



# RESULTS

OF THE

MAGNETICAL AND METEOROLOGICAL

OBSERVATIONS

MADE AT

THE ROYAL OBSERVATORY, GREENWICH,

1866.

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ROYAL OBSERVATORY, GREENWICH.

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R E S U L T S

OF

MAGNETICAL AND METEOROLOGICAL  
OBSERVATIONS.

---

1866.



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# GREENWICH MAGNETICAL AND METEOROLOGICAL OBSERVATIONS, 1866.

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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 1862, 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 the magnet 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) was mounted near the northern wall of the eastern arm; and the balance-magnetometer, for variations of vertical magnetic force (erected in 1841) was mounted near the northern wall of the western arm. Important changes have lately been made in the positions of these instruments, as will be mentioned below. The sidereal time-clock is in the south arm, near the south-east re-entering angle. 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 ; great care, however, is taken to avoid it as far as possible.

In 1864, a room, called the Magnetic Basement, was excavated below the whole of the Magnetic Observatory except the ante-room ; the descent to it is by a staircase close to the south wall of the western arm of the building. For the theodolite, a brick pier was built from the ground below the floor of the basement, rising through the ceiling into the south arm of the upper room, and supporting the theodolite in exactly the same position as before.

Instead of a single meridional magnet performing the double functions of “magnet for determining absolute magnetic declination,” and “magnet carrying a mirror for photographic register,” there are now two meridional magnets, one in the upper room and one in the basement. The upper magnet is in a position about 10 inches north of the former position of the declination-magnet ; it carries a collimator, for observation by the theodolite ; but, in reversion of position of the collimator, the collimator is always either above or below the magnet, so that the magnet is always in the same vertical. The lower magnet, which is in the same vertical with the upper magnet, carries the mirror for the photographic register of the continual changes of declination. A massive brick pier is built in the south arm of the basement, covered by a stone slab ; upon it is fixed the photographic lamp ; from the stone slab rise three smaller piers, upon which crossed slates are placed ; and from these rises a small pier through the ceiling, to the height of 18 inches above the upper floor, carrying the suspension of the lower magnet. Upon the tops of the three piers rest the feet of the original wooden stand carrying the suspension of the upper magnet.

The bifilar-magnetometer is in the basement, in a position vertically below its former position. A massive brick pier, surmounted by a thick slab of stone (upon which the photograph lamp is fixed) carries a pier consisting of a back and return-sides, which rises through the ceiling about 2 feet above the upper floor, and is crowned by a slate slab that carries the suspension of the bifilar-magnetometer.

The vertical-force magnetometer is in the basement, in a position vertically below its former position ; it rests upon a brick pier, capped by a thick stone ; to which also is fixed the plate of metal with narrow chink through which passes the light of the photographic lam

To the theodolite-pier are fixed telescopes for eye-observation of the bifilar and vertical-force magnetometers.

At the south-east re-entering angle (which has been rebated for the purpose) is the horizontal photographic cylinder, which receives the traces of the movements of the declination-magnet and the bifilar-magnet. The angle is so far cut away that the straight line joining their suspensions passes at the distance of one foot from the wall, and thus the cylinder receives the light from both instruments at right angles to its surface. The vertical cylinder which receives the traces of the movements of the vertical-force-magnet, and, of the self-registering barometer near it, is east of the vertical force pier.

In the south-west corner of the western arm, and partially beneath the staircase,

is the apparatus for self-registration of the spontaneous galvanic currents on the wires leading respectively to Croydon and to Dartford.

The mean-time-clock is on the west wall of the south arm of the basement.

Adjoining the north wall of the east arm is the table for photographic operations. Much water is used in these operations, and therefore a pump is provided in the grounds at a distance of about 30 feet from the nearest magnetometer, by which the water is withdrawn from the cistern at the east end of the photographic table and at once discharged into a covered drain.

The basement is warmed by a gas-stove, and ventilated by a large copper tube nearly two feet in diameter, receiving the flues from the stove and all the lamps, and passing through the upper room to a revolving cowl above the roof. Each of the arms of the basement has a window facing the south, but in general the window wells are closely stopped.

The variations in the temperature of the instruments have been greatly reduced by their location within this basement.

On the outside of the Magnetic Observatory, 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 (1866) 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 till 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.

At the distance of 28 feet south (magnetic) from the south-east angle of the southern arm is a square shed about 10<sup>ft</sup> 6<sup>in</sup> square, supported by four posts at the height 8 feet, with an adjustable opening at the center of the top. Under this shed are placed the large dry-bulb and wet-bulb thermometers, with a photographic cylinder, axis vertical, between them; and external to these are the gas flames, whose light passing through the thermometer-tubes above the quicksilver makes photographic traces upon the paper which covers the cylinder.

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.



§ 2. *Upper 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 stands upon the brick pier rising from the ground of the Magnetic Basement. 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 10½ 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  $\delta$  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  $\delta$  Ursæ Minoris above the pole, and as low as  $\beta$  Cephei below the pole.

For supporting the magnet, a braced wooden tripod-stand is provided, whose mounting has been described above. 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 center (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 (now very rarely required) 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, 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. 3¾ in., and the height of the magnet is about 2 ft. 10 in.; the length of the metal carrier which bears the magnet is 1 ft. 3 in.; so that the length of the free suspending skein is about 7 ft. 2¾ in.

The magnet was made by Meyerstein, of Göttingen: it is a bar 2 feet long, 1½ inch broad, and about ¼ 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 inserted sideways and fixed by screws in a double square hook which constitutes the lower part of the magnet carrier. This lower part turns stiffly by a vertical axis with index in a graduated horizontal circle (usually called the torsion circle) attached to the upper part. The upper part of the magnet carrier is simply hooked into the skein.

The suspending skein was originally 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 was strong enough to support perhaps three times the weight of the magnet, &c.

In the summer and autumn of 1864, an attempt was made to suspend the Magnet by a steel wire, capable of supporting the weight 15 lbs.; but the torsion force was found to be so large as greatly to diminish the value of the observations; and the skein was finally restored on 1865, January 20. A similar attempt was made for suspension of the lower magnet; the skein, however, was restored on 1865, January 30.

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 the original mounting of this magnet the small vibrations were annihilated by a copper oval or "damper," thus constructed: 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 damper was that, after every complete or double vibration of the magnet, the amplitude of the oscillation is reduced in the proportion of 5 : 2 nearly.

On mounting the photographic magnetometer in the basement, the damper was removed from its place surrounding the upper magnet, and was adjusted to encircle the photographic magnet. The upper magnet remained unchecked in its vibrations till 1866, January 23, when the lower part of its magnet-carrier was connected with a brass bar which vibrates in water.

#### OBSERVATIONS RELATING TO THE PERMANENT ADJUSTMENTS OF THE UPPER 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  $0''\cdot3$  nearly.

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

On 1862, December 26, observations were made, giving for the value of one revolution of the micrometer  $1'.33''.85$ . On 1865, December 27, 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 of the theodolite 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 with small values of the micrometer-reading was, that one revolution =  $1'.34''.8$ . This is used through the year 1866.

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

1865, December 27. 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  $100^\circ.120$ . This value is used throughout the year 1866.

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 appeared that it was necessary to add  $9''.41$  to every reading of the theodolite. The clock was removed to the basement in 1864, having now nearly the same relative position to the lower declination-magnet which formerly it had to the upper. No correction is now applied to the upper declination-magnet.

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  $55''.22$  from all readings of the theodolite. In 1848 a new vertical-force-magnet was introduced, and the subtractive quantity was then found to be  $42''.2$ . A few experiments in 1865 seemed to show that the correction is now  $36''.9$ . No numerical correction has been applied.

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

1865, December 27. 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, in ordinary use, this word is always kept east. The cross-wire carried by the collimator of the magnet was observed with the engraved word alternately east and west. The result of 20 double observations was, that in the ordinary position of the glass  $18''.5$  is to be added to all readings.

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

1865, December 26. Observations were made by placing the declination-magnet

in its stirrup, with its collimator alternately above and below, and observing the collimator-wire by the theodolite-telescope; the windlass of the suspending skein 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 above, (its usual position) above that with collimator below was 26'. 7".3. This value is used in the reductions for 1866.

8. Effect of the damper.

In the volume for 1841 observations are exhibited shewing that the oval copper bar, or damper, which then surrounded what is now the upper declination-magnet, 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 lower declination-magnet throughout the years 1865 and 1866. The following observations were made in the year 1865, for ascertaining the effect of the damper on the lower declination-magnet under various circumstances.

On 1865, February 8 and 10, and March 2, the time of vibration of the magnet was observed :—

Mean of times with damper in usual position .....	23'. 888
Mean of times with damper reversed end for end.....	24'. 508
Mean of times when damper was removed.....	23'. 153

These seem to indicate a repulsion of the magnet by the damper, but the magnet came to rest so rapidly that the observations are very uncertain:

On several days from 1865, April 2 to May 12, observations were made for ascertaining the deflexion of the magnet produced by turning the damper through a small angle round a vertical axis, passing through its center.

DAMPER IN USUAL POSITION.

Damper turned through 2°	{	N. end towards E., increase of western declination .....	-1. 27
		N. end towards W., " " " .....	+1. 25
Damper turned through 4°	{	N. end towards E., " " " .....	-2. 16
		N. end towards W., " " " .....	+3. 11
Damper turned through 6°	{	N. end towards E., " " " .....	-3. 10
		N. end towards W., " " " .....	+2. 55
Damper turned through 8°	{	N. end towards E., " " " .....	-1. 22
		N. end towards W., " " " .....	+1. 45

DAMPER REVERSED END FOR END.

Damper turned through 2°	{	N. end towards E., increase of western declination .....	+0. 12
		N. end towards W., " " " .....	+0. 20
Damper turned through 4°	{	N. end towards E., " " " .....	0. 0
		N. end towards W., " " " .....	+0. 26
Damper turned through 6°	{	N. end towards E., " " " .....	+0. 5
		N. end towards W., " " " .....	+0. 5
Damper turned through 8°	{	N. end towards E., " " " .....	-0. 10
		N. end towards W., " " " .....	+0. 5

The first series shews clearly that the damper in its usual position drags the magnet; the second shews no certain effect. It seems that the damper possesses two kinds of

magnetism, one permanent, the other transiently induced, of nearly equal magnitude; their sum being about  $\frac{1}{100}$  part of the terrestrial effect for the same deflexion.

From July 25 to August 9, observations were made to ascertain whether the effect of an external deflecting cause is the same with the damper present and the damper removed. The observation was extremely difficult, as the magnet was perpetually in vibration when the damper was removed. A small magnet on the east side of the N. end of the magnetometer, with its north end pointing towards the East (and therefore diminishing the western declination of the magnetometer), was moved to the distance (about five feet) at which it produced a deviation of 5' nearly. The apparent western declination was observed, damper present, and damper removed. It appeared to be less with damper present than with damper removed, by 0'. 53". The separate results are very discordant. If the conclusion has any validity, it tends to shew a repulsive power in the damper, opposite to that found in the preceding experiments. This experiment is regarded as inconclusive.

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

Micrometer equivalent for reading for line of collimation, 100°.120 .....	-2. 38. 11.4
Correction for the plane glass in front of the box, in its usual position.....	+ 18.5
The collimator above the magnet. Correction for error of collimation....	- 26. 7.3
Constant to be used in the reduction of the observations.....	-3. 4. 0.2

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

On 1866, September 13, it was found to be 30°55. On September 18, it was found to be 30°65.

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

By the same process which is described in the Magnetical Observations 1847, the proportion with the steel wire in use from 1864, June, to 1865, January 17, was found on 1865, January 17, to be  $\frac{1}{8}$ ; and on January 18, with a new wire,  $\frac{2}{21}$ . With a silk skein, the proportion was found, on 1865, January 31,  $\frac{1}{214}$ ; on February 17,  $\frac{1}{227}$ ; on April 27,  $\frac{1}{207}$ ; and on December 27,  $\frac{1}{230}$ .

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;

$$\text{Correction} = \text{Elevation of W. end of axis} \times \tan \text{star's altitude.}$$

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  $\log. A'' = \log. C_s + \log. E + \log. (a'' + F) + \log. \cos \phi$ .

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

TABULATED VALUES OF LOG. COS  $\phi$ , FOR DIFFERENT VALUES OF  $C_s$ , AND OF THE QUANTITIES LOG.  $E$  AND  $F$ , FOR THE STARS POLARIS AND  $\delta$  URSÆ MINORIS.

Hour Angle.	Log. Cos $\phi$ for			
	Polaris.	$\delta$ Ursæ Minoris.	Polaris S.P.	$\delta$ 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 1866:—January 12, February 2, 10, 13, March 9, 17, April 4, 24, May 11, 17, 28, June 19, July 12, 19, August 4, 16, 31, September 15 and 21, October 22 and 31, November 6 and 30, December 7, 13, and 26. 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 beforehand. Chronometer M'Cabe 649 has usually been employed for observation.

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.

Till 1866, January 23, the magnet was usually in a state of vibration; but since the introduction of the water damper on that day the number of instances of vibration has been very small. When it is found to be quite 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 lower magnet, furnished with the copper damper, never exhibits any troublesome vibrations.)

The adopted result is converted into arc, supposing  $1^r = 1'. 34''\cdot 8$ , 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. *General principle of construction of Photographic self-registering Apparatus for continuous Record of Magnetic and other Indications.*

The general principle adopted for all the photographic instruments is the same. The photographic paper is wrapped round a glass or ebonite cylinder, (ebonite being adopted for the earth-current-apparatus) and the axis of the cylinder is made parallel to the direction of the movement which is to be registered.

The following is the arrangement of glass cylinders, for the Declination and Horizontal Force. 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.), about  $11\frac{1}{2}$  inches long in its cylindrical part, and about  $14\frac{1}{2}$  inches 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 anti-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. The mounting of the ebonite cylinders is the same except that they and their external glass cylinders have no hemispherical ends, and that both ends of the ebonite cylinders turn by spindles, which rest on anti-friction wheels; and that the clock-communication is made by a toothed wheel instead of a winch-arm. 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 peculiarities of the Vertical Force and Thermometer cylinders will be mentioned below. The cylinders of the magnetic and earth-current registers turn in twenty-four hours: those of the thermometers, in forty-eight hours.

The light, by which the trace of each 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 concave-mirror of the magnet (to be mentioned shortly) to the center of the photographic sheet. Before the flame of the lamp is placed a small aperture, about  $0^{\text{in}}\cdot3$  high and  $0^{\text{in}}\cdot01$  broad, independent of the lamp, and supported by a part of the stone capping of the brick pier which carries the magnet. The light from the aperture falls upon the concave



mirror of speculum-metal, which is carried by a part of the magnet-carrier, and 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. 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. For the thermometers, the arrangement is different, as will be mentioned.

The spot of light (for the magnets, the earth currents, and the 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, the earth-currents, and the 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. Scales 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, were found to answer extremely well for a long time. About the end of 1866 it was found that they had expanded unequally in different parts, and in 1867 they have been superseded each by several pasteboard scales of different lengths, adapted to various lengths of the photographic sheets.

§ 4. *Lower Declination-Magnet; and Photographic self-registering Apparatus for Continuous Record of Magnetic Declination.*

The lower declination magnet is made by Simms. It is 2 feet long,  $1\frac{1}{2}$  inch broad,  $\frac{1}{4}$  inch thick, of hard steel throughout, much harder than the upper declination magnet.

The magnet-frame consists of an upper piece, whose top is a hook, (to be hooked into the suspension-skein), and which carries a concave mirror 5 inches in diameter, used for the photographic record in the manner to be hereafter mentioned. The lower part of this upper piece turns in a graduated horizontal circle, similar to the torsion circle of the upper magnet, and attached to the lower piece or magnet-carrier proper. The lowest part of the carrier is a double square hook, in which the magnet is inserted and is kept in position by the pressure of three screws.

It has been mentioned in § 1 that a small pier built upon one of the crossed slates which are laid upon three piers rising from below, carries the suspension-pullies. The suspension-skein rises to one of these pullies, passes horizontally over a second pulley about 5 inches south of it, and then descends obliquely to a windlass which is fixed to the stone slab about 2 ft. 3 in. south of the center of the magnet.

The height of the pulley above the floor of the Basement is 10 ft.  $4\frac{3}{4}$  in. As the height of the magnet above the floor is 2 ft.  $10\frac{1}{2}$  in., and the length of the magnet frame is 1 ft. 3 in., there remains 6 ft.  $3\frac{1}{4}$  in. of free suspending skein.

One of the revolving cylinders is used for the photographic record of the Declination Magnet and the Horizontal Force Magnet. In the preparation of the basement in 1864, as has been stated, the south-eastern re-entering angle was 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 placed.

The concave mirror of the declination-magnet is 5 inches in diameter, and is above the top of the magnet-box. The distance of the light-aperture from the mirror is about 25·3 inches. The spot of light from the mirror is received on the south side of the cylinder, near its west end.

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<sup>ft.</sup> 0<sup>in.</sup>·1, and a movement of 1° of the mirror produces a movement of 2° in the reflected ray. From this it is found that 1° of movement of the mirror is represented by 4·611 inches 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.

§ 5. *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 (as is mentioned above), a brick pier in the eastern arm of the Magnetic Observatory, built on the ground below the basement floor, rises through the floor of the upper room, and carries a slate slab, 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 pier, and two (in a similar position) at the back of the pier; these constitute the upper suspension-piece. A small windlass is attached to the back of the pier at a convenient height. The magnet-carrier consists of two parts. The upper part is a horizontal bar, 2½ inches long, whose ends are furnished with verniers for reading the graduations of the torsion-circle (a portion of the lower part, to be mentioned below) on the upper side of this horizontal bar are two small pulleys with axes horizontal and at right angles to the vertical plane passing through the length of the bar: by these pulleys the apparatus is suspended, as will be mentioned. From the lower side of the horizontal bar, a vertical axis projects downwards through the center of the torsion-circle, in which it turns by stiff friction. The lower part of the magnet-carrier consists,

first of the torsion-circle, a graduated circle about 3 inches in diameter: next, immediately below the central part of the torsion-circle, is attached (but not firmly fixed) a circular piece of metal from which projects downwards a frame that, by means of three cramps and screws, carries the photographic concave mirror, with the plane of its front under the center of the vertical axis: this circular piece of metal has a radial arm upon which acts a screw carried by the torsion-circle, for giving to the concave mirror small changes of azimuthal position. Thirdly, there is fixed to the torsion-circle, at the back of the mirror frame but not touching it, a bar projecting downwards, bent horizontally under the mirror frame and then again bent downwards, carrying the cramps in which the magnet rests, and, still lower, a small plane mirror, 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 mentioned above 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 wire 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 upper horizontal bar; 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-force 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 torsion-circle), which carries the magnet-stirrup, passes through a hole in the top of the box. Above the magnet box is the concave mirror above mentioned. The height of the brass pulleys of the suspension-piece above the floor is 11<sup>ft.</sup> 8<sup>in.</sup> 5; that of the pulleys of the magnet-carrier is 4<sup>ft.</sup> 2<sup>in.</sup> 5; and that of the center of the plane mirror is about 3<sup>ft.</sup> 1<sup>in.</sup>. The distance between the branches of the silk skein, where they pass over the upper pulleys, is 1<sup>in.</sup>·14; at the lower part the distance between them is 0<sup>in.</sup>·80.

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

The scale, which is observed by means of the plane mirror, is in a horizontal position, and is fixed to the South wall of the East arm of the magnetic basement. 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 plane-mirror to the scale meets it at the division 51 nearly; the distance from the center of the plane-mirror to the scale is 7<sup>ft.</sup> 6<sup>in.</sup> · 8.

The telescope is fixed on the east side of the brick pier which supports the stone pier of the declination-theodolite in the upper observing room. 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 38°, and the plane of the mirror is therefore inclined to the axis of the magnet about 19°.

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 of 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 1866:—

1865. 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.
Dec.	29	°	div.	div.	s	°	div.	div.	s
		140	13·68	8·05	21·46	222	11·62	7·95	19·62
		141	21·73	9·40	21·42	223	19·57	7·38	20·16
		142	31·13	8·85	21·32	224	26·95	7·96	20·32
		143	39·98	7·60	21·10	225	34·91	8·32	20·54
		144	47·58	8·62	21·02	226	43·23	7·04	20·54
		145	56·20	7·63	20·72	227	50·27	8·49	20·70
		146	63·83	7·64	20·66	228	58·76	8·45	20·78
		147	71·47	8·11	20·56	229	67·21	8·44	21·04
		148	79·58	7·46	20·38	230	75·65	9·48	21·26
		149	87·04	9·38	20·22	231	85·13	8·76	21·34
		150	96·42		20·16	232	93·89		21·50

The times of vibration and scale readings were sensibly the same, when the torsion-circle read 145°, marked end West, and 227° 41', marked end East, differing 82° 41'. Half this difference, or 41° 20', is the angle of torsion when the magnet is transverse to the meridian.

The mean of several determinations gave  $41^{\circ} 14'$ , and this value was adopted for the year 1866. The reading adopted for the torsion-circle, marked end of the magnet West, was  $145^{\circ}$  for the year.

2. 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, on 1864, November 3, that the distance from  $51^{\text{div}}$ . on the scale to the center of the face of the plane mirror is  $7^{\text{ft.}} 6^{\text{in.}} 84$ , and that the length of  $30^{\text{div}} \cdot 85$  of the scale is exactly 12 inches; consequently the angle at the mirror subtended by one division of the scale is  $14'. 43'' \cdot 25$ , or, for one division of the scale, the magnet is turned through an arc of  $7'. 21'' \cdot 625$ .

The adopted angle of torsion as mentioned above is  $41^{\circ} 14'$ ; 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  $\times$  value of one division in terms of radius," is  $0\cdot0024428$ . This number has been used for the year 1866.

3. 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  $0^{\text{div}} \cdot 487$ . On mounting a new vertical-force-magnet in 1848, similar experiments were made, and the resulting number was  $0^{\text{div}} \cdot 45$ . These quantities are totally unimportant in their influence on the registers of changes of horizontal force. No experiments have been made since the magnets were placed in the basement.

#### 4. Effect of the damper.

In the year 1865, from May 17 to May 25, observations were made for ascertaining the deflection of the magnet produced by turning the damper through a small angle round a vertical axis passing through its center.

##### DAMPER IN USUAL POSITION.

Damper turned through $2^{\circ}$	{	W. end towards S., increase of scale-reading	$\dots\dots\dots -0\cdot251^{\text{div}}$
		W. end towards N., " "	$\dots\dots\dots +0\cdot050$
Damper turned through $4^{\circ}$	{	W. end towards S., " "	$\dots\dots\dots -0\cdot34$
		W. end towards N., " "	$\dots\dots\dots +0\cdot16$

##### DAMPER REVERSED END FOR END.

Damper turned through $2^{\circ}$	{	W. end towards S., increase of scale-reading	$\dots\dots\dots -0\cdot15$
		W. end towards N., " "	$\dots\dots\dots -0\cdot02$
Damper turned through $4^{\circ}$	{	W. end towards S., " "	$\dots\dots\dots -0\cdot12$
		W. end towards N., " "	$\dots\dots\dots +0\cdot08$

On 1865, July 25, observations were made to ascertain whether the effect of an external deflecting cause is the same with the damper present and the damper removed.

A small magnet was placed with its marked end pointing N. at the distance 4 feet S. of the unmarked end of the horizontal-force-magnet, deflecting the magnet through 1<sup>div.</sup> of the scale, and the scale-readings were observed with the damper in its usual place and the damper away. Three experiments were made, containing twenty-four observations of position. Not the smallest difference of position of the horizontal-force-magnet was produced by the presence or absence of the damper. The observations were very easy, and the result is certain.

No experiments on the dampers have been made since 1865.

5. 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 determined with the magnet at temperature  $t^\circ$  in order to reduce them to what they would have been if the temperature of the magnet had been  $32^\circ$ , 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. The same formula is employed in the Reduction of Magnetic Observations 1858-1863, now in progress.

In the year 1864 observations were made for ascertaining the temperature-coefficient by heating the magnet by hot air. The deflecting magnet was placed in a copper box

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



planted upon the top of a copper gas-stove, whose heat could be regulated by manipulation of a tap, and from which rose a stream of heated air (not the air vitiated by combustion) through a large opening in the bottom of the box. With this apparatus, the force that acted upon a deflected magnet was measured by the tangent of the angle of deflection. The apparent effect of the temperature was so great (five or six times that found by use of water) that I imagine that some untraced cause of error existed in the operation, and I therefore abstain from publishing it.

From 1867, December 30, to 1868, February 21, experiments were made for determining the temperature-coefficient under the actual circumstances of observation, by heating the Magnetic Basement to different temperatures, and observing the changes of scale reading as viewed in the telescope, and also, the changes of indications on the photographic registers. The general result is, that the correction required for the horizontal-force-magnet is small, but that required for the vertical-force-magnet is large and negative in sign. A more detailed account will be given in a subsequent volume.

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 xvii, 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<sup>s</sup> 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<sup>s</sup> before the pre-arranged time, he notes the division of the scale bisected by the wire; and 10<sup>s</sup> after the pre-arranged time 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 1866 is very small.

Outside the double box is suspended a thermometer, which is read at every hour of observation. On two days also of every week, till August 31, and on every day except Sunday after September 1, the readings of the thermometer were taken at 21<sup>h</sup>, 22<sup>h</sup>, 23<sup>h</sup>, 0<sup>h</sup>, 1<sup>h</sup>, 2<sup>h</sup>, 3<sup>h</sup>, and 9<sup>h</sup>. Self-registering maximum and minimum thermometers placed outside the box were read twice every day, but in consequence of the very small diurnal range of temperature, their readings are not printed in the volume.

#### § 6. *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<sup>in</sup>·3 high, and 0<sup>in</sup>·01 broad (which is supported by the solid base of the brick pier carrying the magnet-support), at the distance of about 21·25 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 134·436 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 4·6927 inches. Now the variation of horizontal force (in terms of the whole horizontal force) corresponding to one degree of angular motion of the magnet =  $\sin 1^\circ \times \cotan 41^\circ 14'$  = 0·019914 nearly. From these numbers it is immediately found that a movement of the spot of light through 2·3565 inches corresponds to a variation of horizontal force expressed by 0·01 part of the whole horizontal force. With this fundamental number, the graduations of the pasteboard scale for measure of horizontal force have been prepared.

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

The vertical-force-magnet in use to 1848 was made by Robinson; that in use from 1848 to 1864, January 20, was by Barrow. The magnet now in use is by Simms. Its length is 1<sup>ft</sup>·6<sup>in</sup>; it is pointed at the ends. After some trials, it was re-magnetized by Mr. Simms on 1864, June 15. Between 1864, August 27, and September 27, a new knife-edge was attached to it, to remedy a defect which, as was afterwards found, arose from a cause that had no relation to the knife-edge. Its supporting frame rests upon a solid pier, built of brick and capped with a thick block of Portland stone, in the western arm of the magnetic basement. Its position is as nearly as possible symmetrical with that of the horizontal-force-magnet in the eastern arm. Upon the stone 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 extreme parts of the knife-edge (to be mentioned immediately). The carrier of the

magnet is an iron frame, to which is attached, by clamps and pinching screws, a steel knife-edge, about 8 inches long. The steel knife-edge passes through an aperture in the magnet. 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 iron 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  $52\frac{3}{4}^{\circ}$  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  $2^{\text{ft}} \cdot 10^{\text{in}} \cdot 6$ . Before the introduction of the photographic methods, the magnet was placed in a perforation of a 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 nearly 2 inches, and a space of  $4\frac{1}{2}$  inches in the northern part of the iron frame being left disposable. In this disposable space there is attached to the iron frame by three clips a concave mirror of speculum-metal, with its face at right angles to the length of the magnet; it is used in the photographic system (shortly to be described). Near the north end of the iron frame are fixed in it two screw stalks, upon which are adjustable 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 rectangular box. This box is based upon the stone block 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 the west side of the brick pier which supports the stone pier in the upper room carrying the declination-theodolite. Its position is symmetrical with that of the telescope by which the horizontal-force-magnet is observed; so that a person seated in a convenient position can, by an easy motion of the head left and right, observe the vertical-force and horizontal-force-magnets.

The scale is vertical: it is fixed to the pier 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.

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 appeared that no sensible disturbance was produced on the magnet formerly in use. No experiments have been made with the new magnet.

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

In the year 1866, vibrations of the vertical-force-magnet were observed on 140 different days, and with readings of various divisions of the scale. The mean time of vibration adopted for the whole year was  $12^s.75$ .

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

1866, December 31. The magnet with all its apparatus was suspended from a tripod in the Record Room, 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 Record Room, 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 300 vibrations, the mean time of one vibration =  $15^s.1873$ . This number is used through the year 1866.

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 186.07 inches, and each division of the scale =  $\frac{12}{30.85}$  inches. Hence the angle which one division subtends, as seen from the mirror, is  $7'.11''.19$ ; 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  $3'.35''.60$ .

