.30	.1111						13.51	47.35	11.24	.1103					
22.25	46.55	19.39	.1108						14.27	47.55	11.51	.1099					
22.47	48.35	20.0	.1112						14.50	45.30	12.31	.1111					
23.5	48.30	20.6	.1108						15.9	46.35	12.58	.1105					
23.18	50.55	20.13	.1113						15.26	45.55	13.37	.1100					
23.29	50.10	20.24	.1114						15.41	47.5	15.25	.1100					
23.59	52.45	20.45	.1110						16.10	46.0	15.36	.1102					
		21.25	.1112						16.32	46.25	16.45	.1102					
		21.32	.1109						16.51	45.15	17.4	.1104					
		21.46	.1111						17.19	47.35	17.40	.1104					
		22.28	.1107						18.2	46.55	18.24	.1107					
		22.47	.1108						18.15	46.10	19.7	.1104					
		23.0	.1106						18.47	47.30	19.25	.1106					
		23.16	.1107						19.7	47.0	19.34	.1103					
		23.27	.1105						19.33	47.20	19.43	.1108					
		23.59	.1106						19.39	45.25	20.4	.1109					
									19.46	46.45	20.30	.1105					
Feb. 28		Feb. 28		Feb. 28		Feb. 28			19.56	46.30	20.58	.1105					
0.0	20.52.45	0.0	.1106	0.0	.01625	1.0	48.6	50.2	20.8	47.15	21.28	.1100					
0.24	52.15	0.15	.1104		(†)	3.0	52.0	52.3	20.40	46.40	21.52	.1102					
0.56	53.40	0.23	.1102	1.0	.01613	9.0	53.0	52.6	21.0	47.55	22.13	.1096					
1.38	52.40	0.55	.1106	1.45	.01567	21.30	45.0	46.4	21.4	47.25	22.28	.1103					
2.6	54.25	1.13	.1105	2.14	.01580				21.25	47.55	22.44	.1105					
2.23	54.20	1.24	.1103	3.26	.01540				21.51	49.40	23.8	.1104					
2.37	55.0	1.45	.1104	4.48	.01350				22.25	50.0	23.26	.1109					
									23.8	53.5	23.32	.1104					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left panel

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Feb. 28		Feb. 28						
h m	° ′ ″	h m		h m		h m	°	°
23.41	20.51.50	23.36	·1105					
23.59	52. 5	23.59	·1105					
Mar. 1		Mar. 1		Mar. 1		Mar. 1		
0. 0	20.52. 5	0. 0	·1105	0. 0	·01565	9. 0	48·5	49·5
0.38	53.55	0. 7	·1104	0.45	·01596	21. 0	47·0	48·8
1.15	52.10	0.25	·1110	4. 0	·01598			
1.43	51.30	0.38	·1109	8.22	·01530			
2.12	52. 0	0.49	·1112	9. 3	·01508			
2.59	50. 5	1.28	·1108	9.10	·01513			
3.19	50.20		***	9.45	·01480			
4. 6	48.50	2.24	·1109	12.17	·01498			
5.11	48. 0	4.15	·1104	14.32	·01545			
5.30	47. 0	4.53	·1106	15. 0	·01520			
6.40	48.30	5.27	·1106	15.45	·01520			
7. 9	49.40	6. 0	·1113	16.30	·01548			
8. 5	47. 5	6. 6	·1111	19.14	·01602			
8.34	51. 0	6.27	·1111	20.45	·01609			
9. 0	44. 0	6.52	·1115	21.30	·01580			
9.11	49. 0	7. 6	·1112	23.23	·01603			
9.34	45.55	7.23	·1110	23.59	·01592			
10. 4	47.55	7.30	·1112					
10.17	45. 0	7.48	·1111					
10.29	44.35	7.58	·1115					
10.51	47. 5	8. 0	·1112					
11.26	47.35	8.15	·1126					
11.38	46.15	8.53	·1112					
11.59	45.30	9. 2	·1134					
12.24	48. 5	9.15	·1124					
12.52	49. 0	10. 2	·1105					
12.58	52.50	10.23	·1110					
13.19	47.25	11. 4	·1105					
13.33	46. 0	11.23	·1112					
13.55	46.15	11.46	·1107					
14.14	51. 0	12. 4	·1110					
14.36	46. 5	12.15	·1109					
15.22	42. 0	12.37	·1110					
15.35	43. 5	13. 2	·1112					
16.32	44.20	13.14	·1110					
16.50	43. 0	14. 1	·1105					
17.20	45.50	14.24	·1121					
17.41	49. 0	15. 0	·1116					
18.22	47. 0	15.26	·1117					
19. 5	46.25	15.32	·1114					
20.20	46.15	15.45	·1108					
20.27	45.20	16.23	·1107					
20.37	47.25	16.45	·1111					
20.49	45. 0	17.35	·1104					
21. 2	47.30	18.16	·1110					
21.28	48.25	18.30	·1107					
21.43	48.20	19.15	·1107					
22. 9	52. 0	20.29	·1101					
22.55	55.10	20.44	·1106					
23.13	49.50	20.52	·1101					
23.37	58.40	21. 9	·1107					
23.55	57. 5	21.47	·1092					
23.59	58.30		***					
		22.17	·1089					

Right panel

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
h m	° ′ ″	Mar. 1		h m		h m	°	°
		h m						
		22.37	·1080					
		23.43	·1098					
		23.59	·1091					
Mar. 2		Mar. 2		Mar. 2		Mar. 2		
0. 0	20.58.30	0. 0	·1091	0. 0	·01592	1. 0	51·7	52·0
0. 8	21. 0.30	0.15	·1103	0.56	·01550	3. 0	54·0	54·5
0.30	20.56.35		***	1.52	·01520	9. 0	56·0	55·9
0.37	51.35	0.40	·1092	2.22	·01523	21. 0	49·9	50·9
0.54	58.35	0.57	·1102	4. 8	·01368			
1. 2	56. 5	1. 4	·1096	4.53	·01280			
1.21	58.10	1.20	·1101	6.13	·01210			
1.42	58.55	1.47	·1097	8.57	·01143 / ·01330			
1.53	55.10	1.56	·1101					
2.25	55.35	2. 7	·1086	11. 2	·01310			
3. 6	54.40	2.20	·1089	11.30	·01280			
3.17	55. 0	2.37	·1099	11.50	·01298			
3.52	53.25	2.47	·1095	12.22	·01307			
3.58	53.15		***	12.48	·01298			
4.38	48.55	3.15	·1098	14. 0	·01323			
4.54	50. 0	3.29	·1097	15.42	·01340			
5.43	50.50	3.56	·1088	15.55	·01350			
5.47	49.45		***	18. 0	·01418			
9. 2	48.20	4.29	·1087	20. 4	·01440			
9.25	49. 0	5.44	·1095	21.33	·01450			
10. 1	48.35	5.52	·1100	23.59	·01552			
10.49	46.55	5.56	·1097					
11. 6	48. 0	6.12	·1096					
11.41	35.50	6.17	·1099					
12. 5	42.10	6.52	·1100					
12.13	42.15		***					
12.37	46.40	8. 7	·1102					
12.56	43.25	8.19	·1100					
13.32	41.55	9. 0	·1099					
14.16	46.20	9.22	·1101					
14.23	46.45	9.43	·1099					
14.38	43. 5	10. 5	·1103					
15. 7	42.55	10.16	·1102					
15.27	49.15	10.27	·1104					
16. 2	48.25	10.44	·1100					
16.13	49.35	11. 7	·1112					
17.41	46.30	11.18	·1113					
	***	11.44	·1089					
18. 8	47.50	12.14	·1081					
18.15	45. 5	12.55	·1102					
18.28	47.35	13.27	·1094					
18.53	47.20	13.35	·1098					
19.13	48.25	13.46	·1092					
19.38	47.25	14. 1	·1089					
20.13	47.55	14.12	·1096					
20.24	46.10	14.33	·1101					
20.38	48. 5	15.15	·1100					
21.21	48.50	15.25	·1105					
	***	15.51	·1092					
22.28	54.55	16.16	·1101					
	***	16.30	·1098					
23.30	57.55	16.49	·1104					
23.36	56.15	16.53	·1103					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Mar. 2		Mar. 2										Mar. 3					
23. 59	20. 55. 40	17. 23	·1110 ***									12. 41	·1114				
		18. 26	·1109									12. 57	·1115				
		18. 45	·1107 ***									13. 15	·1114				
		20. 19	·1101									15. 25	·1114				
		20. 40	·1105									17. 25	·1116				
		21. 20	·1098									18. 39	·1113				
		21. 28	·1101									20. 7	·1110				
		21. 44	·1098									20. 15	·1112				
		21. 53	·1101									21. 16	·1108 ***				
		22. 11	·1096 ***														
		23. 15	·1095									21. 53	·1102				
		23. 22	·1091									22. 0	·1105				
		23. 25	·1097									22. 13	·1103				
		23. 35	·1090									23. 38	·1103				
		23. 38	·1097									23. 59	·1105				
		23. 59	·1093														
Mar. 3		Mar. 3		Mar. 3		Mar. 3			Mar. 4		Mar. 4		Mar. 4		Mar. 4		
0. 0	20. 55. 40	0. 0	·1093	0. 0	·01552	1. 0	54·0	54·8	0. 0	20. 52. 15	0. 0	·1105	0. 0	·01514	0. 0	52·0	53·3
0. 37	53. 10	0. 16	·1092	0. 36	·01550	3. 0	57·0	58·0	0. 41	51. 50	1. 17	·1112 ***	0. 30	·01500	1. 0	53·2	54·0
0. 45	56. 35	0. 29	·1105	0. 53	·01565	9. 0	59·5	59·0	0. 48	52. 25	1. 46	·1113	1. 36:	·01534 ***	3. 0	56·1	57·5
1. 27	55. 20	0. 45	·1112	1. 45	·01535	21. 0	49·5	51·0	1. 56	50. 0	2. 10	·1115 ***	3. 3	·01440	6. 0	59·2	59·2
1. 39	56. 30	1. 6	·1106	3. 0	·01420	22. 0	49·9	51·5	2. 31	51. 15	2. 44	·1114	5. 0	·01163 ***	9. 0	58·9	58·0
2. 24	56. 5	1. 23	·1105 ***	4. 0	·01233	23. 0	51·0	51·8	2. 48	49. 40	2. 49	·1111	6. 24	·01115	12. 0	56·9	56·1
2. 39	52. 50	1. 58	·1112	4. 27	·01224				3. 36	48. 20	3. 5	·1112	7. 19	·01090	18. 0	50·0	51·8
3. 0	55. 5	2. 28	·1110	7. 0	·01073				4. 6	49. 10	3. 37	·1108	7. 35	·01110	21. 0	50·2	52·0
3. 22	52. 35	2. 37	·1103	7. 26	·01080				4. 17	48. 20	4. 1	·1113	8. 2	·01080	22. 0	49·0	50·9
4. 10	48. 50	2. 58	·1109	7. 50	·01067				4. 26	48. 55	4. 38	·1104	10. 45	·01060	23. 0	50·0	51·0
4. 55	48. 55	3. 4	·1114	8. 14	·01080				4. 34	47. 15	4. 45	·1105	13. 5	·01120			
6. 29	49. 55	3. 30	·1110	9. 10	·01040				4. 45	46. 30	4. 55	·1102	14. 6	·01130			
6. 37	47. 0	3. 57	·1101	10. 57	·01052				4. 54	43. 55	5. 17	·1110 ***	19. 57	·01473			
6. 43	47. 20	4. 21	·1104	12. 54	·01100				5. 8	43. 50	6. 17	·1104	20. 20	·01460			
7. 8	35. 30	4. 33	·1109	16. 22:	·01270				5. 27	47. 0	6. 30	·1108	20. 50	·01460 ***			
7. 22	38. 5	4. 58	·1112	19. 28	·01458				5. 55	47. 45	6. 42	·1103	21. 3	·01480			
7. 30	36. 0	5. 43	·1107	21. 30	·01450				6. 18	45. 35	6. 58	·1104	21. 41	·01462			
7. 38	35. 35	6. 30	·1113	23. 59	·01514				6. 24	44. 0	7. 17	·1101	23. 0	·01526			
7. 54	27. 30	6. 46	·1120						6. 38	48. 0	7. 39	·1105	23. 59	·01620			
8. 17	37. 10	7. 3	·1102						6. 43	46. 10	8. 5	·1090					
9. 4	45. 30	7. 13	·1110						7. 8	45. 10	8. 21	·1092					
9. 30	47. 0	7. 23	·1112						7. 23	43. 25	8. 34	·1089					
10. 41	46. 10	7. 37	·1110						7. 54	45. 5	8. 49	·1098					
14. 14	46. 40	7. 48	·1088						8. 12	41. 0	9. 2	·1093					
18. 52	45. 55	8. 8	·1112						8. 30	43. 40	9. 13	·1104					
20. 7	44. 40	8. 29	·1107						8. 45	39. 40	9. 37	·1108					
21. 0	45. 5	9. 0	·1105						8. 56	40. 25	9. 52	·1103					
21. 42	47. 55	9. 21	·1108						9. 8	37. 35	10. 7	·1104					
21. 53	46. 45	9. 45	·1108						9. 43	43. 35 ***	10. 16	·1109					
21. 57	48. 50	10. 2	·1111						11. 40	46. 20	10. 32	·1107					
22. 13	48. 30 ***	10. 25	·1112						12. 8	45. 0	10. 53	·1108					
22. 40	52. 0	10. 34	·1114						13. 8	44. 55	11. 8	·1106					
23. 15	53. 30	11. 1	·1111						14. 9	41. 0	11. 34	·1110					
23. 59	52. 15	11. 29	·1114						14. 14	42. 0	11. 46	·1107					
		11. 55	·1113						14. 24	42. 25	12. 14	·1108					
		12. 8	·1116						14. 40	45. 50	12. 39	·1112					
									14. 59	46. 50	13. 5	·1121					
									15. 11	45. 30							
									15. 56	46. 30							

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Mar. 4		Mar. 4						
h m	o ′ ″	h m		h m		h m	o	o
16.30	20.44. 0	13.20	·1116					
17.38	45.20	13.36	·1116					
18. 3	46.55	13.44	·1117					
18.15	45.15	14. 0	·1111					
18.30	46.25	14.15	·1101					
18.48	45.20	14.22	·1104					
	***	14.30	·1102					
19.45	45.25	14.53	·1107					
20. 9	51. 5	15.33	·1109					
20.21	50.25	16.17	·1117					
	***	16.44	·1116					
20.40	53.35	16.56	·1113					
20.51	51.50	17.10	·1114					
20.58	52.15	17.28	·1111					
21. 1	54.25	17.45	·1113					
21.23	58. 0	17.52	·1112					
21.42	55.55	18.11	·1118					
21.53	57.50	18.32	·1117					
22.25	20.59. 0		***					
22.56	21. 2. 5	19.10	·1120					
23.13	0. 0		***					
23.22	2.10	19.52	·1098					
23.34	1.35	20. 8	·1070					
23.49	1.55	20.16	·1048					
23.59	1. 0	20.30	·1040					
		20.50	·1077					
		21. 1	·1077					
		21.20	·1067					
			***					
		22. 6	·1076					
		22.17	·1069					
		22.37	·1076					
		22.53	·1075					
		23. 0	·1086					
		23.13	·1081					
		23.29	·1087					
		23.59	·1085					
Mar. 5		Mar. 5		Mar. 5		Mar. 5		
0. 0	21. 1. 0	0. 0	·1085	0. 0	·01620	0. 0	51 ·5	52 ·2
0.51	20.56.55	0. 9	·1082	1.11	·01690	1. 0	52 ·7	53 ·5
1. 8	53.35	0.28	·1092	2. 0	·01678	2. 0	54 ·5	55 ·0
1.34	55.30	0.40	·1089	2.45	·01630	3. 0	56 ·5	57 ·0
1.41	53.55	1.16	·1104	4.57	·01260	9. 0	59 ·4	58 ·7
2.20	53.25		(†)	5.54	·01120	21. 0	51 ·5	52 ·0
2.28	52.20	3.29	·1110	8. 4	{·01043 / ·01160}			
2.54	52.40	3.41	·1113					
3.13	51.50	4. 0	·1109	10. 5	·01140			
3.27	49.25	4.14	·1115	10.46	·01100			
3.36	49.40	4.22	·1113	13.34	·01170			
3.51	48.25		***	20.35	·01520			
4.35	47.25	6. 6	·1122	21. 5	·01505			
5.45	48.30	6.17	·1119	21.48	·01524			
7. 8	47.35	6.31	·1124	22.26	·01532			
8.33	47.15	7.18	·1117	23. 6	·01572			
9.24	47.10	7.24	·1120	23.59	·01597			
9.45	40.20	7.30	·1117					

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Mar. 5		Mar. 5						
h m	o ′ ″	h m		h m		h m	o	o
9.59	20.42.30	7.38	·1121					
10. 7	41. 0	8.19	·1116					
10.28	46.30	8.25	·1118					
10.38	44.40	8.35	·1114					
11. 6	43.20	8.42	·1117					
11.17	44.55	8.51	·1116					
12.37	46.30	9. 1	·1118					
15.31	46.30	9. 7	·1123					
15.43	47. 0	9.13	·1119					
15.53	46.35	9.37	·1113					
16. 3	47.40	9.48	·1123					
	***	9.57	·1103					
16.37	46. 5	9.59	·1116					
17. 2	47.10	10.13	·1126					
17.32	46.25	10.22	·1126					
17.40	46.50	10.38	·1113					
18. 7	46.25	10.53	·1106					
18.21	47.30	11.13	·1109					
18.27	50. 5	11.22	·1106					
18.53	51. 0		***					
19.11	50.35	13. 0	·1113					
19.27	47. 0	13. 5	·1116					
19.40	47.55	13.13	·1114					
	***		***					
20.25	45. 0	14. 4	·1114					
20.32	45.55	14.20	·1117					
20.50	45.35	14.30	·1115					
21. 0	48. 0		***					
21.12	47.25	16.37	·1120					
21.26	49.45	16.50	·1125					
21.51	51. 0	17.59	·1120					
22. 6	54.55		***					
22.41	57. 5	18.20	·1126					
23.13	54.55	18.29	·1120					
23.34	56.30	18.38	·1122					
23.40	55. 0	19.10	·1121					
23.59	54.35	19.38	·1123					
			***					
		20.20	·1117					
			***					
		20.52	·1116					
		21.37	·1097					
		22. 1	·1104					
		22.33	·1088					
		22.52	·1081					
		22.59	·1083					
		23.12	·1080					
		23.45	·1097					
		23.59	·1101					
Mar. 6		Mar. 6		Mar. 6		Mar. 6		
0. 0	20.54.35	0. 0	·1101	0. 0	·01597	1. 0	54 ·0	54 ·0
0.23	55.35	0.27	·1101	0.58	·01553	3. 0	55 ·3	55 ·3
0.28	54.40	0.55	·1107	3.30	·01498	9. 0	54 ·0	53 ·2
0.54	56. 0	1. 3	·1103	5.34	·01407	21. 0	47 ·9	48 ·7
1. 2	54.30	1.14	·1116	6.30	·01420			

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left section:

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers Of H.F. Magnet	Of V.F. Magnet
h m	o ′ ″	h m		h m		h m	o	o
Mar. 6		Mar. 6		Mar. 6				
1. 10	20. 59. 50	1. 25	·1107	7. 0	·01430			
1. 41	58. 20	1. 43	·1103	8. 30	·01440			
1. 49	57. 15	1. 53	·1094	9. 42	·01480			
1. 58	57. 25	2. 9	·1092	10. 15	·01475			
2. 9	56. 40	2. 22	·1076	12. 27	·01543			
2. 22	52. 45	2. 49	·1093	14. 16	·01537			
2. 33	53. 45	2. 58	·1091	15. 0	·01527			
3. 7	51. 20	3. 44	·1106	17. 34	·01540			
3. 39	49. 50	4. 10	·1103	19. 26	·01540			
3. 42	50. 55		***	20. 0	·01555			
3. 47	50. 0	4. 29	·1105	21. 21	·01560			
4. 38	49. 30	4. 35	·1103	23. 59	·01650			
5. 38	48. 35	4. 52	·1107					
5. 47	47. 5	5. 20	·1104					
5. 56	47. 40	5. 41	·1099					
6. 8	44. 40	6. 0	·1104					
6. 25	45. 20	6. 8	·1104					
6. 52	40. 45	6. 23	·1108					
7. 42	47. 10	6. 38	·1104					
8. 26	47. 45	6. 56	·1110					
8. 57	47. 0	7. 30	·1109					
9. 21	44. 5	7. 53	·1109					
9. 38	46. 40	8. 11	·1112					
9. 48	47. 0	9. 9	·1111					
10. 0	50. 35	9. 19	·1115					
10. 17	47. 45	9. 32	·1115					
10. 34	44. 20	9. 43	·1111					
10. 58	47. 5	9. 55	·1120					
13. 14	47. 50	10. 8	·1115					
13. 52	41. 55	10. 20	·1117					
14. 21	50. 35	10. 36	·1123					
14. 45	50. 50	11. 8	·1113					
15. 7	48. 15		***					
15. 39	47. 40	12. 16	·1112					
17. 1	48. 0	12. 45	·1114					
17. 12	46. 55	13. 52	·1113					
17. 42	48. 35	14. 18	·1120					
17. 51	48. 20		***					
18. 7	50. 20	15. 14	·1116					
18. 14	50. 0	15. 56	·1115					
18. 45	51. 20		***					
18. 54	52. 50	16. 44	·1118					
19. 28	53. 0	16. 53	·1117					
19. 38	51. 35	17. 5	·1121					
20. 9	50. 0	17. 20	·1116					
20. 16	48. 55	17. 38	·1117					
20. 31	48. 10	17. 53	·1114					
20. 54	50. 40	18. 22	·1113					
21. 3	49. 0	18. 40	·1118					
21. 39	48. 5	19. 25:	·1108					
21. 48	49. 15	19. 51	·1112					
22. 10	48. 40	20. 15	·1106					
	***	20. 23	·1086					
23. 17	51. 30	21. 15	·1085					
	***	21. 26	·1094					
23. 59	55. 0	21. 44	·1094					
		22. 25	·1102					
		23. 36	·1099					

Right section:

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers Of H.F. Magnet	Of V.F. Magnet
h m	o ′ ″	h m		h m		h m	o	o
		Mar. 6						
		23. 44	·1099					
		23. 59	·1093					
Mar. 7		Mar. 7		Mar. 7		Mar. 7		
0. 0	20. 55. 0	0. 0	·1093	0. 0	·01650	1. 0	49 ·3	50 ·0
0. 34	52. 50	0. 23	·1092	4. 15	·01600	3. 0	50 ·7	50 ·9
0. 39	54. 25	0. 45	·1099	7. 31	·01502	9. 0	50 ·8	51 ·0
0. 51	54. 45	1. 7	·1094	10. 41	·01500	22. 0	44 ·0	45 ·0
1. 3	53. 0	1. 43	·1103	11. 33	·01447			
1. 51	54. 5	2. 15	·1101	12. 38	·01472			
2. 25	51. 40	2. 53	·1108	18. 29	·01640			
2. 47	50. 40	3. 13	·1109	20. 49	·01680			
3. 0	51. 40	3. 25	·1104	21. 22	·01680			
3. 20	49. 40	3. 44	·1107	22. 15	·01717			
3. 54	48. 25	3. 53	·1106	22. 33	·01698			
4. 11	48. 45	4. 10	·1110	23. 59	·01720			
4. 27	47. 5	4. 19	·1107					
5. 15	46. 55	5. 0	·1105					
7. 0	47. 0	5. 34	·1111					
8. 41	45. 0	5. 43	·1110					
9. 9	38. 45		***					
9. 19	40. 5	7. 20	·1115					
9. 25	43. 0	7. 57	·1113					
10. 11	44. 30	8. 12	·1115					
10. 21	43. 30	8. 56	·1103					
10. 37	43. 10	9. 17	·1112					
10. 53	41. 25	9. 22	·1112					
11. 0	33. 20	9. 58	·1115					
11. 10	37. 5	10. 30	·1108					
11. 16	36. 45	10. 40	·1120					
11. 22	38. 10	10. 49	·1120					
11. 37	34. 35	11. 2	·1146					
11. 51	40. 0	11. 26	·1107					
11. 57	41. 15	11. 41	·1112					
12. 8	39. 15	11. 59	·1107					
12. 22	40. 30	12. 22	·1114					
12. 33	40. 0	12. 46	·1107					
13. 46	47. 20	13. 5	·1108					
14. 28	47. 0	13. 14	·1107					
14. 43	44. 45	13. 35	·1110					
15. 14	48. 0	13. 43	·1110					
16. 36	47. 55	14. 0	·1113					
	***	14. 8	·1111					
18. 8	47. 35	14. 22	·1115					
18. 53	46. 0	14. 27	·1113					
19. 13	47. 0	14. 37	·1117					
19. 21	45. 30	14. 42	·1114					
19. 31	46. 10	15. 51	·1113					
19. 38	44. 10		***					
19. 52	46. 5	18. 55	·1125					
20. 21	44. 35	19. 38	·1118					
20. 32	46. 5	20. 16	·1116					
21. 26	46. 55	20. 28	·1119					
21. 47	45. 10	20. 47	·1112					
22. 23	47. 40	20. 58	·1112					
22. 40	50. 35	21. 30	·1093					
22. 56	50. 0	22. 13	·1107					
23. 59	52. 35	22. 22	·1105					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
h m	o ′ ″	h m		h m		h m	o	o	h m	o ′ ″	h m		h m		h m	o	o
		Mar. 7									Mar. 8						
		22.39	·1110								18.32	·1122					
		22.57	·1107								18.53	·1124					
		23.15	·1098								19.25	·1116					
		23.59	·1097								19.45	·1116					
											20. 0	·1120					
Mar. 8		Mar. 8		Mar. 8		Mar. 8					20. 9	·1116					
0. 0	20. 52. 35	0. 0	·1097	0. 0	·01720	9. 0	47 ·0	47 ·0			21.38	·1111					
0. 12	55. 50	0. 30	·1107	0. 51	·01733	21. 0	40 ·8	42 ·5			22.20	·1113					
0. 23	55. 55	0. 52	·1100	1. 40	·01780						22.33	·1110					
0. 30	56. 55	1. 1	·1101	3. 52	·01780						22.43	·1113					
0. 47	54. 0	1. 39	·1110	8. 20	·01687						22.59	·1102					
1. 8	54. 0	2. 15	·1108	13. 48	·01680						23.24	·1102					
1. 13	55. 40	2. 44	·1116	16. 17	·01730						23.59	·1113					
1. 21	54. 30	2. 54	·1114	19. 2	{·01755												
1. 47	54. 45	3. 7	·1118		·01700}												
2. 15	53. 10	3. 18	·1115	20. 13	·01733				Mar. 9		Mar. 9		Mar. 9		Mar. 9		
2. 39	53. 35		***	21. 24	·01736				0. 0	20. 55. 40	0. 0	·1113	0. 0	·01800	1. 0	45 ·3	46 ·0
	***	4. 40	·1116	23. 5	·01765				0. 17	56. 55	0. 27	·1114	0. 18	·01810	3. 0	48 ·5	49 ·1
6. 6	47. 30	4. 45	·1114	23. 59	·01800				1. 32	56. 50	0. 35	·1115	2. 28	·01778	9. 0	50 ·5	51 ·0
7. 7	48. 25	4. 57	·1120						2. 23	55. 35	0. 49	·1111	2. 48	·01783	21. 0	42 ·0	43 ·0
8. 2	48. 35	5. 0	·1115						2. 27	57. 5	1. 46	·1114	5. 0	·01533			
9. 11	47. 20		***						2. 46	57. 10	2. 22	·1126	8. 0	·01310			
9. 40	48. 0	5. 29	·1121						3. 15	55. 0	2. 32	·1136	11. 0	·01247			
10. 56	47. 55	5. 43	·1117						3. 25	52. 15	2. 58	·1137	12. 48	·01262			
11. 12	46. 50	6. 3	·1119						3. 34	52. 40	3. 2	·1142	13. 8	·01255			
11. 33	47. 35	6. 15	·1117						3. 56	51. 15	3. 27	·1131	15. 33	{·01320			
11. 45	47. 0	6. 43	·1120						4. 10	51. 30	3. 34	·1133		·01350}			
12. 8	49. 0	7. 23	·1121						5. 13	49. 5	4. 14	·1135	18. 35	·01480			
12. 25	47. 20	7. 37	·1118						5. 41	48. 55	4. 37	·1134	21. 26	·01620			
12. 56	47. 0	8. 0	·1120						5. 55	49. 25	4. 51	·1133	21. 48	·01630			
13. 21	51. 10	8. 20	·1117						6. 4	48. 55	5. 41	·1132	23. 30	·01730			
14. 8	48. 55	9. 0	·1119						7. 18	48. 55	5. 57	·1136	23. 59	·01732			
14. 33	49. 35	9. 10	·1117						8. 42	47. 50	6. 12	·1129					
15. 21	48. 30	9. 25	·1118						10. 25	47. 45	6. 32	·1123					
17. 37	48. 35	9. 55	·1115						11. 56	46. 50	7. 30	·1118					
17. 52	48. 0	10. 40	·1118						12. 27	47. 30	8. 53	·1121					
18. 37	48. 30	10. 47	·1122						12. 40	51. 0	9. 14	·1118					
18. 57	46. 25	11. 6	·1121						13. 8	47. 10	10. 23	·1116					
19. 51	49. 35	11. 17	·1123						13. 42	46. 55	11. 24	·1117					
20. 2	47. 35	11. 25	·1121						14. 8	48. 0	11. 44	·1119					
20. 17	50. 20	11. 35	·1122						16. 35	47. 50	12. 23	·1117					
20. 43	47. 0	11. 59	·1117						17. 3	49. 5	12. 37	·1125					
21. 21	48. 30	12. 7	·1121						17. 20	48. 25	13. 7	·1118					
21. 53	47. 25	12. 32	·1123						17. 48	49. 15	13. 38	·1115					
22. 20	49. 0	13. 8	·1115						18. 5	48. 45	13. 53	·1116					
22. 37	51. 30	13. 29	·1118						18. 15	49. 0	14. 37	·1115					
22. 45	51. 25		***						18. 33	48. 5	17. 38	·1122					
22. 55	53. 30	14. 28	·1116						18. 49	49. 15	18. 21	·1126					
23. 10	52. 30	14. 39	·1118						19. 49	46. 55	18. 58	·1126					
23. 22	53. 45	15. 0	·1118						20. 7	46. 50	20. 2	·1114					
23. 40	53. 20	15. 11	·1121						20. 13	47. 50	21. 10	·1105					
23. 59	55. 40		***						20. 45	48. 0	21. 23	·1106					
		15. 37	·1118						20. 51	48. 35	21. 35	·1107					
		15. 45	·1121						21. 7	48. 25	22. 26	·1100					
		15. 52	·1119						22. 11	51. 0	22. 42	·1100					
			***						22. 23	50. 50	23. 7	·1103					
		17. 23	·1121						23. 30	56. 15	23. 27	·1102					
		17. 47	·1123						23. 43	58. 20	23. 45	·1106					
									23. 54	57. 40	23. 53	·1104					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Western Declination

Greenwich Mean Solar Time	Western Declination
Mar. 9	° ′ ″
23.59	20.58.55
Mar. 10	
0. 0	20.58.55
0. 7	58.30
0.21	59.35
0.29	58. 5
0.57	58.30
1. 4	59. 0
1.37	57.35
1.51	55.20
2.11	55.20
2.40	54.30
3.26	52. 0
3.34	52.20
4.26	49.50
5. 7	49. 0
5.39	46.55
7. 0	48.35
8.55	47.35
9.10	48. 0
9.32	46.55
10.20	47.55
10.37	47. 0
11. 0	47.55
11.22	46.25
	***
12.58	47. 5
13.43	46. 5
14.23	47.25
14.42	51.25
14.53	50.20
15.21	47. 0
15.30	46.25
15.36	47.50
15.45	47. 0
16.42	49. 0
17.24	47.15
	***
18. 7	47.40
	***
19.16	46. 0
	***
19.42	46.25
20.14	49.50
20.35	54. 5
21.23	48.55
21.55	51.25
22. 8	50.20
22.37	53.35
23. 8	52.25
23.47	53.55
23.52	53.30
23.59	54.10
Mar. 11	
0. 0	20.54.10
0.14	56. 0
0.30	56.10
0.56	54. 0
1. 8	54.45
1.56	54.10
2. 4	53.30
2.24	53.55
2.42	52.40
2.56	53.10
3.15	50.30
4. 4	50.45
4.23	49.45
4.30	50. 0
6.28	48.40
8. 0	49. 5
8.15	48.25
8.50	48.35
9.12	47.40
9.33	47.35
9.38	44.40
9.52	41. 0
10.16	44. 5
10.36	39.35
10.56	45.10
11. 9	46. 0
11.34	45.15
11.55	46.55
13. 0	46.25
13.39	46.10
13.51	47. 5
14.11	47.35
14.21	46.40
14.40	48.15
14.57	48 25
15. 9	47. 0
16.23	49. 0
16.40	48.55
16.45	48. 5
	***
17.21	48. 0
17.44	49.55
18.45	48. 0
	***
19.15	46.50
	***

Horizontal Force in parts of the whole H.F. uncorrected for Temperature

Greenwich Mean Solar Time	Horizontal Force
Mar. 9	
23.57	·1110 (†)
Mar. 10	
0. 0	(†)
0. 9	·1109
0.15	·1107
0.26	·1106
0.39	·1101
0.45	·1106
0.50	·1101
1. 0	·1106
1.10	·1103
1.27	·1107
1.37	·1110
1.49	·1105
.	***
3. 7	·1125
3.23	·1122
3.54	·1121
5. 1	·1120
	***
5.40	·1116
6.14	·1119
6.23	·1119
7. 0	·1124
	***
8.17	·1124
9. 7	·1123
9.32	·1128
9.58	·1122
10.23	·1127
11. 5	·1126
11.33	·1124
	***
13. 6	·1123
13.45	·1127
14.23	·1127
14.44	·1137
14.57	·1132
15.13	·1130
15.17	·1131
16. 5	·1124
16.41	·1130
	***
18.23	·1132
	***
18.50	·1132
19. 7	·1136
19.25	·1132
	***
19.44	·1119
19.52	·1119
20. 3	·1113
20.14	·1112
20.40	·1120
20.56	·1121
21.20	·1118
21.52	·1113
22. 8	·1116
22.13	·1113
22.28	·1116
22.44	·1109
23. 0	·1109
23.25	·1108
23.30	·1112
23.53	·1119
23.59	·1119
Mar. 11	
0. 0	·1119
0.12	·1119
0.21	·1121
0.55	·1110
1. 7	·1122
1.26	·1126
1.42	·1132
2. 3	·1129
2.16	·1132
2.30	·1130
3. 1	·1130
3.16	·1127
3.32	·1131
3.39	·1130
3.52	·1134
	***
4.25	·1126
4.43	·1129
5. 2	·1127
5.15	·1128
5.34	·1126
5.47	·1129
6. 7	·1126
6.28	·1128
6.52	·1118
7.14	·1125
7.18	·1123
7.40	·1125
7.55	·1129
8.15	·1124
8.25	·1126
8.36	·1125
9. 7	·1127
9.22	·1135
9.34	·1134
10. 3	·1138
10.30	·1122
10.45	·1130
11.15	·1124
11.46	·1125
12. 2	·1120
12. 9	·1122
12.29	·1119
12.51	·1124
12.56	·1121
	***

Vertical Force in parts of the whole V.F. uncorrected for Temperature

Greenwich Mean Solar Time	Vertical Force
Mar. 10	
0. 0	·01732
2.27	·01768
3.26	·01733
9.19:	·01343
14.36	·01375
15. 0	·01370
19.21	·01558
23.59	·01700
Mar. 11	
0. 0	·01700
0.10	{ ·01707 / ·01620 } (brace)
0.45	·01640
3. 0:	·01682
5. 3	·01520
5.38	·01475
10.15	{ ·01355 / ·01377 } (brace)
10.45	·01367
11.11	·01379
11.45	·01380
14.33	{ ·01490 / ·01510 } (brace)
19.27	·01733
	***
21.58	{ ·01770 / ·01660 } (brace)
23.59	·01693

Readings of Thermometers

Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Mar. 10	°	°
1. 0	45·0	46·0
3. 0	48·1	48·8
9. 0	49·0	49·0
21. 0	42·2	44·0
22. 0	42·7	44·2
23. 0	42·2	44·5
Mar. 11		
0. 0	43·6	44·6
1. 0	44·4	45·5
3. 0	47·4	48·0
6. 0	48·9	48·5
9. 0	47·6	47·2
12. 0	45·4	45·3
19. 0	39·5	41·6
21. 0	39·2	41·0
22. 0	39·8	41·4
23. 0	41·0	42·0

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Western Declination (left)

Greenwich Mean Solar Time.	Western Declination.
Mar.11 h m	° ′ ″
20. 28	20. 46. 30
	***
21. 45	47. 20
22. 23	49. 10
22. 38	48. 20
23. 28	51. 5
23. 59	51. 0
Mar.12	
0. 0	20. 51. 0
0. 24	52. 30
0. 38	51. 5
0. 51	54. 25
1. 4	51. 20
1. 14	50. 50
1. 30	51. 55
	***
2. 11	51. 50
2. 38	50. 35
2. 57	52. 10
3. 15	50. 0
3. 25	51. 20
3. 38	51. 0
4. 21	47. 30
4. 57	49. 10
5. 23	47. 5

Horizontal Force in parts of the whole H.F. uncorrected for Temperature (left)

Greenwich Mean Solar Time.	Horizontal Force.
Mar.11 h m	
13. 32	·1122
13. 42	·1126
13. 50	·1122
14. 12	·1126
14. 44	·1123
14. 55	·1128
15. 23	·1123
15. 53	·1124
16. 7	·1127
16. 23	·1125
16. 37	·1130
16. 44	·1128
16. 52	·1130
17. 0	·1127
17. 5	·1130
17. 16	·1127
17. 24	·1129
17. 46	·1128
18. 3	·1129
18. 27	·1134
	***
19. 11	·1132
19. 34	·1133
19. 35	·1129
19. 52	·1130
20. 23	·1124
20. 38	·1124
20. 55	·1121
21. 14	·1121
21. 26	·1118
21. 32	·1119
22. 6	·1114
22. 20	·1115
22. 40	·1111
23. 7	·1119
23. 22	·1120
23. 34	·1124
23. 42	·1124
23. 59	·1122
Mar.12	
0. 0	·1122
0. 15	·1128
0. 30	·1127
1. 19	·1129
1. 32	·1134
1. 53	·1134
2. 7	·1136
2. 37	·1134
2. 51	·1139
3. 17	·1133
3. 28	·1141
3. 42	·1135
3. 58	·1120
4. 10	·1118
4. 16	·1120
4. 26	·1121
4. 44	·1128

Vertical Force in parts of the whole V.F. uncorrected for Temperature (left)

Greenwich Mean Solar Time.	Vertical Force.
Mar.12 h m	
0. 0	·01693
1. 40	·01690
4. 0	·01593
5. 15	·01560
11. 11	·01480
13. 39	·01492
14. 27	·01468
15. 38	·01480
18. 30	·01600
21. 20	·01660
22. 11	·01693
23. 59	·01703

Readings of Thermometers (left)

Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Mar.12 h m	°	°
0. 0	42 ·3	43 ·2
1. 0	44 ·0	44 ·0
2. 0	45 ·5	45 ·6
3. 0	47 ·0	47 ·0
9. 0	46 ·8	47 ·0
21. 0	42 ·9	44 ·0

Western Declination (right)

Greenwich Mean Solar Time.	Western Declination.
Mar.12 h m	° ′ ″
6. 10	20. 48. 50
7. 10	49. 30
9. 30	48. 5
10. 37	48. 40
11. 11	47. 0
11. 41	47. 55
12. 29	47. 25
13. 9	46. 5
13. 25	46. 55
14. 0	53. 0
14. 39	46. 30
15. 31	45. 20
15. 50	42. 5
16. 16	44. 30
16. 37	44. 30
16. 57	46. 5
17. 28	46. 50
20. 16	45. 40
20. 39	46. 55
20. 45	46. 20
21. 21	47. 20
22. 47	52. 40
23. 10	52. 55
23. 25	56. 20
23. 35	55. 25
23. 59	57. 0
Mar.13	
0. 0	20. 57. 0
0. 7	56. 25
0. 36	58. 55

Horizontal Force in parts of the whole H.F. uncorrected for Temperature (right)

Greenwich Mean Solar Time.	Horizontal Force.
Mar.12 h m	
5. 11	·1123
5. 25	·1125
5. 51	·1121
6. 17	·1123
6. 36	·1127
7. 23	·1131
7. 37	·1134
7. 47	·1133
8. 51	·1133
9. 9	·1128
9. 34	·1127
9. 54	·1129
10. 19	·1129
10. 30	·1133
10. 48	·1131
11. 0	·1132
11. 23	·1127
11. 40	·1128
11. 53	·1130
12. 14	·1127
12. 33	·1129
12. 48	·1126
13. 28	·1124
13. 34	·1125
13. 40	·1125
14. 15	·1138
14. 32	·1133
14. 47	·1135
15. 2	·1131
15. 21	·1129
15. 34	·1124
15. 41	·1125
16. 8	·1121
16. 20	·1123
16. 25	·1122
16. 49	·1121
	***
18. 16	·1124
18. 23	·1122
18. 30	·1123
20. 16	·1118
20. 23	·1116
20. 29	·1117
20. 55	·1117
21. 23	·1116
21. 43	·1118
	***
22. 45	·1113
22. 58	·1121
23. 9	·1118
	(†)
23. 45	·1116
23. 59	·1116
Mar.13	
0. 0	·1116
0. 19	·1112
0. 35	·1119

Vertical Force in parts of the whole V.F. uncorrected for Temperature (right)

Greenwich Mean Solar Time.	Vertical Force.
Mar.13 h m	
0. 0	·01703
2. 49	·01678
3. 30	·01647

Readings of Thermometers (right)

Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Mar.13 h m	°	°
1. 0	47 ·0	47 ·2
3. 0	49 ·8	50 ·5
9. 0	52 ·5	52 ·5

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Mar. 13

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
h m	° ' "	h m		h m		h m	°	°
0. 55	20. 57. 25					21. 0	43.1	45.0
1. 1	56. 0	1. 10	·1113	4. 22:	·01625			
1. 35	54. 0	1. 25	·1114	5. 18	·01540			
2. 2	54. 0	***		8. 40	·01350			
3. 37	50. 0	2. 57	·1131	9. 53	·01323			
4. 54	48. 35	3. 45	·1127	12. 30:	·01284			
5. 22	44. 5	4. 0	·1129	16. 51	·01430			
5. 43	43. 5	4. 30	·1126	19. 43	·01600			
5. 55	44. 0	4. 45	·1121	21. 39	·01690			
6. 8	40. 35	4. 50	·1124	23. 26	·01815			
6. 17	40. 5	5. 12	·1118	23. 59	·01860			
6. 33	41. 30	5. 24	·1116					
6. 45	44. 40	5. 35	·1120					
7. 0	44. 20	5. 48	·1117					
7. 56	47. 55	5. 58	·1116					
10. 6	48. 0	6. 7	·1110					
12. 14	47. 55	6. 17	·1112					
12. 28	49. 0	6. 44	·1115					
12. 54	47. 20	6. 56	·1111					
13. 11	48. 10	7. 12	·1118					
13. 30	47. 30	7. 25	·1116					
15. 26	47. 5	7. 59	·1114					
16. 23	48. 5	8. 25	·1122					
16. 55	46. 50	8. 36	·1120					
17. 21	46. 30	9. 8	·1119					
18. 9	45. 55	9. 15	·1116					
18. 19	46. 35	9. 56	·1122					
18. 37	45. 10	10. 10	·1121					
18. 52	45. 50	10. 44	·1121					
***		10. 52	·1124					
		11. 26	·1121					
19. 53	45. 5	11. 50	·1123					
20. 8	46. 30	12. 7	·1122					
***		12. 15	·1124					
21. 34	48. 30	12. 41	·1124					
21. 51	47. 25	12. 50	·1122					
21. 58	48. 45	14. 30	·1122					
22. 29	48. 50	14. 42	·1124					
23. 53	55. 55	16. 32	·1125					
23. 59	55. 45	16. 55	·1127					
		17. 32	·1125					
		17. 43	·1127					
		18. 29	·1123					
		18. 40	·1124					
		***						
		19. 50	·1118					
		20. 0	·1118					
		20. 26	·1113					
		20. 31	·1114					
		21. 0	·1108					
		21. 22	·1108					
		21. 29	·1111					
		21. 39	·1107					
		21. 46	·1110					
		23. 1	·1107					
		23. 17	·1108					
		23. 38	·1108					
		23. 53	·1109					
		23. 59	·1109					

Mar. 14

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
h m	° ' "	h m		h m		h m	°	°
0. 0	20. 55. 45	0. 0	·1109	0. 0	·01860	1. 0	48.3	48.6
0. 16	54. 40	0. 11	·1109	1. 53	·01800	3. 0	50.9	50.6
0. 50	54. 50	0. 38	·1116	3. 8	·01765	9. 0	51.5	51.0
1. 32	54. 20	0. 42	·1115	4. 9	·01656	22. 43	45.5	47.0
1. 52	53. 15	1. 32	·1116	4. 55	·01583			
1. 59	53. 40	1. 59	·1126	7. 2	·01467			
3. 22	50. 25	2. 58	·1125	8. 38	·01400			
4. 9	50. 20	3. 22	·1130	11. 8	·01344			
4. 35	49. 15	3. 27	·1129	14. 17	·01360			
5. 27	48. 5	3. 45	·1128	18. 38	·01460			
6. 5	48. 25	4. 0	·1129	20. 25	·01535			
6. 21	47. 30	4. 44	·1118	23. 59	·01644			
6. 27	47. 40	5. 10	·1121					
6. 32	47. 5	5. 48:	·1117					
6. 44	49. 20	6. 24	·1122					
7. 2	47. 30	6. 32	·1143					
7. 13	49. 10	6. 56	·1121					
7. 38	49. 5	7. 9	·1130					
8. 22	50. 20	7. 24	·1133					
8. 35	49. 0	7. 31	·1130					
9. 21	48. 20	7. 42	·1134					
10. 40	48. 5	8. 3	·1132					
11. 0	47. 20	8. 25	·1123					
11. 43	47. 0	9. 3	·1130					
12. 34	47. 50	10. 5	·1130					
14. 6	46. 55	10. 14	·1133					
14. 10	47. 25	10. 25	·1132					
14. 51	47. 20	11. 42	·1129					
15. 15	47. 50	11. 55	·1130					
15. 55	46. 15	***						
16. 20	47. 5	13. 0	·1131					
16. 48	46. 55	13. 14	·1129					
17. 7	48. 20	13. 23	·1132					
17. 12	46. 55	13. 38	·1130					
17. 54	48. 0	13. 45	·1132					
18. 6	47. 25	14. 2	·1128					
18. 20	47. 55	14. 11	·1130					
18. 46	46. 15	14. 31	·1126					
18. 55	46. 55	15. 28	·1128					
19. 1	48. 5	15. 52	·1124					
19. 12	47. 10	16. 37	·1125					
19. 18	48. 10	16. 50	·1123					
19. 55	49. 35	***						
20. 24	47. 0	17. 47	·1125					
20. 48	47. 0	17. 56	·1124					
21. 28	48. 0	18. 23	·1125					
22. 12	50. 0	***						
23. 10	51. 45	18. 53	·1127					
23. 11	50. 45	19. 15	·1122					
23. 59	52. 50	19. 56	·1126					
		20. 32	·1121					
		20. 42	·1124					
		21. 22	·1121					
		21. 48	·1122					
		22. 35	·1118					
		23. 0	·1120					
		23. 8	·1116					
		23. 12	·1114					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner.   The Symbol *** denotes that the magnet has been generally in a state of agitation.   The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol ⁚ attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded.   A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. OfH.F. Magnet	OfV.F. Magnet
h m	° ′ ″	Mar.14		h m		h m	°	°
		23.45	·1113					
		23.59	·1115					
Mar.15		Mar.15		Mar.15		Mar.15		
0. 0	20.52.50	0. 0	·1115	0. 0	·01644	8.40	47·1	48·0
0.18	52.15	0.30	·1113	2.45	·01690	21. 0	42·8	44·0
0.38	52.20	0.53	·1114	6. 0	·01670			
0.53	52. 0	1.17	·1118	10.59	·01677			
1.18	52.35	4.27	·1118	12.54	·01720			
2.18	52.10	4.39	·1120	15.56	·01820			
5. 9	48.20	7.26	·1124	19.47	·01883			
5.53	48.25	8. 5	·1127	21.53	{·01872 / ·01810}			
6. 8	47.55	8.53	·1125	23.33	·01850			
7.10	47.55	9.10	·1126	23.59	·01845			
7.30	47.10	11.26	·1126					
7.49	47.40	12.21	·1124					
8. 0	47.30	12.47	·1126					
9. 4	49. 5	13.47	·1124					
10.23	48.40	19. 5	·1127					
12.17	48.30		***					
12.31	48.20	20.41	·1125					
12.48	48.20	21. 2	·1121					
14.10	48.55	21.21	·1122					
16.23	48. 5	22.10	·1117					
18.46	46.50	22.46	·1108					
18.58	46. 0	23.39	·1108					
19.12	46.30	23.59	·1114					
19.31	45. 5							
19.39	46. 0							
19.56	44.40							
20. 7	45.15							
20.33	44.50							
21.25	46.15							
22.37	51.55							
22.51	52. 0							
23.27	54.35							
23.46	54.30							
23.59	55.40							
Mar.16		Mar.16		Mar.16		Mar.16		
0. 0	20.55.40	0. 0	·1114	0. 0	·01845	1. 0	47·6	48·0
0.30	56.25	0. 7	·1115	0.46	·01833	3. 0	50·0	50·5
0.49	54.35	0.30	·1113	1.57	·01810	9. 0	51·0	51·0
1. 8	55. 0	0.52	·1116	3. 0	·01725	21. 0	43·5	45·0
2.38	52.35	1. 1	·1109	3.45	·01660			
2.44	53. 0	1.15	·1116	4.56	·01523			
3.38	50. 5	1.25	·1125	6.25	·01450			
3.54	50.40	2.46	·1132	7.23	·01420			
4. 6	49.50	3. 8	·1129	9. 6	·01430			
4.31	50. 5	3.23	·1130	9.40	·01420			
4.51	49.15	3.42	·1128	11.51	·01325			
5.38	48.35	3.53	·1132	13.40	·01327			
6.23	48.35	4. 8	·1128	14.27	·01330			
6.40	48. 0	4.35	·1129	14.57	·01357			
6.57	48.20	4.52	·1126	15.27	·01363			
8. 8	47.10	6.25	·1129	21.27	·01633			
10.38	48.20	6.37	·1131	23.59	·01743			
11. 9	47.50	6.47	·1129					

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. OfH.F. Magnet	OfV.F. Magnet
Mar.16		Mar.16		h m		h m	°	°
12. 0	20.48. 0	7.23	·1131					
12.27	47.10	7.37	·1137					
13.15	47.50		***					
13.31	50. 5	9. 0	·1133					
14.24	43.40	9.21	·1138					
14.44	46.55	9.37	·1134					
15. 1	47.55	10.45	·1130					
15.22	47. 0	11.50	·1130					
15.30	47. 5	12. 3	·1133					
16. 0	45.45	12.18	·1130					
16.32	47. 5	13. 0	·1133					
16.50	46. 5	13.23	·1131					
17.14	47. 0	14. 0	·1136					
18. 0	47. 5	14.27	·1125					
18.10	46.25	14.47	·1128					
18.30	48.10	15.20	·1132					
19.22	46. 5	15.29	·1131					
19.25	46.50	15.42	·1133					
19.38	44.55	16.13	·1130					
19.49	44.45		***					
19.55	45.40	17. 0	·1131					
	***	17.15	·1129					
20.25	46.10	18. 3	·1132					
	***	18.20	·1129					
20.53	49. 5	18.48	·1129					
21. 0	48.15	19.22	·1127					
22. 2	54.25	19.40	·1130					
22.40	56.55	20.53	·1119					
23.19	54.55	21.12	·1118					
23.36	55. 5	21.33	·1114					
23.54	55.25	22. 3	·1117					
23.59	55. 0	22.22	·1112					
		22.36	·1115					
		23.11	·1107 (†)					
Mar.17		Mar.17		Mar.17		Mar.17		
0. 0	20.55. 0	0. 0	·1114	0. 0	·01743	1. 0	47·8	48·5
0. 8	54.45	0.31	·1125	1.10	·01750	3. 0	51·2	51·5
0.38	56. 5	0.48	·1127	2.15	·01710	9. 0	51·5	52·0
0.44	57. 0	1.36	·1120	4. 0	·01620	21. 0	41·2	43·0
0.55	56. 5	2. 0	·1122	10.38	·01315	22. 0	41·5	43·0
1.36	55. 0	2.22	·1121	16.20	·01533	23. 0	42·5	44·0
2. 5	55.20	2.30	·1128	17.56	·01622			
2.22	54. 0	2.5?	·1127	20.12	·01695			
2.34	56. 0	3. 8	·1121	21.38	·01710			
2.55	55. 5	3.13	·1132	23.59	·01850			
3. 7	53.25	3.30	·1128					
3.12	53.45		***					
3.40	51. 0	4. 8	·1131					
4. 3	51.45	4.24	·1124					
4.15	51. 5	4.30	·1126					
4.20	50. 0	4.55	·1120					
4.25	51. 0	5.20	·1128					
4.45	50. 0	5.39	·1126					
5. 1	47.50	5.57	·1129					
5.29	47.15	6.17	·1139					
5.41	46.15	6.31	·1133					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Top block (Mar. 17 — left; Mar. 18 — right)

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Mar.17		Mar.17							Mar.18		Mar.18						
5.53	20.46.45	6.49	.1130						17.57	20.46.0	15.24	.1131					
6.9	43.5	7.8	.1133						18.18	45.50	16.32	.1131					
6.37	40.40	7.30	.1126						19.9	44.5	17.33	.1133					
6.59	41.15	7.53	.1123						20.0	43.20	18.9	.1132					
7.22	45.40	8.24	.1126						20.15	42.5	18.49	.1127					
7.29	44.40	8.37	.1125						20.39	43.35	18.59	.1128					
7.50	47.40	9.9	.1127						21.38	44.20	19.20	.1127					
8.8	48.30	9.53	.1123						22.52	50.0	19.30	.1123					
8.15	47.10	10.42	.1121						23.19	53.55	20.4	.1120					
8.32	48.5	13.7	.1120						23.36	53.0	20.20	.1122					
9.11	48.20	13.40	.1121						23.59	55.0	21.6	.1114 ***					
11.4	47.25	15.3	.1120								22.23	.1109					
11.46	48.0	15.26	.1120								22.56	.1112					
13.37	47.15	15.50	.1118								23.15	.1122					
13.45	48.35	17.12	.1120								23.31	.1112					
14.40	47.15	17.38	.1121								23.46	.1113					
15.12	48.15	18.40	.1119								23.55	.1115					
15.35	47.10	19.49	.1112								23.59	.1114					
16.23	48.55	20.0	.1113														
19.39	44.10	20.41	.1110														
19.58	42.30	(†)															
20.8	43.35	22.19	.1106														
20.36	43.40	22.53	.1105														
20.54	44.15	23.59	.1112														
21.0	43.45																
22.40	51.50																
23.30	54.40																
23.59	55.20																

Bottom block (Mar. 18 — left; Mar. 19 — right)

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Mar.18		Mar.18		Mar.18		Mar.18			Mar.19		Mar.19		Mar.19		Mar.19		
0.0	20.55.20	0.0	.1112	0.0	.01850	0.0	44.0	45.3	0.0	20.55.0	0.0	.1114	0.0	.01693	0.0	46.5	47.6
0.48	55.15	0.20	.1112	3.8	.01760	1.0	45.0	46.0	0.30	58.5	0.11	.1118	3.35	.01573	1.0	47.8	48.8
1.34	55.5	0.39	.1116	3.14:	.01767	2.0	46.8	47.6	0.40	56.35	0.22	.1118	4.26	.01500	3.0	50.2	51.0
2.7	54.0	0.51	.1114	4.51	.01617	3.0	47.4	48.1	1.37	55.0	0.32	.1114	6.15	{ .01367 / .01400 }	9.0	52.0	51.7
2.31	52.30	1.8	.1116	6.4	.01500	6.0	49.0	49.0	1.54	55.25	0.40	.1115	11.7:	.01290	21.0	46.0	47.0
2.49	52.50	1.29	.1116	8.0	.01427	9.0	49.0	49.0	2.24	55.0	1.15	.1117	15.30	.01390			
3.7	51.0	1.40	.1119	9.3	.01430	12.0	48.0	48.0	2.53	53.40	1.34	.1118	18.10	.01500			
3.30	50.55	2.32	.1119	9.30	.01430	18.0	44.0	45.1	4.31	50.40	2.0	.1122	22.30	{ .01755 / .01643 }			
3.54	48.55	2.57	.1124	12.41:	.01360	21.0	45.2	44.8	5.22	49.0	2.37	.1128 ***	23.4	{ .01645 / .01680 }			
4.32	48.50	3.19	.1124	15.51	.01470	22.0	45.0	45.4	6.28	48.25	3.44	.1127	23.59	.01650			
5.35	47.50	3.33	.1134	18.28	.01580	23.0	44.8	46.0	7.32	48.50	4.0	.1135					
6.0	48.40	3.57	.1129	19.0	.01620				7.45	48.25	4.36	.1135					
6.16	48.0	4.10	.1131	20.0	.01660				10.23	48.5	5.32	.1131					
6.56	48.35	5.2	.1128	21.18	.01690				10.55	47.25	6.25	.1132					
8.26	47.45	5.32	.1129	22.55	{ .01750 / .01680 }				12.8	48.0	7.24	.1134					
9.53	48.0	6.18	.1129	23.59	.01693				12.26	47.25	9.35	.1134					
10.5	47.0	6.31	.1130						14.4	48.0	9.45	.1132					
10.24	47.0	6.44	.1128						16.37	47.10	10.20	.1132					
10.41	46.15	6.57	.1129						16.52	47.40	10.32	.1133					
11.12	47.50	7.9	.1128						18.36	46.25	10.53	.1131 ***					
12.7	47.10	7.50	.1128						19.49	43.30	14.2	.1127					
12.25	48.0	8.34	.1130						20.7	43.45	14.18	.1129					
14.55	47.30	9.0	.1128						20.22	43.0	14.44	.1128					
15.18	48.20	9.25	.1128						20.34	43.55	16.21	.1128					
15.43	47.0	9.32	.1130						20.42	43.5	18.19	.1126					
15.59	48.0	9.53	.1125						21.50	45.30	19.24	.1122					
16.22	47.20	10.5	.1128						22.51	50.0	21.38	.1107					
16.54	48.0	10.27	.1124 ***						22.57	49.20	21.59	.1108					
									23.47	53.0	22.21	.1106					
									23.59	53.0	23.11	.1105					
											23.43	.1108					
											23.54	.1111					
											23.59	.1110					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Mar.20	° ′ ″	Mar.20		Mar.20		Mar.20	°	°
0. 0	20. 53. 0	0. 0	·1110	0. 0	·01650	1. 0	50·0	51·0
0. 12	53. 40		(†)	2. 45	·01620	3. 0	53·0	53·5
0. 37	54. 10	0. 57	·1114	3. 32	·01577	9. 0	54·0	53·8
1. 5	55. 0	2. 8	·1117	4. 44	·01433	21. 0	49·0	49·0
2. 7	54. 30	2. 19	·1114	5. 38	·01400			
4. 5	51. 5		***	6. 59	·01330			
4. 13	52. 5	3. 24	·1118	7. 25	·01330			
4. 46	50. 45	3. 46	·1125	7. 48	·01315			
5. 10	50. 40	4. 9	·1122	9. 10	·01323			
5. 24	49. 30	4. 15	·1127	11. 7	·01285			
6. 22	49. 55	4. 31	·1123	13. 0	·01280			
7. 15	48. 25	4. 44	·1122	18. 23	{·01395 / ·01645}			
7. 33	50. 25	5. 13	·1123					
8. 10	46. 0	5. 27	·1116	22. 10	·01647			
8. 30	46. 30	5. 45	·1122	22. 12	·01660			
8. 40	44. 35	6. 0	·1121	22. 38	·01630			
9. 1	44. 0	6. 10	·1118	23. 13	·01628			
9. 24	46. 0	6. 24	·1123		(†)			
10. 2	46. 5	6. 39	·1124					
10. 40	47. 30	7. 2	·1108					
11. 10	47. 5	7. 29	·1124					
11. 20	46. 25	8. 3	·1107					
11. 30	47. 15	8. 10	·1107					
11. 40	47. 5	8. 31	·1101					
12. 37	50. 25	8. 39	·1102					
13. 7	46. 50	8. 57	·1096					
14. 9	47. 15	9. 15	·1104					
14. 24	46. 5	9. 30	·1102					
14. 47	46. 20	9. 53	·1105					
15. 0	45. 10	10. 45	·1114					
15. 15	45. 55	11. 15	·1111					
15. 44	45. 15	11. 29	·1113					
16. 0	47. 30		***					
16. 20	45. 10	12. 12	·1113					
16. 26	46. 0	12. 37	·1121					
16. 56	42. 40	13. 12	·1115					
17. 3	44. 5	13. 28	·1117					
17. 8	41. 50	13. 38	·1115					
17. 47	38. 55		***					
18. 9	38. 10	15. 56	·1114					
18. 30	43. 10	16. 6	·1118					
18. 40	42. 30	16. 22	·1121					
19. 5	43. 20	17. 4	·1117					
19. 14	47. 0	17. 21	·1122					
19. 23	46. 15	17. 45	·1122					
19. 31	43. 0		***					
19. 50	42. 30	18. 38	·1108					
20. 0	41. 0	19. 0	·1112					
20. 11	42. 45	19. 8	·1122					
20. 16	44. 30	19. 19	·1114					
20. 37	41. 0	19. 37	·1118					
20. 40	42. 45	19. 50	·1112					
	***	19. 58	·1115					
21. 21	42. 35		***					
	***	20. 20	·1107					
21. 50	48. 10		***					
22. 0	47. 30	20. 43	·1108					
22. 23	49. 15	20. 58	·1112					
	(†)							

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Mar.20	° ′ ″	Mar.20						
23. 7	20. 56. 40	21. 7	·1106					
23. 19	57. 20	21. 31	·1103					
23. 39	59. 55	21. 42	·1106					
23. 46	20. 59. 0	21. 55	·1098					
23. 56	21. 1. 5	22. 17	·1096					
23. 59	0. 30		(†)					
		23. 2	·1096					
		23. 13	·1094					
		23. 52	·1101					
		23. 59	·1098					
Mar.21		Mar.21		Mar.21		Mar.21		
0. 0	21. 0. 30	0. 0	·1098	1. 0	·01301*	1. 0	52·0	53·0
0. 8	20. 59. 40	0. 11	·1111	3. 0	·01106*	3. 0	53·5	54·6
0. 18	21. 3. 5	0. 18	·1104	9. 0	·00176*	9. 0	53·5	54·0
0. 28	20. 58. 30	0. 25	·1109	22. 0	·00641*	22. 0	44·5	45·0
0. 32	21. 1. 0	0. 35	·1109		(†)			
0. 38	0. 35		(†)	23. 45	·00970			
0. 51	2. 55	1. 0	·1111*	23. 59	·00988			
0. 57	1. 30	2. 5	·1121					
1. 6	21. 2. 5	2. 23	·1126					
1. 33	20. 56. 30	2. 34	·1131					
2. 11	20. 59. 50	2. 46	·1123					
2. 15	21. 1. 30	2. 54	·1127					
2. 22	20. 59. 45	3. 16	·1112					
2. 38	21. 2. 0	3. 29	·1123					
2. 41	4. 25	3. 38	·1116					
2. 57	1. 30	3. 58	·1135					
3. 3	21. 3. 0	4. 13	·1101					
3. 26	20. 59. 35	4. 29	·1122					
3. 38	21. 1. 40	4. 37	·1118					
3. 45	20. 59. 10	4. 39	·1122					
3. 56	21. 2. 55	4. 49	·1114					
4. 6	21. 1. 25	5. 15	·1112					
4. 15	20. 58. 30	5. 23	·1120					
4. 41	57. 5	5. 38	·1104					
4. 51	52. 30	5. 44	·1122					
4. 55	54. 25	5. 52	·1086					
5. 30	49. 40	6. 7	·1109					
5. 39	57. 30	6. 22	·1076					
5. 53	51. 40	6. 23	·1079					
5. 59	57. 15	6. 30	·1086					
6. 17	37. 40	6. 35	·1082					
6. 30	49. 35	6. 40	·1084					
6. 42	42. 5	6. 48	·1081					
6. 50	42. 35	6. 55	·1086					
7. 10	40. 0	7. 10	·1092					
7. 26	48. 45	7. 22	·1081					
7. 34	47. 55		(†)					
7. 47	42. 40	7. 47	·1077					
7. 53	44. 5	8. 0	·1117					
8. 3	42. 35	8. 14	·1075					
8. 7	37. 30		(†)					
8. 18	54. 0	9. 0	·1094					
8. 36	35. 40	9. 21	·1108					
8. 43	39. 50	9. 38	·1087					
9. 1	37. 20		(†)					
9. 15	31. 40	10. 51	·1089					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

March 21. The case surrounding the Vertical Force box was removed, and the supports of the box were thoroughly examined on this day. During this examination, an alteration in the position of the magnet seems to have occurred, producing a decrease in the scale reading of 2$^{div.}$ or 3$^{div.}$, or of 0·003 or 0·004 parts of the whole Vertical Force.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. OfH.F. Magnet.	OfV.F. Magnet.
Mar.21		Mar.21						
h m	o ′ ″	h m		h m		h m	o	o
9. 25	20. 28. 25	11. 48	·1096					
9. 41	37. 0	12. 7	·1105					
9. 46	36. 10	12. 21	·1098					
10. 0	30. 30	12. 45	·1100					
10. 10	31. 25	12. 56	·1096					
10. 34	37. 30	13. 29	·1103					
11. 1	45. 40	13. 39	·1100					
	***	13. 51	·1100					
11. 55	47. 30	14. 32	·1107					
12. 8	47. 30	14. 37	·1094					
12. 18	44. 15		(†)					
12. 30	46. 50	16. 30	·1096					
12. 43	45. 0	16. 53	·1096					
12. 56	44. 20	17. 3	·1100					
13. 2	46. 0	17. 38	·1103					
13. 7	44. 30	17. 48	·1102					
13. 21	45. 0	18. 32	·1103					
13. 26	47. 0	18. 43	·1101					
14. 6	46. 5	19. 13	·1103					
14. 36	38. 35	19. 45	·1101					
	(†)	20. 30	·1093					
16. 25	48. 5	20. 53	·1093					
16. 47	45. 40	21. 8	·1088					
17. 19	43. 40	21. 15	·1089					
17. 38	44. 30	21. 36	·1088					
17. 53	44. 5	21. 47	·1088					
	***	22. 1	·1082					
18. 26	46. 55	22. 26	·1084					
18. 47	45. 25	22. 38	·1080					
18. 57	46. 10	22. 47	·1085					
19. 24	47. 0	22. 54	·1082					
19. 32	45. 55	23. 8	·1087					
19. 45	47. 5	23. 15	·1086					
19. 57	46. 0	23. 25	·1084					
20. 16	45. 55	23. 52	·1094					
	***	23. 59	·1094					
20. 45	47. 0							
21. 9	46. 5							
21. 15	47. 0							
21. 38	47. 10							
22. 45	55. 10							
22. 53	55. 0							
23. 6	56. 30							
23. 25	56. 5							
23. 39	57. 5							
23. 59	56. 20							
Mar.22		Mar.22		Mar.22		Mar.22		
0. 0	20. 56. 20	0. 0	·1094	0. 0	·00988	9. 0	55 ·0	56 ·0
0. 16	55. 0	0. 16	·1093	2. 0	·01093	21. 0	50 ·9	51 ·2
0. 39	56. 15	0. 38	·1102	2. 27	·01087			
1. 13	56. 0	1. 1	·1103	5. 18	·00840			
1. 24	56. 35	1. 17	·1097	6. 24	·00805			
2. 0	52. 45	1. 26	·1102	6. 53	·00750			
2. 15	52. 40	2. 2	·1102	8. 37	·00608			
2. 26	54. 35	2. 14	·1103	9. 45	·00575			
2. 55	53. 0	2. 30	·1110	10. 55	·00500			
3. 11	51. 30	2. 52	·1103	11. 22	·00445			

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. OfH.F. Magnet.	OfV.F. Magnet.
Mar.22		Mar.22		Mar.22				
h m	o ′ ″	h m		h m		h m	o	o
3. 35	20. 52. 55	3. 14	·1101	11. 54	·00427			
4. 35	51. 55	3. 37	·1106	15. 10	·00470			
5. 4	52. 0		***	17. 30	·00525			
5. 15	50. 15	5. 7	·1105	20. 14	·00663			
5. 38	50. 0	5. 20	·1099		(†)			
5. 57	49. 20	5. 29	·1099	21. 0	·00771*			
6. 4	45. 0	5. 59	·1083	23. 59	·00900			
6. 11	43. 35	6. 30	·1108					
6. 17	41. 5	6. 52	·1095					
6. 28	41. 45	7. 9	·1102					
6. 46	47. 30	7. 21	·1100					
7. 6	45. 35	7. 45	·1104					
7. 22	47. 55	7. 53	·1102					
7. 31	47. 25	8. 10	·1108					
7. 47	49. 0	8. 30	·1090					
7. 56	47. 0	8. 44	·1093					
8. 4	46. 10	9. 9 :	·1086					
8. 16	50. 45	9. 44	·1101					
8. 35	48. 35	9. 55	·1099					
9. 9	46. 10	10. 7	·1100					
9. 22	46. 45	10. 15	·1097					
9. 36	46. 0	10. 36	·1095					
9. 47	47. 0	10. 44	·1107					
9. 58	46. 0	11. 7	·1116					
10. 12	47. 40	11. 22	·1096					
10. 23	47. 0	11. 38	·1103					
10. 27	47. 15	11. 54	·1082					
10. 37	45. 20	12. 7	·1094					
10. 42	48. 25	12. 15	·1093					
10. 47	47. 0	12. 24	·1087					
10. 58	43. 0	12. 33	·1090					
11. 15	43. 50	12. 45	·1086					
11. 28	39. 55	12. 55	·1092					
11. 37	42. 40	13. 6	·1086					
11. 49	43. 35	13. 20	·1090					
11. 54	40. 20	13. 45	·1086					
12. 6	43. 5	15. 3	·1092					
12. 26	41. 50	15. 18	·1090					
12. 41	37. 30	15. 32	·1092					
12. 52	38. 30		(†)					
13. 1	36. 35	17. 36	·1093					
13. 25	35. 30	18. 2	·1092					
13. 39	39. 25	18. 19	·1094					
13. 58	38. 5	18. 45	·1090					
14. 23	41. 0		***					
14. 55	42. 0	20. 37	·1091					
15. 0	43. 35	21. 0	·1081					
15. 22	43. 55	21. 25	·1080					
15. 47	46. 0	21. 38	·1088					
16. 14	44. 5	22. 0	·1091					
16. 35	43. 55	22. 40	·1089					
16. 45	45. 10	23. 18	·1091					
17. 55	46. 5	23. 30	·1095					
18. 10	44. 30	23. 59	·1096					
18. 18	45. 30							
19. 9	45. 35							
19. 54	43. 25							
20. 22	44. 20							

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

March 21. The photographic cylinder, around which the paper is wrapped for recording the Horizontal Force and Declination traces, was stopped from 14^h.36^m to 16^h.25^m.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
h m	o ′ ″	h m		h m		h m	o	o
Mar.22								
20. 32	20. 43. 30							
20. 41	45. 0							
20. 55	44. 5							
21. 24	47. 0							
21. 56	47. 5							
	***							
22. 35	49. 20							
22. 55	51. 30							
23. 40	56. 0							
23. 49	55. 10							
23. 53	56. 50							
23. 59	57. 5							
Mar.23		**Mar.23**		**Mar.23**		**Mar.23**		
0. 0	20. 57. 5	0. 0	·1096	0. 0	·00900	1. 0	53 ·5	54 ·8
0. 13	57. 0	0. 23	·1099	2. 0	·00883	3. 0	57 ·0	59 ·8
0. 21	58. 20	0. 37	·1096	4. 47	·00547	9. 0	61 ·0	62 ·0
0. 37	56. 35		***	5. 51	·00490	21. 0	52 ·6	53 ·0
0. 52	56. 5	1. 35	·1108	6. 5	·00497			
0. 56	54. 20	1. 48	·1101	6. 24	·00475			
1. 17	58. 0	2. 22	·1122	7. 10	·00457			
1. 30	58. 35	2. 46	·1120	7. 39	·00478			
1. 45	56. 5	3. 8	·1105	8. 44	·00470			
2. 6	58. 15	3. 26	·1110		(†)			
2. 11	57. 40	3. 31	·1106	9. 0	·00454*			
2. 16	58. 55	3. 42	·1104	10. 4	·00380			
2. 27	57. 40	3. 51	·1108	10. 45	·00398			
2. 38	57. 35	3. 56	·1105	11. 9	·00340			
3. 2	53. 10	4. 3	·1113	11. 39	·00340			
3. 20	56. 10	4. 13	·1115	12. 20	·00387			
3. 30	53. 35	4. 22	·1112	13. 19	·00418			
3. 39	53. 0	4. 43	·1121	13. 40	·00412			
3. 47	53. 35	4. 57	·1111	14. 15	·00453			
4. 20	51. 45	5. 24	·1138		(†)			
4. 26	52. 50	5. 32	·1134	21. 0	·00820*			
4. 37	53. 20	5. 43	·1137	21. 36	·00765			
4. 50	51. 55	6. 1	·1118	23. 4	00810			
4. 55	49. 0	6. 15	·1130	23. 59	·00797			
5. 15	45. 5	6. 30	·1106					
5. 22	46. 40	6. 48	·1120					
5. 26	46. 0		***					
5. 38	47. 55	7. 7	·1119					
6. 6	40. 30	7. 23	·1112					
6. 22	45. 0	7. 49	·1115					
6. 30	41. 5	7. 55	·1121					
6. 42	40. 20	8. 9	·1104					
6. 56	46. 20	8. 22	·1102					
7. 6	47. 30	8. 41	·1120					
7. 26	43. 55	8. 47	·1114					
7. 35	45. 30	9. 3	·1110					
7. 50	40. 0	9. 28	·1098					
7. 54	42. 5	9. 46	·1106					
8. 5	44. 45	10. 1	·1100					
8. 9	43. 30	10. 13	·1089					
8. 15	43. 40	10. 20	·1093					
8. 23	41. 50	10. 28	·1089					
8. 35	41. 30	10. 52	·1150					
8. 39	43. 50	11. 6	·1124					

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
h m	o ′ ″	h m		h m		h m	o	o
Mar.23		**Mar.23**						
8. 54	20. 42. 25	11. 38	·1102					
8. 58	40. 55	12. 22	·1106					
9. 21	38. 40	12. 30	·1103					
9. 31	39. 30	12. 39	·1104					
9. 43	44. 0	12. 52	·1096					
10. 0	45. 40	13. 11	·1108					
10. 21	39. 45	13. 38	·1101					
10. 30	39. 5	13. 51	·1109					
10. 45	30. 20	14. 23	·1099					
11. 1	44. 10	14. 45	·1103					
11. 10	43. 0	15. 5	·1101					
11. 21	44. 35		***					
12. 5	36. 0	15. 54	·1101					
13. 6	40. 10	16. 15	·1103					
13. 23	47. 5	17. 1	·1095					
13. 40	41. 45	17. 26	·1093					
14. 4	42. 35	17. 59	·1097					
14. 23	39. 25	18. 9	·1096					
14. 33	41. 15	18. 48	·1101					
14. 53	41. 0	19. 2	·1097					
15. 6	39. 5	19. 25	·1099					
16. 3	41. 0	19. 55	·1096					
17. 0	43. 40	20. 5	·1090					
17. 14	46. 0	20. 58	·1088					
17. 33	47. 15	21. 37	·1094					
17. 43	46. 25	22. 41	·1097					
17. 54	48. 0	23. 8	·1102					
18. 3	46. 55	23. 26	·1099					
18. 34	46. 35	23. 59	·1098					
18. 39	47. 20							
18. 50	45. 0							
18. 54	46. 55							
19. 7	43. 50							
19. 18	44. 40							
19. 45	44. 5							
19. 53	44. 55							
20. 0	43. 25							
20. 15	43. 10							
20. 32	45. 0							
21. 7	44. 20							
22. 9	48. 40							
22. 24	51. 0							
23. 1	53. 0							
23. 59	53. 45							
Mar.24		**Mar.24**		**Mar.24**		**Mar.24**		
0. 0	20. 53. 45	0. 0	·1098	0. 0	·00797	1. 0	56 ·3	57 ·0
0. 38	56. 55	0. 6	·1098	0. 54	·00742	3. 0	58 ·5	59 ·0
0. 53	55. 10	0. 26	·1102	2. 12	·00724	9. 0	59 ·8	59 ·7
1. 9	54. 35	0. 31	·1100	4. 8	·00467	21. 0	49 ·8	50 ·0
1. 30	55. 40	0. 42	·1103	5. 34	·00440	22. 0	49 ·9	50 ·0
1. 49	52. 55	0. 52	·1098	6. 5	·00443	23. 0	50 ·5	51 ·0
2. 3	53. 0	1. 9	·1098	8. 0	·00360			
2. 25	51. 5	1. 37	·1103	10. 27	·00318			
2. 50	52. 20	1. 52	·1097	11. 27	·00327			
3. 0	51. 10	2. 6	·1101	12. 25	·00320			
3. 14	52. 15	2. 20	·1098	15. 13	·00466			
3. 52	49. 40	2. 55	·1106	17. 14	·00650			
					(†)			

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet.	Of V.F. Magnet.
Mar.24	Mar.24	Mar.24		Mar.24				
h m	° ′ ″	h m		h m		h m	°	°
4. 5	20.51. 0	3. 7	.1104	21. 0	.00820*			
4.11	50. 0	3.22	.1107					
4.19	51. 0	3.53	.1097					
4.52	49.55	4.12	.1102					
5. 6	50.35	4.19	.1101					
5.26	47.25	4.32	.1104					
5.33	42.55	4.55	.1102					
5.52	39.30	5.13	.1105					
6.19	45.55	5.37	.1092					
6.32	43.10	6.17	.1109					
6.48	45.30	6.31	.1101					
7. 9	45.50	6.46	.1107					
7.48	46.30	7. 1	.1099					
8. 0	47.30	7.22	.1100					
8. 9	46.40	7.27	.1099					
8.22	48. 5	7.52	.1099					
8.34	47. 0	8. 5	.1092					
8.49	47.30	8.13	.1095					
9.16	45.35	8.26	.1090					
9.27	46.45	8.46	.1095					
***		9.11	.1089					
9.53	49.10	9.25	.1095					
10. 8	47. 0	9.58	.1093					
10.15	41.55	10.12	.1086					
10.26	43.10	10.23	.1094					
10.36	43.50	10.38	.1090					
10.39	44.35	11. 8	.1089					
11. 2	42.45	11.46	.1112					
11.16	42.50	12. 0	.1100					
11.23	41. 0	12. 9	.1101					
11.35	43. 0	12.21	.1094					
11.47	41. 0	12.37	.1098					
11.59	43.45	12.47	.1097					
12.11	41.35	13. 1	.1093					
12.21	41. 5	13.34	.1095					
12.38	38.30	13.47	.1094					
13. 7	43.35	14.25	.1097					
***		14.43	.1100					
14. 8	40. 0	15.11	.1098					
14.19	42.20	15.30	.1107					
14.35	41.10	16. 2	.1113					
14.43	43.10	16.15	.1109					
14.53	41.55	16.23	.1110					
15. 0	44.45	17. 2	.1102					
15.14	44.10	17.26	.1106					
15.37	47. 0	17.31	.1103					
15.58	42.10	17.41	.1103					
16.48	43.55	18.11	.1093					
17.11	42.50	18.23	.1096					
***		18.48	.1091					
17.49	45. 0		***					
18.25	47.55	19.52	.1099					
18.39	45. 5	20. 1	.1097					
18.49	48.10	20.12	.1098					
19. 9	48.25	20.20	.1096					
19.35	49.40	20.26	.1097					
***		20.45	.1093					
20.10	47. 0	21. 3	.1098					

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet.	Of V.F. Magnet.
Mar.24	Mar.24	Mar.24						
h m	° ′ ″	h m		h m		h m	°	°
20.16	20.47.25	21.22	.1098					
20.24	46.40	21.44	.1092					
20.53	47.45	22.12	.1091					
21.22	46. 0		***					
***		22.45	.1092					
22. 2	49.50	23. 5	.1089					
22.30	51. 0	23.15	.1084					
***		23.52	.1104					
23.26	55.20	23.59	.1102					
23.47	52.25							
23.59	54.25							
Mar.25	Mar.25	Mar.25		Mar.25		Mar.25		
h m				h m		h m	°	°
0. 0	20.54.25	0. 0	.1102		(†)	0. 0	52 .0	52 .0
0.15	56. 5		(†)	1. 0	.00978*	1. 0	52 .9	54 .0
0.33	57.15	0.28	.1101	1.13	.00987	2. 0	54 .2	55 .2
0.58	57.25	0.42	.1100	2. 8	.00943	3. 0	55 .5	56 .5
1. 6	56.10	1. 4	.1101	2.53	.00930	6. 0	58 .0	58 .7
1.42	58.55	1. 5	.1098	4.54:	.00680	9. 0	58 .2	58 .8
2. 1	57.55	1.33	.1097	6.31	.00617	12. 0	56 .5	57 .0
2.27	54.20	1.44	.1102	7.38:	.00493	18. 0	51 .2	51 .0
2.45	57. 0	2.20	.1089	10.25	.00460	21. 0	49 .5	49 .5
2.56	56.55	2.29	.1088	10.48	.00440	22. 0	50 .2	50 .6
3. 5	54.50	2.43	.1089	15. 0	.00605	23. 0	51 .2	51 .8
3.34	52.25	3. 8	.1103	16.40	.00747			
4.25	50.40	3.44	.1088	18.35	.00870			
5. 9	50.50	4.57	.1107	20.55	.00945			
5.30	49. 5	5.23	.1107		(†)			
5.53	49.30	5.36	.1106	21. 0	.00950*			
6.16	47.35	5.48	.1107					
6.29	48.50	6.23	.1097					
6.47	36.35	6.47	.1105					
6.58	40.40	7. 2	.1133					
7. 4	40.25	7.30	.1104					
7.18	44.55	7.38	.1112					
7.26	42.50	7.47	.1094					
7.34	48.30	8. 7	.1092					
7.52	48.15	8.38	.1102					
8. 6	47.10	8.53	.1103					
9. 7	47.45	9.15	.1100					
9.32	45.55	9.25	.1101					
9.48	42. 5	9.45	.1095					
10. 0	43. 5	9.52	.1095					
10.17	49.35	10. 4	.1090					
10.23	48.40	10. 9	.1093					
10.36	54.25	10.17	.1089					
10.51	49.35	10.28	.1105					
11. 7	41. 0	10.46	.1094					
11.27	39. 0	11.10	.1090					
11.57	40.35	11.37	.1104					
12. 8	39.20	12. 0	.1099					
12.22	41. 0	12. 5	.1099					
12.35	40.50	12.19	.1092					
12.48	42.20	12.29	.1092					
13. 0	42.50	12.50	.1100					
13.24	41.30	13.44	.1100					
13.51	42.30	14. 1	.1102					
14.12	40. 0	14.16	.1098					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Mar.25		Mar.25						
14.50	20.47.5	14.36	.1097					
15.21	38.0	15.6	.1097					
15.35	38.30	15.29	.1101					
15.45	41.20	15.53	.1101					
16.7	41.40	16.8	.1104					
16.22	40.5	16.32	.1105					
***		16.46	.1103					
17.37	45.0	16.58	.1104					
18.0	44.0	17.29	.1101					
***		18.0	.1101					
19.14	42.10	19.20	.1103					
19.22	43.30	19.53	.1098					
***		20.7	.1098					
19.57	42.35	20.29	.1096					
20.42	44.25	20.46	.1098					
20.54	46.5	20.57	.1096					
21.8	45.35	21.5	.1099					
22.3	51.20	21.22	.1091					
22.11	50.40	21.34	.1092					
22.16	52.25		***					
22.53	53.45	22.15	.1083					
23.19	55.30		***					
23.39	55.50	23.25	.1079					
23.44	57.30	23.39	.1085					
23.59	55.45	23.50	.1082					
			(†)					
Mar.26		Mar.26		Mar.26		Mar.26		
0.0	20.55.45		(†)		(†)	0.0	53.2	54.0
0.10	56.35	0.2	.1081	1.0	.00964*	1.0	54.0	54.8
0.38	53.55	0.17	.1088	1.37	.00900	2.0	55.5	56.5
0.49	54.40	0.42	.1084	3.18	.00810	3.0	57.0	58.2
0.54	54.20	1.12	.1088	4.31	.00660	9.0	59.0	58.1
1.43	53.55	1.34	.1104	6.56	.00440	21.0	48.0	48.0
2.2	56.50	2.2	.1110	8.30	.00380			
2.16	57.10	2.14	.1105	11.40	.00400			
2.20	55.0	2.37	.1106	14.2	.00550			
2.40	53.50	3.23	.1111	17.28	.00827			
3.24	53.50	3.58	.1108	20.45	.01000			
4.10	49.50	4.16	.1113	21.7	.00960			
4.42	50.0	4.28	.1112	23.59	.01080			
5.32	47.40	4.59	.1117					
6.28:	47.45	5.30	.1116					
7.9	44.10	6.16	.1123					
7.30:	46.5	6.53	.1113					
7.37	47.0	7.13	.1118					
8.18	47.30		***					
8.36	44.55	8.22	.1112					
9.44	48.0	8.44	.1115					
10.33	46.55	9.14	.1110					
11.7	44.0	9.34	.1114					
11.26	45.20	9.58	.1112					
11.43	39.20	10.52	.1117					
11.52	39.35	11.7	.1113					
12.0	38.10	11.15	.1116					
12.53	45.0	11.21	.1114					
13.9	45.30	11.31	.1125					
13.29	41.55	12.14	.1105					

Right half:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Mar.26		Mar.26						
14.10	20.44.0	12.36	.1101					
***		12.54	.1101					
14.59	40.55	13.12	.1107					
***		13.41	.1103					
16.11	43.40	13.56	.1107					
***		14.23	.1108					
17.30	44.0	14.38	.1121					
18.9	42.55	14.58	.1121					
18.44	44.5	15.30	.1113					
19.22	42.55		***					
20.10	42.35	18.0	.1112					
20.23	43.10	18.26	.1115					
20.36	42.30	19.18	.1108					
21.37	45.35	20.39	.1100					
21.48	45.0	20.48	.1101					
22.9	47.25	22.0	.1091					
22.25	47.0	22.14	.1094					
23.54	51.55	22.35	.1091					
23.59	52.15	23.12	.1092					
		23.57	.1099					
		23.59	.1102					
Mar.27		Mar.27		Mar.27		Mar.27		
0.0	20.52.15	0.0	.1102	0.0	.01080	1.0	51.0	51.5
1.19	52.5	0.15	.1102	3.30	.01130	3.0	53.8	55.1
1.35	52.25	0.34	.1105	5.11	.00975	9.0	55.9	55.9
1.54	51.30	0.50	.1105	8.14	.00833	21.0	49.9	50.3
2.16	52.55	0.56	.1112	11.15	.00820			
2.37	51.45	1.19	.1114	12.38	.00870			
2.52	52.0	1.30	.1116	15.56	.01088			
3.9	50.30	2.0	.1123	16.18	.01080			
3.32	50.35	2.46	.1118	19.12	.01180			
3.54	48.40	3.18	.1125	20.33	.01085			
4.33	48.40	3.47	.1116	21.45	.01035			
5.4	48.0	4.46	.1128	23.0	.01076			
5.40	48.55	5.23	.1128		(†)			
6.48	45.20	6.42	.1108	23.59	.01090			
7.25	48.0	6.57	.1111					
7.43	48.5	7.30	.1110					
8.0	49.25	7.56	.1116					
8.32	47.20	8.38	.1112					
9.5	48.55	8.47	.1115					
9.19	48.0	8.53	.1113					
9.51	48.5	9.16	.1110					
10.18	47.0	9.45	.1116					
10.49	47.40	10.15	.1112					
11.9	46.55	10.57	.1117					
11.25	47.10	11.38	.1116					
11.42	45.30	11.46	.1118					
11.54	46.35	12.5	.1119					
12.27	39.55	12.15	.1127					
12.47	40.45	13.8	.1106					
13.25	37.40	13.30	.1116					
14.35	39.0	14.4	.1109					
14.47	38.30	14.32	.1110					
15.22	41.30	14.47	.1106					
15.49	48.50	15.27	.1103					
16.31	41.20	15.53	.1117					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Mar.27		Mar.27						
h m	o ' "	h m		h m		h m	o	o
16.51	20.39.55	16.13	·1114					
17. 7	41. 0	16.27	·1117					
18.14	41.55	17. 4	·1113					
18.31	41. 5	17.23	·1112					
18.43	42. 0	18. 2	·1114					
18.52	41.15	18.20	·1112					
18.58	41.55	18.39	·1113					
19.58	39.20	19.29	·1105					
20.27	41. 0	20.13	·1103					
20.36	40.20	20.59	·1100					
20.54	41. 5	21.26	·1103					
21.47	46.30	21.45	·1097					
21.56	48.50	22. 0	·1098					
22. 3	48. 5	22.45	·1098					
22.31	51.40	23. 1	·1095					
22.58	53.10	23.25	·1100					
23.21	55.30	23.59	·1100					
23.59	56. 5							
Mar.28		Mar.28		Mar.28		Mar.28		
0. 0	20.56. 5	0. 0	·1100	0. 0	·01090	1. 0	54·0	52·5
0.30	56.10	0.16	·1099	2. 1	·01063	3. 0	56·6	54·2
0.46	59. 0	0.30	·1099	2.25	·01088	9. 0	57·2	55·4
1. 8	59. 5	0.51	·1106	3.18 {	·01100 / ·01170	21. 0	53·0	52·6
1.53	55.45	1.13	·1106					
2.23	55.45		(†)	3.45:	·01168			
2.37	54. 0	2.25	·1109	4.19	·01080			
3. 3	53.30	2.43	·1108	5.40	·01000			
3.20	54.45	3.33	·1126	6. 0:	·01020			
3.33	53.45	3.43	·1125	6.35	·00990			
3.45	54.30	3.55	·1128	6.41	·01000			
4. 3	51. 5	4.12	·1116	8. 0	·00942			
4.23	51.55	4.45	·1124	9.13 {	·00920 / ·00980			
4.47	50.25	5.14	·1123					
5.18	50.20	5.27	·1126	12.45	·00940			
5.28	48.35	5.44	·1108	13.15	·00955			
5.38	42.20	6. 9	·1133	17.45	·00980			
5.52	39.25	6.35	·1112	18.23	·01020			
6.17	43.40	6.45	·1126	21. 0	·01060			
6.31	40.20	7. 7	·1110	23.59	·01085			
7.17	48. 0	7.26	·1110					
7.58	47.45	7.37	·1115					
8.10	46.40	8. 3	·1118					
8.25	47.25	8.17	·1127					
9. 0	47.10	8.34	·1118					
9.24	46. 0	9.17	·1117					
10. 9	47.10	9.24	·1120					
11.24	46. 5		***					
11.51	48.35	10.11	·1119					
12.10	41.35	10.23	·1117					
12.21	40.50	10.47	·1123					
12.41	36. 0	11. 8	·1119					
13.15	41.35	11.15	·1120					
13.23	41.10	11.28	·1116					
13.47	43.35	11.43	·1116					
14.25	43.10	11.52	·1111					
14.39	44.35	12. 6	·1111					

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Mar.28		Mar.28						
h m	o ' "	h m		h m		h m	o	o
15. 8	20.43.50	12.17	·1118					
15.16	40.35	12.32	·1109					
15.32	39.50	12.48	·1106					
15.39	41.10	13.13	·1109					
16. 4	40.30	13.21	·1107					
16.11	41.35	13.43	·1109					
16.30	40.10	13.51	·1112					
16.53	43.20	14.23	·1111					
17. 7	43. 5	14.44	·1112					
17.38	39.25	14.53	·1114					
17.57	40.50	15. 4	·1113					
18.25	45.10	15.18	·1115					
19. 0	41.20	15.40	·1113					
19. 7	41.45	16. 9	·1119					
19.53	41. 5	16.26	·1111					
20.28	43.10	16.59	·1111					
20.38	42.25	17.16	·1117					
20.47	43.55	17.50	·1099					
21.10	46. 0	18.22	·1110					
21.40	46.25	18.58	·1110					
21.48	48. 0	20.15	·1101					
23.39	54.50	20.25	·1097					
23.53	54.40	20.35	·1099					
23.59	55.30	21. 2	·1092					
		21.22	·1090					
		21.44	·1088					
		22. 4	·1085					
		22.58	·1084					
		23.36	·1091					
		23.45	·1088					
		23.59	·1094					
Mar.29		Mar.29		Mar.29		Mar.29		
0. 0	20.55.30	0. 0	·1094	0. 0	·01085	8.30	55·8	54·5
0.10	57.25	0.10	·1097	2.49	·01155	21. 0	53·0	53·0
0.20	56.30	0.20	·1093	5.53	·01155			
0.28	58.10	0.31	·1099	6.27	·01175			
1.19	57.45	0.43	·1095	8.52	·01107			
1.27	56. 0	0.53	·1098	11.23	·01080			
1.39	56.55	1.16	·1099	14.56	·01085			
2. 5	57.25	1.29	·1094	15.27	·01050			
2.31	53. 0	2. 9	·1108	19.30	·01150			
2.42	54.20	2.31	·1101	22.30	·01147			
3. 0	53.40	2.41	·1104	23.59	·01153			
3.10	52. 5	2.48	·1111					
3.22	52. 0	3. 8	·1114					
3.50	49.40	3.16	·1111					
4. 2	50. 0	3.28	·1112					
5.24	48.30	3.42	·1106					
5.43	46.25	3.55	·1106					
6.19	37.25	4. 4	·1112					
6.47	40. 0	4.26	·1115					
6.57	39.35	4.38	·1121					
7.12	42.50	5. 9	·1115					
8.21	44. 5	5.17	·1115					
9.11	34. 0	5.26	·1113					
10. 3	38.50	5.56	·1111					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Mar. 29

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
h m	° ′ ″	h m		h m		h m	°	°
10. 18	20. 37. 35	6. 31	·1120					
10. 57	43. 50	6. 57	·1106					
11. 12	43. 20	7. 17	·1115					
12. 17	48. 0	7. 31	·1108					
13. 10	48. 0	7. 59	·1103					
13. 38	42. 45	8. 7	·1104					
14. 10	46. 55	8. 16	·1100					
14. 35	42. 50	8. 30	·1098					
14. 57	48. 35	8. 45	·1098					
15. 22	39. 30	8. 59	·1097					
15. 46	39. 5	9. 9	·1092					
16. 12	41. 15	9. 36	·1094					
17. 11	40. 25	9. 43	·1092					
17. 37	43. 15	10. 1	·1094					
17. 49	41. 0	10. 13	·1092					
17. 55	42. 20	10. 42	·1099					
18. 34	42. 10	10. 58	·1098					
18. 52	40. 50	11. 26	·1103					
	***	11. 41	·1102					
20. 23	42. 0	11. 53	·1104					
21. 26	44. 30	12. 15	·1106					
21. 47	47. 0	13. 8	·1106					
22. 21	48. 25	13. 23	·1108					
22. 46	51. 45	13. 34	·1105					
23. 17	53. 35	14. 4	·1105					
23. 23	56. 5	14. 24	·1109					
23. 51	54. 30	14. 55	·1111					
23. 59	54. 10	15. 15	·1118					
		15. 43	·1117					
		15. 54	·1114					
		16. 1	·1115					
		16. 9	·1113					
		16. 46	·1111					
		17. 46	·1116					
		18. 1	·1107					
		18. 13	·1111					
		18. 28	·1109					
		18. 32	·1107					
		18. 46	·1107					
		19. 0	·1104					
		19. 20	·1107					
		19. 50	·1104					
		20. 7	·1100					
		20. 27	·1096					
		20. 33	·1099					
		20. 41	·1096					
		20. 55	·1097					
		21. 20	·1092					
		21. 45	·1092					
		21. 59	·1096					
		22. 41	·1074					
		22. 53	·1079					
		22. 58	·1079					
		23. 22	·1095					
		23. 38	·1092					
		23. 52	·1095					
		23. 59	·1095					

Mar. 30

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
h m	° ′ ″	h m		h m		h m	°	°
0. 0	20. 54. 10	0. 0	·1095	0. 0	·01153	1. 0	55 ·0	54 ·0
0. 7	54. 0	0. 7	·1095	1. 27	·01150	3. 0	56 ·1	55 ·3
0. 57	57. 55	0. 22	·1107	2. 23	·01190	9. 0	54 ·8	53 ·0
1. 26	57. 55	0. 27	·1106	3. 0	·01173	21. 0	48 ·0	48 ·0
1. 35	56. 40	0. 55	·1111	3. 10	·01195			
	(†)		(†)	3. 57	·01180			
2. 8	55. 10	1. 0	·1115*	4. 16	·01144			
2. 13	54. 15	1. 18	·1112	4. 40	·01137			
2. 19	55. 0	1. 31	·1102	5. 30	·01086			
2. 26	53. 30	1. 46	·1119	6. 27	·01070			
2. 35	55. 5	1. 53	·1115	9. 55	·01127			
	(†)	2. 0	·1118	10. 21	·01120			
3. 0	57. 53*	2. 9	·1114	12. 30	·01140			
4. 0	52. 0	2. 16	·1121	13. 48	·01147			
4. 28	49. 0	2. 26	·1114	14. 55	·01130			
5. 7	48. 40	2. 32	·1121	16. 10	·01170			
6. 40	45. 35	2. 45	·1122	19. 15	{ ·01190 / ·01120 }			
8. 0	44. 0	2. 52	·1115	21. 8	·01140			
8. 21	44. 10	3. 6	·1126	21. 25	·01100			
9. 3	40. 15	3. 17	·1112	22. 29	·01083			
9. 16	41. 40	3. 47	·1102	23. 40	·01120			
9. 29	40. 50	3. 55	·1105		(†)			
9. 42	35. 55	4. 12	·1079					
9. 54	41. 30	4. 41	·1095					
10. 13	45. 25	5. 11	·1099					
10. 30	42. 5	5. 30	·1098					
10. 48	42. 40	5. 54	·1104					
11. 14	40. 30	6. 18	·1102					
11. 27	38. 45	6. 30	·1107					
11. 46	40. 20	6. 46	·1106					
12. 12	37. 20	7. 10	·1108					
12. 21	38. 50	7. 21	·1107					
12. 52	37. 30	7. 50	·1108					
13. 19	44. 55	8. 3	·1106					
13. 37	44. 0	8. 22	·1107					
13. 49	45. 55	8. 45	·1105					
14. 12	40. 30	9. 0	·1101					
14. 27	43. 20	9. 17	·1104					
14. 59	42. 0	9. 36	·1103					
15. 27	43. 0	9. 48	·1122					
15. 52	46. 0	10. 6	·1119					
16. 4	47. 55	10. 17	·1106					
16. 13	46. 30	10. 33	·1113					
16. 31	45. 40	10. 50	·1112					
16. 58	47. 0	11. 22	·1103					
17. 23	44. 25	11. 38	·1108					
17. 37	44. 35	11. 54	·1108					
17. 53	43. 5	12. 9	·1102					
18. 21	43. 50	12. 37	·1109					
18. 30	43. 0	12. 57	·1104					
18. 42	44. 40	13. 15	·1094					
18. 53	43. 15	13. 49	·1117					
19. 0	44. 0	14. 18	·1116					
19. 5	42. 20	14. 32	·1118					
19. 23	42. 5	14. 54	·1104					
19. 28	43. 5	15. 12	·1108					
19. 36	41. 50	15. 31	·1098					
	***	15. 44	·1095					
		16. 40	·1117					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Mar.30		Mar.30						
h m	o ′ ″	h m		h m		h m	o	o
20.37	20.43. 0	17.22	·1117					
20.45	44.15	17.34	·1118					
21.28	41. 5	17.48	·1116					
21.39	47. 5	18. 7	·1117					
22.27	49.55	18.31	·1111					
22.38	49.40	18.43	·1114					
23.59	54. 0	18.56	·1108					
		19. 1	·1109					
		19.10	·1104					
		19.24	·1106					
		19.38	·1101					
		20.37	·1099					
		20.47	·1101					
		21.30:	·1095					
		21.49	·1103					
		22.12	·1104					
		22.27	·1102					
		22.34	·1098					
		22.45	·1101					
		23.22	·1097					
		23.59	·1097					
Mar.31		Mar.31		Mar.31		Mar.31		
0. 0	20.54. 0	0. 0	·1097		(†)	1. 0	51·6	50·6
0.16	54.55	0.13	·1097	0.14	·01140	3. 0	55·5	56·0
0.28	53.55	0.17	·1100	1.26	·01160	9. 0	53·1	54·0
0.37	56.50	0.24	·1108	2.41:	·01170	21. 0	43·0	44·0
0.44	55.20		***	4.10	·01065	22. 0	43·8	44·0
0.54	56. 5	1. 2	·1107	5. 0	·01050	23. 0	45·0	46·0
1. 3	55. 0	1. 9	·1113	5.48	{·00988 / ·01037}			
1.32	52.25	1.27	·1114					
1.38	54. 0	1.41	·1122	7.27:	·00920			
1.51	52.25	2. 8	·1127	8.55	{·00895 / ·00927}			
2. 2	54. 0	2.16	·1119					
2.12	52. 0	2.42	·1128	10.48	·00913			
2.26	52.35		***	12.43	·00980			
3.10	52.10	3.15	·1126	16. 5	·01140			
3.21	51.25	3.31	·1118	19.35	·01206			
4.45	47. 5	3.45	·1118	20.30	·01210			
5. 0	48. 5	4. 0	·1126	22.10	·01207			
5.10	46.55	4.20	·1121	23.43	·01260			
6. 1	44.40	4.39	·1126	23.59	·01253			
6.28	45. 0	4.50	·1123					
6.46	43.25	5. 7	·1127					
6.59	43.55	5.17	·1118					
7.11	43. 0	5.48	·1124					
8.16	44. 0	5.53	·1127					
8.37	42.55	6.12	·1127					
8.58	43.55	6.52:	·1119					
9.25	43.10	7.30	·1128					
9.40	44.40	7.55	·1121					
10. 5	44. 0	8.15	·1124					
10.26	45.30	8.30	·1119					
	***	9.17	·1123					
11.13	44. 5	9.28	·1121					
	***	9.38	·1125					
12.13	45. 0	10. 1	·1125					
	***	10. 8	·1127					

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Mar.31		Mar.31						
h m	o ′ ″	h m		h m		h m	o	o
13.13	20.44.45	11.22	·1130					
14.30	46. 0	11.54	·1126					
15.38	45.10	12. 4	·1127					
15.52	44. 0	12.53	·1125					
	***	13. 2	·1122					
16.49	45.40	13.11	·1124					
17.10	43.15	13.51	·1120					
17.24	44.55	13.59	·1122					
17.37	43. 5	14.38	·1120					
17.54	44.10	15.40	·1126					
18.15	42. 0	15.55	·1124					
18.37	42.25	16. 7	·1126					
18.44	40.35	16.46	·1126					
19. 8	40.50	17. 4	·1133					
19.30	43.20	17.18	·1131					
19.39	41.45	17.27	·1135					
19.50	42.55	17.39	·1132					
20. 7	41.25	17.52	·1134					
20.25	43.40	18.14	·1128					
20.45	42.45	18.20	·1130					
21.50	44.40	18.39	·1131					
21.57	42.45	18.50	·1127					
22.18	47.40	19. 0	·1128					
22.37	47.10	19.13	·1123					
23. 5	49. 5	19.30	·1125					
23.17	50.55	19.45	·1118					
23.27	50. 5	20. 1	·1116					
23.50	55. 0	20.16	·1118					
23.59	54. 5	20.43	·1111					
		21.22	·1111					
		21.56	·1104					
		22. 7	·1113					
		22.36	·1103					
		22.44	·1109					
		22.52	·1108					
		23.12	·1121					
		23.27	·1116					
		23.37	·1123					
		23.40	·1121					
		23.49	·1130					
		23.59	·1119					
Apr. 1		Apr. 1		Apr. 1		Apr. 1		
0. 0	20.54. 5	0. 0	·1119	0. 0	·01253	0. 0	48·0	47·0
0.15	53. 5	0.15	·1108	2. 0	·01227	1. 0	49·5	48·5
0.24	55. 0	0.27	·1113	2.42	·01240	2. 0	52·0	51·0
0.39	53.50	0.38	·1109	3. 4	{·01217 / ·01270}	3. 0	53·6	52·8
0.51	55. 0	0.51	·1121			6. 0	56·2	53·4
0.59	54.10	0.57	·1119	4. 0	·01090	9. 0	55·0	52·0
1.29	53.15	1.22	·1128	7. 0	·00873	12. 0	52·0	50·0
1.39	53.50	1.27	·1125	9. 0	·00820	21. 0	44·0	44·8
1.56	53. 0	1.39	·1130	11.18	·00787	22. 0	44·8	45·0
2.15	55.10	1.52	·1127	11.55	·00810	23. 0	46·3	46·5
2.25	53. 5	2.13	·1150	12.33	·00770			
2.34	54.45	2.22	·1142	13.45	·00820			
3.10	52.10	2.34	·1150	15. 9	·00940			
3.23	53.45		***	18. 5	{·01110 / ·01138}			
3.38	53.40	3. 4	·1148					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet.	Of V.F. Magnet.
h m	o ' "	h m		h m		h m	o	o	h m	o ' "	h m		h m		h m	o	o
Apr. 1		Apr. 1		Apr. 1							Apr. 1						
3.49	20.50.20	3.40	.1152	19.55	.01225						18.58	.1122					
3.54	51.35	3.50	.1128	21. 7	.01232						19. 8	.1124					
4. 9	50.20	4.12	.1141		.01167						19.19	.1121					
4.19	47.50	4.16	.1135	23.36	.01320						19.45	.1118					
4.44	43.50	4.22	.1147	23.59	.01310						20. 3	.1113					
5.12	45. 5	4.36	.1146								20.20	.1114					
5.26	47.25	4.45	.1140								20.29	.1111					
5.31	46. 5	4.59	.1143								20.43	.1113					
6.45	46.50	5.15	.1145								20.52	.1108					
7. 3	46.30	5.25	.1149								21. 8	.1114					
7. 9	48. 0	5.32	.1149								21.23	.1114					
7.15	46.25	5.47	.1140									***					
7.45	44.35	5.53	.1144								22. 7	.1105					
8. 7	38.25	6.23	.1128								22.26	.1106					
8.22	35.25	6.47	.1129								22.37	.1102					
9. 3	39. 0	7. 0	.1127								22.54	.1105					
9.16	39.15	7.14	.1134								23. 1	.1101					
9.53	42. 0	7.30	.1129								23.25	.1111					
9.59	44.25	7.52	.1124								23.35	.1122					
10.14	43.30	8.19	.1134									***					
10.25	44. 0	8.43	.1131								23.56	.1106					
10.39	40.15	8.47	.1133								23.59	.1106					
11. 9	42.25	9. 0	.1122														
11.26	40. 0	9.13	.1136														
11.40	43. 5	9.26	.1137						Apr. 2		Apr. 2		Apr. 2		Apr. 2		
									0. 0	20.53.40	0. 0	.1106	0. 0	.01310	0. 0	49.2	49.0
11.50	41.55	9.34	.1131						0.20	53.50	0.13	.1108	1.22	.01270	1. 0	51.0	51.0
12.17	53. 0	9.40	.1133						0.36	52.30	0.25	.1106	1.57	.01290	2. 0	53.3	53.7
12.31	49.50	10. 7	.1124						0.42	53. 0	0.30	.1107	3.17	.01110	3. 0	55.0	55.5
	***	10.28	.1120						0.58	51.55	0.43	.1111	4.54	.00940	9. 0	58.7	59.0
12.57	50.25	10.47	.1127						1. 8	53.55	0.59	.1111	8.37	.00740	22. 0	46.0	47.0
	***	10.55	.1124						2. 8	49.45	1. 8	.1117		.00750			
13.53	42.10	11. 1	.1125						2.49	49.15	1.22	.1116	10.20	.00730			
14.35	41. 5	11.28	.1116						3.11	47.40	1.25	.1120	11.40	.00740			
15.24	43. 0	11.55	.1152						3.20	48.25	1.30	.1116	13.53	.01120			
15.43	42.25	12. 4	.1136						3.36	47. 0	1.36	.1120	16.30	.01010			
16.16	43.35	12.15	.1141						4.12	46. 0	2.32	.1129	18.45	.01200			
16.41	44. 0	12.43:	.1124						4.39	46.10	2.49	.1137		(†)			
	***	13. 0	.1125						4.53	44.10	3. 6	.1140	22. 0	.01264			
18. 8	41.55	13. 8	.1121						5.19	42.25		(†)	22. 3	.01263			
18.48	43.15	13.12	.1122						5.36	42.55	3.40	.1138	23.59	.01340			
19. 0	41.30	13.17	.1120						5.53	41.25	4. 0	.1143					
19.19	41.35	13.43	.1127						6.22	41.55	4.15	.1140					
19.53	47.25	13.52	.1122						6.33	43.25	4.22	.1143					
	***	14. 6	.1125						7.53	45. 0	4.28	.1142					
20.38	44.40	14.18	.1121						7.58	45.45	4.44	.1146					
20.45	46. 0	14.39	.1119						8.13	44.15	4.56	.1136					
20.57	43.25	14.47	.1117						9.18	45.30	5.13	.1144					
21.23	44.10		***						9.29	44.40	5.47	.1136					
	***	15.20	.1125						9.36	45. 0	6.13	.1150					
21.53	47.40	16.11	.1124						11. 1	43.55	6.26	.1149					
22. 0	46. 0	16.16	.1127						12.22	44.55	6.34	.1151					
22.30	49.25	16.25	.1123						13.39	44.30	6.57	.1148					
	***	16.43	.1125							***	7.17	.1142					
23.31	51.40	17. 1	.1123						15.47	46.15	7.46	.1131					
23.40	54.40		***						16. 9	44.30	8. 3	.1134					
23.48	53.35	17.53	.1126							***	8.16	.1130					
23.59	53.40	18.24	.1130						17.27	44.40	8.25	.1132					
		18.48	.1128							***	8.53	.1131					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
Apr. 2 18.28	20. 42. 40 ***	Apr. 2 9.13	.1136								Apr. 3 13. 7	.1122					
		9.38	.1129								13.23	.1126					
18.55	40. 0	9.58	.1132								13.45	.1120					
19.13	43. 5	10. 8	.1130								14. 9	.1116					
19.23	42. 5	10.45	.1130								14.22	.1120					
19.31	43. 0	13.59	.1122								14.34	.1118					
19.47	40.40	15. 8	.1122								15.32	.1126					
19.55	41.45		(†)								15.40	.1125					
20.18	39.50	20.26	.1125								16.39	.1126					
20.33	41.25	21. 0	.1121								17. 3	.1129					
21.18	41.55	21.26	.1121								18.38	.1118					
21.58	45.40	21.32	.1112								19.17	.1128					
22.16	47.40	22.12	.1098								20.25	.1125					
22.38	48.25	22.25	.1098								21. 1	.1121					
22.58	51.15	22.43	.1101								21.15	.1122					
23.59	53.25	23. 0	.1112								21.52	.1116					
		23.47	.1114								22.33	.1112					
		23.59	.1120								23. 2	.1114					
											23.39	.1117					
											23.59	.1119					
Apr. 3 0. 0	20. 53. 25	Apr. 3 0. 0	.1120	Apr. 3 0. 0	.01340	Apr. 3 8. 0	52.0	52.1	Apr. 4 0. 0	20. 50. 10	Apr. 4 0. 0	.1119	Apr. 4 0. 0	.01297	Apr. 4 1. 0	52.7	51.7
0.16	56.15	0. 8	.1123	2. 0	.01380	21. 0	49.0	49.0	0.42	51.15	0.30	.1121	1. 8	{.01300	3. 0	55.3	53.4
0.42	56.35	0.17	.1123	2.30	.01383				1.32	49.45	0.39	.1124		{.01210	9. 0	55.8	53.5
1. 0	55.35	0.27	.1117	5.11	.01320				1.53	50.20	1. 0	.1120	3.53	.01163	22.35	47.2	47.8
1.16	52. 5	0.45	.1116	6.44:	.01175				2.22	49. 0	1.21	.1118	5. 6	.01078			
1.36	53. 0	1. 5	.1106	8.55	.01088				2.57	49. 5	1.56	.1121	7.42	.00955			
1.58	52.30	1. 9	.1111	12.30	.01045				3.14	48. 0	2. 9	.1116	9.27	.00920			
2.23	50.40	1.14	.1108	16.17	.01090				5.29	45.35	2.38	.1116	10.25	.00883			
2.45	50.50	2.30	.1120	20.30	.01260				6.26	45.30	3. 0	.1124	12.38	.00940			
2.58	49. 5	2.53	.1129	23.59	.01297				6.41	46.30	3.15	.1117	14. 6	.01000			
5.11	45.25	3. 6	.1127						7.23	46. 0	3.40	.1115	17.25	.01200			
7.39	45.20	3.43	.1130						7.38	42.55	3.52	.1117	17.53	.01210			
8.26	44.50	3.56	.1129						7.59	44.10	5. 0	.1117	18.34	.01250			
9.22	44.40		***						8.24	42.25	5.20	.1123	20.15	.01290			
9.52	45.15	5.31	.1126						9. 0	44.50	5.44	.1120	23. 8	.01295			
10.17	43. 0	6.14	.1126						9.21	44.15	7. 5	.1120	23.20	{.01307			
10.51	44.20	6.28	.1128						9.32	44.55	7.22	.1123		{.01210			
11.13	45.50	7.30	.1128						9.51	43.25	7.46	.1119	23.59	.01226			
11.35	45. 5	7.39	.1130						10. 4	44. 0	8. 7	.1122					
12.58	45.45	7.47	.1128						10.24	43. 0	8.20	.1120					
13.35	46.20	8.13	.1127						10.49	39.55	8.34	.1123					
13.42	47.45	8.34	.1130						11.25	41. 5	8.48	.1124					
14. 0	47.45	8.55	.1127						11.43	43.20	8.59	.1122					
14.12	46.40	9.32	.1125						12.32	41.55	9. 8	.1123					
14.23	47.55	9.41	.1129						12.47	44.25	9.30	.1133					
15.45	45. 5	9.49	.1127						13.28	48.55	9.53	.1124					
17.35	45. 5	10.12	.1128						14.49	43.50	10. 8	.1127					
17.54	44. 0	10.26	.1125							(†)	10.38	.1120					
18.25	44.50	10.34	.1127						15.59	43. 0	10.49	.1121					
18.39	43.25	10.56	.1125						16.54	44.50	11. 3	.1126					
19.10	44.10	11.23	.1127						17.22	50.15	11.32	.1125					
19.37	42.45	11.37	.1125						18.20	46. 0	11.48	.1127					
20.12	42. 0	11.43	.1126						18.50	46. 0	12.17	.1121					
21.26	44. 0	11.50	.1124						19.25	43.35	12.28	.1121					
23.41	50.10	11.57	.1128						20.21	41.30	12.40	.1118					
23.54	50. 0	12. 4	.1125						21. 4	41. 5	13.42	.1130					
23.59	50.10	12.17	.1125														
		12.44	.1123														

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Apr. 4		Apr. 4						
21.18	20.41. 0	14.36	·1125					
21.28	42.20	15. 1	·1126					
22. 6	42.55	15.42	·1130					
23.59	51. 0	16.17	·1126					
		17. 1	·1124					
		17.37	·1137					
		18.13	·1130					
		18.44	·1136					
		20.15	·1126					
		22. 0	·1113					
		22.15	·1112					
		22.36	·1108					
		22.53	·1111					
		23. 2	·1109					
		23.15	·1108					
		23.59	·1113					
Apr. 5		Apr. 5		Apr. 5		Apr. 5		
0. 0	20.51. 0	0. 0	·1113	0. 0	·01226	8. 0	52·5	53·0
0.30	52.55	0. 2	·1113	3.30	·01220	21. 0	50·6	50·8
2. 5	51.20	0.46	·1114	6.54	·01115			
4. 3	47.20	1. 4	·1111	9.52	·01040			
5.41	45.25	2.20	·1123	11.48	·01040			
6. 6	44.25		***	19.36	·01160			
6.31	45.20	3. 5	·1124		{·01160			
6.50	44.35	3.15	·1127	21. 3	{·01096			
7. 2	45. 0	3.23	·1126	23.59	·01080			
7.53	43.40		***					
8.58	45.55	4.38	·1126					
9.13	44.10	5.10	·1129					
9.23	45.30	5.24	·1127					
9.49	44. 5	6.28	·1121					
10.16	43.55	6.48	·1126					
10.25	44.30	7.15	·1128					
11. 2	45. 0	7.25	·1126					
11.10	46. 5	8. 8	·1122					
11.23	45. 0	8.15	·1123					
11.40	47.30	8.39	·1121					
11.57	45.35	8.59	·1123					
13.47	45.30	9.11	·1121					
13.56	46.20	9.30	·1124					
15.37	46. 5	9.38	·1122					
15.51	47. 0	9.57	·1123					
16.22	46. 0	10.13	·1118					
16.36	46.55	10.30	·1122					
17. 6	45.45	10.59	·1121					
17.41	45.35	11. 7	·1125					
17.54	44.55	11.28	·1126					
18.16	45.15	11.45	·1131					
18.30	43. 5	12. 0	·1127					
18.49	43.35	12.35	·1124					
19. 0	42.30	12.45	·1125					
19.26	44.55	14. 0	·1123					
19.42	43.15	14.17	·1125					
20. 0	40.45	14.47	·1124					
20.17	44.20	15.49	·1126					
20.41	47. 0	16.19	·1129					
21. 3	47.40	16.32	·1127					

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Apr. 5		Apr. 5						
21.36	20.44.15	16.49	·1130					
21.41	45.20	17. 0	·1130					
21.57	44.40	17.42	·1126					
22.40	45.35	17.48	·1128					
22.58	47.40	17.54	·1127					
23.34	49.10	18.15	·1129					
23.59	52. 0	18.33	·1128					
		18.52	·1129					
		19.11	·1127					
		20. 6	·1114					
		20.21	·1114					
		20.53	·1108					
		21.20	·1112					
		21.50	·1113					
		22.29	·1107					
		22.40	·1108					
		22.54	·1109					
		23.19	·1106					
		23.53	·1111					
		23.59	·1110					
Apr. 6		Apr. 6		Apr. 6		Apr. 6		
0. 0	20.52. 0	0. 0	·1110	0. 0	·01080	1. 0	54·0	53·4
0.30	51.15	0.28	·1102	1.52	·01000	3. 0	56·1	54·4
0.51	53. 5	0.57	·1106		{·00980	9. 0	56·9	54·6
1.38	53.55	1.30	·1103	2.39	{·00987	21. 0	51·0	50·0
2.40	50.40	1.58	·1105	4.15	·00907			
2.55	51. 0	2.43	·1110	8.59	·00852			
4.58	49. 0	2.59	·1118	9.14	·00872			
5.36	47. 5	3.15	·1118	13.30	·00905			
5.43	47.40	3.23	·1122	16.48	·01030			
6. 2	44.45	4. 8	·1130	22. 0	·01164			
6.13	44. 0	4.23	·1129	23. 0	·01140			
7.47	45.55	4.38	·1125	23.59	·01147			
7.59	45. 0	4.58	·1125					
8. 9	46.20	5.13	·1127					
8.28	46.30	5.30	·1124					
9.38	44.15	5.49	·1127					
10. 0	44. 5	6. 1	·1121					
10.16	45.45	6.37	·1117					
10.36	42.30	6.47	·1120					
11.40	45. 5	7.28	·1120					
13.16	45.30	7.40	·1117					
14. 2	45. 0	7.45	·1119					
15.50	46.10	7.55	·1117					
16. 0	45.35	8.40	·1121					
17.30	45.25	9. 4	·1122					
17.48	44.20	9.23	·1125					
18.11	46.30	9.46	·1121					
19.48	41.40	10. 3	·1122					
20.54	41.15	10.12	·1120					
22.53	48. 0	10.17	·1132					
22.59	47.45	10.39	·1124					
23.16	48.50	11. 0	·1129					
23.39	52. 0	12.17	·1129					
23.52	52.10	12.35	·1133					
23.59	53.25	13. 1	·1132					
		15.42	·1133					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left section

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
h m	° ′ ″	h m		h m		h m	°	°
		Apr. 6						
		16. 0	·1135					
		16. 26	·1134					
		17. 1	·1135					
		17. 26	·1136					
		17. 45	·1135					
		18. 22	·1134					
		19. 4	·1134					
		20. 17	·1125					
		21. 0	·1120					
		21. 16	·1115					
		21. 40	·1114					
		22. 12	·1109					
		22. 46	·1107					
		23. 11	·1104					
		23. 59	·1111					
Apr. 7		Apr. 7		Apr. 7		Apr. 7		
0. 0	20. 53. 25	0. 0	·1111	0. 0	·01147	1. 0	54·0	52·0
0. 11	53. 30	0. 7	·1111	1. 25	·01140	3. 0	56·6	54·0
0. 34	54. 0	0. 15	·1110	3. 4	·01103	9. 0	55·9	52·8
1. 2	53. 50	0. 28	·1107	4. 54	·00930	21. 0	46·6	46·5
1. 13	52. 25	0. 39	·1110	7. 52:	·00850	22. 0	46·8	47·8
1. 39	53. 10	1. 12	·1105	11. 54	·00935	23. 0	49·0	48·0
2. 11	52. 5	1. 28	·1110	15. 49	·01090			
2. 15	51. 15	1. 52	·1121	19. 26	·01280			
2. 23	51. 40	2. 23	·1116	22. 0	·01300			
2. 39	50. 10	2. 42	·1114	22. 48	·01400			
3. 55	50. 35	3. 23	·1126		(†)			
4. 19	49. 50	3. 48	·1126					
4. 31	51. 0	3. 59	·1128					
5. 3	49. 15	4. 22	·1122					
6. 36	47. 25	4. 38	·1127					
6. 56	47. 30	5. 2	·1120					
7. 13	45. 0	5. 43	·1121					
7. 39	45. 45	6. 38	·1127					
8. 17	44. 50	7. 8	·1122					
9. 7	46. 30	7. 23	·1129					
10. 0	43. 0	7. 35	·1129					
10. 12	43. 35	7. 44	·1126					
10. 28	42. 5	8. 8	·1129					
11. 38	45. 0	8. 34	·1127					
12. 56	44. 40	9. 9	·1138					
14. 19	46. 55	9. 35	·1129					
	(†)	10. 11	·1128					
14. 46	46. 50	10. 20	·1124					
15. 15	44. 35	10. 40	·1125					
15. 35	45. 50	11. 8	·1129					
15. 50	44. 25	11. 44	·1127					
17. 13	48. 55	12. 38	·1128					
	***	12. 58	·1125					
19. 15	44. 0	13. 8	·1128					
19. 23	44. 25	13. 26	·1128					
19. 28	42. 45	13. 38	·1126					
19. 35	44. 0	13. 44	·1129					
20. 7	43. 0	13. 55	·1126					
20. 16	41. 20	14. 18	·1129					
20. 28	42. 0	14. 52	·1131					
20. 35	39. 10	15. 8	·1136					

Right section

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Apr. 7		Apr. 7		h m		h m	°	°
h m	° ′ ″	h m						
20. 46	20. 43. 0	15. 32	·1134					
20. 57	41. 5	15. 49	·1135					
22. 10	47. 55	16. 11:	·1138					
22. 20	46. 50	16. 33	·1132					
22. 33	48. 0	16. 49	·1131					
22. 46	47. 40	17. 30	·1134					
23. 0	49. 40	17. 43	·1138					
23. 26	48. 0	18. 31	·1133					
23. 59	50. 35	19. 22	·1134					
		19. 29	·1131					
		19. 37	·1134					
		19. 49	·1132					
		19. 50	·1129					
		20. 29	·1127					
		20. 33	·1124					
		20. 41	·1130					
		20. 52	·1122					
		21. 23	·1126					
		21. 50	·1117					
		22. 13	·1112					
		22. 17	·1108					
		22. 29	·1110					
		22. 52	·1108					
		23. 5	·1113					
		23. 31	·1101					
		23. 59	·1108					
Apr. 8		Apr. 8		Apr. 8		Apr. 8		
0. 0	20. 50. 35	0. 0	·1108		(†)	0. 0	50·8	49·1
0. 16	51. 50	0. 7	·1109	0. 22	·01133	1. 0	51·7	50·2
0. 31	50. 30	0. 30	·1100	5. 0	·01050	3. 0	53·5	51·6
0. 45	52. 25	1. 13	·1111	5. 51	·01070	6. 0	54·4	52·5
0. 52	51. 55	1. 34	·1114	9. 19	·00980	9. 0	54·1	52·8
1. 52	53. 30	1. 54	·1116	9. 34	·00960	12. 0	54·0	53·0
	***	2. 9	·1109	9. 55	·00960	18. 0	53·6	53·0
2. 32	52. 0	2. 57	·1117	10. 19	·00908	21. 0	52·8	53·0
2. 52	52. 25	3. 9	·1115	10. 48	·00930	22. 0	53·8	53·3
3. 8	51. 20	3. 27	·1119	11. 5	·00920	23. 0	53·7	54·0
3. 32	52. 25	3. 41	·1125	11. 34	·00930			
3. 52	51. 0	3. 55	·1117	11. 55	·00903			
4. 16	52. 25	4. 11	·1115	14. 56	·00920			
4. 32	51. 0	4. 20	·1120	16. 40	·00868			
4. 38	51. 50	4. 36	·1112	17. 24	·00896			
4. 56	51. 30	4. 59	·1127	18. 55	·00887			
5. 10	49. 20	5. 11	·1123	19. 19	·00900			
5. 17	49. 40	5. 23	·1130	19. 48	·00810			
5. 35	45. 15	5. 30	·1129	22. 11	·00800			
5. 49	40. 25	5. 58	·1136	23. 48	·00810			
6. 7	43. 50	6. 47	·1109	23. 59	·00860			
6. 19	43. 0	7. 6	·1121					
6. 30	44. 15	7. 47	·1114					
6. 41	46. 10	7. 53	·1109					
6. 52	44. 50	8. 6	·1116					
7. 6	46. 35	8. 18	·1117					
7. 32	47. 40	8. 25	·1124					
7. 40	45. 50	8. 40	·1121					
7. 58	45. 0	9. 0	·1120					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Apr. 8		Apr. 8						
h m	° ′ ″	h m		h m		h m	°	°
8.30	20.47.0	9.11	·1123					
8.56	44.25	9.27	·1123					
9.9	41.15	9.36	·1128					
9.23	42.25	9.50	·1124					
9.36	34.5	9.55	·1128					
9.58	50.55	10.15	·1108					
10.6	47.20	10.42	·1123					
10.34	40.0	11.7	·1111					
10.44	41.0	11.32	·1123					
10.58	43.20	12.0	·1108					
11.15	39.25	12.49	·1116					
11.28	38.10	13.10	·1113					
11.40	39.55	13.49	·1113					
11.59	39.30	14.3	·1117					
12.30	40.25	14.15	·1117					
13.3	38.25	14.23	·1122					
13.32	41.5	14.38	·1121					
14.4	41.5	14.50	·1124					
14.23	42.0	15.21	·1118					
14.43	40.0	15.32	·1129					
***		15.44	·1131					
15.47	51.5	15.55	·1141					
15.58	49.30	16.14	·1145					
16.19	48.0	16.33	·1135					
16.33	45.35	16.47	·1134					
16.41	47.0	16.52	·1137					
17.8	46.15	17.23	‘1133					
17.30	50.5	18.2	·1100					
17.34	50.0	18.20	·1125					
***		18.28	·1125					
18.20	59.0	18.41	·1136					
18.28	57.5	19.11	·1130					
18.40	57.50	19.28	·1130					
18.49	56.5	19.42	·1135					
19.6	49.25	19.59	·1133					
19.16	47.55	20.0	·1122					
19.23	48.0	20.5	·1133					
19.30	46.15	20.9	·1113					
19.43	48.40	20.22	·1134					
19.53	48.0	20.56	·1103					
19.57	48.40	21.9	·1104					
20.0	43.30	21.42	·1048					
20.4	46.25	22.4	·1075					
20.28	46.35	22.15	·1072					
***		22.20	·1058					
21.22	46.5	22.30	·1073					
21.27	45.0	22.41	·1078					
21.52	48.0	22.47	·1070					
22.10	56.35	23.0	·1072					
22.43	57.40	23.4	·1092					
22.51	55.0	23.27	·1058					
23.3	54.50	23.40	·1074					
23.15	51.25	23.47	·1068					
23.32	49.45	23.59	·1070					
23.47	57.20							
23.59	57.15							

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Apr. 9		Apr. 9		Apr. 9		Apr. 9	°	°
h m	° ′ ″	h m		h m		h m		
0.0	20.57.15	0.0	·1070	0.0	·00860	0.0	55.7	54.7
0.9	20.58.25	0.5	·1064	0.36	·00860	1.0	56.1	55.5
0.17	21.2.30	0.11	·1081	3.8	·00927	2.0	57.0	56.1
0.25	20.59.35	0.13	·1078	3.48	·00883	3.0	58.0	56.6
0.30	21.1.45	0.18	·1068	7.48	·00813	9.0	59.0	56.8
0.40	20.59.40	0.30	·1076	9.39	·00835	21.0	55.8	55.0
0.45	56.25	0.43	·1064	10.0	·00815			
0.57	56.5	0.54	·1066	10.50	·00837			
1.4	54.30	0.59	·1064	12.17	·00750			
1.21	59.0	1.12	·1086	12.40:	·00760			
1.25	20.58.20	1.24	·1078	13.7	·00700			
1.34	21.1.50	1.43	·1095	13.24:	·00693			
1.40	20.59.5	2.0	·1064	13.40	·00700			
1.44	21.1.20	2.4	·1066	13.55:	·00700			
1.57	20.59.55	2.14	·1056	14.12	·00740			
2.0	21.2.5	2.28	·1075	14.41:	·00705			
2.9	3.0	2.47	·1078	15.8	·00770			
2.27	21.0.0	3.19	·1093	16.10	·00802			
2.37	20.56.20	3.23	·1104	16.56:	·00772			
2.53	56.0	3.42	·1105	17.40	·00810			
3.11	56.30	3.49	·1100	18.38	·00833			
3.18	58.0	4.11	·1096	20.49	·00880			
3.26	57.5	4.41	·1105	23.47	·00890			
3.38	57.50	5.5	·1103		(†)			
5.0	50.0	5.25	·1106					
5.17	50.5	5.36	·1103					
5.26	49.25	5.39	·1109					
5.33	49.40	5.41	·1105					
5.41	46.35	5.45	·1109					
5.45	47.15	5.49	·1097					
6.1	47.40	5.54	·1100					
6.10	49.5	6.0	·1094					
6.16	47.55	6.20	·1112					
6.30	47.40	6.38	·1106					
6.39	48.35		***					
7.30	48.15	7.7	·1117					
8.15	46.0	7.21	·1117					
8.29	47.40		***					
8.40	47.55	8.0	·1107					
8.43	46.0	8.7	·1108					
8.52	47.35	8.44	·1103					
9.9	47.45	8.54	·1113					
9.22	46.0	9.27	·1102					
9.33	42.10	9.40	·1120					
9.38	43.30	9.47	·1111					
9.50	43.45	9.52	·1113					
9.54	41.50	10.8	·1101					
10.14	41.0	10.23	·1100					
10.23	39.0	10.30	·1103					
10.30	40.25	10.38	·1100					
10.45	40.50	10.49	·1100					
10.58	43.25	10.55	·1097					
11.6	40.55	11.7	·1098					
11.27	38.10	11.23	·1113					
11.48	42.50	11.38	·1112					
12.7	41.0	11.46	·1117					
12.20	37.25	12.10	·1104					
12.39	34.30	12.17	·1091					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers		Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers	
							Of H.F. Magnet	Of V.F. Magnet								Of H.F. Magnet	Of V.F. Magnet
Apr. 9		Apr. 9							Apr.10		Apr.10		Apr.10				
12.56	20.35.45	12.44	.1104						2.37	20.52.25	2.19	.1089	22.0	.01760			
13.0	43.0	12.55	.1099						2.48	50.45	2.23	.1088	22.48	.01730			
13.14	37.0	13.0	.1104						3.14	51.5	2.27	.1094	23.59	.01727			
13.25	37.10	13.4	.1080						3.22	50.0	2.40	.1089					
13.37	34.55	13.22	.1094						3.38	49.35	2.45	.1095					
13.41	36.0	13.37	.1115						3.43	48.55	2.54	.1085					
14.24	21.45	13.56	.1094						3.57	49.15	3.24	.1099					
14.38	25.55	14.23	.1121						5.8	47.50	3.27	.1093					
14.45	25.40	14.52	.1092						7.16	46.40	3.45	.1094					
14.51	31.5	15.0	.1097						7.38	47.30	3.51	.1089					
14.54	39.40	15.15	.1094						8.27	46.55	4.8	.1099					
14.55	42.5	15.23	.1096						8.40	47.15	4.27	.1101					
15.2	41.20	15.37	.1094						10.13	46.0	4.49	.1099					
15.11	39.35	16.0	.1104						11.8	44.10	5.0	.1102					
15.17	42.30	16.14	.1099						12.0	45.5	5.8	.1100					
15.23	42.10	17.16	.1097						13.13	44.0	5.32	.1104					
16.2	48.40	17.54	.1108						13.22	44.35	6.4	.1102					
16.12	51.5	18.25	.1102						14.28	44.45	6.29	.1103					
16.25	51.0	18.43	.1106						14.36	45.35	6.44	.1101					
16.48	49.25	19.34	.1091						15.51	45.40	6.58	.1105					
17.1	49.0	19.42	.1095						16.6	46.5	7.21	.1100					
17.7	50.55		***						17.47	46.0	7.35	.1107					
17.41	51.15	20.42	.1083						18.45	44.30	7.52	.1106					
18.9	54.20	20.53	.1084						19.38	42.55	9.8	.1105					
18.38	52.30	21.4	.1077						19.50	40.0	10.4	.1107					
19.2	52.40	21.17	.1082						19.55	41.35	10.11	.1104					
	***	21.43	.1076						20.2	41.0	10.22	.1108					
19.45	51.25	21.53	.1083						20.5	41.50	10.58	.1105					
19.56	52.40	22.6	.1081						20.33	41.55	11.51	.1106					
20.2	51.25	22.33	.1086						20.41	42.40	12.0	.1104					
	***	22.38	.1080						20.52	42.0	12.46	.1107					
20.36	50.35	22.48	.1084						21.16	42.15	13.1	.1104					
20.43	49.20	23.59	.1083						21.28	44.15	13.19	.1107					
21.22	49.40								21.53	46.0	13.37	.1104					
21.29	52.35								22.41	51.45	13.48	.1104					
21.57	49.5								23.11	53.35	14.7	.1107					
22.1	47.45								23.21	53.10	14.32	.1105					
22.13	48.50								23.59	55.15	14.43	.1110					
22.21	48.20										15.2	.1104					
22.41	49.0										15.22	.1107					
22.46	50.30										15.49	.1106					
22.55	48.55										18.10	.1112					
23.4	50.10										19.45	.1105					
23.39	51.30										21.5	.1093					
23.59	51.55										21.18	.1088					
Apr.10		Apr.10		Apr.10	(†)	Apr.10						.1092					
0.0	20.51.55	0.0	.1083			1.0	59.2	57.7			21.41						
0.26	52.20	0.6	.1083	1.30	.01733	3.0	61.2	59.8			22.4	.1089					
0.31	51.55	0.14	.1079		{.01730	9.0	64.0	62.5			22.18	.1086					
0.50	52.5	0.25	.1080	2.42	{.01873	21.0	57.9	57.1			22.38	.1089					
1.8	53.35	0.40	.1078	4.27	.01752						22.48	.1094					
1.21	52.10	1.4	.1085	6.49	.01663						23.4	.1095					
1.37	52.0	1.16	.1078	8.26	.01594						23.10	.1098					
1.43	52.55	1.28	.1082	12.24	.01588						23.25	.1094					
2.4	51.35	1.47	.1092	14.58	.01635						23.48	.1098					
2.23	52.35	2.4	.1089	17.12	.01665						23.55	.1102					
2.31	51.10	2.10	.1084	20.8	.01750						23.59	.1102					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the readings will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

April 10d. 1h.—VERTICAL FORCE.—The adjustments were altered, so that the readings were increased by 5div.74, or by 0.00942 parts of the whole Vertical Force.

Left half of page:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Apr.11		Apr.11		Apr.11		Apr.11		
h m	° ′ ″	h m		h m		h m	°	°
0. 0	20.55.15	0. 0	·1102	0. 0	·01727	1. 0	59·0	58·0
0. 11	55. 0	0. 9	·1102	0. 56	·01713	3. 0	59·7	58·8
0. 28	57.. 0	0. 20	·1103	2. 44	·01708	9. 0	59·9	58·0
1. 0	57. 0	0. 49	·1099	3. 17	·01720	21. 0	55·0	54·1
1.36	55.50	1. 20	·1101	4. 25	·01640			
1.53	55.50	1. 30	·1099	7. 45	·01660			
2. 4	54.40	1. 45	·1102	10. 4	·01627			
2.36	54.55	2. 0	·1101	20.15	·01864			
3. 1	52.50	2. 23	·1108	21.23	·01860			
3.11	53.20	2. 58	·1101	23.59	·01864			
3.33	52. 0	3. 15	·1107					
4.10	51.10	3. 32	·1104					
4.23	49.40	3. 44	·1108					
5.53	47.25	3. 48	·1107					
6. 3	47.30	4. 10	·1113					
6.45	46.35	4. 34	·1100					
7. 8	44.45	4. 49	·1100					
7.22	46.15	5. 32	·1107					
	(†)	5. 38	·1109					
8.13	42.50	6. 0	·1112					
8.45	45.40	7. 12	·1110					
9. 0	46.25	7. 22	·1099					
9.17	47.10		(†)					
9.31	46.55	8. 14	·1117					
9.51	47.40	8. 36	·1113					
10. 8	46.40	8. 50	·1113					
10.23	47.30	8. 57	·1111					
10.38	46.45	9. 36	·1111					
12. 0	46.25	9. 53	·1114					
12.10	47. 5	10. 9	·1111					
12.33	45.50	10. 25	·1111					
12.53	45.15	10. 50	·1107					
13. 8	47.15	12. 8	·1108					
13.23	45.25	12. 16	·1111					
13.46	46. 0	12. 38	·1108					
14.14	43.55	12. 54	·1109					
15.41	46. 0	13. 12	·1114					
16.22	45. 5	13. 50	·1108					
16.31	45.45	14. 7	·1110					
17.49	44.35	14. 38	·1107					
19. 1	42. 0	18. 44	·1111					
19.25	42. 5	20. 26	·1098					
20. 0	41. 0	20. 32	·1100					
20.15	41.50	20. 57	·1095					
20.23	41.. 0	21. 8	·1096					
20.32	42. 5	21. 21	·1095					
21. 3	43.50	21. 41	·1092					
21.25	47.25	22. 51	·1099					
21.54	48.25	23. 15	·1099					
22.24	51. 0	23. 39	·1101					
23.32	53. 5	23. 59	·1103					
23.43	54.35							
23.59	55. 0							
Apr.12		Apr.12		Apr.12		Apr.12		
0. 0	20.55. 0	0. 0	·1103	0. 0	·01864	9. 0	59·4	56·7
0.55	57.20	0. 49	·1103	2.14	·01880	21. 0	52·9	52·3
1.26	57.20	1. 0	·1107	4.10	·01850			

Right half of page:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Apr.12		Apr.12		Apr.12				
h m	° ′ ″	h m		h m		h m	°	°
1. 45	20.56.30	1. 22	·1107	7. 36	·01648			
2. 8	53.55	2. 15	·1097	9. 21	·01620			
2. 46	53. 0	3. 0	·1107	14. 39	·01693			
3. 26	50.50	3. 35	·1107	15. 54	·01735			
3. 37	51. 0	3. 45	·1111	16. 56	·01743			
4. 37	48.10	4. 0	·1110	19. 45	·01880			
6. 9	46.55	4. 8	·1113	21. 28	·01863			
6. 45	47.35	4. 45	·1108	22. 38	·01880			
7. 30	46. 5	5. 0	·1113	23. 59	·01864			
8. 23	47. 0	5. 16	·1111					
8. 35	46. 5	5. 43	·1112					
8. 58	47. 0	6. 0	·1119					
9. 3	43.35	6. 19	·1120					
9. 8	46.55	6. 45	·1114					
9. 23	41. 5	7. 4	·1118					
9. 44	43. 5	7. 27	·1117					
10. 7	41. 0	7. 45	·1120					
10. 33	43. 5	8. 6	·1114					
10. 56	43.30	8. 24	·1112					
11. 50	47.15	9. 0	·1111					
12. 13	47.10	9. 21	·1122					
12. 58	45. 0	9. 47	·1110					
13. 17	46. 0	10. 8	·1114					
13. 29	45.50	10. 58	·1110					
13. 43	43.55	12. 4	·1114					
13. 56	44. 0	12. 23	·1117					
14. 52	42.10	12. 45	·1114					
15. 41	45. 5	13. 13	·1113					
16. 1	44.40	13. 47	·1124					
16. 13	45. 0	14. 34	·1116					
16. 44	41.50	15. 38	·1121					
17. 22	44.35	15. 50	·1124					
17. 33	43.55	16. 4	·1121					
17. 58	44.55	16. 34	·1124					
18. 16	43.25	17. 14	·1111					
19. 42	42. 0	17. 34	·1113					
19. 54	42.45	17. 59	·1117					
20. 10	41.10	18. 26	·1117					
21. 2	44.15	19. 39	·1110					
21. 53	52. 0	19. 40	·1104					
	***	19. 59	·1101					
22. 43	53.55	20. 19	·1102					
22. 58	56. 0	21. 7	·1091					
23. 20	54.40	21. 45	·1089					
23. 48	56.55	22. 0	·1085					
23. 59	56.30	22. 30	·1086					
		22. 53	·1093					
		23. 13	·1088					
		23. 43	·1097					
		23. 51	·1096					
		23. 59	·1097					
Apr.13		Apr.13		Apr.13		Apr.13		
0. 0	20.56.30	0. 0	·1097	0. 0	·01864	1. 0	55·8	54·0
0. 15	56.35	0. 7	·1099	1.38	·01845	3. 0	57·9	56·1
1. 0	58.20		(†)	3. 8	·01843	9. 0	58·8	56·0
1. 7	20.57.15	0. 45	·1106	3.55	·01760	21. 0	49·3	49·5
1. 22	21. 4.25	1. 25	·1108	7. 8	·01595			

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

April 11. The Declination and Horizontal Force photographic cylinder was stopped from 7ʰ. 22ᵐ. to 8ʰ. 13ᵐ.

Left half of table:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Apr.13		Apr.13		Apr.13		h m	o	o
h m / o ' "		h m		h m				
1.32	20.58.20	1.37	.1117	11.17	.01584			
1.55	54.35	1.43	.1117	13.40	.01645			
4.14	48.20	2.38	.1135	18.45	.01900			
4.49	47.30	2.54	.1134	21.20	.01890			
5.20	47.40	3.5	.1137	23.59	.01899			
5.51	46.25	3.18	.1136					
7.6	47.25	3.45	.1144					
7.24	46.30	4.20	.1140					
7.45	47.0	4.31	.1143					
8.25	41.45	5.7	.1140					
8.56	44.30	5.40	.1144					
8.59	43.5	6.18	.1137					
9.3	45.0	6.36	.1138					
9.32	44.15	6.49	.1134					
10.5	46.55	7.11	.1133					
10.30	46.10	7.45	.1141					
10.43	47.10	8.8	.1134					
12.11	47.0	8.37	.1137					
12.24	46.5	9.21	.1129					
13.0	46.25	9.46	.1127					
13.28	47.45	10.3	.1128					
14.15	44.40	10.25	.1125					
14.23	45.35	10.47	.1127					
***		11.7	.1126					
16.5	45.5	11.55	.1124					
17.5	46.0	12.11	.1127					
17.36	44.25	12.22	.1125					
17.59	45.0	12.54	.1123					
18.45	43.50	13.24	.1126					
19.32	43.35	14.34	.1122					
19.54	42.30	16.57	.1123					
***		17.42	.1126					
20.36	43.35	18.52	.1118					
20.45	42.35	19.14	.1119					
21.19	45.20	20.50	.1109					
21.48	46.0	21.6	.1109					
22.2	47.35	21.16	.1111					
22.35	48.20	21.43	.1108					
23.2	50.35	22.4	.1110					
23.18	50.0	22.33	.1108					
23.59	52.20	22.58	.1111					
		23.19	.1110					
		23.37	.1112					
		23.59	.1112					
Apr.14		Apr.14		Apr.14		Apr.14		
0.0	20.52.20	0.0	.1112	0.0	.01899	1.0	51.6	51.0
0.53	53.25	0.11	.1112	1.5 {	.01910 / .01740 }	3.0	54.8	54.0
1.56	52.20	0.24	.1114			9.0	58.0	56.8
2.15	53.0	0.53	.1117	3.1 {	.01760 / .01840 }	21.0	49.5	49.0
2.44	51.0	1.21	.1117			22.0	50.5	50.5
4.45	47.10	1.34	.1119	5.19	.01680	23.0	51.9	51.9
7.17	46.55	2.12	.1132	11.10	.01605			
9.23	48.0	2.38	.1125	12.23	.01620			
10.25	46.20	3.3	.1124	17.19	.01750			
11.16	46.55	3.10	.1128	20.18:	.01880			
11.40	46.10	3.25	.1130	21.26	.01880			
14.0	45.55 ***	3.40	.1129	23.28	.01925			

Right half of table:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Apr.14		Apr.14		Apr.14		h m	o	o
h m / o ' "		h m		h m				
17.45	20.43.50	3.47	.1124	23.59	.01900			
18.18	44.50	4.7	.1125					
19.26	41.35	4.32	.1130					
20.7	41.35	4.47	.1129					
20.14	42.30	5.3	.1122					
20.54	43.0	5.21	.1124					
21.5	44.55	5.38	.1123					
21.44	46.25	6.20	.1126					
22.51	51.45	6.45	.1123					
23.20	53.5	7.23	.1124					
23.37	55.15	7.44	.1123					
23.59	55.25	8.47	.1123					
		9.6	.1124					
		9.16	.1122					
		9.58	.1121					
		10.16	.1123					
		10.57	.1123					
		11.32	.1126					
		11.44	.1125					
		11.54	.1128					
		12.12	.1128					
		12.22	.1126					
		12.53	.1127					
		16.54	.1134					
		17.30	.1134					
		18.2	.1132					
		18.30	.1132					
		18.53	.1129					
		19.30	.1130					
		21.8	.1120					
		21.38	.1116					
		22.26	.1115					
		23.15	.1114					
		23.35	.1119					
		23.59	.1116					
Apr.15		Apr.15		Apr.15		Apr.15		
0.0	20.55.25	0.0	.1116	0.0	.01900	0.0	53.3	53.3
0.28	57.10	0.12	.1114	1.30	.01865	1.0	54.8	54.4
0.41	56.30	0.18	.1117	1.52	.01860	3.0	58.0	58.0
0.51	58.0	0.20	.1117	3.8	.01800	6.0	61.8	60.8
1.38	54.20	0.34	.1118	3.37	.01727	9.0	62.0	59.2
2.10	54.50	0.47	.1128	5.18 {	.01650 / .01740 }	12.0	60.0	57.6
2.22	52.5	1.5	.1124	6.0	.01710	18.0	55.5	54.5
2.31	55.30	1.36	.1122	6.12	.01740	21.0	54.3	53.9
2.44	55.5	2.11	.1131	6.24	.01710	22.0	54.5	54.4
2.55	56.0	2.22	.1120	6.30	.01720	23.0	55.0	55.0
3.3	54.25	2.39	.1143	6.40	.01700			
3.25	55.15	3.0	.1157	6.46	.01710			
3.34	53.50	3.11	.1152	7.24	.01640			
3.46	55.55	3.30	.1143	8.27	.01586			
3.57	53.35	3.46	.1132	10.0	.01550			
4.8	53.30	3.56	.1136	10.22	.01560			
4.16	54.20	4.12	.1130	10.40	.01553			
4.24	53.40	4.26	.1129	10.52	.01565			
4.46	56.15	4.54	.1148	11.38	.01535			
4.58	54.35	5.0	.1144	12.0	.01487			
5.15	53.55	5.5	.1147					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

April 15 (left panel)

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature
Apr.15		Apr.15		Apr.15	
5. 23	20. 54. 50	5. 18	·1143	12. 38	·01495
5. 48	53. 10	5. 30	·1153	13. 0	·01540
5. 58	50. 5	5. 37	·1148	13. 15	·01540
6. 12	55. 40	5. 54	·1148	13. 27	·01560
6. 22	49. 55	6. 4	·1144	13. 45	·01487
6. 27	50. 25	6. 11	·1161	14. 0	·01490
6. 40	42. 5	6. 25	·1113	15. 8:	·01605
6. 53	41. 5	6. 31	·1117	16. 23	·01670
7. 9	43. 10	6. 43	·1105	16. 48:	·01652
7. 22	41. 35	6. 50	·1116	17. 23	·01700
7. 34	43. 30	6. 54	·1114	18. 8	·01720
7. 38	42. 50	7. 4	·1116	19. 9	·01778
8. 1	42. 30	7. 22	·1099	22. 48	·01885
8. 16	43. 25	7. 38	·1108	23. 59	·01933
8. 36	45. 50	8. 17	·1107		
9. 23	48. 5	8. 27	·1103		
9. 30	46. 55	8. 41	·1112		
9. 43	47. 25	8. 45	·1110		
9. 56	40. 5	9. 5	·1117		
10. 7	39. 30	9. 15	·1110		
10. 12	40. 50	9. 33	·1111		
10. 15	38. 30	9. 59	·1086		
10. 26	35. 40	10. 5	·1086		
10. 38	31. 50	10. 13	·1073		
10. 53	33. 5	10. 18	·1076		
11. 16	40. 20	10. 21	·1072		
11. 29	48. 15	10. 25	·1075		
11. 36	46. 30	10. 32	·1066		
11. 44	49. 0	10. 45	·1076		
11. 53	46. 25	10. 51	·1072		
12. 0	41. 45	11. 8	·1083		
12. 1	43. 25	11. 17	·1079		
12. 36	31. 25	11. 34	·1084		
12. 54	35. 20	11. 47	·1094		
13. 13	35. 20	12. 0	·1090		
13. 25	38. 55	12. 16	·1104		
13. 37	36. 20	12. 30	·1102		
13. 53	26. 15	12. 48	·1092		
14. 0	27. 5	12. 57	·1096		
14. 6	26. 25	13. 11	·1091		
14. 28	32. 55	13. 18	·1091		
15. 4	41. 50	13. 40	·1125		
15. 20	43. 15	14. 13	·1114		
15. 34	39. 10	14. 25	·1103		
15. 53	40. 35	14. 42	·1103		
16. 10	39. 30	14. 49	·1099		
16. 23	40. 35	15. 2	·1099		
16. 30	42. 35	15. 13	·1103		
16. 53	43. 0	15. 22	·1099		
17. 11	46. 25	15. 29	·1106		
17. 32	46. 50	15. 32	·1101		
17. 42	45. 10	15. 38	·1110		
17. 58	44. 5	15. 41	·1106		
18. 10	44. 55	15. 45	·1108		
18. 30	41. 0	15. 51	·1107		
18. 40	44. 10	16. 25	·1122		
18. 50	42. 50	17. 2	·1086		
19. 7	44. 45	17. 16	·1082		

April 15 (right panel)

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature
Apr.15		Apr.15	
19. 30	20. 46. 25	17. 26	·1091
19. 41	49. 10	17. 34	·1090
20. 1	48. 45	18. 0	·1099
	***	18. 20	·1090
20. 24	44. 55	18. 45	·1084
20. 43	45. 0	18. 51	·1088
21. 16	47. 55	19. 13	·1083
21. 23	47. 10	19. 19	·1089
21. 35	49. 50	19. 23	·1085
21. 53	50. 15	19. 35	·1096
21. 56	49. 30	19. 55	·1098
22. 22	53. 0	20. 20	·1090
22. 41	53. 5	20. 38	·1093
23. 10	56. 0	21. 14	·1092
23. 31	54. 45	21. 22	·1087
23. 50	56. 10	21. 34	·1085
23. 59	55. 0	21. 49	·1075
		22. 8	·1080
		22. 21	·1079
		22. 47	·1081
		22. 54	·1087
		22. 59	·1082
		23. 13	·1093
		23. 23	·1090
			(†)

April 16 (right panel)

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Apr.16		Apr.16	(†)	Apr.16		Apr.16		
0. 0	20. 55. 0	0. 8	·1094	0. 0	·01933	0. 0	55 ·9	56 ·0
0. 14	54. 20	0. 36	·1103	0. 53	·01880	1. 0	57 ·0	57 ·4
0. 21	55. 10	0. 47	·1090	1. 58	·01903	3. 0	59 ·8	60 ·5
0. 39	55. 40	1. 8	·1090	3. 3	·01833	9. 0	63 ·2	62 ·1
0. 51	54. 10	1. 44	·1105	4. 39	·01630	21. 0	56 ·0	54 ·8
1. 4	54. 15	2. 10	·1106	4. 39	·01725			
1. 13	53. 20	2. 19	·1101	5. 30	·01660			
1. 23	54. 40	2. 37	·1105	8. 33	·01555			
1. 28	53. 40	2. 42	·1102	9. 8	·01513			
1. 58	53. 55	2. 45	·1107	11. 15	·01487			
2. 9	52. 5	3. 0	·1099	14. 20	·01540			
2. 15	52. 15	3. 30	·1117	16. 24	·01622			
2. 30	50. 10	3. 38	·1115	16. 45	·01620			
2. 38	51. 0	3. 42	·1119	19. 43	·01822			
2. 45	49. 0	4. 8	·1122	20. 50	·01880			
3. 8	47. 30	4. 33	·1116	23. 14	·01920			
3. 37	47. 55	4. 54	·1115	23. 59	·01883			
3. 54	49. 0	5. 15	·1117					
4. 27	48. 5	5. 38	·1117					
5. 2	48. 45	5. 43	·1119					
5. 23	47. 55	5. 50	·1116					
5. 45	42. 10	6. 22	·1114					
6. 3	44. 0	6. 28	·1116					
6. 29	42. 55	6. 38	·1113					
7. 4	46. 20	6. 56	·1121					
7. 23	45. 10	7. 10	·1121					
7. 32	46. 10	7. 29	·1113					
7. 53	46. 0	7. 45	·1116					
8. 2	40. 0	8. 0	·1112					
8. 15	30. 15	8. 8	·1113					
8. 23	36. 40							

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
Apr.16		Apr.16						
h m	o ' "	h m		h m		h m	o	o
8.31	20.37.25	8.21	.1109					
8.37	36.10	8.30	.1129					
8.53	40.5	8.39	.1121					
8.54	44.10	8.48	.1115					
9.6	42.0	8.54	.1118					
9.20	46.15	9.9	.1101					
10.13	47.25	9.18	.1104					
11.6	46.5	9.31	.1099					
12.16	46.45	10.47	.1104					
12.57	44.0	11.3	.1102					
13.7	46.50	11.49	.1102					
13.58	43.0	12.15	.1107					
14.46	43.5	12.53	.1105					
15.14	39.0	13.8	.1102					
	***	13.19	.1104					
15.58	38.0	13.38	.1101					
16.10	42.5	13.58	.1104					
16.23	42.55	14.16	.1103					
16.39	40.55	14.56	.1108					
	***	15.53	.1096					
17.45	38.40	16.19	.1113					
18.9	39.50	16.39	.1117					
	***	17.2	.1110					
19.13	40.40	17.20	.1107					
19.38	40.5	17.43	.1105					
20.13	44.0	17.54	.1107					
20.22	46.10	18.48	.1108					
20.34	44.15	18.55	.1099					
20.54	47.0	19.24	.1093					
21.18	47.10	19.40	.1094					
22.51	50.10	20.10	.1075					
22.57	49.25	20.53	.1095					
23.0	51.40	21.6	.1095					
23.8	51.5	21.13	.1094					
23.23	53.10	21.25	.1089					
23.44	52.50	22.1	.1088					
23.59	53.40	22.10	.1091					
		22.28	.1089					
		22.41	.1092					
		22.56	.1087					
		23.0	.1096					
		23.7	.1090					
		23.20	.1095					
		23.30	.1090					
		23.39	.1089					
		23.45	.1085					
		23.54	.1090					
		23.59	.1088					
Apr.17		Apr.17		Apr.17		Apr.17		
0.0	20.53.40	0.0	.1088	0.0	.01883	1.0	57.0	57.0
0.20	54.30	0.22	.1090	2.50:	.01850	3.0	58.8	59.2
0.28	54.5	0.35	.1087	4.40:	.01645	9.0	61.0	59.2
0.45	54.55	0.52	.1091	6.48	.01580	21.0	55.5	54.8
0.57	57.20	1.5	.1104	10.37	.01560			
1.23	54.0	1.28	.1094	11.31	.01570			
1.39	53.55	2.22	.1107	11.52	.01590			
3.4	49.25	2.38	.1105	13.24	.01600			

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
Apr.17		Apr.17		Apr.17				
h m	o ' "	h m		h m		h m	o	o
4.16	20.47.0	3.28	.1112	14.38	.01585			
5.54	45.15	3.34	.1110	14.55	.01610			
6.2	45.40	3.47	.1114	15.10	.01608			
6.23	44.25	3.58	.1112	15.38	.01650			
7.15	43.35	4.15	.1111	16.27	.01570			
7.42	45.5	4.26	.1116	16.39	.01686			
7.52	44.35	4.30	.1114	17.0	.01690			
8.8	46.0	5.16	.1119	17.42	.01750			
8.27	45.25	5.30	.1118	20.17	.01857			
8.34	46.15	6.8	.1129	23.59	.01910			
9.4	46.30	6.30	.1117					
9.28	45.0	6.45	.1113					
9.37	45.0	7.13	.1119					
9.51	43.10	7.41	.1122					
10.6	44.25	7.58	.1119					
10.27	44.35	8.10	.1124					
10.43	43.35	8.35	.1110					
10.59	44.30	9.8	.1109					
11.18	42.5	9.23	.1109					
11.36	42.10	9.49	.1115					
11.48	43.40	9.57	.1119					
12.2	42.20	10.9	.1114					
12.40	43.45	10.19	.1116					
13.22	47.25	10.36	.1111					
13.45	44.30	10.45	.1116					
14.0	44.0	11.8	.1111					
14.16	40.40	11.37	.1108					
14.32	44.0	11.53	.1114					
14.49	46.55	12.11	.1115					
15.10	41.25	12.25	.1107					
15.20	44.0	12.45	.1115					
15.40	45.25	13.2	.1112					
16.6	48.20	13.20	.1121					
16.30	49.35	13.25	.1121					
17.11	42.40	13.55	.1131					
17.37	43.0	14.23	.1131					
18.15	41.55	14.45	.1115					
18.20	42.15	14.53	.1116					
18.31	39.15	15.20	.1103					
18.46	42.40	15.38	.1106					
18.52	45.0	15.47	.1111					
19.2	43.5	16.0	.1112					
19.8	44.25	16.20	.1095					
19.17	41.10	16.33	.1106					
19.23	42.50	16.47	.1111					
19.29	40.10	17.8	.1107					
19.33	42.0	17.40	.1110					
19.41	40.20	18.23	.1109					
19.50	42.10	18.37	.1114					
20.47	42.5	18.59	.1109					
21.0	43.30	19.43	.1093					
21.8	42.35	20.4	.1093					
21.18	45.0	20.19	.1086					
21.26	43.45	20.38	.1083					
21.53	49.10	20.45	.1085					
22.23	49.50	20.57	.1076					
23.8	53.5	21.9	.1078					
23.30	55.10	21.19	.1077					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers.	
							Of H.F. Magnet.	Of V.F. Magnet.
Apr.17		Apr.17		h m		h m	°	°
h m	° ' "	h m						
23.51	20.55.10	21.27	.1081					
23.59	54.5	21.38	.1077					
		21.50	.1082					
		22.0	.1081					
		22.14	.1076					
		22.36	.1083					
		23.0	.1087					
		23.35	.1084					
		23.46	.1085					
		23.55	.1083					
		23.59	.1083					
Apr.18		Apr.18		Apr.18		Apr.18		
0.0	20.54.5	0.0	.1083	0.0	.01910	1.0	57.0	56.8
0.10	53.0	0.15	.1093	3.0	.01940	3.0	58.5	57.5
0.14	55.20	0.21	.1094	7.30	.01720	9.0	59.7	57.2
0.24	55.40	0.42	.1093	12.33	.01818	22.0	49.4	49.8
0.43	54.0	0.59	.1100	13.15	.01820			
1.1	55.0	1.8	.1097	14.0	.01875			
1.24	53.55	1.45	.1102	15.20	.01890			
2.22	53.20	2.26	.1107	15.45	.01880			
2.53	51.40	2.58	.1108	18.33	.01936			
3.18	51.25	3.17	.1115	21.30	.01900			
3.35	48.55	3.29	.1106	23.59	.01940			
	(†)	3.35	.1107					
4.20	44.30		(†)					
4.28	44.25	4.20	.1127					
4.48	45.15	4.30	.1127					
4.55	46.50	4.38	.1132					
5.8	46.55	4.49	.1128					
5.23	45.55	5.8	.1128					
6.6	45.50	5.39	.1116					
6.13	46.20	5.47	.1116					
6.27	44.40	5.59	.1110					
6.47	46.0	6.15	.1116					
7.2	45.10	6.22	.1112					
7.37	44.15	6.53	.1114					
8.1	45.0	7.0	.1112					
8.31	43.55	7.11	.1114					
8.58	44.50	7.24	.1110					
9.23	43.20	7.55	.1115					
10.45	45.0	8.20	.1109					
11.46	39.0	8.38	.1112					
	***	8.52	.1112					
12.20	41.0	9.2	.1107					
	***	9.34	.1108					
13.17	36.5	9.47	.1107					
13.38	38.35	10.32	.1111					
14.7	39.40	11.17	.1107					
15.12	51.5	11.31	.1113					
15.49	45.10	11.47	.1111					
16.11	43.20	12.0	.1107					
16.43	45.5	12.39	.1119					
18.45	41.50	13.8	.1110					
18.56	38.10	13.38	.1109					
19.10	40.0	14.9	.1113					
	***	14.28	.1111					
20.13	41.5	14.44	.1102					

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers.	
							Of H.F. Magnet.	Of V.F. Magnet.
Apr.18		Apr.18		h m		h m	°	°
h m	° ' "	h m						
20.51	20.45.35	15.9	.1109					
21.15	49.20	15.20	.1116					
21.29	49.20	15.40	.1118					
	(†)	16.12	.1126					
22.6	49.25	16.55	.1116					
22.17	51.45	17.53	.1115					
23.9	50.30	18.43	.1109					
23.59	52.5	18.49	.1104					
		19.8	.1109					
		19.52	.1099					
		20.32	.1083					
		21.1	.1077					
		21.26	.1081					
		21.33	.1078					
		21.59	.1085					
		22.15	.1082					
		22.38	.1083					
		23.47	.1102					
		23.59	.1101					
Apr.19		Apr.19		Apr.19		Apr.19		
0.0	20.52.5	0.0	.1101	0.0	.01940	7.30	61.5	58.5
0.12	55.5	0.17	.1108	2.4	.01965	21.0	50.9	51.0
0.48	57.30	0.31	.1106	4.0	.01877			
1.0	57.0	0.54	.1106	4.24	.01875			
1.16	55.25	1.19	.1100	6.18	.01677			
1.32	55.20	1.32	.1105	7.28	{.01627 / .01674}			
1.59	53.30	1.47	.1102	9.21	.01560			
2.40	52.35	2.2	.1104	10.53	.01560			
3.23	52.10	2.24	.1112	11.23	.01540			
3.29	51.5	2.45	.1114	11.43	.01542			
3.45	51.35	3.14	.1124	12.3	.01500			
4.8	46.25	3.21	.1123	12.25	.01538			
4.26	47.20	3.39	.1129	12.54	.01540			
4.45	46.25	3.56	.1122	13.38	.01596			
5.43	46.35	4.22	.1136	13.55	.01590			
5.56	47.25	4.29	.1136	14.25	.01630			
6.38	45.35	4.36	.1133	15.46	.01720			
7.0	46.30	4.54	.1137	19.33	.01877			
7.9	44.50	5.20	.1127	22.58	.01975			
7.28	45.50	5.30	.1126	23.59	.01975			
7.40	43.55	5.54	.1131					
7.48	41.35	6.38	.1129					
8.2	40.45	6.46	.1132					
9.6	46.0	7.0	.1129					
9.54	46.20	7.45	.1105					
10.4	47.0	8.19	.1103					
10.19	47.25	9.21	.1113					
10.55	42.45	10.17	.1121					
11.13	44.0	10.43	.1116					
11.37	39.40	10.53	.1118					
11.59	50.10	11.38	.1096					
12.24	39.0	11.50	.1102					
12.38	41.10	12.2	.1100					
13.18	36.10	12.18	.1115					
13.55	47.15	13.0	.1101					
14.16	43.35	13.13	.1108					
14.35	45.20	13.25	.1107					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

April 18. The Declination and Horizontal Force photographic cylinder was stopped from 3h. 35m. to 4h. 20m.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H. F. Magnet.	Of V. F. Magnet.
Apr.19		Apr.19						
h m	o ' ''	h m		h m		h m	o	o
14.59	20.44.5	13.39	.1113					
	***	14.3	.1108					
16.8	44.30	14.20	.1112					
16.49	41.30	14.44	.1108					
17.15	43.25	15.27	.1110					
17.53	44.20	16.23:	.1114					
18.22	46.0	17.16:	.1107					
18.58	44.0	18.7	.1116					
19.6	41.20	18.48	.1113					
19.15	42.55	18.54	.1115					
19.28	40.5	19.4	.1113					
19.38	42.0	19.18	.1116					
19.52	43.30	19.52	.1108					
20.24	43.0	20.23	.1105					
20.43	41.5	20.49	.1105					
20.50	42.30	21.7	.1104					
21.30	43.35	21.21	.1105					
21.53	47.35	21.43	.1096					
22.6	47.0	22.22	.1092					
22.47	51.25	23.2	.1105					
23.51	52.0	23.14	.1104					
23.59	52.55	23.38	.1116					
		23.47	.1114					
		23.59	.1116					
Apr.20		Apr.20		Apr.20		Apr.20		
0.0	20.52.55	0.0	.1116	0.0	.01975	1.0	54.9	54.3
0.13	54.20	0.15	.1120	2.16	.01974	3.0	57.9	57.7
0.24	53.55	0.26	.1119	3.44	.01872	9.0	61.0	59.0
0.42	54.20	0.47	.1117	4.12	.01850	21.0	51.9	51.0
0.45	55.35	1.7	.1121	4.59	.01757			
1.17	57.0	1.15	.1119	5.56:	.01657			
1.31	55.20	1.25	.1120	6.43	.01650			
1.45	52.40	1.46	.1104	7.15	.01550			
2.8	55.5	2.17	.1122	12.18	.01490			
2.32	53.50	3.16	.1123	16.34	.01730			
2.47	54.45	3.23	.1128	19.55	.02000			
3.0	53.0	3.30	.1128	21.55	.01960			
3.13	54.0	3.50	.1113	22.56	.02000			
3.37	50.35	4.17	.1145	23.59	.01980			
3.58	45.25	4.30	.1141					
4.18	47.40	4.58	.1128					
4.28	46.45	5.35	.1124					
4.39	47.30	5.53:	.1119					
5.13	49.0	6.15	.1127					
5.40	47.30	6.44	.1117					
5.54	47.25	7.1	.1117					
6.3	48.15	7.10	.1120					
6.22	46.25	7.16	.1119					
7.7	47.0	7.31	.1122					
7.38	45.30	7.52	.1116					
8.0	42.25	8.14	.1128					
8.13	44.50	8.25	.1120					
8.26	37.40	8.38	.1129					
8.57	42.30	9.7	.1113					
9.1	39.35	9.15	.1113					
9.29	43.10	9.33	.1101					
9.38	41.25	9.48	.1105					

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H. F. Magnet.	Of V. F. Magnet.
Apr.20		Apr.20						
h m	o ' ''	h m		h m		h m	o	o
10.0	20.45.30	10.8	.1103					
10.19	44.25	10.29	.1107					
10.44	47.5	10.53	.1112					
10.57	46.0	11.4	.1109					
11.28	45.35	11.45	.1119					
11.48	46.45	11.59	.1111					
12.28	39.0	12.34	.1110					
12.37	39.45	12.47	.1104					
12.43	38.40	13.1	.1108					
12.53	40.0	13.37	.1105					
13.0	39.20	13.46	.1107					
13.12	41.40	14.43	.1111					
13.41	41.10	14.58	.1107					
13.59	45.5	15.27	.1111					
14.39	44.20	16.13	.1111					
15.0	45.35	16.23	.1108					
15.45	45.55	16.34	.1111					
16.25	47.50	16.44	.1109					
	***	16.58	.1114					
17.15	44.0	17.9	.1114					
	***	17.15	.1112					
17.52	43.50	17.23	.1115					
	***	18.8	.1112					
18.27	40.50	18.45	.1113					
18.34	41.55	18.56	.1114					
18.40	40.5	19.20	.1105					
18.54	44.10	19.34	.1106					
19.22	39.20	19.53	.1100					
19.32	41.55	20.0	.1100					
19.49	43.0	20.11	.1097					
19.54	41.20	20.23	.1099					
20.3	41.45	20.43	.1093					
20.17	40.55	21.43	.1086					
20.36	43.0	22.0	.1086					
20.51	41.5	22.8	.1088					
20.59	42.20	22.32	.1080					
21.36	43.40	22.52	.1090					
22.22	48.50	23.13	.1096					
23.24	51.0	23.23	.1096					
23.59	51.45	23.37	.1101					
		23.50	.1101					
		23.59	.1098					
Apr.21		Apr.21		Apr.21		Apr.21		
0.0	20.51.45	0.0	.1098	0.0	.01980	1.0	54.9	53.8
0.15	51.5	0.6	.1095	2.40	.01943	3.0	56.3	55.0
0.27	52.0	0.33	.1099	5.34	.01835	9.0	57.7	56.5
0.38	51.50	0.45	.1104	9.36	.01727	21.0	53.0	53.0
0.44	53.50	0.53	.1102	11.50	.01720	22.0	53.5	53.9
0.58	53.40	1.9	.1106	14.11	.01780	23.0	54.2	54.3
1.9	54.40	1.30	.1104	14.34	.01770			
1.30	52.35	1.41	.1108	15.10	.01780			
1.38	53.0	2.0	.1106	16.41	.01870			
1.54	52.0	2.48	.1120	18.45	.01950			
2.23	50.55	3.7	.1113	23.59	.01940			
2.45	51.0	3.23	.1112					
2.59	49.20	3.38	.1117					
3.57	47.5	4.32	.1121					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
h m	o ' "	h m		h m		h m	o	o
Apr.21		Apr.21						
4.44	20.46.15	4.44	.1121					
6.24	45. 0	5. 1	.1122					
7. 1	41.35	5.15	.1125					
7.20	41.40	5.33	.1125					
7.36	42.45	5.46	.1129					
7.43	42.35	6. 1	.1126					
9.19	45.10	6.20	.1127					
9.33	42.55	6.40	.1126					
10.15	46.20	6.54	.1128					
10.23	45.20	6.59	.1126					
10.37	45.55	7. 8	.1127					
10.46	44.55	7.40	.1118					
11. 8	45.45	7.52	.1120					
11.32	.44.50	8.28	.1116					
11.53	45. 0	8.41	.1118					
12. 8	46. 5	8.56	.1116					
12.32	44.15		(†)					
13. 6	43.30	9. 0	.1119*					
13.56	47. 0	21. 0	.1096*					
14.16	49.35							
14.45	45.15							
15. 0	43. 0							
16.10	44.50							
16.32	44.20							
16.50	45. 5							
17.32	43.10							
18.21	42.50							
18.38	44. 0							
18.54	43.55							
19.47	40.20							
19.57	41. 0							
20.15	40. 5							
20.50	42.30							
20.58	42. 0							
21.30	43. 0							
21.59	44.50							
22. 4	44.20							
22.39	48.35							
22.53	49.50							
23. 1	49.55							
23. 6	49.35							
23.15	50. 0							
	(†)							
Apr.22	(†)	Apr.22	(†)	Apr.22		Apr.22		
0.40	20.53.40	0.42	.1097	0. 0	.01940	0. 0	55.0	54.8
0.56	54.55	1. 0	.1100	1.56	.01963	1. 0	55.5	55.2
1.19	54. 0	1.25	.1095	3.45	.01920	3. 0	57.6	56.8
1.39	55.55	1.35	.1099	4.55	.01840	6. 0	59.4	57.0
1.53	53.40		(†)	6. 0	.01797	9. 0	59.0	56.4
1.57	53.55	2.15	.1104	8.57	.01692	12. 0	57.0	56.0
2.11	52. 0	2.57	.1103	10.18	.01683	18. 0	51.8	51.0
2.24	52.30	3.14	.1107	13. 8	.01770	21. 0	50.0	50.0
2.43	51.25	3.34	.1106	18.35	.02000	22. 0	50.5	50.5
4.12	48.55	3.49	.1108	21.33	.01940	23. 0	51.0	51.0
4.30	49. 5	3.59	.1107	23.15	.01960			
5.14	47. 0	4.36	.1117	23.59	.01948			

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
h m	o ' "	h m		h m		h m	o	o
Apr.22		Apr.22						
6.13	20.43. 0	4.51	.1118					
6.34	45. 0	5. 0	.1116					
7. 2	45.50	5.16	.1118					
7.34	47.25		(†)					
8. 8	46.25	8.51	.1114					
	(†)	9.10	.1114					
8.53	46.25	9.18	.1118					
9.23	45.15	9.32	.1115					
9.48	38.45	9.47	.1122					
9.56	39.45	10.15	.1108					
10.25	39. 0	10.29	.1114					
10.41	42. 0	11. 0	.1101					
11.28	39.55	11.36	.1102					
12. 8	40.40	12.11	.1098					
12.26	44. 0	12.46	.1107					
13.16	44. 5	13. 4	.1104					
14. 0	41. 0	13.23	.1108					
14.37	44.55	13.36	.1107					
15.26	46.45	13.48	.1110					
15.53	45. 0	14.43	.1109					
16.15	44.50	15. 4	.1113					
16.38	43. 5	15.25	.1117					
16.58	43.10	15.39	.1114					
17. 9	44.35		(†)					
	***	21. 0	.1093*					
18.16	43.50	21.20	.1097					
18.32	42.25	22.22	.1095					
19. 2	43.30	22.48	.1100					
19.27	41.50	23. 8	.1098					
19.38	42.45	23.29	.1104					
19.49	42. 0	23.43	.1115					
20. 1	42.40	23.53	.1112					
20.25	40.40		(†)					
20.46	43.15							
21.22	44.25							
21.31	45.35							
22.38	47.35							
23. 9	49.35							
23.43	50.20							
23.59	52.25							
Apr.23		Apr.23		Apr.23		Apr.23		
0. 0	20.52.25		(†)	0. 0	.01948	0. 0	51.0	51.5
0.13	51.35	0.12	.1110	1.40	.01977	1. 0	53.0	52.0
0.36	54.15	0.37	.1117	3. 7	.01940	2. 0	54.2	53.0
0.43	53.30	0.53	.1110	4.12	.01845	3. 0	55.8	54.3
1.26	53.45	1. 7	.1115	6.12	.01680	9. 0	56.2	54.0
1.37	53. 0	1.38	.1123	9. 0	.01640	21. 0	48.2	49.0
2.30	50. 5	2.29	.1124	10.18	.01647			
2.44	50.20	2.50	.1129	10.39	.01660			
3. 2	49. 5	3.13	.1129	11.15	.01650			
3.18	49. 0	3.20	.1132	15.10	.01760			
3.38	48. 5	3.38	.1130	15.33	.01760			
3.55	48.10	4. 4	.1135	17.22	.01840			
4.55	46.55		***	18. 5	.01860			
7.37	47. 5	5.14	.1132	18.35	.01900			
8.40	46.20	6. 7	.1135	20.15	.01950			
9.23	47. 5	6.35	.1142	20.23	.01937			

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Apr.23 h m	° ′ ″	Apr.23 h m		Apr.23 h m		h m	°	°
10.23	20.44.55	7.20	·1130	21.19	·01907			
10.52	47.15	8.56	·1129	23.59	·01923			
11.30	40. 0	9.25	·1133					
11.49	41.45	10.23	·1127					
12. 3	42. 0	10.46	·1138					
12.28	44.30	11.31	·1128					
12.55	43.10	11.58	·1127					
13.18	43.50	12.14	·1122					
13.45	41.35	12.32	·1127					
14.29	43.35	13. 6	·1125					
14.42	42. 0	13.30	·1128					
15.13	44.10	13.58	·1126					
15.32	39.50	14.18	·1128					
15.58	38.35	14.39	·1128					
16.20	40.35	14.58	·1120					
16.37	43. 0	15.18	·1132					
17.10	42.30	15.38	·1131					
17.22	43.45	15.59	·1121					
17.35	42.40	16.53	·1114					
17.54	44.40	17.20	·1117					
18.53	41.15	17.32	·1115					
19. 2	41.50	17.46	·1118					
19.16	40.20	18. 8	·1115					
19.52	40.15	19.55	·1107					
20. 0	41.30	20. 9	·1103					
20.20	41.10	20.58	·1098					
20.59	45. 0	21.17	·1094					
21.20	45.55	21.32	·1098					
21.56	49. 0	22.18	·1096					
22. 8	48.55	22.35	·1101					
22.22	50. 5	23.23	·1106					
23.20	51.40	23.42	·1112					
23.40	53. 0	23.53	·1111					
23.53	52. 5	23.59	·1115					
23.59	53. 0							
Apr.24 0. 0	20.53. 0	Apr.24 0. 0	·1115	Apr.24 0. 0	·01923	Apr.24 1. 0	52 ·5	51 ·8
0.10	52. 0	0. 8	·1113	{1.11	{·01920 / ·01930	3. 0	56 ·0	55 ·5
0.54	52. 5	0.38	·1121			9. 0	59 ·3	57 ·1
1. 5	51.35	1. 9	·1123	2.25	·01965	21. 0	53 ·3	52 ·8
1.37	53.45	1.47	·1136	3.11	·01880			
1.58	52.40	2.29	·1137	3.42	·01823			
3. 7	52.25	2.56	·1141	4.34	·01695			
3.53	48.25	3. 6	·1139	6.10	·01580			
4.24	49. 0	3.31	·1145	6.38	·01570			
6. 0	46.25	3.55	·1139	7.41	·01500			
6. 7	46.40	4. 7	·1142	11. 8	·01463			
6.27	43.35	4.22	·1141	11.33	·01443			
6.49	44. 5	4.44	·1146	14.40	·01508			
8. 0	47.40	4.52	·1145	17.10	·01600			
8.33	46.10	5.52	·1151		(†)			
9. 5	46.50	6.10	·1147	21. 0	·01716*			
9.30	43. 0	6.24	·1137	22.36	·01780			
9.49	35. 0	6.53	·1143	23.22	·01787			
9.53	37.25	7.15	·1140	23.52	·01780			
9.55	40. 0	7.51	·1138	¦(†)				
10.13	42.10	8.14	·1141					

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Apr.24 h m	° ′ ″	Apr.24 h m		h m		h m	°	°
10.15	20.44. 0	8.43	·1130					
10.52	42.35	9.15	·1128					
11. 3	45.20	9.36	·1116					
11.16	43.35	9.55	·1125					
11.34	39.10	10.16	·1116					
11.46	38.40	10.28	·1106					
12. 8	42.15	10.39	·1110					
12.36	43. 0	10.52	·1108					
13.14	45. 0	11.10	·1107					
14.14	45. 0		(†)					
14.45	42.50	21. 0	·1091*					
15. 4	42.55	22.39	·1100					
15.42	45.35	23. 4	·1100					
16.16	43.45	23.23	·1103					
16.44	44. 0	23.38	·1100					
17. 1	43.30	23.53	·1101					
17.28	44. 0		(†)					
18. 0	43.55							
18.14	41.55							
18.40	41.35							
	(†)							
21. 0	45.32*							
22.37	49.10							
23.25	51.25							
23.47	51. 5							
23.55	51.35							
	(†)							
Apr.25	(†)	Apr.25	(†)	Apr.25	(†)	Apr.25 1. 0	55 ·7	55 ·8
0. 6	20.51. 0	0.12	·1098	0. 9	·01767	3. 0	58 ·1	58 ·7
0.23	51.20	0.37	·1097	2. 6	·01800	9. 0	62 ·2	60 ·8
0.36	50.55	1.30	·1101	3. 2	·01700	22. 0	54 ·0	53 ·5
1.27	51. 0	1.53	·1109	4. 3	·01640			
1.50	51.55	2. 4	·1117	4.20	·01595			
2. 8	50.35	2.10	·1116	5.28	·01570			
2.31	49.50	2.23	·1120	6. 9	·01590			
3. 6	49.35	3.10	·1123	9. 3	·01530			
3.51	48.15	3.19	·1125	9.26	·01497			
4.19	49. 0	3.29	·1122	9.44	·01498			
5.12	47.40	3.38	·1127	10.24	·01468			
5.37	44. 0	3.50	·1124	12.40	·01500			
5.53	42.35	4.20	·1130	14. 8	·01560			
6.54	44. 0	4.57	·1127	20.10	·01900			
7.15	46. 0	5.11	·1128	23.59	·02000			
7.58	44.55	5.33	·1115					
8.21	44.45	6.16	·1136					
8.38	45.10	7.12	·1127					
8.55	42. 0	7.23	·1130					
9. 3	38. 0	7.44	·1130					
9.19	42. 0	8.29	·1119					
9.41	33.25	8.53	·1120					
9.59	39.30	9. 7	·1138					
10. 9	38.20	9.31	·1117					
10.25	40.35	9.49	·1130					
10.34	40.40	10. 7	·1116					
10.57	44.25	10.14	·1114					
12. 1	45. 0	10.31	·1102 ***					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol ː attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Apr.25		Apr.25						
h m	o ′ ″	h m		h m		h m	o	o
12.23	20.41.15	11.41	·1110					
12.57	37.10	11.53	·1114					
13.12	36.30	12.10	·1112					
13.30	37.55	12.25	·1116					
14.0	38.0	12.45	·1114					
14.52	44.5	12.53	·1116					
15.18	37.30	13.14	·1108					
15.45	37.55	13.29	·1111					
16.25	37.25	14.23	·1104					
16.50	40.0	14.51	·1110					
17.3	40.35	15.8	·1106					
17.30	38.25	15.59	·1113					
18.34	38.20	16.16	·1109					
	(†)	16.29	·1113					
20.0	42.5	17.11	·1114					
20.13	41.10	17.30	·1112					
21.19	45.30	17.50	·1112					
22.7	50.0	18.29	·1104					
22.13	49.40	19.0	·1104					
22.38	51.45	19.8	·1106					
22.54	50.55	19.21	·1104					
22.58	51.35	19.38	·1107					
23.1	50.20	19.58	·1104					
23.10	50.0	21.25	·1096					
23.18	50.30	22.6	·1098					
23.54	51.0	22.23	·1100					
23.59	50.30	22.27	·1102					
		22.44	·1101					
		22.52	·1106					
		23.2	·1107					
		23.4	·1104					
		23.59	·1112					
Apr.26		Apr.26		Apr.26		Apr.26		
0.0	20.50.30	0.0	·1112	0.0	·02000	9.0	62·0	61·0
0.37	52.25	0.7	·1111	2.0	·01942	21.0	54·0	53·2
0.56	51.35	0.39	·1116	3.30:	·01952			
1.28	53.30	0.54	·1112	5.39	·01867			
2.0	52.10	1.33	·1119	9.20	·01587			
2.28	53.0	1.58	·1116	11.16	·01567			
3.9	51.5	2.36	·1127	12.37	·01590			
3.24	49.30	2.58	·1121	13.7:	·01537			
3.51	47.50	3.13	·1120	19.19	·01950			
4.12	47.20	3.24	·1114	23.59	·02075			
4.23	48.10	4.13	·1114					
4.50	46.55	4.35	·1121					
5.9	47.50	4.52	·1118					
5.32	43.45	5.15	·1130					
5.45	44.5	5.32	·1125					
5.52	44.50	5.46	·1134					
6.17	44.5	6.0	·1134					
6.36	44.50	6.16	·1128					
6.49	45.55	6.30	·1129					
7.27	43.25	7.24	·1117					
7.53	43.40	7.39	·1120					
8.13	42.35	7.55	·1119					
8.28	41.0	8.7	·1121					
8.42	41.20	8.19	·1119					

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Apr.26		Apr.26						
h m	o ′ ″	h m		h m		h m	o	o
8.45	20.41.0	8.27	·1120					
9.4	35.55	9.15	·1107					
9.12	38.35	9.23	·1107					
9.25	37.40	9.35	·1102					
9.34	38.35	9.48	·1102					
9.39	38.5	9.55	·1099					
9.45	38.30	10.12	·1103					
9.53	40.0	10.22	·1102					
10.1	39.30	10.49	·1110					
10.33	42.50	11.7	·1108					
10.47	42.55	11.22	·1109					
10.57	43.45		***					
11.11	43.0	12.23	·1104					
11.35	43.20	12.43	·1131					
12.5	40.40	12.51	·1126					
12.27	49.55	13.6	·1123					
13.2	38.45	13.21	·1112					
13.28	37.5	13.30	·1111					
13.53	39.10	13.45	·1112					
	(†)	13.53	·1110					
17.37	43.10	(†)						
18.15	43.5	17.36	·1117					
19.21	44.15	19.13	·1117					
20.34	43.55	19.57	·1114					
21.26	44.45	21.26	·1105					
22.32	48.0	22.52	·1103					
23.16	49.5	23.15	·1106					
23.29	50.40	23.34	·1112					
23.59	52.25	23.45	·1112					
		23.59	·1116					
Apr.27		Apr.27		Apr.27		Apr.27		
0.0	20.52.25	0.0	·1116	0.0	·02075	1.0	59·0	59·0
0.55	53.25	0.17	·1114	1.37	·02015	3.0	61·3	61·4
1.37	51.15	0.53	·1118	2.17	·01875	9.0	64·0	61·8
2.15	50.30	1.39	·1118	3.3	·01844	21.0	55·3	54·3
3.2	48.45	2.13	·1123	4.56:	·01605			
4.23	48.45	2.38	·1123	6.9	·01580			
5.48	47.0	3.7	·1126	7.53	·01540			
6.45	46.25	3.20	·1125	9.40	·01560			
7.30	47.0	3.35	·1126	10.8	·01550			
8.13	45.40	3.43	·1125	12.34	·01595			
9.6	46.25	4.27	·1130	13.59	·01640			
9.14	45.30	4.40	·1128	17.10	·01830			
9.43	45.40	4.52	·1129	19.3	·01920			
9.57	44.50	5.8	·1127	22.15	·02000			
10.28	46.10	6.29	·1128	23.59	·01980			
10.56	44.35	6.37	·1126					
11.1	43.15	7.13	·1124					
11.23	42.10	7.25	·1121					
11.39	42.25	7.57	·1118					
12.21	45.20	8.17	·1119					
12.54	39.35	8.43	·1116					
13.39	40.30	9.7	·1109					
14.49	43.40	10.1	·1109					
16.30	43.0	10.14	·1112					
17.12	43.25	10.50	·1112					
17.30	42.40	11.0	·1110					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

April 26. The Declination and Horizontal Force photographic cylinder was stopped from 13ʰ. 53ᵐ. to 17ʰ. 36ᵐ.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Apr.27		Apr.27						
h m	o ′ ″	h m						
17. 40	20. 43. 0	11. 52	·1109					
17. 54	41. 35	12. 17	·1116					
18. 21	42. 5	12. 35	·1115					
19. 3	40. 10	13. 4	·1125					
19. 22	41. 5	14. 5	·1114					
20. 0	41. 30	14. 30	·1118					
20. 32	42. 55	14. 52	·1117					
20. 57	45. 5	15. 25	·1117					
21. 0	44. 10	16. 38	·1114					
21. 43	47. 20	17. 14	·1114					
22. 37	48. 55	17. 30	·1112					
23. 12	50. 55	17. 39	·1113					
23. 59	51. 25	17. 55	·1111					
		18. 51	·1107					
		19. 24	·1107					
		20. 17	·1102					
		20. 50	·1102					
		21. 16	·1098 ***					
		23. 2	·1107					
		23. 46	·1116					
		23. 59	·1119					
Apr.28		Apr.28		Apr.28		Apr.28		
0. 0	20. 51. 25	0. 0	·1119	0. 0	·01980	1. 0	56 ·0	54 ·7
0. 51	52. 35	0. 26	·1125	3. 2	·02044	3. 0	57 ·0	56 ·0
1. 43	51. 30	0. 53	·1125	6. 54	·01917	9. 0	57 ·7	55 ·7
2. 37	49. 30	1. 31	·1123	9. 44	·01920	21. 0	50 ·0	50 ·8
3. 20	48. 45	2. 14	·1129	13. 8	·02026	22. 0	50 ·0	50 ·8
3. 46	49. 0	2. 28	·1128	14. 3	·01998	23. 0	50 ·2	50 ·8
4. 43	47. 0	2. 47	·1129	16. 30	·01973			
5. 26	46. 25	3. 11	·1133	21. 3	{·01885	·01740}		
5. 33	46. 40	3. 21	·1133	23. 59	·01760			
7. 0	45. 55	3. 39	·1136					
9. 56	45. 5	4. 1	·1136					
10. 46	44. 15	4. 27	·1139					
11. 30	44. 0	4. 46	·1137					
11. 34	43. 10	5. 1	·1146					
12. 15	43. 0	5. 27	·1132					
12. 32	40. 55	5. 40	·1139					
12. 58	40. 20	6. 25	·1136					
13. 23	43. 40	6. 38	·1141					
13. 41	44. 5	7. 2	·1143					
14. 9	41. 10	7. 38	·1138					
15. 1	41. 45	8. 19	·1134					
15. 32	43. 30	8. 38	·1134					
19. 18	41. 20	8. 45	·1135					
20. 52	42. 50	9. 37	·1133					
22. 48	49. 30	9. 47	·1135					
23. 16	52. 5	9. 55	·1132					
23. 30	52. 0	10. 3	·1134					
23. 59	53. 15	10. 42	·1131					
		11. 20	·1132					
		11. 28	·1130					
		11. 54	·1132					
		12. 11	·1140					
		12. 21	·1135					
		12. 47	·1130					

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
		Apr.28						
		13. 10	·1135					
		13. 22	·1134					
		13. 35	·1135					
		14. 16	·1129					
		14. 37	·1128					
		14. 58	·1130					
		15. 30	·1128					
		18. 21	·1129					
		20. 7	·1116					
		21. 14	·1113					
		21. 23	·1112					
		21. 38	·1110					
		22. 15	·1109					
		22. 50	·1111					
		22. 57	·1110					
		23. 11	·1114					
		23. 30	·1114					
		23. 59	·1119					
Apr.29		Apr.29		Apr.29		Apr.29		
0. 0	20. 53. 15	0. 0	·1119	0. 0	·01760	0. 0	51 ·0	51 ·0
0. 30	53. 55	0. 13	·1120	3. 0	·01770	1. 0	51 ·5	51 ·3
1. 30	54. 10	0. 55	·1120	5. 3	·01680	2. 0	52 ·5	52 ·1
1. 53	53. 40	2. 23	·1139	6. 57	·01650	3. 0	53 ·5	52 ·9
2. 23	54. 5	2. 49	·1135	9. 49	·01680	6. 0	55 ·3	53 ·2
2. 55	53. 0	3. 43	·1142	10. 56	·01720	9. 0	54 ·1	52 ·5
5. 55	49. 20	4. 30	·1142	12. 3	·01740	12. 0	53 ·0	52 ·0
6. 2	50. 0	4. 43	·1139	15. 5	·01820	18. 0	48 ·1	48 ·2
6. 12	49. 35	6. 3	·1143	16. 46	·01790	21. 0	47 ·3	48 ·4
7. 16	49. 40	6. 12	·1152	17. 26	·01740	22. 0	47 ·8	48 ·7
7. 35	48. 30	6. 20	·1144	17. 48:	·01760	23. 0	48 ·5	49 ·0
8. 11	49. 5	6. 30	·1151	18. 18	·01740			
9. 23	46. 25	7. 1	·1147	19. 13	·01720			
9. 30	44. 55	7. 59	·1148	19. 39	·01730			
9. 42	46. 25	8. 8	·1144	20. 19	·01705			
9. 57	43. 35	8. 15	·1151	20. 50	·01720			
10. 8	42. 35	8. 50	·1152	21. 19	·01695			
10. 13	43. 25	9. 8	·1138	21. 43	·01730			
10. 21	42. 20	9. 30	·1144	22. 8	·01720			
10. 29	43. 15	9. 38	·1160	22. 52	·01745			
10. 55	42. 35	10. 1	·1136	23. 59	·01755			
11. 3	44. 0	10. 16	·1137					
11. 21	45. 0	10. 23	·1127					
11. 46	45. 0	10. 30	·1138					
11. 58	46. 25	10. 38	·1141					
12. 5	45. 0	10. 45	·1129					
12. 24	43. 45	10. 52	·1134					
12. 50	45. 15	11. 0	·1131					
13. 6	43. 5	11. 8	·1137					
13. 9	44. 0	11. 13	·1136					
13. 53	42. 10	11. 20	·1140					
14. 16	42. 0	11. 28	·1136					
14. 20	41. 5	11. 38	·1141					
14. 52	46. 15	11. 57	·1137					
15. 32	45. 20	12. 8	·1148					
15. 47	46. 20	12. 28	·1138					
16. 5	45. 40	12. 49	·1137					
16. 24	48. 55	13. 7	·1150					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol ː attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Apr.29 16.37	20. 52. 20	Apr.29 13.14	.1139								Apr.30 2.26	.1130	Apr.30 18.15	.01758			
16.52	52. 40	13.22	.1151								2.47	.1140	18.46	{.01750			
17.18	51. 50	13.43	.1145								2.57	.1131		.01690}			
17.29	48. 10	13.49	.1149								3. 4	.1132	20.11	.01697			
17.35	53. 5	14. 3	.1145								3.13	.1120	21. 0	.01726			
17.39	52. 50	14.19	.1146								3.28	.1112	23.59	.01724			
17.45	55. 30	14.27	.1137								3.45	.1127					
17.56	53. 50	14.33	.1144								4. 1	.1115					
18. 0	55. 0	14.36	.1136								4.17	.1125					
18.21	48. 40	14.44	.1142								4.27	.1118					
18.35	51. 0	15.38	.1143								4.51	.1124					
18.42	50. 10	16. 6	.1143								4.59	.1122					
18.51	51. 5	16.17	.1144								5.22	.1132					
18.59	49. 30	16.31	.1140								5.30	.1131					
19. 2	50. 20	16.52	.1144								5.44	.1134					
19.16	45. 10	17. 1	.1144								6. 0	.1133					
19.46	55. 30	17.14	.1137								6.15	.1135					
19.57	53. 15	17.30	.1133								6.25	.1132					
20. 0	55. 40	17.37	.1136								6.42	.1142					
20.16	53. 50	17.45	.1137								6.50	.1137					
20.24	56. 45	18.15	.1166								7. 1	.1135					
20.31	55. 40	18.40	.1150								7.23	.1136					
20.35	57. 15	18.50	.1148								7.38	.1129					
21.17	20. 54. 0	19.15	.1118								7.49	.1131					
21.39	21. 2. 0	19.41	.1137								8. 1	.1128					
21.57	20. 58. 5	20. 0	.1117								8.17	.1132					
22. 0	55. 25	20. 7	.1121								8.26	.1130					
22.13	57. 55	20.15	.1121								8.36	.1131					
22.18	56. 40	20.27	.1132								8.46	.1127					
22.22	58. 35	20.38	.1133								9.14	.1147					
22.45	58. 20	21. 7	.1122								9.29	.1131					
22.57	59. 25	21.17	.1108								9.36	.1133					
23.14	56. 50	21.29	.1108								9.54	.1128					
23.19	57. 35	21.41	.1116								10.15	.1130					
23.29	55. 5		***								10.21	.1127					
23.37	56. 50	22. 2	.1108								11.41	.1130					
23.55	54. 25	22.16	.1112								11.47	.1128					
23.59	54. 20		***								12. 8	.1131					
		22.45	.1111 ***								12.22	.1136					
		23.20	.1115								12.34	.1137					
		23.28	.1112								13. 0	.1127					
		23.47	.1127								13.16	.1131					
		23.51	.1125								13.29	.1131					
		23.59	.1125								14. 1	.1126 ***					
Apr.30 0. 0	20. 54. 20	Apr.30 0. 0	.1125	Apr.30 0. 0	.01755	Apr.30 0. 0	49.8	49.9			16.32	.1133					
0. 7	54. 40	0.25	.1126	2.35	.01747	1. 0	51.2	51.0			17.27	.1131					
0.14	53. 45	0.36	.1129	4. 5	.01663	3. 0	54.2	53.2			17.45	.1133					
0.16	54. 0	0.43	.1128	4.11	.01660	9. 0	54.4	53.0			18.23	.1129					
0.38	53. 35	0.50	.1126	4.47	.01607	21. 0	45.8	46.8			18.37	.1133					
(†)		1. 0	.1128	5.58	.01566						18.44	.1131					
1. 0	53. 49*	1.23	.1111	9.47	.01530						19.23	.1128					
3. 0	50. 25*	1.39	.1129	12.24	.01580						20. 7	.1115					
9. 0	35. 24*	1.44	.1134	12.54	.01580						20.13	.1111					
21. 0	46. 8*	1.53	.1128	17.15	.01775						20.32	.1107					
		(†)		17.42	.01780						20.41	.1103					
											20.57	.1116					
											21.26	.1122					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

April 30. After 0ʰ. 38ᵐ. the photographic trace for the Declination Magnet was too faint for use.

INDICATIONS OF THE MAGNETOMETERS

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
h m	° ′ ″	h m		h m		h m	°	°	h m	° ′ ″	h m		h m		h m	°	°
		Apr.30 21.31	·1120						May 1 20.14	20.44.40	May 1 17.38	·1131					
		21.45	·1121						21.30	45.35	17.45	·1130					
		21.57	·1125						21.43	47.10	18.29:	·1128					
		22.15	·1117						21.53	46.35	18.56	·1132					
		22.50	·1107						22.13	48. 0	19.13	·1129					
		23.23	·1118						22.52	48.20	19.24	·1131					
		23.46	·1101						23. 0	49. 5	19.45	·1122					
		23.59	·1106						23.59	50. 0	20.10	·1118					
May 1	(†)	May 1 0. 0	·1106	May 1 0. 0	·01724	May 1 1. 0	51·1	51·0			20.43	·1120					
0.19	20.53.30	0.11	·1112	0.36	·01736	3. 0	54·6	54·0			20.53	·1123					
0.30	53.10	0.23	·1112	1.23	·01710	9. 0	58·8	56·8			21. 6	·1118					
0.36	55.40	0.37	·1117	2.25:	·01700	21. 0	48·1	48·4			21.18	·1120					
0.51	56.50	0.40	·1127	4.53	·01480						22. 7	·1117					
1.22	55. 0	0.55	·1134	10.19	·01405						22.16	·1120					
1.38	56.20	1. 4	·1134	11.19	·01430						22.30	·1117					
2.28	52.55	1.23	·1123	19.32	·01860						22.53	·1125					
2.46	54.35	1.42	·1138	21.19	·01800						(†)						
2.58	54. 0	1.56	·1132	23.59	·01840						23.59	·1126					
3.16	54.50	2. 7	·1139						May 2 0. 0	20.50. 0	May 2 0. 0	·1126	May 2 0. 0	·01840	May 2 1. 0	53·2	53·0
3.36	50.40	2.10	·1137						0.58	51.40	0. 5	·1129	1.25	·01817	3. 0	56·2	56·0
3.52	49.35	2.50	·1142						1.27	50.55	0.30	·1134	3.33	·01640	9. 9	60·7	58·3
4.13	52.10	2.56	·1136						1.41	51.25	0.42	·1141	5. 6:	·01460	22. 7	53·0	53·0
4.25	52. 5	3.16	·1149						1.53	50.30	0.56	·1138	7.55	·01505			
4.43	48.40	3.33	·1129						2.20	50.20	1. 4	·1142	8.18	·01487			
5.28	47.10	3.43	·1132						2.39	49.25	1.25	·1140	10. 8	·01440			
6.58	46.35	3.53	·1131						3.54	47.55	1.45	·1143	10.29	·01420			
8.29	46.40	4.20	·1134						5. 3	47.20	2. 0	·1140	11.35	·01427			
8.50	45.20	4.30	·1129						5.51	45. 5	2.22	·1148	13.45	·01494			
9. 8	46.45	***							6.52	45.10	2.37	·1146	19.19	·01820			
9.18	45.20	5.34	·1141						7.16	42.50	3. 3	·1150	20.12	·01840			
10.16	44.55	5.52	·1141						7.35	42.40	3.29	·1141	23.46	·01895			
10.24	45.25	6.15	·1140						7.45	39.40	3.46	·1142	23.59	·01890			
10.53	45. 5	6.50	·1142						8. 2	39.35	4. 8	·1144					
11. 5	44.25	6.58	·1138						8. 8	41.10	4.23	·1143					
12. 3	45. 0	8. 8	·1131						8.17	40. 5	4.30	·1148					
***		8.45	·1130						8.28	40.25	***						
13.14	45.10	8.59	·1132						8.37	42. 0	5.30	·1148					
***		9.12	·1129						8.56	42. 0	5.45	·1150					
13.56	47. 0	***							9. 6	44.55	6.23	·1152					
14.24	45.40	10.21	·1132						9.27	44.55	6.38	·1157					
***		10.27	·1134						9.30	42.30	6.52	·1159					
15.12	46. 5	10.39	·1132						9.39	41.55	7.13	·1154					
15.45	43.10	***							10. 0	35.10	7.35:	·1134					
15.58	44.30	13. 8	·1131						10. 7	38.30	8. 3	·1140					
17. 5	41.40	13.27	·1133						10.22	39.30	8.24	·1130					
17.23	43.15	13.35	·1132						10.32	37.55	8.38	·1131					
17.29	42.40	13.58	·1134						10.48	39. 0	8.53	·1126					
18. 0	43. 0	14.23	·1132						10.54	42.40	9. 8	·1133					
18. 9	41.40	14.49	·1135						11.10	43. 0	9.13	·1131					
18.24	42. 0	15. 8	·1132						11.33	41. 5	9.22	·1132					
18.35	44.15	15.18	·1134						11.59	43. 0	9.29	·1133					
18.45	44.30	15.36	·1132						12.15	40. 5	9.37	·1137					
18.54	43.20	15.54	·1136						12.42	41.40	9.41	·1134					
19.33	42. 0	16.30	·1130						(†)		9.48	·1136					
19.42	43. 0	***							16.54	42.50	10.29	·1125					
19.59	42. 5	17.29	·1127						17.31	45. 5	10.43	·1129					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

May 2. The Declination and Horizontal-Force cylinder was stopped from 12ʰ. 46ᵐ. till after 16ʰ.

Left half:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
May 2		May 2						
h m	° ′ ″	h m		h m		h m	°	°
17.46	20.43.40	10.51	·1128					
18. 3	44.30	11. 0	·1129					
18.17	42.35	11.13	·1125					
18.23	43. 5	11.57	·1134					
18.31	41.10	12.16	·1132					
18.37	43. 0	12.24	·1134					
18.47	42. 5	12.46	·1137					
18.52	41. 5		(†)					
18.58	41.35	16.39	·1123					
19.25	41. 5	17.12	·1123					
19.40	40.10	17.27	·1118					
20.21	41.40	17.49	·1116					
20.55	41.40		***					
21.46	44. 5	18.32	·1119					
22. 8	44. 0	18.39	·1122					
23. 0	48. 0	19.39	·1118					
23. 3	48.55	20. 1	·1120					
23.29	48.35	20.59	·1110					
23.59	49. 0	22.13	·1106					
		22.37	·1109					
		22.52	·1106					
		23. 7	·1109					
		23. 9	·1112					
		23.35	·1108					
		23.59	·1115					
May 3		May 3		May 3		May 3		
0. 0	20.49. 0	0. 0	·1115	0. 0	·01890	9. 0	65·9	63·7
0.30	49.35	0.21	·1121	1.40	·01827	21. 0	59·0	58·0
0.38	50.45	0.28	·1121	4.33	·01558			
1.40	51.40	0.43	·1126	6.42:	·01575			
2.59	48.45	0.56	·1127	10.13	·01485			
3. 7	48.45	1.40	·1134	12.14	·01520			
3.29	47.35	1.49	·1132	18.56	·01840			
3.44	47.35	2.22	·1135	20.48	·01880			
5.29	45.20	2.49	·1130	23.11	·01913			
6.33	43. 5	4.21	·1137	23.59	·01900			
7. 6	44.10	5.19	·1134					
9.37	45.20	6.13	·1134					
10.16	44.45	6.42	·1137					
12.15	45.55	7.55	·1133					
13.53	45.25	8. 6	·1133					
15. 5	47. 5	9. 9	·1127					
15.31	45.25	9.23	·1125					
16.28	45.10	14. 5	·1129					
17. 0	44. 0	14.47	·1129					
17.32	44. 0	15.10	·1133					
18.22	42.20	15.43	·1131					
18.33	42.40	17.19	·1132					
18.49	42.10	18.23	·1130					
19. 0	43. 0	19.19	·1122					
19.27	43. 5	19.29	·1122					
19.49	42.30	20.12	·1116					
20.22	42.25	20.19	·1116					
20.58	43.55	20.31	·1112					
21.31	42. 5	20.53	·1113					
23.55	50.55	21.16	·1108					
23.59	51. 0	21.29	·1109					

Right half:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
h m	° ′ ″	May 3		h m		h m	°	°
		21.48	·1107					
		22.30	·1111					
		22.53	·1108					
		23.59	·1113					
May 4		May 4		May 4		May 4		
0. 0	20.51. 0	0. 0	·1113	0. 0	·01900	1. 0	60·0	61·0
1. 7	51.30	0.23	·1112	0.39	·01880	3. 0	61·6	62·0
1.52	49.35	1.28	·1120	1. 4	·01865	9. 0	64·6	63·0
2. 1	50. 5	1.46	·1120	3. 8	·01837	21. 0	58·1	57·5
2.25	49. 5	2. 0	·1128	4.13	·01767			
2.40	49.30	2.13	·1130	6.17	·01747			
4.11	46.35	2.38	·1133	8.11	·01680			
4.31	46.20	2.53	·1129	9.17	{·01667 / ·01680}			
4.44	45. 0	3.22	·1130	10. 6	·01680			
5.41	44.30	3.36	·1128	11.15:	·01653			
6. 3	43.35	4. 7	·1129	12.23	·01683			
6.42	44.20	4.27	·1131	17.48	·02000			
7.14	43.35	4.44	·1129	21. 0	{·01920 / ·01890}			
10. 1	45.25	5.27	·1128	23. 0	·01910			
10.42	44.50	5.38	·1130	23.26	·01900			
12. 5	45.25	6. 1	·1131	23.59	·01910			
12.28	44.40	6.14	·1132					
13.22	44. 0	6.24	·1131					
13.50	44.40	7.50	·1129					
14.38	44.25	8.17	·1127					
15.13	45. 0	8.43	·1127					
15.38	44.10	9.23	·1123					
17. 7	43. 0	10.36	·1122					
17.41	41.35	11.53	·1124					
18. 8	41.30	12.33	·1126					
18.14	40.30	13. 4	·1125					
18.17	41.50	13.20	·1126					
18.29	40.50	14.53	·1124					
18.48	41. 0	15. 0	·1127					
19. 0	39.30	15.55	·1125					
19.10	41. 0	16.58	·1126					
19.42	40.10	17.30	·1125					
19.50	42.10	18.41	·1124					
20.16	41.35	19.38	·1117					
20.39	43.40	20.55	·1110					
21. 3	43.15	21.15	·1111					
21.20	44.35	21.33	·1108					
21.28	44. 5	22.11	·1111					
21.58	45.15		***					
22. 3	46.35	23. 8	·1110					
23. 0	49.40	23.34	·1113					
23. 7	49.25	23.59	·1113					
23.29	50.10							
23.38	50.50							
23.39	50.10							
23.59	50.25							
May 5		May 5		May 5		May 5		
0. 0	20.50.25	0. 0	·1113	0. 0	·01910	1. 0	62·4	62·0
1.25	50.15	0.52	·1118	0.34	·01860	3. 0	64·8	64·8
2.31	50.20	1.56	·1126	1.30	·01840	9. 0	64·9	63·0

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
May 5		May 5		May 5		May 5		
h m	° ′ ″	h m		h m		h m	°	°
2.58	20.49.55	2.10	·1130	2.43	·01700	21. 0	55·2	54·6
3.45	49.25	2.55	·1129	3.23	·01673	22. 0	55·8	55·5
4. 2	48.30	3.27	·1133	4.56	·01480	23. 0	56·8	56·2
4.17	48.40	3.36	·1131	9. 0	·01490			
4.36	47.45	4. 6	·1124	10. 0	·01525			
5.26	45.35	4.23	·1141	10.18	·01520			
5.35	45. 5	4.31	·1140	15. 9	·01846			
6. 6	45.15	5. 1	·1123	15.41:	·01823			
7.22	45.10	5.30	·1124	16. 8	·01863			
7.51	45.40	5.55	·1135	21.19	·01790			
8.40	43.40	6. 7	·1135	22.27	·01790			
9.15	44. 0	6.11	·1137	23.59	·01740			
9.26	41.15	6.38	·1135					
9.40	41.25	6.56	·1139					
10. 0	44.15	7.11	·1134					
10.22	39.55	7.30	·1138					
10.36	39. 0	7.59	·1130					
10.39	40.25	8.19	·1132					
10.47	40. 0	8.34	·1128					
11. 1	42.20	9.18	·1130					
	***	9.36	·1124					
11.59	44.45	10. 7	·1136					
12.23	42.35	10.25	·1126					
	***	10.38	·1129					
13.10	44.25	10.42	·1128					
13.22	43. 0	10.58	·1130					
13.52	43.15	11.10	·1127					
14. 6	44.55	11.28	·1127					
14.43	44.45	11.58	·1131					
15. 5	57.20	12.12	·1130					
15.47	40.10	12.29	·1132					
	***	12.40	·1130					
16.40	39.25	13. 7	·1134					
16.52	40.30	13.34	·1129					
17.20	38.35	13.38	·1131					
18.40	39. 0	13.46	·1128					
18.45	39.50	14. 0	·1132					
18.52	39. 5	14.15	·1134					
19.15	39.30	14.53	·1133					
19.26	40.20	15.28	·1146					
19.44	39.35	15.52	·1133					
20. 0	41. 0	16.13	·1135					
20. 7	40.25	16.20	·1133					
20.46	42. 0	16.45	·1131					
20.52	42.55	16.52	·1133					
21.38	44.45	17.14	·1130					
22.22	47.35		***					
23. 5	49.25	18.53	·1125					
23.22	50.40		***					
23.57	51.55	20.12	·1122					
	(†)	20.51	·1117					
		21.17	·1114					
		21.27	·1116					
		22.20	·1112					
		22.57	·1112					
		23. 6	·1109					
		23.16	·1112					
		23.32	·1112					

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
		May 5						
		23.53	·1118 (†)					
May 6	(†)	May 6 (†)		May 6		May 6		
h m	° ′ ″	h m		h m		h m	°	°
0. 6	20.50.10	0. 7	·1118	0. 0	·01740	0. 0	57·9	57·5
1. 7	50.35	1.58	·1134	2. 0	·01695	1. 0	59·0	58·7
2.23	47.55	2.22	·1132	2.33	·01687	2. 0	60·5	60·0
2.30	48.10	2.37	·1134	4. 0	·01543	3. 0	61·9	61·5
3.35	46.25	3. 8	·1128	7.31	·01373	6. 0	65·0	62·0
4.15	46.15	3.23	·1133	10.30	·01360	9. 0	64·2	61·5
4.38	44.55	3.35	·1134	14.30:	·01498	12. 0	62·0	60·9
4.45	45.10	4.22	·1142	18.33	·01700	18. 0	58·3	57·0
5. 3	44.30	4.41	·1138	20.43	·01787	21. 0	57·0	56·8
5.51	45. 0	6.34	·1143	22. 8	·01795	22. 0	57·3	57·1
6.14	45.45	6.39	·1145	23.59	·01763	23. 0	57·5	57·7
6.42	45.20	6.50	·1139					
6.59	46.25	7.12	·1142					
7.23	45.35	7.28	·1139					
8.13	46.55	7.52	·1138					
8.44	45.35	8. 0	·1140					
10.39	46. 5	8.13	·1135					
11.48	45.10	8.28	·1136					
12.52	45. 0	9.14	·1131					
12.58	44.15	9.53	·1134					
14.43	44. 0	10.35	·1131					
16. 0	43.35	10.51	·1132					
19.22	39.40	11.41	·1130					
19.37	40.15		***					
19.48	39.35	15.24	·1129					
20. 5	40.45	16. 2	·1131					
21. 3	41.55	17.46	·1128					
21.50	46. 0	18.53	·1123					
21.58	45.55	20.20	·1122					
22.30	48.55	20.52	·1118					
23.50	51.55	21. 0	·1120					
23.59	51.50	21.56	·1105					
		23.19	·1110					
		23.59	·1115					
May 7		May 7		May 7		May 7		
0. 0	20.51.50	0. 0	·1115	0. 0	·01763	0. 0	58·0	58·3
0.15	52.10	0.19	·1113	1.14	·01660	1. 0	58·7	59·0
0.39	54.15	0.45	·1124	2.39	·01626	2. 0	59·3	59·9
1. 2	54. 0	0.57	·1122	4.50	·01500	3. 0	60·0	60·8
1.12	54.35	1. 6	·1123	8.37	·01423	9. 0	63·0	61·0
2. 6	54. 0	1.14	·1128	11.22	·01460	21. 0	52·3	52·0
2.40	52.10	1.25	·1129	15. 5	·01723			
3.25	51.10	1.32	·1131	18.23	·01595			
4.20	49. 0	2. 0	·1117	18.26	·01567			
	(†)	2.16	·1116	19.19	·01596			
5. 7	48. 0	2.57	·1127	19.26	·01580			
5.56	44.40	3.15	·1126	21.30	·01565			
6.33	44.40	3.24	·1123	21.31	·01520			
7.21	46. 5	3.37	·1126	22.45	·01538			
7.59	45.10	3.53	·1127	23.59	·01525			
8.23	46.25	4. 8	·1135					
8.38	46. 5	4.25	·1133					
			(†)					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

May 7. The motion of the Declination and Horizontal-Force cylinder was impeded from 4ʰ. 25ᵐ. to 5ʰ. 7ᵐ.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers Of H.F. Magnet	Of V.F. Magnet
May 7 h m	° ′ ″	May 7 h m		h m		h m	°	°
9.16	20. 46.25	5. 9	·1146					
9.53	46. 0	5.23	·1138					
9.59	46.35	5.51	·1133					
10.12	46. 5	6. 7	·1137					
10.35	44.15		***					
11.54	45.40	6.44	·1136					
	***	7. 8	·1140					
13.44	44.40	7.47	·1130					
	***	7.55	·1131					
15.40	46.10	8. 2	·1128					
	***	8.32	·1126					
16.15	43.50	8.58	·1128					
16.59	47. 5	9.23	·1124					
17.37	44.30	10. 0	·1125					
19.10	40.25	10.21	·1129					
19.25	41. 0	11.15	·1123					
20.10	39. 5	11.43	·1124					
20.59	39.45	12.33	·1122					
21. 4	38.50	14.42	·1126					
22.18	45.35	14.57	·1128					
23.45	51. 0	15. 7	·1127					
23.51	52. 5	15.58	·1130					
23.59	51.15	16.53	·1127					
		17.20	·1132					
		18.58	·1135					
		20.17	·1131					
		21. 7	·1124					
		21.22	·1124					
		21.47	·1118					
		22. 7	·1116					
		22.38	·1110					
		23. 5	·1112					
		23.22	·1110					
		23.45	·1112					
		23.48	·1114					
		23.59	·1114					
May 8		May 8		May 8		May 8		
0. 0	20. 51.15	0. 0	·1114	0. 0	·01525	1. 0	55 ·9	55 ·0
0.15	52.50	0.49	·1122	1. 8	·01620	3. 0	58 ·2	57 ·8
0.24	52.10		(†)	1.10	·01653	9. 0	61 ·7	58 ·8
0.43	53.10	1. 0	·1127*	2.22	·01630	21. 0	51 ·6	51 ·7
2.16	50.55	1.28	·1128	4.27	·01473			
2.25	51.30	1.55	·1132	7.20	·01360			
2.33	51. 0	2.41	·1150	7.58	·01360			
2.39	51.40	2.47	·1158	10.11	·01320			
2.53	51.20	2.58	·1158	11.47	·01360			
3. 1	53. 0	3. 2	·1166	12. 3	·01340			
3. 8	52.10	3.14	·1170	12.18	·01330			
3.23	52.35	3.43	·1152	12.33	·01300			
3.38	50.55	3.53	·1158	12.58	·01320			
3.43	52. 5	4. 5	·1156	14.33:	·01460			
3.57	51. 0	4.19	·1156	15.45	·01526			
4.13	50.30	4.53	·1171	18.56	·01703			
4.17	51.20	5.12	·1176	19.53	·01680			
4.23	50.50	5.34	·1170	21.56	{·01680 / ·01575}			
5.16	50.25	5.53	·1174	22.57	·01600			
6. 5	51. 5	6. 0	·1170					

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers Of H.F. Magnet	Of V.F. Magnet
May 8 h m	° ′ ″	May 8 h m		May 8 h m		h m	°	°
6.26	20. 49.15	6. 8	·1175	23.59	·01583			
6.40	50.40	6.54	·1148					
7.21	43.35	7.11	·1148					
7.28	43.10		***					
7.52	43.45	7.53	·1158					
8. 0	46. 0	8.32	·1145					
8.27	47.30	8.38	·1147					
8.47	47.10	8.57	·1142					
8.51	45.35		***					
9. 0	41.55	9.26	·1143					
9.36	45. 5	9.44	·1150					
9.40	45.55	9.54	·1147					
9.43	44.35	10. 2	·1133					
9.51	45.10	10. 9	·1141					
10. 0	43.40	10.17	·1132					
10.10	44.40	10.24	·1136					
10.23	45. 0	10.37	·1135					
10.30	43.45	10.41	·1137					
10.44	43.30	10.45	·1130					
10.59	44.30	10.51	·1136					
11. 7	46.35	11. 0	·1137					
11.23	47. 5	11. 7	·1146					
11.30	50. 0	11.14	·1142					
11.45	47.25	11.30	·1149					
11.57	42.20		***					
12.12	42.15	11.53	·1137					
12.25	36.30	12. 9	·1146					
12.32	37.25	12.33	·1110					
12.38	35.35	12.48	·1153					
12.40	35.40	12.59	·1097					
12.43	35.55	13.13	·1088					
12.46	33.50	13.23	·1099					
12.52	36.55	13.27	·1099					
13. 3	28.55	13.32	·1106					
13.16	27. 5	13.41	·1102					
13.48	34.10	13.47	·1106					
14.36	41. 0	13.53	·1104					
15. 0	36.35	14. 1	·1114					
15. 6	38.10	14.13	·1120					
15.14	36. 5	14.21	·1120					
	***	14.25	·1127					
15.51	36.10	14.32	·1121					
	***	14.51	·1136					
16.20	38. 0	14.55	·1130					
16.24	42.25	15.17	·1142					
16.29	37.40		***					
16.38	37. 5	15.58	·1128					
	***	16. 7	·1129					
16.51	39.45	16. 9	·1142					
	***	16.12	·1124					
17. 7	37.45	16.16	·1128					
17.27	43.45	16.35	·1130					
17.30	38.50		***					
17.45	40.10	16.49	·1128					
17.52	36. 5	17. 0	·1133					
18.18	44.10		***					
18.23	41.50	17.28	·1128					
18.28	43.35	17.37	·1116					
			***					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
h m	o ' "	h m		h m		h m	o	o
May 8	May 8	May 8						
18.34	20.41.50	17.46	.1121					
18.39	44. 5	18. 0	.1122					
18.43	41.55	18. 6	.1118					
18.47	44.30		***					
18.52	43. 5	18.35	.1119					
	***		***					
19.33	43. 0	18.58	.1124					
19.48	41.10		***					
	***	19.45	.1118					
20. 0	42.20	20. 4	.1118					
20.10	40.40		***					
	***	20.43	.1110					
21. 0	43.45	21. 0	.1117					
21.17	47.35	21. 4	.1107					
21.22	44.55	21.10	.1116					
	***	21.15	.1107					
22.32	47. 0		***					
22.35	48.35	21.46	.1104					
23. 1	48.10	21.57	.1105					
23.40	49.45	22.15	.1102					
23.53	49.10	22.20	.1105					
23.59	49.40	22.28	.1102					
		22.42	.1101					
		23.23	.1106					
		23.28	.1105					
		23.41	.1110					
			(†)					
May 9		May 9		May 9		May 9		
0. 0	20.49.40		(†)	0. 0	.01583	1. 0	56·7	56·8
0.34	50.30	0.27	.1108	1.41	.01540	3. 0	59·6	60·0
0.44	49.25	0.47	.1118	3.19	.01397	9. 0	63·5	61·9
1. 2	49.10	1. 0	.1112	3.57	.01423	22.45	56·5	56·0
1.13	50. 0	1. 4	.1119	6.34	.01440			
1.44	49.10	1.30	.1124	10. 9	.01390			
1.53	49.50	1.40	.1124	12.15	.01470			
2. 8	48.55	2. 0	.1131	18.58	.01820			
2.30	49. 5	2.33	.1132	20.25	.01844			
3.33	47.20	2.56	.1136	22.45	.01814			
4.34	46.55	3. 8	.1143	23.59	.01850			
5.13	44.20	3.22	.1136					
5.30	44.25	3.35	.1138					
5.39	43.35	3.48	.1133					
5.46	44.10	4. 8	.1134					
5.58	43.40	4.22	.1136					
7.20	45. 0	4.28	.1134					
8.33	45.25	4.54	.1136					
9.17	46.35	5. 5	.1134					
9.59	45. 0	5.23	.1139					
10.12	45.30	5.39	.1136					
10.35	44.35	5.50	.1138					
11.27	45.25	6.24	.1139					
12.13	43.55	7. 0	.1135					
13. 8	44.50	7.20	.1136					
14.35	44. 5	7.51	.1132					
14.43	45. 0	8.40	.1128					
15. 0	43.10	9. 1	.1129					
15.24	44.40	10. 1	.1128					

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
h m	o ' "	h m		h m		h m	o	o
May 9	May 9	May 9						
15.37	20.43. 0	10.19	.1126					
15.45	43.50	11. 7	.1128					
16.16	42.10	11.16	.1129					
17.44	42.10	11.56	.1125					
17.51	40.45		***					
17.58	42. 0	13.52	.1126					
18.12	39. 0	14. 8	.1127					
18.30	43.45	14.16	.1126					
18.36	►43. 0	14.40	.1129					
18.45	44.25		***					
19. 5	42.25	15.46	.1129					
19.15	42.50	16.10	.1126					
20.22	41.45	16.52	.1130					
20.30	43. 0	18.15	.1128					
20.46	42.50	18.28	.1131					
21. 1	43.30	19.27	.1127					
21.16	42.55	19.45	.1128					
21.51	44.40	20.45	.1125					
22.23	45.10	21. 8	.1121					
22.47	47.50	21.43	.1119					
23. 0	47.40		(†)					
23.10	48.25	23.45	.1116					
23.20	48.20	23.59	.1118					
23.24	49. 0							
23.59	49. 0							
May 10		May 10		May 10		May 10		
0. 0	20.49. 0	0. 0	.1118	0. 0	.01850	9. 0	60·4	60·0
1. 3	48.35	0.21	.1121	1.53	.01780	21. 0	54·0	53·1
1.37	49.25	0.32	.1120	5.30	.01720			
1.53	48.20	0.57	.1121	8.51	.01630			
2. 0	48.50	1.31	.1128	10.25	.01613			
2.42	48. 5	1.48	.1124	12. 3	.01650			
4.12	48. 5	2.21	.1131	17. 0	.01857			
4.52	46.55	2.38	.1129	21.19	.01720			
5. 6	47. 0	3.48	.1134	23.59	.01750			
6.39	44.40	4. 0	.1133					
7. 5	45. 0	4.37	.1140					
8. 2	44.50	4.48	.1137					
8.28	46. 0	5. 8	.1140					
8.58	44.35	5.31	.1139					
9. 0	46. 5	5.47	.1144					
9.52	46.10	6.35	.1143					
9.58	46.40	6.43	.1144					
10.23	45.35	7. 8	.1142					
12.43	45.40	7.58	.1141					
13. 0	45.50	8. 9	.1144					
13.11	44.30	8.46	.1139					
13.24	44.15	9. 0	.1138					
13.33	45. 0	9.45	.1136					
14. 4	44.50	10.26:	.1139					
14.30	43.50	11. 7	.1133					
14.39	44.10	11.29	.1136					
15. 9	43. 0	11.44	.1133					
16.22	42.40	12.17	.1136					
17. 8	41.20	12.25	.1135					
17.25	41.35	13. 0	.1136					
18. 1	41. 0	13.15	.1134					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
May 10		May 10						
h m	° ′ ″	h m		h m		h m	°	°
18.28	20.42.50	15.32	·1133					
18.39	41.50	17. 0	·1135					
18.56	42.10	17.46	·1136					
19.20	41. 5	18.24	·1132					
19.26	41.40	18.47	·1134					
19.40	40.50		***					
20. 6	41.25	20. 4	·1132					
20.16	41. 0	20.16	·1133					
20.23	42. 5	20.47	·1129					
20.31	41.30	21.40	·1126					
20.41	42. 5		***					
20.51	41.40	23. 1	·1129					
21.28	45. 0	23.22	·1127					
22.14	45.25	23.40	·1132					
	***	23.53	·1126					
22.58	47.55	23.59	·1125					
23. 2	48.45							
23.27	48.40							
23.45	50.15							
23.59	50.10							
May 11		May 11		May 11		May 11		
0. 0	20.50.10	0. 0	·1125	0. 0	·01750	1. 0	57·7	57·0
0.18	50. 5	0.19	·1123	4.50	·01520	3. 0	59·8	58·5
1. 1	51.50	0.32	·1124	8. 0	·01506	9. 0	60·7	58·0
1.15	51.30	0.43	·1128	10.55	·01545	21. 0	55·6	55·0
1.38	51.55	1.24	·1129	16.35	·01720			
2. 2	51.30	1.48	·1137	19.10	{·01720 / ·01600}			
2.15	51. 5	2. 7	·1134	21. 4	·01570 (†)			
2.24	50. 0	2.21	·1141	23.10	·01510			
2.27	50.55	2.42	·1146	23.59	·01506			
3. 0	49.10	2.53	·1142					
3.24	48.50	3. 9	·1148					
3.35	48.10	3.15	·1147					
3.51	46.25	3.30	·1155					
4.28	47.30	3.44	·1151					
4.32	48.10	3.59	·1153					
4.59	45.10	4.14	·1152					
5. 5	46.50	4.20	·1156					
5.24	46. 0	4.23	·1154					
5.38	47. 5	4.30	·1157					
6.29	45.55	4.42	·1150					
7.22	45.25	5. 0	·1152					
7.40	46. 0	5. 8	·1148					
7.50	45.20	5.20	·1148					
8. 1	45.30	5.36	·1157					
8.18	45. 0	6. 1	·1146					
9.32	47. 0	6.25	·1150					
11. 7	45.50	6.40	·1149					
11.15	47.15	7.14	·1151					
11.37	45.35	7.47	·1140					
11.56	45.50	8.40	·1145					
12.20	44. 5	9. 0	·1144					
12.30	45.40	9.40	·1146					
12.42	44.25	10.53	·1143					
12.52	41.30	11. 9	·1153					
13. 9	42.25	11.27	·1147					
13.23	39.35	12. 0	·1146					

Right panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
May 11		May 11		h m			°	°
h m	° ′ ″	h m						
13.37	20.38.35	12.19	·1141					
13.49	41. 0	12.41	·1144					
14. 9	41.25	12.48	·1138					
14.26	39. 0	13. 8	·1145					
15. 7	39.10	13.30	·1134					
15.29	39.55	14. 7	·1136					
15.37	40.50	14.13	·1134					
16. 1	40. 0	14.54	·1128					
16.12	40.45	15.13	·1131					
16.28	39. 5	15.23	·1130					
16.31	39.30	15.34	·1134					
16.52	38.20	15.39	·1132					
17.28	38. 5	16.11	·1136					
18. 0	40.40	16.23	·1134					
18. 7	39.35	16.34	·1136					
18.10	42. 5	17.19	·1131					
18.15	39.55	18. 0	·1130					
18.18	41.40	18. 7	·1128					
18.32	40.20	18.10	·1132					
18.52	40.40	18.23	·1130					
19. 0	43. 0	18.33	·1129					
19.44	41. 5	18.52	·1129					
19.54	43.50	19. 6	·1131					
20.20	42.20	19.22	·1130					
21.44	45. 0	19.28	·1127					
22.12	47.40	19.41	·1127					
22.18	47.50	19.51	·1129					
22.38	50.50	20.19	·1125					
23.23	51.45	20.39	·1126					
23.59	51.50	20.44	·1124					
		21.30	·1122					
		21.48	·1126					
		22.48	·1117					
		23. 1	·1119					
		23.23	·1120					
		23.25	·1122					
		23.40	·1117					
		23.59	·1121					
May 12		May 12		May 12		May 12		
0. 0	20.51.50	0. 0	·1121	0. 0	·01506	1. 0	56·9	56·2
0. 6	51.55	0.30	·1115	0.39	·01490	3. 0	58·9	56·4
0.16	51.20	0.40	·1122	1.56	·01510	9. 0	59·5	59·0
0.30	53.20	1.23	·1115	5.54	·01444	21. 0	57·8	56·5
0.54	53.15	1.49	·1124	9.24	·01463	22. 0	58·2	57·0
1.45	54.40	2. 6	·1114	12. 7	{·01453 / ·01340}	23. 0	58·9	57·6
1.59	52.35	2.30	·1132	13.27	·01320			
2.16	54.25	3. 0	·1117	13.56	·01227			
2.26	53.45	3.45	·1139	15.10	·01322			
2.31	52. 5	4.16	·1111	18.15	·01375			
2.53	51.25	4.32	·1134	20.45	{·01350 / ·01245}			
3. 7	51.55	4.48	·1124	21.33	·01240			
3.16	53. 0	5. 8	·1124	23.27	·01215			
3.30	52.10	5.25	·1128	23.59	·01210			
3.52	52. 5	5.35	·1135					
4. 6	49.15	5.41	·1132					
4.20	50.50	6.22	·1133					
4.38	48. 5	6.43	·1141					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
May 12		May 12		h m		h m	o	o
5. 22	20. 48. 45	6. 55	·1137					
5. 34	47. 20	7. 10	·1139					
6. 7	47. 30	7. 19	·1136					
6. 15	46. 40	7. 38	·1137					
6. 18	47. 45	7. 47	·1141					
6. 30	47. 35	7. 55	·1137					
6. 51	46. 25	8. 0	·1142					
7. 15	47. 5	8. 11	·1138					
7. 51	46. 30	8. 23	·1142					
8. 4	45. 0	8. 49	·1133					
8. 26	44. 40	9. 8	·1132					
8. 46	41. 15	9. 36	·1131					
8. 59	39. 5	9. 47	·1135					
9. 1	41. 30	10. 11	·1136					
9. 19	43. 10	10. 32	·1130					
9. 33	42. 30	10. 47	·1130					
9. 47	44. 20	10. 55	·1133					
10. 15	45. 10	11. 4	·1133					
10. 45	44. 5	11. 9	·1130					
10. 59	45. 10	11. 18	·1134					
11. 43	45. 0		***					
11. 54	45. 35	11. 57	·1134					
12. 9	43. 45	12. 15	·1132					
12. 31	44. 30	12. 38	·1140					
12. 46	43. 25	12. 53	·1134					
12. 58	42. 0	13. 24	·1132					
13. 22	50. 55	13. 33	·1138					
13. 54	38. 40	13. 44	·1137					
14. 3	40. 20	13. 59	·1128					
14. 7	39. 5	14. 7	·1129					
14. 14	40. 5	14. 21	·1123					
14. 21	41. 35	14. 24	·1126					
14. 30	40. 0	14. 29	·1120					
14. 52	40. 55		***					
15. 4	42. 50	14. 55	·1123					
15. 55	43. 5	15. 2	·1126					
16. 2	42. 5		***					
16. 10	42. 30	16. 37	·1127					
16. 34	40. 10	16. 44	·1129					
16. 41	41. 55	16. 48	·1127					
16. 47	40. 20		***					
16. 58	41. 35	17. 43	·1122					
17. 12	40. 5	18. 3	·1122					
17. 16	41. 25	18. 11	·1124					
17. 26	39. 40	19. 35	·1111					
17. 31	40. 35	19. 57	·1115					
17. 46	38. 40	20. 16	·1111					
18. 0	40. 25	20. 23	·1114					
18. 6	39. 55	21. 0	·1114					
18. 14	41. 50	21. 40	·1115					
18. 37	43. 30	21. 53	·1117					
18. 42	42. 20	22. 0	·1115					
18. 53	42. 0	22. 8	·1118					
19. 2	40. 0	22. 22	·1114					
19. 16	42. 45	22. 32	·1118					
19. 22	42. 25	23. 1	·1112					
19. 30	44. 55	23. 12	·1102					
19. 40	44. 0	23. 31	·1097					

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
May 12		May 12		h m		h m	o	o
19. 55	20. 45. 5	23. 59	·1095					
20. 14	44. 15							
20. 22	42. 30							
20. 28	43. 45							
21. 31:	45. 20 ***							
22. 18	49. 20 ***							
22. 56	53. 50							
23. 30	54. 10							
23. 59	56. 50							
May 13		May 13		May 13		May 13		
0. 0	20. 56. 50	0. 0	·1095	0. 0	·01210	0. 0	60·0	57·3
0. 7	57. 20	0. 4	·1096	0. 30	·01220	1. 0	60·6	58·8
0. 37	53. 35	0. 16	·1107	1. 55	·01283	2. 0	61·7	59·2
0. 55	52. 25	0. 30	·1107	2. 24	·01280	3. 0	62·1	59·6
1. 0	53. 15	0. 40	·1102	3. 45	·01360	6. 0	63·1	60·1
1. 37	53. 35	0. 52	·1104	4. 35	·01370	9. 0	62·6	60·2
2. 25	51. 5	1. 1	·1109	5. 38	·01440	12. 0	60·9	58·0
2. 38	51. 40	1. 45	·1126	8. 14	·01448	18. 0	56·9	55·7
2. 55	50. 25	2. 0	·1120	8. 34	·01430	21. 0	55·0	54·5
3. 42	49. 55	2. 36	·1119	8. 53	·01426	22. 0	55·7	55·0
4. 16	47. 55	2. 55	·1129	9. 10	·01340	23. 0	56·1	55·8
4. 39	48. 40	3. 6	·1125	9. 20	·01365			
5. 5	45. 5	3. 22	·1131	9. 27	·01350			
5. 15	44. 35	3. 36	·1131	9. 37	·01360			
5. 23	40. 0	3. 53	·1139	9. 48	·01350			
5. 32	42. 0	4. 37	·1123	10. 1	·01367			
5. 44	40. 55	5. 8	·1136	10. 27	·01364			
5. 56	42. 55	5. 12	·1136	11. 23	·01407			
6. 44	44. 0	5. 20	·1139	11. 57	·01400			
6. 58	46. 5	5. 29	·1138	14. 38	·01500			
7. 10	46. 25	5. 40	·1149	15. 20	·01480			
7. 45	43. 25	6. 3	·1124	16. 23	·01580			
8. 7	43. 5	6. 20	·1120	16. 55	·01586			
8. 18	38. 10	6. 40	·1132	18. 30:	·01713			
8. 35	45. 0	6. 45	·1129	20. 10	·01752			
8. 42	58. 25	6. 57	·1131	23. 46	·01720			
9. 4	29. 20	7. 10	·1128	23. 59	·01710			
9. 14	38. 35	7. 17	·1133					
9. 20	36. 45	7. 27	·1130					
9. 26	40. 50	7. 43	·1132					
9. 39	33. 50	7. 48	·1129					
10. 14	43. 0	7. 54	·1130					
10. 39	39. 5	8. 8	·1127					
11. 0	41. 5	8. 19	·1113					
11. 10	40. 35	8. 28	·1126					
11. 22	42. 50	8. 36	·1124					
11. 37	40. 0	8. 45	·1143					
	***	8. 58	·1108					
12. 15	37. 55	9. 12	·1138					
12. 37	38. 40	9. 23	·1129					
12. 48	41. 5	9. 31	·1110					
	(†)	9. 49	·1119					
13. 26	38. 50	10. 6	·1116					
13. 45	37. 55	10. 23	·1103					
13. 59	40. 0	10. 35	·1104					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
May 13		May 13						
h m	o ′ ″	h m		h m		h m	o	o
14.12	20.39. 0	10.53	·1110					
14.24	41.55	11. 2	·1109					
14.50	43.10	11.38	·1118					
15. 7	41.45	12.43	·1110					
15.26	44.20	12.55	·1117					
15.48	43.30	13.11	·1116					
16. 0	45. 0	13.19	·1119					
16.16	42.30	13.30	·1116					
16.28	44.35	13.41	·1122					
16.49	39. 0	13.50	·1120					
16.57	40. 0	14.13	·1128					
17. 4	37.50	14.21	·1128					
17. 9	41.30	14.29	·1134					
17.14	40. 5	14.53	·1116					
17.20	41.55	15.21:	·1112					
17.26	40.10	16. 6	·1117					
17.46	41.50	16.33	·1128					
17.58	40. 0	16.52	·1116					
***		17. 8	·1110					
18.38	41.30	17.16	·1116					
18.44	39.50	17.25	·1116					
***		17.29	·1113					
19.16	40.20	17.39	·1114					
19.24	39. 0	17.59	·1112					
19.28	40.45	18.38	·1115					
19.32	39.25	18.52	·1112					
19.39	41. 5	20. 1	·1105					
19.45	40. 0	20.38	·1105					
***		20.46	·1108					
20.10	41.50	21. 6	·1105					
20.28	40.10	21.23	·1104					
20.39	40.40	21.40	·1106					
20.45	42.25	21.55	·1101					
21. 5	42.20	22.17	·1100					
22.22	47.25	22.26	·1105					
22.33	47. 0	22.38	·1106					
22.41	48.55	22.43	·1111					
22.51	48. 0	22.50	·1106					
22.59	50. 5	23. 0	·1113					
23.15	51.15	23.36	·1106					
23.22	50. 0	23.45	·1106					
23.27	52. 0	23.59	·1109					
23.33	50.55							
23.40	52.45							
23.46	51.55							
23.59	53. 0							
May 14		May 14		May 14		May 14		
0. 0	20.53. 0	0. 0	·1109	0. 0	·01710	0. 0	56·7	56·0
0.10	53. 5	0. 8	·1112	3.15	·01662	1. 0	58·0	57·0
0.30	52.30	0.23:	·1108	4.40	·01580	3. 0	60·0	58·2
0.52	54. 0	0.42	·1111	8.41	·01505	9. 0	61·1	58·2
1.37	53.10	0.55	·1118	11.50	·01567	21. 0	57·8	57·0
1.54	54.35	1. 7	·1114	15.15	·01575			
2. 7	52.40	1.17	·1114	16.10	·01597			
2.40	49.45	1.40	·1118	19.14	·01618			
2.49	50. 0	1.49	·1116	19.58	·01640			
3. 2	49. 0	2. 5	·1123	23.59	·01605			

Right panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
May 14		May 14						
h m	o ′ ″	h m		h m		h m	o	o
3.21	20.49. 5	2.12	·1120					
3.45	49.55	2.19	·1124					
3.59	48.55	2.37	·1112					
4. 7	49. 5	2.50	·1130					
4.37	47.50	3.14	·1130					
4.45	48.25	3.30	·1132					
4.55	47.15	3.38	·1135					
5.30	46. 5	3.51	·1134					
5.43	42.35	4. 0	·1128					
5.55	44.40	4. 9	·1130					
6. 5	45. 0	4.30	·1125					
6.25	42.25	4.50	·1140					
6.45	42.35	5. 4	·1137					
7. 0	44.10	5.11	·1133					
7.11	43.10	5.23	·1138					
7.51	45. 0	5.38	·1137					
8.40	42.25	5.54	·1155					
9.12	44.25	6.14	·1137					
9.24	43. 0	6.37	·1139					
9.34	43.55	6.51	·1137					
9.47	42.50	7. 7	·1129					
9.57	44.10	7.16	·1130					
10.16	44.15	8.33	·1120					
10.28	41. 0	8.42	·1121					
10.43	41.10	8.57	·1117					
11. 4	43. 0	9.18	·1125					
11.38	40.15	9.44	·1117					
12.10	41.40	9.53	·1121					
12.30	41. 5	10.14	·1115					
13. 6	42.10	10.22	·1119					
13.18	41.20	10.29	·1117					
13.43	41. 5	10.52	·1124					
(†)		11.13	·1121					
14.59	40.25	11.59	·1132					
15.14	39.55	12.26	·1126					
15.24	42. 0	13. 8	·1127					
***		13.57	·1124					
16. 9	44.55	14.39	·1126					
***		14.52	·1120					
16.54	43. 0	15. 0	·1122					
17.42	52.45	15. 7	·1118					
17.55	51.35		***					
18. 7	49. 0	15.42	·1124					
18.18	48.35	15.56	·1124					
18.34	52.55	16. 8	·1126					
18.40	51.40	16.28	·1126					
18.43	52.30	16.53	·1131					
18.58	49.25	17.44	·1103					
19. 6	51. 5	17.58	·1101					
19.13	49.25	18.15	·1106					
19.18	49.15	18.24	·1102					
19.30	46. 0	18.35	·1104					
19.41	45.15	18.57	·1100					
19.58	48.20	19.18	·1106					
20.14	47. 0	20. 0	·1099					
20.23	46.40	20.52	·1092					
20.29	47.55	21.10	·1092					
20.58	46.15	21.20	·1089					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
h m	o ′ ″	h m		h m		h m	o	o
May 14		**May 14**						
21.55	20.51. 0	21.44	·1087					
22.12	50. 0	21.59	·1098					
22.20	51. 5	22. 5	·1095					
22.28	50.35	22.15	·1102					
22.38	52.50	22.23	·1098					
23.20	54. 0	22.35	·1102					
23.59	54.50	22.54	·1102					
			(†)					
		23.45	·1099					
		23.59	·1102					
May 15		**May 15**		**May 15**		**May 15**		
0. 0	20.54.50	0. 0	·1102	0. 0	·01605	1. 0	59·7	59·0
0. 8	56.45	0.10	·1105	3.41	·01590	3. 0	61·0	59·3
0.57	50.35	0.54	·1103	10.12	·01445	9. 0	62·0	59·7
1. 9	51. 5	2. 8	·1120	10.30:	·01455	21. 0	55·9	55·0
1.13	55.20	2.16	·1125	11. 5	·01360			
	***	2. 38	·1119	11.53	·01360			
2.10	56.15	2.50	·1119	13.33	·01545			
2.23	55.30	3. 9	·1124	16. 8	·01620			
3. 7	54.10	3.23	·1117	18.40:	·01740			
3.17	52.50	3.30	·1121	21. 6	·01710			
3.26	53.10	3.37	·1117	22. 8	{·01700			
3.56	50.50	3.49	·1122		{·01570			
4.48	49.10	3.59	·1118	23.59	·01520			
5. 2	51.10	4.25	·1120					
5.14	48.35	4.50	·1126					
5.27	47.40	5. 3	·1150					
5.38	48.45	5.22:	·1131					
5.45	47. 5	5.39	·1143					
6. 0	46.40	5.46	·1135					
6.13	47. 0	6. 1	·1135					
6.26	44.40	6.12	·1140					
6.48	39.40	6.20	·1134					
7.13	44.25	6.28	·1138					
7.26	43. 0	6.44	·1137					
7.38	42.35	6.57	·1148					
7.57	40.35	7.28	·1128					
8.19	40. 0	7.45	·1124					
8.52	42. 0	7.59	·1127					
9.10	41.40	8. 6	·1124					
9.22	39.40	8.13	·1127					
9.43	34. 5	8.19	·1124					
10. 2	35. 0	8.45	·1121					
10.10	37. 5	8.58	·1124					
10.15	36. 5	9. 7	·1118					
10.18	37.15	9.18	·1116					
10.23	36. 5	9.40	·1118					
10.39	51.40	10. 7	·1105					
11.10	38.30	10.27	·1133					
11.19	41.50	10.40	·1120					
11.38	40. 5	10.42	·1122					
11.45	42.45	10.53	·1114					
12.24	42. 0	11. 8	·1124					
12.37	44.30	11.10	·1121					
12.48	44. 0	11.16	·1125					
12.54	45.35	11.26	·1118					
13.18	46.55	11.40	·1122					

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
h m	o ′ ″	h m		h m		h m	o	o
May 15		**May 15**						
13.28	20.45.55	11.44	·1127					
13.41	49. 5	11.58	·1121					
14. 0	49.10	12. 4	·1124					
14.22	45.55	12.16	·1119					
14.32	45. 5	12.39	·1123					
14.45	46.30	12.46	·1120					
14.55	45.35	13.13	·1120					
15. 2	46. 5	13.27	·1125					
16.11	43.25	13.54	·1121					
16.18	42.15	14.17	·1129					
16.23	43.50	14.38	·1122					
16.43	44.20	15. 9	·1132					
16.45	42.30	15.29	·1133					
16.53	43. 5	15.45	·1129					
	***	15.54	·1121					
18.43	41. 0	16. 9	·1117					
18.52	39.30	16.30	·1120					
19. 3	40.35	17.13	·1118					
19.15	39. 5	17.43	·1118					
19.21	40.15		***					
19.28	39. 0	20.38	·1104					
19.30	41.45	21.18	·1105					
19.36	41. 5	21.25	·1109					
19.44	42.35	21.33	·1106					
19.51	41.25	22. 9	·1106					
20.12	43. 0	22.35	·1109					
20.30	43. 5	23.31	·1108					
21.22	44.40	23.44	·1110					
21.30	46.15	23.53	·1105					
22. 3	47.20	23.59	·1106					
23.44	52.55							
23.55	52.15							
23.59	52.45							
May 16		**May 16**		**May 16**		**May 16**		
0. 0	20.52.45	0. 0	·1106	0. 0	·01520	1. 0	58·6	57·0
0.10	53.45	0.12	·1110	2.19	·01524	3. 0	60·1	58·0
0.34	53. 5	0.28	·1110	3. 7	·01505	9. 0	61·2	58·0
0.44	52.10	0.46	·1104	5. 0	·01420	22. 0	56·2	55·9
0.50	53.10	1. 1	·1113	5.51	·01400			
1.22	51.55	1.23	·1113	5.56	·01420			
1.30	53. 0	2. 6	·1128	6.45	·01435			
1.50	53. 0	2.53	·1116	10.33	·01415			
1.58	53.40	3.15	·1129	12.45	·01460			
2.47	50.25	3.28	·1124	15.30	·01547			
3.11	51.35	3.54	·1130	16.45	·01560			
3.23	50. 5	4.18	·1122	17.17	·01583			
3.50	50.30	4.39	·1126	18.53	·01625			
4.13	48.55	4.52	·1122	20. 0	·01640			
4.57	48.10	5.13	·1133	23.59	·01615			
5.22	46.15	5.42	·1133					
5.32	47. 0	6. 8:	·1139					
6. 5	46.30	6.53	·1128					
6.31	45.10	7.10	·1128					
7. 0	45.40	7.24	·1123					
7. 6	44.35	8.10	·1127					
7.26	46. 0	8.30	·1129					
7.58	45. 5	9.22	·1125					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
h m	o ′ ″	h m	h m	h m	o	o
May 16		**May 16**						
8. 0	20.46.15	9.37	·1122					
8.39	43.35	10. 8	·1124					
9.19	46. 0	10.22	·1122					
9.53	45. 0	10.46	·1127					
10. 3	46. 5	11. 1	·1128					
10.22	45.10	11.17	·1137					
10.48	46.10	11.37	·1131					
11.12	45. 5	12. 9	·1130					
11.29	45.55	12.21	·1130					
11.45	44. 0	13. 7	·1120					
11.54	44.50	13.30	·1124					
12.15	44.25	14.29	·1120					
12.35	41.55	14.51	·1116					
13.13	41.55	15. 2	·1122					
13.27	44. 0	15.54	·1131					
14.10	42.20	16.39	·1121					
14.30	43.45	17. 0	·1125					
14.38	43.20	19.25	·1106					
15.14	47. 0	19.58	·1104					
15.30	45. 0	20.15	·1100					
15.51	44.35	21.18	·1102					
16. 7	45.45	21.30	·1100					
16.45	40.10	21.40	·1102					
17. 2	41.45	21.53	·1102					
17.30	41.15	22. 0	·1105					
17.41	40. 0	22.16	·1100					
18.14	39.55	22.30	·1103					
18.26	39. 0	23. 7	·1110					
18.30	39.50	23.27	·1107					
18.44	38.55	23.45	·1111					
18.52	39.50	23.59	·1110					
19. 1	39.20							
19.26	39.50							
19.36	39. 5							
19.45	40. 0							
20.10	40.35							
20.17	40. 0							
20.31	39.55							
20.43	41. 5							
21.14	42.35							
22. 0	46.40							
22. 7	46. 5							
22.23	47.55							
23. 5	51.35							
23.24	51.50							
23.59	52.30							
May 17		**May 17**		**May 17**		**May 17**		
0. 0	20.52.30	0. 0	·1110	0. 0	·01615	8. 0	60·7	59·0
0.25	51.45	0.15	·1113	3.15	·01637	21. 0	54·7	54·2
0.34	52.25	0.27	·1111	7.26	·01560			
1. 1	51.50	0.40	·1117	8.13	·01530			
1.27	52.10	0.45	·1116	12. 0	·01450			
1.43	51.30	1.28	·1123	15. 0	·01500			
1.53	52.30	1.47	·1120	19. 7	·01615			
2.34	51.55	2. 5	·1125	21. 7	·01645			
3. 3	52. 5	2.16	·1125	23.59	·01680			
3.30	50.50	2.27	·1128					

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
h m	o ′ ″	h m	h m	h m	o	o
May 17		**May 17**						
3.46	20.50.55	2.41	·1125					
4. 8	49.15	3.18	·1135					
4.29	42.10	3.38	·1134					
4.51	48. 0	3.56	·1138					
5.48	47. 0	4.15	·1138					
5.58	45.55	4.46	·1123					
6.30	44.15	5.53	·1144					
6.37	45. 0	6.20	·1135					
7.15	41.10	6.40	·1142					
7.29	43.15	6.53	·1133					
7.59	35. 5	7.15	·1132					
8.13	37. 0	7.30	·1140					
8.37	35.40	7.45	·1127					
9.13	40.45	8. 0	·1128					
9.22	42.55	8.11	·1134					
10.14	45.25	8.23	·1126					
10.46	45. 0	8.41	·1125					
10.59	45.50	9. 9	·1117					
11.45	45. 5	9.32	·1119					
12. 2	47.30	9.54	·1117					
12.45	42. 5	10.17	·1121					
13.26	41. 5	10.40	·1120					
13.47	41.45	11. 0	·1123					
14.10	39.55	11.20	·1121					
14.45	39.35	11.40	·1124					
14.53	40.25	11.52	·1122					
15.10	40.30	12. 4	·1124					
15.26	38.45	12.25	·1125					
15.54	38.20	12.38	·1123					
16.21	41.55	12.49	·1126					
16.33	41.30	13. 8	·1128					
17. 0	43.35	13.36	·1120					
17.19	43. 5	14.38	·1121					
17.57	38.10	15.14	·1130					
18.40	38. 5	15.50	·1125					
18.53	36.30	16.31	·1112					
19. 4	36.10	17.29	·1121					
19.37	38.35	17.55	·1119					
19.52	38. 0	18.35	·1119					
20.13	39.25	18.49	·1116					
20.32	43. 0	19.17	·1115					
20.46	42.55	20.20	·1101					
21.57	47.55	20.37	·1102					
23. 0	51. 5	20.47	·1098					
23.20	53. 5	21.43	·1106					
23.59	53.50	21.57	·1104					
		22. 9	·1106					
		22.31	·1101					
		23. 6	·1102					
		23.24	·1108					
		23.59	·1105					
May 18		**May 18**		**May 18**		**May 18**		
0. 0	20.53.50	0. 0	·1105	0. 0	·01680	1. 0	58·3	58·0
0.36	52.55	0.13	·1107	2.30	·01615	3. 0	60·0	59·3
0.47	54. 5	0.41	·1109	5.25	·01465	9. 0	60·7	58·4
1. 1	53. 0	1. 4	·1116	7. 0	·01457	21. 0	53·4	53·0
1.30	53.55	1.11	·1114	9.45	·01417			

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

L 2

Left section

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Of V.F. Magnet
May 18		May 18		May 18				
h m	o ' "	h m		h m		h m	o	o
1. 47	20.53. 5	1. 30	·1118	10. 40	·01427			
	***	1. 41	·1119	11. 15	·01400			
2. 44	53. 0	1. 55	·1117	12. 26	·01408			
3. 13	51. 0	2. 8	·1119	14. 23	·01500			
3. 25	51. 20	2. 35	·1120	15. 0	·01490			
3. 37	49. 50	2. 47	·1124	17. 40	·01620			
3. 51	50. 50	3. 25	·1118	21. 22	·01725			
5. 14	46. 20	3. 39	·1123	22. 37	·01725			
5. 36	47. 0	3. 48	·1120	23. 59	·01776			
6. 20	45. 10	4. 15	·1139					
6. 37	45. 10	4. 59	·1131					
7. 0	46. 30	5. 14	·1131					
7. 8	45. 45	5. 26	·1125					
7. 15	46. 10	5. 44	·1130					
7. 23	45. 30	5. 53	·1130					
8. 18	45. 5	6. 5	·1131					
8. 40	43. 5	6. 15	·1129					
8. 56	44. 55	6. 42:	·1134					
9. 8	42. 55	7. 8	·1128					
9. 32	45. 5	7. 25	·1126					
10. 14	44. 10	7. 39	·1127					
10. 33	41. 10	8. 9	·1124					
10. 43	44. 45	8. 27	·1127					
11. 8	34. 30	8. 38	·1124					
11. 53	45. 25	8. 52	·1130					
12. 8	45. 55	9. 6	·1122					
12. 28	43. 10	9. 17	·1127					
12. 49	44. 25	9. 28	·1122					
13. 1	43. 20	10. 9	·1123					
13. 37	43. 0	10. 28	·1144					
14. 8	51. 55	10. 52	·1118					
15. 22	42. 40	11. 7	·1136					
15. 38	42. 10	11. 30	·1134					
15. 54	40. 0	12. 0	·1116					
16. 10	40. 45	12. 33	·1123					
17. 0	38. 5	12. 44	·1121					
17. 14	39. 25	13. 42	·1118					
17. 22	38. 30	14. 22	·1129					
17. 37	41. 55	15. 19	·1126					
17. 58	39. 0	15. 54	·1120					
18. 11	40. 5	16. 8	·1123					
18. 25	40. 0	16. 26	·1122					
18. 37	41. 0	16. 54	·1127					
18. 52	39. 0	17. 15	·1118					
18. 59	39. 35	17. 54	·1120					
19. 14	38. 5	18. 26	·1107					
19. 38	38. 40	18. 52	·1105					
19. 56	41. 15	19. 14	·1100					
20. 23	41. 0	19. 32	·1103					
20. 53	43. 55	19. 56	·1100					
21. 0	43. 25	20. 23	·1107					
	***	20. 45	·1108					
22. 23	51. 10	21. 1	·1107					
22. 29	50. 55	21. 39	·1112					
22. 58	53. 35	21. 52	·1110					
23. 5	53. 20	22. 9	·1111					
23. 20	52. 20	22. 19	·1108					
23. 52	51. 55		(†)					

Right section

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Of V.F. Magnet
May 18		May 18						
h m	o ' "	h m		h m		h m	o	o
23. 59	20.52. 20	23. 8	·1106					
		23. 38	·1107					
		23. 59	·1117					
May 19		May 19		May 19		May 19		
0. 0	20.52. 20	0. 0	·1117	0. 0	·01776	1. 0	53 ·4	53 ·0
0. 8	53. 0	0. 13	·1116	1. 22	·01790	3. 0	54 ·0	53 ·0
0. 15	52. 30	0. 38	·1114	3. 41	·01843	9. 0	53 ·0	51 ·7
0. 22	53. 45	0. 48	·1117	12. 44 { ·01850 / ·01745		21. 0	50 ·0	50 ·0
0. 39	53. 0	1. 5	·1116	15. 34	·01780	22. 0	50 ·2	50 ·0
0. 45	53. 50	1. 23	·1119	16. 8	·01770	23. 0	50 ·6	50 ·7
1. 20	52. 55	1. 32	·1117	18. 18	·01800			
1. 43	53. 0	1. 47	·1120	19. 18	·01790			
2. 3	51. 55	2. 1	·1117	19. 23	·01730			
2. 19	52. 20	2. 22	·1122	23. 59	·01715			
3. 23	49. 35	2. 40	·1119					
3. 33	50. 40	3. 8	·1120					
4. 5	48. 35	3. 25	·1115					
5. 14	47. 50	3. 38	·1122					
5. 29	47. 20	3. 51	·1123					
5. 43	46. 20	4. 1	·1118					
6. 17	46. 0	4. 18	·1126					
6. 30	46. 55	4. 38	·1125					
6. 37	46. 10	4. 47	·1125					
7. 0	46. 55	4. 56	·1129					
8. 12	45. 20	5. 10	·1128					
8. 38	47. 0	5. 27	·1133					
9. 15	45. 50	5. 46	·1131					
9. 34	39. 5	6. 35	·1144					
9. 42	40. 35	6. 46	·1142					
10. 0	40. 5	7. 27	·1144					
10. 13	42. 10	7. 39	·1138					
10. 32	40. 35	8. 30	·1138					
10. 43	41. 25	8. 38	·1141					
11. 7	41. 0	9. 14	·1142					
11. 13	39. 45	9. 26	·1138					
11. 27	41. 25	9. 37	·1146					
11. 36	40. 0	9. 47	·1148					
11. 51	39. 15	9. 56	·1143					
12. 8	39. 40	10. 7	·1145					
12. 40	43. 0	10. 22	·1145					
13. 23	45. 30	10. 37	·1137					
13. 50	45. 35	11. 11	·1135					
	***	11. 22	·1140					
15. 0	44. 0	11. 38	·1138					
15. 31	46. 50	12. 6	·1122					
16. 21	44. 5	13. 6	·1132					
16. 28	44. 40	13. 38	·1128					
17. 2	40. 55	13. 57	·1132					
17. 22	42. 25	14. 1	·1130					
17. 31	41. 0	14. 45	·1131					
17. 39	41. 40	14. 50	·1129					
17. 45	40. 55	14. 58	·1133					
18. 15	40. 50	15. 17	·1132					
18. 17	43. 0	15. 37	·1135					
18. 30	40. 20	16. 23	·1134					
18. 33	41. 0	16. 31	·1136					
18. 52	40. 35	16. 46	·1134					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
May 19 h m	o ′ ″	May 19 h m		h m		h m	o	o
18.59	20.39.15	17.19	·1136					
19. 1	40.15	17.31	·1134					
19. 8	38. 5	18. 2	·1135					
19.16	39.55	18.13	·1138					
19.47	39. 5	18.24	·1133					
19.53	40.35	18.53	·1129					
20. 6	39.55	19. 1	·1126					
20.27	41.35		***					
20.56	42. 0	20. 3	·1123					
21.30	45.15	20.14	·1119					
21.38	45.10	21. 2	·1118					
21.52	47. 0	21.28	·1111					
22.12	47.35	21.38	·1112					
22.36	49.25	22.13	·1100					
23. 0	52.50	22.20	·1101					
23.15	52. 5	22.36	·1095					
23.32	53.30	22.52	·1102					
23.59	53.55	23. 2	·1097					
		23.33	·1117					
		23.59	·1120					
May 20		May 20		May 20		May 20		
0. 0	20.53.55	0. 0	·1120	0. 0	·01715	0. 0	51·2	51·4
0.13	53.20	0.12	·1120	2. 0	·01710	1. 0	51·6	51·8
1.38	53.55	0.27	·1124	3.15:	·01716	3. 0	54·2	54·6
1.51	53. 0	0.45	·1125	4.42	·01600	6. 0	56·0	54·6
2.13	53.50	1. 3	·1132	8.45	·01512	9. 8	56·0	54·4
2.43	51.45	1.14	·1131	14. 5	·01490	12. 0	56·0	54·2
2.52	52. 5	1.27	·1134	16.31	·01533	18. 0	54·2	53·7
3.35	49.55	1.42	·1132	22. 6	·01566	21. 0	54·0	53·8
4. 1	49.50	2. 0	·1135	23.59	·01560	22. 0	54·9	54·6
4.32	47.25	2.43	·1131			23. 0	55·8	55·0
4.41	48.40	2.56	·1132					
4.53	47.10	3.20	·1127					
5.12	47.50	3.30	·1130					
5.26	47. 0	3.47	·1127					
5.37	47.35	3.53	·1130					
6. 7	46.30	4. 2	·1128					
7.15	45.55	4.32	·1128					
7.48	46.40	4.41	·1135					
8.44	43.55	4.54	·1129					
9. 8	40. 0	5. 8	·1134					
9.12	37.40	5.31	·1129					
9.16	40.50	5.58	·1135					
9.38	43.55	6.11	·1135					
10. 7	45. 5	6.30	·1136					
11.31	46. 0	7. 2	·1134					
11.53	44.50	7.23	·1130					
12.13	45.40	7.47	·1136					
12.31	47.20	8. 1	·1134					
13.15	44.50	8.10	·1136					
13.38	49. 0	8.49	·1123					
14.16	44.45	9. 5	·1124					
14.41	45.25	9.17	·1133					
15. 0	44. 5	10. 8	·1128					
15.12	44.40	10.47	·1127					
15.31	42. 5	11.11	·1130					
15.38	43.15	11.30	·1129					

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
May 20 h m	o ′ ″	May 20 h m		h m		h m	o	o
15.56	20.40.40	11.42	·1127					
16.32	46.55	12. 8	·1132					
16.50	47.25	12.41	·1134					
17.30	41.20	13.23	·1138					
17.56	39.25	13.39	·1133					
18. 0	39.40	13.59	·1135					
18. 7	39. 5	14.30	·1126					
18.25	41.40	14.47	·1129					
18.39	40.35	14.58	·1130					
18.57	41.20	15.30	·1135					
19. 8	40.55	15.35	·1132					
19.22	41.25	15.39	·1136					
	***	15.58	·1128					
19.57	41.25	16.12	·1128					
20.13	39.50	16.38	·1123					
20.21	40.45	17. 4	·1131					
21.24	41.15		***					
21.31	42. 5	17.49	·1124					
21.47	41.50	18.17	·1129					
22.23	43.55		***					
22.24	42.50	19. 8	·1125					
22.25	46. 5	19.20	·1125					
22.43	45.25	19.24	·1129					
22.59	47.55	20.10	·1122					
23.47	49.30	20.19	·1119					
23.59	51. 0	20.38	·1118					
		20.46	·1120					
		21. 4	·1117					
		21.22	·1118					
		21.47	·1114					
		22.20	·1113					
		22.47	·1116					
		23.13	·1114					
		23.15	·1103					
		23.42	·1102					
		23.52	·1104					
		23.59	·1104					
May 21		May 21		May 21		May 21		
0. 0	20.51. 0	0. 0	·1104	0. 0	·01560	0. 0	56·6	56·0
0.39	52. 5	0. 8	·1104	1.11	{·01540	1. 0	57·1	56·1
1. 9	50.30		(†)		·01780	2. 0	58·0	56·8
1.47	51.35	1. 0	·1098*	3. 0	·01740	3. 0	59·0	58·0
1.59	51.25	1.18	·1104	5.12:	·01610	9. 0	58·6	57·0
2. 1	55.10	1.34	·1105	7.23	·01587	21. 0	57·6	56·0
2.40	54.25	1.39	·1108	9.18	·01593			
2.55	54.55	1.45	·1107	10.17	·01575			
	(†)	1.59	·1112	14.10	·01727			
5.19	48.55	2.14	·1105	15.37	·01760			
7.14	45.25	2.30	·1108	18.22	·01767			
7.30	40. 0	2.53	·1107	18.27	·01754			
7.47	42. 5	3. 5	·1110	21.23	·01754			
8. 0	41.10	3.15	·1108	23.59	·01640			
8.13	42.10		***					
8.22	44.20	3.46	·1114					
9.16	44.35	4.14	·1111					
9.26	45.35	4.17	·1105					
9.34	44.30	4.43	·1110					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

May 21. From 1ʰ. to 6ʰ. workmen were engaged near the magnets.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
h m	o ′ ″	h m		h m		h m	o	o	h m	o ′ ″	h m		h m		h m	o	o
May 21		May 21							May 22		May 22		May 22				
9.45	20.45.10	4.52	·1115						6.6	20.46.55	1.0	·1111*	10.50	·01540			
10.46	43.55	5.2	·1114						6.58	46.0	1.30	·1116	13.45	·01650			
11.6	45.35	5.8	·1126						8.23	46.10	1.41	·1114	15.58	·01780			
11.18	44.50	5.28	·1122						8.41	44.40	1.56	·1118	18.35	·01780			
11.52	44.50	6.2	·1130						8.48	45.35	2.8	·1117	21.7	·01737			
12.13	45.25	6.42	·1132						9.17	40.25	2.30	·1121	21.55	·01763			
12.32	44.15	6.55	·1129						10.0	43.25	2.38	·1116	23.59	·01700			
12.46	44.40	7.10	·1130						10.25	47.30	3.15	·1132					
13.27	39.50	7.23	·1120						11.3	42.0	3.30	·1130					
13.44	40.0	7.41	·1132						11.30	41.10	3.43	·1135					
14.52	44.25	8.7	·1122						12.4	43.0	3.56	·1132					
15.56	46.25	8.16	·1124						13.53	41.55	4.26	·1133					
16.44	42.50	8.28	·1121						14.28	42.55	4.37	·1131					
17.20	43.25	8.38	·1123						15.0	41.10	4.50	·1134					
17.30	42.45	9.8	·1113						15.26	42.0	5.16	·1132					
18.37	42.5	9.48	·1117						15.49	44.55	5.52	·1137					
19.1	42.30	10.0	·1120						16.7	41.55	6.23	·1130					
19.9	41.25	10.32	·1111						16.43	41.5	6.48	·1133					
19.42	44.10	11.1	·1120						16.56	41.45	7.8	·1129					
19.58	43.5	11.13	·1119						17.9	39.55	7.28	·1129					
20.28	44.15	12.51	·1123						17.58	37.50	7.47	·1124					
21.11	42.55	13.8	·1122						18.15	38.15	8.15	·1132					
	***	13.23	·1124						18.31	40.40	9.5	·1122					
21.34	46.0	13.44	·1121						18.38	40.0	9.22	·1129					
21.45	44.10	13.50	·1119						18.52	41.10	9.58	·1122					
21.47	40.55	14.27	·1118						19.9	41.45	10.32	·1129					
21.52	44.0	14.52	·1121						19.23	40.45	10.53	·1127					
22.10	44.55	15.25	·1120						20.22	37.55	11.4	·1127					
22.15	44.10	15.44	·1126						20.37	35.50	11.30	·1114					
22.59	46.15	16.8	·1129						20.56	36.25	12.33	·1124					
23.31	49.30	16.38	·1125						21.26	39.40	12.47	·1127					
23.53	49.0	17.27	·1125						22.1	41.15	13.20	·1123					
23.59	49.10	18.28	·1126						23.7	47.20	13.29	·1128					
		18.40	·1116						23.17	43.15	13.37	·1127					
			***						23.59	50.45	14.45	·1133					
		19.29	·1108								15.11	·1130					
		19.40	·1111								15.23	·1132					
		20.0	·1102								15.40	·1133					
		20.15	·1105								15.53	·1138					
		20.38	·1104								16.52	·1132					
		20.47	·1106								17.0	·1133					
		20.57	·1105								17.57	·1123					
		21.8	·1107								18.8	·1124					
		21.33	·1107								18.20	·1122					
		21.56	·1108								18.58	·1128					
		22.20	·1107								19.38	·1127					
		22.32	·1112								20.3	·1123					
		23.17	·1115								20.44	·1123					
		23.24	·1112								21.36	·1115					
		23.37	·1114								22.14	·1118					
		23.59	·1114								22.33	·1123					
May 22		May 22		May 22		May 22					22.54	·1126					
0.0	20.49.10	0.0	·1114	0.0	·01640	1.0	56·0	54·6			23.13	·1124					
0.57	50.25	0.13	·1113	2.30	·01585	3.0	57·0	55·6			23.35	·1128					
3.39	50.25	0.29	·1110	3.25	·01600	9.0	57·7	55·6			23.48	·1128					
5.30	48.0	0.47	·1116	4.25	·01587	21.0	49·8	49·0			23.59	·1133					
5.43	48.20		(†)	6.30	·01588												

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
May 23		May 23		May 23		May 23			May 23		May 23						
h m	o ′ ″	h m		h m		h m	o	o	h m	o ′ ″	h m		h m		h m	o	o
0. 0	20.50.45	0. 0	·1133	0. 0	·01700	1. 0	54·6	53·8	13.56	20.37. 5	12.23	·1114					
0. 8	51.35	0.10	·1136	1.27	·01623	3. 0	57·6	56·8	14.25	48.15	12.53	·1135					
0.21	51.30	0.21	·1137	1.37	·01630	9. 0	61·4	58·6	15. 1	35.35	13. 4	·1134					
0.29	52.55	0.28	·1144	2.22	·01592	22.30	51·8	51·8	15.30	34.20	13.31	·1139					
0.37	52. 0	0.35	·1142	3.25	·01640				15.51	35.10	13.39	·1144					
0.50	55.15	0.39	·1152	5. 9	·01640				16. 7	41. 5	13.53	·1145					
0.58	53.15	0.56	·1126	6. 4	·01620				16.26	43. 0	13.59	·1141					
1. 1	54.50	1. 0	·1130	6.24	·01638				16.39	41.55	14. 8	·1146					
1.27	50.45	1. 5	·1126	6.38	·01627				16.48	39.25	14.20	·1142					
1.31	52. 5	1.18	·1128	6.42	·01640					***	14.29	·1148					
1.43	50.55	1.27	·1124	6.57	·01615				17.10	40. 0	14.52	·1153					
2.10	51.25	1.38	·1140	7.24	·01617				17.43	43.45	14.59	·1150					
3. 2	54.40	2.26	·1148	7.42	·01518				17.56	42. 0	15.17	·1156					
3.10	53.50	2.49	·1141	8. 4	·01634				18. 8	43. 0	15.59	·1143					
3.25	54.25	3.10	·1154	8.27:	·01540				18.37	42. 0	16. 3	·1145					
3.35	53.40	3.18	·1149	8.52	·01527				18.45	42.55	16. 9	·1142					
3.53	55. 5	3.30	·1147	9. 7	·01500				19. 3	40.20	16.28	·1151					
4.15	54.30	3.40	·1142	11.11	·01443				19.30	41. 5	16.52	·1150					
4.49	55.50	4.10	·1152	11.38	·01455				19.45	39.35	17. 5	·1143					
4.59	54.10	4.22	·1150	12. 7:	·01410				19.50	40.50	17.30	·1139					
5. 3	55.55	4.38	·1159	12.50	·01495				20. 1	39.45	17.45:	·1143					
5.13	54.45	4.54	·1162	14.25	·01567				20.38	40.50	18. 7	·1140					
5.20	55.20	5. 4	·1152	14.53:	·01554				21.52	40.20	18.22	·1131					
5.26	54. 5	5.13	·1166	15.44	·01595				22. 9	43.55	18.55	·1126					
5.56	50.45	5.23	·1164	16.30	·01663				22.15	45. 0	19.23	·1125					
6. 3	51.25	5.30	·1156	20. 3	·01800				23.29	48. 0	19.41	·1120					
6.18	47. 0	5.37	·1161	23.14	·01840				23.59	49.40	19.47	·1122					
6.27	47.55	6. 0	·1136	23.59	·01840						20. 0	·1118					
6.37	47.35	6. 7	·1143								20.32	·1116					
6.43	49. 0	6.14	·1113								20.44	·1114					
7. 2	47.40	6.34	·1156								20.56	·1115					
7.36	44.15	6.38	·1152								21. 9	·1112					
7.39	42.10	6.48	·1176								21.23	·1111					
7.55	40.55	7. 8	·1145								21.30	·1113					
8. 8	28.30	7.15	·1150								21.37	·1110					
8.28	39.10	7.19	·1146								21.45	·1112					
8.42	35.55	7.26	·1157								22. 3	·1113					
8.59	43. 5	7.38	·1152								22.12	·1118					
9.20	38.40	7.45	·1120								22.38	·1117					
9.52	44.10	7.53	·1122								22.51	·1118					
10. 0	43.25	7.56	·1120								23. 0	·1124					
10.16	44.10	8.13	·1157								23.20	·1122					
10.37	42.40	8.36	·1129								23.27	·1126					
10.40	43. 5	8.52	·1141								23.59	·1126					
10.59	41.50	9. 6	·1123														
11. 8	40. 0	9.22	·1128						May 24		May 24		May 24		May 24		
11.24	40.10	9.30	·1125						0. 0	20.49.40	0. 0	·1126	0. 0	·01840	8. 0	62·0	60·0
11.33	39.20	9.41	·1129						0.58	50. 0	0.19	·1126	2.53	·01720	21. 0	54·2	53·6
11.43	40.30	10. 1	·1127						1.46	49. 5	0.46	·1130	3.42	·01648			
11.48	38.50	10.14	·1129						2.29	49.20	1.13	·1131	5. 4	·01625			
11.57	39.25	10.22	·1128						5.46	45.10	1.25	·1134	8. 8	{·01520 / ·01610			
12.22	37.40	11. 2	·1133						6.45	44.45	1.34	·1133					
12.40	34. 5	11. 8	·1131						9. 9	45.40	1.51	·1134	8.55	·01560			
12.56	37.30	11.14	·1132						9.52	44.30	2. 7	·1132	11.45	·01547			
13. 5	37.25	11.23	·1128						11.33	44. 0	2.15	·1134	13.36	·01594			
13.14	39.35	11.35	·1130						12.39	42.15	2.39	·1131	18.12	·01813			
13.23	38.50	11.46	·1143						12.45	43.25	2.55	·1134	21. 6	·01830			
13.37	40. 0	12. 8	·1118						13.18	43. 5	4.16	·1137	22.11	·01860			

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
May 24	° ′ ″	May 24		May 24			°	°
13. 23	20. 44. 45	4. 41	·1142	23. 59	·01850			
13. 39	40. 50	4. 52	·1140					
13. 46	41. 55	5. 20	·1142					
13. 58	40. 15	5. 33	·1140					
14. 0	42. 10	6. 8	·1142					
14. 8	40. 35	6. 53	·1139					
14. 13	41. 35	7. 15	·1143					
14. 29	41. 40	7. 23	·1142					
14. 34	40. 35	7. 32	·1144					
14. 48	39. 40	8. 8	·1134					
15. 7	41. 40	8. 46	·1135					
15. 37	38. 10	9. 0	·1138					
15. 53	41. 55	9. 9	·1135					
	***	9. 23	·1137					
17. 1	43. 0	9. 47	·1135					
17. 52	40. 0	10. 15	·1138					
18. 43	38. 15	10. 32	·1136					
19. 8	38. 45	11. 29	·1137					
19. 37	37. 50	11. 58	·1134					
20. 21	39. 20	12. 17	·1140					
20. 52	39. 20	12. 38	·1132					
21. 37	41. 15	12. 45	·1136					
22. 28	44. 30	12. 53	·1134					
23. 13	45. 40	13. 8	·1139					
23. 27	47. 35	13. 16	·1139					
23. 52	47. 30	13. 27	·1149					
23. 59	48. 15	13. 45	·1142					
		14. 24	·1144					
		14. 45	·1140					
		15. 8	·1144					
		15. 35	·1135					
		15. 53	·1133					
		16. 23	·1137					
		18. 44	·1130					
		18. 55	·1131					
		19. 25	·1129					
		19. 37	·1127					
		20. 37	·1128					
		21. 16	·1125					
		21. 32	·1127					
		22. 0	·1123					
		22. 38	·1121					
		23. 23	·1129					
		23. 46	·1122					
		23. 59	·1123					
May 25		May 25		May 25		May 25		
0. 0	20. 48. 15	0. 0	·1123	0. 0	·01850	1. 0	57·6	56·8
0. 27	49. 40	0. 4	·1126	0. 55	·01870	3. 0	59·8	58·6
0. 37	49. 5	0. 18	·1127	1. 53	·01810	9. 0	60·3	58·0
1. 42	52. 15	0. 27	·1125	3. 1	·01760	21. 0	51·8	51·5
3. 3	51. 5	0. 45	·1129	3. 45	·01660			
3. 12	51. 40	1. 0	·1130	5. 24	·01580			
3. 22	51. 10	1. 14	·1132	7. 3	·01543			
3. 43	51. 15	1. 32	·1138	9. 53	·01522			
4. 33	49. 5	1. 50	·1133	11. 40	·01555			
6. 37	46. 40	2. 10	·1136	17. 12	·01860			
7. 9	46. 35	2. 46	·1137	20. 45	·01846			

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
May 25	° ′ ″	May 25		May 25			°	°
8. 18	20. 46. 50	3. 8	·1161	22. 26	·01885			
8. 43	47. 30	3. 20	·1156	23. 59	·01837			
9. 1	46. 30	3. 39	·1156					
10. 21	45. 0	3. 57	·1149					
10. 58	45. 20	4. 12	·1152					
11. 15	43. 45	4. 20	·1152					
11. 23	44. 0	4. 52	·1157					
11. 44	43. 40	6. 11	·1158					
11. 52	44. 55	6. 38	·1152					
12. 11	43. 25	6. 47	·1153					
12. 16	44. 50	8. 1	·1141					
12. 23	43. 15	8. 23	·1141					
13. 24	44. 5	8. 39	·1145					
15. 2	43. 5	9. 32	·1134					
	***	9. 40	·1136					
16. 32	39. 55	10. 15	·1134					
16. 40	41. 10	10. 29	·1135					
16. 57	41. 55	10. 37	·1133					
17. 10	39. 40	11. 7	·1138					
17. 21	40. 25	11. 23	·1133					
17. 45	39. 40	11. 44	·1132					
18. 12	40. 50	11. 58	·1138					
18. 29	38. 20	12. 14	·1134					
18. 39	39. 55	12. 23	·1137					
18. 58	39. 30	12. 41	·1131					
19. 1	37. 10	13. 4	·1131					
19. 7	40. 35	13. 18	·1134					
19. 13	38. 30	13. 25	·1132					
19. 32	40. 5		***					
20. 0	39. 5	14. 53	·1132					
20. 9	40. 30	15. 7	·1136					
20. 27	39. 10	15. 13	·1136					
20. 30	40. 55	15. 44	·1142					
20. 42	38. 35	15. 53	·1137					
21. 5	44. 15	16. 0	·1141					
22. 13	47. 15	16. 14	·1138					
22. 22	50. 35	16. 23	·1142					
22. 39	48. 45	16. 29	·1140					
22. 45	49. 0		***					
22. 54	48. 25	18. 21	·1142					
22. 57	51. 5	18. 35	·1146					
23. 6	49. 20	18. 45	·1144					
23. 12	50. 45	18. 53	·1146					
23. 22	49. 25	19. 7	·1138					
23. 29	52. 35	19. 26	·1140					
23. 38	51. 10	19. 39	·1136					
23. 55	52. 5	19. 52	·1140					
23. 59	51. 0	20. 0	·1138					
		20. 26	·1135					
		20. 32	·1143					
		20. 39	·1133					
		20. 52	·1132					
		21. 7	·1126					
		21. 52	·1122					
		22. 4	·1126					
		22. 13	·1122					
		22. 26	·1132					
		22. 43	·1120					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol ‡ attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet.	Of V.F. Magnet.
h m	o ' ''	h m		h m		h m	o	o
		May 25						
		22.58	.1124					
		23. 2	.1129					
		23. 9	.1124					
		23.17	.1130					
		23.36	.1131					
		23.43	.1123					
		23.54	.1123					
		23.59	.1121					
May 26		May 26		May 26		May 26		
0. 0	20.51. 0	0. 0	.1121	0. 0	.01837	1. 0	54.8	54.2
0.26	52. 0	0.12	.1115	0.55	.01814	3. 0	57.0	56.6
0.34	51.25	0.29	.1124	1. 9	.01820	9. 0	61.0	59.0
0.37	53.45	0.32	.1121	1.24	.01850	21. 0	52.2	52.0
0.53	51.35	0.42	.1122	3.42	.01750	22. 0	53.2	53.0
1. 0	53.40	1. 0	.1116	4.23	.01670	23. 0	55.0	55.0
1. 7	52.45	1.13	.1128	5.20	.01660			
1.18	57. 0	1.17	.1125	9.48	.01540			
1.36	52.15	1.34	.1153	10.34	.01540			
1.50	52.25	1.45	.1128	11.45	.01534			
1.58	52.35	2. 9	.1125	12.47	.01580			
2.16	53.20		***	17.43	.01870			
2.38	50.50	2.48	.1127	21.18	.01870			
3. 5	51. 0	3.14	.1136	22.15	.01905			
3.15	50.10	3.26	.1135	23.59	.01880			
3.37	52.50	3.51	.1165					
3.58	51.20	4. 0	.1169					
4.14	47.45	4. 4	.1164					
4.23	49.20	4. 7	.1166					
4.49	47. 0	4.23	.1138					
5.13	46. 5	4.34	.1145					
5.19	47. 0	5. 7	.1134					
5.52	44.55	5.23	.1143					
6.13	44.40	5.52	.1140					
6.46	45.30	6.20	.1146					
7.34	44.55	6.33	.1144					
8.23	47. 0	6.42	.1146					
8.52	46.35	6.58	.1141					
8.57	44. 5	7.51	.1140					
8.58	47.55	8. 7	.1143					
9. 0	46.25	8.18	.1136					
9.13	46.20	9. 7	.1131					
9.16	47.55	9.19	.1136					
9.30	45.35	9.25	.1125					
9.35	46.40	9.38	.1134					
9.53	45.35	9.45	.1130					
10.27	46.35	10.24	.1132					
10.52	44.30	10.32	.1130					
11. 0	46. 0	10.50	.1130					
11. 6	45. 0	10.59	.1133					
11.10	46.30	11. 4	.1128					
11.25	44.20	11.10	.1137					
	***	11.22	.1131					
14.10	44.40	11.34	.1133					
14.23	43.40	11.45	.1131					
14.28	46. 0		***					
14.39	44. 5	12.54	.1134					
14.55	47.15	13.58	.1132					
			***					

Right panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet.	Of V.F. Magnet.
h m	o ' ''	h m		h m		h m	o	o
May 26		May 26						
15. 0	20.46. 5	15. 8	.1130					
15.13	47.35	15.14	.1126					
15.20	45. 5	15.28	.1127					
15.37	46.55	15.39	.1124					
16. 7	44.45	16. 3	.1127					
16.18	46.10	16.15	.1132					
16.45	42.50	16.24	.1129					
17. 4	42.30	16.47	.1134					
17.33	45. 0	17. 0	.1134					
	***	17.16	.1128					
		17.31	.1131					
18.18	41.15		***					
18.30	43.40	17.55	.1125					
18.37	46.55	18. 0	.1127					
18.49	43.50	18.24	.1117					
19.10	41.35	18.30	.1120					
19.13	43. 0	18.53	.1119					
19.22	41. 0	18.58	.1122					
19.26	42.55	19. 6	.1117					
19.29	40.25	19.20	.1123					
19.40	41.35	19.26	.1121					
19.52	40.40	19.40	.1122					
19.56	42.10	19.45	.1117					
20. 0	40. 0	19.51	.1124					
20. 2	42.10	19.55	.1119					
20. 8	39. 0	19.58	.1125					
20. 9	40.45	20.12	.1120					
20.22	41.40	20.30	.1122					
20.25	40. 5	21.25	.1105					
20.30	41.25	21.44	.1092					
20.37	40.25	22. 0	.1093					
20.41	41.55	22.11	.1089					
20.56	41.45	22.37	.1099					
21.38	46. 0	22.54	.1094					
21.53	46. 0	23.15	.1094					
22. 4	44.40	23.42	.1107					
22.15	48.35		(†)					
22.23	47.50							
22.43	49.20							
22.58	49. 0							
23.12	51.15							
23.43	49.30							
23.56	51.10							
(†)								
May 27		May 27		May 27		May 27		
	(†)		(†)	0. 0	.01880	0. 0	56.2	56.2
0. 8	20.49.45	0.11	.1105	2. 7	.01765	1. 0	57.5	57.7
0.30	50.35	0.29	.1117	2.41	.01686	3. 0	61.1	62.0
0.38	52.30	0.33	.1115	3.58	.01650	6. 0	65.5	64.0
0.42	51.50	0.38	.1118	4.38	{.01610 / .01660	9. 0	66.0	64.2
0.45	52.55	0.42	.1114			12. 0	64.6	62.4
1. 0	51. 5	0.46	.1120	6. 9	.01590	18. 0	60.8	58.7
1.32	50.40	1. 0	.1112	6.15	.01630	21. 0	59.0	58.8
2. 4	52. 5	1.28	.1123	7.26	.01570	22. 0	59.9	59.6
2.18	50.50	2.24	.1130	7.57	.01567	23. 0	60.8	61.0
2.33	51.25	2.39	.1134	8.28	{.01545 / .01630			
	***	2.54	.1131					
3.21	49. 0	3. 8	.1137	10.43	.01570			

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
May 27		May 27		May 27					May 27								
3.28	20.49.30	3.22	.1132	15.26	.01688				21.47	20.46.0							
3.37	47.25	4.7	.1130	17.38:	.01780				22.8	50.20							
3.43	48.30	4.55	.1138	20.7	.01947				22.53	52.25							
4.2	46.35	5.15	.1133	22.48	.01980				23.29	52.30							
4.38	46.20	5.45	.1140	23.59	.01937				23.37	54.20							
4.52	46.55	5.58	.1136						23.53	54.40							
4.57	47.50	6.8	.1138						(†)								
5.12	46.0	6.37	.1133						May 28		May 28		May 28		May 28		
6.39	45.10	6.52	.1144						(†)		0.0	.1112	0.0	.01937	0.0	61.9	63.0
6.54	45.50	7.7	.1135						0.7	20.52.50	0.8	.1113	0.15	.01950	1.0	62.8	64.0
7.7	44.55	7.31	.1133						1.1	51.10	0.35	.1120	2.9	.01803	2.0	63.8	65.8
7.38	44.55	7.57	.1143						1.15	52.10	1.3	.1126	3.39	.01600	3.0	65.7	67.6
7.50	45.55	8.22	.1131						1.32	52.50	1.8	.1123	3.58	{.01595	9.0	70.0	69.0
8.8	44.0	8.35	.1132						1.45	51.30	1.30	.1135		.01660}	21.0	62.0	61.2
8.24	44.0	9.29	.1122						1.52	52.10	1.38	.1125	6.4	.01513			
8.32	45.30	10.29	.1128						2.37	51.55	2.8	.1125	8.26	.01464			
8.52	44.55	10.45	.1123						3.1	49.35	2.36	.1136	10.58	.01440			
8.56	42.0	10.57	.1125						3.47	47.50	2.52	.1131	14.3	.01544			
9.0	43.50	11.29	.1122						3.57	48.45	3.8	.1133	15.34:	.01597			
9.24	44.35	12.16	.1127						5.42	44.25	3.41	.1125	16.45	.01700			
9.33	45.35	12.37	.1124						5.48	45.35	3.53	.1130	18.0	.01795			
9.39	44.35	12.41	.1127						6.28	44.15	4.3	.1126	21.0	.01837			
10.22	45.5	13.3	.1121						6.53	44.10	4.16	.1125	22.49	.01880			
10.28	46.10	13.18	.1121						7.22	45.40	4.31	.1136	23.0	.01885			
10.45	44.25	13.57	.1124						7.54	45.10	4.51	.1133	23.22	.01873			
11.21	43.55	14.9	.1121						8.30	46.0	5.8	.1121	23.59	.01880			
12.6	45.10	15.47	.1121						8.46	44.35	5.35	.1122					
12.30	44.15	16.5	.1123						9.56	43.35	5.47	.1128					
12.33	45.40	16.23	.1121						10.37	44.35	6.0	.1127					
12.38	44.15	18.17	.1120						10.46	43.55	6.20	.1132					
12.45	44.50	18.37	.1114						10.52	45.0	6.47	.1136					
12.59	43.25	19.45	.1110						11.1	44.10	6.52	.1132					
13.59	45.55	20.0	.1112						11.37	44.50	6.58	.1139					
15.7	45.0	20.38	.1106						12.30	44.30	7.8	.1132					
15.16	45.20	21.32	.1106						12.38	43.40		***					
15.53	43.5	22.19	.1097						13.11	43.10	8.13	.1130					
16.34	42.0	22.31	.1100						14.19	53.0	8.19	.1131					
16.44	42.45	22.38	.1092						14.42	49.15	8.39	.1126					
16.50	41.0	23.12	.1096						14.57	49.0	8.50	.1129					
16.59	42.5	23.45	.1114						15.26	43.30	9.4	.1127					
17.6	41.45	23.55	.1113						16.22	39.5	9.28	.1128					
17.45	41.25	23.59	.1112						16.27	41.15	10.0	.1121					
17.55	42.10								16.33	39.0	10.22	.1126					
18.0	41.5								17.6	38.30	10.44	.1121					
18.10	41.10								17.31	37.35		***					
18.14	40.0								18.7	38.30	11.37	.1121					
18.22	41.55								18.21	37.20	11.44	.1124					
18.32	40.5								18.40	38.20	11.54	.1122					
18.43	42.55								18.57	39.55	12.5	.1124					
18.50	42.0								19.30	37.40	12.23	.1120					
19.0	41.45								19.52	39.0	12.32	.1122					
19.5	40.35								20.19	38.45	13.0	.1119					
19.23	42.35								21.38	42.40	13.35	.1122					
19.33	40.20								21.58	46.55	14.10	.1113					
19.48	41.35								22.13	47.5	14.29	.1118					
20.8	42.30								22.23	48.45	14.41	.1117					
20.15	41.30								22.39	48.55		***					
20.50	42.55																

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left block

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
May 28		May 28						
h m	o ′ ″	h m		h m		h m	o	o
22.57	20.50. 0	15.26	·1126					
23. 7	49.25	15.59	·1121					
23.31	50. 0	16.30	·1120					
23.38	51. 0	16.35	·1117					
23.50	49.25	17.11	·1121					
23.59	50.40	17.28	·1116					
		17.45	·1118					
		18.22	·1112					
		19.18	·1114					
		19.29	·1112					
		19.44	·1115					
		20.28	·1110					
		20.43	·1112					
		21.30	·1106					
		21.38	·1103					
		21.52	·1102					
		22.13	·1089					
		22.38	·1090					
		23.11	·1097					
		23.46	·1115					
		23.59	·1112					
May 29		May 29		May 29		May 29		
0. 0	20.50.40	0. 0	·1112	0. 0	·01880	1. 0	66·0	67·1
0.20	50.50	0.21	·1111	0.23	·01880	3. 0	69·1	70·9
0.49	50. 0		***	1. 7	·01852	9. 0	74·0	72·0
1. 1	51.40	1. 4	·1128	1.28	·01790	21. 0	65·8	65·0
1.29	48.55	1.22	·1124	3.50	·01515			
1.36	50.30	1.30	·1117	4.39	·01443			
1.46	50. 5	1.37	·1126	8.53	·01280			
2. 2	49. 0	1.50	·1117	9.18	·01300			
2.14	48.15	2. 4	·1123	10. 4	·01240			
2.57	48.40	2.26	·1114	11.41	·01267			
3. 3	50. 0	2.43	·1115	15.33	·01500			
3.37	47.25	2.57	·1126	17. 3	·01637			
4. 0	44.25	3.23	·1124	19.18;	·01740			
4.12	44.25	3.37	·1117	21.15	·01740			
4.25	45.30	3.51	·1115	23.36	·01758			
4.44	44.45	4.23	·1133	23.59	·01780			
5.26	47.30	4.40	·1125					
5.52	46. 0	4.58	·1122					
5.57	46.30	5.24	·1138					
6.31	44.35	5.49	·1118					
6.44	46. 0	5.57	·1126					
7.15	46.30	6. 4	·1121					
7.31	47.35	6.30	·1116					
7.56	47.15	6.44	·1125					
8.42	48. 0	7. 5	·1120					
8.53	46.15	7.19	·1123					
9. 0	47.35	7.30	·1121					
9.38	47. 0	7.48	·1124					
9.47	45.45	8. 9	·1121					
10. 2	45.45	8.17	·1124					
10.22	42.35	9. 8	·1118					
10.31	43. 0	9.22	·1120					
10.58	42.55	9.35	·1119					
11.23	46.35	9.51	·1124					
11.45	45.15	10. 8	·1117					

Right block

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
May 29		May 29						
h m	o ′ ″	h m		h m		h m	o	o
12.13	20.46.50	10.32	·1114					
12.44	45.20	11.17	·1115					
13. 0	47.10	11.34	·1113					
13.25	47.10	12. 2	·1113					
13.44	46. 0	12.33	·1111					
13.59	47.45	13.17	·1113					
14.15	47.25	13.49	·1107					
14.28	46.15	13.58	·1110					
14.43	47.40	14.10	·1107					
15. 5	47.25	14.22	·1111					
15.14	44. 5	14.32	·1110					
15.19	45. 0	14.47	·1114					
15.25	44. 0	15.16	·1110					
15.38	45.25	15.23	·1115					
16.12	45. 0	15.38	·1108					
16.23	46.15	15.48	·1110					
16.29	44.30	16.38	·1110					
16.44	45. 5	16.49	·1113					
17. 6	43.50	18. 6	·1109					
17.30	44.25	18.21	·1111					
17.46	43.50	18.37	·1105					
17.55	44.55	19. 0	·1107					
	***	19.15	·1105					
18.37	45.10	19.27	·1107					
18.59	46.55	19.46	·1104					
19.25	47.25	20.58	·1105					
19.31	48.25	21. 7	·1107					
19.48	47. 0	21.15	·1106					
20.17	48. 5	21.46	·1100					
20.28	47.30	22. 8	·1103					
20.51	48.40	22.18	·1099					
21. 0	47.45	22.42	·1105					
	***	23. 0	·1102					
22.12	53.10	23.23	·1107					
22.33	52. 0	23.30	·1101					
22.51	52.40	23.47	·1107					
23. 0	52.10	23.55	·1103					
	***	23.59	·1106					
23.43	54. 0							
23.53	53. 5							
23.59	52.35							
May 30		May 30		May 30		May 30		
0. 0	20.52.35	0. 0	·1106	0. 0	·01780	1. 0	67·0	68·2
0.13	53.20	0.41	·1117	0.38	·01795	3. 0	68·8	69·9
0.36	54.15	0.59	·1108	4. 3	·01600	9. 0	70·4	69·4
0.57	52.50	1. 7	·1113	5.10;	·01485	22.36	64·0	63·0
1. 2	53.55	1.49	·1107	6.40	·01510			
1.45	53. 5	2.10	·1114	9.36	·01500			
1.57	53.30	2.15	·1122	10.11	·01485			
2. 7	53. 0	2.19	·1118	12. 3	·01540			
2.10	54. 0	2.52	·1105	14.40	·01654			
2.22	52. 5	3. 1	·1107	15.18	·01650			
2.31	52.20	3.23	·1109	17.42	·01788			
3.38	49.40	3.33	·1106	23.59	·01595			
4. 8	49.25	3.58	·1106					
4.37	48. 0	4. 9	·1109					
5. 0	48.15	4.23	·1110					
5.12	47. 5	4.30	·1114					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
May 30		May 30						
h m	o ' ''	h m		h m		h m	o	o
6. 7	20.46. 0	4.39	·1111					
6.21	42.35	5. 0	·1122					
6.32	40.50	5.13	·1118					
7. 2	41.35	5.20	·1121					
7.26	43.45	5.37	·1115					
7.37	45.30	5.53	·1124					
8.11	45.20	6. 0	·1113					
8.46	46.20	6. 2	·1124					
8.59	45.10	6.18	·1119					
9.15	46.35	6.37	·1130					
9.52	46.25	7. 0	·1133					
10.20	45. 0	7.30	·1130					
10.28	46. 0	7.47	·1125					
10.49	40.45	8. 7	·1128					
11.15	47.55	8.20	·1126					
11.32	48.25	8.43	·1130					
11.43	47. 0	9. 0	·1126					
12. 7	46. 5	9.10	·1133					
12.22	46.35	9.15	·1130					
12.29	45.35	9.43	·1132					
12.31	46.55	9.58	·1128					
12.59	46. 5	10.12	·1130					
13. 8	47. 0	10.40	·1126					
13.22	46. 0	10.56	·1132					
13.28	47. 5	11.10	·1130					
13.45	47.40		***					
13.59	47.35	11.47	·1132					
14.11	50. 0		***					
14.16	49.50	12.36	·1125					
14.29	51.35	12.40	·1129					
15.13	46.50	13. 0	·1126					
15.41	45.20	13. 7	·1129					
16. 0	45.55	13.17	·1127					
16.26	43.35	13.33	·1128					
16.46	44.30	13.49	·1124					
17.10	42.45	14. 8	·1127					
17.18	44. 5	14.17	·1127					
17.28	43. 5	15. 0	·1126					
17.30	44.30	15.33	·1123					
17.47	43.35	16. 8	·1130					
17.58	45.15	16.42	·1130					
18.24	45. 0		***					
18.52	43.20	17.15	·1123					
19.22	45.40	17.37	·1124					
19.43	44.10	18.25	·1121					
20.15	43.10	18.39	·1115					
20.28	41.50	19.10	·1122					
20.36	43.15		***					
20.50	42.50	19.59	·1116					
20.59	44.10		***					
21.10	43.15	20.57	·1122					
21.16	45. 0	21. 3	·1120					
21.22	44. 0		***					
	***	21.47	·1113					
			***					
21.59	48. 5							
22.24	49.40	22.16	·1111					
22.33	49. 0	22.40	·1118					
22.35	50.35	22.45	·1110					
May 30		May 30						
23.10	20.51.40	22.49	·1112					
23.43	53. 0	22.55	·1109					
23.52	52. 5	23. 8	·1110					
23.59	52.40	23.20	·1113					
		23.57	·1102					
		23.59	·1105					
May 31		May 31		May 31		May 31		
0. 0	20.52.40	0. 0	·1105	0. 0	·01595	9.50	62·5	62·0
0.16	53.10	0.28	·1113	3.15	·01653	21. 0	55·8	56·0
0.23	52.40	0.47	·1127	7.23	·01647			
0.43	54.15	1.32	·1112	10.44	·01590			
0.59	54.30	2. 8	·1124	10.56	·01575			
1. 8	53.50	2.25	·1124	12.14	·01555			
1.18	55. 0	2.39	·1118	12.44	{·01530 / ·01440}			
1.29	54.10	2.43	·1122					
2.10	54. 0	2.58	·1120	15.30	·01566			
2.34	52.35	3.11	·1129	16.45	{·01542 / ·01496}			
2.39	53.25	3.21	·1126					
2.53	52. 0	3.30	·1126	18.40	·01560			
3. 0	52.55	3.47	·1117	19.22	{·01545 / ·01490}			
4. 0	49.15	4.44	·1134	23.59	·01495			
5.15	47.35	5.15	·1124					
5.38	47.35	5.38	·1131					
6. 8	46. 0	6.15	·1130					
6.37	46.30	7.15	·1136					
6.56	46. 0	7.52	·1135					
7.59	47.30	8. 6	·1137					
8.32	47.25	8.32	·1133					
8.52	48. 0	8.52	·1135					
9.27	47.15	9. 2	·1133					
9.37	48.55	9.28	·1132					
9.48	46.25	9.44	·1136					
9.53	48.15	10. 5	·1133					
10. 8	47. 5	10.15	·1135					
10.19	48. 0	10.26	·1133					
10.30	47. 5	10.46	·1137					
10.33	48. 5	11.15	·1140					
10.46	46.55	11.30	·1134					
11.33	46. 5		***					
11.44	47. 0	12.17	·1142					
11.52	46.20	12.40	·1139					
12. 3	49. 0	12.53	·1135					
12.18	50. 0	13.15	·1132					
12.37	46.45	13.57	·1136					
12.54	45.15	14. 8	·1134					
14. 1	45.40	14.38	·1135					
14.16	44.25	14.51	·1133					
14.39	45.30	15.24	·1135					
14.54	44.20	16. 1	·1133					
15. 5	45. 0		(†)					
15.37	44.35	17.36	·1129					
15.44	45.15	17.48	·1127					
16. 1	44.25	18.18	·1133					
	(†)	19.15	·1132					
17.36	44. 0	20. 7	·1131					
17.43	44.15	20.20	·1127					
17.47	43. 0	21.23	·1122					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

May 31. The Declination and Horizontal Force cylinder was stopped from 16^h. 1^m. to 17^h. 36^m.

Upper section (May 31 / June 1)

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
May 31		May 31							June 1								
h. m.	o ' "	h. m.		h. m.		h. m.	o	o	h. m.	o ' "	h. m.		h. m.		h. m.	o	o
18. 0	20.44.10	21.43	.1123						18.42	20.38.50							
18.13	43.35	21.52	.1121						18.46	39.50							
18.21	42.35	22.16	.1120						18.55	38.25							
18.27	43.10	22.34	.1124						19.35	39.10							
18.55	41. 0	22.51	.1125						19.42	39. 0							
19.10	40.45	23.15	.1128						21.31	40.35							
19.20	42. 5	23.23	.1126						22.26	46. 5							
19.43	41.50	23.59	.1127						23.36	50.30							
19.53	42.45								23.59	50.45							
20.17	42. 0																
20.22	43.15																
20.38	44. 0																
20.48	43.50																
21. 3	46. 0																
21.23	46.10																
21.37	48.10																
22. 0	49.50																
22. 9	49.15																
22.32	49.50																
22.35	50.55																
22.58	51.20																
23.15	52.50																
23.26	52.30																
23.59	53.35																

Lower section (June 1 / June 2)

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
June 1		June 1		June 1		June 1			June 1		June 2		June 2		June 2		
0. 0	20.53.35	0. 0	.1127	0. 0	.01495	1. 0	59.8	60.0	0. 0	20.50.45	0. 0	.1119	0. 0	.01540	1. 0	63.0	62.8
0.17	55.25	0.18	.1134	1. 5	.01530	3. 0	62.6	63.0	0. 8	50. 0	1. 8	.1136	1.19	.01492	3. 0	66.9	66.7
1. 4	53. 5	0.39	.1128		.01747	9. 0	66.0	63.0	0.15	50.55	1.18	.1144	1.41	.01445	9. 0	71.5	69.7
1.38	54. 0	0.45	.1124	2.38	.01700	21. 0	57.0	56.5	0.43	51.10	1.38	.1136	3.22	.01507	21. 0	62.2	62.0
2.15	52.25	1. 6	.1122	3.37	.01590				1.17	53. 0	1.53	.1137	4.13	.01513	22. 0	63.6	64.0
2.33	52.50	1.38	.1141		(†)				1.29	52. 0	2. 4	.1142	6.13	.01453	23. 0	65.1	65.9
3. 2	51. 5	2.20	.1127	8.41	.01390				2. 0	53.15	2.15	.1138	7.34	.01440			
3. 8	52. 0	2.48	.1140	11.33	.01440				2.15	52.30	2.46	.1147	9. 3	.01373			
3.27	49.45	3. 1	.1131	14.39	.01660				2.27	53.20	2.55	.1145	10.55	.01334			
3.34	50. 5	3. 8	.1139	20. 3	.01566				2.36	52.10	3.37	.1148	11.56	.01340			
	(†)	3.17	.1130	21.30	.01576				2.40	53.10	3.47	.1156	13.24	.01406			
8.37	45.15	3.32	.1129	22.19	.01593				3.23	51.40	4. 9	.1156	16.42	.01645			
8.42	44.50		(†)	23. 7	.01566				3.51	51. 0		(†)		(†)			
8.48	46.35	9. 0	.1134*	23.59	.01540				4.40	48.15	4.45	.1120	19.30	.01735			
9. 1	43.10	13.15	.1133						4.47	48.40	4.56	.1124	22. 9	.01780			
9.10	45.55	13.40	.1134						5. 3	46.55	5. 8	.1121	23.19	.01620			
9.27	44. 0	14. 9	.1138						5.16	46.40	5.30	.1124	23.59	.01587			
9.50	43.10	14.52	.1138						6. 5	45. 0	5.43	.1122					
10. 6	44.20	15.13	.1136						6.38	44.55	6.28	.1124					
11. 7	45. 5	16.58	.1140						7. 3	44.55	6.47	.1129					
11.24	44. 5	17.36	.1138						7.22	43.25	7.47	.1113					
12.22	43.55	18. 8	.1139						7.28	43.50	8. 0	.1115					
12.59	44.30	20. 8	.1126						8. 7	43. 5	8.27	.1114					
13.34	43.25	22.14	.1116						8.33	43.10	8.38	.1107					
14.16	45. 5		(†)						8.42	41.55	8.51	.1117					
	***	22.55	.1109						8.48	43. 0	9. 4	.1111					
15.12	43.55	23.17	.1111						9. 4	43.30	9.13	.1112					
	***	23.59	.1119						9.24	42.55	9.40	.1108					
15.41	44. 0								9.40	43.20	10.10	.1116					
16.14	42. 0								9.47	44.20	10.45	.1115					
16.47	43. 0								10. 1	42.55	10.59	.1118					
17.45	39.10								10.20	42. 0	11.35	.1113					
									10.50	42.30	12.40	.1115					
									10.58	43.10	13. 2	.1110					
									11.28	42.10	13.21	.1114					
									12.29	42.45	13.26	.1112					
									12.39	41.40	13.46	.1114					
									12.43	42.55	14.19	.1108					
									12.59	41.10	14.35	.1111					
									14. 7	45.25	14.49	.1109					
									14.45	45.55	15.23	.1114					
									15.12	45. 0	15.34	.1112					
									15.17	46.25		***					
									15.36	44.20	17.53	.1110					
									15.47	44.45	18. 3	.1111					
									16. 7	42.30	18.32	.1106					
									16.16	44. 0	18.59	.1105					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

June 1. The photographic trace of the Declination Magnet was lost from 3h. 34m. to 8h. 37m., and that of the Horizontal Force was lost from 3h. 32m. to 13h. 15m.

Declination (left panel)

Greenwich Mean Solar Time	Western Declination
June 2	
h m	o ' "
16. 24	20. 41. 30
16. 28	43. 35
16. 34	41. 55
17. 1	43. 0
17. 10	42. 0
17. 20	43. 20
17. 35	41. 10
17. 59	42. 15
18. 8	41. 0
18. 20	40. 30
18. 52	39. 55
19. 16	40. 45
19. 38	40. 0
20. 16	40. 5
20. 21	40. 40
21. 0	40. 45
21. 31	43. 25
22. 35	45. 15
22. 54	44. 5
23. 45	47. 10
23. 59	47. 5
June 3	
0. 0	20. 47. 5
0. 9	48. 25
0. 26	47. 55
0. 36	49. 40
0. 55	49. 55
1. 0	48. 0
1. 6	50. 0
1. 45	51. 10
2. 34	50. 35
2. 45	50. 5
3. 48	48. 30
3. 59	48. 40
5. 30	45. 25
6. 11	44. 55
6. 43	45. 25
7. 41	44. 5
8. 53	45. 0
9. 29	44. 5
10. 39	43. 55
11. 7	43. 50
11. 41	44. 30
12. 37	43. 10
12. 51	44. 5
13. 23	43. 15
13. 38	44. 30
13. 47	44. 5
14. 0	45. 5
14. 21	45. 35
14. 33	45. 0
15. 7	48. 55
15. 49	47. 30
16. 25	39. 30
16. 48	39. 0
16. 54	39. 30
17. 0	38. 25

Horizontal Force (left panel)

Greenwich Mean Solar Time	Horizontal Force in parts of the whole H. F. uncorrected for Temperature
June 2	
h m	
19. 12	·1103
19. 53	·1104
20. 44	·1101
20. 55	·1101
21. 15	·1094
21. 31	·1093
22. 1	·1098
22. 23	·1094
	(†)

Vertical Force (left panel)

Greenwich Mean Solar Time	Vertical Force in parts of the whole V. F. uncorrected for Temperature
June 3	
h m	
0. 0	·01587
1. 0	{ ·01520 / ·01633 }
3. 25	{ ·01440 / ·01540 }
4. 9	·01405
4. 43	{ ·01360 / ·01440 }
5. 49	{ ·01320 / ·01435 }
7. 38	·01305
7. 45	{ ·01306 / ·01450 }
10. 22	·01405
11. 25	·01460
12. 56	·01566
14. 57	·01620
16. 15	·01590
21. 6	{ ·01560 / ·01414 }
22. 22	{ ·01430 / ·01360 }
23. 5	·01420
23. 59	·01420

Readings of Thermometers (left panel)

Greenwich Mean Solar Time	Of H. F. Magnet.	Of V. F. Magnet.
June 3		
h m	o	o
0. 0	66 ·9	67 ·9
1. 0	69 ·0	70 ·0
3. 0	75 ·5	73 ·8
6. 0	77 ·0	76 ·0
9. 0	76 ·5	76 ·4
12. 0	74 ·0	73 ·0
18. 0	69 ·0	68 ·6
21. 0	67 ·5	67 ·0
22. 0	68 ·1	67 ·6
23. 0	68 ·9	67 ·9

Declination (right panel)

Greenwich Mean Solar Time	Western Declination
June 3	
h m	o ' "
17. 8	20. 39. 10
17. 14	38. 30
17. 53	37. 55
18. 8	36. 10
18. 23	37. 0
18. 38	35. 15
18. 51	36. 40
19. 1	36. 55
19. 17	34. 30
19. 22	35. 0
19. 27	34. 20
19. 32	35. 10
19. 41	34. 35
19. 45	35. 30
19. 54	35. 10
20. 15	38. 5
20. 21	36. 30
20. 29	38. 0
20. 33	37. 0
20. 52	39. 0
21. 6	39. 15
21. 38	42. 0
22. 0	41. 40
22. 6	42. 0
	(†)
June 4	
	(†)
0. 51	20. 50. 0
1. 15	51. 20
2. 8	50. 40
2. 48	51. 5
4. 3	49. 25
4. 11	50. 0
4. 19	48. 50
4. 36	50. 0
5. 13	47. 10
5. 38	47. 20
6. 10	43. 10
6. 44	46. 55
6. 57	46. 5
	***
7. 49	46. 40
8. 16	44. 15
8. 20	43. 5
8. 52	43. 20
9. 0	41. 30
9. 18	45. 35
9. 49	43. 10
10. 38	44. 10
11. 39	42. 5
11. 58	43. 0
12. 22	42. 0
12. 46	43. 0
13. 9	48. 55
13. 33	43. 0
13. 44	42. 15
13. 57	44. 5

Horizontal Force (right panel)

Greenwich Mean Solar Time	Horizontal Force in parts of the whole H. F. uncorrected for Temperature
June 4	
h m	
0. 0	·1078
0. 12	·1081
0. 48	·1074
0. 54	·1067
1. 17	·1069
1. 28	·1062
1. 42	·1063
1. 50	·1070
1. 59	·1067
2. 8	·1075
2. 15	·1071
2. 27	·1082
2. 32	·1079
2. 47	·1079
2. 56	·1073
3. 30	·1077
3. 45	·1086
3. 58	·1082
4. 4	·1080
4. 35	·1115
4. 46	·1099
4. 52	·1099
5. 13	·1084
	***
5. 20	·1092
5. 48	·1104
6. 2	·1100
6. 17	·1108
6. 25	·1098
6. 29	·1102
6. 40	·1083

Vertical Force (right panel)

Greenwich Mean Solar Time	Vertical Force in parts of the whole V. F. uncorrected for Temperature
June 4	
h m	
0. 0	·01420
0. 24	·01427
1. 0	·01447
3. 31	·01280
4. 23	·01280
4. 41	·01320
4. 56	·01300
	***
6. 18	·01340
	***
8. 21	·01300
9. 49	·01330
12. 7	·01473
13. 0	·01440
13. 25	·01380
15. 31	·01400
17. 16	·01380
18. 39	{ ·01340 / ·01305 }
19. 29	·01360
22. 5	·01370
	(†)

Readings of Thermometers (right panel)

Greenwich Mean Solar Time	Of H. F. Magnet.	Of V. F. Magnet.
June 4		
h m	o	o
0. 0	70 ·1	68 ·8
1. 0	70 ·7	69 ·5
3. 0	70 ·5	70 ·0
9. 0	67 ·8	68 ·5
21. 0	60 ·2	60 ·6

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

June 3. HORIZONTAL FORCE. A sudden and large change took place in the position of this Magnet from some unknown cause. The box containing it was opened, and left open during the day; on the next day it was found necessary to adjust the mirror in order to bring the spot of light nearly central on the paper. Some workmen had been present in the room.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
June 4		June 4		June 5		June 5			June 5		June 5		June 5				
14.13	20.42.35	6.46	·1087						5. 0	20.48.20	2.15	·1064	7.43	·01225			
14.22	44. 0	7. 9	·1069						5.16	47.35	2.25	·1067	9.42	{·01227 / ·01150			
15.16	45. 0	7.16	·1080						6.19	47.55	3. 0	·1065	12. 8	·01174			
15.28	43.55	7.20	·1078						7.17	45.30	3.58	·1070	14.45	{·01190 / ·01060			
	***	7.27	·1085						7.53	47. 0	4.38	·1070	18.10	{·01105 / ·01028			
16.31	44.50	7.31	·1083						8.22	46. 0	5. 5	·1075	22.35	·01020			
16.44	47.10	7.37	·1092						8.32	46.55	5.10	·1074		(†)			
16.51	45.55	7.50	·1093						8.45	46. 5	5.12	·1074					
17.12	52.25	8. 6	·1084						9. 8	47.10	5.53	·1076					
18. 0	45.35	8.43	·1080						10.31	46.30	6. 2	·1080					
18.29	44. 0	9. 5	·1083						11.15	47.10	6. 8	·1078					
18.34	42.25	9.12	·1089						13.16	44.35	6.16	·1081					
18.57	40. 0	9.23	·1089						13.20	46. 5	7. 8	·1073					
19. 8	41.45	9.32	·1084						14.29	45.40	7.38	·1077					
19.15	39.55	9.56	·1088						14.34	46.45	8.24	·1074					
19.18	40.35	10.13	·1085						16.52	43. 0	8.35	·1071					
19.30	39.40	10.30	·1090						17.18	41.25	9.15	·1074					
20.53	41. 5	10.43	·1088						18.38	41.10	9.22	·1072					
21.12	42.55	10.53	·1093						19.29	39.55	10.37	·1072					
22.15	46.20	11. 5	·1089						19.35	41. 0	10.46	·1074					
22.22	47.55	11.35	·1089						20.15	39.50	11. 6	·1073					
22.31	47.50	11.42	·1093						20.23	41. 5	11.11	·1077					
22.52	47.55	11.49	·1092						20.49	40.25	11.17	·1075					
22.58	47.25	12. 7	·1095						21. 2	43.35	11.22	·1077					
23.59	50. 0	12.35	·1092						21.58	41.40	11.45	·1074					
		12.53	·1107						22.41	44.30	12. 0	·1075					
		13.11	·1083						22.52	44.30	12.24	·1072					
		13.30	·1088							(†)	12.34	·1075					
		14. 4	·1082									***					
		14.16	·1085								13.22	·1074					
		14.28	·1083								14.15	·1076					
		15. 1	·1082								14.27	·1074					
		15.13	·1085								14.35	·1079					
		15.24	·1082								15. 0	·1076					
		16.16	·1084								15. 8	·1079					
		16.25	·1079								15.21	·1076					
		16.31	·1081								15.34	·1078					
		16.42	·1074									***					
		16.57	·1071								16.21	·1078					
		17.12	·1079								17. 4	·1079					
		17.45	·1084								17. 9	·1082					
		18.14	·1082								17.17	·1080					
		18.23	·1077								18. 8	·1079					
		18.43	·1076								19.27	·1071					
		18.53	·1072								19.45	·1066					
		19.37	·1065								19.58	·1067					
		20.23	·1059								20.35	·1061					
		20.52	·1060								20.54	·1062					
		21. 2	·1056								21.25	·1057					
		22.22	·1056								21.41	·1059					
			(†)								22. 9	·1056					
											22.41	·1054					
												(†)					
June 5		June 5		June 5		June 5			June 6		June 6		June 6		June 6		
0. 0	20.50. 0	0. 0	·1058		(†)	1. 0	64·0	63·3		(†)		(†)		(†)			
1.25	51.40	0.23	·1059	1. 0	·01334*	3. 0	64·4	63·6	1. 0	20.52.36*	1. 0	·1069*	1. 0	·01009*	1. 0	61·4	61·1
2.53	50.50	1.23	·1064	2. 0	·01330	9. 0	62·0	61·8	3. 0	54.51*	3. 0	·1087*	3. 0	·00995*	3. 0	63·0	62·2
	***	1.32	·1064	5.57	{·01333 / ·01200	21. 0	59·0	59·0							Max.	64·2	64·9
4.40	47.35	2. 0	·1069														

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

June 6. Visitation Day. The photographic traces were started at 6h. 30m.