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  $52\frac{3}{4}^{\circ}$ : therefore, dividing the result just obtained by  $\text{sine } 52\frac{3}{4}^{\circ}$ , we have, for the angular motion of the magnet corresponding to a change of one division of the scale,  $4'.30''85$ .

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.

For 1866,  $T'$  was assumed =  $15^s.1873$ ,  $T = 12^s.75$ , dip =  $68^{\circ}.1'.16''$ . From these numbers, the change of vertical force (in terms of the whole vertical force) corresponding to a change of one division of the scale is found =  $0.00075194$  part of the whole vertical force. This is used through 1866.

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

An attempt was made to investigate the thermometric correction of the new vertical-force-magnet by the use of heated air, at the same time and in the same manner as for the horizontal-force-magnet (mentioned on pages *xxi* and *xxii*). The results were so much larger than I expected, that I conceive some unknown cause of error to have affected them. At the end of 1867 and the beginning of 1868, experiments were made by heating the air of the room, as is mentioned in page *xxii*, giving a large negative correction. No correction has been applied to the observations with the new vertical-force-magnet.

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 1866 in which the magnet was found in a state of vibration is very small.

Outside the box is placed a thermometer, which is read at every hour of observation, and also, till August 31, on two days of every week, and from September 1 on every day except Sundays, at the hours  $21^h$ ,  $22^h$ ,  $23^h$ ,  $0^h$ ,  $1^h$ ,  $2^h$ ,  $3^h$ , and  $9^h$ , in the same manner as that of the horizontal-force-instrument.

A maximum and a minimum thermometer have also been read twice daily; but the results are not printed.

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

The concave mirror which is carried by the vertical-force-magnet is 4 inches in diameter; its mounting 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<sup>in</sup>·3 in length and 0<sup>in</sup>·01 in breadth, carried by the same stone block which carries the supports of the agate planes. The lamp which shines through this aperture is carried by a wooden stand. 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 100·18 inches from the mirror. As the movements of the magnet are vertical, the axis of the cylinder is vertical. The cylinder is about 15½ 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 rests on anti-friction rollers and 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 100·18 inches, and is therefore = 200·36 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 =  $200\cdot36 \times \tan. \text{ dip.} \times \left(\frac{T}{T'}\right)^2 \times 0\cdot01$ . The value of the ordinate of the photographic curve for  $\frac{\text{disturbing force}}{\text{whole vertical force}} = 0\cdot01$ , thus obtained, is, for the year 1866, 3·4987 inches. With this value, the pasteboard scale used for measuring the photographic ordinates has been prepared.

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

The instrument with which all the dips in the year 1866 have been observed, is that which, for distinction, is 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 Lieut.-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 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 and eye-glasses. 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 trans-



verse 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 were intended for sending light past the ends of the needle through the microscopes, and therefore required adjustment on change of needle and corresponding change of position of microscopes. In 1863 these were changed for fixed reflectors, corresponding to the fixed microscopes. The circle was originally 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 adapted for use with this instrument are—

B <sub>1</sub> , a plain needle.....	}	each 9 inches long.
B <sub>2</sub> , a plain needle.....		
B <sub>3</sub> , a loaded needle with adjustable load .....		
B <sub>4</sub> , a needle whose plane passes through the axis of the needle		
C <sub>1</sub> , a plain needle.....	}	each 6 inches long.
C <sub>2</sub> , a plain needle.....		
C <sub>3</sub> , a loaded needle with adjustable load .....		
C <sub>4</sub> , a needle whose plane passes through the axis of the needle		
D <sub>1</sub> , a plain needle.....	}	each 3 inches long.
D <sub>2</sub> , a plain needle.....		
D <sub>3</sub> , a loaded needle with adjustable load .....		
D <sub>4</sub> , a needle whose plane passes through the axis of the needle		

The needles constantly employed are B<sub>1</sub>, C<sub>1</sub>, D<sub>1</sub>, B<sub>2</sub>, C<sub>2</sub>, D<sub>2</sub>.

In discussing carefully the observations taken with this instrument (as well as with other dip-instruments), great trouble was experienced in determining the zenith-point (or reading of the vertical circle when the points of the needle are in the same vertical). To remedy this, a "zenith-point-needle" was constructed under my instructions by Mr. Simms; and it was used as need required in 1864 and 1865. It is a flat bar of brass; with pivots similar to those of the dip-needles; and with three pairs of points corresponding to the three lengths of needles used; loaded at one end so as to take a position perfectly definite with respect to the direction of gravity; observed with the microscopes, and reversed for another observation, exactly as the dip-needles. For each of the different lengths of dip-needles, the zenith-point is determined by observation of that pair of points of the zenith-point-needle whose interval is the same as the length of the dip-needle.

Discordances, of which no satisfactory explanation could be given, were at first found in the ordinary use of the instrument for determination of dip, as well as in the change of readings when a needle was raised and lowered, and in the change of readings when, without raising the needle, the instrument was turned completely in azimuth. Between November 10 and November 19, 1864, Mr. Simms reground the agate edges on which the needle-pivots rotate; and the discordances have entirely or in great measure disappeared. The process of regrinding was merely the following. A brass tool was provided which nearly fitted the agates, and which permitted lengthwise-strokes but scarcely permitted cross-strokes; and this tool carried, in succession, the different powders required for shaping and polishing the agate edges. As the edges were pretty well shaped, it was scarcely necessary to use coarse emery; but fine emery was used in the tool to give a final figure, and tin-oxide to give the ultimate polish. The process scarcely differs from that by which the edges had been ground originally; except that a tool had formerly been used which perhaps admitted of too much cross-stroke, and that rotten-stone powder had been used instead of tin-oxide.

The flat needles  $B_4$ ,  $C_4$ ,  $D_4$ , were used with the object of determining whether any part of the discordances of results arose from the position of the principal plane of the magnetized needle. But with the increased harmony of results, an error showed itself which is peculiar to their form. The small flexure of the needle, produced by the resolved part of gravity in the direction perpendicular to the needle's length, changes the position of its centre of gravity in such a manner that the action of gravity is necessarily opposed to that of the magnetic vertical force; and thus the apparent dip is made too small. This error is perhaps insensible in the 3-inch needle  $D_4$ , but it is visible in the 6-inch needle  $C_4$ , and conspicuous in the 9-inch needle  $B_4$ . In the tables of results, therefore, while I have included all the separate results from these needles, I have omitted them in the formation of means. After 1865, July, the flat needles were not used for dip observations.

Needles  $C_1$  and  $D_1$ , which had been removed by Mr. Simms on 1865, December 30, were returned on 1866, January 25.

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

In the spring of 1861, a Unifilar Instrument, similar in all respects (as is understood) to those used in and issued by the Kew Observatory, was procured by the courteous application of Lieut.-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 (1868).

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 placed on the E. or W. side of the deflected magnet, with one 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 known, 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

$$0.000131261 (t_0 - 35) + 0.000000259 (t_0 - 35)^2$$

$A_1$  is  $\frac{1}{2}(\text{distance})^3 \times \text{sine deflection}$ , 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  $\frac{A_2}{(1.3)^2}$ :  $P$  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  $= A_2 \times \left(1 - \frac{P}{1.69}\right)$  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  $\log. \pi^2 K$  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  $= \frac{\pi^2 K}{T^2}$ . From the combination of this value of  $mX$  with the former value of  $\frac{m}{X}$ ,  $m$  and  $X$  are immediately found.

It appears, from a comparison of observations given in the Introduction to the *Magnetical and Meteorological Observations*, 1862, that the determinations with the Old Instrument (in use to 1861) ought to be diminished by  $\frac{1}{117}$  part, to make them comparable with those of the Kew Unifilar.

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  $\alpha$  times the millimètre, and a grain be equal to  $\beta$  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  $\alpha^3$  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  $\frac{1}{2·1689}$ . The values of  $X$  in French measure thus derived from those in English measure are given in the proper table.

§ 11. *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, though rarely, 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.

§ 12. *Wires and Photographic self-registering Apparatus for continuous Record of Spontaneous Terrestrial Galvanic Currents.*

In order to obtain an exhibition of the spontaneous galvanic currents which in some measure are almost always discoverable in the earth, and which occasionally are very powerful, it was necessary to extend two insulated wires from an earth connexion at the Royal Observatory, in two directions nearly at right angles to each other, to considerable distances, where they would again make connexion with the earth. By the kindness of the Directors of the South Eastern Railway Company, to whom the Royal Observatory has on several occasions been deeply indebted, two connexions are made; one to a station near Dartford, at the direct distance  $9\frac{2}{3}$  miles nearly, in azimuth (measured from North, to East, South, West),  $102^\circ$  astronomical or  $122^\circ$  magnetical, the length of the connecting wire being about  $15\frac{2}{3}$  miles; the other to a station near Croydon, at the direct distance 8 miles, in azimuth,  $209^\circ$  astronomical, or  $229^\circ$  magnetical, the length of the connecting wire being about  $10\frac{1}{2}$  miles. At these two stations connexion is made with earth. The details of the course are as follows. The wires are soldered to a water pipe in the Magnetic Ground at the Royal Observatory. Thence they enter the Magnetic Basement, and pass through the photographic self-registering apparatus (to be shortly described). From it they are led up the electrometer mast to a height exceeding 50 feet, and thence they are swung across the grounds to a chimney above the Octagon Room. They descend thence, and are led to a terminal board in the Computing Room, to which an intermediate galvanometer can be attached for eye-observation of the currents. From this point they are led to the "Battery Basement," and, with other wires, pass under the Park to the Greenwich Railway Station, and upon the telegraph poles. One wire branches off at the junction with the North Kent Railway to Dartford, the other at the junction with the Croydon Branch Railway to Croydon. At both places their connexion with earth is made by soldering to waterpipes, as at the Royal Observatory.

The apparatus for receiving the effects of the galvanic currents consists essentially of two magnetic needles (one for each wire), each suspended by a hair so as to vibrate horizontally within a galvanic coil, exactly as in the ordinary speaking telegraph; these coils being respectively in the courses of the two long wires. A current of one kind, in either wire, causes the corresponding needle to turn itself through an angle nearly proportioned to the strength of the current, in one direction; a current of the opposite kind causes it to turn in the opposite direction. These turnings are registered by the following apparatus.

The carrier of each magnet carries also a small plane mirror, which receives all the azimuthal motions of the magnet. The light of a gas-lamp passes through a minute aperture, and shines upon it; the divergent pencil is converted into a convergent pencil by refraction through crossed cylindrical lenses (with axes vertical before the pencil reaches the mirror, and with axes horizontal where the pencil is received from the mirror), which, under the circumstances, were more convenient than spherical lenses. A spot of light is thus formed upon the photographic paper wrapped upon a cylinder of ebonite, which is covered by a glass cylinder, and made to rotate in twenty-four hours by clock-work, exactly as for the register of the magnetic elements. As in the case of declination and horizontal-force, the two earth currents make their registers upon opposite sides of the same barrel, and upon different parts of the sheet; the same gaslight serving for the illumination of both.

A portion of a base-line for either record is obtained at any time by simply breaking the galvanic communication.

The photographic records have been regularly made since 1865, March 15. Seventeen days have been selected for special examination, and for these the equivalent galvanic currents in the north and west directions have been computed, and their effects in producing apparent magnetic disturbances in the west and north directions have been inferred. They correspond almost exactly with those indicated by the magnetometers. The discussion of these has been communicated to the Royal Society.

### § 13. *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<sup>in</sup>.05.

The vernier subdivides the scale divisions to 0<sup>in</sup>.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  $0^{\text{in}}.565$  in diameter; the correction for the effect of capillary attraction is therefore only  $+ 0^{\text{in}}.002$ . 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, until 1866, August 20<sup>d</sup>, 0<sup>h</sup>, are considered to be coincident with those of the Royal Society's flint-glass standard barometer. On that day a change was made in the barometer. It had been remarked that the slow-motion-screw at the bottom of the sliding rod (for adjusting the ivory point to the surface of the mercury in the cistern) was partly worn away: and on August 20 the sliding rod was removed from the barometer by Mr. Zambra to remedy this defect. It was restored on August 30<sup>d</sup>, 3<sup>h</sup>. Before the removal of the sliding rod, barometric comparisons had been made with a standard barometer the property of Messrs. Murray and Heath, and with two barometers, Negretti and Zambra, Nos. 646 and 647. While the sliding rod of the Greenwich standard was removed, Negretti and Zambra 647 was used for daily observations. After the new equipment of the standard barometer, another series of comparisons with the same barometers was made: from which it was found (the three auxiliaries giving accordant results) that the readings of the barometer, in its new state, required a correction of  $- 0^{\text{in}}.006$ . This is applied in the printed observations commencing with August 30.

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  $32^{\circ}$ , 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.)

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  $5^{\text{ft}}.2^{\text{in}}$ .

The barometer has been read at 21<sup>h</sup>, 0<sup>h</sup>, 3<sup>h</sup>, 9<sup>h</sup> (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  $32^{\circ}$  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, Table I, page 127.

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

§ 14. *Photographic self-registering Apparatus for continuous Record of the Readings of the Barometer.*

The Photographic self-registering Apparatus for continuous Record of Magnetic Vertical Force is furnished (as has been stated) with a vertical cylinder covered with photographic paper and revolving in 24 hours. 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 partly immersed in the quicksilver 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 nearly eight times the distance of the point of attachment of the float wire, and whose movement, therefore, is nearly 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 occasional eye-observations.

This barometer was brought into use in 1848, but its indications were not satisfactory 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.

§ 15. *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 adopted 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:—

Between 8° and 11° .....	subtract 0°·4
12 and 19 .....	0°·5
20 and 24 .....	0°·6
25 and 30 .....	0°·7
31 and 37 .....	0°·8
38 and 44 .....	0°·9
45 and 52 .....	1°·0
53 and 59 .....	1°·1
60 and 64 .....	1°·2
65 and 68 .....	1°·3
69 and 71 .....	1°·4
72 and 74 .....	1°·5
75 and 77 .....	1°·6
78 and 79 .....	1°·7
80 and 82 .....	1°·8
83 and 84 .....	1°·9
85 and 86 .....	2°·0
87 and 90 .....	2°·1
91 and 95 .....	2°·2
96 and 100 .....	2°·3
101 and 104 .....	2°·4

The wet-bulb thermometer, with pea-bulb, by Negretti and Zambra No. 764, was used until 1866, January 17<sup>d</sup>. 21<sup>h</sup>.

January 18<sup>d</sup>. 0<sup>h</sup>, a new thermometer by Negretti and Zambra, with a bulb of the same size as that of the dry-bulb thermometer, was brought into use.

The corrections required to the readings of this thermometer are—

Between 32° and 49° .....	0°·0
50 and 81 .....	add 0°·2
82 and 91 .....	0°·0
92 and 105 .....	subtract 0°·2

Dry-bulb and wet-bulb thermometers, with pea-bulbs and porcelain scales, Negretti and Zambra 795, are also mounted on the roof of the library, 4 feet above the leads and 22 feet above the ground.

The corrections for index error for these thermometers are—

Dry bulb :

Between 32° and 54° .....	0°·0
55 and 102 .....	add 0°·2

Wet bulb :

Between 32° and 70° .....	add 0°·2
71 and 83 .....	0°·1
84 and 102 .....	0°·0

1866, August 8<sup>d</sup>. 9<sup>h</sup>. These thermometers (No. 795) and stand were blown over by the wind. The thermometers were broken.

1866, September 1<sup>d</sup>. 0<sup>h</sup>. New dry-bulb and wet-bulb thermometers (Negretti and Zambra No. 1179) were set up on the roof of the Library. These thermometers are similar to those broken on August 8<sup>d</sup>. 9<sup>h</sup>. No corrections are applied to the readings of thermometers No. 1179.

The eye-readings of the dry-bulb and wet-bulb thermometers have usually been taken at the hours (astronomical reckoning) 21<sup>h</sup>, 0<sup>h</sup>, 3<sup>h</sup>, 9<sup>h</sup>, and corrected by application of the numbers given above.

They are not printed in the present volume.

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 of *Magnetical and Meteorological Observations* 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, 4th 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	2.29	63	1.85	86	1.65
18	8.50	41	2.26	64	1.83	87	1.64
19	8.34	42	2.23	65	1.82	88	1.64
20	8.14	43	2.20	66	1.81	89	1.63
21	7.88	44	2.18	67	1.80	90	1.63
22	7.60	45	2.16	68	1.79	91	1.62
23	7.28	46	2.14	69	1.78	92	1.62
24	6.92	47	2.12	70	1.77	93	1.61
25	6.53	48	2.10	71	1.76	94	1.60
26	6.08	49	2.08	72	1.75	95	1.60
27	5.61	50	2.06	73	1.74	96	1.59
28	5.12	51	2.04	74	1.73	97	1.59
29	4.63	52	2.02	75	1.72	98	1.58
30	4.15	53	2.00	76	1.71	99	1.58
31	3.70	54	1.98	77	1.70	100	1.57
32	3.32	55	1.96	78	1.69		

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 corrections to the readings of this thermometer are as follows:—

Between 32 and 54	..... subtract	0.3
54 and 72	.....	0.2
72 and 80	.....	0.1
80 and 93	.....	0.0
93 and 96	..... add	0.1
96 and 99	.....	0.2
99 and 102	.....	0.4

There is a similar thermometer for the maximum wet-bulb reading (Negretti and Zambra No. 198): the corrections to its readings are—

Between 32 and 36 .....	subtract 0.4
36 and 101 .....	0.6

On 1866, May 9, the maximum wet thermometer (Negretti and Zambra No. 198) was found out of order.

On May 18, the maximum thermometer (Browning No. 1170) was mounted in its place, and was kept in use till May 25.

On May 25, a new maximum thermometer (Negretti and Zambra No. 7892) was brought into use.

On August 15<sup>d</sup>. 21<sup>h</sup>. the maximum thermometer (Negretti and Zambra No. 7892) was broken.

On August 24<sup>d</sup>. 21<sup>h</sup>. a new maximum thermometer (Negretti and Zambra No. 7537) was brought into use, and was used throughout the remainder of the year.

No corrections are applied to readings of Browning No. 1170; Negretti and Zambra No. 7892; and Negretti and Zambra No. 7537.

The minimum self-registering thermometers are alcohol thermometers, 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 bounding surface of the fluid when it sinks. The readings of that which gives the minimum temperature of the air require the following corrections, viz. :—

Below 12 .....	add 0.2
Between 13 and 18 .....	0.3
19 and 25 .....	0.4
26 and 35 .....	0.5
36 and 39 .....	0.6
40 and 43 .....	0.7
44 and 47 .....	0.8
48 and 50 .....	0.9
51 and 54 .....	1.0
55 and 57 .....	1.1
58 and 61 .....	1.2
62 and 64 .....	1.3
65 and 67 .....	1.4
68 and 70 .....	1.5
71 and 74 .....	1.6
75 and 77 .....	1.7
78 and 80 .....	1.8

The readings of the minimum wet-bulb thermometer require the following corrections :—

Between 31 and 37 .....	add 1.0
37 and 78 .....	0.7

The mean daily values of dry thermometer in the printed columns are found by combining two results derived from different sources. The first and simpler result is the mean of the maximum and minimum, corrected by a small quantity depending on the month, given in Table III. of Mr. Glaisher's paper in the *Philosophical Transactions*, 1848, page 130. The second result is formed by taking the means of the four eye-observations at 21<sup>h</sup>, 0<sup>h</sup>, 3<sup>h</sup>, 9<sup>h</sup>, and applying a correction thus investigated. The daily range being found by taking the difference between the maximum and minimum, this daily range is multiplied by the mean of the factors in Table IV. of Mr. Glaisher's paper before mentioned corresponding to the hours of observation; the application of this correction to the mean of the eye-observations gives the second result. (It is evident that this process is applicable to any number of eye-observations.) These two results are then combined to form a mean, weights being given proportional to the number of observations contributing to each result.

For the mean daily value of dew point, the usual process is,—by observing the difference between dry and wet thermometers, and by use of the table of factors printed in page *xl*. above, to form the difference between air-temperature and dew point at each of the hours of reading; to take the mean of the deduced dew-points, and to apply a correction which is the mean of the corrections in Mr. Glaisher's Table VIII. for the several hours of observation. Sometimes, however, the following process is used. The correction for diurnal range applicable to the mean of the eye-observations of the dry thermometer having been found (as is described above), this correction is multiplied by a fraction, whose numerator is the mean of corrections to wet bulb thermometer in Table VII. for the hours of observations, and whose denominator is the mean of corrections to dry thermometer in Table II. for the same hours; and thus a correction is found which is applied to the mean of the eye-observations of wet bulb thermometer, to form the mean wet bulb for the day. Then by use of the mean dry bulb reading for the day and the mean wet bulb reading for the day and the table of factors above, the mean dew point for the day is formed.

§ 16. *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 ft. 6 in. square, standing upon posts 8 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 8 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. The axis of this cylinder is vertical; its mounting is in all respects similar to that of the Vertical Force cylinder. As the cylinder, covered with photographic paper, revolves under the light, which passes through the thermometer-tube, 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 13½ inches, and its circumference is 19 inches.

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

The thermometer for Solar Radiation, which to the end of the year 1864 was placed in an open box about 10 feet south of the south-west angle of the south arm of the Magnetic Observatory, is now laid on the grass, near the same place.

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<sup>h</sup> a.m., noon, 3<sup>h</sup> p.m., and occasionally at 9<sup>h</sup> p.m.; the highest of these readings is adopted as the maximum for the day.

The use of a thermometer with blackened bulb not inclosed in an exhausted sphere was discontinued at the end of 1865.

The thermometer for radiation to the sky is placed near to 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<sup>h</sup> a.m., and occasionally at 9<sup>h</sup> p.m.

This thermometer was out of order on March 8, April 26, June 29, July 26, September 17 and 23.

§ 18. *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, carrying the scales, were left projecting above the surface: No. 1 by 27·5 inches, No. 2 by 28·0 inches, No. 3 by 30·0 inches, and No. 4 by 32·0 inches. Of these lengths, 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<sup>in.</sup>, 1<sup>in.</sup>·1, 0<sup>in.</sup>·9, and 0<sup>in.</sup>·55; and the ranges of the scales, as first mounted, were, 43°·0 to 52°·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  $5^{\circ}$  on their scales, and the scales of these two thermometers were then lowered by that linear extent, making the readings the same as before. Their ranges are now, respectively,  $44^{\circ}$  to  $62^{\circ}\cdot 5$ , and  $39^{\circ}\cdot 2$  to  $69^{\circ}\cdot 5$ .

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  $44^{\circ}$ ; and the 3-foot thermometer below  $39^{\circ}\cdot 0$ ; 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 temperatures, 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.

#### § 19. *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 9<sup>h</sup> 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.

The thermometer for maximum temperature was out of order on January 28, 31; February 1 to March 5, March 12 and 14, April 1 to 10, and 29 and 30; May 23, June 9, July 23, September 4, and December 28; that for minimum temperature was out of order on January 28, March 12 and 14, April 1 to 10, and 29 and 30; May 22 to 26; June 9; July 23 and 31; September 4 and 23; October 26 and 27; and December 28.

The index-error corrections to these thermometers were:—

For the maximum thermometer, till January 30,	subtract $1^{\circ}\cdot 0$
from March 5 to December 31,	subtract $1^{\circ}\cdot 2$
For the minimum thermometer, throughout the year,	subtract $0^{\circ}\cdot 3$

#### § 20. *Osler's Anemometer.*

This anemometer is self-registering: it was made by Newman, on a plan furnished by A. Follett Osler, Esq., F.R.S., 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 rack-work 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 second 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, as arranged by Mr. Osler, carried a plate one foot square, which was supported by horizontal rods sliding into grooves, and was urged in opposition to the wind by three spiral springs, so arranged that only one came into play when the wind was light, and the others necessarily acted in conjunction with the first as the plate was driven further and further by the force of the wind. A cord from this plate passed over a pulley, and communicated with a copper wire passing through the center of the spindle, which at the bottom communicated with another cord passing under a pulley and held in tension by a slight spring: and by this a pencil was moved transversely to the direction in which the paper fixed to the board is carried by the clock. Lines were 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.

This construction was in use till the middle of 1866, when the following modifications were made in it by Mr. Browning:—

The vane-shaft was made to bear upon anti-friction-rollers running in a cup of oil. For elucidation of the following description of the apparatus which it carries, I refer to Figure 3 on the engraving at the end of this Introduction (for the use of which I am indebted to the Council of the Meteorological Society). To the vane-shaft is attached a rectangular frame C, which rotates with the vane. To this vane are firmly attached the ends of four strong springs D, which rise from the point of attachment in a vertical direction, are then bent so as to descend below the frame C, and are then bent upwards so as to rise a short distance, where they terminate, each of them thus forming a large hook. To the interior of each strong spring, near to its upper bend, is affixed a very weak spring, which descends free into the lower bend or hook of the strong spring, so that its lower end may be moved by a light pressure till it reaches and takes bearing against the bent-up part of the strong spring, after which it cannot be further moved without moving the strong spring, and will therefore require much

greater pressure. The four ends of these four light springs carry the circular pressure-plate A by the following connexions. The two which are farthest from A, or which are below the wide part of the vane, are united by a light horizontal cross-bar G; and from the ends of these springs proceed four light bars E, which are attached to points of the pressure-plate A, near its circumference. The two ends of light springs which are nearest to A are also united by a light horizontal cross bar, which is attached to a projection from the center of the plate A. (The diagonal lines upon A, in the diagram, represent indistinctly two strengthening edge-bars upon the pressure-plate, and the projection above-mentioned is fixed to their intersection.) The weight of the pressure-plate thus rests entirely on the slender springs; it is held steadily in position, as regards the opposition to the wind, and it moves without sensible friction. A light wind drives it through a considerable space, until the ends of one pair of light springs touch their large hooks; then for every additional pound of pressure the movement is smaller, till the ends of the other pair of light springs touch their large hooks; after this the movement for every additional pound of pressure is still further diminished. This apparatus was arranged by Mr. Browning. The communication with the pencil below is similar to that in the first construction: the cord and pulley are omitted in the drawing to avoid confusion.

The pressure-pencil below is carried by a radial bar, whose length is parallel to the scale of hours; it is brought to zero by a small weight on a cord running over a pulley.

The surface of the pressure-plate is 2 square feet, or double that in the old construction. The scale of indications on the recording-sheet was determined experimentally as in the old instrument; yet it is remarked that the pressures of wind per square foot appear generally greater than formerly.

The scale for small pressures is much larger, and their indications much more certain than formerly. A pressure of an ounce per square foot is clearly shown.

The old vane was dismantled on July 23: from that time to August 11 the direction and pressure of wind were taken from an anemometer, the property of C. O. F. Cator, Esq., which happened to be mounted at the Royal Observatory, assisted by occasional eye-observations and personal estimations. The new anemometer was mounted on August 11.

A rain gauge of peculiar construction is carried by this instrument, by which the fall of rain is registered with reference to the time of the fall. It is described in § 22.

A fresh sheet of paper is applied to this instrument every day at 22<sup>h</sup> mean solar time.

#### § 21. *Robinson's Anemometer.*

This anemometer as used at the beginning of the year is self-registering, (not continuously self-registering, but requiring to be read from time to time,) and was made by Messrs. Negretti and Zambra on the principles described by Dr. Robinson in the *Trans-*

actions 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.

In the instrument used to 1866, October 12, 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<sup>h</sup>.

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<sup>ft.</sup> 8<sup>in.</sup> 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	}	1.15 was registered.
Anemometer-cups) .....		
Beam revolving N.W.S.E. (in the same direction as the Anemometer-	}	0.97 was registered.
cups) .....		

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.

In the latter part of the year a new instrument, adapted to give a continuous record of the velocity of the wind, was mounted by Mr. Browning, of which the principal parts are represented in Figures 1 and 2 of the engraving. The motion is given (as in the former) by the pressure of the air on four hemispherical cups, the distance of the center of each from the axis of rotation being 15.00 inches.

The foot of the axis is a hollow flat cone bearing upon a sharp cone which rises up from the base of a cup of oil. The communication of movement to wheel-work is essentially the same as in the former instrument; but a pinion C upon the axis of one of the wheels (which, in the figure, occupies a place too high) acts in a rack J, drawing it upwards by the ordinary motion of the revolving cups. The rack is pressed to the pinion by a spring, and, when it has been drawn up, it can be pressed by hand in opposition to the spring so as to release it from the pinion, and can then be pushed down, again to be raised by the action of the wheel-work. The rack is connected at the bottom with a sliding rod D, which passes down into the chamber below, where it draws up the sliding pencil-carrier E. The pencil F, which it carries, traces its indications upon the sheet of paper wrapped round a barrel, whose axis is vertical, and which by spindle connexion with the clock H is made to revolve in 24 hours. The revolving cups and wheel-work are so adjusted that a motion of the pencil upwards of one inch represents a motion of the air through 100 miles. The curve traced upon the barrel exhibits, therefore, the aggregate of the air's movements, and also the air's velocity, at every instant of the day. The instrument was finally brought into continuous use on 1866, October 12.