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
June 6		June 6		June 6		June 6			June 7		June 7		June 7		June 7		
6.33	20.46.55	6.30	·1093	6.13	·00990	9. 0	62·4	61·4	3.39	20.49.35	1.57	·1056	21. 8	·01343			
7.22	48. 0	6.45	·1082	9.31	·00982	Min.	56·0	55·7	3.46	48.45	2.21	·1067	23.59	·01270			
8. 2	47. 0	7. 3	·1091	12.10	·01080	22.45	58·2	57·7	4.12	49.30	3. 3	·1072					
8. 9	46. 5	7.16	·1086	14.56	·01120				4.20	48.55	3.32	·1080					
8.50	45.45	7.48	·1091		(†)				4.52	50.10	4. 4	·1081					
9. 7	47. 0	7.59	·1088	15.38	·01010				5. 0	49. 0	4.28	·1086					
9.39	46. 0	8.20	·1087	17.44	·01065				5.56	47.35	4.48	·1085					
10. 6	46.10	8.40	·1090	20. 8	{·01010				6.12	46.10	5. 6	·1088					
10.49	44.40	8.52	·1089		·00960}					(†)	5.20	·1084					
11. 1	45. 0	9. 5	·1093	22.29	·00943							***					
	(†)	9.26	·1089	23.59	·00910				9. 5	46.43*	5.39	·1086					
12.17	46.10	10.55	·1090						9.32	46.10	5.50	·1085					
12.42	44.30	12.19	·1093						10.25	47.20	6. 0	·1091					
13. 0	44.40	12.37	·1087						10.39	46.30	6.10	·1091					
13.16	44. 0	13. 2	·1088						11. 5	48.50	6.12	·1086					
13.53	45.55	13.15	·1086						11.22	48. 0		(†)					
14.22	44.35	13.41	·1088						11.28	46.55							
14.27	46.10	13.54	·1091						11.53	46.20	9. 5	·1078*					
14.56	45.10	14.22	·1088						12.30	44.40	9.32	·1082					
15.14	48. 0	15.40	·1088						12.41	45. 5	9.50	·1081					
16.28	45. 0	15.51	·1093						13.25	44.30	10. 3	·1088					
16.36	50.35	16.37	·1092						13.43	45.25	10.17	·1083					
16.51	45.50	16.58	·1095						13.59	44.35	10.44	·1084					
17.15	44.35	17.16	·1090						14.27	46.15	11. 3	·1088					
17.47	45.10	17.30	·1094						16.30	43.50	11.46	·1086					
18. 8	47. 5	18.17	·1086						17. 8	45.25	12. 2	·1089					
18.30	47.30	19.24	·1096						17.46	43.35	12.37	·1084					
18.35	49.20	19.40	·1083						17.56	42. 0	13.24	·1084					
19. 0	48.20	19.52	·1085						18. 1	43.15	14. 7	·1076					
19. 7	43.30	20.10	·1082						18.34	42.35	14.46	·1080					
19.10	46.55	20.38	·1077						19.22	44. 0	16.14	·1081					
19.15	44.30	20.53	·1077						20. 6	43. 0	16.45	·1079					
19.23	46. 0	21.20	·1070						21.13	43.30	17.13	·1082					
19.33	42.25	22.37	·1059						22.56	47.20	17.58	·1078					
19.45	44. 0	22.52	·1052						23.11	49. 5	18. 4	·1080					
19.51	41.35	23.10	·1054						23.24	48.35	18.48	·1081					
19.59	45.15	23.23	·1059						23.59	50.35	19.59	·1074					
20.28	41.50	23.33	·1058								20.30	·1072					
20.46	41.35	23.45	·1061								20.47	·1068					
21. 5	40.20	23.52	·1057								21. 8	·1066					
21.13	41.40	23.59	·1060								22.31	·1060					
21.53	41.35										22.47	·1062					
22.10	45. 0										23.26	·1062					
22.23	44.55										23.39	·1063					
22.33	46.40										23.59	·1062					
22.43	46. 5								June 8		June 8		June 8		June 8		
22.47	48.25								0. 0	20.50.35	0. 0	·1062	0. 0	·01270	1. 0	61·8	60·0
23. 6	48.10								0.18	51. 5	0.14	·1061	2.44	·01220	3. 0	63·0	61·5
23.59	50.10								0.32	52. 0	0.35	·1063	5.11	·01093	Max.	63·8	64·7
									0.38	51. 0	0.50	·1066	7.10	·01113	9. 0	63·2	61·2
June 7		June 7		June 7		June 7			1.19	51.10	1.15	·1064	8.38	·01100	18. 0	58·6	57·2
0. 0	20.50.10	0. 0	·1060	0. 0	·00910	1. 0	61·0	59·8	1.28	50.40	1.38	·1069	10.18	·01110	Min.	56·0	55·6
0.58	52.35	0. 8	·1066	0.40	·00920	Max.	64·0	64·8	2. 1	52. 0	2. 0	·1070	14. 0	·01240	21. 0	57·9	56·9
1. 4	52. 0	0.23	·1056	4.10	·01055	9. 5	64·0	61·5	2.23	50.55	2. 9	·1074	14.52	·01250			
1.37	53.10	0.37	·1061	6.23	·01100	Min.	57·1	56·8	3. 7	51.45	2.32	·1078	19.19	·01430			
2. 2	51.55	0.53	·1053	11.18	·01060	21. 0	59·0	57·6		***	2.42	·1081	21. 4	·01465			
2.38	51.40	1.24	·1064	13.31	·01108				4. 2	49.30	3. 2	·1082	21.23	·01420			
2.57	49.55	1.33	·1059	19. 8	·01308				5.23	49. 0	3.14	·1081	23.59	·01400			
			***							***							

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the readings will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

June 7. The Declination and Horizontal Force cylinder was stopped from 6ʰ. 12ᵐ. to 9ʰ. 32ᵐ.

Left block

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
June 8		June 8						
h m	° ′ ″	h m		h m		h m	°	°
7.41	20.48. 5	4.12	·1083					
8.11	48.35	5. 8	·1087					
8.35	45.25	5.22	·1090					
9. 1	44. 0	5.38	·1087					
9.41	46.40	5.56	·1091					
10.52	46. 0	6.10	·1092					
11.16	46.40	6.31	·1097					
11.57	45.25	6.43	·1095					
12.13	46.35	7.24	·1093					
12.37	45.10	7.35	·1094					
12.53	45. 0	8. 6	·1093					
13. 0	46.25	8.18	·1088					
13.28	45. 0	8.38	·1095					
13.59	48.55	9.10	·1092					
15. 8	44.25	9.25	·1093					
15.41	43.30	9.45	·1091					
16.50	39.55	10.22	·1094					
17.34	38.20	10.28	·1092					
18.20	39.15	10.38	·1094					
	***	11. 4	·1095					
20.17	44.30	11.23	·1093					
20.51	44. 5	11.38	·1094					
22. 1	49.10	11.54	·1091					
22.16	48.25	12. 0	·1094					
22.23	51. 5	12. 7	·1090					
23. 7	47.55	12.23	·1089					
23.11	49.25	12.40	·1096					
23.42	48.20	12.52	·1095					
23.59	48.35	13.21	·1086					
		13.36	·1089					
		14.10	·1091					
		14.17	·1090					
		14.30	·1091					
		14.48	·1086					
		15.12	·1087					
		15.31	·1092					
		15.49	·1091					
		16.13	·1094					
		16.39	·1092					
		18. 0	·1089					
		18.36	·1084					
		19. 6	·1077					
		20. 5	·1080					
		20.32	·1074					
		20.43	·1074					
		21.26	·1069					
		21.49	·1070					
		22. 6	·1066					
		22.24	·1068					
		22.38	·1066					
		23.28	·1068					
		23.50	·1066					
		23.59	·1067					
June 9		June 9		June 9		June 9		
0. 0	20.48.35	0. 0	·1067	0. 0	·01400	1. 0	61 ·1	59 ·8
0. 7	50.35	0.11	·1070	0.46	·01397	3. 0	62 ·5	60 ·8
0.48	50.30	0.40	·1067	1.26	·01360	Max.	64 ·0	65 ·0

Right block

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
June 9		June 9		June 9		June 9		
h m	° ′ ″	h m		h m		h m	°	°
1.36	20.53. 0	1. 0	·1073	5.10	⎱·01208	9. 0	64 ·0	62 ·0
1.47	51. 0	1.39	·1071		⎰·01180	18. 0	59 ·3	57 ·8
2. 5	51.50		***	6.25	·01120	Min.	57 ·1	56 ·9
2.23	49.55	3.12	·1091	9.17	·01120	21. 0	58 ·9	58 ·2
2.54	50. 5	3.47	·1094	10.30	·01080	22. 0	59 ·1	58 ·3
	***	4.10	·1100	13.12	·01110	23. 0	59 ·8	59 ·0
4.18	46.30	4.22	·1100	13.38	·01080			
4.38	46.55	4.33	·1104	14.49	·01060			
4.47	44.35	4.46	·1100	15. 7	·01095			
5.22	45. 0		***	15.45	·01090			
5.46	44.10	5.30	·1097	16.11	·01120			
7.40	46.10	6.39	·1103	17.13	·01125			
	(†)	6.55	·1099	18.15	·01200			
9. 0	44. 1*	7.15	·1103	19.47	·01227			
9.20	40.55	7.40	·1098	20.11	·01270			
9.48	42.20		(†)	20.45	·01280			
10.40	43. 0	9. 0	·1093*	21.34	·01355			
11. 9	41.25	9.20	·1097	23.59	·01380			
12. 0	41.40	9.22	·1098					
13.13	39.25	9.30	·1104					
	(†)	9.58	·1092					
13.48	46.25	10.18	·1092					
14.19	42.35	10.30	·1090					
14.43	42.50	11. 0	·1093					
14.54	39.35	11.14	·1085					
15. 7	35.40	11.23	·1090					
15.16	36.10	11.33	·1087					
15.39	34.45	11.41	·1090					
15.53	32.35	11.50	·1089					
16. 6	32.45	12. 0	·1093					
16.22	34.30	12. 9	·1088					
16.31	34.10	12.35	·1095					
16.58	41.25	12.47	·1089					
17.15	39.50	13. 0	·1095					
17.31	41.40	13.11	·1094					
17.44	39.40	13.17	·1098					
17.52	40. 0	13.25	·1098					
18.26	41. 0	13.44	·1113					
18.29	40.35	14.23	·1099					
18.49	46.25	14.38	·1102					
19. 9	45.30	15.10	·1083					
19.31	45.10	15.37	·1100					
19.46	43.25	15.43	·1097					
19.56	44.30	16. 0	·1094					
20.46	42.15	16.30	·1106					
20.55	45.30	17.21	·1075					
21.17	43.25	17.45	·1043					
21.25	47. 5	17.52	·1044					
21.30	46.15	18. 6	·1032					
21.33	47.55	18.22	·1052					
21.52	46.50	18.31	·1053					
21.59	48.30	18.50	·1065					
22.17	48. 0	18.58	·1065					
22.27	49. 0	19.16	·1069					
22.55	47.50	19.50	·1057					
23. 8	49.25	20. 8	·1066					
23.27	49.10	20.52	·1045					
23.38	50.30	21. 4	·1042					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

June 9. The Declination and Horizontal Force cylinder was stopped between 7ʰ. 40ᵐ. and 9ʰ. 20ᵐ.

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
June 9 23.59	20. 50. 15	June 9 21.23	.1046						June 10 19.45	20. 41. 5	June 10 13.16	.1060					
		21.39	.1052						19.58	40. 30	13.36	.1068					
		21.45	.1049							***	13.48	.1065					
		21.53	.1050						20.37	44. 40	14. 6	.1075					
		22. 0	.1047						21. 3	45. 25	14.58	.1065					
		22. 5	.1051						21.38	44. 35	15. 7	.1069					
		22.17	.1048						23.38	51. 20	15.45	.1054					
		22.44	.1055						23.45	49. 40	16.16	.1065					
		22.54	.1050						23.59	50. 30	16.31	.1063					
		23. 8	.1053								17.39	.1071					
		23.23	.1045								18. 3	.1067					
		23.37	.1042								18.21	.1066					
		23.54	.1044								18.52	.1055					
		23.59	.1041									(†)					
June 10 0. 0	20. 50. 15	June 10 0. 0	.1041	June 10 0. 0	.01380	June 10 0. 0	60.3	59.0			21. 0	.1050*					
0.14	50. 25	0.14	.1032	1.18	.01420	1. 0	61.0	60.0			21.17	.1054					
0.23	54. 10	0.29	.1051	2.41	.01370	2. 0	61.7	60.9			21.36	.1054					
0.59	52. 50	0.42	.1053	3.25	.01375	3. 0	62.7	61.5			21.54	.1057					
1.53	53. 50	1.19	.1066	7.12	.01217	6. 0	64.9	63.0			22.34	.1056					
2. 0	55. 0	1.38	.1050	10.48	.01140	Max.	65.5	65.8				(†)					
2.37	54. 25	1.53	.1056	11.18	.01110	9. 0	65.5	63.3			23.54	.1069					
2.50	55. 35	2.13	.1056	13. 2	.01174	12. 0	64.0	61.7			23.59	.1068					
3.21	55. 30	2.16	.1059	13.50	.01160	18. 0	61.0	58.8	June 11 0. 0	20. 50. 30	June 11 0. 0	.1068	June 11 0. 0	.01310	June 11 0. 0	61.3	59.0
***		2.37	.1055	14.14	.01190	Min.	57.6	58.3	0.16	52. 0	0.36	.1063	4.53	.01180	1. 0	62.0	59.9
4.13	49. 50	3. 2	.1078	19.45	.01410	21. 0	59.0	58.9	0.22	51. 25	0.53	.1064	5.34	.01190	2. 0	62.6	60.5
4.25	50. 0	3.11	.1073	22. 3	.01424	22. 0	60.0	58.8	0.53	54. 0	1. 4	.1063	10.14	.01120	3. 0	63.2	61.0
4.33	49. 10	3.23	.1069	22.42	.01280	23. 0	60.5	59.0	1.18	54. 20	1.16	.1066	14.48	.01200	Max.	63.9	64.6
5.23	51. 5	3.36	.1056	23.59	.01310				1.36	52. 35	1.22	.1063	19.15	.01437	9. 0	63.9	62.0
5.42	47. 45	4. 8	.1074						2. 8	53. 25	1.32	.1066	21.58	.01505	18. 0	59.4	58.0
6. 0	48. 50	4.25	.1071						2.30	51. 45	1.45	.1063	23.59	.01520	Min.	57.6	56.9
6.19	42. 35	4.55	.1088						2.53	52. 45	2.16	.1063			21. 0	59.0	57.5
6.37	41. 30	5. 8	.1087						3.15	49. 40	2.23	.1065					
8. 7	46. 30	5.17	.1098						3.36	49. 5	2.37	.1064					
8.25	48. 40	5.25	.1096						3.45	49. 45	3. 1	.1080					
8.40	46. 55	5.33	.1099							***	3. 8	.1079					
9.53	48. 0	5.54	.1068						4.26	47. 10	3.25	.1094					
10.25	44. 25	6.31	.1096						4.47	44. 30	3.32	.1090					
10.44	44. 30	6.55	.1085						5. 4	46. 30	3.45	.1098					
11.33	41. 30	7. 8	.1092						5.30	46. 40	3.53	.1096					
12.23	39. 45	7.23	.1084						5.51	45. 25	4. 7	.1100					
12.53	41. 25	7.42	.1083						6.37	46. 40	4.22	.1087					
13.20	40. 35	8. 6	.1074							(†)	4.48	.1097					
13.38	38. 10	8.15	.1082						7.44	45. 55	4.53	.1096					
14. 5	40. 30	8.22	.1078						8.39	46. 55	5. 9	.1106					
14.26	39. 30	8.31	.1079						10. 0	46. 0	5.16	.1100					
15. 1	39. 45	8.39	.1074						10. 9	45. 0	5.37	.1103					
15.30	41. 20	9.14	.1074						10.42	44. 30	6. 2	.1093					
15.45	44. 0	9.23	.1070						10.53	45. 30	6.18	.1095					
16.25	42. 50	9.37	.1073						11. 5	44. 0	6.29	.1099					
17. 2	42. 35	10. 0	.1068						11.57	43. 55	6.37	.1095					
17.17	41. 30	10.20	.1074						13.18	43. 50		(†)					
17.45	42. 0	10.29	.1072						13.30	43. 0	7.37	.1089					
18.16	41. 40	10.49	.1101						13.46	43. 30	7.46	.1091					
18.28	43. 0	11.44	.1068						13.52	44. 55	8.36	.1085					
18.47	41. 40	12.30	.1058						14. 2	44. 30	8.59	.1086					
19.31	40. 25	13. 4	.1062						14.37	48. 35	9.11	.1087					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the readings will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

June 11. The Declination and Horizontal Force cylinder was stopped from 6ʰ. 37ᵐ. to 7ʰ. 37ᵐ.

Left half — June 11 and June 12

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
June 11		June 11						
h m	° ′ ″	h m		h m		h m	°	°
15.20	20.46.20	9.37	.1087					
15.41	43.50	9.45	.1090					
15.59	44. 0	9.58	.1090					
16.20	43. 5	10.12	.1095					
16.39	43.30	10.34	.1089					
17.12	42.35	10.47	.1088					
17.23	43.45	11. 4	.1098					
19. 8	40.25	11.31	.1092					
19.23	41. 0	12. 6	.1097					
19.38	40.10	12.15	.1094					
19.45	40.30	12.23	.1095					
19.59	40.15	12.50	.1093					
20.33	42.10	13. 8	.1084					
20.52	41.40	13.17	.1085					
21.40	43. 0	13.44	.1080					
21.49	44. 5	14.13	.1089					
23.38	46.30	14.27	.1086					
23.59	47. 0	14.41	.1089					
		14.46	.1087					
		15.10	.1087					
		15.42	.1081					
		15.59	.1082					
		16.45	.1078					
		17.11	.1083					
		17.44	.1082					
		18. 8	.1075					
		19.15	.1070					
		19.28	.1071					
		20.49	.1066					
		21.10	.1069					
		21.39	.1062					
		21.55	.1063					
			(†)					
		23. 6	.1059					
		23.16	.1065					
		23.28	.1063					
		23.40	.1064					
		23.54	.1074					
		23.59	.1073					
June 12		June 12		June 12		June 12		
0. 0	20.47. 0	0. 0	.1073	0. 0	.01520	1. 0	61.0	60.0
1.38	53. 0	0.10	.1074	1.22	.01520	3. 0	62.0	60.2
1.47	51.55	0.25	.1078	2.15	.01450	Max.	62.8	62.7
2.16	53. 0	0.40	.1077	3.45	.01433	9. 0	60.0	58.3
2.24	51.30	0.52	.1079	6.19	.01380	18. 0	57.0	55.9
3.22	51.25	1.12	.1086	9.28	.01440	Min.	54.6	54.6
3.28	53. 5	1.55	.1084	12. 4	.01475	21. 0	56.2	56.1
4. 7	53.50	2. 6	.1089	12.41	.01460			
4.12	52.20	2.17	.1091	15.11	.01535			
4.25	52.25	2.24	.1089	16.11	.01555			
4.39	49.15	2.38	.1091	16.39	.01532			
5. 2	48.40	3. 4	.1085	21.21	.01530			
5. 8	46.25	3.21	.1091	22.26	.01505			
5.16	47. 0	3.35	.1088		(†)			
5.22	45.45	4. 8	.1084					
	(†)	4.15	.1086					
9. 0	45.12*	4.29	.1083					

Right half — June 12

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
June 12		June 12						
h m	° ′ ″	h m		h m		h m	°	°
21. 0	20.39. 6*	5.13	.1088					
		5.22	.1087					
		5.37	.1091					
		6.26	.1094					
		6.38	.1090					
		6.46	.1096					
		7. 7	.1093					
		7.30	.1100					
		7.53	.1099					
		8. 0	.1097					
		8. 7	.1099					
		8.28	.1095					
		8.43	.1096					
		8.56	.1089					
		9.10	.1092					
		9.32	.1088					
		9.47	.1088					
		9.59	.1094					
		10. 9	.1090					
		10.14	.1094					
		11.14	.1099					
		11.25	.1094					
		11.33	.1097					
		11.58	.1100					
		12. 8	.1096					
		12.25	.1092					
		13. 7	.1087					
			(†)					
		13.57	.1089					
		14. 4	.1086					
		14.15	.1089					
		14.48	.1088					
		15. 3	.1090					
		15.40	.1082					
		16.22	.1083					
		16.52	.1093					
		17.30	.1093					
		17.49	.1086					
		18.33	.1083					
		18.49	.1077					
		19. 9	.1075					
		19.23	.1079					
		19.34	.1076					
		19.44	.1080					
		19.53	.1078					
		20.23	.1073					
		20.32	.1079					
		20.56	.1077					
		21. 1	.1080					
		21. 6	.1076					
		21.22	.1083					
		21.26	.1081					
		21.52	.1081					
		22. 0	.1083					
		22.17	.1079					
		22.23	.1082					
		22.38	.1069					
		22.51	.1077					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

June 12. The Declination register was lost after 5ʰ. 22ᵐ.

(c)

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
h m	o ' "	h m		h m		h m	o	o	h m	o ' "	h m		h m		h m	o	o
		June12 23.15	·1073								June13 19.17	·1076					
			(†)								20.14	·1062					
June13	(†)	June13	(†)			June13					20.27	·1066					
1. 0	20. 51. 32*	0.12	·1066			1. 0	58·0	58·6			21. 1	·1061					
1.40	50. 45	0.34	·1068			3. 0	61·8	63·0			21.13	·1064					
2. 0	50. 0	1. 0	·1065			Max.	64·8	..			21.38	·1057					
2.22	50. 30	1.49	·1078			9. 0	64·0	..			21.46	·1057					
2.49	49. 5	2. 6	·1073			Min.	56·5	..			22.28	·1060					
3. 7	50. 10	2.25	·1075			22.30	59·0	..			23. 0	·1071					
3.42	48. 25	2.47	·1082									(†)					
4.10	49. 20	3. 7	·1080						June14	(†)	June14	(†)			June14		
4.46	43. 20	3.30	·1066						8. 0	20. 46. 58*	8. 0	·1092*			8. 0	66·9	..
5. 7	44. 10	4. 5	·1080						10.22	41. 45	10.13	·1070			Max.	66·9	..
5.22	45. 50	4.18	·1077						10.59	43. 35	10.35	·1071			18. 0	63·9	..
6.25	46. 20	4.27	·1082						12.14	39. 40	11.26	·1069			Min.	62·0	..
7.34	43. 25	4.38	·1080						12.47	36. 5	12.43	·1075			21. 0	63·2	..
7.56	45. 35	4.48	·1084						13.56	36. 15	13.18	·1069					
8.25	42. 40	5. 7	·1076						14.18	38. 50	14. 2	·1064					
8.51	44. 45	5.28	·1094						14.29	38. 55	14.43	·1062					
9. 6	43. 25	5.47	·1093						14.57	43. 40	15. 0	·1068					
9.18	45. 5	6. 0	·1104						15. 7	42. 55	15.36	·1071					
9.43	43. 20	6.22	·1088						15.29	44. 20	17.21	·1064					
10.15	46. 15	6.58	·1084						17.18	42. 10	17.30	·1061					
10.50	42. 45	7.15	·1096						17.39	42. 40	17.54	·1063					
11.15	44. 40	7.23	·1095						17.56	40. 45	18.13	·1059					
11.33	43. 5	7.38	·1097						18.22	42. 55	18.47	·1058					
11.45	45. 5	7.45	·1093						18.45	39. 35	19.25	·1054					
12.13	44. 25	7.54	·1095						20. 9	39. 0	20.16	·1052					
12.42	39. 55	8.17	·1086						20.38	40. 50	20.29	·1054					
	(†)	8.33	·1086						21. 0	41. 0	20.49	·1051					
14.37	47. 5	8.51	·1092						22. 6	47. 35	22.15	·1055					
14.52	47. 50	9. 8	·1082						22.32	48. 0	22.23	·1058					
15.18	41. 30	9.23	·1088						23.43	52. 5	22.37	·1054					
15.37	45. 5	9.43	·1081						23.59	52. 25	22.53	·1059					
15.58	42. 30	9.55	·1085								23.48	·1059					
16.23	46. 30	10. 9	·1082								23.59	·1057					
17. 0	42. 0	10.47	·1090						June15		June15		June15	(†)	June15		
17.10	43. 5	11. 3	·1088						0. 0	20. 52. 25	0. 0	·1057	1. 0	·01665	1. 0	66·0	67·6
17.21	41. 0	11.49	·1094						0.28	52. 45	0.30	·1054	3. 0	·01630 / ·01780	3. 0	68·0	67·5
17.45	46. 55	12. 7	·1089						0.44	54. 10	0.37	·1061			Max.	69·0	69·0
18.18	48. 15	12.17	·1092						0.57	54. 5	0.55	·1063	9.52	·01540	9. 0	69·0	68·0
19.24	45. 20	12.36	·1086							(†)	1.28	·1074	11.50	·01540	18.45	62·2	63·6
20. 0	45. 30		(†)						1.46	54. 5	1.46	·1065	13.41	·01600	Min.	60·2	60·4
20.14	44. 0	13.44	·1086						2. 7	53. 55	2. 7	·1075	14.10	·01587	21. 0	61·8	63·0
	***	14.16	·1087						3. 1	51. 20	3. 2	·1078	16.15	·01788			
21. 2	43. 25	14.45	·1085						3.13	52. 5	3.16	·1085	19.12	·01940			
21.35	46. 0	14.53	·1089						3.38	50. 50	3.38	·1083	21.19	·02000 / ·02060			
22.31	46. 45	15. 0	·1086						3.52	50. 50	4. 0	·1084	23.27	·02117			
23. 1	48. 30	15.17	·1086						4.37	48. 10	4.23	·1073	23.59	·02380 (†)			
	(†)	15.49	·1070						4.56	49. 5	4.40	·1071					
		15.58	·1072						5.14	48. 0	5. 3	·1086					
		16.17	·1066						5.44	49. 0	5.18	·1081					
		16.58	·1080						7.23	37. 25	5.28	·1088					
		17.13	·1076						8. 6	42. 55	6. 4	·1094					
		18. 0:	·1058						8.33	43. 30	6.37	·1087					
		18.52	·1076														

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

June 13. Workmen were engaged near the Vertical Force Magnet, and its adjustments were disturbed.
June 14. The cylinder of the Declination and Horizontal Force moved irregularly till 10ʰ. 13ᵐ.

Upper section — left panel (June 15)

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers Of H.F. Magnet	Of V.F. Magnet
June 15 h. m.	° ' "	June 15 h. m.		h m		h m	°	°
9. 2	20. 45. 15	6.51	·1089					
	***	7.12	·1072					
10. 9	44. 0	7.29	·1090					
10.30	45. 35	7.36	·1085					
10.57	42. 40	7.45	·1084					
11.30	41. 45	8.15	·1069					
11.52	42. 35	9.28	·1073					
	***	9.45	·1072					
13. 6	41. 5	10.31	·1076					
13.30	46. 0	10.53	·1070					
	***	11.15	·1072					
13.53	41. 55	11.38	·1069					
14.21	40. 5	13. 9	·1072					
15.55	43. 10	13.42	·1097					
16.31	39. 45	13.53	·1090					
17.17	38. 45	14.42	·1077					
17.46	40. 5	15.16	·1079					
18.15	37. 20	15.23	·1077					
18.26	38. 55	15.51	·1082					
	***	17. 4	·1074					
19. 0	39. 5	17.30	·1074					
19.28	43. 0	17.38	·1077					
19.56	44. 35	19.15	·1056					
20.18	41. 0	19.31	·1060					
20.34	43. 0	20. 8	·1053					
21.20	41. 35	20.28	·1062					
22.14	44. 30	20.52	·1062					
22.26	47. 0	21.18	·1067					
	***	21.30	·1066					
23.59	52. 5		(†)					

Upper section — right panel (June 16)

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers Of H.F. Magnet	Of V.F. Magnet
June 16 h m	° ' "	June 16 h m		h m		h m	°	°
14. 15	20. 45. 20	8. 45	·1134					
14. 53	48. 5	9. 7	·1134					
16. 5	44. 15	9. 18	·1136					
16. 33	46. 5	10. 1	·1134					
16. 39	48. 35	10. 38	·1135					
16. 51	48. 10	10. 45	·1138					
17. 8	49. 35	11. 13	·1137					
18. 10	44. 10	11. 22	·1144					
18. 16	44. 45	11. 37	·1141					
18. 35	45. 25	12. 10	·1144					
19. 2	42. 55	12. 53	·1132					
20. 28	42. 25	13. 40	·1135					
21. 22	44. 50	14. 19	·1133					
23. 44	54. 25	15. 23	·1138					
	(†)	15. 53	·1134					
		16. 31	·1123					
		17. 5	·1130					
		17. 32	·1127					
		17. 49	·1127					
		18. 9	·1130					
		18. 36	·1125					
			***					
		20. 37	·1117					
		21. 2	·1115					
		21. 30	·1115					
		21. 45	·1116					
		22. 24	·1114					
		23. 14	·1117					
		23. 28	·1116					
			(†)					

Lower section — left panel (June 16)

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force	Greenwich Mean Solar Time	Vertical Force	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
June 16		June 16		June 16		June 16		
0. 0	20. 52. 5		(†)	0. 0	·02380	1. 0	65 ·9	66 ·7
0. 7	53. 40	1. 0	·1066*	1. 0	·02430	3. 0	67 ·0	67 ·3
0. 18	52. 50	1. 32	·1128	1.55 {	·02420	Max.	67 ·0	68 ·0
0. 55	52. 30	1. 53	·1137	{	·02400	9. 0	66 ·9	68 ·0
1. 18	54. 5	2. 8	·1130	3. 0	·02375	18. 0	63 ·0	64 ·0
1. 30	53. 25	2. 23	·1134	5. 55	·02240	Min.	60 ·8	60 ·8
1. 55	54. 30	2. 43	·1128	6. 10	·02240	21. 0	62 ·0	63 ·6
2. 33	51. 5	3. 0	·1138	9. 20	·02070	22. 0	62 ·1	63 ·7
	***	3. 37	·1131	12. 37	·02077	23. 0	62 ·8	64 ·4
3. 51	51. 5	3. 45	·1135	19. 0	·02356			
4. 8	52. 10	3. 54	·1133	23. 59	·02400			
	***	4. 22	·1142					
5. 54	47. 50	4. 46	·1140					
6. 15	43. 10	5. 1	·1142					
6. 33	45. 40	5. 15	·1141					
6. 48	44. 30	5. 30	·1147					
8. 16	47. 25	5. 38	·1145					
	***	5. 52	·1136					
11. 15	47. 15	6. 3	·1153					
11. 27	48. 50	6. 8	·1153					
11. 49	47. 10	6. 17	·1158					
12. 16	47. 25	6. 36	·1145					
12. 39	45. 10	6. 53	·1144					
13. 12	46. 0		***					
13. 22	47. 0	7. 23	·1134					
13. 47	47. 10	8. 13	·1137					

Lower section — right panel (June 17)

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force	Greenwich Mean Solar Time	Vertical Force	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
June 17		June 17		June 17		June 17		
0. 19	20. 54. 30		(†)	0. 0	·02400	0. 0	63 ·3	64 ·1
0. 58	55. 30	0. 19	·1113	2. 0:	·02422	1. 0	64 ·0	65 ·2
2. 31	53. 5	0. 30	·1120	4. 13	·02305	2. 0	65 ·0	67 ·0
3. 50	51. 45	1. 7	·1124	5. 25	·02120	3. 0	66 ·0	67 ·5
4. 23	49. 30		(†)	9. 55:	·01740	6. 0	69 ·5	70 ·6
4. 52	49. 5	2. 47	·1134	13. 45	·01737	Max.	70 ·0	71 ·2
5. 5	48. 0	3. 1	·1137	19. 19	·02155	9. 0	70 ·0	71 ·1
	***	3. 15	·1135	23. 38	·02280	12. 0	68 ·2	69 ·8
5. 47	46. 35	3. 26	·1138	23. 59	·02276	18. 0	63 ·2	65 ·0
6. 37:	47. 10		***			Min.	61 ·1	60 ·6
7. 16	43. 40	4. 23	·1133			21. 0	65 ·3	64 ·0
7. 25	43. 45	4. 44	·1136			22. 0	65 ·9	64 ·9
7. 49	46. 25		***			23. 0	66 ·3	65 ·8
8. 6	47. 20	5. 20	·1128					
8. 18	46. 25	5. 38	·1131					
	***	5. 46	·1129					
9. 25	47. 5	6. 30	·1135					
9. 45	46. 30	6. 58	·1130					
9. 57	47. 5	7. 30	·1143					
10. 41	46. 30	8. 1	·1138					
11. 28	47. 15	8. 31	·1127					
12. 0	46. 45	8. 38	·1129					
	***	9. 10	·1126					
12. 23	49. 40	9. 52	·1128					
	***	10. 37	·1127					
		11. 0	·1126					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

HORIZONTAL FORCE.—June 15ᵈ. 21½ʰ. to 16ᵈ. 1ʰ. The adjustments of this magnet were under examination, and at 1ʰ. 32ᵐ. a series began giving indications about 0·006 parts of the whole Horizontal Force larger than the preceding series. Therefore, to reduce the series from January 3 to February 3ᵈ. 0ʰ. 49ᵐ. to that beginning this day, add 0·01 ; and to reduce that beginning February 3ᵈ. 1ʰ. and ending June 15ᵈ. 21ʰ. 30ᵐ. add 0·006.

June 15ᵈ. 23ʰ. 27ᵐ. The reading for the Vertical Force Magnet was ·02117, the magnet was removed for examination of its knife-edges, and on replacing it, the reading for the Vertical Force was found to be ·02380.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Readings of Thermometers — Of V.F. Magnet
June 17		June 17						
h m / o ′ ″		h m		h m		h m	o	o
12.44	20.47.15	11.15	·1130					
13. 2	49.10	11.30	·1128					
14. 4	44. 0	11.39	·1129					
14.59	47.10	12. 0	·1128					
	***	12.21	·1135					
15.40	44.25	13.30	·1135					
16.26	43.50	13.45	·1133					
16.35	45.20	14.25	·1130					
	***	14.47	·1124					
17.47	40.25	15.52	·1135					
18. 2	41.45	16.29	·1132					
18.44	40.40	16.52	·1134					
19. 8	40.55		***					
19.23	39.35	18. 7	·1134					
19.45	40.55	18.37	·1127					
	***	18.45	·1127					
20.26	39.55		***					
21.31	43. 5	20. 8	·1107					
23.41	51.25		***					
23.59	51.45	21.55	·1098					
		22.22	·1099					
		22.54	·1098					
		23.10	·1089					
		23.24	·1088					
		23.59	·1107					
June 18		June 18		June 18		June 18		
0. 0	20.51.45	0. 0	·1107	0. 0	·02276	0. 0	66·9	66·8
0.53	53.35	0. 7	·1108	2. 0	·02120	1. 0	67·7	67·7
2.53	53.50	0.21	·1114	3. 7 { ·01965		2. 0	68·6	68·7
3.30	53. 0	0.32	·1113	·01917		3. 0	69·5	69·8
3.43	51.25	1. 1	·1129	4. 8:	·01800	Max.	70·9	72·0
4.37	49. 0	1.28	·1134	5. 12	·01780	9. 0	69·7	70·5
5. 6	47.50	1.36	·1133	(†)		18. 0	64·8	66·0
5.26	47.55	1.51	·1145	7. 11	·01950	Min.	62·0	62·0
5.49	47. 0	2. 3	·1145	7. 52	·01895	21. 0	63·4	65·0
6.28	47.20	2.22	·1152	9. 50	·01867			
	***	3. 0	·1151	11. 3	·01930			
8. 7	45.15	3.38	·1157	12. 5	·01920			
9.27	46.15	4.18	·1151	17.15	·02206			
10.15	44.20	4.30	·1155	18.18 { ·02220				
	(†)	4.52	·1148	·02300				
11.17	47. 0	5. 8	·1145	23.30	·02360			
11.31	41.20	5.23	·1147	23.59	·02370			
11.48	42.35	5.30	·1143					
12.16	41.30	6.21	·1143					
12.27	39.45	6.30	·1139					
12.45	39.35	6.51	·1136					
14. 0	44.30	7. 0	·1138					
15. 0	42.50	7.16	·1135					
15.26	43.25	7.48	·1133					
15.50	41.30	8.48	·1134					
16.37	41.10	9.20	·1139					
16.45	42.40	10. 0	·1139					
16.58	40.55	10.15	·1142					
17. 7	42. 5		(†)					
	***	11.17	·1135					
17.43	40.25	11.24	·1134					

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Readings of Thermometers — Of V.F. Magnet
June 18		June 18						
h m / o ′ ″		h m		h m		h m	o	o
17.47	20.41.35	11.38	·1151					
18. 2	42. 5	11.46	·1156					
18.45	40.10	12.30	·1140					
19.25	39.30	13.23	·1135					
19.56	39.55	13.43	·1138					
20.52	42.20	14.24	·1137					
	***	14.52	·1142					
22.36	47. 5	15.29	·1140					
22.46	48.50	15.50	·1143					
	(†)		***					
23.38	48. 0	17. 6	·1139					
23.59	49.20	18. 0	·1143					
		18.15	·1140					
		18.46	·1144					
		20. 3	·1134					
		21. 0	·1131					
		21.33	·1126					
		21.44	·1121					
		22. 1	·1121					
		22. 8	·1118					
		22.31	·1124					
			(†)					
June 19		June 19		June 19		June 19		
0. 0	20.49.20		(†)	0. 0	·02370	0. 0		
0.23	50.45	3. 0	·1063*	2. 23 { ·02460			June 19	
	***	8.24	·1073	·02390		2. 23	1. 0	64·0	65·2
1.23	51.45	8.39	·1065	4. 18:	·02400		3. 0	65·2	66·0
1.32	52.45	8.52	·1074	5. 53	·02273	4. 18:	Max.	67·8	68·9
1.44	52. 0	9. 9	·1057	8. 55	·02130	5. 53	9. 0	67·8	68·9
2.23	52.45	9.22	·1061	9. 44	·02060	8. 55	Min.	62·1	62·4
	(†)	9.52	·1059	12.30	·02020	9. 44	21. 0	63·4	67·3
3. 0	52. 6*	10. 5	·1060	14.53	·02070	12.30		
9. 0	44.35	10.35	·1056	23.59	·02450	14.53		
9.20	40.20	11.12	·1064			23.59		
9.37	42.15	11.42	·1058					
	***	11.55	·1059					
10. 5	42.30	12.20	·1057					
10.13	43.20	12.53	·1063					
10.58	44. 5	13. 6	·1058					
11.34	46. 0	14.36	·1063					
11.54	44.35	14.57	·1061					
12. 1	44.35	15.35	·1064					
12.25	45.15	17. 3	·1062					
12.38	44.25	18.43	·1053					
13.12	46. 0	19. 8	·1053					
13.23	44.35	20. 4	·1045					
13.43	44.25	21.23	·1036					
14.17	46. 0	22.33	·1037					
14.23	45. 5	23. 5	·1041					
14.42	45.45		(†)					
15. 4	43.35							
15.56	44.20							
	***							
16.38	43.50							
16.53	42.45							
16.59	43.40							
17.23	41.30							

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

June 18. The Declination and Horizontal Force cylinder was stopped from 10h. 15m. to 11h. 17m.

June 19. The Declination and Horizontal Force cylinder was stopped from 2h. 23m. to 9h. 0m.

June 19. HORIZONTAL FORCE. The photographic traces of the Horizontal Force and Declination Magnets were found to be inconveniently near. The adjustments of the Horizontal Force Magnet were therefore altered and the traces separated. The following corrections must be made to render the results obtained before June 19 comparable with those obtained during the remainder of the year. The results from the beginning of the year to February 3d. 0h. 49m. must be increased by 0·0034; the results from February 3d. 0h. 49m. to June 15d. 21h. 30m. must be diminished by 0·0006; and the results from June 15d. 21h. 30m. to June 18d. 22h. 31m. must be diminished by 0·0066.

June 19 — Western Declination

Greenwich Mean Solar Time	Western Declination
h m	° ′ ″
17.30	20.42.35
17.38	41.25
18. 0	42. 5
18. 8	40.55
18.14	41.40
18.26	41. 5
18.50	41.40
18.57	41.25
19.13	42.35
19.24	41.35
19.54	42.10
20. 0	43.20
20.12	43. 0
20.22	44.35
20.32	43.40
21. 7	44.30
22.30	49. 0
23.34	50.50
23.59	51.25

June 20 — Western Declination

Greenwich Mean Solar Time	Western Declination
0. 0	20.51.25
0.50	52. 5
1.12	53. 0
3.46	48.10
5.48	46.35
7.30	46. 0
9.15	46.20
11.51	43.50
12.47	44. 0
	(†)
13.52	47.40
	***
16.56	46. 5
17.30	44.10
18. 5	44.25
18.13	43.25
18.38	44.40
18.52	43.55
19.23	44.45
20.27	42.50
21.36	43.50
23.24	50.25
23.59	51. 5

June 20 — Horizontal Force in parts of the whole H.F. uncorrected for Temperature

Greenwich Mean Solar Time	Horizontal Force
0. 0	·1054
0.32	·1047
0.55	·1052
1. 8	·1048
1.39	·1055
1.46	·1054
2. 5	·1057
2.54	·1059
3.18	·1058
3.38	·1054
4. 0	·1054
4.24	·1063
4.51	·1064
5.17	·1061
5.43	·1061
6.25	·1068
6.54	·1066
7.17	·1068
7.38	·1065
7.52	·1066
8.45	·1061
11.20	·1059
14.20	·1061
15.51	·1063
16.46	·1062
16.57	·1064
19. 7	·1058
20. 3	·1050
20.22	·1049
20.47	·1044
	(†)
22. 0	·1041*
22.55	·1037
23.56	·1040
23.59	·1041

June 20 — Vertical Force in parts of the whole V.F. uncorrected for Temperature

Greenwich Mean Solar Time	Vertical Force
0. 0	·02450
2.47	·02450
4.56	·02340
7.54	·02088
9.50	·02000
13.43	·02000
17.10	·02160
20.12	·02404
23.59	·02480

June 20 — Readings of Thermometers

Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
1. 0	65·7	66·5
3. 0	67·3	68·4
Max.	70·0	71·0
9. 0	70·0	71·0
Min.	61·6	61·1
22. 0	63·5	64·8

June 21 — Western Declination

Greenwich Mean Solar Time	Western Declination
0. 0	20.51. 5
0.23	52.35
1.40	51.25
2.35	51.50
3.26	49. 5
4.26	48.45
5.25	49.10
6.32	48. 0
9. 8	47.55
9.21	47. 0
10. 8	47. 0
11.15	47.35
13.16	46.10
13.31	46.55
	***
14.15	45. 5
14.45	46.20
15. 0	45. 5
15.17	45.50
	***
15.45	43.45
16.30	44.35
16.44	42.30
16.50	43. 5
17.10	39.40
17.27	40.20
17.33	41.35
18.22	40.20
18.29	41.10
18.41	40. 5
18.53	41.40
19.51	42.25
21. 2	47.35
21. 7	46.40
21.21	48.45
21.28	48. 5
21.37	50.20
	***
22.28	48.45
23. 9	49.10
23.20	52.30
23.43	53.15
23.59	50.55

June 21 — Horizontal Force in parts of the whole H.F. uncorrected for Temperature

Greenwich Mean Solar Time	Horizontal Force
0. 0	·1041
0.26	·1048
0.51	·1043
1.17	·1045
1.37	·1042
1.51	·1045
2. 3	·1045
2.41	·1054
3. 7	·1051
3.16	·1051
3.30	·1047
4.10	·1051
4.29	·1045
4.52	·1052
5.17	·1051
5.35	·1056
6. 7	·1047
6.30	·1052
7.23	·1053
8.48	·1048
9. 5	·1051
9.12	·1048
9.50	·1051
13.13	·1056
14. 2	·1062
14.29	·1061
	***
18.50	·1063
19.16	·1057
19.31	·1057
19.44	·1054
20. 6	·1055
20.53	·1045
21.10	·1044
21.25	·1046
22.37	·1048
23.25	·1057
23.53	·1053
23.59	·1054

June 21 — Vertical Force in parts of the whole V.F. uncorrected for Temperature

Greenwich Mean Solar Time	Vertical Force
0. 0	·02480
2.30	·02380
4.54	·02097
6.57	·01906
9.15	·01760
11.31	{ ·01813 / ·01833 }
13.25	·01890
16.45	{ ·02100 / ·02120 }
20.23	·02360
21.35	·02410
	(†)

June 21 — Readings of Thermometers

Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Max.	72·6	74·6
9. 0	71·4	72·2
18. 0	66·0	67·5
Min.	63·7	63·5
21. 0	65·0	66·5

June 22 — Western Declination

Greenwich Mean Solar Time	Western Declination
0. 0	20.50.55
1.20	53.10
1.32	52.30
2.12	54.15
2.53	52. 5
3.54	50.45
4.20	52. 5
4.40	51.45
4.49	52.50
5. 1	52.35
5. 7	54.15
	***

June 22 — Horizontal Force in parts of the whole H.F. uncorrected for Temperature

Greenwich Mean Solar Time	Horizontal Force
0. 0	·1054
0.28	·1051
0.40	·1054
1. 3	·1049
1. 5	·1045
1.15	·1049
1.30	·1044
1.55	·1055
2.20	·1060
2.54	·1066
3.20	·1066
3.39	·1071

June 22 — Readings of Thermometers

Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
1. 0	65·8	..
3. 0	67·0	..
Max.	68·8	..
9. 0	68·8	..
18. 0	65·2	..
Min.	63·4	..
21. 0	66·0	..

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

June 22. The Vertical Force Magnet was removed for the purpose of re-determining the time of its vibration in the horizontal plane.

Left block — June 22

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
June 22		June 22						
h m	° ′ ″	h m		h m		h m	°	°
5. 21	20. 55. 55	3. 46	·1069					
5. 30	20. 59. 10	4. 17	·1085					
5. 47	21. 0. 20	4. 23	·1080					
6. 11	20. 45. 0	4. 47	·1082					
6. 38	52. 35	5. 0	·1066					
7. 2	47. 35	5. 32	·1132					
7. 11	46. 20	5. 52	·1038					
7. 23	47. 15	6. 25	·1074					
7. 45	44. 5	6. 45	·1052					
7. 52	45. 35	7. 10	·1062					
8. 8	44. 20	7. 20	·1074					
8. 20	38. 45	7. 41	·1072					
8. 28	29. 35	7. 49	·1083					
8. 37	28. 30	7. 59	·1086					
8. 48	30. 40	8. 1	·1058					
8. 55	37. 20	8. 9	·1062					
9. 19	43. 15	8. 21	·1048					
9. 36	43. 25	8. 37	·1069					
9. 44	44. 25	8. 42	·1067					
9. 57	42. 20	8. 45	·1078					
9. 59	43. 55	9. 0	·1066					
10. 4	43. 0	9. 20	·1065					
10. 9	44. 15	9. 41	·1068					
10. 23	41. 40	9. 51	·1060					
10. 34	42. 55	10. 2	·1062					
10. 58	48. 15	10. 16	·1053					
11. 8	47. 30	10. 38	·1056 ***					
11. 15	49. 0							
11. 24	46. 45	11. 8	·1062					
11. 33	48. 5	11. 23	·1052					
11. 43	46. 0	11. 52	·1070					
12. 0	48. 40	11. 58	·1062					
12. 9	46. 25	12. 2	·1063					
12. 17	48. 5	12. 8	·1057					
12. 33	47. 5	12. 15	·1060					
12. 48	44. 10	12. 28	·1060					
13. 1	45. 10	12. 36	·1064					
13. 9	48. 15	12. 45	·1065					
13. 18	46. 0	12. 53	·1062					
13. 25	47. 35	13. 11	·1070					
13. 36	45. 10	13. 30	·1063					
13. 46	41. 25	13. 37	·1065					
13. 57	45. 0	13. 53	·1054					
14. 6	45. 15	14. 1	·1062					
14. 25	51. 30	14. 8	·1054					
14. 32	48. 0	14. 22	·1063					
14. 38	49. 25	14. 29	·1057					
14. 53	44. 10	14. 52	·1078					
15. 0	44. 0	14. 56	·1072					
15. 10	41. 40	15. 4	·1072					
15. 43	53. 45	15. 34	·1047					
15. 50	56. 0	15. 43	·1055					
16. 17	50. 40	15. 52	·1056					
16. 27	50. 55	16. 0	·1067					
16. 36	49. 15	16. 13	·1065					
16. 45	50. 10	16. 20	·1070 ***					
17. 8	47. 5							
17. 22	45. 20	17. 23	·1054 ***					

Right block — June 22 / June 23

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
June 22		June 22						
h m	° ′ ″	h m		h m		h m	°	°
17. 26	20. 45. 55	18. 0	·1056					
17. 34	43. 20	18. 22	·1054					
17. 40	44. 30	18. 38	·1055					
17. 45	43. 0	19. 25	·1046					
18. 8	43. 10	19. 34	·1038					
18. 35	41. 5	19. 45	·1044					
19. 1	41. 55	20. 13	·1022					
19. 27	41. 0	20. 29	·1035					
19. 37	43. 0	20. 34	·1027					
19. 40	40. 0	20. 44	·1034					
19. 48	43. 35	21. 3	·1016					
20. 4	45. 30	21. 23	·1042					
20. 18	40. 35	21. 26	·1024					
20. 36	48. 20	21. 37	·1026					
20. 46	47. 0	21. 53	·1012					
20. 56	49. 20	22. 32	·1033					
21. 19	46. 55	22. 44	·1027					
21. 25	48. 25	22. 55	·1040					
21. 33	44. 20	23. 0	·1029					
21. 42	47. 20	23. 8	·1030					
21. 44	40. 25	23. 15	·1043					
21. 53	42. 0		***					
21. 59	47. 30	23. 59	·1027					
22. 2	40. 0							
22. 14	51. 15							
22. 26	52. 45							
22. 42	48. 55							
22. 54	50. 30							
23. 7	52. 55							
23. 23	50. 30							
23. 38	54. 10							
23. 59	54. 0							
June 23		June 23				June 23		
0. 0	20. 54. 0	0. 0	·1027			1. 0	69 ·6	..
0. 4	53. 25	0. 7	·1026			3. 0	72 ·0	..
0. 7	54. 5	1. 30	·1058			Max.	74 ·8	..
0. 11	53. 0	2. 7	·1059			9. 0	74 ·0	..
0. 17	55. 0	2. 20	·1042			18. 0	68 ·8	..
0. 23	53. 50	2. 53	·1056			Min.	65 ·4	..
	***	3. 24	·1048			21. 0	67 ·0	..
1. 2	54. 45	4. 0	·1046			22. 0	66 ·6	..
1. 15	52. 40	4. 15	·1047			23. 0	66 ·8	..
1. 41	52. 20	5. 8	·1050					
2. 1	53. 10	5. 21	·1060					
2. 10	52. 5	5. 35	·1053					
2. 23	53. 35	5. 41	·1056					
2. 59	52. 55	5. 47	·1054					
3. 8	51. 55	6. 2	·1070					
		6. 16	·1062 ***					
3. 46	51. 35	6. 46	·1064					
3. 58	50. 25	6. 59	·1059					
4. 28	50. 10	7. 20	·1066					
4. 50	48. 35	7. 34	·1062					
4. 57	49. 20	7. 53	·1064					
5. 7	47. 35	8. 1	·1070					
5. 36	48. 10	8. 22	·1070					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol ⁚ attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers.	
							Of H.F. Magnet.	Of V.F. Magnet.
June 23 h m	o ′ ″	June 23 h m		h m		h m	o	o
5. 46	20. 45. 30	8. 37	·1065					
6. 48	47. 55	8. 53	·1071					
7. 4	47. 15	9. 19	·1065					
7. 20	48. 0	9. 53	·1067					
8. 26	46. 5	10. 5	·1059					
8. 42	42. 0	10. 38	·1061					
9. 22	44. 35	10. 47	·1065					
9. 36	43. 10	11. 9	·1061					
9. 54	44. 0	11. 52	·1062					
9. 59	44. 55	12. 43	·1070					
10. 23	44. 35	12. 59	·1067					
10. 47	45. 0	13. 6	·1072					
10. 56	45. 55	13. 37	·1062					
11. 14	44. 25	13. 45	·1067					
11. 26	46. 0	14. 10	·1064					
***		14. 25	·1073					
12. 6	46. 35	14. 45	·1054					
12. 38	54. 10	15. 0	·1053					
13. 0	53. 0	15. 30	·1064					
(†)		15. 39	·1064					
13. 19	45. 10	15. 52	·1068					
13. 29	46. 55		***					
13. 48	45. 35	16. 32	·1073					
14. 1	49. 0	16. 47	·1070					
14. 10	46. 55	17. 25	·1065					
14. 14	47. 45	17. 39	·1069					
14. 19	46. 0	18. 15	·1069					
14. 34	45. 10	18. 39	·1060					
14. 39	47. 15	19. 22	·1064					
15. 0	46. 55	19. 40	·1059					
15. 15	45. 10	19. 56	·1062					
15. 38	48. 50	20. 10	·1058					
15. 58	48. 55	20. 24	·1061					
16. 16	44. 35	20. 47	·1062					
16. 31	44. 0	21. 41	·1060					
16. 42	42. 45	22. 1	·1061					
17. 10	43. 40	22. 30	·1047					
17. 22	43. 0	22. 40	·1051					
17. 27	44. 10	22. 46	·1046					
17. 41	43. 25	23. 15	·1058					
17. 59	43. 30	23. 45	·1054					
18. 25	45. 50	23. 53	·1058					
18. 59	46. 0	23. 59	·1059					
19. 15	45. 25							
19. 29	43. 0							
19. 57	43. 5							
20. 5	42. 25							
20. 13	43. 30							
***								
21. 8	44. 0							
21. 19	45. 0							
21. 49	44. 30							
21. 53	47. 0							
21. 58	45. 15							
22. 8	46. 20							
22. 16	53. 20							
22. 28	46. 55							
22. 37	49. 10							

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers.	
							Of H.F. Magnet.	Of V.F. Magnet.
June 23 h m	o ′ ″	h m		h m		h m	o	o
22. 40	20. 47. 35							
22. 46	48. 35							
23. 11	48. 0							
23. 42	49. 5							
23. 47	48. 5							
23. 51	49. 45							
23. 59	50. 5							
June 24		June 24		June 24		June 24		
0. 0	20. 50. 5	0. 0	·1059		(†)	0. 0	67 ·4	70 ·3
0. 8	49. 20	0. 7	·1056	1. 0	·02863*	1. 0	68 ·2	70 ·2
0. 23	49. 55	0. 39	·1051	1. 11	·02900	2. 0	69 ·0	71 ·0
0. 30	49. 25	0. 53	·1043	3. 6	·02820	3. 0	70 ·4	72 ·0
0. 43	50. 0	1. 11	·1049	8. 0	·02560	6. 0	73 ·9	75 ·0
0. 53	49. 15	(†)		10. 51	·02550	Max.	74 ·9	75 ·8
1. 7	50. 35	2. 16	·1065	11. 34	·02514	9. 0	73 ·9	74 ·5
1. 18	50. 20	2. 44	·1068	13. 53	·02624	12. 0	73 ·0	74 ·0
1. 30	51. 20	2. 51	·1074	15. 49	·02760	18. 30	69 ·3	70 ·6
1. 53	49. 40	3. 2	·1072	19. 49	·03130	Min.	67 ·1	66 ·9
***		3. 17	·1080	23. 59	·03163	21. 0	68 ·5	70 ·0
2. 37	51. 0	3. 37	·1072			22. 0	68 ·5	69 ·5
3. 11	50. 35	3. 44	·1074			23. 0	68 ·3	69 ·7
3. 19	51. 5	4. 0	·1071					
3. 40	49. 30	4. 9	·1076					
3. 56	50. 20	4. 18	·1073					
4. 39	48. 45	4. 40	·1073					
5. 16	48. 15	5. 15	·1089					
5. 53	42. 40	5. 36	·1074					
6. 21	46. 15	5. 48	·1088					
6. 37	44. 35	5. 53	·1086					
7. 0	44. 10	6. 16	·1099					
7. 11	45. 35	6. 32	·1092					
7. 34	45. 50	6. 38	·1093					
7. 58	44. 45	6. 51	·1083					
8. 42	45. 15	7. 8	·1076					
9. 6	46. 40	7. 24	·1084					
9. 16	45. 45	7. 32	·1083					
9. 37	45. 40	7. 40	·1087					
10. 4	42. 5	7. 47	·1080					
10. 22	45. 5	7. 51	·1085					
10. 47	46. 10	8. 6	·1077					
11. 7	51. 5		***					
11. 21	48. 10	8. 58	·1072					
11. 33	46. 55		***					
11. 41	44. 35	9. 34	·1078					
12. 4	43. 30	9. 47	·1075					
12. 28	43. 35	10. 8	·1080					
12. 41	42. 0	10. 29	·1074					
13. 8	42. 25	11. 2	·1085					
13. 14	43. 35	11. 23	·1084					
13. 41	45. 5	11. 45	·1074					
13. 47	43. 0		***					
14. 0	41. 20	12. 8	·1072					
14. 31	44. 0	12. 15	·1075					
14. 42	43. 25	12. 22	·1072					
15. 2	45. 35		***					
15. 10	46. 55	13. 45	·1073					
15. 22	45. 40	13. 55	·1070					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

June 24. The Vertical Force Magnet was carefully adjusted, and set to work.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
June 24		June 24						
h m	o ′ ″	h m		h m		h m	o	o
15.30	20. 48.45	14. 5	·1074					
15.48	47.25	14. 8	·1072					
16. 1	47.35	14.22	·1072					
16.11	45. 5	14.36	·1070					
16.23	44.25	14.47	·1072					
16.41	44.40	15. 6	·1071					
16.51	43. 5	15.22	·1074					
17. 2	44. 0	15.41	·1070					
17.16	42.15	16.19	·1077					
17.53	44.10	16.52	·1073					
17.57	46. 0	17.47	·1082					
18. 6	44.20		***					
18.14	46. 5	19. 0	·1060					
	***	19.38	·1061					
18.37	45.25	20. 2	·1069					
18.40	47. 0	20.33	·1061					
18.52	45. 0	20.54	·1063					
18.58	46.15	21.16	·1059					
19.10	43.30	21.30	·1060					
19.23	44.25	21.36	·1057					
19.45	41. 5	21.41	·1060					
20. 8	44.10	21.48	·1056					
20.24	43. 0	21.59	·1061					
20.36	44.15	22.19	·1053					
20.42	42.10	22.32	·1057					
20.49	43.20	22.46	·1057					
20.59	41.45	22.52	·1054					
21.26	44.50	23. 4	·1058					
21.38	43.45		(†)					
21.52	46.35							
22.17	46.15							
22.39	48.40							
23. 0	48.55							
	***							
23.59	51.35							
June 25		June 25		June 25		June 25		
0. 0	20. 51.35		(†)	0. 0	·03163	0. 0	68·1	69·3
	***	0.37	·1059	3.25:	·03100	1. 0	68·6	69·8
1.32	51.50	0.43	·1058	6.48	·02720	2. 0	69·3	70·7
1.53	51.10	0.55	·1061	8.59	·02680	3. 0	70·0	71·1
2. 3	52. 5	1.18	·1062	10.41	·02730	Max.	71·0	72·5
2.19	52.15	1.39	·1056	12.48	·02735	9. 0	71·0	71·9
2.30	50.25	2. 9	·1072	14.28	·02860	18. 0	65·3	66·8
3.18	51. 0	2.10	·1070	17. 4	·03177	Min.	63·0	62·2
	***	2.27	·1079	19.35	·03270.	21. 0	65·0	66·0
4.50	47.15	2.42	·1061	23.29	·03298			
5. 0	47.30	3. 6	·1061	23.59	·03285			
5.29	45.40	3.12	·1069					
6. 7	45. 5		***					
6.15	46.20	3.44	·1067					
6.31	45.40	4. 3	·1062					
6.56	42.30	4.19	·1072					
7.43	45.55	4.23	·1070					
8.26	47.10	4.33	·1075					
8.35	46.40	4.45	·1067					
9. 1	47.15	4.57	·1066					
9.33	46.30	5. 2	·1070					

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
June 25		June 25						
h m	o ′ ″	h m		h m		h m	o	o
9.42	20. 47.10	5.15	·1068					
	***	5.48	·1078					
10.21	44.25	6. 3	·1074					
10.30	45. 0	6.12	·1077					
10.37	44.10	6.27	·1074					
10.56	46.35	6.57	·1081					
11.28	46.25	7.16	·1092					
11.38	47.15	7.48	·1076					
11.51	46.25	8. 4	·1079					
12. 8	50. 0	8.45	·1074					
12.27	46. 5	8.53	·1079					
12.37	47.55	9.13	·1072					
12.58	44.15	9.23	·1075					
13.22	43.45	9.39	·1074					
13.42	46.50	9.49	·1077					
14. 0	44. 0	10. 1	·1074					
14.16	45.55	10.14	·1080					
14.50	46.40	10.30	·1077					
14.54	48.25	11. 0	·1079					
15.16	48.50	11.10	·1081					
15.36	50.30	11.26	·1076					
15.50	47.15	11.37	·1079					
16.13	43.35	11.59	·1076					
	***	12.37	·1086					
17.48	42.20	13.12	·1069					
17.56	43.55	13.24	·1060					
18.10	40.45	13.38	·1062					
18.15	43. 0	14. 0	·1069					
18.24	40.40	14.11	·1067					
18.32	43.10	14.40	·1052					
18.57	43. 0		***					
19. 6	41. 5	15.12	·1065					
19.24	42.50	15.17	·1065					
19.55	41.40	15.34	·1077					
	***	15.52	·1077					
20.15	43.55	16. 4	·1074					
20.30	43. 5	16.39	·1068					
20.57	43.40	17.18	·1067					
21.35	44.40	17.25	·1072					
21.59	47. 0	17.32	·1068					
22. 7	46.45		***					
22.41	50.25	18. 6	·1073					
23.34	53.15	18.14	·1064					
23.42	52.45		***					
	(†)	18.49	·1067					
		19. 0	·1062					
		19.17	·1065					
		19.43	·1065					
		20. 7	·1059					
		20.15	·1061					
		20.38	·1058					
			***					
		22. 5	·1058					
		22.17	·1062					
		23. 2	·1051					
		23.39	·1058					
		23.59	·1058					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left group: Declination & Horizontal/Vertical Force = **June 26**; Thermometer readings (Of H.F. Magnet / Of V.F. Magnet).
Right group: Western Declination, Vertical Force, Thermometers = **June 27**; Horizontal Force column begins with **June 26** (23.38) then continues **June 27**.

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
h m	° ′ ″ (†)	h m		h m		h m	°	°	h m	° ′ ″	h m		h m		h m	°	°
0. 19	20. 52. 35	0. 0	·1058	0. 0	·03285	1. 0	68·5	69·0	0. 0	20. 51. 0	23. 38	·1088		(†)	1. 0	63·3	64·7
0. 53	52. 10	0. 18	·1054	2. 10	·03000	3. 0	71·4	71·9	0. 30	50. 25		(†)	0. 0	·03390	3. 0	65·1	66·3
1. 38	53. 40	0. 32	·1056	3. 52	·02640	9. 0	72·2	73·0	0. 45	51. 5	0. 21	·1084	2. 41	·03390	Max.	69·0	70·0
1. 45	52. 50	0. 48	·1055	6. 50	·02487	Max.	74·0	74·7	0. 56	50. 35	0. 38	·1081	3. 28	·03364	9. 0	69·0	70·0
2. 22	51. 5	1. 9	·1057	9. 57	{ ·02660 / ·02687 }	6. 0	69·5	72·0	1. 23	51. 50	0. 52	·1086	8. 33	·02760	Min.	59·0	58·7
2. 47	50. 40		(†)	12. 56	·02933	18. 0	63·7	65·2		***	1. 8	·1081		(†)	22. 20	61·8	62·3
3. 17	49. 10	2. 24	·1069	14. 45	·03160	Min.	61·0	60·9	2. 24	52. 0	1. 47	·1092	9. 0	·02658*			
3. 35	49. 35	2. 43	·1079	19. 19	·03360	21. 0	62·3	63·0	3. 6	49. 20	1. 54	·1096	14. 3	·02720			
3. 53	48. 45	2. 53	·1073	23. 59	·03390				3. 30	48. 25	2. 51	·1102	15. 25	·02860			
4. 12	49. 30	3. 6	·1081						3. 40	49. 25	3. 2	·1093	18. 49	·03410			
4. 22	47. 30	3. 15	·1070						3. 55	47. 40		(†)	20. 35	·03480			
4. 42	47. 30		***						4. 13	48. 15	3. 39	·1086	23. 59	·03465			
5. 8	46. 5	3. 34	·1072						4. 24	47. 10	3. 47	·1091					
5. 25	46. 25		***						4. 42	47. 0	4. 7	·1091					
5. 42	46. 0	3. 43	·1068						4. 52	45. 30	4. 23	·1085					
6. 31	47. 25		***						5. 25	46. 30	4. 40	·1093					
7. 30	45. 25	4. 12	·1075						5. 48	45. 20	4. 55	·1095					
8. 27	48. 5	4. 21	·1067						6. 2	46. 5	5. 5	·1100					
9. 1	45. 20	4. 39	·1073						6. 12	44. 55	6. 15	·1087					
9. 39	45. 30		***						6. 27	45. 50	6. 34	·1089					
9. 56	44. 35	5. 14	·1074						6. 52	43. 40	6. 40	·1086					
10. 43	45. 10	5. 25	·1065						7. 17	46. 35	7. 0	·1092					
11. 32	44. 50	6. 30	·1069						7. 33	46. 25	7. 29	·1087					
12. 7	42. 35	6. 36	·1073						7. 46	43. 0	7. 39	·1079					
12. 33	44. 30	6. 43	·1069						8. 19	47. 35	8. 15	·1104					
13. 23	43. 10	7. 17	·1073						8. 40	47. 0	8. 32	·1084					
15. 4	46. 35	7. 30	·1072						8. 51	44. 30	8. 52	·1081					
15. 31	50. 0	7. 52	·1078						9. 11	46. 5	9. 7	·1082					
16. 22	47. 40	8. 22	·1075						9. 44	44. 25	9. 22	·1075					
16. 30	48. 20	8. 40	·1077						9. 52	45. 40	9. 43	·1084					
17. 1	44. 5	9. 15	·1072						10. 25	45. 30	10. 22	·1076					
17. 50	41. 50	9. 37	·1075						10. 41	46. 40	10. 42	·1082					
17. 58	43. 0	10. 24	·1077						10. 57	44. 50	10. 57	·1076					
18. 7	40. 30	10. 55	·1076						11. 12	44. 0	11. 45	·1073					
18. 53	41. 25		(†)						11. 18	44. 40	12. 10	·1076					
19. 8	40. 20	13. 7	·1078						11. 28	44. 5	12. 37	·1073					
19. 25	43. 0	14. 7	·1084						12. 41	49. 10	12. 52	·1078					
19. 54	42. 5	14. 39	·1085						12. 52	48. 55	13. 17	·1076					
20. 0	43. 45	14. 54	·1081						13. 17	49. 55	13. 33	·1078					
20. 7	42. 10	15. 17	·1088						13. 33	47. 10	13. 55	·1074					
21. 0	43. 30	15. 44	·1088						13. 52	51. 0	15. 8	·1079					
21. 28	42. 0	16. 14	·1097						14. 52	47. 40	15. 29	·1076					
21. 37	43. 50	16. 48	·1091						15. 18	44. 20	15. 53	·1079					
22. 31	46. 10	17. 43	·1088						16. 6	45. 0	16. 44	·1084					
23. 0	49. 15	18. 8	·1089						16. 23	43. 10	17. 28	·1075					
23. 15	49. 20	18. 33	·1083						16. 37	44. 20	17. 49	·1077					
23. 41	50. 55	18. 40	·1086						17. 4	42. 15	18. 15	·1075					
23. 59	51. 0	19. 23	·1076						17. 57	43. 30	18. 36	·1077					
		20. 45	·1081						18. 8	42. 40	19. 0	·1071					
		20. 55	·1089						18. 33	44. 0	19. 18	·1071					
		21. 2	·1084						18. 56	43. 10	19. 43	·1075					
		21. 17	·1082						19. 35	46. 40	20. 17	·1073					
		21. 44	·1073						20. 4	44. 55	20. 30	·1075					
		22. 26	·1082						20. 23	46. 20	20. 47	·1073					
		22. 34	·1081								21. 15	·1073					
		22. 49	·1086														
		23. 21	·1085														
		23. 29	·1088														

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
June 27		June 27						
h. m.	o ' ''	h. m.		h. m.		h. m.	o	o
20. 45	20. 45. 30	21. 40	·1059					
21. 23	46. 35	21. 52	·1060					
21. 43	48. 30	22. 7	·1058					
21. 53	47. 50	22. 30	·1059					
21. 59	49. 0	23. 0	·1048					
22. 16	48. 5	23. 12	·1057					
22. 48	48. 55	23. 39	·1062					
22. 57	48. 0		(†)					
23. 23	50. 0							
23. 59	50. 5							
June 28		June 28		June 28		June 28		
0. 0	20. 50. 5		(†)	0. 0	·03465	1. 0	63·9	64·8
0. 29	51. 15	0. 4	·1066	2. 15	·03340	Max.	67·7	68·7
0. 37	50. 35	0. 24	·1068	3. 27	·03220	9. 0	67·7	68·7
0. 58	51. 45	0. 41	·1063	9. 49:	·02630	18. 0	62·6	64·0
1. 6	51. 0	0. 54	·1066	20. 15	·03437	Min.	59·7	59·5
1. 23	52. 40	1. 2	·1064	23. 59	·03465	21. 0	61·5	63·2
1. 30	51. 35	1. 22	·1076					
1. 48	52. 10	1. 30	·1072					
2. 1	51. 15	1. 48	·1078					
2. 12	51. 55	2. 0	·1072					
2. 40	49. 35		***					
2. 51	50. 55	2. 33	·1070					
3. 0	50. 0	2. 47	·1079					
4. 10	51. 0	2. 55	·1077					
4. 34	48. 25	3. 0	·1071					
5. 22	45. 40	3. 9	·1070					
5. 30	46. 0	3. 30	·1064					
5. 44	44. 55	4. 1	·1073					
6. 23	46. 10	4. 10	·1080					
6. 53	46. 15	4. 19	·1077					
7. 3	45. 0	4. 25	·1081					
7. 12	45. 35	4. 47	·1076					
7. 37	44. 15	5. 5	·1078					
7. 52	45. 0	5. 17	·1070					
8. 14	42. 20	5. 31	·1081					
9. 0	45. 30	5. 38	·1083					
9. 53	44. 20	5. 46	·1088					
10. 8	44. 35	6. 8	·1078					
10. 25	43. 45	6. 24	·1078					
10. 52	43. 25	6. 28	·1073					
11. 19	44. 20	6. 36	·1077					
11. 56	43. 10	6. 45	·1072					
12. 31	45. 40	6. 54	·1080					
14. 0	46. 20	7. 14	·1080					
14. 15	47. 20	7. 27	·1075					
14. 32	47. 0	7. 53	·1076					
14. 45	48. 20	8. 2	·1073					
15. 8	47. 30	8. 39	·1081					
15. 29	47. 55	8. 55	·1088					
16. 1	45. 10	9. 40	·1074					
16. 25	44. 35	10. 0	·1072					
17. 19	41. 55	10. 8	·1076					
18. 29	42. 40	10. 18	·1072					
19. 5	41. 30	10. 31	·1074					
19. 53	43. 0	10. 42	·1072					
20. 26	41. 30	11. 23	·1074					

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
June 28		June 28						
h. m.	o ' ''	h. m.		h. m.		h. m.	o	o
21. 22	20. 43. 45	11. 58	·1071					
23. 22	51. 50	13. 21	·1074					
23. 59	52. 20	13. 43	·1072					
		14. 13	·1073					
		14. 39	·1070					
		15. 3	·1073					
		15. 37	·1073					
		16. 19	·1074					
		17. 23	·1070					
		17. 47	·1068					
		18. 36	·1060					
		19. 32	·1054					
		21. 45	·1057					
		21. 59	·1062					
		22. 8	·1060					
		22. 47	·1063					
		23. 9	·1061					
		23. 39	·1067					
			(†)					
June 29		June 29		June 29		June 29		
0. 0	20. 52. 20		(†)	0. 0	·03465	1. 0	64·0	65·3
1. 1	52. 15	0. 53	·1073	1. 20	·03355	3. 0	66·3	67·5
1. 40	52. 10	1. 44	·1074	5. 42	·02660	Max.	68·7	70·0
	(†)	3. 22	·1080	6. 30	·02640	9. 0	68·0	69·0
3. 0	51. 29*	4. 47	·1073	8. 36	·02570	18. 20	61·2	62·0
5. 50	46. 0	5. 6	·1070	12. 33 {	·02685	Min.	59·0	58·6
6. 38	43. 40	5. 52	·1069	{	·02728	21. 0	61·0	61·9
7. 38	45. 20	6. 5	·1068	15. 0:	·02920			
9. 8	46. 10	6. 51	·1071	17. 5 {	·03220			
9. 53	45. 25	7. 15	·1065	{	·03240			
11. 25	46. 10		***	18. 18	·03428			
13. 2	46. 40	8. 2	·1064	20. 57:	·03526			
	***	8. 15	·1065	23. 22	·03580			
14. 16	45. 5	8. 31	·1062	23. 59	·03475			
	***		(†)					
15. 10	45. 30	9. 0	·1064*					
15. 36	43. 45	12. 58	·1074					
	***	13. 25	·1072					
16. 37	42. 50	13. 38	·1073					
17. 7	41. 5	15. 21	·1068					
	***	17. 23	·1067					
19. 56	38. 10	18. 17	·1065					
20. 14	39. 5	18. 47	·1065					
20. 28	38. 40	19. 30	·1066					
21. 25	42. 20	20. 21	·1066					
22. 27	48. 10	21. 21	·1063					
23. 59	52. 45	21. 30	·1065					
		21. 40	·1063					
		22. 22	·1063					
			(†)					
June 30		June 30		June 30		June 30		
0. 0	20. 52. 45		(†)	0. 0	·03475	1. 0	64·4	65·0
0. 31	53. 15	0. 44	·1076	1. 0	·03410	2. 0	65·9	66·3
	***	1. 19	·1079	6. 28	·02688	Max.	67·3	68·3
2. 56	50. 20	1. 53	·1073	9. 55	·02560	9. 0	67·2	68·0

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

June 30

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
h m	° ′ ″	h m		h m		h m	°	°
3. 55	20. 50. 0	2. 15	·1077	13. 7	{·02700	18. 0	61 ·5	62 ·8
4. 47	48. 0	3. 13	·1071	13. 7	{·02720	Min.	58 ·8	58 ·3
5. 4	48. 0	3. 55	·1079	14. 41	·02840	21. 0	64 ·2	62 ·0
5. 28	47. 0	4. 35	·1072	19. 18	·03480	22. 0	65 ·2	63 ·0
6. 45	45. 10	4. 48	·1064	21. 45	·03523	23. 0	66 ·0	64 ·5
9. 19	45. 50	5. 1	·1063	23. 54	·03378			
9. 38	42. 40	5. 7	·1069	23. 59	·03360			
10. 22	42. 40	5. 30	·1060					
10. 34	43. 35	5. 39	·1062					
11. 3	43. 30	5. 47	·1061					
11. 13	44. 30	***						
11. 25	44. 15	6. 51	·1064					
11. 44	45. 20	7. 8	·1066					
12. 14	44. 30	7. 14	·1069					
12. 43	44. 50	7. 20	·1067					
13. 2	45. 45	7. 30	·1067					
13. 33	44. 30	7. 53	·1062					
14. 12	45. 50	8. 14	·1061					
15. 23	44. 15	8. 27	·1064					
16. 18	46. 30	8. 33	·1061					
16. 56	44. 15	8. 59	·1061					
17. 16	44. 15	9. 11	·1063					
17. 39	46. 30	9. 28	·1060					
18. 0	42. 0	9. 59	·1067					
18. 9	43. 10	10. 31	·1062					
18. 38	40. 0	10. 58	·1063					
19. 4	39. 5	11. 7	·1065					
19. 32	40. 55	11. 15	·1063					
20. 26	41. 5	13. 3	·1070					
20. 40	42. 20	13. 10	·1069					
20. 52	42. 0	13. 17	·1070					
21. 24	43. 30	13. 42	·1067					
21. 58	46. 30	13. 51	·1069					
22. 17	46. 20	14. 31	·1071					
22. 53	48. 25	15. 23	·1071					
23. 19	51. 5	15. 47	·1070					
23. 33	50. 40	16. 27	·1067					
23. 59	52. 45	16. 53	·1075					
		17. 21	·1075					
		17. 44	·1082					
		17. 58	·1077					
		18. 9	·1078					
		18. 28	·1080					
		19. 9	·1060					
		19. 25	·1063					
		19. 59	·1058					
		20. 9	·1055					
		20. 45	·1054					
		20. 52	·1051					
		21. 33	·1054					
		22. 12	·1060					
		22. 38	·1062					
		22. 54	·1060					
		23. 15	·1064					
		23. 38	·1056					
		23. 51	·1066					
			(†)					

July 1

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
h m	° ′ ″	h m		h m		h m	°	°
0. 0	20. 52. 45	0. 8	(†)	0. 0	·03360	0. 0	66 ·7	65 ·7
0. 30	54. 0	0. 35	·1069	4. 37	·02534	1. 0	67 ·7	67 ·0
0. 41	53. 25	0. 42	·1072	7. 30	·02360	2. 0	68 ·9	68 ·5
1. 17	53. 20	1. 5	·1069	9. 3	{·02305	3. 0	69 ·7	69 ·7
2. 17	53. 35	1. 16	·1071	9. 3	{·02340	6. 0	72 ·0	72 ·7
3. 51	51. 10	***		12. 42	·02360	Max.	72 ·5	73 ·8
4. 32	50. 35	1. 53	·1074	13. 57	·02460	9. 0	72 ·3	73 ·0
5. 33	48. 35	2. 13	·1073	14. 57	{·02560	12. 0	70 ·6	71 ·8
5. 52	49. 0	2. 25	·1077	14. 57	{·02590	18. 0	67 ·0	68 ·0
6. 13	47. 5	***		17. 40	·02863	Min.	64 ·3	64 ·2
7. 5	47. 45	2. 59	·1073	20. 10	·03180	21. 0	65 ·6	67 ·0
7. 31	46. 35	***		22. 57	·03220	22. 0	66 ·0	67 ·0
8. 1	46. 50	3. 37	·1067	23. 59	·03210	23. 0	65 ·9	67 ·5
8. 10	46. 0	***						
8. 52	47. 10	4. 50	·1071					
9. 54	44. 35	5. 16	·1070					
10. 15	45. 30	5. 35	·1074					
10. 22	44. 50	5. 45	·1072					
10. 38	45. 40	6. 0	·1079					
10. 42	44. 30	6. 21	·1073					
11. 15	44. 10	6. 43	·1073					
11. 30	46. 55	6. 50	·1080					
11. 43	44. 15	7. 0	·1078					
11. 51	47. 20	7. 8	·1091					
12. 2	44. 5	7. 20	·1075					
12. 24	43. 50	7. 23	·1077					
12. 45	41. 30	7. 31	·1074					
13. 1	40. 40	7. 35	·1080					
13. 6	42. 0	8. 2	·1078					
13. 13	39. 50	8. 7	·1074					
13. 16	41. 15	8. 13	·1077					
13. 46	39. 15	8. 24	·1080					
***		8. 30	·1087					
14. 28	41. 15	8. 36	·1079					
***		8. 40	·1085					
15. 5	45. 50	8. 45	·1077					
15. 43	44. 30	8. 59	·1086					
15. 47	43. 30	9. 11	·1074					
16. 2	43. 30	9. 22	·1083					
16. 13	41. 15	9. 29	·1078					
16. 29	46. 20	9. 33	·1080					
16. 52	53. 10	9. 40	·1072					
17. 30	46. 30	9. 56	·1082					
18. 1	44. 35	10. 8	·1084					
18. 14	42. 10	10. 14	·1082					
18. 23	42. 0	10. 30	·1090					
19. 8	39. 0	10. 39	·1083					
19. 23	39. 40	10. 53	·1091					
19. 44	38. 15	11. 12	·1086					
20. 7	39. 50	11. 20	·1093					
20. 27	39. 0	11. 24	·1082					
21. 9	41. 5	11. 29	·1084					
22. 27	47. 20	11. 36	·1079					
22. 41	48. 30	11. 41	·1097					
23. 28	50. 0	11. 47	·1098					
23. 59	50. 55	11. 57	·1082					
		12. 10	·1081					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
h m	o ′ ″	h m		h m		h m	o	o	July 2 h m	o ′ ″	July 2 h m		h m		h m	o	o
		July 1 h m							7.15	20.43.20	3.22	·1089					
		12.17	·1075						7.41	45.0	3.25	·1096					
		12.19	·1077						7.50	46.5	3.38	·1085					
		12.38	·1059						7.58	44.20	3.43	·1087					
		12.49	·1066						8.23	42.0	3.53	·1074					
		12.57	·1062						8.34	43.15	4.7	·1079					
		13.1	·1067						8.50	36.25	4.14	·1079					
		13.15	·1064						9.3	40.30	4.23	·1094					
		13.19	·1073						9.16	41.45	4.30	·1088					
		13.37	·1073						9.52	37.50	4.44	·1093					
		13.47	·1062						10.0	39.0	5.2	·1090					
		13.58	·1070						10.29	40.20	5.18	·1095					
		14.9	·1067						10.45	45.5	5.28	·1099					
		14.23	·1072						11.7	39.5	5.37	·1088					
		14.38	·1063						11.20	41.0	5.54	·1106					
		14.43	·1067						11.30	40.25	6.23	·1095					
		14.46	·1066						12.6	47.0	6.29	·1099					
		15.13	·1072						12.15	46.5	6.34	·1097					
		15.21	·1072						13.29	47.55	6.43	·1100					
		15.38	·1076							***	6.55	·1090					
		15.45	·1082						13.58	45.20	7.8	·1099					
		15.53	·1080						14.10	46.25	*7.18	·1090					
		16.8	·1083						14.30	41.30	7.34	·1101					
		16.15	·1075						14.38	43.20	7.44	·1097					
		16.22	·1079						14.45	42.0	7.53	·1102					
		16.31	·1078						15.0	44.5	8.8	·1091					
		16.51	·1071						15.9	43.25	8.16	·1104					
		17.40	·1082						15.27	48.35	8.23	·1099					
		18.10	·1080						15.46	45.30	8.31	·1099					
		18.23	·1083						15.58	48.40	8.40	·1092					
		18.36	·1080						16.12	47.30	8.52	·1097					
		20.2	·1072						16.21	45.0	9.12	·1086					
		20.17	·1068						16.24	45.50	9.21	·1086					
		20.34	·1067						16.36	45.35	9.28	·1090					
		21.29	·1058						16.42	43.25	9.40	·1087					
		22.29	·1055						16.48	44.50	9.54	·1080					
		22.34	·1057						17.1	41.20	10.23	·1090					
		22.45	·1056						17.6	43.20	10.36	·1086					
		23.23	·1061						17.8	40.5		***					
		23.53	·1063						17.28	44.0	10.55	·1095					
		23.59	·1068						17.37	43.5	11.13	·1084					
July 2		July 2		July 2		July 2			17.44	45.0	11.35	·1093					
0.0	20.50.55	0.0	·1068	0.0	·03210	0.0	66·9	68·0	17.51	41.15	12.4	·1094					
0.52	52.0	0.7	·1070	2.9	·03135	1.0	67·5	68·9		***	12.19	·1096					
1.40	51.30	0.21	·1075	3.40	·03020	2.0	68·3	69·2				***					
2.0	51.40	0.35	·1073	6.39	·02740	3.0	69·0	70·0	18.2	46.0	13.6	·1098					
2.52	49.35	0.54	·1077	9.5:	·02660	Max.	70·5	71·7	18.9	44.25	13.10	·1101					
3.1	50.15	1.10	·1076	11.25	·02760	9.0	70·0	71·0	18.26	43.45	13.18	·1092					
3.31	49.25	1.23	·1084	11.39	·02750	18.0	64·5	66·5	18.30	41.55	13.23	·1103					
3.45	47.25	1.39	·1078	13.0	·02840	Min.	62·5	62·3	18.32	44.40	13.29	·1096					
4.8	46.20	1.54	·1088	14.37	·02970	21.0	64·0	65·2	18.41	45.40	13.33	·1100					
4.21	47.25	2.15	·1089	15.18	{·03045				18.54	44.0	13.36	·1095					
5.2	46.5	2.29	·1086		{·03070				18.58	46.5	13.43	·1103					
6.0	46.35	2.38	·1091	10.0	·03165				19.17	43.45	13.47	·1099					
6.20	45.0	2.46	·1089	18.26	{·03268					***	13.54	·1102					
6.40	45.35	2.50	·1095		{·03284				20.2	43.10	14.1	·1095					
6.58	43.0	3.2	·1089	20.33	·03380				20.37	45.30	14.11	·1099					
7.12	44.30	3.13	·1094	23.59	·03350				20.47	43.35	14.44	·1092					
									20.53	46.0							

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Upper block (Greenwich Mean Solar Time / Western Declination / Horizontal Force, etc.) — left columns July 2, right columns July 3:

G.M.S.T.	Western Declination	G.M.S.T.	Horizontal Force (H.F. uncorr.)	G.M.S.T.	Vertical Force (V.F. uncorr.)	G.M.S.T.	Therm. H.F. Magnet	Therm. V.F. Magnet	G.M.S.T.	Western Declination	G.M.S.T.	Horizontal Force (H.F. uncorr.)	G.M.S.T.	Vertical Force (V.F. uncorr.)	G.M.S.T.	Therm. H.F. Magnet	Therm. V.F. Magnet
July 2		July 2							July 3		July 3						
21. 0	20. 44. 20	14.48	·1096						11.14	20. 44. 40	6.53	·1082					
22.12	47.50	15. 0	·1094						11.27	48.55	7. 7	·1076					
22.18	47.15	15.11	·1097						11.37	49.50	7.22	·1078					
22.31	48.40	15.16	·1092						11.58	47.25	7.30	·1075					
	***	15.26	·1094						13. 8	44.15	7.45	·1079					
23.26	51.10	15.32	·1098						13.16	44.30	8.20	·1074					
23.59	50.30		***						13.22	43.10	8.46	·1078					
		16. 6	·1094						14. 5	43.55	9. 1	·1075					
		16. 9	·1089						14.26	45.45	9.30	·1076					
		16.15	·1095						14.35	48. 0	9.38	·1074					
		16.23	·1086						14.50	48. 0	10.17	·1078					
		16.30	·1092						15. 0	49.25	10.36	·1075					
		16.33	·1080						16. 2	44.30	10.51	·1080					
		16.38	·1088						16.13	45.20	11. 9	·1078					
			***						17.33	41.50	11.25	·1086					
		17.17	·1088						18.11	40.35	11.38	·1086					
			***						18.22	41.20	11.56	·1080					
		17.42	·1083							***	12.42	·1079					
		17.47	·1086						19. 8	39.45	13. 1	·1080					
		18.26	·1080						19.23	41. 0	13.13	·1081					
		18.40	·1081							***	13.35	·1081					
			***						20. 0	40. 0	15.11	·1075					
		19.17	·1072						20.35	43. 5	15.42	·1082					
		19.38	·1071						20.40	42.15	16. 8	·1077					
		19.47	·1074						22.42	50.10	17.43	·1083					
		20.17	·1067						23.20	49.45	19.16	·1075					
		20.39	·1068						23.30	50.45	20. 7	·1068					
		21. 3	·1059						23.59	51. 0	20.19	·1068					
		21.38	·1058								20.45	·1063					
		22.11	·1067								20.57	·1066					
		22.23	·1062								21.57	·1065					
			***								22.17	·1062					
		23. 0	·1068								22.30	·1065					
			(†)								23. 2	·1063					
												(†)					

Lower block — left columns July 3, right columns July 4:

G.M.S.T.	Western Declination	G.M.S.T.	Horizontal Force (H.F. uncorr.)	G.M.S.T.	Vertical Force (V.F. uncorr.)	G.M.S.T.	Therm. H.F. Magnet	Therm. V.F. Magnet	G.M.S.T.	Western Declination	G.M.S.T.	Horizontal Force (H.F. uncorr.)	G.M.S.T.	Vertical Force (V.F. uncorr.)	G.M.S.T.	Therm. H.F. Magnet	Therm. V.F. Magnet
July 3		July 3		July 3		July 3			July 4		July 4		July 4		July 4		
0. 0	20. 50. 30		(†)	0. 0	·03350	1. 0	66·5	67·8	0. 0	20. 51. 0		(†)	0. 0	·03230	1. 0	66·6	67·8
0.54	51.10	0.45	·1076	3.18:	·03145	3. 0	68·0	69·1	1. 3	52.50	0.28	·1077	1.10	·03220	3. 0	69·0	69·9
1. 4	53. 5	1. 4	·1084	5.38	·02880	Max.	70·0	71·3	2.25	51. 5	1.44	·1084	2.12	·03140	Max.	72·7	73·7
1.17	52.10	1.13	·1082	8.35:	·02483	9. 0	70·0	71·3	3. 2	49.25	2. 7	·1089	5.54	·02636	9. 0	72·7	73·7
1.30	52.35	1.30	·1078	11.40	·02455	18. 0	66·0	67·3	3.55	48. 0	2.30	·1089	9.13	·02460 / ·02480	Min.	63·8	63·2
1.38	51.25	1.40	·1084	11.57	·02440	Min.	62·8	62·5	4.44	47.10	3.26	·1092	13.43:	·02550	22.37	65·8	67·5
1.48	52.45	1.51	·1075	15. 0	·02580 / ·02604	21. 0	64·2	66·0	5. 0	46.10	3.44	·1089	17.49	·03125			
2. 1	50.25	2.13	·1082	17.18	·02800				5.10	46.35	4.38	·1090	20.41	·03244			
2.13	51.25	2.21	·1080	21.29	·03320 / ·03200				6. 0	45.10	5. 1	·1083	23.59	·03270			
2.22	50.25	2.38	·1093	23.59	·03230				7.33	44.15	5. 8	·1086					
3.32	49.50	2.44	·1090						7.52	45. 5	5.18	·1084					
3.50	50.15	3.21	·1089						8. 0	44.25	5.41	·1087					
5. 0	46.45	3.35	·1084						9.32	44.25	5.52	·1085					
5.14	44.30	3.45	·1089						9.38	44.50	6.36	·1084					
6.56	46.45	3.57	·1087						9.52	43.45	6.50	·1080					
	***	4. 9	·1080						10.29	43.45	6.58	·1083					
8.33	45.50	4.45	·1083						10.51	42.55	7.18	·1082					
9. 4	46.30	5. 7	·1079						11.14	45. 5	7.25	·1080					
9.49	45.30	5.23	·1087						11.33	44. 0	7.39	·1080					
10. 0	46. 0	5.37	·1084						11.52	44.25	7.48	·1084					
10.38	45. 5	6. 0	·1087						13.22	41.55	7.59	·1081					
10.54	45.50	6.16	·1083														

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
July 4		July 4						
14.44	20.46.35	8.17	·1080					
15.39	46.10	8.29	·1075					
17.39	41.10	8.53	·1073					
18.57	42. 0	9. 8	·1074					
20.22	41. 0	9.33	·1078					
21.28	42.15	9.45	·1076					
22. 7	44.40	10.44	·1076					
22.23	45. 0	10.54	·1078					
22.58	47.30	11.15	·1075					
23. 7	47. 0	11.34	·1077					
23.14	48.25	12.31	·1076					
23.59	49.10	13. 7	·1076					
		13.25	·1077 (†)					
		14.36	·1078					
		16.38	·1087					
		17.58	·1084					
		18.45	·1082					
		20.23	·1072					
		21.44	·1067					
		21.58	·1068					
		22.11	·1067					
		22.30	·1065					
		23.10	·1069					
		23.23	·1073					
		23.46	·1072					
		23.59	·1067					
July 5		July 5		July 5		July 5		
0. 0	20.49.10	0. 0	·1067	0. 0	·03270	Max.	75·0	75·7
0.53	51.30	0.16	·1068	0.59:	·03230	9.42	73·4	74·2
1. 0	51.10	0.50	·1074	2.45	·02960	18. 0	66·2	67·8
1.26	52.15	1.25	·1081	5. 5	·02513	Min.	63·6	63·3
2.19	51.25	1.55	·1077	8.49	·02326	21. 0	69·0	67·2
3. 1	49.55	2.38	·1082	9.43	·02320			
4.37	47.50	3.14	·1083	13. 6	·02555			
5.26	47.45	3.22	·1082	15. 0	·02770			
5.40	47.25	4.56	·1082	17.10	·03125			
6.38	47.15	5. 7	·1081	18.49	{·03222 / ·03196}			
7.28	46.10	5.37	·1083	21.10	{·03270 / ·03060}			
7.37	46.35	6.30	·1075	22.35	·03080			
8.43	45.35	6.42	·1077	23.59	·02940			
***		6.51	·1075					
9.36	47.35	7.17	·1075					
9.43	46.15	7.25	·1076					
10.30	47. 0	7.37	·1074					
11.21	46.25	8.12	·1072					
11.48	47.15	9.36	·1072					
12.10	46.10	10.31	·1075					
***		11. 0	·1076					
15.17	47. 5	11.46	·1074					
***		13.51	·1072					
15.51	44.50	14.43	·1077					
***		14.53	·1077					
17.48	41.55	16.30	·1083					
18. 2	42.25	17.56	·1083					
18.21	41.15	18.16	·1082					
18.38	42. 5	18.35	·1082					

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
July 5		July 5						
19.17	20.40.20	20. 8	·1065					
19.27	39.10	22.30	·1059					
19.38	39.10	23.15	·1056					
19.45	40. 5	23.59	·1062					
20.21	40.10							
22.13	43.40							
22.38	45.45							
23.59	50. 5							
July 6		July 6		July 6		July 6		
0. 0	20.50. 5	0. 0	·1062	0. 0	·02940	1. 0	72·3	71·7
2. 4	53.40	0.16	·1049	4.25:	·02500	3. 0	74·0	74·0
4.17	50. 5	0.46	·1050 (†)	8. 8	·02380	6. 0	75·2	75·8
5.10	50. 5	1. 0	·1065*	9.45	·02460	Max.	75·6	75·8
6.50	46. 0	2. 0	·1072	13.28	·02730	9.12	72·9	74·2
7.17	46. 0	2.30	·1073	14.50	·02860	18. 0	66·7	68·2
***		3.12	·1081	15. 0	·02860	Min.	64·6	64·3
8.19	44.25	4.19	·1083	19.15	·03126	21. 0	70·0	69·0
9.23	45.10	4.33	·1085	20.45	·03155			
9.40	43.30	5. 7	·1086	20.49	·03127			
9.53	43.35	5.15	·1084	21.35	·03160			
10. 8	42.35	6. 9	·1084	22.17	{·03125 / ·02880}			
10.37	43. 5	6.21	·1073	23.59	·02684			
10.57	41.30	6.27	·1074					
11. 8	42. 0	6.35	·1073					
11.58	41. 0	7. 9	·1083					
12. 8	40. 5	8. 0	·1081					
12.27	41.30	8.17	·1075					
12.37	41.10	8.30	·1079					
12.49	42.25	***						
13.22	39.30	9. 4	·1076					
13.53	46.40	9.30	·1080					
14.13	46.55	10. 2	·1079					
14.45	41.30	10.25	·1083					
15.43	46.30	10.59	·1077					
16.10	46.35	11.21	·1080					
16.18	45.40	11.30	·1078					
16.28	45.40	12.48	·1082					
16.46	39.45	13. 6	·1079					
17.12	39. 5	13.25	·1078					
17.22	40.45	14.22	·1095					
17.28	40. 5	15.15	·1076					
17.40	42.10	15.44	·1092					
17.47	41.20	16. 6	·1092					
17.55	42. 5	16.26	·1082					
18. 3	40.30	17.22	·1082					
18.22	40.55	17.45	·1080					
18.40	39.10	18. 0	·1079					
19.15	39. 5	18.41	·1067					
20.32	41.10	19. 6	·1066					
20.40	39.45	19.23	·1061					
21. 3	42.50	19.47	·1065					
21.29	43. 0	20. 9	·1071					
21.42	44.30	20.45	·1073					
21.56	44. 0	21.13	·1075					
22. 3	45.55	21.30	·1072					
22.13	45.25	22. 3	·1070					
22.30	47.15							

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H. F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V. F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
July 6		July 6						
h m	o ′ ″	h m		h m		h m	o	o
23. 2	20.49.25	22.21	·1076					
23.19	49. 5	22.48	·1070					
23.59	52.20	23.20	·1072					
		23.30	·1060					
.		23.59	·1063					
July 7		July 7		July 7		July 7		
0. 0	20.52.20	0. 0	·1063	0. 0	·02684	1. 0	75·2	74·9
0.27	51.45	0.13	·1060	0.30	·02580	3. 0	77·0	77·2
0.42	50.30	0.37	·1059	5.18	·02276	6. 0	78·7	79·0
1.30	50.25	1. 4	·1065	6.37	·02250	Max.	79·0	79·5
2.12	52.35	1.32	·1062	7.40	·02197	9. 0	77·3	78·0
2.20	52.10	2. 7	·1063	8.41	·02190	18. 0	69·5	71·0
2.48	53.40	2.23	·1058	12.15	·02340	Min.	64·7	63·8
3.47	52.30	2.53	·1065	13.53	·02490	21. 0	66·7	68·2
4.14	52.55	3.10	·1062	16. 0	·02810	22. 0	66·8	68·3
4.30	51. 5	3.22	·1066	18.46	·03030	23. 0	67·0	68·3
4.50	50.30	3.33	·1066	21.19	·03147			
5. 0	49. 5	3.45	·1072	23.59	·03200			
5. 7	49. 0	3.53	·1068					
5.22	45.50		***					
5.40	47.40	4.30	·1078					
5.52	47. 0	4.47	·1076					
6.22	42.10	5.18	·1057					
6.33	43.10	5.45	·1068					
6.41	42.10	6.11	·1057					
7. 0	45.15	6.25	·1056					
.7.41	46.30	6.32	·1061					
8.22	46. 0	6.44	·1059					
8.38	40.40	6.53	·1066					
9. 7	39.15	7.15	·1067					
9.23	42. 5	7.26	·1064					
9.37	42.45	7.58	·1061					
9.43	42. 0	8.10	·1064					
10.18	42.25	8.53	·1061					
11. 5	45. 0	9.22	·1058					
11.53	44. 5	9.47	·1053					
12. 8	43.35	10. 7	·1052					
12.16	44.30	10.34	·1058					
13.10	44.25	10.48	·1057					
13.21	45.20	10.53	·1059					
13.35	43.50	11.32	·1056					
13.38	44.15	11.38	·1059					
13.42	43.10	11.54	·1059					
13.54	45.30	12. 8	·1055					
14.17	43.25	12.42	·1056					
14.40	43. 5	13. 0	·1060					
15.10	48.45	13.16	·1058					
16. 8	42.50	13.32	·1060					
16.31	41.30	14. 3	·1059					
16.36	43.10	14.14	·1063					
16.47	41.20	14.20	·1062					
17. 2	43. 5	15. 0	·1062					
17.28	42.35	15.13	·1067					
17.36	44.25	15.18	·1066					
17.43	41.55	15.34	·1072					
17.59	41.10	15.46	·1072					
18. 7	42.30	16.34	·1065					
	***							

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H. F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V. F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
July 7		July 7						
h m	o ′ ″	h m		h m		h m	o	o
18.43	20.40.30	16.40	·1068					
18.53	43.35	16.49	·1063					
	***	17. 8	·1062					
20.29	39.35	17.23	·1066					
	***	18. 1	·1061					
21.28	42.15	18. 9	·1063					
22. 8	45.50	18.18	·1060					
23. 1	46.30	18.47	·1055					
23.15	48.25	18.59	·1063					
23.24	48.20	19.29	·1066					
23.48	51. 0	19.52	·1070					
23.59	51.10	20.44	·1071					
		20.53	·1069					
		21.30	·1072					
		22.10	·1062					
		22.23	·1061					
		22.39	·1064					
		22.47	·1062					
		23. 0	·1062					
		23.20	·1060					
		23.59	·1070					
July 8		July 8		July 8		July 8		
0. 0	20.51.10	0. 0	·1070	0. 0	·03200	0. 0	67·8	69·0
0.24	50.45	0.31	·1056	1.22	·03175	1. 0	68·9	69·8
0.52	52.35	0.54	·1069	4. 4	·03200	2. 0	69·7	70·8
1. 2	51. 5	1. 7	·1061	5.27	·02930	3. 0	70·0	71·3
1.17	52.35	1.22	·1072	6.45	·02807	7.30	72·0	72·3
1.27	51.35	1.31	·1068	9.24	·02720	Max.	72·0	72·3
1.38	52.50	1.50	·1079	12.55	·02783	9. 0	71·0	72·0
1.56	52. 0	2.11	·1073	14.56	·02920	12. 0	70·5	71·7
2. 6	52.30	2.21	·1073	17.11	·03160	18. 0	66·9	68·0
2.19	52.25	2.56	·1059	18.24 {·03197 / ·02950}		Min.	64·2	64·0
2.31	50.55	3.30	·1075	19.45 {·03025 / ·02880}		21. 0	65·8	67·0
2.52	50. 5	3.39	·1070	21.45 {·02990 / ·02900}		22. 0	66·8	67·6
3.26	52.10	3.49	·1071	23.59	·02895	23. 0	67·9	68·2
	***	4. 4	·1067					
4. 6	50. 5	4.21	·1075					
4.13	50.40	4.30	·1075					
4.22	49.20	4.45	·1087					
4.33	50. 5		***					
4.58	48.10	5.15	·1081					
5. 2	49. 0	5.33	·1089					
5.15	42. 0		***					
	***	6.38	·1076					
6.47	47. 0	6.51	·1077					
7. 2	46.20	6.59	·1081					
	***	7.23	·1074					
8.36	47.10	7.40	·1072					
8.53	46. 5	7.58	·1076					
8.58	47. 5	8.32	·1073					
9.19	43.40	8.51	·1075					
9.33	45. 0	9. 8	·1070					
10. 4	44. 5	9.26	·1079					
11.12	45.35	9.51	·1071					
12.37	47.30	10.25	·1065					
12.51	45.40	10.46	·1066					
13. 6	45.10	11.38	·1064					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left panel — July 8

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Readings of Thermometers — Of V.F. Magnet
July 8		July 8						
13. 22	20. 43. 55	11. 53	·1068					
13. 48	45. 30	12. 5	·1076					
15. 16	42. 25	12. 24	·1077					
15. 47	43. 25	12. 55	·1066					
16. 0	42. 50	13. 15	·1062					
16. 58	42. 50	13. 38	·1069					
17. 10	41. 25	14. 4	·1069					
17. 15	42. 30	14. 37	·1065					
17. 30	40. 50	14. 52	·1068					
17. 43	39. 30	15. 7	·1063					
17. 57	42. 0	15. 18	·1066					
18. 22	39. 5	15. 29	·1066					
18. 45	39. 30	16. 37	·1071					
18. 57	41. 5	17. 17	·1067					
19. 7	39. 0	17. 30	·1070					
19. 24	40. 55	18. 10	·1062					
19. 53	38. 0	18. 34	·1064					
20. 22	39. 55	18. 59	·1059					
20. 39	39. 35	19. 14	·1062					
21. 23	43. 0	19. 31	·1058					
21. 55	43. 25	19. 49	·1061					
22. 14	45. 0	20. 8	·1059					
23. 8	52. 5	20. 23	·1059					
23. 22	50. 35	21. 0	·1052					
23. 59	50. 40	21. 35	·1047					
		22. 0	·1049 (†)					

Left panel — July 9

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force	Greenwich Mean Solar Time	Vertical Force	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
July 9		July 9		July 9		July 9		
0. 0	20. 50. 40		(†)	0. 0	·02895	0. 0	69 ·5	69 ·7
0. 28	50. 45	0. 48	·1062	3. 55	·02560	1. 0	70 ·5	70 ·9
0. 59	52. 20	1. 0	·1058	7. 45	·02338	3. 0	73 ·5	73 ·8
1. 23	51. 10	1. 14	·1059	8. 45	·02310	Max.	76 ·8	77 ·7
1. 29	52. 15	1. 22	·1052	14. 0	·02570	9. 0	74 ·5	75 ·7
1. 50	53. 5	1. 56	·1067	15. 43	·02880	18. 0	68 ·0	68 ·7
2. 8	53. 0	2. 8	·1062	16. 34	·02920	Min.	64 ·0	63 ·5
2. 16	53. 30	2. 16	·1066	18. 10	·03080	21. 0	66 ·0	66 ·9
2. 39	53. 15	2. 49	·1046	21. 52	{ ·03240 / ·03180 }			
2. 45	52. 30	3. 6	·1058	22. 23	·03183			
3. 0	53. 30	3. 14	·1052	23. 25	·03140			
3. 16	51. 5	3. 38	·1056	23. 59	·03096			
3. 38	51. 35	3. 52	·1047					
3. 56	48. 30	4. 1	·1050					
4. 17	50. 20	4. 42	·1066					
4. 44	50. 20	4. 52	·1070					
4. 52	49. 15	5. 0	·1070					
5. 0	50. 0	5. 29	·1086					
5. 28	48. 10	5. 36	·1082					
5. 42	48. 10	5. 45	·1082					
5. 51	51. 5	5. 50	·1072					
6. 0	47. 25	6. 29	·1073					
6. 39	40. 30	6. 45	·1061					
6. 47	41. 25	7. 4	·1064					
6. 52	40. 30	7. 20	·1055					
7. 17	46. 5		(†)					
7. 38	46. 0	9. 0	·1062*					
8. 14	48. 5	21. 0	·1037*					
8. 21	47. 0	23. 5	·1084 ***					

Right panel — July 9

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
July 9		July 9						
8. 52	20. 48. 5	23. 37	·1090					
9. 12	46. 35	23. 53	·1086					
10. 4	46. 0	23. 59	·1089					
10. 23	47. 0							
10. 30	46. 25							
10. 43	46. 30							
11. 5	43. 5							
11. 34	44. 20							
11. 41	43. 25							
12. 10	43. 35							
12. 18	42. 0							
12. 30	43. 10							
12. 58	40. 15							
	(†)							
14. 11	36. 10							
14. 41	42. 55							
15. 7	44. 40							
15. 23	41. 5							
15. 38	41. 0							
16. 11	49. 5							
16. 23	47. 45							
16. 31	49. 15							
16. 48	45. 10							
16. 58	47. 10							
17. 14	42. 15							
17. 27	44. 50							
17. 36	43. 25							
17. 40	44. 50							
17. 46	43. 30							
17. 54	44. 50							
18. 19	41. 5							
18. 45	45. 0							
18. 59	42. 50							
19. 6	43. 50							
19. 16	42. 20							
19. 22	44. 15							
19. 27	42. 25							
19. 33	43. 25							
20. 28	44. 30							
20. 37	45. 55							
20. 46	45. 20							
20. 51	47. 30							
20. 57	47. 5							
21. 8	48. 45							
21. 47	49. 5							
21. 53	50. 0							
22. 2	49. 30							
22. 28	49. 10							
22. 43	49. 45							
22. 45	49. 10							
23. 1	49. 0							
23. 17	49. 35							
23. 22	50. 55							
23. 33	50. 15							
23. 37	51. 25							
23. 59	52. 5							

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

HORIZONTAL FORCE. On July 9, the trace was lost from 8ʰ; on July 10, it was lost from 8ʰ. 37ᵐ; on July 11, the trace was entirely lost.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
July 10 h m	° ′ ″	July 10 h m		July 10 h m		July 10 h m	°	°	July 11 h m	° ′ ″	July 11 h m		July 11 h m		July 11 h m	°	°
0. 0	20. 52. 5	0. 0	·1089	0. 0	·03096	1. 0	71·5	71·9	0. 33	20. 50. 5	9. 0	·1095*	3. 55	·02435	6. 0	76·0	75·7
	***	0. 4	·1085	2. 27	·02650	3. 0	75·2	75·2	0. 53	52. 0	22. 6	·1075*	6. 12	·02300	Max.	76·1	77·0
0. 53	54. 30	0. 10	·1091	6. 3	·02305	6. 30	77·7	78·0	1. 2	51. 0			8. 26	·02217	9. 0	74·2	74·7
1. 23	52. 0	0. 26	·1093	9. 15	·02206	Max.	79·6	80·0	1. 7	52. 20			10. 24	·02400	Min.	64·6	64·0
1. 41	54. 0	0. 37	·1090	12. 29	·02450	9. 0	76·0	77·0	1. 23	51. 25			11. 15	·02405	22. 6	66·7	67·2
1. 53	52. 5	0. 50	·1094	14. 16	·02640	18. 30	67·8	69·0	1. 57	52. 35			12. 45	{ ·02520 / ·02540 }			
2. 9	52. 0	1. 21	·1078	14. 57	·02755	Min.	65·2	64·7	2. 28	52. 35			14. 45	·02730			
2. 44	48. 45	1. 39	·1091	18. 53	·03006	21. 0	66·8	67·6	2. 40	51. 45			16. 3	·02920			
3. 18	48. 30	2. 0	·1074	23. 23	·03155				2. 52	52. 10			20. 33	·03190			
3. 29	49. 0	2. 13	·1082	23. 59	·03135				3. 8	50. 35			22. 41	·03228			
3. 48	48. 10	2. 20	·1081						3. 27	50. 40			23. 15	·03220			
4. 22	47. 50	2. 38	·1086						3. 54	48. 40			23. 59	·03177			
4. 33	48. 20	2. 50	·1083						4. 15	49. 0							
4. 45	47. 20	3. 0	·1076						4. 27	47. 55							
4. 56	47. 50	3. 12	·1079						4. 37	48. 10							
5. 7	46. 55	3. 20	·1078						5. 15	47. 0							
5. 19	47. 35	3. 37	·1080						5. 45	42. 5							
6. 24	45. 30	3. 45	·1076							***							
6. 37	46. 25	3. 57	·1080						7. 9	46. 0							
6. 46	44. 50	4. 13	·1078							***							
7. 0	44. 25	4. 32	·1084						8. 22	46. 40							
7. 10	40. 30	4. 58	·1077						8. 44	45. 5							
7. 28	44. 10	5. 16	·1088						9. 8	47. 5							
7. 38	42. 0	5. 27	·1084						9. 22	45. 10							
7. 50	44. 0	5. 37	·1088						9. 46	44. 0							
	***	5. 47	·1087						10. 11	45. 40							
9. 18	45. 10	6. 17	·1089						10. 18	45. 35							
10. 0	44. 45	6. 28	·1093						10. 32	49. 30							
10. 12	44. 0	7. 0	·1080						10. 40	48. 35							
	***	7. 14	·1101						10. 47	49. 0							
13. 2	43. 25	7. 29	·1091						10. 53	48. 20							
13. 25	43. 45	7. 42	·1098						11. 7	49. 0							
13. 41	46. 15	7. 53	·1093						11. 26	46. 0							
13. 48	45. 0	8. 37	·1084						11. 41	46. 15							
14. 5	47. 45		(†)						11. 53	45. 0							
15. 10	44. 25	9. 0	·1087*						12. 27	44. 30							
	***	21. 0	·1080*						12. 34	46. 5							
16. 24	42. 40								12. 58	44. 35							
16. 50	41. 30								13. 17	45. 55							
16. 58	42. 50								13. 57	44. 30							
17. 36	40. 25								15. 29	48. 5							
17. 46	41. 40								15. 47	48. 0							
18. 50	39. 45								16. 23	44. 0							
19. 9	41. 15								16. 56	42. 0							
19. 30	43. 0								17. 5	43. 25							
19. 47	42. 5								17. 15	41. 30							
20. 21	42. 20								17. 29	42. 35							
20. 48	43. 40								17. 36	41. 50							
20. 55	43. 20								17. 57	42. 0							
21. 6	44. 45								18. 2	41. 10							
21. 21	44. 15								18. 13	42. 20							
21. 52	45. 45								18. 37	41. 15							
22. 14	46. 15								19. 20	42. 40							
23. 59	51. 5								19. 37	41. 0							
									19. 56	41. 40							
July 11		July 11		July 11		July 11			20. 7	43. 5							
0. 0	20. 51. 5	1. 0	·1085*	0. 0	·03135	1. 0	71·3	71·8	20. 16	42. 20							
0. 20	51. 40	3. 0	·1092*	1. 21	·03000	3. 0	74·1	74·0	20. 58	43. 55							

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
July 11								
h m	o ′ ″	h m		h m		h m	o	o
21. 23	20. 45. 30							
21. 55	45. 55							
23. 14	50. 45							
23. 32	51. 0							
23. 59	51. 55							
July 12		July 12		July 12		July 12		
0. 0	20. 51. 55	0. 0	(†)	0. 0	·03177	1. 0	70·9	71·0
0. 21	52. 15	1. 8	·1076	0. 55:	·03100	Max.	82·0	80·8
0. 30	51. 30	1. 21	·1077	1. 43	·02980	8. 30	79·0	77·7
0. 59	52. 30	1. 29	·1073	4. 10	·02370	18. 0	70·7	71·5
2. 8	51. 15	1. 57	·1075	9. 11:	·02135	Min.	67·8	67·6
2. 15	51. 30	2. 24	·1085	13. 34	{·02375 / ·02397}	21. 0	69·0	70·0
3. 4	49. 30	2. 45	·1086	17. 24	·02925			
4. 6	49. 25	3. 10	·1083	19. 48	·03040			
5. 15	48. 0	3. 48	·1083	22. 56	{·03100 / ·03080}			
6. 41	45. 25	4. 6	·1084	23. 37	{·03100 / ·03040}			
7. 22	45. 25	4. 26	·1081	23. 59	·03050			
7. 44	46. 30	5. 17	·1081					
8. 45	45. 0	5. 31	·1085					
9. 15	46. 25	5. 44	·1084					
9. 27	45. 50	6. 10	·1088					
10. 17	46. 35	6. 23	·1086					
10. 28	45. 55	6. 38	·1088					
10. 44	46. 45	6. 53	·1088					
11. 3	46. 0	7. 10	·1091					
11. 48	47. 25	7. 21	·1089					
13. 52	46. 0	7. 30	·1090					
14. 0	47. 0	8. 17	·1086					
14. 14	45. 35	8. 28	·1089					
16. 22	44. 40	8. 45	·1082					
16. 36	46. 25	9. 6	·1088					
16. 50	44. 25	9. 38	·1086					
17. 33	43. 15	10. 33	·1089					
17. 47	44. 30	10. 51	·1086					
17. 53	43. 40	11. 2	·1088					
18. 1	45. 10	11. 28	·1087					
18. 18	44. 0	11. 38	·1089					
19. 5	43. 0	12. 22	·1087					
20. 10	42. 25	13. 12	·1092					
20. 17	42. 55	13. 24	·1090					
20. 23	42. 10	16. 15	·1094					
20. 55	43. 50	16. 54	·1093					
22. 15	46. 55	17. 8	·1093					
22. 50	49. 10	17. 29	·1090					
22. 57	48. 55	18. 11	·1096					
23. 15	50. 0	20. 39	·1094					
23. 52	50. 0	20. 58	·1098					
23. 59	50. 35	22. 32	·1097					
		22. 51	·1104					
		23. 29	·1099					
		23. 59	·1102					
July 13		July 13		July 13		July 13		
0. 0	20. 50. 35	0. 0	·1102	0. 0	·03050	1. 0	70·0	70·0
0. 53	52. 45	0. 17	·1102	2. 46	{·02980 / ·02860}	3. 0	71·5	71·5
1. 7	51. 50	0. 29	·1093	7. 32:	·02580	6. 0	72·4	73·0
1. 47	53. 10	1. 0	·1093			Max.	75·5	76·5

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
July 13		July 13		July 13		July 13		
h m	o ′ ″	h m		h m		h m	o	o
2. 9	20. 52. 30	1. 44	·1094	10. 26	·02760	9. 0	70·9	72·0
2. 18	52. 55	2. 48	·1095	13. 5	·02945	18. 0	64·4	65·7
2. 45	51. 55	3. 14	·1086	14. 0	·03053	Min.	62·2	60·4
3. 58	50. 30	3. 52	·1094	16. 26	{·03043 / ·03000}	21. 0	63·8	63·3
4. 10	51. 5	4. 1	·1093					
4. 53	47. 30	4. 41	·1088	18. 9	{·03147 / ·03c50}			
5. 19	48. 30	5. 52	·1091					
6. 12	46. 50	6. 9	·1096	19. 25	{·03194 / ·03100}			
	***	6. 53	·1097					
8. 0	47. 40	7. 5	·1098	20. 38	{·03243 / ·03160}			
	***	7. 27	·1096					
9. 11	47. 0	7. 40	·1096	21. 8	{·03200 / ·02824}			
10. 8	46. 15	8. 1	·1101					
11. 35	46. 20	10. 34	·1102	23: 19	{·02840 / ·03170}			
11. 56	47. 30	10. 46	·1104	23. 59	·03180			
12. 3	47. 10	11. 12	·1102					
12. 36	48. 5	11. 53	·1105					
13. 43	47. 5	13. 37	·1103					
13. 53	47. 50	14. 1	·1106					
14. 36	47. 10	14. 22	·1102					
15. 1	50. 0	15. 30	·1102					
15. 28	47. 5	16. 37	·1107					
16. 5	46. 55	18. 41	·1099					
16. 27	45. 0	20. 5	·1088					
16. 44	44. 40	21. 7	·1084					
17. 28	42. 35	22. 12	·1086					
18. 50	42. 30	22. 38	·1090					
19. 14	41. 10	23. 0	·1093					
19. 40	42. 15	23. 25	·1096					
20. 6	41. 25	23. 59	·1099					
20. 28	42. 10							
20. 57	39. 55							
23. 20	49. 20							
23. 59	51. 5							
July 14		July 14		July 14		July 14		
0. 0	20. 51. 5	0. 0	·1099	0. 0	·03180	1. 0	66·9	66·6
0. 9	51. 15	1. 25	·1101	1. 0	{·03153 / ·03164}	3. 0	70·0	70·0
1. 6	51. 20	1. 53	·1094			6. 0	73·1	73·3
1. 34	51. 50	2. 16	·1095	2. 19	·03060	Max.	74·7	75·0
2. 53	50. 25	2. 36	·1093	2. 58	{·02980 / ·02940}	9. 0	74·0	74·0
3. 5	50. 45	2. 55	·1101			18. 0	68·0	68·2
3. 18	49. 40	3. 19	·1097	6. 52	·02570	Min.	63·6	62·8
3. 42	49. 50	4. 8	·1115	9. 15	·02460	21. 0	65·6	66·6
3. 52	50. 40	4. 43	·1119	13. 45:	·02540	22. 30	66·0	66·5
5. 10	48. 50	5. 1	·1115	18. 15	·03120	23. 0	66·3	66·7
5. 44	49. 0	5. 12	·1118	21. 21	{·03325 / ·03297}			
5. 58	48. 15	5. 26	·1115	23. 59	·03320			
6. 16	48. 45	5. 32	·1118					
6. 42	48. 10	6. 23	·1117					
7. 10	43. 10	6. 53	·1112					
7. 43	47. 5	7. 8	·1120					
8. 17	47. 55	7. 19	·1117					
8. 32	47. 15	8. 38	·1108					
9. 19	48. 0	9. 12	·1112					
9. 30	47. 0	9. 34	·1110					
9. 44	47. 25	11. 2	·1112					
10. 35	46. 25	11. 33	·1115					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
July 14		July 14						
h m	° ′ ″	h m		h m		h m	°	°
11.22	20.47.30	11.59	·1112					
11.46	45.50	12.40	·1118					
12. 0	48.35	14.51	·1110					
12.18	49.20	15. 7	·1113					
13. 6	48. 5	15.31	·1111					
13.30	44.55	16.23	·1111					
14.24	42.40	17.15	·1118					
14.33	41.15	19. 6	·1114					
***		19.15	·1111					
15.14	41.30	19.42	·1108					
***		20.45	·1110					
16. 2	40.30	21. 8	·1107					
16.21	44.20	21.43	·1108					
17. 2	45.15	21.49	·1108					
17.40	42.50	22.29	·1110					
18.13	42.40	22.41	·1107					
18.28	44. 0	23.20	·1106					
19.23	43.55	23.30	·1110					
19.47	41.55	23.44	·1105					
20.33	44.25	23.55	·1109					
21.40	46. 5	23.59	·1106					
22.56	49.55							
23. 1	49.25							
23.53	50.25							
23.59	51.10							
July 15		July 15		July 15		July 15		
0. 0	20.51.10	0. 0	·1106	0. 0	·03320	0. 0	67·5	68·0
0.18	53. 5	0.23	·1106	1.46:	·03155	1. 0	69·0	69·1
0.32	52.35	0.38	·1104	3. 5	{·02793	2. 0	71·0	71·3
***		1.29	·1119		·02700}	3. 0	72·9	73·4
1.18	53.45	1.58	·1138	3.52:	·02495	6. 0	77·0	77·2
1.45	53.15	2. 6	·1135	4.40	·02420	Max.	79·8	79·0
2.41	50.40	2.12	·1139	8.19	·02120	9. 0	77·4	78·0
2.47	51.45	***		9.46	·02090	12. 0	77·2	77·8
3. 0	50.40	2.52	·1152	9.59	·02060	18.10	70·5	71·4
3.27	51.30	3.11	·1154	11. 3	·02023	Min.	67·0	68·0
3.51	50. 5	3.22	·1160	12. 5	·02040	21. 0	68·8	69·2
4.17	50. 0	3.32	·1158	12.22	·02078	22. 0	68·9	69·0
4.31	50.55	4.15	·1156	13. 3	·02060	23. 0	68·9	69·0
4.57	49. 0	4.28	·1160	13.22	·02074			
5. 9	39.40	5. 0	·1151	13.35	·02055			
5.29	48.50	5.42	·1145	14. 7	·02060			
6.18	48.30	6.13	·1151	14.41	·02158			
6.49	47.30	6.44	·1151	15.15:	·02180			
7. 0	48. 0	7. 0	·1157	15.39	·02280			
8. 9	47.30	7. 6	·1155	15.57	·02284			
9. 2	43.15	7.15	·1158	16. 9	·02360			
9.27	46. 0	7.38	·1150	16.24	·02390			
9.40	50.25	7.45	·1150	17. 4	·02540			
10.11	39.10	7.54	·1142	17.18	·02555			
10.37	47. 0	8.21	·1138	17.46:	·02620			
10.47	45. 0	8.31	·1135	18.28	·02640			
11. 0	36.55	9. 2	·1137	19.33	·02770			
11.30	36.40	9.15	·1160	23.59	·02920			
11.39	37.25	9.23	·1152					
11.43	36.55	9.36	·1163					
11.48	37.45	9.47	·1151					

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
July 15		July 15						
h m	° ′ ″	h m		h m		h m	°	°
12. 0	20.33.25	9.56	·1158					
12. 8	32.50	10. 3	·1170					
12.12	33.50	10.16	·1168					
12.28	29.10	10.35	·1126					
12.33	29.55	10.40	·1133					
12.51	27.30	10.51	·1116					
12.57	28. 5	10.59	·1126					
13.18	37.40	11. 8	·1116					
13.34	32.25	11.15	·1119					
13.45	38. 0	11.20	·1116					
14. 7	30. 5	11.38	·1113					
14.29	45.35	11.45	·1121					
14.41	38. 5	12. 0	·1104					
14.52	41.35	12.11	·1125					
15. 3	37. 0	12.38	·1121					
15.21	39.15	13. 0	·1097					
15.46	50.25	13. 6	·1102					
16. 0	58.30	13.12	·1098					
16.15	54. 5	13.26	·1104					
16.26	58.50	13.35	·1102					
16.38	20.54.15	13.47	·1113					
16.49	21. 0.10	14.25	·1075					
16.57	20.56.15	14.47	·1096					
***		14.53	·1094					
17.20	53. 0	14.58	·1098					
17.32	58. 5	15.20	·1094					
17.38	56.10	15.30	·1099					
17.40	57. 5	15.53	·1068					
17.45	20.55.15	16. 9	·1085					
17.57	21. 2.15	16.17	·1084					
18.10	20.59.20	16.32	·1096					
18.38	48.10	17. 0	·1090					
***		17.28	·1070					
19. 4	47.45	17.40	·1072					
19.22	44. 5	17.51	·1068					
19.40	46.55	18.11	·1083					
19.54	47. 0	18.38	·1082					
20.20	51. 5	18.56	·1088					
20.30	50.20	19. 7	·1084					
20.38	51.35	19.45	·1077					
20.45	50. 5	19.59	·1060					
21.10	50.45	20.23	·1057					
21.29	53. 0	20.51	·1069					
22.47	52. 0	21.13	·1061					
23.54	54.35:	21.28	·1063					
23.59	54.30	21.46	·1068					
		21.54	·1066					
		23. 7	·1083					
		23.38	·1077 (†)					
July 16		July 16	(†)	July 16		July 16		
0. 0	20.54.30	1. 0	·1088*	0. 0	·02920	0. 0	69·7	69·8
0.19	56.15	3. 0	·1117*	1.46	·02960	1. 0	69·5	69·7
1. 1	52.15	3.28	·1106	3.46	·03060	2. 0	69·0	69·2
1.30	53. 0	3.52	·1117	4.49	·03040	3. 0	69·9	69·7
1.37	54.30	4.11	·1101	7.41:	·02895	6. 0	70·3	71·0
1.59	53.10			10. 4	·03010	Max.	70·8	71·0

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

July 16. The registers of both Declination and Horizontal Force were lost from 16ʰ to 23ʰ.

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet.	Of V.F. Magnet.
July 16		July 16		July 16		July 16			July 17		July 17						
h m	o ′ ″	h m		h m		h m	o	o	h m	o ′ ″	h m						
2. 8	20. 53. 55	4. 23	.1106	13. 57	.03135	9. 0	69 .0	69 .7	4. 53	20. 45. 30	3. 54	.1120					
2. 22	50. 40	4. 44	.1098	17. 55	{ .03327 / .03230 }	18. 0	60 .9	62 .5	5. 25	45. 35	4. 0	.1134					
2. 33	52. 10	5. 0	.1108			Min.	57 .8	57 .4	5. 32	46. 30	4. 25	.1109					
2. 47	49. 50	5. 40	.1113	19. 7	{ .03345 / .03280 }	21. 0	59 .8	60 .2	5. 38	45. 30	4. 47	.1114					
3. 10	51. 0	5. 49	.1114						5. 44	46. 20	4. 57	.1110					
3. 37	50. 15	6. 31:	.1122	20. 15	{ .03365 / .03300 }				5. 51	44. 40	5. 10	.1120					
3. 52	51. 25	6. 53	.1118						5. 58	45. 45	5. 21	.1118					
4. 3	50. 30		***						6. 30	45. 35	5. 32	.1124					
4. 23	51. 50	7. 38	.1118	21. 32	{ .03363 / .03300 }				6. 38	46. 30	5. 38	.1137					
4. 43	49. 25	7. 42	.1121						6. 54	46. 15	5. 45	.1126					
5. 17	49. 30	7. 56	.1117	22. 15	.03340				7. 15	44. 50	5. 51	.1127					
6. 48	47. 50	8. 7	.1120	22. 55	{ .03320 / .03270 }				7. 55	47. 25	5. 57	.1119					
7. 32	47. 50	8. 34	.1116						8. 1	46. 10	6. 9	.1114					
8. 16	49. 50	8. 46	.1118	23. 59	.03265				8. 33	46. 30	6. 24	.1119					
9. 55	46. 45	9. 8	.1116						8. 43	44. 35	6. 38	.1138					
10. 26	47. 10	9. 32	.1115						9. 20	46. 0	6. 44	.1131					
10. 56	45. 40	9. 51	.1116						10. 23	45. 10	6. 59	.1134					
11. 23	46. 10	10. 1	.1114						11. 8	47. 0	7. 6	.1110					
12. 44	45. 0	10. 26	.1120						11. 39	43. 45	7. 22	.1134					
13. 15	48. 30	10. 45	.1119						11. 58	43. 0	7. 29	.1127					
13. 37	45. 55	11. 19	.1124						12. 13	39. 55	7. 43	.1130					
13. 53	45. 35	11. 50	.1119						12. 29	41. 10	8. 3	.1114					
14. 4	43. 45	12. 32	.1124						12. 40	38. 55	8. 21	.1129					
14. 36	45. 10	13. 10	.1117						13. 18	45. 50	8. 37	.1110					
15. 30	44. 40	13. 47	.1124						13. 34	44. 10	8. 46	.1119					
15. 43	44. 5	13. 56	.1123						13. 45	46. 45	9. 21	.1112					
15. 58	44. 35	14. 47	.1121							***	9. 37	.1115					
	(†)	14. 54	.1124						14. 16	46. 40	9. 43	.1119					
21. 0	52. 51*	15. 8	.1122						15. 0	43. 55	9. 49	.1119					
23. 17	52. 35	15. 54	.1124						15. 37	44. 25	9. 55	.1123					
23. 23	53. 0		(†)						15. 52	43. 15	10. 6	.1121					
23. 27	52. 35	21. 0	.1107*						16. 0	45. 0	10. 20	.1122					
23. 37	56. 40	23. 29	.1117						16. 7	43. 20	10. 24	.1126					
23. 48	54. 35	23. 38	.1120							***	10. 35	.1125					
23. 53	55. 10	23. 45	.1133						16. 48	40. 45	10. 47	.1134					
23. 59	55. 0	23. 59	.1110						17. 29	40. 5	10. 53	.1132					
										***	11. 1	.1137					
July 17		July 17		July 17		July 17			18. 17	41. 35	11. 15	.1122					
0. 0	20. 55. 0	0. 0	.1110	0. 0	.03265	1. 0	62 .0	62 .7	18. 30	40. 5	11. 34	.1133					
0. 10	54. 20	0. 17	.1112	2. 55:	.03023	3. 0	64 .7	65 .5	18. 37	41. 40	11. 48	.1127					
0. 38	54. 55	0. 43	.1117	4. 53	.02630	Max.	69 .6	69 .5	18. 49	40. 35	11. 53	.1130					
0. 50	54. 35	0. 54	.1116	7. 3	.02490	9. 0	68 .8	69 .5	19. 7	43. 10	12. 6	.1125					
1. 23	54. 0	1. 2	.1122	9. 55	.02410	18. 0	61 .8	63 .0	19. 17	41. 35		***					
1. 30	55. 30	1. 23	.1122	14. 34:	.02660	Min.	58 .8	58 .2	19. 35	41. 20	13. 30	.1127					
1. 38	54. 35	1. 28	.1125	18. 37	.03270	21. 0	60 .5	61 .3		***	14. 0	.1123					
1. 45	55. 25	1. 33	.1119	21. 8	{ .03380 / .03180 }				20. 37	43. 5	14. 40	.1131					
1. 56	55. 5	1. 43	.1130						20. 48	41. 20		***					
2. 1	54. 0	1. 50	.1128	23. 59	.03300				21. 23	43. 0	15. 1	.1128					
2. 24	54. 20	2. 6	.1126						21. 31	44. 50		***					
2. 31	52. 35	2. 20	.1107						21. 44	43. 0	16. 0	.1125					
	***	2. 25	.1115						22. 0	45. 25	16. 8	.1129					
2. 54	53. 35	2. 30	.1113						22. 6	45. 15	16. 14	.1126					
3. 31	49. 20	2. 37	.1120						22. 22	48. 0	16. 26	.1129					
3. 40	50. 55	2. 43	.1112						22. 33	46. 40	17. 18	.1134					
3. 48	39. 40		***						23. 15	47. 40	18. 50	.1130					
3. 53	51. 10	3. 7	.1124						23. 24	49. 10	19. 0	.1126					
4. 20	45. 35	3. 38	.1107						23. 44	51. 5	19. 24	.1124					
4. 38	46. 25	3. 49	.1118						23. 50	50. 5	19. 34	.1121					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left section

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
July 17		July 17						
h m	° ′ ″	h m		h m		h m	°	°
23.59	20.51. 0	19.43	·1122					
		20. 1	·1117					
		20. 8	·1118					
		20.21	·1115					
		20.43	·1116					
		20.56	·1111					
		21.34	·1116					
		21.51	·1106					
		22.25	·1117					
		22.36	·1111					
			(†)					
July 18		July 18		July 18		July 18		
0. 0	20.51. 0		(†)	0. 0	·03300	1. 0	61·0	61·5
0.12	51.50	1. 0	·1094*	1. 2 {·03327		3. 0	61·9	62·5
0.19	51. 0	3. 0	·1135*	·03240		Max.	63·7	64·2
0.38	53.15	3.24	·1137	*** }		9. 0	63·5	64·2
0.58	52. 5	3.42	·1127	3.10	·03330	Min.	53·7	53·0
1.10	55.10	3.53	·1134	6.10	·03170	22.30	56·1	56·5
1.24	20.54.20	4. 6	·1126	7. 7	·03180			
1.39	21. 0. 0	4.14	·1131	7.55	·03100			
1.45	20.59.20	4.23	·1126	10.26	·03010			
1.53	59.50	4.38	·1135	11.38	·03035			
2. 1	55.30	4.43	·1133	15.18 {·03295				
2. 8	58.25	4.53	·1135	·03100				
2.11	20.57.25	5. 4	·1130	17. 2 {·03292				
2.16	21. 5.35	5.22	·1134	·03237				
2.30	20.52.20	5.32	·1128	18.13 {·03312				
2.35	20.56.55	5.40	·1132	·03250				
2.43	21. 3.15	5.53	·1122	19.19 {·03342				
2.55	20.59.55	6.11	·1142	·03310				
2.57	21. 2.20	6.23	·1130	20.20 {·03400				
3. 9	20.56.35	6.34	·1134	·03350				
3.33	55. 0		(†)	20.33	·03357			
3.40	56.55	7.33	·1146	20.50	·03395			
3.50	56.10	7.50	·1128	21. 7	·03390			
3.59	57.40	7.58	·1134	21.15	·03385			
4.34	53.15	8. 2	·1125	21.49 {·03395				
4.43	53.25		(†)	·03360				
5.27	51.55	8.41	·1129	22.27	·03320			
5.38	52.25	9.46	·1126	23. 5	·03340			
5.58	50.10	9.59	·1130	23.34	·03295			
6. 7	51.25	10.40	·1127	23.59	·03293			
6.29	50. 0	10.51	·1130					
6.45	43.20	11.19	·1121					
6.53	42.25	11.34	·1128					
7. 7	34. 0	11.40	·1121					
7.18	37.35	11.52	·1123					
7.34	43.35	12.10	·1116					
7.41	41.40	12.26	·1128					
7.54	44.30	12.33	·1124					
8.11	42.20	12.51	·1121					
8.27	44.30	13. 0	·1126					
8.31	47.15	13.15	·1122					
8.42	47.45	13.22	·1127					
9. 0	49.35	13.28	·1125					
9.39	45.55	13.51	·1127					
9.48	47.10	13.53	·1127					

Right section

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
July 18		July 18						
h m	° ′ ″	h m		h m		h m	°	°
10. 1	20.47. 0	14. 6	·1124					
10.18	43.45	14.28	·1123					
10.39	42.25		(†)					
10.49	44.30	22.30	·1082*					
11. 7	43.50	23. 8	·1097					
11.17	45.25	23.18	·1113					
11.55	43.45	23.29	·1099					
	***	23.41	·1102					
12.18	47. 5	23.59	·1111					
13. 3	47.25							
13.13	38.40							
	***							
13.41	47. 0							
13.54	47.30							
14.11	45.20							
14.19	47.25							
14.29	48.30							
	(†)							
22.14	46.30							
	***							
22.41	49.55							
23. 0	50. 0							
23.13	48.15							
23.15	49.55							
23.24	48.40							
23.53	49.50							
23.59	49.10							
July 19		July 19		July 19		July 19		
0. 0	20.49.10	0. 0	·1111	0. 0	·03293	0. 0	58·0	58·0
0. 8	50.25	0. 8	·1109	1.54	·03164	Max.	68·8	68·7
	***	0. 9	·1121	4.30	·02870	9.18	68·0	68·3
0.46	52.55	0.14	·1114	11.11	·02503	18. 0	62·5	63·1
1. 2	52.10	0.44	·1104	12.27	·02570	Min.	60·0	59·5
1.20	53. 0	0.53	·1107	13.22	·02558	21. 0	61·5	61·9
2. 0	51.35	1. 7	·1106	14.23	·02660			
2.51	50.35	1.32	·1115	15.12	·02660			
3.13	51.20	1.44	·1114	17. 7	·02827			
4.28	49.10	1.53	·1118	19.59	·03192			
4.37	49.40	2. 8	·1117	21. 8 {·03232				
4.52	48.15	2.14	·1127	·03195				
5. 2	48.30	2.18	·1119	21.50	·03210			
5.30	47.55	2.23	·1121	23.59	·03260			
5.43	49.55	2.36	·1117					
5.54	46.15	2.38	·1124					
6. 8	45. 0		***					
6.22	46.10	3. 2	·1113					
7. 7	40.45	3.13	·1116					
7.37	46. 0	3.21	·1108					
7.49	46.30	3.23	·1113					
8. 0	42.15		***					
8.27	43.40	3.39	·1114					
8.53	46.40	3.46	·1113					
9. 5	46. 5	4. 7	·1114					
	***	4.15	·1118					
9.39	47. 0	4.31	·1111					
9.49	44.15	4.43	·1126					
9.54	44.30	4.58	·1109					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

July 18. The photographic trace of the Declination Magnet was lost from 14^h. 29^m. to 22^h. 14^m, and that of the Horizontal Force Magnet from 14^h. 29^m. to 23^h. 0^m.

Left panel:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
July 19		July 19						
h m	o ′ ″	h m		h m		h m	o	o
10. 3	20. 40. 25	5. 7	·1117					
10. 22	45. 30	5. 15	·1118					
10. 28	47. 40	5. 24	·1111					
10. 33	47. 10	5. 38	·1117					
10. 39	48. 35	5. 49	·1135					
10. 58	45. 30	6. 12	·1107					
11. 10	45. 55	6. 23	·1120					
11. 22	44. 0	6. 51	·1108					
11. 33	41. 20	7. 4	·1114					
11. 53	40. 25	7. 16	·1125					
12. 23	44. 20	7. 38	·1129					
12. 35	48. 5	8. 0	·1119					
12. 57	46. 30	8. 14	·1119					
13. 13	49. 5	8. 19	·1116					
13. 30	47. 15	8. 50	·1121					
13. 51	46. 40	9. 1	·1118					
14. 2	48. 30	9. 19	·1126					
14. 12	48. 20	9. 53	·1127					
14. 39	51. 15	10. 6	·1139					
14. 48	51. 15	10. 10	·1135		•			
15. 0	55. 0	10. 15	·1137					
15. 12	54. 45	10. 23	·1131					
15. 32	51. 30	10. 34	·1132					
***		10. 39	·1139					
16. 10	49. 30	10. 44	·1129					
***		10. 58	·1124					
16. 43	50. 55	11. 11	·1124					
16. 56	48. 30	11. 41	·1105					
17. 10	47. 35	11. 57	·1104					
17. 19	44. 30	12. 7	·1108					
***		12. 35	·1110					
18. 10	39. 25	12. 41	·1112					
18. 29	50. 0	12. 52	·1108					
18. 33	49. 15	13. 16	·1116					
18. 38	50. 55	13. 29	·1108					
18. 53	52. 30	13. 37	·1112					
19. 12	51. 40	13. 54	·1109					
19. 22	49. 0	14. 27	·1112					
19. 38	49. 20	14. 36	·1115					
19. 45	47. 5	14. 46	·1110					
20. 15	47. 10	14. 59	·1107					
20. 23	45. 45	15. 32	·1106					
20. 32	46. 50	15. 51	·1118					
20. 56	44. 5	16. 23	·1121					
21. 9	47. 30	16. 33	·1115					
21. 23	47. 15	16. 53	·1116					
21. 40	48. 55	17. 9	·1123					
21. 53	46. 15	17. 27	·1117					
22. 10	51. 35		***					
22. 22	50. 5	18. 29	·1110					
***		19. 19	·1086					
22. 53	52. 0	19. 38	·1097					
23. 21	51. 0	20. 8	·1104					
23. 54	53. 5	20. 35	·1105					
23. 59	53. 0	20. 46	·1100					
			***					
		21. 10	·1101					
		21. 19	·1093					

Right panel:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
h m	o ′ ″	July 19						
		h m		h m		h m	o	o
		21. 21	·1092					
		21. 35	·1085					
		21. 53	·1051					
		22. 28	·1083					
		22. 35	·1077					
		23. 12:	·1092					
		23. 37	·1094					
		23. 51	·1087					
		23. 59	·1093					
July 20		July 20		July 20		July 20		
0. 0	20. 53. 0	0. 0	·1093	0. 0	·03260	1. 0	63·3	63·3
0. 8	53. 30	0. 9	·1092	0. 55	·03290	3. 0	64·9	64·8
0. 23	51. 5		(†)	4. 27	·03000	Max.	68·4	69·0
0. 29	52. 10	1. 0	·1097*	7. 16	·02640	9. 0	68·2	69·0
0. 39	52. 15	1. 23	·1110	9. 55	·02550	18. 0	61·2	61·9
0. 44	51. 20	1. 29	·1108	12. 18	·02630	Min.	58·6	58·3
0. 54	53. 25	1. 40	·1112	15. 40	·02980	21. 0	60·0	60·5
1. 5	51. 20	1. 52	·1106	17. 27	·03240			
1. 41	52. 30	1. 59	·1111	18. 26	{·03297 / ·03260}			
1. 53	51. 35	2. 14	·1112	20. 22	·03360			
2. 29	52. 5	2. 23	·1116	23. 59	·03360			
2. 39	51. 25	2. 41	·1118					
2. 50	52. 10	2. 53	·1127					
3. 6	49. 35	3. 6	·1120					
3. 20	50. 50	3. 23	·1121					
3. 26	50. 25	3. 36	·1118					
3. 54	51. 25	3. 42	·1106					
4. 2	49. 30	3. 53	·1120					
4. 18	49. 0	4. 4	·1112					
4. 25	45. 5	4. 16	·1128					
4. 32	44. 35	4. 23	·1108					
4. 43	45. 30	4. 47	·1125					
4. 51	47. 5	4. 59	·1111					
5. 0	45. 40	5. 16	·1134					
5. 8	46. 50	5. 31	·1126					
5. 48	46. 20	5. 41	·1125					
5. 54	45. 30	5. 52	·1118					
6. 8	47. 5	6. 0	·1128					
6. 15	46. 5	6. 13	·1120					
6. 53	47. 0	6. 30	·1118					
7. 13	46. 20	6. 37	·1121					
7. 26	47. 30	6. 55	·1118					
7. 38	47. 25	7. 2	·1123					
8. 0	46. 5	7. 17	·1123					
8. 22	46. 30	7. 31	·1118					
8. 50	45. 20	8. 0	·1123					
9. 23	46. 50	8. 22	·1118					
9. 42	49. 5	8. 31	·1118					
10. 0	45. 45	8. 46	·1121					
10. 8	44. 50	8. 53	·1126					
10. 28	42. 35	9. 18	·1119					
10. 55	46. 0	9. 27	·1125					
11. 3	44. 35		***					
11. 13	46. 0	10. 8	·1127					
11. 24	44. 35	10. 25	·1120					
11. 37	45. 5	10. 38	·1126					
12. 8	50. 40	10. 45	·1123					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers	
							OfH.F. Magnet	OfV.F. Magnet
July 20		July 20						
h m	o ′ ″	h m		h m		h m	o	o
12.30	20. 46. 50	10.53	·1124					
12.38	48. 10	11. 1	·1120					
13.15	46. 0	11.11	·1126					
	***	11.25	·1122					
14.47	45.35	12.10	·1128					
14.58	47. 5	12.23	·1123					
15.14	45.30	12.44	·1127					
15.23	46.50	13. 1	·1120					
15.46	45.25	14.15	·1120					
16.10	46.10	14.36	·1124					
16.32	44.30	15. 4	·1127					
17. 3	45.10	15.15	·1124					
17.53	43. 5	15.36	·1127					
18. 6	44. 5	16. 0	·1124					
18.15	42.55	16.22	·1122					
18.45	43.50		***					
18.52	45. 0	17.45	·1124					
19. 3	42.30	18.15	·1120					
	***	18.25	·1122					
19.31	47. 0	18.46	·1116					
19.46	45.50	18.54	·1119					
20.12	46.40	19.14	·1109					
20.26	46.20	19.38	·1107					
20.30	44.10	20. 2	·1093					
20.47	47. 0	20.22	·1097					
20.53	46.30	21. 5	·1088					
20.58	48.30	21.23	·1090					
21.16	48.25	21.39	·1094					
21.26	49.35	21.57	·1102					
21.50	49.55	22. 0	·1094					
22. 2	48.55	22.36	·1098					
22.23	49.55	22.56	·1082					
22.43	50. 5	23. 2	·1082					
22.52	51.10	23.21	·1081					
23.59	52.25	23.30	·1082					
		23.43	·1081					
		23.52	·1083					
		23.59	·1083					
July 21		July 21		July 21		July 21		
0. 0	20. 52.25	0. 0	·1083	0. 0	·03360	1. 0	61 ·9	62 ·0
0. 7	51.40	0.28	·1085	1. 8	{ ·03330 / ·03150	3. 0	62 ·6	62 ·8
0.43	52.35	1. 9	·1095	5.30	·03053	6. 0	64 ·0	64 ·4
0.55	52. 0	1.23	·1092	11.52	·02827	Max.	64 ·7	65 ·2
1.23	52. 0	1.38	·1103	17.14	{ ·02900 / ·02760	9. 0	64 ·7	65 ·2
1.31	52.30	1.47	·1094			18. 0	64 ·0	64 ·5
1.45	51.10	1.55	·1103	18.29	{ ·02817 / ·02880	Min.	62 ·4	62 ·2
1.54	51.55	2. 6	·1095			21. 0	64 ·0	64 ·0
2. 8	50.40	2.23	·1103	19.57	{ ·02900 / ·02810	22. 0	65 ·0	65 ·1
2.14	52. 5	2.48	·1092	23.59	·02783	23. 0	65 ·2	65 ·7
2.23	51.10	3. 8	·1096					
2.37	51.55	3.26	·1088					
3. 6	51. 0		***					
3.21	51.30	4. 8	·1092					
3.43	49.50	4.19	·1089					
3.54	50.35	4.53	·1094					
4. 7	48.25	5.15	·1108					
4.16	47.45	5.23	·1106					

Right panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers	
							OfH.F. Magnet	OfV.F. Magnet
July 21		July 21						
h m	o ′ ″	h m		h m		h m	o	o
4. 22	20. 48. 40	5. 30	·1112					
5. 8	47. 50	5. 38	·1110					
5. 23	48. 5	6. 15	·1108					
5. 28	49. 25	6. 38	·1115					
5. 37	48. 35	6. 48	·1107					
5. 44	49. 10	7. 6	·1125					
6. 7	49. 0	7. 20	·1116					
6. 15	48. 0	7. 33	·1114					
6. 46	47. 40	7. 46	·1115					
7. 11	45. 0	8. 24	·1101					
7. 22	47. 0	8. 32	·1103					
7. 38	46. 30	9. 11	·1099					
7. 46	44. 35	9. 17	·1100					
8. 1	45. 30	9. 32	·1097					
8. 16	43. 25	9. 49	·1100					
8. 30	44. 20	10. 0	·1096					
8. 38	42. 45	10. 36	·1107					
8. 57	44. 25	11. 7	·1097					
9. 8	43. 40	11. 28	·1104					
9. 17	44. 55	11. 51	·1096					
9. 43	45. 0	12. 5	·1095					
10. 5	47. 25	12. 23	·1091					
10. 16	46. 30	12. 47	·1094					
10. 22	46. 55	13. 2	·1091					
10. 38	45. 5	13. 17	·1094					
10. 46	46. 30	14. 8	·1090					
11. 4	44. 35	14. 43	·1090					
11. 21	46. 15	14. 53	·1093					
11. 42	46. 30	15. 13	·1085					
12. 0	45. 25	15. 36	·1083					
12. 7	47. 5	16. 16	·1090					
12. 43	45. 15	16. 47	·1097					
12. 53	46. 5	17. 26	·1091					
13. 9	45. 10	17. 38	·1091					
13. 23	45. 30	18. 10	·1094					
13. 53	44. 25	18. 50	·1076					
14. 19	44. 40	19. 0	·1068					
14. 58	46. 55	19. 15	·1071					
15. 16	45. 0	19. 36	·1066					
15. 52	50. 35	19. 52	·1076					
16. 1	49. 45	20. 3	·1079					
16. 7	51. 30	20. 22	·1076					
16. 22	49. 25	20. 34	·1084					
16. 29	49. 50	21. 9	·1080					
16. 52	46. 30	21. 19	·1074					
17. 1	46. 25	21. 28	·1075					
17. 13	44. 25	21. 45	·1069 (†)					
17. 22	45. 30							
17. 31	44. 20							
17. 45	43. 40							
18. 25	45. 10							
18. 38	47. 15							
19. 0	48. 45							
19. 7	48. 10							
19. 22	50. 35							
19. 38	49. 30							
19. 54	50. 45							
20. 10	48. 35							

For the Horizontal and Vertical Forces, increasing readings denote **increasing forces.**

Left portion of page

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
h m	o ' "	h m		h m		h m	o	o
July 21								
20. 14	20. 49. 5							
20. 26	45. 30							
20. 42	47. 25							
20. 54	44. 45							
21. 6	46. 5							
21. 23	46. 10							
21. 37	48. 25							
21. 53	47. 30							
22. 21	51. 25							
22. 40	50. 0							
22. 51	51. 10							
23. 2	49. 50							
23. 19	51. 0							
23. 54	50. 50							
23. 59	51. 25							
July 22		July 22		July 22		July 22		
0. 0	20. 51. 25		(†)	0. 0	·02783	0. 0	65 ·8	65 ·7
0. 25	52. 0	1. 0	·1089*	2. 0	{ ·02697 / ·02756 }	1. 0	66 ·2	66 ·4
0. 41	51. 25	3. 0	·1101	5. 15	·02680	2. 0	66 ·8	67 ·2
0. 48	52. 50	3. 8	·1105	6. 45	·02730	3. 0	66 ·9	67 ·3
0. 59	51. 30	3. 20	·1100	9. 19:	·02750	6. 0	66 ·0	66 ·8
1. 22	52. 0	3. 32	·1110	11. 25	·02880	Max.	67 ·8	67 ·0
1. 41	53. 30	3. 38	·1103	14. 23	{ ·02966 / ·02800 }	9. 0	65 ·5	66 ·0
2. 15	50. 30	3. 42	·1110	17. 6	{ ·03030 / ·02927 }	12. 0	64 ·6	65 ·0
2. 39	51. 0	3. 52	·1101	19. 27	{ ·03150 / ·03063 }	18. 0	61 ·1	61 ·8
3. 14	48. 0	3. 59	·1110	21. 20	{ ·03180 / ·03120 }	Min.	58 ·5	58 ·2
3. 30	49. 5	4. 11	·1094	22. 10	·03150	21. 0	60 ·3	60 ·6
3. 40	47. 5	4. 21	·1096	23. 37	·03080	22. 0	61 ·0	61 ·0
3. 47	48. 0	5. 11	·1089		(†)	23. 0	61 ·8	61 ·8
3. 56	46. 35	5. 37	·1112					
4. 2	48. 25	5. 49	·1101					
4. 15	46. 40	5. 55	·1102					
4. 49	48. 0	6. 8	·1091					
5. 19	44. 15	6. 14	·1099					
5. 30	45. 30	6. 18	·1090					
5. 47	45. 5	6. 44	·1111					
6. 7	46. 10	7. 10	·1103					
6. 29	42. 20	7. 21	·1106					
6. 55	45. 45	7. 31	·1102					
7. 16	45. 20	7. 50	·1104					
7. 37	47. 25	8. 17	·1100					
8. 11	48. 40	8. 24	·1109					
8. 24	47. 20	8. 36	·1106					
8. 44	46. 35	9. 24	·1110					
9. 4	47. 55	9. 44	·1104					
9. 22	45. 0	10. 22	·1105					
9. 36	45. 50	10. 33	·1103					
9. 53	44. 50	10. 38	·1107					
10. 41	46. 0	10. 52	·1105					
11. 12	45. 10		(†)					
11. 28	47. 10	18. 15	·1106					
11. 52	46. 15	18. 23	·1105					
12. 1	47. 0	18. 31	·1107					
12. 14	46. 30	19. 1	·1102					
12. 36	46. 5	19. 13	·1103					
12. 52	44. 35	19. 54	·1095					
13. 18	47. 50	20. 0	·1096					

Right portion of page

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
h m	o ' "	h m		h m		h m	o	o
July 22		July 22						
13. 28	20. 46. 45	20. 9	·1092					
13. 38	47. 40	20. 15	·1092					
13. 54	45. 50	20. 22	·1087					
14. 10	46. 0	20. 37	·1090					
14. 17	43. 45	20. 51	·1081					
14. 42	45. 0	21. 2	·1085					
15. 3	44. 35	21. 19	·1083					
15. 23	45. 55	21. 30	·1088					
15. 42	44. 5	21. 44	·1085					
15. 46	45. 30	21. 47	·1089					
15. 58	44. 25	22. 0	·1088					
16. 26	48. 15	22. 41	·1091					
16. 36	48. 0	22. 56	·1096					
16. 53	49. 40	23. 22	·1089					
16. 59	48. 55	23. 37	·1094					
17. 13	49. 50	23. 54	·1088					
17. 38	53. 0		(†)					
17. 50	51. 5							
18. 30	46. 35							
18. 37	47. 25							
18. 43	46. 35							
18. 48	45. 0							
18. 54	46. 35							
19. 1	45. 5							
19. 15	46. 5							
19. 20	44. 25							
19. 29	43. 20							
19. 31	45. 5							
19. 33	45. 0							
19. 40	44. 50							
19. 52	43. 5							
20. 0	44. 0							
20. 8	43. 0							
20. 23	42. 40							
20. 33	44. 25							
20. 47	43. 50							
21. 0	45. 25							
	***							
21. 53	47. 5							
22. 22	46. 30							
22. 43	47. 30							
23. 8	49. 30							
23. 18	49. 5							
23. 30	50. 35							
23. 56	50. 30							
23. 59	50. 40							
July 23		July 23		July 23		July 23		
0. 0	20. 50. 40		(†)		(†)	0. 0	62 ·9	62 ·3
0. 45	51. 25	0. 30	·1084	0. 18	·03045	1. 0	63 ·9	63 ·7
1. 30	53. 40	0. 42	·1095	2. 31	·02810	2. 0	64 ·9	64 ·9
1. 44	55. 45	0. 52	·1093		***	3. 0	65 ·7	65 ·5
2. 14	54. 55	1. 16	·1098	3. 45	·02760	Max.	69 ·8	69 ·0
2. 23	55. 20	1. 37	·1090	6. 25	·02580	9. 0	68 ·9	68 ·9
2. 29	53. 45	1. 45	·1107	7. 57	·02543	18. 0	61 ·5	62 ·3
2. 37	54. 0	2. 8	·1101	9. 45	·02467	Min.	57 ·8	57 ·2
2. 48	52. 30	2. 51	·1107	14. 7:	·02640	21. 0	59 ·6	60 ·0
2. 57	53. 30	3. 5	·1101	18. 23	·03240			

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time	Of H.F. Magnet.	Of V.F. Magnet.
July 23		July 23		July 23				
h m	° ′ ″	h m		h m		h m	°	°
3. 8	20.49.25	3.17	·1114	21.49	·03435			
3.11	51. 0	3.30	·1090	23.59	·03430			
3.22	49.30	3.40	·1112					
3.26	49.55	3.51	·1115					
3.35	47.40	4.24	·1096					
3.51	50.35	4.52	·1097					
4. 1	49.50	5. 8	·1110					
4.38	51.20	5.32	·1106					
4.56	50.15		***					
5. 5	50.30	6.25	·1109					
5.28	48.45	6.40	·1115					
6.43	47.15	6.55	·1110					
6.57	45.45	7. 4	·1115					
7. 6	46.30	7.15	·1105					
7.27	39. 0	7.30	·1107					
7.38	35.10	7.37	·1104					
8. 1	41. 0	7.47	·1120					
8.13	40.45	8.23	·1104					
8.26	41.35	8.43	·1106					
8.43	44.25	8.54	·1090					
9.18	45.10	9.17	·1099					
9.28	46.10	9.28	·1103					
9.38	44.25	9.38	·1101					
10. 9	44. 5	9.53	·1102					
10.32	47.35	10.10	·1101					
10.45	45.35	10.27	·1106					
10.59	45.30	10.38	·1100					
11. 5	47. 0	10.51	·1099					
11.26	47.20	11. 5	·1105					
11.37	45.10	11.38	·1099					
12. 3	43.35	11.49	·1100					
12.26	47.30	12. 9	·1094					
12.52	46.35	12.24	·1102					
13.23	50.40	12.44	·1099					
13.51	47. 0	13. 1	·1099					
14.15	47.40	13. 9	·1103					
14.37	46. 0	13.28	·1103					
15. 7	48. 0	13.47	·1101					
15.58	45. 5	14.44	·1101					
16.22	47.30	14.59	·1103					
16.43	47.35	15.19	·1098					
17. 0	45.20	15.30	·1099					
17.17	45.25	15.53	·1097					
17.30	47. 5	16.20	·1102					
***		16.31	·1100					
18.52	43.50	16.51	·1104					
19. 8	44.55	17.45	·1094					
***		18. 4	·1097					
19.40	43.55	18.13	·1097					
19.48	45.10	19.23	·1090					
19.57	43. 5	20.32	·1089					
20. 9	44.15	21. 9	·1084					
20.16	43.35	22. 0	·1081					
20.43	44.25	22.18	·1089					
20.53	44. 0	22.32	·1079					
21.12	45. 0	22.53	·1086					
21.21	44.15	23. 7	·1084					
21.39	45.30	23.34	·1090					

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time	Of H.F. Magnet.	Of V.F. Magnet.
July 23		July 23						
h m	° ′ ″	h m		h m		h m	°	°
21.45	20.44.15	23.50	·1091					
21.51	46.50	23.59	·1094					
21.58	46.15							
22.21	47.30							
22.24	46.45							
22.43	49.10							
23. 3	48.15							
23.59	51.15							
July 24		July 24		July 24		July 24		
0. 0	20.51.15	0. 0	·1094	0. 0	·03430	1. 0	62·1	62·0
0.39	53.30	0.23	·1097	1.19	·03370	3. 0	63·7	63·7
0.48	52.10	0.33	·1101	5.39	·02945	Max.	67·3	67·3
1.16	53.30	0.38	·1092	8. 5	·02620	9. 0	67·0	67·3
1.38	52.25	1.23	·1099	10.34	·02547	18. 0	62·0	62·0
1.59	52.35	1.30	·1098	11.45	·02480	Min.	60·4	60·2
2.30	51. 0		***	12. 8	·02520	21. 0	61·8	62·0
2.52	50.40	2.32	·1112	12.54	·02510			
3. 1	51.25	2.45	·1108	13.15	·02545			
3.14	50.15	3. 6	·1113	13.30	·02550			
3.21	50.55	3.17	·1111	14.34	·02660			
3.30	49.20	3.22	·1114	15.48	·02700			
3.38	50.15	3.36	·1107	17.21	·02907			
3.54	49.20	3.48	·1111	20.32	·03185			
4. 7	47.55	4. 7	·1097	22.11	·03260			
4.16	49. 0	4.20	·1118	23. 0	·03230			
4.32	46.35	4.34	·1099	23.59	·03203			
4.42	47.20	4.44	·1098					
4.51	46.30	4.50	·1092					
5. 0	46.30	5.28	·1123					
5.12	44. 0	5.39	·1113					
5.21	44.30	5.45	·1113					
5.30	46.45	5.55	·1107					
5.57	45. 5	6. 2	·1116					
6. 7	45.40	6.22	·1107					
6.39	46.30	6.45	·1110					
6.45	46. 0	7.15	·1107					
7. 8	46.40	7.26	·1112					
7.44	46.30	7.41	·1111					
8. 0	47.30	7.55	·1114					
8.16	46.30	8. 4	·1111					
9. 8	47. 0	8.21	·1114					
9.23	46.20	8.29	·1114					
9.52	46.45	8.42	·1122					
9.59	47.25	9.21	·1111					
10.12	46.25	9.44	·1111					
10.26	47.35	9.59	·1119					
10.33	48.40	10. 8	·1119					
10.44	45.25	10.22	·1129					
10.53	44.25	10.41	·1124					
11.18	52.20	10.55	·1129					
11.57	33. 5	11.26	·1097					
12.23	39.30	11.32	·1101					
12.30	39.15	11.43	·1096					
13. 6	47.25	12. 7	·1121					
13.17	52.10	12.56	·1074					
13.37	47.15	13.19	·1097					
13.48	46. 0	13.54	·1105					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
July 24		July 24						
h. m.	o ′ ″	h. m.		h. m.		h. m.	o	o
13. 57	20. 46. 25	14. 4	·1103					
14. 2	45. 15	14. 46	·1118					
14. 11	47. 5	15. 14	·1108					
14. 53	46. 30	15. 28	·1086					
15. 11	49. 35	15. 55	·1110					
15. 30	57. 0	16. 23	·1107					
15. 47	47. 5	16. 30	·1111					
16. 1	43. 20	16. 45	·1103					
16. 22	42. 15	17. 17	·1102					
16. 32	43. 40	17. 31	·1106					
16. 41	42. 15	18. 15	·1077					
17. 10	41. 30	18. 38	·1072					
17. 38	44. 0	19. 6	·1088					
17. 47	46. 35	19. 15	·1089					
17. 59	48. 5	19. 37	·1097					
18. 5	47. 35	20. 11	·1088					
18. 10	48. 0	20. 21	·1090					
18. 22	46. 25	20. 39	·1085					
18. 32	47. 45	21. 4	·1091					
18. 39	47. 0	21. 34	·1074					
18. 51	49. 0	21. 48	·1083					
19. 12	48. 10	22. 0	·1077					
19. 38	48. 45	22. 18	·1075					
19. 57	45. 30	22. 36	·1078					
20. 10	45. 25	22. 48	·1074					
20. 16	43. 40	22. 55	·1077					
20. 23	45. 5	23. 1	·1061					
20. 41	43. 30	23. 9	·1080					
20. 52	46. 20	23. 17	·1070					
21. 6	46. 30	23. 23	·1077					
21. 24	48. 10	23. 25	·1074					
21. 37	46. 0	23. 41	·1088					
21. 52	49. 5	23. 59	·1084					
22. 2	47. 35							
22. 40	49. 30							
22. 56	49. 25							
23. 1	48. 20							
23. 9	49. 0							
23. 16	47. 30							
23. 59	51. 40							
July 25		July 25		July 25		July 25		
0. 0	20. 51. 40	0. 0	·1084	0. 0	·03203	1. 0	65 ·2	65 ·0
0. 17	52. 15	0. 11	·1081	1. 0	{·03125	3. 0	66 ·3	66 ·0
0. 28	51. 5	0. 51	·1089		·03057}	Max.	66 ·6	66 ·0
1. 58	53. 20	1. 2	·1087	3. 4	·02915	9. 0	65 ·8	66 ·0
2. 32	48. 5	1. 23	·1094	9. 37:	·02707	Min.	58 ·0	57 ·2
2. 37	48. 50	1. 54	·1090	18. 28	{·03320	22. 5	59 ·8	60 ·8
2. 47	47. 55	(†)			·03100}			
3. 37	49. 35	3. 11	·1112	20. 15	{·03295			
4. 9	48. 35	4. 10	·1099		·03240}			
4. 32	48. 30	4. 19	·1094	21. 41	·03325			
4. 53	47. 15	4. 29	·1097	21. 50	·03295			
5. 12	48. 30	4. 46	·1098	23. 59	·03300			
5. 21	47. 20	4. 54	·1096					
5. 38	47. 50	5. 14	·1110					
6. 7	47. 15	5. 27	·1105					
6. 40	47. 40	5. 43	·1111					

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
July 25		July 25						
h. m.	o ′ ″	h. m.		h. m.		h. m.	o	o
6. 53	20. 46. 20	6. 10	·1108					
7. 19	45. 45	6. 18	·1110					
7. 37	41. 40	6. 29	·1106					
7. 50	44. 10	6. 41	·1112					
8. 22	46. 30	6. 53	·1108					
8. 37	45. 0	7. 13	·1113					
9. 30	45. 5	7. 32	·1110					
10. 13	47. 40	7. 47	·1125					
10. 27	47. 30	8. 0	·1119					
10. 38	49. 0	8. 12	·1118					
11. 30	46. 35	8. 53	·1109					
11. 50	48. 5	9. 32	·1110					
12. 7	47. 40	9. 51	·1113					
12. 33	48. 15	***						
12. 53	45. 40	11. 11	·1112					
13. 13	44. 30	11. 27	·1108					
13. 32	47. 30	12. 15	·1106					
15. 23	44. 45	12. 28	·1111					
15. 52	45. 0	12. 38	·1109					
16. 15	43. 10	12. 53	·1109					
16. 53	44. 35	13. 15	·1103					
17. 14	44. 10	13. 45	·1105					
17. 26	45. 50	13. 54	·1103					
17. 42	44. 15	15. 49	·1104					
18. 11	45. 20	16. 8	·1106					
19. 30	44. 25	17. 23	·1099					
20. 14	42. 30	17. 35	·1102					
21. 9	43. 35	18. 58	·1100					
21. 53	47. 5	19. 31	·1105					
22. 6	46. 30	21. 24	·1102					
23. 28	47. 40	21. 35	·1095					
23. 59	49. 0	22. 30	·1094					
		22. 47	·1096					
		23. 0	·1094					
			(†)					
July 26		July 26		July 26		July 26		
0. 0	20. 49. 0		(†)	0. 0	·03300	Max.	69 ·7	69 ·7
0. 44	50. 50	0. 38	·1096	3. 33:	·03065	9. 45	68 ·4	69 ·0
1. 23	51. 0	1. 21	·1097	6. 10	·02640	18. 0	61 ·3	61 ·7
1. 53	51. 25	1. 56	·1101	11. 15:	·02440	Min.	58 ·0	57 ·6
3. 8	49. 25	2. 29	·1101	15. 49	·02800	21. 0	59 ·8	60 ·0
3. 28	48. 20	2. 53	·1104	19. 26:	·03343			
3. 59	48. 5	***		21. 40	·03410			
4. 43	46. 25	3. 30	·1102	23. 59	·03330			
4. 50	46. 30	3. 39	·1104					
5. 32	45. 25	4. 8	·1105					
7. 0	46. 20	5. 2	·1099					
7. 45	46. 5	6. 53	·1104					
8. 43	46. 10	7. 6	·1108					
8. 53	46. 30	7. 20	·1106					
9. 39	46. 0	8. 8	·1105					
10. 12	46. 50	8. 15	·1103					
	***	8. 24	·1105					
11. 27	46. 5	9. 47	·1102					
	***	10. 8	·1098					
13. 48	47. 5	10. 21	·1098					
14. 5	45. 20	10. 36	·1101					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
July 26		July 26						
h m	o ′ ″	h m		h m		h m	o	o
14. 26	20. 47. 5	11. 1	·1103					
14. 49	45. 45	12. 37	·1102					
	***	12. 47	·1104					
15. 31	47. 5	13. 0	·1103					
15. 52	44. 40	13. 16	·1106					
16. 14	45. 55	13. 30	·1104					
16. 57	44. 15	15. 20	·1103					
	***	15. 37	·1106					
17. 37	44. 50	16. 9	·1103					
18. 22	44. 15	17. 19	·1106					
18. 32	45. 0	17. 38	·1106					
19. 28	44. 10	17. 57	·1108					
20. 2	44. 30	19. 13	·1107					
20. 15	43. 40	20. 32	·1100					
22. 11	48. 0	21. 38	·1096					
22. 37	47. 40	22. 14	·1096					
23. 27	51. 20	22. 21	·1098					
23. 59	52. 50	22. 30	·1095					
		23. 6	·1094					
		23. 59	·1096					
July 27		July 27		July 27		July 27		
0. 0	20. 52. 50	0. 0	·1096	0. 0	·03330	1. 0	65 ·1	65 ·0
1. 4	53. 50	0. 8	·1096	0. 21	·03297	3. 0	68 ·2	68 ·3
1. 46	53. 30	0. 48	·1098	3. 43	·02520	Max.	73 ·7	73 ·2
2. 37	50. 40	1. 45	·1103	4. 20	·02482	9. 0	72 ·2	72 ·0
2. 53	49. 30	2. 2	·1106	7. 25	·02292	18. 0	63 ·0	64 ·2
3. 53	48. 10	2. 13	·1103	10. 12	·02240	Min.	60 ·3	59 ·5
4. 59	45. 50	2. 23	·1109	13. 10	·02537	21. 0	61 ·9	62 ·2
6. 12	45. 25	2. 32	·1106	15. 30	·02835			
6. 18	45. 40	3. 0	·1104	18. 10	·03255			
6. 27	45. 10	3. 37	·1103	21. 18	·03380			
7. 38	45. 30	4. 41	·1096	22. 45	·03390			
7. 56	45. 55	5. 9	·1098	23. 59	·03320			
8. 17	45. 25	5. 15	·1096					
9. 29	46. 50	5. 28	·1095					
9. 44	45. 30	5. 53	·1098					
10. 12	47. 45	6. 9	·1101					
10. 22	46. 25	6. 44	·1102					
10. 53	46. 50	7. 4	·1098					
11. 18	46. 15	7. 42	·1096					
11. 46	47. 0	7. 47	·1098					
12. 3	46. 25	7. 54	·1096					
14. 5	46. 10	8. 9	·1098					
15. 3	46. 30	8. 19	·1097					
	***	8. 44	·1098					
17. 22	43. 30	9. 19	·1096					
18. 8	44. 10	9. 47	·1099					
18. 32	43. 30	10. 2	·1096					
19. 13	44. 40	10. 17	·1099					
19. 29	43. 55	10. 33	·1097					
19. 41	45. 0	10. 43	·1098					
19. 52	44. 25	11. 6	·1098					
20. 20	45. 5	11. 20	·1100					
20. 24	44. 25	11. 44	·1098					
20. 34	45. 20	12. 45	·1099					
21. 22	48. 30		(†)					
21. 33	48. 40	18. 28	·1098					

Right panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
July 27		July 27						
h m	o ′ ″	h m		h m		h m	o	o
23. 6	20. 52. 50	19. 45	·1095					
23. 59	53. 35	20. 29	·1092					
		20. 48	·1092					
		21. 4	·1089					
		21. 23	·1089					
		22. 10	·1084					
		22. 25	·1084					
		22. 40	·1082					
		23. 0	·1085					
		23. 59	·1088					
July 28		July 28		July 28		July 28		
0. 0	20. 53. 35	0. 0	·1088	0. 0	·03320	1. 0	66 ·8	66 ·9
0. 43	52. 0	0. 5	·1089	1. 12	·03160	3. 0	70 ·6	70 ·2
1. 16	51. 50	0. 17	·1090	4. 0	·02390	Max.	77 ·6	77 ·3
2. 1	50. 0	0. 46	·1090	7. 15	·02140	9. 0	75 ·3	76 ·0
2. 39	47. 55	1. 2	·1083	10. 16	·02060	19. 0	65 ·0	66 ·0
3. 14	46. 30	1. 15	·1087	14. 0	·02340	Min.	63 ·0	62 ·4
3. 28	46. 35	1. 43	·1083	18. 50	·03136	21. 0	64 ·5	65 ·4
4. 46	44. 25		(†)	22. 57	·03215	22. 0	65 ·3	65 ·6
5. 52	43. 20	2. 33	·1081	23. 59	·03230	23. 0	65 ·5	65 ·9
6. 20	43. 45	3. 15	·1079					
6. 38	43. 30	3. 37	·1089					
7. 22	44. 25	3. 59	·1085					
7. 52	44. 40	4. 17	·1087					
9. 0	45. 35	4. 21	·1086					
9. 9	45. 0	6. 8	·1091					
9. 30	45. 45	6. 44	·1091					
10. 0	45. 15	7. 17	·1092					
10. 14	43. 55	8. 23	·1087					
10. 57	43. 45	8. 52	·1086					
11. 36	44. 20	9. 0	·1089					
12. 11	43. 35	9. 8	·1088					
13. 15	44. 20	9. 23	·1089					
	(†)	10. 6	·1085					
14. 22	46. 5	10. 25	·1090					
15. 17	46. 0	10. 59	·1089					
15. 59	47. 15	11. 10	·1087					
16. 53	43. 30	11. 38	·1089					
19. 37	40. 35	12. 39	·1084					
20. 12	41. 5	13. 48	·1090·					
21. 32	43. 40	14. 43	·1089					
23. 59	51. 35	15. 23	·1091					
		15. 53	·1089					
		16. 44	·1094					
		20. 46	·1080					
		21. 29	·1086					
		22. 1	·1086					
		22. 13	·1089					
		23. 22	·1086					
		23. 25	·1088					
		23. 38	·1085					
		23. 59	·1087					
July 29		July 29		July 29		July 29		
0. 0	20. 51. 35	0. 0	·1087	0. 0	·03230	0. 0	66 ·5	66 ·7
0. 26	52. 25	1. 0	·1085	1. 34	·03140	1. 0	67 ·5	68 ·0
1. 38	52. 15	1. 25	·1085	7. 30	·02185	2. 0	69 ·1	69 ·3

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Top band (left: July 29 — right: July 30 / July 31)

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
July 29		July 29		July 29		July 29			July 30		July 30						
h m	o ′ ″	h m		h m		h m	o	o	h m	o ′ ″	h m						
2.43	20.50.35	2.53	.1091	12. 0:	.02143	3. 0	70.0	70.1	14.41	20.45.30	8.43	.1094					
3.22	49. 0	3. 1	.1089	15.35	.02425	6. 0	73.6	73.3	15. 0	46.55	8.56	.1095					
3.48	48.35	3.53	.1092	21. 3	.03120	Max.	74.8	74.5		***	9.43	.1096					
5. 5	45.40	4. 4	.1087	23.59	.03124	9. 0	74.0	74.0	16. 8	44.25	10. 8	.1099					
6.18	45. 0	6. 0	.1091			12. 0	72.3	72.6	16.31	45. 5	11. 8	.1096					
7.44	45.40	6.10	.1093			18. 0	67.5	68.0	17. 0	43.55	11.23	.1097					
9.59	45.15	6.19	.1091			Min.	64.3	64.0		***	11.37	.1110					
10.27	44.10	8.37	.1098			21. 0	65.8	66.6	18. 3	44. 0	12.17	.1096					
11. 1	44.20	9. 0	.1098			22. 0	66.5	66.6	18.20	45.25	12.50	.1093					
11.29	45.40	9.18	.1096			23. 0	67.0	67.2	18.33	44.15	13. 4	.1089					
12.54	44.40	9.59	.1099						19. 1	47. 0	13.15	.1088					
14.22	45. 5	11. 5	.1096						20. 2	45.30	14.39	.1087					
15.23	46.25	11.20	.1099						20.52	45. 0	16.42	.1092					
16. 7	44.40	11.37	.1097						21. 0	45.35	18.28	.1082					
16.29	44.50	11.52	.1099						21. 8	44.40	18.52	.1083					
17. 4	42.15	12. 6	.1095						22. 3	48.10	19.23	.1087					
17.31	41.25	12.22	.1098						22.54	49.15	19.39	.1084					
17.45	41.40	13.22	.1096						23.38	52.10	20. 8	.1085					
17.57	41. 0	13.36	.1099						23.51	52. 0	20.38	.1086					
18.30	42.50	13.55	.1099						23.59	52.40	21. 9	.1084					
18.51	40.40	14.25	.1095								21.29	.1088					
19.13	39.50	14.59	.1098								21.52	.1087					
19.47	40.20	15. 9	.1096								22. 0	.1084					
19.59	39.55	15.43	.1099								22.17	.1082					
20.34	41.10	15.56	.1097								23. 9	.1088 (†)					
21.13	44. 0	16.31	.1098								23.59	.1091					
21.40	44. 5	16.45	.1101						July 31		July 31		July 31		July 31		
21.59	45.10	18. 4	.1098						0. 0	20.52.40	0. 0	.1091	0. 0	.03350	1. 0	65.5	65.5
22.19	44.55	18.16	.1099						0.19	52. 5	0.22	.1088	2.10	.03120	3. 0	67.8	68.1
23.59	50.45	19.15	.1099						0.32	52.55	0.35	.1093	6.53	.02297	Max.	71.6	72.4
		20.51	.1087						1.58	49.50	1. 5	.1087	10.29:	.02260	9. 0	70.6	70.7
		21.22	.1085						2.10	50. 0	1.14	.1088	13.38	.02537	18. 0	62.0	63.0
		21.59	.1088						2.26	49. 0	1.23	.1084	13.55	.02540	Min.	60.0	59.6
		22. 9	.1085						2.34	49.30	1.35	.1085	18.14	.03280	21. 0	61.0	61.8
		23.59	.1083						2.43	48.45		(†)		(†)			
									3. 2	47.35	3. 0	.1091*	21.40	.03387			
									4.38	45.40	3.32	.1085	23.43	.03380			
									5. 2	46.15	3.47	.1088	23.59	.03360			
									6.30	46.10	4. 4	.1083					
									7.37	45. 5	4.47	.1078					
									7.52	46. 0	5. 7	.1085					
									8. 0	45.25	5.24	.1084					
									8.13	45.55	5.39	.1089					
									8.22	45. 5	7.11	.1092					
									8.28	46.10	7.43	.1088					
									10. 8	46. 5	7.55	.1091					
									10.43	43.25	8. 9	.1088					
									12.26	47.10	8.22	.1091					
									13.22	45.50	8.39	.1088					
									13.38	57. 5	9.17	.1092					
									14.42	43.30	9.29	.1088					
									15.14	45.10	9.39	.1090					
									15.27	43.30	9.53	.1088					
									16. 2	44.45	10.17	.1092					
									16.41	41.25	10.30	.1088					
									16.58	42. 0	11.30	.1089					

Lower-left band (July 30)

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force ... H.F.	Greenwich Mean Solar Time.	Vertical Force ... V.F.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
July 30		July 30		July 30		July 30		
0. 0	20.50.45	0. 0	.1083	0. 0	.03124	0. 0	68.2	68.2
0.46	51.25	0.28	.1077	3.19	.02710	1. 0	69.5	69.2
0.57	52. 0	1. 4	.1081	6.23	.02180	2. 0	70.2	70.3
1.22	51.40	1.54	.1082	9.22:	.02080	3. 0	71.5	71.5
2.15	52.55	2.14	.1088	11.46	.02217	Max.	76.3	76.0
2.46	51.30	2.28	.1089	12. 0	.02220	9. 0	74.3	74.1
3.47	49.35	2.49	.1094	13.23	.02370	18. 0	63.8	64.8
4. 1	48.30	3.13	.1092	17.10	.03140	Min.	59.6	59.1
4.48	47.40	3.31	.1100	21.19	.03343	21. 0	62.0	62.5
5.18	47.55	4. 0	.1092	23.26	.03370			
6.52	45.15	4.23	.1100	23.59	.03350			
7.39	46.35	4.47	.1100					
9.53	46.15	5.17	.1108					
10.40	46.30	5.25	.1105					
11.10	44.25	5.34	.1107					
11.43	46. 0	5.54	.1101					
12. 5	43.50	6.15	.1101					
12.44	43.25	6.23	.1100					
12.54	44.25	6.46	.1098					
13.30	44. 5	7.29	.1098					
13.49	45.30 ***	8. 2	.1094					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left section

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time	Of H.F. Magnet.	Of V.F. Magnet.
July 31		July 31						
h m	o ′ ″	h m		h m		h m	o	o
17.12	20.40.50	11.38	·1087					
18.10	41.45	12.57	·1094					
18.22	40.50	13.32	·1094					
19.12	42.0	13.50	·1105					
19.23	43.20	14.52	·1089					
19.36	42.40	15.9	·1090					
20.16	43.40	15.19	·1094					
20.31	44.30	15.31	·1092					
20.43	44.20	15.53	·1092					
21.19	46.45	16.13	·1095					
21.28	47.55	16.55	·1093					
21.40	47.20	17.24	·1094					
22.22	48.25	17.40	·1093					
22.30	49.25	17.53	·1094					
22.38	49.5	18.21	·1093					
22.45	49.50	18.44	·1095					
22.52	49.10	19.9	·1091					
22.59	51.30	19.17	·1093					
23.6	50.55	19.38	·1089					
23.51	56.55	19.49	·1089					
23.56	55.0	20.16	·1086					
23.59	56.15	20.23	·1087					
		21.0	·1083					
		21.23	·1088					
		21.39	·1084					
		22.7	·1085					
			(†)					
		23.2	·1078					
		23.29	·1066					
		23.59	·1075					
Aug. 1		Aug. 1		Aug. 1		Aug. 1		
0.0	20.56.15	0.0	·1075	0.0	·03360	1.0	65·8	65·9
0.10	54.35	0.7	·1082	1.43	·03121	3.0	69·0	69·0
0.23	53.30	0.34	·1087	5.26	·02332	Max.	72·6	73·0
0.28	54.0	0.40	·1095	7.40	·02225	9.0	70·8	71·0
0.32	53.0	1.0	·1086	9.40	·02213	Min.	62·8	62·3
0.40	54.25	1.32	·1079	14.10	·02458	21.0	64·9	65·0
0.46	53.15	2.0	·1088	19.24	·03078			
1.19	52.25	2.27	·1092	21.2	·03210			
1.23	53.20	2.43	·1090	21.12	·03200			
1.28	51.35	3.30	·1096	22.55	·03221			
1.33	52.10	3.43	·1091	23.59	·03202			
2.50	52.0	4.8	·1098					
3.23	50.35	4.13	·1097					
3.32	49.30	4.23	·1105					
3.41	50.10	4.38	·1088					
4.8	49.35	4.44	·1093					
4.16	50.45	4.59	·1081					
4.30	48.15	5.7	·1084					
4.37	49.0	5.30	·1081					
4.44	48.0	5.45	·1080					
5.23	46.10	6.59	·1094					
5.29	46.50	7.9	·1089					
6.37	46.45	7.21	·1091					
7.37	45.0	7.32	·1084					
·	***	7.38	·1086					
8.32	46.50	7.42	·1083					

Right section

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time	Of H.F. Magnet.	Of V.F. Magnet.
Aug. 1		Aug. 1						
h m	o ′ ″	h m		h m		h m	o	o
9.14	20.42.55	8.1	·1088					
9.18	41.25	8.26	·1086					
9.38	44.0	8.44	·1087					
9.46	43.25	8.57	·1098					
10.1	44.15	9.27	·1103					
11.7	45.0	10.1	·1089					
11.17	44.15	10.38	·1084					
12.23	44.30	10.56	·1086					
12.37	43.25	11.18	·1083					
12.58	45.30	11.52	·1084					
13.49	44.0	12.21	·1084					
14.43	44.5	14.4	·1091					
14.53	43.0	14.19	·1087					
15.5	44.35	14.45	·1088					
15.24	41.30	15.0	·1091					
15.30	42.25	15.38	·1088					
15.45	42.0	15.56	·1092					
16.1	45.0	16.12	·1088					
16.21	42.5	16.28	·1094					
16.38	42.35		***					
17.1	40.35	19.15	·1080					
17.40	40.30	19.23	·1081					
17.47	39.55	19.50	·1077					
17.52	40.45	20.59	·1080					
18.0	39.20	21.32	·1075					
18.8	40.15	21.41	·1078					
18.20	39.10	21.53	·1076					
18.29	40.10	22.8	·1076					
18.32	39.5	22.53	·1084					
18.43	39.40	23.5	·1079					
18.58	41.25	23.11	·1085					
19.13	40.35	23.31	·1073					
19.34	42.40		(†)					
20.43	42.30							
21.39	46.50							
22.2	47.30							
22.47	51.30							
22.52	52.40							
22.58	52.25							
23.5	54.0							
23.11	53.30							
23.21	54.25							
23.30	53.20							
23.32	54.25							
23.43	53.20							
23.59	57.0							
Aug. 2		Aug. 2		Aug. 2		Aug. 2		
0.0	20.57.0		(†)	0.0	·03202	1.0	68·0	68·2
0.9	56.5	0.16	·1081	1.2	·03138	Max.	75·2	76·2
0.37	56.0	0.39	·1082	2.26	·02959	9.0	75·0	75·2
0.48	57.25	0.57	·1093	6.26	·02222	18.0	68·5	69·2
0.57	56.10	1.3	·1087	8.31	·02105	Min.	65·7	65·3
1.4	57.40	1.7	·1099	9.28	·02086	21.0	67·0	68·0
1.28	57.45	1.58	·1083	9.57	·02004			
2.1	54.50	2.15	·1083	13.11	·02190			
2.15	54.25	2.23	·1098	15.48	·02460			
2.22	55.45	2.39	·1080	16.55	·02561			

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Aug. 2	Aug. 2	Aug. 2		Aug. 2				
h m	° ' ''	h m		h m		h m	°	°
2.30	20.54.10	2.50	·1089	19. 1	·02891			
2.35	54.30	3. 3	·1083	20.44	·03092			
2.41	52.35	3.20	·1091	21.42	·03113			
2.45	53.35	3.41	·1092	23.37	·03110			
3. 0	51.45	3.47	·1086	23.59	·03092			
3.15	51.35	4. 4	·1095					
3.44	50. 0	4.38	·1094					
3.56	50.25	4.45	·1085					
4.25	49.30	4.51	·1097					
4.38	48.25	5. 8	·1084					
4.43	49. 0	5.20	·1089					
4.49	47.35	5.41	·1089					
5. 1	47. 0	5.46	·1086					
5.37	46.45	5.51	·1094					
5.44	47.25	5.55	·1089					
5.49	46. 5	6. 5	·1086					
5.59	45.30	6.20	·1093					
6.10	46.15	6.27	·1088					
6.30	44.30	6.28	·1088					
7.26	46.15	6.41	·1094					
7.33	45.20	6.50	·1090					
7.44	47. 5	7. 8	·1094					
7.56	45. 0	7.17	·1090					
8. 1	46. 5	7.30	·1097					
8.30	45.10	7.44	·1093					
8.41	44. 0	7.52	·1096					
9. 0	45.40	8. 5	·1092					
9.12	44.25	8.19	·1093					
9.25	47.25	8.41	·1082					
9.32	44.30	8.58	·1086					
9.54	54.25	9.22	·1076					
10.11	43.35	9.43	·1033					
10.25	44. 5	10. 0	·1094					
10.40	39. 0	10.30	·1073					
10.53	39.30	10.53	·1085					
11. 0	41. 5	11.10	·1074					
11.17	40.20	11.28	·1077					
12.30	42.25	11.47	·1072					
12.41	41.30	12. 8	·1074					
12.58	43.40	12.22	·1070					
13. 7	43. 5	12.39	·1079					
13.11	44. 5	12.53	·1078					
13.26	42. 5	13. 0	·1072					
13.50	46. 0	13.19	·1073					
14.48	44. 0	13.27	·1070					
15. 7	42.30	14. 0	·1081					
15.17	43.40	14. 9	·1077					
15.34	43. 0	15.26	·1079					
16. 8	46.10	15.51	·1086					
16.29	43.25	16. 0	·1083					
16.45	46.30	16.31	·1091					
16.55	45. 0	16.40	·1088					
17. 3	45.25	17.10	·1088					
17.17	42.30	17.40	·1080					
18. 5	39.45	18. 4	·1081					
18.15	41.30	18.20	·1079					
18.21	39.30	18.38	·1079					
18.24	41. 0	18.50	·1081					

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Aug. 2	Aug. 2	Aug. 2						
h m	° ' ''	h m		h m		h m	°	°
18.31	20.39. 0	19.13	·1075					
18.38	40.10	19.55	·1072					
18.47	38.55	20. 8	·1062					
19.11	41.40	20.18	·1065					
19.36	40.20	20.38	·1052					
19.41	41.15	20.51	·1054					
19.53	39. 0	21.23	·1048					
20. 0	39. 5	21.38	·1056					
20. 6	40.35	22.34	·1071					
20.37	42. 0	22.44	·1070					
20.52	45.10	23.17	·1074					
21. 0	43.45		(†)					
21.43	49.50							
23. 1	49.10							
23.37	49.40							
23.42	51. 5							
23.55	50.25							
23.59	50.30							
Aug. 3		Aug. 3		Aug. 3		Aug. 3		
0. 0	20.50.30		(†)	0. 0	·03092	1. 0	70·1	70·2
0.38	51.15	0. 9	·1078	2.54	·02900	3. 0	71·5	71·8
0.56	51. 5	1.12	·1086	7. 3	·02527	Max.	73·4	74·0
1.23	53.20	1.49	·1080	9.15:	·02398	9. 0	73·4	73·5
1.45	51.45	2. 8	·1082	11.28	·02437	18. 0	66·8	67·2
1.56	52.10	2.32	·1086	14.24:	·02683	Min.	64·3	64·0
2. 8	51.35	3. 0	·1078	17.39	·03148	21. 0	66·6	67·0
2.22	52. 5	3. 5	·1089	18.45	{·03180 / ·03132}			
2.48	50.50	3. 9	·1079					
2.56	51.10	3.15	·1085	19.12	{·03185 / ·03138}			
3. 0	50.10	3.27	·1085					
3. 7	51.25	3.55	·1074	19.43	·03179			
3.37	49.30	5.37	·1082	20.54	·03194			
4. 8	48.35	5.49	·1089	22.10	·03178			
4.31	47.10	6. 4	·1086	23.59	·02997			
5.40	46. 5	6.25	·1092					
5.52	45.25	6.33	·1089					
6. 0	45.40	6.53	·1099					
6.12	44.40	7.17	·1087					
6.58	43.25	7.23	·1089					
7.11	44.40	8. 0	·1082					
7.22	44.15	8. 5	·1084					
7.53	44. 5	8.13	·1079					
8.29	42.30	8.21	·1079					
8.45	44.30	8.36	·1087					
9.19	43. 0	8.44	·1085					
9.54	45. 0	8.51	·1087					
	***	9.18	·1079					
11. 0	43.40	9.34	·1079					
11.15	45.25	9.43	·1083					
11.33	42.35	9.49	·1082					
12.11	44.45'	10.13	·1088					
13.10	43.10	10.33	·1084					
13.37	43.10	10.47	·1087					
13.58	41.30	10.53	·1085					
14. 7	41.35	11.15	·1099					
14.30	43.35	11.57	·1088					
14.38	43. 5	12. 2	·1089					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Declination (left half)

Greenwich Mean Solar Time.	Western Declination.
Aug. 3	
h m	o ′ ″
15. 8	20. 45. 35
	***
17. 13	41. 20
17. 22	42. 35
17. 41	41. 15
18. 3	39. 55
18. 22	42. 0
18. 30	40. 25
18. 59	38. 35
19. 5	40. 15
19. 21	40. 40
20. 2	42. 50
20. 32	44. 55
20. 45	44. 25
20. 58	45. 25
22. 18	46. 50
22. 23	48. 40
22. 45	49. 0
22. 52	48. 15
23. 5	50. 10
23. 33	48. 0
23. 56	48. 25
23. 59	48. 50
Aug. 4	
0. 0	20. 48. 50
0. 23	51. 10
0. 38	50. 35
1. 1	50. 40
	(†)
3. 0	52. 49*
3. 58	48. 30
4. 30	49. 0
5. 2	46. 50
5. 14	48. 25
5. 30	46. 10
6. 54	45. 25
7. 8	44. 45
7. 22	45. 0
7. 32	44. 10
8. 13	44. 40
8. 16	43. 15
8. 47	41. 50
9. 7	38. 30
9. 17	40. 30
9. 32	41. 5
9. 59	40. 30
10. 15	42. 5
10. 32	40. 35
10. 53	40. 55
11. 22	43. 50

Horizontal Force in parts of the whole H.F. uncorrected for Temperature (left half)

Greenwich Mean Solar Time.	Horizontal Force.
Aug. 3	
12. 17	.1084
12. 38	.1084
12. 53	.1087
13. 2	.1086
	***
13. 45	.1088
13. 53	.1085
14. 22	.1082
14. 34	.1083
14. 51	.1082
15. 9	.1086
15. 40	.1088
15. 52	.1086
16. 30	.1088
	***
17. 14	.1084
17. 23	.1087
18. 4	.1085
18. 23	.1087
	***
19. 6	.1084
19. 26	.1085
20. 28	.1083
20. 44	.1080
21. 20	.1081
	***
22. 55	.1064
23. 4	.1071
23. 23	.1074
23. 59	.1079
Aug. 4	
0. 0	.1079
0. 24	.1084
0. 29	.1080
1. 41	.1088
2. 25	.1087
2. 46	.1074
2. 57	.1092
3. 7	.1082
3. 10	.1094
3. 12	.1082
3. 20	.1090
3. 32	.1077
3. 36	.1085
	***
4. 15	.1069
4. 32	.1087
	***
5. 7	.1078
5. 17	.1095
5. 44	.1086
5. 48	.1088
5. 54	.1085
6. 43	.1094
6. 52	.1099
7. 7	.1097
7. 22	.1107

Vertical Force in parts of the whole V.F. uncorrected for Temperature (left half)

Greenwich Mean Solar Time.	Vertical Force.
Aug. 4	
0. 0	.02997
2. 6	.02712
2. 52	.02653
3. 42	.02624
7. 13	.02445
8. 50	.02397
9. 44	.02390
14. 5:	.02584
17. 42	.02956
19. 9	.03060
	(†)
20. 47	.03138
22. 27	{ .03140 / .03068 }
23. 59	.02950

Readings of Thermometers (left half)

Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Aug. 4		
1. 0	71 .0	71 .2
3. 0	71 .6	71 .6
Max.	73 .0	73 .0
9. 0	72 .0	73 .0
18. 30	67 .5	68 .5
Min.	65 .2	65 .0
21. 0	66 .4	67 .0
22. 0	66 .9	67 .0
23. 0	67 .0	67 .2

Declination (right half)

Greenwich Mean Solar Time.	Western Declination.
Aug. 4	
h m	o ′ ″
11. 37	20. 43. 45
12. 58	46. 5
13. 5	47. 0
	***
14. 7	43. 55
14. 28	44. 30
	***
15. 42	44. 0
16. 11	44. 30
17. 27	41. 50
	***
18. 37	43. 15
19. 30	40. 50
19. 39	42. 0
20. 0	41. 5
20. 18	41. 25
20. 47	43. 10
21. 38	44. 0
22. 30	44. 5
23. 59	47. 10
Aug. 5	
0. 0	20. 47. 10
0. 59	50. 5
2. 30	50. 0
4. 3	46. 30
4. 30	46. 35
5. 1	45. 30
5. 52	45. 0
	(†)
9. 0	44. 45*
9. 53	43. 55
10. 34	44. 50
10. 44	44. 25
12. 8	45. 10
12. 15	44. 15
12. 52	45. 10
13. 44	43. 30
13. 56	42. 10
14. 47	42. 35
15. 0	41. 0
15. 17	42. 40
15. 38	47. 15
15. 55	47. 25
16. 16	44. 0

Horizontal Force in parts of the whole H.F. uncorrected for Temperature (right half)

Greenwich Mean Solar Time.	Horizontal Force.
Aug. 4	
7. 38	.1101
7. 42	.1103
7. 48	.1099
8. 18	.1094
8. 28	.1097
8. 47	.1086
8. 58	.1085
9. 26	.1101
10. 19	.1089
11. 2	.1086
11. 12	.1089
11. 22	.1085
12. 23	.1092
12. 43	.1096
13. 9	.1091
13. 30	.1095
14. 20	.1090
15. 45	.1093
15. 54	.1090
16. 6	.1092
18. 0	.1088
18. 35	.1092
19. 8	.1088
19. 30	.1089
19. 54	.1083
20. 5	.1084
20. 36	.1080
21. 28	.1076
22. 6	.1075
22. 16	.1078
22. 23	.1077
22. 55	.1081
	(†)
Aug. 5	
	(†)
0. 30	.1089
1. 42	.1082
3. 47	.1087
	(†)
9. 0	.1090*
9. 53	.1092
10. 0	.1094
10. 30	.1089
11. 22	.1089
11. 57	.1094
12. 13	.1089
13. 2	.1095
13. 35	.1093
13. 42	.1095
14. 21	.1092
15. 2	.1092
15. 22	.1086
15. 38	.1087
16. 10	.1104
17. 11	.1082
17. 35	.1093
18. 0	.1090

Vertical Force in parts of the whole V.F. uncorrected for Temperature (right half)

Greenwich Mean Solar Time.	Vertical Force.
Aug. 5	
0. 0	.02950
0. 51	.02964
2. 23	.02960
4. 38	.02843
	(†)
9. 0	.02486*
10. 0	.02477
15. 14	.02646
15. 52	.02690
16. 24	.02698
20. 23	.02990
23. 17	{ .03073 / .02930 }
23. 59	.02868

Readings of Thermometers (right half)

Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Aug. 5		
0. 0	67 .1	67 .5
1. 0	67 .5	68 .0
2. 0	68 .0	68 .5
3. 0	68 .3	68 .7
6. 0	70 .6	70 .7
Max.	71 .3	71 .6
9. 0	71 .3	71 .0
12. 0	70 .3	70 .3
18. 10	67 .3	68 .2
Min.	65 .1	65 .0
21. 0	66 .0	67 .0
22. 0	66 .5	67 .8
23. 0	66 .7	67 .8

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Aug. 5		Aug. 5						
h m	o ′ ″	h m		h m		h m	o	o
16. 38	20. 42. 30	18. 22	·1096					
17. 12	45. 30	18. 44	·1091					
17. 39	46. 50	19. 2	·1093					
18. 2	41. 40	19. 23	·1086					
18. 8	42. 5	21. 2	·1087					
18. 23	40. 30	21. 44	·1078					
18. 38	42. 0		(†)					
18. 45	41. 5	23. 59	·1080					
19. 7	42. 55							
19. 52	41. 25							
20. 30	41. 20							
21. 23	43. 5							
22. 7	46. 20							
23. 51	49. 15							
23. 56	50. 50							
23. 59	50. 0							
Aug. 6		Aug. 6		Aug. 6		Aug. 6		
0. 0	20. 50. 0	0. 0	·1080	0. 0	·02868	0. 0	67 ·0	68 ·0
0. 3	49. 30	0. 10	·1082	1. 0	·02868	1. 0	67 ·2	68 ·3
0. 8	50. 20	0. 30	·1082	2. 42	·02836	2. 0	68 ·0	69 ·0
0. 27	50. 10	1. 8	·1092	5. 7	·02730	3. 0	68 ·3	69 ·5
0. 58	53. 35	1. 47	·1077	7. 14	·02584	Max.	70 ·7	71 ·4
1. 17	53. 45	1. 55	·1083	9. 7	·02519	9. 0	70 ·7	71 ·4
1. 40	52. 25	2. 8	·1083	10. 22	·02497	19. 0	67 ·6	68 ·6
1. 46	52. 55	2. 16	·1086	13. 47	·02567	Min.	66 ·5	66 ·3
2. 16	50. 0	2. 22	·1084	14. 13	·02525	21. 0	67 ·8	69 ·0
2. 52	50. 55	3. 0	·1104	18. 7	·02740			
3. 8	49. 30	3. 13	·1097	21. 6	·02778			
3. 30	49. 30	3. 37	·1107	22. 2	·02758			
3. 49	47. 55	3. 53	·1101	22. 51	{·02710 / ·02536}			
3. 59	48. 35	4. 8	·1107					
4. 23	46. 25	4. 17	·1107	23. 10	·02520			
4. 46	44. 50	4. 30	·1099		(†)			
5. 7	44. 50	5. 1	·1113					
5. 36	43. 35	5. 23	·1112					
5. 49	44. 5	5. 38	·1106					
6. 18	43. 50	5. 59	·1102					
6. 37	45. 0	6. 15	·1105					
7. 18	44. 35	6. 31	·1103					
7. 58	45. 20	6. 43	·1107					
8. 8	44. 30	7. 8	·1101					
8. 23	44. 25	7. 11	·1104					
8. 58	46. 0	7. 22	·1101					
9. 0	44. 10	7. 30	·1102					
9. 5	44. 35	7. 54	·1099					
9. 14	42. 5	8. 5	·1096					
9. 17	42. 30	8. 23	·1096					
9. 27	41. 10	8. 34	·1098					
9. 48	43. 35	8. 43	·1097					
9. 57	43. 10	9. 38	·1113					
10. 14	44. 20	10. 19	·1088					
10. 37	40. 55	10. 43	·1095					
11. 0	42. 20	10. 51	·1092					
11. 21	41. 40	11. 0	·1096					
11. 35	42. 35	11. 21	·1090					
12. 10	38. 10	11. 43	·1093					
12. 26	38. 35	12. 21	·1089					

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Aug. 6		Aug. 6		h m		h m	o	o
h m	o ′ ″	h m						
12. 37	20. 40. 0	12. 31	·1095					
12. 49	39. 20	13. 4	·1100					
13. 0	35. 40	13. 12	·1098					
13. 17	35. 15	13. 21	·1101					
13. 39	40. 50	13. 37	·1098					
13. 53	46. 40	13. 53	·1115					
14. 12	41. 20	14. 9	·1100					
14. 21	42. 30	14. 25	·1096					
14. 32	39. 55	14. 37	·1100					
14. 52	40. 25	15. 47	·1085					
15. 0	39. 30	15. 53	·1089					
15. 28	40. 10	16. 14	·1091					
15. 47	42. 55	16. 20	·1089					
15. 52	42. 35	16. 37	·1092					
16. 2	43. 10		***					
16. 18	42. 20	17. 23	·1080					
16. 37	40. 0	17. 47	·1080					
16. 45	37. 35	17. 54	·1074					
16. 57	37. 40	18. 5	·1079					
17. 8	40. 0		***					
17. 27	39. 25	18. 35	·1072					
17. 47	40. 15	19. 2	·1083					
17. 58	42. 0	19. 32	·1079					
18. 22	48. 0	19. 38	·1080					
18. 27	46. 25	19. 50	·1077					
18. 32	47. 0		***					
18. 45	43. 15	20. 32	·1078					
19. 14	44. 40	21. 21	·1076					
19. 23	44. 10	21. 39	·1074					
19. 30	42. 40	22. 12	·1075					
19. 43	43. 50	22. 14	·1072					
19. 52	43. 5	22. 30	·1074					
20. 36	41. 15	23. 2	·1057					
20. 46	42. 15	23. 23	·1065					
20. 51	41. 15	23. 45	·1074					
21. 45	42. 30	23. 52	·1070					
22. 54	46. 15	23. 59	·1075					
23. 54	49. 40							
23. 59	49. 5							
Aug. 7		Aug. 7		Aug. 7		Aug. 7		
0. 0	20. 49. 5	0. 0	·1075		(†)	1. 0	71 ·4	72 ·2
0. 26	50. 0	0. 14	·1081	0. 9	·02460	3. 0	74 ·2	74 ·1
0. 57	49. 30	0. 23	·1076	1. 28	·02299	Max.	77 ·0	77 ·7
1. 22	52. 30		(†)	2. 13	·02272	9. 0	77 ·0	77 ·7
1. 30	51. 35	1. 0	·1077*	3. 39	·02162	18. 0	72 ·2	73 ·0
1. 43	52. 20	1. 45	·1079	7. 2	·02015	Min.	70 ·0	69 ·8
1. 56	51. 40	1. 55	·1074	9. 7	{·01973 / ·02040}	21. 0	71 ·0	72 ·0
2. 5	53. 0	2. 17	·1082					
2. 31	52. 30	2. 42	·1066	10. 27	·02000			
2. 43	50. 0	3. 20	·1087	11. 11	·02009			
2. 50	50. 5	3. 38	·1088	11. 36	·01980			
3. 0	48. 55	3. 57	·1086	15. 41	·02203			
3. 15	48. 35	4. 18	·1088	20. 13	·02635			
3. 38	49. 25	4. 28	·1093	22. 38	·02723			
4. 15	48. 35	4. 38	·1089	23. 59	·02700			
4. 28	49. 0	5. 0	·1087					
4. 54	47. 5	5. 17	·1090					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol ː attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Aug. 7		Aug. 7						
h m	o ′ ″	h m		h m		h m	o	o
5. 14	20. 47. 5	5. 38	·1083					
5. 44	45. 30	5. 53	·1088					
7. 18	44. 35	6. 34	·1084					
7. 42	45. 0	6. 46	·1089					
8. 23	43. 25	7. 8	·1091					
8. 45	38. 0	8. 0	·1086					
9. 10	36. 0	8. 24	·1098					
9. 23	36. 15	8. 53	·1094					
10. 11	44. 40	9. 31	·1083					
11. 12	44. 25	9. 54	·1083					
11. 48	44. 35	10. 8	·1078					
12. 36	44. 25	10. 31	·1084					
13. 19	42. 30	10. 45	·1080					
13. 48	43. 0	11. 0	·1086					
14. 38	50. 25	11. 18	·1084					
15. 38	41. 50	11. 30	·1086					
16. 6	42. 0	11. 55	·1085					
16. 23	43. 45	12. 8	·1087					
16. 53	42. 50	12. 19	·1084					
17. 3	43. 10	12. 48	·1083					
17. 17	41. 30	13. 18	·1088					
17. 36	42. 35	14. 20	·1080					
17. 47	41. 30	14. 29	·1075					
17. 54	42. 40	14. 45	·1078					
18. 5	43. 0	15. 20	·1094					
18. 26	43. 25	16. 8	·1078					
18. 31	42. 5	16. 18	·1078					
18. 38	43. 10	16. 24	·1076					
18. 49	42. 0	16. 32	·1080					
***		16. 36	·1076					
19. 13	41. 45	16. 41	·1079					
19. 48	40. 55	17. 11	·1078					
20. 14	41. 30	17. 27	·1074					
20. 26	40. 15	17. 36	·1076					
21. 0	43. 50	17. 43	·1070					
21. 25	43. 35	17. 53	·1073					
21. 43	45. 20	18. 25	·1073					
22. 11	46. 10	18. 29	·1081					
23. 8	49. 55	18. 35	·1075					
23. 13	49. 30	18. 39	·1082					
23. 52	52. 20	18. 51	·1076					
23. 59	51. 25	19. 7	·1077					
		19. 34	·1073					
		20. 14	·1074					
		20. 39	·1072					
		21. 0	·1062					
		(†)						
Aug. 8		Aug. 8		Aug. 8		Aug. 8		
0. 0	20. 51. 25	(†)		0. 0	·02700	1. 0	74·3	74·7
0. 36	52. 50	1. 0	·1069*	2. 52	·02587	3. 0	75·3	75·6
0. 45	52. 0	1. 16	·1077	4. 31	·02396	Max.	77·2	78·0
1. 0	51. 50	1. 36	·1072	7. 57	·02014	9. 0	77·2	78·0
1. 24	53. 0	***		10. 12	·01965	Min.	67·0	66·7
1. 52	51. 50	3. 54	·1079	12. 23	·02240	22. 0	68·7	70·0
2. 7	52. 30	4. 9	·1074	14. 9	·02400			
2. 15	51. 30	4. 25	·1083	17. 40	·02922			
3. 15	49. 10	4. 36	·1080	20. 36	·03020			

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Aug. 8		Aug. 8		Aug. 8				
h m	o ′ ″	h m		h m		h m	o	o
3. 50	20. 48. 40	4. 47	·1084	23. 59	·03034			
4. 11	47. 30	4. 59	·1081					
4. 23	47. 40	5. 10	·1083					
4. 35	46. 40	5. 25	·1081					
4. 41	47. 0	6. 1	·1085					
5. 40	45. 40	7. 6	·1085					
6. 1	46. 5	7. 20	·1087					
6. 29	45. 20	8. 28	·1082					
7. 16	45. 30	8. 40	·1084					
8. 13	45. 50	8. 58	·1082					
8. 37	45. 30	9. 18	·1084					
9. 45	45. 20	9. 28	·1080					
9. 54	44. 25	9. 35	·1085					
(†)		9. 47	·1084					
11. 21	45. 10	9. 53	·1087					
11. 51	44. 40	10. 6	·1083					
13. 52	47. 30	10. 38	·1080					
14. 23	44. 40	11. 41	·1084					
15. 8	49. 25	12. 0	·1088					
15. 56	45. 50	12. 30	·1089					
16. 44	46. 0	12. 57	·1085					
16. 50	46. 30	13. 24	·1089					
16. 58	45. 30	13. 33	·1088					
17. 16	44. 50	13. 52	·1090					
17. 26	45. 10	14. 9	·1086					
17. 49	42. 5	14. 28	·1085					
18. 5	40. 55	14. 50	·1078					
18. 15	42. 10	***						
18. 26	42. 0	15. 49	·1083					
18. 30	42. 30	16. 8	·1082					
19. 7	43. 5	16. 23	·1085					
19. 38	41. 40	17. 13	·1088					
19. 43	43. 10	17. 30	·1083					
19. 50	40. 10	17. 52	·1080					
20. 0	39. 15	18. 6	·1082					
20. 49	43. 5	18. 20	·1079					
21. 1	42. 15	19. 10	·1082					
21. 9	43. 0	19. 25	·1080					
21. 24	42. 40	19. 31	·1082					
21. 39	44. 25	19. 39	·1077					
21. 47	44. 0	20. 5	·1079					
22. 17	47. 15	20. 29	·1074					
23. 20	51. 45	20. 46	·1068					
23. 40	52. 20	21. 5	·1067					
23. 59	53. 10	21. 32	·1077					
		21. 44	·1076					
		21. 49	·1080					
		21. 55	·1076					
		22. 52	·1079					
		23. 8	·1078					
		23. 16	·1084					
		23. 59	·1087					
Aug. 9		Aug. 9		Aug. 9		Aug. 9		
0. 0	20. 53. 10	0. 0	·1087	0. 0	·03034	0. 0	69·5	70·7
0. 18	54. 0	0. 20	·1088	1. 56	·02940	Max.	79·0	80·0
0. 30	53. 25	0. 39	·1079	2. 55	·02822	8. 0	79·0	79·4
1. 13	55. 0	1. 2	·1086	6. 21	·02046	18. 0	72·2	73·2

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Aug. 9		Aug. 9		Aug. 9		Aug. 9			Aug.10		Aug.10						
1.37	20.51.55	1. 7	·1082	9. 5	·01908	Min.	69·7	69·5	13. 0	20.44.10	8.51	·1084					
1.54	54. 5	1.24	·1086	11.27	·01924	21. 0	71·0	72·2	13.40	44.10	9.25	·1085					
3. 1	49.25	1.39	·1083	14.24:	·02102				15.23	44.15	9.38	·1089					
5.11	45. 0	2. 6	·1101	17.47	·02500				15.50	43.10	9.57	·1082					
6.47	44.45	2.39	·1089	20.30	·02805				18.42	43. 0	10.38	·1084					
7. 2	44.15	3. 7	·1089	22.24	·02900				19.24	42. 5	10.53	·1091					
7.27	44.35	3.52	·1092	23.59	·02880				20.26	43. 0	11.13	·1090					
8. 1	43.55	4.26	·1088						22. 7	46.15	11.38	·1085					
8.22	44.25	4.53	·1090						23.27	51.25	12.28	·1090					
8.38	40.40	5.17	·1086						23.59	51.55	13.29	·1088					
8.54	45. 0	5.23	·1095								15.15	·1092					
9.11	45.30	5.26	·1084								15.44	·1092					
9.40	44. 5	5.30	·1096								16. 5	·1089					
10.17	44.25	5.34	·1089								16.21	·1090					
(†)		5.58	·1083								18.57	·1087 ***					
11.23	44.20	6.50	·1089								20.14	·1078					
12.13	43.25	7. 8	·1083								21. 4	·1075					
12.49	44.45	7.22	·1083								22. 8	·1075					
13.44	43.40	7.38	·1088								23.11	·1078					
14.59	45.25	8.26	·1077								23.32	·1079					
16.58	43.30	8.45	·1097								23.59	·1082					
17.58	42. 0	9.14	·1078														
18.10	42.50	9.40	·1076														
18.16	41.55	9.53	·1073														
***		10.15	·1079														
18.45	41.30	12. 0	·1074														
19. 6.	39.55	12.50	·1079														
19.22	41. 0	13.43	·1079														
20.58:	42. 5	16. 8	·1084														
22.12	47.15	17.48	·1079														
23.59	50.30	18. 3	·1080														
		19.15	·1074														
		19.38	·1073														
		21. 0	·1067														
		21.41	·1068														
		22.17	·1071														
		22.35	·1074														
		22.53	·1073														
		23.21	·1078														
		23.53	·1079														
		23.59	·1080														
Aug.10		Aug.10		Aug.10		Aug.10			Aug.11		Aug.11		Aug.11		Aug.11		
0. 0	20.50.30	0. 0	·1080	0. 0	·02880	1. 0	73·8	74·6	0. 0	20.51.55	0. 0	·1082	0. 0	·02952	1. 0	71·8	72·2
1. 1	51. 0	0.21	·1083	1.30	·02822	3. 0	76·2	77·0	0.58	52.20	0.44	·1085	1.27:	·02900	3. 0	73·1	73·9
1.28	50.35	0.30	·1081	1.52	·02770	Max.	79·0	79·7	2. 9	50. 0	1. 8	·1084	2.47	·02802	Max.	74·6	75·5
1.39	51.30	0.48	·1084	6.53	·01958	9. 0	78·6	78·8	2.52	48.10	1.50	·1084	4.39	·02598	9. 0	74·6	75·0
2. 3	50. 0	1.29	·1080	9.28	·01886	18.45	71·0	72·0	3.37	47. 5	2.35	·1094	6.53:	·02317	18. 0	68·0	69·0
3.11	50.10	1.53	·1084	12.39	·02086	Min.	68·6	68·3	4.16	44.40	2.59	·1091	9. 9	·02227	Min.	64·6	64·2
3.40	48.15	2. 7	·1079	16. 4	·02477	21. 0	70·5	71·6	5.33	44.40	3.28	·1091	12.24	·02344	21. 0	66·0	67·0
5. 2	44.50	3. 3	·1080	19.20	·02887				5.45	44. 5	3.54	·1096	14.38:	·02485	22. 0	66·6	67·0
6.16	44.15	3.23	·1076	22.15	·02945				8.59	44. 0	4.38	·1086	17. 2	·02800	23. 0	66·8	67·5
9.29	45.25	3.32	·1083	23.59	·02952				9.23	42.25	5.26	·1089	18.55	{·03060 / ·03038}			
10. 1	44.10	3.49	·1085						10. 8	44.20	5.41	·1097	20.54	·03068			
10.32	44.20	4. 7	·1083						11.37	44.25	5.51	·1090	23.59	·03123			
10.55	46.35	5.37	·1083						11.58	44.50	6. 0	·1092					
11.30	43.50	7.31	·1088						12.28	44.20	6. 8	·1090					
12.13	46. 0	8. 6	·1084						13.57	45.25	6.37	·1096					
									14.35	46.20	7. 1	·1094					
									15.15	45. 0	8. 0	·1102					
									15.46	45.25	8.15	·1099					
									18.29	41.10	8.33	·1098					
									19.23	41.20	8.48	·1099					
									20.13	43.15	9. 5	·1096					
									20.44	43. 0	9.30	·1102					
									21.23	44. 5	9.58	·1099					
									22.15	48.25	14.29	·1099					
									23.37	51.20	14.44	·1100					
									23.45	52.15	15. 9	·1098					
									23.59	51.55	16.39	·1095					
											16.58	·1093					
											19. 2	·1092					
											20.37	·1080					
											21.40	·1080					
											22.46	·1088					
											23. 4	·1086					
											23.36	·1087					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
h m	o ′ ″	Aug.11		h m		h m	o	o
		23. 43	·1090					
		23. 52	·1091					
		23. 59	·1089					
Aug.12		Aug.12		Aug.12		Aug.12		
0. 0	20. 51. 55	0. 0	·1089	0. 0	·03123	0. 0	67 ·9	68 ·4
0. 40	53. 0	1. 4	·1091	1. 28:	·03048	1. 0	68 ·9	69 ·3
1. 1	52. 50	1. 23	·1096	3. 15	·02800	2. 0	69 ·9	71 ·0
1. 23	53. 30	1. 39	·1094	6. 38	·02118	3. 0	71 ·0	72 ·0
2. 43	50. 0	2. 28	·1097	9. 10	·02030	6. 0	74 ·4	75 ·2
3. 13	49. 40	2. 53	·1097	12. 30	·02200	Max.	75 ·4	76 ·2
4. 15	47. 20	3. 16	·1103	14. 8	·02340	9. 0	74 ·0	75 ·0
6. 18	45. 0	3. 26	·1102	18. 53	·03067	12. 0	72 ·0	73 ·2
8. 5	45. 10	3. 46	·1104	21. 57	{·03152 / ·03135}	18. 30	67 ·0	68 ·0
8. 40	46. 0	3. 59	·1102	22. 57	·03161	Min.	64 ·0	63 ·4
9. 22	44. 30	4. 56	·1102	23. 59	·03122	21. 0	65 ·4	66 ·6
13. 3	45. 5	5. 13	·1105			22. 0	66 ·0	67 ·0
14. 30	44. 25	6. 19	·1105			23. 0	66 ·2	67 ·3
14. 55	45. 0	***						
	***	8. 3	·1106					
16. 22	43. 25	8. 24	·1104					
17. 36	44. 0	8. 38	·1106					
18. 26	42. 20	9. 4	·1104					
19. 3	43. 5	9. 37	·1107					
19. 51	41. 0	10. 25	·1106					
20. 25	40. 10	11. 9	·1103					
20. 30	41. 10	11. 38	·1102					
21. 2	41. 50	12. 8	·1105					
21. 57	46. 10	13. 29	·1105					
22. 13	47. 0	13. 38	·1101					
22. 40	50. 0	13. 45	·1103					
23. 20	51. 50	14. 36	·1101					
23. 44	51. 25	15. 4	·1104					
23. 59	51. 35	16. 30	·1102					
		17. 54	·1103					
		18. 57	·1096					
		19. 14	·1097					
		21. 6	·1091					
		21. 28	·1093					
		***						
		22. 16	·1089					
		22. 26	·1091					
		22. 51	·1089					
		23. 13	·1092 (†)					
Aug.13		Aug.13		Aug.13		Aug.13		
0. 0	20. 51. 35	(†)		0. 0	·03122	0. 0	67 ·0	68 ·0
1. 23	52. 5	1. 0	·1097*	1. 42:	·02990	1. 0	68 ·8	69 ·7
2. 30	51. 30	1. 11	·1096	3. 5	·02760	2. 0	70 ·6	71 ·5
3. 33	48. 50	2. 7	·1092	5. 53	·02124	3. 0	72 ·0	73 ·0
3. 47	48. 35	3. 23	·1097	7. 26	·02029	Max.	77 ·0	78 ·0
3. 55	49. 0	3. 45	·1094	9. 40	·01976	9. 0	76 ·1	77 ·0
4. 1	48. 20	3. 58	·1102	12. 58:	·02161	18. 0	69 ·5	70 ·5
5. 33	46. 0	4. 6	·1097	16. 30	·02568	Min.	66 ·3	65 ·8
7. 28	44. 20	4. 42	·1096	16. 51	·02564	21. 0	69 ·0	69 ·1
8. 24	45. 15	5. 7	·1101	19. 2	·02862			
8. 46	44. 25	5. 30	·1099	19. 24	·02924			

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Aug.13		Aug.13		Aug.13		h m	o	o
h m	o ′ ″	h m		h m				
9. 13	20. 46. 10	5. 40	·1103	19. 45	·02900			
9. 43	41. 55	6. 13	·1105	20. 19	·02930			
10. 7	45. 25	6. 30	·1104	20. 57	{·02908 / ·02819}			
10. 53	43. 0		***	21. 38	·02940			
11. 11	43. 50	9. 10	·1104	23. 59	·03057			
11. 21	42. 45	9. 33	·1100					
11. 34	43. 20	9. 40	·1094					
11. 45	42. 5	10. 2	·1107					
12. 0	43. 10	10. 25	·1102					
13. 11	40. 55	10. 39	·1102					
13. 27	39. 0	10. 50	·1099					
13. 40	35. 45	11. 12	·1106					
14. 8	43. 5	11. 19	·1100					
14. 34	41. 5	11. 37	·1106					
14. 42	42. 0	11. 47	·1099					
14. 52	41. 25	12. 9	·1100					
15. 46	46. 5	12. 37	·1103					
16. 2	20. 50. 45	13. 2	·1098					
16. 22	21. 0. 35	13. 25	·1098					
16. 49	20. 47. 55	13. 38	·1112					
17. 6	42. 5	13. 43	·1106					
***		13. 49	·1112					
17. 36	44. 50	14. 1	·1104					
17. 56	44. 0	14. 17	·1110					
18. 8	48. 5	14. 40	·1106					
18. 26	48. 40	14. 54	·1107					
18. 59	44. 15	15. 0	·1105					
19. 17	20. 57. 35	15. 20	·1110					
***		15. 33	·1107					
19. 28	21. 0. 0	15. 42	·1113					
19. 46	20. 49. 50	15. 55	·1113					
19. 53	51. 5	16. 11	·1104					
20. 1	49. 10	16. 36	·1125					
20. 15	52. 30	16. 55	·1120					
20. 33	46. 25	17. 10	·1128					
20. 37	49. 20	17. 39	·1125					
20. 42	47. 20	17. 48	·1129					
20. 46	50. 5	18. 26	·1114					
20. 58	42. 0	18. 35	·1107					
21. 4	43. 25	18. 45	·1106					
21. 8	42. 5	19. 8	·1081					
21. 30	20. 50. 0	19. 22	·1092					
21. 40	21. 3. 15	19. 43	·1095					
21. 50	20. 55. 55	19. 50	·1090					
21. 57	58. 35	20. 1	·1101					
22. 10	51. 30	20. 18	·1106					
22. 13	53. 10	20. 37	·1086					
***		20. 41	·1093					
22. 35	50. 55	21. 1	·1056					
22. 45	53. 15	21. 32	·1029					
22. 57	53. 20	21. 41	·1060					
23. 3	56. 35	22. 8	·1042					
23. 14	53. 35	22. 20	·1054					
23. 22	54. 30	22. 25	·1052					
23. 26	53. 35	22. 39	·1063					
***		23. 0:	·1069					
23. 47	56. 30	23. 21	·1046					
23. 57	54. 35	***						

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Aug.13 23.59	20.57. 0	Aug.13 23.35	.1052 ***						Aug.14 9. 26	20.29. 5	Aug.14 10. 8	.1080					
		23.54	.1080						9. 45	41. 5	10. 16	.1090					
		23.59	.1069						9. 59	44. 0	10. 26	.1082					
Aug.14 0. 0	20.57. 0	Aug.14 0. 0	.1069	Aug.14 0. 0	.03057	Aug.14 1. 0	70.4	71.0	10. 27	40. 25	10. 48	.1076					
0. 11	58. 20	0. 2	.1069	0. 22	.03036	3. 0	72.5	73.0	10. 37	44. 15	11. 0	.1081					
0. 23	55. 15	0. 8	.1085	0. 43	.03048	Max.	74.8	75.2	10. 43	43. 40	11. 25	.1051					
0. 32	58. 50	0. 16	.1088	2. 10	.03004	9. 0	74.0	75.0	11. 1	41. 0	11. 53	.1064					
0. 38	57. 35	0. 27	.1055	3. 4	.02860	18. 0	67.8	69.0	11. 8	42. 50	12. 0	.1081					
0. 42	59. 0	0. 45	.1081	3. 18	.02850	Min.	65.2	65.0	11. 18	40. 50	12. 9	.1081					
0. 47	56. 45	0. 49	.1062	5. 50	.02438	21. 0	67.0	68.0	11. 28	35. 50	12. 15	.1073					
0. 53	57. 55	0. 59	.1074	6. 15	.02367				11. 34	36. 10	12. 35	.1074					
1. 25	57. 20	1. 26	.1045	8. 2	.02180				11. 41	34. 20	12. 52	.1082					
1. 33	59. 30	1. 36	.1057	9. 24	.02093				11. 53	35. 25	13. 6	.1076					
1. 45	53. 10	1. 45	.1052	9. 45	.02103				12. 2	20.43. 55	13. 30	.1089					
1. 52	54. 45	1. 52	.1071	10. 1	.02085				12. 18	21. 3. 55	13. 36	.1088					
2. 0	48. 30	1. 58	.1061	11. 8	.02137				12. 32	20.57. 10	13. 52	.1100					
2. 6	53. 5	2. 9	.1095	11. 32	.02120				12. 54	42. 50	13. 59	.1097					
2. 16	51. 25	2. 22	.1079	12. 8	.02200				13. 11	41. 35	14. 23	.1097					
2. 32	56. 30	2. 30	.1089	12. 25	.02118				13. 23	43. 45	14. 39	.1081					
2. 42	55. 0	2. 43	.1063	12. 43	.02104					***	14. 57	.1093					
2. 45	53. 5	2. 52	.1063	13. 18	.02233				14. 2	46. 0	15. 17	.1076					
2. 51	55. 0	3. 2	.1052	13. 51	.02290				14. 17	41. 50	15. 23	.1076					
2. 56	52. 45	3. 20	.1071	14. 12	.02300				14. 46	38. 30	15. 42	.1067					
3. 6	51. 40	3. 32	.1059	14. 47	.02344				15. 2	42. 55	15. 47	.1069					
3. 15	53. 35	3. 38	.1081	15. 6	.02400				15. 23	40. 0	16. 1	.1058					
3. 30	50. 10	3. 51	.1077	15. 45	.02440				15. 38	42. 25	16. 10	.1065					
3. 33	52. 10	3. 58	.1093	19. 2	.02980				15. 53	42. 10	16. 23	.1064					
3 38	50. 30	4. 1	.1090	21. 25	.03084				16. 2	45. 30	16. 35	.1074					
3. 46	50. 5	4. 8	.1101	23. 0	.03144				16. 7	45. 30	16. 38	.1067					
3. 52	51. 45	4. 20	.1080	23. 59	.03098				16. 31	50. 35	16. 51	.1075					
4. 2	51. 40	4. 35	.1080						16. 40	48. 40	16. 56	.1064					
4. 13	48. 35	4. 44	.1091						16. 51	48. 50	17. 6	.1075					
4. 31	48. 35	4. 55	.1091						16. 58	46. 30	17. 22	.1075					
4. 38	49. 10	5. 2	.1085						17. 3	45. 10	17. 30	.1071					
5. 9	48. 0	5. 17	.1099						17. 8	46. 45	17. 43	.1080					
5. 13	49. 5	5. 30	.1083						17. 13	44. 30	18. 3	.1070					
5. 19	48. 30	5. 45	.1084						17. 24	46. 10	18. 8	.1072					
5. 28	46. 15	5. 53	.1108						17. 45	44. 5	18. 25	.1056					
5. 37	47. 10	6. 8	.1092						18. 3	44. 40	18. 48	.1036					
5. 43	46. 20	6. 28	.1079						18. 17	43. 40	18. 54	.1040					
5. 54	48. 0	6. 37	.1078						18. 23	47. 5	19. 9	.1031					
6. 2	45. 5	6. 51	.1098						18. 34	47. 55	19. 33	.1041					
6. 7	45. 55	7. 4	.1085						18. 49	52. 25	19. 54	.1066					
6. 20	43. 40	7. 19	.1097						19. 6	54. 0	20. 8	.1056					
6. 28	44. 5	7. 27	.1088						19. 13	53. 10		***					
6. 38	42. 35	7. 35	.1095						19. 17	53. 55	20. 45	.1056					
6. 53	42. 45	7. 52	.1084						19. 23	52. 40	20. 47	.1052					
7. 1	43. 50	8. 15	.1082						19. 29	53. 10	20. 55	.1059					
7. 17	42. 10	8. 25	.1089						19. 45	52. 0	21. 11	.1053					
7. 34:	44. 50	8. 45	.1082						20. 0	53. 50	21. 30	.1049					
8. 8	39. 25	9. 2	.1085						20. 8	53. 0		(†)					
8. 27	39. 0	9. 12	.1080						20. 31	46. 35	22. 25	.1057					
8. 37	42. 25	9. 38	.1123						20. 39	47. 35	22. 46	.1076					
8. 58	34. 40	9. 51	.1088						20. 45	45. 50		***					
9. 7	35. 40	10. 0	.1087						21. 36	46. 15	23. 2	.1074					
									21. 52	49. 0	23. 14	.1084					
									22. 3	48. 35	23. 25	.1065					
									22. 17	49. 20	23. 44	.1072 (†)					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
h m	o ′ ″	h m		h m		h m	o	o
Aug.14								
22. 27	20. 47. 5							
22. 30	48. 10							
22. 45	46. 55							
23. 2	46. 45							
23. 21	49. 30							
23. 30	48. 0							
23. 59	50. 0							
Aug.15		Aug.15		Aug.15		Aug.15		
0. 0	20. 50. 0	1. 0	·1069*	0. 0	·03098	1. 0	70 ·2	71 ·2
0. 17	49. 55	3. 0	·1070*	1. 7	·03054	3. 0	72 ·8	74 ·0
0. 32	50. 35	9. 0	·1092*	3. 42	·02677	Max.	76 ·2	77 ·3
0. 52	52. 20	22. 10	·1031*	7. 35	·02395	9. 0	76 ·0	77 ·3
1. 8	52. 50	(†)		8. 9	·02408	Min.	67 ·0	67 ·0
2. 2	46. 25	23. 20	·1043	9. 22	·02330	22. 10	69 ·0	70 ·0
2. 24	48. 10	23. 59	·1060	11. 13	·02343			
2. 47	48. 5			13. 53:	·02544			
3. 26	49. 50			16. 42	·02893			
3. 58	49. 0			17. 2	·02861			
4. 3	48. 10			17. 42	r.·02885			
4. 8	48. 35			18. 15	·02957			
4. 23	47. 10			20. 39	·03047			
4. 37	46. 35			23. 59	·03110			
5. 21	43. 15							
5. 31	39. 35							
5. 44	37. 0							
5. 58	40. 50							
6. 11	41. 30							
6. 26	44. 5							
7. 15	40. 40							
7. 31	42. 15							
7. 43:	39. 40							
8. 2	37. 50							
8. 22	28. 30							
8. 38	38. 10							
8. 55	42. 5							
	(†)							
9. 0	43. 37*							
9. 42	45. 10							
9. 47	46. 5							
10. 30	42. 40							
10. 39	44. 50							
10. 45	43. 55							
10. 56	44. 40							
10. 59	44. 10							
11. 7	48. 55							
11. 28	44. 35							
12. 5	43. 45							
12. 22	41. 10							
12. 49	42. 40							
13. 16	45. 0							
14. 8	45. 10							
14. 42	46. 30							
14. 57	45. 5							
15. 20	46. 40							
15. 32	46. 5							
16. 8	46. 40							
16. 29	48. 30							

Right half:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
h m	o ′ ″	h m		h m		h m	o	o
Aug.15								
16. 45	20. 48. 20							
17. 6	49. 30							
17. 25	49. 10							
	(†)							
18. 45	46. 40							
19. 11	46. 20							
19. 23	47. 50							
19. 33	46. 25							
20. 7	46. 50							
20. 18	44. 20							
20. 32	45. 0							
20. 45	42. 50							
20. 59	44. 5							
21. 6	43. 10							
21. 13	44. 45							
21. 26	44. 20							
21. 42	47. 35							
21. 57	47. 0							
22. 12	49. 5							
22. 23	48. 15							
22. 32	51. 20							
22. 47	52. 45							
	***							
23. 54	52. 45							
23. 59	53. 30							
Aug.16		Aug.16		Aug.16		Aug.16		
0. 0	20. 53. 30	0. 0	·1060	0. 0	·03110	Max.	75 ·0	76 ·0
0. 12	51. 30	0. 15	·1072	1. 7	·03100	9. 43	74 ·0	75 ·0
0. 22	53. 55	0. 23	·1085	3. 45	·02910	18. 0	68 ·0	69 ·0
0. 41	51. 5	0. 47	·1062	4. 59	·02680	Min.	65 ·2	65 ·0
1. 7	51. 55	0. 52,	·1066	6. 30	·02434	21. 0	66 ·8	68 ·0
1. 9	53. 5	1. 10	·1059	7. 54	·02440			
1. 22	52. 5	1. 16	·1062	9. 1	·02405			
1. 32	53. 5	1. 25	·1058	(†)				
1. 44	52. 0	1. 37	·1060	21. 0	·03243*			
1. 53	54. 25	1. 50	·1048	22. 23	·03258			
2. 13	52. 35	1. 58	·1064	23. 43	{·03278 / ·03244			
2. 27	52. 0	2. 6	·1053	23. 59	·03242			
2. 33	53. 50	2. 11	·1059					
2. 46	52. 40	2. 18	·1048					
3. 0	52. 40	2. 41	·1073					
3. 8	53. 45	2. 55	·1071					
3. 19	49. 55	3. 4	·1065					
3. 30	48. 40	3. 14	·1073					
3. 37	46. 35	3. 21	·1065					
3. 52	48. 50	3. 32	·1077					
4. 11	47. 20	3. 38	·1074					
4. 45	47. 0	3. 47	·1085					
5. 30	42. 55	4. 2	·1089					
5. 46	43. 25	4. 16	·1084					
5. 53	44. 30	4. 43	·1093					
6. 0	44. 10	5. 8	·1090					
6. 12	45. 45		***					
6. 24	45. 0	6. 28	·1088					
7. 52	46. 15	6. 55	·1091					
8. 31	45. 15	7. 8	·1087					
8. 42	46. 25	7. 28	·1090					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

August 15. The photographic trace of the Horizontal Force Magnet was lost.

Left block

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.
Aug.16		Aug.16	
h m	° ′ ″	h m	
8. 56	20. 45. 10	7. 41	·1088
9. 21	45. 10		***
9. 43	43. 45	9. 6	·1087
10. 16	45. 25	9. 21	·1091
10. 32	44. 10	9. 32	·1087
10. 57	45. 35	10. 2	·1088
11. 7	44. 30	10. 11	·1091
11. 30	41. 55	10. 35	·1089
11. 56	44. 10	10. 59	·1098
12. 37	49. 0	11. 16	·1090
12. 53	48. 5	12. 17	·1090
13. 7	48. 30	12. 32	·1095
13. 23	46. 0	12. 40	·1094
13. 37	46. 10	13. 0	·1096
14. 17	43. 35	13. 30	·1092
14. 48	44. 30	13. 53	·1092
15. 30	48. 30	14. 10	·1084
15. 49	45. 50	14. 30:	·1083
16. 31	44. 25	14. 55	·1086
17. 8	46. 20	15. 53	·1098
17. 28	48. 40	16. 37	·1081
17. 37	47. 35	17. 2	·1089
17. 48	49. 0	18. 3	·1073
18. 13	48. 0	18. 52	·1092
18. 33	50. 0	19. 2	·1085
18. 43	49. 0	19. 15	·1089
	***	19. 36	·1074
19. 7	48. 50	19. 55	·1065
19. 14	46. 20	20. 8	·1070
19. 28	46. 0	21. 8	·1075
19. 36	43. 40	21. 45	·1055
19. 46	44. 55	22. 8	·1067
20. 0	43. 45	22. 25	·1059
	***	22. 37	·1070
20. 34	45. 40	22. 48	·1071
21. 17	45. 30	23. 3	·1078
22. 13	48. 10	23. 29	·1068
22. 26	45. 10	23. 37	·1072
22. 35	47. 10	23. 47	·1066
22. 41	46. 35	23. 59	·1072
23. 2	49. 20		
23. 28	49. 10		
23. 39	51. 10		
23. 47	50. 15		
23. 59	51. 50		

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force	Greenwich Mean Solar Time.	Vertical Force	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Aug.17		Aug.17		Aug.17		Aug.17		
0. 0	20. 51. 50	0. 0	·1072	0. 0	·03242	1. 0	68 ·2	69 ·2
0. 19	52. 0	0. 17	·1075	0. 30	·03240	3. 0	69 ·8	70 ·6
0. 30	53. 5	0. 28	·1083	1. 45	·03150	Max.	71 ·2	71 ·3
1. /	53. 10	0. 53	·1084	2. 0	·03160	9. 0	69 ·8	71 ·8
1. 35	51. 5	1. 2	·1082	3. 55	·03000	19. 0	62 ·2	63 ·0
1. 48	48. 15	1. 8	·1085	6. 53	·02781	Min.	60 ·0	59 ·6
1. 59	50. 10	1. 35	·1071	7. 58	·02743	21. 0	61 ·8	62 ·8
2. 13	48. 5	1. 47	·1076	9. 8	·02718			
2. 30	50. 20	2. 4	·1104	11. 43	·02900			
3. 3	48. 30	2. 15	·1090	14. 45	·03243			
3. 33	49. 10	2. 23	·1097	15. 37	·03290			

Right block

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.
Aug.17		Aug.17	
h m	° ′ ″	h m	
3. 49	20. 47. 35	2. 36	·1097
4. 8	46. 20	2. 45	·1089
4. 31	48. 10	3. 0	·1092
4. 46	45. 0	3. 7	·1088
4. 53	45. 50		***
5. 7	46. 0	3. 36	·1095
5. 17	44. 45	3. 49	·1086
5. 32	45. 25	3. 56	·1090
5. 45	43. 15	4. 12	·1093
6. 6	42. 10	4. 19	·1097
6. 12	43. 40	4. 28	·1097
6. 23	43. 25	4. 37	·1102
6. 31	44. 25	4. 43	·1099
6. 45	41. 40	4. 54	·1104
7. 12	45. 0	5. 8	·1100
7. 26	45. 35	5. 22	·1091
7. 43	43. 45	5. 36	·1101
7. 54	41. 25	5. 47	·1089
8. 0	43. 25	6. 2	·1088
8. 15	42. 20	6. 13	·1093
8. 23	40. 15	6. 28	·1092
9. 2	44. 0	6. 38	·1086
9. 23	40. 15	6. 50	·1097
9. 43	43. 30	6. 58	·1096
10. 13	45. 10	7. 6	·1100
11. 38	40. 40	7. 22	·1100
11. 57	42. 55	7. 30	·1096
12. 20	42. 35	7. 45	·1092
12. 39	46. 30	7. 57	·1101
12. 55	46. 5	8. 11	·1093
13. 3	48. 45	8. 24	·1106
13. 22	49. 40	8. 38	·1108
13. 40	47. 10	9. 8	·1097
14. 0	48. 15	9. 26	·1103
14. 10	47. 0	9. 52	·1095
14. 21	48. 25	10. 30	·1094
14. 37	47. 20	10. 57	·1102
14. 52	48. 15	11. 26	·1093
15. 47	43. 55	11. 40	·1097
16. 23	46. 20	12. 8	·1091
16. 45	45. 30	13. 22	·1095
16. 59	46. 50	13. 39	·1103
17. 9	45. 50	13. 58	·1099
17. 52	45. 25	14. 8	·1103
18. 5	47. 30	14. 29	·1099
18. 19	45. 55	14. 45	·1103
19. 0	46. 0	15. 24	·1097
19. 14	45. 20	15. 38	·1098
***	47. 0	15. 56	·1094
19. 24	47. 0		***
19. 32	45. 35	16. 35	·1101
19. 48	47. 10	16. 45	·1101
20. 28	46. 0	17. 17	·1090
20. 35	44. 15	17. 39	·1092
21. 18	47. 10	17. 56	·1097
21. 53	47. 40	18. 46	·1097
22. 6	46. 30	19. 8	·1081
22. 34	49. 40	19. 43	·1073

Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.
Aug.17	
h m	
16. 29	·03362
20. 2	{ ·03473 / ·03350 }
21. 38	·03423
23. 30	*** { ·03436 / ·03340 }
23. 59	·03337

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers Of H.F. Magnet	Of V.F. Magnet
Aug.17		Aug.17						
h m	o ′ ″	h m						
23.42	20.50. 0	20. 6	·1084					
23.57	51.15		***					
23.59	51.10	21.13	·1090					
		21.23	·1088					
		21.47	·1089					
		22.14	·1084					
			***					
		23. 6	·1094					
		23.23	·1091					
		23.38	·1094					
		23.46	·1093					
		23.59	·1092					
Aug.18		Aug.18		Aug.18		Aug.18		
0. 0	20.51.10	0. 0	·1092	0. 0	·03337	1. 0	63·0	63·8
0.15	51.55	0.10	·1092	2.58	·03344	3. 0	63·6	64·4
0.44	57. 5	0.23	·1101	3.55	·03332	6. 0	64·6	65·1
0.52	51. 0	0.34	·1094	5.33	·03250	Max.	64·6	65·8
1. 0	50.30	0.44	·1096	6.53	·03260	9. 0	64·0	65·8
1. 7	52. 0	0.54	·1088	7.19	·03270	18. 0	61·8	63·0
1.23	52.30	1. 2	·1086	10. 2	·03225	Min.	59·8	59·7
1.53	49.15	1. 8	·1095	13. 2	·03247	21. 0	61·2	61·8
	***	1.20	·1094			22. 0	61·3	61·8
2.15	48.25	1.26	·1097	17. 4	{ ·03426 / ·03265 }	23. 0	61·2	61·7
	***	1.37	·1093	18.52	·03347			
2.45	49.45		***	20. 7	·03403			
3.12	49.25	2.33	·1110	21. 1	{ ·03418 / ·03325 }			
3.35	49.35	3. 0	·1113	23.59	·03406			
4. 0	47.10	3.20	·1106					
5.45	44.50	3.47	·1117					
6. 7	44.45	4. 7	·1101					
6.15	43.45		***					
6.30	43. 5	4.38	·1098					
6.52	40.25	4.53	·1105					
7.22	43.25	5. 4	·1101					
7.59	44.15	5.37	·1107					
8.37	43.15	5.43	·1107					
8.47	41.50	6. 8	·1118					
9.13	43.30	6.17	·1111					
9.25	42.10	6.23	·1112					
9.42	44.30	6.42	·1101					
10. 0	43.10	7. 8	·1116					
10.37	46.10	7.22	·1115					
10.48	45. 5	8.11	·1119					
11.14	44.55	8.26	·1116					
11.17	45.30	9. 0	·1118					
11.42	44. 0	9.29	·1122					
11.59	45.25	9.48	·1117					
12.26	51.15	10. 7	·1116					
12.40	50. 5	10.15	·1120					
12.59	46.35		***					
13.32	44.30	10.43	·1113					
13.58	46.30	11. 0	·1120					
14.19	45.50	11.10	·1118					
14.53	43. 5	11.16	·1121					
15. 8	43.35	12. 0	·1114					
15.30	41. 0	12.11	·1119					
15.51	42.40	13. 0	·1121					

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers Of H.F. Magnet	Of V.F. Magnet
Aug.18		Aug.18						
h m	o ′ ″	h m						
16. 7	20.40.50	13.47	·1111					
16.25	40. 0	14.18	·1116					
17.14	44.10	14.20	·1114					
17.28	44. 5	15. 3	·1117					
17.48	47.40	15.15	·1115					
18. 7	46.15	15.30	·1118					
18.22	47.25	16.20	·1113					
18.32	45.45	16.40	·1100					
19. 0	44.35	16.53	·1098					
19.19	42.25	17.21	·1100					
19.38	43.30	17.38	·1106					
19.56	46. 5	18. 3	·1104					
20. 9	43.15	18.36	·1115					
20.23	43.25	19. 2	·1115					
20.26	42. 0	19.18	·1108					
20.32	43.15	19.38	·1105					
20.35	42. 5	20. 8	·1092 ***					
20.38	43. 5							
20.54	44.30	21. 3	·1099					
21.44	45. 5	21.43	·1097					
22.36	46.40	22.37	·1089 ***					
22.45	47.35							
22.53	46.45	23.15	·1097 (†)					
22.59	47.50							
23.12	48.10							
23.21	49. 5 (†)							
Aug.19	(†)	Aug.19	(†)	Aug.19		Aug.19		
1. 0	20.50.25*	0.15	·1098	0. 0	·03406	0. 0	61·0	61·7
3. 0	49.25*	0.30	·1097	1. 8	·03438	1. 0	61·2	61·9
5.16	44.50	0.55	·1100	1.45	{ ·03437 / ·03330 }	2. 0	62·0	62·6
5.28	43.50	1. 0	·1104			3. 0	62·6	63·5
6.10	42.40	1. 7	·1105	2.33	·03313	6. 0	64·4	65·1
6.26	41. 5	1.45	·1124	4.45	·03216	Max.	64·5	65·2
6.38	41.20	2.14	·1121	7.26	·03038	9. 0	64·5	65·2
7. 0	43. 0	2.18	·1124	9.20	·02887	12. 0	62·9	64·0
7.22	42.10	2.54	·1110	12.49	·03020	18. 0	61·0	62·0
7.38	44. 0	3. 7	·1116	13.54	·03080	Min.	58·8	58·4
8. 0	43.30	4. 0	·1120	14.16	·03083	21. 0	59·9	61·0
8.26	45.10	(†		17.46	·03280	22. 0	60·0	61·0
8.35	44. 5	9. 0	·1114*	21. 6	·03410	23. 0	60·7	61·1
8.58	46. 0	21. 0	·1091*	22.16	{ ·03423 / ·03261 }			
9.16	45.10			23.59	·03257			
9.31	43.35							
10.12	45. 5							
10.28	46.30							
10.40	44.40							
11. 6	44.25							
11.25	45.55							
11.44	44.55							
12. 1	45.35							
12.17	45. 5							
12.29	46.30							
12.42	45.20							
13.13	52.30							
13.38	49. 5							

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

August 19. The Photographic trace of the Horizontal Force Magnet was lost after 4ʰ. 10ᵐ.

S

Left group

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Of V.F. Magnet
h m	° ' "	h m		h m		h m	°	°
Aug.19								
14.43	20.45.30							
15. 0	43.35							
16. 0	43.15							
16.22	42. 0							
16.38	43. 5							
16.50	42.30							
	(†)							
21. 0	43.34*							
Aug.20		Aug.20		Aug.20		Aug.20		
	(†)		(†)	0. 0	·03257	0. 0	61·4	61·8
0. 9	20.50.10	0.16	·1112	2.48	·03118	1. 0	61·8	62·2
0.27	49.45	0.30	·1109	4.37	·02970	2. 0	62·2	63·0
0.45	51.25	0.47	·1113	7. 9	·02907	3. 0	63·0	64·0
1.27	51.35	1. 9	·1106	9.17	·02902	Max.	64·2	64·6
1.52	50.15	1.34	·1107	13.22	·02990	9. 0	63·6	64·6
2.13	51. 0	1.43	·1104	13.40	·02986	18. 0	60·2	61·2
2.37	49.25	2. 5	·1103	18.24	·03286	Min.	57·5	57·1
3.30	47.10	2.13	·1106	20.30	·03487	21. 0	59·0	60·0
4.43	46.30	2.40	·1102	22.52	·03600			
5.23	45. 5	2.50	·1104	23.59	·03584			
6.37	44.15	2.56	·1102					
7.13	45. 0	3.17	·1106					
7.51	43.40	3.23	·1104					
8.19	44.15	3.37	·1105					
8.37	45.15	3.45	·1108					
9.38	46. 0		***					
11.52	46.10	4.30	·1114					
12.43	45.10	4.48	·1113					
13. 3	43.30		***					
13.17	47. 0	5.25	·1113					
13.27	46. 5	6. 5	·1118					
14.14	44.30	6.52	·1112					
14.44	44.40	7. 6	·1114					
15.23	43.10	7.30	·1112					
15.41	43.55	7.57	·1113					
15.50	43. 5	8. 8	·1115					
15.55	44.35	8.49	·1113					
16.32	42.50	9. 2	·1116					
17.34	43. 5	9.14	·1115					
18.11	42.15	9.39	·1117					
18.22	43.50	9.45	·1120					
19. 2	43.55	9.55	·1118					
19.15	45. 0	10.29	·1116					
19.25	44.40	12.34	·1118					
19.45	45.30	12.53	·1123					
20.33	44. 0	13. 9	·1137					
21.25	46.25	13.43	·1115					
21.37	47.45	14.48	·1117					
22.15	49.15	15.35	·1113					
22.26	48.25	15.56	·1116					
22.37	49. 5		***					
22.44	51. 0	16.27	·1115					
23. 5	50.40	16.34	·1117					
23.20	51. 0	17.30	·1118					
23.56	48.50	18. 4	·1114					
23.59	49. 5	18.22	·1108					
		18.33	·1111					

Right group

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Of V.F. Magnet
h m	° ' "	h m		h m		h m	°	°
		Aug.20						
		18.56	·1108					
		19.22	·1114					
		20. 5	·1108					
		20.20	·1108					
		21. 0	·1099					
		21.15	·1097					
		21.49	·1097					
			(†)					
		22.52	·1082					
		23.37	·1093					
		23.45	·1093					
		23.59	·1097					
Aug.21		Aug.21		Aug.21		Aug.21		
0. 0	20.49. 5	0. 0	·1097	0. 0	·03584	1. 0	62·4	62·2
0.16	49.40	0.13	·1101	1.30	·03490	3. 0	63·8	64·0
0.22	50.55	0.22	·1100	3.38	·03265	Max.	65·5	66·8
0.43	51.45	0.32	·1105	5.30	·03062	9. 0	65·5	66·8
0.50	52.50	0.53	·1106	7.17	·02867	18.10	62·5	63·8
0.55	51.50	1. 0	·1103	9.30	·02795	Min.	60·2	60·0
1. 0	52.20	1. 9	·1109	11.55	·02790	21. 0	61·9	63·0
1.34	52.25	1.22	·1105	12.26	·02770			
1.39	53. 5	1.42	·1106	15.45	·02886			
1.45	52. 5	1.51	·1101	19. 4	·03080			
2. 6	52.15	2. 0	·1103	23.59	·03326			
2.13	51.30	2.15	·1100					
2.48	51. 0	2.32	·1102					
3. 0	51.40	2.41	·1102					
3.32	49.30	2.51	·1104					
3.43	49.40	3. 1	·1113					
5.22	45. 5	3.21	·1116					
5.37	45.10	3.34	·1107					
5.57	43.30	4. 0	·1106					
6.32	43. 5	4. 8	·1112					
7. 8	44. 0	4.19	·1116					
7.45	43.45	4.29	·1112					
9.33	45. 5	4.40	·1117					
10.15	44.10	5.24	·1106					
10.30	45. 5	5.46	·1111					
11. 4	41.55	6. 0	·1108					
11.14	41.50	6. 7	·1111					
11.28	39.25	6.23	·1112					
11.43	35.30	6.47	·1116					
12. 7	38.25	7.14	·1112					
12.30	35. 0	7.37	·1115					
12.43	35.40	7.42	·1114					
12.54	38.20	7.56	·1117					
13.15	40.20	8.59	·1112					
13.42	44.30	9.42	·1114					
14.38	45.20	10. 8	·1113					
14.52	44. 5	10.25	·1117					
15.16	45.50	11. 1	·1111					
15.40	44.35	11.11	·1114					
15.55	46.30	11.23	·1110					
16.35	45. 0	11.36	·1113					
17. 3	47. 0	11.54	·1126					
17.24	45.45	12.53	·1110					
17.39	45.50		***					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left panel

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Aug.21		Aug.21						
h m	o ′ ″	h m		h m		h m	o	o
17. 48	20. 46. 55	13. 49	·1106					
18. 1	47. 0	14. 44	·1106					
18. 46	50. 25	14. 54	·1109					
19. 3	51. 10	15. 23	·1108					
19. 40	48. 30	15. 40	·1111					
19. 48	48. 55	15. 52	·1109					
20. 16	46. 55	16. 1	·1113					
20. 28	46. 30	16. 8	·1111					
20. 43	47. 30	16. 18	·1115					
20. 52	46. 5	16. 38	·1114					
21. 23	46. 50	17. 25	·1115					
21. 48	48. 55	17. 59	·1105					
22. 0	48. 30	18. 23	·1102					
22. 11	49. 50	19. 0	·1111					
22. 21	50. 5	19. 8	·1110					
22. 28	49. 25	19. 22	·1116					
22. 58	50. 30	19. 47	·1111					
23. 13	49. 55	19. 57	·1114					
23. 24	51. 25	20. 8	·1108					
23. 33	50. 40	20. 22	·1106					
23. 43	52. 25	20. 37	·1107					
23. 59	50. 15	20. 58	·1100					
		21. 38	·1097					
		22. 8	·1096					
		22. 24	·1077					
		22. 37	·1077					
		22. 55	·1092					
		23. 14	·1084					
		23. 31	·1093					
		23. 38	·1089					
		23. 51	·1092					
		23. 59	·1089					
Aug.22		Aug.22		Aug.22		Aug.22		
0. 0	20. 50. 15	0. 0	·1089	0. 0	·03326	1. 0	63 ·4	64 ·2
0. 40	52. 15	0. 6	·1088	0. 39	·03330	3. 0	65 ·1	66 ·1
1. 37	52. 5	0. 47	·1107	1. 23	·03285	Max.	69 ·5	70 ·0
1. 43	52. 50	1. 23	·1096	3. 7	·03218	9. 0	69 ·5	70 ·0
2. 13	53. 0	1. 40	·1095	3. 55	·03130	Min.	63 ·5	63 ·9
2. 23	52. 10	1. 48	·1098	6. 25	·02743	21. 45	65 ·8	67 ·0
2. 41	52. 55	1. 58	·1098	8. 17	·02658			
2. 50	54. 0	2. 45	·1114	8. 39	·02657			
3. 6	51. 50	3. 1	·1101	10. 3	·02608			
3. 12	52. 0	3. 14	·1105	13. 20	·02594			
3. 27	49. 20	3. 26	·1096	15. 25	·02630			
3. 38	49. 55	3. 43	·1103	17. 40	·02770			
4. 35	46. 50	4. 40	·1108	20. 27	·02950			
4. 52	47. 0	4. 55	·1112	21. 42	·03020			
5. 2	46. 15	5. 7	·1111	22. 53	·03060			
6. 1	45. 5	5. 17	·1114	23. 59	·03024			
7. 32	44. 40	5. 32	·1112					
8. 8	43. 25	6. 4	·1112					
8. 27	34. 55	6. 20	·1109					
8. 57	40. 20	6. 37	·1110					
9. 7	40. 30	6. 47	·1108					
9. 16	44. 0	7. 6	·1112					
9. 28	43. 55	7. 15	·1110					
9. 45	44. 40	7. 30	·1114					

Right panel

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Aug.22		Aug.22						
h m	o ′ ″	h m		h m		h m	o	o
10. 3	20. 43. 35	7. 48	·1108					
10. 17	43. 20	7. 55	·1111					
10. 38	43. 50	8. 15	·1099					
11. 40	44. 50	8. 26	·1105					
12. 32	44. 15	9. 1	·1098					
13. 0	45. 25	9. 21	·1097					
13. 24	43. 45	9. 39	·1106					
13. 49	46. 10	10. 14	·1106					
14. 13	44. 50	10. 38	·1103					
14. 38	47. 30	12. 38	·1103					
15. 4	44. 30	13. 8	·1106					
15. 22	46. 15	13. 32	·1105					
15. 56	42. 55	13. 52	·1109					
17. 27	51. 50	14. 19	·1107					
17. 43	51. 35	14. 30	·1110					
18. 1	48. 20	14. 51	·1107					
18. 13	49. 10	15. 28	·1115					
18. 39	47. 35	16. 39	·1102					
18. 54	47. 55	17. 2	·1100					
19. 8	45. 55	17. 38	·1105					
19. 17	45. 55	17. 46	·1101					
19. 38	44. 5	17. 58	·1104					
20. 3	44. 15	18. 20	·1101					
20. 10	45. 0	19. 9	·1111					
20. 33	44. 30	19. 28	·1107					
21. 3	45. 10	19. 37	·1108					
21. 12	44. 0	20. 12	·1102					
21. 33	44. 35	21. 1	·1094					
21. 52	44. 0	21. 38	·1094					
22. 25	46. 30	21. 49	·1098					
22. 45	46. 0	22. 29	(†)					
23. 23	48. 45	23. 29	·1079					
23. 48	49. 30	23. 59	·1078					
23. 57	49. 5							
23. 59	49. 10							
Aug.23		Aug.23		Aug.23		Aug.23		
0. 0	20. 49. 10	0. 0	·1078	0. 0	·03024	1. 0	68 ·0	69 ·0
0. 25	50. 15	0. 7	·1078	0. 39	·02998	Max.	73 ·0	74 ·0
0. 40	49. 40	0. 22	·1081	3. 9	·02760	9. 0	72 ·6	73 ·2
1. 0	50. 30	0. 42	·1081	3. 17	·02720	18. 0	68 ·0	69 ·7
1. 20	49. 30	1. 5	·1084	3. 26	·02720	Min.	66 ·0	66 ·0
1. 40	49. 55	1. 21	·1084	4. 38	·02570	21. 0	67 ·2	69 ·0
1. 53	49. 0	1. 42	·1092	6. 59	·02465			
2. 6	49. 25	1. 58	·1091	9. 40	·02424			
2. 32	48. 20	2. 9	·1094	12. 9	·02447			
3. 9	48. 5	2. 30	·1092	12. 50	·02446			
4. 9	46. 15	2. 45	·1093	20. 33	·03005			
4. 22	46. 30	3. 10	·1103	22. 11	·03068			
5. 0	45. 30	3. 23	·1103	23. 59	·03074			
5. 12	45. 45	3. 40	·1099					
5. 38	44. 10	4. 23	·1107					
6. 48	45. 0	5. 38	·1099					
7. 0	44. 15	5. 49	·1101					
7. 11	44. 50	6. 5	·1100					
7. 34	44. 0	6. 45	·1100					
7. 59	44. 30	7. 2	·1099					
8. 14	43. 35	7. 13	·1100					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
Aug.23		Aug.23						
h m	o ′ ″	h m		h m		h m	o	o
8.30	20.44.30	7.23	·1098					
8.39	43.25	7.55	·1103					
8.47	43.5	8.8	·1101					
9.18	44.15	8.23	·1101					
9.37	42.30	8.46	·1095					
9.57	43.0	9.0	·1095					
10.13	42.0	9.48	·1102					
10.30	42.50	10.49	·1102					
10.41	42.45	11.13	·1104					
10.53	43.40	11.52	·1110					
11.24	43.50	12.7	·1115					
11.39	44.55	12.23	·1110					
11.58	41.15	14.20	·1093					
12.13	50.35	15.11	·1098					
12.28	49.5	15.25	·1098					
12.48	42.30	16.23	·1102					
13.13	39.40	17.1	·1103					
13.29	41.0	17.30	·1105					
13.43	39.50	17.52	·1102					
14.0	39.50	18.23	·1101					
14.12	42.25	18.55	·1097					
14.44	46.0	19.59	·1100					
14.52	45.40	20.41	·1097					
15.22	46.40	21.13	·1097					
15.40	45.15	21.26	·1094					
16.0	45.50	22.24	·1087					
16.10	44.50	23.2	·1088					
17.56	44.5		(†)					
18.0	45.0							
18.8	44.10							
18.47	45.30							
18.59	43.15							
20.0	44.5							
20.23	42.20							
20.46	42.5							
22.42	44.50							
23.13	46.40							
23.21	48.0							
23.59	49.0							
Aug.24		Aug.24		Aug.24		Aug.24		
0.0	20.49.0		(†)	0.0	·03074	1.0	68.5	69.7
0.24	49.55	0.25	·1104	0.57	·03067	3.0	69.1	70.0
0.43	49.30	1.4	·1102	2.54	·02890	Max.	69.1	70.0
1.0	50.0	1.36	·1100	3.34	·02890	9.0	67.0	67.7
1.31	49.5 ***	1.57	·1103	6.29:	·02788	18.0	62.2	63.4
		2.19	·1108	8.32	·02905	Min.	60.2	60.0
2.22	49.30	2.47	·1100	10.45:	·03210	21.0	61.8	63.0
2.37	48.30 ***	3.26	·1115	13.59	·03367			
		3.50	·1107	16.15	·03425			
4.33	45.10 ***	4.37	·1107	21.54	·03517			
		4.53	·1104	23.59	·03468			
5.46	44.25	5.23	·1111					
6.17	45.20	5.43	·1111					
6.50	44.30 ***	6.0	·1114					
		6.9	·1111					
8.42	47.5	6.37	·1123					
9.27	46.25	8.46	·1123					

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
Aug.24		Aug.24						
h m	o ′ ″	h m		h m		h m	o	o
9.43	20.47.5	9.28	·1127					
9.57	46.20	9.52	·1123					
10.12	47.0	10.7	·1124					
10.42	46.20	11.19	·1124					
11.41	46.40	11.49	·1125					
12.52	45.50	12.0	·1128					
***		12.24	·1126					
14.30	46.0	13.7	·1126					
14.53	46.35	13.30	·1124					
15.34	44.20	14.24	·1124					
15.53	45.50	14.50	·1127					
16.11	45.20	16.24	·1125					
16.22	47.40	16.49	·1128					
16.35	48.0	17.18	·1123					
16.49	46.45	17.40	·1123					
17.5	46.15	17.54	·1128					
17.27	49.10	18.34	·1128					
17.58	51.30	19.8	·1140					
18.22	50.0	20.2	·1133					
18.39	50.0	20.30	·1132					
19.19	44.5	21.7	·1121					
20.0	42.0	21.41	·1122					
20.19	42.30	21.58	·1119 ***					
20.41	42.25	22.29	·1115					
20.47	43.15	23.0	·1117					
21.28	45.10		(†)					
21.32	46.15	23.30	·1111					
21.45	46.10	23.47	·1117					
22.13	48.25	23.59	·1118					
22.32	48.30							
22.56	50.0							
23.37	49.35							
23.59	51.50							
Aug.25		Aug.25		Aug.25		Aug.25		
0.0	20.51.50	0.0	·1118	0.0	·03468	1.0	65.3	66.2
0.4	52.5	0.8	·1114	2.17	·03278	3.0	67.3	68.5
0.11	51.15	0.52	·1103	4.45	·02828	Max.	69.2	70.0
0.43	51.30	1.33	·1110 ***	6.9	·02659	9.0	68.0	69.0
0.53	50.30			9.37	·02630 ***	18.0	62.0	63.1
1.38	51.40	1.59	·1104	10.38	·02698	Min.	59.5	59.2
1.46	50.25	2.10	·1109	10.57	·02708	21.0	61.0	62.0
2.52	48.50	2.20	·1108	13.42	·02980	22.0	61.6	63.0
2.58	49.30	3.15	·1118	18.15	·03530	23.0	62.0	63.0
3.4	48.55	3.21	·1122 ***	20.59	·03537			
3.37	49.15			22.13	·03585			
3.54	49.50	3.54	·1129	23.59	·03516			
4.22	48.50	4.8	·1128					
4.44	45.10	4.17	·1122					
4.53	45.20	4.23	·1124					
5.0	44.35	4.35	·1110					
5.11	45.30	4.45	·1108					
5.16	45.0	5.13	·1121					
5.53	46.40	5.40	·1119					
6.3	45.0	5.59	·1122					
6.40	44.10	6.8	·1115					
7.22	45.25	6.32	·1114					
8.0	45.35	6.45	·1121					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner.   The Symbol *** denotes that the magnet has been generally in a state of agitation.   The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded.   A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left panel — Aug. 25

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.
Aug.25		Aug.25	
h m	o ′ ″	h m	
8. 7	20. 44. 50	7. 0	·1121
8. 49	46. 35	7. 11	·1127
9. 30	38. 40	7. 39	·1124
9. 41	39. 40	8. 2	·1123
9. 57	37. 40	8. 14	·1128
10. 7	39. 25	8. 42	·1126
10. 15	38. 0	9. 15	·1135
10. 32	44. 40	9. 47	·1128
10. 43	45. 45	10. 25	·1140
11. 4	40. 0	10. 52	·1115
11. 13	42. 0	11. 11	·1122
11. 28	41. 5	11. 24	·1118
12. 23	45. 55	11. 40	·1120
	***	11. 54	·1118
15. 51	44. 55	12. 28	·1124
17. 13	45. 30	13. 19	·1123
17. 44	44. 40	15. 23	·1127
17. 53	45. 35	16. 59	·1124
18. 7	44. 0	17. 6	·1125
18. 12	45. 20	17. 31	·1124
18. 18	44. 5	18. 11	·1129
18. 23	45. 50	18. 58	·1129
18. 30	44. 30	19. 12	·1126
19. 0	44. 35	19. 22	·1129
19. 13	41. 25	19. 51	·1129
19. 26	45. 40	20. 30	·1122
20. 2	43. 55	20. 41	·1124
20. 18	44. 35	20. 59	·1119
20. 30	43. 35	21. 8	·1111
20. 38	44. 0	21. 28	·1111
20. 45	45. 35	22. 4	·1107
20. 59	44. 0		***
21. 46	49. 25	22. 52	·1113
21. 57	49. 0	23. 9	·1121
22. 18	50. 0	23. 33	·1122
22. 28	49. 10	23. 37	·1120
22. 42	49. 35	23. 59	·1125
22. 51	48. 55		
23. 47	50. 25		
23. 59	51. 45		

Left panel — Aug. 26

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Aug.26		Aug.26		Aug.26		Aug.26		
0. 0	20. 51. 45	0. 0	·1125	0. 0	·03516	0. 0	63 ·1	64 ·0
0. 7	51. 5	0. 32	·1125	1. 2	·03480	1. 0	63 ·1	64 ·7
0. 24	51. 10	0. 53	·1123	1. 30	·03443	2. 0	64 ·0	65 ·7
0. 41	52. 30	1. 3	·1133	3. 0	·03405	3. 0	64 ·4	65 ·7
0. 53	51. 45	1. 9	·1128	3. 26	·03363	6. 0	65 ·1	66 ·0
1. 1	54. 5	1. 23	·1130	3. 52	·03357	Max.	65 ·1	66 ·0
1. 8	53. 15	1. 41	·1111	4. 40	·03305	9. 0	65 ·0	66 ·0
1. 22	53. 50	1. 51	·1120	6. 32	·03240	12. 0	65 ·0	66 ·0
1. 32	51. 30	2. 6	·1122	9. 22	·03195	18. 0	64 ·9	66 ·2
1. 43	51. 15	2. 30	·1149	10. 1	·03128	Min.	62 ·9	62 ·8
1. 45	52. 25	2. 41	·1139	10. 59	·03120	21. 0	64 ·4	66 ·0
2. 0	52. 5	2. 52	·1137	11. 29	·03167	22. 0	64 ·8	65 ·9
2. 8	53. 30	3. 2	·1147	13. 24	·03176	23. 0	65 ·2	66 ·1
2. 15	53. 0	3. 32	·1092	13. 52	·03127			
2. 23	55. 20	3. 40	·1097	14. 14	·03136			
2. 37	53. 0	3. 47	·1097	15. 25	·03122			

Right panel — Aug. 26

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.
Aug.26		Aug.26		Aug.26	
2. 47	20. 52. 55	3. 57	·1111	17. 34	·03180
2. 57	54. 0	4. 18	·1122	23. 40	{·03225
3. 1	53. 10	4. 40	·1116		·02953}
3. 13	52. 5	5. 7	·1124	23. 59	·02950
3. 22	50. 25	5. 15	·1119		
3. 32	49. 10	5. 52	·1131		
3. 49	46. 10	6. 21	·1131		
3. 55	46. 0	6. 34	·1115		
4. 15	48. 25	7. 4	·1124		
4. 23	48. 55	7. 38	·1121		
4. 36	47. 40	7. 49	·1122		
4. 44	48. 40	8. 9	·1118		
4. 55	48. 0	8. 30	·1123		
5. 0	48. 30	9. 3	·1119		
5. 17	46. 40	9. 19	·1122		
5. 49	46. 45	9. 47	·1153		
6. 0	45. 15	10. 4	·1123		
6. 20	44. 50	10. 15	·1129		
6. 42	41. 10	10. 30	·1121		
7. 15	44. 0	10. 38	·1117		
7. 52	44. 35	11. 0	·1088		
8. 13	44. 20	11. 24	·1105		
8. 24	44. 50	11. 52	·1108		
8. 36	44. 10	12. 6	·1106		
8. 48	44. 20	12. 13	·1108		
9. 6	41. 50	12. 41	·1110		
9. 22	43. 0	12. 59	·1106		
9. 42	40. 50	13. 15	·1106		
9. 52	48. 50	13. 32	·1126		
10. 10	42. 30	13. 55	·1106		
10. 21	46. 5	14. 13	·1117		
10. 29	46. 0	15. 0	·1126		
10. 42	47. 20	15. 38	·1117		
11. 9	37. 30	15. 58	·1116		
11. 19	38. 20	16. 15	·1108		
11. 29	40. 45	16. 29	·1108		
11. 48	42. 0	17. 0	·1097		
12. 5	42. 5	17. 23	·1103		
12. 9	42. 40	18. 9	·1106		
12. 43	40. 20	19. 38	·1103		
13. 7	49. 15		***		
13. 14	51. 15	21. 5	·1093		
13. 26	55. 55	21. 17	·1093		
13. 55	47. 0	21. 28	·1088		
14. 21	46. 15	21. 53	·1084		
14. 43	46. 0	22. 10	·1085		
15. 1	44. 0	22. 29	·1090		
15. 52	38. 30	22. 59	·1092		
	***	23. 9	·1086		
16. 57	42. 10	23. 53	·1090		
17. 30	43. 0	23. 59	·1092		
	***				
18. 52	41. 10				
	***				
20. 15	42. 20				
20. 26	43. 40				
20. 37	43. 15				
20. 45	44. 0				

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
h m	o ′ ″	h m		h m		h m	o	o
Aug.26								
21. 0	20.43.40							
21.43	47.30							
21.58	48.10							
22.41:	52.15							
23. 0	49.20							
23.21	53.25							
23.33	54. 0							
23.59	53. 0							
Aug.27	20.53. 0	**Aug.27**		**Aug.27**		**Aug.27**		
0. 0		0. 0	·1092	0. 0	·02950	0. 0	65·8	66·7
0.41	52.40	1. 8	·1114	1.17	·02887	1. 0	66·5	67·1
1.26	54.25	1.30	·1114	2.33	·02770	2. 0	67·1	68·1
1.37	54.10	1.40	·1105	5.53	·02630	3. 0	67·9	68·9
1.59	54.30	1.50	·1107	9.13	·02576	Max.	69·0	69·8
3.52	47.30	2.23	·1106	10.13	·02592	9. 0	69·0	69·0
5.19	44. 0	2.42	·1101	10.39	·02587	18. 0	64·4	65·7
5.52	43.35	2.50	·1105	10.59	·02600	Min.	61·5	61·1
7.30	45.10	3.35	·1105	11.57	·02576	21. 0	63·0	64·8
8.14	44.50	3.47	·1107	17. 3:	·02912			
8.51	45.45	3.55	·1105	20.10	·03244			
9. 9	42.30	4. 8	·1104	21.14	·03320			
9.15	43.35	4.13	·1107	22.45	{·03338 / ·03195}			
9.28	41.25	4.38	·1107	23.59	·03162			
10.10	39.25	4.50	·1110					
10.15	39.50	5.13	·1108					
10.43	35. 0	5.32	·1111					
11. 7	43.50	5.52	·1104					
11.18	42.35		***					
11.27	43.20	7.54	·1111					
11.39	42.30	8.31	·1110					
11.43	43. 0	9. 2	·1118					
11.58	39.40	9.29	·1114					
12.11	38.20	9.39	·1117					
12.22	38. 0	9.56	·1108					
13.56	44.35	10.12	·1119					
	***	10.50	·1110					
16.18	46. 5	11.24	·1119					
	***	11.38	·1108					
18.22	43.30	11.43	·1114					
18.27	44.15	11.54	·1104					
19.40	41.30	12. 8	·1102					
	***	12.15	·1112					
21.18	43. 0	12.23	·1110					
22.45	51.45	12.32	·1114					
22.50	51. 0	12.45	·1110					
22.59	54.30	13.21	·1107					
23. 7	52. 0	15.28	·1115					
	***		***					
23.30	51.30	16.54	·1114					
23.51	55.50	18.17	·1108					
23.59	56.25	19.39	·1101					
		21. 9	·1094					
		21.38	·1108					
		22. 2	·1109					
		22.13	·1111					
		22.32	·1101					
		22.54	·1110					

Right half:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
h m	o ′ ″	h m		h m		h m	o	o
		Aug.27						
		23.15	·1101					
		23.28	·1103					
		23.37	·1099					
		23.42	·1103					
		23.49	·1100					
		23.59	·1118					
Aug.28		**Aug.28**		**Aug.28**		**Aug.28**		
0. 0	20.56.25	0. 0	·1118	0. 0	·03162	1. 0	66·9	67·1
0.16	57.20	0.22	·1111	0.26	·03137	3. 0	69·0	69·7
0.27	56.30	0.34	·1101	0.38	·03137	Max.	71·8	73·0
0.38	58.25	0.44	·1115	2. 8	·02980	9. 0	71·8	73·0
0.53	58. 0	0.57	·1105	3.20	·02760	19. 0	65·4	66·4
1. 0	59. 5	1. 5	·1111	3.34	·02740	Min.	62·7	62·2
1. 6	57.50	1. 9	·1102	4.10	·02627	21. 0	64·4	65·8
1.22	59.20	1.28	·1099	4.53	·02620			
1.37	56.25	1.39	·1076	5.12	·02595			
1.56	55.25	1.57	·1080	5.58	·02590			
2. 7	57.55	2.12	·1106	6.28	·02550			
2.22	55.30	2.32	·1098	7.40	·02500			
2.33	56.30	2.47	·1106	8.50	·02397			
3. 2	52.25	3. 6	·1098	9.13	·02385			
3.20	52. 0	3.21	·1098	9.30	·02405			
3.25	54.15	3.32	·1122	10.23	·02420			
3.38	51.10	3.51	·1095	11.22	·02470			
4.11	49.30	4. 8	·1094	12.25	·02465			
4.27	50.35	4.23	·1110	13.30	·02507			
4.32	49.50	4.32	·1109	15.40	·02665			
4.38	51.40	4.39	·1125	18.49	·03067			
4.46	49.25	4.54	·1100	20. 6	·03240			
4.56	49. 0	5.22	·1084	21.24	·03356			
5. 0	47. 0	5.47	·1117	23.59	·03378			
5. 6	46.55	6. 1	·1101					
5.21	41. 0	6.12	·1112					
5.36	35. 0	6.19	·1106					
6. 0	44. 0	6.25	·1110					
6.10	42.55	6.38	·1107					
6.24	42.55	6.58	·1108					
6.36	44. 5	7. 8	·1105					
6.47	44. 0	7.22	·1117					
6.57	44.35	7.38	·1105					
7.12	43.15	7.46	·1118					
7.16	43.45	7.59	·1111					
7.25	42.30	8.10	·1121					
7.31	43.35	8.52	·1085					
7.45	44. 0	9. 8	·1100					
7.54	41.25	9.23	·1097					
8. 6	47.40	9.37	·1107					
8.16	42. 5	9.45	·1108					
8.22	43. 0	10. 8	·1094					
8.32	41.25	10.29	·1090					
8.48	44.25	10.37	·1097					
8.57	43.10	10.50	·1100					
9. 2	44.25	11. 8	·1112					
9.17	39.20	11.23	·1101					
9.37	41.50	11.35	·1109					
9.47	38.15	12.17	·1102					
10.14	35.55	12.24	·1106					
(†)								

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Aug. 28

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
h m	° ′ ″	h m		h m		h m	°	°
10.50	20.40.0	12.38	·1105					
11.0	40.55	12.46	·1112					
11.30	49.0	13.0	·1112					
11.46	46.10	13.13	·1101					
11.59	47.5	13.17	·1103					
12.21	44.20	13.30	·1090					
12.25	44.50	13.42	·1090					
12.29	41.35	13.52	·1093					
12.49	47.15	14.6	·1090					
12.57	46.45	14.23	·1098					
13.20	48.55	14.39	·1097					
13.29	46.30	14.51	·1102					
13.41	48.55	15.9	·1106					
14.13	49.10	15.18	·1095					
14.23	48.5	15.28	·1090					
14.37	48.0	15.38	·1094					
14.54	44.30	15.46	·1085					
15.10	45.5	15.57	·1086					
15.37	40.35	16.9	·1083					
16.0	43.30	16.41	·1091					
16.13	46.5	17.4	·1092					
16.22	45.10	17.9	·1094					
16.37	46.20	17.37	·1093					
16.53	44.50	18.7	·1100					
17.4	45.30	18.14	·1097					
17.18	43.5	18.20	·1098					
17.28	43.30	18.54	·1064					
17.57	40.40	19.7	·1073					
	***	19.24	·1072					
18.17	43.5	20.23	·1081					
18.31	45.40	21.23	·1077					
18.45	42.0		(†)					
18.58	44.25	23.8	·1057					
19.13	41.50	23.20	·1071					
19.22	40.40	23.41	·1077					
19.36	44.55	23.59	·1086					
19.42	43.40							
19.45	44.45							
20.1	41.55							
	***							
20.15	42.50							
20.27	46.5							
20.41	46.40							
20.47	45.25							
20.57	46.30							
21.0	45.20							
21.33	49.40							
21.40	49.5							
22.6	52.20							
22.17	51.10							
22.48	52.45							
23.0	52.0							
23.12	54.45							
23.39	57.0							
23.52	55.20							
23.59	59.55							

Aug. 29

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
h m	° ′ ″	h m		h m		h m	°	°
0.0	20.59.55	0.0	·1086	0.0	·03378	1.0	67·0	68·3
0.21	54.0	0.7	·1098	0.33	·03343	3.0	68·9	70·0
0.25	54.30	0.42	·1065	0.57	·03343	Max.	71·3	72·1
0.30	52.55	1.8	·1091	1.29	·03290	9.0	71·0	72·1
0.46	55.0	1.32	·1073	2.16	·03240	Min.	61·5	61·0
0.57	58.10	2.3	·1091	3.7	·03050	22.40	63·5	65·0
1.37	57.40	2.10	·1108	4.12	·02848			
1.50	58.10	2.22	·1102	5.7	·02705			
2.0	53.0	2.37	·1118	5.30	·02690			
2.12	52.35	3.2	·1071	6.8	·02533			
2.22	20.53.10	3.15	·1094	8.16	·02447			
2.37	21.0.0	3.23	·1095	9.12	·02365			
2.47	20.56.40	3.35	·1106	12.27	·02532			
2.55	55.55	3.40	·1104	13.30	·02637			
3.4	49.15	3.48	·1107	15.6	·02850			
3.15	51.5	3.54	·1106	18.56	·03388			
3.23	47.30	4.8	·1093	22.40	·03471			
3.39	52.40	4.20	·1109	23.59	·03438			
3.49	53.45	4.26	·1106					
3.58	51.0	4.41	·1115					
4.8	46.50	5.8	·1083					
4.13	48.25	5.29	·1142					
4.20	48.30	5.40	·1145					
4.36	52.15	6.9	·1094					
4.58	45.25	6.30	·1105					
5.7	35.55	6.49	·1096					
5.10	35.45	7.5	·1100					
5.16	30.0	7.26	·1092					
5.23	33.50	7.52	·1104					
5.28	34.0	8.8	·1097					
5.41	42.5	8.20	·1120					
5.48	44.5	8.31	·1106					
5.53	43.0	8.38	·1115					
6.14	36.40	8.53	·1115					
6.18	37.0	9.16	·1093					
6.27	39.25	9.27	·1103					
6.43	41.30	9.42	·1104					
7.1	42.30	10.14	·1094					
7.15	44.35	10.31	·1099					
7.31	43.10	11.6	·1098					
7.44	44.10	11.26	·1105					
8.3	43.0	11.47	·1106					
8.15	34.20	12.20	·1097					
8.27	43.30	12.53	·1105					
9.0	45.55	13.48	·1099					
9.5	44.35	15.8	·1101					
9.16	43.30	15.12	·1098					
9.27	41.35	15.20	·1100					
9.39	44.15	15.30	·1098					
10.26	42.10	16.46	·1099					
11.19	45.30		***					
11.55	45.40	17.54	·1096					
12.21	49.0	18.17	·1098					
12.33	46.30	18.30	·1094					
13.6	47.50	18.55	·1095					
14.18	44.5	19.47	·1091					
14.38	45.30	20.18	·1092					
14.58	43.30	20.46	·1089					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Readings of Thermometers — Of V.F. Magnet
Aug.29		Aug.29						
15. 11	20. 45. 35	21. 18	·1091					
15. 44	43. 35	21. 47	·1090					
16. 24	45. 25	22. 8	·1094					
16. 45	43. 55	22. 49	·1083					
17. 8	43. 10		(†)					
17. 30	43. 30	23. 47	·1086					
17. 38	42. 55	23. 59	·1090					
17. 43	43. 25							
17. 51	42. 5							
17. 57	43. 5							
18. 0	42. 10							
18. 2	43. 15							
18. 19	41. 55							
18. 25	42. 40							
18. 31	45. 0							
18. 56	42. 20							
19. 24	43. 20							
19. 43	42. 35							
20. 21	42. 25							
20. 30	41. 30							
20. 57	43. 10							
21. 18	43. 40							
22. 56	49. 45							
23. 42	53. 10							
23. 51	52. 55							
23. 55	54. 5							
23. 59	53. 35							
Aug.30		Aug.30		Aug.30		Aug.30		
0. 0	20. 53. 35	0. 0	·1090	0. 0	·03438	0. 30	65 ·8	66 ·8
0. 7	53. 0	0. 22	·1097	2. 7:	·03250	Max.	72 ·0	72 ·8
0. 38	54. 40	1. 25	·1100	4. 17	·02807	8. 0	71 ·7	72 ·7
0. 46	54. 40	2. 45	·1104	5. 50	·02496	18. 0	66 ·4	67 ·0
1. 4	54. 45	4. 19	·1102	8. 54	·02420	Min.	63 ·6	63 ·2
1. 28	53. 35	4. 56	·1107	12. 18:	·02505	21. 0	65 ·0	66 ·0
1. 36	55. 5	5. 23	·1099	17. 32	·02863			
1. 41	53. 20	5. 46	·1099	20. 47	·03167			
1. 49	52. 45	6. 6	·1096	22. 46	·03310			
3. 0	49. 40	6. 37	·1101	23. 59	·03340			
3. 40	48. 35	7. 19	·1102					
6. 28:	43. 30	7. 37	·1099					
8. 40	44. 10	8. 9	·1099					
8. 53	42. 55	8. 17	·1102					
8. 58	43. 0	8. 59	·1098					
9. 14	38. 10	9. 14	·1109					
9. 43	41. 30	9. 38	·1098					
9. 46	41. 25	10. 0	·1101					
10. 18	44. 5	10. 38	·1097					
10. 53	43. 20	10. 53	·1101					
11. 12	44. 5	11. 8	·1095					
	(†)	11. 25	·1098					
12. 0	44. 35	11. 45	·1098					
12. 17	46. 5	12. 8	·1101					
13. 42	43. 55	14. 54	·1101					
13. 53	44. 30	19. 5	·1098					
17. 23	43. 50	20. 22	·1093					
19. 5	42. 40	20. 58	·1081					
19. 42	40. 50	21. 14	·1080					

Right panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Readings of Thermometers — Of V.F. Magnet
Aug.30		Aug.30						
19. 53	20. 41. 30	21. 30	·1071					
20. 0	41. 5	22. 10	·1079					
20. 9	41. 40		(†)					
20. 24	41. 40	23. 34	·1090					
20. 37	43. 10	23. 37	·1099					
20. 51	43. 55	23. 51	·1104					
21. 8	45. 35	23. 59	·1102					
21. 27	45. 15							
21. 52	47. 50							
22. 0	47. 25							
22. 18	49. 40							
22. 24	48. 20							
23. 2	51. 45							
23. 18	51. 40							
23. 36	54. 15							
23. 43	52. 40							
23. 57	51. 10							
23. 59	51. 25							
Aug.31		Aug.31		Aug.31		Aug.31		
0. 0	20. 51. 25	0. 0	·1102	0. 0	·03340	1. 0	66 ·4	67 ·0
0. 33	53. 15		(†)	0. 58	·03332	3. 0	67 ·0	68 ·0
0. 44	52. 0	1. 0	·1103*	1. 30	·03310	Max.	67 ·2	68 ·0
0. 49	53. 0	1. 24	·1108		(†)	9. 0	66 ·6	68 ·0
0. 56	52. 15	1. 42	·1100	3. 0	·03247*	18. 15	60 ·0	61 ·8
1. 23	54. 0	2. 2	·1104	3. 28	·03240	Min.	57 ·1	56 ·8
1. 40	51. 5	2. 24	·1101	7. 39	·03050	21. 0	59 ·0	60 ·2
1. 59	51. 25	3. 11	·1102	9. 58	·03058			
2. 31	48. 30	3. 38	·1105	12. 23	·03178			
3. 1	48. 25	3. 53	·1103	13. 38	·03270			
3. 58	45. 40	4. 22	·1104	14. 43	·03402			
5. 7	44. 0	4. 53	·1101	14. 55	·03390			
6. 5	44. 25	5. 27	·1102	21. 49	·03628			
6. 19	45. 5	5. 38	·1106	23. 59	·03630			
6. 47	43. 40	5. 52	·1104					
7. 58	45. 30	6. 30	·1110					
8. 32	45. 5	6. 52	·1103					
8. 40	45. 30	7. 28	·1108					
9. 10	43. 15	8. 5	·1106					
9. 23	37. 55	8. 25	·1113					
9. 38	42. 0	9. 3	·1113					
10. 5	44. 5	9. 26	·1125					
10. 27	43. 30	9. 50	·1110					
11. 11	45. 30	10. 14	·1101					
11. 45	43. 50	10. 40	·1103					
12. 10	45. 30	11. 5	·1106					
12. 30	44. 25	11. 51	·1105					
	***	12. 8	·1107					
14. 31	45. 0	12. 18	·1105					
15. 22	43. 55		***					
15. 56	45. 30	15. 11	·1112					
16. 10	44. 25	15. 25	·1109					
16. 19	45. 25	16. 49	·1111					
16. 53	43. 35		***					
17. 23	44. 5	18. 40	·1108					
18. 17	43. 20	20. 41	·1098					
19. 23	43. 50	21. 30	·1097					
20. 23	43. 5	22. 14	·1098					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
h m	o ' "	h m		h m		h m	o	o
Aug.31		Aug.31						
20.29	20.44. 0	22.28	.1102					
20.52	43. 5	22.37	.1100					
22.10	46.25		(†)					
22.30	49.10	23.38	.1096					
22.37	49.50	23.59	.1100					
23.35	50.55							
23.52	50.40							
23.59	51.10							
Sept. 1		Sept. 1		Sept. 1		Sept. 1		
0. 0	20.51.10	0. 0	.1100	0. 0	.03630	1. 0	61·7	62·4
0. 7	51.35	1.43	.1116	2.17	.03518	3. 0	63·6	64·9
0.58	52. 0	2.16	.1116	5.21	.03046	Max.	66·2	67·0
1.58	50.30	2.41	.1125	6.40	.02842	9. 0	66·0	67·0
2. 7	49.40	2.50	.1121	8. 8	.02702	18. 0	62·0	63·0
2.20	49.30	3. 6	.1120	11.43	.02698	Min.	60·0	59·6
2.30	50.25	3.18	.1121	13. 2	.02736	21. 0	61·0	62·0
2.39	49.20	3.37	.1116	18.20	.03125	22. 0	61·0	62·0
2.53	48.30	3.50	.1118		(†)	23. 0	61·6	62·5
3. 7	48.55	4.20	.1109	21. 0	.03322*			
3.19	47.55	4.32	.1112	23.38	.03363			
3.39	48. 0	5. 9	.1108	23.59	.03363			
3.56	47.20	5.40	.1113					
4.11	46. 5	5.57	.1110					
5.13	39.55	6.22	.1117					
5.28	45.45	6.39	.1114					
5.45	44.30	6.59	.1117					
6. 1	44.55	7.17	.1113					
6. 8	45.25	8. 9	.1116					
6.26	44.40	8.30	.1103					
7. 6	44.55	9.10	.1110					
7.11	44.20	9.22	.1114					
8. 2	44. 5	9.45	.1106					
8.38	39.35		(†)					
9. 6	43.10	11.15	.1118					
9.13	42.15	11.28	.1123					
9.19	43. 0	11.53	.1114					
9.26	42.15	12.17	.1124					
9.31	42.40	12.50	.1121					
9.42	42.15	13. 0	.1116					
9.52	43. 5	14.19	.1107					
10.15	44. 0	14.57	.1110					
10.22	43.30	15.10	.1110					
10.29	44. 5	15.34	.1114					
10.55	43.45	16. 5	.1114					
11. 7	44.25	16.54	.1107					
11.18	42.55	17.37	.1109					
12.15	41.30	18. 4	.1106					
12.34	44.40	18.36	.1103					
12.53	43. 0	18.45	.1105					
13.29	41.55	19. 9	.1104					
13.41	43.30	20. 6	.1095					
14.21	41.55	20.30	.1093					
14.42	43.50	20.38	.1096					
15.28	43.15	20.45	.1094					
15.43	44.20	21. 8	.1095					
16. 8	43.30	21.30	.1098					
16.29	44.15	22. 4	.1098					

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
h m	o ' "	h m		h m		h m	o	o
Sept. 1		Sept. 1						
17. 0	20.43.35	23. 0	.1103					
17.36	44. 0		(†)					
17.48	43. 0	23.43	.1103					
17.54	44. 0	23.59	.1105					
18. 7	43.20							
18.17	43.40							
18.28	42.35							
18.32	43. 0							
18.43	41.10							
18.51	42.55							
18.57	41.20							
19. 2	42.30							
19. 7	42. 0							
19.13	43. 0							
19.27	42.15							
19.34	43.30							
19.43	42.45							
19.57	42.50							
20. 1	42.15							
20. 8	43.35							
20.31	44. 0							
20.40	45. 5							
20.47	44. 0							
20.52	44.40							
21. 6	44.10							
21.30	44.35							
22.20	47. 0							
23.59	51.35							
Sept. 2		Sept. 2		Sept. 2		Sept. 2		
0. 0	20.51.35	0. 0	.1105	0. 0	.03363	0. 0	62·0	63·0
0.41	53. 0	0.22	.1108	1.59	.03342	1.. 0	62·4	63·3
1. 5	51.55	0.37	.1108	3.46	.03262	2. 0	63·0	64·0
1.23	52. 0	0.47	.1111	5.20	.03196	3. 0	63·0	64·2
1.43	50.55	1.12	.1105	5.40	.03190	6. 0	64·3	65·0
1.58	51. 5	2. 8	.1109	8. 6	.03135	Max.	64·3	65·0
2.13	49.50	2.20	.1105	10.24	.03138	9. 0	63·7	64·9
2.24	50. 0	2.34	.1110	13.39	.03230	12. 0	63·0	64·0
2.53	48.25	2.57	.1106	17.43	.03430	18.10	61·9	63·0
3. 8	49. 5	3.10	.1110	20.13	.03512	Min.	60·1	59·9
3.45	47. 0	3.54	.1107	21.50	.03500	21. 0	61·8	62·1
4.24	47.15	4.20	.1116	23.59	.03405	22. 0	62·7	63·1
4.58	46.10	4.37	.1115			23. 0	63·3	63·6
5.16	42. 0	4.49	.1118					
5.38	44.10	5. 4	.1114					
6.22	43.30	5. 8	.1116					
6.58	45.20	5.19	.1106					
7.23	44.55	5.41	.1112					
7.59	42. 0	5.51	.1107					
8.35	44.10	6.24	.1103					
8.50	45. 0	6.44	.1111					
9. 1	43.10	6.53	.1110					
9.33	44. 0	7.12	.1114					
9.53	39.45	7.44	.1111					
10. 5	41.55	8. 8	.1114					
10.17	41.35	8.22	.1112					
10.37	44. 0	8.53	.1114					
11. 2	43.25	9.27	.1122					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Sept. 2 h m	o ′ ″	Sept. 2 h m		h m		h m	o	o
11. 14	20. 44. 5	9. 38	·1120					
11. 38	42. 25	10. 6	·1128					
11. 45	42. 45	10. 23	·1117					
11. 55	42. 15	10. 58	·1111					
12. 16	43. 15	11. 13	·1113					
13. 8	45. 10	11. 39	·1109					
13. 15	46. 5	12. 36	·1107					
13. 29	46. 0	13. 22	·1115					
13. 43	44. 25	13. 38	·1116					
14. 9	43. 30	14. 38	·1108					
14. 18	42. 25	14. 50	·1109					
14. 23	43. 10	15. 0	·1107					
14. 40	42. 20		***					
14. 48	41. 10	15. 42	·1108					
14. 56	43. 5	15. 58	·1105					
15. 7	42. 40	16. 39	·1110					
15. 30	44. 20	16. 57	·1108					
15. 40	43. 25	17. 6	·1110					
16. 15	45. 5	17. 54	·1107					
17. 3	43. 10	18. 48	·1105					
17. 36	42. 55	18. 55	·1104					
17. 49	42. 0	19. 6	·1104					
17. 56	42. 20	19. 23	·1102					
18. 39	40. 0	19. 45	·1101					
18. 49	41. 30	20. 15	·1098					
18. 59	40. 10	21. 7	·1103					
19. 8	41. 20	22. 7	·1101					
19. 31	39. 35	22. 59	·1103					
20. 13	42. 0	23. 21	·1104					
20. 55	42. 30	23. 41	·1107					
21. 56	47. 25	23. 59	·1106					
22. 2	47. 5							
23. 13	51. 0							
23. 23	50. 10							
23. 35	51. 0							
23. 59	50. 50							
Sept. 3 0. 0	20. 50. 40	Sept. 3 0. 0	·1106	Sept. 3 0. 0	·03405	Sept. 3 0. 0	64·1	64·2
0. 12	51. 10	0. 31	·1113	2. 37:	·03132	1. 0	65·1	65·4
0. 24	53. 0	0. 46	·1108	4. 49:	·02738	2. 0	66·2	66·7
0. 42	50. 40	1. 9	·1108	5. 42	·02617	3. 0	67·2	67·4
0. 47	51. 25	1. 24	·1112	9. 22	·02576	Max.	68·8	69·2
1. 0	50. 30	1. 42	·1108	11. 14	·02620	9. 0	68·0	68·2
1. 49	50. 0	1. 53	·1111	15. 20:	·02703	18. 0	64·3	65·5
2. 33	47. 55	2. 8	·1111	19. 1	·02882	Min.	61·8	62·1
2. 43	48. 30	2. 38	·1107	20. 34	·03050	21. 0	63·2	64·0
3. 17	51. 35	2. 47	·1110	21. 6	·03077			
3. 52	46. 55	3. 26	·1112	21. 17	·03117			
4. 15	47. 5		***	23. 59	·03180			
4. 38	45. 55	4. 2	·1101					
5. 8	46. 30	4. 30	·1106					
6. 16	44. 5	4. 47	·1102					
7. 2	46. 0	5. 0	·1102					
7. 31	40. 20	5. 9	·1107					
8. 23	45. 0	5. 35	·1109					
9. 0	45. 30	5. 52	·1103					
9. 8	44. 25	5. 55	·1106					

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Sept. 3 h m	o ′ ″	Sept. 3 h m		h m		h m	o	o
9. 30	20. 44. 45	6. 10	·1104					
9. 53	44. 5	6. 29	·1110					
10. 0	44. 40	7. 20	·1104					
10. 11	43. 30	7. 38	·1111					
10. 39	43. 10	8. 15	·1106					
10. 54	44. 0	8. 47	·1107					
11. 8	43. 45	9. 9	·1103					
11. 45	44. 10	9. 47	·1108					
11. 58	43. 30	10. 5	·1104					
12. 27	44. 0	10. 26	·1101					
12. 35	43. 15	10. 48	·1104					
12. 57	43. 20	11. 58	·1104					
13. 7	44. 10	12. 8	·1106					
13. 34	43. 10	12. 38	·1103					
13. 57	43. 40	13. 9	·1105					
14. 15	43. 20	13. 29	·1103					
15. 21	44. 0	13. 45	·1103					
15. 31	43. 10	14. 0	·1106					
15. 46	43. 45	14. 39	·1106					
17. 36	42. 15	15. 2	·1104					
17. 50	41. 0	15. 31	·1104					
18. 38	43. 5	16. 23	·1105					
	***	17. 56	·1101		***			
19. 18	40. 10							
19. 28	41. 35	19. 22	·1101					
19. 37	40. 20	19. 52	·1096					
19. 47	41. 40	20. 38	·1093					
19. 55	40. 0	20. 50	·1094					
20. 24	41. 25	21. 28	·1088					
20. 40	41. 10	21. 43	·1096					
21. 23	46. 0	21. 53	·1095					
	***	22. 8	·1086					
21. 30	44. 55	23. 9	·1106					
22. 43	51. 0	23. 45	·1097					
22. 53	53. 5	23. 59	·1098					
23. 33	54. 50							
23. 59	53. 25							
Sept. 4 0. 0	20. 53. 25	Sept. 4 0. 0	·1098	Sept. 4 0. 0	·03180	Sept. 4 1. 0	65·9	66·1
1. 9	53. 35	0. 12	·1102	0. 48	·03165	3. 0	66·2	67·0
1. 32	51. 0	0. 28	·1103	3. 38	·02970	Max.	66·8	68·0
	***	0. 52	·1110	5. 49	·02909	9. 0	66·0	68·0
2. 28	49. 10	1. 7	·1121	7. 36	·02847	18. 0	60·0	61·0
2. 42	49. 30	1. 37	·1108	8. 50	·02838	Min.	57·3	56·9
	***	2. 2	·1106	13. 2	·03038	21. 0	59·0	60·0
3. 20	47. 35	2. 36	·1106	15. 17	·03258			
3. 47	47. 35	2. 39	·1108	17. 43	·03542			
4. 33	45. 0		***	20. 12	·03620			
5. 3	44. 35	3. 17	·1105	22. 14	{·03637 {·03460			
6. 2	45. 30	3. 35	·1104	23. 59	·03405			
6. 16	45. 10	3. 53	·1112					
6. 32	46. 5	4. 13	·1104					
7. 10	45. 50	4. 26	·1103					
7. 46	39. 25	4. 50	·1097					
8. 6	40. 30	5. 2	·1100					
8. 40	40. 5	5. 15	·1100					
9. 0	43. 15	5. 29	·1106					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Sept. 4		Sept. 4						
h m	o ′ ″	h m		h m		h m	o	o
9. 3	20.42.15	5.47	·1104					
9.33	45. 0	6.17	·1110					
10.40	45.35	6.27	·1107					
10.58	44.50	6.38	·1111					
11.22	46.35	6.55	·1112					
11.36	45.15	7. 4	·1115					
11.45	45.50	7.27	·1110					
12. 0	45.10	7.44	·1112					
12.18	46.50	7.59	·1108					
12.41	44.55	8.23	·1117					
12.57	42. 0	8.42	·1104					
13.31	43.50	8.48	·1105					
13.56	42.25	9.18	·1102					
14.11	44. 5	9.35	·1103					
14.28	43. 0	10.13	·1110					
14.52	44.35	10.22	·1108					
15. 7	44.25	10.32	·1110					
15.48	45.40	11. 8	·1108					
16. 1	43.30	11.21	·1112					
16. 7	44.40	11.38	·1111					
16.22	45.40	11.50	·1113					
16.38	44. 0	12. 7	·1110					
16.49	44.35	12.15	·1115					
16.58	43.30	12.40	·1120					
17.24	42.40	13.16	·1110					
17.37	42.50	13.38	·1112					
17.53	41.45	14. 0	·1109					
18.15	43.15	14. 9	·1114					
18.30	43. 0	14.29	·1111					
18.42	44.25	14.50	·1116					
18.57	42.55	15. 8	·1115					
19. 6	43.20	15.27	·1107					
19.30	41.30	15.47	·1111					
19.37	42.25	16. 0	·1109					
19.58	41.50	16.20	·1116					
20.20	42.15	16.28	·1115					
20.44	41.40	16.54	·1114					
21. 3	42.10	17. 5	·1117					
	***	17.23	·1116					
22.23	48.30	18.12	·1104					
22.53	49. 5	19. 0	·1112					
23.17	49.50	19.12	·1110					
23.24	51.10	21. 4	·1107					
23.43	50.10	21.22	·1110					
23.53	51.50	21.30	·1106					
23.59	51.30		***					
		22. 9	·1104					
		22.22	·1105					
		22.34	·1102					
		22.47	·1103					
		22.50	·1099					
		23.27	·1101					
		23.43	·1097					
		23.59	·1100					
Sept. 5		Sept. 5		Sept. 5		Sept. 5		
0. 0	20.51.30	0. 0	·1100	0. 0	·03405	1. 0	62·5	62·9
0.24	52. 0	0.25	·1097	1.33	·03303	3. 0	64·0	64·0

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Sept. 5		Sept. 5		Sept. 5		Sept. 5		
h m	o ′ ″	h m		h m		h m	o	o
0.46	20.51.30	0.36	·1103	3.59	·03097	Max.	64·0	64·0
1.23	51.50	1.10	·1107	7.47:	·02998	9. 0	63·0	63·6
1.53	51.15	1.28	·1105	10.40	·03060	Min.	54·8	54·2
2.48	48.50	1.55	·1108		(†)	22.50	56·5	56·8
3. 1	48.40	2. 4	·1107	22.27	·03620			
4. 0	46.50	3.28	·1111	23.27	·03646			
4.49	46.15	3.56	·1114	23.59	·03641			
5. 0	46.30	4.52	·1117					
5.10	45.15	5. 2	·1119					
6.20	45.25	5.12	·1114					
6.39	43.40	5.25	·1119					
7.18	43.15	5.46	·1116					
7.31	44. 5	6. 6	·1119					
7.41	43.10	6.17	·1119					
7.45	43.45	6.51	·1121					
7.54	42.10	7.16	·1117					
8.10	43.20	7.32	·1118					
8.20	43. 0		(†)					
8.38	43.15	9. 0	·1115*					
	(†)	22.37	·1099					
9. 0	40.33*	22.45	·1101					
22.30	48.35	22.57	·1093					
22.45	50.40	23.26	·1102					
22.54	49.20	23.46	·1099					
22.57	50.35	23.59	·1102					
23.44	53. 0							
23.52	54. 0							
23.59	53.25							
Sept. 6		Sept. 6		Sept. 6		Sept. 6		
0. 0	20.53.25	0. 0	·1102	0. 0	·03641	Max.	63·5	64·8
0.23	52. 0	0.22	·1102	2.22:	·03500	9. 0	63·0	64·8
0.49	52.50	0.53	·1111	6, 41	·02850	18.30	60·0	61·0
1.15	51.15	1.11	·1110	10.20:	·02796	Min.	59·2	59·0
1.58	49.15	1.24	·1113	14.15	·02900	21. 0	60·6	61·0
2. 5	50. 0	1.55	·1111	18.51:	·03110			
2.20	50.10	2.10	·1115	23.59	·02965			
2.41:	48.35	2.24	·1116					
2.59	48.50	2.44	·1113					
3. 9	48. 5	3. 3	·1118					
3.38	46.35	3.16	·1115					
5. 8	44.30	4.14	·1112					
6.23	43.35	4.30	·1115					
7. 5	45. 5	4.45	·1114					
7.26	43.20	5. 1	·1117					
8. 2	45.30	5.27	·1118					
8.16	44.25	5.50	·1121					
8.58	45.25	6.13	·1116					
9.40	44.55	6.28	·1116					
9.52	46.25	7.11	·1119					
10.18	45.15	7.32	·1123					
12. 3	45. 5	7.48	·1121					
13.23	44.30	8. 8	·1121					
13.34	44.55	9. 3	·1115					
13.52	44.30	9.34	·1116					
14. 0	46. 0	9.45	·1119					
14.26	43.15	9.57	·1116					
15. 5	44. 0	10.23	·1115					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

September 5. The Photographic Traces for the three Magnetometers were partially lost, owing to a failure of gas.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Sept. 6		Sept. 6						
h m	o ′ ″	h m		h m		h m	o	o
16. 1	20. 42. 55	10. 38	·1118					
16. 40	44. 35	11. 0	·1117					
17. 27	42. 25	13. 10	·1116					
17. 38	43. 0	13. 35	·1118					
17. 51	41. 45	13. 48	·1124					
19. 57	41. 25	14. 23	·1119					
21. 23	44. 5	15. 26	·1122					
21. 33	45. 0	16. 10	·1118					
23. 24	51. 35	16. 45	·1123					
23. 38	51. 15	17. 44	·1116					
23. 48	52. 30	18. 47	·1115					
23. 59	52. 40	20. 54	·1105					
		21. 8	·1103					
		21. 47	·1105					
		22. 15	·1102					
		22. 39	·1103					
		23. 47	·1098					
		23. 59	·1100					
Sept. 7		Sept. 7		Sept. 7		Sept. 7		
0. 0	20. 52. 40	0. 0	·1100	0. 0	·02965	1. 0	63 ·0	63 ·4
0. 43	51. 55	0. 14	·1100	2. 9	·02785	3. 0	64 ·4	65 ·0
1. 22	51. 45	0. 46	·1098	2. 36	{·02776 / ·02830	Max.	65 ·6	66 ·3
2. 8	49. 40	1. 9	·1101			9. 0	65 ·0	66 ·0
4. 38	44. 30	1. 24	·1106	3. 21	·02760	18. 20	58 ·9	59 ·5
6. 28	43. 35	1. 59	·1103	9. 9:	·02644	Min.	55 ·7	55 ·4
8. 37	45. 20	2. 32	·1106	14. 41	·02980	21. 0	57 ·4	58 ·0
10. 11	43. 50	3. 5	·1107	19. 37	·03618			
	***	3. 18	·1105	21. 23	·03661			
15. 30	44. 40	3. 41	·1107	23. 59	·03670			
15. 52	43. 55	4. 38	·1107					
16. 44	44. 45	5. 5	·1111					
17. 15	47. 30	5. 22	·1111					
17. 56	46. 0	5. 52	·1112					
18. 27	43. 5	8. 6	·1110					
18. 53	41. 45	8. 53	·1110					
19. 15	42. 10	9. 10	·1114					
20. 0	41. 25	9. 23	·1113					
20. 40	42. 0	10. 25	·1112					
20. 56	42. 50	10. 46	·1114					
21. 3	41. 55	11. 20	·1114					
22. 2	45. 5	14. 38	·1117					
22. 19	46. 25	15. 15	·1121					
22. 32	48. 5	15. 44	·1120					
22. 45	47. 35	15. 52	·1121					
23. 8	49. 15	16. 20	·1118					
23. 15	49. 0	17. 11	·1117					
23. 59	50. 50	17. 22	·1120					
		17. 39	·1121					
		18. 8	·1118					
		18. 59	·1118					
		20. 53	·1105					
		22. 15	·1110					
		22. 28	·1114					
		22. 47	·1111					
		23. 2	·1114					
		23. 12	·1112					
		23. 59	·1118					

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Sept. 8		Sept. 8		Sept. 8		Sept. 8		
h m	o ′ ″	h m		h m		h m	o	o
0. 0	20. 50. 50	0. 0	·1118	0. 0	·03670	1. 0	59 ·3	59 ·8
0. 32	51. 45	0. 23	·1120	1. 21	·03645	3. 0	61 ·5	61 ·7
0. 48	52. 15	0. 36	·1117	3. 3	·03515	Max.	63 ·4	63 ·9
0. 58	51. 50	0. 47	·1124	5. 29	·03214	9. 0	63 ·4	63 ·9
1. 25	53. 5	1. 0	·1116	7. 25	·03046	18. 0	59 ·9	61 ·0
1. 39	52. 40	1. 47	·1124	7. 38	·03040	Min.	58 ·0	57 ·8
1. 45	53. 30	1. 56	·1121	8. 10	·02950	21. 0	59 ·2	60 ·0
1. 53	51. 55	2. 7	·1127	8. 37	·02925	22. 0	59 ·4	60 ·2
2. 1	53. 25	2. 15	·1120	9. 36	·02872	23. 0	60 ·0	61 ·0
2. 8	52. 35	2. 26	·1130	14. 2:	·02941			
2. 20	53. 5	2. 36	·1122	18. 57	·03163			
2. 25	54. 10	2. 40	·1128	22. 23	·03300			
2. 32	52. 50	2. 54	·1129	23. 21	·03300			
2. 38	54. 0	3. 0	·1139	23. 59	·03283			
2. 48	54. 30	3. 19	·1117					
2. 53	53. 30		***					
2. 57	55. 35	3. 40	·1114					
3. 4	54. 0	3. 54	·1119					
3. 25	52. 15	4. 4	·1119					
3. 28	52. 50	4. 7	·1116					
3. 35	52. 0	4. 26	·1116					
3. 54	54. 50	4. 33	·1105					
	***	4. 52	·1110					
4. 23	54. 30	5. 4	·1097					
4. 27:	54. 20	5. 22	·1121					
4. 46	52. 20	5. 31	·1114					
5. 0	49. 30	5. 54	·1117					
5. 18	49. 30	6. 1	·1112					
5. 26	47. 30	6. 9	·1116					
5. 52	48. 0	6. 38	·1111					
6. 0	46. 40	6. 53	·1093					
6. 19	46. 45	7. 9	·1113					
6. 29	46. 5	7. 12	·1109					
6. 40	48. 10	7. 15	·1113					
6. 48	45. 15	7. 23	·1102					
7. 2	39. 35	7. 35	·1119					
7. 9	41. 10	7. 52	·1118					
7. 19	40. 30	8. 0	·1105					
7. 32	35. 10	8. 17	·1100					
7. 43	38. 0	8. 26	·1105					
7. 52	38. 10	9. 16	·1113					
8. 2	43. 5	9. 35	·1111					
8. 25	41. 0	11. 3	·1114					
8. 59	44. 15	11. 39	·1112					
9. 35	45. 10	11. 53	·1113					
9. 55	44. 55	13. 12	·1113					
10. 39	45. 30	13. 41	·1119					
13. 18	44. 20	14. 17	·1115					
13. 32	44. 50	14. 48	·1118					
13. 57	44. 30	15. 18	·1118					
14. 14	43. 30	15. 38	·1115					
14. 27	46. 0	16. 0	·1120					
14. 42	45. 10	16. 9	·1116					
14. 47	46. 0	16. 32	·1119					
14. 56	44. 30	16. 55	·1115					
15. 7	44. 35	17. 15	·1119					
15. 30	43. 0	17 38	·1119					
15. 41	43. 30		***					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Sept. 8	° ′ ″	Sept. 8		h m		h m	°	°
15.52	20.42.55	18.54	·1104					
16. 0	43.40	19. 6	·1105					
16.12	42.30	19.25	·1102					
16.32	43.10	19.39	·1107					
17. 0	41.30	20.10	·1107					
17.20	42. 0	20.27	·1104					
17.43	41.25	20.35	··1106					
18. 3	43.35	20.56	·1100					
18.13	43.20	21. 3	·1102					
18.18	44.50	21.13	·1100					
18.27	43.55	21.29	·1102					
18.37	45.15	21.53	·1097					
18.45	44.25	22. 1	·1102					
18.54	44.30	22.23	·1104					
19. 5	45.30	22.30	·1102					
19.13	47.25	22.39	·1105					
19.31	48.10	23.11	·1102					
20. 4	46.35		***					
20.18	44.10	23.51	·1117					
20.28	44.45	23.59	·1116					
20.39	43.50							
21.50	49.50							
22. 0	49.15							
22. 6	50.35							
22.16	50. 5							
22.27	51.15							
22.43	50.15							
23. 1	50. 0							
23.24	52. 5							
23.31	51.45							
23.38	53.25							
23.59	54.10							
Sept. 9		Sept. 9		Sept. 9		Sept. 9		
0. 0	20.54.10	0. 0	·1116	0. 0	·03283	0. 0	60·6	61·2
0.35	52.45	0.12	·1103	0.20	·03270	1. 0	61·6	62·2
0.50	53. 0	0.21	·1105	2. 3	·03178	2. 0	62·7	63·2
1. 5	54.25	0.44	·1105	3. 9	·03083	3. 0	63·4	64·2
1.30	53.10	1. 7	·1114	3.57	·02937	6. 0	65·0	66·0
1.42	54.15	1.21	·1113	5.25	·02766	Max.	65·3	66·0
1.56	53. 0	1.30	·1107	6.11	·02795	9. 0	65·0	66·0
2. 7	54.20	1.40	·1107	6.30	·02766	12. 0	64·0	65·0
2.20	53.50	1.50	·1103	6.50	·02843	19. 0	60·3	61·5
2.25	54.30	2. 4	·1107	7. 9	·02798	Min.	58·0	57·8
2.43	52.50	2.30	·1087	7.33	·02765	21. 0	59·2	60·2
2.55	50.30	2.42	·1094	7.40	·02775	22. 0	59·5	60·6
3.11	50.20	2.53	·1094	8.13	·02740	23. 0	59·5	60·5
3.30	51.50	3. 8	·1103	8.56	·02738			
3.52	50. 0	3.50	·1089	9.55	·02677			
4.15	49.25	4. 2	·1107	10.41	·02656			
4.28	50. 0	4.23	·1114	10.56	·02610			
4.35	49.25	4.37	·1106	11.16	·02628			
4.51	50.40	4.42	·1108	11.57	·02560			
4.59	49.50	4.54	·1102	12.28	·02580			
5. 7	49.55	5. 9	·1108	12.47	·02625			
5.46	43.50	5.26	·1102	13. 4	·02610			
6. 0	38.30	5.37	·1108	14.15	·02716			
6.20	44.20	5.44	·1104	14.51	·02670			

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Sept. 9	° ′ ″	Sept. 9		Sept. 9			h m	°
6.43	20.21.40	5.47	·1108	15.26	·02688			
6.48	20.40	5.57	·1140	16.38:	·02890			
6.58	25.35	6.12	·1146	17.58	·03000			
7. 2	25.15	6.22	·1110	20.48	·03305			
7.10	29.30	6.35	·1095	23.49	·03504			
7.19	26.15	6.49	·1116		(†)			
7.29	37. 5	6.54	·1113					
7.39	33.15	7.12	·1096					
7.50	37. 5	7.17	·1100					
7.55	36.35	7.27	·1074					
8.10	38.30	7.38	·1093					
8.15	40. 5	7.57	·1097					
8.31	36.55	8.10	·1090					
8.39	38.50	8.15	·1091					
9. 7	39.35	8.26	·1098					
9.19	35.10	8.36	·1095					
9.31	31.35	9.20	·1104					
9.48	39.35	9.30	·1117					
10. 0	39.10	9.51	·1103					
10. 8	41.45	10. 4	·1109					
10.34	38.45	10.14	·1103					
10.42	39.10	10.21	·1107					
11. 0	30. 0	10.30	·1107					
11.17	44.25	10.43	·1088					
11.21	44.10	10.52	·1096					
11.45	45.55	10.56	·1093					
11.47	46.50	11. 6	·1096					
11.52	43.30	11.10	·1091					
12.10	33.45	11.19	·1089					
12.37	28.30	11.30	·1093					
12.43	30. 5	11.45	·1076					
12.47	28.45	11.55	·1080					
12.57	29.15	12. 2	·1078					
13.28	26.10	12.22	·1103					
13.38	34.20		***					
13.43	34. 0	13. 2	·1087					
13.50	44.35	13.11	·1098					
14. 2	54.35	13.34	·1094					
14.13	53.30	13.52	·1067					
14.17	54.25	14.23	·1102					
14.22	52. 0	14.37	·1089					
14.28	53.30	14.47	·1087					
14.40	53.15	14.55	·1098					
14.58	50.15	15. 6	·1102					
15. 3	51. 5	15.15	·1097					
15.20	41.25	15.30	·1103					
15.29	42.30	15.38	·1097					
15.39	41. 0	15.56	·1104					
15.47	42. 0	16. 8	·1101					
15.58	45.55		***					
16.52	44. 0	17. 0	·1119					
17.12	47.55	17.20	·1107					
17.21	47.10	17.24	·1110					
17.30	50.30		***					
17.32	47.35	17.48	·1097					
17.37	48.50	17.55	·1099					
17.41	45.50		***					
17.45	46.30	18.20	·1071					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left group

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
Sept. 9	Sept. 9	Sept. 9						
h m	o ′ ″	h m		h m		h m	o	o
17.53	20.44.35	18.32	·1089					
18. 8	47.40	18.42	·1080					
18.13	49.55	18.47	·1084					
18.19	48.30	18.51	·1076					
18.26	50.50	19. 8	·1087					
18.30	48. 0	19.18	·1083					
18.45	52.50	19.38	·1095					
18.53	49.15	19.47	·1084					
19. 0	48.10	19.57	·1091					
19.13	46.25		***					
19.18	50.35	20.30	·1090					
19.38	53.40	20.33	·1082					
19.47	52. 0	20.42	·1098					
	***	20.45	·1087					
20. 0	52.50		***					
20. 9	50. 0	21.53	·1039					
20.39	46.35	22. 8	·1059					
20.52	48.15	22.12	·1054					
21. 0	45.40	22.21	·1070					
21. 4	47.35	22.29	·1059					
21.27	48.55	22.34	·1069					
21.45	56.20	22.44	·1067					
21.53	54. 5	22.50	·1076					
21.58	56.15	22.56	·1067					
22. 9	54.15	23. 4	·1084					
22.15	55.25	23.15	·1063					
	***	23.46	·1086					
23.27	56.25	23.53	·1076					
23.32	58.25	23.59	·1091					
23.43	20.57.40							
23.46	21. 1. 0							
23.55	20.56.20							
23.59	21. 0. 0							
Sept.10		Sept.10		Sept.10		Sept.10		
0. 0	21. 0. 0	0. 0	·1091		(†)	0. 0	60 ·0	60 ·9
0. 8	20.56.15	0. 7	·1077	0.12	·03520	1. 0	60 ·2	60 ·9
0.13	57. 5	0.50	·1059	1. 0	·03661	2. 0	61 ·3	61 ·9
0.22	52.20	1. 5	·1083	1.32	·03662	3. 0	62 ·3	63 ·3
0.32	52. 0	1.25	·1071	1.45	·03628	Max.	63 ·6	64 ·3
0.37	49.50	1.36	·1088	2. 8	·03620	9. 0	61 ·6	62 ·8
0.42	52.50	1.47	·1072	2.25	·03578	18. 0	55 ·2	57 ·0
0.45	48.45	2.10	·1111	3.42	·03460	Min.	53 ·0	52 ·7
0.55	51.10	2.25	·1079	3.52	·03485	21. 0	54 ·0	55 ·8
1. 0	54. 0	2.37	·1099	4.29	·03350			
1. 9	51.15		***	6.56:	·03145			
1.25	47.50	3. 5	·1100	9.37	·03130			
1.38	49.55	3. 9	·1107	9.56	·03106			
1.46	49. 5	3.28	·1088	11.28	·03183			
1.55	52.25	3.35	·1096	13. 0	·03318			
2. 7	54.15	3.42	·1083	14.25:	·03413			
2.10	58. 0	3.50	·1138	16. 9	·03658			
2.15	55.40	4. 4	·1150	17.13	·03660			
2.29	52.50	4.28	·1098	20.28	·03830			
2.36	54.30	4.39	·1110	21. 8 {	·03842			
	***	4.52	·1102		·03620			
2.52	53.40	5. 5	·1110	22.53	·03686			
3. 0	55.20	5.30	·1097	23.59	·03675			