### § 22. *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 carried away by a waste-pipe attached to the building. 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. As the trace is rather long in proportion to the length of the

radius-bar, the bar has now been furnished by Mr. Browning with a "parallel motion," which makes the trace sensibly straight.

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  $\frac{1}{4}$  of an inch is bent upwards, terminating in an aperture of  $\frac{1}{8}$  of an inch in diameter. 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 top has a diameter of 6 inches; its exposed area is  $28\frac{1}{4}$  inches nearly. 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 shed, 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<sup>h</sup> daily; in addition, Crosley's gauge and No. 8 are read daily at 9<sup>h</sup> p.m., and No. 7 at the end of each month only, to check the summation of the daily readings of No. 8. All are read at midnight of the last day of each month.

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.

### § 23. *The Actinometer.*

The actinometer consists of a hollow cylinder of glass 7 inches in length, and 1·22 inch in diameter, united at one end to a tube similar to a thermometer tube, 7 inches in length, which is terminated at its upper end by a ball 1·1 inch in diameter, the upper part of which is drawn out to a point, and broken off, so as to leave the end open, merely stopped by wax, and covered by a brass cap. The other end of the cylinder is closed by a silver plated cap, cemented on it, and furnished with a screw of silver, with 16 threads to an inch, passing through a collar of waxed leather. The axis of this screw is perforated through its entire length, to allow the stem of a thermometer to pass through it, (the bulb of which is nearly central within the cylinder), for the purpose of determining the temperature of the inclosed liquid. This liquid is of a deep blue colour (ammonio-sulphate of copper). When the actinometer is used in observation, the ball at the top is left full of air, and, according to the position of the screw, the liquid mounts into the first-mentioned tube, and its elevation can be read off on an attached scale which is divided into 100 parts. The cylinder is enclosed in a chamber which is blackened on three sides, and is covered on the fourth side or front by plate glass, to defend the chamber from currents of air; this glass is removeable at pleasure. The screw is used to diminish or increase the capacity of the cylindrical cistern, and thus to drive into the ball, which acts as a reservoir, all air out of the tube, and then to draw back from the reservoir such a quantity as shall leave the top of the liquid at the zero of the scale or elsewhere at pleasure, leaving no bubble of air in the cylinder, and no blebs of liquid in the tube.

For using the instrument a wooden table is prepared, with a moveable part, on which the instrument is placed, and on which it can very readily be exposed perpendicularly to the rays of the Sun; and where a screen can momentarily be placed so as to cut off all the rays of the Sun from the chamber of the instrument, and can be quickly withdrawn, so as fully to expose the cylindrical chamber to the Sun's radiation.

The method of observation is as follows :

The liquid being adjusted to zero of the scale by the screw, will mount into the stem, as soon as exposed to the Sun. It is allowed to do so for a minute or two, taking care, by the use of the screw, that it does not mount into the ball. When all is ready for observation, the liquid is drawn down to the zero of the scale, slowly and steadily, the thermometer is read for the temperature of the liquid, at the beginning of a minute the scale is read, and at the end of a minute it is read again: the screen is placed before the instrument: at the following 30<sup>s</sup> the scale is read for the first shade-observation, and at one minute afterwards is again read for the second shade-observation; the instrument is then exposed to the Sun at the beginning of the next minute, and read as before: and so on successively.

A delicate blackened bulb thermometer for solar radiation has also been frequently read during each series of experiments, for collection of comparative observation of the two instruments.

It is found by experiment that the fluid is driven up the tube 100 divisions by one-tenth of a turn of the screw. One inch in length of the screw including 16 threads, the distance between two contiguous threads is therefore 0·0625 inch.

A fine piece of silk was carefully passed round the bottom of 18 threads; its length was found to be 25·2 inches. Therefore the circumference of the screw at the bottom of the thread was 1·4 inch and its diameter 0·445 inch nearly. The depth of the thread is fully 0·05 inch.

These measures will give the means of converting the observed readings of the liquid in the slender tube into actual expressions of the proportion to the general store of liquid in the cylindrical chamber.

#### § 24. *Electrical Apparatus.*

The electrical apparatus consists of two parts, namely, the Moveable Apparatus, which is connected with a pole nearly 80 feet high planted 7 feet North and 2 feet East of the north-east angle of the north arm of the Magnetic Observatory (as extended 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 the lower part of 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 now covered with gutta percha 0·1 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 projecting 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 metallic 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 1866 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 Ronalds' 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 separated by an interval of half a line.

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 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  $40^{\circ}$ .

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 adjustable 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.

§ 25. *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 fifty years, is found by comparison with a table of results deduced by Mr. Glaisher from fifty years' observations, made at the Royal Observatory, ending 1863.

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<sup>h</sup> (10<sup>h</sup> A.M.) and the difference between consecutive readings is entered opposite to the civil day on which the first reading is taken.

The register of rain ends generally at 9<sup>h</sup> P.M.; the amounts recorded at 10<sup>h</sup> A.M. and at 9<sup>h</sup> P.M. being added together to form the rain fall for the day. This applies to 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 <i>galvanic currents</i>	s	denotes <i>strong</i>
m	... <i>moderate</i>	sp	... <i>sparks</i>
N	... <i>negative</i>	v	... <i>variable</i>
P	... <i>positive</i>	w	... <i>weak</i>

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 <i>aurora borealis</i>	r	denotes <i>rain</i>
ci	... <i>cirrus</i>	th-r	... <i>thin rain</i>
ci-cu	... <i>cirro-cumulus</i>	oc-r	... <i>occasional rain</i>
ci-s	... <i>cirro-stratus</i>	fr-r	... <i>frozen rain</i>
cu	... <i>cumulus</i>	h-r	... <i>heavy rain</i>
cu-s	... <i>cumulo-stratus</i>	shs-r	... <i>showers of rain</i>
d	... <i>dew</i>	c-r	... <i>continued rain</i>
h-d	... <i>heavy dew</i>	c-h-r	... <i>continued heavy rain</i>
f	... <i>fog</i>	m-r	... <i>misty rain</i>
sl-f	... <i>slight fog</i>	fr-m-r	... <i>frequent misty rain</i>
th-f	... <i>thick fog</i>	sl-r	... <i>slight rain</i>
fr	... <i>frost</i>	h-shs	... <i>heavy showers</i>
glm	... <i>gloom</i>	fr-shs	... <i>frequent showers</i>
gt-glm.	... <i>great gloom</i>	fr-h-shs	... <i>frequent heavy showers</i>
h-fr	... <i>hoar frost</i>	li-shs	... <i>light showers</i>
h	... <i>haze</i>	oc-shs	... <i>occasional showers</i>
hl	... <i>hail</i>	oc-h-shs	... <i>occasional heavy showers</i>
so-ha	... <i>solar halo</i>	sq	... <i>squall</i>
l	... <i>lightning</i>	sqs	... <i>squalls</i>
li-cl	... <i>light clouds</i>	fr-sqs	... <i>frequent squalls</i>
lu-co	... <i>lunar corona</i>	h-sqs	... <i>heavy squalls</i>
lu-ha	... <i>lunar halo</i>	fr-h-sqs	... <i>frequent heavy squalls</i>
m	... <i>meteor</i>	sc	... <i>scud</i>
ms	... <i>meteors</i>	li-sc	... <i>light scud</i>
n	... <i>nimbus</i>	sl	... <i>sleet</i>

METEOROLOGICAL NOTATION ;  
LUMINOUS METEORS.

*lvii*

<p>sn denotes <i>snow</i></p> <p>oc-sn ... <i>occasional snow</i></p> <p>sl-sn ... <i>slight snow</i></p> <p>s ... <i>stratus</i></p> <p>t ... <i>thunder</i></p> <p>t-s ... <i>thunder storm</i></p>		<p>th-cl denotes <i>thin clouds</i></p> <p>v ... <i>variable</i></p> <p>vv ... <i>very variable</i></p> <p>w ... <i>wind</i></p> <p>st-w ... <i>strong wind</i></p>
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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-five Years' Observations; those relating to Humidity have been calculated from the Fourth Edition of Glaisher's Hygrometrical Tables.

The observations with the Actinometer are sufficiently explained in the description of the instrument in § 23.

§ 26. *Observations of Luminous Meteors.*

In arranging for the observations of meteors, the directions circulated by the Committee of the British Association have received the most careful attention. The observers have been educated in the knowledge of the principal stars by observations of the stars themselves, and by means of globes and maps. The general instruction to all observers has been, to look out for meteors on every clear night; but the observer specially appointed for the evening's duties has been more particularly charged with this observation.

On the nights specially mentioned in the directions of the British Association Committee, greater attention was given to the sky, and the observations of meteors were made more systematically. The principal nights are, January 2 and 10; February 6; March 1; April 19; May 18; June 6 and 20; July 17, 20, and 29; August 3, August 7-13; September 10; October 1 and 23; November 9-14, November 19, 28, and 30; December 8-14, especially December 11. A more extended list of days has been published by the British Association Committee.

Special arrangements were made in the August period for observing till the morning; and in the November period for observing through the night, one or two observers being on duty till midnight, and then all the observers till daybreak. The observers were so stationed as to command different views of the sky, to secure observation of all the meteors which might present themselves, and to guard against the observation of the same meteor by different observers. The tracks of nearly 300 meteors were recorded, and nearly 9000 meteors were counted on the morning of 1866, November 14; of these, nearly 5000 were counted between the hours of 1 and 2.

The observers in the year 1866 were Mr. Nash, Mr. Harding, Mr. Trapaud, Mr. Jones, Mr. Wright, Mr. Farncomb, and Mr. Stevenson. Their observations are distinguished by the initials N., H., T., J., W., F., and S., respectively.

§ 27. *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  $\frac{5}{8}$  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-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. Since the magnetic basement has been used for photography, 15 grains of Acetic Acid have always been added to the solution.

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 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 occasionally added, is spread over the paper by means of a glass rod, and this action is continued until the trace is fully developed. The solutions are kept in the magnetic basement, and are always used at the temperature of that room. 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 cotton 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.

Before taking a Secondary, the Primary is examined to ascertain whether the tint of the photographic curve is sufficiently dark. If it is not, the Primary is laid, face downwards, upon a desk of transparent plate-glass, below which is a large silvered plane mirror, so placed that the light from the sky is reflected upwards through the transparent glass and through the Primary; and the photographic curve is seen from the upper side or back with perfect distinctness. An assistant then darkens the back of the photographic curve by the application of sepia; the original photograph being untouched.

The paper used for the Secondaries 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 of the chloride 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-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.

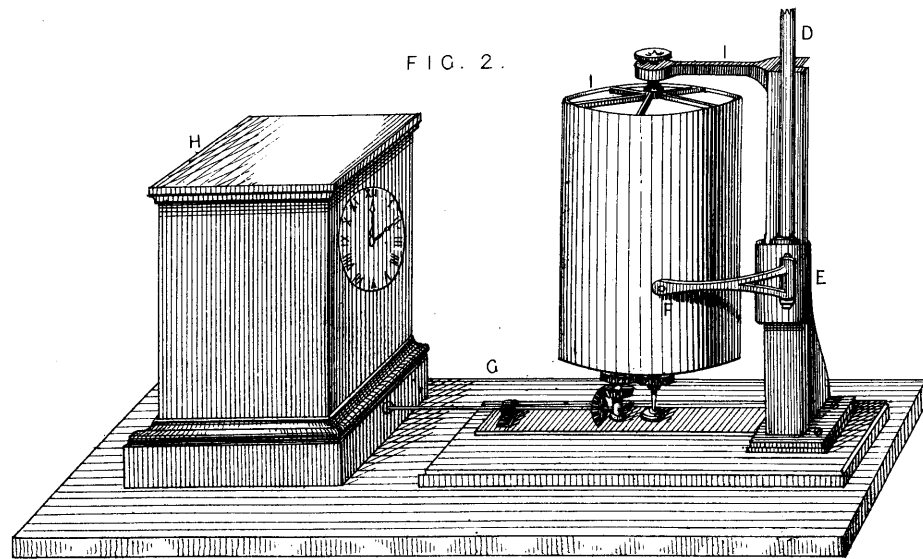
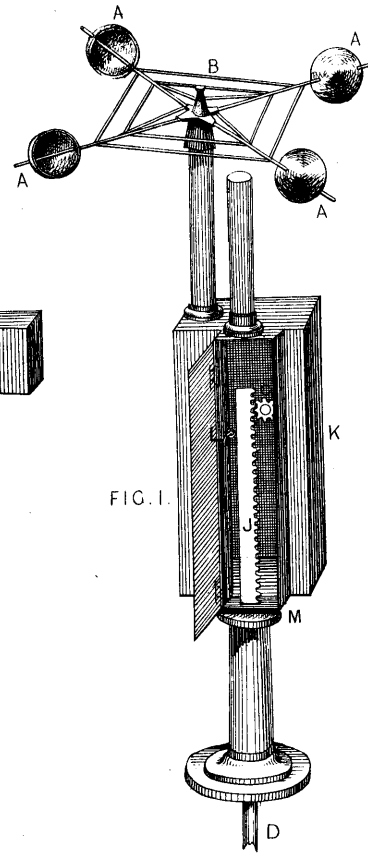
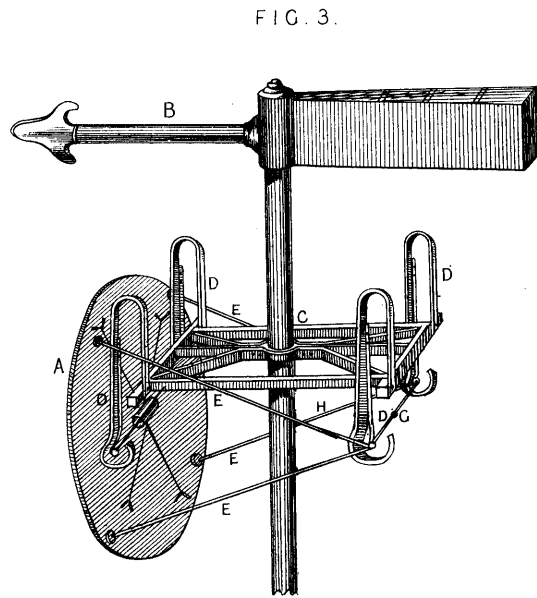
*§ 28. Personal Establishment.*

The personal establishment during the year 1866 has consisted of James Glaisher, Esq., F.R.S., Superintendent of the Magnetical and Meteorological Department, and Mr. William Carpenter Nash, Assistant.

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









ROYAL OBSERVATORY, GREENWICH

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R E S U L T S

OF

M A G N E T I C A L O B S E R V A T I O N S .

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1866.

1. The first part of the document is a list of names and titles.

2. The second part of the document is a list of names and titles.

3. The third part of the document is a list of names and titles.

ROYAL OBSERVATORY, GREENWICH.

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INDICATIONS

OF

MAGNETOMETERS.

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1866.

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Jan. 1 0. 0	20. 33. 10	Jan. 1 0. 50	(†)	Jan. 1 0. 0	0.3652	Jan. 1 1. 0	58. 9	59. 2	Jan. 2 1. 55	20. 37. 40	Jan. 2 1. 26	1378	Jan. 2 4. 10	0.3557	Jan. 2 9. 0	59. 8	60. 0
0. 15	33. 30	0. 50		0. 45	0.3658	3. 0	58. 9	59. 2	3. 6	35. 30	2. 0	1369	6. 56	0.3554	21. 0	60. 4	61. 0
0. 27	33. 50	1. 12		2. 11	0.3683	9. 0	58. 8	59. 0	3. 19	35. 50	3. 20	1371	7. 53	0.3570	22. 0	60. 1	61. 0
0. 42	34. 50	1. 41		6. 34	0.3677	21. 0	58. 7	58. 6	3. 45	34. 55	3. 56	1367	7. 57	0.3566	23. 0	60. 1	61. 0
1. 12	34. 30	1. 49		7. 18	0.3684				4. 6	33. 25	4. 11	1368	8. 12	0.3584			
1. 24	33. 55	2. 5		7. 54	0.3680				4. 11	33. 55	4. 13	1367	8. 18	0.3580			
1. 42	33. 55	4. 42		8. 25	0.3686				4. 24	33. 30	4. 29	1369	8. 44	0.3637			
2. 5	33. 55	4. 57		10. 41	0.3677				4. 36	34. 25	4. 53	1367	9. 5	0.3644			
4. 25	31. 50	6. 20		11. 4	0.3662				5. 11	34. 15	5. 19	1371	10. 29	0.3598			
4. 57	32. 20	6. 44		12. 19	0.3657				5. 28	35. 45	5. 31	1368	11. 22	0.3543			
5. 53	31. 25	7. 27		15. 24	0.3677				5. 43	34. 20	6. 23	1372	11. 32	0.3567			
6. 9	32. 15	7. 55		21. 11	0.3657				5. 53	34. 30	6. 34	1368	11. 53	0.3525			
6. 29	31. 40	8. 33			0.3504				6. 8	33. 50	6. 42	1384	12. 43	0.3540			
6. 53	29. 40	8. 44		23. 59	0.3512				6. 31	35. 25	6. 49	1381	12. 56	0.3523			
7. 25	31. 40	9. 12							6. 38	35. 10	7. 0	1386	13. 12	0.3550			
7. 30	31. 10	9. 25							6. 40	29. 15	7. 11	1377	13. 41	0.3547			
7. 41	31. 30	9. 36							6. 50	32. 5	7. 22	1369	14. 3	0.3505			
7. 55	29. 30	10. 10							6. 57	28. 10	7. 41	1369	16. 11	0.3597			
8. 8	29. 0	10. 28							7. 9	31. 15	7. 53	1372	22. 13	0.3620			
8. 18	29. 25	11. 0							7. 15	30. 30	7. 56	1376	23. 59	0.3644			
8. 29	30. 55	11. 39							7. 23	30. 50	8. 11	1362					
9. 25	30. 50	11. 41							7. 40	33. 30	8. 21	1346					
9. 39	30. 15	12. 22							7. 42	33. 30	8. 28	1350					
9. 57	30. 35	13. 6							7. 50	35. 20	8. 42	1352					
10. 25	30. 25	13. 25							8. 6	33. 55	8. 50	1346					
10. 36	31. 10	13. 42							8. 15	34. 50	9. 3	1362					
10. 47	25. 0	13. 57							8. 25	29. 0	9. 27	1356					
11. 6	23. 20	14. 45							8. 33	27. 0	9. 41	1362					
11. 18	22. 30	15. 27							8. 40	28. 30	10. 12	1348					
11. 35	24. 0	15. 42							8. 50	26. 30	10. 21	1350					
11. 56	21. 10	16. 2							9. 4	25. 10	10. 26	1349					
12. 25	26. 20	16. 30							9. 16	29. 20	10. 36	1352					
12. 44	27. 40	16. 41							9. 23	29. 30	10. 44	1345					
13. 15	28. 5	17. 6							9. 27	30. 0	10. 57	1342					
13. 40	30. 25	17. 35							9. 34	27. 30	11. 10	1346					
14. 0	30. 45	18. 10							9. 41	27. 50	11. 25	1334					
14. 30	29. 15	20. 22							9. 51	26. 30	11. 44	1364					
14. 56	29. 30	21. 7							9. 57	27. 5	12. 0	1341					
15. 10	30. 45	21. 26							10. 19	24. 20	12. 11	1344					
16. 5	31. 35	22. 9							10. 27	26. 30	12. 28	1334					
16. 23	33. 30	23. 59							10. 38	25. 0	12. 50	1321					
16. 47	31. 40								10. 51	21. 40	13. 6	1314					
16. 55	32. 0								10. 58	21. 40	13. 12	1317					
17. 24	31. 0								11. 16	14. 0	13. 23	1312					
18. 42	31. 35								11. 28	11. 20	13. 56	1342					
18. 55	31. 0								11. 42	14. 35	14. 24	1343					
20. 31	30. 25								11. 48	13. 55	14. 49	1348					
21. 5	30. 25								11. 59	16. 20	15. 11	1348					
21. 12	32. 40								12. 39	21. 20	15. 22	1353					
21. 55	32. 10								12. 59	14. 50	15. 27	1348					
23. 2	32. 40								13. 16	25. 50	15. 39	1354					
23. 39	34. 25								13. 28	29. 15	15. 45	1351					
23. 43	34. 20								13. 31	29. 35	16. 57	1358					
23. 59	34. 35								13. 41	35. 20	17. 5	1352					
									13. 56	30. 20	17. 11	1358					
Jan. 2 0. 0	20. 34. 35	Jan. 2 0. 0	1370	Jan. 2 0. 0	0.3512	Jan. 2 1. 0	59. 3	59. 5	14. 9	29. 5	17. 18	1354					
0. 59	35. 15	0. 20	1372	0. 55	0.3517	3. 0	59. 6	60. 0	14. 23	30. 40	17. 49	1364					
									14. 33	30. 50	19. 6	1360					

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.





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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.						
Jan. 4 0. 0 1. 26 3. 0 9. 39 11. 39 18. 57 20. 46 22. 9 23. 59	20. 35. 10 36. 0 34. 0 32. 30 32. 40 32. 50 31. 0 *** 32. 25 34. 15	Jan. 4 0. 0 1. 23 3. 48 10. 11 13. 11 17. 37 18. 40 21. 26 23. 59	.1363 .1368 .1371 .1364 .1366 .1374 .1376 .1369 .1373	Jan. 4 0. 0 2. 42 12. 11 23. 45	.03543 .03577 .03560 .03538 (†)	Jan. 4 0. 0 1. 0 3. 0 9. 0 21. 0	59. 1 59. 4 59. 4 59. 8 59. 8	59. 3 59. 4 59. 6 60. 0 60. 0	Jan. 6 3. 45 3. 59 4. 13 4. 25 4. 30 4. 41 4. 56 5. 9 5. 28 5. 41 5. 55 6. 11 6. 23 6. 27 6. 43 6. 55 7. 9 7. 19 7. 43 7. 57 8. 27 8. 32 8. 58 9. 40 9. 52 10. 9 10. 19 10. 27 10. 39 10. 53 11. 9 11. 19 11. 26 11. 58 12. 12 12. 29 12. 49 13. 1 13. 23 13. 38 13. 44 14. 25 14. 38 14. 46 15. 15 15. 26 16. 25 16. 36 16. 53 17. 38 17. 54 18. 12 18. 50 19. 55 20. 13 20. 43 21. 58 22. 24	20. 34. 55 34. 25 35. 10 34. 25 35. 25 33. 55 31. 40 30. 10 32. 40 32. 55 31. 35 32. 25 34. 5 33. 25 33. 35 32. 50 33. 30 33. 0 33. 50 32. 50 32. 40 29. 40 29. 50 31. 30 30. 20 30. 20 30. 40 29. 50 30. 40 30. 0 29. 40 33. 10 32. 40 34. 25 32. 50 31. 0 31. 20 33. 0 32. 45 35. 50 35. 40 34. 30 34. 30 33. 45 33. 35 32. 40 33. 15 32. 30 32. 40 32. 30 32. 50 32. 5 31. 5 31. 5 33. 25 33. 10	Jan. 6 0. 0 1. 26 3. 0 9. 39 11. 39 18. 57 20. 46 22. 9 23. 59	23. 59	.03540	Jan. 6 0. 0 1. 26 3. 0 9. 39 11. 39 18. 57 20. 46 22. 9 23. 59	0. 0 0. 58 6. 25 8. 30 18. 25 22. 7 22. 25 23. 59	.03556 .03580 .03580 .03580 .03536 .03520 .03527 .03532	Jan. 6 0. 0 1. 0 3. 0 9. 0 21. 30	59. 5 59. 3 59. 8 59. 8	60. 0 60. 0 60. 5 60. 0	Jan. 6 0. 10 0. 40 1. 43 1. 53 1. 58 2. 23 2. 30 3. 26	.1365 .1371 .1374 .1379 .1376 .1384 .1374 .1382 .1373 .1372	Jan. 6 0. 0 5. 15 5. 43 6. 11 9. 29 11. 36 12. 11 12. 50 20. 0 21. 45	.03532 .03582 .03577 .03595 .03564 .03524 .03532 .03520 .03555 .03539

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Jan. 6 22. 37 22. 48 23. 45 23. 59	20. 34. 40 34. 35 36. 25 35. 0																
Jan. 7 0. 0 0. 26 0. 53 1. 9 1. 31 2. 8 2. 23 2. 53 3. 28 4. 9 4. 28 5. 11 5. 21 5. 28 5. 38 5. 50 5. 57 6. 16 6. 36 6. 54 7. 13 7. 26 7. 36 7. 58 8. 13 8. 26 8. 37 8. 56 9. 12 9. 22 9. 26 9. 36 9. 54 10. 41 10. 54 11. 2 11. 24 11. 38 11. 52 12. 0 12. 22 12. 28 12. 54 13. 39 14. 8 14. 32 14. 53 15. 8 15. 16 15. 35 16. 7 16. 36	20. 35. 0 35. 0 36. 30 35. 30 35. 45 35. 10 35. 45 34. 30 34. 50 32. 30 33. 45 34. 45 35. 35 34. 50 34. 50 33. 40 31. 40 30. 15 33. 50 35. 20 34. 15 34. 15 34. 50 33. 30 34. 5 32. 30 32. 15 33. 30 31. 40 31. 10 31. 35 31. 0 32. 55 31. 0 31. 5 33. 45 30. 20 31. 0 30. 10 27. 30 29. 30 29. 30 31. 45 33. 25 31. 45 31. 55 30. 45 32. 35 32. 55 36. 10 32. 50 30. 40	Jan. 7 0. 0 0. 18 0. 45 0. 56 1. 19 1. 57 2. 13 3. 29 3. 44 4. 0 4. 14 5. 33 5. 55 6. 26 6. 49 7. 24 7. 46 7. 59 8. 27 8. 46 9. 12 9. 28 9. 41 9. 53 10. 12 10. 38 10. 55 11. 9 11. 19 11. 26 11. 41 11. 54 12. 4 12. 25 12. 35 12. 54 13. 24 14. 42 15. 10 16. 9 16. 57 17. 55 18. 0 18. 19 18. 41 19. 6 19. 55 20. 18 21. 10 21. 41 22. 59	Jan. 7 0. 0 5. 53 6. 41 7. 40 8. 57 11. 43 15. 35 16. 11 18. 36 20. 4 20. 40 22. 18 23. 59	Jan. 7 0. 0 9. 0 21. 0	59. 8 60. 2 61. 6	60. 3 61. 0 62. 4	Jan. 7 16. 51 16. 57 17. 18 17. 27 17. 46 17. 54 18. 1 18. 23 18. 56 19. 16 19. 25 19. 57 20. 8 20. 21 20. 32 20. 52 20. 58 21. 24 21. 40 21. 51 22. 10 22. 17 22. 33 23. 9 23. 25 23. 43 23. 54 23. 59	20. 31. 30 31. 20 32. 20 32. 10 32. 25 33. 0 32. 0 31. 50 33. 20 33. 20 32. 55 34. 30 35. 55 33. 20 32. 50 32. 50 32. 35 33. 10 35. 10 34. 25 35. 15 34. 45 36. 55 35. 5 34. 50 36. 5 36. 0 36. 40	Jan. 7 23. 59	1364							
Jan. 8 0. 0 0. 3 1. 0 1. 9 1. 23 1. 40 1. 56 2. 26 3. 3 3. 23 4. 5 4. 19 4. 25 4. 35 4. 54 5. 8 5. 25 5. 29 5. 41 5. 53 5. 57 6. 20 6. 31 6. 41 6. 55 7. 1 7. 15	20. 36. 40 36. 10 38. 15 37. 10 37. 10 39. 40 39. 40 36. 25 35. 30 36. 20 36. 10 37. 5 37. 0 38. 20 38. 10 36. 45 33. 10 33. 10 31. 55 33. 40 33. 0 35. 30 34. 35 35. 10 34. 0 33. 45 34. 10	Jan. 8 0. 0 0. 42 1. 9 1. 41 1. 59 2. 26 2. 59 4. 4 4. 41 4. 44 5. 12 5. 36 5. 53 6. 22 6. 41 6. 49 7. 5 7. 14 7. 28 7. 41 7. 47 7. 58 8. 14 8. 27 8. 43 8. 52	Jan. 8 0. 0 0. 55 5. 12 5. 41 7. 40 8. 54 10. 57 11. 26 12. 11 12. 17 12. 27 13. 5 13. 43 14. 27 14. 44 14. 56 15. 27 16. 58 19. 56 22. 11 23. 59	Jan. 8 0. 0 3. 0 9. 0 21. 0	60. 9 60. 2 59. 5 57. 8	61. 2 60. 2 59. 0 57. 0	Jan. 8 0. 0 0. 42 1. 9 1. 41 1. 59 2. 26 2. 59 4. 4 4. 41 4. 44 5. 12 5. 36 5. 53 6. 22 6. 41 6. 49 7. 5 7. 14 7. 28 7. 41 7. 47 7. 58 8. 14 8. 27 8. 43 8. 52	1364 1366 1359 1362 1358 1364 1372 1374 1366 1366 1358 1358 1364 1368 1366 1369 1367 1369 1364 1368 1364 1367 1364 1356 1368 1348 1354	1364 1366 1359 1362 1358 1364 1372 1374 1366 1366 1358 1358 1364 1368 1366 1369 1367 1369 1364 1368 1364 1367 1364 1356 1368 1348 1354	Jan. 8 0. 0 0. 55 5. 12 5. 41 7. 40 8. 54 10. 57 11. 26 12. 11 12. 17 12. 27 13. 5 13. 43 14. 27 14. 44 14. 56 15. 27 16. 58 19. 56 22. 11 23. 59	0. 0 0. 55 5. 12 5. 41 7. 40 8. 54 10. 57 11. 26 12. 11 12. 17 12. 27 13. 5 13. 43 14. 27 14. 44 14. 56 15. 27 16. 58 19. 56 22. 11 23. 59	0. 0 0. 55 5. 12 5. 41 7. 40 8. 54 10. 57 11. 26 12. 11 12. 17 12. 27 13. 5 13. 43 14. 27 14. 44 14. 56 15. 27 16. 58 19. 56 22. 11 23. 59	1. 0 3. 0 9. 0 21. 0	60. 9 60. 2 59. 5 57. 8	61. 2 60. 2 59. 0 57. 0		