Right group

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
Sept.10		Sept.10						
h m	o ′ ″	h m		h m		h m	o	o
3.10	20.56. 5	5.38	·1097					
3.24	53.25	5.47	·1090					
3.27	51.40	5.52	·1092					
3.34	50.50	6. 0	·1089					
3.48	35.10	6.35	·1103					
4. 1	40.20	6.46	·1100					
4. 6	39.10	6.58	·1106					
4.11	42.10	7. 7	·1101					
4.25	38. 5	7.21	·1102					
4.38	39.15	8. 0	·1107					
4.53	37.15	8.15	·1105					
5. 7	42. 0	8.23	·1110					
5.38	44.55	8.38	·1105					
5.46	44. 0	9.13	·1125.					
6. 9	45. 0	9.22	·1107					
6.30	44.25	9.37	·1134					
6.56	45. 0	9.47	·1130					
7. 1	45.40	9.59	·1136					
7.27	44.55	10.12	·1132					
8. 8	44.40	10.20	·1116					
8.24	43.35	10.37	·1106					
8.33	44. 5	10.40	·1107					
8.46	42.30	10.44	·1105					
9. 8	36.40	11. 1:	·1110					
9.22	41.10	11.23	·1095					
9.28	40.20	11.32	·1099					
9.30	41.25	12. 7	·1098					
9.38	40.35	12.15	·1103					
9.42	41.35	12.26	·1102					
9.58	37.50		***					
10.22	47. 0	13.20	·1116					
10.32	45.45	13.28	·1103					
10.43	45. 5	13.54	·1094					
10.51	43.25	14. 6	·1100					
11. 8	38. 5	14.26	·1095					
11.21	40.25	14.41	·1107					
11.35	38.10	14.50	·1105					
11.46	38.10	15. 6	·1107					
12.13	41.50	15.15	·1102					
12.26	43.55	15.40	·1108					
12.35	43.30	16. 4	·1118					
12.56	46.30	16.42	·1097					
13.10	45. 0	16.53	·1097					
13.26	46. 5	17. 8	·1089					
13.35	47.45	17.43	·1098					
14. 0	47.10	17.59	·1105					
14.10	50.35	18.18	·1098					
14.28	47.15	18.23	·1102					
14.57	42.10		***					
15. 2	43. 0	18.54	·1093					
15.12	42.10	19. 1	·1095					
15.23	42.50	19.13	·1084					
15.37	45. 5	19.38	·1098					
15.54	44.10	19.46	·1093					
16. 3	45.35	20. 8	·1096					
16.13	44.50	20.41	·1063					
16.18	47.10	20.55	·1070					
16.33	45.20	21. 5	·1069					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Sept. 10		Sept. 10						
h m	o ′ ″	h m		h m		h m	o	o
16. 43	20. 43. 10	21. 26	·1077					
16. 58	46. 20	21. 37	·1076					
17. 13	46. 15	22. 2	·1087					
17. 34	48. 35	22. 14	·1083					
17. 43	50. 0	22. 35	·1089					
17. 52	49. 25	22. 40	·1088					
18. 0	49. 30	22. 54	·1091					
18. 17	47. 0	23. 2	·1089					
18. 24	48. 5	23. 15	·1096					
18. 52	45. 50	23. 21	·1093					
18. 59	46. 55	23. 25	·1096					
19. 8	46. 10	23. 36	·1090					
19. 35	46. 10	23. 47	·1091					
19. 42	48. 40	23. 53	·1087					
19. 47	45. 45	23. 59	·1095					
19. 55	46. 5 ***							
20. 16	44. 35							
20. 30	48. 30							
20. 49	46. 25							
21. 3	50. 30							
21. 44	52. 0 ***							
22. 23	51. 25 ***							
23. 13	53. 25							
23. 18	52. 25							
23. 43	53. 0							
23. 54	55. 0							
23. 59	54. 35							
Sept. 11		Sept. 11		Sept. 11		Sept. 11		
0. 0	20. 54. 35	0. 0	·1095	0. 0	·03675	1. 0	56 ·9	57 ·8
0. 16	53. 35	0. 13	·1103	1. 44	·03600	3. 0	60 ·3	61 ·0
0. 26	54. 25	0. 35	·1100	4. 0	·03135	Max.	63 ·0	64 ·0
0. 40	53. 0	0. 45	·1090	6. 11	·02922	9. 0	62 ·8	63 ·0
0. 49	54. 25	0. 50	·1092	8. 43	·02837 / ·02917	18. 0	56 ·4	57 ·4
1. 2	51. 45	1. 2	·1083	12. 2	·02895	Min.	55 ·0	54 ·6
1. 18	53. 0	1. 23	·1102	13. 9	·02928	21. 0	56 ·0	57 ·0
1. 30	51. 10	1. 27	·1098	15. 2	·02970			
1. 46	52. 10	1. 35	·1102	18. 25	·03375			
1. 53	50. 45	1. 39	·1097	21. 13	·03600			
1. 58	51. 30	1. 53	·1104	23. 59	·03690			
2. 11	49. 5	2. 2	·1096					
2. 27	50. 35	2. 8	·1099					
2. 40	52. 5	2. 17	·1092					
2. 52	49. 40	2. 51	·1117					
3. 6	39. 0	3. 0	·1114					
3. 12	42. 30	3. 19	·1130					
3. 22	41. 5	3. 29	·1113					
3. 52	46. 15	3. 38	·1122					
4. 8	45. 20	4. 1	·1100					
4. 15	46. 10	4. 13	·1096					
4. 30	45. 5	4. 22	·1102					
4. 38	45. 30	4. 35	·1098					
5. 7	44. 25	4. 53	·1093					
5. 17	45. 5	5. 13	·1096					
5. 40	43. 50	5. 23	·1104					

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Sept. 11		Sept. 11						
h m	o ′ ″	h m		h m		h m	o	o
6. 48	20. 45. 15	5. 35	·1102					
7. 27	44. 40	5. 41	·1105					
7. 44	45. 15	6. 4	·1104					
7. 56	44. 35	6. 22	·1107					
8. 32	45. 5	6. 38	·1105					
9. 19	44. 30	6. 51	·1108					
10. 13	45. 15	7. 2	·1106					
10. 55	44. 45	7. 43	·1108					
11. 35	45. 10	8. 8	·1106					
12. 4	43. 0	8. 17	·1108					
12. 24	43. 20	8. 31	·1105					
12. 52	46. 15	8. 54	·1108					
13. 15	46. 25	9. 9	·1106					
13. 46	41. 50	10. 12	·1108					
14. 13	51. 45	10. 32	·1107					
14. 23	52. 0	11. 8	·1111					
14. 31	50. 45	11. 22	·1108					
14. 40	50. 55	11. 38	·1111					
14. 58	44. 25	12. 40	·1100					
15. 7	43. 50	13. 28	·1117					
15. 17	41. 45	13. 43	·1114					
15. 39	40. 0	13. 58	·1114					
15. 57	40. 10	14. 22	·1097					
16. 27	42. 30	15. 2	·1121					
18. 16	41. 10	15. 23	·1109					
18. 40	44. 45	16. 30	·1103					
18. 52	44. 35	17. 12	·1111					
19. 8	48. 40	18. 20	·1107					
19. 25	47. 55	18. 33	·1110					
19. 34	48. 10	18. 54	·1096					
19. 40	47. 10	19. 4	·1095					
19. 52	47. 20	19. 30	·1081					
19. 58	48. 45	20. 11	·1099					
20. 8	47. 30	20. 23	·1096					
20. 11	48. 30	20. 38	·1103					
20. 17	48. 0	(†)						
20. 31	48. 45	21. 40	·1096					
20. 49	46. 50	22. 8	·1090					
21. 59	51. 25	22. 35	·1096					
22. 28	53. 50	22. 47	·1086					
22. 39	53. 25	23. 5	·1080					
22. 56	55. 5	23. 22	·1089					
23. 10	54. 25	23. 37	·1094					
23. 24	56. 5	23. 53	·1106					
23. 39	55. 15	23. 59	·1103					
23. 47	55. 55							
23. 59	55. 25							
Sept. 12		Sept. 12		Sept. 12		Sept. 12		
0. 0	20. 55. 25	0. 0	·1103	0. 0	·03690	1. 0	58 ·7	59 ·0
0. 25	55. 30	0. 32	·1108	0. 30	·03697	3. 0	61 ·3	61 ·6
0. 40	53. 35	0. 40	·1101	1. 35	·03645	Max.	64 ·5	64 ·0
1. 3	53. 10	0. 56	·1102	3. 2	·03463	9. 0	64 ·5	64 ·0
1. 25	54. 50	1. 29	·1119	4. 32	·03195	Min.	57 ·0	56 ·9
1. 39	54. 50	1. 43	·1116	6. 46	·02867	22. 30	58 ·6	59 ·0
1. 47	53. 10	1. 55	·1104	11. 4	·02770			
2. 13	50. 30	2. 30	·1101	15. 29	·02920			
2. 27	47. 55	2. 38	·1103	20. 10	·03215			

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Of V.F. Magnet
Sept.12		Sept.12		Sept.12				
2.38	20.48.35	2.47	·1099	23.23	·03340			
2.46	47.45	2.55	·1100	23.59	·03334			
3.10	48.25	3.15	·1096					
3.34	46.10	3.28	·1098					
4.13	44.30	3.52	·1095					
4.28	51.50	4.17	·1099					
4.37	38.15	4.26	·1096					
4.45	38.20	4.38	·1101					
4.49	39.25	4.41	·1107					
5. 0	39. 5	4.58	·1102					
5.13:	40.45	5. 8	·1104					
5.24	39.30	5.22	·1102					
5.52	41. 5	5.45	·1106					
6. 8	39.25	6. 2	·1100					
6.27	40.10	6.22	·1103					
6.58	39.10	6.45	·1101					
7. 5	40. 5	6.53	·1104					
7.15	39.30	7. 4	·1103					
7.28	42.10	7. 9	·1105					
8. 0	41.30	7.23	·1100					
8.19	42. 0	7 44	·1099					
9. 0	44.20	8. 2	·1100					
10.32	44.45	8.13	·1104					
10.49	45.55	8.47	·1106					
11.17	44.10	8.53	·1106					
11.23	44.40	9.10	·1108					
12.21	44.30	9.23	·1107					
13. 7	44. 0	9.38	·1111					
13.47	44.15	9.52	·1107					
14.48	43.15	10.30	·1111					
16.27	43.10	10.44	·1110					
18.36	41.10	10.58	·1111					
19.18	41.45	11.14	·1107					
19.27	41.15	11.25	·1108					
19.31	42.10	11.37	·1107					
19.38	41.25	11.53	·1106					
20. 0	42.35	12. 5	·1108					
20. 4	41.35	12.18	·1107					
20.40	44.35	13.40	·1109					
21. 0	44.55	13.50	·1108					
21.15	47.30	15. 8	·1107					
21.41	49.55	17.40	·1110					
22.10	48.15	18.41	·1108					
22.30	48.15	19.58	·1101					
23. 6	49.40	20.17	·1104					
23.11	50.30	20.48	·1098					
23.22	50.15	21. 6	·1085					
23.27	51.20	21.17	·1088					
23.51	52.30	21.35	·1087					
23.59	53.50	22.17	·1097					
		22.27	·1103					
		23.10	·1104					
		23.48	·1103					
		23.59	·1102					
Sept.13		Sept.13		Sept.13		Sept.13		
0. 0	20.53.50	0. 0	·1102	0. 0	·03334	1, 0	60·7	61·0
0.11	54.40	0.26	·1107	2.24:	·03214	Max.	65·0	65·0

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Of V.F. Magnet
Sept.13		Sept.13		Sept.13		Sept.13		
0.22	20.53.30	0.32	·1107	4.48	·02946	9. 0	65·0	65·0
0.31	54. 5	0.43	·1104	5. 9	·02935	18. 0	59·3	60·3
0.41	52.45	1.24	·1108	5.54	·02830	Min.	55·5	55·1
1.22	54. 0	1.41	·1101	7.13	·02790	21. 0	57·0	58·0
1.39	52. 0	1.58	·1101	9.15:	·02695			
2. 8	51.35	2.18	·1095	12. 7	·02695			
2.16	50.40	2.32	·1101	12.38	·02673			
2.30	50.50	2.58	·1097	16.27:	·02937			
2.54	49.30	3. 8	·1092	21.28	·03598			
3. 7	48.20	3.29	·1099	22.49	·03690			
3.13	49.15	3.38	·1096	23.59	·03690			
3.23	49.10	3.47	·1097					
4. 2	46.25	4. 0	·1091					
4.22	46.30	4. 5	·1094					
4.28	47.20	4. 8	·1092					
5. 1	34. 0	4.23	·1096					
5.13	37.40	4.32	·1106					
5.27	39.15	4.51	·1091					
5.38	41.50	5.12	·1116					
5.49	41. 0	5.20	·1109					
6. 8	42. 0	5.30	·1108					
6.23	40.40	5.38	·1114					
6.32	40.50	5.50	·1101					
6.55	38.15	6. 0	·1110					
7.13	42. 0	6.15	·1114					
7.22	41.55	6.23	·1109					
7.31	43.15	6.35	·1108					
7.43	42.45	7. 0	·1095					
8. 2	45.20	7.10	·1097					
8.24	43.40	7.21	·1094					
9. 5	44.30	7.37	·1098					
9.36	44.10	7.45	·1098					
9.55	45.40	8.40	·1113					
10.15	45.10	9. 7	·1109					
10.39	45.35	9.40	·1108					
11.28	43.25	10. 2	·1104					
11.50	44. 5	10.32	·1106					
12. 2	46.15	10.43	·1104					
12.15	46.15	11.53	·1106					
12.27	42.30	12.25	·1128					
12.39	42.40		***					
12.56	41.30	13.39	·1105					
13. 6	42. 0	14.16	·1102					
13.15	40.30	14.25	·1099					
14.23	41.10	14.45	·1105					
14.39	42.40	15. 0	·1102					
15. 1	41.35	15.38	·1105					
	***	16.18	·1104					
16.29	43.10	16.52	·1115					
16.53	40.20	17.30	·1109					
17.16	42.10	18.21	·1111					
17.33	41.30	19.21	·1105					
17.53	42.35	19.48	·1106					
18.12	41. 0	20.32	·1094					
	***	20.46	·1097					
19. 0	42.30	21.15	·1084					
19.18	41. 0	21.38	·1085					
19.40	41.40	22. 1	·1077					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Sept.13		Sept.13						
h m	o ′ ″	h m		h m		h m	o	o
19.45	20.43. 0	22.25	·1086					
19.52	41.15	22.38	·1078					
20.13	43.10	23. 7	·1088					
20.22	44.30	23.18	·1102					
20.57	46.30	23.26	·1103					
21.16	45.30		(†)					
21.23	47. 5							
21.33	46.30							
21.41	47.10							
21.53	47.10							
22.10	50. 5							
22.25	49.25							
22.36	51. 0							
22.53	50. 5							
23.13:	53.30							
23.47	51.55							
23.59	51.55							
Sept.14		Sept.14		Sept.14		Sept.14		
0. 0	20.51.55		(†)	0. 0	·03690	1. 0	58·5	59·0
0. 6	51.45	0.32·	·1114	2.52	·03662	3. 0	60·1	60·7
0. 13	52.25	1. 0	·1116	4.57	·03440	Max.	62·1	62·3
0. 41	51.30	1.28	·1112	5. 9	·03444	9. 0	62·0	62·3
0. 56	53.15	1.45	·1116	6.10	·03320	18. 0	59·5	60·1
1. 22	51.45	2.13	·1107	6.22	·03317	Min.	57·6	57·4
1. 43	52.40	2.38	·1114	10.39:	·03060	21. 0	59·0	59·5
1. 52	51.20	2.53	·1116	14.22	·03085			
1. 59	52.45	3.17	·1096	14.48	·03079			
2. 11	51. 0	3.47	·1100	16.10	·03148			
2. 20	51. 0	3.53	·1098	21.47	·03347			
2. 41	48.25	4.11	·1114	22.52	·03364			
2. 50	47.35	4.23	·1115	23.37	·03347			
3. 30	47. 0	4.47	·1086	23.59	·03355			
3. 39	46. 0	4.58	·1102					
4. 8	46.25	5.10	·1104					
4. 33	45.10	5.23	·1115					
4. 45	36.40	5.38	·1107					
5. 1	38.10	5.43	·1108					
5. 13	37.10	5.58	·1102					
5. 23	41. 5	6.12	·1122					
5. 40	42.40	6.25	·1112					
5. 58	37. 0	6.44	·1117					
6. 13	42.50	6.55	·1111					
6. 23	42.10	7. 4	·1114					
6. 45	44.25	7.17	·1113					
6. 58	43.25	7.28	·1114					
7. 16	42.40	7.38	·1111					
7. 38	40.15	7.55	·1114					
8. 10	40.50	8.20	·1105					
8. 23	37.50	8.28	·1111					
8. 27	38.30	8.35	·1111					
8. 38	36. 5	8.58	·1125					
9. 0	42. 0	9.44	·1111					
9. 10	42. 0	11.52	·1114					
9. 19	44.30	12.43	·1113					
9. 36	45.35	13. 7	·1118					
9. 47	44.35	13.55	·1118					
10. 0	45. 0	14. 2	·1116					

Right panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Sept.14		Sept.14						
h m	o ′ ″	h m		h m		h m	o	o
10.29	20.44.30	14.22	·1120					
12.43	44. 5	14.34	·1120					
12.59	44.55	14.38	·1118					
13.23	43.50	14.54	·1119					
13.37	47.25	15.11	·1112					
13.58	44.30		***					
14.20	53.10	15.38	·1112					
14.34	51.20		***					
15.16	44.15	16. 3	·1116					
15.21	44.45		***					
15.32	43.25	16.48	·1116					
15.47	44.35	17. 5	·1118					
16. 0	44. 0		***					
16. 6	44.35	17.53	·1117					
16.36	43.25	18. 8	·1108					
17.45	43.10	18.33	·1100					
18. 9	45.10	18.55	·1099					
18.15	44.50	19.16	·1104					
18.51	49.30	19.26	·1101					
19. 8	48.15	20. 3	·1103					
19.17	49.20	20.20	·1109					
20. 7	43. 5	20.55	·1104					
22.43	48. 0	21.48	·1103					
22.57	51.50	22.41	·1098					
23.16	51.30	22.49	·1099					
23.26	51.35		(†)					
23.41	51.35	23.23	·1105					
23.57	53.35	23.41	·1103					
23.59	53.15	23.59	·1077					
Sept.15		Sept.15		Sept.15		Sept.15		
0. 0	20.53.15	0. 0	·1077	0. 0	·03355	1. 0	60·6	61·0
0. 7	52.45	0. 9	·1085			3. 0	62·4	62·8
0. 22	55. 0	0.22	·1080	1. 0 {	·03339 / ·03280	Max.	63·8	63·8
0. 28	53.25	0.33	·1085	1.41	·03270	9. 0	62·6	63·0
0. 46	53.15	0.43	·1077	3. 0	·03168	18. 0	59·7	59·8
0. 57	53.45	0.52	·1078	5. 7	·02920	Min.	57·8	57·4
1. 5	53.25	1.40	·1097	5. 30	·02923	21. 6	59·2	59·2
1. 28	53.35		***	6. 10	·02880	22. 0	59·2	59·2
2. 0	51.35	1.57	·1093	8. 57	·02812	23. 0	59·9	59·9
2. 11	52.10	2. 8	·1094	10.25	·02805			
2. 18	51. 5	2.35	·1119	12.33	·02847			
2. 29	51. 5	2.56	·1097	13.15	·02872			
2. 38	50.15	3. 4	·1103	13.50	·02852			
2. 52	51. 0		***	17.38:	·03090			
3. 8	50. 0	4.32	·1095	20.58	·03220			
3. 27	48.20	4.40	·1108	23.59	·03240			
3. 30	48.30	4.53	·1105					
4. 1	46.35	5. 8	·1086					
4. 10	47.30	5.32	·1110					
4. 20	46.10	5.47	·1112					
4. 28	46.35	5.53	·1116					
4. 46	44.50	6.16	·1104					
4. 54	41.15	6.24	·1106					
5. 7	35.10	6.37	·1103					
5. 15	34. 5	6.42	·1104					
5. 28	35. 0	7. 0	·1100					
5. 41	38.40	7. 8	·1103					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Sept.15		Sept.15						
5.57	20.40.0	7.38	·1099					
6.12	38.5	7.52	·1105					
6.22	38.40	8.8	·1098					
6.29	38.5	8.20	·1117					
6.47	41.30	8.36	·1107					
7.24	41.50	8.45	·1107					
7.43	38.55	9.8	·1099					
7.52	39.25	9.30	·1103					
8.9	24.30	9.53	·1099					
8.27	36.35	10.9	·1100					
8.41	39.10	10.30	·1097					
8.58	38.45	10.39	·1103					
9.10	39.40	11.1	·1107					
10.7	38.0	11.38	·1102					
10.25	41.15	11.53	·1107					
10.37	38.0	12.1	·1106					
10.45	38.50	12.9	·1108					
10.58	38.0	12.17	·1104					
11.30	43.0	12.28	·1107					
11.46	42.50	12.47	·1102					
11.52	44.5	13.6	·1108					
12.3	43.20	13.23	·1105					
12.13	44.35	13.32	·1106					
12.22	44.0	13.51	·1124					
12.26	44.35	14.0	·1118					
12.47	43.55	14.8	·1118					
13.12	47.10	14.17	·1120					
13.30	55.10	14.37	·1112					
13.51	51.0	15.22	·1108					
14.0	50.15	15.49	·1109					
14.15	45.50	15.58	·1112					
14.26	44.35		***					
14.45	42.40	16.32	·1112					
15.6	42.35	16.47	·1114					
15.41	43.10	17.27	·1115					
15.51	42.15	17.31	·1117					
15.58	43.35	17.48	·1106					
16.20	42.50	18.5	·1103					
16.28	42.0		***					
16.37	42.30	18.42	·1110					
16.45	44.5	19.2	·1104					
17.28	43.35	20.8	·1095					
17.47	46.5	20.15	·1096					
18.9	45.5	20.24	·1091					
18.15	45.45	20.37	·1094					
18.22	47.25	20.42	·1087					
18.27	45.0	20.52	·1089					
18.36	44.0	21.12	·1081					
18.41	45.5	21.41	·1092					
18.46	43.25	21.51	·1086					
18.51	44.50		***					
18.59	43.20	22.28	·1086					
19.13	43.50		***					
19.41	41.15	23.28	·1092					
19.52	43.20	23.38	·1087					
20.2	42.10	23.52	·1094					
20.13	44.30	23.59	·1094					
20.28	44.30							

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Sept.15								
20.37	20.42.50							
20.46	42.25							
21.0	43.30							
21.10	42.25							
21.27	43.25							
21.38	45.10							
21.46	44.20 ***							
22.25	47.5							
22.28	46.10							
23.5	48.0							
23.11	47.10							
23.20	50.25							
23.27	49.0							
23.59	50.35							
Sept.16		Sept.16		Sept.16		Sept.16		
0.0	20.50.35	0.0	·1094	0.0	·03240	0.0	60.5	60.3
0.10	50.35	0.24	·1099	1.18	·03200	1.0	61.6	61.2
0.22	52.10	0.47	·1094	2.47	·03064	2.0	62.6	62.2
0.38	51.10	1.8	·1106	4.28	·02815	3.0	63.5	63.3
0.50	51.20	1.24	·1103	5.13	{·02780 / ·02863}	6.0	64.6	64.8
1.0	53.15	1.35	·1104			Max.	64.8	65.3
1.28	53.50	1.51	·1096	7.45:	·02715	9.0	64.6	64.3
1.45	52.5	2.2	·1101	11.8	·02706	12.0	62.5	62.5
1.56	52.40	2.11	·1100	11.37	·02730	Min.	54.4	54.8
2.22	49.35	2.27	·1102	12.23	·02730	21.0	55.8	56.2
3.2	50.25		***	13.13	·02797	22.0	56.4	56.8
3.20	48.10	2.47	·1107	15.58:	·03065	23.0	56.7	57.0
3.25	48.55	2.58	·1100	19.46	{·03593 / ·03540}			
3.56	46.15		***	21.0	{·03653 / ·03480}			
4.15	46.20	3.35	·1100	21.49	·03535			
4.38	44.10	4.2	·1098		(†)			
4.58	45.35	4.44	·1107	23.59	·03453			
5.15	42.5	4.58	·1098					
5.25	42.0	5.11	·1099					
5.42	40.30	5.23	·1096					
5.58	41.0	5.40	·1096					
7.0	43.55	6.8	·1102					
7.16	43.30	6.31	·1100					
7.27	44.15	6.53	·1103					
7.57	43.0	7.11	·1102					
8.24	44.0	7.23	·1106					
8.33	43.35	7.54	·1099					
8.52	44.25	8.10	·1102					
9.38	43.10	8.23	·1102					
9.56	44.25	8.52	·1106					
10.14	43.5	9.0	·1103					
10.25	44.5	9.31	·1107					
10.32	43.10	9.41	·1113					
10.44	45.40	10.6	·1107					
11.13	43.0	10.18	·1118					
11.26	43.50	10.29	·1114					
11.42	46.55	10.39	·1123					
11.58	46.35	11.8	·1108					
12.30	41.20	11.30	·1116					
12.40	40.35	12.2	·1110					
12.58	42.30	12.12	·1112					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Sept. 16		Sept. 16						
h m	o ' "	h m		h m		h m	o	o
13. 7	20.43.30	12.38	·1103					
13.32	42. 0	12.52	·1102					
13.43	42.15	13.14	·1109					
14. 8	39.25	13.39	·1112					
14.32	40.10	14.13	·1108					
14.56	42.35	16. 7	·1110					
15.16	42.45	16.24	·1112					
15.29	44.20		***					
	***	18. 2	·1114					
19.45	43.50	18.30	·1112					
19.53	47.45		***					
20. 2	43.50	19.31	·1115					
20.13	43.30	20. 9	·1107					
20.23	42.30		***					
20.36	43. 5	20.53	·1107					
20.43	42.15	21. 6	·1111					
20.45	40.25	21.21	·1110					
21.24	44. 0		***					
21.30	42.45	22. 2	·1103					
21.53	47.50	22.23	·1101					
22. 7	48. 0		(†)					
22.15	45.30							
	***							
22.37	51. 0							
	***							
22.55	52.10							
23.13	46.40							
	***							
23.45	48.30							
23.59	50.35							
Sept. 17		Sept. 17		Sept. 17		Sept. 17		
0. 0	20.50.35		(†)	0. 0	·03453	0. 0	58·0	58·0
0.12	49.40	1. 0	·1114*	1. 5	·03450	1. 0	58·4	58·5
0.29	51. 0	1.30	·1120	1.30	·03410	2. 0	59·6	59·4
0.41	48.40	1.53	·1121	1.43	·03420	3. 0	61·0	61·0
0.52	49.10	2. 7	·1124	3. 1	·03290	Max.	63·7	64·7
1. 1	48.15	2.43	·1127	4.43	{·03026 / ·03148}	9. 0	63·7	64·7
1.46	48.30	2.49	·1122			18.40	59·0	58·8
2. 0	47.40	3. 0	·1123	5.24	·03085	Min.	57·0	56·5
2. 6	48.20	3. 8	·1111	5.35	·03108	21. 0	58·0	58·2
2.16	48.10	3.21	·1111	6.32	·02968			
	(†)	3.30	·1115	7.39	·02893			
3. 0	57.31*	4. 0	·1106	9.15	{·02858 / ·03051}			
3.51	48.40	4.30	·1105					
5.18	44.35	4.41	·1127	11. 7	·03022			
5.41	43.25	4.55	·1105	11.40	·03000			
6. 9	44.25	5.32	·1110	13.40	·03102			
6.28	44.10	5.54	·1107	16.30	·03340			
6.32	44.30	6.15	·1106	18.14	{·03437 / ·03360}			
6.42	43.10	6.50	·1110					
7.14	43.25	7.14	·1107	18.50	·03360			
7.29	42.10	7.27	·1106	19. 8	·03420			
7.38	42.50	7.45	·1111	19.45	{·03420 / ·03388}			
7.55	42. 0	8. 5	·1108					
8.21	43. 0	8.13	·1111	20.41	{·03420 / ·03462}			
8.45	41.10	8.38	·1108					
8.54	42.25	8.51	·1109	21.28	{·03440 / ·03250}			
9.20	41.10	9.13	·1107					

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Sept. 17		Sept. 17		Sept. 17				
h m	o ' "	h m		h m		h m	o	o
9.39	20.43. 5	9.26	·1107	22.13	{·03184 / ·03102}			
9.54	43.25	9.49	·1112					
10.26	40.35	10.28	·1110	23. 2	·03108			
10.41	40.30	10.39	·1110	23.39	{·03080 / ·03310}			
10.56	45.20	11. 0	·1127					
11. 7	44. 0	11.40	·1117	23.59	·03285			
11.31	43.25	12. 9	·1114					
12. 0	38.45	12.32	·1106					
12.40	35.30	12.45	·1104					
12.56	38.25	13. 2	·1108					
13.19	39.10	13.30	·1104					
13.30	38. 5	13.52	·1103					
13.57	40.40	14. 4	·1107					
14.18	48.25	14.20	·1102					
14.57	45. 5	14.48	·1113					
15.10	43.20	14.55	·1112					
15.43	42. 5	15.36	·1117					
16.13	42. 5	16.11	·1112					
16.30	43.35	16.24	·1115					
16.41	42.25	16.36	·1113					
17. 0	43.20	17.14	·1115					
18.47	41.30	19.40	·1113					
18.57	41.50	21.28	·1105					
	***	22.17	·1104					
19.48	41. 0	22.26	·1106					
20.53	41.55	22.45	·1104					
21. 0	41.10	23. 5	·1106					
21. 8	42. 5		(†)					
21.22	42.20							
22.28	45.30							
22.39	45.15							
23.23	48.50							
23.40	52.15							
23.59	52. 5							
Sept. 18		Sept. 18		Sept. 18		Sept. 18		
0. 0	20.52. 5		(†)	0. 0	·03285	1. 0	60·6	60·2
0. 7	53.40	0. 3	·1104	1.25	·03232	3. 0	62·3	62·0
0.13	53. 0	0.37	·1107	3.10	·03087	Max.	66·2	67·0
0.28	54. 0	0.43	·1104	4.38	·03023	9. 0	64·6	65·5
0.36	53. 0	0.59	·1104	6. 2	·02884	18. 0	60·0	60·4
0.51	53.50	1.15	·1098	7.30	·02784	Min.	57·3	57·7
1. 2	52.50	1.38	·1104	11.40	·02781	21. 0	59·5	59·2
2.13	55.50	2.10	·1103	14. 2	·02920			
2.43	51.30	2.21	·1106	14.57	·02960			
3. 3	50.40	2.28	·1104	16.23	·03100			
3.10	51.50	2.38	·1105	20.27	·03401			
3.26	50.10	2.51	·1100	22.15	·03463			
3.33	48.55	3. 9	·1099	22.23	·03440			
3.45	50. 0	3.17	·1106	23. 1	·03457			
4. 0	44.45	3.43	·1101	23.59	·03422			
4. 8	41.10	3.51	·1104					
4.16	42.30	3.56	·1101					
4.38	43.15	4. 4	·1104					
4.48	44.30	4.13	·1094					
4.55	43.45	4.38	·1099					
5.17	45.30	4.50	·1105					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Sept. 18

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Of V.F. Magnet
h m	° ′ ″	h m		h m		h m	°	°
5.27	20.44.50	5. 0	.1105					
5.42	46.30	5. 6	.1101					
6.12	46. 0	5.12	.1102					
6.36	43.20	5.32	.1098					
7. 7	44.35	5.39	.1102					
7.19	43.25	5.49	.1101					
7.42	45.40	6.10	.1103					
7.59	43. 5	6.24	.1096					
9.24	44.30	6.37	.1094					
9.40	43.40	7. 9	.1097					
10. 0	44.25	7.28	.1102					
10.15	43.35	7.55	.1094					
10.30	39. 5	8.32	.1103					
11. 2	41.25	8.43	.1101					
11.11	39.50	9.42	.1106					
11.19	41. 0	9.51	.1111					
11.45	36.50	9.56	.1112					
(†)		10.10	.1107					
12.29	36.45	10.30	.1122					
12.45	38. 5	10.45	.1117					
13. 9	37.10	11. 4	.1115					
13.15	38. 5	11.12	.1116					
13.34	37.30	11.39	.1110					
13.48	41.25	11.48	.1112					
14.19	42.45	12.12	.1104					
14.56	37.35	12.23	.1106					
15. 6	37.15	12.58	.1099					
15.33	39.30	13.13	.1101					
15.47	39.30	13.32	.1098					
16. 0	41.10	13.43	.1101					
16. 5	40.30	13.50	.1100					
16.22	41.35	14.38	.1113					
16.40	41.40	15.15	.1105					
16.59	44.25	15.38	.1104					
17.36	45. 5	15.55	.1109					
18.18	46.30	16. 3	.1105					
18.34	45.15	16.39	.1115					
19.16	47.55	16.56	.1115					
19.57	44.15	17.29	.1112					
20.16	44.10	17.49	.1107					
21.54	47.15	17.55	.1109					
22.21	49.30	18.15	.1103					
23.27	50. 0	18.32	.1103					
23.46	51.30	18.45	.1106					
23.59	51.15	19.22	.1107					
		19.29	.1108					
		19.41	.1107					
		19.52	.1109					
		19.59	.1107					
		20.17	.1110					
		20.45	.1108					
		22.12	.1095					
		22.22	.1095					
		22.54	.1080					
		23.20	.1084					
		23.40	.1096					
		23.59	.1094					

Sept. 19

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Of V.F. Magnet
h m	° ′ ″	h m		h m		h m	°	°
0. 0	20.51.15	0. 0	.1094	0. 0	.03422	1. 0	62.6	62.6
0.13	50.30	0.30	.1099	1. 0 {.03340		3. 0	65.5	65.8
0.39	52.10	1. 2	.1094	1. 0 {.03270		Max.	68.2	68.9
0.52	51. 5	1.45	.1100	1.28	.03210	0. 0	67.1	67.5
1. 0	51.35	1.55	.1105	2.41	.02960	Min.	58.9	58.3
1.48	48.50	2.13	.1103	3.22	.02864	21.30	60.9	61.7
2. 0	49.10	2.31	.1105	9.40:	.02641			
2.10	48.30	2.43	.1102	15. 1	.02770			
3.59	47.30	3. 8	.1104	15.39	.02776			
4.42	45.40	3.26	.1099	18.11:	.02962			
5.27	45.55	3.35	.1100	21.28	.03347			
5.47	44.50	4. 2	.1090	21.45	.03342			
6.20	44.30	4.27	.1093	22.13	.03384			
6.33	43.55	4.50	.1099	23.59	.03490			
7. 6	44. 0	5. 2	.1096					
7.11	44.10	5.32	.1092					
7.40	43.10	5.47	.1097					
8.40	43.15	5.58	.1098					
9.15	37. 0	6. 7	.1096					
10. 1	41.40	6.15	.1097					
10.46	43.10	6.22	.1099					
12.37	43.15	6.28	.1095					
12.47	43.40	6.36	.1101					
13.23	41.55	6.52	.1102					
14. 6	42. 0	7.10	.1098					
14.41	43. 0	7.44	.1098					
15.11	50. 0	7.55	.1101					
15.47	43. 5	8.13	.1099					
16.41	43.25	8.30	.1100					
17. 1	44.25	8.40	.1102					
17.17	45.30	9. 8	.1100					
18. 1	42.50	10. 3	.1100					
18.15	44. 0	10.22	.1102					
18.47	42.25	11.17	.1103					
18.58	43.25	11.28	.1105					
19.22	43.20	11.42	.1103					
19.48	50.35	12.23	.1104					
20. 3	50.20	12.40	.1109					
20.26	51.35	14.35	.1108					
20.33	51. 5	14.50	.1110					
20.45	49.20	15. 8	.1108					
20.54	50. 5	15.26	.1119					
21.13	48. 0	15.38	.1122					
21.23	45.30	15.53	.1118					
21.42	44.10	16.23	.1121					
22. 1	44.30	16.56	.1109					
22.11	43. 0	17.39	.1122					
22.15	46. 0	18.13	.1117					
22.41	47.10	18.30	.1112					
22.57	46. 5	18.51	.1110					
23. 6	47. 0	19.19	.1097					
23.15	46.10	19.33	.1097					
23.49	48.30	20. 2	.1090					
23.59	48.35	20.19	.1089					
		20.32	.1097					
		20.48	.1100					
		21.18	.1098					
		21.31	.1093					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

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Greenwich Mean Solar Time	Western Declination (° ′ ″)	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Of V.F. Magnet
		Sept.19						
		22. 5	·1096					
		22.19	·1093					
		22.24	·1104					
		22.32	·1100					
		22.38	·1103					
		22.53	·1093					
		23.11	·1097					
		23.15	·1093					
		23.59	·1099					
Sept.20		**Sept.20**		**Sept.20**		**Sept.20**		
0. 0	20.48.35	0. 0	·1099	0. 0	·03490	0. 0	60·0	60·5
0.15	49.10	0.17	·1100	0.29	·03495	Max. 8.30	60·7	60·7
0.31	48.55	0.30	·1094	1.18	·03548	18. 0	55·0	55·6
0.49	51. 5	0.49	·1101	1.33	·03544	Min. 3.38:	53·3	52·7
0.57	50.35	1. 6	·1101	3.38:	·03580	21. 0	54·4	55·0
1.17	52.30	1.27	·1106	7.17	·03478			
1.37	50.50	1.48	·1089	7.59	·03480			
2. 0	51.10	2.41	·1107	8.53	·03440			
2.23	49.35	3.38	·1111	9.34	·03466			
3.28	48.30	3.58	·1108	9.58	·03475			
4.17	46.35	4.17	·1110	11.42	·03560			
5.49	44. 0	4.30	·1109	12.17	·03529			
6.45	43. 0	5. 8	·1109	14. 0	·03620			
7. 0	40.35	5.18	·1111	14.30	·03619			
7.29	32.20	5.27	·1111	18.31	·03758 / ·03716			
7.43	34.10	5.42	·1114	20.28	·03784			
8.13	43.50	6. 8	·1111	22.47	·03775			
8.30	44.55	6.29	·1111	23.40	·03755			
8.41	43.15	7. 0	·1106	23.59	·03739			
9. 0	38.15	7.18	·1100					
9.21	36.50	7.35	·1103					
9.37	38.10	7.40	·1106					
9.53	36.10	7.51	·1104					
10. 7	36. 5	7.58	·1108					
10.40	40.10	8.11	·1106					
11.15	39.25	8.31	·1112					
11.29	40. 0	8.58	·1100					
11.49	38.35	9. 5	·1100					
12. 0	43. 0	9.22	·1095					
12.16	44.20	9.35	·1095					
12.39	38. 5	9.45	·1099					
12.52	36.15	10.18	·1097					
13.15	39. 5	10.38	·1103					
13.31	39.15	11. 1	·1103					
14.16	48.40	11.30	·1105					
14.33	47.10	11.45	·1109					
14.55	43.10	11.53	·1124					
15.16	42.55	12. 0	·1126					
15.28	44.40	12.23	·1115					
16.15	43.35	12.37	·1113					
17.59	43.30	13. 8	·1113					
18.22	42.10	13.52	·1103					
18.29	42.35	14.11	·1115					
19. 8	42.10	14.30	·1117					
19.13	42.55	15. 3	·1114					
19.37	42.35	15.53	·1117					
19.45	41.30	17.41	·1117					

Right half of page

Greenwich Mean Solar Time	Western Declination (° ′ ″)	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Of V.F. Magnet
Sept.20		**Sept.20**						
20. 8	20.42.35	18. 8	·1118					
20.16	42.15	18.21	·1121					
20.29	42.55	18.57	·1122					
20.43	41.50	19.39	·1116					
21.30	43.30	20.53	·1114					
22. 3	46. 0	21. 8	·1112					
22.45	45.35	21.43	·1112					
22.54	46.45	22.39	·1104					
23.25	47. 5	23.23	·1103					
23.36	48.35	23.59	·1107					
23.44	48.15							
23.59	49. 5							
Sept.21		**Sept.21**		**Sept.21**		**Sept.21**		
0. 0	20.49. 5	0. 0	·1107	0. 0	·03739	1. 0	57·7	57·7
0.28	51. 5	0.27	·1105	2. 0	·03584	3. 0	59·5	59·0
0.43	49.30	0.40	·1100	6.38:	·03000	Max. 6.38:	61·0	61·1
0.53	49.50	1. 0	·1100	10.15	·02968	9. 0	59·7	59·2
1. 7	49. 0	1.32	·1106	14.23:	·03224	18. 0	54·8	55·0
1.29	50. 0	1.41	·1104	20.17	·03719	Min.	53·0	52·4
1.43	49.15	1.59	·1106	21.14	·03780	21. 0	54·1	54·4
2.17	49.35	2.16	·1107	23. 0	·03810			
2.58	48. 5	2.50	·1103	(†)				
4.27	45.40	3.33	·1103					
4.42	46.10	3.55	·1107					
5. 8	45.15	4.35	·1108					
5.23	45.50	4.45	·1112					
6. 0	44.20	5.10	·1113					
6.27	44.25	5.27	·1109					
6.43	44. 0	6.31	·1113					
7.16	44.30	6.41	·1112					
8.30	44.10	7. 5	·1115					
9.33	44.15	7.27	·1114					
9.48	42. 0	8. 0	·1115					
10. 1	43. 0	8.29	·1118					
10.19	42. 5	9.36	·1118					
10.53	42.30	9.53	·1128					
11.11	44.15	10.14	·1119					
11.23	43.10	10.45	·1116					
11.36	41. 0	11.12	·1123					
11.46	41.55	12.20	·1114					
11.52	41. 5	12.48	·1119					
12.49	44.50	13.10	·1119					
13.29	43.10	13.19	·1118					
13.59	44.40	13.28	·1121					
14.12	44. 0	13.45	·1117					
14.37	44.25	13.59	·1121					
15.13	43.50	14.32	·1117					
15.42	45. 5	15. 9	·1119					
16.30	43.45	15.42	·1117					
17.17	44. 5	16.26	·1120					
18. 0	42.30	16.56	·1118					
18.10	43.15	17.39	·1122					
18.39	42. 0	18.10	·1124					
19.22	41.25	18.24	·1120					
19.30	42. 5	19. 0	·1120					
19.44	41.20	20. 4	·1112					
19.48	41.50	20.45	·1110					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left panel

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Sept.21		Sept.21						
h m / o ′ ″		h m		h m		h m	o	o
20. 8	20. 41. 15	21. 22	·1111					
20. 44	41. 15	21. 30	·1113					
21. 6	41. 30	21. 40	·1111					
22. 1	43. 30	22. 38	·1113					
23. 59	47. 30	22. 45	·1112					
		22. 55	·1110					
		23. 9	·1109					
		23. 59	·1112					
Sept.22		Sept.22		Sept.22		Sept.22		
0. 0	20. 47. 30	0. 0	·1112		(†)	1. 0	56 ·4	56 ·2
0. 55	48. 0	0. 25	·1113	0. 21	·03580	3. 0	59 ·2	58 ·9
1. 17	47. 40	1. 21	·1110	1. 17	·03522	Max.	62 ·2	63 ·0
1. 49	48. 0	1. 38	·1112	2. 49	·03330	9. 0	60 ·0	61 ·0
2. 12	47. 15	1. 58	·1112	4. 27	·03025	18. 0	53 ·4	54 ·0
2. 34	47. 20		***	7. 2:	·02908	Min.	51 ·2	50 ·4
3. 0	46. 25	2. 21	·1110	9. 18	·02903	21. 0	52 ·2	53 ·0
4. 38	45. 30	2. 38	·1113	9. 55	·02870	22. 0	53 ·0	53 ·2
5. 17	44. 0	3. 10	·1107	13. 49:	·03118	23. 0	54 ·0	54 ·1
6. 5	43. 10	4. 14	·1113	19. 5	·03747			
6. 17	44. 15	4. 43	·1113	20. 2	·03817			
6. 26	43. 50	5. 5	·1109	21. 38	·03865			
7. 46	44. 25	5. 32	·1110	23. 59	·03800			
8. 56	42. 25	5. 53	·1107					
9. 1	40. 35	6. 13	·1112					
9. 6	43. 0	6. 24	·1111					
9. 14	41. 45	6. 55	·1111					
9. 28	41. 30	7. 9	·1114					
9. 43	38. 25	7. 36	·1115					
9. 59	31. 30	7. 49	·1113					
10. 26	36. 30	8. 10	·1116					
10. 37	37. 0	8. 40	·1112					
10. 53	40. 5	9. 0	·1112					
12. 0	39. 30	9. 14	·1131					
12. 26	40. 30	9. 25	·1132					
12. 54	39. 30	9. 47	·1113					
14. 0	41. 0	10. 1	·1121					
14. 13	39. 50	10. 24	·1111					
14. 22	40. 50	10. 38	·1114					
14. 42	39. 30	10. 56	·1111					
15. 3	40. 0	11. 57	·1118					
15. 31	39. 15	13. 2	·1116					
16. 3	42. 55	13. 30	·1119					
16. 32	43. 0	15. 14	·1121					
16. 39	43. 50	15. 26	·1122					
17. 8	41. 10	15. 43	·1119					
17. 28	41. 0	16. 8	·1120					
17. 39	42. 0	16. 30	·1127					
17. 52	42. 0	16. 54	·1130					
18. 10	43. 30	17. 11	·1128					
18. 21	47. 40	17. 38	·1130					
18. 36	49. 40	18. 32	·1103					
18. 43	49. 10	19. 5	·1117					
19. 0	52. 55	19. 23	·1119					
***		19. 47	·1113					
19. 38	51. 35	20. 6	·1117					
19. 42	52. 25	20. 15	·1116					
19. 58	51. 40		***					

Right panel

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Sept.22		Sept.22						
h m / o ′ ″		h m		h m		h m	o	o
20. 7	20. 51. 30	20. 54	·1119					
20. 10	52. 10	21. 30	·1124					
20. 34	48. 25	21. 50	·1117					
21. 5	47. 5	21. 57	·1120					
21. 38	50. 10	22. 40	·1106					
21. 52	49. 20	22. 54	·1106					
22. 2	51. 30	23. 8	·1097					
22. 23	51. 5	23. 21	·1105					
	***	23. 41	·1101					
23. 0	52. 15	23. 59	·1101					
23. 12	51. 0							
23. 30	53. 45							
23. 39	52. 55							
23. 59	53. 25							
Sept.23		Sept.23		Sept.23		Sept.23		
0. 0	20. 53. 25	0. 0	·1101	0. 0	·03800	0. 0	55 ·4	55 ·8
0. 3	54. 30	0. 33	·1100	1. 37	·03585	1. 0	56 ·5	56 ·7
0. 9	53. 55	1. 28	·1095					
0. 15	54. 50	1. 41	·1101	4. 31	·03043	2. 0	57 ·8	58 ·2
0. 22	54. 15	2. 2	·1088	5. 56	·02960	3. 0	59 ·0	59 ·0
0. 50	54. 45	2. 21	·1088	6. 53	·02993			
1. 28	53. 15	2. 44	·1097	7. 53	·02946	6. 0	61 ·1	61 ·0
1. 39	55. 10	2. 55	·1096	8. 51	·02958	Max.	62 ·0	62 ·2
1. 53	52. 55	3. 9	·1103	10. 25	·02935	9. 0	60 ·0	60 ·0
2. 15	50. 35	3. 48	·1105	10. 52	·02945			
2. 34	48. 20	4. 0	·1108	11. 25	·02923	12. 0	58 ·2	58 ·2
2. 52	47. 40		***	12. 24	·02940			
3. 0	48. 15	4. 22	·1104	13. 0	·03005			
4. 1	48. 35	4. 37	·1112	13. 53	·03020	18. 0	54 ·8	55 ·5
4. 32	48. 5	4. 40	·1112	14. 15	·02893	Min.	52 ·3	51 ·6
4. 41	47. 20	4. 52	·1116	14. 47	·02920	21. 0	53 ·2	54 ·0
4. 47	47. 55	5. 11	·1112	17. 38:	·03450	22. 0	53 ·6	54 ·2
5. 2	47. 50	5. 25	·1115	22. 15	·03846	23. 0	54 ·0	54 ·6
5. 13	46. 35	5. 34	·1110	23. 30	{·03810			
5. 34	48. 5	5. 47	·1096		{·03777			
5. 48	47. 5	5. 55	·1095	23. 59	·03738			
5. 54	47. 30	6. 10	·1101					
6. 0	46. 5	6. 16	·1093					
6. 11	46. 50	6. 26	·1097					
6. 23	38. 0	6. 34	·1094					
6. 35	32. 20	6. 43	·1099					
6. 42	32. 0	6. 46	·1097					
6. 46	29. 50	6. 52	·1104					
7. 2	37. 0		***					
7. 28	40. 55	7. 45	·1079					
8. 0	37. 25	8. 22	·1080					
8. 18	38. 55	8. 28	·1085					
8. 36	37. 50	8. 52	·1081					
9. 0	29. 30	9. 8	·1079					
9. 8	29. 35	9. 23	·1083					
9. 23	32. 35	9. 32	·1074					
9. 32	31. 20	9. 39	·1074					
9. 48	28. 0	9. 47	·1082					
9. 56	30. 0	9. 55	·1078					
10. 5	29. 25	10. 8	·1080					
10. 22	35. 40	10. 22	·1076					
10. 36	34. 30	10. 45	·1094					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation.   The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded.   A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left section

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Sept.23		Sept.23						
10.44	20.32.0	10.55	.1087					
10.53	34.5	11.0	.1087					
11.1	33.30	11.22	.1064					
11.10	35.20	11.36	.1070					
11.30	27.15	11.43	.1067					
11.38	29.10	11.58	.1075					
12.0	24.10	12.8	.1069					
12.3	24.0	12.37	.1068					
12.18	19.25	13.0	.1078					
12.27	21.0	13.15	.1072					
12.32	20.30	13.25	.1070					
13.7	22.50	13.58	.1040					
13.12	22.30	14.40	.1116					
13.28	14.55	14.58	.1101					
13.40	12.25	15.8	.1098					
13.47	14.50	15.24	.1100					
14.0	44.0	16.10	.1100					
14.6	43.15	16.26	.1102					
***		16.38	.1107					
14.13	45.35	16.43	.1106					
14.48	24.50	16.58	.1107					
14.58	35.35	18.0	.1102					
15.19	33.30	18.17	.1104					
15.40	38.30	18.30	.1102					
15.59	40.50	19.17	.1104					
16.7	40.30	19.40	.1100					
16.15	41.35	19.53	.1103					
16.34	40.40	20.28	.1101					
16.41	42.25	20.37	.1099					
16.58	41.25	21.6	.1097					
17.1	42.5	21.24	.1101					
17.10	41.30	21.43	.1099					
17.23	42.20	22.0	.1098					
17.40	41.30	22.13	.1100					
18.6	42.25	22.35	.1100					
18.20	41.25		***					
18.27	42.35	23.12	.1092					
18.58	41.35	23.40	.1101					
19.8	42.5	23.59	.1108					
19.20	41.20							
19.25	42.15							
19.37	42.30							
19.45	41.15							
20.20	42.10							
20.32	43.35							
20.43	43.5							
21.40	44.30							
22.6	45.30							
22.23	46.50							
22.37	49.35							
22.45	48.50							
22.55	49.35							
23.7	49.0							
23.59	50.30							
Sept.24		Sept.24		Sept.24		Sept.24		
0.0	20.50.30	0.0	.1108	0.0	.03738 (†)	0.0	54.7	55.0
0.37	51.0	0.20	.1113			1.0	55.5	55.8

Right section

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Sept.24		Sept.24		Sept.24		Sept.24		
1.51	20.49.10	1.34	.1120	1.0	.03734*	2.0	56.4	56.8
1.58	49.30	1.50	.1119	1.30	.03715	3.0	57.3	57.7
2.15	48.25	2.1	.1121	3.2	.03616	Max.	59.1	59.2
2.27	49.15	2.17	.1118	4.16	.03490	9.10	57.5	57.8
2.47	49.15	2.35	.1125	4.55	.03459	18.45	52.9	53.5
2.59	48.55	2.58	.1122	6.44	.03226	Min.	51.0	50.4
3.12	49.0	3.13	.1126	8.14	.03180	21.0	52.3	53.3
3.31	51.30	3.57	.1114	8.47	.03222			
3.49	49.30	4.15	.1082	9.9	.03138			
3.56	49.45	4.26	.1094	10.27	.03223			
4.7	48.0	4.41	.1077	10.53	.03182			
4.19	43.45	4.57	.1091	11.27	.03224			
4.36	47.35	5.23	.1100	11.59	.03300			
4.47	44.30	5.29	.1099	17.24	.03665			
5.23	48.40	5.51	.1107	19.43	.03855			
5.30	48.0	5.59	.1106	23.59	.03863			
6.5	46.20	6.14	.1116					
6.18	47.5	6.25	.1111					
6.33	45.40	6.34	.1111					
6.53	45.15	6.44	.1117					
7.0	45.45	6.50	.1115					
7.31	45.30	6.55	.1119					
7.47	41.35	7.3	.1114					
7.54	42.0	7.16	.1118					
7.58	41.15	7.24	.1116					
8.30	43.25	7.32	.1120					
8.45	15.0	7.49	.1110					
9.13	44.0	8.0	.1113					
	(†)	8.24	.1094					
9.25	45.35	8.57	.1189					
9.33	41.30	9.26	.1101					
9.38	42.0	9.32	.1102					
9.56	37.0	9.41	.1092					
10.7	38.0	9.59	.1102					
10.26	35.40	10.15	.1102					
10.35	37.10	10.28	.1115					
11.7	29.10	10.50	.1092					
11.13	30.0	11.11	.1089					
11.32	38.10	11.24	.1094					
11.49	34.55	11.57	.1123					
12.32	40.0	12.12	.1113					
12.42	41.55	12.22	.1114					
13.1	40.10	12.30	.1111					
13.13	43.0	12.38	.1111					
13.29	43.35	12.47	.1108					
13.56	41.25	13.0	.1111					
14.9	42.50	13.8	.1108					
14.22	42.20	13.41	.1104					
14.30	44.5	13.52	.1108					
14.45	43.25	14.8	.1108					
14.58	44.5	14.45	.1117					
15.15	40.30	15.2	.1113					
15.44	43.25	16.12	.1116					
15.58	43.5	16.23	.1121					
16.6	42.0	16.42	.1118					
16.22	42.5	16.49	.1114					
16.30	43.10	16.54	.1118					
16.36	42.0	17.4	.1120					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Readings of Thermometers columns are split into "Of H.F. Magnet." and "Of V.F. Magnet."

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet.	Of V.F. Magnet.
Sept.24		**Sept.24**							**Sept.25**		**Sept.15**		**Sept.25**				
16.50	20.40.10	17.28	·1115						4.35	20.48.45	5.8	·1111	22.58	·03860			
16.53	41.20	17.58	·1099						4.51	48.10	5.15	·1111	23.59	·03857			
16.58	41.0	18.8	·1108						5.1	48.45	5.42	·1090					
17.1	42.10	18.13	·1101						5.33	45.15	6.4	·1111					
17.10	41.0	18.22	·1112						5.37	41.0	6.20	·1133					
17.18	40.40	18.25	·1108						5.43	41.0	6.29	·1127					
17.53	43.45	18.30	·1114						5.48	39.5	6.46	·1100					
18.7	42.0	18.40	·1112						5.57	38.15	6.57	·1106					
18.15	44.15	18.54	·1119						6.3	33.45	7.10	·1099					
18.22	42.5		***						6.17	40.5	7.24	·1099					
18.37	45.30	19.53	·1112						6.32	43.25	7.30	·1105					
18.45	43.30		***						6.45	40.25	7.38	·1106					
18.55	44.5	20.20	·1115						6.55	40.30	7.45	·1102					
19.13	42.5	21.0	·1110						7.8	37.50	7.54	·1102					
19.28	42.40		***						7.36	41.0	8.4	·1098					
19.31	41.30	21.4	·1112						7.43	40.35	8.23	·1099					
19.37	43.0		***						7.52	42.5		(†)					
19.46	44.0	22.7	·1111						8.27	41.50	9.0	·1118*					
19.53	42.0	22.17	·1116						8.43	44.10	9.30	·1118					
19.58	42.50	22.30	·1105						8.53	43.15	9.42	·1126					
20.3	41.50	22.37	·1115						9.2	47.35	10.3	·1108					
20.19	43.5	22.41	·1106						9.15	45.0	10.32	·1113					
	***		(†)						9.27	35.50	10.50	·1103					
21.2	42.40								9.51	43.30	11.11	·1100					
21.39	45.15								10.10	39.25	11.35	·1100					
21.54	45.35								10.23	40.45	11.45	·1107					
22.10	47.0								10.38	39.0	12.0	·1105					
22.18	49.5								11.26	44.10	12.39	·1106					
22.28	48.5								12.45	42.50	12.50	·1103					
22.32	50.15								13.18	43.55	13.1	·1107					
22.41	48.5								13.29	44.55	13.10	·1107					
22.46	49.15								13.52	42.10	13.23	·1102					
22.57	47.55								14.7	44.0	13.54	·1104					
23.12	50.45								14.29	42.0	14.7	·1107					
23.27	48.10								14.46	44.0	14.17	·1104					
23.43	50.5								15.44	44.15	14.27	·1106					
23.49	52.0								15.57	43.5	14.54	·1103					
23.59	50.20								16.17	43.45	15.41	·1109					
									16.48	42.0	16.12	·1110					
Sept.25		**Sept.25**		**Sept.25**		**Sept.25**			17.0	40.0	16.20	·1108					
0.0	20.50.20	0.0	·1108	0.0	·03863	1.0	56.2	56.3	17.22	42.5	16.40	·1109					
0.17	50.10	1.29	·1117	1.34:	·03708	3.0	60.0	60.0	17.49	42.50	17.6	·1115					
0.53	51.35	1.51	·1118	3.1	·03414	Max.	63.0	64.0	18.5	47.15	17.17	·1106					
1.18	50.25	1.57	·1108	3.23	·03300	9.0	62.8	63.0	18.20	42.40	17.30	·1102					
1.27	53.25	2.15	·1127	3.52	·03212	18.10	54.8	55.1	18.25	44.30	17.40	·1111					
1.44	53.5	2.30	·1115	4.39	·02980	Min.	51.3	50.8	18.33	42.50	17.49	·1110					
1.52	51.25	2.37	·1112	5.2	·02946	21.0	53.1	54.6	18.47	44.5	17.57	·1118					
2.6	54.50	2.43	·1115	6.30	·02895				18.59	43.5	18.8	·1105					
2.19	55.5	2.54	·1107	6.58	·02840				19.10	43.30	18.14	·1099					
2.37	58.30	3.13	·1072	9.8	·02810				19.17	42.40	18.21	·1106					
2.49	58.5	3.23	·1075	9.28	·02769				19.26	43.50	18.27	·1103					
3.9	49.0	3.32	·1083	9.39	·02790					***	18.33	·1109					
3.24	48.0	3.39	·1086	10.10	·02777				19.58	44.0	18.39	·1105					
3.30	46.40	3.47	·1099	10.52	·02798				20.13	42.20	18.53	·1104					
3.45	48.5		***	14.2:	·03047				20.33	43.20	19.24	·1112					
4.4	47.5	4.15	·1093	16.54	·03383				20.41	42.40	19.41	·1112					
4.14	47.35	4.40	·1106	17.29	·03498				20.52	43.55	19.46	·1105					
4.22	46.55	5.0	·1105	19.53	·03817				21.1	43.25	20.0	·1110					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol ꞉ attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	OfH.F. Magnet.	OfV.F. Magnet.
h m	° ′ ″	h m		h m		h m	°	°
Sept.25		Sept.25						
21.48	20.45. 0	20.11	·1105					
21.59	44.30	20.25	·1108					
22.57	48.25	20.43	·1106					
23. 1	49.35	20.55	·1109					
23.13	48.10	21. 5	·1105					
23.25	49.30	21.48	·1103					
23.45	48. 0	21.54	·1106					
23.47	49.25		***					
23.52	48.35	23.20	·1105					
23.59	49. 0	23.28	·1100					
		23.59	·1110					
Sept.26		Sept.26		Sept.26		Sept.26		
0. 0	20.49. 0	0. 0	·1110	0. 0	·03857	1. 0	56·4	56·2
0.30	49.35	0.40	·1109	0.43	·03823	3. 0	59·5	59·2
1. 5	50.30	0.56	·1106	1.22	·03760	Max.	61·4	61·8
	***	1. 7	·1114	3.46	·03308	9. 0	60·3	60·1
1.45	47.55	1.26	·1108	6.17	·02918	Min.	50·2	49·6
2. 0	49.35	1.45	·1110	7. 0	·02900	21.24	51·0	53·0
2. 8	48.10	1.59	·1116	7.16	·02914			
2.22	48.45	2.10	·1111	8.22	·02883			
2.44	48. 5	2.26	·1114	9.58	·02881			
2.53	49. 5	2.51	·1113	12.45	·02983			
3. 0	47.45	2.53	·1116	15.42	·03257			
3.13	46.40	3. 8	·1105	20.12	·03864			
3.19	47.20	3.23	·1109	22. 0	·03925			
3.30	46.30	3.46	·1095	23.59	·03912			
3.37	44.25	4. 0	·1095					
3.51	44.10	4.14	·1102					
4. 8	41.30	4.23	·1102					
4.20	42.35	4.33	·1095					
4.34	41.35	4.53	·1097					
4.44	43. 0	5. 8	·1106					
5. 3	41. 5	5.14	·1106					
5.14	41.20	5.23	·1111					
5.29	44. 0	5.33	·1112					
6. 1	44.15	5.47	·1110					
6.16	43.20	6.29	·1112					
6.26	44. 0	6.43	·1108					
6.43	39.25	6.55	·1097					
7. 0	28.55	7.11	·1116					
7.13	32.40	7.20	·1114					
7.41	38.50	8. 8	·1115					
8. 1	38.30	8.34	·1112					
8.15	39.10	9. 7	·1102					
8.30	38.15	9.31	·1112					
9. 0	39.50	9.56	·1113					
9.11	39. 0	10. 6	·1115					
9.23	40.30	10.12	·1114					
9.49	40.30	10.24	·1116					
9.59	39.20	11. 0	·1107					
10.12	41.10	11.37	·1110					
10.17	40. 0	11.46	·1108					
10.33	41.55	12. 9	·1112					
10.48	41.40	13.50	·1110					
12. 0	44.20	14.15	·1114					
12.12	46. 0	15. 0	·1112					
12.54	42.35	15.44	·1113					
	***							

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	OfH.F. Magnet.	OfV.F. Magnet.
h m	° ′ ″	h m		h m		h m	°	°
Sept.26		Sept.26						
13.58	20.45.10	16.10	·1118					
	***	16.17	·1116					
15. 0	43. 0	16.38	·1120					
16. 7	45. 5	16.45	·1118					
16.23	44.10	16.55	·1120					
16.38	44.50	17. 4	·1118					
16.52	43.45	17.11	·1120					
17. 4	44.35	17.40	·1116					
17.10	43.15	18. 0	·1116					
17.15	44.20	18.31	·1119					
17.33	43. 0	18.39	·1115					
17.40	44.15	18.58	·1117					
18. 7	43.20	19.52	·1113					
18.15	44.25	19.59	·1111					
18.27	43.25	20.23	·1111					
18.40	44.15	20.59	·1102					
18.45	42.40	21.16	·1088					
20. 0	42.25	21.25	·1085					
20.18	43. 0	21.43	·1085					
20.37	45. 0	21.52	·1092					
21. 0	44.55		(†)					
21.15	46. 0	23. 0	·1102					
21.28	45.30	23.38	·1103					
21.43	47.35	23.46	·1108					
21.54	46.55	23.59	·1110					
	(†)							
Sept.27		Sept.27		Sept.27		Sept.27		
	(†)	0. 0	·1110	0. 0	·03912	Max.	57·0	58·8
5.51	20.46.50	0.25	·1117	0.41	·03900	9.30	57·0	57·0
6.14	45. 0	0.37	·1115	2.59	·03775	18. 0	56·8	56·8
6.26	45.15	1.25	·1123	4.45	·03602	Min.	55·6	55·4
6.38	44. 0	1.41	·1116	10.26	·03160	21. 0	56·5	56·6
6.46	40. 5	2. 0	·1120	10.58	·03160			
7. 2	34.50	2.30	·1120	13.54	·03100			
7.25	33.40	2.45	·1110	16.21	·03025			
7.32	32.10	2.51	·1121	17. 1	·03020			
7.44	33. 5	3.27	·1124	18. 0	·03057			
7.56	36.55	3.52	·1115	21. 3	·03058			
8.11	36.35	4.33	·1115	23.59	·02977			
8.20	39.25	5.25	·1128					
8.33	41.20	5.45	·1116					
8.39	40.50	6.12	·1117					
8.58	41.45	6.25	·1120					
9. 8	40.50	6.36	·1117					
9.30	40.50	7. 8	·1124					
9.45	44.30	7.20	·1131					
9.57	43.30		(†)					
10. 8	48.30	9.30	·1130*					
10.16	42. 0	16.45	·1114					
10.30	39. 0	17.28	·1112					
10.52	40.45	17.57	·1112					
11. 1	39.50	18. 8	·1116					
11.18	43. 5	18.20	·1113					
11.25	42.30	18.37	·1113					
11.36	43.45	19.15	·1110					
11.55	42.10	20.38	·1108					
12. 0	40.40	21.28	·1110					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Sept.27		Sept.27						
h m	o ′ ″	h m		h m		h m	o	o
12. 11	20. 42. 25	21. 47	·1108					
12. 55	43. 55	22. 8	·1109					
13. 14	43. 0		(†)					
13. 27	44. 25							
13. 36	44. 5							
13. 44	45. 20							
14. 15	44. 15							
14. 29	45. 40							
14. 44	48. 5							
15. 2	50. 55							
15. 22	44. 30							
15. 44	47. 25							
15. 58	44. 0							
16. 15	42. 5							
17. 4	41. 15							
	(†)							
21. 0	42. 29*							
23. 37	46. 50							
23. 43	49. 10							
23. 59	48. 10							
Sept.28		Sept.28		Sept.28		Sept.28		
0. 0	20. 48. 10		(†)	0. 0	·02977	1. 0	58·2	58·1
0. 42	49. 0	1. 0	·1124*	3. 42	·02900	3. 0	59·2	59·0
1. 0	52. 35	1. 6	·1124	7. 10	·02836	Max.	61·0	61·2
1. 10	51. 35	1. 14	·1117	9. 30	·02865	9. 0	59·2	59·2
1. 27	52. 20	1. 28	·1120	9. 51	·02856	18. 0	52·0	53·0
1. 37	50. 35	1. 40	·1110	12. 16	·02974	Min.	49·0	48·4
1. 47	50. 25	2. 8	·1106	13. 15	·03125	21. 0	50·7	51·3
1. 52	49. 30	2. 19	·1113	13. 31	·03150			
1. 59	50. 20	2. 32	·1108	18. 37	·03850			
2. 4	49. 20	3. 18	·1112	18. 59	{ ·03862 / ·03604 }			
2. 15	51. 25	3. 30	·1108					
2. 40	49. 5	4. 8	·1115	21. 28	·03881			
3. 49	47. 35	4. 25	·1112	22. 11	·03890			
4. 1	48. 5	5. 21	·1111		(†)			
4. 17	47. 5	5. 40	·1114	23. 21	·03730			
4. 38	47. 0	6. 4	·1111	23. 59	·03706			
5. 14	45. 40	6. 27	·1114					
5. 29	45. 50	6. 39	·1113					
5. 44	44. 10	7. 8	·1118					
6. 7	44. 35	7. 22	·1117					
6. 15	44. 10	7. 30	·1118					
6. 23	44. 50	8. 18	·1112					
6. 42	44. 10	8. 37	·1114					
7. 2	45. 0	9. 1	·1108					
7. 43	44. 55	9. 27	·1141					
8. 7	44. 0	9. 59	·1113					
8. 20	44. 15	10. 7	·1111					
9. 3	41. 50	10. 28	·1099					
9. 22	32. 0	10. 52	·1118					
9. 30	34. 40	11. 38	·1124					
9. 56	34. 0	12. 1	·1115					
10. 13	40. 25	12. 19	·1103					
10. 30	41. 50	12. 28	·1102					
10. 51	38. 30	13. 8	·1109					
11. 53	37. 0	13. 18	·1115					
12. 7	35. 35	13. 43	·1113					

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Sept.28		Sept.28						
h m	o ′ ″	h m		h m		h m	o	o
12. 52	20. 40. 5	14. 17	·1114					
13. 16	43. 30	14. 40	·1116					
13. 38	41. 10	15. 39	·1118					
14. 0	44. 0	16. 28	·1123					
14. 20	42. 55	18. 45	·1120					
14. 42	44. 0	18. 59	·1121					
15. 4	41. 45	19. 45	·1118					
15. 22	43. 30	20. 4	·1114					
15. 36	42. 10	21. 10	·1110					
15. 54	43. 40		***					
18. 6	42. 10	21. 55	·1112					
18. 37	43. 30	23. 38	·1116					
19. 23	40. 45	23. 59	·1111					
19. 28	42. 0							
19. 31	40. 45							
19. 38	41. 25							
19. 44	40. 10							
20. 18	43. 5							
20. 49	44. 0							
20. 57	45. 0							
21. 29	43. 55							
21. 37	44. 50							
21. 44	43. 55							
21. 48	45. 25							
21. 55	44. 45							
22. 24	46. 0							
22. 28	47. 5							
22. 42	46. 20							
22. 52	47. 35							
23. 25	49. 30							
23. 32	50. 30							
23. 59	48. 35							
Sept.29		Sept.29		Sept.29		Sept.29		
0. 0	20. 48. 35	0. 0	·1111	0. 0	·03706	1. 0	54·8	55·0
0. 38	51. 40	0. 39	·1121	1. 7:	·03610	3. 0	58·0	57·0
0. 58	51. 0	1. 0	·1118	2. 8	·03398	Max.	61·0	62·0
1. 18	51. 55	1. 22	·1125	4. 7	·02962	9. 0	60·0	59·0
1. 38	51. 5	1. 40	·1123	7. 21:	·02836	18. 0	52·0	53·0
1. 47	49. 40	1. 51	·1119	9. 33	·02824	Min.	48·3	47·6
2. 0	49. 25	2. 8	·1123	9. 59	·02840	21. 0	50·0	51·0
2. 6	50. 45	2. 26	·1116	10. 28	·02830	22. 0	50·0	50·8
2. 17	48. 5	2. 47	·1124	12. 41	·02963	23. 0	50·7	51·2
2. 38	47. 0	3. 1	·1119	14. 17	·03130			
2. 48	47. 5	3. 30	·1121	18. 14	·03680			
3. 0	45. 5	4. 13	·1112		(†)			
3. 18	44. 35	4. 36	·1117	20. 55	·03920			
3. 52	45. 45	5. 19	·1116	21. 45	·03940			
4. 12	44. 35	6. 8	·1118		(†)			
6. 22	43. 40	6. 59	·1116					
6. 48	42. 45	7. 50	·1120					
7. 7	43. 0	8. 8	·1114					
8. 32	42. 40	8. 25	·1113					
8. 56	38. 55	9. 2	·1117					
9. 4	41. 25	9. 24	·1113					
9. 18	41. 55	9. 42	·1120					
9. 38	37. 0	9. 50	·1118					
10. 9	42. 35	10. 2	·1131					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left block

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Sept.29		Sept.29						
h m	o ′ ″	h m		h m		h m	o	o
10. 22	20. 41. 10	10. 30	·1116					
10. 55	40. 5	10. 50	·1117					
11. 19	41. 5	11. 30	·1115					
11. 25	42. 10	12. 8	·1116					
12. 6	41. 40	12. 53	·1115					
12. 20	42. 25	13. 8	·1116					
12. 38	40. 25	13. 26	·1113					
12. 52	40. 25	14. 0	·1128					
13. 29	46. 35	14. 27	·1122					
13. 43	45. 30	15. 46	·1122					
14. 9	44. 50	16. 6	·1126					
14. 23	41. 45	16. 22	·1124					
15. 18	41. 40	17. 6	·1121					
15. 52	42. 30		(†)					
16. 13	40. 25	18. 55	·1121					
16. 35	41. 10	20. 17	·1113					
16. 47	40. 30	20. 39	·1115					
17. 19	41. 10	21. 6	·1112					
17. 38	43. 10	21. 45	·1111					
18. 13	43. 0	21. 58	·1112					
18. 31	41. 30	22. 22	·1110					
18. 39	42. 50	22. 43	·1116					
18. 51	41. 45	23. 26	·1109					
18. 54	42. 25	23. 59	·1115					
19. 11	40. 20							
19. 17	40. 45							
19. 31	40. 0							
19. 39	40. 15							
20. 28	39. 50							
21. 3	40. 35							
21. 13	40. 10							
21. 27	41. 50							
21. 57	43. 15							
22. 3	44. 45							
22. 9	44. 10							
	***							
22. 34	46. 0							
22. 42	48. 0							
23. 9	48. 5							
23. 41	49. 35							
23. 59	49. 5							
Sept.30		Sept.30		Sept.30		Sept.30		
0. 0	20. 49. 5	0. 0	·1115		(†)	0. 0	52 ·0	52 ·6
0. 0	49. 55	0. 49	·1119	1. 0	·03854*	1. 0	53 ·5	54 ·0
0. 19	50. 5	1. 7	·1116	2. 21	·03543	2. 0	56 ·3	56 ·6
0. 34	49. 20	1. 25	·1119	4. 35	·02946	3. 0	57 ·6	58 ·0
0. 44	49. 30	1. 44	·1111	4. 57	·02950	6. 0	61 ·0	61 ·0
1. 0	48. 35	2. 3	·1110	6. 4	·02894	Max.	61 ·7	62 ·5
1. 19	49. 30	2. 32	·1116	9. 16	·02806	9. 0	61 ·5	61 ·5
1. 30	48. 20	3. 7	·1115	10. 12	·02807	12. 0	61 ·5	61 ·6
1. 43	46. 15	3. 13	·1121	11. 0	·02770	18. 0	60 ·7	60 ·7
1. 53	46. 50	3. 39	·1116	18. 23	·02792	Min.	58 ·2	57 ·8
2. 14	45. 25	3. 47	·1117	22. 28	·02860	21. 0	59 ·8	60 ·0
2. 24	46. 20	3. 54	·1114	23. 59	·02805	22. 0	60 ·3	60 ·2
3. 1	45. 30	4. 19	·1110			23. 0	60 ·6	60 ·6
3. 54	45. 20	4. 24	·1105					
4. 19	43. 55	4. 37	·1102					

Right block

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Sept.30		Sept.30						
h m	o ′ ″	h m		h m		h m	o	o
4. 28	20. 44. 5	4. 45	·1094					
4. 51	37. 5	5. 8	·1113					
5. 7	40. 50	5. 43	·1115					
5. 48	43. 0	5. 50	·1114					
6. 1	42. 10	6. 39	·1115					
6. 7	42. 25	6. 49	·1112					
6. 39	41. 45	7. 9	·1119					
6. 45	40. 40	7. 32	·1103					
7. 2	39. 10	7. 47	·1114					
7. 13	40. 10	7. 57	·1109					
7. 27	36. 30	8. 8	·1116					
7. 37	42. 20	8. 17	·1113					
7. 52	35. 0	8. 43	·1113					
8. 0	32. 0	9. 2	·1117					
8. 37	40. 5	9. 14	·1115					
9. 8	39. 30	9. 44	·1113					
9. 24	38. 0	9. 58	·1107					
9. 59	39. 55	10. 10	·1119					
10. 10	38. 10	10. 19	·1118					
10. 20	41. 30	10. 37	·1136					
10. 37	37. 0	11. 0	·1116					
10. 52	39. 30	11. 11	·1112					
11. 2	36. 45	11. 19	·1121					
11. 24	37. 30	11. 28	·1117					
11. 27	41. 5	11. 42	·1117					
11. 34	39. 25	11. 53	·1124					
11. 40	40. 45	12. 17	·1112					
11. 56	39. 10	12. 30	·1114					
12. 1	40. 40	13. 8	·1115					
12. 27	37. 10	13. 39	·1106					
13. 1	39. 40	13. 48	·1110					
13. 14	38. 55	14. 7	·1109					
13. 30	41. 15	14. 19	·1113					
13. 46	41. 5	14. 54	·1109					
14. 8	43. 30	15. 25	·1113					
14. 41	39. 40	15. 46	·1112					
15. 14	44. 0	16. 23	·1116					
15. 30	43. 10	17. 8	·1115					
16. 2	43. 35	17. 17	·1117					
16. 22	42. 50	17. 25	·1115					
17. 2	42. 30	17. 35	·1115					
17. 11	43. 20	17. 41	·1116					
17. 27	42. 0	17. 53	·1113					
17. 38	43. 5	18. 10	·1116					
17. 56	41. 20	18. 38	·1107					
18. 37	40. 45	19. 11	·1106					
	***	19. 36	·1107					
19. 30	43. 5	20. 18	·1105					
20. 3	41. 50	20. 54	·1098					
20. 23	42. 25	21. 15	·1098					
20. 37	41. 45	21. 30	·1100					
20. 46	42. 0	21. 43	·1098					
	***	21. 50	·1104					
21. 30	44. 35	22. 8	·1095					
21. 41	46. 30	22. 42	·1098					
21. 55	45. 5	22. 54	·1096					
22. 13	45. 40	23. 38	·1101					
22. 30	47. 15	23. 59	·1097					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Sept.30								
h m	o ′ ″	h m		h m		h m	o	o
22.47	20.47.10							
23.53	49.45							
23.59	49.10							
Oct. 1		Oct. 1		Oct. 1		Oct. 1		
0. 0	20.49.10 ***	0. 0	·1097	0. 0	·02805	0. 0	61·1	61·1
		0.15	·1101	0.37	·02780	1. 0	61·8	61·3
0.16	51.25	0.42	·1097	1. 3	·02793	2. 0	62·2	62·1
0.23	50.40 ***	1.20	·1109	1.40	·02776	3. 0	62·7	62·8
		1.43	·1101	2.13	·02791	Max.	63·2	63·8
0.45	50.25	1.52	·1103	4.13 {·02755	9. 0	62·5	64·0
0.59	50.50	1.59	·1098	{·02880		18. 0	57·8	58·0
1.21	53.30	2.15	·1104	6.20	·02794	Min.	55·6	55·1
1.38	51.30	2.47	·1101	9.23:	·02765	21. 0	56·9	57·0
1.45	51.55	2.58	·1098	13.28	·02976			
1.51	51. 0	3.15	·1102	18.12	·03350			
1.59	50.25	3.28	·1101	22. 1	·03538·			
2. 9	52.25	4. 8	·1103	23.59	·03550			
3. 8	48.30	4.21	·1105					
3.14	49. 5	4.36	·1102					
3.27	48. 0	4.52	·1105					
4. 7	46.25	5. 7	·1103					
5.16	44.45	5.39	·1109					
5.36	44.30	5.47	·1104					
5.47	42.40	5.59	·1107					
6. 0	42.35	6.18	·1098					
6.20	38.50	6.34	·1106					
6.37	41.25	8.34	·1109					
6.54	40.10	9. 5	·1106					
7. 3	40. 0	9.40	·1109					
7.15	41.35	9.51	·1108					
7.24	42. 5	10.22	·1110					
7.30	41.35	11.52	·1110					
7.46	42.55	12. 0	·1112					
8. 1	42.20	12.14	·1109					
8.10	43.15	12.30	·1111					
8.27	42.25	12.42	·1111					
8.38	43. 5	13. 0	·1118					
9.30	43. 5	13.26	·1111					
10.13	43.15	14. 5	·1111					
11.15	42.40	14.19	·1110					
12. 0	42.55	14.53	·1114					
13. 9	41.55	15. 8	·1112					
13.22	42.15	15.23	·1113					
13.39	40.20	15.32	·1111					
14. 6	41.30	15.43	·1114					
14.18	40.35	16. 0	·1109					
14.58	41.45	16.28	·1112					
15.28	41.20	17. 0	·1103					
15.48	41.55	17.42	·1113					
15.53	43. 0	17.58	·1113					
16. 8	41.15	18.22	·1118					
16.36	41.30	19. 0	·1111					
16.46	41. 0	19.53	·1108					
16.55	43. 0	20.56	·1099					
17.49	44.30	21.52	·1095					
18. 6	43.30	22.19	·1094					
18.13	43.40	22.30	·1090					

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Oct. 1		Oct. 1						
h m	o ′ ″	h m		h m		h m	o	o
18.33	20.42. 0	22.43	·1095					
18.56	42.30	22.52	·1091					
19.45	41.10	23.23	·1093					
19.59	41.40	23.42	·1099					
20. 4	41. 5	23.53	·1095					
20.36	40.20	23.59	·1096					
21. 8	40.55							
21.57	42.55							
22.19	44.15							
22.24	44. 0							
22.38	46. 5							
22.45	45.10							
23.46	50.30							
23.56	49. 0							
23.59	50.30							
Oct. 2		Oct. 2		Oct. 2		Oct. 2		
0. 0	20.50.30	0. 0	·1096	0. 0	·03550	1. 0	58·4	58·5
0. 8	49.45	0.14	·1096	0.51 {·03533	3. 0	59·8	60·0
0.22	51.10	0.24	·1101	{·03474		Max.	60·6	60·5
0.26	52. 0	0.55	·1104	5.24:	·03160	9. 0	60·3	60·0
0.37	51.30	1. 4	·1102	8.45	·03054	18. 0	58·2	58·3
0.45	52.25	1.25	·1102	11.12	·03049	Min.	57·1	56·8
0.55	52.15	2.18	·1108	12.16	·03023	21. 0	58·0	58·0
1. 8	50.30	***		14.11	·03057			
2.33	49.35	3. 8	·1110	20.38:	·03180			
4.23	45.30	***		22.10	·03176			
5.12	45.30	4.19	·1108	23.59	·03095			
5.29	44.50	***						
6.17	44.45	6. 8	·1113					
7. 3	43.55	6.16	·1112					
8.10	43.35	8.14	·1113					
8.23	43. 0	9. 1	·1109					
8.55	43.50	9.18	·1116					
9.13	39.40	9.30	·1117					
10. 7	43. 0	9.49	·1111					
10.54	42.10	10.26	·1108					
10.59	44.25	10.40	·1111					
11.16	41.10	10.58	·1110					
11.29	40. 0	11.12	·1117					
11.43	38.30	11.19	·1114					
12. 0	42.30	11.41	·1129					
12.15	41.25	11.53	·1126					
12.37	44.35	12. 9	·1113					
13. 9	42.10	12.32	·1106					
13.28	43. 0	12.49	·1113					
13.55	40.25	13.13	·1116					
14.30	43. 5	14.10	·1109					
15. 3	42.45	15.10	·1110					
15.17	43.15	17.14	·1115					
15.29	42.20	17.33	·1113					
16.12	43.30	18.13	·1113					
16.37	43.15	18.23	·1111					
17. 0	44. 0	19.30	·1106					
17. 5	43. 5	21. 5	·1092					
17.45	42.50	21.25	·1095					
17.54	42. 0	22. 0	·1090					
18.53	42. 0	22.56	·1091					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Oct. 2		Oct. 2						
h m	o ′ ″	h m		h m		h m	o	o
19.46	20 40.15	23.59	·1098					
20.53	40.35							
22. 5	44. 0							
23..16	47.50							
23.59	48.25							
Oct. 3		Oct. 3		Oct. 3		Oct. 3		
0. 0	20.48.25	0. 0	·1098	0. 0	·03095	1. 0	59·8	60·0
0.54	48. 5	0.36	·1102	3. 8	·02935	3. 0	61·0	61·0
2. 0	46.35	3. 1	·1109	4.38	·02826	Max.	61·8	62·0
3.25	43.55	3.31	·1108	9.32	·02763	9. 0	61·8	62·0
3.32	44.20	3.44	·1110	20. 0	·02750	Min.	60·8	60·7
4.20	43. 0	3.49	·1099	22.30	·02723	21.56	62·0	62·0
5. 1	42.55	5.12	·1099	23.23	·02727			
5.55	43.25	5.36	·1112	23.59	·02707			
7.37	43. 5	5.45	·1111					
7.48	42.30	7.34	·1113					
8.29	43. 5	8. 0	·1112					
8.48	41.30	9. 8	·1113					
9.24	43. 5	9.30	·1110					
9.48	42.30	10.41	·1110					
10.45	42.30	10.48	·1111					
10.58	43. 0	11. 6	·1110					
11.22	42.45	16. 6	·1108					
14.22	42.30	16.53	·1111					
17.27	43. 0	17.23	·1110					
17.46	42.10	18.10	·1110					
18.15	43. 0	20.43	·1096					
20. 1	40.20	21.18	·1091					
20.11	41.15	21.54	·1088					
20.19	40.40	22.17	·1091					
21.52	42. 0	22.27	·1088					
22.23	44.20	(†)						
22.51	45.10	23.43	·1089					
23.15	46.55	23.53	·1090					
23.28	46.15	23.59	·1089					
23.48	48.35							
23.59	48.20							
Oct. 4		Oct. 4		Oct. 4		Oct. 4		
0. 0	20.48.20	0. 0	·1089	0. 0	·02707	1. 0	63·0	63·2
0.48	49.15	0. 7	·1088	2. 8	·02676	Max.	64·0	64·2
1.13	48.30	1.21	·1095	2.38	·02683	9. 0	64·0	64·2
1.33	49.20	2. 3	·1099	3.24	{·02679 / ·02875}	18. 0	57·7	58·5
2. 8	48.10	2.38	·1099			Min.	53·5	52·7
2.54	46. 5	3.28	·1103	6. 8:	·02735	21. 0	55·0	56·0
4. 5	44. 0	4.25	·1103	8.15	·02692			
4.49	49. 0	4.37	·1105	10.21	·02700			
6.51	43.10	5.20	·1102	10.35	·02718			
9. 0	43.40	5.53	·1107	10.55	·02710			
9.24	41.45	8. 2	·1110	13.25	·02834			
9.37	41.35	9. 1	·1108	16.17:	·03098			
9.52	38.35	9.27	·1113	20. 2	·03647			
10. 4	38. 0	9.38	·1111	23.59	·03708			
10.23	38.25	9.55	·1124					
10.41	45.25	10.25	·1107					
10.54	42. 0	10.37	·1116					
11.13	40.25	11. 0	·1114					

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Oct. 4		Oct. 4						
h m	o ′ ″	h m		h m		h m	o	o
11.30	20.41. 0	11.34	·1105					
12. 4	42.25	12.25	·1108					
12.32	40.10	13. 3	·1106					
12.59	39.30	13.24	·1116					
13.20	40. 5	13.56	·1107					
13.45	43.15	14.17	·1114					
14.16	40. 5	14.43	·1108					
14.30	39.35	15. 8	·1112					
14.46	41.10	15.28	·1109					
15.25	38. 0	16. 5	·1109					
16.38	40.40	17.45	·1116					
18.45	41.15	18.27	·1116					
18.56	40.30	20.13	·1107					
20.13	39.35	21. 8	·1102					
21.26	41.15	21.29	·1103					
21.46	41.30	21.56	·1099					
22.15	44. 0	22. 5	·1100					
22.31	44.10	22.38	·1098					
22.41	45.20	22.55	·1099					
23.49	46.30	23.59	·1100					
23.59	47.10							
Oct. 5		Oct. 5		Oct. 5		Oct. 5		
0. 0	20.47.10	0. 0	·1100	0. 0	·03708	1. 0	56·9	56·9
0.17	48.35	0.24	·1105	1.44	·03686	3. 0	58·3	58·3
1. 7	47.30	0.47	·1103	5. 1	·03470	Max.	59·0	59·6
2. 1	48.40	1.48	·1107	8. 8	·03417	9. 0	58·8	59·0
2.20	47.30	2.19	·1116	8.23	·03403	18. 0	53·9	54·8
4. 2	46.20	2.35	·1112	9.23	·03406	Min.	50·4	49·6
4.22	45.45	2.55	·1112	11.59	·03446	21. 0	51·8	53·0
5.31	45.10	3.10	·1111	14.53	·03545			
5.42	46. 5	4. 7	·1113	18.29	·03800			
5.58	45. 5	4.22	·1110	20.53	·03808			
6.46	45.30	4.39	·1114	21.43	·03830			
7. 5	46.50	4.47	·1113	23.59	·03830			
7.27	45. 0	5.14	·1112					
7.45	42.55	5.39	·1116					
8. 8	43. 0	5.57	·1112					
8.22	35. 0	6.17	·1112					
8.58	37.45	6.24	·1116					
9. 7	36.10	6.38	·1113					
9.30	38.55	7. 0	·1113					
9.43	38.20	7.11	·1110					
9.56	39.25	7.45	·1109					
10. 7	39.20	8.16	·1119					
10.26	41.10	8.30	·1126					
10.51	40.30	9.13	·1116					
11. 0	41.35	9.23	·1120					
11.17	39. 0	10. 4	·1112					
11.48	41.45	10.28	·1114					
12.13	39.10	10.38	·1114					
12.45	39. 0	10.52	·1120					
13.12	39.35	11. 8	·1115					
13.40	39. 0	12. 8	·1117					
14.14	39.35	12.32	·1114					
14.57	39.30	14.36	·1118					
15.47	41. 5	14.52	·1118					
15.59	40.20	16.13	·1120					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left section

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Oct. 5	° ′ ″	Oct. 5		h m		h m	°	°
16.37	20. 42. 20	16.43	·1123					
17. 8	42. 0	17.11	·1122					
18.57	43.25	18. 3	·1124					
20.52	43.20	19.58	·1116					
21. 8	41.45	21. 4	·1111					
21.27	43.35	21.37	·1111					
22.58	48.10	22.21	·1105					
23. 7	47.55	23.45	·1106					
23.59	49.15	23.59	·1107					
Oct. 6		Oct. 6		Oct. 6		Oct. 6		
0. 0	20. 49. 15	0. 0	·1107	0. 0	·03830	1. 0	54·0	54·0
0. 11	49.45	1. 12	·1112	2.50:	·03662	3. 0	56·1	56·2
0. 20	49.10	1. 47	·1111	6. 31	·03239	Max.	58·5	58·5
0. 45	49.40	2. 4	·1113	8. 45	·03170	9. 0	56·3	56·1
0. 55	49. 5	2. 18	·1110	12. 7:	·03318	18. 0	51·8	52·1
1. 48	47.35	2. 54	·1110	15. 6	·03551	Min.	50·5	50·3
2. 0	48.30	4. 0	·1114	18. 18	·03782	21. 0	51·9	52·1
2. 13	47. 5	4. 12	·1113	22. 15	·03830	22. 0	52·6	52·8
2. 44	46. 0	5. 29	·1117	23. 59	·03700	23. 0	53·6	53·9
4. 3	44.30	5. 43	·1119					
5. 29	44.25	8. 11	·1123					
5. 37	44.40	10. 8	·1122					
5. 44	44. 5	***						
6. 53	44.25	11. 49	·1123					
7. 46	43.50	12. 2	·1126					
9. 10	44. 5	12.38	·1123					
9. 18	43.15	13. 0	·1125					
10.33	44. 0	13.12	·1123					
13.58	43. 5	13.53	·1126					
16. 8	42.35	14.11	·1130					
16.27	43. 0	14.35	·1127					
16.40	42.20	18.33	·1131					
18. 8	42. 5	18.57	·1130					
18.26	42.30		***					
***		20.45	·1112					
19.30	40.10	21. 0	·1114					
19.40	41. 5	21.35	·1107					
20. 0	40.35	21.55	·1108					
20. 8	41.30	22.30	·1103					
20.30	40.35	22.37	·1104					
20.33	41.45	22.55	·1102					
20.51	41.35	23.14	·1107					
21.46	44.50	23.26	·1105					
21.53	45.55	23.59	·1110					
22. 2	45.30							
22.30	46.10							
23.17	48.30							
23.26	48. 5							
23.59	49.25							
Oct. 7		Oct. 7		Oct. 7		Oct. 7		
0. 0	20. 49. 25	0. 0	·1110	0. 0	·03700	0. 0	54·7	54·8
0. 19	50.20	0. 17	·1114	2. 6	·03490	1. 0	55·5	55·7
0. 39	49.35	0. 32	·1112	4. 40	·03070	2. 0	56·8	56·9
0. 55	51. 0	0. 56	·1118	5. 55	·02935	3. 0	57·4	57·8
1. 37	48.25	1. 25	·1115	7. 49	·02900	6. 0	59·4	59·0
1. 46	49.20	2. 16	·1119	8. 28	·02907	Max.	60·0	60·4

Right section

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Oct. 7	° ′ ″	Oct. 7		Oct. 7		Oct. 7	°	°
h m		h m		h m		h m		
2. 0	20. 48. 35	2. 25	·1122	9. 4	·02896	9. 0	59·5	59·1
2. 2	49.25	2. 37	·1119	9. 34	·02830	12. 0	59·9	59·6
2. 17	49. 0	2. 47	·1119	10. 0	·02840	18. 20	58·0	59·0
2. 24	49.35	3. 8	·1111	10. 37	·02826	Min.	58·0	57·6
2. 34	48.35	3. 21	·1116	11. 33	·02857	21. 0	58·8	59·0
2. 59	49.55	3. 40	·1106	16. 0	·02800	22. 0	59·4	59·0
3. 7	49. 0	3. 56	·1105	18. 7	·02825	23. 0	60·7	60·3
3. 15	50.20	4. 11	·1110	18. 32	·02798			
3. 36	48.40	4. 27	·1104	19. 38	·02796			
3. 48	48.10	4. 41	·1101	20. 28	·02817			
4. 30	50. 0	4. 55	·1102	21. 13	·02800			
4. 46	49.10	5. 8	·1098	23. 32	·02862			
5. 14	48.25	5. 15	·1105	23. 59	·02843			
5. 40	46.30	5. 23	·1105					
5. 56	47.50	5. 34	·1102					
6. 52	43.40	6. 8	·1106					
7. 10	43.45	6. 11	·1109					
7. 33	39.10	6. 22	·1105					
7. 52	38.25	6. 32	·1112					
8. 18	42.30	7. 0	·1115					
8. 42	41.10	7. 22	·1111					
9. 7	50. 0	7. 40	·1104					
9. 44	23. 0	7. 52	·1105					
10. 13	35. 5	7. 57	·1102					
10. 26	33.10	8. 15	·1112					
10. 57	39.25	8. 36	·1107					
11. 7	39.15	8. 59	·1123					
11.45	42.30	9. 16	·1112					
12. 18	42.30	9. 30	·1112					
12. 22	41.55	9. 49	·1129					
12. 44	42.30	10. 3	·1116					
12. 54	42.10	10. 17	·1098					
13. 10	43.30	10. 36:	·1108					
13. 25	43.30	10. 55	·1102					
13. 36	45.10	11. 22	·1114					
14. 3	43.35	11. 27	·1112					
14. 30	48.15	11. 39	·1117					
14. 45	45.55	12. 5	·1115					
15. 13	45.40	12. 27	·1117					
16. 0	38.55	12. 43	·1117					
16. 13	39.15	13. 0	·1118					
16. 45	42.15	13. 18	·1116					
16. 53	41.35	13. 37	·1122					
17. 2	43.30	13. 52	·1119					
17. 10	41.30	14. 0	·1123					
17. 18	44.50	14. 11	·1120					
17. 37	46.15	14. 31	·1127					
17. 44	45.40	14. 45	·1124					
18. 0	56.20	15. 8	·1130					
18. 13	57. 5	15. 21	·1129					
18. 32	55.20	15. 33	·1130					
18. 41	56. 5	16. 3	·1123					
18. 50	54.10	16. 56	·1122					
18. 58	53.40	17. 0	·1116					
19. 19	49.20	17. 17	·1117					
19. 40	49.15	17. 42	·1107					
19. 47	48. 5	18. 5	·1124					
20. 1	47. 5	18. 30	·1110					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
h m	o ′ ″	h m		h m		h m	o	o
Oct. 7		**Oct. 7**						
20. 8	20.44. 5	18.39	·1113					
20.15	47. 0	18.52	·1111					
20.24	44. 0	19.10	·1120					
20.28	46.50	19.33	·1118					
20.36	45. 5	20. 6	·1103					
20.43	46. 0	20.12	·1114					
21. 0	45. 0	20.18	·1104					
21.31	55.30	20.24	·1113					
21.54	20.57.35	20.36	·1103					
22.18	21. 2.25	20.40	·1105					
22.30	20.59.30	20.55	·1093					
22.44	57.45	21.43	·1021					
22.48	20.55.50	22. 0	·1030					
23.35	21. 3.35	22.23	·1020					
23.59	0.30	22.40	·1036					
		22.58	·1038					
		23.25	·1068					
		23.36	·1063					
		23.47	·1080					
		23.59	·1083					
Oct. 8		**Oct. 8**		**Oct. 8**		**Oct. 8**		
0. 0	21. 0.30	0. 0	·1083	0. 0	·02843	0. 0	61·5	61·2
0. 8	20.58.30	0.22	·1092	0. 9	·02836	1. 0	62·4	62·0
0.18	21. 0. 0	0.41	·1094	1.38	·02830	2. 0	63·8	63·6
0.31	20.58.10	1.24	·1072	2.28	·02798	3. 0	64·2	64·2
0.44	21. 1.40	1.50	·1088	3.23	·02806	Max.	65·6	65·8
1. 0	21. 1. 5	1.59	·1081	4.38	·02765	9. 0	64·6	65·0
1.23	20.58.10	2. 3	·1086	4.56	·02790	18. 0	61·0	61·6
1.35	59.40	2.18	·1077	5.43 {	·02730	Min.	57·8	57·4
1.43	59. 5	2.30	·1076	{	·02925	21. 0	59·2	60·0
1.48	59.55	2.42	·1060	7. 9:	·02775			
1.56	59. 0	2.53	·1068	7.49	·02802			
2. 2	59.50	3.10	·1065	8.36	·02735			
2.10	58. 5	3.23	·1073	9.24	·02703			
2.17	58.35	3.40	·1065	9.38	·02717			
2.25	56.30	3.52	·1063	10. 0	·02663			
2.30	57.55	4.13	·1086	10.47	·02610			
2.37	56. 5	4.26	·1071		***			
2.47	51.10	4.38	·1061	11.16	·02650			
2.54	52. 5	4.45	·1070	12.30	·02606			
3.11	51. 0	4.54	·1056	13. 0	·02652			
3.28	54.20	5. 1	·1073	13.20	·02628			
3.42	51.55	5. 6	·1063	14. 7	·02720			
3.48	51.20	5.13	·1078	14.39	·02766			
4. 1	51. 5	5.33	·1049	16. 8	·02740			
4. 7	54.20	5.44	·1069	16.30	·02775			
4.13	53.25	5.51	·1068	17. 6	·02799			
4.31	53.35	6.18	·1087	21.26	·03230			
4.41	49.30	6.30	·1100	23.41	·03367			
4.46	48.35	6.53	·1084	23.53	·03362			
4.59	35.40	6.55	·1088		(†)			
5. 9	29.55	7.18	·1076					
5.28	45.30	7.28	·1084					
5.36	37.35	7.33	·1082					
5.46	41.30	7.38	·1090					
5.57	40.10	7.53	·1072					
6. 0	41.55	8. 3	·1085					
6. 8	41.15	8.15	·1090					

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
h m	o ′ ″	h m		h m		h m	o	o
Oct. 8		**Oct. 8**						
6.27	20.43. 5	8.19	·1088					
6.40	43. 5	8.30	·1100					
6.56	41. 0	8.44	·1095					
7.12	40.20	8.56	·1096					
7.29	41.30	9. 9	·1090					
7.38	43. 5	9.23	·1142					
7.50	43.30	9.30	·1134					
8. 2	24.25	9.33	·1138					
8. 7	23.40	9.45	·1102					
8.19	29.55	10. 0	·1089					
8.27	32. 0	10.12	·1102					
8.32	31.10	10.19	·1105					
8.40	38.20	10.33	·1078					
8.46	41. 0	10.39	·1107					
8.53	39. 0	10.45	·1097					
9. 9	40.10	10.52	·1098					
9.22	29. 0	11. 2	·1121					
9.32	39. 0	11.12	·1109					
9.39	38.15	11.28	·1113					
9.45	45.35	11.45	·1083					
10. 2	46. 0	11.56	·1087					
10.17	37.20	12.15	·1060					
10.25	38.50	12.55	·1115					
10.28	37.35	13.13	·1104					
10.41	35.40	13.37	·1100					
10.45	23.45	14.24	·1104					
10.54	30.10	14.44	·1116					
11. 9	21. 0	14.48	·1115					
11.18	28. 5	14.57	·1122					
11.37	25.25	15.28	·1080					
11.45	30.35	15.42	·1089					
12. 0	24.30	15.50	·1090					
12. 7	27. 5	15.56	·1087					
12.19	44.15	16. 7	·1090					
12.49	55. 5	16.26	·1108					
13.17	48. 5	16.38	·1109					
13.29	46.45	16.47	·1118					
13.37	43. 0	17.25	·1111					
13.51	42.10	17.33	·1117					
13.55	43.15	17.43	·1113					
14.13	41.50	17.48	·1116					
14.19	40.10	18. 8	·1107					
14.29	42.10	18.32	·1103					
14.43	40. 5	18.40	·1102					
14.46	38.10	18.53	·1092					
14.57	42. 5	18.58	·1097					
15. 1	41.45	19.22	·1086					
15.17	53.35	19.32	·1089					
15.27	56. 0	19.42	·1086					
15.45	54. 0	20. 0	·1094					
15.52	55.10	20.21	·1082					
15.58	53.35	20.39	·1084					
16. 4	55. 5	20.45	·1081					
16.14	55.10	21.22	·1092					
16.32	58. 5	21.44	·1089					
16.43	53.30	22.10	·1070					
16.49	53.40	22.26	·1070					
17. 5	48. 0	22.35	·1060					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
Oct. 8		Oct. 8						
17.23	20.49.50	22.47	·1069					
17.30	48.55	22.55	·1062					
17.43	49.25	23.15	·1072					
17.52	48.45	23.27	·1087					
18.13	51.45		(†)					
18.38	41. 0							
18.49	50.30							
18.54	48. 5							
19. 2	48.40							
19.18	47. 0							
19.23	45. 5							
19.36	45.30							
19.45	43.10							
	***							
20. 8	47.30							
20.21	47.50							
20.23	46. 0							
20.40	44. 0							
20.46	44.40							
20.59	43.55							
	***							
21.43	48.10							
21.46	49.10							
21.57	47.55							
22.27	50.10							
22.37	48.45							
22.51	50.50							
	***							
23.22	47.50							
23.30	49.25							
23.44	48.10							
23.59	48.55							
Oct. 9		Oct. 9		Oct. 9		Oct. 9		
0. 0	20.48.55		(†)		(†)	1. 0	59.8	60.3
0.13	48.35	0.26	·1092	0.38	·03370	3. 0	60.0	60.3
0.21	49.25	0.45	·1094	1.38	·03353	6. 0	60.6	61.0
0.34	48.55	1. 2	·1097	3.23	·03363	Max.	60.6	61.5
0.48	52. 5	1.12	·1095	4.36	·03318	9. 0	60.0	61.5
0.58	50.45	1.37	·1097	4.45	·03330	18. 0	56.8	57.0
1. 2	51.30	1.52	·1105	5.54	·03218	Min.	55.7	55.3
1.30	48.35	2. 5	·1088	8.27	·03156	21. 0	56.7	57.0
1.42	51. 0	2.16	·1087	9. 0	·03128			
1.54	46.10	2.31	·1098	9.28	·03132			
2.24	47.35	2.42	·1098	10.57	{·03210 / ·03490}			
2.33	47.15	2.48	·1104					
2.40	47. 0	3. 0	·1097	12. 0	·03527			
2.58	41. 0	3.23	·1093	14.34	·03656			
3.12	45.45	3.41	·1096	17.17	·03677			
3.16	44. 0	3.52	·1086	19.35	·03713			
3.31	45.15	4. 2	·1102	21.12	·03702			
3.45	41.20	4.20	·1088		(†)			
3.58	44.10	4.36	·1089	23.25	·03622			
4.16	41.50	4.41	·1083	23.59	·03574			
4.23	38. 0	5. 1	·1118					
4.34	48.10	5.17	·1105					
4.37	39.50	5.30	·1114					
5. 3	37. 0	5.59	·1092					

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
Oct. 9		Oct. 9						
5.14	20.36. 5	6.15	·1099					
5.44	40.20	6.23	·1094					
5.53	38. 0	6.38	·1109					
6. 3	37.25	6.45	·1105					
6.15	38.45	6 55	·1115					
6.28	35.25	7.13	·1118					
6.36	37.20	7.43	·1098					
6.45	32.30	8.12	·1105					
7. 1	34. 0	8.27	·1126					
7.16	39. 5	8.37	·1125					
7.35	41.10	8.58	·1127					
8. 0	40.45	9.22	·1104					
8. 5	41.35	9.32	·1107					
8.22	38.50	9.47	·1103					
8.36	43.50	9.55	·1106					
8.52	41. 0	10. 7	·1105					
9.16	43. 0	10.14	·1109					
9.28	40.30		***					
9.50	39.15	10.34	·1105					
10.10	41. 0	10.40	·1110					
10.27	38.25	10.49	·1102					
10.32	39. 0	11. 4	·1114					
10.40	38. 0	11.10	·1113					
10.47	43.50	11.22	·1122					
11. 1	40.30	11.46	·1116					
11.15	47. 0	12.18	·1117					
11.30	50. 5	13.45	·1111					
12.10	44.10	14.42	·1114					
12.19	41.30	15.10	·1107					
13. 6	43.10	15.32	·1108					
13.41	52.50	15.48	·1112					
14. 7	45. 0	16.16	·1114					
14.23	44. 0	16.40	·1105					
14.37	43.55	17. 3	·1100					
14.44	44.45	17.35	·1111					
15. 7	43.50	17.40	·1110					
15.29	44.45	18.15	·1117					
15.34	45.55	18.31	·1109					
15.53	44.10	18.41	·1114					
16.13	44.55	19. 0	·1107					
16.29	44.20	19. 5	·1112					
16.44	46.55	19.41	·1110					
16.52	46.30		***					
17.11	49.35	20.19	·1103					
17.19	48. 5	20.35	·1104					
17.38	46.30	20.52	·1101					
17.44	44.35		(†)					
17.53	44.55	21. 0	·1098*					
18. 0	43. 0	23. 4	·1097					
18.15	43.10	23.16	·1093					
18.44	41.50	23.23	·1096					
18.48	40.30	23.39	·1090					
19. 8	42. 0		(†)					
19.15	40.30							
19.23	41.30							
19.44	40.30							
19.59	41.30							
20.33	40.20							

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol ː attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Oct. 9	° ′ ″						°	°
20.44	20.42. 0							
20.57	41. 5							
21.13	42.15							
	(†)							
23.30	49.10							
23.43	48.10							
23.59	49.15							
Oct. 10		Oct. 10		Oct. 10		Oct. 10		
0. 0	20.49.15		(†)	0. 0	·03574	1. 0	60·0	60·0
0. 8	47.45	0.23	·1094	2.37	·03278	3. 0	61·7	61·4
1.19	50. 0	0.30	·1095	4. 5	·03070	Max.	63·1	63·2
1.39	49. 0	0.45	·1102	4.28	·03052	9. 0	62·2	62·0
1.45	48. 0		***	5.13	·02940	Min.	57·4	57·1
1.52	48.10	1. 8	·1104	5.54	·02869	22. 0	59·0	58·9
2. 7	43.30	1.45	·1096	6. 5	·02870			
2.28	41.55	1.52	·1098	7.13	·02768			
3.22	45.25	2. 0	·1090	9.15	·02744			
3.44	44.45	2.37	·1102	10. 3	·02670			
3.53	43.10	2.54	·1098	10.22	·02698			
4. 1	36.10	3. 3	·1101	10.40	·02680			
4. 7	34.10	3.18	·1100	12. 0	·02757			
4.17	33. 0	3.31	·1104	13. 0	·02750			
4.33	38.40	3.59	·1083	14.28	·02804			
4.41	38.10	4.27	·1113	14.57	·02798			
4.50	41. 0	5. 1	·1090	16. 0	·02838			
5.16	39.55	5.22	·1095	16.23	·02830			
5.22	40.10	5.42	·1081	20.36	·03023			
5.33	37.15	6. 3	·1130	22.48	·03098			
5.53	20.15	6.23	·1108	23.59	·03106			
6.19	33.20	6.38	·1099	–				
6.24	33.10	6.47	·1105					
6.31	34.45	7. 8	·1086					
6.44	33.30	7.25	·1088					
7. 0	40. 0	7.37	·1094					
7.12	38.45	8. 8	·1087					
7.32	38.55	8.19	·1092					
7.59	34.25	8.40	·1086					
8.13	33.30	9. 0	·1092					
8.31	37.15	9.26	·1118					
9. 3	31.15	10. 0	·1075					
9.20	36.30	10.18	·1118					
9.46	46.35	10.40	·1086					
10.13	34. 0	10.45	·1087					
10.31	42. 5	11. 0	·1095					
10.41	38. 5	11.23	·1094					
10.53	36. 5	11.34	·1098					
11.29	38. 0	11.43	·1097					
11.46	41. 0	12.24	·1098					
12.10	40.55	12.43	·1095					
12.40	48. 0	13. 8	·1104					
13. 7	43.20	13.22	·1097					
13.13	43.55	13.38	·1098					
13.21	42.40	13.45	·1102					
13.49	43.40	13.53	·1100					
13.57	42. 0	14.25	·1104					
14.17	41.30	14.34	·1107					
14.41	48 25	14.45	·1101					

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Oct. 10	° ′ ″	Oct. 10					°	°
15. 6	20.45. 5	15.34	·1095					
15.15	46.30	16. 8	·1111					
15.38	44.25	16.49	·1110					
16. 1	50. 0	16.56	·1113					
16.48	43.10	17.11	·1108					
16.57	44.35	17.29	·1106					
17.13	44. 5		***					
17.22	43. 0	18.27	·1107					
17.46	43. 5	18.48	·1103					
17.57	41.55	18.58	·1105					
18. 6	42. 0	19. 8	·1101					
18.13	43.25	19.28	·1104					
18.23	43. 5	19.53	·1092					
18.41	45.45	19.58	·1086					
19.15	45. 5	20. 0	·1091					
19.26	43.35	20. 8	·1084					
19.39	44. 5	20.15	·1098					
19.46	43. 5	20.22	·1095					
19.51	43.45	20.33	·1100					
19.57	41.25	20.44	·1100					
20. 0	43.10	21.10	·1091					
20. 8	39.15	21.21	·1093					
20.14	42. 0	21.33	·1086					
20.17	41. 5	21.38	·1087					
	***	21.56	·1075					
20.44	43.45	22. 0	·1079					
20.59	42.30	22.14	·1078					
21. 2	43.20	22.27	·1080					
21.13	42.10	22.36	·1086					
21.42	45.50		(†)					
21.53	45. 0	23.17	·1085					
22.15	47.30	23.33	·1086					
22.27	47.15	23.43	·1082					
23. 0	50.10	23.54	·1087					
23. 9	49.10	23.59	·1077					
23.23	52. 0							
23.40	52.30							
23.52	54. 0							
23.59	52.25							
Oct. 11		Oct. 11		Oct. 11		Oct. 11		
0. 0	20.52.25	0. 0	·1077	0. 0	·03106	1.30	59·8	59·9
0.13	49. 5	0.10	·1081	0.37	·03114	Max.	61·6	61·8
0.22	48.55	0.20	·1092	1.30	·03074	8.30	61·5	61·7
0.47	51.10	0.40	·1092	1.55	·03070	18. 0	57·9	58·5
1. 0	49.25	1. 1	·1081	2.58	·03004	Min.	55·6	55·2
1. 4	49. 0	1. 9	·1089	3.12	·03022	21. 0	57·0	57·0
1.23	47.50	1.18	·1083	3.36	·02978			
1.31	47.40	1.47	·1094	3.49	·02990			
1.43	46.25	1.58	·1104	4.55	·02855			
1.53	48.30	2. 7	·1101	5.45 {	·02830			
1.57	48. 5	2.11	·1103		·03115			
2.17	51.20	2.29	·1088	7.16	·03010			
2.23	49. 5	2.40	·1097	8.56	·02976			
2.33	51.50	2.56	·1084	11.48	·03022			
2.48	46.30	3.15	·1102	13.56	·03100			
2.55	47.30	3.27	·1087	14.53	·03082			
3. 1	43.55	3.35	·1086	16.20	·03190			

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left panel:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Oct. 11		Oct. 11		Oct. 11				
h m	o ′ ″	h m		h m		h m	o	o
3. 13	20. 42. 15	3. 41	·1074	18. 4	·03280			
3. 23	38. 5	3. 52	·1092	22. 8	·03536			
3. 30	38. 0	4. 13	·1106	23. 59	·03538			
3. 38	29. 30	4. 25	·1100					
3. 46	28. 50	4. 30	·1102					
3. 59	29. 0	4. 49	·1085					
4. 14	38. 45	5. 0	·1086					
4. 20	38. 5	5. 8	·1082					
4. 30	44. 5	5. 41	·1103					
4. 38	46. 35	5. 52	·1104					
4. 49	44. 5	6. 12	·1092					
4. 53	44. 30	6. 22	·1083					
5. 2	42. 5	6. 33	·1122					
5. 31	40. 50	6. 44	·1101					
5. 43	41. 30	6. 51	·1111					
6. 0	43. 35	7. 2	·1111					
6. 9	42. 5	7. 11	·1083					
6. 23	28. 10	7. 19	·1102					
6. 29	34. 30	7. 30	·1089					
6. 41	31. 10	7. 38	·1093					
7. 0	41. 5	7. 47	·1088					
7. 13	32. 55	8. 15	·1100					
7. 23	38. 25	8. 59	·1100					
7. 30	37. 40	9. 11	·1097					
7. 44	41. 5	9. 25	·1097					
8. 3	40. 10	9. 55	·1105					
8. 13	40. 55	10. 11	·1101					
8. 26	40. 0	10. 37	·1109					
8. 34	40. 45	10. 58	·1105					
8. 52	39. 55	11. 20	·1109					
9. 1	40. 50	11. 45	·1105					
9. 14	38. 55	12. 0	·1106					
9. 46	40. 10	12. 27	·1106					
10. 2	42. 30	12. 45	·1109					
10. 18	41. 0	13. 8	·1107					
10. 39	43. 15	13. 51	·1108					
11. 46	45. 30	14. 5	·1111					
11. 57	44. 5	14. 15	·1109					
12. 15	45. 35	14. 27	·1114					
12. 37	44. 0	14. 52	·1107					
13. 33	43. 25	15. 6	·1111					
13. 47	44. 50	15. 27	·1112					
13. 57	44. 25	16. 6	·1103					
14. 34	54. 50	16. 28	·1103					
15. 31	40. 0	16. 55	·1112					
15. 41	39. 15	17. 18	·1101					
16. 7	40. 25	17. 24	·1103					
16. 28	43. 10	17. 47	·1094					
16. 52	40. 50	18. 0	·1096					
17. 17	45. 35	18. 13	·1100					
17. 24	44. 50	18. 37	·1110					
17. 43	45. 15	18. 58	·1108					
17. 52	47. 10	19. 17	·1113					
17. 56	45. 15	19. 38	·1107					
18. 21	43. 30	19. 49	·1110					
18. 28	43. 55	20. 0	·1104					
	***		***					
19. 15	41. 55	20. 35	·1098					

Right panel:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Oct. 11		Oct. 11						
h m	o ′ ″	h m		h m		h m	o	o
19. 29	20. 44. 35	20. 50	·1097					
19. 49	41. 50	21. 0	·1098					
19. 57	44. 10	21. 50	·1078					
20. 7	43. 0	23. 22	·1102					
20. 12	44. 15	23. 42	·1098					
20. 37	41. 50	23. 59	·1103					
20. 54	42. 15							
21. 1	44. 0							
21. 35	44. 40							
22. 1	46. 10							
22. 17	48. 5							
23. 56	49. 5							
23. 59	49. 20							
Oct. 12		Oct. 12		Oct. 12		Oct. 12		
0. 0	20. 49. 20	0. 0	·1103	0. 0	·03538	1. 0	58 ·6	58 ·6
0. 31	51. 10	0. 14	·1102	2. 43	·03402	2. 57	59 ·9	60 ·0
0. 38	50. 40	0. 33	·1102	5. 30	·03098	Max.	61 ·0	61 ·7
0. 43	51. 10	0. 51	·1095	5. 45 {	·03100	9. 0	59 ·5	61 ·0
0. 52	49. 35	1. 0	·1098	{	·03333	19. 30	56 ·4	57 ·0
1. 1	49. 25	1. 16	·1094	7. 58	·03228	Min.	55 ·4	55 ·2
1. 29	46. 15	1. 32	·1099	9. 21	·03240	21. 0	56 ·2	57 ·2
1. 52	47. 55	1. 55	·1102	10. 57	·03312			
2. 0	47. 10	2. 2	·1098	11. 53	·03327			
2. 8	48. 0	2. 11	·1100	12. 53	·03375			
2. 33	45. 10	2. 26	·1091	14. 24	·03400			
2. 41	46. 0	2. 42	·1095	14. 47	·03364			
2. 50	45. 10	2. 51	·1091	15. 39	·03390			
3. 1	46. 25	3. 2	·1096	16. 37	·03465			
3. 39	44. 0	3. 17	·1090	16. 58	·03465			
4. 15	44. 10	3. 38	·1092	19. 44	·03623			
4. 23	42. 35	3. 45	·1097	21. 33:	·03680			
4. 42	42. 5	4. 10	·1104	23. 59	·03634			
5. 7	42. 35	4. 26	·1096					
5. 28	41. 15	4. 40	·1100					
5. 34	42. 0	5. 0	·1099					
6. 7	39. 15	5. 37	·1106					
6. 21	37. 10	5. 46	·1103					
6. 29	39. 15	5. 54	·1103					
6. 53	39. 0	6. 13	·1098					
7. 9	41. 10	6. 28	·1109					
7. 31	41. 55	6. 34	·1108					
7. 52	37. 0	6. 42	·1114					
8. 38	43. 0	6. 53	·1113					
9. 42	42. 0	7. 5	·1114					
10. 38	43. 10	7. 12	·1111					
10. 53	41. 10	7. 32	·1108					
11. 5	37. 30	8. 7	·1117					
11. 37	34. 15	8. 34	·1111					
12. 9	38. 55	9. 26	·1111					
12. 35	40. 0	9. 40	·1113					
12. 50	42. 0	10. 9	·1112					
13. 39	34. 5	10. 23	·1116					
14. 13	43. 5	10. 33	·1115					
14. 35	52. 35	10. 47	·1123					
14. 48	50. 5	10. 58	·1123					
15. 10	49. 10	11. 17	·1129					
15. 37	38. 10	11. 34	·1129					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers Of H.F. Magnet.	Of V.F. Magnet.
Oct. 12		Oct. 12						
h m	° ′ ″	h m		h m		h m	°	°
15.50	20.36.5	12.3	·1114					
16.7	35.10		***					
16.38	48.30	12.33	·1112					
16.53	47.20	12.42	·1115					
17.2	45.5	13.17	·1117					
17.8	47.10	14.2	·1109					
17.28	44.35	14.9	·1104					
17.43	42.30	14.37	·1133					
18.53	45.20	14.49	·1120					
19.37	42.50	14.57	·1118					
19.54	43.50	15.2	·1119					
20.14	42.0	15.10	·1114					
20.31	43.0	15.30	·1124					
20.40	44.30	16.1	·1104					
20.51	43.5	16.17	·1104					
21.36	47.20	16.38	·1097					
22.14	45.5	16.54	·1099					
22.21	46.30	17.39	·1123					
22.58	48.5	17.49	·1123					
23.7	50.10	18.10	·1119					
23.59	51.5	18.27	·1122					
		19.2	·1112					
		19.32	·1106					
		19.41	·1106					
		20.8	·1095					
		20.15	·1097					
		20.32	·1094					
		20.41	·1088					
		21.0	·1085					
		21.15	·1084					
		21.20	·1085					
		21.28	·1082					
		21.34	·1086					
		21.47	·1085					
		21.59	·1086					
		22.30	·1081					
			***					
		23.4	·1086					
		23.23	·1081					
		23.59	·1086					
Oct. 13		Oct. 13		Oct. 13		Oct. 13		
0.0	20.51.5	0.0	·1086	0.0	·03634	1.0	58·0	58·2
0.13	51.10	0.25	·1085	1.0	·03592	3.0	59·0	59·0
0.16	50.35	0.46	·1090	1.28	·03594	Max.	59·2	61·2
0.36	52.30	1.3	·1080	4.36:	·03387	9.0	58·5	58·5
0.57	49.40	1.39	·1112	7.8	·03325	18.0	56·5	57·0
1.15	46.15	2.32	·1104	7.42	·03282	Min.	55·3	54·8
1.30	48.0	2.50	·1107	12.6	·03398	21.0	56·3	56·8
1.39	48.5	3.15	·1104	12.30	·03394	22.0	57·0	57·0
1.53	49.30	3.32	·1105	16.11	·03543	23.0	58·0	58·0
2.7	49.35	3.53	·1102	22.13	·03650			
2.23	48.20	4.9	·1105	23.59	·03543			
4.20	43.10	4.18	·1102					
4.29	43.20	4.29	·1107					
5.14	41.55	4.43	·1107					
5.26	42.10	5.36	·1093					
5.37	41.30	6.4	·1098					

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers Of H.F. Magnet.	Of V.F. Magnet.
Oct. 13		Oct. 13						
h m	° ′ ″	h m		h m		h m	°	°
5.58	20.43.5	6.32	·1081					
6.20	36.10	7.12	·1110					
6.30	24.30	7.29	·1105					
6.43	15.10	7.47	·1084					
6.51	16.5	8.28	·1096					
7.0	19.50	9.2	·1083					
7.11	30.35	9.19	·1092					
7.33	36.30	9.38	·1083					
7.45	33.15	9.56	·1097					
8.11	32.15	10.10	·1100					
8.28	32.35	10.32	·1109					
9.3	29.40	10.45	·1112					
9.8	28.45	10.53	·1110					
9.31	34.0	11.7	·1114					
9.45	32.0	11.36	·1112					
10.4	35.40	11.42	·1110					
10.16	36.0	11.47	·1108					
10.47	40.25	12.2	·1121					
11.6	41.55	12.20	·1120					
11.23	40.20	12.38	·1114					
11.32	38.35	12.48	·1113					
11.46	38.15	13.16	·1119					
13.9	45.25	13.30	·1116					
13.28	44.20	13.43	·1116					
13.44	44.25	14.12	·1111					
14.0	43.35		***					
14.41	43.55	15.27	·1111					
15.12	43.15	15.38	·1113					
15.45	44.0	15.47	·1111					
15.53	43.10	15.56	·1114					
16.0	43.55	16.9	·1112					
16.13	43.10	16.25	·1117					
16.31	43.45	16.35	·1115					
16.47	42.30	17.0	·1120					
16.56	42.55	17.23	·1114					
17.3	42.10	17.40	·1116					
17.22	44.40	17.45	·1114					
17.30	43.15	18.4	·1115					
17.44	44.5	18.13	·1117					
18.10	42.55	18.30	·1115					
18.53	42.50	18.43	·1117					
19.8	41.45	19.2	·1115					
19.22	42.5	19.18	·1115					
19.32	41.5	20.37	·1108					
20.4	41.0	20.54	·1111					
20.15	40.5	22.17	·1083					
20.41	40.30	22.47	·1083					
21.7	43.25	22.59	·1088					
21.27	41.25	23.32	·1094					
21.38	44.30	23.59	·1099					
21.45	44.10							
23.3	49.25							
23.53	48.30							
23.59	48.25							
Oct. 14		Oct. 14		Oct. 14		Oct. 14		
0.0	20.48.25	0.0	·1099	0.0	·03543	0.0	59·1	59·0
0.33	49.5	0.52	·1105	4.41	·02940	1.0	59·8	59·9

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Column headers (repeated for both halves of the table):

| Greenwich Mean Solar Time | Western Declination | Greenwich Mean Solar Time | Horizontal Force in parts of the whole H.F. uncorrected for Temperature | Greenwich Mean Solar Time | Vertical Force in parts of the whole V.F. uncorrected for Temperature | Greenwich Mean Solar Time | Readings of Thermometers — Of H.F. Magnet | Of V.F. Magnet |

Left half — Oct. 14

GMST	W. Declination	GMST	H.F.	GMST	V.F.	GMST	Of H.F.	Of V.F.
1.13	20.51. 5	1.38	·1102	6. 7:	·02821	2. 0	60·9	60·9
1.23	49.15		***	8. 0	{ ·02766	3. 0	61·7	61·7
2.17	48.30	2.38	·1106	8. 0	{ ·03030	6. 0	62·8	62·8
2.23	49. 5	2.58	·1096	10.30	·02974	Max.	62·8	63·1
2.56	45.45	3.13	·1105	11. 4	·02940	9. 0	61·7	62·0
3.32	44.50	3.17	·1105	12.47	·03058	12. 0	60·7	60·9
4. 8	43.35	3.47	·1111	18.15	·03320	18. 0	58·0	58·2
4.33	43.55	4. 3	·1108	20.40	·03476	Min.	56·0	55·6
4.59	41.50		***	21.13	{ ·03496	21. 4	57·1	57·7
5.15	42.55	4.43	·1113	21.13	{ ·03460	22. 0	57·3	57·8
5.30	42.15	4.48	·1112	23. 0	·03484	23. 0	57·7	58·1
5.47	33.55	5.20	·1113	23.59	·03460			
6. 4	28.30	5.37	·1108					
6.15	30. 0	5.47	·1093					
6.22	29. 0	6. 7	·1093					
6.31	30.50	6.20	·1105					
6.47	36. 0	6.28	·1105					
6.59	36.30	6.40	·1110					
7.18	40.10	6.52	·1110					
7.37	39. 5	7. 0	·1106					
8. 2	36.15	7.14	·1107					
8.26	41.20	7.46	·1099					
8.48	32. 5	8. 4	·1099					
9. 1	30.15	8.24	·1106					
9.11	31.40	8.33	·1102					
9.24	28.55	8.46	·1100					
9.43	34.55	8.58	·1100					
9.59	34.40	9. 8	·1095					
10.23	41.25	9.23	·1098					
10.32	41. 5	9.38	·1111					
10.48	44.25	9.52	·1107					
11.30	40.55	10.11	·1119					
11.47	42.30	10.20	·1118					
12.22	40.55	10.41	·1152					
13.17	43. 0	11.13	·1118					
13.50	42.35	11.24	·1115					
14.51	44. 0	11.38	·1116					
15. 0	43. 5	11.55	·1111					
15. 7	44. 0	13. 5	·1112					
15.28	42.35	13.20	·1114					
16.18	45. 0	14.10	·1113					
16.38	43.50	14.49	·1115					
16.53	44.35	14.59	·1114					
17. 6	43.30	15.43	·1119					
17.28	43.50	16. 0	·1115					
17.43	45.30	17. 3	·1116					
18. 0	45.35	17.38	·1123					
18.45	43.40	18.47	·1112					
19.17	44. 5	19.47	·1110					
19.36	43.25	20. 5	·1112					
19.48	41.35	20.15	·1110					
20. 7	42. 0	20.30	·1111					
20.14	41.10	21.30	·1084					
20.30	43.10	21.43	·1084					
21.27	44. 5	22. 9	·1080					
21.55	47. 0	22.17	·1087					
22. 2	46.35	22.36	·1091					
22.27	49.10	22.49	·1091					

Right half — Oct. 14

GMST	W. Declination	GMST	H.F.	GMST	V.F.	GMST	Of H.F.	Of V.F.
22.52	20.45.35	23.28	·1100					
22.58	46.50	23.37	·1100					
23. 5	46. 0	23.59	·1103					
23.18	48. 5							
23.59	48. 0							

Right half — Oct. 15

GMST	W. Declination	GMST	H.F.	GMST	V.F.	GMST	Of H.F.	Of V.F.
0. 0	20.48. 0	0. 0	·1103	0. 0	·03460	0. 0	58·4	58·8
0.45	49. 5	0.30	·1106	1.57	·03335	1. 0	59·2	59·5
0.58	48.30	0.48	·1108	2.38	·03325	2. 0	59·8	60·0
1. 2	49.50	0.58	·1114	6.29	·03092	3. 0	60·3	60·8
1.53	49.50	1.10	·1112	9.37	·03020	Max.	60·8	61·4
2. 8	52.30	1.40	·1111	13.58	·03170	9. 0	60·0	61·0
2.26	48.55	1.56	·1113	15. 6	·03197	18. 0	56·5	57·0
2.38	49.55	2.26	·1101	20.43	·03524	Min.	54·3	53·8
2.48	46. 5		(†)	22.31	·03585	21. 0	56·0	56·0
2.53	46.55	3. 6	·1099				(†)	
3. 0	46.10	3.17	·1103					
3.10	46.45	3.27	·1097					
3.15	45.25	3.48	·1102					
3.26	46.30	4. 0	·1102					
3.33	46. 0	4. 8	·1099					
3.40	47. 0	4.19	·1098					
3.59	46.55	4.29	·1092					
4.12	47.25	4.52	·1099					
4.26	45. 0	4.57	·1098					
4.37	45. 0		***					
4.44	46. 5	5.47	·1099					
4.53	45.10	6.16	·1106					
5.22	46.55	8.10	·1114					
5.54	44.50	8.28	·1131					
6.27	45.15	8.44	·1119					
7.23	43.40	8.58	·1119					
7.33	42.55	9.13	·1127					
7.59	43.30	9.27	·1124					
8. 8	42.10	9.51	·1115					
8.19	41.50	10. 6	·1114					
8.27	40. 0	10.25	·1117					
8.41	42.45	10.42	·1114					
9. 6	39. 0	11.36	·1116					
9.16	40. 5	11.44	·1114					
9.52	41.25	11.59	·1116					
10. 0	42.35	12.30	·1116					
10.17	42.35	12.51	·1118					
10.33	43.10	13.30	·1117					
10.59	42.30	13.55	·1123					
12.41	44.10	14.11	·1120					
13.13	42.10	14.23	·1123					
13.22	43.15	15.30	·1118					
13.32	43.10	15.38	·1121					
14. 6	47. 5	15.47	·1118					
14.20	45.55	16.22	·1119					
14.42	50. 0	17. 5	·1123					
14.55	47.30	17.30	·1120					
15. 7	44.15	17.49	·1119					
15.27	44. 5	17.57	·1122					
15.43	43. 0	18. 8	·1122					
15.52	44. 5	18.22	·1121					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Oct. 15		Oct. 15						
h m	o ′ ″	h m		h m		h m	o	o
16. 21	20. 44. 30	18. 37	·1122					
17. 13	43. 30	19. 30	·1113					
17. 38	43. 35	19. 46	·1112					
17. 47	42. 55	20. 17	·1113					
18. 37	43. 30	20. 49	·1111					
19. 19	42. 55	21. 13	·1112					
20. 7	41. 5	21. 53	·1103					
20. 38	40. 30	22. 38	·1103					
21. 6	40. 35	22. 50	·1106					
23. 13	47. 40	23. 4	·1104					
23. 20	46. 55	23. 15	·1106					
23. 52	48. 0	23. 59	·1107					
23. 59	47. 30							
Oct. 16		Oct. 16		Oct. 16		Oct. 16		
0. 0	20. 47. 30	0. 0	·1107			1. 0	58 ·2	58 ·2
0. 53	47. 0	1. 40	·1115	0. 59	·03640	3. 0	60 ·0	60 ·8
1. 18	47. 15	1. 56	·1108	2. 13	·03520	Max.	62 ·0	62 ·8
1. 33	48. 0	2. 37	·1102	3. 6	·03358	9. 0	61 ·0	61 ·0
1. 49	46. 45	3. 20	·1103	5. 16:	·03203	18. 30	59 ·0	57 ·3
2. 39	46. 30	3. 50	·1107	7. 0	{ ·03183	Min.	55 ·7	55 ·0
4. 26	44. 10	4. 0	·1107		{ ·03410	21. 0	57 ·3	57 ·2
4. 41	44. 30	4. 49	·1112	10. 53	·03390			
4. 58	43. 15	5. 24	·1110	12. 16	·03428			
5. 53	43. 20	5. 39	·1111	13. 15	·03446			
6. 24	42. 25	5. 47	·1113	14. 51	·03525			
7. 8	43. 25	6. 6	·1113	19. 0:	·03617			
7. 38	41. 40	6. 30	·1116	23. 59	·03490			
8. 3	43. 5	7. 0:	·1110					
8. 36	25. 0	7. 22	·1113					
9. 10	34. 40	8. 0	·1108					
9. 48	39. 0	8. 17	·1095					
10. 10	39. 5	8. 38	·1119					
10. 47	41. 55	8. 47	·1121					
11. 8	40. 10	9. 7	·1106					
11. 36	40. 5	9. 28	·1101					
11. 43	41. 20	9. 38	·1101					
12. 8	39. 25	9. 45	·1104					
12. 31	40. 5	10. 0	·1102					
12. 45	38. 0	10. 30	·1112*					
12. 59	37. 50	10. 39	·1112					
13. 13	39. 25	10. 51	·1114					
13. 35	38. 0	11. 13	·1110					
14. 0	40. 0	11. 22	·1109					
14. 8	39. 10	11. 37	·1112					
14. 15	41. 0	11. 47	·1111					
14. 31	40. 5	11. 58	·1114					
14. 50	40. 55	12. 12	·1114					
15. 7	38. 40	12. 29	·1129					
15. 28	41. 55	12. 40	·1125					
15. 54	39. 35	12. 54	·1127					
16. 49	44. 5	13. 41	·1118					
17. 0	42. 10	13. 55	·1119					
17. 22	42. 30	14. 8	·1116					
17. 37	40. 35	14. 20	·1119					
17. 42	41. 30	14. 33	·1116					
17. 52	41. 0	14. 57	·1117					
18. 0	42. 0	15. 8	·1115					

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Oct. 16		Oct. 16						
h m	o ′ ″	h m		h m		h m	o	o
18. 12	20. 41. 45	15. 30	·1120					
18. 16	40. 10	15. 39	·1116					
18. 23	41. 45	16. 9	·1123					
18. 41	40. 50	16. 15	·1120					
19. 4	42. 55	16. 33	·1119					
19. 20	42. 0	16. 53	·1121					
19. 37	43. 0	17. 0	·1117					
20. 9	41. 20	17. 20	·1124					
20. 23	42. 5	17. 35	·1120					
20. 34	39. 30	17. 42	·1123					
20. 42	42. 5	17. 51	·1121					
20. 47	39. 55	18. 15	·1123					
21. 33	41. 20	18. 22	·1126					
21. 38	40. 0	18. 58	·1126					
21. 44	41. 30	19. 20	·1124					
21. 55	42. 10	20. 18	·1119					
22. 0	41. 5	20. 26	·1125					
22. 4	42. 30	20. 34	·1113					
22. 21	43. 20	20. 42	·1121					
22. 37	48. 5	20. 49	·1115					
22. 47	45. 30	20. 58	·1120					
22. 56	46. 30	21. 10	·1117 ***					
22. 59	45. 45							
23. 6	48. 15	22. 20	·1112					
23. 14	45. 30	22. 28	·1115					
23. 20	49. 5	22. 33	·1112					
23. 30	47. 25	22. 40	·1118					
23. 38	49. 10	22. 52	·1104					
23. 59	50. 15	23. 15	·1105					
		23. 19	·1110					
		23. 25	·1107					
		23. 34	·1108					
		23. 59	·1111					
Oct. 17		Oct. 17		Oct. 17		Oct. 17		
0. 0	20. 50. 15	0. 0	·1111	0. 0	·03490	1. 0	61 ·0	61 ·0
0. 7	52. 0	0. 5	·1114	2. 0	·03238	3. 0	62 ·9	63 ·0
0. 15	50. 35	0. 15	·1105	2. 47	·03230	Max.	63 ·8	64 ·6
0. 26	51. 45	0. 26	·1112	3. 28	·03176	9. 0	62 ·3	62 ·5
0. 37	50. 30	0. 32	·1104	5. 11	{ ·03099	Min.	54 ·5	53 ·9
1. 8	51. 0	0. 52	·1097		{ ·03290	22. 35	55 ·8	57 ·0
1. 42	53. 15	0. 59	·1088	6. 37	·03190			
1. 52	52. 15	1. 10	·1085	7. 12	·03181			
2. 0	54. 15	1. 25	·1091	7. 29	·03203			
2. 8	54. 30	1. 35	·1095	9. 8	{ ·03191			
2. 19	51. 50	1. 48	·1092		{ ·03366			
2. 23	52. 30	1. 50	·1094	12. 9:	·03402			
2. 34	49. 50	(†)		12. 58	·03606			
2. 41	42. 50	2. 52	·1097	16. 57	·03618			
2. 53	40. 25	3. 2	·1100	21. 2	·03743			
2. 59	42. 0	3. 19	·1096	22. 33	·03740			
3. 15	42. 45	3. 30	·1097	23. 59	·03741			
3. 22	42. 5	3. 45	·1094					
3. 29	43. 40	4. 9	·1095					
4. 0	46. 5	4. 15	·1092					
4. 8	47. 35	4. 24	·1095					
4. 14	46. 55	5. 5	·1092					
4. 18	47. 30	5. 26	·1096					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Dates: Left portion begins Oct. 17 (continuing to Oct. 18); right portion is Oct. 18.

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Oct. 17		Oct. 17						
4.52	20.46.50	5.36	.1095					
5.16	45. 0	6.20	.1099					
5.28	45.30	6.44	.1103					
6.23	43. 0	7.32	.1103					
7.20	43.15	7.51	.1108					
7.42	40.50	8. 4	.1105					
7.56	43. 0	8.21	.1105					
8.18	42.45	8.43	.1125					
8.38	38.25	9.24	.1120					
9.14	43. 0	9.41:	.1128					
9.32	40.10	10.12	.1113					
10. 0	43.35	10.42	.1118					
10.21	40. 0	11. 1	.1128					
10.40	39.20	11.25	.1112					
10.58	35.30	11.45	.1118					
11.13	37. 5	12.11	.1109					
11.30	34.45	13.18	.1108					
12.27	41.20	13.24	.1111					
	***	13.37	.1109					
14.12	42.50	13.58	.1111					
14.38	41.35	14. 5	.1115					
14.54	41.45	14.13	.1112					
15. 8	43.35	14.28	.1117					
15.30	43. 0	14.52	.1112					
15.49	43.30	15. 1	.1115					
16. 7	49. 0	15.17	.1114					
16.18	50.30	15.48	.1120					
16.51	48. 0	16.21	.1115					
17.15	48.30	16.42	.1124					
18. 1	45.10	16.59	.1122					
18.37	44.10	17.17	.1112					
18.52	44.45	17.33	.1114					
19. 3	44.10	18. 9	.1130					
19.14	44. 5	19.35	.1122					
19.19	43.20	20.12	.1119					
19.30	42. 5	20.20	.1121					
19.37	43. 0	21.26	.1113					
19.45	42.10	21.55	.1095					
20. 1	43.20	22. 6	.1097					
20.14	42. 0	22.34	.1093					
20.26	42.30	22.47	.1093					
20.38	41.10	23.12	.1102					
20.53	42. 5	23.18	.1098					
21.14	42. 5	23.30	.1100					
21.33	44.15	23.47	.1098					
21.53	44. 0	23.59	.1102					
22.23	47.10							
22.56	46.40							
23.12	49. 0							
23.28	48. 0							
23.34	49.10							
23.59	47.25							
Oct. 18		Oct. 18		Oct. 18		Oct. 18		
0. 0	20.47.25	0. 0	.1102	0. 0	.03741	Max.	59.5	59.7
0.38	47.50	0.24	.1108	1.53	.03702	7.19	59.5	59.0
0.47	48.25	1. 6	.1107	2.12	.03670	18.30	59.3	59.0
0.52	49.50	1.17	.1108	2.44	.03650	Min.	58.0	58.0
Oct. 18		Oct. 18		Oct. 18		Oct. 18		
1. 0	20.49.10	1.26	.1103	5.46:	.03383	21. 0	59.3	59.3
1.14	50.55	1.33	.1104	7.38	.03279			
1.37	48.50	1.57	.1113	9. 7	.03265			
2. 6	50. 0	2.13	.1100	9.35	.03278			
2.14	48.25	2.44	.1107	15.48	.03260			
2.34	49. 5	3. 0	.1092	17.54	.03230			
2.48	50.40	3.17	.1104	21. 9	.03240			
3. 8	44.35		***	21.55	.03257			
3.22	46. 0	4. 1	.1114	23.59	.03197			
3.34	44.30	4.30	.1111					
4.19	44.45	4.51	.1117					
4.32	43.35	5.12	.1113					
4.45	45. 0	5.27	.1116					
4.58	43.55	6.33	.1114					
5.18	44.15	6.47	.1117					
5.46	43. 5	7.42	.1118					
6.31	42.30	8.11	.1117					
6.45	42.55	8.42	.1117					
8. 0	41.45	9.26	.1109					
9. 0	41.40	10. 0	.1115					
9.16	39.25	10.57	.1116					
9.31	39.25	13.22	.1116					
9.53	41. 5	13.34	.1117					
10.27	40.35	13.49	.1117					
11.38	41.35	15. 8	.1121					
14.15	42.25	15.29	.1117					
14.26	43.40	16. 0	.1118					
14.47	42. 5	16.53:	.1126					
15. 0	42.35	17.22	.1120					
15.26	41. 0	17.38	.1120					
15.37	42. 0	17.55	.1115					
15.43	41.10	18.57	.1117					
16. 4	43.45	19.40	.1114					
16. 9	43.10	20.14	.1107					
16.30	43.25	20.32	.1103					
16.43	42.45	21. 0	.1096					
16.56	42.20	21.12	.1096					
17.30	46. 5	21 43	.1090					
17.46	45. 5	22. 3	.1098					
17.53	43.30	22.51	.1097					
18. 9	42.10	23.14	.1097					
18.25	43.30		(†)					
18.46	42.30							
19. 9	43.10							
19.17	42.35							
19.43	42.30							
20. 6	41.30							
20.38	41.45							
20.49	42.50							
20.58	42. 0							
21.23	42.40							
21.30	43.35							
21.43	42.10							
22. 7	43.30							
22.15	43. 0							
22.32	44.50							
22.40	44.15							
22.53	45.30							

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left portion

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers Of H.F. Magnet	Readings of Thermometers Of V.F. Magnet
Oct.18	° ′ ″						°	°
h m						h m		
23. 6	20.44.55							
23.59	47. 0							
Oct.19		Oct.19		Oct.19		Oct.19		
0. 0	20.47. 0		(†)	0. 0	·03197	1. 0	61·8	61·6
0.38	48.15	0. 8	·1099	1.54	·03115	3. 0	62·8	62·8
0.47	47.30	1. 5	·1103	4.49	·03028	Max.	63·7	64·1
1.21	48. 0	2. 6	·1103	6. 8	{·03019 / ·03241	9. 0	63·0	63·0
2. 4	46.35	2.23	·1106			18.45	60·7	61·2
3. 7	46. 5	2.53	·1105	7.47	·03195	Min.	58·7	58·5
4.49	44. 0	4.12	·1106	12. 7	·03182	21. 0	60·0	60·0
5.43	43.55	5.16	·1110	15.37:	·03230			
6.35	42.35	5.44	·1109	21.47	·03402			
6.45	43. 5	6.15	·1111	23.59	·03382			
7. 0	42.10	7. 1	·1109					
7.22	42.55	7.53	·1113					
8.38	42.30	11.13	·1111					
9. 7	42. 0	11.28	·1115					
10. 7	42.10	12. 2	·1111					
11.22	42. 0	12.40	·1111					
11.43	42.50	12.58	·1114					
12. 7	41.30	13.26	·1111					
12.31	41.55	14. 1	·1113					
12.45	41.20	14.18	·1110					
13. 8	42.15	15.22	·1116					
13.34	41. 5	15.54	·1113					
14. 2	41.55	17.27	·1117					
14.24	41.30	18. 8	·1115					
14.46	46. 5	19.20	·1116					
15.17	44.15	20.43	·1111					
15.38	42.20	21. 5	·1108					
15.59	42.15	21.21	·1106					
16.21	42.55	22.55	·1107					
16.52	42. 0	23. 6	·1111					
17.48	41.25	23.25	·1111					
18. 3	42. 0		(†)					
18.17	41.30							
18.50	42. 5							
21.37	41.30							
21.58	43. 0							
22.48	44.30							
23. 3	47. 0							
23.52	50. 0							
23.59	49.40							
Oct.20		Oct.20		Oct.20		Oct.20		
0. 0	20.49.40		(†)	0. 0	·03382	1. 0	61·7	62·0
0. 5	49.20	1. 0	·1110*	4.51	·03085	3. 0	62·6	63·0
0. 7	51. 0	1.38	·1118	6.13	·03038	Max.	63·4	63·4
0.29	50. 5	2. 1	·1113	7.11	{·03074 / ·03328	9. 0	62·2	62·8
0.33	51. 0	2.16	·1120			18. 0	59·2	59·7
0.42	49.30	2.34	·1113	8.48	·03385	Min.	57·4	56·8
0.59	49.40	2.47	·1117	10. 4	·03379	21. 0	58·5	59·0
1.17	49. 5	3. 8	·1114	11.34	·03400	22. 0	58·8	58·8
1.37	50.35	3.25	·1116	12.33	·03305	23. 0	58·0	58·3
1.56	48.55	3.43	·1112	13.14:	·03388			
2.18	49.20	3.58	·1117	14.40	·03439			
2.28	47.30	4.42	·1120	15.56:	·03475			

Right portion

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers Of H.F. Magnet	Readings of Thermometers Of V.F. Magnet
Oct.20	° ′ ″	Oct.20		Oct.20		Oct.20	°	°
h m		h m		h m		h m		
2.42	20.48. 5	5.13	·1115	17.10	·03439			
3. 1	46.30	5.21	·1118	17.45	·03463			
3.23	46.40	5.35	·1114	18.22	·03467			
3.38	45.55	5.47	·1116	21. 7	·03564			
3.42	46.30	6.43	·1105	22.32	·03598			
3.48	46. 0	6.52	·1108	23.59	·03598			
3.55	46.15	7. 1	·1105					
4. 5	45.20	7. 8	·1109					
4.17	45.20	7.20	·1104					
4.27	46.10	7.31	·1106					
4.32	45.20	7.47	·1099					
4.37	46.20	7.57	·1104					
4.42	45.55	8.28	·1085					
6.13	47.40	8.33	·1086					
6.23	47.30	8.38	·1084					
6.59	48. 5	8.46	·1094					
7. 9	46.55	8.52	·1093					
7.14	47.20	9. 2	·1099					
7.22	47. 0	9.33	·1092					
7.36	47.45	9.43	·1101					
7.48	45. 5	10. 6	·1092					
7.58	47.35	10.15	·1102					
8. 7	47. 5	10.25	·1102					
8.15	46. 5	10.44	·1087					
8.30	44.20	10.52	·1093					
8.36	42. 5	10.57	·1091					
8.46	40. 0	11. 8	·1099					
8.53	38.25	11.27	·1089					
9. 0	40. 0	11.47	·1111.					
9.36	37.55	11.55	·1105					
9.41	39.30	12. 9	·1118					
9.47	39.45	12.38	·1089					
10. 9	30.10	12.58	·1105					
10.22	29. 5	13. 8	·1105					
10.37	33. 0	13.29	·1097					
10.57	29.30		***					
11. 8	33.30	14.22	·1111					
11.23	32.10	14.47	·1112					
11.33	36.45	15. 8	·1109					
11.43	39. 5	15.22	·1100					
11.52	37.50	15.40	·1096					
12.13	42.45	16.15	·1107					
12.20	40.30	16.26	·1106					
12.37	25.35	16.47	·1116					
12.42	26.55	17.23	·1094					
12.54	24.30	18. 8	·1123					
13. 0	25.30	18.53	·1112					
13. 7	25.25	19.17	·1108					
13.10	24.25	19.32	·1110					
(†)		19.53	·1100					
13.28	39.10	19.57	·1102					
13.36	39. 0	20. 7	·1096					
13.39	41. 0	20.23	·1093					
13.47	41. 5	20.54	·1090					
13.58	39.40	21. 6	·1085					
14. 2	38.20	21.23	·1087					
14.35	35.20	22. 9	·1083					
14.53	36.35	22.21	·1076					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Western Declination — Greenwich Mean Solar Time

Oct. 20

Greenwich M.S.T.	Western Declination
h m	o ′ ″
15. 9	20.40.55
15.17	40. 0
15.30	42.45
15.49	42. 0
16. 6	44.40
16.31	53.35
16.56	56. 0
17.20	56.30
17.43	59.25
18.19	50.55
18.37	49.30
18.52	49.25
19.16	46. 5
19.28	47.10
19.40	47.15
19.52	45.40
20. 3	47.45
20.19	46.20
20.33	47. 5
20.43	45.50
21.22	46.50
21.31	46.10
22.15	48.25
22.23	48. 5
22.29	49.10
22.35	48.55
22.47	51.15
22.57	50.10
23. 0	51.10
23. 7	50. 0
23.12	51. 0
23.44	52. 0
23.59	51. 5

Horizontal Force in parts of the whole H.F. uncorrected for Temperature — Oct. 20

Greenwich M.S.T.	H.F.
22.37	.1088
22.59	.1091
23.14	.1080
23.35	.1089
23.59	.1091

Oct. 21 (left columns)

Western Declination:

Greenwich M.S.T.	Western Declination
0. 0	20.51. 5
0.15	49.50
0.37	50. 0
0.47	49.20
1.21	50.35
1.38	49.25
3.22	45.50
3.37	44.25
4. 5	43.25
4.23	43.45
5. 0	42.30
5.26	43.10
5.37	42.35
5.48	43.10
6. 2	40. 0
6.15	36.15
6.45	40.40
7. 1	38. 5
7.35	40.40
7.55	42.40
8. 9	41.25
8.17	42.55
8.33	42. 5

Horizontal Force:

Greenwich M.S.T.	H.F.
0. 0	.1091
0.19	.1100
0.39	.1101
2. 5	.1101
2.38	.1103
2.50	.1100
3.15	.1099
3.39	.1101
3.56	.1099
4.28	.1104
4.40	.1102
4.48	.1105
5.10	.1106
5.37	.1100
5.43	.1102
5.56	.1099
6.15	.1097
6.43	.1108
7. 0	.1108
7.10	.1112
7.23	.1107
7.44	.1108
8.10	.1104

Vertical Force in parts of the whole V.F. uncorrected for Temperature:

Greenwich M.S.T.	V.F.
0. 0	.03598
1.26:	.03535
3.10	.03334
5.11	.03005
8. 4	.02955
10. 5	{ .02966 / .03192 }
13.28:	.03267
17.58	.03500
22.15	.03580
23.59	.03545

Readings of Thermometers:

Greenwich M.S.T.	Of H.F. Magnet	Of V.F. Magnet
0. 0	59 ·2	59 ·4
1. 0	60 ·0	60 ·5
2. 0	61 ·4	62 ·0
3. 0	62 ·5	63 ·0
6. 0	64 ·2	64 ·8
Max.	64 ·6	65 ·2
9. 0	64 ·0	64 ·3
12. 0	62 ·7	63 ·0
18. 0	59 ·9	60 ·2
Min.	57 ·8	57 ·6
21. 0	59 ·1	59 ·8
22. 0	58 ·4	59 ·8
23. 0	59 ·7	59 ·9

Oct. 21 (right columns)

Western Declination:

Greenwich M.S.T.	Western Declination
8.43	20.43. 0
9.14	39.40
9.23	41.50
9.38	40.10
9.48	39.45
9.58	41. 5
10.34	42.40
10.55	40.30
11. 7	41.35
11.38	40.30
12.37	43.20
13.23	41.55
13.50	42.10
14.13	43.30
14.43	43.15
14.53	44.50
16.17	42.55
17.14	43.10
17.23	42.10
18. 7	42.25
18.40	41.40
19.15	42. 0
19.27	41.15
20. 2	41.55
20.23	44.15
20.47	43.30
21.30	46.50
21.45	44.40
21.53	45.45
21.58	44.20
22. 3	46.15
22.15	45.30
	***
22.29	47.35
22.58	48.35
23. 1	50.15
23. 8	48.30
23.17	48. 0
23.37	49.45
23.53	49.10
23.59	49.20

Horizontal Force:

Greenwich M.S.T.	H.F.
8. 19	.1106
8. 37	.1103
8. 45	.1107
8. 59	.1104
9. 15	.1104
9. 23	.1110
9. 38	.1104
9. 57	.1111
10. 9	.1108
10. 26	.1123
10. 55	.1109
11. 1	.1111
11. 23	.1107
12. 3	.1106
13. 26	.1108
13. 36	.1109
14. 45	.1107
15. 12	.1111
16. 19	.1116
17. 11	.1116
17. 28	.1120
17. 53	.1121
18. 6	.1119
18. 59	.1117
	***
19. 45	.1109
20. 12	.1110
20. 20	.1104
20. 51	.1095
21. 27	.1098
22. 3	.1105
22. 13	.1101
22. 20	.1106
22. 53	.1099
22. 58	.1106
23. 7	.1096
23. 29	.1101
23. 42	.1101
23. 59	.1111

Oct. 22 (right columns)

Western Declination:

Greenwich M.S.T.	Western Declination
0. 0	20.49.20
0. 9	49.30
0.37	51.35
0.39	53. 5
0.50	50.55
0.57	50.40
1. 6	52. 5
1.27	48.50
1.43	49. 5
2. 3	47. 0
2.55	45.25
3.20	45. 5
3.42	45.35
3.52	44.50
4.22	44.10

Horizontal Force:

Greenwich M.S.T.	H.F.
0. 0	.1111
0.20	.1111
	(†)
1. 0	.1113*
1. 7	.1115
1.24	.1108
1.40	.1112
2. 6	.1106
2.23	.1112
3. 8	.1109
3.46	.1111
3.58	.1106
4.21	.1107
4.28	.1105
4.37	.1108

Vertical Force:

Greenwich M.S.T.	V.F.
0. 0	.03545
3.13	.03340
4.42	.03169
7. 7	.03007
9.18	.03036
9.53	.03062
10.23	.03060
12. 7	.03146
12.44	.03164
13.46	.03260
15.55	.03426
18.15	.03658
22.43	.03785
23.59	.03809

Readings of Thermometers:

Greenwich M.S.T.	Of H.F. Magnet	Of V.F. Magnet
0. 0	60 ·2	60 ·8
1. 0	61 ·2	61 ·1
2. 0	61 ·6	61 ·9
3. 0	62 ·6	62 ·7
Max.	63 ·3	63 ·5
9. 0	62 ·7	63 ·0
18. 0	57 ·0	57 ·8
Min.	53 ·8	53 ·2
21. 0	55 ·6	56 ·0

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Oct. 22		Oct. 22						
h m	o ′ ″	h m		h m		h m	o	o
4.57	20.44.45	4.49	·1105					
6.17	42.25	4.58	·1110					
7.7	43.20	5.6	·1107					
7.26	42.50	5.19	·1106					
8.47	43.30	5.54	·1111					
9.10	42.5	6.4	·1114					
9.28	37.30	6.17	·1108					
9.53	38.15	7.0	·1115					
10.32	36.30	7.35	·1112					
11.1	41.30	7.58	·1115					
11.17	40.0	8.12	·1113					
11.42	43.40	8.24	·1117					
11.57	41.30	8.34	·1114					
12.8	41.25	8.45	·1115					
12.35	37.15	9.16	·1100					
13.0	30.15	9.41	·1101					
13.44	33.25	9.59	·1111					
14.8	38.10	10.15	·1112					
14.33	39.5	10.27	·1106					
14.49	37.40	10.39	·1109					
15.17	38.0	11.2	·1103					
15.35	42.0	11.17	·1104					
15.59	41.15	11.23	·1106					
16.24	38.40	11.33	·1105					
16.38	39.10	11.41	·1110					
17.16	42.15	11.51	·1105					
17.33	41.45	12.1	·1113					
18.0	43.5	12.8	·1112					
18.28	42.20	12.15	·1117					
18.51	43.0	12.26	·1118					
19.3	42.0	13.10	·1099					
19.21	42.35	13.18	·1102					
19.58	41.15	13.39	·1102					
20.22	42.35	13.50	·1106					
20.30	42.5	14.0	·1104					
	***	14.28	·1108					
21.8	42.5	14.41	·1107					
21.37	40.55	15.3	·1113					
22.14	44.15	15.14	·1111					
22.28	46.40	15.27	·1117					
22.38	45.5	15.35	·1116					
22.47	48.0		***					
23.1	46.50	16.15	·1118					
23.17	48.5	16.29	·1121					
23.23	46.30	16.52	·1120					
23.35	48.5	17.4	·1122					
23.44	47.50	17.30	·1120					
23.59	48.25	17.52	·1121					
		18.23	·1119					
		19.1	·1123					
		19.46	·1115					
		20.18	·1115					
		21.0	·1108					
		21.32	·1106					
		23.22	·1105					
		23.29	·1103					
		23.45	·1106					
		(†)						

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Oct. 23		Oct. 23		Oct. 23		Oct. 23		
h m	o ′ ″	h m		h m		h m	o	o
0.0	20.48.25		(†)	0.0	·03809	1.0	56·0	57·2
0.14	49.5	0.32	·1103	2.17	·03778	3.0	57·4	57·8
0.19	48.30	0.50	·1107	2.57	·03746	Max.	59·0	59·5
0.26	48.55	1.14	·1115	8.4	·03420	9.0	57·4	57·6
0.34	47.0	2.26	·1116	13.10	·03680	18.0	50·4	51·8
0.42	47.20	3.0	·1111	13.39	·03699	Min.	47·4	46·6
2.0	46.0	3.11	·1112	14.58	·03854	21.0	48·6	50·0
2.12	47.0	3.33	·1109	22.20	·04080			
2.32	44.45	3.51	·1115	23.59	·04097			
3.0	44.30	4.22	·1102					
3.14	43.15	4.43	·1113					
3.28	44.30	5.3	·1108					
3.58	43.0	5.13	·1109					
4.11	41.30	5.25	·1114					
4.37	42.15	5.43	·1111					
4.54	41.5	6.6	·1111					
5.2	41.15	6.48	·1115					
5.17	40.35	7.22	·1116					
5.24	39.30	7.30	·1118					
5.43	41.5	8.15	·1116					
6.2	43.25	8.25	·1117					
7.22	42.40	8.41	·1115					
7.36	43.10	8.53	·1117					
8.13	42.30	9.8	·1112					
8.53	43.0	9.25	·1110					
9.3	40.25	9.55	·1113					
9.27	39.10	10.12	·1113					
9.59	42.30	10.40	·1120					
10.23	41.5	10.48	·1116					
10.33	42.25	10.53	·1118					
10.49	40.55	11.14	·1113					
11.2	42.10	11.39	·1120					
11.23	41.15	12.7	·1112					
11.49	43.0	12.41	·1118					
12.17	41.55	12.55	·1118					
12.35	43.30	13.12	·1129					
12.53	42.55	13.25	·1131					
13.17	45.10	13.48	·1122					
13.37	44.25	13.59	·1120					
13.52	42.45	14.13	·1121					
14.22	43.55	14.22	·1120					
14.37	42.55	15.0	·1120					
15.3	44.20	15.12	·1125					
15.39	42.0	15.28	·1127					
16.12	42.30	15.43	·1123					
16.21	43.55	16.16	·1120					
16.28	43.5	16.34	·1124					
16.37	44.25	18.5	·1126					
16.45	43.45	18.20	·1124					
17.8	43.30	18.43	·1128					
17.18	44.45	20.11	·1122					
17.30	43.50		(†)					
17.37	44.55	21.7	·1122					
17.45	43.25	21.16	·1122					
18.5	44.15	21.40	·1113					
18.22	43.5	22.0	·1110					
	***	22.19	·1110					
19.52	43.25	22.42	·1101					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H. F. Magnet.	Of V. F. Magnet.
Oct. 23		Oct. 23						
h m	o ' "	h m		h m		h m	o	o
20. 6	20.42.30	22.47	·1102					
20.15	43. 0	22.57	·1098					
20.22	42. 5	23.33	·1106					
20.28	43. 5	23.47	·1105					
21. 8	40.40	23.59	·1110					
21.37	45.15							
21.52	44.45							
22.45	.47.25							
22.53	47. 0							
23.38	51. 5							
23.46	50.45							
23.59	51. 0							
Oct. 24		Oct. 24		Oct. 24		Oct. 24		
0. 0	20.51. 0	0. 0	·1110	0. 0	·04097	1. 0	51 ·0	51 ·5
0.31	47.40	0.49	·1115	2.14	·03956	3. 0	53 ·2	54 ·2
0.43	51.25	1.24	·1111	4.21	·03583	Max.	56 ·8	57 ·5
1.23	48.35	1.45	·1112	5.22	·03436	9. 0	55 ·8	57 ·0
1.45	50.10	2. 0	·1106	6.23	·03339	Min.	50 ·9	50 ·3
1.57	47. 5	2.24	·1118	11.55	·03310	21.55	52 ·3	52 ·4
2. 6	45.35	2.51	·1114	15.37	·03342			
2. 9	46.15	5.14	·1122	18.59	·03420			
2.16	45.25	6.50	·1122	21.57	·03575			
2.20	46. 5	7.14	·1124	23.59	·03616			
2.25	45.25	7.45	·1123					
2.32	46.20	10.57	·1124					
3. 2	46. 5	11.12	·1125					
4.17	43. 5	12.10	·1122					
6.22	41.50	12.21	·1123					
7.23	41.20	12.52	·1123					
7.42	42. 0	12.59	·1125					
9.16	41.55	13. 7	·1123					
10.47	42. 5	14.30	·1121					
11.22	42.45	15.17	·1123					
13.44	43. 0	15.30	·1122					
14.22	42.30	16.53	·1124					
15.15	43.20	18.58	·1124					
15.33	42.35	21. 3	·1117					
16.11	43. 0	21.40	·1113					
19.15	41.55	22.18	·1113					
20.32	39.55	22.38	·1110					
20.47	40.30	22.52	·1111					
21.28	40. 5	23.10	·1109					
22.11	42. 0	23.28	·1110					
23.32	46.25	23.34	·1108					
23.41	46. 5	23.59	·1109					
23.59	46.25							
Oct. 25		Oct. 25		Oct. 25		Oct. 25		
0. 0	20.46.25	0. 0	·1109	0. 0	·03616	1. 0	53 ·8	54 ·0
0.14	46.50	0.30	·1114	1.52:	·03543	Max.	57 ·2	58 ·0
0.22	47.45	0.40	·1112	3.56	·03332	9. 0	56 ·0	56 ·1
0.35	46.45	1.22	·1119	10.40:	·03266	18. 0	50 ·0	51 ·0
1.44	47. 0	1.45	·1121	19.18	·04020	Min.	47 ·0	46 ·2
1.52	46. 0	1.54	·1119	21.15	·04089	21. 0	48 ·0	49 ·0
1.58	46.30	5.13	·1120	23.59	·04110			
2.11	45.45	5.42	·1124					
2.23	46. 5	5.51	·1122					
2.35	45. 5	6. 8	·1124					

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H. F. Magnet.	Of V. F. Magnet.
Oct. 25		Oct. 25						
h m	o ' "	h m		h m		h m	o	o
4.27	20.41.55	7. 6	·1120					
4.52	41.25	7.20	·1121					
5. 3	42. 0	7.28	·1121					
5.25	42.15	7.49	·1123					
5.32	41.30	8.46	·1125					
5.37	42. 5	9. 0	·1123					
5.46	41.15	9.37	·1125					
6.23	41.55	9.55	·1123					
6.47	41.20	10.28	·1124					
7. 9	42.10	10.38	·1127					
10.14	41.30	10.47	·1128					
10.18	41. 0	11.10	·1123					
10.30	41.55	11.24	·1129					
10.41	40.15	11.37	·1125					
11. 0	40. 5	11.55	·1124					
11.13	41.55	12.15	·1128					
11.22	41.15	12.45	·1125					
12.45	41. 0	13.11	·1128					
12.53	40.30	13.51	·1125					
13.40	41.55	14.25	·1126					
13.51	40.45	14.42	·1129					
14.18	40.40	14.52	·1127					
14.41	43. 5	15.30	·1128					
15. 9	43.35	16. 7	·1131					
15.24	42.20	17. 0	·1131					
15.31	44. 0	17.47	·1134					
15.38	43. 0	19. 9	·1133					
15.47	43.35	20.14	·1128					
16. 8	46.20	20.59	·1124					
16.45	44. 0	21.15	·1124					
17.39	42.55	21.45	·1121					
17.45	43.30	22.45	·1122					
17.59	42.15	23. 6	·1119					
18.27	42.45	23.22	·1121					
18.44	41.35	23.59	·1126					
18.55	42.35							
20.23	41.45							
20.30	40.45							
20.37	41.35							
20.43	40.35							
21.13	40.30							
21.39	39.30							
22.55	45. 0							
23.29	45.20							
23.59	47.30							
Oct. 26		Oct. 26		Oct. 26		Oct. 26		
0. 0	20.47.30	0. 0	·1126	0. 0	·04110	1. 0	50 ·7	51 ·5
0.13	48. 0	0.24	·1128	0.28	·04100	3. 0	53 ·9	54 ·9
0.22	48. 5	0.36	·1133	2.13	·03957	Max.	58 ·0	59 ·0
0.46	50.10	0.47	·1126	3.37	·03620	9. 0	56 ·6	56 ·8
0.50	47.40	0.58	·1130	4. 3	·03468	18. 0	50 ·2	51 ·3
0.58	48.50	1.40	·1124	4.56	·03295	Min.	47 ·5	47 ·0
1. 6	47.30	2.28	·1124	7.39	·03206	21. 0	49 ·0	50 ·0
1.15	49. 0	2.44	·1121	9.43	·03200			
1.30	49. 5	3.13	·1119	11.38	·03234			
1.57	46.40	3.22	·1121	14.53:	·03420			
2.24	48.25	3.27	·1120	19.30	·03940			

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Oct. 26 h m	o ′ ″	Oct. 26 h m		Oct. 26 h m		h m	o	o	Oct. 27 h m	o ′ ″	Oct. 27 h m		Oct. 27 h m		h m	o	o
2.40	20.46.35	3.37	·1125	20.37	·04025				2.47	20.50.0	3.40	·1107	12.50	·03332			
3.21	44.35	3.58	·1123	20.55 {	·04034				3.8	51.15	3.58	·1112	15.59	·03350			
3.27	45.10	4.21	·1123		·03928				3.13	49.35	4.6	·1111	21.52	·03435			
4.4	43.35	4.58	·1127	22.32	·04035				3.37	47.15		***	23.1	·03408			
5.24	43.45	5.12	·1126	23.59	·04053				3.55	47.50	4.34	·1109	23.59	·03347			
5.58	42.20	5.30	·1122						4.2	46.25	4.49	·1114					
6.23	42.40	5.43	·1124						4.15	47.45	5.10	·1110					
7.15	41.15	5.57	·1123						5.7	47.0	5.22	·1113					
7.26	41.20	6.18	·1125						5.19	47.50	5.39	·1106					
7.40	39.25	7.8	·1123						5.34	43.15	5.48	·1111					
8.1	41.40	7.16	·1120						5.56	38.30	5.53	·1110					
8.27	42.5	7.29	·1122						6.2	41.25	6.8	·1121					
8.32	42.35	7.40	·1119						6.20	35.50	6.11	·1121					
9.17	41.15	7.59	·1121						6.29	35.35	6.20	·1126					
9.28	41.30	8.26	·1121						6.37	38.35	6.25	·1123					
9.53	36.40	8.40	·1125						6.43	37.50	6.38	·1126					
10.17	35.40	9.25	·1122						7.0	40.55	6.50	·1113					
10.32	37.45	9.40	·1129						7.14	41.0	7.12	·1102					
10.58	36.55	9.52	·1127						7.26	42.35	7.30	·1102					
11.28	39.5	10.10	·1126						7.39	41.55	7.44	·1108					
11.42	37.10	10.38	·1120						8.26	41.15	7.52	·1109					
12.10	41.20	11.3	·1134						8.34	42.0	8.25	·1121					
***		11.30	·1129						9.1	40.30	8.43	·1119					
13.56	43.5	11.35	·1130						9.57	41.35	9.0	·1118					
15.30	43.55	12.8	·1124						10.41	41.5	9.17	·1119					
15.40	43.20	12.22	·1125						11.23	42.15	9.32	·1122					
17.17	42.55	13.23	·1125						11.42	41.40	10.9	·1123					
17.48	44.35	13.30	·1127						13.44	43.10	10.26	·1121					
18.19	43.25	13.46	·1126						14.10	41.45	10.50	·1124					
19.12	42.30	14.42	·1126						14.28	41.45	12.14	·1124					
19.23	43.25	15.39	·1129						14.57	43.50	12.25	·1126					
19.37	42.25	16.12	·1132						15.20	42.25	12.43	·1124					
***		17.45	·1133						15.38	43.5	13.53	·1124					
21.22	41.0	18.10	·1136						16.6	42.15	14.1	·1126					
21.30	42.0	18.30	·1134						16.11	43.5	14.41	·1121					
21.38	40.50	19.38	·1132						16.18	42.20	14.45	·1122					
21.51	43.25	20.8	·1132						16.30	43.10	14.53	·1121					
22.43	48.5	20.53	·1127						16.38	42.15	15.23	·1126					
23.34	50.10	21.2	·1124						16.52	43.0	16.24	·1123					
23.59	48.20	21.54	·1118						17.28	42.5	16.38	·1125					
		22.0	·1119						18.0	42.55	17.12	·1125					
		22.23	·1107						18.22	41.10	17.30	·1123					
		22.53	·1108						18.37	42.35	18.8	·1126					
		23.10	·1115						18.45	42.0	18.23	·1123					
		23.28	·1118						***		18.30	·1122					
		23.54	·1118						19.18	41.20	19.2	·1125					
		(†)							19.23	42.10	19.32	·1123					
									19.58	41.15	19.57	·1117					
									***		20.45	·1112					
Oct. 27		Oct. 27		Oct. 27		Oct. 27			20.33	43.0	21.15	·1112					
0.0	20.48.20	(†)		0.0	·04053	1.0	50.0	51.0	21.36	42.10	22.10	·1110					
0.8	47.55	0.15	·1118		(†)	3.0	52.0	52.6	22.15	44.0	22.24	·1116					
0.30	47.55	0.30	·1116	1.0	·04063*	Max.	55.0	55.3	22.23	43.10	22.48	·1113					
0.45	49.20	0.55	·1124	1.40	·03979	9.0	54.5	55.0	22.36	47.45	22.58	·1110					
0.56	49.5	1.31	·1124	3.5	·03900	18.0	53.1	53.2	22.43	47.30	23.38	·1109					
1.34	51.0	1.38	·1120	5.29	·03630	Min.	51.7	51.5	22.59	49.10	(†)						
1.48	50.25	1.56	·1123	5.52	·03601	21.0	52.0	53.2	23.11	48.25							
1.56	51.10	2.18	·1118	6.38	·03498	22.0	53.0	53.7	23.23	49.30							
2.13	49.15	2.42	·1120	10.14	·03335	23.0	53.8	54.0									

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

The table below is printed as two side-by-side panels, each containing the same set of columns. Because each column carries its own independent series of Greenwich Mean Solar Times, the data are transcribed below as grouped column-pairs rather than forced into a single aligned grid.