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Jan. 8		Jan. 8							Jan. 8								
7. 53	20. 32. 55	9. 5	*1369	" "		" "			22. 41	20. 36. 40	" "		" "		" "		
8. 0	33. 25	9. 11	*1360							***							
8. 17	31. 55	9. 18	*1366						25. 0	38. 40							
8. 24	31. 55	9. 29	*1360							***							
8. 39	28. 0	9. 52	*1368						23. 36	38. 30							
8. 55	17. 30	10. 11	*1354						23. 40	37. 30							
8. 59	17. 40	10. 26	*1362						23. 45	38. 25							
9. 1	16. 20	10. 42	*1356						23. 50	36. 40							
9. 14	25. 25	10. 53	*1361						23. 59	37. 55							
9. 28	26. 30	11. 11	*1356														
9. 36	25. 50	11. 27	*1358						Jan. 9		Jan. 9		Jan. 9		Jan. 9		
9. 53	31. 25	11. 43	*1369						0. 0	20. 37. 55	0. 0	*1357	0. 0	*03478	1. 0	59. 1	59. 3
10. 8	29. 20	11. 56	*1366						0. 20	38. 30	0. 12	*1362	1. 3	*03484	3. 0	59. 6	59. 4
10. 31	27. 40	12. 6	*1368						0. 30	40. 30	0. 29	*1364	2. 52	*03546	9. 0	59. 3	59. 0
10. 56	26. 35	12. 18	*1360						0. 45	40. 40	1. 21	*1355	4. 53	*03536	21. 0	59. 6	59. 5
11. 14	30. 20	12. 25	*1372						0. 57	41. 20	1. 36	*1359	5. 10	*03555	22. 0	59. 3	59. 3
11. 31	30. 55	12. 41	*1362						1. 9	40. 30	1. 56	*1348	5. 42	*03537	23. 0	59. 6	59. 4
11. 59	21. 0	12. 55	*1353						1. 41	41. 30	2. 13	*1358	7. 27	*03523			
12. 8	21. 0	13. 13	*1371						1. 46	40. 5	2. 19	*1356	7. 56	*03547			
12. 12	23. 50	13. 30	*1382						1. 55	41. 10	2. 36	*1363	8. 5	*03536			
12. 23	21. 20	14. 18	*1374						2. 26	34. 30	2. 57	*1354	8. 11	*03542			
12. 50	29. 35	14. 41	*1362						3. 5	39. 50	3. 14	*1347	8. 26	*03526			
13. 9	31. 45	15. 9	*1336						3. 19	36. 40	3. 30	*1355	9. 25	*03516			
13. 24	30. 0	16. 12	*1364						3. 38	36. 35	3. 57	*1352	10. 41	*03526			
13. 37	24. 10	16. 45	*1374						4. 3	33. 20	4. 20	*1367	11. 5	*03517			
13. 53	25. 40	17. 11	*1364						4. 9	31. 20	4. 41	*1362	11. 56	*03520			
13. 57	24. 10	17. 28	*1359						4. 26	33. 30	4. 55	*1345	13. 12	*03500			
14. 25	25. 0	17. 55	*1356						4. 41	34. 10	5. 13	*1368	13. 41	*03506			
14. 33	21. 50	18. 15	*1360						4. 47	32. 45	5. 26	*1364	14. 19	*03480			
14. 38	22. 0	18. 42	*1355						4. 54	32. 35	5. 59	*1361	16. 3	*03502			
15. 10	33. 15	19. 12	*1363						5. 0	26. 5	6. 14	*1366	22. 42	*03515			
15. 21	33. 35	19. 27	*1358						5. 5	26. 5	7. 10	*1354	23. 11	*03523			
15. 32	32. 20	19. 52	*1361						5. 11	30. 0	7. 35	*1336	23. 59	*03517			
15. 55	37. 30	20. 8	*1360						5. 30	33. 45	7. 54	*1352					
16. 8	36. 25	20. 55	*1366						6. 25	33. 40	8. 6	*1356					
16. 21	34. 50	21. 24	*1358						6. 57	34. 50	8. 19	*1386					
17. 12	35. 50	22. 26	*1358						7. 25	33. 30	8. 34	*1363					
17. 37	32. 30	23. 28	*1344						7. 29	30. 0	8. 53	*1359					
17. 46	31. 40	23. 54	*1348						7. 39	22. 30	9. 3	*1365					
	***	23. 59	*1357						7. 58	29. 40	9. 26	*1352					
18. 25	36. 40								8. 9	21. 30	9. 53	*1357					
18. 32	36. 35								8. 21	29. 55	10. 11	*1352					
18. 40	34. 30								8. 39	30. 20	10. 14	*1354					
18. 43	35. 10								9. 9	29. 45	10. 28	*1349					
	***								9. 14	30. 20	11. 0	*1359					
19. 9	33. 30								9. 23	29. 45	11. 14	*1356					
19. 15	34. 15								9. 34	29. 30	11. 56	*1354					
19. 38	32. 40								9. 51	30. 35	12. 20	*1358					
19. 51	32. 35								10. 9	31. 0	12. 41	*1366					
20. 1	31. 25								10. 21	30. 40	12. 55	*1372					
20. 24	32. 35								10. 39	31. 50	13. 11	*1362					
20. 31	32. 35								10. 59	29. 30	13. 34	*1357					
20. 56	34. 35								11. 14	29. 30	14. 5	*1376					
21. 6	34. 0								11. 53	32. 50	14. 25	*1368					
21. 26	33. 50								12. 9	30. 0	14. 42	*1362					
22. 1	35. 10								12. 20	30. 35	15. 12	*1356					
22. 10	34. 35								12. 32	30. 35	15. 26	*1358					
22. 30	37. 25								12. 43	32. 50	15. 55	*1356					

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Jan. 9		Jan. 9															
12. 58	20. 32. 0	16. 12	.1360						Jan. 10	20. 34. 35	9. 22	.1358					
13. 10	31. 40	16. 20	.1356						5. 20	31. 45	9. 42	.1384					
13. 59	34. 0	16. 29	.1359						5. 34	28. 30	10. 17	.1372					
14. 19	30. 55		***						5. 43	26. 50	10. 41	.1359					
14. 30	30. 35	19. 22	.1364						6. 8	28. 5	10. 55	.1364					
14. 45	32. 50	20. 15	.1358						6. 25	31. 40	11. 24	.1356					
14. 56	32. 30	21. 45	.1362						6. 39	***	11. 45	.1360					
15. 7	31. 40	22. 42	.1356						6. 55	31. 35	12. 29	.1364					
15. 22	32. 0	23. 8	.1351						7. 16	34. 30	12. 59	.1360					
15. 36	31. 45	23. 59	.1354						7. 35	33. 50	13. 13	.1364					
16. 0	34. 50								7. 40	33. 5	13. 24	.1360					
16. 9	33. 0								7. 55	33. 40	13. 40	.1362					
16. 23	33. 40								8. 6	33. 20	13. 55	.1359					
16. 45	32. 55								8. 16	32. 15	14. 11	.1354					
17. 15	33. 30								8. 25	32. 40	14. 21	.1356					
17. 29	32. 30								8. 39	31. 10	14. 39	.1354					
	***								8. 57	30. 50	15. 0	.1358					
17. 47	32. 30								9. 6	30. 10	15. 27	.1349					
	***								9. 10	30. 35	15. 58	.1364					
18. 15	31. 35								9. 25	19. 15	16. 13	.1366					
	***								9. 50	27. 5	16. 27	.1363					
18. 53	32. 20								10. 6	29. 45	16. 41	.1366					
19. 4	31. 30								10. 18	29. 30	16. 51	.1364					
19. 50	33. 50								10. 24	29. 50	17. 41	.1369					
20. 43	31. 55								10. 32	29. 10	17. 57	.1370					
21. 38	34. 25								11. 6	29. 25	18. 11	.1367					
21. 50	35. 55								11. 10	30. 5	18. 44	.1367					
21. 57	35. 30								11. 26	30. 15	19. 0	.1372					
22. 9	36. 50								11. 41	31. 35	19. 24	.1366					
22. 26	37. 15								11. 57	29. 55	19. 52	.1368					
22. 56	35. 50								12. 16	31. c	20. 11	.1366					
23. 6	37. 5								12. 42	30. 10	20. 51	.1344					
23. 14	36. 15									(†)	21. 11	.1346					
23. 28	36. 40								13. 26	32. 20	21. 20	.1352					
23. 39	38. 0								13. 41	30. 15	22. 11	.1359					
23. 55	37. 0								14. 3	33. 45	22. 18	.1364					
23. 59	37. 0								14. 26	31. 45	22. 41	.1359					
									14. 38	32. 20	23. 9	.1364					
Jan. 10		Jan. 10				Jan. 10			14. 42	32. 15	23. 39	.1359					
0. 0	20. 37. 0	0. 0	.1354	0. 0	.03517	0. 0	59. 860. 0		15. 10	43. 50	23. 52	.1362					
0. 13	36. 45	0. 40	.1360	2. 54	.03556	1. 0	59. 860. 0		15. 26	37. 30	23. 59	.1360					
1. 1	36. 50	1. 27	.1366	6. 26	.03543	2. 0	59. 860. 5		15. 43	33. 10							
1. 36	37. 10	2. 14	.1363	8. 45	.03517	3. 0	59. 961. 0		15. 58	32. 15							
2. 11	35. 30	2. 23	.1368	9. 10	.03520	9. 0	58. 358. 1		16. 2	32. 40							
2. 14	36. 15	3. 9	.1367	9. 24	.03502	21. 0	58. 158. 4			***							
2. 20	35. 15	3. 26	.1364	9. 42	.03512	22. 0	58. 058. 0		16. 21	31. 45							
2. 25	36. 40	3. 45	.1360	10. 25	.03484	23. 0	58. 057. 9		16. 56	32. 50							
2. 39	36. 25	4. 41	.1368	11. 40	.03502				17. 23	31. 50							
3. 6	37. 40	5. 22	.1354	13. 19	.03498				17. 27	30. 55							
3. 27	36. 30	5. 41	.1359	13. 40	.03492				17. 42	31. 40							
3. 39	37. 0	5. 55	.1366	14. 6	.03496				17. 54	32. 50							
3. 56	35. 30	6. 10	.1363	14. 41	.03483				18. 6	32. 10							
4. 8	35. 20	6. 14	.1367	14. 54	.03487					***							
4. 12	36. 20	6. 45	.1364	15. 25	.03461				18. 26	33. 40							
4. 21	34. 55	7. 6	.1359	17. 8	.03480					***							
4. 36	34. 50	8. 19	.1368	23. 59	.03436				19. 8	32. 25							
4. 50	36. 30	8. 42	.1358						19. 24	32. 50							
5. 13	36. 40	9. 12	.1362						19. 38	32. 30							

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Jan. 10																	
19. 56	20. 32. 50									Jan. 11							
20. 29	35. 50									9. 1	20. 32. 0	13. 9					
20. 35	35. 35									9. 12	31. 35	13. 28					
20. 40	36. 15									9. 26	34. 25	13. 57					
20. 53	35. 0									9. 36	30. 5	14. 12					
21. 2	35. 0									9. 56	28. 20	14. 25					
21. 16	33. 30									10. 10	31. 15	14. 41					
21. 30	33. 5									10. 17	29. 40	14. 50					
21. 36	33. 40									10. 26	29. 20	15. 12					
21. 43	32. 40									10. 39	31. 30	15. 20					
21. 56	34. 30									10. 43	32. 10	15. 53					
22. 13	36. 10									11. 6	31. 30	17. 8					
22. 23	34. 30									11. 13	32. 55	17. 26					
22. 31	33. 20									11. 23	32. 25	17. 41					
22. 56	36. 50									11. 32	32. 15	17. 55					
23. 12	34. 20									11. 54	24. 0	18. 20					
23. 25	36. 20									11. 59	24. 0	18. 39					
23. 27	34. 45									12. 12	22. 55	19. 14					
23. 41	37. 40									12. 23	25. 40	19. 25					
23. 44	36. 55									13. 9	32. 20	19. 40					
23. 59	37. 35									13. 23	32. 0	20. 39					
										13. 33	30. 0	20. 44					
										13. 55	32. 0	20. 55					
										14. 7	34. 5	21. 13					
										14. 33	29. 50	21. 45					
Jan. 11		Jan. 11		Jan. 11		Jan. 11				14. 43	31. 45	22. 22					
0. 0	20. 37. 35	0. 0	*1360	0. 0	*03436	0. 0	58. 9	59. 0		15. 7	33. 25	22. 57					
0. 9	36. 0	0. 44	*1358	2. 11	*03482	1. 0	58. 8	59. 5		15. 12	33. 5	23. 52					
0. 20	34. 50	1. 13	*1360	4. 11	*03528	2. 0	59. 1	59. 8		15. 38	33. 50	23. 59					
0. 35	35. 55	1. 27	*1366	5. 39	*03494	3. 0	59. 3	60. 1		15. 48	33. 30						
0. 53	36. 0	1. 56	*1366	6. 32	*03480	9. 0	57. 8	58. 0		16. 6	32. 30						
1. 25	39. 0	2. 29	*1368	7. 0	*03484	21. 0	60. 8	60. 9		16. 16	32. 50						
1. 54	36. 20	2. 53	*1366	7. 25	*03476					16. 27	32. 0						
2. 1	36. 20	3. 20	*1352	10. 58	*03484					17. 8	35. 55						
2. 9	35. 30	3. 40	*1356	11. 22	*03504					17. 26	33. 10						
2. 34	37. 55	3. 44	*1354	11. 45	*03497					17. 42	33. 20						
2. 56	37. 15	4. 13	*1366	12. 4	*03504					18. 14	31. 30						
3. 3	35. 30	4. 52	*1357	13. 27	*03511					19. 4	32. 20						
3. 9	35. 30	5. 15	*1362	13. 56	*03530					19. 10	32. 5						
3. 18	32. 45	5. 55	*1369	14. 24	*03517					19. 27	31. 45						
3. 26	31. 25	6. 41	*1356	14. 40	*03523					19. 38	31. 20						
3. 34	32. 0	7. 10	*1379	17. 30	*03515					20. 14	31. 35						
3. 50	29. 5	7. 21	*1364	22. 28	*03580						***						
3. 57	28. 55	7. 38	*1362	23. 59	*03560					20. 50	31. 50						
4. 9	31. 20	7. 56	*1364							20. 56	31. 5						
4. 42	34. 40	8. 13	*1356							21. 2	32. 25						
5. 1	33. 40	9. 12	*1346							21. 10	32. 25						
5. 12	34. 25	9. 24	*1348							21. 39	32. 45						
5. 41	32. 35	9. 40	*1340							21. 53	34. 0						
6. 9	35. 25	10. 6	*1350								***						
6. 24	35. 25	10. 13	*1358							22. 4	33. 30						
6. 32	33. 55	10. 27	*1354								***						
6. 47	26. 15	10. 56	*1358							22. 48	35. 30						
6. 54	26. 15	11. 15	*1345							22. 55	35. 10						
7. 12	30. 30	11. 44	*1355							23. 0	35. 30						
	***	11. 56	*1353							23. 9	36. 30						
7. 43	29. 20	12. 13	*1365							23. 14	35. 40						
8. 6	31. 55	12. 26	*1372							23. 26	36. 35						
8. 21	31. 10	12. 44	*1360								***						
8. 56	33. 20	12. 59	*1353														

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Jan. 11 23. 48 23. 59	20. 34. 55 35. 35																
Jan. 12 0. 0 0. 22 0. 29 0. 38 1. 0 1. 13 1. 27 1. 55 2. 8 2. 16 2. 39 3. 6 3. 43 3. 56 4. 37 4. 59 6. 12 6. 38 6. 56 7. 23 7. 37 7. 53 7. 56 8. 10 8. 26 8. 35 8. 57 9. 27 10. 2 10. 15 10. 26 10. 49 11. 26 11. 49 12. 26 12. 39 12. 56 13. 12 13. 30 13. 42 14. 9 14. 25 14. 42 14. 57 15. 9 15. 22 15. 53 16. 9 16. 35 16. 53 17. 26 17. 57 18. 6 18. 28	20. 35. 35 36. 20 37. 5 36. 30 38. 55 38. 45 39. 40 38. 30 38. 55 38. 55 35. 10 34. 10 33. 45 34. 15 33. 25 33. 45 33. 20 33. 40 34. 40 33. 40 34. 30 28. 15 29. 30 30. 10 31. 40 30. 30 30. 20 32. 30 32. 5 32. 50 32. 0 31. 50 32. 50 32. 25 32. 50 31. 55 34. 20 35. 35 34. 55 35. 40 32. 20 32. 10 33. 5 33. 35 32. 0 31. 25 34. 10 34. 25 33. 30 33. 40 31. 35 32. 45 32. 30 33. 40	Jan. 12 0. 0 0. 10 1. 0 1. 24 1. 34 1. 51 2. 13 3. 26 3. 55 4. 56 6. 9 6. 20 6. 41 6. 48 6. 55 7. 19 7. 26 7. 48 8. 9 8. 25 8. 40 9. 18 9. 42 10. 19 10. 55 11. 20 11. 58 12. 12 12. 39 12. 44 13. 19 13. 31 13. 52 14. 20 15. 4 15. 14 17. 35 18. 11 19. 21 19. 58 20. 25 20. 40 20. 54 22. 23 22. 54 23. 12 23. 59	Jan. 12 0. 0 3. 45 6. 30 7. 45 8. 11 11. 56 13. 42 14. 43 18. 56 21. 32 22. 56 23. 59	Jan. 12 1. 0 3. 0 9. 0 21. 0	59. 8 59. 2 58. 5 57. 8	59. 8 59. 0 59. 9 57. 3	Jan. 12 18. 43 19. 9 19. 43 20. 4 20. 18 20. 29 20. 45 21. 5 21. 10 21. 23 21. 47 22. 41 22. 56 23. 14 23. 39 23. 48 23. 59	20. 33. 50 32. 45 32. 30 31. 30 31. 20 31. 45 31. 15 32. 5 31. 30 32. 40 32. 30 33. 55 36. 5 36. 40 36. 25 37. 25	Jan. 13 0. 0 0. 12 0. 23 0. 28 0. 37 1. 22 1. 54 2. 10 3. 50 4. 4 4. 12 4. 54 5. 8 5. 14 5. 25 5. 38 5. 49 6. 23 6. 39 6. 56 7. 5 7. 22 7. 38 7. 53 8. 25 9. 9 9. 26 9. 50 10. 5 10. 23 10. 53 11. 23 11. 29 11. 39 11. 54 12. 3 12. 7 12. 25 12. 50	20. 37. 25 38. 15 37. 0 37. 0 36. 25 37. 45 35. 55 35. 50 32. 50 33. 10 33. 0 33. 30 34. 15 32. 35 30. 15 31. 10 33. 0 32. 10 33. 10 30. 55 31. 0 30. 20 30. 45 29. 30 31. 10 29. 55 30. 45 30. 10 30. 55 29. 35 29. 0 33. 35 33. 35 32. 15 33. 35 32. 50 32. 50 31. 20 34. 0	Jan. 13 0. 0 0. 40 0. 59 2. 9 2. 20 3. 30 3. 41 3. 45 4. 11 4. 20 4. 57 5. 11 5. 24 5. 30 5. 39 5. 54 6. 29 6. 43 7. 7 7. 44 8. 12 8. 30 8. 42 8. 57 9. 20 9. 43 10. 0 10. 54 11. 15 11. 40 11. 57 12. 25 12. 46 13. 6 13. 14 13. 41 13. 55 14. 12 14. 57	Jan. 13 0. 0 4. 15 7. 11 12. 13 14. 56 17. 13 22. 23 23. 59	Jan. 13 0. 0 3. 0 9. 0 22. 0	0. 3384 0. 3483 0. 3443 0. 3436 0. 3457 0. 3447 0. 3483 0. 3480	Jan. 13 1. 0 3. 0 9. 0 22. 0	58. 8 59. 8 58. 3 59. 5	58. 0 60. 0 58. 0 59. 7

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Jan. 13		Jan. 13							Jan. 14		Jan. 14						
12. 56	20. 33. 25	15. 55	*1379						10. 7	20. 32. 0	12. 14	*1361					
13. 14	34. 0	16. 41	*1377						10. 11	32. 40	12. 22	*1358					
13. 29	33. 40	17. 20	*1382						10. 26	30. 10	12. 29	*1360					
13. 42	34. 10	17. 55	*1379						10. 39	30. 25	12. 45	*1356					
13. 59	33. 0	19. 14	*1383						10. 54	29. 10	13. 11	*1368					
14. 38	33. 10	21. 56	*1372						11. 2	31. 0	13. 36	*1362					
14. 53	34. 25	23. 59	*1374						11. 13	32. 15	14. 12	*1361					
15. 6	33. 5								11. 23	31. 35	14. 26	*1369					
15. 38	33. 45								11. 35	34. 30	15. 3	*1365					
16. 8	32. 10								11. 47	32. 30	15. 24	*1368					
16. 16	32. 25								12. 4	34. 15	16. 16	*1368					
16. 41	34. 10								12. 13	32. 55	17. 44	*1373					
17. 2	33. 40								12. 34	32. 55	17. 55	*1370					
17. 13	32. 30								12. 51	30. 40	18. 11	*1375					
18. 35	31. 55								13. 17	33. 5	18. 19	*1374					
19. 28	31. 45								13. 42	30. 55	18. 30	*1376					
20. 10	31. 30								13. 56	32. 0	19. 5	*1375					
20. 34	31. 55								14. 9	31. 50	19. 15	*1372					
21. 12	32. 0								14. 18	32. 15	19. 26	*1373					
21. 36	32. 30								14. 33	31. 25	19. 50	*1367					
23. 9	34. 45								14. 56	32. 25	19. 57	*1365					
23. 16	35. 0								15. 19	34. 30	20. 10	*1367					
23. 59	36. 0								15. 32	33. 50	20. 42	*1366					
									15. 42	33. 50	20. 58	*1363					
									15. 57	33. 30	21. 25	*1365					
									16. 6	33. 50	23. 50	*1361					
									16. 11	32. 40	23. 59	*1362					
Jan. 14		Jan. 14		Jan. 14		Jan. 14			16. 46	33. 15							
0. 0	20. 36. 0	0. 0	*1374	0. 0	*03480	1. 0	60. 2	60. 1	17. 34	32. 35							
0. 15	38. 0	0. 41	*1377	1. 19	*03498	8. 0	59. 6	59. 0	17. 45	33. 0							
0. 27	37. 15	0. 54	*1374	7. 12	*03460	21. 0	57. 8	57. 5	17. 55	31. 50							
1. 34	38. 5	1. 24	*1375	7. 41	*03471				18. 8	31. 55							
1. 53	37. 30	1. 50	*1369	10. 53	*03454				18. 12	31. 0							
2. 2	38. 15	1. 57	*1370	11. 41	*03463				18. 28	31. 45							
2. 23	37. 25	2. 13	*1364	19. 52	*03399				18. 41	31. 5							
2. 35	36. 10	2. 36	*1363	22. 11	*03393				18. 53	31. 45							
2. 51	34. 50	3. 10	*1370	23. 59	*03407				18. 57	31. 25							
3. 53	34. 35	3. 56	*1374						19. 6	32. 20							
3. 56	34. 50	4. 33	*1372						19. 13	32. 20							
4. 5	34. 25	4. 50	*1374						19. 30	32. 50							
4. 34	35. 30	5. 42	*1371						19. 39	32. 10							
4. 54	34. 0	5. 57	*1372						19. 54	33. 40							
5. 6	34. 40	6. 21	*1368						19. 57	33. 15							
5. 29	34. 30	6. 54	*1369						20. 9	34. 50							
6. 0	33. 35	7. 12	*1358						20. 26	32. 55							
6. 23	34. 30	7. 42	*1369						20. 44	32. 15							
6. 58	34. 0	8. 5	*1372						21. 8	31. 10							
7. 23	28. 30	8. 15	*1369						21. 55	32. 20							
7. 38	31. 30	8. 26	*1370						22. 14	32. 30							
7. 54	32. 40	8. 30	*1369						22. 23	32. 0							
8. 26	30. 55	9. 56	*1364							***							
8. 34	29. 45	10. 11	*1367						22. 44	32. 35							
8. 40	30. 15	10. 24	*1361						22. 54	34. 5							
8. 53	30. 20	10. 41	*1364						23. 24	34. 20							
9. 9	32. 30	10. 57	*1359						23. 54	34. 0							
9. 22	31. 45	11. 9	*1362						23. 59	34. 35							
9. 26	32. 0	11. 23	*1350														
9. 44	30. 40	11. 41	*1357														
9. 53	30. 40	11. 53	*1360														
10. 0	30. 10	11. 57	*1358														

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Jan. 15		Jan. 15		Jan. 15		Jan. 15			Jan. 15		Jan. 15				Jan. 15		
0. 0	20. 34. 35	0. 0	.1362	0. 0	.03407	1. 0	60. 2	61. 0	20. 41	20. 32. 30							
0. 30	35. 40	0. 24	.1366	1. 58	.03483	3. 0	59. 9	60. 0	20. 58	31. 35							
1. 27	35. 20	0. 40	.1365	6. 0	.03466	9. 0	59. 0	57. 9	21. 24	31. 50							
2. 33	35. 45	1. 11	.1369	7. 22	.03462	21. 0	58. 9	59. 2		***							
2. 44	34. 30	2. 40	.1367	9. 14	.03432				22. 19	31. 50							
2. 54	34. 20	3. 9	.1371	9. 41	.03412				22. 53	33. 40							
3. 15	35. 0	3. 55	.1373	9. 54	.03420				23. 23	34. 5							
3. 52	34. 0	4. 15	.1372	10. 11	.03402				23. 59	35. 30							
4. 12	34. 40	4. 27	.1374	10. 37	.03416												
4. 28	34. 25	5. 14	.1369	23. 59	.03407				Jan. 16		Jan. 16		Jan. 16		Jan. 16		
5. 28	35. 0	5. 41	.1370						0. 0	20. 35. 30	0. 0	.1370	0. 0	.03407	1. 0	59. 5	59. 8
5. 34	34. 40	6. 9	.1364						0. 33	38. 10	0. 35	.1374	9. 11	.03487	3. 0	59. 8	60. 4
	***	6. 44	.1357							***	0. 55	.1373	13. 27	.03488	9. 0	59. 8	59. 4
5. 56	35. 35	7. 20	.1359						0. 47	38. 0	1. 11	.1366	23. 59	.03454	21. 0	59. 8	60. 0
6. 6	35. 0	7. 27	.1362						0. 59	38. 30	1. 29	.1370			22. 0	59. 8	59. 0
6. 12	34. 50	7. 41	.1360						1. 12	36. 5	1. 57	.1374			23. 0	59. 1	58. 3
6. 21	35. 40	7. 46	.1368						1. 26	36. 15	2. 24	.1370					
6. 29	34. 25	8. 8	.1366						1. 39	37. 35	2. 57	.1374					
6. 58	32. 40	8. 15	.1377						1. 44	37. 30	3. 12	.1372					
7. 13	33. 0	8. 56	.1359						2. 8	38. 15	3. 20	.1374					
7. 25	32. 50	9. 21	.1383						2. 23	36. 5	3. 27	.1372					
7. 42	28. 50	9. 25	.1377						2. 32	35. 30	3. 46	.1375					
7. 58	30. 55	9. 42	.1365						3. 6	36. 10	4. 36	.1368					
8. 10	28. 0	10. 0	.1378						3. 53	34. 50	5. 14	.1374					
8. 21	30. 30	10. 19	.1358						4. 10	35. 15	5. 42	.1368					
8. 27	30. 40	10. 41	.1365						4. 35	34. 15	6. 25	.1372					
8. 39	32. 10	11. 5	.1354						4. 44	33. 35	7. 32	.1368					
8. 51	31. 10	12. 11	.1368						5. 1	33. 30	12. 28	.1367					
9. 3	25. 25	12. 56	.1363						5. 33	35. 30	13. 10	.1365					
9. 16	26. 0	13. 14	.1366						5. 39	34. 50	13. 57	.1368					
9. 20	27. 50	13. 25	.1364						6. 6	34. 0	14. 56	.1365					
9. 28	27. 35	13. 42	.1367						6. 39	34. 15	16. 42	.1368					
9. 39	25. 10	14. 20	.1365						7. 1	33. 30	18. 41	.1366					
9. 53	27. 50	15. 44	.1364						7. 18	33. 55	20. 24	.1372					
9. 58	27. 10	16. 6	.1369						7. 57	32. 45	21. 40	.1367					
10. 9	23. 30	16. 25	.1372						8. 53	31. 55	21. 55	.1369					
10. 17	22. 30	16. 44	.1369						8. 59	32. 30	22. 44	.1366					
10. 36	26. 30	18. 36	.1378						9. 25	32. 0	22. 54	.1367					
10. 47	26. 20	19. 14	.1372						9. 39	32. 30	23. 16	.1361					
11. 11	25. 30	19. 52	.1369						10. 26	32. 15	23. 41	.1364					
11. 41	27. 30	20. 20	.1364						13. 4	33. 15	23. 59	.1356					
12. 11	28. 0	21. 12	.1362						13. 23	34. 40							
13. 11	29. 45	21. 43	.1366						14. 14	32. 55							
13. 42	31. 35	22. 19	.1364						14. 42	33. 25							
14. 15	29. 15	23. 59	.1370						14. 58	32. 0							
14. 38	30. 5								15. 13	32. 30							
15. 8	30. 45								15. 37	31. 55							
15. 26	32. 5								15. 51	32. 30							
15. 41	34. 0								16. 4	32. 10							
15. 53	32. 55								16. 12	32. 40							
15. 58	32. 55								16. 23	32. 10							
16. 4	33. 15								16. 45	33. 30							
16. 25	31. 55								17. 10	32. 30							
16. 43	29. 40								17. 25	33. 10							
17. 46	32. 10								18. 12	32. 0							
18. 39	32. 30								18. 33	32. 30							
19. 11	31. 25								19. 17	32. 30							
20. 30	32. 0								19. 39	31. 40							

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.
Jan. 16									Jan. 17								
21. 39	20. 32. 5								16. 8	20. 34. 30							
21. 55	33. 50								16. 25	36. 15							
22. 9	34. 5								16. 53	33. 50							
22. 41	33. 0								17. 10	31. 20							
22. 53	34. 0								17. 23	31. 45							
23. 10	34. 40								17. 28	31. 25							
23. 24	34. 40								17. 48	32. 50							
23. 29	34. 0								17. 55	31. 45							
	***								18. 32	33. 20							
23. 59	36. 45								18. 40	32. 15							
									18. 44	32. 15							
									18. 57	31. 40							
Jan. 17		Jan. 17		Jan. 17		Jan. 17			19. 13	32. 5							
0. 0	20. 36. 45	0. 0	*1356	0. 0	*03454	0. 0	59. 8	59. 0	19. 59	31. 25							
0. 7	36. 30	0. 29	*1354	2. 43	*03476	1. 0	59. 8	59. 0	20. 17	31. 35							
0. 13	37. 15	1. 11	*1371	7. 23	*03478	2. 0	59. 8	59. 0	20. 25	31. 25							
0. 32	35. 40	1. 38	*1377	7. 58	*03484	3. 0	59. 8	59. 0	20. 44	32. 10							
0. 42	35. 25	1. 56	*1372	10. 41	*03497	9. 0	59. 8	60. 0	21. 46	34. 5							
1. 3	36. 35	2. 20	*1375	11. 55	*03513	21. 0	61. 4	62. 0	22. 0	33. 15							
1. 10	36. 30	3. 44	*1372	12. 13	*03506	22. 0	61. 1	62. 0	22. 27	33. 30							
1. 44	37. 45	5. 56	*1373	14. 40	*03510	23. 0	60. 6	61. 5	22. 54	34. 45							
2. 12	36. 0	7. 12	*1369	15. 24	*03504				23. 16	35. 0							
2. 43	35. 40	7. 36	*1361	16. 11	*03523				23. 32	36. 0							
3. 12	33. 20	8. 3	*1363	16. 56	*03518				23. 47	35. 55							
3. 21	32. 55	8. 14	*1362	18. 26	*03537				23. 59	36. 40							
3. 29	33. 30	8. 40	*1364	21. 22	*03543												
3. 54	33. 10	9. 57	*1368	22. 44	*03557												
6. 34	34. 15	10. 14	*1365	23. 59	*03540				Jan. 18		Jan. 18		Jan. 18		Jan. 18		
7. 14	32. 55	10. 26	*1367						0. 0	20. 36. 40	0. 0	*1366	0. 0	*03540	0. 0	60. 6	61. 0
7. 32	30. 30	11. 5	*1369						0. 11	36. 40	0. 33	*1372	1. 19	*03531	1. 0	60. 6	61. 0
7. 41	30. 20	11. 26	*1362						0. 46	37. 55	0. 54	*1370	10. 5	*03517	2. 30	60. 1	60. 0
7. 47	31. 0	11. 57	*1377						0. 59	37. 5	7. 26	*1369	16. 41	*03538	3. 0	60. 1	59. 9
7. 54	31. 0	12. 23	*1368						1. 33	36. 15	8. 12	*1366	23. 59	*03540	9. 0	60. 1	60. 0
8. 13	32. 20	12. 44	*1364						1. 40	36. 50	8. 40	*1363			21. 0	60. 9	60. 7
8. 42	32. 50	13. 14	*1367						2. 25	35. 20	8. 56	*1367					
8. 58	31. 25	13. 26	*1365						2. 38	35. 20	9. 29	*1363					
9. 4	32. 10	14. 51	*1368						3. 23	34. 10	10. 25	*1365					
9. 16	32. 30	15. 12	*1377						3. 43	34. 20	10. 57	*1364					
9. 34	31. 20	15. 26	*1366						4. 4	33. 55	11. 26	*1365					
9. 49	32. 10	15. 53	*1359						4. 57	34. 5	12. 24	*1364					
10. 26	30. 20	16. 55	*1368						5. 14	33. 50	13. 3	*1366					
10. 39	30. 35	17. 29	*1366						5. 57	33. 45	13. 42	*1361					
10. 50	30. 25	18. 49	*1367						6. 9	33. 5	19. 15	*1367					
11. 10	30. 40	20. 58	*1369						6. 38	33. 20	23. 59	*1361					
11. 22	27. 0	21. 40	*1367						7. 33	32. 40							
12. 17	30. 50	22. 10	*1363						8. 23	32. 45							
12. 30	30. 0	23. 59	*1366						8. 41	31. 30							
12. 39	30. 40								9. 10	32. 5							
12. 42	30. 30								9. 19	31. 30							
12. 48	32. 20								9. 33	31. 20							
12. 55	32. 10								11. 0	32. 10							
13. 9	30. 55								12. 44	30. 55							
13. 22	31. 20								12. 53	31. 20							
13. 54	30. 5								13. 6	30. 50							
14. 10	30. 45								13. 12	31. 0							
14. 27	29. 30								13. 21	30. 35							
14. 42	31. 25								13. 27	31. 40							
15. 29	28. 30								13. 35	31. 30							
15. 56	31. 0								13. 41	30. 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.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Jan. 18									Jan. 19								
13. 49	20. 30. 45								15. 23	20. 31. 25							
14. 0	30. 5								15. 47	32. 15							
14. 29	31. 15								16. 39	32. 0							
14. 37	31. 0								17. 4	32. 45							
14. 57	32. 0								17. 26	32. 15							
15. 9	31. 10								17. 47	32. 50							
15. 28	32. 5								18. 13	32. 30							
15. 42	32. 15								18. 31	32. 55							
16. 26	31. 15									***							
16. 56	32. 0								20. 24	31. 30							
17. 26	32. 40								21. 56	32. 0							
17. 58	31. 55								22. 9	33. 10							
18. 14	32. 20								22. 34	32. 30							
19. 18	32. 0								23. 30	34. 35							
20. 40	31. 15								23. 49	34. 50							
21. 51	31. 25								23. 59	35. 55							
22. 12	32. 10																
22. 30	32. 0								Jan. 20		Jan. 20		Jan. 20		Jan. 20		
23. 0	33. 30								0. 0	20. 35. 55	0. 0	.1366	0. 0	.03443	1. 0	59.8	59.0
23. 12	33. 20								0. 30	36. 50	0. 30	.1371	1. 11	.03440	3. 0	59.8	59.2
23. 35	34. 30								1. 8	35. 30	1. 29	.1378	4. 25	.03460	9. 0	59.8	60.0
23. 59	34. 30								1. 42	35. 50	4. 26	.1376	8. 54	.03458	22. 0	59.6	59.0
Jan. 19		Jan. 19		Jan. 19		Jan. 19			2. 23	34. 50	5. 7	.1378	9. 57	.03477			
0. 0	20. 34. 30	0. 0	.1361	0. 0	.03540	1. 0	61.6	61.0	3. 29	33. 55	6. 9	.1375	10. 45	.03475			
1. 40	36. 50	0. 36	.1359	3. 35	.03546	3. 0	61.0	60.4	4. 15	34. 10	7. 23	.1378	12. 5	.03497			
1. 54	36. 20	1. 30	.1364	7. 55	.03522	9. 0	60.6	60.1	4. 56	33. 55	7. 41	.1376	12. 11	.03482			
2. 23	34. 40	2. 15	.1363	10. 22	.03528	21. 0	59.8	59.0	5. 12	34. 25	7. 56	.1382	12. 14	.03487			
2. 57	34. 0	3. 28	.1368	20. 22	.03456				7. 58	32. 40	8. 36	.1374	13. 11	.03400			
3. 8	33. 25	5. 54	.1367	23. 59	.03443				8. 15	33. 15	8. 45	.1376	13. 23	.03417			
3. 20	33. 0	6. 25	.1371						8. 28	32. 30	8. 53	.1372	13. 44	.03409			
3. 34	33. 30	7. 27	.1364						8. 53	32. 10	9. 0	.1369	14. 0	.03437			
6. 7	33. 0	7. 44	.1366						9. 0	31. 30	9. 40	.1367	14. 19	.03442			
7. 23	32. 50	8. 24	.1352						9. 9	32. 40	9. 55	.1362	14. 35	.03426			
7. 43	30. 50	8. 39	.1354						9. 26	33. 20	10. 25	.1372	14. 54	.03425			
8. 9	33. 35	9. 0	.1348						10. 3	31. 0	11. 0	.1370	15. 41	.03460			
8. 25	31. 30	9. 25	.1352						10. 23	31. 10	11. 16	.1373	15. 54	.03456			
	***	10. 9	.1353						11. 8	30. 20	11. 45	.1372	17. 43	.03476			
8. 57	31. 30	10. 19	.1357						11. 33	32. 30	11. 56	.1366	17. 53	.03460			
9. 21	30. 10	10. 44	.1354						12. 26	24. 45	12. 4	.1372	18. 5	.03472			
9. 33	31. 0	11. 14	.1364						12. 39	27. 30	12. 11	.1368		***			
9. 47	30. 45	11. 52	.1353						12. 42	25. 50	12. 20	.1389	19. 11	.03444			
10. 0	30. 30	13. 43	.1364						12. 50	26. 40	12. 25	.1383	19. 16	.03457			
10. 23	30. 40	14. 8	.1362						12. 56	22. 10	12. 34	.1394	20. 15	.03440			
10. 34	29. 30	15. 58	.1363						13. 15	19. 0	12. 46	.1380	21. 11	.03460			
10. 43	29. 10	16. 20	.1365						13. 36	22. 25	12. 57	.1364	21. 59	.03440			
10. 54	29. 40	19. 25	.1371						13. 48	23. 50	13. 12	.1355	22. 56	.03448			
11. 9	31. 30	21. 54	.1363						13. 56	23. 30	13. 15	.1359	23. 59	.03468			
11. 26	30. 40	23. 59	.1366						14. 13	28. 5	13. 20	.1356					
11. 42	28. 50								14. 21	28. 25	13. 39	.1366					
12. 34	30. 15								14. 27	32. 25	13. 54	.1354					
12. 51	31. 10								14. 32	25. 25	14. 5	.1333					
12. 56	30. 50								14. 57	20. 10	14. 14	.1350					
13. 9	31. 20								15. 43	33. 20	14. 16	.1348					
13. 55	30. 40								15. 52	33. 30	14. 30	.1363					
14. 14	31. 40								15. 57	31. 55	14. 41	.1346					
14. 29	30. 40								16. 3	32. 0	14. 55	.1354					
15. 11	31. 45								16. 11	31. 20	15. 10	.1349					
									16. 16	32. 30	15. 19	.1356					

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Jan. 20		Jan. 20							Jan. 21		Jan. 21						
16. 34	20. 33. 35	15. 29	*1353						4. 39	20. 33. 55	5. 44	*1356	10. 41	*03466			
16. 55	31. 50	15. 55	*1361						5. 6	22. 30	5. 55	*1360	11. 4	*03387			
17. 4	32. 40	16. 9	*1350						5. 14	22. 0	6. 12	*1356	11. 15	*03390			
17. 11	31. 35	16. 14	*1359						5. 28	19. 15	6. 26	*1359	11. 38	*03403			
17. 24	32. 20	16. 23	*1355						5. 49	22. 30	6. 44	*1366	12. 26	*03423			
17. 33	32. 20	16. 42	*1357						6. 12	29. 0	7. 8	*1365	23. 59	*03418			
17. 43	33. 50	16. 45	*1354						6. 23	31. 45	7. 25	*1361					
17. 46	30. 15	17. 12	*1364						6. 28	31. 25	7. 41	*1362					
17. 56	30. 30	17. 15	*1360						6. 37	32. 30	8. 11	*1356					
18. 1	32. 50	17. 30	*1366						6. 53	32. 55	8. 21	*1363					
18. 6	31. 55		***						7. 26	30. 45	8. 52	*1368					
18. 11	30. 50	17. 43	*1364						7. 43	30. 55	9. 18	*1363					
	***	17. 56	*1372						8. 5	26. 0	9. 41	*1373					
18. 29	35. 0	18. 0	*1359						8. 27	31. 0	10. 35	*1344					
18. 37	35. 0	18. 12	*1370						8. 41	31. 35	10. 42	*1387					
18. 42	32. 55	18. 14	*1364						8. 56	30. 45	10. 49	*1396					
18. 52	35. 30	18. 32	*1379						9. 5	30. 55	11. 5	*1363					
18. 59	36. 20		***						9. 24	20. 45	11. 21	*1356					
19. 8	35. 10	19. 13	*1365						9. 49	25. 50	11. 40	*1367					
19. 24	39. 40	19. 25	*1371						9. 56	25. 50	11. 57	*1364					
19. 40	38. 20	19. 42	*1362						10. 11	27. 20	12. 11	*1358					
	***	19. 45	*1367						10. 15	26. 50	13. 35	*1364					
19. 57	38. 30	19. 50	*1363						10. 43	40. 0	14. 53	*1363					
20. 6	40. 20	19. 55	*1367						11. 2	33. 50	16. 39	*1370					
20. 22	40. 55	19. 59	*1359						11. 17	25. 20	16. 56	*1368					
20. 33	43. 40	20. 1	*1361						11. 52	29. 20	17. 21	*1373					
20. 37	42. 30	20. 12	*1344						11. 58	29. 20	17. 44	*1369					
20. 41	43. 30	20. 15	*1346						12. 24	32. 20	18. 25	*1376					
20. 52	41. 10	20. 24	*1340						13. 5	33. 0	19. 0	*1372					
21. 11	42. 45	20. 30	*1351						13. 11	32. 45	19. 19	*1374					
21. 39	41. 55	20. 38	*1341						14. 28	33. 30	20. 21	*1367					
21. 43	40. 0	20. 44	*1346						14. 58	32. 45	23. 41	*1359					
21. 57	39. 30	20. 50	*1339						15. 21	32. 55	23. 59	*1362					
22. 21	40. 30	20. 55	*1343						15. 53	32. 40							
22. 39	38. 40	20. 59	*1341						16. 11	32. 45							
22. 51	39. 0	21. 14	*1358						16. 29	34. 30							
23. 9	41. 0	21. 18	*1356						16. 43	34. 30							
23. 14	40. 40	21. 36	*1364						16. 59	33. 30							
23. 23	39. 30	21. 48	*1359						17. 25	33. 20							
23. 32	39. 15	22. 23	*1353						17. 38	33. 5							
23. 39	38. 20	22. 44	*1356						17. 51	34. 0							
23. 42	38. 30	23. 26	*1355						18. 24	33. 0							
23. 51	37. 5	23. 59	*1360						18. 56	33. 20							
23. 59	36. 55								19. 30	32. 25							
									19. 44	33. 0							
Jan. 21		Jan. 21		Jan. 21		Jan. 21			20. 11	31. 50							
0. 0	20. 36. 55	0. 0	*1360	0. 0	*03468	1. 0	59. 8	59. 0	20. 36	32. 20							
	***	0. 13	*1363	0. 26	*03462	9. 0	59. 8	59. 0	21. 2	32. 35							
0. 23	38. 5	0. 30	*1360	3. 10	*03466	21. 0	59. 6	59. 0	22. 58	35. 20							
0. 27	38. 5	0. 44	*1362	3. 57	*03482				23. 59	35. 55							
0. 33	37. 0	1. 15	*1359	4. 28	*03467												
0. 44	37. 50	2. 40	*1366	5. 12	*03506				Jan. 22		Jan. 22		Jan. 22		Jan. 22		
1. 59	36. 30	3. 23	*1364	6. 11	*03511				0. 0	20. 35. 55	0. 0	*1362	0. 0	*03418	1. 0	59. 8	60. 4
2. 23	35. 40	3. 49	*1368	7. 13	*03482				0. 15	35. 55	0. 43	*1364	2. 56	*03444	3. 0	59. 8	59. 8
2. 59	35. 20	4. 0	*1364	8. 9	*03477				0. 44	37. 30	2. 9	*1367	5. 36	*03440	9. 0	59. 8	60. 0
3. 10	34. 50	4. 10	*1365	8. 26	*03482				1. 28	37. 10	2. 59	*1365	8. 37	*03442	21. 0	58. 3	58. 0
3. 52	35. 20	4. 45	*1330	9. 28	*03447				2. 3	35. 50	3. 20	*1358	21. 5	*03372			
4. 17	37. 0	5. 25	*1351	10. 30	*03444				2. 32	35. 30	3. 52	*1367	21. 54	*03358			

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Jan. 22 3. 3	20. 34. 20	Jan. 22 4. 14	*1366	Jan. 22 23. 59	*03354				Jan. 23 16. 28	20. 32. 45							
3. 8	32. 50	4. 39	*1370						17. 30	33. 0							
3. 17	32. 40	4. 58	*1371						17. 40	32. 30							
3. 38	31. 0	5. 11	*1373						17. 54	33. 0							
4. 2	32. 20	5. 49	*1370						20. 32	32. 30							
4. 17	32. 10	9. 24	*1368						21. 8	32. 40							
4. 46	34. 25	9. 42	*1369						23. 59	36. 30							
7. 42	33. 20	11. 27	*1366														
7. 57	33. 50	13. 2	*1365														
9. 50	32. 50	13. 56	*1366						Jan. 24 0. 0	20. 36. 30	0. 0	*1370	Jan. 24 0. 0	*03240	Jan. 24 0. 0	56. 9	56. 1
10. 38	32. 50	14. 15	*1369						0. 9	36. 10	1. 15	*1372	2. 19	*03232	1. 0	56. 6	56. 0
10. 44	32. 25	14. 41	*1366						0. 39	37. 20	1. 53	*1378	9. 37	*03370	2. 0	56. 9	56. 1
13. 59	33. 55	17. 56	*1369						1. 11	37. 0	2. 44	*1375	13. 32	*03319	3. 0	57. 3	56. 5
14. 16	32. 55	18. 20	*1372						1. 28	36. 25	3. 2	*1379	23. 59	*03298	9. 0	59. 8	60. 5
14. 39	33. 50	18. 40	*1369						1. 56	36. 55	3. 25	*1377			21. 0	57. 1	56. 7
14. 58	32. 40	20. 44	*1369						3. 7	35. 0	4. 15	*1376			22. 0	57. 8	57. 4
15. 36	33. 30	23. 11	*1364						4. 30	34. 5	6. 29	*1375			23. 0	58. 2	58. 3
15. 43	32. 40	23. 59	*1365							***	7. 25	*1374					
15. 56	32. 10								5. 23	34. 0	7. 55	*1370					
16. 19	32. 45								8. 3	33. 30	9. 57	*1372					
20. 58	32. 10								8. 17	33. 0	12. 55	*1370					
22. 38	34. 40								11. 27	32. 20	13. 16	*1372					
23. 59	36. 20								12. 55	33. 5	13. 41	*1370					
									13. 7	33. 15	15. 29	*1369					
Jan. 23 0. 0	20. 36. 20	Jan. 23 0. 0	*1365	Jan. 23 0. 0	*03354	Jan. 23 1. 0	58. 3	58. 9	13. 23	32. 30	16. 27	*1375					
2. 37	35. 10	0. 36	*1371	7. 10	*03377	3. 0	58. 3	58. 8	14. 2	32. 55	18. 12	*1377					
3. 8	34. 40	1. 12	*1372	8. 11	*03387	9. 0	58. 3	58. 0	14. 56	32. 50	18. 39	*1376					
3. 26	33. 45	1. 20	*1369	18. 57	*03297	21. 0	56. 8	56. 0	15. 30	34. 0	19. 12	*1380					
4. 24	34. 30	5. 18	*1373	23. 59	*03240	22. 0	56. 9	56. 1	16. 10	33. 40	19. 55	*1376					
4. 38	34. 5	5. 35	*1376			23. 0	56. 9	56. 1	16. 26	32. 55	20. 15	*1379					
4. 51	34. 30	5. 45	*1374						16. 56	33. 0	21. 12	*1373					
5. 38	34. 30	6. 26	*1372						17. 46	32. 25	21. 30	*1368					
5. 57	34. 0	6. 48	*1368						18. 14	32. 30	23. 4	*1360					
6. 25	34. 30	7. 6	*1360						18. 40	32. 30	23. 42	*1361					
6. 43	33. 50	7. 19	*1363						18. 48	32. 40	23. 59	*1364					
7. 2	30. 10	7. 49	*1370						19. 10	32. 5							
7. 8	30. 20	8. 41	*1366						19. 35	32. 45							
7. 23	25. 35	9. 0	*1367						19. 55	32. 30							
7. 27	25. 20	9. 13	*1363						21. 25	32. 5							
7. 37	26. 0	9. 32	*1365						22. 43	35. 10							
8. 3	31. 45	9. 44	*1370						23. 59	36. 45							
8. 12	30. 10	9. 56	*1372														
8. 33	29. 25	10. 12	*1369						Jan. 25 0. 0	20. 36. 45	0. 0	*1364	Jan. 25 0. 0	*03298	Jan. 25 0. 0	58. 2	58. 0
8. 55	29. 30	10. 24	*1372						1. 29	39. 25	0. 10	*1368	1. 59	*03330	1. 0	58. 2	57. 9
9. 13	31. 25	10. 49	*1370						1. 38	38. 40	0. 55	*1374	5. 57	*03306	2. 0	58. 4	58. 9
9. 23	30. 55	11. 11	*1373						2. 11	38. 0	1. 29	*1369	8. 28	*03324	3. 0	58. 2	58. 6
9. 37	31. 30	13. 22	*1370						2. 18	37. 5	1. 42	*1373	9. 2	*03340	9. 0	58. 0	58. 4
9. 42	31. 0	13. 40	*1372						2. 33	36. 20	1. 57	*1370	14. 6	*03308	21. 0	57. 8	57. 2
10. 46	32. 40	15. 55	*1373						3. 50	34. 50	2. 48	*1376	20. 24	*03297			
11. 6	32. 25	17. 9	*1372						4. 27	34. 50	4. 54	*1378	22. 23	*03283			
11. 23	32. 50	18. 41	*1376						4. 55	34. 10	5. 41	*1373	23. 59	*03306			
11. 46	32. 30	23. 59	*1370						5. 15	34. 35	5. 53	*1381					
12. 56	33. 10								5. 41	34. 0	6. 0	*1376					
15. 29	33. 10								5. 47	32. 5	6. 22	*1378					
15. 33	33. 50								6. 3	32. 5	6. 27	*1374					
15. 41	32. 20								6. 26	32. 50	6. 41	*1379					
16. 4	33. 0								6. 30	34. 10	7. 25	*1372					

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Jan. 25		Jan. 25							Jan. 26		Jan. 26						
6.30	20. 33. 25	7.56	*1370						4.39	20. 35. 5	5.26	*1377	23. 59	*03428			
7.55	33. 30	8.34	*1358						4.56	35. 35	5.42	*1374					
7.58	32. 55	8.45	*1364						5.12	34. 30	6.56	*1378					
8. 6	33. 15	8.57	*1367						5.22	35. 0	7.51	*1375					
8.38	29. 55	9.15	*1360						5.28	34. 15	8.13	*1372					
8.57	31. 20	9.52	*1367						5.46	34. 40	8.26	*1367					
9.22	26. 40	10.13	*1372						5.58	34. 20	8.38	*1369					
9.43	30. 50	10.36	*1368						6. 6	34. 40	8.43	*1367					
9.58	31. 30	10.57	*1369						6.19	34. 5	9.11	*1364					
10.10	32. 35	11.15	*1367						6.40	34. 50	9.34	*1369					
10.27	31. 50	11.42	*1368						6.53	34. 25	9.56	*1366					
10.43	32. 5	12.36	*1365						7. 1	34. 40	10.19	*1372					
11.23	31. 35	12.56	*1372						7.44	34. 0	10.40	*1365					
11.43	32. 10	13.43	*1371						8.10	34. 10	10.53	*1360					
12.39	32. 30	14. 0	*1368						8.28	32. 15	11. 0	*1363					
12.48	32. 50	17. 4	*1369						9.11	22. 5	11.11	*1361					
13.21	32. 30	***	***						9.45	29. 25	11.30	*1364					
13.29	32. 0	20.40	*1373						10. 4	29. 50	11.49	*1367					
13.38	32. 20	21. 6	*1368						10.11	30. 35	12.10	*1360					
14. 6	31. 25	21.13	*1371						10.15	30. 10	12.43	*1362					
14.14	32. 5	21.43	*1364						10.28	30. 30	12.55	*1366					
14.32	32. 5	22.12	*1366						10.45	30. 30	13.18	*1360					
14.40	32. 40	23. 5	*1360						10.56	31. 10	13.36	*1356					
14.46	32. 0	23.59	*1363						11. 8	31. 10	13.59	*1367					
15.23	32. 30								11.16	30. 50	14.18	*1371					
16.36	32. 15								11.24	30. 50	14.45	*1363					
16.51	31. 35								11.51	29. 40	14.57	*1366					
17.11	31. 50								12. 9	30. 40	15.10	*1363					
17.30	31. 35								12.23	30. 10	15.23	*1365					
17.44	32. 5								12.32	29. 0	15.34	*1361					
18. 3	31. 15								12.43	28. 30	15.41	*1364					
18.16	32. 35								13.21	31. 10	16.12	*1361					
18.40	31. 45								13.30	29. 55	16.36	*1366					
	***								13.49	32. 0	17.18	*1362					
19.43	31. 40								14. 8	31. 30	18.41	*1366					
19.58	31. 10								14.21	33. 10	19.19	*1367					
20.54	31. 40								14.39	30. 40	20.25	*1363					
	***								14.42	31. 10	20.41	*1365					
21.38	32. 20								14.53	29. 40	21.14	*1360					
21.43	33. 25								15.11	29. 10	21.53	*1365					
21.51	33. 20								15.35	29. 50	22.13	*1358					
22. 9	34. 35								15.43	31. 40	22.47	*1363					
22.40	34. 55								15.58	31. 0	23.59	*1353					
	***								16.11	33. 10							
23.17	34. 40								16.27	32. 55							
23.30	35. 20								16.42	30. 40							
23.39	35. 10								17.14	31. 30							
23.59	36. 30								17.52	33. 10							
									18.20	32. 5							
Jan. 26		Jan. 26		Jan. 26		Jan. 26			18.55	32. 5							
0. 0	20. 36. 30	0. 0	*1363	0. 0	*03306	1. 0	58.8 58.5	20.33	31.30								
1.12	37.45	0.40	*1366	2. 6	*03327	3. 0	58.1 57.7	21. 8	32. 5								
1.23	37.15	1.11	*1372	4.45	*03306	9. 0	57.8 57.4	21.24	31.40								
	***	1.47	*1377	7.56	*03298	21. 0	60.6 62.5	21.34	32.30								
2.11	38.15	2.57	*1370	10.26	*03317			21.42	32.15								
2.27	36.45	3.14	*1375	13.45	*03383			21.56	33.40								
3. 1	35. 0	4.20	*1377	15. 6	*03394			22. 3	33.50								
3.22	34.30	4.56	*1374	21.17	*03477			22.11	33.10								