Column headings (both panels): Greenwich Mean Solar Time · Western Declination · Greenwich Mean Solar Time · Horizontal Force in parts of the whole H.F. uncorrected for Temperature · Greenwich Mean Solar Time · Vertical Force in parts of the whole V.F. uncorrected for Temperature · Greenwich Mean Solar Time · Readings of Thermometers (Of H.F. Magnet | Of V.F. Magnet)

Left panel

Western Declination

Greenwich Mean Solar Time	Western Declination
Oct. 27	
23. 50	20. 48. 50
23. 59	50. 20
Oct. 28	
0. 0	20. 50. 20
0. 6	51. 35
0. 31	50. 30
0. 47	48. 55
1. 0	49. 20
1. 7	48. 40
1. 23	49. 40
1. 36	47. 0
2. 39	47. 25
2. 48	48. 35
3. 12	47. 45
3. 37	45. 55
4. 0	45. 30
4. 30	43. 10
6. 42	43. 0
7. 19	41. 55
10. 37	41. 45
11. 16	42. 25
11. 37	42. 0
11. 55	41. 55
12. 9	42. 20
12. 47	42. 30
13. 0	43. 5
14. 43	41. 5
15. 33	43. 10
16. 52	42. 10
17. 43	42. 40
18. 30	41. 55
18. 45	42. 5
19. 20	41. 45
19. 34	42. 25
20. 15	42. 5
20. 28	41. 29
20. 33	42. 5
20. 52	41. 10
21. 8	41. 35
21. 35	41. 5
22. 18	43. 0
22. 30	44. 10
22. 39	44. 5
22. 56	45. 25
23. 14	46. 0
23. 22	47. 0
23. 42	47. 10
23. 59	48. 0
Oct. 29	
0. 0	20. 48. 0
0. 32	48. 5
0. 55	49. 25
1. 18	47. 20
2. 17	46. 0
2. 31	46. 55
2. 54	44. 55

Horizontal Force

Greenwich Mean Solar Time	Horizontal Force
Oct. 28	
	(†)
0. 22	·1107
0. 37	·1108
0. 49	·1106
0. 59	·1112
	(†)
1. 0	·1110*
1. 57	·1116
2. 46	·1117
3. 3	·1112
3. 45	·1116
4. 1	·1115
4. 20	·1111
4. 54	·1118
6. 9	·1120
6. 19	·1121
6. 43	·1120
7. 51	·1123
8. 30	·1122
8. 50	·1123
9. 48	·1123
10. 8	·1120
10. 22	·1122
11. 7	·1120
11. 19	·1121
12. 23	·1121
13. 15	·1125
15. 8	·1123
17. 40	·1126
17. 46	·1125
18. 50	·1126
19. 56	·1121
21. 9	·1118
21. 43	·1113
23. 20	·1111
23. 59	·1110
Oct. 29	
0. 0	·1110
0. 15	·1111
	(†)
0. 43	·1116
1. 0	·1117
1. 16	·1114
1. 57	·1117

Vertical Force

Greenwich Mean Solar Time	Vertical Force
Oct. 28	
0. 0	·03347
0. 52	·03303
5. 23	·03157
8. 35	·03145
9. 6	·03156
10. 32	·03235
13. 49	·03368
19. 36	·03685
21. 58	·03778
22. 53	{ ·03771 / ·03657 }
23. 59	·03640
Oct. 29	
0. 0	·03640
0. 13	·03610
4. 13	·03292
5. 35	·03198
7. 21	·03185
7. 36	{ ·03204 / ·03540 }

Readings of Thermometers

Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Oct. 28		
0. 0	54·7	55·0
1. 0	55·8	55·8
2. 0	56·4	56·6
3. 0	57·3	57·7
6. 0	58·0	58·0
Max.	59·0	59·7
9. 0	57·0	58·0
12. 0	56·0	56·8
18. 0	53·0	53·9
Min.	51·4	51·0
21. 0	52·0	53·0
22. 0	52·0	53·0
23. 0	53·0	53·8
Oct. 29		
0. 0	53·5	54·0
1. 0	54·2	54·8
2. 0	55·0	55·6
3. 0	56·0	56·2
Max.	58·0	57·7
9. 0	55·8	55·9
18. 15	50·9	51·1

Right panel

Western Declination

Greenwich Mean Solar Time	Western Declination
Oct. 29	
4. 12	20. 43. 15
5. 33	42. 35
6. 35	43. 0
7. 15	42. 35
7. 41	43. 5
9. 1	41. 30
9. 16	42. 25
9. 36	40. 55
9. 46	42. 0
10. 0	40. 30
10. 51	42. 35
13. 30	42. 30
13. 40	45. 0
15. 7	41. 55
15. 26	41. 55
15. 55	43. 5
16. 29	42. 0
18. 6	43. 10
18. 37	42. 15
19. 7	42. 40
20. 17	41. 0
20. 23	41. 25
20. 32	40. 20
21. 37	41. 0
22. 26	43. 10
23. 6	46. 0
23. 13	46. 55
23. 17	46. 0
23. 59	47. 5
Oct. 30	
0. 0	20. 47. 5
0. 58	48. 25
2. 3	47. 35
3. 1	45. 45
4. 23	43. 35
5. 15	43. 15
5. 48	43. 45
6. 43	42. 45
	***
9. 44	43. 0
10. 8	40. 35
10. 18	42. 30
10. 31	42. 10
10. 43	43. 25
11. 3	41. 0
11. 32	43. 25
13. 42	43. 55
14. 38	44. 50
14. 52	44. 20
15. 29	44. 25

Horizontal Force

Greenwich Mean Solar Time	Horizontal Force
Oct. 29	
2. 8	·1116
2. 35	·1119
2. 53	·1117
4. 51	·1122
7. 13	·1123
7. 40	·1126
8. 11	·1123
9. 50	·1124
10. 6	·1128
10. 22	·1125
10. 45	·1124
10. 57	·1125
11. 15	·1124
11. 33	·1126
12. 5	·1124
12. 20	·1126
12. 42	·1126
12. 47	·1127
13. 16	·1127
13. 27	·1125
13. 41	·1126
14. 7	·1131
14. 30	·1132
15. 2	·1127
15. 52	·1126
16. 23	·1128
18. 8	·1127
18. 22	·1129
18. 57	·1126
19. 10	·1128
19. 52	·1127
20. 0	·1128
20. 19	·1125
21. 12	·1120
	(†)
23. 59	·1115
Oct. 30	
0. 0	·1115
1. 10	·1121
1. 17	·1120
1. 54	·1122
3. 8	·1122
3. 32	·1124
4. 39	·1123
5. 42	·1126
7. 46	·1128
9. 38	·1127
10. 3	·1132
10. 27	·1126
10. 42	·1138
11. 3	·1128
11. 18	·1128
11. 57	·1132
12. 27	·1129
14. 22	·1132
14. 52	·1133
18. 1	·1136

Vertical Force

Greenwich Mean Solar Time	Vertical Force
Oct. 29	
10. 43:	·03579
14. 15	·03808
15. 9	·03833
18. 6	·03943
21. 23	·04013
23. 41	·03974
	(†)
Oct. 30	
	(†)
1. 0	·03904*
2. 0	·03808
6. 17:	·03423
11. 0	·03526
16. 52	·04100
21. 23	·04180
23. 15	·04160
23. 59	·04106

Readings of Thermometers

Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Oct. 29		
Min.	48·8	48·1
21. 0	50·0	50·7
Oct. 30		
1. 0	52·3	52·4
3. 0	53·9	54·0
6. 0	53·7	54·5
Max.	55·5	55·5
9. 0	52·8	53·0
18. 0	47·1	48·0
Min.	46·0	45·2
21· 0	46·5	47·1

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Oct. 30		Oct. 30						
h m	o ′ ″	h m		h m		h m	o	o
16.17	20.43.50	18.39	·1135					
18.38	43. 5	20.57	·1120					
18.47	42.15	21.28	·1119					
18.56	42.35	22.17	·1113					
19.30	41.15	22.45	·1114					
20.46	40.10	23.38	·1112					
22. 8	43.15	23.59	·1116					
22.30	44.30							
22.47	44.55							
23.44	47.25							
23.59	47.10							
Oct. 31		Oct. 31		Oct. 31		Oct. 31		
0. 0	20.47.10	0. 0	·1116	0. 0	·04106	1. 0	49 ·8	50 ·0
0.23	47.25	0.51	·1120	2. 0:	·03864	3. 0	52 ·6	53 ·0
0.32	48.15	1.14	·1117	4.16	·03360	Max.	56 ·1	57 ·0
1.51	47. 5	1.37	·1121	7. 0	·03304	9. 0	52 ·6	52 ·6
3.16	44. 5	2. 7	·1119	8.22	·03318	Min.	45 ·3	44 ·5
4.45	42.55		***	8.36	·03337	21.45	46 ·3	47 ·0
5. 4	43.10	3. 4	·1128	10.45	·03412			
5.39	42.40	3.43	·1127	12. 7	{·03477 / ·03695}			
6.18	43.15	3.57	·1129	14.46:	·03860			
7.16	42. 5	4.49	·1128	17.58	·04093			
7.27	42.35	5.45	·1128	21.13	·04197			
7.53	41.30	6.17	·1127	23.59	·04219			
8.12	42.25	7. 2	·1129					
	***	7.18	·1128					
10.22	41.55	8. 0	·1129					
	***	8.10	·1131					
11. 8	42. 5	8.22	·1129					
11.53	41.25	8.42	·1131					
	***	8.59	·1130					
13.43	43. 0	11. 0	·1131					
14.37	42.25	11.12	·1133					
15.42	43.30	12.17	·1134					
	***	12.30	·1134					
19. 4	42.30	12.43	·1135					
20.37	40. 5	14.57	·1135					
21.22	41. 0	15.34	·1137					
22. 3	42.55	15.46	·1136					
23.45	47.10	16.11	·1139					
23.59	47.15	17.58	·1142					
		18.52	·1143					
		20.29	·1134					
		21.13	·1127					
		21.28	·1126					
		21.41	·1127					
		22. 1	·1122					
		22.23	·1124					
		22.34	·1129					
		22.47	·1093					
		23.48	·1123					
		23.59	·1124					
Nov. 1		Nov. 1		Nov. 1		Nov. 1		
0. 0	20.47.15	0. 0	·1124	0. 0	·04219	1. 0	47 ·3	47 ·3
0.15	49. 5	0.42	·1131	1.38	·04198	Max.	49 ·2	49 ·5
0.45	49.15		***	7.22	·03916	8.30	48 ·8	49 ·0

Right half:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Nov. 1		Nov. 1		Nov. 1		Nov. 1		
h m	o ′ ″	h m		h m		h m	o	o
1.14	20.49.40	1.49	·1133	7.38	·03925	Min.	47 ·0	46 ·5
1.48	48.45	2. 0	·1130	8.30	·03884	18.20	48 ·0	48 ·6
1.56	49. 5	2.15	·1133	10.12	·03885	21. 0	48 ·3	49 ·0
2. 9	47.40	2.44	·1133	11.10	·03898			
2.39	47.30	2.53	·1134	12.22	·03910			
2.56	46.45	3. 6	·1138	14.37	·03961			
3.22	47.25	3.21	·1133	16.32	·03962			
3.37	47. 0	3.34	·1133	17. 2	·03924			
4.42	47.10	3.48	·1135	19.39	·03881			
4.52	46.35	4.11	·1132	23.15	·03792			
5.32	47. 5	4.21	·1135	23.59	·03734			
5.53	45.15	4.40	·1129					
6.27	45. 0	4.53	·1131					
6.37	43.55	5.43	·1125					
6.45	44.40	5.54	·1127					
6.58	44.15	6.23	·1124					
7.25	34. 0	6.33	·1126					
8. 2	41. 5	6.47	·1122					
8.31	32.30	7. 1	·1112					
8.45	37.55	7.11	·1118					
8.52	37.20	7.41	·1124					
9. 8	37.30	8.11	·1112					
9.20	38.40	8.28	·1126					
9.34	38.35	8.43	·1120					
9.46	39.10	9.19	·1125					
10. 2	37.35	9.27	·1129					
10.10	37.55	9.38	·1124					
10.23	36.15	9.52	·1127					
10.38	38.35	10.29	·1126					
10.45	37.50	10.58	·1130					
11. 0	39.25	11. 4	·1133					
11. 8	39. 5	11.42	·1133					
11.23	41.10	12. 0	·1129					
12.37	39.30	13. 1	·1128					
12.53	40.30	13.22	·1132					
13. 9	40. 0	13.48	·1129					
13.58	40.45	14. 4	·1131					
14. 7	39.30	14.14	·1129					
14.20	39.10	14.41	·1132					
14.35	41.15	15.17	·1129					
14.45	40.20	15.45	·1121					
15.24	41.30	16.17	·1146					
15.55	40.20	16.37	·1148					
16.37	48.55	17.18	·1145					
17.12	42.15	17.46	·1137					
17.56	41. 0	19. 6	·1131					
18. 7	39.45	19.39	·1125					
18.42	41. 5	19.45	·1126					
19. 8	40.45	20.15	·1121					
19.22	41.25	20.53	·1120					
19.31	40.35	21.21	·1122					
19.52	41.30	22. 0	·1116					
20.22	39.45	22.23	·1117					
21. 0	39.20	23.15	·1118					
21.38	44.35	23.19	·1119					
21.49	43.35		(†)					
22. 7	47.10							
22.36	45. 0							

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half of table:

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Nov. 1								
h m	o ′ ″	h m		h m		h m	o	o
22. 52	20. 48. 0							
23. 0	47. 20							
23. 13	48. 25							
23. 37	47. 35							
23. 47	49. 30							
23. 59	49. 15							
Nov. 2		**Nov. 2**		**Nov. 2**		**Nov. 2**		
0. 0	20. 49. 15		(†)	0. 0	·03734	1. 0	51 ·3	51 ·7
0. 28	47. 5	0. 14	·1118	2. 42	·03465	3. 0	53 ·2	53 ·5
0. 51	46. 20	0. 30	·1115	2. 58	·03460	Max.	55 ·8	56 ·6
1. 2	47. 15	0. 44	·1116	3. 21	·03400	9. 0	52 ·8	52 ·6
1. 32	46. 15	0. 59	·1115	4. 7	·03341	18. 0	47 ·5	48 ·1
2. 2	47. 10	1. 7	·1118	5. 4	·03300	Min.	45 ·0	44 ·3
2. 31	45. 5	1. 28	·1119	7. 13	{·03294 / ·03455}	21. 0	46 ·0	47 ·0
3. 8	44. 0	1. 40	·1118					
3. 12	44. 30	2. 22	·1119	8. 31	·03447			
3. 21	43. 50	2. 44	·1118	10. 18	·03480			
3. 31	44. 25	3. 27	·1122	11. 25	·03520			
4. 25	43. 5	3. 38	·1124	12. 31	·03580			
4. 45	43. 45	3. 56	·1120	13. 9	·03582			
5. 8	42. 5	4. 40	·1123	15. 17	·03824			
5. 17	43. 0	5. 7	·1111	15. 58	·03864			
5. 43	39. 30	5. 24	·1118	19. 7	·04131			
6. 1	41. 10	5. 43	·1113	22. 42	·04230			
6. 22	40. 35	5. 58	·1119	23. 45	·04220			
6. 41	43. 25	6. 12	·1115		(†)			
7. 40	42. 40	6. 23	·1116					
7. 47	41. 45	6. 30	·1122					
8. 13	42. 30	6. 50	·1118					
8. 52	42. 40	8. 0	·1125					
9. 28	36. 25	8. 23	·1120					
9. 39	36. 0	8. 41	·1120					
10. 7	30. 10	9. 8	·1125					
10. 27	36. 40	9. 23	·1123					
10. 34	36. 20	9. 46	·1130					
	***	10. 9	·1115					
10. 48	38. 25	10. 17	·1120					
11. 16	35. 20	10. 29	·1116					
	***	10. 40	·1118					
12. 8	40. 0	11. 11	·1122					
12. 23	44. 0	11. 18	·1123					
13. 0	37. 50	11. 45	·1117					
13. 26	40. 30	12. 16	·1124					
13. 34	39. 15	12. 45	·1140					
13. 42	40. 25	13. 12	·1128					
13. 51	39. 15	13. 43	·1121					
14. 8	42. 0	14. 0	·1125					
14. 51	42. 15	14. 12	·1124					
15. 21	47. 0	15. 4	·1125					
16. 3	42. 15	15. 45	·1134					
16. 13	41. 45	16. 8	·1136					
17. 37	42. 55	17. 34	·1132					
17. 48	41. 35	17. 58	·1134					
17. 53	42. 35	18. 15	·1139					
18. 34	42. 0	19. 5	·1136					
19. 33	43. 10	19. 41	·1131					
19. 46	42. 15	20. 38	·1113					

Right half of table:

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Nov. 2		**Nov. 2**				h m	o	o
h m	o ′ ″	h m						
19. 55	20. 43. 25	20. 52	·1115					
20. 2	43. 0	21. 16	·1115					
	***	21. 47	·1118					
20. 37	45. 0	22. 2	·1116					
20. 45	44. 40	22. 30	·1118					
20. 57	45. 55	23. 8	·1116					
21. 30	45. 15	23. 57	·1121					
21. 45	46. 10	23. 59	·1120					
22. 11	45. 0							
22. 47	45. 0							
23. 12	46. 55							
23. 20	46. 5							
23. 24	47. 0							
23. 50	46. 5							
23. 59	46. 55							
Nov. 3		**Nov. 3**		**Nov. 3**		**Nov. 3**		
0. 0	20. 46. 55	0. 0	·1120		(†)	Min.	47 ·5	48 ·0
0. 15	47. 50	0. 49	·1123	1. 0	·04194*	1. 0	47 ·8	48 ·2
0. 23	47. 20	1. 23	·1118	1. 7	·04170	3. 0	50 ·0	51 ·0
0. 59	48. 55	1. 56	·1123	2. 13	·04100	Max.	53 ·8	54 ·5
1. 27	46. 55	3. 25	·1118	4. 30	·03706	9. 0	53 ·5	54 ·5
1. 59	46. 0	3. 46	·1122	7. 16	·03390	Min.	52 ·8	53 ·2
2. 12	46. 15	4. 2	·1122	9. 0	·03345	18. 0	55 ·0	56 ·0
3. 31	44. 0	4. 45	·1102	9. 27	·03342	21. 0	55 ·7	57 ·0
4. 15	44. 55	5. 24	·1117	10. 50	·03295	22. 0	56 ·3	57 ·8
4. 33	43. 0	5. 38	·1113	15. 17	{·03240 / ·03450}	23. 0	56 ·8	58 ·1
4. 54	38. 5	5. 50	·1117			Max.	57 ·5	58 ·5
5. 9	36. 15	6. 0	·1115	17. 9	·03349			
5. 24	41. 20	6. 45	·1114	21. 5	·03179			
5. 37	41. 15	7. 17	·1121	22. 12	{·03158 / ·03265}			
5. 57	42. 20	8. 16	·1116					
6. 7	41. 55	8. 38	·1123	23. 45	·03138			
6. 17	43. 25	9. 5	·1112		(†)			
6. 26	43. 10	9. 23	·1118					
6. 37	44. 25	10. 0	·1117					
7. 58	42. 0	10. 14	·1123					
8. 23	38. 20	10. 41	·1121					
8. 38	39. 10	11. 37	·1119					
9. 9	32. 10		***					
9. 30	38. 5	12. 50	·1123					
9. 56	39. 30	13. 15	·1119					
10. 0	39. 5	13. 33	·1120					
10. 12	41. 0	13. 47	·1118					
10. 30	40. 35	14. 10	·1122					
10. 51	38. 20	16. 27	·1122					
11. 25	40. 35	16. 45	·1125					
12. 2	39. 25	17. 37	·1124					
12. 34	41. 5	18. 13	·1130					
12. 42	40. 25	18. 45	·1128					
13. 41	40. 10	19. 31	·1126					
13. 53	41. 10	19. 46	·1128					
14. 28	42. 0	20. 12	·1126					
14. 49	41. 0	20. 27	·1121					
15. 6	41. 0	20. 57	·1118					
15. 12	42. 25	21. 6	·1119					
15. 25	41. 10	21. 33	·1111					
15. 36	42. 30	22. 7	·1110					
16. 28	44. 20							

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Nov. 3 / Nov. 4

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
h m	o ′ ″	h m		h m		h m	o	o
Nov. 3		Nov. 3						
16. 47	20. 42. 50	23. 22	·1098					
17. 8	42. 0	23. 45	·1100					
17. 31	44. 30	23. 59	·1099					
18. 6	45. 5							
18. 33	44. 25							
18. 41	46. 0							
18. 56	44. 0							
19. 27	42. 10							
19. 42	43. 5							
20. 29	41. 25							
20. 52	43. 25							
21. 23	43. 50							
21. 37	45. 0							
21. 53	44. 35							
22. 6	46. 5							
22. 32	46. 20							
22. 47	45. 40							
23. 59	48. 40							
Nov. 4		Nov. 4		Nov. 4		Nov. 4		
0. 0	20. 48. 40	0. 0	·1099		(†)	0. 0	57 ·7	58 ·8
0. 24	48. 25	0. 17	·1102	0. 10	·03310	1. 0	58 ·5	59
0. 30	47. 25	0. 37	·1100	0. 56	{·03248 / ·03345}	2. 0	59 ·2	60 ·1
1. 10	48. 20	1. 2	·1105	3. 21	·03153	3. 0	60 ·0	60 ·9
1. 16	49. 20	1. 11	·1103	3. 30	{·03148 / ·03225}	6. 0	60 8	61 ·3
1. 32	48. 35	1. 20	·1106	4. 52	·03134	Max.	61 ·2	61 ·8
1. 47	49. 25	1. 45	·1105	5. 22	·03139	9. 0	60 ·1	60 ·2
2. 13	48. 5	1. 48	·1102	6. 55	·03100	12. 0	59 ·3	60 ·0
2. 22	48. 50	1. 59	·1106	7. 17	·03150	18. 0	58 ·2	59 ·0
2. 29	48. 0	2. 13	·1102	7. 43	·03145	Min.	57 ·0	56 ·6
2. 38	49. 0	2. 22	·1104	8. 23	·03165	21. 0	58 ·0	59 ·0
2. 52	48. 5	2. 32	·1101	11. 0	·03164	22. 0	57 ·6	58 ·7
3. 31	51. 10	3. 6	·1097	11. 58	·03136	23. 0	58 ·0	59 ·0
4. 7	46. 50	3. 13	·1094	12. 59	·03155			
4. 32	46. 55	3. 31	·1093	13. 30	·03088			
5. 0	45. 15	3. 51	·1084	14. 39	·03100			
5. 43	43. 20	4. 24	·1098	18. 43	·03242			
6. 21	42. 40	4. 33	·1099	19. 16	·03240			
7. 22	42. 30	5. 0	·1096	21. 48	·03303			
8. 0	37. 0	5. 59	·1107	23. 59	·03261			
8. 9	37. 0	6. 36	·1107					
8. 23	35. 20	7. 4	·1106					
9. 8	39. 40	7. 22	·1111					
10. 14	40. 15	7. 33	·1108					
10. 47	39. 5	7. 58	·1090					
11. 13	40. 5	8. 12	·1091					
11. 37	36. 35	8. 41	·1105					
11. 57	30. 20	9. 2	·1110					
***	***	9. 37	·1110					
12. 17	33. 0	9. 53	·1107					
12. 54	35. 45	10. 28	·1111					
13. 10	33. 20	10. 51	·1106					
13. 19	34. 0	11. 0	·1106					
13. 48	30. 25	11. 16	·1113					
14. 11	36. 10	11. 37	·1110					
14. 43	31. 5	12. 4	·1089					
15. 23	38. 50	12. 13	·1089					
15. 34	37. 35	12. 27	·1097					

Right half

Nov. 4 / Nov. 5

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
h m	o ′ ″	h m		h m		h m	o	o
Nov. 4		Nov. 4						
16. 0	20. 41. 5	12. 46	·1073					
16. 13	40. 10	13. 15	·1126					
16. 57	42. 30	13. 39	·1109					
17. 30	42. 40	14. 8	·1107					
17. 40	41. 25	14. 21	·1097					
17. 45	42. 30	14. 48	·1094					
17. 53	41. 15	15. 1	·1105					
18. 0	43. 0	15. 23	·1103					
18. 6	42. 0	15. 30	·1106					
18. 11	43. 55	15. 52	·1104					
18. 19	40. 45		***					
18. 27	42. 50	16. 42	·1110					
18. 38	40. 55	17. 4	·1107					
18. 45	43. 5	17. 43	·1105					
19. 40	43. 30		***					
19. 51	45. 25	18. 15	·1114					
20. 0	43. 55	18. 18	·1106					
20. 10	45. 0	18. 28	·1118					
20. 22	44. 50	18. 37	·1112					
20. 29	49. 10	18. 49	·1119					
20. 42	44. 0	19. 47	·1087					
20. 45	46. 15	19. 52	·1088					
21. 5	42. 50	20. 9	·1078					
21. 21	43. 10	20. 17	·1080					
21. 27	40. 35	20. 28	·1074					
21. 36	42. 10	20. 38	·1084					
22. 2	42. 0	20. 45	·1073					
22. 9	43. 5	21. 0	·1088					
22. 14	42. 30	21. 11	·1082					
22. 20	44. 10	21. 32	·1088					
22. 32	43. 20	21. 38	·1084					
22. 43	46. 25	21. 53	·1096					
22. 57	44. 20	22. 15	·1094					
23. 8	46. 25	22. 20	·1098					
23. 12	46. 0	22. 27	·1095					
23. 47	50. 35	22. 31	·1099					
23. 57	49. 45	22. 45	·1093					
23. 59	49. 50	22. 55	·1098					
		23. 9	·1088					
		23. 19	·1092					
		23. 26	·1089					
		23. 40	·1092					
		23. 59	·1086					
Nov. 5		Nov. 5		Nov. 5		Nov. 5		
0. 0	20. 49. 50	0. 0	·1086	0. 0	·03261	0. 0	58 ·6	59 ·4
0. 14	50. 0	0. 20	·1078	0. 29	·03246	1. 0	59 ·0	60 ·0
0. 24	51. 25	0. 47	·1049	0. 47	·03263	2. 0	59 ·5	60 ·5
0. 44	50. 0	1. 37	·1092	2. 44	{·03178 / ·03212}	3. 0	60 ·0	61 ·2
1. 2	53. 5	1. 56	·1091	3. 30	·03144	Max.	61 ·7	62 ·3
1. 18	52. 30	2. 32	·1074	3. 54	·03140	9. 0	60 ·0	61 ·7
1. 26	53. 30	2. 47	·1076	4. 22	·03110	18. 0	55 ·8	56 ·7
1. 37	53. [55	3. 23	·1091	4. 37	{·03122 / ·03391}	Min.	51 ·4	50 ·7
1. 40	53. 15	3. 37	·1084	6. 47	·03304	21. 0	53 ·0	54 ·7
1. 47	53. 35	3. 55	·1089	7. 28	·03316			
2. 16	50. 10	4. 9	·1081	7. 42	·03304			
2. 22	50. 5	4. 26	·1093					
2. 46	47. 0	4. 42	·1092					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Nov. 5		Nov. 5		Nov. 5					Nov. 5		Nov. 5						
3. 2	20.46. 0	5. 8	·1097	8. 1	·03314				20.46	20.51.10	21. 2	·1099					
3.22	47.35	5.38	·1098	8.44	·03296				21. 3	52.15	21.30	·1087					
3.42	42.25	5.48	·1102	9.18	·03263				21.31	47.30	21.41	·1093					
3.58	45.25	6. 7	·1095	10.42	·03305				21.36	48. 5	21.47	·1090					
4. 8	43. 5	6.34	·1102	11.30	·03284				21.44	46. 5	22. 0	·1100					
4.31	44.25	6.53	·1090	13.27	·03382				21.49	48. 5	22.26	·1102					
5. 7	41.30	7.13	·1091	14.24	·03352				21.58	45.55	22.41	·1106					
5.37	43.25	7.29	·1093	16.26	·03535				22.22	45.30	23. 8	·1107					
5.45	42.55	7.43	·1082	16.58	·03559				22.26	48. 0		(†)					
6. 0	43.50	8. 0	·1098	18. 8	·03663				22.30	45. 5							
6.32	43. 0	8.13	·1096	19.23	·03742				22.34	46.40							
6.47	43.30	8.24	·1089	21.27	·03920				22.52	46. 0							
7. 2	41.55	8.41	·1111	22.38	·03950				23.20	48.55							
7.11	42. 0	8.55	·1108	23.59	·03961				23.31	47. 5							
7.22	39.35	9. 0	·1106						23.38	48.20							
7.38	37.25	9. 8	·1111						23.47	47.55							
8. 0	26.30	9.21	·1086						23.53	49.55							
8.23	37. 5	9.38	·1099						23.59	48.40							
8.34	37.35	9.44	·1100						Nov. 6		Nov. 6		Nov. 6		Nov. 6		
8.45	30.45	9.56	·1093						0. 0	20.48.40		(†)	0. 0	·03961	1. 0	54·0	55·3
9. 0	32.50	10.24	·1096						0.16	47.15	0.23	·1098	0.23	·03966	3. 0	55·6	56·7
9.10	28.20	10.45	·1108						0.26	47. 0	0.40	·1099	1.45	·03944	Max.	57·8	58·8
9.18	30.55	10.52	·1107						0.37	48. 0	0.45	·1094	2.31	·03885	9. 0	53·8	56·0
9.32	24.20	11. 2	·1115						0.43	46.25	0.57	·1100	2.59	·03867	Min.	46·8	46·2
9.39	25.55	11.14	·1110						0.53	47.25	1. 2	·1094	4.35	·03731	18. 0	48·0	49·0
9.55	35.50	11.34	·1106						1.16	44.30	1.33	·1107	5.25	·03710	21. 0	47·8	49·0
10.18	39.30	11.46	·1110						1.47	46.20	2. 0	·1104	6.21:	·03619			
10.30	39.40	12. 3	·1106						2. 1	45.15	2.23	·1107	7.24	·03618			
10.40	41.25	12.33	·1107						2.32	45. 0	2.28	·1106	7.37	·03600			
10.45	43.50	12.44	·1110						2.48	47.25	2.44	·1110	8.31	·03638			
10.57	44. 5	13.15	·1104						2.57	46. 0	3.10	·1103	8.59	·03642			
11. 8	47. 0	13.32	·1115						3.19	45.30	3.21	·1104	9.30	·03680			
11.38	39.20	13.46	·1111						3.27	47. 0	3.39	·1098	9.58	·03670			
12.47	41.55	14. 3	·1111						3.37	45.15	3.55	·1105	13. 6	·04033			
13. 6	39.15	14.27	·1099						3.48	46. 5	4. 7	·1112	17.28	·04155			
13.19	38. 5	14.43	·1107						3.58	44.40	4.42	·1059	21.10:	·04190			
13.39	47.10	14.50	·1106						4.11	47.40	4.48	·1062	23.32	·04080			
13.54	47.35	15.26	·1111						4.30	44. 5	5.39	·1109		(†)			
14.12	50.45	15.34	·1108						4.38	34.10	5.51	·1106					
14.26	48. 5	16.15	·1133						4.53	28.40	5.58	·1109					
14.36	44.35	16.30	·1136						5. 1	29.30	6. 8	·1106					
14.43	45. 0	16.43	·1131						5. 8	29.20	6.19	·1107					
15. 3	41. 5	17.14	·1108						5.47	43.20	6.34	·1100					
15.26	41.30	17.22	·1110						5.57	43.30	6.41	·1107					
15.35	39.55	17.30	·1106						6. 7	45.15	6.57	·1096					
15.52	42.55	17.48	·1116						6.49	43. 5	7. 0	·1106					
16. 2	41.10	18. 0	·1111						7. 2	34.55	7.12	·1115					
16.45	47.55	18.21	·1110						7.11	35.35	7.19	·1107					
17.26	48.10	18.38	·1099						7.31	18.35	7.40	·1128					
17.43	45.10	18.54	·1097						7.44	22.20	7.48	·1112					
18.17	52.25	19. 5	·1099						7.52	19.25	8. 0	·1128					
18.46	51. 0	19.31	·1086						8.16	28.15	8. 8	·1122					
19. 8	51.15	19.43	·1076						8.29	35.30	8.17	·1132					
19.18	48.35	20. 3	·1091						8.43	36. 5	8.42	·1105					
19.32	49.35	20. 8	·1088						8.52	38.20	8.59	·1103					
19.51	46.10	20.29	·1095						8.56	38. 5	9.15	·1136					
20. 0	50. 0	20.40	·1088						9. 0	38.45	9.32	·1130					
20.27	52.35	20.46	·1095														

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Nov. 6		Nov. 6						
h m	o ' ''	h m		h m		h m	o	o
9. 10	20.36. 5	9.45	.1115					
9. 23	44. 20	9.53	.1111					
9. 30	43. 55	10.11	.1119					
9. 38	45. 30	10.38	.1115					
9. 55	42. 45	10.53	.1106					
10. 11	38. 45	11.14	.1103					
10. 24	38. 10	11.39	.1106					
10. 38	35. 25	11.53	.1113					
11. 6	38. 45	12.12	.1115					
11. 28	36. 25	12.27	.1113					
11. 48	39. 5	12.38	.1114					
11. 58	41. 25	13. 8	.1108					
12. 37	39. 30	13.37	.1117					
12. 45	40. 25	14. 8	.1116					
12. 58	39. 30	14.52	.1120					
13. 43	44. 55	15. 7	.1118					
14. 22	44. 30	16. 0	.1126					
14. 32	44. 10	16. 8	.1129					
14. 48	43. 5	16.43	.1125					
15. 4	44. 0	17. 5	.1124					
15. 16	43. 5	17.20	.1130					
15. 33	43. 40	17.34	.1129					
15. 47	43. 0	17.49	.1124					
15. 53	44. 5	18.20	.1123					
16. 12	42. 30	19. 4	.1115					
16. 39	43. 30	19.54	.1114					
17. 1	46. 5	20. 3	.1118					
17. 37	44. 50	20.41	.1117					
18. 18	45. 20	20.58	.1120					
18. 32	48. 10	21.16	.1116					
18. 45	46. 30		***					
18. 54	47. 15	22. 6	.1112					
19. 18	45. 0	22.13	.1109					
19. 33	45. 5	22.33	.1110					
19. 42	43. 55	22.41	.1106					
19. 54	42. 55	22.52	.1110					
20. 4	41. 10	23. 2	.1098					
20. 12	42. 5	23.13	.1103					
20. 16	41. 10		(†)					
20. 34	42. 5							
20. 50	41. 35							
21. 6	43. 5							
21. 12	41. 40							
21. 48	41. 55							
22. 8	44. 5							
22. 18	43. 0							
22. 38	44. 5							
22. 47	43. 20							
23. 3	47. 40							
23. 12	44. 10							
23. 17	45. 5							
23. 43	43. 25							
23. 55	44. 40							
23. 59	43. 35							
Nov. 7		Nov. 7		Nov. 7		Nov. 7 Min.		
0. 0	20.43.35	0. 0	.1105	0. 27	(†) .03980	1. 0	50.6 / 51.6	51.8 / 52.7
0. 5	45. 5	0.26	.1108					

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Nov. 7		Nov. 7		Nov. 7		Nov. 7		
h m	o ' ''	h m		h m		h m	o	o
0. 9	20.43.25	0.57	.1102	2. 3 {	.03846	3. 0	53.9	55.1
0. 25	47. 15	1.19	.1109		.03815	Max.	55.7	56.3
0. 52	47. 50	1.43	.1100	2.58	.03715	9. 0	55.2	56.0
1. 1	46. 25	1.53	.1107	3.45	.03520	Min.	53.8	53.5
1. 7	47. 15	2.19	.1079	4.38	.03376	22.27	54.0	54.0
1. 9	46. 25	2.53	.1109	4.53	.03360			
1. 24	49. 15	2.57	.1105	5.46	.03263			
1. 37	47. 10	3.14	.1112	9.43	.03215			
1. 47	46. 30	3.37	.1103	10.51	.03182			
2. 0	48. 40	3.52	.1117	13. 3	.03175			
2. 8	45. 45	4.22	.1112	18.54	.03185			
2. 36	40. 30	4.33	.1102	23.59	.03229			
2. 44	41. 30	4.54	.1132					
2. 57	44. 30	5.15	.1121					
3. 0	42. 15	5.30	.1120					
3. 17	45. 20	6.10	.1113					
3. 28	45. 20	6.31	.1116					
3. 40	42. 0	6.43	.1107					
4. 0	44. 30	7. 0	.1127					
4. 17	44. 10	7.23	.1127					
4. 30	41. 55	7.32	.1130					
4. 34	34. 10	8.11	.1117					
4. 43	32. 30	8.17	.1118					
4. 50	36. 15	8.32	.1115					
5. 7	38. 10	8.45	.1117					
5. 22	41. 35	9.30	.1112					
5. 38	43. 35	9.54	.1127					
6. 8	42. 30	10.19	.1122					
6. 28	42. 30	10.33	.1125					
6. 37	39. 55	10.59	.1117					
6. 45	35. 35	11.15	.1122					
7. 3	39. 40	12.10	.1111					
7. 13	39. 0	12.25	.1114					
7. 25	38. 10	12.44	.1112					
7. 30	39. 0	13.16	.1117					
7. 38	37. 50	13.46	.1113					
7. 45	38. 35	14.39	.1113					
8. 13	39. 0	15.42	.1116					
8. 23	41. 0	16.11	.1115					
8. 34	41. 5	17.27	.1120					
8. 44	40. 5	17.53	.1118					
8. 57	40. 55	18. 8	.1121					
9. 3	39. 30	18.22	.1119					
9. 15	41. 0		***					
9. 34	40. 40	19. 3	.1117					
9. 45	42. 55	19.12	.1118					
9. 55	44. 0	19.36	.1117					
10. 1	43. 5	19.45	.1114					
10. 18	42. 10	20. 8	.1112					
10. 36	43. 30	20.32	.1111					
11. 2	39. 35	21. 1	.1102					
11. 21	39. 5	21.47	.1101					
11. 31	38. 20	21.58	.1104					
12. 38	44. 55	22.19	.1101					
12. 51	43. 30	22.27	.1106					
14. 16	40. 55	22.58	.1102					
14. 37	42. 30		(†)					
15. 34	42. 30	23.28	.1105					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Nov. 7		Nov. 7						
h m	o ′ ″	h m		h m		h m	o	o
15.55	20.41.55	23.44	·1105					
16.29	43.20	23.59	·1102					
17.44	42.25							
18. 0	42.55							
18.25	42. 0							
18.36	43. 5							
18.45	42. 5							
18.57	43.15							
19.26	42. 0							
20.54	41.55							
21. 3	42.25							
21.13	42. 0							
21.38	42. 5							
21.58	45.25							
22.16	43.15							
22.19	44.30							
22.47	47.35							
22.55	46.45							
23.18	47.10							
23.28	47. 0							
23.59	49. 5							
Nov. 8		Nov. 8		Nov. 8		Nov. 8		
0. 0	20.49. 5	0. 0	·1102	0. 0	·03229	Max.	55·0	56·0
0.18	50. 0	0.21	·1102	2. 1	·03245	8.49	54·0	55·8
0.31	49.30	0.57	·1098	2.40	·03226	18. 0	50·0	51·0
1. 8	52.50	1.10	·1099	3.14	·03250	Min.	47·7	47·0
1.22	50.10	1.26	·1095	4. 3	·03237	21. 0	48·8	50·5
1.52	47.30	1.35	·1098	4.38	·03237			
2.15	49.55	1.43	·1097	7. 9:	·03221			
2.26	46.10	2. 8	·1106	9. 1	·03266			
2.46	42. 5	2.30	·1083	9.27	·03265			
	***	2.45	·1088	11.53	·03348			
3.26	46.50	3.15	·1116	12.31	·03358			
3.53	45.30	3.23	·1113	14.27	·03459			
4. 2	42. 5	3.30	·1117	19.22	·03876			
4.10	38.15	3.48	·1112	21.51	·04050			
4.22	35.50		(†)	23.59	·03980			
4.30	40. 5	4.38	·1115					
4.44	39.30	4.50	·1111					
4.59	41.20	5.18	·1116					
5.50	43.40	5.31	·1115					
6.12	42.45	6.16	·1117					
7. 2	42.30	7.38	·1118					
7.27	41.35	7.47	·1120					
7.52:	42.25	8. 1	·1119					
8.11	40.40	8.17	·1121					
8.32	41. 0	8.32	·1118					
8.50	40.20	8.58	·1132					
8.59	40.55	9.34:	·1118					
9.33	39. 5	10.15	·1117					
9.53	39.30	10.25	·1121					
9.56	40.35	10.50	·1114					
10.10	41.10	11.24	·1118					
10.23	39. 5	11.37	·1124					
10.31	39.20	12. 8	·1125					
11. 1	37.15	12.52	·1113					
11.28	41. 0	12.57	·1114					
11.32	40.40	13. 5	·1108					

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Nov. 8		Nov. 8						
h m	o ′ ″	h m		h m		h m	o	o
11.42	20.43. 0	13.17	·1108					
12.36	36.35	13.43	·1117					
13.17	44.25	14. 0	·1116					
13.31	44.20	14.17	·1118					
13.52	47. 0	14.43	·1116					
14.23	44.35	15.23	·1118					
14.32	45. 0	15.33	·1120					
14.49	44.15	15.46	·1118					
15. 2	45.50	16.27	·1119					
15.23	45. 0	16.38	·1116					
16.16	44.25	16.46	·1116					
16.34	45.30	17.19	·1123					
16.49	44.35	17.42	·1123					
17.49	43.25	17.52	·1127					
17.59	43.55	18.13	·1125					
18. 5	43. 5	18.28	·1128					
18. 9	43.55	19.11	·1127					
18.17	43.25	19.30	·1122					
	***	20.17	·1116					
19.42	44.30	20.25	·1117					
20.10	46.30	20.45	·1112					
20.22	45.10	21.11	·1116					
20.27	46. 0	21.25	·1117					
20.47	44.40	21.48	·1113					
21. 0	45.30	22. 4	·1112					
21.11	44.35	22.24	·1116					
21.24	47. 0	22.29	·1111					
22.25	51.20	23. 4	·1106					
22.32	49.35	23.23	·1107					
22.43	51.10		(†)					
22.57	51.35							
23. 4	49.55							
23.23	48.15							
23.30	50. 0							
23.34	49.10							
23.44	49.55							
23.59	47.50							
Nov. 9		Nov. 9		Nov. 9		Nov. 9		
0. 0	20.47.50	0. 0	·1116	0. 0	·03980	1. 0	52·2	54·0
	***	0.17	·1117	1. 6	·03785	3. 0	54·8	56·0
0.32	49. 5	0.32	·1116	1.32	·03760	Max.	56·8	58·0
0.42	48.15	1. 8	·1113	4.51:	·03290	9. 0	52·6	53·9
1. 4	49.30	1.24	·1102	6.31 {·03225 / ·03525}		18. 0	43·0	45·0
1.47	40.40	1.41	·1088	9.13:	·03590	Min.	40·6	40·0
1.56	41. 5	1.57	·1101	13.54	·04136	21. 0	41·8	43·8
2.11	39.50	2. 9	·1103	17. 7	·04295			
2.34	42. 5	2.25	·1111		(†)			
2.56	47. 5	2.30	·1111	21. 0	·04444*			
3. 4	46.45	2.44	·1117					
3.15	47.50	3.29	·1109					
3.42	47.25	4. 5	·1093					
4. 3	39.20	4.36	·1103					
4.17	40.10	4.58	·1095					
4.24	39.45	5.33	·1104					
4.38	42.55	5.46	·1099					
4.51	43.25	5.54	·1103					
5. 0	42.30	6. 6	·1103					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner.   The Symbol *** denotes that the magnet has been generally in a state of agitation.   The Symbol (†) denotes that the register has failed between the preceding and following readings.   The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded.   A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

November 9.   The photographic spot of light for the Vertical Force Magnet was off the sheet in the direction of increasing force after 17h 7m.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.
Nov. 9	20. ′ ″	Nov. 9	
5. 7	20.43.50	6.30	·1111
5.22	42.10	6.46	·1109
5.35	45.40	7.12	·1115
5.45	43.35	7.39	·1114
6.24	41.35	8. 8	·1120
6.40	43. 5	8.30	·1119
7.17	41.50	8.42	·1125
7.44	41.25	8.50	·1123
8. 2	39.35	9. 9	·1129
8.21	41.15	9.34	·1122
8.34	38.15	9.58	·1120
8.46	41. 0	10.12	·1122
9. 7	36.25	10.47	·1121
9.28	40.10	11.10	·1125
9.46	40.25	11.27	·1125
9.53	42. 0	11.53	·1129
10. 0	41. 0	12.38	·1125
11.23	42.10	12.56	·1129
13.48	43. 5	13. 5	·1134
14.37	50.40	14.13	·1122
15.22	46. 5	14.33	·1124
16. 0	46. 5	14.55	·1129
16.27	44. 0	15. 7	·1129
17.38	44.25	15.26	·1132
18.27	42.25	15.42	·1132
19.16	43.35	16.16	·1137
19.38	42. 0	17.27	·1134
19.44	42.45	20.12	·1134
20. 0	41.10	20.21	·1133
	***	20.39	·1127
20.47	40.35	21.49	·1126
21.22	41.15	22. 6	·1122
21.31	42.40	22.31	·1123
21.45	41.10	23.23	·1121
21.53	42.25		(†)
22. 4	40.45		
22.42	44.30		
22.53	43.15		
23. 7	45.20		
23.17	44.30		
23.25	46.10		
23.31	45.30		
23.33	46.25		
23.39	46.10		
23.51	47.20		
23.59	47.25		

Left half, lower section

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Nov.10		Nov.10	(†)	Nov.10	(†)	Nov.10		
0. 0	20.47.25	0.38	·1117	0.45	·04320	1. 0	45·0	46·8
0.25	45. 0	0.52	·1117	5.52:	·03719	3. 0	47·4	48·9
0.32	45.20	1.38	·1128	12. 2	·03475	Max.	50·3	51·8
0.40	44.55	1.51	·1127	15.24:	·03650	9. 0	49·5	51·5
1.38	45.40	1.58	·1132	21. 9	{·04207 / ·04100}	18. 0	44·5	45·4
1.43	47. 5	2. 6	·1129	22.42	·04144	Min.	42·5	41·5
1.53	46. 5	2.15	·1132	23.59	·04117	21. 0	43·2	44·8
1.59	47. 0	2.39	·1132			22. 0	43·7	44·8
2. 5	46.10	2.53	·1128			23. 0	44·0	45·0
2.16	46. 0							

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.
Nov.10	20. ′ ″	Nov.10	
2.27	20.47. 0	3.30	·1129
2.40	45.30	3.55	·1126
3. 6	44.30	4.16	·1112
3.21	45.35	4.33	·1112
3.30	45. 0	5.15	·1127
3.59	45.35	5.38	·1129
4. 6	45. 0	6. 0	·1129
4.33	44.30	6.28	·1132
4.47	43.50	6.55	·1125
4.56	44.15	7.22	·1126
5. 8	43.10	7.39	·1122
5.34	43.50	7.55	·1127
6.10	41.30	8·18	·1127
6.37	42.35	8.37	·1131
7. 5	42. 0	8.46	·1129
7.22	40.35	8.59	·1131
7.40	37.10	9.30	·1128
8.15	41. 5	10. 8	·1130
8.25	40. 5	10.30	·1126
8.53	40.55	11.30	·1133
8.58	39.25	12.38	·1130
9.28	40.10	13.32	·1131
9.42	39.50	13.52	·1130
10.30	42. 0	15.27	·1131
11. 7	41.15	15.49	·1129
11.23	42.45	16.16	·1134
13.23	43. 5	17. 6	·1137
13.52	44. 5	17.22	·1134
15.18	42.45	17.41	·1137
15.53	45.20	18. 2	·1136
16.23	45. 0	19.18	·1135
16.45	43. 0	19.37	·1134
17.22	42.50	20. 9	·1136
17.53	41.30	21.59	·1118
18.45	43. 0	22.19	·1123
19.13	42. 5	22.30	·1121
19.24	42.25	23.29	·1123
19.46	41.25		(†)
20.26	42. 5		
21.41	40.10		
22. 7	40.50		
22.15	42. 5		
22.26	42. 0		
23. 6	43. 5		
23.24	44.40		
23.30	43.35		
23.49	47. 0		
23.59	46.55		

Right half, lower section

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Nov.11		Nov.11	(†)	Nov.11		Nov.11		
0. 0	20.46.55	0.30	·1128	0. 0	·04117	0. 0	45·0	46·2
0.24	47.25	0.42	·1129	2.17	·03997	1. 0	46·5	47·0
0.32	46.45	0.49	·1129	2.56	·03917	2. 0	47·0	48·3
0.39	47.30	1.22	·1127	3.13	·03925	3. 0	47·7	49·2
1.42	46.45	1.36	·1128	3.37	·03862	6. 0	49·0	49·6
2.14	49.10	2.10	·1115	6. 0:	·03747	Max.	50·2	51·0
2.23	47.25	2.23	·1119	9.23	·03738	9. 0	48·3	49·0
2.46	45. 0			11. 1	·03730	12. 0	47·0	48·3

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Nov.11 h m	° ′ ″	Nov.11 h m		Nov.11 h m		Nov.11 h m	°	°
3.19	20.45.30	3.15	·1126	14.11	·03853	18.0	43·0	44·5
3.36	44.50	3.59	·1125	17.27	·04090	Min.	40·5	40·7
4.4	45.40	4.6	·1126	22.24	·04277	21.0	41·3	43·0
4.32	44.5	4.23	·1124	23.46	·04260	22.0	41·3	43·2
4.53	45.5	5.0	·1126		(†)	23.0	42·0	43·3
5.10	43.5	5.10	·1124					
5.52	44.20	5.30	·1128					
6.3	43.25	5.47	·1127					
6.55	42.35	6.9	·1129					
8.0	42.30	6.30	·1128					
8.13	41.25	6.53	·1130					
8.28	41.55	7.13	·1129					
9.6	39.15	9.28	·1127					
9.18	39.10	9.38	·1128					
9.57	41.5	10.3	·1127					
10.10	40.35	10.15	·1128					
10.35	40.50	10.38	·1134					
10.58	38.35	10.58	·1129					
11.22	39.0	11.5	·1132					
11.40	41.0	11.18	·1130					
12.10	39.50	11.43	·1131					
12.30	41.55	11.53	·1129					
13.7	42.10	12.3	·1131					
13.27	43.30	12.17	·1130					
13.59	43.20	14.6	·1135					
14.22	44.30	14.23	·1138					
14.40	43.25	14.44	·1137					
14.53	44.10	15.58	·1142					
15.40	43.10	16.14	·1145					
16.8	45.45	16.51	·1144					
16.34	43.15	17.9	·1143					
17.55	41.50	17.43	·1144					
	***	18.22	·1143					
18.30	43.10	18.38	·1141					
19.38	43.20	19.38	·1141					
20.31	41.25	20.30	·1137					
20.40	42.5	21.23	·1134					
20.47	41.0	22.10	·1130					
20.53	41.50		(†)					
21.8	40.30	23.7	·1123					
22.15	42.25	23.40	·1124					
22.30	45.5	23.50	·1127					
22.38	44.50	23.59	·1127					
22.53	47.10							
23.13	44.40							
23.26	44.30							
23.59	45.35							
Nov.12 0.0	20.45.35	Nov.12 0.0	·1127	Nov.12	(†)	Nov.12 0.0	43·8	45·0
1.18	45.50	0.39	·1127	1.0	·04177*	1.0	44·2	45·2
1.41	44.50	2.0	·1124	1.8	·04178	2.0	46·0	47·0
2.20	45.10	3.9	·1126	2.13	·04037	3.0	47·0	48·2
2.32	44.20	4.1	·1124	3.24:	·03810	Max.	50·6	51·6
4.26	44.50	4.43	·1126	5.19	·03686	9.0	48·0	49·0
4.38	44.5	4.57	·1127	9.22:	·03654	18.0	42·0	43·7
5.37	43.15	5.22	·1126	13.37	·03799	Min.	39·6	38·8
5.52	43.45	5.59	·1128	16.47	·04150	21.0	40·0	42·0

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Nov.12 h m	° ′ ″	Nov.12 h m		Nov.12 h m		h m	°	°
6.0	20.43.10	6.32	·1128	19.38	·04260			
6.46	42.25	7.0	·1131	21.7	·04300			
6.59	42.30	7.47	·1129		(†)			
7.43	40.0	7.57	·1131	23.47	·04357			
8.32	40.10	8.46	·1130	23.59	·04343			
9.3	41.30	9.1	·1131					
9.36	40.50	10.18	·1128					
10.0	41.15	10.31	·1132					
10.43	40.0	10.55	·1131					
11.13	41.0	11.13	·1134					
11.27	41.0	11.28	·1129					
11.42	41.15		(†)					
12.16	36.55	21.0	·1139*					
12.37	40.45	23.22	·1133					
13.3	45.0	23.42	·1132					
13.47	42.35	23.59	·1132					
14.16	42.10							
14.50	44.0							
15.55	43.35							
16.15	44.0							
17.14	42.20							
18.3	43.45							
18.15	42.55							
18.30	43.50							
18.37	43.15							
19.17	43.50							
19.27	42.35							
19.37	43.10							
20.49	41.10							
21.26	42.0							
21.42	42.40							
21.54	42.0							
22.56	44.10							
23.3	43.55							
23.34	45.10							
23.59	45.0							
Nov.13 0.0	20.45.0	Nov.13 0.0	·1132	Nov.13 0.0	·04343	Nov.13 1.0	43·6	44·8
0.10	45.35	1.8	·1132	1.53:	·04190	3.0	47·3	48·7
1.51	44.35	1.58	·1131	3.30	·03790	Max.	51·8	53·0
2.37	43.30	2.11	·1132	5.0	·03658	9.0	49·8	51·0
3.22	43.10	3.23	·1129	6.8	·03622	Min.	48·9	48·9
3.32	43.45	3.40	·1133	9.0	·03588	18.0	49·8	50·1
3.58	44.15	3.58	·1132	10.13	·03607	21.0	49·9	50·1
4.13	43.35	4.11	·1133	11.44	·03578			
4.23	44.10	4.58	·1122	12.43	·03576			
4.45	42.5	5.15	·1124	13.16	·03544			
5.2	43.50	5.42	·1134	13.48	·03558			
5.14	42.50	6.15	·1126	14.26	·03540			
5.22	43.30	6.26	·1124	15.23	·03565			
5.33	43.30	6.30	·1126	21.13	·03546			
5.54	45.20	6.42	·1121	21.25	·03570			
6.28	43.25	7.3	·1125	22.15	·03546			
7.0	44.45	7.19	·1124	23.59	·03515			
7.16	43.5	7.32	·1132					
7.37	42.30	7.44	·1133					
7.48	43.55	8.3	·1121					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

November 12.—The Photographic Trace of the Horizontal Force was lost from 11ʰ. 28ᵐ. to 23ʰ. 22ᵐ.

Greenwich Mean Solar Time.	Western Declina-tion.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Nov.13		Nov.13						
h m	° ′ ″	h m		h m		h m	°	°
8. 1	20.41.50	8.20	.1127					
8.17	41.55	8.26	.1124					
8.41	36.20	8.30	.1127					
9. 8	36.55	8.42	.1114					
9.13	35. 5	8.53	.1114					
9.27	34.35	9. 0	.1117					
9.37	32. 5	9.23	.1109					
9.42	33. 0	9.29	.1111					
9.49	33. 0	9.38	.1106					
10. 0	31.40		***					
10.21	35. 0	10. 0	.1106					
10.52	38.40	10.11	.1113					
10.58	39.50	10.25	.1111					
11. 8	38.25	10.42	.1112					
11.13	38.30	11. 0	.1119					
11.25	37.10	11.17	.1116					
11.37	39.40	11.38	.1123					
11.47	39. 0	11.45	.1118					
13. 0	45. 5	12.12	.1117					
13.16	43.20	12.33	.1126					
13.38	38.15	12.45	.1126					
14.14	47.10	12.59	.1129					
14.23	46.15	13.41	.1124					
14.58	41.30	13.57	.1132					
15. 6	41.55	14.43	.1122					
15.13	41.25	15.20	.1123					
15.38	43.10	15.51	.1129					
15.56	41.40	16. 0	.1129					
16.12	41.10	16. 8	.1132					
16.17	41.50	16.20	.1132					
16.26	40.30	16.32	.1129					
16.52	41.20	17.28	.1131					
16.57	42.30	17.46	.1127					
17.17	41.30	18.15	.1134					
17.38	41.35	18.26	.1132					
17.54	45.20	18.33	.1133					
18.15	43.10	18.54	.1124					
18.22	44. 5	19.11	.1121					
18.30	43. 0	19.22	.1122					
18.52	42.25	19.28	.1120					
19. 2	43.25	19.41	.1124					
19.28	43.50	19.46	.1121					
19.37	44.45	20.21	.1127					
19.48	43.20	20.32	.1126					
19.57	45. 0	20.42	.1119					
20. 3	43.55	20.55	.1119					
20.14	44.25	21.15	.1121					
20.26	42.35	21.28	.1123					
20.31	42.10	21.45	.1120					
20.38	42.15	21.55	.1122					
20.43	43.50	22.10	.1117					
20.56	42.30	22.30	.1114					
21.13	41.35		(†)					
21.32	42. 5							
21.38	43. 5							
21.52	43. 5							
22. 5	45.30							
22.27	45.10							

Greenwich Mean Solar Time.	Western Declina-tion.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Nov.13								
h m	° ′ ″	h m		h m		h m	°	°
23.12	20.48. 0							
23.17	47.10							
23.55	49.30							
23.59	49. 5							
Nov.14		Nov.14		Nov.14		Nov.14		
0. 0	20.49. 5		(†)	0. 0	.03515			
0.11	50.25	1. 0	.1115*	1.38	.03467	1. 0	52.5	53.0
0.17	49.40	1.39	.1104	3.43	.03510	3. 0	53.9	54.1
0.48	48.55	1.58	.1086	4.23	.03486	Max.	54.7	55.3
1. 0	50.25	2.22	.1088	4.43	.03558	9. 0	53.5	54.0
1.16	48.20	2.48	.1108	5.30	.03470	Min.	49.9	49.6
1.42	49.40	3. 0	.1096	6. 8	.03457	22. 9	51.0	51.2
1.52	48.30	3.14	.1104	6.28	.03463			
2.18	52.25	3.43	.1097	6.53	.03450			
2.29	51.50	3.58	.1109	7.40	.03477			
2.37	49.55	4.15	.1095	7.47	.03500			
2.49	53.35	4.37	.1085	7.52	.03580			
2.57	53.10	4.44	.1089	8. 0	.03404			
3. 1	51.35	4.53	.1075	8. 5	.03419			
3.15	53.25	5.12	.1099	8.26	.03347			
3.18	55. 5	5.34	.1099	8.31	.03395			
3.22	54. 5	5.59	.1090	8.41	.03320			
3.30	55.40	6.11	.1104	9. 0	.03390			
3.34	54.50	6.30	.1092	9.11	.03355			
3.45	56. 0	7. 0	.1100	9.17	.03365			
3.57	52.20	7.37	.1084	9.40	.03330			
4. 4	56. 0	8.18	.1114	10.37	.03374			
4.16	49. 5	8.28	.1076	11.23	.03364			
4.28	46.15	8.35	.1066	13.27	.03404			
4.38	38.40	9. 8	.1164	14.13	.03376			
4.46	39.30	9.45	.1090	14.24	.03382			
4.57	27.35	9.56	.1096	14.41	.03336			
5.29	43.45	10.10	.1093	15. 9	.03318			
5.42	44.25	10.25	.1100	15.52	.03330			
5.55	49.10	10.43	.1103	16.12	.03306			
6. 7	45.25	11.10	.1102	18. 8	.03460			
6.31	44.50	11.23	.1104	18.37	.03483			
6.53	42. 0	11.37	.1101	19. 2	.03474			
7. 4	39. 5	12.22	.1110	20. 3	.03541			
7.13	40.15	12.32	.1105	21.17	.03580			
7.33	39.35	13. 7	.1106	22.45	.03655			
7.45	35. 5	13.35	.1105	23.59	.03649			
7.54	35.25	13.40	.1114					
8.13	25.30	13.59	.1115					
8.43	53. 0	14.26	.1105					
9. 1	46.55	14.45	.1122					
9.23	32.35	14.55	.1118					
9.28	32.55		(†)					
9.38	25.55	16.10	.1110					
9.55	35.50	16.39	.1120					
10.11	28.30	16.58	.1116					
10.23	29.30	17.15	.1097					
10.30	28.15	17.22	.1105					
11. 2	38.25	17.31	.1100					
11.20	39.35	17.42	.1104					
11.29	39.15	18.28	.1089					
12.13	43. 0	18.48	.1105					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Of V.F. Magnet
Nov.14 h m	o ′ ″	Nov.14 h m		h m		h m	o	o
12.25	20.42.55	18.57	·1100					
12.33	44. 0	19. 0	·1103					
12.56:	41.40	19.15	·1095					
13. 9	44.20	19.38	·1089					
13.38	38.55		(†)					
13.48	40.30	21. 0	·1092					
13.53	40.40	21.35	·1082					
14. 6	49. 5	21.36	·1060					
14.12	49.30	21.45	·1066					
14.23	45.40	21.56	·1065					
14.30	46.15	22.13	·1067					
14.52	40. 5		(†)					
14.58	40.15							
15.43	59.55							
16.15	51. 5							
16.27	51.35							
16.39	51.10							
16.56	54.30							
17.15	44.40							
17.23	45.55							
17.26	45.10							
17.32	46.10							
17.48	42.35							
17.58	49.10							
18.13	53.40							
18.28	59.50							
18.34	58. 0							
18.38	58.50							
18.47	50.50							
19.13	43.30							
19.19	45. 0							
19.26	42.30							
19.36	45.15							
19.42	44.15							
19.58	48.25							
20. 4	48. 5							
20.13	50.50							
20.23	51.35							
20.36	48.10							
20.40	48.40							
20.47	48.15							
20.57	48. 5							
21. 4	47.40							
21.12	48.20							
21.23	47.15							
21.28	47.30							
21.36	45.50							
21.39	46. 5							
21.53	43.40							
22.42	48.25							
22.47	49.25							
22.55	48.30							
	(†)							
23.42	45.25							
23.57	49.40							
23.59	49. 0							

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Of V.F. Magnet
Nov.15 h m	o ′ ″	Nov.15 h m		Nov.15 h m		Nov.15 h m	o	o
0. 0	20.49. 0		(†)	0. 0	·03649	1. 0	52·0	52·7
0. 3	49. 0	0.15	·1100	0.45	·03656	Max.	53·7	54·7
0.10	47.45	0.38	·1100	2.38	·03585	8. 0	53·7	54·7
0.17	49.40	0.54	·1102	2.45	·03606	18. 0	52·1	53·3
0.22	49. 0	1.16	·1096	3.14	·03494	Min.	51·3	51·2
0.32	51.25	1.30	·1089	4.38	·03478	21. 0	52·0	53·0
0.38	50.25	2. 6	·1085	4.53	·03500			
	***	2.21	·1096	5.45	·03430			
0.55	51.15	2.30	·1090	7.37	·03397			
1.10	48.30	3. 0	·1106	7.55	{·03400 / ·03620}			
1.24	49.30	3.12	·1101	10. 2	·03517			
1.37	48.45	3.21	·1107	10.30	·03520			
1.59	49.25	3.25	·1106	12.52	·03487			
2. 3	50. 0	3.37	·1114	13.53	·03517			
2.14	47.55	3.54	·1105	14.23	·03502			
2.23	50. 0	4. 9	·1110	16. 8	·03522			
2.31	47.45	4.42	·1082	17.29	·03559			
2.39	47.50	4.59	·1130	21.30	·03638			
2.45	51.55	5.14	·1137	22.29	·03638			
2.56	45.55	5.41	·1106	23.59	·03530			
3. 1	46.30	5.54	·1101					
3. 8	45.25	6. 2	·1105					
3.13	42.50	6.32	·1099					
3.16	44. 0	7. 6	·1116					
3.23	43. 0	7.20	·1115					
3.33	44.50	7.45	·1108					
3.45	45.10	8. 0	·1116					
3.56	43.55	8.19	·1113					
4.22	42.55	8.42	·1112					
4.46	14.55	9.19	·1115					
5.23	40.10	9.38	·1124					
5.31	38.40	9.51	·1117					
5.38	38.35	10. 7	·1116					
5.44	41.10	10.15	·1119					
5.58	38.50	11.15	·1113					
6.23	43.50	12. 0	·1113					
6.34	42.10	12.29	·1120					
6.49	41.10	12.58	·1109					
6.57	38.15	13.24	·1102					
7. 3	40.30	13.40	·1103					
7.24	42. 0	14. 2	·1110					
7.34	41.30	14.19	·1108					
7.59	35.'50	14.55	·1110					
8.10	38. 0	15.12	·1103					
8.30	38.15	15.38	·1112					
8.39	39.25	15.57	·1115					
9.27	38.25	16.17	·1111					
9.43	40.55	16.40	·1111					
9.55	39. 5	16.54	·1112					
10. 6	34.45	17. 7	·1111					
10.17	34.20	17.21	·1113					
10.33	38. 0	18. 8	·1112					
10.55	39.20	18.34	·1115					
11.38	35.40	19. 0	·1116					
11.48	36. 5	19.13	·1113					
12. 8	40.15	19.43	·1113					
12.16	40.40	20.18	·1103					
12.30	40. 5	20.28	·1107					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Nov.15 h m	20.40.20	Nov.15 h m		h m		h m	o	o
12.40	20.40.20	20.40	.1099					
12.59	36.25	20.55	.1105					
13.10	36. 0	21.22	.1105					
13.35	37.25	21.46	.1103					
13.38	37. 5	22. 3	.1098					
14. 0	40.25	22.25	.1096					
14. 7	42.25	22.44	.1100					
14.15	43.15	22.51	.1092					
14.24	42.15		(†)					
14.30	42.55	23.50	.1090					
14.38	42.10	23.59	.1092					
14.50	44.20							
15. 1	43.25							
15.11	44.35							
15.22	43.15							
15.38	45.40							
15.58	44.10							
16.16	45.25							
16.23	44.30							
16.45	46. 5							
17.12	45. 0							
17.28	47.20							
17.38	44.45							
17.40	45.45							
17.47	44.40							
17.58	46.25							
18.24	46.15							
18.47	48.15							
19.10	47.15							
19.17	46. 0							
19.37	44.50							
	***							
20.13	45. 5							
20.27	42. 0							
20.32	44.40							
20.42	42. 5							
20.47	41.20							
21. 3	43.35							
21.19	42.10							
21.32	44.15							
21.51	44.25							
22.15	43.20							
22.34	44.50							
22.39	46.55							
22.52	44.30							
23.11	45.55							
23.59	45. 0							
Nov.16	20.45. 0	Nov.16		Nov.16		Nov.16		
0. 0	20.45. 0	0. 0	.1092	0. 0	.03530	1. 0	55.2	56.3
0.12	47. 0	0. 9	.1097	1.56	.03317	3. 0	57.1	58.0
0.22	45.25	0.22	.1098	3.45	{ .03246	Max.	58.9	59.7
0.43	46.25	0.38	.1102		.03400 }	9. 0	57.3	58.4
0.53	45.10	0.54	.1100	5.23	.03262	18. 0	55.0	56.0
1.45	47. 5	1.13	.1103	5.37	.03274	Min.	53.4	53.2
2. 7	46. 0	2. 5	.1099	6.47	{ .03220	21. 0	54.0	55.6
2.32	46.10	2.42	.1101		.03340 }			

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Nov.16 h m	20.45.25	Nov.16 h m		Nov.16 h m		h m	o	o
2.45	20.45.25	3.14	.1099	8. 9	.03296			
3. 2	44.50	3.31	.1102	13.55	.03325			
3.15	43.30	3.47	.1101	21.30	.03524			
3.32	43.15	4.10	.1106	22.24	.03530			
3.43	39.45	4.35	.1102	23.59	.03502			
3.52	38.15	5. 1	.1109					
4. 2	34.50	5.23	.1108					
	***	5.40	.1109					
4.33	35.40	6. 3	.1107					
4.44	34.35	6.23	.1108					
4.50	36.45	6.55	.1109					
5. 7	37. 5	7.12	.1110					
5.54	42.35	7.32	.1108					
6. 4	42. 5	8. 7	.1112					
6.22	42.35	8.23	.1111					
7. 1	40.45	8.30	.1113					
8. 3	41.45	8.44	.1111					
8.39	40.30	8.59	.1111					
9. 0	40.55	9.16	.1109					
9.27	40.10	9.52	.1110					
9.41	41. 5	10.13	.1106					
9.49	40.10	10.23	.1110					
9.57	40.45	10.36	.1109					
10.16	39.45	11. 0	.1110					
10.32	40. 0	11.22	.1115					
10.50	41.10	11.34	.1122					
11.30	40.55	11.59	.1113					
11.51	39.25	12.17	.1114					
12.17	39.15	12.32	.1125					
12.36	41.30	13.14	.1109					
13. 6:	39.10	13.27	.1108					
13.38	43. 0	13.41	.1115					
14. 0	41.30	13.50	.1116					
14.24	42.30	14.30	.1113					
14.47:	41. 5	15.23	.1110					
15. 4	42.15	16. 3	.1113					
15.13	41.50	16.28	.1112					
15.55	42.55	16.37	.1115					
16.20	42.30	16.48	.1114					
16.41	43.20	17.40	.1117					
16.55	42.30	18.11	.1116					
18.23	42.20	18.26	.1117					
18.37	43.15	18.56	.1112					
18.53	42.35	19.30	.1114					
19.29	43. 0	19.38	.1111					
19.37	42. 5	19.44	.1114					
20.17	42. 5	20. 2	.1111					
20.28	41.30	20.30	.1111					
20.31	42.40	20.59	.1110					
21.18	42. 5	21. 8	.1107					
21.29	43.10	21.35	.1111					
21.40	42.20	21.45	.1110					
22. 6	43.40	22. 2	.1111					
22.15	45. 5	22.53	.1105					
22.23	44.35	23. 5	.1107					
22.50	45.20	23.37	.1096					
22.56	46. 5	23.59	.1103					
23. 0	45.30							

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
h m	o ' "	h m		h m		h m	o	o	h m	o ' "	h m		h m		h m	o	o
Nov.16											Nov.17						
23.33	20.44. 5										23.52	·1111					
23.59	45.35										23.59	·1110					
Nov.17		Nov.17		Nov.17		Nov.17			Nov.18		Nov.18		Nov.18		Nov.18		
0. 0	20.45.35	0. 0	·1103	0. 0	·03502	1. 0	55·4	56·6	0. 0	20.45. 0	0. 0	·1110	0. 0	·03785	0. 0	54·0	55·0
1.27	49.20	0. 6	·1103	1.28	·03460	3. 0	57·0	58·0	0.39	46.10	2. 8	·1112	2.28:	·03720	1. 0	54·0	55·0
1.42	47.35		(†)	1.43	·03460	Max.	58·3	59·0	1.22	44.50	2.18	·1110	4.22	·03602	3. 0	55·0	56·0
1.53	49.50	0.44	·1107	2.30	·03410	9. 0	57·0	58·0	1.40	44.45	2.39	·1112	4.45	{ ·03594	6. 0	55·0	56·0
2.11	45.10	1. 8	·1112	3.43	·03282	18.45	54·1	55·0	2.25	43.10	3.48	·1113		·03760 }	Max.	55·0	56·0
2.28	44.10	1.18	·1111	3.57	{ ·03267	Min.	52·4	52·2	4.41	41.55	4.45	·1117	6.44	·03734	9. 0	54·0	55·4
2.38	45.40	1.38	·1092		·03559 }	21. 0	53·3	54·6	5. 6	41. 0	5. 4	·1114	18.52	·03860	12. 0	53·5	54·8
3.19	45.35	1.51	·1096	5.56	·03435	22. 0	53·3	54·5	5.55	41. 0	5.41	·1119	22.30	·03882	18. 0	52·5	54·0
3.31	46.40	2. 3	·1089	7.15	·03426	23. 0	54·0	55·0	6.18	42. 0	6. 8	·1120	23.59	·03840	Min.	51·5	51·3
4.49	43. 5	2.32	·1104	12.15	·03520				6.29	41.30	6.28	·1119			21. 0	52·5	53·8
5.22	45.15	3.31	·1111	12.45	·03500				7. 7	41.50	6.38	·1120			22. 0	52·7	54·0
6. 7	39.55	3.42	·1110	20. 0	·03764				7.18	41. 5	7.13	·1116			23. 0	53·0	54·3
6.22	38.30	4.28	·1114	21.57	·03800				7.47	39.50	7.22	·1116					
6.31	39. 5	4.37	·1117	23.59	·03785				9. 7	39.30	7.41	·1112					
6.41	40.35	4.42	·1116						10. 4	41. 5	8. 0	·1117					
6.54	41. 5	4.55	·1118						10.40	39.10	8.13	·1114					
7.10	42.15	5.10	·1117						11.22	41.20	8.40	·1112					
8.32	41. 0	5.32	·1107						11.32	41.10	8.53	·1115					
8.41	41.45	5.51	·1110						11.45	43.45	9.28	·1119					
9.42	40.40	6.41	·1118						12.35	42. 5	9.45	·1116					
10.10	41.25	7.20	·1115						13. 3	42. 0	10.33	·1122					
10.30	40.50	7.57	·1115						13.13	42.45	11. 1	·1118					
10.43	41.45	8. 8	·1113						13.38	42. 5	11.12	·1122					
11. 8	41.15	8.42	·1115						15. 6	42.30	11.22	·1121					
11.58	41.30	9. 8	·1116						18.38	41.10	11.35	·1126					
12.17	45.55	9.22	·1115						21. 0	42. 5	11.48	·1·124					
13. 0	40.30	9.44	·1115						21.47	43.45	11.57	·1125					
13.25	42.30	10.14	·1113						22. 0	42.50	12.26	·1122					
13.48	41.15	10.39	·1117						22.12	44.35	13.30	·1119					
14. 0	41.55	10.53	·1115						22.28	44.15	16.28	·1126					
14.10	41.15	11.52	·1115						23. 6	46.30	16.56	·1125					
14.16	42.35	12.22	·1131						23.32	46.50	18. 1	·1128					
15. 4	41.40	12.55	·1120						23.41	46. 0	19. 7	·1127					
17. 4	42.30	13.14	·1117						23.47	46.30	20. 9	·1126					
17.17	43. 5	13.59	·1113						23.57	46. 0	20.59	·1122					
17.46	41.15	14.30	·1114						23.59	46.20	22. 0	·1119					
19. 7	43. 5	14.58	·1116								22.10	·1122					
19.31	42. 5	15.57	·1117								22.25	·1121					
19.53	42.30	16. 8	·1116								23. 9	·1122					
20.17	41.30	16.22	·1118								23.43	·1119					
21.22	42. 5	16.34	·1117								23.57	·1120					
22. 8	42.55	17. 0	·1119								23.59	·1121					
22.34	44.15	17.23	·1121														
22.43	43.55	17.47	·1119														
22.52	45.15	18.57	·1123														
23.59	45. 0	19.38	·1121														
		20.13	·1121														
		21.21	·1115														
		21.43	·1113														
		21.55	·1114														
		22.29	·1108														
		22.43	·1111														
		22.49	·1108														
		22.59	·1111														
									Nov.19		Nov.19		Nov.19		Nov.19		
									0. 0	20.46.20	0. 0	·1121	0. 0	·03840	0. 0	53·9	55·1
									0. 8	47.25	0.22	·1121	3.30	·03481	1. 0	54·8	56·0
									0.29	46. 0	0.38	·1122	4.23	{ ·03367	3. 0	56·5	57·5
									0.51	46.30	1.42	·1120		·03540 }	Max.	58·2	58·7
									1. 3	45.45	2.23	·1116	6.17	·03430	9. 0	56·1	57·0
									1.26	46.40	2.47	·1115	6.39	{ ·03440	18. 0	52·0	53·6
									1.38	45.10	3. 8	·1101		·03535 }	Min.	50·7	50·3
									1.54	46. 5	3.16	·1101	7.58:	·03518	21. 0	51·7	53·0
									2. 2	45.20	3.44	·1098	10.12	·03578			
									2.17	45. 5	3.54	·1102	10.37	·03570			

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left panel

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers.	
							Of H.F. Magnet.	Of V.F. Magnet.
Nov.19	° ′ ″	Nov.19		Nov.19		h m	°	°
2. 46	20. 46. 10	4. 4	·1099	12. 27	·03625			
2. 53	46. 0	4. 12	·1102	16. 38	·03850			
3. 0	46. 10	4. 25	·1090	20. 1	·03921			
3. 9	44. 30	4. 45	·1100	21. 27	·03930			
3. 13	45. 0	5. 3	·1103	22. 39	·03940			
3. 23	44. 25	5. 17	·1100	23. 59	·03895			
3. 34	46. 0	5. 32	·1109					
3. 47	49. 5	5. 39	·1109					
4. 11	50. 20	6. 15	·1117					
4. 28	46. 10	7. 0	·1116					
4. 46	45. 0	7. 8	·1118					
4. 53	45. 40	7. 16	·1116					
4. 58	44. 55	7. 28	·1117					
5. 1	46. 0	7. 47	·1117					
5. 15	43. 55	8. 16	·1121					
5. 23	43. 50	8. 33	·1117					
5. 33	42. 50	8. 43	·1118					
6. 18	43. 0	8. 53	·1115					
6. 32	43. 45	9. 6	·1118					
7. 32	41. 55	9. 28	·1105					
8. 18	41. 25	9. 45	·1114					
8. 27	42. 25	10. 8	·1110					
8. 33	42. 0	10. 22	·1117					
8. 43	42. 35	10. 42	·1115					
8. 58	41. 55	11. 1	·1114					
9. 3	42. 30	11. 29	·1117					
9. 40	34. 0	11. 37	·1116					
9. 44	34. 5	11. 45	·1118					
9. 52	33. 30	12. 0	·1114					
10. 1	34. 40	12. 19	·1115					
10. 15	39. 0	12. 37	·1118					
10. 38	38. 10	12. 58	·1115					
10. 45	39. 5	13. 12	·1116					
10. 57	38. 25	13. 36	·1113					
11. 27	41. 40	13. 47	·1116					
11. 45	39. 35	13. 57	·1114					
12. 30	41. 40	14. 27	·1116					
12. 53	40. 25	14. 32	·1118					
12. 58	41. 10	15. 2	·1116					
13. 9	40. 40	15. 12	·1119					
13. 16	39. 25	15. 19	·1117					
13. 28	41. 10	15. 43	·1120					
13. 58	38. 55	16. 11	·1117					
14. 18	41. 5	16. 22	·1122					
14. 30	40. 10	17. 0	·1121					
14. 36	41. 20	17. 45	·1120					
14. 57	40. 25	18. 33	·1125					
15. 8	39. 10	20. 37	·1121					
15. 13	40. 10	21. 0	·1116					
15. 23	38. 55	22. 13	·1116					
15. 31	40. 5	22. 39	·1114					
15. 58	41. 25	22. 57	·1116					
16. 11	40. 35	23. 45	·1117					
16. 25	42. 0	23. 59	·1118					
16. 34	41. 15							
16. 47	41. 40							
17. 1	41. 5							
17. 48	40. 50							

Right panel

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers.	
							Of H.F. Magnet.	Of V.F. Magnet.
Nov.19	° ′ ″	h m		h m		h m	°	°
18. 1	20. 42. 0							
18. 48	41. 45							
19. 39	41. 40							
19. 47	41. 5							
19. 57	41. 35							
20. 56	41. 45							
22. 42	46. 0							
23. 38	45. 20							
23. 59	46. 5							
Nov.20		Nov.20		Nov.20		Nov.20		
0. 0	20. 46. 5	0. 0	·1118	0. 0	·03895	1. 0	53 ·4	54 ·8
0. 40	44. 50	0. 14	·1122	2. 59	·03698	3. 0	54 ·6	56 ·1
1. 39	44. 25	0. 57	·1124	6. 7	·03387	Max.	56 ·0	57 ·0
2. 37	43. 5	1. 4	·1122	6. 57	{·03346	9. 0	55 ·0	57 ·0
5. 21	41. 40	1. 28	·1124		{·03558	18. 0	51 ·8	52 ·9
5. 43	42. 35	3. 24	·1118	9. 7	·03537	Min.	50 ·6	50 ·3
5. 58	41. 45	4. 13	·1122	17. 17	·03935	21 ·0	51 ·2	52 ·2
6. 18	42. 0	4. 45	·1121	17. 41	·03929			
6. 32	41. 5	5. 38	·1124	22. 33	·03957			
7. 0	42. 0	5. 50	·1120	23· 59	·03870			
7. 29	41. 0	7. 13	·1119					
7. 52	41. 30	7. 44	·1120					
8. 16	40. 50	8. 28	·1120					
10. 31	40. 15	8. 58	·1119					
11. 1	40. 30	10. 52	·1120					
11. 17	41. 30	11. 9	·1126					
11. 32	40. 30	11. 22	·1123					
11. 41	41. 5	12. 24	·1119					
12. 6	40. 5	13. 9	·1118					
12. 32	42. 0	13. 17	·1120					
12. 43	41. 25	13. 47	·1119					
12. 57	41. 45	14. 12	·1119					
13. 11	41. 55	14. 24	·1118					
13. 20	42. 25	14. 38	·1121					
13. 48	41. 0	14. 56	·1122					
14. 8	40. 35	15. 6	·1124					
14. 17	41. 30	15. 30	·1120					
14. 30	40. 35	15. 45	·1121					
14. 42	42. 15	15. 58	·1120					
14. 59	41. 45	18. 8	·1123					
15. 13	42. 20	18. 51	·1121					
15. 30	40. 20	19. 21	·1122					
15. 43	39. 30	19. 56	·1119					
16. 16	40. 50	20. 19	·1120					
16. 57	39. 45	20. 35	·1117					
17. 15	41. 40	21. 41	·1115					
17. 31	40. 25	21. 58	·1113					
17. 42	38. 55	22. 36	·1115					
18. 9	39. 5	22. 44	·1112					
18. 45	40. 50	22. 55	·1115					
19. 3	39. 45	23. 43	·1115					
20. 0	39. 15	23. 59	·1113					
20. 13	39. 30							
20. 16	40. 5							
20. 27	39. 5							
20. 50	39. 55							
20. 58	39. 15							

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Nov.20								
h m	o ′ ″	h m		h m		h m	o	o
21.22	20.41.45							
21.31	41. 5							
21.38	42.30							
21.44	42.30							
22. 1	44.35							
22.10	44.10							
22.44	49.10							
22.53	48.15							
23. 6	49.15							
23.27	46.50							
23.37	46.50							
23.46	45.50							
23.59	46.30							
Nov.21		**Nov.21**		**Nov.21**		**Nov.21**		
0. 0	20.46.30	0. 0	·1113	0. 0	·03870	1. 0	54·8	55·6
0.58	45. 0	0. 2	·1112	2.58	·03500	3. 0	56·2	57·0
1.24	44.45	0.35	·1116	4.30	·03312	Max.	57·0	57·4
2.11	45.30	0.47	·1116	5.52	·03224	9. 0	55·8	57·0
2.18	44.50	0.57	·1114	6. 8	·03235	Min.	48·0	47·2
2.43	45.30	2.12	·1119	6.29	{ ·03225 / ·03418	22.35	49·0	49·0
3. 1	43.55	2.58	·1117	7.52	·03362			
3.25	43.35	4. 0	·1119	8. 0	·03379			
3.29	44. 5	4.59	·1117	8.24	·03345			
4. 3	43. 0	5.18	·1119	11.46	·03498			
4.47	44. 0	5.31	·1117	13.50	·03645			
5.12	43.10	6. 8	·1118	16.50	·03955			
5.28	43.50	6.31	·1105	20.42	·04049			
5.42	43.10	6.51	·1112	23.22	·04090			
6. 7	44. 0	6.59	·1112		(†)			
6.13	43.10	7.10	·1115					
6.18	43.45	7.28	·1112					
6.34	40. 5	7.42	·1115					
6.45	39.50	7.55	·1143					
7. 1	40.30	8.31	·1112					
7. 6	40. 0	8.40	·1114					
7.14	41.20	9. 4	·1109					
7.35	39.55	9.16	·1110					
7.42	38.15	9.30	·1113					
7.53	34.25	9.44	·1110					
7.59	35.30	10.10	·1113					
8.10	33.30	10.27	·1111					
8.26	32.10	10.35	·1106					
8.32	30.15	10.58	·1112					
8.47	33.15	11. 9	·1116					
9. 0	33. 5	11.56	·1113					
9.25	36.25	12.21	·1119					
9.43	36. 5	12.32	·1116					
10.18	38.35	12.41	·1117					
10.33	36.55	13. 0	·1111					
10.56	38.30	13.23	·1117					
11. 3	37.45	13.46	·1115					
11.15	38.35	14.46	·1114					
11.42	35.55	16.12	·1120					
12.30	38.50	17.48	·1123					
12.55	36.15	19.44	·1126					
13.27	40.10	21. 5	·1125					
13.50	37.50	22.37	·1122					

Right panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Nov.21		**Nov.21**						
h m	o ′ ″	h m		h m		h m	o	o
14.45	20.36.30	23. 8	·1123					
15.45	41.55	23.13	·1125					
16.49	40.35	23.29	·1123					
17.13	41.20	23.59	·1125					
17.29	40.50							
19.11	40.15							
20. 7	40.10							
21.20	40.45							
21.59	42. 0							
22.18	43.10							
23.12	43.50							
23.59	45.15							
Nov.22		**Nov.22**		**Nov.22**		**Nov.22**		
0. 0	20.45.15	0. 0	·1125	0. 0	(†)	1. 0	50·0	50·8
0.24	46. 5	0.21	·1127	0.54	·04105	Max.	51·9	52·7
0.45	44.50	0.50	·1122	3. 9	·04018	9. 0	51·8	52·2
0.55	46. 0	1.55	·1120	6.16	·03825	19. 0	50·8	51·5
1.11	44.35	2.22	·1123	9.30	·03732	Min.	49·5	49·2
1.22	45.30	2.37	·1120	12.31	·03719	21. 0	50·5	51·5
1.52	43.10	3. 0	·1120	21.10	·03768			
2. 0	44. 0	3.13	·1123	22.33	·03793			
2. 7	43.25	3.40	·1122	23.23	·03765			
2.15	43.50	4.13	·1112		(†)			
2.23	42.45	4.32	·1117					
2.51	41.25	4.53	·1118					
3.37	45.10	5. 1	·1115					
3.42	44.35	5.17	·1119					
3.48	45.10	5.55	·1118					
4. 8	43.50	6. 8	·1128					
4.15	44.10	6.20	·1120					
4.36	42.40	6.34	·1122					
4.46	44.10	6.56	·1119					
5. 5	42. 5	7.11	·1112					
5.11	42.55	7.23	·1116					
5.20	42.40	7.38	·1113					
5.28	44.20	8. 8	·1117					
5.40	41.15	8.17	·1132					
5.53	36. 0	8.29	·1126					
6. 2	38.35	8.40	·1124					
6.10	39. 5	8.59	·1129					
6.22	40.15	10. 1	·1123					
6.44	40.30	10.12	·1125					
6.59	42.30	10.37	·1123					
7.11	39.55	10.46	·1125					
7.28	40. 5	10.57	·1124					
7.41	38.20	11.38	·1127					
7.50	37.40	11.59	·1124					
8. 0	38.15	12.45	·1123					
8.10	35.10	12.59	·1125					
8.18	39.25	13.17	·1124					
8.45	39.50	14.29	·1124					
9. 4	37.35	14.55	·1130					
9.30	39.30	15.14	·1126					
10. 2	40.10	15.25	·1128					
10.12	41. 0	15.46	·1124					
11. 8	40.35	16. 4	·1130					
11.35	40.55	16.12	·1130					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half:

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Nov.22		Nov.22						
h m	o ′ ″	h m		h m		h m	o	o
11.39	20.41.15	16.23	·1135					
12.28	39.30	16.31	·1133					
12.56	41. 5	17. 8	·1133					
13.20	40. 0	17.16	·1130					
14. 7	41.10	17.38	·1129					
14.43	41. 5	19.32	·1128					
14.47	42.40	20.45	·1122					
15. 1	42.40	21. 9	·1123					
15.18	40.35	21.23	·1129					
15.26	40.20	21.35	·1124					
15.29	41.30	22.30	·1122					
16. 0	40.45	22.58	·1122					
16.15	42.10		(†)					
16.26	40.55							
16.36	41. 5							
16.55	39.35							
17.36	40. 5							
18.12	41.30							
21. 7	41.10							
22.16	43. 5							
23. 8	45.30							
23.59	45.15							
Nov.23		Nov.23		Nov.23		Nov.23		
0. 0	20.45.15		(†)		(†)	1. 0	53·6	54·8
0.27	44.10	0.29	·1125	0.30	·03705	3. 0	55·8	56·8
2.21	43. 5	1.13	·1126	2.46	·03324	Max.	57·0	57·5
2.38	42.15	2.23	·1124	4.43	·03220	9. 0	56·0	57·3
3.55	42.10	2.43	·1123	5.39	{·03210 / ·03405}	18. 0	54·3	55·1
4.48	41.15	3.56	·1123	7.46	·03317	Min.	53·2	53·1
7.38	39.40	4.19	·1124	10.12	·03298	21. 5	54·0	55·0
8.43	40.10	4.30	·1126	10.46	·03320			
9. 4	41.15	4.44	·1125	11.20	·03310			
9.45	40.30	6.27	·1124	11.57	·03318			
10. 0	38. 0		***	12.42	·03295			
10. 8	32.25	7.27	·1124	15.28	·03325			
10.30	25.25	8. 1	·1126	19.40	·03444			
10.48	33.45	8.30	·1123	21.59	·03475			
11. 1	34.55	8.43	·1126	23.59	·03422			
11.13	32.30	9.13	·1121					
11.24	34.55	9.31	·1119					
11.42	34. 0	9.40	·1120					
11.47	34.55	10. 0	·1115					
12. 4	35.15	10. 7	·1119					
12.36	33. 0	10.13	·1118					
12.49	30.10	10.25	·1129					
12.57	30.50	10.32	·1128					
13. 7	30.40	10.41	·1129					
13.30	33.50	11. 8	·1117					
13.56	33.35	11.15	·1119					
14. 4	32.55	11.31	·1114					
14.18	33.10	11.56	·1129					
14.28	36. 5	12.38	·1117					
14.35	36.30	12.55	·1120					
14.47	41. 0	13.17	·1114					
15. 4	40.10	13.44	·1117					
15.31	31.40	14.29	·1104					
16. 2	34.35	14.37	·1105					

Right half:

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Nov.23		Nov.23						
h m	o ′ ″	h m		h m		h m	o	o
16.30	20.33.55	14.53	·1104					
16.48	36.35	15.25	·1126					
17.57	40. 5	15.41	·1126					
18.45	41.20	15.55	·1128					
20. 0	40.25	16.15	·1122					
20. 9	41.10	16.34	·1119					
20.17	39.30	18.12	·1112					
20.23	40.55	18.42	·1114					
20.32	40. 5	18.52	·1113					
20.38	41.20	19.58	·1112					
20.46	40. 0	20. 8	·1115					
21. 0	41.20	20.15	·1112					
21.23	41.15	20.24	·1116					
21.33	42.25	20.33	·1114					
22.12	42.35	20.39	·1117					
22.37	42.55	20.45	·1113					
22.48	43.30	20.57	·1117					
23. 0	45.10	21. 1	·1116					
23.36	46. 5	22.25	·1117					
23.59	45.35	22.47	·1115					
		22.59	·1118					
		23.11	·1117					
		23.51	·1115					
		23.59	·1114					
Nov.24		Nov.24		Nov.24		Nov.24		
0. 0	20.45.35	0. 0	·1114	0. 0	·03422	1. 0	56·4	57·9
0.12	45.10	0.23	·1110	3.23	·03176	3. 0	57·5	58·0
0.49	46.30	0.32	·1113	4.57	·03140	Max.	58·6	59·0
1. 6	45.20	1. 7	·1111	6.15	·03124	9. 0	58·1	59·0
1.45	45.55	1.32	·1112	7.26	·03120	18. 0	57·1	58·6
2.12	44. 5	2.16	·1110	8.32	{·03135 / ·03397}	Min.	55·4	55·3
2.30	44. 5	2.57	·1113	11.27	·03360	21. 0	56·8	58·0
3. 3	45.40	3.14	·1113	11.45	·03335	22. 0	57·2	58·0
3.22	44.55	3.30	·1108	18.41	·03360	23. 0	57·2	58·0
3.30	45.10	4.11	·1112	22.33	·03447			
3.59	44. 5	4.50	·1108	23.59	·03418			
4.46	40.30	5.14	·1111					
5.55	42.35	6. 6	·1114					
6. 9	43. 0	6.30	·1114					
6.43	41.30	6.58	·1116					
7. 8	42. 0	7.35	·1112					
7.54	39.30	7.49	·1115					
8. 0	39.50	8.15	·1107					
8.13	37.55	8.26	·1112					
8.22	33.30	8.44	·1110					
8.34	36. 5	8.59	·1110					
9. 0	38.30	9. 8	·1106					
9.20	36.45	9.39	·1111					
10.18	39.30	10.40	·1115					
10.38	39.30	10.54	·1111					
10.52	40.45	11.13	·1115					
11. 2	39.50	11.18	·1113					
11.16	40.25	11.32	·1136					
11.21	41.35	11.55	·1116					
11.31	40. 0	12.14	·1116					
11.44	43.40	12.30	·1112					
12.11	38.55	13. 0	·1112					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Nov.24		Nov.24						
h m	o ' "	h m		h m		h m	o	o
12.30	20.40.15	13.22	.1115					
13.12	41. 5	14.57	.1113					
14.16	41.20	17.58	.1117					
15.30	42.15	18.12	.1116					
15.47	43. 0	19. 1	.1117					
16. 1	42.20	19.11	.1115					
16.53	42. 5	19.30	.1117					
17. 8	42.15	20.31	.1110					
17.45	41. 0	20.45	.1111					
18. 0	42. 5	21.11	.1110					
18.16	41.30	21.24	.1111					
19. 4	42. 5	21.46	.1109					
19.18	41.10	22.48	.1110					
20.13	42.25	23. 8	.1113					
20.32	41.30	23.37	.1113					
21. 7	42. 0		(†)					
21.26	43.40							
21.37	43.20							
	***							
22.26	44.10							
22.47	46.25							
22.57	46.10							
23.13	48.30							
23.59	45.35							
Nov.25		Nov.25		Nov.25		Nov.25		
0. 0	20.45.35		(†)	0. 0	.03418	0. 0	57.6	58.6
0.23	48.35	0. 4	.1111	1.24	.03375	1. 0	58.0	59.0
0.47	47. 0	0.33	.1115	1.58	.03368	2. 0	58.4	59.5
1.38	44.50	1. 9	.1103	2.48	.03320	3. 0	58.9	59.9
2.10	49. 0	1.29	.1102	4.57	.03255	6. 0	59.2	60.0
2.29	49. 5	2.36	.1107	5.10	.03259	Max.	59.2	60.0
2.38	48.10	2.48	.1099	5.38	.03205	9. 0	57.9	58.8
3. 5	46.15	3. 8	.1100	6.33	.03193	12. 0	56.8	57.7
3.12	44.55	3.19	.1098	7.30	.03205	18. 0	54.4	55.7
3.19	46. 0	3.30	.1103	9. 0	.03260	Min.	53.0	52.7
3.26	48.20	3.42	.1091	9.38	.03300	21. 6	54.0	55.0
3.39	42.10	3.50	.1096	13. 7	.03415	22. 0	54.0	55.2
3.52	42. 0	4. 8	.1096	13.42	.03420	23. 0	54.6	56.0
4. 1	40.30	4.15	.1100	14.53	.03474			
4.14	43.25	4.36	.1089	15.24	.03478			
4.32	40.35	4.46	.1098	21.17:	.03806			
4.45	45.25	5. 6	.1080	23.59	.03783			
4.49	45. 0	5.15	*.1118					
5. 2	29. 5	5.38	.1091					
5.24	46.10	5.54	.1100					
5.36	42.25	6. 7	.1099					
5.57	44. 5	6.27	.1103					
6. 9	43.10	7.13	.1101					
6.46	42.25	7.25	.1095					
7.13	43.15	7.40	.1096					
7.24	40.55	7.52	.1101					
7.32	40.55	7.59	.1100					
7.42	40.10	8.15	.1103					
8. 6	42.30	8.28	.1098					
8.22	41.10	8.38	.1105					
8.30	39.25	9. 0	.1088					
8.40	42. 0	9.23	.1090					

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Nov.25		Nov.25						
h m	o ' "	h m		h m		h m	o	o
9. 3	20.34.10	9.37	.1097					
9.12	43.35	9.58	.1085					
9.18	32.30	10.12	.1094					
9.29	32.55	10.23	.1096					
9.38	36.35	10.40	.1090					
9.54	38.50	10.57	.1093					
10.12	34. 5	11.15	.1093					
10.17	36. 0	11.48	.1110					
10.26	35.20	12.10	.1101					
10.36	37.35	12.22	.1100					
10.53	36.40	12.30	.1097					
11.12	39.15	12.54	.1101					
11.30	39. 5	13.23	.1110					
12. 8	42. 5	14.19	.1107					
12.27	40.10	14.32	.1108					
12.36	41. 5	14.53	.1118					
12.53	40.50	15.18	.1119					
13. 1	43.15	16.43	.1111					
13. 8	43.45	17.11	.1110					
13.47	35.30	17.30	.1107					
14.15	36. 5	18.16	.1107					
14.53	42. 5	18.45	.1111					
15. 7	42.20	18.58	.1109					
15.28	40. 5	20. 8	.1111					
15.44	40. 5	20.23	.1110					
16. 2	38.30	20.53	.1111					
16.15	38.10	22. 2	.1106					
16.32	41.50	23. 0	.1106					
17.23	40.25		(†)					
18. 2	42. 0							
18.39	41.30							
19. 0	42. 0							
19.42	40.35							
20.18	41. 5							
20.30	40.35							
20.43	42.15							
22. 6	43. 5							
22.35	44.40							
22.45	44.25							
23.59	45.40							
Nov.26		Nov.26		Nov.26		Nov.26		
0. 0	20.45.40		(†)	0. 0	.03783	0. 0	55.0	56.3
1. 0	46.55	0.45	.1112	5.11	.03550	1. 0	55.7	57.0
2. 9	45. 5	1.53	.1113	8. 0	.03503	2. 0	56.0	57.0
3.11	44.20	2. 9	.1115	12.29	.03537	3. 0	56.0	57.5
3.45	43. 5	3. 1	.1114	22.21	.03784	Max.	56.3	57.5
4.30	42.30	3. 8	.1110	23.49	.03790	9. 0	56.0	57.0
6.43	41.35	4.23	.1109		(†)	18.15	54.0	55.0
8.16	41.40	6.43	.1108			Min.	52.8	52.6
8.58	35.35	7.19	.1110			21. 0	53.7	54.7
9. 0	38. 5	8.13	.1108					
9.16	38.40	8.40	.1105					
9.30	40. 0	9. 0	.1109					
9.50	39.30	9.13	.1106					
10.15	39.50	9.26	.1109					
10.27	40.55	10.17	.1105					
10.57	41.25	11.11	.1105					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Nov.26		Nov.26						
h m	o ′ ″	h m		h m		h m	o	o
11.12	20.42.30	11.23	.1107					
11.54	42. 0	11.57	.1107					
12.12	42.45	12.10	.1110					
12.40	41.35	12.42	.1106					
13.36	41.45	13.20	.1107					
14.49	42.25	13.42	.1109					
15.17	42.55	15. 0	.1107					
15.43	42.30	15.21	.1109					
15.58	44.20	16. 6	.1110					
16.29	42.15	16.52	.1114					
17. 0	41.30	17.37	.1113					
17.52	42.30	20.30	.1113					
18.19	41.30	20.52	.1111					
18.55	42.10	21.22	.1109					
19. 4	41.45	21.47	.1112					
19.15	42.40	(†)						
20.27	42.20							
20.35	41.35							
20.54	42.40							
21.26	42. 5							
22. 8	43.55							
22.23	43.25							
23.59	45. 5							
Nov.27		Nov.27		Nov.27		Nov.27		
0. 0	20.45. 5	0. 0	.1115		(†)	1. 0	54.1	55.3
0.38	46.25	1.40	.1118	0.11	.03778	3. 0	55.0	56.0
1. 0	45. 5.	2. 1	.1120	3.13	.03715	Max.	55.0	56.0
1.58	45. 0	2.21	.1118	7.34:	.03582	9. 0	54.2	55.4
4.22	42.30	2.51	.1117	12. 8	.03716	18. 0	51.8	53.0
5.25	41.55	3. 8	.1119	16.28	.03925	Min.	50.0	49.5
6.26	41.55	3.50	.1117	21. 8	{.03960 / .03891	21. 0	51.0	52.0
7. 0	42.15	4. 8	.1118	22.32	.03932			
8.27	41.10	4.32	.1118	23.59	.03918			
8.57	41.55	6.44	.1119					
9.28	41.10	7. 7	.1118					
16.46	42.55	8.18	.1117					
18. 9	42.15	10.41	.1121					
18.39	42.55	13. 4	.1122					
19. 0	42.20	16.38	.1127					
20. 0	42.50	17.49	.1126					
20.46	42.35	18. 1	.1124					
23.37	44.50	18.23	.1126					
(†)		18.36	.1126					
		18.48	.1127					
		19.12	.1126					
		20.15	.1128					
		21. 2	.1127					
		21.59	.1130					
		22.25	.1128					
		22.32	.1131					
		22.59	.1127					
		23.30	.1124					
		(†)						
Nov.28		Nov.28		Nov.28		Nov.28		
	(†)		(†)	0. 0	.03918	1. 0	52.0	53.5
0.15	20.44.10	1. 0	.1122*	3.12	.03820	3. 0	53.0	54.6

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Nov.28		Nov.28		Nov.28		Nov.28		
h m	o ′ ″	h m		h m		h m	o	o
3.20	20.42.20	2.44	.1120	7.29:	.03579	Max.	54.2	55.0
4.14	42.35	3. 0	.1120	14. 2	.04060	9. 0	52.0	53.7
4.45	42. 5	4. 6	.1118	20.53	.04275	Min.	41.7	41.0
5.47	42.40	4.43	.1118	23.59	.04340	21.14	43.2	45.0
7. 2	40.25	5.39	.1115					
7.24	41.10	8.29	.1117					
7.45	40.10	8.45	.1119					
7.58	40.45	10.44	.1121					
8.31	39.30	11. 8	.1124					
8.41	40. 5	12.11	.1122					
11.52	39.55	12.49	.1126					
17. 4	42. 0	14. 4	.1127					
21. 0	42.50	15. 2	.1130					
23. 2	47.50	16.45	.1131					
23.48	45.30	17. 9	.1133					
23.59	45.10	17.33	.1134					
		18.28	.1132					
		20.22	.1133					
		21. 5	.1128					
		21.53	.1130					
		22.19	.1131					
		23.59	.1133					
Nov.29		Nov.29		Nov.29		Nov.29		
0. 0	20.45.10	0. 0	.1133	0. 0	.04340	1. 0	43.6	45.0
0.31	44.20	0.58	.1134	2.53:	.04266	Max.	46.0	47.0
0.50	44.35	1.21	.1135	7.20:	.04053	9. 0	45.7	46.8
1.20	43.35	1.38	.1134	12. 0	.04073	18.30	41.3	42.3
2.28	43.50	1.56	.1135	12.42	.04078	Min.	39.2	38.5
6. 9	41.25	2.29	.1133	13.50	.04140	21. 5	40.0	41.2
6.38	43. 5	3.15	.1132	16.45	.04335			
7.38	41.50	3.30	.1133		(†)			
8.47	42.10	3.39	.1131	21. 5	.04463*			
9.50	39.20	4.53	.1134					
10.26	40.10	5. 9	.1132					
10.32	39.35	5.17	.1134					
11. 8	39.50	5.42	.1130					
11.16	39.20	7.12	.1127					
11.28	39.55	7.28	.1128					
11.42	38.10	7.41	.1126					
12. 2	43.50	8.21	.1129					
12.19	45.10	9. 8	.1130					
12.30	44. 5	9.19	.1127					
12.44	39.55	9.39	.1127					
13. 1	37.10	10.15	.1132					
13.13	37.35	10.25	.1130					
13.22	36.50	10.38	.1132					
13.36	37. 5	10.47	.1129					
13.57	35.10	10.58	.1130					
14.22	38.35	11.30	.1124					
14.47	39.50	11.51	.1128					
14.53	40.55	12.17	.1123					
15. 2	39.50	12.48	.1135					
15.15	40.30	13.15	.1130					
15.23	39.55	13.30	.1129					
15.30	41. 0	13.38	.1130					
15.44	41.20	13.53	.1125					
15.59	40.15	14.38	.1131					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

November 29. The photographic spot of light for the Vertical Force Magnet was off the sheet in the direction of increasing force from 16ʰ. 45ᵐ. till 1ʰ. 26ᵐ. on November 30.

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Nov.29		Nov.29							Nov.30		Nov.30						
h m	o ' ''	h m		h m		h m	o	o	h m	o ' ''	h m		h m		h m	o	o
16.22	20.40. 0	14.54	·1131						8.28	20.38.20	12.30	·1122					
16.30	39.35	15.21	·1134						8.42	36.15	12.45	·1122					
17.37	42.50	15.37	·1134						8.52	37.25	12.56	·1114					
18. 0	42.10	15.58	·1137						9. 2	35.45	13. 2	·1118					
18.23	43.55	16.23	·1137						9.24	35.25	13.10	·1116					
18.49	43. 5	16.53	·1140						9.45	38. 5	13.17	·1122					
19. 2	43.30	17.38	·1139						9.53	38. 0	13.29	·1122					
19.15	42.50	17.58	·1142						10. 6	40.35	13.43	·1127					
19.50	43. 5	18.25	·1140						10.15	39.30	14. 6	·1124					
20. 0	42.30	19. 2	·1141						10.26	41.10	14.24	·1126					
20.47	42.10	20.42	·1139						10.32	40. 5	14.37	·1121					
21. 8	42.30	20.48	·1140						10.41	37.55	15.12	·1135					
21.41	45.15	21. 8	·1137						11. 7	34.15	15.21	·1129					
22. 9	44.55	22. 8	·1140						11.22	35.30	15.31	·1129-					
22.38	47. 0	22.58	·1133						11.30	35. 0	15.42	·1132					
22.56	46.10	23. 9	·1134						11.38	32.40	16. 9	·1128					
23.19	48.10	23.53	·1127						11.46	32.15	17.14	·1129					
23.34	46. 5	23.59	·1129						11.54	36.45	17.32	·1136					
23.59	46.30								12. 7	41.20	17.44	·1132					
Nov.30		Nov.30		Nov.30		Nov.30					12.24	37.45	17.50	·1133			
0. 0	20.46.30	0. 0	·1129	1. 0	(†)	1. 0	43 ·0	44 ·0	12.45	37. 5	18.13	·1127					
0.37	48. 5	0.24	·1132	1.26	·04357*	3. 0	45 ·0	47 ·0	12.57	35.45	18.38	·1131					
1. 2	46.40	0.36	·1129	3. 0	·04300	Max.	46 ·5	48 ·5	13. 6	37.20	19.15	·1124					
1.25	45.10	1. 2	·1123	4.14	·04160	9. 0	45 ·5	46 ·5	13.24	34.45	19.24	·1127					
1.39	46.15		(†)	7. 3	·03992	18. 0	41 ·2	42 ·4	13.58	37.55	20. 0	·1128					
1.45	45.40	2.43	·1116	7.30	·03758	Min.	40 ·2	39 ·6	14.11	36. 5	20.36	·1104					
2. 2	47.25	2.58	·1114	8.19	·03758	21. 0	41 ·0	42 ·0	14.16	38. 0	20.42	·1106					
2.22	47.30	3.13	·1115	9.51	·03720				14.23	37.50	20.50	·1104					
2.42	50.10	3.40	·1098	11. 1	·03710				14.46	55.35	21.29	·1121					
2.53	49.20	3.47	·1101	11.21	·03683				15.25	39.15	22. 2	·1127					
3. 8	49.40	4. 0	·1098	11.43	·03697				15.34	39.30	22.45	·1126					
3.14	48.45	4.18	·1102	12. 0	·03675				15.49	42.10	22.48	·1127					
3.24	49. 5	4.37	·1097	12.18	·03696				16. 1	41.40	23.36	·1107					
3.34	48. 0	5. 1	·1112	14.40	·03685				16.14	42. 0	23.43	·1111					
3.46	50.15	5.35	·1103	15.19	·03890				16.32	44. 5	23.49	·1105					
3.53	49.20	5.51	·1098	22. 8:	·03878				16.37	43.40	23.55	·1108					
4.17	49.20	6.21	·1107	23.59	·04364				16.57	47.15	23.59	·1105					
4.37	43. 0	6.30	·1118		·04256				17. 3	46.20							
4.52	41.55	6.48	·1107						17.27	48.25							
5. 5	43. 0	6.56	·1107						17.34	48. 0							
5.11	41.20	7.16	·1088						17.49	44. 5							
5.22	40.20	7.36	·1098						18. 0	44.10							
5.24	41.10	7.44	·1101						18.10	46. 5							
5.33	41.25	7.55	·1109						18.13	45.20							
5.42	40.10	8. 6	·1106						18.30	46.35							
5.57	42.45	8.28	·1106						18.52	46.55							
6. 3	41.50	8.37	·1105						18.56	47.30							
6.12	41.25	9.29	·1108						19.17	46.25							
6.18	39.40	9.53	·1118						19.27	47.15							
6.34	43.30	9.59	·1117						19.38	46. 5							
6.45	40.25	10.25	·1128						19.52	45. 5							
6.57	38.30	10.30	·1127						20. 4	47. 5							
7.19	29.35	10.53	·1130						20.40	45.30							
7.38	36. 0	11. 8	·1127						20.45	46. 0							
7.54	39. 5	11.31	·1144						20.56	44.10							
8. 2	37.30	11.46	·1130						21.15	47. 5							
8.16	37.30	12. 8	·1148						21.23	46. 0							
									21.51	44.35							

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left block

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
Nov.30								
h m	o ' "	h m		h m		h m	o	o
22.32	20.44.30							
22.49	46.25							
23. 0	45.40							
23. 7	47. 0							
23.18	45.55							
23.26	46.35							
23.37	45.15							
23.42	46. 5							
23.48	44.25							
23.59	44.10							
Dec.1		Dec.1		Dec.1		Dec.1		
0. 0	20.44.10	0. 0	.1105	0. 0	.04256	Min.	43.0	44.0
0. 8	43.30	0.15	.1117	2.55	.03962	1. 0	44.0	45.0
0.12	45. 5	0.38	.1117	5.50	.03566	3. 0	46.0	47.0
0.26	43. 0	0.47	.1120	11. 1	.03455	Max.	49.6	50.0
0.32	44.50	1.21	.1110	11.33	.03460	9. 0	49.0	50.0
0.40	44. 0	1.40	.1111	12.16	.03395	18.15	50.7	51.6
1. 0	47.50	2.10	.1114	13. 8	.03404	Min.	49.7	49.7
1.14	46.15	2.30	.1106	14.40	.03370	21. 0	50.2	51.4
1.22	47. 0	2.44	.1114	15. 7	.03340	22. 0	51.0	52.0
2. 1	43.30	3.30	.1100	19.54	.03391	23. 0	51.0	52.0
2.11	44.10	3.46	.1108	23.59	.03372	Max.'	51.6	52.5
2.37	37.30	4.26	.1117					
2.45	38.25	4.40	.1112					
2.58	37.35	5.24	.1120					
3. 2	38.40	5.55	.1118					
3.11	37.25	6.17	.1118					
3.18	37.10	6.41	.1114					
3.30	35.15	6.54	.1115					
3.43	38. 5	7.13	.1104					
3.51	37.55	7.38	.1113					
4.11	41.30	7.55	.1111					
4.17	41.20	8. 2	.1112					
4.31	43.30	8.25	.1101					
4.51	44. 5	8.41	.1115					
5.10	43. 5	8.55	.1120					
5.46	42.35	9. 6	.1113					
6. 2	42.55	9.19	.1109					
6.29	42. 5	9.28	.1113					
6.41	43.10	9.41	.1105					
6.49	42.10	9.55	.1098					
6.56	42. 0	10. 5	.1104					
7. 3	40.15	10.10	.1103					
7.17	40. 5	10.39	.1121					
7.26	41. 0	11. 9	.1109					
7.37	39. 5	11.20	.1098					
8. 0	30.25	11.33	.1103					
8.17	34. 0	11.43	.1118					
8.30	31.25	11.50	.1111					
9. 0	35.55	12. 0	.1114					
9. 8	32.50	12.14	.1123					
9.20	36. 5	12.37	.1109					
9.36	36.30	12.43	.1114					
9.45	36. 0	12.59	.1107					
10. 8	36.45	13.10	.1111					
10.23	35.30	13.25	.1108					
10.45	39. 0	14. 0	.1112					

Right block

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
Dec.1		Dec.1						
h m	o ' "	h m		h m		h m	o	o
10.57	20.38.30	14.18	.1104					
11.27	35. 5	14.32	.1103					
11.52	51. 0	14.52	.1116					
12.13	41.35	15.10	.1114					
12.26	43.55	15.22	.1119					
12.34	42.10	15.36	.1122					
12.38	40.30	15.44	.1121					
13. 3	40.25	15.48	.1112					
13.21	45. 5	15.56	.1116					
13.43	42.15	16.30	.1110					
13.52	42.45	16.58	.1121					
14. 2	42. 0	17.13	.1117					
14.21	45.15	17.42	.1115					
14.30	47.45	17.53	.1116					
14.47	48.25	17.59	.1111					
15. 0	47.15	18. 5	.1114					
15.26	41.50		***					
15.44	40.25	18.42	.1115					
15.48	41.30	18.55	.1111					
15.53	38.30	19. 0	.1115					
16. 0	39.30	19. 7	.1112					
	(†)	19.15	.1114					
18.28	43. 0	19.31	.1112					
18.42	43.15	19.39	.1115					
18.45	43.45	19.43	.1110					
18.54	43.10	19.47	.1114					
18.57	42. 5	19.54	.1115					
19. 1	43.10	20. 0	.1107					
19.17	43.15	20. 8	.1116					
19.33	42.30	20.28	.1116					
19.41	43.30	20.40	.1110					
19.45	42.30	20.48	.1116					
19.57	44. 0	21.51	.1107					
20. 0	41.50	22.14	.1111					
20. 8	43.30	22.25	.1105					
20.29	44. 0	22.37	.1108					
20.34	42.35	22.59	.1100					
21. 2	45.10	23.15	.1108					
21.35	44.25	23.24	.1101					
21.53	45. 0	23.38	.1097					
22. 2	46.20		(†)					
22.21	45.55							
22.33	48.25							
22.52	48. 5							
22.57	46.35							
23.14	51. 0							
23.21	49. 5							
23.24	49.35							
23.34	47.35							
23.59	49.30							
Dec.2		Dec.2		Dec.2		Dec.2		
0. 0	20.49.30		(†)	0. 0	.03372	0. 0	51.6	52.5
0.34	42.55	0. 9	.1091	0.27	.03363	1. 0	52.3	53.4
0.43	43.15	0.23	.1082	1. 8	.03370	2. 0	53.0	54.2
0.53	41.40	0.37	.1084	2.15	.03336	3. 0	53.3	54.6
0.57	42.15	1. 8	.1106	2.49	.03335	Max.	53.9	54.6
1. 0	41.25	1.27	.1108	3.13	.03324	6. 0	53.0	53.7

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Of V.F. Magnet
Dec. 2		Dec. 2		Dec. 2		Dec. 2		
h m	° ′ ″	h m		h m		h m	°	°
1.38	20.46. 5	1.45	·1104	4. 8	·03318	9. 0	51 ·2	53 ·0
1.48	45.10	1.54	·1106	5.47	·03340	12. 0	49 ·5	50 ·6
1.58	45.25	2. 5	·1106	6.22	·03310	Min.	47 ·0	46 ·0
2.18	42.10	2.25	·1086	6.53	·03317	19. 0	48 ·0	49 ·0
2.36	35.55	2.45	·1105	7. 8	·03300	21. 0	49 ·0	50 ·0
2.47	42. 0	3.23	·1093	7.56	·03300	22. 0	49 ·2	50 ·5
3. 0	41. 0	3.33	·1096	10.18	·03453	23. 0	49 ·7	51 ·0
3. 3	41.50	3.48	·1089	11.42	·03473			
3.32	37.55	3.55	·1092	16.15	·03878			
3.57	40.45	4. 9	·1076	19.39:	·04044			
4. 8	38.35	4.13	·1078	23.59	·03804			
4.12	39. 5	4.20	·1076					
4.22	37. 0	4.38	·1093					
4.33	39.45	4.44	·1082					
4.42	37. 5	4.53	·1087					
4.59	44. 0	5. 9	·1078					
5. 7	42.55	5.19	·1083					
5.15	43.45	5.23	·1080					
5.18	40.20	5.28	·1085					
5.26	38.55	5.39	·1072					
5.38	25.30	5.48	·1114					
5.47	40.10	5.56	·1106					
5.55	39.30	6.13	·1101					
6. 3	42.15	6.17	·1103					
6. 9	41.20	6.27	·1097					
6.13	42.30	6.34	·1099					
6.42	26.15	6.45	·1121					
6.47	30.20	6.55	·1118					
6.53	30.15	7. 0	·1126					
7. 4	38.50	7.12	·1113					
7.13	38. 5	7.22	·1116					
7.30	42. 5	8. 2	·1097					
7.37	41.25	8.16	·1118					
7.41	42.15	8.19	·1117					
7.45	41.10	8.28	·1119					
7.52	40.15	8.45	·1094					
8. 7	33.55	9. 3	·1106					
8.15	38.10	9.10	·1107					
8.21	37.45	9.28	·1099					
8.37	42.55	9.38	·1102					
8.57	36.50	9.49	·1099					
9.11	38.35	10.18	·1105					
9.32	36.30	10.39	·1117					
9.43	37.30	10.57	·1113					
9.50	37. 5	11. 4	·1113					
9.58	37.25	11.13	·1106					
10.29	41.45	11.31	·1114					
10.59	38.10	11.50	·1108					
11. 7	41. 0	12. 0	·1113					
11.14	40.15	12.14	·1113					
11.18	43. 0	12.34	·1120					
11.26	43.15	12.51	·1108					
11.30	45.20	13. 6	·1111					
11.53	39.35	13.25	·1106					
12. 2	43.30	13.37	·1110					
12.30	41. 0	13.47	·1107					
12.43	38.50	14. 0	·1109					
12.47	39. 0	14.16	·1107					

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Of V.F. Magnet
Dec. 2		Dec. 2		h m		h m	°	°
h m	° ′ ″	h m						
12.59	20.37.55	14.33	·1112					
13.14	39.55	14.55	·1112					
13.22	39.25	15.15	·1108					
13.34	42.40	15.30	·1111					
13.53	43.45	15.42	·1111					
14. 0	45. 0	15.52	·1107					
14.16	44.30	16.14	·1115					
14.27	44.35	16.23	·1109					
14.45	41.25	16.31	·1109					
15. 0	44.30	17. 0	·1117					
15.15	44.15	17.10	·1118					
15.18	45.20	17.33	·1120					
15.30	44.30	17.42	·1124					
15.38	46. 0	18.37	·1120					
15.50	44.20	18.44	·1117					
16. 1	45.35	18.57	·1124					
16.28	46. 0	18.59	·1121					
17. 1	50.45	19. 7	·1125					
17.30	46. 0	19.27	·1124					
17.37	47. 0	19.55	·1116					
18. 0	43.35	20.12	·1117					
18.13	44.30	20.31	·1112					
18.24	44. 0	20.50	·1113					
18.32	44.45	21. 6	·1104					
18.45	43.20	21.10	·1110					
18.57	45.10	21.31	·1110					
19.11	44.25	21.45	·1112					
19.22	44.40	21.53	·1109					
19.33	43.35	22. 0	·1113					
	***	22.20	·1108					
20. 3	44.30	22.31	·1104					
20.13	43.55	22.52	·1105					
20.38	43.25	23.24	·1104					
20.55	44.35	23.59	·1108					
21. 0	42.35							
21. 2	44. 5							
21.26	44.55							
21.39	44. 5							
21.55	44.30							
22.13	47.30							
22.18	45.30							
23.31	48.25							
23.52	46.40							
23.59	46.35							
Dec. 3		Dec. 3		Dec. 3		Dec. 3		
0. 0	20.46.35	0. 0	·1108	0. 0	·03804	0. 0	50 ·2	51 ·2
0.16	46.55	0.10	·1110	4.23	·03504	1. 0	50 ·8	52 ·0
0.40	49. 5		(†)	5.47	·03500	3. 0	51 ·7	52 ·8
	***	0.50	·1116	7.38	·03570	Max.	52 ·3	52 ·8
1. 0	48.35	1. 0	·1114	9.59	·03762	9. 0	48 ·5	49 ·5
1.53	43.55	1.31	·1116	11. 4	·03818	18.30	43 ·0	44 ·5
2.37	42.15	2. 8	·1106	11.38	·03877	Min.	41 ·1	40 ·2
	***	2.27	·1098	12. 6	·03885	21. 5	42 ·0	43 ·0
3.33	42. 5	3. 0	·1112	12.52	·03957			
3.54	40.50	3.17	·1108	13.31	·03980			
4.16	32.45	3.38	·1110	16.39	·04280			
4.27	31.55	3.54	·1107	19.43	·04333			
					(†)			

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

December 3. The photographic trace of the Vertical Force Magnet was off the sheet in the direction of increasing force from 19ʰ. 43ᵐ. until 2ʰ. 28ᵐ. on December 4.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Dec. 3		Dec. 3		Dec. 3				
h m	o ′ ″	h m		h m		h m	o	o
4.41	20.39. 0	4.10	.1093	21. 0	.04449*			
5. 0	43.25	4.14	.1096					
5.10	42.35	4.24	.1089					
5.24	35. 0	4.53	.1111					
5.41	35.25	5. 9	.1110					
5.48	33.55	5.26	.1101					
6. 7	37.50	5.36	.1102					
6.34	40.20	5.46	.1097					
7.15	39.30	5.55	.1097					
7.38	33.45	6. 8	.1106					
7.53	35.15	6.28	.1114					
8. 8	39. 5	6.43	.1112					
8.27	34.45	6.54	.1114					
8.42	37. 0	7. 9	.1106					
8.51	36. 5	7.33	.1103					
9. 2	37. 5	8. 1	.1116					
9.16	34. 0	8.25	.1105					
9.34	39.25	8.34	.1105					
9.45	38.35	8.40	.1108					
10.11	41. 5	8.58	.1096					
10.46	40. 5	9.16	.1100					
11. 0	41. 0	9.32	.1115					
11.13	40. 0	9.46	.1104					
11.28	42. 0	9.57	.1111					
11.43	45.15	10.18	.1112					
12.36	39. 0	10.29	.1119					
12.52	42. 0	10.43	.1117					
13.38	38.30	10.56	.1123					
13.44	38.55	11. 9	.1117					
14. 0	36. 5	11.25	.1117					
14.28	40.30	11.42	.1125					
14.37	39.40	12. 6	.1117					
14.47	39.45	12.17	.1114					
14.58	41. 0	12.30	.1115					
15.18	39. 0	12.49	.1127					
15.31	40.10	13. 8	.1129					
16. 1	41. 0	13.23	.1128					
16.17	43. 5	13.40	.1116					
16.38	43.40	13.50	.1115					
16.49	45. 0	14. 8	.1121					
17.27	42.50	14.40	.1111					
17.53	46. 0	14.53	.1113					
18.15	45.35	15.13	.1114					
18.23	46.35	15.28	.1111					
18.30	46. 5	15.42	.1113					
18.42	48.15	15.58	.1118					
19. 3	49.10	16.13	.1119					
19.56	44.50	16.23	.1117					
20. 6	45.20	16.34	.1117					
20.39	44.35	16.43	.1121					
20.46	46.50	17. 0	.1116					
20.59	47.35	17.11	.1116					
21. 6	49.35	17.26	.1124					
21.24	49. 5	17.40	.1118					
21.31	50. 0	17.56	.1113					
21.41	49.30	18.18	.1116					
21.52	50. 0	18.26	.1115					
22. 1	48.30	18.38	.1122					

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Dec. 3		Dec. 3						
h m	o ′ ″	h m		h m		h m	o	o
22. 8	20.44.25	18.43	.1119					
22.14	47.25	19. 2	.1124					
22.20	46.30	19.17	.1119					
22.25	47.35	20. 7	.1111					
22.38	45.10	20.22	.1105					
22.51	46.25	20.34	.1106					
23. 8	44.40	20.40	.1103					
23.14	46. 5	20.45	.1109					
23.59	47.15	20.54	.1106					
		21. 6	.1107					
		21.31	.1103					
		21.45	.1106					
		22. 0	.1106					
		22. 8	.1099					
		22.15	.1118					
		22.22	.1114					
		22.26	.1120					
		22.36	.1111					
		22.46	.1117 ***					
		23. 8	.1112					
		23.12	.1120					
		23.15	.1116					
			(†)					
Dec. 4		Dec. 4		Dec. 4		Dec. 4		
0. 0	20.47.15		(†)		(†)	1. 0	43.9	45.0
0.16	47.50	0.15	.1115	1. 0	.04422*	3. 0	46.6	48.0
0.30	47.25	0.29	.1106	2.28	.04315	6. 0	48.3	49.0
0.38	47.55	0.44	.1109	3.13	.04166	Max.	50.0	50.4
1. 0	45. 0	1. 1	.1108	5.27	.03740	9. 0	48.1	49.0
1.22	46. 5	1.21	.1114	10.21	.03513	Min.	47.6	47.4
2.13	34.10		(†)	12.38	.03498	18. 0	48.2	49.2
2.42	41.55	1.59	.1108	14.14	.03470	21. 0	48.8	49.8
2.46	41.30	2.17	.1105	16.43	.03478			
2.52	42.55	2.36	.1106	22.13	.03430			
2.59	42. 0	2.45	.1107	23.59	.03400			
3. 7	43.50	3. 0	.1105					
3.13	42.55	3.10	.1105					
3.15	43.25	3.30	.1109					
3.22	41.30	3.46	.1101					
3.38	45. 0	4.18	.1113					
4. 4	43.30	4.29	.1111					
4.15	42.30	5.12	.1115					
4.23	43.15	5.28	.1112					
5. 4	42.45	5.43	.1112					
5.22	43.30	5.58	.1118					
5.47	40. 5	6.18	.1116					
6. 0	41.25	6.33	.1111					
6.23	40. 0	6.53	.1120					
6.38	38. 5	7.11	.1115					
7.13	40.55	7.38	.1114					
7.27	39.55	7.56	.1122					
7.47	34.10	8.45	.1112					
8. 3	34.10	9. 7	.1114					
8.30	38. 5	9.27	.1112					
8.42	38.55	9.33	.1113					
9. 0	37.25	10.22	.1108					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Dec. 4		Dec. 4						
h m	o ' "	h m		h m		h m	o	o
9. 33	20. 39. 40	11. 9	.1116					
10. 8	40. 0	11. 16	.1113					
10. 19	41. 0	11. 43	.1112					
10. 31	39. 30	12. 2	.1117					
10. 44	40. 10	12. 28	.1116					
10. 58	39. 15	13. 3	.1122					
11. 12	41. 55	13. 13	.1119					
11. 45	41. 15	13. 34	.1126					
12. 6	42. 5	14. 38	.1114					
12. 35	42. 0	15. 4	.1117					
12. 43	43. 10	15. 13	.1116					
12. 50	45. 0	15. 24	.1119					
13. 1	44. 10	15. 31	.1117					
13. 15	41. 35	15. 41	.1120					
13. 27	41. 25	15. 49	.1119					
13. 54	45. 0	16. 3	.1118					
14. 14	42. 30	16. 24	.1122					
14. 37	42. 0	17. 0	.1116					
14. 55	42. 20	17. 10	.1121					
15. 3	40. 15	17. 37	.1117					
15. 16	41. 40	17. 45	.1120					
15. 44	40. 45	18. 47	.1120					
15. 51	41. 20	19. 14	.1119					
16. 3	40. 40	19. 29	.1119					
16. 13	41. 50	19. 55	.1107					
16. 33	41. 25	20. 15	.1105					
16. 52	42. 5	20. 51	.1116					
17. 1	43. 50	21. 6	.1116					
17. 23	43. 25	21. 24	.1114					
17. 30	42. 20	22. 24	.1107					
17. 43	43. 10	22. 38	.1112					
18. 13	42. 10	23. 0	.1127					
18. 48	43. 35	23. 19	.1116					
19. 10	42. 45	23. 40	.1111					
19. 31	43. 10	23. 59	.1110					
19. 39	44. 30							
20. 0	44. 40							
20. 13	46. 55							
20. 55	46. 55							
21. 6	46. 0							
21. 33	46. 40							
22. 3	44. 35							
22. 15	44. 40							
22. 25	43. 10 ***							
22. 50	43. 40							
23. 25	47. 55							
23. 52	40. 10							
23. 59	45. 10							
Dec. 5		Dec. 5		Dec. 5		Dec. 5		
0. 0	20. 45. 10	0. 0	.1110	0. 0	.03400	1. 0	51 .0	52 .0
0. 13	45. 5	0. 7	.1110	3. 0	{.03364	3. 0	52 .2	53 .4
0. 57	44. 15		(†)		{.03425	Max.	53 .1	54 .0
1. 9	46. 10	1. 0	.1106*	3. 54	{.03335	9. 0	53 .0	54 .0
1. 53	42. 5	1. 10	.1108		{.03362	Min.	49 .3	49 .0
2. 8	41. 10	1. 43	.1104	5. 1	.03296	22. 0	51 .0	52 .5
2. 13	41. 50	2. 8	.1095	7. 8	.03257			
Dec. 5		Dec. 5		Dec. 5				
2. 22	20. 39. 5	2. 36	.1102	8. 45	{.03260 {.03470			
2. 28	39. 40	3. 8	.1108	15. 0	.03310			
2. 31	41. 45	3. 15	.1106	17. 7	.03304			
2. 39	41. 5	3. 37	.1108	18. 39	.03328			
3. 2:	43. 30	3. 53	.1106	19. 23	.03367			
3. 37	41. 55	4. 38	.1115	20. 39	.03410			
3. 55	38. 55	4. 57	.1112	23. 59	.03611			
4. 1	39. 20	6. 15	.1113					
4. 11	38. 30	6. 49	.1111					
4. 32	40. 55	7. 3	.1105					
4. 38	40. 0	7. 27	.1108					
4. 58	39. 5	7. 32	.1107					
5. 12	41. 0	7. 54	.1112					
5. 15	40. 10	8. 35	.1111					
5. 46	41. 50	8. 43	.1108					
6. 23	41. 35	8. 53	.1109					
6. 38	41. 0	9. 8	.1107					
6. 46	41. 35	9. 30	.1117					
7. 2	38. 0	9. 40	.1117					
7. 23	40. 5	9. 51	.1120					
7. 47	38. 20	10. 37	.1105					
7. 54	39. 0	10. 45	.1105					
8. 0	38. 25	11. 7	.1101					
8. 11	38. 45	11. 23	.1104					
8. 38:	40. 50	11. 52	.1107					
9. 5	38. 35	12. 3	.1104					
9. 27	34. 0	12. 15	.1106					
9. 41	34. 5	12. 37	.1105					
10. 10	37. 30	13. 8	.1105					
10. 30	35. 35	13. 23	.1107					
10. 57	39. 45	13. 36	.1107					
11. 14	39. 55	13. 47	.1104					
11. 27	41. 45	14. 15	.1111					
11. 51	39. 15	14. 46	.1112					
12. 17	39. 50	15. 12	.1110					
12. 30	38. 50	15. 55	.1110					
13. 12	39. 30	16. 13	.1104					
13. 28	43. 0	16. 22	.1105					
13. 37	42. 25	16. 30	.1103					
13. 50	43. 55	17. 8	.1110					
14. 12	42. 5	17. 15	.1110					
14. 20	42. 30	18. 0	.1121					
14. 49	41. 10	18. 15	.1120					
14. 56	42. 0	18. 37	.1107					
15. 3	41. 25	18. 55	.1100					
15. 15	42. 45	19. 13	.1100					
15. 26	42. 5	19. 24	.1110					
15. 48	42. 0	19. 32	.1114					
16. 4	43. 10	21. 13	.1112					
16. 9	42. 25	21. 18	.1113					
16. 16	44. 15	21. 38	.1111					
16. 28	43. 10	22. 3	.1111					
16. 45	45. 5	22. 30	.1104					
16. 58	44. 40		(†)					
17. 9	43. 45	23. 0	.1102					
17. 16	45. 5	23. 38	.1110					
17. 27	45. 0	23. 59	.1113					
17. 54	47. 5							

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
h m	o ′ ″	h m		h m?		h m	o	o
Dec. 5								
18. 5	20. 46. 30							
18. 15	47. 10							
18. 43	43. 40							
18. 53	43. 45							
19. 2	44. 45							
19. 10	44. 0							
19. 27	46. 5							
19. 33	45. 0							
19. 46	45. 40							
2c. 16	43. 10							
20. 53	43. 5							
	***							
21. 33	44. 0							
21. 45	43. 5							
22. 27	47. 5							
23. 0	44. 50							
23. 32	45. 40							
23. 44	44. 50							
23. 59	44. 15							
Dec. 6		**Dec. 6**		**Dec. 6**		**Dec. 6**		
0. 0	20. 44. 15	0. 0	·1113	0. 0	·03611	0. 30	50·4	51·7
0. 8	44. 0	0. 20	·1116	1. 38:	·03678	Max.	50·5	51·9
0. 47	44. 5	0. 53	·1118	5. 6	·03668	8. 0	50·5	51·9
1. 2	43. 5	1. 22	·1115	6. 11	·03660	Min.	47·0	46·5
1. 14	43. 45	1. 43	·1116	7. 0	·03610	18. 0	48·0	49·0
1. 25	43. 0	2. 12	·1113	9. 8	·03679	21. 0	47·8	49·0
1. 28	43. 40	3. 8	·1112	9. 30	·03666			
1. 40	43. 5	3. 23	·1107	10. 55	·03742			
1. 52	44. 5	3. 37	·1106	11. 23	·03724			
2. 0	44. 0	3. 57	·1099	11. 47	·03769			
2. 15	42. 40	4. 15	·1097	17. 7	·04034			
3. 8	42. 25	4. 39	·1102	21. 47	·04070			
3. 17	42. 55	4. 56	·1096	23. 59	·03933			
3. 30	41. 20	5. 17	·1102					
3. 45	41. 20	5. 28	·1102					
3. 58	40. 5	5. 37	·1100					
4. 8	41. 0	5. 51	·1100					
4. 21	40. 35	6. 17	·1137					
4. 40	42. 5	6. 28	·1124					
4. 52	39. 20	6. 38	·1126					
5. 5	38. 30	6. 58	·1098					
5. 22	39. 40	7. 12	·1107					
5. 30	39. 15	7. 38	·1090					
5. 40	41. 0	7. 52	·1098					
5. 46	39. 55	8. 0	·1096					
5. 54	34. 30	8. 17	·1098					
5. 58	35. 10	8. 53	·1114					
6. 2	34. 5	9. 1	·1111					
6. 7	35. 10	9. 10	·1118					
6. 12	33. 5	9. 24	·1110					
6. 20	37. 15	9. 36	·1095					
6. 29	.35. 0	9. 52	·1114					
6. 44	40. 10	10. 12	·1104					
6. 54	34. 40	10. 20	·1110					
7. 6	32. 30	10. 37	·1114					
7. 25	39. 20	10. 45	·1111					
7. 41	36. 50	11. 8	·1134					

Right panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers. Of H.F. Magnet	Of V.F. Magnet
Dec. 6		**Dec. 6**						
h m	o ′ ″	h m		h m		h m	o	o
8. 12	20. 41. 20	11. 39	·1107					
8. 25	39. 5	11. 48	·1116					
8. 30	39. 20	11. 59	·1119					
8. 45	37. 20	12. 22	·1107					
8. 52	38. 10	12. 42	·1111					
9. 0	38. 0	12. 51	·1110					
9. 28	48. 50	13. 13	·1114					
9. 46	38. 45	13. 31	·1114					
10. 5	38. 45	13. 45	·1111					
10. 17	34. 30	15. 7	·1116					
10. 28	35. 5	15. 20	·1114					
10. 56	40. 10	15. 41	·1119					
11. 22	47. 25	16. 4	·1120					
11. 34	45. 50	17. 8	·1115					
12. 0	35. 5	17. 40	·1121					
12. 21	40. 30	17. 49	·1120					
12. 44	38. 0	18. 2	·1121					
12. 58	40. 25	18. 18	·1119					
13. 13	39. 35	18. 37	·1119					
13. 29	41. 0	19. 10	·1112					
13. 39	39. 50	19. 28	·1113					
13. 46	40. 35	19. 47	·1111					
14. 9	40. 45	19. 57	·1112					
14. 20	42. 5	20. 7	·1109					
14. 37	41. 0	20. 46	·1120					
15. 9	39. 35	2c. 56	·1114					
15. 27	40. 15	21. 2	·1117					
15. 35	41. 40	21. 55	·1112					
15. 52	40. 20	22. 19	·1108					
16. 13	40. 30	22. 35	·1110					
16. 33	42. 0	22. 55	·1108					
16. 54	42. 15	23. 9	·1108					
17. 12	44. 20	23. 47	·1097					
18. 27	40. 50		(†)					
18. 39	41. 20							
18. 55	44. 30							
19. 23	45. 30							
19. 32	45. 55							
19. 44	46. 25							
19. 53	45. 30							
19. 59	45. 55							
20. 17	43. 10							
20. 28	44. 5							
20. 46	44. 25							
21. 1	43. 35							
21. 58	45. 45							
22. 29	44. 15							
23. 8	46. 0							
23. 16	47. 30							
23. 25	46. 55							
23. 50	48. 15							
23. 59	47. 40							
Dec. 7		**Dec. 7**		**Dec. 7**		**Dec. 7**		
0. 0	20. 47. 40		(†)	0. 0	·03933	1. 0	51·0	52·0
0. 16	45. 5	0. 23	·1095	3. 20	·03568	3. 0	52·8	54·0
0. 33	44. 35	0. 45	·1104	5. 8:	·03360	Max.	54·0	54·3

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Dec. 7 h m	° ' "	Dec. 7 h m		Dec. 7 h m		Dec. 7 h m	°	°	Dec. 7 h m	° ' "	h m		h m		h m	°	°
1.26	20.46.15	1.10	.1108			9.0	53.0	54.0	19.53	20.48.30							
1.48	44.50	1.59	.1109	7.3	{ .03268	18.0	51.8	52.8	19.58	49.0							
1.54	45.15	2.22	.1106		.03537	Min.	50.4	50.1	20.10	48.10							
2.28	44.30	2.58	.1109	12.9	.03430	21.0	51.1	52.2	20.17	48.40							
2.39	43.45	3.21	.1104	12.24	.03443				20.30	47.0							
3.0	43.15	3.43	.1103	12.53	.03432				21.0	47.5							
3.14	44.55	4.17	.1107	13.17	.03450				21.27	44.25							
3.58	43.5	5.0	.1108	13.33	.03438				22.22	43.15							
4.26	42.40	5.17	.1106	19.54	.03539				22.43	45.55							
4.45	41.0	5.39	.1097	23.4	.03618				22.53	45.35							
5.7	40.55	5.53	.1098	23.59	.03623				22.59	47.10							
5.22	42.10	6.23	.1103						23.10	46.55							
5.42	40.0	7.12	.1095						23.15	48.0							
5.50	40.35	7.30	.1113						23.39	47.50							
6.4	39.50	7.38	.1106						23.53	49.5							
6.22	41.0	8.0	.1099						23.59	48.40							
6.53	40.25	8.11	.1106														
7.8	37.55	8.19	.1104						Dec. 8		Dec. 8		Dec. 8		Dec. 8		
7.19	34.5	8.45	.1106						0.0	20.48.40	0.0	.1086	0.0	.03623	1.0	51.2	52.2
7.39	40.15	8.55	.1105						0.22	50.5	0.43	.1086	1.9	.03665	3.0	52.0	53.0
7.56	40.5	9.38	.1109						0.37	48.50	0.48	.1078	2.59	.03638	Max.	52.2	53.0
8.8	37.45	9.51	.1110						0.45	49.45	0.54	.1087	4.21	.03560	9.0	52.0	53.0
8.15	39.10	10.4	.1112						0.51	45.50	1.25	.1099	6.30	.03510	Min.	51.0	50.7
8.24	38.30	10.13	.1111						0.56	46.45	1.57	.1098	9.19	{ .03518	18.0	51.5	52.7
8.30	39.10	10.44	.1111						1.0	46.5	2.13	.1104		.03755	21.0	51.5	53.0
8.43	38.25	11.3	.1108						1.13	46.20	2.32	.1104	12.45	.03742	22.0	51.9	53.1
9.38	40.55	11.28	.1108						1.22	45.30	2.50	.1108	17.52	.03760	23.0	52.5	54.0
10.8	40.55	11.37	.1120						1.44	45.55	3.9	.1106	22.9	.03710			
10.23	40.5	12.2	.1117						1.54	45.5	3.52	.1107	23.59	.03625			
10.57	40.50	12.17	.1111						2.7	46.0	4.43	.1111					
11.31	40.0	12.30	.1116						3.18	43.35	5.8	.1108					
11.43	40.55	12.53	.1096						3.31	43.45	5.23	.1103					
12.9	30.45	13.4	.1097						3.43	43.10	5.53	.1100					
12.39	34.50	13.28	.1112						4.30	42.45	6.19	.1107					
12.53	34.0	13.55	.1108						4.43	41.55	6.44	.1105					
12.59	35.35	14.12	.1111						5.16	42.45	6.53	.1103					
13.15	34.5	14.23	.1108						5.41	39.45	7.32	.1101					
13.42	43.5	14.51	.1108						5.52	39.45	7.53	.1102					
14.4	40.5	15.0	.1109						6.7	38.35	8.11	.1106					
14.21	39.20	15.12	.1105						6.21	40.15	8.24	.1106					
14.30	37.5	15.28	.1106						6.44	39.25	8.34	.1108					
14.45	36.5	15.41	.1110						6.48	39.45	8.51	.1108					
14.54	37.55	17.27	.1117						7.0	39.20	9.18	.1113					
15.5	37.30	18.32	.1097						7.21	41.20	9.38	.1114					
15.13	39.10	19.8	.1108						7.27	40.35	9.57	.1130					
15.38	41.45	19.22	.1108						7.45	41.40	10.13	.1124					
15.50	44.10	19.43	.1098						8.16	41.10	10.26	.1113					
16.5	42.30	20.7	.1100						8.32	39.55	10.49	.1110					
16.36	40.45	20.29	.1107						9.9	38.10	11.3	.1114					
17.27	41.25	20.40	.1105						9.20	38.25	11.42	.1106					
17.48	40.40	21.30	.1109						9.30	37.0	11.53	.1107					
18.11	43.10	21.43	.1107						9.47	36.55	12.54	.1104					
18.19	43.5	22.16	.1108						9.57	34.30	13.32	.1107					
18.29	46.15	22.25	.1111						10.6	36.55	13.59	.1105					
18.34	46.25	23.9	.1108						10.16	36.5	14.21	.1107					
18.57	50.30	23.59	.1086						10.23	36.45	15.12	.1105					
19.28	50.0								10.34	36.15	15.31	.1107					
19.32	50.20								10.47	38.40	15.44	.1106					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Dec. 8		Dec. 8						
h m	° ′ ″	h m		h m		h m	°	°
11. 18	20. 36.45	17. 26	·1115					
11. 46	38.45	17. 55	·1118					
11. 57	40. 5	18. 22	·1115					
12. 20	38.45	18. 46	·1117					
12. 44	39.25	19. 32	·1117					
13. 22	43. 5	19. 53	·1114					
13. 38	42.30	20. 8	·1115					
14. 23	42.15	20. 26	·1113					
	***	21. 8	·1112					
15. 47	44.50	21. 29	·1111					
16. 4	44.30	22. 9	·1106					
16. 21	43.10	22. 30	·1097					
16. 33	43. 0	22. 53	·1104					
16. 41	43.35	23. 23	·1104					
16. 54	42.10	23. 32	·1107					
17. 1	42.35	23. 52	·1105					
17. 12	42. 5	23. 59	·1105					
17. 15	43.15							
17. 33	41.55							
18. 13	42.20							
18. 28	41.30							
18. 52	41.55							
19. 28	41.45							
19. 37	42.25							
19. 54	40.30							
20. 12	41.50							
20. 24	41. 5							
20. 43	40.40							
22. 39	42.15							
23. 6	45. 5							
23. 47	46.30							
23. 59	45.35							
Dec. 9		Dec. 9		Dec. 9		Dec. 9		
0. 0	20. 45.35	0. 0	·1105	0. 0	·03625	0. 0	53·2	54·7
0. 28	46.50	0. 9	·1106	0. 37	·03580	1. 0	53·6	53·0
1. 0	45.30	0. 50	·1099	2. 54	·03460	2. 0	54·2	54·5
1. 32	45.15	1. 30	·1102	5. 21	·03238	3. 0	54·8	56·0
	***	2. 13	·1097	7. 53	·03159	6. 0	56·0	56·8
1. 57	46.10	2. 47	·1099	8. 0	·03165	Max.	56·6	57·9
2. 25	44.35	3. 33	·1098	9. 14 {	·03140 / ·03320	9. 0	56·6	57·9
3. 3	45.50	4. 18	·1104	10. 58	·03250	12. 0	55·2	56·2
3. 30	43.55	5. 15	·1105	12. 36:	·03323	18. 45	50·5	52·0
3. 45	44.20	5. 31	·1104	14. 31	·03473	Min.	47·2	46·4
3. 58	43.10	5. 58	·1104	20. 10	·04033	21. 5	49·0	50·7
4. 44	41.45	6. 10	·1106	22. 30	·04108	22. 0	48·8	50·5
5. 17	42. 5	6. 25	·1105	23. 59	·04115	23. 0	49·3	50·8
8. 16	39.20	6. 45	·1106					
8. 23	39.50	7. 2	·1105					
8. 32	39. 5	7. 55	·1106					
8. 40	39.35	8. 31	·1105					
9. 46	39.10	8. 44	·1102					
10. 12	38. 0	9. 16	·1104					
10. 37	37.45	9. 52	·1102					
10. 42	38.30	10. 16	·1107					
11. 2	37.25	10. 32	·1106					
11. 30	39.30	10. 44	·1107					
13. 23	42.15	11. 32	·1104					