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Jan. 26																	
22. 34	20. 34. 0																
22. 56	36. 50																
23. 6	36. 10																
23. 30	37. 40																
23. 41	36. 20																
23. 59	37. 0																
Jan. 27		Jan. 27		Jan. 27		Jan. 27											
0. 0	20. 37. 0	0. 0	*1353	0. 0	*03428	1. 0	59. 3	59. 8									
0. 29	39. 20	0. 15	*1354	1. 22	*03408	3. 0	58. 8	59. 1									
0. 38	39. 45	0. 27	*1360	1. 46	*03416	9. 0	58. 3	59. 0									
1. 50	39. 5	0. 56	*1362	2. 48	*03405	22. 0	58. 2	57. 4									
0. 26	38. 10	1. 7	*1360	8. 51	*03394				Jan. 28	20. 37. 55	0. 0	*1369	0. 0	*03320	0. 0	58. 6	58. 0
1. 51	39. 0	2. 11	*1368	11. 44	*03363				0. 11	38. 20	0. 29	*1368	3. 52	*03371	8. 0	59. 2	59. 3
2. 11	38. 50	2. 26	*1366	13. 43	*03362				0. 36	37. 10	0. 55	*1369	10. 24	*03374	21. 0	60. 8	61. 0
3. 14	35. 45	4. 26	*1371	14. 22	*03340				0. 45	37. 30	1. 9	*1372	12. 34	*03408			
3. 38	34. 30	8. 35	*1372	14. 43	*03336				1. 10	37. 0	1. 12	*1376	13. 43	*03394			
3. 46	34. 30	8. 56	*1374	15. 9	*03341				1. 25	38. 55	1. 25	*1370	14. 41	*03402			
4. 11	33. 45	9. 20	*1370	15. 36	*03320				1. 40	37. 35	1. 45	*1371	18. 12	*03442			
4. 58	34. 10	9. 33	*1372	16. 22	*03326				1. 56	37. 0	2. 0	*1377	21. 6	*03446			
6. 15	33. 15	9. 43	*1369	16. 55	*03320					***	2. 12	*1374	23. 59	*03407			
7. 51	33. 0	10. 11	*1374	21. 14	*03335				2. 11	38. 20	3. 0	*1371					
8. 23	32. 25	10. 19	*1372	23. 45	*03313				3. 12	38. 15	3. 42	*1366					
8. 41	30. 0	10. 54	*1374	23. 59	*03320				3. 53	37. 50	4. 10	*1368					
9. 15	31. 25	11. 12	*1380						4. 9	36. 40	4. 24	*1364					
9. 26	32. 35	11. 55	*1364						4. 40	37. 10	4. 52	*1372					
9. 39	32. 5	12. 20	*1372						4. 55	35. 20	6. 26	*1372					
9. 54	32. 30	12. 41	*1368						5. 28	36. 5	6. 41	*1368					
10. 10	30. 40	13. 10	*1372						5. 46	35. 0	6. 55	*1370					
10. 23	30. 5	13. 40	*1371						6. 26	34. 40	7. 12	*1368					
10. 27	30. 15	13. 55	*1378						6. 40	35. 10	7. 25	*1370					
10. 53	28. 10	14. 28	*1374						6. 56	34. 0	7. 40	*1367					
11. 7	28. 55	14. 42	*1376						7. 25	34. 20	7. 56	*1375					
11. 48	29. 15	14. 53	*1374						7. 33	33. 40	8. 22	*1372					
12. 24	33. 40	15. 18	*1391						7. 53	30. 30	8. 30	*1375					
12. 34	32. 10	15. 40	*1377						8. 42	33. 20	8. 44	*1374					
12. 41	32. 25	16. 12	*1372						8. 53	34. 10	8. 56	*1368					
12. 55	33. 55	16. 24	*1375						9. 0	33. 0	9. 25	*1377					
13. 11	31. 0	16. 54	*1373						9. 12	30. 30	10. 4	*1376					
13. 26	31. 0	17. 10	*1368						9. 26	31. 30	10. 12	*1379					
13. 39	32. 40	17. 38	*1367						9. 43	28. 30	10. 25	*1368					
13. 51	31. 40	18. 18	*1372						9. 59	28. 30	10. 41	*1374					
14. 11	27. 0	19. 21	*1375						10. 12	30. 30	10. 57	*1369					
14. 20	26. 50		***						10. 26	29. 20	11. 10	*1365					
14. 33	23. 10	20. 12	*1372						10. 37	29. 40	11. 21	*1367					
15. 7	29. 10		***						10. 51	29. 35	11. 40	*1365					
15. 31	24. 30	20. 54	*1375						10. 54	30. 30	12. 27	*1370					
15. 43	24. 20	21. 12	*1371						11. 0	30. 10	12. 57	*1375					
15. 53	25. 20	22. 4	*1373						11. 23	31. 15	13. 16	*1382					
16. 0	25. 10	22. 44	*1366						11. 41	30. 20	13. 27	*1376					
16. 5	27. 30	23. 30	*1370						11. 58	31. 10	13. 42	*1381					
16. 14	28. 25	23. 49	*1366						12. 7	30. 55	14. 12	*1372					
16. 32	27. 30	23. 59	*1369						12. 14	32. 30	14. 26	*1367					
17. 26	31. 10								12. 26	34. 20	14. 46	*1364					
17. 37	33. 5								12. 35	34. 10	15. 40	*1367					
17. 49	33. 5								12. 55	31. 25	17. 25	*1366					
18. 9	31. 50								13. 7	32. 10	19. 29	*1373					
18. 21	32. 30								13. 26	31. 0	20. 30	*1366					

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Jan. 28		Jan. 28							Jan. 29								
13. 42	20. 31. 0	21. 44	*1367						17. 39	20. 31. 40							
14. 4	29. 25	22. 14	*1365						18. 19	32. 25							
14. 23	31. 15	23. 0	*1367						18. 28	31. 20							
14. 46	32. 40	23. 59	*1364						18. 36	32. 10							
15. 18	31. 50								20. 38	32. 0							
15. 27	30. 55								21. 23	33. 5							
16. 0	31. 35								21. 32	32. 35							
16. 23	30. 50								21. 51	32. 40							
16. 39	31. 45								22. 4	33. 55							
17. 24	31. 5								22. 26	34. 50							
17. 33	31. 45								22. 34	34. 25							
17. 52	31. 15								22. 56	36. 0							
18. 55	31. 30								23. 23	36. 10							
19. 10	32. 10								23. 45	37. 30							
19. 21	31. 55								23. 56	37. 5							
19. 39	32. 40								23. 59	37. 35							
20. 50	30. 10																
20. 58	30. 50								Jan. 30		Jan. 30		Jan. 30		Jan. 30		
22. 13	32. 50								0. 0	20. 37. 35	0. 0	*1365	0. 0	*03346	1. 0	59. 0	59. 1
22. 27	33. 55								0. 14	38. 0	0. 15	*1368	4. 10	*03377	3. 0	58. 8	59. 0
23. 34	35. 50								0. 38	38. 0	0. 57	*1364	10. 16	*03350	9. 0	58. 8	59. 0
23. 54	35. 10								0. 43	38. 30	1. 11	*1367	11. 44	*03366	21. 0	59. 3	60. 0
23. 59	36. 0								1. 28	37. 50	1. 55	*1372	12. 41	*03354	22. 30	58. 8	59. 2
									2. 0	38. 25	2. 14	*1377	14. 20	*03371	23. 0	59. 0	60. 0
									2. 39	37. 0	2. 43	*1374	20. 12	*03392			
									2. 45	37. 10	5. 40	*1377	23. 10	*03358			
									2. 57	36. 10	6. 13	*1376	23. 59	*03363			
									3. 7	36. 35	6. 54	*1378					
									3. 46	34. 50	8. 34	*1376					
									3. 57	35. 5	8. 57	*1378					
									5. 9	34. 0	9. 36	*1375					
									6. 54	32. 50	10. 8	*1367					
									9. 29	32. 10	10. 42	*1369					
									9. 42	30. 50	11. 11	*1364					
									10. 6	30. 40	12. 8	*1368					
									10. 24	27. 35	12. 29	*1369					
									10. 35	27. 50	12. 40	*1366					
									10. 51	27. 20	13. 27	*1376					
									11. 20	28. 30	14. 0	*1370					
									11. 33	31. 20	14. 39	*1369					
										***	14. 50	*1374					
									11. 57	33. 15	19. 56	*1376					
									12. 32	32. 30	23. 59	*1374					
									12. 59	30. 10							
									13. 4	30. 20							
									13. 41	29. 25							
									13. 57	29. 35							
									14. 20	32. 30							
									15. 21	32. 40							
									16. 41	33. 5							
									19. 50	31. 15							
									20. 57	30. 30							
									23. 42	34. 55							
									23. 59	35. 5							
									Jan. 31		Jan. 31		Jan. 31		Jan. 31		
									0. 0	20. 35. 5	0. 0	*1374	0. 0	*03363	0. 0	59. 3	60. 3
									1. 45	38. 5	2. 42	*1380	5. 25	*03415	1. 0	58. 6	60. 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.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Jan. 31		Jan. 31		Jan. 31		Jan. 31			Feb. 1		Feb. 1						
2. 9	20. 38. 5	3. 5	.1378	10. 0	.03416	2. 0	59. 3	60. 5	9. 7	20. 25. 5	10. 30	.1345					
2. 47	37. 40	4. 14	.1376	18. 41	.03408	3. 0	59. 6	60. 0	9. 15	24. 40	10. 43	.1346					
3. 3	37. 0	4. 30	.1378	23. 42	.03393	9. 0	60. 3	60. 5	9. 33	22. 30	11. 0	.1351					
4. 27	35. 35	5. 11	.1371		(†)	21. 0	60. 1	60. 8	9. 46	23. 35	11. 19	.1350					
5. 9	36. 10	5. 25	.1373			22. 0	60. 1	60. 3	9. 51	23. 10	11. 38	.1357					
5. 23	35. 35	6. 12	.1375			23. 30	59. 8	60. 1	10. 9	27. 5	11. 44	.1353					
5. 38	36. 10	6. 57	.1371						10. 38	25. 0	12. 5	.1357					
6. 11	33. 40	7. 15	.1373						11. 2	27. 10	12. 14	.1355					
6. 41	34. 10	8. 12	.1370						11. 19	26. 10	12. 41	.1368					
6. 53	34. 55	8. 23	.1375						11. 26	26. 55	12. 56	.1364					
7. 14	34. 0	8. 39	.1371						11. 38	24. 35	13. 6	.1365					
7. 26	34. 25	15. 15	.1376						11. 42	24. 15	13. 14	.1358					
7. 46	33. 10	17. 55	.1380						11. 59	26. 15	13. 30	.1362					
7. 56	33. 25	19. 52	.1379						12. 9	24. 55	13. 42	.1367					
8. 12	32. 0	20. 26	.1380						12. 39	27. 15	14. 11	.1366					
8. 30	33. 0	20. 54	.1377						12. 44	26. 45	14. 26	.1375					
9. 44	33. 0	21. 20	.1375						12. 53	28. 10	14. 52	.1380					
10. 4	33. 10	22. 11	.1372						13. 5	28. 10	15. 11	.1366					
10. 41	32. 15	23. 21	.1375						13. 43	30. 40	15. 43	.1360					
11. 5	32. 30	23. 59	.1374						13. 56	30. 25	16. 11	.1362					
11. 50	32. 20								14. 2	31. 20	16. 23	.1360					
13. 26	33. 30								14. 23	27. 50	16. 43	.1366					
14. 51	34. 0								14. 38	27. 10	16. 55	.1364					
15. 4	33. 30								14. 42	25. 50	17. 23	.1378					
15. 33	33. 40								14. 50	22. 10	17. 44	.1380					
15. 46	34. 35								15. 6	24. 30	18. 24	.1367					
17. 24	32. 55								15. 19	24. 30	18. 44	.1364					
18. 8	32. 25								15. 37	27. 5	19. 58	.1370					
18. 41	31. 55								15. 51	29. 0	20. 55	.1364					
19. 5	32. 15								16. 0	32. 25	21. 6	.1365					
20. 11	31. 40								16. 11	32. 30	23. 0	.1363					
20. 30	32. 5								16. 30	37. 20	23. 20	.1360					
20. 41	31. 45								16. 41	35. 15	23. 41	.1364					
21. 24	32. 30								16. 56	36. 10	23. 59	.1364					
22. 7	32. 40								17. 12	35. 35							
23. 24	35. 25								17. 23	34. 25							
23. 42	34. 50								17. 32	35. 25							
23. 59	35. 0								17. 39	34. 15							
									17. 45	35. 5							
Feb. 1		Feb. 1		Feb. 1		Feb. 1			18. 5	38. 0							
0. 0	20. 35. 0	0. 0	.1374		(†)	0. 0	60. 0	60. 1	18. 20	36. 15							
0. 56	36. 15	0. 34	.1376	0. 28	.03396	1. 0	60. 1	60. 3	18. 38	35. 45							
1. 13	37. 50	1. 12	.1377	7. 24	.03424	2. 0	60. 0	60. 4	18. 44	36. 30							
1. 22	37. 50	1. 40	.1375	9. 53	.03466	3. 0	60. 3	60. 6	18. 53	35. 25							
1. 43	36. 30	3. 45	.1381	12. 7	.03447	9. 0	60. 6	60. 7	19. 19	33. 45							
3. 0	36. 35	5. 34	.1377	13. 11	.03406	21. 0	60. 1	60. 0	19. 19	33. 45							
3. 51	35. 0	5. 52	.1378	13. 31	.03411				19. 26	33. 55							
5. 9	33. 30	7. 24	.1369	14. 58	.03367				19. 45	31. 55							
5. 20	33. 55	7. 55	.1360	15. 14	.03388				20. 5	32. 50							
5. 53	33. 20	8. 10	.1363	16. 27	.03397				20. 19	33. 10							
6. 20	33. 30	8. 41	.1353	17. 55	.03384				20. 26	32. 40							
6. 40	32. 55	8. 48	.1354	23. 59	.03412				20. 38	32. 55							
6. 59	33. 30	9. 12	.1342						20. 47	32. 0							
7. 18	32. 40	9. 21	.1343						21. 15	32. 20							
7. 29	33. 10	9. 30	.1338						21. 35	31. 50							
8. 23	27. 55	9. 56	.1353						21. 51	32. 10							
8. 34	27. 10	9. 59	.1352						21. 57	33. 0							
8. 53	26. 45	10. 12	.1357						22. 9	32. 40							

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



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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Feb. 1																	
22. 42	20. 32. 25																
22. 51	33. 10																
	***																
23. 16	33. 20																
23. 36	34. 45																
23. 48	34. 45																
23. 56	35. 10																
23. 59	35. 5																
Feb. 2		Feb. 2		Feb. 2		Feb. 2											
0. 0	20. 35. 5	0. 0	*1364	0. 0	*03412	1. 0	60. 4	60. 9	7. 9	33. 40	9. 0	*1367					
1. 15	36. 35	0. 7	*1367	5. 3	*03429	3. 0	60. 1	60. 9	7. 14	33. 30	9. 29	*1363					
1. 29	36. 35	1. 56	*1375	10. 0	*03406	9. 0	59. 8	60. 0	7. 23	34. 0	9. 40	*1366					
1. 53	37. 50	2. 20	*1373	14. 44	*03417	21. 0	59. 8	58. 8	7. 38	30. 25	12. 25	*1360					
2. 4	37. 25	5. 21	*1375	20. 12	*03396				7. 45	29. 20	13. 12	*1361					
2. 12	37. 40	5. 50	*1371	23. 59	*03355				8. 0	31. 50	13. 45	*1366					
2. 43	36. 5	6. 1	*1375						8. 13	31. 50	14. 26	*1365					
2. 56	36. 25	6. 12	*1371						8. 28	30. 40	18. 55	*1376					
3. 9	36. 0	6. 20	*1373						8. 38	31. 10	19. 24	*1372					
3. 27	36. 10	6. 29	*1368						8. 55	30. 35	19. 53	*1376					
4. 53	33. 55	6. 42	*1370						9. 12	32. 15	23. 11	*1365					
5. 3	34. 15	9. 25	*1369						9. 18	32. 15	23. 59	*1367					
5. 58	33. 5	13. 22	*1367						9. 31	31. 15							
6. 12	33. 40	18. 15	*1374						10. 0	31. 50							
8. 32	32. 10	19. 55	*1373						10. 51	30. 30							
12. 8	31. 45	22. 57	*1364						11. 10	31. 30							
12. 56	32. 50	23. 59	*1366						11. 27	30. 45							
13. 8	32. 20								11. 41	30. 45							
15. 40	33. 5								12. 34	28. 10							
16. 6	32. 30								13. 4	32. 0							
17. 0	33. 10								13. 16	33. 35							
17. 11	32. 55								14. 51	33. 10							
18. 22	32. 30								15. 11	33. 35							
18. 42	32. 0								15. 39	32. 55							
19. 21	32. 25								16. 2	33. 25							
20. 51	30. 40								16. 20	32. 50							
21. 56	31. 35								16. 41	33. 0							
22. 55	32. 30								18. 14	32. 35							
23. 52	34. 55								18. 31	33. 0							
23. 59	35. 30								18. 53	32. 30							
Feb. 3		Feb. 3		Feb. 3		Feb. 3			19. 26	33. 35							
0. 0	20. 35. 30	0. 0	*1366	0. 0	*03355	1. 0	59. 8	59. 7	20. 46	32. 15							
0. 9	36. 40	0. 22	*1369	2. 47	*03415	3. 0	60. 3	60. 0	22. 9	32. 30							
0. 30	36. 40	0. 45	*1372	7. 32	*03457	9. 0	60. 2	60. 0	22. 20	33. 10							
0. 43	38. 10	1. 4	*1369	12. 25	*03403	21. 0	58. 8	58. 0	23. 23	33. 50							
1. 14	38. 55	1. 30	*1371	23. 59	*03320				23. 34	34. 25							
1. 25	38. 25	2. 15	*1367						23. 40	34. 10							
1. 39	39. 0	2. 42	*1369						23. 59	35. 30							
2. 26	38. 30	3. 20	*1366														
3. 0	40. 0	3. 26	*1369						Feb. 4	20. 35. 30	0. 0	*1367	0. 0	*03320	0. 0	58. 8	58. 1
3. 23	38. 50	3. 44	*1365						0. 20	36. 55	0. 10	*1369	0. 39	*03315	8. 0	59. 8	59. 6
3. 38	39. 25	4. 22	*1363						0. 29	36. 50	0. 42	*1363	2. 26	*03352	21. 0	59. 5	59. 3
3. 43	37. 50	4. 39	*1367						1. 23	38. 30	3. 54	*1375	5. 0	*03369			
3. 57	37. 20	4. 55	*1362						2. 5	37. 0	5. 8	*1372	15. 56	*03362			
4. 7	37. 50	5. 10	*1366						4. 21	34. 30	5. 27	*1373	16. 35	*03355			
4. 27	34. 40	5. 22	*1357						4. 38	33. 30	6. 24	*1370	22. 40	*03321			
4. 37	35. 45	5. 34	*1361						4. 43	33. 55	8. 54	*1374	23. 59	*03328			

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 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.	Readings of Thermo- meters.		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.	Readings of Thermo- meters.	
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
Feb. 4		Feb. 4															
4. 57	20. 33. 25	9. 5	.1370										Feb. 5				
5. 14	34. 0	9. 22	.1373										4. 16	20. 34. 5	4. 41	.1378	13. 36
5. 37	33. 25	10. 41	.1370										5. 45	33. 30	5. 11	.1374	14. 11
5. 53	33. 10	11. 7	.1373										6. 26	34. 45	5. 21	.1376	14. 16
6. 20	33. 50	11. 22	.1370										6. 37	35. 45	5. 33	.1374	14. 39
6. 39	33. 35	11. 36	.1372										6. 45	35. 30	5. 45	.1379	14. 55
6. 55	34. 15	11. 57	.1370										7. 12	35. 35	6. 25	.1375	15. 26
8. 26	33. 0	12. 41	.1374										7. 35	36. 30	6. 41	.1368	17. 51
9. 7	31. 50	15. 11	.1372										7. 45	31. 25	7. 17	.1364	23. 59
10. 23	31. 50	15. 29	.1374										7. 49	31. 25	7. 24	.1369	
10. 39	30. 55	15. 53	.1372										7. 55	26. 50	7. 41	.1360	
11. 5	30. 35	16. 11	.1376										8. 1	26. 30	7. 44	.1361	
11. 26	30. 40	16. 46	.1378										8. 25	30. 10	7. 54	.1356	
11. 40	31. 50	17. 13	.1383										8. 33	30. 20	8. 12	.1369	
12. 22	31. 50	19. 41	.1377										8. 43	32. 45	8. 20	.1371	
12. 37	32. 50	20. 3	.1374										8. 57	31. 55	8. 36	.1366	
12. 44	32. 10	21. 54	.1366										9. 42	32. 30	8. 44	.1369	
13. 20	32. 5	23. 59	.1369										10. 18	27. 50	8. 57	.1366	
13. 31	31. 50												10. 24	27. 55	9. 56	.1375	
14. 20	31. 15												10. 33	27. 30	10. 24	.1363	
15. 0	32. 10												10. 54	23. 35	10. 36	.1366	
15. 24	32. 15												10. 59	25. 5	10. 56	.1359	
15. 30	33. 5												11. 4	24. 50	11. 19	.1366	
15. 41	32. 40												11. 10	26. 40	11. 43	.1356	
16. 11	36. 30												11. 24	25. 20	12. 4	.1338	
16. 52	33. 35												11. 39	30. 40	12. 15	.1345	
17. 26	32. 40												12. 8	18. 30	12. 16	.1343	
17. 29	31. 30												12. 40	20. 15	12. 29	.1350	
17. 44	32. 0												12. 52	14. 20	12. 32	.1349	
18. 9	30. 25												13. 0	14. 25	12. 45	.1359	
18. 24	31. 20												13. 19	20. 50	12. 56	.1355	
18. 41	30. 40												13. 26	18. 50	13. 15	.1359	
19. 9	31. 50												13. 41	25. 15	13. 26	.1351	
20. 8	31. 0												13. 53	24. 50	13. 41	.1359	
20. 34	31. 50												14. 8	21. 10	13. 42	.1358	
20. 45	31. 25												14. 23	27. 45	13. 50	.1365	
20. 59	32. 5												14. 39	19. 15	14. 0	.1356	
21. 20	32. 0												14. 57	24. 0	14. 5	.1357	
21. 33	33. 40												15. 10	24. 0	14. 21	.1347	
21. 42	32. 45												15. 38	21. 35	14. 28	.1353	
22. 54	34. 40												16. 9	25. 0	14. 41	.1354	
23. 43	36. 50												16. 15	26. 35	15. 11	.1372	
23. 59	36. 30												16. 54	28. 35	15. 43	.1364	
													17. 33	28. 40	16. 39	.1360	
													18. 2	30. 20	17. 45	.1366	
													18. 11	30. 20	18. 14	.1374	
Feb. 5		Feb. 5		Feb. 5		Feb. 5							18. 22	30. 5	19. 8	.1374	
0. 0	20. 36. 30	0. 0	.1369	0. 0	.03328	1. 0	59. 359. 1						18. 38	30. 20	19. 19	.1371	
0. 8	35. 35	0. 25	.1376	0. 41	.03324	3. 0	58. 858. 5						18. 46	30. 50	19. 39	.1374	
0. 25	38. 10	0. 42	.1371	2. 1	.03356	9. 0	58. 859. 0						18. 57	30. 50	19. 51	.1376	
0. 41	36. 30	1. 8	.1374	3. 29	.03356	21. 0	59. 660. 0						19. 13	30. 5	20. 0	.1368	
0. 56	37. 30	1. 25	.1378	3. 52	.03342								19. 24	30. 40		***	
1. 24	37. 30	2. 0	.1376	6. 41	.03344								19. 41	33. 55	20. 35	.1357	
1. 43	35. 50	2. 19	.1379	8. 12	.03363								20. 4	35. 5	20. 37	.1358	
1. 59	36. 20	2. 35	.1376	10. 0	.03342								20. 9	34. 15	20. 45	.1345	
2. 41	35. 15	2. 56	.1379	11. 8	.03344								20. 23	34. 0	21. 0	.1348	
2. 58	35. 55	3. 9	.1377	11. 51	.03312								20. 27	34. 35	21. 11	.1346	
3. 11	35. 25	3. 26	.1382	11. 57	.03321									***	21. 15	.1350	
3. 32	36. 15	3. 51	.1376	12. 30	.03311										21. 30	.1349	
3. 44	34. 50	4. 19	.1375	12. 42	.03290												