Right half:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers. Of H.F. Magnet.	Of V.F. Magnet.
Dec. 9		Dec. 9						
h m	° ′ ″	h m		h m		h m	°	°
14. 13	20. 41.45	11. 45	·1106					
15. 1	43.30	11. 57	·1105					
15. 23	42.15	12. 38	·1107					
16. 26	42.30	12. 49	·1106					
16. 34	43. 5	13. 43	·1108					
16. 45	42. 0	14. 6	·1107					
18. 10	41.30	16. 27	·1112					
21. 8	42. 5	16. 37	·1110					
21. 22	41.30	17. 5	·1114					
21. 53	43.30	18. 15	·1116					
22. 1	42. 0	18. 30	·1115					
22. 5	43.20	19. 30	·1114					
22. 17	43. 0	20. 12	·1115					
22. 32	46. 0	21. 33	·1113					
22. 48	44.30	22. 0	·1118					
22. 56	46. 5	22. 6	·1112					
23. 9	45.45	22. 12	·1117					
23. 16	46.25	22. 22	·1113					
23. 25	44.35	22. 38	·1121					
23. 59	46. 0	22. 55	·1114					
		23. 4	·1117					
		23. 13	·1114 (†)					
Dec. 10		Dec. 10		Dec. 10		Dec. 10		
0. 0	20. 46. 0	0. 0	(†)	0. 0	·04115	0. 0	49·7	51·2
0. 8	45.45	0. 25	·1114	2. 28	·04050	1. 0	50·3	51·5
0. 16	46. 0	0. 38	·1110	5. 40:	·03821	3. 0	51·5	53·3
0. 36	44.30	1. 17	·1118	8. 43	·03766	Max.	53·4	53·9
0. 45	45. 0	1. 38	·1116	13. 31	·03850	9. 0	51·5	52·6
0. 57	44.40	1. 56	·1118	13. 53	·03843	18. 0	49·9	51·1
1. 8	45.35	2. 38	·1114	22. 23:	·03958	Min.	49·1	48·9
1. 33	45. 0	3. 27	·1111	23. 59	·03907	21. 0	49·8	51·0
1. 48	45.55	4. 2	·1092					
2. 6	44.40	4. 38	·1103					
2. 15	45.25	5. 13	·1100					
2. 43	45. 0	5. 28	·1095					
3. 30	44.50	5. 55	·1092					
3. 47	43.10	6. 8	·1095					
4. 0	40.45	6. 37	·1090					
4. 5	40.25	7. 7	·1100					
4. 15	39.10	7. 15	·1100					
4. 24	39.30	7. 38	·1107					
5. 12	47.10	7. 53	·1104					
5. 19	46.30	8. 23	·1109					
5. 24	47. 5	8. 42	·1106					
5. 49	44. 5	9. 16	·1109					
5. 58	43.30	9. 51	·1112					
6. 22:	45.45	10. 20	·1107					
6. 38	43.35	10. 45	·1107					
6. 43	43.55	11. 2	·1110					
6. 57	42.50	11. 18	·1107					
7. 31	41. 0	11. 28	·1110					
7. 51	41.45	11. 53	·1106					
8. 8	41.10	12. 12	·1106					
8. 23	41. 5	12. 32	·1110					
8. 44	39. 5	13. 8	·1107					
9. 7	40.30	13. 23	·1109					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet	Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Dec. 10		Dec. 10							Dec. 11		Dec. 11						
h m	o ' "	h m		h m		h m	o	o	h m	o ' "	h m		h m		h m	o	o
9. 22	20.40.25	13.47	·1119						11.31	20.40.30	9.49	·1118					
9. 43	41. 5	14.26	·1115						12.13	40.45	10.15	·1108					
9. 56	40.30	15.17	·1112						12.30	41.20	11.17	·1112					
10.15	41.25	16.23	·1116						12.44	40.50	12. 7	·1110					
10.38	41. 5	17.40	·1114						13.33	42.30	12.23	·1112					
10.56	41.35	18.31	·1116						13.52	42. 0	12.47	·1111					
11.13	38.20	18.56	·1114						14. 7	42.45	13. 4	·1111					
11.36	40.10	19.38	·1114						14.36	42.10	13.21	·1109					
11.58	39. 5	19.55	·1116						15.11	44.10	13.43	·1111					
12.21	40.45	20. 9	·1115						15.23	42. 0	13.55	·1110					
12.44	41.45	20.25	·1113						15.37	43.25	14.18	1114					
12.57	40.45	20.36	·1114						15.53	41.20	14.30	·1111					
13. 6	41.35	21. 0	·1112						16.14	41.20	14.54	·1111					
13.22	41. 0	21.12	·1114						16.24	43.35	15. 7	·1114					
13.30	42.35	21.35	·1112						16.43	42.30	15.16	·1111					
13.38	42.50	22.15	·1111						16.57	42.30	15.27	·1115					
14. 2	39.55	22.38	·1114						17.15	44.15	15.39	·1114					
14.23	39. 0	23.15	·1111						17.23	43.35	15.56	·1115					
14.45	38.40	23.40	·1111						17.46	44. 0	16.18	·1114					
15. 6	39.20	23.59	·1114						18. 0	43. 0	16.48	·1118					
15.46	41. 0								18. 8	43.30	17. 4	·1117					
16.13	40.15								18.23	41.50	17.32	·1121					
16.22	41. 5								19. 3	41.10	17.58	·1122					
16.56	40.20								19.35	42. 5	18.14	·1119					
17.47	42.30								20.30	41.55	19. 3	·1116					
18.32	42. 0								20.42	41.15	19.27	·1120					
19.21	42.10								20.44	42.30	20.22	·1114					
19.30	42.45								20.57	42.35	20.46	·1107					
20.22	42. 5								21.28	44. 0	21.22	·1108					
20.34	42.35								21.58	42.15	21.45	·1106					
21. 2	41.30								22. 3	43.35	22.19	·1110					
21.54	42.35								22.34	43.20	22.39	·1099					
22. 7	42.20								22.40	41.35	22.47	·1120					
22.40	44.10								22.53	47. 0	22.55	·1118					
23.15	43.45								22.58	46.35	23. 7	·1124					
23.25	44.15								23. 1	48.50	23.27	·1113					
23.59	44.10								23.15	49.30	23.37	·1113					
									23.25	48.25		(†)					
									23.56	46.30							
									23.59	47.10							
Dec. 11		Dec. 11		Dec. 11		Dec. 11			Dec. 12		Dec. 12		Dec. 12		Dec. 12		
0. 0	20.44.10	0. 0	·1114	0. 0	·03907	1. 0	51 ·5	53 ·0	0. 0	20.47.10		(†)	0. 0	·03220	1. 0	55 ·5	56 ·5
1.32	45.30	0. 8	·1114	2.52	·03693	3. 0	52 ·9	54 ·1	0.17	46. 0	1. 0	·1093*	2. 6	·03170	3. 0	56 ·6	57 ·5
2. 1	46.30		(†)	5. 13:	·03495	Max.	54 ·0	54 ·6	0.38	49.30	3. 0	·1103*	2.26	·03178	Max.	57 ·2	57 ·5
2.26	45.15	0.53	·1113	9.30	·03383	9. 0	53 ·3	54 ·3	0.45	48.55	3.24	·1095	3. 1	{·03157 / ·03350}	9. 0	56 ·2	57 ·2
3.22	45.10	1. 4	·1111	14.30	·03318	18.40	53 ·0	54 ·3	0.57	51.50	3.46	·1101			Min.	48 ·6	48 ·2
3.55	43.15	1.29	·1114	16.43	·03305	Min.	52 ·4	52 ·3	1. 9	50.55	4.22	·1094	4.41	·03230	21.36	50 ·5	52 ·3
4. 6	41.35	2.23	·1109	19.51	{·03280 / ·03365}	21. 5	53 ·1	54 ·2	(†)		4.58	·1103	6. 8	·03200			
4.13	41.40	2.59	·1109						2.12	48.30	5. 9	·1103	7. 8	·03236			
4.27	40.25	3.28	·1105	22.43	·03329				2.24	51. 0	5.39	·1106	8. 0	·03210			
4.45	42.20	3.52	·1107	23.59	·03220				2.38	48.30	6. 1	·1087	11.14	·03196			
5.12	44. 5	4.17	·1098						2.43	49.15	6.10	·1088	12.56	·03263			
5.43	42.55	4.43	·1110						3.34	44.25	6.29	·1078	13.27	·03270			
6.52	43.10	5. 7	·1109						3.43	46.10	6.38	·1082	16.38	·03395			
7. 7	42.40	6. 9	·1113						3.53	46. 5	6.44	·1077	16.59	·03383			
7. 9	41. 5	6.57	·1108						4. 5	47. 0	7. 8	·1093	19.52	·03614			
9.28	39.30	8.11	·1107						4.37	44. 5	7.38	·1103	23.45	·04110			
9.52	34. 0	8.27	·1109														
10.38	40.10	8.47	·1108														
10.58	41. 0	9.27	·1109														

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.	Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Dec.12 h m	o ′ ″	Dec.12 h m		Dec.12 h m		h m	o	o	Dec.12 h m	o ′ ″	h m		h m		h m	o	o
4.57	20.44.30	8.7	·1099	23.59	·04114				18.28	20.52.20							
5.27	42.50	8.32	·1102						18.31	54.25							
5.44	45.25	9.8	·1100						18.49	53.55							
5.52	44.40	9.30	·1096						18.58	50.25							
6.2	42.50	9.39	·1101						19.3	52.20							
6.11	44.5	9.44	·1099						19.10	51.20							
6.27	38.0	10.12	·1120						19.15	52.20							
6.39	37.20	10.28	·1118						19.32	52.5							
6.47	34.25	10.42	·1124						19.55	48.5							
6.57	34.30	10.52	·1117						20.12	46.25							
7.20	38.40	11.0	·1122						20.23	49.5							
7.29	38.30	11.18	·1102						20.43	48.10							
7.42	39.35	11.42	·1090						20.53	46.45 ***							
8.2	38.30	12.9	·1100						21.27	46.30							
8.37	38.55	12.26	·1098						22.15	48.0							
9.10	38.15	12.44	·1099						22.28	47.30							
9.19	36.30	13.13	·1111						22.55	51.50							
9.26	32.50	13.28	·1113						23.0	50.10							
9.47	29.15	14.8	·1105						23.5	51.55							
10.14	21.25	14.41	·1102						23.17	47.35							
10.26	24.5	14.49	·1104						23.21	48.20							
10.32	21.5	14.57	·1103						23.31	44.50							
10.45	26.30	15.7	·1106						23.46	43.55							
10.57	25.10	15.19	·1108						23.56	43.50							
10.59	25.45	15.30	·1102						23.59	44.30							
11.3	25.30	15.38	·1103														
11.17	31.10	15.52	·1098						Dec.13		Dec.13		Dec.13		Dec.13		
11.27	30.50	16.37	·1118						0.0	20.44.30	0.0	·1110	0.0	·04114	1.0	49·5	51·2
11.50	33.35	16.44	·1125						0.17	45.5	0.14	·1111	1.22	·04112	Max.	49·5	51·2
12.16	31.10	17.1	·1123						0.30	44.30	0.47	·1116	2.44	·04150	8.30	49·3	51·0
12.40	39.10	17.21	·1124						1.5	47.10	1.3	·1112	5.54	·04098	18.15	47·4	48·6
12.58	42.0	17.30	·1115						1.23	45.55	1.24	·1108	7.32	·04083	Min.	45·8	45·3
13.4	41.25	17.44	·1128						1.47	46.0	1.43	·1109	7.54	·04095	21.0	46·3	47·7
13.12	42.30		***						2.0	44.10	2.3	·1101	8.17	·04064			
13.30	41.50	18.16	·1124						2.16	44.50	2.19	·1100	10.24	·04108			
13.42	39.45	18.49	·1093						2.33	40.10	2.30	·1094	10.43	·04097			
14.8	42.35	19.10	·1102						2.48	43.0	2.42	·1100	16.23	·04195			
14.13	44.15	19.21	·1111						3.4	42.30	2.59	·1097	22.52	·04223			
14.20	43.50	19.35	·1112						3.30	43.45	3.20	·1103	23.30	·04200			
14.30	45.0	20.6	·1098						3.47	43.10	4.14	·1101	23.59	·04170			
14.42	43.10	20.19	·1104						4.1	43.30	5.26	·1103					
***		20.47	·1086						4.25	42.10	5.40	·1099					
15.0	43.50	21.35	·1077						4.47	43.5	5.53	·1102					
15.10	43.25	21.44	·1086						5.2	42.45	6.8	·1096					
15.32	46.0	21.53	·1081						5.23	43.30	6.27	·1104					
15.53	44.45		(†)						5.42	42.0	6.36	·1102					
15.57	45.30	23.11	·1106						5.52	42.30	6.49	·1102					
16.2	44.30	23.30	·1112						6.3	39.25	7.8	·1107					
16.13	49.5	23.46	·1110						6.20	39.30	7.32	·1100					
16.17	48.50	23.59	·1110						6.32	37.15	7.58	·1138					
16.42	54.25								6.45	37.10	8.9	·1112					
16.52	54.0								7.7	41.40	8.17	·1109					
17.7	49.50								7.13	41.55	8.28	·1120					
17.26	46.40								7.19	39.0	8.58	·1102					
17.32	48.35								7.26	37.30	9.17	·1107					
17.45	44.15								7.33	34.15	9.26	·1105					
17.58	48.5								7.55	45.0	9.49	·1115					
18.7	48.20																

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Dec.13		Dec.13						
h m	o ′ ″	h m		h m		h m	o	o
8. 15	20.35. 5	10. 8	·1106					
8. 37	41.15	10.26	·1123					
9. 33	36. 0	10.46	·1107					
9. 47	40.25	11. 3	·1113					
10. 3	40.30	11.40	·1111					
10. 29	42. 0	11.56	·1114					
11. 1	38.10	12.13	·1113					
11. 13	39.35	12.25	·1109					
11. 43	39.10	12.58	·1110					
12. 2	40.25	13. 9	·1111					
12. 12	40.10	13.34	·1109					
12. 32	41.55	13.42	·1110					
13. 6	41. 0	13.57	·1109					
13. 28	42.15	14.47	·1112					
13. 41	42. 0	15.32	·1112					
14. 13	43. 0	15.59	·1107					
15. 0	42.15	16.31	·1114					
15. 45	43.10	16.41	·1113					
16. 1	44.10	16.46	·1116					
16. 28	43.15	16.56	·1114					
16. 37	43.40	17.13	·1117					
16. 48	42.40	17.39	·1115					
16. 56	43.20	18. 0	·1117					
17. 7	42.30	18.18	·1116					
17. 44	44. 0	19. 0	·1118					
17. 58	43.15	19. 9	·1120					
18. 13	44. 0	19.38	·1118					
18. 27	43.25	19.51	·1121					
18. 52	44. 5	20.26	·1118					
19. 42	43.30	20.37	·1120					
20. 38	43.25	20.58	·1115					
21. 4	42.30	21.24	·1114					
22. 36	44.50	21.49	·1117					
23. 15	44.15	22.23	·1113					
23. 32	46.45	(†)						
23. 59	45.40							
Dec.14		Dec.14		Dec.14		Dec.14		
0. 0	20.45.40	(†)		0. 0	·04170	1. 0	49·6	51·2
0. 5	45.25	0.30	·1111	1.37	·03992	3. 0	52·0	54·0
0. 38	46.30	0.41	·1112	4.45:	·03412	Max.	55·0	55·9
0. 48	45.40	1. 5	·1108	7.28	·03238	9. 0	52·0	53·4
1. 3	45.45	1.24	·1106	11.23	·03310	18.20	48·5	50·1
1. 42	43. 5	1.45	·1110	12.45	·03400	Min.	47·2	47·1
2. 41	44. 5	1.53	·1111	17.24:	·03710	21. 0	48·2	50·0
3. 7	42.25	2.35	·1113	21. 7	·03846			
3. 38	42.45	2.48	·1108	22.55	·03854			
3. 51	41.55	3.25	·1106	23.59	·03794			
3. 59	42.10	3.43	·1109					
4. 32	41.15	4.36	·1106					
4. 50	42.35	5. 0	·1107					
5. 2	41.15	5. 8	·1110					
5. 20	42.20	5.26	·1107					
5. 43	42.25	5.38	·1108					
5. 52	41.20	6. 5	·1106					
6. 7	40.35	6.28	·1110					
6. 32	37.45	6.40	·1116					
6. 51	37.55	7.11	·1109					

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Dec.14		Dec.14						
h m	o ′ ″	h m		h m		h m	o	o
7. 3	20.41.15	8. 5	·1106					
7. 13	40.35	8.21	·1109					
7. 27	41.35	8.40	·1106					
7. 41	40.35	8.50	·1108					
7. 55	40.25	9.19	·1106					
8. 1	40.55	9.37	·1111					
8. 13	39.10	9.56	·1110					
8. 30	40.10	10.10	·1112					
9. 2	39.15	10.37	·1111					
9. 11	39.55	10.55	·1116					
9. 27	39.15	11.16	·1113					
9. 46	39.50	11.42	·1115					
10. 26	39.20	11.51	·1114					
10. 57	40.35	12. 7	·1114					
11. 18	39.10	12.26	·1120					
11. 29	39.30	12.42	·1115					
11. 45	41.40	12.55	·1113					
12. 6	40.10	13. 9	·1114					
12. 25	42.50	13.18	·1113					
12. 31	41.40	14. 0	1113					
12. 37	42.30	14.25	·1115					
12. 45	40.55	16. 5	·1116					
12. 59	40.20	16.22	·1118					
13. 15	41.45	17.25	·1117					
13. 24	41. 0	17.45	·1119					
13. 45	41.30	18. 5	·1117					
14. 28	41.25	18.36	·1118					
15. 33	42.40	18.39	·1120					
15. 47	42. 0	18.45	·1117					
16. 11	42.30	19.14	·1120					
16. 34	41.55	19.55	·1118					
16. 44	42.50	20.14	·1119					
17. 13	42.15	20.26	·1117					
17. 33	43.30	21. 8	·1114					
18. 5	42.40	(†)						
19. 9	43.20	22.58	·1112					
19. 58	41.50	23.12	·1112					
21. 8	41. 0	23.24	·1110					
	(†)	23.39	·1111					
22. 52	43.10	(†)						
23. 19	44. 5							
23. 23	43.40							
23. 59	45.10							
Dec.15		Dec.15		Dec.15		Dec.15		
0. 0	20.45.10	(†)		0. 0	·03794	1. 0	50·0	51·6
0. 7	45.40	0.37	·1112	2.42	·03666	3. 0	50·7	52·3
0. 15	44.45	0.59	·1115	5.25:	·03483	Max.	52·1	53·0
0. 39	43.55	1.22	·1115	8. 6	·03426	9. 0	51·2	52·0
0. 56	44.35	1.39	·1114	11.17	·03406	Min.	49·0	48·9
1. 37	44.20	2.37	·1118	13.49	·03423	18.45	49·9	51·0
1. 57	43. 0	2.46	·1117	21.51:	·03540	21. 0	49·9	51·0
2. 37	44. 0	3.56	·1117	23.59	·03485	22. 0	50·0	51·4
	***	4.22	·1115			23. 0	50·5	52·0
5. 42	42. 0	4.36	·1117					
6. 23	42.35	5. 0	·1116					
6. 39	41.50	5.22	·1118					
7. 2	41.35	5.38	·1115					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Of V.F. Magnet
Dec. 15	° ′ ″	Dec. 15					°	°
7. 20	20. 38. 40	5. 45	·1117					
7. 28	34. 35	6. 11	·1114					
7. 42	32. 15	6. 44	·1112					
7. 50	33. 50	6. 53	·1114					
7. 59	32. 15	7. 26	·1111					
8. 19	36. 35	7. 48	·1122					
8. 31	37. 35	8. 8	·1120					
8. 47	37. 5	8. 26	·1121					
8. 53	37. 45	8. 42	·1113					
9. 3	36. 30	9. 0	·1110					
9. 31	38. 50	9. 21	·1110					
10. 16	39. 25	9. 40	·1105					
10. 31	40. 10	9. 49	·1108					
10. 48	39. 45	10. 13	·1108					
11. 12	40. 40	10. 28	·1113					
11. 35	38. 35	10. 35	·1112					
12. 53	41. 55	10. 52	·1113					
13. 6	43. 35	10. 59	·1115					
13. 27	43. 55	11. 14	·1112					
14. 2	41. 0	11. 25	·1113					
14. 30	40. 50	11. 38	·1112					
15. 7	42. 10	11. 59	·1115					
15. 33	41. 35	12. 39	·1114					
16. 12	41. 35	13. 25	·1123					
17. 6	42. 35	14. 15	·1117					
18. 29	42. 50	14. 39	·1116					
20. 56	41. 5	17. 39	·1122					
***		18. 46	·1120					
22. 48	43. 45	19. 31	·1122					
22. 56	44. 35	19. 43	·1121					
23. 3	43. 55	20. 13	·1121					
23. 27	45. 20	20. 22	·1119					
23. 45	44. 35	21. 8	·1115					
23. 59	44. 30	21. 46	·1114					
		22. 31	·1110					
		23. 8	·1110					
		23. 33	·1114					
		23. 44	·1112					
		23. 59	·1113					
Dec. 16		Dec. 16		Dec. 16		Dec. 16		
0. 0	20. 44. 30	0. 0	·1113	0. 0	·03485	0. 0	51 ·0	52 ·5
1. 16	44. 50	0. 33	·1113	2. 23	·03324	1. 0	51 ·5	53 ·0
3. 57	41. 25	0. 47	·1115	5. 8	·03290	3. 0	52 ·2	53 ·7
4. 53	41. 15	1. 17	·1117	5. 8	·03482	Max.	52 ·2	53 ·7
5. 23	41. 40	1. 56	·1117	10. 8:	·03608	6. 0	52 ·0	53 ·0
8. 43	40. 25	2. 9	·1116	12. 58	·03862	9. 0	50 ·5	52 ·0
***		2. 43	·1116	16. 47	·04244	12. 0	48 ·4	50 ·0
12. 29	40. 35	3. 32	·1118	22. 22	·04285	Min.	44 ·8	44 ·2
12. 38	41. 35	7. 4	·1120	23. 59	·04148	19. 0	45 ·2	46 ·0
12. 52	40. 20	7. 46	·1118			21. 0	45 ·3	47 ·0
14. 29	42. 0	8. 14	·1119			22. 0	45 ·8	47 ·2
14. 58	41. 15	8. 46	·1118			23. 0	46 ·8	48 ·2
16. 13	42. 5	9. 29	·1118					
18. 19	42. 10	9. 57	·1120					
19. 0	41. 30	10. 9	·1119					
19. 34	41. 30	10. 40	·1120					
20. 48	40. 40	10. 58	·1122					

Right panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers — Of H.F. Magnet	Of V.F. Magnet
Dec. 16	° ′ ″	Dec. 16					°	°
23. 41	20. 43. 20	11. 16	·1120					
23. 50	44. 15	12. 15	·1121					
23. 59	43. 30	12. 30	·1125					
		12. 45	·1122					
		13. 24	·1122					
		14. 30	·1124					
		14. 53	·1124					
		17. 8	·1127					
		19. 15	·1127					
		20. 55	·1124					
		21. 13	·1127					
		23. 20	·1118					
		23. 59	·1119					
Dec. 17		Dec. 17		Dec. 17		Dec. 17	Dec. 17	
0. 0	20. 43. 30	0. 0	·1119	0. 0	·04148	0. 0	47 ·5	49 ·1
1. 8	44. 10	1. 19	·1121	6. 38:	·03597	1. 0	48 ·4	50 ·1
4. 39	41. 5	3. 12	·1122	11. 12	·03690	3. 0	49 ·9	51 ·2
6. 45	41. 40	4. 43	·1124	15. 43:	·03863	Max.	51 ·3	51 ·5
7. 32	43. 0	5. 16	·1126	19. 0	·04138	9. 0	48 ·9	50 ·3
7. 52	42. 10	6. 38	·1127	19. 38	·04168	18. 0	44 ·8	46 ·2
8. 8	42. 55	7. 18	·1126	21. 31	·04326	Min.	42 ·0	41 ·3
8. 16	42. 0	7. 34	·1123		(†)	21. 0	43 ·0	45 ·4
8. 28	42. 45	7. 50	·1124					
8. 38	41. 35	8. 8	·1121					
8. 58	42. 0	8. 19	·1125					
9. 25	41. 15	8. 39	·1115					
9. 31	42. 10	9. 6	·1118					
9. 59	40. 0	9. 24	·1117					
10. 2	40. 20	9. 38	·1122					
10. 35	37. 55	10. 0	·1111					
11. 2	39. 30	10. 24	·1116					
11. 52	38. 30	10. 47	·1116					
12. 18	39. 25	11. 28	·1121					
12. 27	40. 20	11. 40	·1120					
12. 52	39. 30	12. 28	·1121					
13. 15	41. 0	12. 42	·1118					
14. 0	40. 20	13. 28	·1123					
14. 59	42. 5	13. 41	·1121					
15. 11	41. 15	14. 0	·1123					
15. 46	41. 55	14. 13	·1123					
15. 59	41. 25	14. 44	·1126					
16. 52	41. 25	14. 55	·1125					
17. 15	39. 5	15. 37	·1126					
17. 33	39. 50	15. 46	·1128					
17. 56	40. 0	16. 3	·1127					
18. 29	43. 15	16. 43	·1129					
18. 42	43. 50	16. 57	·1131					
18. 52	43. 30	17. 17	·1129					
19. 4	41. 45	17. 42	·1131					
19. 30	43. 25	18. 5	·1128					
19. 52	40. 40	18. 16	·1133					
20. 1	43. 10	18. 30	·1130					
20. 10	42. 20	19. 16	·1148					
20. 25	44. 0	19. 43	·1134					
20. 43	43. 15	20. 23	·1134					
20. 52	43. 50	20. 53	·1133					
21. 2	42. 40	21. 8	·1132					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

December 17. The photographic trace for the Vertical Force Magnet was off the sheet in the direction of increasing force from 21ʰ. 31ᵐ. till 1ʰ. 41ᵐ. on December 18.

Left panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet.	Of V.F. Magnet.
Dec. 17		Dec. 17						
h m	o ′ ″	h m		h m		h m	o	o
21.12	20.43.15	21.20	·1127					
21.34	39.35	21.31	·1129					
21.45	43.10	21.45	·1127					
22. 0	40.30	21.54	·1129					
22.13	44. 5	23. 6	·1124					
22.40	45.15	(†)						
22.54	44.25							
23. 0	45.35							
23.22	46. 5							
23.30	45.35							
23.48	47. 5							
23.56	46. 5							
23.59	47.25							
Dec. 18		Dec. 18		Dec. 18		Dec. 18		
0. 0	20.47.25	(†)		(†)		1. 0	45·0	47·0
0.17	46.30	0. 8	·1118	1. 0	·04325*	3. 0	47·0	49·0
***		0.15	·1116	1.41	·04252	Max.	49·2	50·4
1. 7	49. 0	1. 1	·1124	2.51	·04175	9. 0	46·2	47·5
1.28	46.15	1.20	·1112	6.59:	·03824	18. 0	44·2	46·0
2. 6	44.30	1.38	·1111	9.31	·03910	Min.	43·9	43·5
2.32	45.20	2. 1	·1116	9.43	·03890	21. 0	44·8	46·1
2.50	46.35	2.56	·1122	10.15	·03937			
3.18	46.10	3.22	·1117	10.51	·03937			
4.21	43. 5	3.51	·1120	15.45	·04108			
5.15	45. 0	4. 4	·1123	19. 3	·04165			
5.49	43.30	4.49	·1123	22. 1	·04155			
6. 0	44.10	5.12	·1120	23.59	·04060			
6.27	42.15	6. 0	·1125					
6.45	43.30	6.19	·1123					
7.15	42. 5	7.17	·1126					
***		7.34	·1123					
9.30	40.30	7.59	·1128					
9.37	41. 5	8.34	·1126					
9.57	27.10	8.44	·1128					
10. 9	30.35	9.14	·1124					
10.38	38.30	9.30	·1121					
10.58	35.30	9.42	·1111					
11.28	42. 0	10.17	·1123					
11.41	42. 0	10.28	·1124					
11.52	40.25	10.49	·1116					
12. 2	40.25	11.28	·1126					
12.21	39.10	12.10	·1125					
12.28	39.25	12.33	·1120					
12.37	39. 0	13. 8	·1120					
13.11	40. 5	13.27	·1127					
13.39	42.35	13.42	·1124					
14. 4	37.30	14. 0	·1127					
14.53	40.55	15.22	·1121					
15. 0	39. 5	15.37	·1122					
15.12	38.40	15.56	·1118					
15.23	36.25	16.13	·1123					
15.31	36. 0	16.21	·1122					
15.43	37.35	16.41	·1126					
15.48	40.55	17. 2	·1124					
16. 3	40.30	18.37	·1123					
16.16	42.30	19. 3	·1124					
16.37	40.20	19.45	·1123					

Right panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet.	Of V.F. Magnet.
Dec. 18		Dec. 18						
h m	o ′ ″	h m		h m		h m	o	o
16.52	20.41.10	21. 0	·1124					
17. 8	40.10	21.30	·1123					
17.27	41.10	21.43	·1126					
17.55	40. 0	22.10	·1122					
***		23.27	·1117					
19.37	41. 0	23.37	·1120					
***		23.43	·1117					
20.58	40. 0	23.59	·1118					
21.32	40.20							
21.42	42. 0							
21.49	39.35							
21.52	41.50							
22. 0	40.25							
22. 7	42.25							
22.15	41.30							
***								
23. 6	42.45							
23.33	45.45							
23.43	44.10							
23.59	45.25							
Dec. 19		Dec. 19		Dec. 19		Dec. 19		
0. 0	20.45.25	0. 0	·1118	0. 0	·04060	1. 0	47·6	49·0
0.33	45.55	0.28	·1120	1.45	·03895	3. 0	49·3	50·7
0.57	43.15	0.56	·1116	4.23:	·03500	Max.	51·0	52·0
1.24	45.25	1.28:	·1121	7.10	·03333	9. 0	50·0	51·0
1.56	44.40	2. 5	·1113	11.27	·03338	Min.	45·6	45·3
2.11	43.40	2.57	·1123	15.41	·03472	22. 0	46·6	48·0
3. 0	42.35	3.52	·1124	20. 0:	·03713			
3.37	43. 5	4.36	·1122	23.59	·03820			
4.27	41.20	5. 4	·1124					
4.43	41.45	6.13	·1122					
4.55	41. 5	6.48	·1127					
6.32	41.10	7.11	·1121					
7. 0	43. 0	7.55	·1123					
7.42	40.45	8.46	·1122					
8.17	40.45	9. 2	·1124					
9.55	41.35	9.30	·1122					
10.13	40.50	9.45	·1124					
10.29	41.35	10. 8	·1123					
10.49	40.50	10.16	·1125					
11. 4	41. 0	10.51	·1124					
11.17	40. 5	11.14	·1126					
11.41	39.30	11.54	·1118					
12. 1	39.45	12. 8	·1125					
12.11	38.10	12.28	·1119					
12.23	40.10	12.39	·1122					
12.46	37.10	12.54	·1131					
12.54	39. 5	13.20	·1127					
13. 0	37.25	13.39	·1128					
13.25	40.15	14. 4	·1124					
14.30	34.25	14.19	·1123					
14.46	39.45	14.39	·1116					
15. 1	41.10	14.49	·1122					
15.15	39.30	15. 1	·1111					
15.21	40.25	15.21	·1123					
15.28	39. 0	15.24	·1121					
15.34	39.45	15.31	·1123					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Left half of page:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
h m	o ′ ″	h m		h m		h m	o	o
Dec. 19		**Dec. 19**						
16. 0	20.37.15	15.38	·1121					
16. 9	38. 0	15.54	·1117					
16.16	37.15	16.28	·1118					
16.31	39. 5	16.53	·1123					
17.13	38.50	17.32	·1120					
17.46	41.50	17.54	·1119					
18.32	41.50	18.38	·1124					
18.38	40.55	18.45	·1122					
***		19.16	·1123					
19.11	42.30	19.41	·1122					
19.19	42. 0	20.22	·1112					
19.52	41.35	20.47	·1111					
19.58	42.15	20.59	·1115					
20.11	42.20	21.13	·1112					
20.23	45.10	21.37	·1117					
20.33	44.50	21.45	·1118					
20.53	46. 5	21.54	·1121					
21. 6	44.10	22. 1	·1118					
21.17	43.25	22.43	·1119					
21.28	42.20		(†)					
21.45	42.35	23.38	·1118					
21.57	41. 5	23.59	·1117					
23.21	42.55							
23.29	45.35							
23.41	46.30							
23.59	43.20							
Dec. 20		**Dec. 20**		**Dec. 20**		**Dec. 20**		
0. 0	20.43.20	0. 0	·1117	0. 0	·03820	0.30	46·5	47·7
0.17	47.50	0.24	·1116	3.12	·03844	Max.	46·5	48·0
0.30	45.25	1.17	·1122	5.19	·03817	8. 5	46·5	48·0
0.58	45.25	1.37	·1122	5.46	·03855	18. 0	45·1	46·8
1.15	48.35	1.57	·1118	6.19	·03843	Min.	44·6	44·3
1.28	48.35	2.23	·1118	9.12	·03860	21. 0	45·1	46·8
1.46	46. 5	2.41	·1122	11.38	·03843			
2. 7	45.10	3. 6	·1116	13.48	·03866			
2.15	43.55	4. 7	·1126	13.56	·03900			
2.43	46. 0	4.23	·1125	15.20	·03900			
3. 0	43.50	4.52	·1130	17.29	·03997			
3.13	44.30	5.21	·1103	19.18:	·04022			
3.46	43.10	5.52	·1134	23. 8	·03996			
4. 6	43.50	6. 3	·1131	23.59	·03903			
4.39	43. 0	6.22	·1122					
4.49	43.55	6.52	·1122					
5. 1	42.25	7. 6	·1129					
5.17	32.40	7.25	·1117					
5.26	32.30	7.35	·1123					
5.41	35.25	8. 7	·1104					
5.48	39. 5	8.25	·1111					
6.16	40.30	8.37	·1106					
6.32	43.15	8.42	·1110					
6.55	41.15	8.50	·1108					
7.11	42.10	9. 0	·1119					
7.27	42.10	9. 8	·1120					
7.38	43.25	9.11	·1123					
7.48	41.25	9.24	·1114					
8. 8	33.25	9.30	·1118					
8.30	32. 0	9.52	·1110					

Right half of page:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
h m	o ′ ″	h m		h m		h m	o	o
Dec. 20		**Dec. 20**						
8.47	20.26.50	10. 7	·1118					
8.54	26.55	10.15	·1112					
9.11	25.25	10.28	·1115					
9.19	25.30	10.43	·1109					
9.37	31. 5	10.56	·1115					
9.50	31.25	11. 9	·1109					
10. 3	36.40	11.26	·1126					
10.33	35.30	12. 8	·1111					
10.41	37.50	12.23	·1115					
10.48	37. 5	12.25	·1117					
11. 0	39.40	13. 5	·1120					
11.36	33. 5	13.12	·1118					
11.56	32.40	13.38	·1116					
12.23	36.15	13.51	·1109					
12.36	39.55	13.59	·1116					
12.54	37.45	14.17	·1110					
13. 3	39.15	14.31	·1120					
13.31	37.50	14.41	·1119					
13.42	39.20	14.52	·1126					
14. 4	37.55	15. 1	·1128					
14.17	45. 0	15.15	·1122					
14.36	44.30	15.39	·1121					
14.47	46.35	15.50	·1123					
14.58	45.35	16.24	·1117					
15.12	48.15		***					
15.30	42.25	17. 9	·1120					
15.38	40.50	17.30	·1124					
15.46	40.30	17.43	·1119					
16. 0	38.55	17.45	·1124					
16.21	41. 0	17.52	·1122					
16.24	42.25	18. 3	·1126					
16.41	41.55	18.27	·1123					
16.51	43. 0	18.48	·1126					
16.58	41.45	19.15	·1119					
17.14	42.30	19.34	·1120					
17.23	40.10	19.43	·1122					
17.29	42.10	19.52	·1120					
17.34	41.30	20.13	·1120					
17.43	42.25	20.22	·1118					
17.52	41. 5	20.49	·1118					
***		21. 2	·1117					
18.39	42.10	21.21	·1120					
19. 0	40.45	21.31	·1113					
***			***					
19.46	42.10	22. 0	·1115					
19.54	41.15	22.35	·1114					
20.28	40.30		(†)					
20.32	41.25							
21. 0	40.20							
21.23	40.45							
21.39	39.10							
21.57	41.15							
22. 4	40. 5							
22.18	41.45							
22.23	41. 0							
22.31	42. 5							
22.45	41.30							
22.53	43.20							

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left panel:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Dec.2	o ' "	h m		h m		h m	o	o
23. 0	20.42.15							
23.32	45.25							
23.52	45. 5							
23.59	45.35							
Dec.21		Dec.21		Dec.21		Dec.21		
0. 0	20.45.35		(†)	0. 0	·03903	1. 0	48·7	50·3
0. 16	46.50	0.38	·1109	4.45	·03292	3. 0	50·8	52·0
0.36	45.10	0.55	·1110	5.36	·03283	Max.	52·2	55·0
0.43	45.50	1.12	·1116	10.42	·03338	9. 0	50·0	51·0
0.59	44.50	1.53	·1117	17.15:	·03458	Min.	48·0	47·7
1.42	44.10	2.17	·1114	23.59	·03364	21. 0	49·0	50·4
2.10	45.20	2.46	·1113					
2.30	44. 0	3. 8	·1118					
2.53	40.55	3.32	·1112					
3.14	43. 5	3.58	·1121					
3.38	37.45	5. 0	·1116					
3.48	39.15	5.13	·1118					
3.56	38.45	5.30	·1116					
4.13	41.20	5.45	·1117					
4.22	41.15	6. 0	·1114					
4.30	42.45	6.48	·1106					
4.45	41.20	7. 0	·1121					
4.57	43. 0	7.13	·1120					
5. 7	42.20	7.22	·1128					
5.23	42.50	7.44	·1116					
5.42	41.50	7.57	·1118					
6.22	41.25	8.32	·1110					
6.42	38.45	9. 1	·1129					
6.57	32. 5	9.23	·1132					
7. 9	35. 5	9.32	·1132					
7.16	34. 0	9.58	·1116					
7.36	39.45	10.45	·1117					
7.56	39.45	10.57	·1118					
8.15	40.45	11.24	·1118					
8.38	39.40	11.49	·1120					
8.54	37.50	13.38	·1120					
9. 3	39.35	14.51	·1117					
9.15	31.55	15.11	·1120					
9.24	34.30	15.27	·1117					
9.30	36. 0	17.13	·1122					
9.56	39.20	18.16	·1121					
10. 2	38.35	18.46	·1123					
10.32	40.30	19. 2	·1121					
10.52	39. 0	19.32	·1123					
10.57	38.30	20. 3	·1119					
11.39	41. 5	20.22	·1119					
12.15	40.55	20.55	·1112					
13.30	42.55	21. 9	·1111					
13.39	42.20	21.28	·1115					
14.24	42.45	21.44	·1113					
14.33	43.10	21.54	·1115					
14.43	45. 0	23.53	·1114					
15. 7	42.35		(†)					
15.21	43.30							
15.45	42.35							
16. 0	43.40							
16.13	43. 5							

Right panel:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Dec.21	o ' "	h m		h m		h m	o	o
16. 28	20.43. 5							
16. 47	41.30							
18. 10	41.25							
18. 23	42.50							
18. 45	42. 5 ***							
19. 46	41.30							
20. 28	42.25							
20. 43	41.30							
21. 7	42.25							
21. 58	42. 0							
22. 15	42.25							
22. 28	42. 0							
23. 8	44.15							
23. 20	47. 0							
23. 41	47.25							
23. 59	46.30							
Dec.22		Dec.22		Dec.22		Dec.22		
0. 0	20.46.30	0. 0	·1112	0. 0	·03364	1. 0	49·8	51·8
1. 13	46.30	0.32	·1114	0.24	·03342	3. 0	50·4	52·5
1. 35	45.30	0.40	·1112	Max.	(†)	Max.	51·0	52·5
2. 15	45.55	1.27	·1114		·03523	9. 0	46·3	48·0
2. 28	44. 0	1.39	·1116	1. 7	{·03455	18. 5	38·5	40·2
2. 38	43.55	2. 0	·1110	2.53	{·03490	Min.	37·2	36·4
3. 7	45. 0	2.13	·1111	4.15:	·03435	21. 0	37·9	39·9
3. 49	44.20	2.23	·1104	6.39	{·03556	22. 0	38·8	40·2
4. 26	44.20	3. 0	·1105		{·03605	23. 0	39·1	41·0
4. 53	42.35	3.12	·1103	12.30	·04310			
5. 40	42. 0	3.52	·1109		(†)			
5. 52	36.20	4.27	·1106	21. 0	·04655			
5. 58	39.30	4.43	·1110					
	***	5. 9	·1107					
6. 7	36. 55	5.43	·1110					
6. 11	37.45	5.58	·1131					
6. 15	37.10	6. 7	·1128					
6. 19	38.35	6.14	·1133					
6. 29	36.20	6.24	·1124					
6. 43	39. 0	6.35	·1127					
6. 53	38. 0	7.17	·1109					
6. 59	39.30	7.30	·1109					
7. 16	38.30	7.42	·1105					
7. 30	39.25	7.54	·1110					
7. 37	38.15	8.12	·1108					
7. 43	38.45	8.19	·1111					
8. 21	34.30	8.43	·1102					
8. 34	35.30	9.15	·1113					
8. 44	37.55	9.44	·1117					
9. 0	35.30	9.57	·1112					
9. 28	34.10	10.38	·1116					
10. 13	38.40	11. 8	·1119					
10. 22	38. 0	11.15	·1124					
10. 36	39. 0	11.26	·1122					
11. 8	38.10	11.38	·1128					
11. 16	39.35	11.54	·1123					
11. 37	40. 0	12.35	·1127					
11. 55	43.10	12.57	·1124					
12. 12	40.30	13.15	·1126					

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

December 22. The Vertical Force Photographic Trace was off the sheet in the direction of increasing force from 12h. 30m. till 1h. 30m. on December 23.

Left half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Dec. 22		Dec. 22						
h m	o ′ ″	m		h m		h m	o	o
13.43	20.41.10	13.30	.1125					
13.48	42.30	14.39	.1125					
14. 0	41.45	17.31	.1131					
***		19.45	.1130					
15.57	42.45	20. 2	.1129					
17.52	41.40	20.58	.1128					
18.52	41.50	21.30	.1128					
19. 7	42.15	21.57	.1127					
19.24	41.35	22.24	.1128					
21.12	40.35	22.55	.1126					
21.37	40.40	23.56	.1127					
21.48	40.15	23.59	.1127					
22.36	42.50							
23.18	43.35							
23.32	44.50							
23.59	45. 5							
Dec. 23		Dec. 23		Dec. 23		Dec. 23		
0. 0	20.45. 5	0. 0	.1127		(†)	0. 0	40.7	42.4
0.49	44.30	0.35	.1128	1. 0	.04403*	1. 0	42.2	44.0
1.41	45.50	0.51	.1127	1.30	.04310	3. 0	45.8	46.5
2.22	44.50	1.38	.1129	4.28	.03645	6. 0	48.9	50.2
2.36	45.10	2. 2	.1126	5.31	.03463	Max.	51.3	52.2
3. 2	44. 0	2.36	.1128	7. 4	.03433	9. 0	50.2	52.0
3.38	43.15	2.49	.1123	7.45	.03425	12. 0	50.9	52.0
4.24	44. 0	3. 8	.1126	9.55	.03345	Min.	47.3	47.2
4.52	43.10	3.35	.1124	13.42	.03280	21. 5	48.0	50.0
5. 6	41.50	3.48	.1125	15.43	.03300	22. 0	48.0	50.0
5.17	41.45	5. 9	.1112	17. 1	.03317	23. 0	48.3	50.1
5.28	43.20	5.41	.1113	23. 2	.03520			
5.38	42.35	5.53	.1110	23.59	.03481			
5.56	43.20	6. 8	.1109					
6. 3	42.10	6.23	.1114					
6.28	46.25	6.53	.1104					
6.35	45.55	7.18	.1099					
6.42	46.55	7.31	.1104					
7. 0	44.30	7.53	.1099					
7. 8	45. 5	8.22	.1107					
7.21	43. 0	8.48	.1105					
7.33	44.25	9. 5	.1106					
7.45	44.10	9.15	.1111					
7.58	41.30	9.27	.1110					
8.11	40.35	9.43	.1115					
8.18	41.30	9.53	.1116					
9. 1	39. 5	10. 2	.1113					
9.23	39.25	10.12	.1117					
9.39	38.15	10.24	.1108					
9.45	39.10	10.32	.1110					
10. 7	33.10	10.52	.1105					
10.21	33.10	11. 6	.1103					
10.33	34.50	11.27	.1103					
10.47	34.30	11.38	.1107					
11. 7	32.25	11.52	.1107					
11.16	34.45	12. 7	.1114					
11.26	34.50	12.15	.1110					
11.43	36.35	12.22	.1112					
11.50	36. 5	12.43	.1107					
12. 7	36. 0	13.37	.1114					

Right half

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Dec. 23		Dec. 23						
h m	o ′ ″	h m		h m		h m	o	o
12.14	20.34.30	14.17	.1110					
12.22	35.30	14.28	.1111					
12.31	35. 5	14.49	.1110					
13.15	40.25	15.21	.1111					
13.34	40.45	15.39	.1128					
14.19	39. 5	15.52	.1129					
14.31	40.10	16.12	.1126					
14.54	39.20	16.32	.1126					
15.27	40.45	17.26	.1113					
15.53	38.30	17.39	.1112					
16. 4	39.25	17.44	.1109					
16.23	37.55	18.15	.1124					
16.52	38.25	18.42	.1120					
17. 2	39.20	19. 0	.1120					
17.16	39.30	19.18	.1123					
17.28	38.45	19.30	.1122					
17.37	40.10	19.56	.1122					
17.44	41.45	20.17	.1118					
17.52	40. 5	20.26	.1121					
18. 1	41.25	21. 7	.1113					
18.18	40. 5	21.11	.1117					
19.10	44.35	21.32	.1112					
19.30	43.15	21.51	.1110					
20. 7	43.25	22.29	.1108					
20.16	42.30	22.38	.1106					
20.29	42.45	23. 8	.1104					
20.44	40.55	23.18	.1106					
20.50	41.35	23.44	.1104					
21. 3	40.30		(†)					
21.30	42.15							
21.52	42. 0							
22.18	42.45							
22.29	44.10							
22.37	42.25							
22.42	44. 0							
22.50	43.10							
22.58	43.55							
23. 3	43.10							
23.22	45.45							
23.31	45.30							
23.59	48.10							
Dec. 24		Dec. 24		Dec. 24		Dec. 24		
0. 0	20.48.10		(†)	0. 0	.03481	0. 0	49.0	51.0
0.11	47.20	0.15	.1104	2.42	.03318	1. 0	50.0	51.8
0.41	48.15	0.24	.1108	3. 0	.03325	3. 0	51.8	53.6
1. 1	46. 5	0.57	.1095	6. 7	.03220	Max.	54.1	54.9
1.40	48.55	1.37	.1097	10.43	.03290	9. 0	51.4	53.0
2. 2	47.30	2.15	.1100	22.40	.03630	Min.	48.0	47.8
2.17	48.40	2.29	.1096	23.59	.03650	22.50	48.4	52.0
2.32	47.30	3.17	.1102					
2.47	47.30	3.26	.1101					
3.10	45.40	3.55	.1108					
3.53	43. 5	4. 0	.1106					
4. 7	43. 5	4.23	.1110					
4.37	41.25	5.20	.1110					
5. 2	41. 0	6.17	.1114					
5.32	39.20	8. 8	.1112					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force H.F. uncorrected	Greenwich Mean Solar Time	Vertical Force V.F. uncorrected	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Dec. 24		Dec. 24						
5. 56	20. 40. 10	9. 30	·1111					
6. 14	39. 40	9. 47	·1114					
7. 6	40. 25	10. 1	·1112					
8. 10	40. 5	10. 57	·1114					
9. 30	40. 5	11. 8	·1113					
10. 0	38. 50	15. 39	·1120					
11. 53	41. 0	16. 23	·1122					
14. 53	42. 45	17. 30	·1121					
16. 30	41. 35	17. 54	·1123					
17. 14	42. 30	18. 28	·1120					
17. 51	41. 25	19. 29	·1120					
20. 26	41. 15	20. 11	·1122					
21. 23	40. 5	22. 13	·1114					
22. 24	41. 0	22. 45	·1113					
23. 59	43. 25	23. 24	·1115					
		23. 59	·1113					
Dec. 25		Dec. 25		Dec. 25		Dec. 25		
0. 0	20. 43. 25	0. 0	·1113	0. 0	·03650	Max.	50 ·0	51 ·8
0. 26	43. 35	1. 8	·1116	2. 15	·03609	8. 5	48 ·5	51 ·8
1. 0	43. 45	1. 58	·1118	6. 20:	·03460	Min.	46 ·4	46 ·2
2. 20	43. 0	2. 10	·1117	8. 43	·03458	21. 0	47 ·3	49 ·0
3. 32	42. 35	3. 4	·1118	9. 8	·03490			
5. 8	41. 5	3. 52	·1117	12. 38	·03624			
7. 1	41. 0	6. 39	·1121	17. 20:	·03850			
8. 56	40. 10	7. 39	·1120	23. 59	·03781			
11. 1	40. 10	8. 25	·1119					
14. 58	42. 5	10. 2	·1120					
17. 9	41. 20	11. 48	·1122					
17. 17	42. 0	13. 26	·1124					
17. 27	41. 15	17. 6	·1124					
19. 23	41. 10	17. 22	·1129					
19. 52	41. 35	17. 46	·1128					
21. 1	40. 20	18. 23	·1129					
21. 26	41. 5	18. 38	·1132					
21. 58	40. 25	19. 41	·1130					
22. 28	40. 35	19. 53	·1130					
23. 15	42. 40	20. 19	·1129					
23. 43	42. 45	21. 14	·1127					
23. 59	43. 35	21. 53	·1123					
		22. 27	·1120					
		22. 44	·1124					
		22. 58	·1123					
		23. 12	·1115					
		23. 24	·1121					
		23. 45	·1120					
		23. 59	·1120					
Dec. 26		Dec. 26		Dec. 26		Dec. 26		
0. 0	20. 43. 35	0. 0	·1120	0. 0	·03781	1. 0	49 ·8	51 ·5
0. 49	44. 15	0. 22	·1119	1. 54	·03604	3. 0	52 ·0	53 ·7
1. 10	45. 30		(†)	4. 8	·03305	Max.	54 ·1	55 ·0
1. 45	44. 45	1. 0	·1115*	5. 39	·03199	9. 0	53 ·5	54 ·3
2. 19	47. 5	1. 7	·1112	7. 6	·03197	Min.	49 ·6	49 ·4
3. 16	45. 30	1. 26	·1109	9. 58	·03177	22. 43	51 ·0	52 ·4
4. 12	45. 30	1. 58	·1110	16. 11	·03300			
4. 33	44. 20	2. 32	·1108	17. 58	·03282			
4. 58	45. 5	2. 57	·1112	23. 59	·03394			
	***							

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force H.F. uncorrected	Greenwich Mean Solar Time	Vertical Force V.F. uncorrected	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Dec. 26		Dec. 26						
6. 21	20. 43. 40	3. 45	·1112					
7. 0	38. 50	4. 7	·1108					
7. 32:	42. 0	5. 22	·1108					
7. 57	41. 20	5. 55	·1109					
8. 13	41. 35	6. 30	·1105					
9. 55	39. 50	6. 46	·1112					
12. 15	40. 55	7. 57	·1114					
12. 50	40. 15	8. 11	·1113					
13. 15	41. 0	11. 10	·1115					
13. 58	35. 35	12. 2	·1115					
14. 43	38. 30	12. 13	·1114					
14. 48	37. 20	12. 28	·1113					
14. 58	38. 20	12. 39	·1112					
15. 7	37. 30	13. 8	·1117					
15. 15	38. 25	13. 39	·1118					
15. 31	37. 0	14. 10	·1111					
15. 56	40. 55	14. 32	·1112					
16. 13	39. 30	14. 50	·1110					
16. 29	42. 55	15. 13	·1114					
16. 36	42. 30	15. 24	·1112					
17. 18	51. 15	15. 32	·1118					
17. 32	48. 40	15. 54	·1118					
17. 48	50. 0	16. 15	·1111					
17. 57	49. 40	16. 43	·1119					
18. 3	50. 20	16. 56	·1116					
18. 13	49. 15	17. 12	·1121					
18. 33	47. 35	17. 34	·1115					
19. 0	43. 5	17. 46	·1119					
19. 13	43. 25	17. 58	·1116					
19. 30	42. 20	18. 27	·1127					
19. 32	43. 50	18. 53	·1126					
19. 45	41. 30	19. 26	·1113					
19. 55	43. 20	19. 54	·1112					
20. 13	42. 25	20. 0	·1115					
	***	20. 9	·1110					
20. 39	44. 35	20. 18	·1116					
21. 18	43. 55	20. 29	·1116					
21. 39	46. 50	20. 54	·1123					
21. 55	47. 15	21. 52	·1098					
22. 26	43. 30	22. 8	·1097					
22. 38	43. 0	22. 25	·1101					
22. 43	44. 5	22. 37	·1099					
23. 1	44. 15		(†)					
23. 16	50. 25	23. 26	·1105					
23. 42	48. 15	23. 43	·1104					
23. 45	49. 5	23. 52	·1105					
23. 50	48. 50	23. 59	·1103					
23. 59	48. 50							
Dec. 27		Dec. 27		Dec. 27		Dec. 27		
0. 0	20. 48. 50	0. 0	·1103	0. 0	·03394	1. 0	50 ·5	52 ·0
0. 6	50. 0	0. 15	·1109	1. 43	·03480	Max.	50 ·5	52 ·0
0. 13	48. 55		(†)	5. 0:	·03626	9. 0	46 ·2	47 ·0
0. 28	52. 35	1. 2	·1099	9. 24	·04069	18. 50	41 ·9	43 ·2
0. 36	49. 55	1. 59	·1108	10. 21	·04120	Min.	40 ·3	39 ·8
0. 43	49. 35	2. 16	·1114	11. 36:	·04140	21. 0	41 ·2	43 ·0
0. 46	52. 15	2. 29	·1109	13. 30	·04293			
0. 52	51. 50	3. 5	·1112	14. 30	·04325			
					(†)			

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner.   The Symbol *** denotes that the magnet has been generally in a state of agitation.   The Symbol (†) denotes that the register has failed between the preceding and following readings.   The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded.   A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

December 27. The photographic spot of light for the Vertical Force Magnet was off the sheet from 14ʰ· 30ᵐ· till 1ʰ· 39ᵐ· on December 28.

Left half:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Dec. 27		Dec. 27		Dec. 27				
h m	o ′ ″	h m		h m		h m	o	o
1. 2	20.59.40	4.45	·1112	21. 0	·04474*			
1.40	45.55	4.56	·1116					
1.56	43.45	5. 7	·1113					
2.13	47.30	5.13	·1117					
2.33	44.25	5.28	·1110					
2.40	45.45	5.44	·1108					
2.49	44. 5	5.57	·1102					
3.20	44. 0	6.24	·1112					
3.28	44.40	6.32	·1111					
3.38	43.35	6.45	·1115					
4.43	42.55	7. 0	·1113					
4.52	43.55	7.11	·1115					
5. 0	43.20	7.39	·1113					
5.12	45.10	7.47	·1114					
5.22	45.10	8.16	·1112					
5.38	46.45	8.39	·1107					
5.58	42.45	9. 8	·1114					
6.27	43.10	9.26	·1111					
6.38	42.30	9.37	·1116					
7.23	42.20	9.52	·1113					
7.56	40.25	10. 8	·1117					
8.13	41. 0	10.22	·1115					
8.37	38.35	10.58	·1118					
9. 8	41.25	12. 4	·1119					
9.53	39.40	12.16	·1116					
10.54	40.20	12.52	·1114					
11.10	41. 5	13.10	·1116					
13.12	41.35	13.22	·1113					
13.28	40.20	13.56	·1114					
13.31	41.35	14. 8	·1112					
14.33	42.35	14.38	·1116					
15. 7	47.20	14.59	·1115					
15.31	47.45	15.27	·1126					
15.39	45.10	15.39	·1124					
15.56	43.30	15.53	·1128					
16. 0	42.10	16. 0	·1128					
16. 8	41.30	16.27	·1134					
16.25	43.25	16.44	·1128					
16.47	41.35	17. 8	·1127					
17. 3	44. 5	17.21	·1128					
17.22	42.15	17.40	·1120					
17.47	45. 5	17.52	·1124					
18. 2	46. 0	18. 3	·1125					
18.12	48.10	18.13	·1123					
18.21	46.25	18.38	·1129					
19. 2	44.20	18.47	·1126					
19.18	45.50	19.22	·1127					
19.41	45.10	19.38	·1126					
19.52	46. 0	19.59	·1129					
20. 0	44.40	20.39	·1119					
20.20	43.35	20.51	·1123					
20.32	41.30	21.23	·1123					
20.52	40.15	21.42	·1118					
20.59	42.10	21.51	·1123					
21. 7	40.25	22. 6	·1122					
21.22	40.25	22.14	·1126					
21.25	42. 0	23. 8	·1118					
21.43	41. 5	23.28	·1106					

Right half:

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Of H.F. Magnet.	Of V.F. Magnet.
Dec. 27		Dec. 27						
h m	o ′ ″	h m		h m		h m	o	o
21.47	20.39.40	23.54	·1107					
22. 0	41.30	23.59	·1109					
22. 9	40. 0							
22.18	43.20							
23. 0	43. 0							
23.29	43.30							
23.50	47.15							
23.59	46.55							
Dec. 28		Dec. 28		Dec. 28		Dec. 28		
0. 0	20.46.55	0. 0	·1109		(†)	1. 0	44· 0	46· 0
0. 7	45.55	0. 8	·1112	1. 0	·04331*	3. 0	45· 2	47· 0
0.29	47.20		(†)	1.39	·04264	Max.	48· 8	50· 0
0.39	46.30	0.57	·1113	2.56	·04160	9. 0	48· 3	50· 0
0.56	47. 5	1.23	·1114	3.23	·04138	Min.	48· 0	48· 2
1.23	45.40	1.35	·1118	6.52:	·03720	18. 0	48· 5	50· 0
1.30	47.10	1.54	·1113	10. 0	·03494	21. 0	49· 0	50· 5
1.52	45.40	2. 9	·1114	11.30	·03397			
2.15	46.10	2.49	·1100	12.51	·03354			
2.30	45.10	3. 0	·1100	18. 1	·03365			
2.36	44. 5	3.23	·1116	22. 7	·03327			
2.40	44.30	3.53	·1117	23.59	·03257			
3. 6	37.30	4.22	·1115					
3.27	42.10	4.41	·1119					
3.44	43.25	5.30	·1118					
3.52	44.55	5.43	·1121					
4. 7	43.30	6. 2	·1113					
4.16	44. 5	6.23	·1114					
4.58	41.35	6.38	·1111					
5.30	42.25	7.45	·1120					
5.39	41.10	7.57	·1117					
5.49	41.30	8.17	·1120					
6.47	38.45	8.30	·1118					
7.52	40.35	8.39	·1119					
8.28	39.30	8.53	·1118					
9. 4	39.15	9. 9	·1121					
9.15	37.50	9.26	·1118					
9.24	38.45	9.47	·1118					
10. 7	38.20	10.13	·1121					
10.30	35. 5	10.40	·1116					
10.50	35.20	11. 8	·1119					
11. 0	34.30	11.40	·1116					
11.13	35. 5	11.47	·1120					
11.28	32.30	11.56	·1118					
12. 3	36.20	12.20	·1125					
12.16	38.55	12.43	·1122					
13. 0	36.15	13.44	·1122					
14.43	41.25	14.27	·1123					
15. 3	41. 5	14.37	·1125					
15.10	42.40	14.43	·1123					
15.18	41.45	15.22	·1123					
15.38	43.35	15.38	·1121					
16.13	42.35	16. 4	·1120					
16.17	43. 5	16.11	·1123					
16.30	41. 0	16.23	·1119					
16.46	42. 5	16.32	·1123					
17.18	40.15	16.40	·1124					
17.58	42.10	16.46	·1121					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Left panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers Of H.F. Magnet	Of V.F. Magnet
Dec. 28 h m	o ′ ″	Dec. 28 h m		h m		h m	o	o
18. 11	20. 41. 30	17. 13	·1128					
18. 48	42. 55	17. 45	·1125					
19. 2	42. 10	18. 23	·1131					
19. 12	42. 55	18. 42	·1131					
19. 53	42. 30	19. 2	·1125					
20. 7	44. 20	19. 17	·1125					
20. 23	44. 0	19. 33	·1121					
21. 7	41. 5	20. 8	·1120					
21. 23	41. 20	20. 26	·1123					
21. 32	40. 0	20. 32	·1120					
21. 37	40. 50	20. 39	·1122					
21. 48	40. 30	20. 52	·1116					
22. 4	43. 25	21. 7	·1115					
22. 18	43. 5	21. 24	·1119					
22. 40	41. 15	21. 32	·1118					
23. 50	42. 10	21. 43	·1122					
23. 59	43. 5	21. 51	·1119					
		22. 12	·1119					
		22. 43	·1113					
		23. 7	·1114					
		23. 30	·1112					
		23. 59	·1115					
Dec. 29		Dec. 29		Dec. 29		Dec. 29		
0. 0	20. 43. 5	0. 0	·1115	0. 0	·03257	1. 0	51 ·8	53 ·0
0. 23	45. 5	0. 38	·1113	3. 48 {·03235		3. 0	52 ·9	54 ·3
0. 30	44. 25	0. 54	·1104	{·03360		Max.	54 ·0	55 ·0
0. 37	45. 50	1. 30	·1094	6. 22	·03233	9. 0	54 ·0	55 ·0
0. 55	44. 10	1. 57	·1105	7. 59	·03244	18. 0	49 ·4	51 ·1
1. 13	45. 45	2. 8	·1104	9. 45	·03240	Min.	48 ·1	48 ·1
1. 44	45. 10	2. 15	·1106	11. 0	·03217	21. 0	49 ·0	50 ·8
2. 0	46. 35	2. 45	·1098	14. 50	·03366	22. 0	49 ·0	51 ·0
2. 27	45. 35	3. 11	·1101	22. 23:	·03720	23. 0	49 ·4	51 ·2
2. 37	46. 0	3. 23	·1099	23. 59	·03665			
3. 2	44. 25	3. 55	·1103					
3. 10	45. 10	4. 8	·1102					
3. 23	43. 35	4. 49	·1110					
3. 49	42. 15	5. 25	·1105					
4. 23	43. 15	6. 0	·1112					
4. 36	41. 55	6. 42	·1104					
4. 46	43. 40	7. 12	·1100					
4. 57	42. 55	7. 39	·1089					
5. 13	45. 10	7. 53	·1088					
5. 45	42. 20	8. 0	·1096					
6. 0	41. 35	8. 15	·1103					
6. 22	42. 15	8. 30	·1099					
6. 53	39. 10	8. 51	·1106					
7. 11	40. 55	9. 0	·1104					
7. 30	35. 20	9. 13	·1109					
7. 46	35. 25	9. 35	·1103					
7. 56	33. 15	9. 40	·1106					
8. 23	39. 10	9. 54	·1098					
8. 41	37. 15	10. 18	·1122					
8. 55	37. 35	10. 30	·1126					
9. 9	34. 30	11. 0	·1099					
9. 16	36. 25	11. 23	·1109					
9. 29	36. 30	12. 10	·1109					
9. 37	34. 35	12. 53	·1112					

Right panel

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Readings of Thermometers Of H.F. Magnet	Of V.F. Magnet
Dec. 29 h m	o ′ ″	Dec. 29 h m		h m		h m	o	o
9. 46	20. 39. 20	13. 2	·1116					
10. 15	38. 35	13. 10	·1115					
10. 22	33. 50	13. 24	·1117					
10. 31	33. 25	13. 38	·1114					
10. 48	35. 5	13. 51	·1117					
11. 2	33. 0	14. 2	·1116					
11. 9	33. 25	14. 27	·1121					
11. 16	32. 50	14. 43	·1122					
12. 16	39. 15	15. 7	·1116					
12. 37	36. 35	15. 17	·1117					
13. 7	40. 50	15. 52	·1114					
13. 26	40. 35	16. 31	·1115					
13. 30	41. 5	16. 57	·1119					
13. 46	40. 0	17. 5	·1123					
14. 8	44. 30	17. 13	·1119					
14. 27	42. 55	17. 35	·1117					
14. 36	43. 25	18. 0	·1118					
14. 53	40. 30	18. 10	·1121					
15. 8	41. 50	18. 38	·1122					
	***	19. 8	·1114					
16. 13	41. 10	19. 38	·1117					
16. 30	42. 5	19. 51	·1115					
16. 42	41. 30	20. 14	·1115					
16. 49	42. 45	20. 32	·1109					
17. 6	40. 30	20. 46	·1110					
17. 13	42. 5	21. 22	·1118					
17. 19	40. 45	22. 14	·1113					
18. 1	42. 45	22. 40	·1112					
18. 12	42. 0	(†)						
18. 41	43. 25							
18. 49	42. 35							
19. 0	43. 25							
19. 20	42. 40							
	***							
20. 24	44. 0							
21. 2	41. 35							
21. 23	43. 10							
21. 32	42. 5							
21. 42	43. 50							
21. 48	43. 5							
21. 57	43. 35							
	(†)							
22. 21	41. 0							
22. 30	41. 30							
22. 39	42. 40							
22. 43	41. 25							
22. 46	42. 50							
22. 55	41. 25							
23. 0	42. 55							
23. 34	43. 0							
23. 45	43. 40							
23. 59	43. 10							
Dec. 30		Dec. 30		Dec. 30		Dec. 30		
0. 0	20. 43. 10	(†)		0. 0	·03665	0. 0	49 ·6	51 ·6
0. 57	43. 35	0. 32	·1115	2. 0	·03606	1. 0	50 ·0	52 ·0
1. 12	42. 50	0. 43	·1117	2. 43	·03598	2. 0	50 ·5	52 ·2
2. 28	43. 30	1. 8	·1114	6. 24:	·03458	3. 0	50 ·9	52 ·4

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

December 30. The photographic spot of light for the Vertical Force Magnet was off the sheet from 19h. 45m. till 2h. 6m. on December 31, and again after 14h. 59m.

Left half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Dec.30		Dec.30		Dec.30		Dec.30		
h m	° ′ ″	h m		h m		h m	°	°
4.48	20.41. 5	2.37	·1117	10.17	·03547	6. 0,	51·0	52·4
5.50	42. 0	2.45	·1120	11.57	·03522	Max.	51·7	52·4
6.28	41.15	3.15	·1118	12.36	·03537	9. 0	50·0	51·7
7.12	41.35	3.30	·1120	12.53	·03602	12. 0	49·8	51·6
7.42	41. 5	3.56	·1119	14. 7	·03703	Min.	42·2	41·7
8.42	40.50	4.21	·1122	18.13	·04298	21. 0	43·0	45·0
9. 1	40. 5	5. 7	·1120	19.45	·04323	22. 0	43·0	44·8
9.23	41. 0	6.55	·1119	(†)		23. 0	43·4	45·0
9.38	40. 5	7. 7	·1120	21. 0	·04389*			
10.27	39.25	7.30	·1118					
11.13	40. 0	8.29	·1118					
11.58	39.40	8.47	·1117					
12 7	40.30	9.24	·1116					
13. 2	41.25	9.52	·1112					
13.41	42.45	10. 6	·1115					
14.28	41.55	10.17	·1115					
15.23	42.45	11. 8	·1117					
15.59	42. 5	11.30	·1120					
16.18	42.55	12.43	·1119					
16.37	41.20	13.25	·1119					
17.16	42. 0	13.36	·1121					
17.27	42.30	13.48	·1121					
17.53	41.10	14. 4	·1124					
18.13	42.20	15.23	·1124					
18.53	42. 5	16.23	·1127					
19.18	43.40	17. 8	·1125					
19.40	42. 0	17.23	·1128					
20. 0	41.15	18. 4	·1129					
20. 5	41.55	18.23	·1126					
20.18	40.25	18.44	·1131					
20.58	40.15	19.21	·1130					
21.13	38.50	20. 1	·1127					
21.26	39.45	20.51	·1128					
21.37	38.55	21.13	·1124					
21.45	39.50	21.56	·1122					
21.58	39. 5	22. 9	·1124					
22. 7	40. 5	22.43	·1121					
22.43	41. 5	22.57	·1123					
22.52	43.20	23.28	·1119					
22.58	42.30	(†)						
23. 6	43.40							
23.18	42.10							
23.41	42.35							
23.59	41.10							
Dec.31		Dec.31		Dec.31		Dec.31		
0. 0	20.41.10	0. 0	·1118	(†)		0. 0	43·5	45·2
0. 6	39.10	0.38	·1122	1. 0	·04383*	1. 0	44·0	45·9
1. 8	40.10	1. 0	·1119	2. 6	·04320	3. 0	45·2	46·8
1.20	43.25	***		2.58	·04304	Max.	46·2	46·8
1.28	42. 0	1.36	·1126	6. 1:	·04195	9. 0	44·8	46·1
1.42	41.20	3. 9	·1129	9.38	·04243	Min.	41·0	40·5
2.16	44.25	4. 0	·1127	10.26	·04240	21. 0	41·9	43·7
2.29	43. 0	4.13	·1120	10.47	·04213			
2.34	43.30	4.39	·1124	11.54	·04250			
2.51	42.30	4.49	·1122	13.32	·04282			
2.57	43.20	5.31	·1129	14. 0	·04258			

Right half

Greenwich Mean Solar Time	Western Declination	Greenwich Mean Solar Time	Horizontal Force in parts of the whole H.F. uncorrected for Temperature	Greenwich Mean Solar Time	Vertical Force in parts of the whole V.F. uncorrected for Temperature	Greenwich Mean Solar Time	Of H.F. Magnet	Of V.F. Magnet
Dec.31		Dec.31		Dec.31				
h m	° ′ ″	h m		h m		h m	°	°
3. 19	20.42.20	6. 0	·1129	14. 59	·04313			
3. 30	42.55	6.28	·1124	(†)				
3. 43	41.50	6.50	·1126	21. 0	·04443*			
4. 9	42. 5	7.13	·1121					
4. 22	40.15	7.42	·1122					
4. 43	40.30	8. 8	·1116					
4. 58	38.50	8.15	·1119					
5. 49	41.25	8.35	·1114					
6. 20	41.20	8.46	·1122					
6. 32	43.15	9.12	·1115					
6. 48	42.35	9.47	·1121					
7. 6	41. 0	10. 7	·1122					
7. 17	40.35	10.24	·1150					
7. 23	41.30	10.45	·1125					
7. 36	41.10	10.59	·1135					
7. 43	40. 0	11.28	·1122					
8. 8	38.55	11.53	·1127					
8. 14	39.25	12. 2	·1126					
8. 30	38.30	12.14	·1127					
8. 40	37. 0	12.39	·1122					
8. 47	37.30	13. 9	·1118					
8. 55	36.10	13.32	·1154					
9. 12	37.25	14.13	·1124					
9. 18	36.10	14.25	·1122					
9. 29	38. 5	15. 2	·1129					
9. 42	38.30	15.13	·1126					
9. 57	37. 0	15.53	·1132					
10. 8	38.10	16.12	·1129					
10. 20	35.45	16.30	·1132					
10. 38	35.55	17.30	·1124					
10. 58	38. 0	18. 1	·1125					
11. 8	39.10	(†)						
11. 31	37. 0	19.42	·1131					
12. 13	40.10	20.22	·1113					
12. 27	40.20	20.38	·1117					
12. 54	36. 0	20.57	·1126					
13. 12	39.10	21. 7	·1124					
13. 23	38.40	21.15	·1130					
13. 37	35.20	21.28	·1124					
13. 43	37.40	21.40	·1130					
13. 56	37. 5	21.55	·1127					
14. 12	33.15	(†)						
14. 19	33.10							
14. 30	37. 0							
14. 50	39.35							
15. 10	38.25							
	***							
15. 30	40.20							
15. 56	40.25							
16. 12	41.40							
16. 21	41.15							
16. 54	42.55							
18. 13	43. 5							
18. 18	43.55							
18. 42	42.50							
19. 9	41.30							
19. 22	42.40							
19. 40	43.10							

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V.F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers.	
							Of H.F. Magnet.	Of V.F. Magnet.								Of H.F. Magnet.	Of V.F. Magnet.
Dec.31									Dec.31								
h m	o ′ ″	h m		h m		h m	o	o	h m	o ′ ″	h m		h m		h m	o	o
19.59	20. 46. 10								21.40	20. 41. 10							
20.10	45. 40								22.24	43. 10							
20.28	46. 5								22.50	47. 20							
20.37	45. 0								23.12	44. 50							
20.47	45. 5								23.27	44. 35							
20.52	44. 10								23.34	43. 5							
20.54	45. 0								23.47	44. 55							
21.26	41. 5								23.59	43. 40							

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol *** denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

Table showing the Approximate Mean Monthly Western Declination, at the Royal Observatory, Greenwich, in the Year 1863.

Month.	1863.
	° ′ ″
January...............................	20. 50. 5
February...............................	48. 32
March	48. 38
April...............................	46. 45
May...............................	45. 37
June...............................	46. 13
July...............................	46. 30
August	45. 39
September...............................	45. 7
October...............................	43. 36
November	42. 13
December	42. 0
Mean	20. 45. 55

ROYAL OBSERVATORY, GREENWICH.

RESULTS

OF

OBSERVATIONS

OF THE

MAGNETIC DIP.

1863.

MAGNETIC DIP, observed at the ROYAL OBSERVATORY, GREENWICH, with AIRY's DIP APPARATUS, in the Year 1863.

Day and Approximate Hour, 1863.	Needle.	Length of Needle.	Magnetic Dip.	Observer.	Day and Approximate Hour, 1863.	Needle.	Length of Needle.	Magnetic Dip.	Observer.
d h			° ′ ″		d h			° ′ ″	
January 13. 0	C 1	6 inches	68. 11. 52	N	July 27. 2	C 1	6 inches	68. 7. 22	N
19. 2	C 2	6 ,,	68. 10. 35	N	28. 1	C 2	6 ,,	68. 2. 57	N
20. 2	C 3	6 ,,	68. 9. 35	N	30. 22	B 1	9 ,,	68. 4. 43	N
27. 0	C 1	6 ,,	68. 9. 1	N	31. 0	C 1	6 ,,	68. 8. 38	N
27. 1	C 2	6 ,,	68. 14. 24	N	31. 2	D 1	3 ,,	68. 23. 41	N
29. 1	C 3	6 ,,	68. 4. 17	N					
					August 11. 2	C 4	6 ,,	68. 1. 52	N
February 7. 1	D 1	3 ,,	68. 11. 30	N	18. 1	C 2	6 ,,	68. 9. 58	N
7. 2	D 2	3 ,,	68. 5. 23	N	25. 2	C 4	6 ,,	68. 2. 5	N
10. 1	C 1	6 ,,	68. 15. 58	N	27. 22	B 2	9 ,,	68. 6. 57	N
13. 2	D 1	3 ,,	68. 27. 59	N	28. 0	C 2	6 ,,	68. 2. 27	N
16. 2	D 2	3 ,,	68. 13. 36	N	28. 2	D 2	3 ,,	68. 3. 18	N
18. 0	D 1	3 ,,	68. 21. 39	N	31. 2	C 4	6 ,,	68. 2. 29	N
20. 22	D 1	3 ,,	68. 20. 11	G B A					
22. 22	D 1	3 ,,	68. 24. 1	N	September 2. 0	C 4	6 ,,	68. 0. 47	N
22. 23	D 1	3 ,,	68. 22. 23	N	12. 2	D 2	3 ,,	68. 7. 29	N
23. 0	D 2	3 ,,	68. 6. 4	N	19. 1	D 2	3 ,,	68. 1. 39	N
23. 1	D 1	3 ,,	68. 21. 7	G	25. 0	C 4	6 ,,	68. 1. 24	N
23. 22	C 1	6 ,,	68. 22. 56	N	28. 2	C 4	6 ,,	68. 1. 52	N
					28. 23	B 2	9 ,,	68. 8. 2	N
May 11. 0	B 1	9 ,,	68. 4. 29	G					
14. 0	C 1	6 ,,	67. 56. 51	G	October 7. 21	B 4	9 ,,	67. 53. 32	N
16. 2	C 1	6 ,,	68. 4. 16	N	8. 0	C 4	6 ,,	68. 4. 14	N
18. 1	C 1	6 ,,	68. 3. 56	N	8. 1	D 4	3 ,,	68. 10. 30	N
21. 22	C 1	6 ,,	68. 6. 43	G	10. 0	D 1	3 ,,	68. 10. 48	N
22. 2	C 1	6 ,,	68. 2. 54	N	16. 23	D 1	3 ,,	68. 10. 33	N
26. 23	C 1	6 ,,	68. 8. 44	N	17. 0	D 2	3 ,,	68. 4. 16	N
29. 0	C 1	6 ,,	68. 6. 46	N	17. 2	D 4	3 ,,	68. 5. 18	N
					23. 2	C 4	6 ,,	68. 2. 11	N
June 5. 2	C 1	6 ,,	68. 9. 21	N	28. 0	B 1	9 ,,	68. 4. 53	N
18. 1	C 1	6 ,,	68. 1. 55	N	30. 22	B 4	9 ,,	67. 52. 44	N
24. 2	C 4	6 ,,	68. 4. 26	N	31. 1	D 2	3 ,,	68. 4. 0	N
24. 22	C 4	6 ,,	68. 3. 14	N	31. 2	D 4	3 ,,	68. 6. 14	N
30. 0	C 4	6 ,,	67. 59. 19	N					
					November 9. 0	C 1	6 ,,	68. 12. 20	N
July 0. 22	C 1	6 ,,	68. 8. 5	N	9. 1	C 2	6 ,,	68. 9. 39	N
1. 0	C 2	6 ,,	68. 4. 30	N	20. 1	C 4	6 ,,	68. 1. 24	N
1. 2	C 4	6 ,,	68. 0. 5	N	27. 2	D 4	3 ,,	68. 1. 57	N
2. 0	C 4	6 ,,	67. 59. 7	N	30. 2	D 4	3 ,,	68. 7. 2	N
2. 2	B 1	9 ,,	68. 10. 49	N					
3. 23	C 4	6 ,,	67. 59. 2	N	December 12. 2	C 4	6 ,,	68. 4. 7	N
4. 1	D 1	3 ,,	68. 18. 40	N	18. 1	D 4	3 ,,	68. 4. 10	N
15. 2	C 4	6 ,,	67. 57. 53	N	18. 2	C 4	6 ,,	68. 0. 51	N
25. 1	C 4	6 ,,	68. 5. 32	N	30. 1	C 1	6 ,,	68. 14. 26	N
27. 0	C 4	6 ,,	68. 0. 28	N	30. 2	C 4	6 ,,	68. 0. 27	N

June 5, July 25, and September 2 were damp days.   October 8. A magnetic disturbance.

From February 24 to May 11 the Dip Apparatus was in the hands of Mr. Simms, for the application of fixed microscopes for the three lengths of 9, 6, and 3 inches.

Between July 31 and October 10 a new axle was applied to needle D 1.

The initials G B A, G, and N are those of the Astronomer-Royal, Mr. Glaisher, and Mr. W. C. Nash respectively.

MONTHLY MEANS of MAGNETIC DIPS, at the ROYAL OBSERVATORY, GREENWICH, with AIRY'S DIP APPARATUS, in the Year 1863.

Month, 1863.	B 1, 9-inch Needle.	Number of Observations.	B 2, 9-inch Needle.	Number of Observations.	B 4, 9-inch Needle.	Number of Observations.	C 1, 6-inch Needle.	Number of Observations.	C 2, 6-inch Needle.	Number of Observations.
	° ′ ″		° ′ ″		° ′ ″		68. 10. 27	2	68. 12. 30	2
January...	....	..	....	..	....	..	68. 10. 27	2	68. 12. 30	2
February..	....	..	....	..	....	..	68. 19. 27	2	....	..
March	....	..	....	..	....	..	....	..	....	..
April	....	..	....	..	....	..	....	..	....	..
May	68. 4. 29	1	....	..	....	..	68. 4. 19	7	....	..
June	....	..	....	..	....	..	68. 5. 38	2	....	..
July......	68. 7. 46	2	....	..	....	..	68. 8. 2	3	68. 3. 44	2
August ...	....	..	68. 6. 57	1	....	..	....	..	68. 6. 13	2
September.	....	..	68. 8. 2	1	....	..	....	..	....	..
October ...	68. 4. 53	1	....	..	67. 53. 8	2	....	..	....	..
November.	....	..	....	..	....	..	68. 12. 20	1	68. 9. 39	1
December .	....	..	....	..	....	..	68. 14. 26	1	....	..
Means.	68. 6. 14	4	....	..	....	..	68. 8. 27	18	68. 7. 47	7

Month, 1863.	C 3, 6-inch Needle, loaded.	Number of Observations.	C 4, 6-inch Needle.	Number of Observations.	D 1, 3-inch Needle.	Number of Observations.	D 2, 3-inch Needle.	Number of Observations.	D 4, 3-inch Needle.	Number of Observations.
	68. 6. 56	2	° ′ ″		° ′ ″		° ′ ″		° ′ ″	
January...	68. 6. 56	2	....	..	....	..	....	..	....	..
February..	....	..	....	..	68. 21. 16	7	68. 8. 21	3	....	..
March	....	..	....	..	....	..	....	..	....	..
April	....	..	....	..	....	..	....	..	....	..
May	....	..	....	..	....	..	....	..	....	..
June	....	..	68. 2. 20	3	....	..	....	..	....	..
July......	....	..	68. 0. 21	6	68. 21. 10	2	....	..	....	..
August ...	....	..	68. 2. 9	3	....	..	68. 3. 18	1	....	..
September.	....	..	68. 1. 21	3	....	..	68. 4. 34	2	....	..
October ...	....	..	68. 3. 13	2	68. 10. 41	2	68. 4. 8	2	68. 7. 21	3
November.	....	..	68. 1. 24	1	....	..	....	..	68. 4. 30	2
December .	....	..	68. 1. 48	3	....	..	....	..	68. 4. 10	1
Means.	....	..	68. 1. 34	21	....	..	68. 5. 43	8	....	..

For this table the monthly means have been formed without reference to the hour at which the observation was made on each day, as in preceding years no certain difference was found between observations taken at 21ʰ and at 3ʰ.

In combining the monthly results, to form the annual means, weights have been given proportional to the number of observations. The mean for C₄ applies to the month September nearly.

ROYAL OBSERVATORY, GREENWICH.

OBSERVATIONS

OF

DEFLEXION OF A MAGNET

FOR

ABSOLUTE MEASURE

OF

HORIZONTAL FORCE.

1863.

ABSTRACT of the OBSERVATIONS of DEFLEXION of a MAGNET for ABSOLUTE MEASURE of HORIZONTAL FORCE, made with the KEW UNIFILAR INSTRUMENT.

Month and Day, 1863.	Position of Deflecting Magnet with regard to Suspended Magnet.	Distances of Centers of Magnets.	Temperature.	Observed Deflexion.	Mean of the Times of Vibration of Deflecting Magnet.	Number of Vibrations.	Temperature.	Observer.
		ft.	°	° ′ ″	s		°	
January 20	Lateral	1 ·0	51 ·7	15. 36. 5	4 ·816	100	49 ·4	N
	Lateral	1 ·3		7. 2. 14	4 ·815	100	46 ·8	
February 3	Lateral	1 ·0	52 ·0	15. 34. 28	4 ·816	100	50 ·9	N
	Lateral	1 ·3		6. 59. 3	4 ·823	100	61 ·4	
February 17	Lateral	1 ·0	48 ·3	15. 7. 18	4 ·891	100	49 ·2	N
	Lateral	1 ·3		6. 49. 35	4 ·888	·100	55 ·2	
March 3	Lateral	1 ·0	61 ·9	15. 4. 42	4 ·901	100	68 ·4	N
	Lateral	1 ·3		6. 48. 37	4 ·906	100	64 ·3	
March 17	Lateral	1 ·0	49 ·2	15. 4. 54	4 ·910	100	54 ·1	N
	Lateral	1 ·3		6. 48. 45	4 ·903	100	54 ·5	
April 1	Lateral	1 ·0	55 ·2	15. 5. 56	4 ·909	100	63 ·6	N
	Lateral	1 ·3		6. 48. 45	4 ·908	100	61 ·5	
April 14	Lateral	1 ·0	59 ·1	15. 2. 53	4 ·909	100	60 ·2	N
	Lateral	1 ·3		6. 47. 34	4 ·907	100	63 ·1	
April 28	Lateral	1 ·0	54 ·6	15. 3. 40	4 ·909	100	57 ·3	N
	Lateral	1 ·3		6. 46. 43	4 ·915	100	64 ·6	
May 12	Lateral	1 ·0	56 ·5	15. 2. 23	4· 914	100	58 ·4	N
	Lateral	1 ·3		6. 47. 15	4 ·911	100	59 ·4	
May 26	Lateral	1 ·0	57 ·8	15. 0. 35	4 ·907	100	60 ·9	N
	Lateral	1 ·3		6. 46. 19	4 ·913	100	63 ·4	
June 9	Lateral	1 ·0	64 ·1	14. 59 ·32	4 ·918	100	66 ·5	N
	Lateral	1 ·3		6. 46. 16	4 ·915	100	65 ·8	
June 30	Lateral	1 ·0	66 ·3	14. 56. 44	4 ·920	100	69 ·0	N
	Lateral	1 ·3		6. 44. 46	4 ·920	100	70 ·6	
July 7	Lateral	1 ·0	78 ·6	14. 53. 7	4 ·924	100	82 ·4	N
	Lateral	1 ·3		6. 43. 23	4 ·920	100	83 ·9	
July 21	Lateral	1 ·0	63 ·3	14. 55. 5	4 ·923	100	64 ·0	N
	Lateral	1 ·3		6. 43. 45	4 ·932	100	67 ·1	

The lengths of 1 foot and 1 ·3 foot answer to 304 ·794 and 396 ·232 millimètres respectively.
The initial N is that of Mr. W. C. Nash.
In the following calculations, every observation is reduced to the temperature 35°.

ABSTRACT of the OBSERVATIONS of DEFLEXION of a MAGNET for ABSOLUTE MEASURE of HORIZONTAL FORCE, observed with the KEW UNIFILAR INSTRUMENT—*concluded.*

Month and Day, 1863.	Position of Deflecting Magnet with regard to Suspended Magnet.	Distances of Centers of Magnets.	Temperature.	Observed Deflexion.	Mean of the Times of Vibration of Deflecting Magnet.	Number of Vibrations.	Temperature.	Observer.
		ft.	°	° ′ ″	s		°	
August 4	Lateral	1·0	73·9	14. 50. 53	4·932	100	76·5	N
	Lateral	1·3		6. 42. 18	4·937	100	78·0	
August 18	Lateral	1·0	62·9	14. 51. 46	4·944	100	64·9	N
	Lateral	1·3		6. 42. 42	4·944	100	65·5	
September 1	Lateral	1·0	66·8	14. 47. 14	4·933	100	70·9	N
	Lateral	1·3		6. 40. 58	4·940	100	72·7	
September 15	Lateral	1·0	61·9	14. 46. 48	4·943	100	64·7	N
	Lateral	1·3		6. 40. 52	4·942	100	65·1	
September 29	Lateral	1·0	60·6	14. 46. 44	4·939	100	63·4	N
	Lateral	1·3		6. 40. 48	4·946	100	65·8	
October 14	Lateral	1·0	63·6	14. 46. 59	4·945	100	66·0	N
	Lateral	1·3		6. 40. 34	4·947	100	67·3	
October 27	Lateral	1·0	49·2	14. 46. 20	4·937	100	50·9	N
	Lateral	1·3		6. 40. 28	4·947	100	52·8	
November 27	Lateral	1·0	51·5	14. 43. 16	4·944	100	52·2	N
	Lateral	1·3		6. 38. 54	4·943	100	56·5	
December 22	Lateral	1·0	46·5	14. 44. 14	4·952	100	54·4	N
	Lateral	1·3		6. 39. 19	4·952	100	50·7	

The lengths of 1 foot and 1·3 foot answer to 304·794 and 396·232 millimètres respectively.
The initial N is that of Mr. W. C. Nash.
In the following calculations, every observation is reduced to the temperature 35°.

COMPUTATION of the VALUES of ABSOLUTE MEASURE of HORIZONTAL FORCE, from OBSERVATIONS with the KEW UNIFILAR INSTRUMENT.

Month and Day, 1863.		In English Measure.									Value of X in French Measure.
		Apparent Value of A.	Apparent Value of A¹.	Apparent Value of P.	Mean Value of P.	Log. ½ A = Log. m/X	Adopted Time of Vibration of Deflecting Magnet.	Log. m X.	Value of X.	Value of m.	
January	20	+0·13483	0·07966	+0·00363	} +0·00752	9·12686	4·816	0·29566	3·841	0·5144	1·771
February	3	+0·13461	0·07925	+0·01228		9·12537	4·820	0·29548	3·846	0·5134	1·774
	17	+0·13071	0·07742	−0·00225		9·11736	4·890	0·28268	3·825	0·5012	1·764
March	3	+0·13065	0·07742	−0·00338		9·11726	4·904	0·28117	3·819	0·5003	1·761
	17	+0·13039	0·07727	−0·00376		9·11642	4·907	0·27981	3·817	0·4990	1·758
April	1	+0·13067	0·07735	−0·00094		9·11709	4·909	0·28008	3·815	0·4996	1·759
	14	+0·13033	0·07718	−0·00188		9·11605	4·908	0·27960	3·818	0·4987	1·760
	28	+0·13033	0·07696	+0·00506		9·11544	4·912	0·27903	3·818	0·4980	1·760
May	12	+0·13020	0·07709	−0·00132		9·11558	4·913	0·27881	3·816	0·4980	1·760
	26	+0·12997	0·07693	−0·00036		9·11475	4·910	0·27946	3·823	0·4979	1·763
June	9	+0·12997	0·07700	−0·00302		9·11495	4·917	0·27858	3·818	0·4975	1·760
	30	+0·12962	0·07675	−0·00151		9·11365	4·920	0·27822	3·822	0·4965	1·758
July	7	+0·12940	0·07666	−0·00284	} −0·00244	9·11303	4·922	0·27887	3·828	0·4965	1·765
	21	+0·12932	0·07651	−0·00019		9·11248	4·928	0·27659	3·820	0·4949	1·761
August	4	+0·12897	0·07638	−0·00228		9·11154	4·935	0·27623	3 822	0·4942	1·762
	18	+0·12885	0·07631	−0·00228		9·11112	4·944	0·27367	3·813	0·4925	1·758
September	1	+0·12829	0·07604	−0·00402		9·10939	4·937	0·27545	3·829	0·4925	1·765
	15	+0·12812	0·07595	−0·00460		9·10887	4·943	0·27391	3·824	0·4914	1·763
	29	+0·12808	0·07592	−0·00441		9·10871	4·943	0·27389	3·825	0·4913	1·763
October	14	+0·12819	0·07592	−0·00210		9·10886	4·946	0·27343	3·822	0·4911	1·762
	27	+0·12778	0·07571	−0·00326		9·10759	4·942	0·27312	3·826	0·4902	1·764
November	27	+0·12739	0·07545	−0·00231		9·10618	4·944	0·27302	3·832	0·4893	1·767
December	22	+0·12742	0·07546	−0·00212		9·10626	4·952	0·27141	3·824	0·4885	1·763

The mean value of P employed in the reduction of the observations for January 20 and February 3, viz., + 0·00752, is the mean obtained from the observations made between 1862, December 24, and 1863, February 3.

In forming the mean value of P for the period, 1863, February 17, to 1863, December 22, the discordant result for April 28 has been omitted.

ROYAL OBSERVATORY, GREENWICH.

RESULTS

OF

METEOROLOGICAL OBSERVATIONS.

1863.

MONTH and DAY, 1863.	Phases of the Moon.	Mean Daily Reading of the Barometer (corrected and reduced to 32° Fahrenheit).	Dry. Highest.	Dry. Lowest.	Dry. Mean Daily Value.	Dew Point. Mean Daily Value.	Highest in the Sun, read at 9h P.M.	Lowest on the Grass, read at 9h A.M. next morning.	In the Water of the Thames. Highest.	In the Water of the Thames. Lowest.	Diff. Mean Daily Value.	Diff. Greatest.	Diff. Least.	Diff. between Mean Temp. of Day and Mean Temp. same Day on Average of 48 Years.	Osler's General Direction A.M.	Osler's General Direction P.M.	Pressure Greatest.	Pressure Least.	Pressure Mean of 24 Obs.	Robinson's Horizontal Movement (miles).	Rain in Inches read at 9h P.M.
		in.	°	°	°	°	°	°	°	°	°	°	°	°			lbs.	lbs.	lbs.	miles.	in.
Jan. 1	..	29·741	52·3	40·7	48·3	46·9	55·0	36·7	44·6	42·4	1·4	5·4	0·8	+11·8	SW	SW	15·0	0·0	4·0	712	0·00
2	Greatest Declination N.	29·437	46·0	37·9	42·0	38·8	57·2	35·0	44·6	42·4	3·2	6·2	1·3	+ 5·6	SW	SW	14·0	0·0	1·8	344	0·29
3	Apogee	29·436	44·0	36·9	40·2	37·0	52·0	31·0	44·6	42·4	3·2	6·2	1·5	+ 3·8	SW	SSW	0·0	0·0	0·0	370	0·00
4	..	29·227	46·9	38·8	42·4	37·6	70·1	28·3	44·6	42·4	4·8	9·9	3·7	+ 6·1	SW	SW	9·0	0·0	0·8	385	0·22
5	Full.	28·933	48·6	39·4	44·9	43·0	51·0	35·3	44·6	42·4	1·9	4·2	1·5	+ 8·8	SSW	SSW	8·0	0·0	1·0	296	0·26
6	..	28·951	47·5	37·2	42·3	40·9	57·0	32·5	44·1	42·4	1·4	4·0	0·0	+ 6·3	SW ; S	SE	3·0	0·0	0·2	178	0·23
7	..	29·134	37·5	31·7	36·9	34·5	52·0	25·5	43·6	41·4	2·4	5·7	0·0	+ 1·1	SW	SE	2·0	0·0	0·0	149	0·02
8	..	29·432	47·1	34·2	39·4	35·8	72·3	25·9	43·6	40·9	3·6	7·5	0·3	+ 3·9	SSE	SE	0·0	0·0	0·0	96	0·00
9	..	29·591	43·0	29·9	36·8	36·0	56·0	23·3	42·6	39·4	0·8	3·5	0·0	+ 1·4	Calm	SE	1·0	0·0	0·0	213	0·01
10	In Equator	29·541	42·0	34·8	37·8	34·0	58·0	32·2	42·1	38·4	3·8	4·8	1·0	+ 2·1	SE	ENE	3·0	0·0	0·3	232	0·03
11	..	29·750	40·0	36·8	38·1	35·9	42·0	32·2	41·6	38·4	2·2	3·5	0·0	+ 2·5		N	0·0	0·0	0·0	150	0·09
12	Last Qr.	29·955	44·5	27·7	36·9	34·7	59·5	24·0	42·1	38·4	2·2	6·0	0·0	+ 1·3	SW	S	3·0	0·0	0·3	255	0·03
13	..	29·724	46·8	36·5	40·8	39·1	60·0	34·0	40·6	38·4	1·7	3·1	0·4	+ 5·2	SSW	SW	1·0	0·0	0·0	169	0·54
14	..	30·098	41·6	34·7	37·1	34·6	59·8	32·0	40·6	37·9	2·5	3·7	0·5	+ 1·5	NE	NNE	3·0	0·0	0·1	216	0·08
15	..	30·256	42·5	35·5	38·8	35·0	59·0	27·0	40·6	37·4	3·8	5·3	1·9	+ 3·3	NE	NE	3·0	0·0	0·3	239	0·00
16	Greatest Declination S.	30·116	41·2	35·1	38·1	34·0	47·0	31·0	40·6	37·4	4·1	6·2	0·8	+ 2·6	ENE	NE	3·0	0·0	1·2	273	0·00
17	..	29·940	40·5	34·4	37·0	31·6	46·7	33·0	40·6	38·4	5·4	7·8	2·2	+ 1·1	NE	NE : SW	3·0	0·0	0·2	304	0·00
18	Perigee.	29·243	44·0	31·9	39·7	34·9	50·0	30·0	40·6	38·4	4·8	7·7	0·0	+ 3·4	SW	NW : W	6·0	0·5	2·0	440	0·28
19	New.	29·284	49·6	39·0	45·2	37·3	58·6	32·0	40·1	37·9	7·9	12·8	3·9	+ 8·7	NW	NW : WSW	10·0	1·0	2·5	635	0·00
20	..	29·126	49·9	38·0	41·3	31·2	72·0	37·0	40·6	38·4	10·1	12·1	9·0	+ 4·5	WSW	W	20·0	3·0	8·0	669	0·00
21	..	29·572	47·0	37·0	41·9	35·2	69·6	29·7	41·6	39·4	6·7	9·7	2·0	+ 4·8	W	WNW : WSW	9·0	0·0	2·0	458	0·00
22	..	29·629	53·0	40·1	47·8	43·8	65·6	28·3	41·6	38·4	4·0	8·0	2·3	+10·5	SW	SW	10·0	0·0	2·5	572	0·03
23	In Equator.	29·538	53·8	39·4	46·4	41·0	70·0	38·2	43·1	39·9	5·4	7·8	3·0	+ 8·9	SW	SW	15·0	0·0	3·5	493	0·01
24	..	29·594	51·0	36·9	44·4	36·3	73·0	32·7	43·6	39·4	8·1	15·0	1·7	+ 6·6	SW	WSW	15·0	0·0	4·0	570	0·00
25	..	30·127	49·2	36·9	43·3	37·3	66·0	30·0	43·6	40·4	6·0	8·8	1·9	+ 5·3	WSW	WSW	7·0	0·5	1·5	441	0·00
26	First Qr.	30·038	48·0	42·0	45·6	40·7	56·0	34·4	43·6	40·4	4·9	7·1	3·0	+ 7·3	SW	SW	12·0	0·0	3·0	596	0·00
27	..	30·127	52·0	35·5	41·9	32·8	67·0	35·0	43·6	41·4	9·1	12·1	4·4	+ 3·6	SW : NW	NW	8·0	0·0	1·5	277	0·08
28	..	30·296	47·0	32·2	39·2	33·8	77·8	25·0	43·6	41·4	5·9	11·3	3·2	+ 1·1	WSW	SW	3·0	0·0	0·3	380	0·00
29	..	29·683	55·2	37·8	48·0	44·6	85·6	28·0	43·6	41·4	3·4	9·2	1·7	+10·1	SW	SW	11·0	1·0	3·0	506	0·00
30	Greatest Dec. N. Apogee.	29·375	51·5	46·0	49·0	46·8	55·4	43·8	44·6	42·4	2·2	4·4	0·4	+11·4	SW	SW	12·0	1·0	3·5	518	0·00
31	..	29·353	50·4	39·7	44·4	41·0	52·0	36·3	44·6	42·4	3·4	6·8	0·2	+ 7·1	SW	NW	5·0	0·0	1·5	328	0·52
Means	..	29·621	46·9	36·6	41·8	37·6	60·4	31·6	42·7	40·1	4·2	7·3	1·7	+ 5·2	...	...	..	..	..	Sum 11464	Sum 2·72

BAROMETER READINGS FROM EYE-OBSERVATIONS.

The first maximum in the month was 29ⁱⁿ·522 on the 2nd ; the first minimum in the month was 29ⁱⁿ·352 on the 2nd.
The second maximum ,, was 28ⁱⁿ·994 on the 6th ; the second minimum ,, was 28ⁱⁿ·904 on the 5th.
The third maximum ,, was 29ⁱⁿ·646 on the 9th ; the absolute minimum ,, was 28ⁱⁿ·894 on the 6th.
The fourth maximum ,, was 29ⁱⁿ·999 on the 12th ; the fourth minimum ,, was 29ⁱⁿ·506 on the 10th.
The fifth maximum ,, was 30ⁱⁿ·263 on the 15th ; the fifth minimum ,, was 29ⁱⁿ·714 on the 13th.
The sixth maximum ,, was 29ⁱⁿ·337 on the 19th ; the sixth minimum ,, was 29ⁱⁿ·209 on the 19th.
The seventh maximum ,, was 29ⁱⁿ·689 on the 21st ; the seventh minimum ,, was 28ⁱⁿ·984 on the 20th.
The eighth maximum ,, was 29ⁱⁿ·720 on the 23rd ; the eighth minimum ,, was 29ⁱⁿ·441 on the 23rd.
The ninth maximum ,, was 30ⁱⁿ·211 on the 25th ; the ninth minimum ,, was 29ⁱⁿ·549 on the 24th.
The absolute maximum ,, was 30ⁱⁿ·387 on the 28th ; the tenth minimum ,, was 29ⁱⁿ·863 on the 26th.
      ; the eleventh minimum ,, was 29ⁱⁿ·238 on the 31st.
The range in the month was 1ⁱⁿ·493.
The mean for the month was 29ⁱⁿ·621, being 0ⁱⁿ·145 *lower* than the average of the preceding 22 years.

TEMPERATURE OF THE AIR.

The highest in the month was 55°·2 on the 29th ; the lowest was 27°·7 on the 12th ; and the range in the month was 27°·5.
The mean ,, of all the highest daily readings was 46°·9, being 3°·8 *higher* than the average of the preceding 22 years.
The mean ,, of all the lowest daily readings was 36°·6, being 3°·2 *higher* than the average of the preceding 22 years.
The mean daily range was 10°·3, being 0°·6 *greater* than the average of the preceding 22 years.
The mean for the month was 41°·8 being 3°·7 *higher* than the average of the preceding 22 years.

MONTH and DAY, 1863.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Jan. 1	o	o	8, li.-cl, w : 10, th.-r, w	10, st.-w : 10, st.-w.
2	o : w	s : m	10, st.-w : 10, h.-sqs	9, ci, ci.-s, cu, cu.-s : o
3	m : s	v	h-fr : 4, ci, ci.-s	7, ci, ci.-s, cu.-s : li.-cl, lu.-ha
4	o.	w	10, h.-r, st.-w : o	4, ci : lu.-ha : ci.-s, oc.-r
5	w	w	10, fr.-h.-shs, w	10, fr.-h.-shs : v
6	o : s	v	10 : 10, oc.-r	9, cu, ci.-cu, ci.-s : 10, h.-r
7	m	s	h.-fr : o, h	o : 8, ci.-cu, ci.-s, cu.-s : li.-cl.
8	s	w : o	2, li.-cl, h.-fr : 3, ci, ci.-s	1, ci, ci.-cu : o, f
9	o	m : o	h.-fr. : 10, th.-f	10 : v : 10, m.-r
10	o	o	10, ci.-s	10, ci.-s : 10, r
11	o	o	10, th.-r	10, r : o
12	o	o	o, h, h.-fr : o	4, ci, s : 10 : 10, r
13	o	o	10, h.-r : c.-h.-r	10, gt.-glm : 5, ci.-s, s, oc.-r
14	o	o	10, oc.-r : 10	5, v, ci, s : o : 10, th.-r
15	o	o	5, ci.-s : 10	9, ci.-s, cu.-s : 7, v, li.-cl
16	o	o	10 : 10, cu.-s, ci.-s	10, ci.-s
17	o	o : w	10	10
18	o : s	o	10, h.-r, w : 8, ci, ci.-s, li.-sc	9, ci.-s, cu.-s : 10, s, ci.-s
19	o	o	10, w : 7, ci, ci.-s, w	9, ci.-s, cu.-s, ci.-cu : v, st.-w
20	o	v : s, sps	st.-w : 10, v, st.-w	v, ci, ci.-cu, st.-w : 1, li.-cl, st.-w
21	o	o	st.-w : 10, v, w, sl.-r	6, v, ci : 3, li.-cl : 10, sl.-r
22	o	s N : o : m	10, w, r : 9, ci.-s, sc, w	10, ci.-s, st.-w : 10, sl.-r
23	o	o	10 : 10, ci.-s, sc, st.-w	10, oc.-shs : 5, ci, ci.-s : o
24	s	w : s	7, ci, ci.-cu, st.-w	6, v, ci, ci.-cu, st.-w : 7 ci.-cu,ci.-s : o
25	o	o	4, li.-cl	8, ci, ci.-cu, ci.-s : 9, ci.-s
26	o : m	o : s	10, ci.-s	10, ci.-s : v. lu.-co : 10, ci.-s, st.-w
27	o	v	10, st.-w : 10, shs.-r	10 : 1, li.-cl : o, h
28	o	o	h.-fr : 9, ci, ci.-s	8, ci, ci.-s : 10,v,ci.-s,lu.-ha: 10, s, ci.-s
29	o	o	10, ci.-s, s : 10, th.-r, st.-w	8, ci, ci.-cu, ci.-s : 3, li.-cl
30	o : s N	m N : w	10, th.-r	10, ci.-s, sc, w : v, ci, ci.-s : 10,sc,st.-w,th.-r
31	o	o	10, h.-r : 7, ci,ci.-s, cu, ci.-cu, oc.-r	10, th.-r : 10,ci.-cu,ci.-s,v: o

HUMIDITY OF THE AIR.

Temperature of the Dew Point.

The highest in the month was 47°·9 on the 30th ; and the lowest was 28°·2 on the 12th.

The mean ,, was 37°·6, being 2°·4 *higher* than the average of the preceding 22 years.

Elastic Force of Vapour.—The mean for the month was 0^{in}·225, being 0^{in}·022 *greater* than the average of the preceding 22 years.

Weight of Vapour in a Cubic Foot of Air.—The mean for the month was 2^{gr}·6, being 0^{gr}·2 *greater* than the average of the preceding 22 years.

Degree of Humidity.—The mean for the month was 85 (that of Saturation being represented by 100), being 4 *less* than the average of the preceding 22 years.

Weight of a Cubic Foot of Air.—The mean for the month was 547 grains, being 7 grains *less* than the average of the preceding 22 years.

CLOUDS.

The mean amount for the month, a clear sky being represented by 0 and a cloudy sky by 10, was 7·3.

WIND.

The proportions were of N. 4, S. 11, W. 11, E. 4 and Calm 1. The greatest pressure in the month was 20^{lbs}·0 on the square foot on the 20th.

RAIN.

Fell on 16 days in the month, amounting to 2^{in}·7, as measured in the simple cylinder gauge partly sunk below the ground; being 1^{in}·0 *greater* than the average fall of the preceding 48 years.

MONTH and DAY, 1863.	Phases of the Moon.	Mean Daily Reading of the Barometer (corrected and reduced to 32° Fahrenheit).	Dry. Highest.	Dry. Lowest.	Dry. Mean Daily Value.	Dew Point. Mean Daily Value.	Highest in the Sun, as shewn by a Self-Registering Thermometer read at 9h P.M.	Lowest on the Grass, as shewn by a Self-Registering Thermometer read at 9h a.m. next morning.	In the Water of the Thames, Highest.	In the Water of the Thames, Lowest.	Diff. Mean Daily Value.	Diff. Greatest.	Diff. Least.	Difference between the Mean Temp. of the Day and the Mean Temp. of the same Day on an Average of 48 Years.	Osler's A.M.	Osler's P.M.	Pressure Greatest.	Pressure Least.	Pressure Mean of 24 Obs.	Robinson's Amount of Horizontal Movement of the Air on each Day.	Rain in Inches read at 9h P.M.
		in.	°	°	°	°	°	°	°	°	°	°	°	°			lbs.	lbs.	lbs.	miles.	in.
Feb. 1	..	29·657	48·2	34·6	42·3	39·6	52·0	31·0	44·6	42·4	2·7	6·7	1·7	+ 5·1	SW	WSW	7·0	0·0	1·0	474	0·01
2	..	29·758	49·8	40·1	46·1	43·3	55·6	35·3	45·6	42·9	2·8	6·7	0·6	+ 9·1	SW	SW	9·0	0·0	2·5	488	0·07
3	Full	29·671	50·6	37·1	43·7	41·9	64 6	32·6	45·1	42·4	1·8	5·6	0·6	+ 6·4	SW	W	4·0	0·0	1·5	335	0·09
4	..	29·970	48·5	32·6	42·1	39·8	60·0	29·5	45·6	43·4	2·3	6·5	1·5	+ 4·4	W : SW	WSW	14·0	0·0	3·0	516	0·01
5	..	30·040	51·6	44·3	47·0	39·7	73·0	39·5	44·6	42·9	7·3	11·6	2·4	+ 8·6	NW	WSW	12·0	0·0	2·5	364	0·02
6	In Equator	30·155	52·1	44·2	47·7	46·1	65·0	39·8	45·6	43·4	1·6	3·2	0·2	+ 8·7	W	SW	5·0	0·0	2·0	341	0·00
7	..	30·031	55·1	44·7	48·5	45·6	68·7	44·7	46·1	43·4	2·9	8·0	0·2	+ 9·3	SW	WSW	5·0	0·0	1·5	252	0·00
8	..	29·829	47·2	39·1	41·7	36·6	55·0	35·0	46·1	43·4	5·1	7·6	1·8	+ 2·5	WSW	NW	4·0	0·0	0·3	261	0·08
9	..	30·036	44·9	29·8	37·2	31·5	69·0	..	46·1	43·4	5·7	10·8	3·6	− 1·8	WNW	SW	3·0	0·0	0·2	284	0·00
10	..	30·062	48·8	37·3	43·3	40·4	60·8	30·0	45·6	43·4	2·9	4·8	1·3	+ 4·6	SW	SW	3·5	0·0	0·4	272	0·00
11	Last Qr.	30·058	49·1	38·6	43·0	38·1	85·0	34·1	45·6	43·4	4·9	8·4	2·4	+ 4·5	WSW	SW	2·0	0·0	0·1	303	0·00
12	..	30·248	48·6	38·5	43·1	36·4	69·8	33·0	45·6	43·9	6·7	11·3	0·0	+ 4·8	SW : NE	N : NW	0·0	0·0	0·0	102	0·01
13	Greatest Declination S.	30·502	48·6	29·7	38·5	36·0	88·9	..	45·6	43·4	2·5	6·9	0·0	+ 0·3	Calm	E	0·0	0·0	0·0	178	0·00
14	..	30·452	44·9	31·2	37·9	34·0	84·6	25·6	44·6	42·4	3·9	7·0	0·7	− 0·1	SE	ESE	3·0	0·0	0·2	254	0·00
15	Perigee	30·435	46·8	29·9	38·3	34·2	93·0	25·0	44·6	41·9	4·1	8·0	3·3	+ 0·2	E	ESE	0·0	0·0	0·0	163	0·00
16	..	30·472	51·0	27·8	37·9	30·4	100·2	..	43·6	40·9	7·5	17·4	2·7	− 0·2	SE	SE	0·0	0·0	0·0	78	0·00
17	..	30·447	51·5	27·8	39·3	33·0	90·0	22·3	42·6	39·4	6·3	14·8	4·8	+ 1·1	Calm	SW	0·0	0·0	0·0	164	0·00
18	New	30·327	50·0	27·2	36·5	32·5	92·0	19·5	42·6	39·4	4·0	16·0	0·0	− 1·8	SW	WSW	0·0	0·0	0·0	168	0·00
19	In Equator	30·241	45·0	38·7	41·2	41·2	48·9	35·0	42·6	39·4	0·0	0·0	0·0	+ 2·8	WSW	NE	0·0	0·0	0·0	75	0·19
20	..	30·226	45·0	37·8	40·2	36·6	55·0	37·6	42·6	39·4	3·6	7·7	1·0	+ 1·7	NE : SE	SE	0·0	0·0	0·0	58	0·00
21	..	30·175	53·0	30·5	39·8	37·4	89·3	29·0	42·1	39·4	2·4	8·2	0·6	+ 1·3	Calm	SW	0·0	0·0	0·0	208	0·00
22	..	30·137	48·1	37·2	42·7	35·6	77·5	29·7	42·6	39·4	7·1	10·3	0·0	+ 4·1	WSW	NNW	0·0	0·0	0·0	201	0·01
23	..	30·153	49·8	32·2	41·8	38·6	60·9	27·8	42·6	40·4	3·2	10·9	1·3	+ 2·9	NNW : WSW	NW	0·0	0·0	0·0	206	0·00
24	..	30·184	47·0	40·3	42·8	40·0	53·0	40·3	42·1	39·9	2·8	5·0	0·5	+ 3·7	NE	NE : SE	0·0	0·0	0·0	104	0·00
25	First Qr.	30·282	50·0	36·1	43·5	39·8	68·6	33·2	44·6	42·4	3·7	9·2	0·0	+ 4·0	SW	SW	0·0	0·0	0·0	215	0·00
26	Greatest Declination N.	30·222	51·0	40·8	45·4	36·6	70·5	37·8	44·1	41·4	8·8	13·0	2·8	+ 5·7	SW	SW	2·0	0·0	0·0	315	0·00
27	Apogee	30·120	54·8	38·0	45·1	38·7	90·0	38·0	44·6	42·4	6·4	13·4	1·8	+ 5·3	SW	SW	2·0	0·0	0·0	245	0·00
28	..	30·069	55·7	32·9	42·6	38·7	91·6	28·0	45·1	42·4	3·9	14·6	0·0	+ 2·6	SW	SW	0·0	0·0	0·0	218	0·00
Means	..	30·141	49·5	35·7	42·1	37·9	72·6	32·5	44·4	41·9	4·2	9·1	1·3	+ 3·6	...	...	..	..	..	Sum 6842	Sum 0·49

BAROMETER READINGS FROM EYE-OBSERVATIONS.

The first maximum in the month was 29ⁱⁿ·635 on the 1st ; the absolute minimum in the month was 29ⁱⁿ·595 on the 1st.
The second maximum ,,   was 29ⁱⁿ·781 on the 2nd ; the second minimum ,,   was 29ⁱⁿ·606 on the 3rd.
The third maximum ,,   was 30ⁱⁿ·060 on the 4th ; the third minimum ,,   was 29ⁱⁿ·852 on the 4th.
The fourth maximum ,,   was 30ⁱⁿ·168 on the 6th ; the fourth minimum ,,   was 29ⁱⁿ·830 on the 8th.
The fifth maximum ,,   was 30ⁱⁿ·101 on the 10th ; the fifth minimum ,,   was 30ⁱⁿ·039 on the 11th.
The absolute maximum ,,   was 30ⁱⁿ·519 on the 13th ; the sixth minimum ,,   was 30ⁱⁿ·417 on the 14th.
The seventh maximum ,,   was 30ⁱⁿ·488 on the 16th ; the seventh minimum ,,   was 30ⁱⁿ·119 on the 22nd.
The eighth maximum ,,   was 30ⁱⁿ·210 on the 23rd ; the eighth minimum ,,   was 30ⁱⁿ·114 on the 23rd.
The ninth maximum ,,   was 30ⁱⁿ·295 on the 25th.
The range in the month was 0·ⁱⁿ924.
The mean for the month was 30ⁱⁿ·141, being 0ⁱⁿ·353 *higher* than the average of the preceding 22 years.

TEMPERATURE OF THE AIR.

The highest in the month was 55°·7 on the 28th ; the lowest was 27°·2 on the 18th.
The range ,,   was 28°·5.
The mean ,,   of all the highest daily readings was 49°·5, being 4°·6 *higher* than the average of the preceding 22 years.
The mean ,,   of all the lowest daily readings was 35°·7, being 2°·2 *higher* than the average of the preceding 22 years.
The mean daily range was 13°·8, being 2°·4 *greater* than the average of the preceding 22 years.
The mean for the month was 42°·1, being 3°·4 *higher* than the average of the preceding 22 years.

MONTH and DAY, 1863.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Feb. 1	o	o	v : 10, sc, w	10, sc, th.-r : o : 7, li.-cl
2	o	o	10, sc, w	10, sc, th.-r : 10, r
3	m : s N	o : s	10, r	10, oc.-r : v : o
4	s : o	o	o, h.-fr : o	10, ci.-s : 10, oc.-r, st.-w
5	o : w	s	10, oc.-shs, st.-w : 10, ci.-s	10 : 4, v, cu, ci, ci.-s, h : 2, li.-cl
6	s	s	1c, ci.-s	10, ci.-s, ci.-cu, ci : 10, ci.-s
7	w	w : o	10, ci.-s	10, ci.-s : 8, ci, ci.-cu, ci.-s, cu.-s : 10
8	o	o	10 : 10, r	8, cu, ci.-s : 7, v, sl.-r
9	s : m	w	o, h, h.-fr	o, h : 9, ci.-s, ci : v, li.-cl
10	w : s	s	10, ci.-s	10, ci.-s : v
11	o	o : m	10, ci.-s	v, ci.-s, ci, ci.-cu : 7. ci, ci.-cu, cu.-s : o
12	o	o	o : 10, th.-r	6, ci, ci.-s : 8, ci, ci.-s, h : o, f
13	m : s	s	1, li.-cl, h.-fr	o : o
14	s	v	3, ci, ci.-cu	4, ci, ci.-cu : o : o
15	s, sps	s	o, h.-fr	o : o
16	s	w : s, sps	o, h.-fr	o : o
17	s	s : s N, s P, sps	o, h.-fr : o, h, f	o : o
18	s : s N, s P	v : s N, s P	o, h.-fr : o, h, f	o : 9, ci.-s, ci.-cu : 10, ci.-s
19	s : w	o	10, ci.-s : 10, h.-r, f	10, th.-r, th.-f : 10, th.-r
20	o	m : s	10 : 10	10 : 9, ci.-cu, ci.-s, ci : 10
21	s	v : s	10 : 10, ci.-s, th.-f	o, v : 9, ci.-cu, v : o
22	s	w : s	sl.-r : 1, li.-cl, h	7, li.-cl, ci.-cu, cu.-s : 9
23	s	s : o	8, ci, ci.-cu, cu.-s	10, li.-cl : 10, th.-r : 10, li.-shs
24	o	v : s	10 : 10	10 : 10, sl.-r
25	o	o : w	8, ci, ci.-cu	10, ci.-cu, ci.-s, cu.-s : 10, ci.-s, cu.-s
26	o	o	10, ci.-s, cu.-s : 10, ci.-cu, ci.-s, ci	10, ci.-s : 10
27	o	o : m	10, ci.-s	10, ci.-s : 7, ci, ci.-cu : o
28	w	o	10, th.-f	7, li.-cl, h : 7, ci, ci.-cu : o

HUMIDITY OF THE AIR.

Temperature of the Dew Point.

The highest in the month was 47°·3 on the 6th; and the lowest was 27°·6 on the 18th.

The mean „ was 37°·9, being 3°·2 higher than the average of the preceding 22 years.

Elastic Force of Vapour.—The mean for the month was $0^{in}·228$ being $0^{in}·025$ greater than the average of the preceding 22 years.

Weight of Vapour in a Cubic Foot of Air.—The mean for the month was $2^{gr}·6$, being $0^{gr}·2$ greater than the average of the preceding 22 years.

Degree of Humidity.—The mean for the month was 86 (that of Saturation being represented by 100), being 1 greater than the average of the preceding 22 years.

Weight of a Cubic Foot of Air.—The mean for the month was 557 grains, being 4 grains greater than the average of the preceding 22 years.

CLOUDS.

The mean amount for the month, a clear sky being represented by o and a cloudy sky by 10, was 6·5.

WIND.

The proportions were of N. 2, S. 8, W. 12, E. 4, and Calm 2. The greatest pressure in the month was $14^{lbs}·0$ on the square foot on the 4th.

RAIN.

Fell on 9 days in the month, amounting to $0^{in}·5$, as measured in the simple cylinder gauge partly sunk below the ground; being $1^{in}·1$ less than the average fall of the preceding 48 years.

MONTH and DAY, 1863.	Phases of the Moon.	Mean Daily Reading of the Barometer (corrected and reduced to 32° Fahrenheit).	Dry. Highest.	Dry. Lowest.	Dry. Mean Daily Value.	Dew Point. Mean Daily Value.	Highest in the Sun, as shewn by a Self-Registering Thermometer read at 9h P.M.	Lowest on the Grass, as shewn by a Self-Registering Thermometer read at 9h A.M. next morning.	In the Water of the Thames. Highest.	In the Water of the Thames. Lowest.	Diff. Mean Daily Value.	Diff. Greatest.	Diff. Least.	Difference between the Mean Temp. of the Day and the Mean Temp. of same Day on Average of 48 Years.	Osler's. General Direction. A.M.	Osler's. General Direction. P.M.	Pressure. Greatest.	Pressure. Least.	Pressure. Mean of 24 Obs.	Robinson's. Amount of Horizontal Movement of the Air on each Day.	Rain in Inches read at 9h P.M.
		in.	°	°	°	°	°	°	°	°	°	°	°	°			lbs.	lbs.	lbs.	miles.	in.
March 1	..	29·787	50·3	35·7	43·5	39·6	64·0	27·9	45·1	42·4	3·9	7·9	0·7	+ 3·4	SW	SW	3·0	0·0	0·3	331	0·00
2	..	29·768	57·8	40·9	48·5	45·9	91·0	36·0	45·6	42·4	2·6	6·2	1·7	+ 8·5	SW	SW	4·0	0·0	0·4	317	0·02
3	..	29·653	64·0	39·3	50·6	39·4	106·5	34·2	45·6	42·4	11·2	20·3	7·8	+10·7	S : SE	SE	0·0	0·0	0·0	156	0·00
4	..	29·510	63·0	36·8	49·8	41·0	99·7	30·5	46·6	43·4	8·8	20·0	0·0	+ 9·9	SE	SE : SW	0·0	0·0	0·0	110	0·00
5	Full; In Equator.	29·519	61·6	35·2	48·1	42·2	108·0	29·6	46·6	44·9	5·9	16·7	1·8	+ 8·1	S	SSW : SE	0·0	0·0	0·0	208	0·00
6	..	29·314	56·8	43·0	48·0	42·6	97·0	36·9	47·1	45·4	5·4	12·2	3·2	+ 7·9	SSW	SW	10·0	0·0	2·0	448	0·07
7	..	29·379	50·0	37·7	42·4	37·6	78·5	32·3	46·1	44·9	4·8	11·0	0·7	+ 2·3	SW	SW : S	5·0	0·0	0·7	243	0·15
8	..	29·447	47·5	33·3	39·9	32·9	82·0	30·0	46·1	44·4	7·0	14·5	4·2	− 0·2	W	NW	10·0	0·0	2·0	306	0·12
9	..	29·374	47·2	29·4	37·4	29·7	89·4	24·3	46·6	44·4	7·7	13·9	5·3	− 2·7	WSW	SW : Calm	0·0	0·0	0·0	58	0·00
10	..	29·214	46·8	28·9	36·9	31·0	69·3	28·9	46·1	43·9	5·9	11·7	3·0	− 3·3	Calm	NE : Calm	0·0	0·0	0·0	105	0·02
11	..	29·439	44·0	31·4	35·4	30·4	78·0	26·0	46·1	43·9	5·0	8·8	1·1	− 4·9	Calm : NE	NNW : W	0·0	0·0	0·0	210	0·00
12	Last Quarter; Greatest Dec. S.	29·119	43·7	28·5	36·2	35·0	53·8	24·8	45·6	43·4	1·2	5·3	0·5	− 4·3	SW : SSE	SE : W	5·0	0·0	0·8	241	0·05
13	..	29·166	54·0	33·1	40·4	36·7	98·3	29·3	46·6	43·9	3·7	12·6	0·0	− 0·6	W	Calm	0·0	0·0	0·0	85	0·00
14	..	29·229	50·7	29·8	40·5	36·1	91·8	24·0	46·6	43·9	4·4	12·0	2·3	− 0·8	SW	S : SE	2·5	0·0	0·1	132	0·02
15	Perigee	29·160	45·5	35·5	39·7	36·5	60·0	31·0	46·6	43·4	3·2	6·1	1·9	− 1·8	NW	NE	0·0	0·0	0·0	255	0·22
16	..	29·785	47·9	34·2	40·5	33·4	86·5	29·7	45·6	42·4	7·1	12·2	1·4	− 1·2	NE	NNE	9·0	0·0	2·0	407	0·01
17	..	30·041	47·2	32·9	39·0	30·2	86·7	27·2	45·6	42·4	8·8	13·2	0·0	− 2·8	NNE	N	2·5	0·0	0·1	224	0·00
18	In Equator	29·822	46·0	28·1	36·0	27·2	86·0	22·7	45·6	42·4	8·8	16·3	0·0	− 5·8	SW	NE	0·0	0·0	0·0	161	0·00
19	New	29·934	50·5	30·6	40·3	33·2	77·5	22·5	46·1	42·9	7·0	15·8	3·6	− 1·5	W : N	N : SW	2·0	0·0	0·0	271	0·00
20	..	29·717	57·9	36·8	46·1	41·7	86·5	30·4	46·1	42·9	4·4	12·7	2·0	+ 4·2	SW	NW	9·0	0·0	2·0	476	0·00
21	..	29·961	51·2	40·4	45·1	35·8	81·0	36·3	44·6	42·4	9·3	14·0	5·3	+ 3·2	NW	NNE	10·0	0·0	2·5	196	0·00
22	..	30·218	60·2	30·5	45·5	41·4	96·0	25·5	46·6	43·9	4·1	14·4	0·0	+ 3·6	Calm	SW	0·0	0·0	0·0	204	0·00
23	..	30·257	63·7	39·0	48·3	42·5	102·6	33·2	46·6	43·9	5·8	19·2	0·0	+ 6·3	SW : W	NW : SW	0·0	0·0	0·0	164	0·00
24	..	30·311	60·8	40·8	50·6	42·9	96·0	33·2	47·1	44·4	7·7	14·4	0·0	+ 8·5	WSW	NW : Calm	0·0	0·0	0·0	92	0·00
25	Greatest Declination N.	30·324	58·8	36·4	47·8	43·7	84·7	29·1	47·3	44·4	4·1	13·7	0·0	+ 5·6	Calm	Calm : SW	0·0	0·0	0·0	158	0·00
26	..	30·165	59·0	37·9	48·2	39·9	96·5	29·9	47·3	44·4	8·3	14·6	1·7	+ 5·9	SW	NW : W	6·0	0·0	0·8	320	0·00
27	First Quarter; Apogee.	30·165	55·4	35·7	45·4	37·2	86·0	27·0	47·1	44·4	8·2	15·8	0·8	+ 3·0	NW	W	4·0	0·0	0·5	380	0·00
28	..	29·764	58·0	40·2	50·1	41·5	82·5	32·9	47·1	44·4	8·6	16·4	5·1	+ 7·5	WNW	NW	5·0	0·0	..	431	0·00
29	..	29·670	59·6	46·0	51·6	42·1	90·5	37·8	47·1	44·4	9·5	15·0	5·5	+ 8·8	NW	NW	10·0	0·0	2·0	371	0·00
30	..	29·880	53·3	40·8	45·8	41·7	..	40·4	48·6	46·4	4·1	7·8	1·4	+ 2·8	NW	ESE	3·0	0·0	0·0	166	0·01
31	..	30·083	51·9	36·2	42·5	33·9	..	36·1	48·6	46·4	8·6	15·0	4·8	− 0·9	E	SE	2·0	0·0	0·0	126	0·00
Means	..	29·715	53·7	35·7	43·9	37·6	86·4	30·3	46·5	43·9	6·3	13·2	2·1	+ 2·6	...	...	..	..	..	Sum 7352	Sum 0·69

BAROMETER READINGS FROM EYE-OBSERVATIONS.

The first maximum in the month was 29in·448 on the 7th ; the first minimum in the month was 29in·243 on the 6th.
The second maximum ,,   was 29in·494 on the 8th ; the second minimum ,,   was 29in·298 on the 7th.
The third maximum ,,   was 29in·540 on the 11th ; the third minimum ,,   was 29in·202 on the 10th.
The fourth maximum ,,   was 29in·344 on the 14th ; the absolute minimum ,,   was 29in·005 on the 12th.
The fifth maximum ,,   was 30in·056 on the 17th ; the fifth minimum ,,   was 29in·080 on the 15th.
The sixth maximum ,,   was 29in·966 on the 19th ; the sixth minimum ,,   was 29in·790 on the 18th.
The absolute maximum ,,   was 30in·388 on the 25th ; the seventh minimum ,,   was 29in·682 on the 20th.
The eighth maximum ,,   was 30in·257 on the 27th ; the eighth minimum ,,   was 30in·137 on the 26th.
The ninth maximum ,,   was 30in·097 on the 31st ; the ninth minimum ,,   was 29in·649 on the 29th.
The range in the month was 1in·383.
The mean for the month was 29in·715, being 0in·056 *lower* than the average of the preceding 22 years.

TEMPERATURE OF THE AIR.

The highest in the month was 64°·0 on the 3rd ; the lowest was 28°·1 on the 18th ; and the range in the month was 35°·9.
The mean   ,,   of all the highest daily readings was 53°·7, being 3°·7 *higher* than the average of the preceding 22 years.
The mean   ,,   of all the lowest daily readings was 35°·7, being 0°·3 *higher* than the average of the preceding 22 years.
The mean daily range was 18°·0, being 3°·4 *greater* than the average of the preceding 22 years.
The mean for the month was 43°·9, being 2°·0 *higher* than the average of the preceding 22 years.

MONTH and DAY, 1863.	ELECTRICITY		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
March 1	o	o	10, sc, w	10, sl.-r : v : o
2	o	o	10, ci.-s, sl.-r	10, ci.-s : v, li.-cl : o
3	o	m	o : o	o : o
4	s	w : s	3, ci	3, ci : 3, ci.-s, ci : 1, li.-cl
5	s : s	o : s	o : 10, th.-f : 2, ci, ci.-s	1, ci, ci.-s, cu.-s : 3, ci, ci.-cu, ci.-s
6	w	o	o	10, st.-w : 10,oc.-shs,st.-w : v,ci.-s,s,oc.-shs
7	o	m : o	8, li.-cl : 7, ci, ci.-s, ci.-cu	10, ci.-s : 10, ci.-s, c.-h.-r
8	o	s N, sps, g-cur : o	1, ci, ci.-s, v	9, ci.-s, ci.-cu, hl, sn : v, fr.-r
9	s	o : m	1, ci, ci.-s	9, li.-cl, h : 7,ci,ci.-cu,ci.-s,cu.-s : 10
10	s	v : o	h.-fr : o, h	10, li.-cl, h : 10, v, r : o
11	o	w : o	10, ci.-s	10, ci.-s : 9,ci.-cu,ci.-s,v : o, h
12	o	s N : o	o, h.-fr : 10	10, r : 10, v, r : o, h
13	m	w : o	o, h : h	10, ci.-s, h : 7, ci.-s, v, m : o, h, f
14	s	o : w N	6, ci, ci.-s, h	10, ci.-s : 10, ci.-s : 10, sl.-r
15	o	o	10, h.-r : 10	10, h.-r : v : o
16	o	o	10, ci.-s	10, v, st.-w : 9, ci.-s,ci,sl.-r : 9, v
17	o	o	o : 10, ci.-s, ci.-cu	6, ci, ci.-cu, ci.-s, cu.-s : o
18	w	o : w : o	h.-fr : 10, ci, ci.-cu, ci.-s, cu.-s	10 : 5, ci, ci.-cu, ci.-s: o, h, h.-fr
19	o : w	o	o, h, h.-fr : 10, ci.-s	9, ci, ci.-cu, cu.-s : o, f
20	o	o	sl.-r : 10, ci.-s	10, st.-w : 10
21	o	o	1, ci, ci.-s	10, ci.-s : 10, ci.-s : o
22	o	w : m	1, ci, h	o, h : 10, v : 10
23	s	w : m	10 : li.-cl	5, li.-cl, h : 9, ci, ci.-s, cu.-s: o
24	m	o	10, ci, ci.-cu, ci.-s	10, li.-cl, h : o, m
25	s	w : o	10, ci.-cu, ci.-s	10, ci.-s : o, h : o
26	o : s	w : s	o : 10, ci.-s : o, h, v	9, ci.-s : 10, ci.-s, cu.-s : o
27	v	o : s	10, li.-cl, h	10, ci.-s : v : o
28	o	w	10, st.-w	10, ci.-s, ci.-cu, cu.-s : 10, ci.-s
29	m	o : m	10, ci.-s, st.-w	7, ci, ci.-cu, cu.-s : 8, ci, ci.-s, v
30	o	o	10, th.-r	10, th.-r
31	w	o : v	10, ci, ci.-cu, cu.-s	9, ci, ci.-cu, ci.-s, cu.-s : o

HUMIDITY OF THE AIR.

Temperature of the Dew Point.

The highest in the month was 48°·3 on the 2nd ; and the lowest was 24°·1 on the 18th.

The mean ,, was 37°·6, being 0°·9 *higher* than the average of the preceding 22 years.

Elastic Force of Vapour.—The mean for the month was $0^{in}·225$ being $0^{in}·006$ *greater* than the average of the preceding 22 years.

Weight of Vapour in a Cubic Foot of Air.—The mean for the month was $2^{gr}·6$, being $0^{gr}·1$ *greater* than the average of the preceding 22 years.

Degree of Humidity.—The mean for the month was 78 (that of Saturation being represented by 100), being 4 *less* than the average of the preceding 22 years.

Weight of a Cubic Foot of Air.—The mean for the month was 547 grains, being 2 grains *less* than the average of the preceding 22 years.

CLOUDS.

The mean amount for the month, a clear sky being represented by o and a cloudy sky by 10, was 6·4.

WIND.

The proportions were of N. 7, S. 6, W. 11, and E. 3, and Calm 4. The greatest pressure in the month was $10^{lbs}·0$ on the square foot on the 6th, 8th, 21st, and 29th,

RAIN.

Fell on 10 days in the month, amounting to $0^{in}·7$, as measured in the simple cylinder gauge partly sunk below the ground; being $0^{in}·9$ *less* than the average fall of the preceding 48 years.

MONTH and DAY, 1863.	Phases of the Moon.	Mean Daily Reading of the Barometer (corrected and reduced to 32° Fahrenheit).	READINGS OF THERMOMETERS. Dry. Highest.	Lowest.	Mean Daily Value.	Dew Point. Mean Daily Value.	Highest in the Sun, as shewn by a Self-Registering Thermometer read at 9h P.M.	Lowest on the Grass, as shewn by a Self-Registering Thermometer read at 9h A.M. next morning.	In the Water of the Thames, at Greenwich, by Self-registering Thermometers, read at 9h A.M. next morning. Highest.	Lowest.	Difference between the Dew Point Temperature and Air Temperature. Mean Daily Value.	Greatest.	Least.	Difference between the Mean Temperature of the Day and the Mean Temperature of the same Day on an Average of 23 Years.	WIND. Osler's. General Direction. A.M.	P.M.	Pressure in lbs. on the square foot. Greatest.	Least.	Mean of 24 Obs.	Robinson's. Amount of Horizontal Movement of the Air on each Day.	Rain in Inches read at 9h P.M.
		in.	°	°	°	°	°	°	°	°	°	°	°	°			lbs.	lbs.	lbs.	miles.	in.
April 1	..	29·939	55·0	28·3	41·2	35·3	..	19·4	49·6	47·4	5·9	17·6	0·0	− 2·4	SE : Calm	SE	0·0	0·0	0·0	132	0·00
2	In Equator.	29·976	58·8	29·3	43·6	36·8	95·0	22·1	50·1	47·9	6·8	17·9	0·0	− 0·5	NE	NE : SE	0·0	0·0	0·0	120	0·00
3	..	30·040	61·0	30·9	46·2	37·8	89·5	25·0	49·8	47·6	8·4	19·2	1·7	+ 1·7	Calm : SW	Calm	0·0	0·0	0·0	170	0·00
4	Full.	29·804	57·0	38·9	46·0	40·8	73·0	34·6	49·7	47·5	5·2	14·8	2·2	+ 1·2	SW	WSW : NW	5·0	0·0	0·5	332	0·03
5	..	29·660	55·8	37·7	45·3	41·9	81·0	28·0	49·7	47·5	3·4	7·4	1·5	+ 0·2	SW	SW	7·0	0·0	1·8	504	0·00
6	..	29·427	58·1	46·1	50·5	44·7	87·0	41·0	49·7	47·5	5·8	12·3	2·7	+ 5·1	SW	SSW	6·5	0·0	1·3	377	0·00
7	..	29·356	56·9	40·3	46·0	38·2	93·0	37·0	49·8	47·6	7·8	18·4	1·5	+ 0·5	W	SW	4·0	0·0	0·6	313	0·10
8	Greatest Declination S.	29·528	54·7	34·8	45·0	44·1	63·4	32·8	49·6	48·4	0·9	8·8	0·0	− 0·5	WSW	SW	4·0	0·0	0·4	301	0·07
9	Perigee.	29·639	58·3	47·8	51·8	50·4	78·0	46·0	50·8	48·6	1·4	6·7	0·6	+ 6·4	SW	SW	4·0	0·0	0·3	225	0·02
10	..	29·600	65·3	49·8	55·6	51·0	77·0	46·7	51·1	49·4	4·6	13·9	0·6	+10·5	SW	SE	1·0	0·0	0·0	173	0·00
11	Last Qr.	29·683	59·4	48·8	52·5	47·1	75·0	46·0	52·6	50·4	5·4	10·3	2·2	+ 7·5	W	NE	0·0	0·0	0·0	190	0·00
12	..	29·791	60·5	46·0	50·7	44·7	97·5	44·2	53·6	51·4	6·0	15·4	2·5	+ 5·8	NE	E	2·0	0·0	0·0	200	0·01
13	..	29·824	58·2	42·0	48·7	41·3	96·8	36·1	53·6	51·4	7·4	16·2	1·5	+ 3·5	NE	E	3·0	0·0	0·2	159	0·00
14	..	29·778	60·0	36·8	46·4	44·4	83·7	34·1	53·8	51·9	2·0	11·0	0·0	+ 0·9	NE	SW	2·0	0·0	0·0	169	0·00
15	In Equator	29·839	67·0	36·8	50·9	44·6	109·0	35·3	54·1	51·9	6·3	21·4	0·0	+ 5·2	SW	Calm	0·0	0·0	0·0	74	0·01
16	..	29·851	67·7	44·7	54·8	47·2	105·2	35·1	54·6	52·4	7·6	14·8	0·0	+ 8·8	Calm	NE	0·0	0·0	0·0	123	0·00
17	..	29·961	64·5	43·1	52·2	45·4	90·0	32·0	55·1	52·9	6·8	13·9	1·1	+ 6·0	N	NW	2·0	0·0	0·0	166	0·00
18	New.	30·092	64·0	42·5	50·6	45·9	98·5	36·0	55·6	54·4	4·7	11·8	0·9	+ 4·2	NE	NE : SE	2·0	0·0	0·0	135	0·00
19	..	29·961	66·1	33·6	48·8	43·6	106·4	24·3	56·6	54·4	5·2	15·2	0·0	+ 2·3	SE	SW	0·0	0·0	0·0	119	0·00
20	..	29·716	69·3	38·5	51·8	45·8	104·0	38·4	56·6	54·4	6·0	15·4	0·5	+ 5·1	Calm	SW : W	4·0	0·0	0·3	308	0·00
21	..	29·684	60·7	38·2	48·8	45·4	91·0	35·0	55·8	53·6	3·4	9·2	2·3	+ 1·8	W	SW	5·0	0·0	1·8	527	0·00
22	Greatest Declination N.	29·604	62·8	46·9	51·6	45·0	93·3	46·7	56·1	53·9	6·6	15·6	4·2	+ 4·3	WSW	NW : W	12·0	0·0	4·0	343	0·01
23	..	29·971	61·6	38·9	47·6	35·8	95·0	28·1	56·1	53·6	11·8	18·8	8·8	0·0	W	NW	8·0	0·0	2·5	362	0·00
24	Apogee.	30·214	61·7	37·0	49·0	38·6	95·7	25·0	55·8	53·6	10·4	19·8	1·4	+ 1·4	NW	NW	3·0	0·0	0·6	309	0·00
25	..	30·117	67·0	44·0	53·9	47·0	103·4	35·2	55·8	53·6	6·9	16·2	3·3	+ 6·3	NW	NW	4·0	0·0	1·3	265	0·00
26	First Qr.	30·082	67·1	40·8	53·0	44·6	99·2	30·5	55·3	53·9	8·4	21·6	2·5	+ 5·4	W	NW : WSW	0·0	0·0	0·0	214	0·00
27	..	29·894	68·0	40·8	54·4	45·0	104·5	38·6	55·3	53·9	9·4	20·7	3·0	+ 6·0	WSW	NW	8·0	0·0	1·5	388	0·00
28	..	29·652	59·5	44·3	47·8	35·4	97·0	..	55·3	53·9	12·4	22·6	7·8	− 0·7	W NW : N	NW N	7·0	0·0	1·5	384	0·00
29	In Equator	29·727	55·2	39·2	43·4	34·9	85·8	29·4	56·1	53·9	8·5	13·4	3·8	− 5·7	NE	N	11·0	0·0	2·0	430	0·04
30	..	29·986	54·9	37·0	43·4	38·4	79·3	29·0	55·6	52·4	5·0	13·8	3·6	− 6·1	NE	NE	7·0	0·0	1·0	191	0·14
Means	..	29·813	61·2	40·1	49·1	42·7	91·3	34·3	53·4	51·4	6·3	15·1	2·0	+ 2·8	...	...	..	..	..	Sum 7703	Sum 0·43

BAROMETER READINGS FROM EYE-OBSERVATIONS.

The first maximum in the month was 30in·096 on the 3rd; the absolute minimum   ,,   was 29in·337 on the 7th.

The first minimum in the month was 29in·907 on the 1st.

The second maximum   ,,   was 29in·684 on the 9th ; the third minimum   ,,   was 29in·531 on the 10th.

The third maximum   ,,   was 29in·836 on the 13th ; the fourth minimum   ,,   was 29in·758 on the 14th.

The fourth maximum   ,,   was 30in·131 on the 18th ; the fifth minimum   ,,   was 29in·524 on the 22nd

The absolute maximum   ,,   was 30in·254 on the 24th ; the sixth minimum   ,,   was 29in·619 on the 28th.

The range in the month was 0in·917.

The mean for the month was 29in·813, being 0in·061 greater than the average of the preceding 22 years.

TEMPERATURE OF THE AIR.

The highest in the month was 69°·3 on the 20th ; the lowest was 28°·3 on the 1st ; and the range in the month was 41°·0.

The mean   ,,   of all the highest daily readings was 61°·2, being 4°·4 higher than the average of the preceding 22 years.

The mean   ,,   of all the lowest daily readings was 40°·1, being 1°·4 higher than the average of the preceding 22 years.

The mean daily range was 21°·1, being 3°·0 greater than the average of the preceding 22 years.

The mean for the month was 49°·1, being 2°·8 higher than the average of the preceding 22 years.

MONTH and DAY, 1863.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
April 1	w	m : v	o	o : 3, ci, ci.-s : 1, li.-cl
2	m : s	o : m	1, li.-cl : o, h	o : o
3	m	o	10	9, gt.-glm : 10
4	m	o : v	10, ci.-s, li.-cl	10, ci.-s, th.-r : v : o, h, f
5	o	o	10, st.-w	10, st.-w
6	o	o	10, ci.-s, sc, st.-w	7, ci, ci.-cu, ci.-s, cu.-s : 10, ci.-s, li.-shs
7	o	o	10, r : 4, ci, ci.-s, ci.-cu, cu.·s	8, ci, cu, ci.-s, cu.-s, hl : 5, ci.-s, ci.-cu, cu.-s, hl, r, v
8	o	s N : w : o	3, ci, cu, ci.-cu, cu.-s	10, c.-r : 10, oc.-r
9	o : w	o : m	10, th.-r : 7, ci : 10, ci.-s	10, ci.-s : 8, ci.-s, v
10	w	w : s	10, ci.-s, sl.-r	8, ci, ci.-cu, cu.-s : 10, th.-r
11	w N	o : s	10	10, ci.-s : 10
12	w	w : m	10, ci.-s, sl.-r : li.-cl	6, ci : 5, v, li.-cl
13	m	w : s	9, ci, ci.-cu, cu.-s	7, ci, ci.-cu, ci.-s : 2, ci, ci.-s : 5, ci, ci.-s, v
14	w	w : s, sps	10, ci.-s	5, ci, ci.-cu, cu.-s : 8
15	w	w : w N : o	5, ci, ci.-cu, cu.-s	5, ci.-s, ci : 9, ci.-s, cu.-s, ci.-cu : 2, ci.-s, sl.-r
16	o : m	o : w	10 : 10	4, ci, ci.-s : 10, ci.-s, ci.-cu : 10, ci.-s
17	o	o : w	o, h	9, ci, ci.-cu, ci.-s, h : 4, ci, ci.-cu : o, h
18	o	o : m	10, ci.-s	10 : 5, ci, ci.-cu, cu.s, cu : o
19	o	w : o	o : o	o : li.-cl : 7, ci, ci.-s
20	m	o : m	10, ci.-cu	10, ci, ci.-cu, ci.-s, cu.-s : 9, li.-cl
21	w	o : m	7, ci, ci.-s	10, ci.-s, cu.-s, oc.-r : 2, li.-cl, st.-w
22	o	w N : w : m	st.-w : 10, ci.-s, st.-w, r	10, ci.-s, cu.-s, ci.-cu : 2, li.-cl : o
23	m : w	w P, w N : w	o : 1, li.-cl : 9, ci, ci.-cu, cu.-s	6, ci, ci.-cu, cu.-s, cu : 9, ci.-s, ci.-cu, v : o
24	w	w N : m	2, ci, ci.-cu	3, ci, ci.-cu : 9, ci, ci.-s, v
25	o	o	10, ci.-s	6, ci, ci.-cu, cu.-s : 3, ci, ci.-cu : 1, li.-cl
26	o	o : m	5, ci, ci.-cu, h	5, ci, ci.-cu, h : o
27	w	m N : m	o : o, st.-w	6, ci, cu, ci.·cu, cu.-s : 10, ci.-s, s, lu.-ha
28	o	m : w	10 : 10, ci.-s, sl.-r, hl	10, w : 6, ci.-cu, ci.-s, ci : o
29	o : m	sN, sP, sps, g-cur: sN, wP	10, ci.-s, sl.-r, st.-w	10, st.-w, oc.-shs : v, oc.-shs : v, cu.-s, sc
30	w : o	sN, sP, sps, g-cur : m	v, cu.-s, ci.-s : 10, ci, ci.-cu, ci.-s, cu.-s	10, h.-shs : 7, ci, ci.-cu, cu.-s : o

HUMIDITY OF THE AIR.

Temperature of the Dew Point.

The highest in the month was $53°·3$ on the 10th; and the lowest was $33°·1$ on the 23rd.

The mean ,, was $42°·7$, being $2°·6$ *higher* than the average of the preceding 22 years.

Elastic Force of Vapour.—The mean for the month was $0^{in}·274$, being $0^{in}·026$ *greater* than the average of the preceding 22 years.

Weight of Vapour in a Cubic Foot of Air.—The mean for the month was $3^{gr}·1$, being $0^{gr}·2$ *greater* than the average of the preceding 22 years.

Degree of Humidity.—The mean for the month was 78 (that of Saturation being represented by 100). being 1 *less* than the average of the preceding 22 years.

Weight of a Cubic Foot of Air.—The mean for the month was 543 grains, being 1 grain *greater* than the average of the preceding 22 years.

CLOUDS.

The mean amount for the month, a clear sky being represented by 0 and a cloudy sky by 10, was $6·6$.

WIND.

The proportions were of N. 6, S. 6, W. 11, E. 5, and Calm 2. The greatest pressure in the month was $12^{lbs}·0$ on the square foot on the 22nd.

RAIN.

Fell on 9 days in the month, amounting to $0^{in}·4$, as measured in the simple cylinder gauge partly sunk below the ground; being $1^{in}·4$ *less* than the average fall of the preceding 48 years.

MONTH and DAY, 1863.	Phases of the Moon.	Mean Daily Reading of the Barometer (corrected and reduced to 32° Fahrenheit).	READINGS OF THERMOMETERS. Dry. Highest.	Dry. Lowest.	Dry. Mean Daily Value.	Dew Point. Mean Daily Value.	Highest in the Sun, as shewn by a Self-Registering Thermometer read at 9h P.M.	Lowest on the Grass, as shewn by a Self-Registering Thermometer read at 9h A.M. next morning.	In the Water of the Thames, at Greenwich, by Self-Registering Thermometers, read at 9h A.M. next morning. Highest.	Lowest.	Difference between the Dew Point Temperature and Air Temperature. Mean Daily Value.	Greatest.	Least.	Difference between the Mean Temperature of the Day and the Mean Temperature of the same Day on an Average of 43 Years.	WIND AS DEDUCED FROM ANEMOMETERS. Osler's. General Direction. A.M.	P.M.	Pressure in lbs. on the square foot. Greatest.	Least.	Mean of 24 Obs.	ROBINSON'S. Amount of Horizontal Movement of the Air on each Day.	Rain in inches read at 9h P.M.
		in.	°	°	°	°	°	°	°	°	°	°	°	°			lbs.	lbs.	lbs.	miles.	in.
May 1	..	30·082	57·8	31·4	44·4	36·1	99·5	22·4	55·8	52·6	8·3	16·4	3·0	− 5·6	NE	E	0·0	0·0	0·0	200	0·00
2	..	29·942	62·5	33·4	48·0	39·0	102·7	23·0	55·2	52·6	9·0	21·8	4·2	− 2·5	NE	E : NE	2·0	0·0	0·3	225	0·00
3	Full	29·735	69·0	39·7	54·0	44·0	108·0	39·0	55·7	53·5	10·0	21·6	3·0	+ 3·1	NE	NE : Calm	0·0	0·0	0·0	129	0·00
4	..	29·667	69·0	50·2	56·4	47·7	103·8	44·0	55·7	53·5	8·7	14·6	5·2	+ 5·1	NW	W	0·0	0·0	0·0	242	0·00
5	..	29·728	72·9	47·8	55·7	45·6	109·0	39·7	55·8	53·6	10·1	18·9	2·0	+ 4·1	WSW	N : NE	4·0	0·0	0·3	201	0·00
6	Greatest Dec. S. Perigee	29·866	70·5	41·4	54·4	45·8	107·6	..	56·1	53·9	8·6	19·8	4·2	+ 2·6	NE	SW : W	0·0	0·0	0·0	193	0·00
7	..	30·045	67·0	45·4	53·1	45·5	99·0	37·0	56·3	54·1	7·6	19·8	1·7	+ 1·2	W	NE : E	1·0	0·0	0·0	166	0·00
8	..	30·171	61·2	35·9	47·3	41·4	101·5	33·5	56·3	54·1	5·9	13·1	4·0	− 4·5	NE	SE : E	2·0	0·0	0·1	156	0·00
9	..	29·869	68·8	36·8	51·8	44·1	106·5	36·1	56·3	54·1	7·7	20·5	3·3	+ 0·2	E : NE	SE	0·0	0·0	0·0	158	0·00
10	Last Qr.	29·818	64·3	42·9	52·6	42·3	105·0	32·0	56·3	54·1	10·3	18·4	3·0	+ 1·2	SW	NE	0·0	0·0	0·0	198	0·00
11	..	29·827	63·7	42·2	50·7	40·6	98·9	40·0	56·6	54·4	10·1	18·3	3·8	− 0·6	WNW	SW	4·0	0·0	0·5	425	0·01
12	In Equator	29·543	57·0	47·1	51·4	49·8	70·6	47·1	56·7	54·5	1·6	3·6	0·8	+ 0·1	SW	SW	6·0	0·0	2·0	370	0·32
13	..	29·511	64·5	49·8	55·0	47·5	99·4	45·0	56·8	54·6	7·5	13·1	2·8	+ 3·6	WSW	SW	11·0	0·0	1·5	438	0·03
14	..	29·718	64·5	45·5	53·3	45·8	94·8	36·7	56·8	54·6	7·5	15·2	0·2	+ 1·5	SW	SW	4·5	0·0	0·8	350	0·04
15	..	29·667	62·6	49·9	53·6	50·5	85·3	49·5	56·8	54·6	3·1	9·1	1·3	+ 1·4	SW	SW	4·0	0·0	0·5	322	0·08
16	..	29·765	63·0	46·5	53·3	47·5	90·1	38·8	57·1	54·9	5·8	12·2	2·9	+ 0·7	SW	SW	3·0	0·0	0·3	228	0·02
17	New	29·665	62·9	47·7	53·5	48·5	87·5	40·8	57·3	55·1	5·0	8·2	4·2	+ 0·7	SW	SW	2·0	0·0	0·1	165	0·00
18	..	29·742	66·5	42·6	51·8	46·7	105·5	41·8	57·3	55·1	5·1	11·2	0·0	− 1·3	WSW : NE	NE	3·0	0·0	0·2	358	0·00
19	Greatest Declination N	29·760	49·3	42·1	44·0	40·3	56·9	..	57·1	54·9	3·7	5·5	2·0	− 9·3	NE	NE	13·0	1·0	3·5	401	0·33
20	..	29·929	54·1	41·7	46·5	44·1	63·1	40·4	57·1	54·9	2·4	5·0	0·0	− 7·1	NE	NE	2·0	0·0	0·0	217	0·33
21	..	30·031	57·1	43·5	49·3	44·4	73·7	43·4	57·3	55·1	4·9	9·2	1·1	− 4·5	NE	NE	0·0	0·0	0·0	224	0·07
22	Apogee	29·860	55·8	36·9	45·3	39·4	90·4	..	57·1	54·9	5·9	9·6	3·1	− 8·8	NE	NE	1·0	0·0	0·0	228	0·00
23	..	29·703	62·1	35·7	47·8	40·4	106·0	26·8	57·1	54·9	7·4	16·5	3·0	− 6·5	NE	SE : NE	2·0	0·0	0·0	152	0·00
24	..	29·729	64·7	36·2	50·3	42·1	105·5	26·0	56·6	54·4	8·2	18·8	4·0	− 4·1	NE	N	1·0	0·0	0·0	265	0·00
25	First Qr.	29·818	60·8	40·8	48·7	40·8	97·2	33·0	56·3	54·1	7·9	16·3	3·7	− 5·9	N : NE	NE	4·0	0·0	0·6	242	0·00
26	In Equator	30·039	63·3	35·9	47·7	40·7	106·7	30·0	56·1	52·9	7·0	20·9	4·0	− 7·0	NNE	NNE	0·0	0·0	0·0	142	0·00
27	..	30·108	71·2	38·2	55·5	46·8	95·0	29·2	56·3	54·1	8·7	18·4	3·6	+ 0·6	SW	NW	0·0	0·0	0·0	174	0·00
28	..	30·105	74·2	46·1	59·4	51·5	107·7	45·0	56·3	54·1	7·9	18·2	2·8	+ 4·2	WSW	W	0·0	0·0	0·0	190	0·00
29	..	30·047	79·7	49·7	63·5	55·9	114·4	..	56·8	54·5	7·6	19·6	1·0	+ 8·1	WSW	W	1·0	0·0	0·0	199	0·00
30	..	29·997	75·5	53·7	62·5	57·0	98·0	53·4	57·3	55·1	5·5	11·2	2·4	+ 6·8	W	W : NW	1·5	0·0	0·0	255	0·00
31	..	30·069	60·2	48·3	52·1	49·3	77·0	48·0	59·6	57·4	2·8	6·8	1·0	− 4·0	NE : E	NE : SE	0·0	0·0	0·0	183	0·02
Means	..	29·857	64·4	42·7	52·0	45·2	95·7	37·9	56·6	54·4	6·8	14·6	2·6	− 0·9	...	....	..	..	..	Sum 7396	Sum 1·25

BAROMETER READINGS FROM EYE-OBSERVATIONS.

The first maximum in the month was 30in·116 on the 1st; the first minimum in the month was 29in·656 on the 4th.
The absolute maximum   ,,   was 30in·228 on the 8th ; the second minimum   ,,   was 29in·800 on the 9th.
The third maximum   ,,   was 29in·896 on the 11th ; the absolute minimum   ,,   was 29in·447 on the 12th.
The fourth maximum   ,,   was 29in·748 on the 14th ; the fourth minimum   ,,   was 29in·634 on the 15th.
The fifth maximum   ,,   was 29in·776 on the 16th ; the fifth minimum   ,,   was 29in·663 on the 17th.
The sixth maximum   ,,   was 30in·039 on the 21st ; the sixth minimum   ,,   was 29in·679 on the 23rd.
The seventh maximum   ,,   was 30in·137 on the 28th ; the seventh minimum   ,,   was 29in·963 on the 30th.
The eighth maximum   ,,   was 30in·120 on the 31st.
The range in the month was 0in·781.
The mean for the month was 29in·857, being 0in·090 higher than the average of the preceding 22 years.

TEMPERATURE OF THE AIR.

The highest in the month was 79°·7 on the 29th; the lowest was 31°·4 on the 1st.
The range   ,,   was 48°·3.
The mean   ,,   of all the highest daily readings was 64°·4, being 0°·1 lower than the average of the preceding 22 years.
The mean   ,,   of all the lowest daily readings was 42°·7, being 1°·6 lower than the average of the preceding 22 years.
The mean daily range was 21°·7, being 1°·5 greater than the average of the preceding 22 years.
The mean for the month was 52°·0, being 0°·9 lower than the average of the preceding 22 years.

MONTH and DAY, 1863.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
May 1	w	v : o	2, ci, ci.-cu	3, ci,ci.-cu,cu : 1, ci, cu : o
2	m	w : s	1, ci, ci.-s	o : 4, ci, ci.-s : 6, li.-cl
3	w	w : o	1, li.-cl	o : v, li.-cl : 2, li.-cl
4	o	o : w	10	10 : 8,ci.-s,cu.-s,ci,ci.-cu : 1
5	m	w : w	3, ci, ci.-cu, ci.-s	3, ci, cu, ci.-cu : 10, th.-r, v : 5, ci, ci.-s
6	v	o : w	2, ci, ci.-cu	8, ci, ci.-cu, ci.-s, cu.-s : 2, ci, ci.-s
7	w : s : w	w : o : w	2, ci, ci.-s : 10, ci.-s	10 : 1, ci, ci.-cu : o
8	w	w : s	4, ci, ci.-cu, ci.-s	o : o
9	w	o	6, ci, ci.-cu, h	4, ci, ci.-cu, h : 6, ci, ci.-cu : o
10	o	o	o : 10	9, cu.-s, ci.-s, h : 10, cu.-s, ci.-s
11	o	o	7, ci, ci.-s	10, ci.-s : 10, sl.-r
12			shs.-r : 10, sl.-r	10, sl.-r, w : 10,ci.-s,c.-h.-r : 10
13	o	o : s N : w	10, ci.-s, ci, ci.-cu, sc, w	9,ci,ci.-cu,ci.-s,cu.-s,st.-w : 4,ci.-s,ci.-cu,v,r : v,ci.-cu,ci.-s,ci
14	w : w	o : w	o, v : 10, ci.-s	7,ci.-cu,ci.-s,cu.-s : 10, ci.-s : 10, sc, r
15	o	m N : w	10, ci.-s, shs.-r	10, oc.-r : 10, ci.-s, cu.-s : o
16	o : s N, sps	m : o : m	10, ci.-cu, ci.-s, oc.-r	10, ci.-s, cu.-s, ci.-cu, ci : 2, ci, ci.-s
17	w	o : m	10, ci.-s	10 : 1, ci, ci.-s
18	w	w : m	10, ci.-cu, ci.-s	10, ci.-cu, ci.-s, cu.-s : 10
19	w : s	o	10, st.-w, c.-h.-r	10, st.-w : 10, r
20	o : s N, sps	w : w N : s N	10, h.-r	10, sl.-r : 10, shs.-r
21	o	o : w	10, shs.-r : 10, ci.-s	10 : 1, ci, ci.-s
22	w	w	10	10, ci.-s, cu.-s, ci.-cu : 7, ci, ci.-cu, cu, cu.-s
23	w	w : m	8, cu, cu.-s, ci.-cu, ci	6, ci, ci.-cu, cu, ci.-s : o, ms
24	o	o : w	1, ci, ci.-cu, cu.-s	1,ci.-s,ci.-cu,ci,h : 10 : 10, ci.-cu, ci.-s
25	w	m : m	10	9, ci, cu, cu.-s : 3, s, ci, li.-cl, sl.-r, m
26	m	o	10, ci.-cu, ci.-s	10, ci.-s, cu.-s : 7, cu, ci, ci.-cu : o, m
27	o	o : v	o, h	4, ci.-cu, ci, h : 10,ci.-cu,ci.-s,cu.-s : v, ci.-s
28	w	w	10, ci.-s : 1, li.-cl, h	2, ci, h : li.-cl, h : o, h
29	m	o : w	1, ci, ci.-s, h	2, ci, ci.-cu, h : 1, ci, ci.-s
30	o	o	10, ci.-s	10, ci.-s : 10, ci.-s, cu.-s, sl.-r
31	o	o	10 : 10, r	10 : 10

HUMIDITY OF THE AIR.

Temperature of the Dew Point.

The highest in the month was $58^\circ \cdot 8$ on the 30th ; and the lowest was $34^\circ \cdot 9$ on the 1st.

The mean ,, was $45^\circ \cdot 2$, being $0^\circ \cdot 4$ *lower* than the average of the preceding 22 years.

Elastic Force of Vapour.—The mean for the month was $0^{in} \cdot 302$, being $0^{in} \cdot 001$ *less* than the average of the preceding 22 years.

Weight of Vapour in a Cubic Foot of Air.—The mean for the month was $3^{gr} \cdot 4$, being $0^{gr} \cdot 1$ *less* than the average of the preceding 22 years.

Degree of Humidity.—The mean for the month was 78 (that of Saturation being represented by 100), being 1 *greater* than the average of the preceding 22 years.

Weight of a Cubic Foot of Air.—The mean for the month was 540 grains, being 2 grains *greater* than the average of the preceding 22 years.

CLOUDS.

The mean amount for the month, a clear sky being represented by o and a cloudy sky by 10, was $6 \cdot 2$.

WIND.

The proportions were of N. 8, S. 4, W. 10, E. 9., and Calm o. The greatest pressure in the month was $13^{lbs} \cdot 0$ on the square foot on the 19th.

RAIN.

Fell on 10 days in the month, amounting to $1^{in} \cdot 3$, as measured in the simple cylinder gauge partly sunk below the ground ; being $0^{in} \cdot 8$ *less* than the average fall of the preceding 48 years.

ELECTRICITY.—On May 12, the insulating lamp was not burning.

MONTH and DAY, 1863.	Phases of the Moon.	Mean Daily Reading of the Barometer (corrected and reduced to 32° Fahrenheit).	READINGS OF THERMOMETERS.								Difference between the Dew Point Temperature and Air Temperature.			Difference between the Mean Temperature of the Day and the Mean Temperature of the same Day on an Average of 43 Years.	WIND AS DEDUCED FROM ANEMOMETERS.					ROBINSON'S Amount of Horizontal Movement of the Air on each Day.	Rain in Inches read at 9h P.M.
			Dry.			Dew Point.	Highest in the Sun, as shewn by a Self-Registering Thermometer read at 9h P.M.	Lowest on the Grass, as shewn by a Self-Registering Thermometer read at 9h A.M. next morning.	In the Water of the Thames, at Greenwich, by Self-Registering Thermometers, read at 9h A.M. next morning.						OSLER'S. General Direction.		Pressure in lbs. on the square foot.				
			Highest.	Lowest.	Mean Daily Value.	Mean Daily Value.			Highest.	Lowest.	Mean Daily Value.	Greatest.	Least.		A.M.	P.M.	Greatest.	Least.	Mean of 24 Obs.		
		in.	°	°	°	°	°	°	°	°	°	°	°	°			lbs.	lbs.	lbs.	miles	in.
June 1	Full	30·081	68·1	42·1	52·4	45·9	111·7	40·0	60·6	58·4	6·5	16·2	2·3	− 4·0	SE	SE	0·0	0·0	0·0	140	0·00
2	Greatest Declination S.	29·930	75·5	43·1	59·4	48·2	115·5	38·6	60·7	58·5	11·2	25·0	7·4	+ 2·8	SE	SE	0·0	0·0	0·0	41	0·00
3	Perigee	29·818	84·0	46·9	66·5	53·5	124·5	38·5	61·8	59·6	13·0	26·9	6·3	+ 9·7	Calm : WSW	W	1·0	0·0	0·0	110	0·00
4	..	29·828	73·6	55·9	62·1	45·8	103·9	52·9	62·6	60·4	16·3	23·6	8·9	+ 5·0	NE	NW : W	2·5	0·0	0·1	..	0·00
5	..	29·728	67·1	45·4	54·3	51·8	96·5	36·1	62·6	60·4	2·5	11·8	0·8	− 2·8	WSW	SW	6·0	0·0	0·8	..	0·23
6	..	29·277	67·6	50·0	53·9	49·2	102·4	50·0	62·8	60·6	4·7	13·7	2·1	− 3·3	SW	WSW	10·0	0·0	0·6	..	0·82
7	..	29·331	64·7	49·4	56·5	50·7	96·7	44·0	62·8	60·6	5·8	11·3	2·5	− 0·8	WSW	SW	6·0	0·0	1·0	..	0·08
8	Last Quarter ; In Equator.	29·399	63·5	49·2	53·6	45·6	98·2	49·0	62·8	60·6	8·0	14·4	3·4	− 3·8	SW	· SW	6·0	0·0	0·8	..	0·09
9	..	29·635	65·0	46·0	54·6	46·8	100·6	40·7	62·8	60·6	7·8	17·1	1·5	− 2·9	SW	SW : SE	2·0	0·0	0·2	..	0·00
10	..	29·336	68·3	51·0	57·0	51·3	98·0	46·7	62·7	60·5	5·7	14·4	3·0	− 0·7	SE	SW	6·0	0·0	0·6	..	0·02
11	..	29·412	64·6	50·0	54·4	45·8	105·5	46·6	62·6	60·4	8·6	15·4	5·4	− 3·6	SW	SSE	4·0	0·0	1·0	..	0·01
12	..	29·357	63·0	47·2	51·6	45·0	97·8	47·0	61·7	59·5	6·6	14·8	1·5	− 6·7	SW	SE : N	1·0	0·0	0·0	..	0·35
13	..	29·641	67·0	45·7	54·9	49·8	99·4	39·6	62·3	60·1	5·1	14·2	1·6	− 3·6	W	W	2·0	0·0	0·1	..	0·21
14	..	29·864	68·0	45·4	57·1	51·4	91·2	38·8	62·1	59·9	5·7	15·7	3·6	− 1·7	WSW	WSW	0·0	0·0	0·0	..	0·02
15	Greatest Declination N.	29·842	69·0	55·3	60·1	50·5	99·5	51·4	62·1	59·9	9·6	14·6	5·5	+ 1·1	W	W	0·0	0·0	0·0	..	0·00
16	New	29·788	66·3	50·8	57·3	54·8	83·3	50·2	62·7	60·5	2·5	6·3	0·0	− 2·0	SW	SW	0·0	0·0	0·0	..	0·04
17	..	29·722	72·0	53·5	59·9	53·5	104·8	50·3	62·8	60·6	6·4	18·5	0·8	+ 0·5	W	WSW	0·0	0·0	0·0	..	0·14
18	Apogee	29·648	72·7	48·9	59·4	50·1	112·3	43·8	63·1	60·9	9·3	17·3	1·4	− 0·1	SW	S : E	0·0	0·0	0·0	..	0·00
19	..	29·420	69·5	53·7	57·3	52·2	100·5	..	63·1	60·9	5·1	14·6	0·0	− 2·6	E : NE	SW : E	0·0	0·0	0·0	..	1·46
20	..	29·651	72·0	54·3	60·3	53·6	100·0	50·0	63·2	61·0	6·7	11·3	2·9	+ 0·5	NNE	NW	0·0	0·0	0·0	..	0·00
21	..	29·886	74·6	50·7	60·6	52·7	112·0	44·6	63·3	61·1	7·9	17·0	1·4	+ 0·7	W	WSW	0·0	0·0	0·0	..	0·00
22	..	29·891	69·8	55·1	59·7	56·1	88·4	53·4	63·3	61·1	3·6	9·4	1·1	− 0·3	WSW	SW	0·0	0·0	0·0	..	0·00
23	In Equator	29·965	76·5	56·8	65·1	52·1	121·5	51·5	63·7	61·5	13·0	22·3	0·6	+ 4·9	W	W	0·0	0·0	0·0	..	0·00
24	First Qr.	29·910	76·4	56·4	63·1	56·8	115·8	56·2	65·7	63·5	6·3	17·7	0·4	+ 2·7	Calm	NE : SE	0·0	0·0	0·0	92	0·45
25	..	29·964	67·8	57·8	62·0	51·5	106·0	54·5	65·8	63·6	10·5	14·2	2·7	+ 1·7	N	NNW	0·0	0·0	0·0	71	0·00
26	..	29·975	76·0	49·4	60·1	50·3	115·2	49·0	67·1	64·9	9·8	23·4	4·2	− 0·7	N	W	0·0	0·0	0·0	247	0·02
27	..	29·795	70·9	51·4	57·7	50·6	108·0	48·1	66·9	64·6	7·1	18·9	3·6	− 3·3	SW	W	2·0	0·0	0·0	275	0·00
28	..	29·794	69·5	47·2	57·3	49·0	100·7	46·2	66·9	64·7	8·3	16·4	5·0	− 4·0	W	SW	0·0	0·0	0·0	165	0·00
29	Greatest Declination S.	29·852	72·0	48·0	57·4	46·5	110·0	46·3	67·1	64·9	10·9	18·7	5·2	− 4·1	WSW	WSW	0·0	0·0	0·0	195	0·00
30	..	30·068	69·2	46·7	56·9	46·0	103·8	46·7	66·4	64·2	10·9	18·9	5·2	− 4·6	WSW	WSW	0·0	0·0	0·0	172	0·00
Means	..	29·727	70·1	50·1	58·1	50·2	104·1	46·6	63·5	61·3	7·8	16·5	3·0	− 0·9	...	...	..	..	..	Sum 10 days. 1508	Sum 3·94

BAROMETER READINGS FROM EYE-OBSERVATIONS.

The first maximum in the month was 29^{in}·650 on the 9th ; the absolute minimum   ,,   was 29^{in}·247 on the 10th.

The first minimum in the month was 29^{in}·265 on the 6th.

The second maximum   ,,   was 29^{in}·447 on the 11th ; the third minimum   ,,   was 29^{in}·323 on the 12th.

The third maximum   ,,   was 29^{in}·881 on the 15th ; the fourth minimum   ,,   was 29^{in}·383 on the 19th.

The fourth maximum   ,,   was 29^{in}·974 on the 23rd ; the fifth minimum   ,,   was 29^{in}·891 on the 24th.

The fifth maximum   ,,   was 30^{in}·006 on the 26th ; the sixth minimum   ,,   was 29^{in}·785 on the 27th.

The highest reading took place on the 30th at midnight, and was 30^{in}·155, the barometer still increasing.

The range in the month was 0^{in}·908.

The mean for the month was 29^{in}·727, being 0^{in}·063 *lower* than the average of the preceding 22 years.

TEMPERATURE OF THE AIR.

The highest in the month was 84°·0 on the 3rd ; the lowest was 42°·1 on the 1st.

The range   ,,   was 41°·9.

The mean   ,,   of all the highest daily readings was 70°·1, being 0°·9 *lower* than the average of the preceding 22 years.

The mean   ,,   of all the lowest daily readings was 50°·1, being 0°·1 *lower* than the average of the preceding 22 years.

The mean daily range was 20°·0, being 0°·8 *less* than the average of the preceding 22 years.

The mean for the month was 58°·1, being 1°·0 *lower* than the average of the preceding 22 years.

ROBINSON'S ANEMOMETER.—From June 4 to 23, this instrument was in the hands of its maker for repair.

MONTH and DAY, 1863.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
June 1	o	o	7, ci.-cu, ci.-s, ci	2, ci, ci.-cu, ci.-s : o
2	o	o	o : o	o : o
3	o	o	7, ci, ci.-s	3, ci, ci.-cu, ci.-s : 8, ci, ci.-s, ci.-cu, cu.-s : 10, ci.-s, cu.-s
4	o	w : o	10, ci.-s : 4, ci, ci.-s	8, ci, ci.-s, ci.-cu, h : 10, ci.-s : o
5	w	o	8, ci, ci.-cu, ci.-s, cu.-s	10, ci.-s, h.-r : 10, c.-h.-r
6	o	o	10, c.-h.-r : 10, r	5, ci, ci.-cu, ci.-s : 10, oc.-shs : 3, ci, ci.-s, m
7			9, v, fr.-sqs	10, ci.-cu, ci.-s, cu.-s, oc.-shs : 10, ci.-s, cu.-s
8	m	s N, sP, g-cur, sps : o	9, ci.-cu, cu, ci.-s, cu.-s, oc.-shs	3, cu, ci.-s, cu.-s, h.-shs : 9, v : o
9	o : s N, sP, sps, g-cur	s : o	4, ci : 10, cu, ci, ci.-s, ci.-cu, cu.-s	9, ci, cu, ci.-s, sl.-r : 3, cu.-s, ci.-cu, ci : 7, s, ci.-s
10	o	o	10, ci.-s, shs.-r : 10, ci.-s	10, ci.-s : 9, ci.-cu, ci.-s, ci : 10, w, li.-shs
11	o	o	10 : 4, ci, ci.-cu, th.-r : 9, ci.-s, ci, ci.-cu	9, cu.-s, ci.-s, ci.-cu, ci : 10, sl.-r
12	o	m : o	10, h.-r : 6, ci, ci.-s, ci.-cu, cu.-s	10, cu, ci, ci.-s, cu.-s, h.-r, t : 10, ci.-s, shs.-r
13	o	o : s N, sps, g-cur : s N, sps, g-cur	10, ci.-s : 10, ci, ci.-cu, ci.-s	9, ci.-cu, ci.-s, cu.-s, ci : 10, h.-r : 10, h.-r
14	o	o	10, sl.-r : 10, ci.-cu, ci.-s	10, oc.-shs : 1, ci.-s, ci.-cu, ci
15	o : m	w : m	10, ci.-cu, ci.-s : 10, ci.-s	10, ci.-s, ci.-cu : 10, ci.-s : 3, li.-cl
16	w	v : m	10, ci, ci.-s : 10, ci.-s	10, ci.-s, cu.-s, shs.-r : 10, th.-r
17	m : o	o : w : o	10, h.-shs : 10, sl.-r	10, ci.-cu, ci.-s, ci : 3, cu, ci.-cu, ci : 2, ci, ci.-s
18	w	w : s, sps	1, ci.-s : 2, ci, cu, ci.-cu, ci.-s	5, ci, ci.-cu, ci.-s, cu.-s : 10, li.-cl, sl.-r : 5, ci, ci.-s
19	o : s	o : m	10, h.-r : 10, c.-h.-r	10, ci.-cu, sl.-r : 7, cu, ci.-cu, shs.-r : 10, ci.-s, cu.-s
20	o : w	o	10, ci.-s, ci	10, ci, ci.-cu, ci.-s : o, h
21	w	o	4, ci, ci.-s, li.-cl	3, ci : 10, ci.-s
22	o	o	10, m.-r : 10, ci.-s, m.-r	10. ci.-s : 8, s, ci.-s, li.-cl
23	o : w	o	10, ci, ci.-cu, cu.-s : 3, ci, ci.-cu	2, ci, ci.-cu, ci.-s : 10, ci.-s
24	o : w	o : s N, sP, sps, g-cur	10, ci.-s : 10, ci.-s	6, ci, ci.-cu, cu, ci.-s : 9, ci, ci.-s, cu.-s : 10, ci.-s, t.-s, l, t, h.-r
25	o	o	10, l, t : 10, ci.-s, sl.-r	2, ci, ci.-cu, h : 9, cu.-s, ci.-cu, ci, h : 2, ci.-cu, ci
26	o	o	1, ci, ci.-cu, h : o, h	4, ci, cu, ci.-cu : 10, ci.-s, ci.-cu, ci : 10, ci.-cu, ci.-s, s, oc-r
27	o	o	10 : 10, sl.-r	10, sl.-r : 4, ci.-cu, cu.-s, ci : o
28	o	o	10, ci.-s, cu.-s	9, ci, ci.-cu, ci.-s, cu.-s : 8, ci.-cu, ci.-s, cu.-s
29	o	o	1, li.-cl : 9, ci.-cu, cu.-s, ci	6, cu.-s, ci.-cu, ci : 1, ci.-s, li.-shs
30	o	o	1, ci : 7, ci, ci.-cu, ci.-s	10, ci.-s, ci, ci.-cu : o

HUMIDITY OF THE AIR.

Temperature of the Dew Point.

The highest in the month was 61°·1 on the 24th ; and the lowest was 44°·5 on the 4th.

The mean ,, was 50°·2, being 0°·7 *lower* than the average of the preceding 22 years.

Elastic Force of Vapour.—The mean for the month was 0^{in}·364 being 0^{in}·009 *less* than the average of the preceding 22 years.

Weight of Vapour in a Cubic Foot of Air.—The mean for the month was 4^{gr}·1, being 0^{gr}·1 *less* than the average of the preceding 22 years.

Degree of Humidity.—The mean for the month was 75 (that of Saturation being represented by 100), being the *same* as the average of the preceding 22 years.

Weight of a Cubic Foot of Air.—The mean for the month was 531 grains, being the *same* as the average of the preceding 22 years.

CLOUDS.

The mean amount for the month, a clear sky being represented by o and a cloudy sky by 10, was 7·2.

WIND.

The proportions were of N. 4, S. 8, W. 14, E. 4. and Calm o. The greatest pressure in the month was 10^{lbs}·o on the square foot on the 6th.

RAIN.

Fell on 14 days in the month, amounting to 3^{in}·9, as measured in the simple cylinder gauge partly sunk below the ground ; being 2^{in}·o *greater* than the average fall of the preceding 48 years.

ELECTRICITY.

On June 7, the insulating lamp was not burning.

MONTH and DAY, 1863.	Phases of the Moon.	Mean Daily Reading of the Barometer (corrected and reduced to 32° Fahrenheit).	Dry. Highest.	Dry. Lowest.	Dry. Mean Daily Value.	Dew Point. Mean Daily Value.	Highest in the Sun, read by Self-Registering Ther. at 9ʰ P.M.	Lowest on the Grass, by Self-Reg. Ther. at 9ʰ A.M.	In Water of Thames. Highest.	In Water of Thames. Lowest.	Diff. Mean Daily Value.	Greatest.	Least.	Diff. between Mean Temp. of Day and Mean Temp. of 43 Years.	Osler's General Direction. A.M.	Osler's General Direction. P.M.	Pressure Greatest.	Pressure Least.	Pressure Mean of 24 Obs.	Robinson's Amount of Horizontal Movement.	Rain in Inches at 9ʰ P.M.
		in.	°	°	°	°	°	°	°	°	°	°	°	°			lbs.	lbs.	lbs.	miles.	in.
July 1	Full; Perigee.	30·095	72·9	45·5	60·2	49·1	111·0	..	66·4	64·2	11·1	21·4	6·6	− 1·3	Calm : S	SW : SSE	0·0	0·0	0·0	206	0·00
2	..	29·860	72·0	55·1	61·4	53·7	103·5	47·9	66·4	64·2	7·7	18·4	4·9	0·0	WSW	WSW	6·0	0·0	0·3	328	0·00
3	..	30·028	74·2	52·6	62·2	51·2	96·6	49·7	65·5	64·3	11·0	18·5	4·0	+ 0·8	W : NW	NW : N	0·0	0·0	0·0	124	0·00
4	..	30·111	72·5	50·9	60·4	51·0	107·2	..	66·8	64·6	9·4	17·6	1·4	− 1·1	NNE	NE	0·0	0·0	0·0	59	0·00
5	In Equator	30·150	76·6	52·3	62·8	52·1	99·0	43·8	66·8	64·6	10·7	22·4	2·8	+ 1·2	NE	NE : E	0·0	0·0	0·0	106	0·00
6	..	30·083	77·6	52·5	64·1	55·1	117·0	44·6	67·0	64·8	9·0	21·4	3·4	+ 2·4	SE	SE : SW	1·0	0·0	0·0	154	0·00
7	Last Qr.	29·890	82·5	53·1	68·3	59·0	120·0	44·2	67·1	64·9	9·3	21·6	4·0	+ 6·5	SW	W	1·0	0·0	0·0	218	0·00
8	..	30·034	73·7	52·1	62·3	55·6	109·8	43·1	67·6	65·4	6·7	16·6	4·4	+ 0·6	WSW	NW	0·0	0·0	0·0	130	0·00
9	..	30·083	81·0	54·7	65·7	54·9	121·6	45·5	68·6	66·4	10·8	24·5	2·8	+ 4·2	NNE	NNE : SE	0·0	0·0	0·0	61	0·00
10	..	30·198	83·5	51·1	66·4	51·0	124·0	50·4	69·0	66·8	15·4	32·6	3·6	+ 4·9	Calm: NE	NE : SE	0·0	0·0	0·0	87	0·00
11	..	30·212	79·8	51·2	65·3	55·1	115·0	42·3	69·7	67·5	10·2	23·8	6·5	+ 3·7	NE	SE	0·0	0·0	0·0	47	0·00
12	Greatest Declination N.	30·186	83·9	51·4	66·9	53·9	124·5	44·0	70·1	67·9	13·0	29·3	5·0	+ 5·2	Calm	NE : ESE	0·0	0·0	0·0	104	0·00
13	..	30·288	75·0	56·0	62·6	52·1	107·0	53·2	70·1	67·9	10·5	22·8	4·0	+ 0·8	NE	NE : ESE	0·0	0·0	0·0	74	0·00
14	..	30·197	78·5	46·0	62·3	52·7	110·6	37·7	70·2	68·0	9·6	25·0	1·1	+ 0·6	Calm	Calm	0·0	0·0	0·0	61	0·00
15	Apogee; New.	30·018	86·0	48·9	66·8	55·6	116·3	39·6	70·2	68·0	11·2	28·8	0·6	+ 5·1	Calm	N	0·0	0·0	0·0	130	0·00
16	..	30·038	67·3	52·7	58·8	46·9	94·0	45·4	70·0	67·8	11·9	17·5	5·1	− 2·9	NE	NE : SE	0·0	0·0	0·0	118	0·00
17	..	29·811	73·8	42·5	56·5	47·9	109·7	..	69·9	67·7	8·6	21·8	5·9	− 5·2	SW	NW	0·0	0·0	0·0	264	0·00
18	..	29·665	65·5	44·8	53·1	42·8	94·0	40·2	68·8	66·6	10·3	18·8	1·3	− 8·6	W : NW	NW : N	2·0	0·0	0·0	167	0·00
19	..	29·786	74·0	38·7	57·0	44·6	108·0	28·4	68·1	65·9	12·4	27·9	8·4	− 4·7	SW	SW	0·0	0·0	0·0	166	0·00
20	In Equator	29·626	70·8	48·1	57·1	46·4	115·0	40·0	67·1	64·9	10·7	23·8	2·9	− 4·5	NW	Calm	0·0	0·0	0·0	96	0·00
21	..	29·568	64·6	46·6	55·6	55·0	70·3	36·2	67·0	64·8	0·6	5·5	0·0	− 5·9	SW	S : SW	2·0	0·0	0·0	238	0·42
22	..	29·441	67·5	54·3	58·0	53·9	94·2	48·5	66·1	63·9	4·1	11·4	0·8	− 3·5	SW	W	7·0	0·0	0·6	287	0·33
23	First Qr.	29·738	70·5	48·1	58·9	49·6	112·2	41·0	65·3	63·1	9·3	19·3	1·8	− 2·6	SW	W : NNW	2·0	0·0	0·3	237	0·00
24	..	29·944	67·7	44·1	56·1	48·5	95·0	33·6	64·9	62·7	7·6	17·6	1·3	− 5·5	W	W	1·0	0·0	0·0	264	0·00
25	..	29·791	67·8	51·1	58·1	54·3	93·8	44·7	64·6	62·4	3·8	10·3	1·0	− 3·7	WSW	NW : NE	2·5	0·0	0·1	168	0·13
26	..	30·008	69·7	46·0	54·5	47·1	99·8	37·0	64·3	62·1	7·4	16·7	2·5	− 7·6	N	N : Calm	0·0	0·0	0·0	90	0·00
27	Greatest Declination S.	30·029	75·0	45·8	60·0	51·7	100·0	37·2	64·6	62·4	8·3	20·7	2·4	− 2·3	SW	S	0·0	0·0	0·0	72	0·00
28	..	29·893	78·0	47·2	62·6	54·6	120·0	40·0	64·8	62·6	8·0	22·8	1·4	+ 0·1	S	SW	0·0	0·0	0·0	85	0·00
29	..	29·864	77·4	50·5	63·7	56·7	106·0	40·0	64·8	62·6	7·0	21·3	1·9	+ 1·2	Calm	N : NE	1·5	0·0	0·0	144	0·00
30	Perigee; Full.	30·059	73·1	52·4	61·3	50·9	114·0	47·0	65·5	63·3	10·4	22·5	0·0	− 1·2	NE	NE : ESE	0·0	0·0	0·0	113	0·00
31	..	30·111	69·6	44·1	56·7	49·5	115·0	34·0	65·6	63·4	7·2	19·6	2·2	− 5·8	E	SE	2·0	0·0	0·2	180	0·00
Means	..	29·961	74·3	49·4	60·8	51·7	107·2	42·1	67·2	65·0	9·1	20·7	3·0	− 0·9	...	...	..	..	..	Sum 4578	Sum 0·88

BAROMETER READINGS FROM EYE-OBSERVATIONS.

The first maximum in the month was 30ⁱⁿ·168 on the 1st; the first minimum in the month was 29ⁱⁿ·837 on the 2nd.
The second maximum ,, was 30ⁱⁿ·165 on the 5th; the second minimum ,, was 29ⁱⁿ·870 on the 7th.
The third maximum ,, was 30ⁱⁿ·236 on the 11th; the third minimum ,, was 30ⁱⁿ·191 on the 11th.
The absolute maximum ,, was 30ⁱⁿ·305 on the 13th; the fourth minimum ,, was 29ⁱⁿ·968 on the 15th.
The fifth maximum ,, was 30ⁱⁿ·053 on the 16th; the fifth minimum ,, was 29ⁱⁿ·619 on the 18th.
The sixth maximum ,, was 29ⁱⁿ·832 on the 19th; the sixth minimum ,, was 29ⁱⁿ·606 on the 20th.
The seventh maximum ,, was 29ⁱⁿ·638 on the 21st; the absolute minimum ,, was 29ⁱⁿ·320 on the 22nd.
The eighth maximum ,, was 29ⁱⁿ·970 on the 24th; the eighth minimum ,, was 29ⁱⁿ·772 on the 25th.
The ninth maximum ,, was 30ⁱⁿ·057 on the 27th; the ninth minimum ,, was 29ⁱⁿ·845 on the 29th.
The tenth maximum ,, was 30ⁱⁿ·143 on the 31st.
The range in the month was 0ⁱⁿ·985.
The mean for the month was 29ⁱⁿ·961, being 0ⁱⁿ·167 *higher* than the average of the preceding 22 years.

TEMPERATURE OF THE AIR.

The highest in the month was 86°·0 on the 15th; the lowest was 38°·7 on the 19th.
The range ,, was 47°·3.
The mean ,, of all the highest daily readings was 74°·3, being 0°·7 *higher* than the average of the preceding 22 years.
The mean ,, of all the lowest daily readings was 49°·4, being 3°·7 *lower* than the average of the preceding 22 years.
The mean daily range was 24°·9, being 4°·4 *greater* than the average of the preceding 22 years.
The mean for the month was 60°·8, being 0°·9 *lower* than the average of the preceding 22 years.

MONTH and DAY, 1863.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
July 1	o	o : w : o	o : 1, ci.-cu, ci.-s, ci	3, ci, ci.-s, ci.-cu : o
2	o	o : w	o : 10, cu, ci, ci.-cu, ci.-s	5, ci.-cu, ci, cu : o
3	o : s	w : o	o : 8, cu.-s, ci.-cu, ci.-s, h	9, ci.-cu, ci.-s, ci : 10, ci.-cu, ci.-s, s, v
4	m : w	w : o	10 : 10, ci.-s	9, v, ci.-s, ci, ci.-cu : 10, ci.-cu
5	w	o : w	o, h	5, cu.-s, s, h : o
6	o : w	w : m	o : 1, ci.-cu	o : o
7	w	o : m	5, ci, ci.-cu : 4, ci, ci.-s	o : 10
8	o	o : m : o	o : 10, ci.-s	9, ci.-cu, ci.-s, ci : 1, ci : 10, v
9	o : w	o : m	10, v : o	5, ci, ci.-cu, ci.-s, cu.-s : 3, ci, s, li.-cl
10	w	w	o : o	o : 2, ci, ci.-cu, cu.-s : o
11	m : w	o : w	1, ci, h : 8, ci, ci.-s, ci.-cu	5, ci.-cu, ci.-s, ci : 9, ci.-s, ci.-cu : 1, li.-cl
12	w	w	o	3, ci, ci.-cu : o
13	o : w	w : o	10 : 10, ci.-s	10, ci.-s : 10, li.-cl
14	m : o	w : o	o, h : o, h	o, h : o, h
15	w : o	w : o	o, h, f : o, h	o, h : o, h : 2, ci.-s, ci, h
16	o	o : w	o, h : 10, ci.-s, cu.-s	10, ci.-s, ci.-cu, cu.-s : 3, ci.-s, li.-cl
17	o	m N : o	6, ci.-cu, ci, ci.-s : 10, ci.-s	10, ci.-s : 6, ci.-cu, cu.-s, ci, h : o, h
18	w P, w N	s N : o	5, ci, ci.-cu, ci.-s : 10, ci.-s	10, ci.-s, sl.-r : 4, ci.-cu, ci, h : o
19	o	o	o, h	1, ci.-cu, cu.-s : 10
20	w : o	o	10 : 8, ci, ci.-s, ci.-cu, h	10, ci, ci.-cu, ci.-s, h : 7, s, ci, li.-cl
21	m : w	o	10, ci, ci.-s, ci.-cu, h : 10, th.-r	10, h.-r : 10, c.-h.-r
22	o	s, sps : o	10 : 10, ci.-s, ci.-cu, h.-r	10, h.-sqs : 10, v, ci.-s : v, li.-cl
23	w : m	o	o : 5, ci.-s, ci, ci.-cu	8, cu.-s, ci, cu : 5, ci, ci.-cu : 2, ci.-cu, ci.-s
24	o : w	o : w	o : 2, ci, ci.-cu, h	10, ci.-cu, ci.-s, cu.-s, ci : o
25	o : w	m : o	10, ci.-cu, ci.-s, cu.-s : 10, ci, ci.-cu	10, ci.-s, oc.-r : 10, h.-r
26	m	o	10, v	10 : o
27	o	o	o : o, h	1, ci, ci.-cu : 8, ci.-s, ci.-cu : o, ms
28	o	o : m	8, ci, ci.-s : 9, ci.-s, ci, h	1, cu.-s : o : o, h, ms
29	o : w	o : w : o	10, ci, ci.-cu, cu.-s, ci.-s, h	7, cu, ci.-cu, cu-s, h : 8, ci.-s, ci : 10, ci.-s
30	o : v	w	7, ci.-cu, ci.-s : 8, ci.-cu, cu : o, h	5, ci.-cu, ci.-s, ci : o
31	v	w : m	o : 3, cu.-s, ci.-cu, ci	1, ci.-cu, ci, ci.-s, cu.-s : 4, ci, ci.-s : o

HUMIDITY OF THE AIR.

Temperature of the Dew Point.

The highest in the month was $61°\cdot5$ on the 7th; and the lowest was $42°\cdot2$ on the 18th.

The mean ,,   was $51°\cdot7$, being $2°\cdot1$ *lower* than the average of the preceding 22 years.

Elastic Force of Vapour.—The mean for the month was $0^{in}\cdot384$, being $0^{in}\cdot032$ *less* than the average of the preceding 22 years.

Weight of Vapour in a Cubic Foot of Air.—The mean for the month was $4^{gr}\cdot3$, being $0^{gr}\cdot3$, *less* than the average of the preceding 22 years.

Degree of Humidity.—The mean for the month was 72 (that of Saturation being represented by 100), being 4 *less* than the average of the preceding 22 years.

Weight of a Cubic Foot of Air.—The mean for the month was 532 grains, being 4 grains *greater* than the average of the preceding 22 years.

CLOUDS.

The mean amount for the month, a clear sky being represented by 0 and a cloudy sky by 10, was $5\cdot0$.

WIND.

The proportions were of N. 8, S. 6, W. 8, E. 6, and Calm 3. The greatest pressure in the month was $7^{lbs}\cdot0$ on the square foot on the 22nd.

RAIN.

Fell on 3 days in the month, amounting to $0^{in}\cdot9$, as measured in the simple cylinder gauge partly sunk below the ground; being $1^{in}\cdot8$ *less* than the average fall of the preceding 48 years.

MONTH and DAY, 1863.	Phases of the Moon.	Mean Daily Reading of the Barometer (corrected and reduced to 32° Fahrenheit).	Dry. Highest.	Dry. Lowest.	Dry. Mean Daily Value.	Dew Point. Mean Daily Value.	Highest in the Sun, as shewn by a Self-Registering Thermometer read at 9ʰ P.M.	Lowest on the Grass, as shewn by a Self-Registering Thermometer read at 9ʰ A.M. next morning.	In the Water of the Thames, at Greenwich, by Self-registering Thermometers, read at 9ʰ A.M. next morning. Highest.	Lowest.	Difference between the Dew Point Temperature and Air Temperature. Mean Daily Value.	Greatest.	Least.	Difference between the Mean Temperature of the Day and the Mean Temperature of the same Day on an Average of 43 Years.	Osler's. General Direction. A.M.	P.M.	Pressure in lbs. on the square foot. Greatest.	Least.	Mean of 24 Obs.	Robinson's. Horizontal Movement of the Air on each Day.	Rain in Inches read at 9ʰ P.M.
		in.	°	°	°	°	°	°	°	°	°	°	°	°			lbs.	lbs.	lbs.	miles.	in.
Aug. 1	..	29·931	73·3	48·3	60·4	52·3	110·0	41·5	65·6	63·4	8·1	22·1	1·5	− 2·1	SE	E	2·0	0·0	0·3	195	0·00
2	In Equator	29·863	80·8	54·1	64·8	58·2	115·5	44·3	65·7	63·5	6·6	13·6	0·0	+ 2·5	E	SW	2·0	0·0	0·2	182	0·00
3	..	29·866	82·9	55·7	64·1	57·4	99·3	47·9	65·8	63·6	6·7	11·9	1·3	+ 1·9	SW	SW	3·5	0·0	0·4	281	0·00
4	..	29·741	75·8	54·7	64·2	58·3	111·7	41·2	66·1	63·9	5·9	14·9	0·0	+ 2·1	SW	WSW	4·0	0·0	0·7	244	0·06
5	..	29·730	74·3	56·2	62·6	55·8	94·0	51·9	66·1	63·9	6·8	19·9	1·3	+ 0·6	WSW	SW	2·0	0·0	0·1	250	0·00
6	Last Qr.	29·784	72·5	57·7	62·4	57·8	99·0	52·2	66·6	64·4	4·6	12·4	0·4	+ 0·4	SW	SW	3·5	0·0	0·8	339	0·13
7	..	29·922	80·0	60·8	68·6	62·7	111·0	54·0	..	..	5·9	16·5	3·2	+ 6·6	SW	SW	0·0	0·0	0·0	275	0·00
8	..	29·950	80·0	62·7	68·4	61·7	113·0	57·5	..	..	6·7	17·2	2·7	+ 6·4	SW	SW	0·0	0·0	0·0	247	0·00
9	Greatest Declination N.	29·967	84·9	56·3	67·6	62·2	115·2	47·0	67·8	65·6	5·4	13·6	0·0	+ 5·7	SW	SW	0·0	0·0	0·0	191	0·00
10	..	29·917	83·2	60·0	68·8	60·5	117·7	51·5	68·6	66·4	8·3	21·4	3·4	+ 7·0	WSW	SW	0·0	0·0	0·0	263	0·00
11	Apogee	29·864	79·0	57·5	66·3	53·3	117·0	48·4	69·1	66·9	13·0	24·5	5·1	+ 4·6	SW	W : N	1·0	0·0	0·0	194	0·00
12	..	29·898	75·1	50·1	61·9	48·7	117·0	41·3	68·6	66·4	13·2	23·1	6·1	+ 0·3	NE	NE : ESE	0·0	0·0	0·0	118	0·00
13	..	29·783	77·9	50·9	63·4	53·1	115·0	41·5	68·9	66·7	10·3	20·6	4·8	+ 1·9	SE	ENE	0·0	0·0	0·0	203	0·00
14	New	29·852	73·1	55·5	63·2	52·9	109·5	46·2	68·9	66·7	10·3	19·1	1·2	+ 1·7	NE	E : SW	3·0	0·0	0·3	218	0·00
15	..	29·677	81·0	53·7	66·4	55·3	116·2	49·8	69·1	66·9	11·1	22·8	0·0	+ 5·0	SW	SW	6·0	0·0	0·6	361	0·00
16	In Equator	29·669	76·0	58·5	66·2	53·9	115·0	50·0	67·6	65·4	12·3	19·8	4·9	+ 4·8	SW	SW	5·0	0·0	0·8	316	0·00
17	..	29·564	74·0	52·1	59·6	47·7	112·8	47·1	68·1	65·9	11·9	23·9	4·4	− 1·7	SW	W	5·0	0·0	0·3	304	0·10
18	..	29·674	65·8	49·2	56·5	47·2	98·0	47·5	67·6	65·4	9·3	14·4	4·2	− 4·6	W	NW	4·0	0·0	0·8	297	0·02
19	..	29·663	62·0	51·3	53·6	48·9	83·3	42·5	66·6	64·4	4·7	9·8	0·5	− 7·3	W	SW : NW	5·0	0·0	0·3	310	0·17
20	..	29·844	63·3	50·5	55·3	45·7	92·8	44·5	65·9	63·7	9·6	15·0	4·8	− 5·5	NNW	NNW	4·0	0·0	0·5	262	0·01
21	..	29·987	66·0	46·0	55·8	46·2	90·2	37·2	65·6	63·4	9·6	16·9	1·1	− 4·8	N	NW	1·0	0·0	0·0	165	0·00
22	First Qr.	29·907	71·2	50·1	59·5	53·9	101·0	42·3	65·6	63·4	5·6	13·5	3·6	− 0·9	SW	SW	0·0	0·0	0·0	195	0·00
23	Greatest Declination S.	29·779	74·6	55·9	63·7	52·8	111·5	46·8	65·9	63·7	10·9	18·7	0·4	+ 3·4	SW	SW	5·0	0·0	0·8	317	0·02
24	..	29·717	72·9	53·5	59·5	50·4	106·0	52·5	66·1	63·9	9·1	17·6	2·2	− 0·8	SW	SW	2·0	0·0	0·1	266	0·00
25	..	29·424	70·0	50·3	59·1	50·4	108·0	42·6	64·6	62·4	8·7	17·1	2·0	− 1·1	SSW	SW	5·0	0·0	0·6	326	0·40
26	..	29·333	64·2	51·1	57·1	54·0	94·0	..	65·6	63·4	3·1	8·7	1·2	− 2·8	SW	S	1·5	0·0	0·0	235	0·24
27	Perigee	29·278	69·2	55·4	60·3	55·4	97·0	53·2	64·9	62·7	4·9	12·4	1·3	+ 0·6	SW	SW	5·0	0·0	0·5	250	0·29
28	Full	29·498	72·8	51·0	61·0	52·6	110·3	44·3	65·6	63·4	8·4	18·4	1·2	+ 1·4	SSW	SW : Calm	0·0	0·0	0·0	187	0·08
29	In Equator	29·619	71·0	51·3	59·3	52·6	111·5	45·2	65·1	62·4	6·7	15·7	1·2	− 0·1	SW	SW	1·0	0·0	0·1	157	0·26
30	..	29·718	72·1	50·1	60·3	49·1	109·0	40·7	65·8	63·6	11·2	19·8	2·0	+ 1·2	SW	SW : SE	1·0	0·0	0·0	244	0·00
31	..	29·655	68·4	55·0	59·6	49·9	100·0	49·1	65·6	63·4	9·7	14·4	4·8	+ 0·6	S	WSW	6·0	0·0	1·0	306	0·05
Means	..	29·744	73·8	53·7	61·9	53·6	106·5	46·7	66·6	64·4	8·3	17·1	2·3	+ 0·9	...	...	..	..	..	Sum 7698	Sum 1·83

BAROMETER READINGS FROM EYE-OBSERVATIONS.

The first maximum in the month was 29ⁱⁿ·995 on the 9th ; the second minimum   ,,   was 29ⁱⁿ·845 on the 11th.
The second maximum   ,,   was 29ⁱⁿ·938 on the 12th ; the third minimum   ,,   was 29ⁱⁿ·761 on the 13th.
The third maximum   ,,   was 29ⁱⁿ·889 on the 14th ; the fourth minimum   ,,   was 29ⁱⁿ·546 on the 17th.
The fourth maximum   ,,   was 29ⁱⁿ·766 on the 19th ; the fifth minimum   ,,   was 29ⁱⁿ·597 on the 19th.
The absolute maximum   ,,   was 30ⁱⁿ·018 on the 21st ; the sixth minimum   ,,   was 29ⁱⁿ·298 on the 25th.
The sixth maximum   ,,   was 29ⁱⁿ·383 on the 26th ; the absolute minimum ,,   was 29ⁱⁿ·234 on the 27th.
The seventh maximum   ,,   was 29ⁱⁿ·739 on the 30th ; the eighth minimum   ,,   was 29ⁱⁿ·539 on the 31st.
The first minimum in the month was 29ⁱⁿ·707 on the 4th.
The range in the month was 0ⁱⁿ·784.
The mean for the month was 29ⁱⁿ·744, being 0ⁱⁿ·047 *lower* than the average of the preceding 22 years.

TEMPERATURE OF THE AIR.

The highest in the month was 84°·9 on the 9th ; the lowest was 46°·0 on the 21st ; and the range in the month was 38°·9.
The mean   ,,   of all the highest daily readings was 73°·8, being 1°·0 *higher* than the average of the preceding 22 years.
The mean   ,,   of all the lowest daily readings was 53°·7, being 0°·4 *higher* than the average of the preceding 22 years.
The mean daily range was 20°·1, being 0°·6 *greater* than the average of the preceding 22 years.
The mean for the month was 61°·9, being 0°·6 *higher* than the average of the preceding 22 years.

MONTH and DAY, 1863.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Aug. 1	w	o : w	6, ci, li.-cl : 9, ci.-s	3, ci : 8, ci : 2, ci, ci.-s
2	w	w	7, ci, ci.-cu, v, t, l	6, ci, ci.-cu : 8, ci.-s
3	o	o : w	10, : 10, sl.-r	10, cu.-s, ci.-s : 4, ci.-s, li.-cl
4	w : o	o : w	v, li.-cl : 10 : 4, ci.-cu, ci, ci.-s, cu.-s	10, cu.-s, ci.-cu, ci.-s : 10, r
5	o : m	m : o	10, ci.-cu, ci.-s	10, ci.-s : 5, ci.-cu, ci, ci.-s : 2, ci, ci.-cu
6	o	o : m	10, h.-r : 10, r	10, ci.-s, cu.-s : 10, ci.-s, cu.-s
7	o : w	o : w	9, cu.-s, ci.-cu : 10, cu.-s	10, cu.-s, ci.-s, ci.-cu : 2, ci.-s, ci
8	o	o : w	10, cu.-s : 10, cu.-s, ci.-s, ci	10, cu.-s, ci.-s : 3, ci.-cu, ci : 3, ci, ci.-s
9	m	w : o	10, cu.-s	1, cu.-s, ci.-cu, ci : o, ms
10	w. : o	w	o : 8, cu.-s, ci.-cu, ci	7, ci.-cu, ci : 4, ci, ci.-cu : o, ms
11	m : w	w : o	10, cu.-s, ci.-cu : 8, ci.-cu, cu.-s	6, cu, ci.-cu, ci : 7, ci.-cu, cu.-s, m
12	o	w : o : w	8, ci, ci.-cu	4, ci.-cu, h, ci : 9, cu, cu.-s, ci : 2, ci, ci.-s, ms
13	w	w	o : 9, ci.-cu, cu.-s	6, ci, cu, ci.-cu ? 7, ci.-s, li.-cl
14	o	o	10, cu, cu.-s	7, ci, ci.-cu, ci.-s, h : o
15	o	o . : m	2, ci, li.-cl : 9, ci.-s, ci.-cu	7, v, ci, cu, ci.-cu, cu.-s : 2, ci, cu, li.-cl : o
16	o	o	o : 9, cu, cu.-s, s	9, cu, cu.-s, s : 5, s, ci.-s, li.-cl
17	w : o	o	2, ci.-cu, ci.-s, ci, li.-cl : 10, cu, ci.-s, sl.-r	5, cu, ci.-cu, ci : 9, cu, cu.-s, h.-shs : o
18	s : o	w : m	9, ci.-s, li.-cl : 6, ci.-cu, ci, th.-r	10, ci.-s, cu.-s, cu, oc.-shs : 10, s, ci.-s, sl.-r
19	w : w	sN, sP, sps, g.-cur : w	10, ci.-s, ci.-cu : 10, shs.-r	10, oc.-shs : 5, ci.-cu, li.-cl : 10, sl.-r, l
20			10, l : 1, ci, ci.-cu, ci.-s : 7, cu, ci.-cu, ci, sl.-r	10, ci.-s, ci.-cu, cu.-s : o
21	o	o : w	o, h : 4, ci.-s, ci, h	9, ci, ci.-cu, h : 10
22	o	o	10, cu.-s, sl.-r	10 : 1, li.-cl, h : 8, ci.-cu, cu.-s
23	o	o : w	10, sl.-r : 9, ci.-cu, ci.-s	8, ci.-cu, ci. ci.-s : 10, ci.-s
24	o	o	10, ci.-s, cu.-s : 10, ci.-s, th.-r	10, ci.-s, cu.-s, ci : o
25	o : m N	sN, sP, sps, g.-cur : o : s	9, ci, ci.-cu, cu.-s, ci.-s, sl.-r	9, cu.-s, ci.-cu, ci : 10, t.-s, l, t, h.-r
26	o	o	o : 10, ci.-s, ci.-cu	10, h.-r : 10, oc.-shs
27	o	o	10, ci.-s, cu.-s : 10, h.-r, ci.-s, cu.-s	8, ci, ci.-cu, cu.-s, li.-shs : 10, h.-r
28	o	w : s, sps	5, ci, ci.-s, li.-cl : 5, cu, ci.-cu	6, cu, ci.-cu : 6, cu, ci.-cu : 9, s, ci.-s, t, l, h.-r
29	o	o : m	10 : 1, li.-cl : 3, cu.-s, ci.-cu, ci	7, cu.-s, ci.-cu, ci : o
30	w	o	1, cu, cu.-s, sl.-r	6, cu, ci.-cu, cu.-s, ci : 10
31	w : o	wN : sN, sP, sps, g.-cur : w	10, oc.-r : 10, ci, ci.-s : 8, ci, ci.-cu, fr.-shs	5, ci, ci.-cu, cu, cu.-s, st.-w : 10, cu.-s, oc.-shs : o

HUMIDITY OF THE AIR.

Temperature of the Dew Point.

The highest in the month was 64°·9 on the 9th ; and the lowest was 44°·8 on the 19th.

The mean ,, was 53°·6, being 0°·5 *lower* than the average of the preceding 22 years.

Elastic Force of Vapour.—The mean for the month was 0^{in}·412, being 0^{in}·010 *less* than the average of the preceding 22 years.

Weight of Vapour in a Cubic Foot of Air.—The mean for the month was 4^{gr}·5, being 0^{gr}·2 *less* than the average of the preceding 22 years.

Degree of Humidity.—The mean for the month was 74 (that of Saturation being represented by 100), being 3 *less* than the average of the preceding 22 years.

Weight of a Cubic Foot of Air.—The mean for the month was 527 grains, being 2 grains *less* than the average of the preceding 22 years.

CLOUDS.

The mean amount for the month, a clear sky being represented by o and a cloudy sky by 10, was 7·0.

WIND.

The proportions were of N. 2, S. 11, W. 14, E. 3, and Calm 1. The greatest pressure in the month was 6^{lbs}·o on the square foot on the 15th and 31st.

RAIN.

Fell on 13 days in the month, amounting to 1^{in}·8 as measured in the simple cylinder gauge partly sunk below the ground ; being 0^{in}·6 *less* than the average fall of the preceding 48 years.

ELECTRICITY.—On August 20, the insulating lamp was not burning.

RESULTS OF ORDINARY METEOROLOGICAL OBSERVATIONS

MONTH and DAY, 1863.	Phases of the Moon.	Mean Daily Reading of the Barometer (corrected and reduced to 32° Fahrenheit).	Dry. Highest.	Dry. Lowest.	Dry. Mean Daily Value.	Dew Point. Mean Daily Value.	Highest in the Sun, as shewn by a Self-Registering Thermometer read at 9h P.M.	Lowest on the Grass, as shewn by a Self-Registering Thermometer read at 9h A.M. next morning.	In the Water of the Thames. Highest.	In the Water of the Thames. Lowest.	Diff. Mean Daily Value.	Diff. Greatest.	Diff. Least.	Difference between the Mean Temperature of the Day and the Mean Temperature of the same Day on an Average of 48 Years.	Osler's General Direction. A.M.	Osler's General Direction. P.M.	Pressure Greatest.	Pressure Least.	Pressure Mean of 24 Obs.	Robinson's Amount of Horizontal Movement of the Air on each Day.	Rain in Inches read at 9h P.M.
		in.	°	°	°	°	°	°	°	°	°	°	°	°			lbs.	lbs.	lbs.	miles.	in.
Sept.1	..	29·906	68·0	45·2	56·2	47·0	107·0	34·1	65·6	63·4	9·2	18·0	1·7	— 2·6	WSW	SW	1·0	0·0	0·0	245	0·00
2	..	29·679	63·3	51·8	56·1	50·9	86·0	45·5	65·1	62·9	5·2	9·3	1·6	— 2·5	SW	SSW	5·0	0·0	0·5	263	0·04
3	..	29·617	69·2	53·7	60·5	51·6	102·0	49·1	64·9	62·7	8·9	16·9	2·4	+ 2·0	S	SSW : Calm	1·0	0·0	0·1	172	0·01
4	Last Qr.	29·726	66·0	49·9	56·8	50·8	93·5	42·7	64·9	62·7	6·0	12·0	0·8	— 1·6	SW	SW	0·0	0·0	0·0	236	0·37
5	Greatest Dec. N.	29·597	65·3	46·8	55·1	50·6	88·8	37·8	64·7	62·5	4·5	10·9	0·8	— 3·1	SW	SW : W	3·0	0·0	0·3	347	0·24
6	..	29·717	64·0	46·2	54·0	46·3	88·8	38·0	64·6	62·4	7·7	14·6	0·6	— 4·0	W	SW	4·0	0·0	0·3	443	0·15
7	..	29·548	66·6	50·6	57·6	46·3	100·6	..	64·1	61·9	11·3	19·0	1·7	— 0·2	SW : W	W : W	6·0	0·0	1·5	394	0·31
8	Apogee	29·807	64·1	46·7	54·8	48·3	93·3	38·1	64·1	61·9	6·5	13·1	2·9	— 2·9	SW	SW	2·0	0·0	0·0	264	0·00
9	..	29·610	65·5	50·8	56·2	52·3	89·0	38·4	63·8	61·6	3·9	9·5	0·4	— 1·4	SSW	SW : Calm	0·0	0·0	0·0	133	0·07
10	..	29·794	60·7	46·7	52·3	43·6	84·2	44·1	63·6	61·4	8·7	14·4	1·7	— 5·2	NW	NW : W	0·0	0·0	0·0	218	0·40
11	..	30·052	63·0	42·3	52·3	44·2	89·5	34·2	63·3	61·1	8·1	16·2	2·2	— 5·1	W : NW	NW : SW	0·0	0·0	0·0	177	0·00
12	..	30·080	66·2	43·8	54·4	47·0	98·5	35·2	63·1	60·9	7·4	17·3	5·3	— 2·9	SW	WSW	0·0	0·0	0·0	227	0·00
13	In Equator; New.	30·114	65·8	49·5	56·9	49·0	91·2	40·5	63·1	60·9	7·9	11·0	0·8	— 0·3	WSW	W	0·0	0·0	0·0	207	0·00
14	..	30·178	60·3	44·5	52·6	48·4	74·0	35·9	62·8	60·6	4·2	9·5	2·0	— 4·4	W	NW : WSW	0·0	0·0	0·0	173	0·00
15	..	29·988	60·6	51·3	56·5	46·7	78·5	46·9	62·6	60·4	9·8	11·4	0·4	— 0·2	SW	SW	0·0	0·0	0·0	269	0·00
16	..	29·892	65·9	51·1	56·2	47·1	100·2	50·2	62·6	60·4	9·1	13·7	1·2	— 0·3	WSW	WNW	0·0	0·0	0·0	244	0·00
17	..	29·967	65·9	43·8	53·8	46·3	99·0	41·7	62·6	60·4	7·5	13·0	4·6	— 2·5	WSW	WSW	0·0	0·0	0·0	217	0·00
18	..	29·925	67·0	47·9	56·2	46·9	102·6	39·2	62·8	60·6	9·3	15·2	1·1	+ 0·2	SW	SW : SSW	0·0	0·0	0·0	184	0·00
19	Greatest Declination S.	29·584	71·8	50·8	60·4	52·3	104·6	43·4	62·6	60·4	8·1	18·2	2·4	+ 4·5	S : SW	SW	8·0	0·0	1·8	461	0·00
20	First Qr.	29·335	58·3	46·8	49·7	45·1	88·3	45·0	62·4	60·2	4·6	7·6	2·3	— 5·9	SW	SW	3·0	0·0	0·2	339	0·69
21	..	28·985	61·7	45·5	50·6	43·8	101·0	38·5	62·2	60·0	6·8	14·8	1·5	— 4·9	SW	SW	1·0	0·0	0·0	331	0·01
22	..	28·801	60·8	45·1	51·2	43·5	87·0	36·4	61·6	59·4	7·7	15·0	2·3	— 4·2	SW	SW	3·0	0·0	0·1	304	0·06
23	..	29·025	60·1	40·8	49·9	42·8	93·0	31·3	61·2	59·0	7·1	14·4	2·0	— 5·4	SW	SW	2·5	0·0	0·1	219	0·04
24	Perigee	29·251	58·3	43·1	48·9	45·9	84·5	34·6	60·9	58·7	3·0	8·5	0·8	— 6·1	SSW : SSE	SW : S	1·5	0·0	0·0	221	0·37
25	..	29·589	63·0	42·1	52·0	45·4	93·7	34·4	60·6	58·4	6·6	14·1	2·5	— 2·9	SW	WSW	0·0	0·0	0·0	212	0·00
26	In Equator	29·935	63·2	41·7	50·1	44·6	96·9	31·0	60·6	58·4	5·5	12·4	0·2	— 4·6	WSW	W : SW	1·0	0·0	0·0	216	0·00
27	Full	29·965	58·0	37·5	51·6	44·9	95·8	27·8	59·6	57·4	6·7	10·6	3·0	— 2·9	SW	SW	3·0	0·0	0·4	398	0·00
28	..	29·690	57·8	43·0	49·2	44·5	88·0	37·6	58·6	56·4	4·7	14·8	1·8	— 5·1	SW	W : SW	4·0	0·0	0·3	247	0·21
29	..	29·874	60·8	39·2	49·5	40·8	91·5	27·7	58·1	55·9	8·7	16·2	3·2	— 4·5	W	SW : S	0·0	0·0	0·0	133	0·00
30	..	29·571	63·2	35·0	50·5	47·0	95·5	28·6	57·1	54·9	3·5	13·4	1·0	— 3·3	Calm	SE : S	3·0	0·0	0·1	268	0·00
Means	..	29·693	63·5	45·8	53·7	46·8	92·9	38·2	62·5	60·3	6·9	13·5	1·8	— 2·7	...	...	..	..	..	Sum 7762	Sum 2·97

BAROMETER READINGS FROM EYE-OBSERVATIONS.

The first maximum in the month was 29in·937 on the 1st; the first minimum in the month was 29in·589 on the 3rd.
The second maximum ,, was 29in·758 on the 4th; the second minimum ,, was 29in·534 on the 5th.
The third maximum ,, was 29in·772 on the 6th; the third minimum ,, was 29in·402 on the 7th.
The fourth maximum ,, was 29in·831 on the 8th; the fourth minimum ,, was 29in·592 on the 9th.
The absolute maximum ,, was 30in·200 on the 14th; the fifth minimum ,, was 29in·885 on the 16th.
The sixth maximum ,, was 29in·984 on the 17th; the absolute minimum ,, was 28in·782 on the 22nd.
The seventh maximum ,, was 30in·048 on the 26th; the seventh minimum ,, was 29in·570 on the 28th.
The eighth maximum ,, was 29in·899 on the 29th.
The range in the month was 1in·418.
The mean for the month was 29in·693, being 0in·132 *lower* than the average of the preceding 22 years.

TEMPERATURE OF THE AIR.

The highest in the month was 71°·8 on the 19th; the lowest was 35°·0 on the 30th.
The range ,, was 36°·8.
The mean ,, of all the highest daily readings was 63°·5, being 4°·0 *lower* than the average of the preceding 22 years.
The mean ,, of all the lowest daily readings was 45°·8, being 3°·1 *lower* than the average of the preceding 22 years.
The mean daily range was 17°·7, being 0°·8 *less* than the average of the preceding 22 years.
The mean for the month was 53°·7, being 3°·3 *lower* than the average of the preceding 22 years.

MONTH and DAY, 1863.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Sept. 1	m	o : m	o, h : o	5, cu.-s, ci.-cu, ci : 1, ci.-s, v
2	w : o	v : o : w	8, ci, ci.-s : 10, ci.-s, th.-r.	10, ci.-s, cu.-s, oc.-shs : 10, oc.-r
3	w : o	w : s	10 : 2, ci, ci.-cu, ci.-s : 5, ci, ci.-cu, cu, ci.-s	8, ci, ci.-cu : 10, sl.-r
4	o	sN, sP, sps, g-cur : m	10, h.-r : o : 9, ci, ci.-cu, ci.-s, cu.-s	10, ci.-s, cu.-s, oc.-shs : 3
5	w	o : m : o	o : 5, cu, ci.-cu, ci	10, ci.-s, h.-r : v, li.-shs
6	o	o : m	o : 8, cu, cu.-s, ci.-s, s	9, cu.-s, ci.-s, s, r : 10, c.-r
7	o	o	10, c.-h.-r : 9, ci, ci.-s, cu.-s	2, ci, ci.-cu, cu, cu.-s : o
8			6, ci.-s, ci : 10, ci.-cu, ci.-s, ci	10, ci.-cu : 10, sl.-r
9			10, ci.-s, r : 10, sl.-r	10, v, cu.-s, ci.-s : o, l : 10, t.-s, h.-r
10	o	o	10, t, l, h.-r : 10, oc.-r : o, h	9, cu.-s, ci.-cu, ci, ci.-s : 1, ci, h, l
11	w	o : w	8, ci.-s, ci, ci.-cu, cu : 4, ci, ci.-cu, h	9, ci, ci.-cu, ci.-s, cu.-s, h : 10
12	w	o : w	10, ci.-s, cu.-s : 10, ci.-s	7, ci, ci.-cu, h : 10, ci.-s : 10
13	w	w : o	9, ci.-cu, ci, h	10, ci.-s, cu.-s : v
14	w	o : s	10, ci.-s : 10, f	10, ci.-s : 10
15	w	o : w	10, ci.-s : 9, ci, ci.-cu	10, ci.-s : 10, ci.-s
16	o : w	w : v	10 : 8, cu.-s, ci.-s, ci, ci.-cu	9, cu, ci.-cu, ci, ci.-s, cu.-s, h : 10
17	m	w : m	10 : 1, ci, h	7, cu, cu.-s, ci.-s, ci : v, li.-cl : o
18	m	w	10, ci, cu, ci.-s : 9, ci.-cu, cu, ci	3, ci, cu, ci.-cu : o
19	o : w	o	o : 10, ci.-s	o : 10, v, w : 10, st.-w
20	o : sN	o	10, h.-r : 10, oc.-r	10 : o
21	w	sP, sN, sps, g-cur : m	8, ci.-s, cu.-s : 9, ci.-cu, ci.-s, ci	9, ci, cu, cu.-s, hl, r : 1, ci.-s
22	w	w : s	8, ci.-cu, ci, ci.-s, cu.-s : 10, ci.-cu, ci.-s	10, cu.-s, ci.-s, ci.-cu, shs.-r : v, sl.-r, t, l
23	m : s	sN, sP, sps, g-cur : w	o : o	9 cu.-s, ci.-s, sl.-r : 3, cu.-s, ci.-s, hl, r : o, l
24	o : sN	o	1, li.-cl : 2, ci, li.-cl : 10, h.-r	10 : 7, ci, ci.-cu, ci.-s, h.-shs : o
25	o	o : w	o : o	8, cu, ci.-cu, cu.-s : 3, ci.-cu, cu, ci : o
26	Q : w	m : o : s	3, ci, ci.-s : 8, ci, ci.-cu, ci.-s	8, ci, ci.-cu, cu : o
27	o	o : w	5, ci, s, li.-cl	9, s, ci.-s : 10, ci.-s
28			10, ci.-s, sc : 10, h.-r	6, cu.-s, ci.-s, ci, ci.-cu : o
29			3, ci, ci.-s : o	5, cu, ci.-cu, ci, cu.-s : o
30	o	w : o	o, f : 10, ci, ci.-cu, f	6, ci, ci.-cu : 10, ci.-s : 10, h.-r

HUMIDITY OF THE AIR.

Temperature of the Dew Point.
  The highest in the month was 55°·6 on the 7th; and the lowest was 39°·1 on the 28th.
  The mean   ,,   was 46°·8, being 4°·3 lower than the average of the preceding 22 years.
Elastic Force of Vapour.—The mean for the month was 0in·321, being 0in·061 less than the average of the preceding 22 years.
Weight of Vapour in a Cubic Foot of Air.—The mean for the month was 3gr·6, being 0gr·6 less than the average of the preceding 22 years.
Degree of Humidity.—The mean for the month was 77 (that of Saturation being represented by 100) being 4 less than the average of the preceding 22 years.
Weight of a Cubic Foot of Air.—The mean for the month was 535 grains, being 1 grain greater than the average of the preceding 22 years.

CLOUDS.
  The mean amount for the month, a clear sky being represented by o and a cloudy sky by 10, was 6·9.

WIND.
  The proportions were, N. o, S. 11, W. 18, E. o, and Calm 1. The greatest pressure in the month was 8lbs·o on the square foot on the 19th.

RAIN.
  Fell on 14 days in the month, amounting to 3in·o, as measured in the simple cylinder gauge partly sunk below the ground; being 0in·6 greater than the average fall of the preceding 48 years.

ELECTRICITY.—The insulating lamp was not burning on September 8, 9, 28, and 29.

MONTH and DAY, 1863.	Phases of the Moon.	Mean Daily Reading of the Barometer (corrected and reduced to 32° Fahrenheit).	Dry. Highest.	Dry. Lowest.	Dry. Mean Daily Value.	Dew Point. Mean Daily Value.	Highest in the Sun, as shewn by a Self-Registering Thermometer read at 9ʰ P.M.	Lowest on the Grass, as shewn by a Self-Registering Thermometer read at 9h. A.M. next morning.	In the Water of the Thames, at Greenwich, by Self-Registering Thermometers, read at 9ʰ A.M. next morning. Highest.	In the Water... Lowest.	Difference between the Dew Point Temperature and Air Temperature. Mean Daily Value.	Greatest.	Least.	Difference between the Mean Temperature of the Day and the Mean Temperature of the same Day on an Average of 43 Years.	Osler's. General Direction. A.M.	Osler's. P.M.	Pressure in lbs. on the square foot. Greatest.	Least.	Mean of 24 Obs.	Robinson's. Amount of Horizontal Movement of the Air on each Day.	Rain in Inches read at 9ʰ P.M.
		in.	°	°	°	°	°	°	°	°	°	°	°	°			lbs.	lbs.	lbs.	miles.	in.
Oct. 1	..	29·141	62·0	50·1	53·8	50·9	88·2	44·4	56·2	54·0	2·9	7·2	0·4	+ 0·3	SW	W	1·0	0·0	0·0	266	0·52
2	Greatest Declination N.	29·641	56·4	48·0	52·4	47·3	65·4	39·7	55·6	53·4	5·1	8·2	2·6	− 1·0	WNW	SW	0·0	0·0	0·0	325	0·01
3	..	29·735	61·0	52·5	57·1	55·9	66·4	46·0	55·5	53·3	1·2	4·0	1·0	+ 4·0	SW	SW	5·0	0·0	1·0	467	0·04
4	Last Qr.	29·786	66·5	53·0	58·0	52·9	82·6	52·7	55·5	53·3	5·1	7·2	3·0	+ 5·0	SW	SW : N	4·0	0·0	0·4	157	0·00
5	..	29·806	57·8	41·6	49·4	46·5	75·0	32·7	55·6	53·4	2·9	10·0	0·4	− 3·4	SW	SW : S	0·0	0·0	0·0	136	0·04
6	Apogee	29·786	52·3	37·5	44·8	39·8	73·8	37·5	55·7	53·4	5·0	10·8	0·5	− 7·7	W	SE	0·0	0·0	0·0	126	0·00
7	..	29·525	60·5	47·0	53·8	52·9	83·6	32·3	55·8	53·6	0·9	2·6	0·4	+ 1·5	SE	E	1·0	0·0	0·0	234	0·15
8	..	29·428	64·4	54·8	58·9	55·3	84·7	50·8	56·0	53·8	3·6	8·0	0·8	+ 6·8	E	E	3·0	0·0	0·0	202	0·06
9	..	29·417	59·0	46·9	50·8	47·5	85·4	44·1	56·4	54·2	3·3	8·4	0·8	− 1·1	SE	SE	0·0	0·0	0·0	229	0·06
10	In Equator	29·517	62·5	54·0	57·8	50·3	82·7	42·5	56·4	54·2	7·5	11·8	4·8	+ 6·1	SSE	SE	3·0	0·0	0·3	277	0·13
11	..	29·454	61·1	51·0	54·7	47·6	90·7	47·1	56·6	54·4	7·1	11·8	1·8	+ 3·3	SE : SW	SW : SE	3·5	0·0	0·1	179	0·02
12	New	29·293	62·0	48·3	54·3	47·0	91·7	42·2	56·6	54·4	7·3	14·4	0·6	+ 3·3	SSE	SE	0·0	0·0	0·0	198	0·00
13	..	29·198	57·0	48·8	52·8	49·1	72·0	44·5	56·7	54·5	3·7	5·8	0·4	+ 2·3	SSE	S : SE	3·0	0·0	0·0	239	0·08
14	..	29·494	63·7	49·9	55·9	49·7	93·4	41·8	56·7	54·5	6·2	12·2	1·4	+ 5·8	SSE : SSW	SW : SE	1·0	0·0	0·0	193	0·00
15	..	29·444	58·8	49·3	52·8	52·8	64·0	40·1	56·5	54·3	0·0	1·4	0·0	+ 3·0	SE	SSW	0·0	0·0	0·0	201	0·14
16	..	29·714	61·2	48·0	52·9	47·3	94·0	39·1	56·2	54·0	5·6	12·0	1·7	+ 3·3	SW	SW : SSW	1·0	0·0	0·0	287	0·05
17	Greatest Declination S.	29·860	62·0	46·9	53·4	47·6	87·8	39·2	56·1	53·9	5·8	13·5	1·6	+ 4·0	SW	W : S	0·0	0·0	0·0	245	0·02
18	..	29·886	61·4	45·3	54·0	49·1	91·0	38·0	56·1	53·9	4·9	11·0	0·9	+ 4·8	S : SW	SW	2·0	0·0	0·0	343	0·00
19	First Qr.	29·924	61·6	54·8	57·5	53·8	70·0	48·0	56·2	54·0	3·7	7·0	2·8	+ 8·4	SW	SW	1·7	0·0	0·1	315	0·00
20	Perigee	29·941	59·7	52·1	55·0	52·6	67·0	50·5	56·5	54·3	2·4	5·1	1·0	+ 5·9	SW	WSW : ESE	0·0	0·0	0·0	96	0·00
21	..	29·994	62·4	50·0	55·4	52·5	88·0	48·9	56·6	54·4	2·9	9·1	0·0	+ 6·5	E : SE	SE : SW	0·0	0·0	0·c	111	0·03
22	..	29·980	63·5	48·9	54·9	51·4	85·0	48·1	56·6	54·4	3·5	10·6	0·0	+ 6·3	WSW	W : N	0·0	0·0	0·0	111	0·00
23	In Equator	30·100	55·0	41·1	46·9	43·0	71·7	36·2	56·7	54·5	3·9	9·6	0·0	− 1·4	Calm	N : Calm	0·0	0·0	0·0	53	0·00
24	..	30·050	52·8	34·0	43·7	42·2	57·3	33·5	56·8	54·6	1·5	7·6	0·0	− 4·2	Calm	E : SE	0·0	0·0	0·0	96	0·00
25	..	29·854	54·4	39·4	45·5	39·2	84·0	33·0	56·2	54·0	6·3	12·6	0·7	− 2·9	SE	E : NE	0·0	0·0	0·0	86	0·00
26	Full	29·878	55·5	34·8	43·6	42·2	84·0	23·0	55·5	53·3	1·4	6·6	0·2	− 3·8	Calm	NE	0·0	0·0	0·0	30	0·00
27	..	29·767	51·1	34·7	43·6	42·9	58·0	31·8	54·6	52·4	0·7	2·9	0·0	− 3·6	Calm	Calm : SE	0·0	0·0	0·0	70	0·00
28	..	29·493	56·2	43·8	48·9	46·3	72·7	42·0	54·6	52·4	2·6	8·4	0·2	+ 1·9	S	SW	0·0	0·0	0·0	166	0·03
29	..	29·210	54·2	43·7	47·8	45·0	66·8	38·2	54·5	52·3	2·8	8·0	1·1	+ 1·0	S : SW	SW	11·0	0·0	0·6	443	0·12
30	Greatest Declination N.	29·109	54·c	39·7	45·7	44·1	55·0	36·2	54·1	51·9	1·6	6·1	0·2	− 0·9	SW	SW	29·5	0·0	1·6	547	0·32
31	..	29·355	52·6	38·4	44·8	35·9	79·0	30·0	54·1	51·9	8·9	14·0	1·7	− 1·7	SW	SW	9·0	0·5	3·0	566	0·00
Means	..	29·638	58·8	46·1	51·6	47·8	77·8	40·5	55·9	53·7	3·9	8·6	1·0	+ 1·7	...	...	..	..	..	Sum 6994	Sum 1·82

BAROMETER READINGS FROM EYE-OBSERVATIONS.

The first maximum in the month was 29ⁱⁿ·879 on the 5th ;   The first minimum in the month was 29ⁱⁿ·086 on the 1st.
The second maximum ,,   was 29ⁱⁿ·552 on the 10th ; the second minimum ,,   was 29ⁱⁿ·380 on the 9th.
The third maximum ,,   was 29ⁱⁿ·575 on the 14th ; the third minimum ,,   was 29ⁱⁿ·159 on the 13th.
The fourth maximum ,,   was 30ⁱⁿ·032 on the 21st ; the fourth minimum ,,   was 29ⁱⁿ·404 on the 15th.
The absolute maximum ,,   was 30ⁱⁿ·129 on the 23rd ; the fifth minimum ,,   was 29ⁱⁿ·958 on the 22nd.
                         the absolute minimum ,,   was 28ⁱⁿ·847 on the 30th.
The range in the month was 1ⁱⁿ·282.
The mean for the month was 29ⁱⁿ·638, being 0ⁱⁿ·061 *lower* than the average of the preceding 22 years.

TEMPERATURE OF THE AIR.
The highest in the month was 66°·5 on the 4th ; the lowest was 34°·0 on the 24th ; and the range in the month was 32°·5.
The mean ,,   of all the highest daily readings was 58°·8, being 0°·1 *higher* than the average of the preceding 22 years.
The mean ,,   of all the lowest daily readings was 46°·1, being 2°·1 *higher* than the average of the preceding 22 years.
The mean daily range was 12°·7, being 2°·0 *less* than the average of the preceding 22 years.
The mean for the month was 51°·6, being 1°·1 *higher* than the average of the preceding 22 years.

MONTH and DAY, 1863.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Oct. 1	o : w	s N : m	10, c-h-r : 3, ci.-cu, ci.-s : 2, ci, ci.-cu	10, h.-r : 7, cu, ci.-cu, ci.-s : o
2	o	o : w	10, sl.-r : 10, ci.-s	10, ci.-s : 10
3	o	o	10 : 10, oc.-shs	10, sl.-r : 10
4	o	v : m	v, li-cl, sl-r	10, ci.-s : 9
5	o : s	o : s	1, ci.-cu, ci.-s : 7, ci.-cu, ci.-s	10, ci.-s, shs.-r : 10, ci.-s
6	m : o	o : m	o : 5, ci, ci.-cu, h	8, ci, ci.-s : 1, ci, h : o
7	o : w	w	h-r : 8, ci.-cu, cu.-s, sl.-r : 10	6, ci.-cu, cu, h, oc.-shs : 10, sc, shs.-r : 10, l
8	w	o : w	10, l, r : 6, ci, ci.-cu, li.-cl, h	8, ci, li.-cl, cu.-s, ci.-s, h : 10, sl.-r
9	w	o : s	10, ci.-s : 10, ci.-s, sl.-r	2, ci, cu : o, m, l : 10, l
10	o : w	o : w	10, h.-r : 5, ci, ci.-cu, ci.-s, cu.-s, h	10, cu.-s, ci.-s, ci.-cu : 10
11	o	o	10, oc-r : 1, cu.-s, ci	9, ci.-s, ci : 10, ci.-s
12	o	o : w	2, ci, ci.-s : 9, ci, ci.-s, ci.-cu	6, cu, ci, ci.-cu : 2, ci, ci.-cu, cu : 10
13	o	s N, sps : m	10 : 8, ci.-cu, ci.-s, cu.-s, sl.-r	10, ci.-s, cu.-s, r : 3, ci, ci.-cu : o
14	o	m : o : s	3, ci, ci.-cu : o	6, cu, cu.-s, ci.-cu, ci.-s, ci : o
15	o : s N	m : o : s	o : 10, oc.-shs	10, oc.-shs : 3
16	o	o : m	10, shs.-r : o : 10, ci.-s, ci.-cu	7, ci, cu, ci.-cu, ci.-s, cu.-s: o, m
17	w : m	m : s	10, sl-r : 10, cu.-s	3, cu, ci.-cu, h : o, h
18	m	m : w	10, s, ci.-s, ci	10 : 10
19	o	v	10, ci.-s : 10	10 : 10
20	m : m	m : s	10, m-r : 10	10, ci-s, gt.-glm : 10
21	w : s	v : o	10, sl.-r : 10, ci.-s	8, ci, ci.-cu, ci.-s, h : v, ci.-cu, ci.-s, cu.-s : 10
22	w	m : v	9, ci.-s, ci.-cu : 10, ci.-s	9, ci, ci.-cu, ci.-s : 8, ci, cu
23	s	w : s	1, li.-cl : 10, li.-cl, h	o, h : 2, ci, h : o, f
24	v	m : s, sps	10, th.-f : 10, f	10, f : 10, cu.-s, ci.-s
25	m	v	o	1, li.-cl : 2, li.-cl
26	s : w	m : o	o, f : 2, li.-cl, f	4, li.-cl : 10, cu.-s, f, h.-d
27	w : o	o	10, th.-f : 10, th.-f	10, f : 10, ci.-s, cu.-s
28	o	o : s, sps	10 : 8, li.-cl, ci, ci.-cu	10, sl.-r : o : 10, cu.-s, ci.-s
29	s, sps : w : o	o	10 : 10, li-cl : 10, ci.-s, oc.-shs	10, oc.-shs, w : 8, cu, cu.-s
30	o	w, N : o	o : 10, st.-w, r	10, h.-r, st.-w, sqs : v, l
31			o : o	4, ci, ci.-cu, st.-w : o

HUMIDITY OF THE AIR.

Temperature of the Dew Point.

The highest in the month was 58°·3 on the 3rd; and the lowest was 35°·0 on the 31st.

The mean   ,,   was 47°·8, being 1°·4 *higher* than the average of the preceding 22 years.

Elastic Force of Vapour.—The mean for the month was 0ᶦⁿ·333, being 0ᶦⁿ·016 *greater* than the average of the preceding 22 years.

Weight of Vapour in a Cubic Foot of Air.—The mean for the month was 3ᵍʳ·7, being the *same* as the average of the preceding 22 years.

Degree of Humidity.—The mean for the month was 87 (that of Saturation being represented by 100), being the *same* as the average of the preceding 22 years.

Weight of a Cubic Foot of Air.—The mean for the month was 537 grains, being 2 grains *less* than the average of the preceding 22 years.

CLOUDS.

The mean amount for the month, a clear sky being represented by 0 and a cloudy sky by 10, was 7·2.

WIND.

The proportions were of N. 1, S. 12, W. 8, E. 6., and Calm 4. The greatest pressure in the month was 29ˡᵇˢ·5 on the square foot on the 30th.

RAIN.

Fell on 17 days in the month, amounting to 1ᶦⁿ·8, as measured in the simple cylinder gauge partly sunk below the ground; being 1ᶦⁿ·0 *less* than the average fall of the preceding 48 years.

ELECTRICITY.—The insulating lamp was not burning on October 31.

MONTH and DAY, 1863.	Phases of the Moon.	Mean Daily Reading of the Barometer (corrected and reduced to 32° Fahrenheit).	READINGS OF THERMOMETERS.					Highest in the Sun, as shewn by a Self-Registering Thermometer read at 9ʰ P.M.	Lowest on the Grass, as shewn by a Self-Registering Thermometer read at 9ʰ A.M. next morning.	In the Water of the Thames, at Greenwich, by Self-Registering Thermometers, read at 9ʰ A.M. next morning.		Difference between the Dew Point Temperature and Air Temperature.			Difference between the Mean Temperature of the Day and the Mean Temperature of the same Day on an Average of 48 Years.	WIND AS DEDUCED FROM ANEMOMETERS.							Rain in Inches read at 9ʰ P.M.
			Dry.			Dew Point.						Osler's.						Robinson's.	
			Highest.	Lowest.	Mean Daily Value.	Mean Daily Value.			Highest.	Lowest.	Mean Daily Value.	Greatest.	Least.		General Direction.		Pressure in lbs. on the square foot.			Amount of Horizontal Movement of the Air on each Day.	
															A.M.	P.M.	Greatest.	Least.	Mean of 24 Obs.		
		in.	°	°	°	°	°	°	°	°	°	°	°	°			lbs.	lbs.	lbs.	miles.	in.
Nov. 1	..	29·387	49·5	38·5	42·6	36·3	78·0	29·7	53·6	51·4	6·3	9·5	3·5	− 3·8	SW	SW : S	6·0	0·0	0·8	410	0·01
2	..	28·900	50·0	40·9	44·8	38·1	74·8	37·0	52·7	50·5	6·7	11·4	2·2	− 1·4	S : SW	SW : NW	10·0	0·0	0·8	462	0·59
3	Apogee; Last Quarter.	29·620	53·3	37·5	45·7	43·4	55·0	26·4	52·9	50·7	2·3	7·4	0·0	− 0·4	W : SW	SW	6·0	0·0	0·7	505	0·02
4	..	29·849	60·8	51·7	56·0	51·0	72·0	45·4	52·6	50·4	5·0	7·4	2·0	+10·1	WSW	SW	5·0	0·0	2·0	530	0·02
5	..	30·027	56·8	52·2	54·2	51·0	58·6	48·8	52·6	50·4	3·2	5·1	0·8	+ 8·5	WSW	WSW	4·0	0·0	0·4	312	0·09
6	In Equator	30·323	48·5	34·3	40·3	36·4	80·4	30·4	52·1	49·9	3·9	7·7	0·3	− 5·2	N : NE	NE : Calm	0·0	0·0	0·0	101	0·04
7	..	30·010	53·0	40·0	47·5	47·5	53·1	28·0	52·1	49·9	0·0	1·7	0·0	+ 2·4	Calm : SW	W	0·0	0·0	0·0	360	0·09
8	..	29·599	53·3	44·7	48·3	48·1	56·0	29·8	51·1	48·9	0·2	0·8	0·0	+ 3·5	SW	NW : N	4·0	0·0	0·3	430	0·25
9	..	30·059	49·6	34·4	41·3	35·2	79·7	29·7	50·6	48·4	6·1	11·6	3·0	− 3·2	NNE	NE	3·0	0·0	0·2	204	0·00
10	..	29·607	45·0	28·1	37·7	37·2	49·0	28·0	50·4	47·4	0·5	2·4	0·0	− 6·6	Calm : SW	W : NW	1·0	0·0	0·0	224	0·08
11	New.	29·246	44·5	32·6	38·1	36·2	47·2	26·5	49·5	47·3	1·9	3·3	1·0	− 5·9	SW : NE	N : NNW	0·0	0·0	0·0	166	0·00
12	..	29·793	43·4	29·7	37·4	34·8	64·4	23·0	49·1	46·9	2·6	6·4	0·0	− 6·5	SW : N	N	1·0	0·0	0·0	183	0·00
13	Greatest Declination S.	30·119	48·0	29·7	40·6	37·6	77·0	23·0	49·0	46·8	3·0	7·8	0·4	− 2·9	SW	SW	0·0	0·0	0·0	209	0·00
14	..	30·117	50·2	44·6	47·7	44·8	52·2	35·0	49·3	47·1	2·9	5·0	1·7	+ 4·4	SW	SW	0·0	0·0	0·0	172	0·00
15	Perigee.	30·089	53·0	45·1	49·0	43·6	57·2	37·2	49·0	46·8	5·4	8·8	0·4	+ 6·0	SW	SW	0·0	0·0	0·0	246	0·00
16	..	30·004	55·0	45·4	50·6	49·3	60·0	40·6	48·9	46·7	1·3	4·0	0·0	+ 8·0	SW	SW	1·0	0·0	0·0	316	0·00
17	..	30·009	53·8	47·3	50·2	45·0	59·2	42·5	48·6	46·4	5·2	8·0	1·7	+ 7·8	SW	SW	4·0	0·0	0·3	285	0·00
18	First Qr.	30·090	51·3	46·0	48·3	43·3	59·0	40·5	48·2	46·0	5·0	7·1	2·5	+ 6·1	SSW	S	1·0	0·0	0·0	177	0·00
19	In Equator	30·052	53·6	43·1	47·3	42·3	78·0	36·0	48·1	45·9	5·0	8·4	1·5	+ 5·1	SSW	S	0·0	0·0	0·0	134	0·00
20	..	29·967	53·0	39·4	45·7	43·0	81·0	30·2	47·9	45·7	2·7	6·3	0·0	+ 3·5	Calm : SW	S	0·0	0·0	0·0	192	0·00
21	..	29·582	56·2	41·4	49·3	45·5	58·9	30·1	47·9	45·7	3·8	7·2	0·0	+ 7·3	S	SSW : WSW	17·5	0·0	1·8	497	0·13
22	..	29·661	50·8	41·5	46·7	40·2	77·7	34·0	47·9	45·7	6·5	10·9	0·4	+ 5·0	WSW	SW	2·5	0·0	0·3	305	0·00
23	..	29·723	53·6	42·7	48·3	44·7	77·0	30·9	47·9	45·7	3·6	7·6	0·0	+ 6·9	SW	SW	0·0	0·0	0·0	222	0·00
24	..	29·726	55·5	47·6	52·1	51·6	62·0	42·0	47·8	45·6	0·5	1·8	0·0	+11·1	SSW : S	SW	0·0	0·0	0·0	238	0·25
25	Full.	29·938	57·0	49·2	52·8	49·7	67·1	41·5	47·8	45·6	3·1	6·3	0·6	+12·0	SSW	S	0·0	0·0	0·0	211	0·00
26	Greatest Declination N.	30·212	51·8	45·9	49·0	48·1	55·3	38·0	47·8	45·6	0·9	2·2	0·0	+ 8·1	SSE	SE	0·0	0·0	0·0	155	0·00
27	..	30·196	50·0	40·3	45·6	43·1	64·7	33·0	47·9	45·7	2·5	4·6	0·0	+ 4·5	SE	SSE	0·0	0·0	0·0	99	0·00
28	..	30·146	46·5	35·7	41·0	37·2	78·2	32·9	48·0	45·8	3·8	6·3	1·0	− 0·5	SE	SE	0·0	0·0	0·0	135	0·00
29	..	30·104	45·6	30·6	36·8	34·3	63·0	23·5	48·0	45·8	2·5	5·9	0·0	− 4·8	SE	E	0·0	0·0	0·0	141	0·00
30	Apogee.	29·960	42·0	29·8	35·4	33·2	55·0	17·7	48·0	45·8	2·2	4·6	0·0	− 6·2	ESE : NE	E	0·0	0·0	0·0	115	0·00
Means	..	29·870	51·1	40·3	45·7	42·4	65·0	33·0	49·6	47·4	3·3	6·2	0·8	+ 2·4	...	...	..	..	..	Sum 7736	Sum 1·57

BAROMETER READINGS FROM EYE-OBSERVATIONS.

  The first maximum in the month was 29ⁱⁿ·443 on the 1st ; the absolute minimum in the month was 28ⁱⁿ·768 on the 2nd.
  The second maximum   ,,   was 29ⁱⁿ·707 on the 3rd ; the second minimum   ,,   was 29ⁱⁿ·561 on the 3rd.
  The absolute maximum   ,,   was 30ⁱⁿ·358 on the 6th ; the third minimum   ,,   was 29ⁱⁿ·566 on the 8th.
  The fourth maximum   ,,   was 30ⁱⁿ·080 on the 9th ; the fourth minimum   ,,   was 29ⁱⁿ·194 on the 11th.
  The fifth maximum   ,,   was 30ⁱⁿ·140 on the 13th ; the fifth minimum   ,,   was 29ⁱⁿ·995 on the 17th.
  The sixth maximum   ,,   was 30ⁱⁿ·113 on the 18th ; the sixth minimum   ,,   was 29ⁱⁿ·497 on the 21st.
  The seventh maximum   ,,   was 30ⁱⁿ·230 on the 27th.
  The range in the month was 1ⁱⁿ·590.
  The mean for the month was 29ⁱⁿ·870, being 0ⁱⁿ·121 *higher* than the average of the preceding 22 years.

TEMPERATURE OF THE AIR.

  The highest in the month was 60°·8 on the 4th ; the lowest was 28°·1 on the 10th ; and the range in the month was 32°·7.
  The mean   ,,   of all the highest daily readings was 51°·1, being 2°·0 *higher* than the average of the preceding 22 years.
  The mean   ,,   of all the lowest daily readings was 40°·3, being 2°·9 *higher* than the average of the preceding 22 years.
  The mean daily range was 10°·8, being 0°·9 *less* than the average of the preceding 22 years.
  The mean for the month was 45°·7, being 1°·7 *higher* than the average of the preceding 22 years.

MONTH and DAY, 1863.	ELECTRICITY.		[CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Nov. 1			o : o	10, ci.-cu, cu.-s, oc.-r : 10
2			10, h.-r, w : 10, c.-h, r	10, ci.-cu, cu.-s, ci : 10, oc.-shs, st.-w
3			w : o : 10, ci-s	10, sl.-r : 10, sl.-r
4			10, ci.-s : 10, ci.-s	10 : 10, w
5			10, ci.-s : 10, ci.-s, cu-s, sc, sl.-r	10 : 10, sl.-r
6			10, sl.-r : 3, li.-cl : o	5, ci, ci.-s, cu.-s : 1, ci, ci.-s : o, f
7			9 : 10	10, shs.-r : 10, oc.-r
8			10 : 10, r	10, c.-r : 10, r
9			1, ci.-s : 2, ci, ci.-cu	6, ci.-cu, cu.-s : o
10			6, ci, ci.-s, li.-cl : 10, ci.-s, sl.-r	10, ci.-s : 7, ci, ci.-s : o
11	o	o : w : o	o, h.-fr : 9, li.-cl	10 : o : o, h, f, h.-fr
12	v	w : m	o, h.-fr : 1, h, ci	1, ci, ci.-cu : o : o, h
13	s	w : o : s	o, h.-fr : o, h.-fr : 10, ci.-s	o, v : 10, ci.-s : 10
14	o : w	o : s	10 : 10	10 : 10
15	s	s, sps	10 : 10	10 : 10
16	m : s	o	10 : 10	10 : 10, ci.-cu : o
17	o	o : m	10, ci.-s : 10	10, : 10, sl.-r
18	w : m	o : m	10, ci.-s, cu.-s : 10, ci.-s	10, ci.-s, cu.-s : 10, ci.-cu, ci.-s
19	w : o	o : sps, g-cur	3, ci.-s, ci.-cu : 9, ci, ci.-cu, cu.-s, ci.-s	9, ci.-cu, cu.-s : 10, ci.-s, cu.-s
20	m	w : s	10, ci.-s : 9, ci.-s, ci.-cu	o : 3, ci : 1, ci.-s
21	o	o	7, s, ci.-s : 8, ci.-cu, ci.-s, s	7,cu,cu.-s,ci.-cu: sq : o
22			o, : o	o : 7, li.-cl, lu.-ha
23			3, ci, ci.-s : o	8, ci, ci.-cu, ci.-s : 10
24			10 : 10, h.-r	10, sl.-r : 10, oc.-r
25			10, ci.-s : 9, cu.-s, s	7, cu, cu.-s, ci.-cu: 8, s, cu.-s : o
26			o : 10, ci.-s	10 : 10
27			10, ci.-s : 10	9, ci.-s, cu.-s, ci.-cu: : 3, ci, ci.-cu: 10
28			9, ci, ci.-s : 9, ci.-s	o : o, h.-fr
29	m	w	o, h.-fr : o, th.-f	5, li.-cl : o
30	o : w	s	o, h.-fr : 9, ci.-cu, h	o : o, h.-fr

HUMIDITY OF THE AIR.

Temperature of the Dew Point.

The highest in the month was 53°·5 on the 4th ; and the lowest was 29°·8 on the 30th.

The mean ,, was 42°·4, being 2°·6 *higher* than the average of the preceding 22 years.

Elastic Force of Vapour.—The mean for the month was 0^{in}·271 being 0^{in}·019 *greater* than the average of the preceding 22 years.

Weight of Vapour in a Cubic Foot of Air.—The mean for the month was 3^{gr}·1, being 0^{gr}·3 *greater* than the average of the preceding 22 years.

Degree of Humidity.—The mean for the month was 88 (that of Saturation being represented by 100), being 1 *less* than the average of the preceding 22 years.

Weight of a Cubic Foot of Air.—The mean for the month was 547 grains, being 1 grain *less* than the average of the preceding 22 years.

CLOUDS.

The mean amount for the month, a clear sky being represented by 0 and a cloudy sky by 10, was 7·0.

WIND.

The proportions were of N. 3, S. 12, W. 11, E. 4, and Calm o. The greatest pressure in the month was 17^{lbs}·5 on the square foot on the 21st.

RAIN.

Fell on 11 days in the month, amounting to 1^{in}·6, as measured in the simple cylinder gauge partly sunk below the ground; being 0^{in}·8 *less* than the average fall of the preceding 48 years.

ELECTRICITY.—The insulating lamp was not burning from November 1 to 10, and the electrical apparatus was under adjustment from November 22 to 28.

MONTH and DAY, 1863.	Phases of the Moon.	Mean Daily Reading of the Barometer (corrected and reduced to 32° Fahrenheit).	READINGS OF THERMOMETERS. Dry. Highest.	Dry. Lowest.	Dry. Mean Daily Value.	Dew Point. Mean Daily Value.	Highest in the Sun, as shewn by a Self-Registering Thermometer read at 9h P.M.	Lowest on the Grass, as shewn by a Self-Registering Thermometer read at 9h A.M. next morning.	In the Water of the Thames, at Greenwich, by Self-Registering Thermometers,read at 9h A.M. next morning. Highest.	Lowest.	Difference between the Dew Point Temperature and Air Temperature. Mean Daily Value.	Greatest.	Least.	Difference between the Mean Temperature of the Day and the Mean Temperature of the same Day on an Average of 43 Years.	WIND AS DEDUCED FROM ANEMOMETERS. OSLER'S. General Direction. A.M.	P.M.	Pressure in lbs. on the square foot. Greatest.	Least.	Mean of 24 Obs.	ROBINSON'S. Amount of Horizontal Movement of the Air on each Day.	Rain in Inches read at 9h P.M.
		in.	°	°	°	°	°	°	°	°	°	°	°	°			lbs.	lbs.	lbs.	miles.	in.
Dec. 1	..	29·564	51·7	30·2	43·7	42·4	52·0	22·8	47·9	45·7	1·3	3·6	0·0	+ 2·0	SE : S	S : SW	3·5	0·0	0·4	415	0·04
2	..	28·990	51·3	38·8	45·4	43·1	58·0	33·0	47·8	45·6	2·3	8·4	0·8	+ 3·6	SSW : SSE	SW : NW	22·5	0·0	1·7	490	0·30
3	Last Qr.	29·214	54·2	35·9	42·6	31·7	67·6	25·2	47·1	44·9	10·9	15·4	0·0	+ 0·9	S : SW	W : NW	21·0	0·0	4·0	605	0·43
4	In Equator	30·183	46·0	33·7	41·4	34·9	63·0	25·4	46·6	44·4	6·5	9·2	3·5	- 0·1	W : WSW	SW	3·5	0·0	0·2	408	0·00
5	..	29·954	53·0	44·9	49·3	44·5	74·8	40·0	46·4	44·2	4·8	6·8	2·4	+ 7·9	SW	SW	4·2	0·0	0·6	349	0·01
6	..	30·133	47·0	38·3	42·4	37·2	55·0	29·0	45·6	43·4	5·2	8·6	2·1	+ 1·3	WSW	SW	1·0	0·0	0·0	366	0·04
7	..	30·214	51·1	40·7	47·7	42·6	55·5	34·2	44·8	42·6	5·1	7·8	3·4	+ 7·0	SW	SW	2·0	0·0	0·1	416	0·00
8	..	29·946	50·6	44·8	48·1	41·3	56·6	40·0	44·6	42·4	6·8	8·4	3·7	+ 7·5	SW	SW	4·0	0·0	1·3	253	0·00
9	..	29·893	52·1	43·9	47·7	45·9	53·5	42·7	44·7	42·5	1·8	4·6	0·4	+ 7·2	SW	SW : W	2·0	0·0	0·3	234	0·13
10	New;	30·065	48·2	34·8	42·9	38·8	70·0	26·3	44·8	42·6	4·1	7·1	2·0	+ 2·5	SW	WSW	1·0	0·0	0·0	384	0·00
11	Greatest Dec.S.	30·024	50·8	43·9	48·0	43·6	53·0	40·2	44·9	42·7	4·4	5·8	1·5	+ 7·8	WSW	WSW	6·0	0·0	0·6	549	0·00
12	Perigee	29·966	53·5	47·7	50·4	46·4	60·2	43·0	44·9	42·7	4·0	7·4	2·5	+10·4	WSW	WSW	3·0	0·0	0·3	323	0·00
13	..	30·240	49·1	35·5	42·0	38·1	53·2	27·3	45·6	43·4	3·9	8·0	2·3	+ 2·4	NW : W	SW	0·0	0·0	0·0	208	0·00
14	..	30·278	49·9	36·2	42·9	40·3	63·2	28·9	45·6	43·4	2·6	6·9	0·0	+ 3·2	SW	SW	0·0	0·0	0·0	205	0·00
15	..	30·161	47·5	37·7	44·4	42·3	48·5	27·3	45·6	43·4	2·1	4·4	1·0	+ 4·4	SW	SW	0·0	0·0	0·0	322	0·00
16	..	29·670	50·2	36·7	44·0	37·4	68·7	36·0	45·7	43·5	6·6	10·3	1·4	+ 3·7	SW	W	3·0	0·0	0·3	441	0·00
17	In Equator	29·882	45·2	36·5	42·1	33·5	51·2	29·4	45·1	42·9	8·6	11·0	3·1	+ 2·0	W : NW	NW :N	6·0	0·0	1·0	404	0·00
18	First Qr.	30·314	41·3	32·2	36·9	31·8	57·0	26·6	44·9	42·7	5·1	10·6	4·3	- 3·0	N	NNW : WSW	0·0	0·0	0·0	182	0·00
19	..	30·304	48·2	35·0	42·6	40·4	54·5	30·3	44·7	42·5	2·2	5·9	1·8	+ 3·1	WSW	W	0·0	0·0	0·0	160	0·00
20	..	30·156	43·0	36·5	40·7	36·0	45·2	30·5	44·6	42·4	4·7	6·6	3·2	+ 1·7	W	W	0·0	0·0	0·0	253	0·00
21	..	29·931	48·8	37·7	43·4	41·9	57·2	32·1	44·6	42·4	1·5	3·1	0·2	+ 5·0	W : NW	W : SW	0·0	0·0	0·0	338	0·06
22	..	29·882	48·8	30·3	36·7	27·2	57·5	20·0	44·7	42·5	9·5	14·8	4·8	- 1·2	NW	NW	4·0	0·0	0·5	347	0·00
23	Greatest Declination N.	29·870	48·5	26·5	40·4	37·6	54·5	16·2	43·9	41·7	2·8	6·5	1·0	+ 3·0	WSW	W	3·0	0·0	0·3	353	0·00
24	..	30·078	47·9	41·1	44·7	40·6	51·0	30·8	43·8	41·6	4·1	6·6	1·3	+ 7·7	W	W	0·0	0·0	0·0	210	0·00
25	Full	30·069	48·5	40·3	44·4	37·3	50·0	38·0	43·9	41·7	7·1	10·1	3·2	+ 7·9	SW	SW	0·0	0·0	0·0	322	0·00
26	..	29·803	51·9	39·3	47·4	44·9	56·5	29·8	43·0	41·8	2·5	4·6	1·9	+11·0	SW	WSW	2·0	0·0	0·2	459	0·00
27	..	29·931	49·8	32·9	38·2	27·2	49·8	26·0	44·1	41·9	11·0	13·1	7·8	+ 1·7	W : N	NW	1·0	0·0	0·1	178	0·00
28	Apogee	30·116	41·3	28·9	35·6	29·0	43·3	21·8	44·6	42·4	6·6	11·5	3·0	- 1·4	Calm	SE : S	2·0	0·0	0·1	262	0·00
29	..	29·765	52·0	40·7	47·8	44·0	52·0	39·2	44·3	42·1	3·8	6·8	2·3	+10·5	SW	SW : W	13·0	0·0	2·0	360	0·00
30	..	29·957	46·4	33·3	40·0	36·7	46·4	32·8	44·1	42·4	3·3	6·4	0·6	+ 2·6	W : NW	W : NW	1·6	0·0	0·1	130	0·00
31	In Equator	29·637	40·0	27·9	35·7	34·9	44·2	..	44·5	42·3	0·8	3·7	0·0	- 1·3	Calm : E	E : ENE	2·0	0·0	0·2	331	0·07
Means	..	29·942	48·6	36·8	43·2	38·5	55·6	30·8	45·1	42·9	4·7	7·9	2·1	+ 3·9	...	....	..	..	..	Sum 10257	Sum 1·08

BAROMETER READINGS FROM EYE-OBSERVATIONS.

The absolute minimum in the month was 28^{in}·839 on the 2nd.

The first maximum in the month was 29^{in}.344 on the 2nd; the second minimum ,, was 28^{in}·900 on the 3rd.
The second maximum ,, was 30^{in}.217 on the 4th; the third minimum ,, was 29^{in}·933 on the 5th.
The third maximum ,, was 30^{in}·236 on the 7th; the fourth minimum ,, was 29^{in}·871 on the 9th.
The fourth maximum ,, was 30^{in}·292 on the 14th; the fifth minimum ,, was 29^{in}·624 on the 16th.
The absolute maximum ,, was 30^{in}·339 on the 18th; the sixth minimum ,, was 29^{in}·697 on the 22nd.
The sixth maximum ,, was 30^{in}·092 on the 22nd; the seventh minimum ,, was 29^{in}·820 on the 23rd.
The seventh maximum ,, was 30^{in}·118 on the 24th; the eighth minimum ,, was 29^{in}·718 on the 26th.
The eighth maximum ,, was 30^{in}·183 on the 28th; the ninth minimum ,, was 29^{in}·702 on the 29th.
The ninth maximum ,, was 29^{in}·995 on the 30th; the tenth minimum ,, was 29^{in}·547 on the 31st.
The range in the month was 1^{in}·500.
The mean for the month was 29^{in}·942, being 0^{in}·126 *higher* than the average of the preceding 22 years.

TEMPERATURE OF THE AIR.

The highest in the month was 54°·2 on the 3rd; the lowest was 26°·5 on the 23rd.
The range ,, was 27°·7.
The mean ,, of all the highest daily readings was 48°·6, being 3°·4 *higher* than the average of the preceding 22 years.
The mean ,, of all the lowest daily readings was 36°·8, being 1°·1 *higher* than the average of the preceding 22 years.
The mean daily range was 11°·8, being 2°·3 *greater* than the average of the preceding 22 years.
The mean for the month was 43°·2 being 2°·9 *higher* than the average of the preceding 22 years.

MONTH and DAY, 1863.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Dec. 1	o	o	o, h.-fr : 10, sc, ci.-s	10, ci.-s, cu.-s, oc.-r : 10, sl.-r
2	s N : o	m : s N, sps, g-cur : o	10, r : 10, c.-r	10, h.-sqs . : o : 7, ci.-s, cu.-s, v
3	o	o	7, ci.-s, cu.-s : h.-r : 10, fr.-h.-sqs	o, st.-w : 2, ci, ci.-cu, st.-w : o
4	o	o	o : o	o : 10, ci.-s : 10
5	o	o	10, ci.-s : 10	10, sl.-r : 10
6	o	o	10, r : o, h	6, ci.-cu, ci.-s, ci : o
7	o	o	o : 10, ci, v : o	10, ci.-s : 10
8	o	o	2, ci.-s : 10, sl.-r	10, ci.-s, cu.-s : 10
9	o	o	10 : 10, sl.-r	10, glm, h.-shs : 2, s, ci.-s : 10, ci.-s
10	o	o	o : o	9 : 10
11	w : o	o	10, ci.-s : 10, ci.-s	10, ci.-s : 10, w
12	o	o	10, s, cu.-s : 9, cu.-s, ci.-cu, h	4, ci.-cu, ci.-s, cu : o, m
13	o	o	o, h	6, ci, h : o, sl.-f
14	o	m : s	o, th.-f : o, f	o, h : 1, ci : o
15	o	m : s	10 : 10	10 : 10
16	w : o	w : v	7, s, cu.-s : 10	8, ci, ci.-cu : 1, li.-cl : o
17	w : o	o : w	o : 10	10, cu.-s, s : 10, sl.-r
18	o	w : m	o : 10, cu.-s	o : 2, ci.-cu, h : 10, f
19	o	w	10, ci.-s : 10	5, li.-cl, h, ci.-cu : 10, li.-cl, f : o, h, lu.-co
20	w	o	o, h : 10, ci.-cu	10 : 5
21	o : w	w	10 : 10, shs.-r	10, ci.-s, cu.-s : 10, cu.-s, ci.-cu
22	o	o	10 . : 10, sl.-r, hl	o : o, h.-fr
23	o	w : o	6, cu.-s, s : 10	7, ci.-cu, cu.- s : 10, cu.-s, ci.-cu
24	o : s	s	7, ci.-cu, cu-s : 10, s, ci-s	9, ci.-s, ci.-cu : 10, ci.-s
25	m	s : o	o, h	o : o
26	o	o	10, sl.-r	10 : 6
27	w	w : m	8, li.-cl	9, ci, ci.-s : o
28	o : v	o	10, ci.-s : 9, ci.cu, ci.-s	10, sn : 10
29	o	o	10, ci.-s : 10, ci.-cu, cu.-s	10, sl.-r : 9
30	m	w	9, ci.-cu, ci,-s : 6, ci.-cu, ci., h	6, ci, ci.-cu, h : o, h, f
31	m : o	w : s	3, ci.-cu, ci.-s, h : 5, ci, ci.-s, h	10, ci.-s, cu.-s : 10, r

HUMIDITY OF THE AIR.

Temperature of the Dew Point.

The highest in the month was 49°·9 on the 9th; and the lowest was 21°·8 on the 22nd.

The mean „ was 38°·5, being 1°·4 higher than the average of the preceding 22 years.

Elastic Force of Vapour.—The mean for the month was o^{in}·233 being o^{in}·010 greater than the average of the preceding 22 years.

Weight of Vapour in a Cubic Foot of Air.—The mean for the month was 2^{gr}·7, being o^{gr}·1 greater than the average of the preceding 22 years.

Degree of Humidity.—The mean for the month was 83 (that of Saturation being represented by 100), being 6 less than the average of the preceding 22 years.

Weight of a Cubic Foot of Air.—The mean for the month was 552 grains, being the same as the average of the preceding 22 years.

CLOUDS.

The mean amount for the month, a clear sky being represented by o and a cloudy sky by 10, was 6·8.

WIND.

The proportions were of N. 3, S. 7, W. 19, E. 1, and Calm 1. The greatest pressure in the month was 22^{lbs}·5 on the square foot on the 2nd.

RAIN.

Fell on 8 days in the month, amounting to 1^{in}·1 as measured in the simple cylinder gauge partly sunk below the ground; being o^{in}·8 less than the average fall of the preceding 48 years.

MAXIMA AND MINIMA READINGS OF THE BAROMETER.

The following table contains the highest and lowest readings of the Barometer, reduced to 32° Fahrenheit, extracted from the photographic records. The readings are accurate; but the times are liable to great uncertainty, as the barometer frequently remains at its highest or lowest point through several hours. The time given is the middle of the stationary period. Where the symbol : follows the time, it denotes that the quicksilver has been sensibly stationary through a period of more than one hour.

MAXIMA.		MINIMA.		MAXIMA.		MINIMA.	
Approximate Mean Solar Time, 1863.	Reading.	Approximate Mean Solar Time, 1863.	Reading.	Approximate Mean Solar Time, 1863.	Reading.	Approximate Mean Solar Time, 1863.	Reading.
d h m	in.	d h m	in.	d h m	in.	d h m	in.
January 2. 11. 8:	29·536	January 1. 20. 45	29·343	April 2. 21. 30	30·096	April 1. 16. 6:	29·900
6. 0. 0	28·994	5. 8. 9:	28·865	9. 14. 0:	29·685	6. 18. 20:	29·290
9. 14. 20:	29·646	6. 13. 30:	28·894	13. 0. 0	29·838	10. 13. 0:	29·531
11. 22. 30:	30·012	10. 5. 15:	29·500	18. 11. 0:	30·140	14. 7. 34:	29·755
15. 0. 30:	30·263	13. 0. 0	29·714	23. 22. 8:	30·254	21. 21. 19	29·517
19. 5. 5	29·397	18. 17. 45:	29·150	30. 22. 23:	30·127	28. 7. 10:	29·609
21. 9. 20:	29·695	19. 19. 23	28·864	May 7. 17. 55:	30·228	May 4. 6. 0:	29·656
23. 12. 0:	29·755	22. 22. 44	29·407	10. 20. 0:	29·896	9. 17. 56:	29·778
25. 12. 15:	30·219	23. 21. 14	29·523	13. 23. 40	29·755	12. 12. 15:	29·440
27. 22. 10:	30·387	26. 14. 0:	29·863	15. 22. 30	29·779	15. 5. 6:	29·634
February 0. 21. 30	29·635	31. 0. 0	29·238	21. 0. 0:	30·055	17. 2. 35:	29·663
1. 21. 0	29·781	February 1. 0. 0	29·595	27. 21. 0	30·137	23. 5. 36:	29·679
3. 22. 33:	30·070	2. 21. 41	29·598	31. 12. 15:	30·140	30. 14. 8:	29·963
6. 0. 0	30·168	4. 15. 15:	29·840	June 9. 0. 15	29·661	June 6. 7. 30:	29·250
10. 15. 0:	30·101	8. 4. 45:	29·829	11. 0. 0	29·447	10. 12. 44	29·226
12. 23. 30	30·523	11. 4. 38:	30·023	15. 11. 30:	29·881	11. 17. 3:	29·305
16. 10. 15:	30·510	14. 17. 25:	30·397	23. 10. 0:	29·984	18. 21. 54	29·369
22. 20. 30	30·211	21. 17. 50:	30·073	24. 16. 30	29·921	24. 13. 20	29·858
25. 9. 52:	30·300	23. 11. 0:	30·114	25. 13. 45:	30·025	24. 17. 49	29·862
March 6. 22. 15:	29·455	March 6. 6. 55:	29·243	July 0. 19. 37:	30·168	27. 5. 15:	29·777
8. 13. 0:	29·494	7. 10. 30:	29·298	5. 12. 0:	30·185	July 2. 3. 22	29·832
11. 8. 16	29·542	10. 3. 30:	29·202	10. 21. 0	30·236	7. 4. 15	29·870
13. 15. 0:	29·344	12. 9. 0:	29·005	12. 22. 15:	30·318	11. 9. 0	30·191
17. 0. 0	30·056	14. 21. 20:	29·080	16. 0. 20:	30·058	15. 8. 4:	29·968
19. 10. 15:	29·966	18. 3. 0:	29·790	18. 22. 30	29·832	17. 21. 23	29·614
24. 22. 25:	30·388	20. 2. 28	29·680	20. 22. 25	29·640	20. 7. 33:	29·593
26. 21. 10:	30·257	26. 3. 0	30·137	24. 0. 15	29·973	21. 23. 8	29·315
31 11. 18:	30·099	29. 4. 0:	29·649	26. 12. 0:	30·072	24. 23. 23	29·750

MAXIMA AND MINIMA READINGS OF THE BAROMETER—*concluded.*

MAXIMA.		MINIMA.		MAXIMA.		MINIMA.	
Approximate Mean Solar Time, 1863.	Reading.	Approximate Mean Solar Time, 1863.	Reading.	Approximate Mean Solar Time, 1863.	Reading.	Approximate Mean Solar Time, 1863.	Reading.
d h m	in·	d h m	in·	d h m	in·	d h m	in·
July 30. 13. 24:	30·143	July 29. 3. 31:	29·837	October 20. 21. 0	30·032	October 15. 3. 0:	29·404
August 8. 22. 30	29·995	August 4. 11. 0:	29·707	23. 8. 0	30·135	22. 2. 0:	29·958
11. 12. 49	29·944	10. 17. 37:	29·836	29. 15. 30:	29·340	29. 3. 45	29·085
13. 12. 55:	29·915	13. 0. 22:	29·760	November 0. 21. 30	29·443	30. 3. 30	28·812
18. 13. 38:	29·783	17. 2. 41:	29·546	2. 21. 0	29·707	November 1. 21. 0	28·768
20. 21. 5	30·023	19. 6. 0	29·557	5. 23. 15	30·375	3. 4. 59:	29·553
25. 19. 50:	29·383	25. 10. 12:	29·295	9. 3. 8	30·097	8. 2. 30:	29·560
29. 22. 30	29·739	26. 19. 0:	29·203	13. 9. 30:	30·140	11. 0. 0	29·194
September 0. 22. 15:	29·937	30. 21. 47	29·523	17. 21. 45:	30·115	16. 19. 18:	29·974
3. 21. 25	29·760	September 3. 0. 0:	29·589	26. 15. 0:	30·230	21. 4. 52	29·406
6. 0. 28	29·794	5. 5. 15:	29·522	December 2. 10. 37:	29·376	December 2. 0. 8	28·828
8. 0. 0	29·831	6. 19. 10:	29·335	4. 0. 0	30·217	2. 19. 50	28·796
13. 22. 15:	30·200	9. 11. 0:	29·592	6. 23. 43	30·258	5. 2. 13	29·915
16. 21. 0	29·984	15. 18. 32	29·869	13. 23. 0	30·294	8. 19. 45:	29·852
26. 14. 18:	30·065	22. 3. 14	28·780	18. 5. 22:	30·345	16. 15. 2:	29·605
28. 21. 0:	29·899	27. 21. 20	29·560	22. 9. 56:	30·096	21. 19. 5:	29·600
October 4. 13. 10:	29·890	October 1. 2. 25	29·040	24. 10. 30:	30·128	23. 3. 34:	29·813
10. 1. 25	29·554	9. 14. 18:	29·354	27. 22. 9:	30·183	26. 15. 30:	29·674
11. 5. 20:	29·490	10. 17. 50:	29·328	29. 22. 8	29·997	29. 1. 38	29·675
14. 10. 36:	29·575	13. 0. 35	29·142			31. 11. 30:	29·547

MONTHLY MEANS of RESULTS for METEOROLOGICAL ELEMENTS at the ROYAL OBSERVATORY, GREENWICH, in the Year 1863.

1863, MONTH.	Mean Reading of the Barometer.	TEMPERATURE OF THE AIR.							Mean Temperature of Dew Point.	Mean Elastic Force of Vapour.	Mean Weight of Vapour in a Cubic Foot of Air.	Mean additional Weight required to saturate a Cubic Foot of Air.
		Highest.	Lowest.	Range in the Month.	Mean of all the Highest.	Mean of all the Lowest.	Mean Daily Range.	Mean Temperature.				
	in.	°	°	°	°	°	°	°	°	in.	gr.	gr.
January ..	29·621	55·2	27·7	27·5	46·9	36·6	10·3	41·8	37·6	0·225	2·6	0·5
February..	30·141	55·7	27·2	28·5	49·5	35·7	13·8	42·1	37·9	0·228	2·6	0·5
March	29·715	64·0	28·1	35·9	53·7	35·7	18·0	43·9	37·6	0·225	2·6	0·7
April	29·813	69·3	28·3	41·0	61·2	40·1	21·1	49·1	42·7	0·274	3·1	0·9
May	29·857	79·7	31·4	48·3	64·4	42·7	21·7	52·0	45·2	0·302	3·4	1·0
June	29·727	84·0	42·1	41·9	70·1	50·1	20·0	58·1	50·2	0·364	4·1	1·4
July......	29·961	86·0	38·7	47·3	74·3	49·4	24·9	60·8	51·7	0·384	4·3	1·7
August ...	29·744	84·9	46·0	38·9	73·8	53·7	20·1	61·9	53·6	0·412	4·5	1·6
September.	29·693	71·8	35·0	36·8	63·5	45·8	17·7	53·7	46·8	0·321	3·6	1·1
October ...	29·638	66·5	34·0	32·5	58·8	46·1	12·7	51·6	47·8	0·333	3·7	0·6
November .	29·870	60·8	28·1	32·7	51·1	40·3	10·8	45·7	42·4	0·271	3·1	0·5
December .	29·942	54·2	26·5	27·7	48·6	36·8	11·8	43·2	38·5	0·233	2·7	0·5
Means	29·810	69·3	32·7	36·6	59·7	42·8	16·9	50·3	44·3	0·298	3·4	0·9

1863, MONTH.	Mean Degree of Humidity. (Sat. = 100.)	Mean Weight of a Cubic Foot of Air.	Mean Amount of Cloud. 0-10	RAIN.			WIND.										From Robinson's Anemometer.
				Number of Rainy Days.	Amount collected on the Ground.		From Osler's Anemometer.										
					Gauge read daily.	Gauge read Monthly.	Number of Days for Mean Direction of the Wind referred to different Points of Azimuth.								Number of Calm Days and Days on which the Pressure of the Wind was less than ¼ lb. on the Sq. Foot.	Mean Daily Pressure in lbs. on Square Foot.	Mean Daily Horizontal Movement of Wind in Miles.
							N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.			
		gr.			in.	in.											
January........	85	547	7·3	16	2·7	2·6	1	4	1	2	3	14	3	2	1	1·68	370
February.......	86	557	6·5	9	0·5	0·6	1	1	2	3	0	13	4	2	2	0·33	244
March	78	547	6·4	10	0·7	0·7	3	3	1	2	2	6	5	5	4	0·36	237
April	78	543	6·6	9	0·4	0·4	2	4	2	1	1	9	4	5	2	0·44	257
May	78	540	6·2	10	1·3	1·2	2	11	3	1	0	7	5	2	0	0·23	239
June..........	75	531	7·2	14	3·9	3·9	2	2	1	3	1	11	8	2	0	0·09	151
July	72	532	5·0	3	0·9	0·9	5	5	2	3	2	5	4	2	3	0·04	148
August	74	527	7·0	13	1·8	1·8	1	1	2	1	2	17	4	2	1	0·18	248
September......	77	535	6·9	14	3·0	3·1	0	0	0	0	3	16	9	1	1	0·17	259
October	87	537	7·2	17	1·8	1·7	1	1	3	5	3	13	1	0	4	0·19	226
November......	88	547	7·0	11	1·6	1·8	2	1	2	3	4	14	3	1	0	0·15	258
December	83	552	6·8	8	1·1	1·1	1	0	1	0	1	13	10	4	1	0·34	331
Means	80	541	6·7	Sum 134	Sum 19·7	Sum 19·8	Sum 21	Sum 33	Sum 20	Sum 24	Sum 22	Sum 138	Sum 60	Sum 28	Sum 19	..	..

From June 4 to 23 Robinson's Anemometer was not in action.   The mean daily horizontal movement of the air for the month of June has been formed from the remaining 10 days.

READINGS OF THERMOMETERS SUNK IN THE GROUND.

(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, except Sundays, Good Friday, and Christmas Day.

Day of the Month, 1863.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	51·46	S	S	49·43	48·96	48·83	49·09	49·68	50·52	51·31	S·	51·97
2	51·43	50·73	50·07	49·42	48·95	48·85	49·09	S	50·54	51·34	51·84	51·97
3	51·40	50·71	50·05	GoodFriday.	S	48·87	49·12	49·74	50·58	51·37	51·84	51·97
4	S	50·68	50·03	49·38	48·93	48·86	49·13	49·76	50·60	51·42	51·90	51·97
5	51·37	50·60	50·00	S	48·94	48·85	S	49·77	50·63	51·42	51·90	51·98
6	51·35	50·65	49·97	49·34	48·92	48·85	49·16	49·80	S	51·42	51·89	S
7	51·31	50·62	49·94	49·32	48·90	S	49·19	49·85	50·68	51·45	51·88	51·97
8	51·31	S	S	49·30	48·90.	48·84	49·20	49·87	50·72	51·49	S	51·96
9	51·26	50·54	49·88	49·30	48·90	48·87	49·22	S	50·74	51·48	51·90	51·97
10	51·25	50·53	49·87	49·28	S	48·87	49·24	49·94	50·76	51·53	51·88	51·96
11	S	50·51	49·83	49·26	48·88	48·87	49·26	49·96	50·80	S	51·90	51·95
12	51·15	50·48	49·82	S	48·85	48·88	S	49·98	50·83	51·57	51·90	51·94
13	51·15	50·40	49·80	49·23	48·86	48·89	49·28	50·00	S	51·57	51·93	S
14	51·13	50·43	49·78	49·20	48·85	S	49·30	50·04	50·87	51·62	51·94	51·92
15	51·10	S	S	49·20	48·85	48·92	49·32	50·13	50·92	51·62	S	51·90
16	51·08	50·36	49·75	49·18	48·84	48·93	49·34	S	50·95	51·64	51·97	51·88
17	51·05	50·35	49·72	49·16	S	48·93	49·35	50·11	50·97	51·66	51·97	51·88
18	S	50·32	49·68	49·15	48·84	48·94	49·35	50·11	50·99	S	51·97	51·87
19	51·05	50·29	49·68	S	48·80	48·92	S	50·12	51·00	51·70	51·97	51·87
20	51·02	50·28	49·66	49·12	48·81	48·95	49·40	50·16	S	51·72	51·98	S
21	51·00	50·25	49·64	49·10	48·82	S	49·40	50·20	51·06	51·73	51·98	51·86
22	50·95	S	S	49·17	48·81	48·97	49·44	50·24	51·08	51·75	S	51·84
23	50·95	50·22	49·62	49·06	48·81	49·00	49·46	S	51·12	51·74	51·98	51·83
24	50·95	50·19	49·60	49·05	S	49·00	49·48	50·30	51·13	51·73	52·00	51·83
25	S	50·15	49·57	49·04	48·81	49·02	49·52	50·33	51·18	S	52·02	ChristmasDay
26	50·90	50·15	49·55	S	48·81	49·02	S	50·35	51·21	51·77	52·00	51·83
27	50·83	50·13	49·52	49·05	48·83	49·03	49·57	50·38	S	51·77	51·98	S
28	50·90	50·09	49·51	48·95	48·83	S	49·59	50·42	51·23	51·80	51·98	51·75
29	50·78		S	48·97	48·84	49·05	49·61	50·45	51·27	51·80	S	51·78
30	50·81		49·46	48·96	48·81	49·07	49·63	S	51·30	51·82	51·96	51·75
31	50·77		49·45		S		49·66	50·48		51·83		51·73
Means.	51·10	50·40	49·75	49·18	48·86	48·93	49·35	50·08	50·91	51·62	51·94	51·87

(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 the same times.

Day of the Month, 1863.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	49·58	S	S	46·53	47·38	49·06	51·12	53·73	55·30	55·33	S	52·56
2	49·50	47·88	47·07	46·52	47·45	49·12	51·19	S	55·29	55·30	54·30	52·52
3	49·42	47·84	47·05	GoodFriday.	S	49·20	51·30	53·82	55·39	55·28	54·24	52·45
4	S	47·79	47·01	46·53	47·55	49·20	51·40	53·89	55·39	S·	54·32	52·40
5	49·33	47·75	47·00	S	47·65	49·25	S	53·89	55·40	55·22	54·23	52·35
6	49·26	47·74	46·95	46·54	47·67	49·28	51·58	53·95	S	55·17	54·16	S
7	49·20	47·70	46·92	46·55	47·70	S	51·68	54·05	55·43	55·17	54·12	52·25
8	49·15	S	S	46·55	47·77	49·40	51·75	54·10	55·46	55·14	S	52·17
9	49·10	47·60	46·86	46·56	47·85	49·47	51·84	S	55·47	55·06	53·88	52·15
10	49·05	47·60	46·85	46·59	S	49·52	51·95	54·25	55·46	55·05	53·88	52·05
11	S	47·58	46·84	46·60	47·93	49·60	52·02	54·26	55·50	S	53·84	52·02
12	48·83	47·55	46·83	S	47·95	49·68	S	54·28	55·53	54·99	53·76	51·96

(II.)—Reading of a Thermometer whose bulb is sunk to the depth of 12 French feet—*concluded*.

Day of the Month, 1863.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
13	48·78	47·54	46·80	46·63	48·03	49·75	52·15	54·34	S	54·91	53·77	S
14	48·78	47·53	46·84	46·64	48·07	S	52·25	54·40	55·50	54·94	53·71	51·77
15	48·70	S	S	46·66	48·16	49·93	52·35	54·47	55·53	54·87	S	51·75
16	48·63	47·42	46·80	46·71	48·20	49·99	52·38	S	55·56	54·82	53·61	51·70
17	48·53	47·46	46·80	46·73	S	50·05	52·50	54·54	55·52	54·84	53·53	51·60
18	S	47·45	46·75	46·77	48·32	50·15	52·55	54·55	55·54	S	53·44	51·51
19	48·60	47·41	46·76	S	48·32	50·14	S	54·60	55·60	54·77	53·40	51·50
20	48·52	47·39	46·75	46·85	48·40	50·29	52·78	54·66	S	54·75	53·34	S
21	48·42	47·37	46·73	46·88	48·48	S	52·83	54·77	55·50	54·70	53·26	51·37
22	48·28	S	S	46·91	48·54	50·42	52·93	54·85	55·45	54·70	S	51·30
23	48·23	47·32	46·70	46·96	48·62	50·51	53·04	S	55·45	54·63	53·09	51·25
24	48·30	47·28	46·69	47·01	S	50·56	53·12	54·97	55·43	54·54	53·06	51·18
25	S	47·18	46·65	47·08	48·72	50·65	53·28	55·05	55·45	S	52·98	ChristmasDay.
26	48·17	47·20	46·63	S	48·76	50·72	S	55·05	55·46	54·53	52·87	51·09
27	48·03	47·18	46·60	47·20	48·86	50·79	53·42	55·11	S	54·45	52·81	S
28	47·92	47·07	46·59	47·20	48·91	S	53·50	55·18	55·34	54·50	52·78	50·90
29	47·95		S	47·28	48·98	50·95	53·55	55·20	55·37	54·47	S	50·90
30	48·00		46·53	47·32	49·01	51·04	53·60	S	55·40	54·38	52·60	50·81
31	47·95		46·52		S		53·65	55·26		54·42		50·72
Means.	48·68	47·49	46·79	46·79	48·20	49·95	52·43	54·51	55·45	54·85	53·56	51·70

(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 the same times.

Day of the Month, 1863.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	47·32	S	S	46·10	49·39	51·62	55·97	58·22	59·27	56·71	S	51·54
2	47·33	46·00	45·55	46·20	49·46	51·85	56·02	S	59·22	56·56	54·53	51·44
3	47·30	46·03	45·59	Good Friday.	S	52·10	56·10	58·32	59·25	56·44	54·29	51·29
4	S	46·04	45·61	46·37	49·50	52·25	56·20	58·40	59·18	S	54·18	51·07
5	47·28	46·08	45·70	S	49·57	52·40	S	58·42	59·12	56·30	53·93	50·90
6	47·20	46·12	45·75	46·46	49·60	52·60	56·42	58·50	S	56·23	53·77	S
7	47·12	46·13	45·82	46·40	49·73	S	56·58	58·67	59·00	56·25	53·32	50·64
8	47·10	S	S	46·55	49·90	52·97	56·67	58·72	58·95	56·22	S	50·53
9	47·04	46·20	45·98	46·63	50·00	53·11	56·84	S	58·88	56·10	53·47	50·40
10	47·00	46·29	46·03	46·63	S	53·20	57·00	58·91	58·75	56·07	53·33	50·40
11	S	46·30	46·05	46·80	50·34	53·31	57·20	58·98	58·70	S	53·30	50·38
12	46·62	46·30	46·00	S	50·50	53·40	S	59·09	58·65	56·00	53·14	50·30
13	46·70	46·25	45·93	47·09	50·58	53·49	57·50	59·23	S	55·93	53·04	S
14	46·28	46·24	45·77	47·28	50·64	S	57·65	59·37	58·40	55·95	52·81	50·18
15	46·18	S	S	47·46	50·76	53·69	57·84	59·49	58·32	55·90	S	50·16
16	46·12	46·10	45·58	47·64	50·83	53·71	57·95	S	58·27	55·84	52·40	50·11
17	46·08	46·04	45·62	47·78	S	53·82	58·07	59·61	58·13	55·82	52·22	49·94
18	S	45·94	45·55	47·94	51·02	53·95	58·12	59·62	58·07	S	52·07	49·93
19	46·05	45·80	45·53	S	51·02	53·96	S	59·68	58·08	55·72	52·04	49·88
20	46·00	45·69	45·50	48·23	51·12	54·34	58·34	59·72	S	55·68	52·00	S
21	45·90	45·58	45·40	48·38	51·18	S	58·28	59·78	57·88	55·63	51·93	49·63
22	45·60	S	S	48·50	51·20	54·52	58·30	59·77	57·79	55·63	S	49·52
23	45·50	45·47	45·37	48·61	51·21	54·68	58·35	S	57·76	55·58	51·84	49·40
24	45·88	45·44	45·35	48·73	S	54·81	58·30	59·60	57·68	55·53	51·83	49·29
25	S	45·37	45·40	48·83	51·15	54·94	58·30	59·52	57·60	S	51·76	ChristmasDay
26	45·80	45·40	45·50	S	51·15	55·15	S	59·42	57·48	55·50	51·66	49·07

(III.)—Reading of a Thermometer whose bulb is sunk to the depth of 6 French feet—*concluded.*

Day of the Month, 1863.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
27	45·80	45·48	45·60	49·00	51·20	55·33	58·25	59·43	S	55·37	51·64	S
28	45·80	45·43	45·70	49·03	51·25	S	58·20	59·44	57·00	55·30	51·67	48·83
29	45·83		S	49·17	51·30	55·70	58·20	59·39	57·00	55·16	S	48·83
30	45·97		45·87	49·28	51·35	55·86	58·15	S	56·90	54·98	51·60	48·72
31	45·94		46·00		S		58·17	59·29	'	54·86		48·65
Means .	46·40	45·91	45·68	47·64	50·58	53·72	57·52	59·18	58·28	55·82	52·71	50·04

(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 the same times.

Day of the Month, 1863.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	44·50	S	S	45·45	49·80	54·03	58·80	60·61	60·62	54·96	S	48·34
2	44·43	43·82	43·40	45·40	49·52	54·20	58·83	S	60·35	55·05	51·55	47·73
3	44·35	43·79	43·60	Good Friday	S	54·62	59·10	60·90	60·21	55·11	51·06	47·81
4	S	43·98	43·91	45·34	49·80	55·05	59·30	61·10	60·02	S	50·93	47·69
5	44·35	43·84	44·20	S	50·40	55·53	S	61·12	59·99	55·52	51·02	47·24
6	44·30	43·95	44·40	45·54	50·83	55·62	59·75	61·26	S	55·52	51·40	S
7	44·30	44·20	44·64	45·65	51·10	S	60·15	61·44	59·42	55·30	51·31	47·36
8	44·17	S	S	45·92	51·44	55·40	60·45	61·50	59·31	55·02	S	47·30
9	43·80	44·60	44·42	45·98	51·60	55·35	60·80	S	59·07	55·08	51·13	47·49
10	43·42	44·20	44·04	46·28	S	55·30	61·18	62·16	59·00	55·27	50·86	47·56
11	S	43·92	43·66	46·81	51·80	55·40	61·30	62·45	58·84	S	50·33	47·54
12	42·80	43·90	43·35	S	51·78	55·50	S	62·17	58·50	55·30	49·68	47·42
13	42·45	43·83	42·95	47·82	51·80	55·51	61·70	62·83	S	55·22	49·17	S
14	42·55	43·59	42·81	48·10	51·83	S	62·00	62·88	58·12	55·20	48·62	47·52
15	42·55	S	S	48·25	51·83	55·70	62·10	62·96	58·05	55·08	S	47·30
16	42·40	42·87	42·80	48·36	52·02	55·95	61·99	S	57·98	54·98	48·75	47·11
17	42·30	42·60	42·84	48·63	S	56·18	62·03	63·02	57·80	54·95	48·95	47·02
18	S	42·30	42·70	49·00	52·11	56·43	61·70	62·88	57·83	S	49·16	46·80
19	42·30	42·02	42·52	S	52·04	56·69	S	62·50	57·94	54·86	49·40	46·45
20	42·43	42·02	42·38	49·20	51·90	56·98	61·00	62·04	S	54·97	49·48	S
21	42·62	42·25	42·53	49·30	51·54	S	60·73	61·61	57·91	55·11	49·42	46·00
22	42·38	S	S	49·30	51·51	57·33	60·53	61·15	57·58	55·24	S	45·90
23	42·55	42·55	43·07	49·41	51·28	57·70	60·48	S	57·28	55·27	49·24	45·80
24	43·20	42·59	43·50	49·43	S	58·04	60·22	60·95	56·84	55·00	49·20	45·40
25	S	42·70	43·96	49·35	51·58	58·55	60·09	61·14	56·50	S	49·30	Christmas Day
26	43·10	43·00	44·30	S	51·34	59·09	S	61·01	56·15	54·15	49·56	45·33
27	43·00	43·19	44·50	49·80	51·45	59·18	59·88	60·82	S	53·60	49·71	S
28	43·20	43·36	44·60	49·95	51·63	S	59·80	60·75	55·50	53·30	49·80	45·53
29	43·00		S	50·14	52·14	59·10	59·96	60·66	55·45	53·02	S	45·30
30	43·19		45·06	50·05	52·83	58·93	60·21	S	55·27	52·85	49·00	45·21
31	43·53		45·39		S		60·50	60·69		52·58		45·28
Means .	43·23	43·29	43·67	47·94	51·42	56·44	60·54	61·64	57·33	54·72	50·92	46·75

(V.)—Reading of a Thermometer whose bulb is sunk to the depth of 1 inch below the surface of the soil, within the case which covers the tops of the deep-sunk Thermometers, at the same times.

Day of the Month, 1863.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	46·5	S	S	45·5	49·0	57·5	61·5	63·6	58·9	55·4	S	48·0
2	46·0	45·9	47·0	45·5	51·0	59·5	63·2	S	60·2	55·0	48·0	48·0
3	42·5	47·0	47·0	Good Friday.	S	63·0	62·8	66·3	61·2	56·6	45·0	45·5
4	S	43·1	49·0	48·1	55·5	63·0	63·2	66·5	60·9	S	55·5	40·0
5	45·0	45·3	47·0	S	56·5	60·5	S	63·6	59·2	54·3	53·0	45·0
6	43·5	47·5	48·6	49·8	55·6	58·9	65·4	64·2	S	51·5	49·0	S
7	41·5	48·9	46·1	48·4	55·7	S	67·5	67·2	59·4	54·3	48·2	48·0
8	42·0	S	S	47·0	54·0	57·0	66·0	68·0	57·8	57·6	S	48·2
9	39·4	40·8	41·0	51·0	55·5	58·0	66·3	S	59·0	55·0	47·6	49·5
10	40·5	43·2	40·5	52·9	S	58·7	66·4	68·4	59·5	57·0	43·8	48·0
11	S	44·1	41·0	52·7	54·9	58·3	68·0	67·3	60·0	S	43·5	48·0
12	40·0	44·2	41·5	S	54·5	57·7	S	65·7	60·0	57·0	42·6	48·5
13	43·0	40·5	40·5	52·3	55·5	57·1	66·3	66·5	S.	55·3	40·0	S
14	40·5	40·9	42·5	50·5	54·4	S	64·0	66·5	56·5	56·8	48·2	45·4
15	41·0	S	S	51·3	56·2	61·2	65·9	67·8	57·0	50·5	S	48·3
16	39·8	38·4	42·7	53·0	55·0	60·7	65·1	S	58·3	54·8	49·8	48·3
17	39·8	41·0	41·8	52·7	S	60·1	62·7	65·3	57·0	56·0	50·0	44·8
18	S	38·0	40·3	54·0	55·7	61·4	60·7	61·4	58·0	S	49·3	42·0
19	43·5	40·5	42·5	S	50·1	58·2	S	59·2	61·0	57·0	49·2	44·2
20	42·0	42·3	44·0	53·3	50·4	61·0	61·7	60·0	S	57·0	45·6	S
21	42·0	40·8	45·5	53·0	52·7	S	61·0	59·4	56·0	56·3	50·3	45·0
22	45·5	S	S	53·5	51·0	62·2	62·5	61·2	55·0	58·0	S	43·7
23	47·0	42·4	46·8	51·3	51·4	63·2	60·8	S	54·0	53·5	48·3	41·2
24	44·8	44·8	48·3	50·5	S	63·8	60·3	64·2	54·0	49·2	52·0	44·0
25	S	43·9	47·3	53·1	52·8	64·0	63·0	62·9	54·0	S	52·3	Christmas Day
26	44·7	44·8	48·5	S	52·1	63·9	S	60·0	53·0	48·5	51·0	48·2
27	44·8	46·0	46·0	55·0	54·4	61·8	70·6	61·2	S	58·2	49·5	S
28	40·5	43·6	48·7	51·8	57·0	S	62·7	62·3	54·0	51·8	45·8	40·4
29	46·0		S	50·6	59·9	61·1	63·8	61·5	52·8	51·0	S	46·5
30	47·2		48·8	49·5	62·1	61·5	63·3	S	62·0	50·0	42·3	44·1
31	47·0		47·5		S		62·2	61·7		48·0		41·3
Means.	43·2	43·2	45·0	51·1	54·3	60·5	64·0	63·9	57·6	54·3	48·0	45·6

(VI.)—Reading of a Thermometer within the case covering the deep-sunk Thermometers, whose bulb is placed on a level with their scales, at the same times.

Day of the Month, 1863.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	50·5	S	S	53·0	56·6	64·3	69·0	72·5	63·0	56·9	S	46·0
2	43·5	48·8	51·5	55·3	60·5	69·8	67·5	S	61·0	55·5	47·8	50·0
3	42·3	48·9	57·5	Good Friday.	S	68·3	68·0	72·1	66·7	59·0	45·0	44·5
4	S	45·5	56·5	53·6	61·7	70·5	69·7	73·6	63·0	S	58·0	45·0
5	46·5	47·5	57·7	S	68·0	63·6	S	65·3	63·5	55·7	55·0	50·3
6	45·5	50·4	52·3	54·6	64·5	61·0	74·2	66·3	S	52·6	50·6	S
7	41·5	50·6	48·4	51·4	59·5	S	80·8	75·4	62·8	59·5	49·5	49·8
8	45·0	S	S	49·0	61·0	61·0	73·5	73·3	62·7	64·2	S	48·3
9	40·5	40·5	42·0	55·7	66·9	61·8	74·5	S	63·0	53·0	48·2	51·5
10	40·3	44·5	43·3	59·7	S	60·8	78·5	75·7	57·7	61·3	41·5	46·4
11	S	45·0	38·9	57·2	61·5	61·8	77·2	73·6	58·8	S	41·0	48·3
12	38·8	46·7	42·4	S	55·6	62·0	S	72·7	63·8	58·9	42·6	51·1
13	42·5	44·7	41·5	56·6	59·5	61·8	71·3	75·0	S	55·2	46·2	S
14	38·5	43·8	47·8	52·7	61·1	S	73·4	73·5	58·0	61·7	49·7	47·2
15	40·7	S	S	59·8	59·1	67·9	75·3	75·8	58·8	57·0	S	46·5

(VI.)—Reading of a Thermometer within the case covering the deep-sunk Thermometers—*concluded*.

Day of the Month, 1863.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
16	40·0	44·6	45·2	62·2	59·3	64·5	67·2	S	64·2	57·6	53·5	49·0
17	40·0	44·9	44·5	58·7	S	66·2	68·4	70·5	61·0	60·9	51·7	44·6
18	S	41·0	42·5	60·5	63·6	68·5	59·2	61·3	63·2	S	51·0	40·0
19	47·0	42·5	47·4	S	46·1	57·8	S	55·4	70·5	60·7	52·0	45·8
20	42·5	41·7	49·0	62·5	51·3	65·9	67·0	60·0	S	59·5	51·3	S
21	44·7	43·3	49·0	58·1	55·0	S	62·2	64·3	58·4	60·4	55·2	46·0
22	51·5	S	S	56·5	53·8	65·6	62·1	66·3	56·6	60·6	S	39·7
23	53·0	46·2	54·0	57·0	58·6	71·3	67·3	S	56·7	53·5	52·8	44·5
24	48·5	46·0	57·2	56·6	S	71·5	64·5	67·5	54·3	48·1	54·0	45·8
25	S	47·3	53·5	61·6	57·0	67·1	67·8	68·3	60·2	S	56·0	ChristmasDay
26	47·0	48·5	55·6	S	56·2	71·6	S	61·3	60·8	52·5	51·6	51·0
27	45·8	50·0	52·0	65·7	66·2	62·5	70·5	65·1	S	57·8	48·4	S
28	44·5	47·7	55·5	50·3	67·0	S	72·7	69·5	52·2	54·7	45·4	36·2
29	52·5		S	50·7	72·4	67·0	72·0	65·6	58·5	50·9	S	49·9
30	50·6		50·5	50·7	71·5	66·4	70·0	S	60·0	50·4	40·7	43·5
31	47·3		50·7		S		69·8	65·0		51·5		39·6
Means .	44·9	45·9	49·5	56·4	60·5	65·4	70·2	68·7	60·7	56·6	49·5	46·2

			WEEKLY MEANS of READINGS of THERMOMETERS.					Thermometer inclosed in the box which covers the scales of the deep-sunk Thermometers, and placed on a level with their scales.
			Thermometers sunk in the ground.					
1863. Period.			Bulb 24 French Feet deep.	Bulb 12 French Feet deep.	Bulb 6 French Feet deep.	Bulb 3 French Feet deep.	Bulb 1 Inch deep.	
d		d	°	°	°	°	°	°
January	1 to January	7	51·39	49·38	47·26	44·37	44·2	45·0
	8 to	14	51·21	48·95	46·79	43·20	40·9	40·9
	15 to	21	51·05	48·57	46·06	42·43	41·4	42·5
	22 to	28	50·91	48·16	45·73	42·91	44·6	48·4
	29 to February	4	50·75	47·90	45·97	43·55	46·0	48·9
February	5 to	11	50·57	47·66	46·19	44·12	44·8	46·4
	12 to	18	50·39	47·49	46·15	43·18	40·5	44·3
	19 to	25	50·23	47·33	45·56	42·36	42·5	44·5
	26 to March	4	50·09	47·10	45·51	43·41	46·2	52·0
March	5 to	11	49·92	46·90	45·89	44·23	44·0	47·1
	12 to	18	49·76	46·80	45·74	42·91	41·6	44·0
	19 to	25	49·63	46·71	45·43	42·99	45·7	51·7
	26 to April	1	49·49	46·57	45·80	44·88	47·5	52·9
April	2 to	8	49·35	46·54	46·39	45·57	47·8	52·8
	9 to	15	49·25	46·61	46·98	47·21	51·8	57·0
	16 to	22	49·15	46·81	48·08	48·97	53·3	59·8
	23 to	29	49·02	47·12	48·89	49·68	52·1	57·0
	30 to May	6	48·94	47·50	49·47	50·07	52·9	60·3
May	7 to	13	48·88	47·87	50·18	51·59	55·0	60·7
	14 to	20	48·83	48·25	50·90	51·96	53·6	56·8
	21 to	27	48·82	48·66	51·18	51·45	52·4	57·8
	28 to June	3	48·84	49·05	51·58	53·24	59·8	68·9
June	4 to	10	48·86	49·35	52·76	55·37	59·4	63·1
	11 to	17	48·90	49·83	53·57	55·71	59·2	64·0
	18 to	24	48·96	50·35	54·38	57·20	61·6	66·8
	25 to July	1	49·05	50·88	55·49	58·94	62·3	67·3
July	2 to	8	49·15	51·48	56·33	59·60	64·7	72·3
	9 to	15	49·27	52·09	57·34	61·51	66·3	75·0
	16 to	22	49·38	52·66	58·18	61·33	62·3	64·4
	23 to	29	49·54	53·32	58·27	60·07	63·5	69·1
	30 to August	5	49·71	53·76	58·28	60·74	64·3	70·7
August	6 to	12	49·90	54·15	58·81	61·83	66·8	72·8
	13 to	19	50·09	54·48	59·50	62·85	64·5	68·6
	20 to	26	50·26	54·89	59·64	61·32	61·3	64·6
	27 to September	2	50·47	55·22	59·34	60·65	61·0	64·9
September	3 to	9	50·66	55·42	59·06	59·67	59·6	63·6
	10 to	16	50·86	55·51	58·52	58·42	58·6	60·2
	17 to	23	51·04	55·51	57·95	57·72	56·8	61·1
	24 to	30	51·22	55·41	57·28	55·95	55·0	57·7
October	1 to October	7	51·39	55·25	56·42	55·24	54·5	56·5
	8 to	14	51·54	55·02	56·05	55·18	56·5	59·1
	15 to	21	51·68	54·79	55·77	54·99	55·3	59·4
	22 to	28	51·76	54·56	55·49	54·43	53·2	54·6
	29 to November	4	51·84	54·36	54·67	52·00	49·6	50·6
November	5 to	11	51·89	54·02	53·52	51·01	47·5	47·6
	12 to	18	51·95	53·64	52·61	49·06	46·7	49·1
	19 to	25	51·99	53·19	51·90	49·34	49·6	53·6
	26 to December	2	51·98	52·69	51·59	49·02	47·4	47·0
December	3 to	9	51·97	52·29	50·81	47·48	46·0	48·2
	10 to	16	51·92	51·88	50·26	47·41	47·8	48·1
	17 to	23	51·86	51·42	49·72	46·33	43·5	43·4
	24 to	31	51·78	50·93	48·90	45·34	44·1	44·3

ABSTRACT OF THE CHANGES OF THE DIRECTION OF THE WIND, AS DERIVED FROM OSLER'S ANEMOMETER.

By *direct* motion, in the following statements, is meant that the change of the direction of the wind was in the order N., E., S., W., N., &c., by *retrograde* is meant in the order N., W., S., E., N., &c.

1862. Dec. 31. 12^d ^{h} The direction of the wind was S.W.

1863. Jan. 31. 12. ,, ,, W.S.W., which implies a direct motion of $22\frac{1}{2}°$.

On Jan. 12. 22, 17^d. 22^h, the trace was shifted to the next set of lines downwards ; on Jan. 13^d. 22^h, the trace was shifted to the next set of lines upwards, implying direct motion of $720°$, and retrograde motion of $360°$.

Therefore the whole excess of direct motion in the month of January was $382\frac{1}{2}°$.

1863. Jan. 31. 12^d ^{h} The direction of the wind was W.S.W.

Feb. 28. 12. ,, ,, S.W., which implies a direct motion of $697\frac{1}{2}°$.

On Feb. 13. 22, 16^d. 22^h, 19^d. 22^h, 21^d. 22^h, 24^d. 22^h, the trace was shifted to the next set of lines downwards ; on Feb. 14^d. 22^h, the trace was shifted to the next set of lines upwards, implying direct motion of $1800°$, and retrograde motion of $360°$.

Therefore the whole excess of direct motion in the month of February was $2137\frac{1}{2}°$.

1863. Feb. 28. 12^d ^{h} The direction of the wind was S.W.

March 31. 12. ,, ,, S.E., which implies a retrograde motion of $810°$.

On March 0. 22, the trace was shifted to the second set of lines downwards ; and on March 9^d. 22^h, 13^d. 2^h, 13^d. 22^h, 25^d. $19\frac{1}{2}^h$, 31^d. $1\frac{1}{2}^h$, to the next set of lines downwards ; on March 10^d. 22^h, 18^d. 3^h, 25^d. $2\frac{1}{2}^h$, the trace was shifted to the next set of lines upwards, implying direct motion of $2520°$, and retrograde motion of $1080°$.

Therefore the whole excess of direct motion in the month of March was $630°$.

1863. March 31. 12^d ^{h} The direction of the wind was S.E.

April 30. 12. ,, ,, N.E., which implies a direct motion of $270°$.

On April 2. 22, 13^d. 22^h, 18^d. 22^h, 19^d. 22^h, the trace was shifted to the next set of lines downwards ; on April 1^d. 22^h, 15^d. 22^h, the trace was shifted to the next set of lines upwards, implying direct motion of $1440°$, and retrograde motion of $720°$.

Therefore the whole excess of direct motion in the month of April was $990°$.

1863. April 30. 12^d ^{h} The direction of the wind was N.E.

May 31. 12. ,, ,, E.S.E., which implies a direct motion of $67\frac{1}{2}°$.

On May 5. 22, 6^d. 2^h, 8^d. 22^h, 9^d. 22^h, 19^d. 22^h, 26^d. 21^h, the trace was shifted to the next set of lines downwards ; on May 1^d. $2\frac{1}{2}^h$, 1^d. 22^h, 18^d. 22^h, 23^d. 2^h, the trace was shifted to the next set of lines upwards, implying direct motion of $2160°$, and retrograde motion of $1440°$.

Therefore the whole excess of direct motion in the month of May was $787\frac{1}{2}°$.

1863. May 31. 12^d ^{h} The direction of the wind was E.S.E.

June 30. 12. ,, ,, W.S.W., which implies a retrograde motion of $225°$.

On June 0. 22, 1^d. 22^h, 2^d. 3^h, 10^d. 22^h, 25^d. 22^h, the trace was shifted to the next set of lines downwards ; on June 1^d. $1\frac{1}{2}^h$, 12^d. 22^h, 19^d. 22^h, 23^d. 3^h, the trace was shifted to the next set of lines upwards, implying direct motion of $1800°$, and retrograde motion of $1440°$.

Therefore the whole excess of direct motion in the month of June was $135°$.

1863. June 30. 12^d ^{h} The direction of the wind was W.S.W.

July 31. 12. ,, ,, E.S.E., which implies a direct motion of $225°$.

On July 6. $1\frac{1}{2}$, 6^d. $18\frac{1}{2}^h$, 14^d. 22^h, 16^d. 22^h, 20^d. 22^h, 27^d. 22^h, the trace was shifted to the next set of lines downwards, implying direct motion of $2160°$.

Therefore the whole excess of direct motion in the month of July was $2385°$.

1863. July 31$^{\text{d}}$. 12$^{\text{h}}$.   The direction of the wind was E.S.E.
    Aug. 31. 12.   ,,   ,,   W.S.W., which implies a retrograde motion of 225°.
    On Aug. 2. 1, the trace was shifted to the next set of lines downwards; and on Aug. 13$^{\text{d}}$. 22$^{\text{h}}$, to the second set of lines downwards,
        implying direct motion of 1080°.
Therefore the whole excess of direct motion in the month of August was 855°.

1863. Aug. 31$^{\text{d}}$. 12$^{\text{h}}$.   The direction of the wind was W.S.W.
    Sept. 30. 12.   ,,   ,,   S., which implies a retrograde motion of 67$\frac{1}{2}$°.
    On Sept. 13. 22, 30$^{\text{d}}$. 8$^{\text{h}}$, the trace was shifted to the next set of lines downwards; on Sept. 29$^{\text{d}}$. 22$^{\text{h}}$, the trace was shifted to the next
        set of lines upwards, implying direct motion of 720°, and retrograde motion of 360°.
Therefore the whole excess of direct motion in the month of September was 292$\frac{1}{2}$°.

1863. Sept. 30$^{\text{d}}$. 12$^{\text{h}}$.   The direction of the wind was S.
    Oct. 31. 12.   ,,   ,,   W.S.W., which implies a direct motion of 67$\frac{1}{2}$°.
    On Oct. 7. 2$\frac{1}{2}$, 8$^{\text{d}}$. 22$^{\text{h}}$, 15$^{\text{d}}$. 18$^{\text{h}}$, 20$^{\text{d}}$. 22$^{\text{h}}$, 22$^{\text{d}}$. 22$^{\text{h}}$, 24$^{\text{d}}$. 22$^{\text{h}}$, 26$^{\text{d}}$. 22$^{\text{h}}$, the trace was shifted to the next set of lines downwards; on
        Oct. 8$^{\text{d}}$. 2$\frac{1}{2}$$^{\text{h}}$, 14$^{\text{d}}$. 22$^{\text{h}}$, 25$^{\text{d}}$. 22$^{\text{h}}$, the trace was shifted to the next set of lines upwards, implying direct motion of
        2520°, and retrograde motion of 1080°.
Therefore the whole excess of direct motion in the month of October was 1507$\frac{1}{2}$°.

1863. Oct. 31$^{\text{d}}$. 12$^{\text{h}}$.   The direction of the wind was W.S.W.
    Nov. 30. 12.   ,,   ,,   E.S.E., which implies a direct motion of 225°.
    On Nov. 6. 22, 9$^{\text{d}}$. 22$^{\text{h}}$, 28$^{\text{d}}$. 3$^{\text{h}}$, the trace was shifted to the next set of lines downwards; on Nov. 10$^{\text{d}}$. 22$^{\text{h}}$, 27$^{\text{d}}$. 22$^{\text{h}}$, 29$^{\text{d}}$. 22$^{\text{h}}$, the
        trace was shifted to the next set of lines upwards, implying direct motion of 1080°, and retrograde motion of 1080°.
Therefore the whole excess of direct motion in the month of November was 225°.

1863. Nov. 30$^{\text{d}}$. 12$^{\text{h}}$.   The direction of the wind was E.S.E.
    Dec. 31. 12.   ,,   ,,   E.N.E., which implies a retrograde motion of 405°.
    On Dec. 0. 22, the trace was shifted to the next set of lines downwards, implying direct motion of 360°.
Therefore the whole excess of retrograde motion in the month of December was 45°.

The whole excess of direct motion to the end of the year was 10282$\frac{1}{2}$°.

The revolution-counter which is attached to the vertical spindle of the vane, whose readings increase with change of direction of the wind in the order N., E., S., W., &c., or in *direct* motion, and decrease with change of direction in the order N., W., S., E., &c. or in *retrogade* motion, gave the following readings:—

        On 1862, December 31$^{\text{d}}$. 12$^{\text{h}}$ .. .. 67·70 revs.
        On 1863, December 31$^{\text{d}}$. 12$^{\text{h}}$ .. .. 96·15
Implying an excess of direct motion, during the year, of 28·45 revolutions, or 10242°.

AMOUNT OF RAIN COLLECTED IN EACH MONTH OF THE YEAR 1863.

1863, MONTH.	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 Library.	On the Roof of the Photographic Thermometer Shed.	Crosley's.	Cylinder partly sunk in the Ground read daily.	Cylinder partly sunk in the Ground read Monthly.
	in.	in.	in.	in.	in.	in.	in.	in.
January............	1·6	1·5	1·9	1·8	2·6	2·0	2·7	2·6
February...........	0·3	0·3	0·4	0·4	0·5	0·4	0·5	0·6
March	0·5	0·4	0·5	0·5	0·7	0·5	0·7	0·7
April	0·2	0·2	0·3	0·3	0·4	0·5	0·4	0·4
May................	0·6	0·6	0·7	0·9	1·2	1·0	1·3	1·2
June...............	2·9	2·9	3·2	3·3	3·9	3·2	3·9	3·9
July...............	0·6	0·7	0·8	0·7	0·8	0·8	0·9	0·9
August	1·2	1·2	1·5	1·5	1·8	1·6	1·8	1·8
September..........	1·9	1·9	2·4	2·3	2·9	2·5	3·0	3·1
October............	1·1	1·0	1·2	1·4	1·7	1·6	1·8	1·7
November..........	0·9	0·8	1·1	1·0	1·5	1·2	1·6	1·8
December	0·6	0·5	0·6	0·7	1·1	0·8	1·1	1·1
Sums	12·4	12·0	14·6	14·8	19·1	16·1	19·7	19·8

The heights of the receiving surfaces are as follows :

	Above the Mean Level of the Sea. Ft. In.	Above the Ground. Ft. In.
The Two Gauges at Osler's Anemometer	205 6	50 8
Gauge on the Roof of the Octagon Room	193 2½	38 4½
Gauge on the Roof of the Library	177 2	22 4
Gauge on the Roof of the Photographic Thermometer Shed	164 10	10 0
Crosley's Gauge	156 6	1 8
The Two Cylinder Gauges partly sunk in the Ground	155 3	0 5

OBSERVATION OF THE EARTHQUAKE OF 1863, OCTOBER 6 (Civil Reckoning),

MADE WITH THE

TELESCOPE OF THE ALTAZIMUTH.

ON the morning of October 6, after having made the necessary observations of the Moon, and of a star for azimuthal position of the instrument, I was about to complete the series by the usual reference to the Collimator. I had, by the slow-motion screw of the instrument, brought the central bright spot of light of the Collimator (the mark to be observed) near to that horizontal wire by which it was to be bisected for an observation of altitude, and was preparing to make the bisection, when I beheld the spot of light with its fainter concentric rings all move together a small space downwards in the field of view, and remain stationary for a short but sensible space of time ; the spot and rings then moved upwards to a little beyond the position (as it appeared to me) which they had at first occupied. It was impossible to make a bisection. The motion was entirely different from any flickering or quivering, having the opposite characteristic of steady motion, as of a pendulum in vibration, the spot of light and surrounding rings preserving most distinctly their relative positions throughout. The interval of time occupied by the motion was short, a very few seconds certainly. At about the time at which the spot of light reached, as above mentioned, its second extreme position, being unable to obtain a bisection, I took my eye off the telescope ; and wondering somewhat at the circumstance, the motion (although so small) having a character so different from anything that I had ever before seen, I began to think that there must surely be some disturbance of the building itself; but I was not at the time led to reflect further on the circumstance, for on looking into the telescope again almost immediately, and finding the mark at rest in its first position, and perceiving afterwards no further motion, and being, moreover intent on completing the series of observations in hand, the occurrence did not become strongly fixed in my memory ; and I did not indeed think more of it until tidings of an extensive shock of Earthquake having been experienced in the west of England on the morning of the 6th brought the whole train of circumstances vividly to remembrance, with the certain conviction that the anomalous appearance which I had seen was really produced by Earthquake motion.

The disturbance was in the vertical direction, and its extreme range I should judge (by the intervals between the horizontal wires of the instrument which afford so excellent a scale to which to refer such an observation) to have been from $12''$ to $15''$. No disturbance was remarked in the horizontal direction.

The time of the disturbance is fixed as follows:—It is known that the motion took place at the first observation of the Collimator. This is an observation at which accurate time is not taken, but by reference to the last preceding observation (one of azimuth of a star) made at $15^h. 18^m.$, and by record of the time of making the last (the fourth) observation of the Collimator, at $15^h. 35^m.$, it is assumed, considering the duration of time which each observation would occupy, that the disturbance occurred at October $5^d. 15^h. 23^m.$ Greenwich Mean Solar Time, without a greater error possibly than one minute of time.

<div style="text-align:right">WILLIAM ELLIS.</div>