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.					
Feb. 5 21. 36 21. 46 21. 56 22. 4 22. 20 22. 29 22. 43 23. 12 23. 30 23. 59	20. 37. 5 35. 10 35. 0 35. 55 35. 55 34. 30 33. 25 *** 35. 15 32. 50 33. 50	Feb. 5 22. 18 22. 39 22. 51 22. 56 23. 0 23. 5 23. 12 23. 13 23. 41 23. 45 23. 57 23. 59	.1370 .1375 .1372 .1377 .1375 .1378 .1376 .1377 .1372 .1372 .1378 .1376																			
Feb. 6 0. 0 0. 6 0. 18 0. 41 0. 56 1. 0 1. 30 1. 41 2. 8 2. 26 2. 41 2. 53 2. 59 3. 9 3. 26 3. 30 3. 33 3. 38 3. 50 4. 12 4. 16 4. 29 4. 38 5. 6 5. 11 5. 38 5. 43 5. 49 6. 9 6. 13 6. 19 6. 26 6. 28 6. 33 6. 42 7. 0 7. 12 7. 18 7. 26 7. 38 7. 46 8. 1	20. 33. 50 33. 40 33. 15 *** 35. 0 36. 45 35. 40 37. 30 37. 0 38. 20 37. 50 41. 20 46. 50 42. 15 45. 30 49. 50 48. 40 49. 55 46. 55 54. 50 48. 20 48. 30 44. 45 45. 25 41. 30 41. 55 38. 30 38. 30 37. 10 28. 40 30. 5 23. 45 25. 30 25. 30 30. 40 25. 0 30. 50 19. 45 20. 55 19. 15 28. 55 28. 55 32. 45	Feb. 6 0. 0 0. 19 0. 22 0. 41 0. 49 1. 11 1. 57 2. 14 2. 38 2. 43 2. 50 2. 59 3. 25 3. 28 3. 40 3. 41 3. 48 3. 57 4. 0 4. 8 4. 13 4. 20 4. 25 4. 30 4. 35 4. 42 4. 54 5. 9 5. 20 5. 39 5. 56 6. 4 6. 12 6. 25 6. 38 6. 50 6. 57 7. 8 7. 12 7. 26 7. 41 7. 52 8. 2	.1376 .1384 .1376 .1373 .1383 .1378 .1383 .1380 .1392 .1417 .1398 .1409 .1349 .1359 .1348 .1361 .1342 .1351 .1345 .1355 .1351 .1356 .1354 .1358 .1355 .1363 .1360 .1366 .1358 .1363 .1342 .1348 .1331 .1353 .1342 .1360 .1344 .1349 .1339 .1359 .1353 .1356 .1352	Feb. 6 0. 0 2. 27 3. 9 3. 16 4. 9 5. 7 5. 26 5. 49 6. 22 6. 35 7. 11 7. 25 8. 8 9. 37 12. 58 13. 21 13. 43 14. 4 14. 42 15. 52 18. 21 23. 20 23. 59	.03327 .03337 *** .03394 .03378 *** .03416 .03392 .03394 .03408 .03540 .03550 .03464 .03477 .03432 .03391 .03366 .03324 .03317 .03278 .03240 .03297 .03331 .03338 .03364	Feb. 6 1. 0 3. 0 9. 0 21. 0 22. 0 23. 0	59. 8 58. 8 59. 0 59. 6 59. 8 59. 3 60. 1 60. 0 60. 0 60. 0	Feb. 6 8. 12 8. 27 8. 45 9. 57 10. 18 10. 29 11. 7 11. 16 11. 28 11. 50 12. 32 12. 53 13. 9 13. 22 13. 30 13. 46 13. 56 14. 21 14. 42 14. 56 15. 12 15. 24 15. 38 15. 56 15. 59 16. 4 17. 12 17. 50 18. 11 18. 23 18. 41 18. 55 19. 23 19. 49 19. 56 20. 11 20. 26 20. 38 21. 16 21. 28 21. 39 21. 43 22. 26 22. 41 23. 0 23. 23 23. 31 23. 44 23. 55 23. 59	20. 32. 45 34. 40 35. 55 33. 5 33. 35 32. 55 *** 33. 40 33. 10 33. 35 33. 15 31. 30 30. 55 34. 50 31. 50 33. 50 37. 35 34. 55 36. 10 25. 30 23. 30 15. 12 31. 10 32. 0 30. 10 31. 15 30. 40 29. 30 32. 20 34. 0 34. 20 33. 35 35. 30 33. 25 34. 25 33. 55 35. 20 34. 25 *** 36. 50 37. 15 36. 30 38. 10 38. 35 36. 30 38. 30 34. 40 35. 30 37. 25 37. 5 37. 25	Feb. 6 8. 15 8. 54 9. 4 10. 6 10. 20 10. 30 11. 12 11. 21 12. 18 12. 42 13. 12 13. 30 13. 49 14. 12 14. 52 15. 12 15. 26 15. 41 15. 55 16. 12 16. 26 16. 38 17. 11 17. 41 17. 56 18. 57 19. 16 19. 44 20. 32 21. 52 22. 57 23. 12 23. 15 23. 24 23. 47 23. 59 36. 50 37. 15 36. 30 38. 10 38. 35 36. 30 38. 30 34. 40 35. 30 37. 25 37. 5 37. 25	Feb. 6 11. 12 11. 21 12. 18 12. 42 13. 12 13. 30 13. 49 14. 12 14. 52 15. 12 15. 26 15. 41 15. 55 16. 12 16. 26 16. 38 17. 11 17. 41 17. 56 18. 57 19. 16 19. 44 20. 32 21. 52 22. 57 23. 12 23. 15 23. 24 23. 47 23. 59	.1358 .1360 .1363 .1360 .1364 .1358 .1360 .1358 .1353 .1378 .1365 .1377 .1374 .1356 .1365 .1363 .1357 .1354 .1361 .1363 .1361 .1361 .1373 .1370 .1364 .1369 .1364 .1365 .1359 .1358 .1364 .1344 .1333 .1337 .1329 .1354 .1352	Feb. 7 0. 0 0. 8 0. 19 0. 27	0. 0 1. 25 4. 53 6. 12	.03364 .03362 .03448 .03425	Feb. 7 0. 0 1. 0 2. 0 3. 0	59. 8 59. 0 59. 9 59. 6 60. 0 60. 0	Feb. 7 0. 0 0. 15 0. 40 0. 45	.1352 .1348 .1354 .1351	Feb. 7 0. 0 1. 0 2. 0 3. 0	59. 8 59. 6 59. 9 59. 8	60. 0 60. 0 60. 0 60. 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.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Feb. 7 0. 38	20. 39. 45	Feb. 7 1. 12	.1356	Feb. 7 6. 29	.03455	Feb. 7 9. 0	59. 3	59. 2	Feb. 7 9. 47	20. 23. 25	Feb. 7 11. 55	.1347					
0. 53	38. 20	1. 25	.1351	6. 42	.03457	21. 0	57. 3	56. 0	9. 58	9. 5	11. 59	.1349					
1. 23	39. 10	***	***	6. 53	.03538	22. 0	58. 0	57. 2	10. 14	25. 30	12. 5	.1346					
1. 27	38. 0	2. 28	.1362	7. 5	.03440	23. 0	58. 6	57. 8	10. 23	27. 45	12. 13	.1348					
1. 43	37. 30	2. 43	.1368	7. 26	.03416				10. 28	24. 30	12. 15	.1341					
1. 51	36. 45	***	***	7. 51	.03362				10. 30	23. 10	12. 27	.1348					
1. 56	38. 0	3. 4	.1367	7. 57	.03372				10. 35	25. 40	12. 55	.1345					
	***	3. 16	.1363	8. 9	.03356				10. 45	12. 5	13. 14	.1351					
2. 16	38. 20	3. 25	.1365	8. 46	.03397				10. 57	17. 25	13. 41	.1348					
2. 19	38. 5	3. 43	.1354	9. 34	.03384				11. 52	25. 50	14. 29	.1351					
2. 38	37. 5	3. 55	.1340	10. 9	.03277				11. 59	25. 40	14. 50	.1346					
2. 45	38. 0	4. 11	.1356	10. 16	.03274				12. 9	28. 20	14. 55	.1348					
2. 57	38. 30	4. 14	.1354	10. 40	.03200				12. 18	26. 55	15. 14	.1335					
3. 5	39. 20	4. 15	.1359	10. 45	.03214				12. 23	28. 10	15. 42	.1350					
3. 18	38. 15	4. 16	.1356	10. 58	.03170				12. 25	27. 15	16. 12	.1366					
3. 26	39. 10	4. 25	.1359	11. 26	.03260				12. 30	27. 15	16. 42	.1375					
3. 36	38. 40	4. 27	.1356	12. 19	.03297				12. 41	23. 55	16. 51	.1378					
3. 50	34. 20	4. 41	.1358	12. 38	.03283				12. 44	23. 55	17. 22	.1364					
3. 56	25. 30	***	***	12. 58	.03300				13. 8	30. 10	17. 53	.1362					
4. 6	25. 55	5. 6	.1342	14. 59	.03239				13. 25	30. 40	***	***					
	***	5. 10	.1344	15. 25	.03163				13. 33	30. 10	18. 50	.1361					
4. 23	22. 25	5. 19	.1337	15. 41	.03145				13. 38	30. 15	19. 14	.1346					
4. 33	26. 30	5. 26	.1343	16. 4	.03180				14. 5	24. 30	19. 36	.1347					
4. 51	32. 40	5. 35	.1339	16. 42	.03215				14. 26	23. 20	19. 40	.1354					
4. 58	34. 30	5. 52	.1351	17. 4	.03212				14. 39	26. 0	20. 6	.1358					
5. 6	32. 15	5. 56	.1344	17. 40	.03231				15. 18	45. 30	20. 22	.1356					
5. 10	32. 40	6. 8	.1354	19. 6	.03232				15. 26	43. 40	20. 25	.1358					
5. 16	31. 40	6. 16	.1343	19. 46	.03245				15. 34	42. 40	20. 34	.1356					
5. 26	29. 10	6. 20	.1346	20. 44	.03246				15. 43	37. 35	20. 49	.1360					
5. 31	30. 15	6. 30	.1336	22. 12	.03232				16. 9	32. 55	20. 58	.1354					
5. 37	28. 35	6. 41	.1344	23. 36	.03257				16. 24	33. 10	21. 55	.1345					
5. 43	28. 35	6. 52	.1333	(†)					16. 46	36. 0	22. 22	.1358					
5. 54	31. 15	7. 6	.1400						16. 59	36. 10	23. 0	.1357					
5. 59	30. 50	7. 13	.1353						17. 23	33. 55	23. 25	.1359					
6. 8	32. 10	7. 14	.1355						17. 30	34. 45	23. 59	.1359					
6. 14	30. 15	7. 15	.1327						17. 43	34. 35							
6. 24	35. 10	7. 26	.1366						17. 57	36. 15							
6. 29	32. 40	7. 30	.1354						18. 2	35. 35							
6. 41	38. 45	7. 44	.1372						18. 7	37. 15							
6. 56	16. 15	8. 4	.1344						18. 58	33. 20							
7. 8	49. 10	8. 21	.1303						19. 7	32. 10							
7. 10	44. 15	8. 42	.1319						19. 24	31. 45							
7. 15	27. 50	8. 54	.1318						19. 27	30. 15							
7. 19	36. 55	9. 25	.1328						19. 41	33. 25							
7. 26	29. 40	9. 39	.1346						19. 58	33. 35							
7. 36	30. 25	9. 45	.1371						20. 25	32. 15							
7. 44	36. 30	9. 57	.1365						20. 31	34. 10							
7. 54	35. 15	10. 6	.1375						20. 43	34. 45							
7. 59	38. 20	10. 14	.1349						21. 10	32. 40							
8. 23	14. 55	10. 27	.1366						21. 55	36. 30							
8. 43	20. 10	10. 50	.1333						***	***							
8. 57	22. 40	10. 55	.1340						22. 44	34. 30							
9. 4	25. 40	11. 11	.1301						23. 14	35. 40							
9. 10	25. 50	11. 24	.1332						23. 23	35. 15							
9. 15	18. 0	11. 26	.1331						23. 29	36. 25							
9. 24	28. 45	11. 41	.1341						23. 37	36. 35							
9. 32	26. 0	11. 43	.1340						23. 43	35. 40							
9. 40	21. 10	11. 48	.1348						23. 59	34. 40							

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.
Feb. 8 0. 0	20. 34. 40	Feb. 8 0. 0	*1359	Feb. 8 0. 30	(†)	Feb. 8 0. 0	59. 1	58. 9	Feb. 8 19. 20	20. 31. 30	Feb. 9 0. 0	*1355	Feb. 9 0. 0	*03328	Feb. 9 1. 0	59. 8	60. 8
0. 13	34. 30		***	4. 54	*03258	1. 0	59. 4	59. 1	21. 11	30. 50	0. 3	*1353	0. 29	*03324	3. 0	59. 3	60. 0
0. 20	35. 40	0. 51	*1367	5. 12	*03348	2. 0	59. 8	59. 6	21. 27	31. 50	0. 16	*1365	0. 54	*03346	9. 0	59. 8	60. 0
0. 38	35. 0	1. 9	*1360	5. 26	*03378	3. 0	59. 5	59. 2	22. 41	33. 30	0. 23	*1362	1. 53	*03361	21. 0	59. 1	59. 7
1. 23	37. 25	1. 41	*1366		(†)	9. 0	58. 2	57. 2	22. 59	33. 10	0. 31	*1366	2. 30	*1366			
2. 3	38. 30	2. 19	*1361	8. 52	*03318	21. 0	59. 3	60. 0	23. 16	33. 55	0. 39	*1362	3. 56	*03353			
2. 15	37. 50	2. 42	*1366	10. 26	*03284				23. 38	36. 20	0. 50	*1366	6. 56	*03328			
	***	3. 38	*1356	10. 57	*03300				23. 47	36. 20	1. 3	*1367	7. 22	*03338			
2. 57	38. 15	3. 45	*1347	11. 39	*03305				23. 59	35. 35	1. 9	*1364	8. 6	*03327			
3. 6	38. 40	4. 10	*1341	12. 8	*03316						1. 50	*1365	10. 58	*03321			
3. 13	36. 50	4. 47	*1366	12. 55	*03308						2. 18	*1363	12. 22	*03337			
3. 38	38. 20	4. 52	*1362	18. 26	*03324						2. 34	*1366	13. 11	*03327			
3. 44	34. 40	5. 0	*1368	21. 44	*03317						2. 55	*1371	13. 40	*03308			
3. 57	32. 45	5. 14	*1358	23. 59	*03328						3. 4	*1370	15. 6	*03320			
4. 3	32. 35	5. 25	*1364								3. 41	*1360	20. 28	*03320			
4. 13	29. 35	5. 41	*1354								4. 0	*1367	22. 41	*03297			
4. 23	29. 35	5. 51	*1344								4. 45	*1368	23. 59	*03300			
4. 53	33. 50	6. 0	*1348								5. 41	*1365					
4. 56	33. 0		(†)								6. 10	*1369					
5. 9	33. 20	8. 44	*1361								6. 27	*1371					
5. 23	31. 30	9. 13	*1364								6. 47	*1367					
5. 28	34. 50	10. 14	*1359								7. 5	*1373					
5. 45	38. 30	11. 0	*1353								7. 21	*1366					
5. 57	35. 30	11. 18	*1348								7. 38	*1368					
6. 0	35. 20	11. 41	*1356								8. 10	*1372					
	(†)	12. 10	*1359								8. 38	*1359					
8. 44	34. 25	12. 26	*1351								8. 59	*1362					
9. 56	32. 35	12. 44	*1354								9. 10	*1357					
10. 15	31. 40	12. 55	*1350								9. 19	*1364					
10. 28	30. 35	13. 0	*1354								9. 28	*1364					
10. 41	29. 55	13. 57	*1357								9. 53	*1367					
10. 56	29. 55	14. 21	*1355								10. 11	*1363					
11. 14	22. 45	14. 41	*1358								10. 17	*1366					
11. 30	24. 40	15. 22	*1357								10. 32	*1362					
11. 41	25. 0	16. 7	*1354								10. 40	*1367					
11. 59	27. 35	17. 10	*1359								10. 58	*1370					
12. 23	28. 35	18. 36	*1361								11. 11	*1357					
12. 38	30. 20	18. 55	*1364								11. 26	*1360					
12. 41	30. 0	19. 26	*1360								11. 39	*1359					
12. 44	30. 50	19. 45	*1364								12. 28	*1360					
12. 56	30. 25	20. 44	*1365								12. 51						
13. 1	30. 40	21. 8	*1360								12. 55						
13. 32	30. 15	21. 36	*1363								12. 59						
13. 55	31. 50	23. 12	*1359								13. 18						
14. 26	32. 50	23. 37	*1361								13. 39						
15. 0	32. 25	23. 49	*1357								14. 26						
15. 26	33. 5	23. 59	*1355														
15. 50	33. 10																
15. 56	33. 40																
16. 8	33. 25																
16. 14	34. 20																
16. 46	33. 10																
17. 35	33. 10																
17. 43	32. 30																
17. 54	33. 10																
18. 12	32. 10																
19. 13	32. 25																

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 8. The timepiece giving motion to the Horizontal Force and Declination cylinder stopped from 6<sup>h</sup>. 0<sup>m</sup>. to 8<sup>h</sup>. 44<sup>m</sup>.

February 8. The Vertical Force timepiece was stopped from 5<sup>h</sup>. 26<sup>m</sup>. to 8<sup>h</sup>. 52<sup>m</sup>.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Feb. 9 h m 14. 59	20. 31. 5								Feb. 10 h m 21. 36	20. 32. 30							
15. 24	32. 10								21. 59	32. 30							
15. 33	33. 25								23. 0	34. 50							
15. 45	33. 5								23. 13	35. 15							
15. 59	33. 15								23. 22	36. 10							
16. 28	32. 20								23. 59	37. 15							
16. 44	32. 35																
17. 11	32. 5								Feb. 11 h m 0. 0	20. 37. 15	Feb. 11 h m 0. 0	1360	Feb. 11 h m 0. 0	03297	Feb. 11 h m 1. 0	59. 0	59. 5
17. 24	32. 20								0. 14	37. 25	0. 24	1362	1. 45	03283	8. 30	57. 6	56. 5
19. 8	31. 55								0. 40	39. 10	0. 45	1356	2. 30	03296	21. 0	59. 0	59. 6
20. 30	30. 50								0. 59	41. 40	1. 43	1363	7. 13	03246			
21. 41	31. 10								1. 29	40. 0	2. 14	1372	8. 9	03255			
23. 23	34. 40								2. 3	37. 30	2. 41	1368	19. 14	03266			
23. 38	35. 40								2. 28	37. 10	3. 0	1376	22. 41	03263			
23. 49	35. 5								2. 56	36. 30	3. 23	1372	23. 59	03277			
23. 59	35. 40								3. 7	36. 55	3. 39	1376					
									3. 34	35. 30	3. 57	1373					
Feb. 10 h m 0. 0	20. 35. 40	Feb. 10 h m 0. 0	1360	Feb. 10 h m 0. 0	03300	Feb. 10 h m 1. 0	59. 6	59. 2	4. 26	34. 25	5. 12	1369					
0. 21	36. 20	5. 39	1356	1. 14	03303	3. 0	59. 8	59. 2	5. 29	33. 40	5. 41	1373					
0. 46	36. 20	7. 36	1372	3. 55	03318	9. 0	58. 9	58. 0	5. 53	33. 40	6. 4	1369					
1. 12	37. 35	9. 4	1369	9. 39	03298	21. 45	59. 3	59. 0	6. 0	34. 15	6. 45	1371					
1. 26	37. 10	9. 19	1372	12. 16	03302				6. 9	33. 35	7. 21	1362					
1. 38	37. 40	9. 56	1368	13. 35	03303				6. 29	33. 40	7. 46	1361					
2. 39	37. 10	11. 10	1367	16. 26	03315				6. 53	32. 40	8. 6	1365					
2. 56	36. 15	11. 41	1373	19. 41	03324				7. 23	30. 5	8. 57	1358					
4. 14	34. 5	12. 11	1369	22. 12	03302				7. 40	30. 35	9. 15	1365					
5. 55	33. 25	12. 29	1374	23. 59	03297				7. 46	30. 5	9. 29	1361					
6. 10	33. 40	14. 10	1365						7. 56	31. 10	10. 41	1363					
6. 43	33. 0	18. 56	1371						8. 8	30. 50	10. 56	1362					
7. 17	33. 0	19. 44	1374						8. 14	30. 50	12. 11	1365					
7. 33	32. 25	20. 40	1370						8. 26	31. 45	13. 26	1364					
8. 11	32. 45	21. 40	1372						9. 0	30. 15	15. 41	1372					
8. 22	32. 15	23. 59	1360						9. 9	30. 40	16. 40	1370					
8. 40	32. 35								9. 27	29. 25	17. 19	1374					
8. 50	32. 0								10. 50	29. 40	18. 42	1372					
9. 14	32. 45								11. 20	30. 45	19. 56	1376					
9. 35	32. 5								12. 14	32. 50	21. 57	1365					
11. 13	32. 45								12. 21	32. 35	22. 37	1356					
11. 39	31. 25								13. 12	32. 30	23. 15	1360					
11. 50	31. 55								15. 13	33. 30	23. 59	1360					
12. 50	31. 35								16. 8	31. 50							
13. 15:	32. 25								16. 37	32. 55							
13. 43	31. 5								17. 7	31. 45							
14. 20	31. 55								17. 33	31. 15							
14. 39	33. 0								18. 16	31. 55							
15. 9	32. 25								18. 30	31. 35							
15. 26	32. 55								18. 50	31. 30							
16. 50	31. 45								19. 34	33. 5							
17. 6	32. 5								19. 43	32. 10							
17. 59	31. 35								19. 50	32. 10							
18. 59	31. 35								20. 34	29. 30							
19. 20	31. 10								21. 3	29. 45							
19. 33	31. 10								21. 29	31. 10							
19. 50	30. 25								21. 36	31. 0							
20. 11	30. 25								22. 23	33. 10							
20. 26	29. 35								22. 44	32. 55							
20. 55	29. 35								23. 36	35. 40							

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Feb. 11 23. 5 <sup>m</sup> 23. 59	20. 35. 55 37. 5																
Feb. 12 0. 0 0. 21 0. 40 0. 44 0. 53 0. 58 1. 42 1. 55 2. 27 3. 4 3. 39 3. 51 4. 11 4. 26 4. 39 4. 52 4. 57 5. 4 5. 12 5. 23 5. 42 5. 53 6. 12 6. 26 6. 40 6. 54 7. 12 7. 23 7. 27 7. 55 8. 9 8. 26 8. 33 8. 51 8. 58 9. 9 9. 29 9. 40 10. 2 10. 9 10. 17 10. 40 10. 58 11. 38 11. 44 11. 53 12. 26 12. 37 12. 58 13. 8 13. 14 13. 27 13. 41 13. 54	20. 37. 5 37. 55 40. 5 39. 30 40. 15 39. 40 43. 30 42. 25 43. 50 44. 25 41. 30 39. 55 38. 25 38. 25 38. 0 38. 50 38. 50 39. 20 37. 0 37. 40 36. 40 36. 55 33. 35 33. 35 32. 30 32. 45 33. 40 32. 30 32. 20 20. 30 24. 25 26. 5 24. 50 25. 50 25. 25 25. 30 28. 35 28. 25 17. 50 16. 50 17. 10 23. 10 22. 15 24. 10 23. 40 24. 50 32. 50 32. 35 28. 15 30. 15 30. 5 33. 15 34. 40 32. 15	Feb. 12 0. 0 0. 19 0. 41 0. 59 1. 30 1. 57 2. 21 3. 11 3. 56 4. 43 5. 0 5. 14 6. 11 6. 25 6. 27 6. 44 7. 22 7. 42 7. 55 8. 18 8. 36 8. 52 9. 16 9. 55 10. 5 10. 21 10. 31 10. 43 11. 12 11. 21 11. 29 11. 41 11. 45 11. 56 12. 12 12. 21 12. 26 12. 39 12. 54 13. 12 13. 41 13. 53 14. 5 14. 19 15. 20 16. 12 17. 54 19. 0 19. 32 19. 54 19. 57 20. 12 20. 14	Feb. 12 0. 0 1. 28 1. 55 2. 54 4. 9 7. 54 8. 14 9. 11 10. 55 11. 55 12. 36 13. 36 13. 53 14. 6 14. 22 15. 18 18. 11 18. 45 19. 56 21. 12 22. 9 23. 20 23. 59	Feb. 12 1. 0 3. 0 9. 0 21. 0	59. 2 59. 3 58. 8 58. 3 58. 8	Feb. 12 14. 5 14. 17 14. 26 14. 43 14. 58 15. 11 15. 26 16. 13 16. 26 16. 34 16. 56 17. 27 17. 50 18. 12 18. 26 18. 42 18. 59 19. 26 19. 31 19. 41 19. 53 19. 57 20. 9 20. 23 20. 35 20. 45 21. 29 21. 43 22. 11 22. 41 22. 53 23. 11 23. 26 23. 54 23. 59	20. 33. 0 30. 15 30. 5 25. 40 25. 0 27. 30 29. 40 31. 5 30. 30 30. 50 29. 40 30. 5 32. 0 32. 30 32. 30 30. 10 29. 55 30. 30 30. 0 30. 5 31. 10 29. 25 30. 5 31. 15 30. 30 30. 5 31. 55 31. 35 33. 10 33. 20 35. 45 35. 35 37. 5 38. 20	Feb. 12 20. 54 21. 39 21. 46 22. 39 23. 30 23. 59	Feb. 12 b m	Feb. 12 h m	Feb. 12 o	Feb. 12 o	Feb. 12 h m	Feb. 12 o	Feb. 12 o		
Feb. 13 0. 0 0. 13 0. 33 0. 42 0. 51 0. 57 1. 22 1. 25 2. 23 2. 32 2. 53 3. 4 3. 9 3. 33 3. 56 4. 27	20. 38. 20 40. 10 38. 45 39. 25 39. 15 40. 40 39. 50 41. 10 44. 55 43. 40 42. 10 39. 20 38. 30 38. 30 34. 55 32. 55	Feb. 13 0. 0 0. 13 0. 14 0. 30 0. 41 0. 47 0. 55 1. 8 1. 25 2. 12 2. 36 2. 54 3. 0 3. 30 3. 54 4. 10 4. 38 4. 45 4. 57	Feb. 13 0. 0 2. 8 2. 28 3. 26 3. 54 4. 12 5. 14 5. 44 6. 22 6. 45 7. 20 7. 53 8. 54 9. 8 10. 17 11. 10 11. 13 11. 30 12. 5	Feb. 13 0. 0 2. 8 2. 28 3. 26 3. 54 4. 12 5. 14 5. 44 6. 22 6. 45 7. 20 7. 53 8. 54 9. 8 10. 17 11. 10 11. 13 11. 30 12. 5	Feb. 13 1. 0 3. 0 9. 0 21. 0 22. 0 23. 0	59. 3 58. 9 59. 6 58. 1 58. 1 58. 1	59. 0 59. 0 59. 9 57. 6 57. 6 57. 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.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Feb. 13 4. 51	20. 35. 10	Feb. 13 5. 10	.1376	Feb. 13 13. 21	.03282				Feb. 13 19. 31	20. 30. 0	Feb. 14 0. 0	.1360	Feb. 14 0. 0	.03244	Feb. 14 0. 0	58. 8	58. 3
5. 7	34. 20	5. 25	.1373	13. 42	.03286				20. 58	28. 35	0. 11	.1364	2. 12	.03272	1. 0	58. 9	58. 4
5. 23	37. 20	6. 11	.1356	15. 14	.03282				***	***	0. 26	.1363	3. 10	.03296	2. 0	58. 8	58. 2
5. 41	38. 55	6. 23	.1341	16. 19	.03263				22. 9	32. 25	0. 44	.1366	6. 24	.03282	3. 0	59. 0	58. 7
5. 56	38. 40	6. 41	.1336	19. 33	.03260				22. 22	34. 10	0. 57	.1361	8. 9	.03299	9. 0	58. 5	57. 7
6. 10	35. 40	6. 56	.1342	21. 4	.03250				22. 39	35. 5	1. 19	.1369	8. 29	.03290	21. 0	59. 6	60. 0
6. 26	34. 0	7. 12	.1333	21. 58	.03227				23. 16	33. 25	1. 33	.1366	8. 38	.03275	22. 0	59. 3	59. 5
6. 35	30. 0	7. 39	.1346	23. 59	.03244				23. 59	34. 25	2. 13	.1361	8. 43	.03290	23. 0	58. 3	58. 5
6. 53	24. 30	7. 43	.1341								2. 37	.1366	9. 13	.03226			
6. 59	26. 15	7. 59	.1349								3. 5	.1372	9. 23	.03238			
7. 9	30. 40	8. 0	.1346								3. 22	.1354	9. 36	.03225			
7. 19	30. 20	8. 25	.1354								3. 27	.1362	9. 55	.03245			
7. 26	31. 40	8. 55	.1348								3. 41	.1353	10. 41	.03262			
7. 36	35. 35	9. 11	.1351								4. 38	.1357	14. 23	.03296			
7. 53	34. 20	9. 26	.1341								5. 23	.1353	16. 59	.03304			
7. 59	34. 50	10. 11	.1354								5. 39	.1359	21. 22	.03307			
8. 9	34. 5	10. 19	.1358								5. 51	.1344	23. 59	.03263			
8. 16	34. 50	10. 39	.1354								5. 59	.1350					
8. 37	33. 0	10. 54	.1361								6. 9	.1350					
8. 55	26. 50	10. 56	.1359								6. 25	.1347					
9. 9	27. 40	11. 20	.1382								6. 29	.1365					
9. 20	26. 55	11. 37	.1368								6. 35	.1420					
9. 28	25. 30	12. 0	.1360								6. 55	.1403					
10. 6	30. 0	12. 30	.1356								6. 57	.1370					
10. 13	31. 55	13. 12	.1359								7. 3	.1374					
10. 27	32. 10	13. 33	.1355								7. 13	.1355					
10. 39	30. 50	13. 57	.1357								7. 33	.1359					
10. 51	31. 25	15. 27	.1358								7. 53	.1361					
10. 59	26. 15	15. 42	.1354								8. 9	.1354					
11. 12	30. 55	16. 49	.1356								8. 26	.1361					
11. 23	30. 55	17. 12	.1362								8. 44	.1364					
11. 29	30. 10	17. 36	.1357								8. 56	.1361					
11. 41	32. 20	18. 12	.1360								9. 4	.1366					
12. 9	32. 40	19. 27	.1365								9. 10	.1358					
12. 39	34. 40	20. 14	.1364								9. 18	.1359					
13. 10	33. 0	20. 53	.1359								9. 25	.1359					
13. 26	31. 20	21. 19	.1361								9. 40	.1359					
13. 42	33. 5	21. 56	.1357								9. 49	.1359					
13. 55	32. 45	22. 27	.1346								9. 59	.1359					
14. 3	33. 50	23. 36	.1357								10. 9	.1359					
14. 53	32. 45	23. 59	.1360								10. 46	.1359					
14. 59	31. 55										11. 9	.1359					
15. 21	31. 55										11. 20	.1359					
15. 27	32. 50										11. 34	.1359					
15. 32	32. 50											***					
15. 44	35. 20										12. 26	.1359					
	***										12. 58	.1359					
16. 25	34. 45										13. 41	.1359					
16. 38	35. 0										14. 16	.1359					
16. 59	32. 30																
17. 10	32. 55																
17. 16	32. 45																
17. 26	31. 45																
17. 46	30. 45																
17. 59	31. 15																
18. 10	30. 50																
18. 23	30. 55																
18. 40	32. 0																

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



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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Feb. 14																	
14. 37	20. 32. 35																
15. 7	32. 10																
15. 26	32. 45																
17. 14	31. 25																
17. 25	32. 0																
18. 54	31. 5																
20. 26	29. 15																
21. 8	28. 50																
21. 44	29. 25																
21. 56	30. 10																
22. 8	30. 0																
22. 17	31. 10																
22. 27	30. 55																
23. 26	34. 10																
23. 43	34. 10																
23. 59	35. 40																
Feb. 15		Feb. 15		Feb. 15		Feb. 15			Feb. 15								
0. 0	20. 35. 40	0. 0	*1359	0. 0	*03263	0. 0	58. 3	58. 5	0. 0	20. 36. 20	0. 0	*1356	0. 0	*03453	1. 0	61. 8	61. 8
0. 26	36. 45	0. 20	*1360	0. 55	*03255	1. 0	58. 3	58. 0	2. 9	38. 0	0. 25	*1359	0. 21	*03457	3. 0	61. 1	60. 6
0. 39	35. 20	0. 43	*1358	3. 12	*03257	2. 0	58. 3	58. 0	2. 39	37. 0	1. 20	*1364	3. 12	*03443	9. 0	59. 8	60. 2
0. 56	36. 5	1. 22	*1365	11. 22	*03266	3. 0	57. 8	58. 0	2. 56	36. 55	2. 13	*1367	4. 27	*03418	21. 0	58. 7	58. 8
1. 8	35. 5	1. 40	*1364	17. 35	*03411	9. 0	58. 8	58. 0	3. 12	35. 55	2. 41	*1366	7. 5	*03400			
1. 24	36. 10	1. 52	*1367	21. 25	*03472	21. 0	63. 0	64. 1	3. 42	35. 25	3. 43	*1371	8. 49	*03404			
1. 49	36. 5	2. 11	*1365	22. 46	*03443				3. 53	36. 15	3. 55	*1376	11. 52	*03363			
2. 4	35. 15	2. 35	*1371	23. 59	*03453				4. 28	36. 5	4. 26	*1373	12. 25	*03372			
	***	3. 26	*1371						5. 54	36. 30	4. 43	*1375	13. 12	*03356			
2. 59	36. 30	4. 10	*1365						6. 35	38. 25	5. 26	*1372	13. 29	*03359			
3. 41	34. 55	6. 51	*1370						7. 8	35. 55	5. 55	*1376	13. 54	*03342			
3. 55	34. 55	7. 12	*1369						7. 33	37. 5	6. 32	*1376	14. 13	*03340			
4. 28	33. 40	7. 23	*1371						8. 3	35. 40	7. 9	*1371	14. 38	*03323			
4. 47	33. 40	7. 55	*1368						8. 18	33. 50	7. 22	*1375	15. 13	*03326			
5. 4	33. 5	8. 12	*1369						8. 31	33. 40	7. 43	*1372	17. 18	*03320			
6. 16	32. 50	8. 43	*1364						8. 40	32. 45	8. 12	*1367	18. 0	*03317			
6. 26	33. 15	9. 0	*1369						9. 41	31. 30	8. 30	*1369	19. 9	*03300			
6. 40	32. 40	10. 3	*1361						9. 53	32. 15	9. 6	*1373	21. 42	*03268			
6. 59	33. 30	10. 22	*1365						10. 23	31. 30	9. 43	*1373	23. 59	*03243			
7. 24	32. 30	10. 40	*1363						10. 29	31. 30	10. 11	*1378					
7. 38	33. 35	11. 3	*1371						10. 48	29. 35	10. 25	*1377					
7. 51	33. 5	11. 24	*1364						11. 26	29. 35	10. 41	*1380					
8. 10	31. 55	11. 42	*1368						11. 44	27. 20	10. 55	*1374					
8. 23	32. 25	12. 6	*1364						12. 36	30. 40	11. 19	*1374					
8. 38	32. 10	16. 13	*1362						12. 48	30. 50	11. 25	*1379					
8. 50	30. 55	18. 49	*1367						13. 15	29. 40	11. 41	*1370					
8. 59	31. 45	20. 12	*1364						13. 40	32. 20	11. 53	*1377					
9. 14	31. 0	21. 41	*1356						13. 51	30. 55	12. 10	*1369					
9. 26	31. 0	23. 59	*1356						13. 56	32. 5	12. 22	*1366					
9. 42	30. 15								13. 59	31. 40	13. 10	*1375					
10. 0	30. 35								14. 36	34. 30	13. 25	*1371					
10. 36	30. 0								14. 52	32. 40	13. 43	*1375					
10. 53	30. 55								14. 59	33. 50	14. 26	*1366					
11. 12	27. 50								15. 10	33. 30	14. 45	*1367					
11. 19	27. 40								15. 25	36. 25	15. 9	*1371					
11. 32	29. 50								15. 42	31. 55	15. 19	*1369					
12. 51	31. 50								15. 56	30. 45	15. 41	*1372					
13. 49	31. 15								16. 11	30. 10	16. 44	*1373					
14. 25	31. 40								16. 23	30. 10	17. 56	*1365					
15. 14	31. 20								16. 30	29. 10	18. 43	*1378					
									16. 44	30. 10	19. 25	*1375					
									17. 8	30. 20	20. 10	*1365					
									17. 23	29. 50	21. 4	*1372					
									18. 1	33. 35	21. 38	*1361					
										***	21. 55	*1364					
										30. 55	23. 59	*1362					
										***							

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Feb. 16 h m 19. 51	° ' "	h m		h m		h m	°	°	Feb. 17 h m 13. 15	° ' "	h m		h m		h m	°	°
20. 0	20. 33. 10								22. 0	20. 32. 55					23. 59		
20. 28	32. 40								23. 59	***							
21. 24	31. 0								14. 28	33. 25							
21. 37	29. 40								14. 44	33. 55							
21. 42	29. 50								15. 10	32. 50							
21. 47	31. 0								15. 36	32. 30							
22. 32	32. 40								16. 9	33. 15							
22. 41	32. 30								16. 44	32. 55							
22. 55	32. 50								17. 6	31. 55							
23. 4	34. 40								17. 33	32. 5							
23. 13	34. 40								17. 41	31. 45							
23. 24	36. 5								19. 4	30. 50							
23. 30	35. 0								20. 16	29. 45							
23. 34	35. 40								21. 6	30. 0							
23. 42	35. 0								21. 56	31. 55							
23. 59	35. 35								22. 7	31. 30							
									22. 42	32. 50							
									22. 56	32. 35							
									23. 51	35. 35							
									23. 59	35. 35							
Feb. 17 h m 0. 0	20. 35. 35	Feb. 17 h m 0. 0	*1362	Feb. 17 h m 0. 0	*03243	Feb. 17 h m 1. 0	58. 5	58. 0	Feb. 17 h m 13. 15	20. 32. 55	Feb. 17 h m 22. 0	*1364	Feb. 17 h m 23. 59	*1371	Feb. 17 h m 23. 59		
0. 23	35. 55	0. 55	*1367	0. 59	*03253	3. 0	58. 8	59. 2	14. 28	33. 25							
0. 30	36. 45	1. 11	*1364	3. 0	*03280	9. 0	57. 8	57. 0	14. 44	33. 55							
0. 43	36. 35	2. 9	*1367	4. 22	*03288	21. 6	57. 4	57. 7	15. 10	32. 50							
1. 15	37. 30	2. 23	*1372	7. 11	*03260				15. 36	32. 30							
2. 10	37. 10	2. 56	*1369	7. 42	*03266				16. 9	33. 15							
2. 25	36. 30	4. 21	*1374	8. 38	*03258				16. 44	32. 55							
2. 36	37. 30	5. 29	*1373	10. 41	*03256				17. 6	31. 55							
4. 9	35. 5	5. 43	*1371	11. 27	*03222				17. 33	32. 5							
4. 33	34. 40	5. 57	*1375	11. 41	*03235				17. 41	31. 45							
5. 3	35. 0	6. 49	*1376	12. 6	*03217				19. 4	30. 50							
5. 11	34. 35	7. 14	*1368	13. 29	*03232				20. 16	29. 45							
5. 53	33. 30	7. 29	*1372	16. 27	*03225				21. 6	30. 0							
5. 58	34. 20	7. 42	*1368	19. 24	*03213				21. 56	31. 55							
6. 35	34. 30	8. 11	*1370	21. 24	*03197				22. 7	31. 30							
6. 53	33. 40	8. 29	*1364	22. 41	*03192				22. 42	32. 50							
6. 57	33. 40	8. 42	*1368	23. 59	*03204				22. 56	32. 35							
7. 23	31. 30	9. 10	*1360						23. 51	35. 35							
7. 38	32. 20	9. 30	*1353						23. 59	35. 35							
7. 54	30. 40	9. 47	*1359														
8. 4	30. 40	9. 57	*1355														
8. 16	31. 40	10. 9	*1358														
8. 38	20. 0	10. 14	*1352														
8. 47	19. 45	10. 41	*1360														
8. 56	17. 40	10. 58	*1379														
9. 1	18. 30	11. 8	*1377														
9. 6	17. 40	11. 14	*1380														
9. 34	23. 55	11. 38	*1372														
9. 43	23. 25	11. 53	*1383														
10. 9	27. 15	12. 25	*1365														
10. 13	26. 45	12. 41	*1369														
10. 34	29. 10	13. 0	*1366														
10. 43	26. 55	13. 57	*1372														
10. 56	27. 30	14. 11	*1375														
11. 8	26. 45	14. 57	*1374														
12. 51	31. 50	17. 47	*1378														
12. 57	31. 45	19. 14	*1374														
		20. 11	*1374														
		21. 52	*1363														

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Feb. 18																	
20. 29	20. 29. 30																
22. 6	30. 55																
23. 59	35. 25																
Feb. 19		Feb. 19		Feb. 19		Feb. 19											
0. 0	20. 35. 25	0. 0	.1361	0. 0	.03220	1. 0	59.2	59.2	16. 43	32. 55	15. 40	.1370					
0. 41	37. 0	0. 55	.1366	0. 32	.03229	3. 0	59.0	59.5	17. 8	31. 45	15. 45	.1375					
1. 56	37. 5	1. 29	.1364	4. 32	.03291	9. 0	59.0	59.6	17. 22	31. 45	15. 50	.1369					
2. 41	35. 30	1. 45	.1367	5. 11	.03280	21. 0	57.8	58.5	17. 32	30. 35	15. 55	.1374					
2. 46	37. 35	2. 42	.1368	5. 48	.03312				17. 41	31. 30	15. 59	.1369					
	***	2. 46	.1387	7. 19	.03303				17. 46	30. 45	16. 1	.1374					
3. 4	37. 0	2. 52	.1379	8. 21	.03318					***		***					
3. 18	37. 0	2. 56	.1381	8. 41	.03300				19. 18	30. 35	16. 36	.1373					
3. 26	37. 40	3. 4	.1373	8. 52	.03311				19. 26	29. 40	17. 6	.1368					
3. 40	36. 10	3. 25	.1382	8. 57	.03306				19. 39	30. 15	17. 30	.1371					
4. 28	34. 25	3. 41	.1372	9. 5	.03308				19. 54	29. 45	17. 41	.1369					
4. 49	35. 15	3. 45	.1376	10. 8	.03270				20. 2	28. 15	18. 12	.1373					
5. 10	30. 0	3. 47	.1371	10. 36	.03270				20. 14	29. 20	18. 26	.1370					
5. 21	28. 40	3. 55	.1377	10. 48	.03255				20. 37	29. 20	18. 41	.1375					
5. 26	27. 0	3. 58	.1371	11. 8	.03257				20. 43	28. 40		***					
5. 44	28. 10	***	***	11. 22	.03264				21. 26	29. 50	20. 6	.1367					
6. 20	32. 55	4. 25	.1372	11. 41	.03255				21. 58	31. 50	20. 15	.1372					
6. 48	29. 55	4. 45	.1360	13. 4	.03260				22. 23	32. 20		***					
6. 57	29. 55	5. 0	.1348	13. 16	.03252				22. 27	33. 35	21. 57	.1355					
7. 8	28. 40	5. 15	.1347	16. 24	.03255				22. 57	33. 40	22. 12	.1350					
7. 13	28. 20	5. 44	.1356	19. 57	.03238				23. 7	35. 5	22. 27	.1353					
7. 38	28. 55	6. 11	.1360	23. 59	.03204				23. 12	34. 55	22. 55	.1344					
7. 47	27. 50	6. 29	.1358						23. 23	36. 55	23. 12	.1353					
8. 4	27. 5	6. 56	.1367						23. 45	37. 50	23. 59	.1355					
8. 19	28. 40	7. 7	.1361						23. 59	37. 50							
	***	7. 10	.1364														
8. 30	28. 25	***	***						Feb. 20		Feb. 20		Feb. 20		Feb. 20		Feb. 20
8. 41	29. 10	7. 43	.1352						0. 0	20. 37. 50	0. 0	.1355	0. 0	.03204	1. 0	58.8	60.0
8. 50	28. 15	7. 46	.1357						0. 24	37. 30	0. 12	.1349	2. 58	.03277	3. 0	59.0	60.1
8. 57	29. 5	7. 58	.1351						0. 59	37. 45	0. 50	.1353	7. 40	.03303	9. 0	59.3	59.4
9. 15	27. 15	8. 15	.1368						1. 12	38. 50	0. 55	.1350	8. 59	.03282	21. 0	59.5	59.6
9. 37	28. 25	8. 20	.1365						1. 19	37. 30	1. 8	.1362	10. 34	.03282	22. 0	59.5	59.6
9. 44	27. 0	8. 26	.1368						1. 41	37. 15	1. 12	.1356	10. 41	.03298	23. 0	59.2	59.3
9. 55	27. 10	8. 34	.1356						1. 53	38. 50	1. 23	.1359	10. 54	.03280			
10. 4	25. 10	8. 41	.1363						2. 12	38. 10	1. 34	.1355	12. 8	.03280			
10. 26	26. 40	8. 45	.1358						2. 24	36. 55	1. 43	.1359	12. 14	.03275			
10. 41	23. 25	8. 59	.1364						2. 33	36. 25	2. 6	.1354	12. 26	.03280			
10. 45	24. 0	9. 45	.1360						2. 49	36. 25	3. 11	.1371	12. 38	.03280			
10. 54	25. 30	9. 55	.1362						3. 9	36. 30	3. 49	.1364	12. 40	.03259			
11. 7	25. 40	10. 12	.1348						3. 26	36. 50	5. 15	.1367	13. 6	.03280			
11. 25	29. 35	10. 30	.1367						4. 38	34. 0	5. 26	.1365	13. 26	.03261			
11. 38	28. 25	10. 40	.1368						5. 26	33. 20	5. 43	.1368	13. 47	.03223			
11. 41	29. 55	11. 13	.1356						5. 33	33. 45	5. 54	.1365	14. 6	.03208			
	***	11. 21	.1368						5. 41	33. 40	6. 11	.1366	14. 19	.03215			
13. 8	34. 55	11. 27	.1364						5. 50	32. 30	6. 23	.1360	14. 26	.03202			
13. 26	33. 40	11. 30	.1366						5. 56	33. 55	6. 55	.1354	14. 41	.03208			
13. 30	34. 5	11. 43	.1359						6. 10	33. 5	7. 35	.1364	14. 51	.03229			
	***	11. 53	.1362						6. 29	33. 20	7. 41	.1368	15. 0	.03205			
13. 50	33. 10	12. 0	.1359						6. 57	30. 55	7. 45	.1364	15. 14	.03203			
13. 57	33. 40	12. 15	.1364						7. 8	28. 50	8. 11	.1364	15. 41	.03223			
14. 12	32. 40	12. 41	.1363						7. 19	28. 25	8. 36	.1368	15. 57	.03245			
14. 25	33. 40	13. 0	.1372						7. 25	28. 35	9. 55	.1365	16. 12	.03218			
14. 42	33. 10	13. 25	.1366						8. 11	32. 40	10. 30	.1367	16. 24	.03227			

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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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Feb. 20		Feb. 20		Feb. 20					Feb. 20		Feb. 20						
8. 32	20. 32. 25	10. 37	.1384	16. 40	.03278				18. 59	20. 51. 20	22. 54	.1305					
9. 8	32. 40	10. 40	.1380	16. 42	.03160				19. 6	35. 45	22. 57	.1316					
10. 41	31. 30	10. 45	.1386	16. 49	.02200				19. 13	20. 45. 10	23. 11	.1304					
10. 44	33. 10	11. 21	.1372	16. 53	.02542				19. 24	21. 14. 5	23. 12	.1309					
11. 5	31. 55	11. 39	.1369	16. 59	.02858					(†)	23. 19	.1294					
11. 12	32. 5		***	17. 8	.02672				19. 32	21. 14. 5	23. 27	.1315					
11. 15	31. 0	12. 3	.1376	17. 12	.02440				19. 38	20. 53. 25	23. 30	.1311					
11. 39	30. 20	12. 13	.1368	17. 16	.02677				19. 40	54. 50	23. 35	.1317					
11. 42	31. 10	12. 34	.1384	17. 26	.02844				19. 41	50. 55	23. 40	.1310					
11. 56	31. 10	12. 39	.1360	17. 38	.02858				19. 43	20. 53. 15	23. 59	.1313					
12. 8	32. 0	12. 50	.1375	17. 41	.02920				19. 51	21. 2. 55							
12. 14	30. 40	12. 55	.1371	17. 44	.02907				19. 56	20. 48. 55							
12. 45	31. 25	13. 12	.1374	17. 54	.02923				19. 58	37. 10							
12. 51	34. 45	13. 22	.1385	17. 59	.02837				20. 4	48. 15							
12. 56	30. 15	13. 39	.1374	18. 6	.02724				20. 5	34. 30							
12. 59	31. 10	13. 45	.1376	18. 9	.02785				20. 9	45. 0							
13. 8	30. 15	14. 0	.1367	18. 16	.02744				20. 11	27. 10							
13. 35	40. 40	14. 9	.1373	18. 26	.02800				20. 12	35. 30							
13. 55	42. 40	14. 11	.1366	18. 31	.02816				20. 13	19. 50							
14. 8	40. 50	14. 17	.1384	18. 37	.02768				20. 21	39. 30							
14. 19	38. 10	14. 26	.1368	18. 43	.02818				20. 24	26. 40							
14. 23	36. 10	14. 40	.1376	18. 52	.02789				20. 28	43. 40							
14. 33	34. 15	14. 53	.1397	18. 59	.02869				20. 30	34. 20							
14. 38	37. 20	15. 12	.1376	19. 13	.02805				20. 44	48. 0							
14. 42	33. 10	15. 25	.1370	19. 19	.02884				20. 52	38. 30							
14. 44	34. 5	15. 41	.1358	19. 27	.02917				21. 6	18. 40							
14. 56	32. 15	15. 59	.1381	19. 40	.02800				21. 15	23. 0							
15. 10	36. 5	16. 12	.1352	19. 54	.02858				21. 30	18. 20							
15. 38	30. 10	16. 15	.1368	19. 59	.02826				21. 31	22. 20							
15. 41	25. 30	16. 18	.1348	20. 29	.03107				21. 40	19. 0							
15. 44	28. 45	16. 30	.1379	20. 38	.03170				21. 42	24. 30							
15. 51	24. 50	16. 36	.1244	21. 46	.03429				21. 46	15. 50							
16. 9	30. 45		(†)	22. 24	.03419				21. 51	31. 40							
16. 15	22. 10	17. 30	.1244	22. 49	.03474				22. 0	25. 30							
16. 21	32. 50	17. 35	.1251	22. 58	.03460				22. 7	31. 30							
16. 24	28. 30	17. 40	.1244	23. 7	.03478				22. 12	27. 40							
16. 36	20. 44. 55	17. 42	.1249	23. 11	.03452				22. 26	35. 10							
16. 40	21. 14. 5		(†)	23. 15	.03476				22. 32	31. 15							
	(†)	18. 11	.1244	23. 17	.03449				22. 37	34. 5							
16. 46	21. 14. 5	18. 14	.1283	23. 21	.03465				22. 39	30. 50							
16. 51	20. 56. 20	18. 21	.1265	23. 25	.03429				22. 43	33. 40							
16. 58	21. 14. 5	18. 25	.1244	23. 33	.03463				22. 47	30. 30							
	(†)		(†)	23. 59	.03444				22. 58	35. 20							
17. 10	21. 9. 10	20. 14	.1244						23. 10	32. 20							
17. 13	20. 30. 10	20. 17	.1253						23. 12	34. 0							
17. 23	39. 10	20. 27	.1245						23. 20	29. 20							
17. 41	40. 25	20. 34	.1261						23. 26	30. 30							
17. 51	50. 15	20. 42	.1247						23. 39	30. 50							
17. 55	44. 10	20. 45	.1265						23. 45	29. 30							
17. 59	41. 25	20. 52	.1247						23. 47	32. 0							
18. 4	55. 0	21. 15	.1304						23. 59	31. 10							
18. 9	20. 52. 30	21. 25	.1297														
18. 13	21. 3. 30		***														
18. 23	20. 53. 55	22. 24	.1318						Feb. 21		Feb. 21		Feb. 21		Feb. 21		
18. 26	20. 51. 5	22. 30	.1306						0. 0	20. 31. 10	0. 0	.1313	0. 0	.03444	0. 0	59. 158. 7	
18. 32	21. 0. 10	22. 38	.1319						0. 7	31. 0	0. 18	.1307	0. 24	.03423	1. 0	59. 058. 3	
18. 40	20. 58. 30	22. 41	.1298						0. 16	32. 55	0. 22	.1314	0. 54	.03443	2. 0	59. 058. 6	
18. 49	41. 45	22. 45	.1310						0. 35	32. 30	0. 41	.1310	1. 5	.03437	3. 0	58. 858. 9	
									0. 44	34. 35	0. 55	.1322	1. 53	.03440	9. 0	59. 859. 0	

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

February 20. The photographic trace for Declination was off the sheet in the direction of increasing Declination, from 16<sup>h</sup>. 40<sup>m</sup>. to 16<sup>h</sup>. 46<sup>m</sup>., from 16<sup>h</sup>. 58<sup>m</sup>. to 17<sup>h</sup>. 10<sup>m</sup>., and from 19<sup>h</sup>. 24<sup>m</sup>. to 19<sup>h</sup>. 32<sup>m</sup>.; and that for Horizontal Force was off the sheet in the direction of diminishing force from 16<sup>h</sup>. 36<sup>m</sup>. to 17<sup>h</sup>. 30<sup>m</sup>., from 17<sup>h</sup>. 42<sup>m</sup>. to 18<sup>h</sup>. 11<sup>m</sup>., and from 18<sup>h</sup>. 25<sup>m</sup>. to 20<sup>h</sup>. 14<sup>m</sup>.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Feb. 21		Feb. 21		Feb. 21		Feb. 21			Feb. 21		Feb. 21						
0. 53	20. 33. 55	1. 11	.1297	1. 58	.03423	21. 0	58.8	59.0	9. 11	20. 32. 35	22. 52	.1333					
0. 58	36. 50	1. 28	.1313	2. 12	.03427	22. 0	58.5	58.9	9. 26	33. 30	23. 11	.1327					
1. 15	34. 55	1. 52	.1317		***	23. 0	58.3	58.5	9. 42	32. 55	23. 34	.1334					
	***	1. 57	.1310	2. 21	.03476				10. 10	33. 25	23. 59	.1333					
1. 37	36. 55	2. 26	.1368	2. 40	.03445				10. 34	33. 5							
1. 42	35. 40	2. 35	.1338	3. 12	.03562				10. 43	32. 0							
1. 46	38. 20	2. 43	.1320	3. 24	.03668				13. 26	32. 20							
1. 53	35. 40	2. 57	.1356	3. 28	.03653				13. 28	31. 30							
2. 6	38. 50	3. 18	.1370	3. 46	.03940				13. 47	33. 35							
2. 10	36. 10	3. 26	.1388	3. 56	.03900				14. 13	31. 50							
2. 28	38. 55	3. 32	.1376	4. 2	.04000				14. 42	32. 0							
2. 30	36. 50	3. 54	.1409	4. 9	.03963				15. 10	30. 45							
2. 42	41. 30	3. 57	.1463	4. 16	.03946				16. 45	30. 30							
2. 54	34. 10	4. 7	.1367	4. 20	.03997				17. 9	31. 15							
3. 9	37. 50	4. 13	.1396	4. 26	.04210				17. 23	30. 25							
3. 20	24. 55	4. 22	.1417	4. 38	.03968				18. 24	30. 30							
3. 24	32. 50	4. 24	.1374	4. 41	.04006				18. 39	30. 0							
3. 28	31. 50	4. 32	.1385	4. 46	.03993				18. 43	30. 40							
3. 36	36. 50	4. 41	.1369	4. 48	.03997				19. 13	29. 40							
3. 42	16. 55	4. 42	.1375	4. 57	.03849				19. 26	32. 40							
3. 46	50. 50	4. 50	.1343	5. 6	.03977				19. 30	26. 0							
3. 56	22. 5	5. 0	.1308	5. 12	.03808				19. 34	30. 25							
3. 59	21. 20	5. 10	.1317	5. 20	.03728				19. 39	26. 50							
4. 14	46. 50	5. 13	.1323	5. 28	.03689				19. 50	30. 20							
4. 25	11. 15	5. 20	.1299	5. 40	.03678				19. 55	29. 55							
4. 30	26. 50	5. 23	.1304	6. 14	.03558				20. 6	31. 40							
4. 32	23. 15	5. 29	.1292	6. 23	.03507				20. 18	29. 0							
4. 42	34. 10	5. 43	.1322	6. 35	.03537				20. 25	34. 25							
4. 45	27. 10	5. 45	.1292	6. 50	.03526				20. 36	29. 55							
4. 58	36. 5	5. 53	.1309	7. 0	.03511				20. 39	33. 45							
5. 1	16. 55	6. 9	.1355	7. 15	.03480				20. 53	30. 20							
5. 10	22. 20	6. 13	.1306	7. 40	.03460				21. 0	34. 0							
5. 14	31. 40	6. 19	.1290	8. 6	.03460				21. 12	32. 20							
5. 19	33. 10	6. 30	.1316	8. 34	.03448				21. 21	35. 50							
5. 21	32. 15	6. 39	.1310	10. 55	.03417				21. 26	33. 40							
5. 25	35. 50	6. 43	.1320	13. 36	.03420					***							
5. 33	28. 50	6. 54	.1309	13. 44	.03412				22. 39	33. 35							
5. 39	23. 15	6. 57	.1317	18. 24	.03384				23. 5	35. 0							
5. 44	32. 20	7. 9	.1310		***				23. 14	34. 30							
5. 51	19. 25	7. 18	.1321	20. 27	.03360					***							
5. 54	20. 0	7. 30	.1315		***				23. 59	35. 25							
5. 57	13. 45	7. 52	.1316	21. 24	.03364												
6. 12	43. 0	7. 56	.1321	22. 54	.03340				Feb. 22		Feb. 22		Feb. 22		Feb. 22		
6. 27	25. 25	8. 12	.1324	23. 59	.03343				0. 0	20. 35. 25	0. 0	.1333	0. 0	.03343	1. 0	58.8	59.0
6. 38	30. 40	8. 26	.1320						0. 51	35. 10	0. 26	.1337	3. 7	.03392	2. 0	58.8	59.0
6. 43	29. 10	10. 50	.1324						1. 9	35. 35	0. 52	.1334		.03338	3. 0	58.8	59.0
6. 51	34. 55	10. 57	.1322						1. 40	35. 0	1. 11	.1338	13. 26	.03344	9. 0	58.8	59.0
6. 58	34. 30	13. 25	.1324						2. 4	35. 30	1. 15	.1334	13. 50	.03337	21. 0	59.0	59.1
7. 1	35. 20	13. 41	.1330						2. 21	34. 55	1. 54	.1336	16. 23	.03339			
7. 12	31. 50	13. 56	.1324						2. 30	35. 10	2. 5	.1340	18. 52	.03337			
7. 24	35. 50	17. 11	.1329						3. 4	34. 30	2. 16	.1340		***			
7. 36	34. 35	18. 26	.1327						3. 12	35. 50	2. 25	.1343	21. 18	.03320			
7. 42	34. 25	19. 22	.1331						3. 21	34. 40	3. 3	.1338	22. 32	.03310			
7. 54	33. 0	19. 53	.1345						4. 2	34. 10	3. 13	.1349	22. 44	.03297			
8. 1	34. 25		***						4. 30	33. 0	3. 24	.1341	23. 59	.03298			
8. 13	35. 15	20. 41	.1328						5. 23	33. 10	3. 59	.1343					
8. 34	33. 10	21. 11	.1333						5. 59	32. 25	4. 25	.1339					
8. 40	33. 30	21. 33	.1330						6. 49	33. 15	5. 26	.1343					

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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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Feb. 23 15. 35	20. 31. 10	Feb. 23 23. 59	*1323						Feb. 24 6. 16	20. 30. 15	Feb. 24 6. 29	*1366	Feb. 24 8. 54	*03295			
15. 41	27. 10								6. 31	33. 55	6. 51	*1388	9. 29	*03262			
15. 51	29. 50								6. 37	32. 40	6. 55	*1377	9. 41	*03300			
15. 59	31. 10								6. 46	31. 45	7. 0	*1383	9. 44	*03278			
16. 13	29. 30								6. 51	33. 25	7. 7	*1375	9. 51	*03305			
16. 17	30. 50								6. 58	33. 20	7. 13	*1371	9. 59	*03277			
16. 37	31. 0								7. 14	35. 15	7. 24	*1358	10. 11	*03286			
17. 27	32. 35								7. 26	33. 10	7. 39	*1370	10. 29	*03263			
17. 33	31. 45 ***								7. 37	33. 40	7. 42	*1366	11. 58	*03266			
18. 9	31. 25								7. 41	33. 20	7. 52	*1383	12. 26	*03243			
18. 12	33. 5								7. 51	35. 30	7. 56	*1364	12. 45	*03256			
18. 20	32. 5								8. 5	33. 25	8. 0	*1370	13. 13	*03243			
18. 29	36. 25								8. 13	37. 10	8. 12	*1377	13. 26	*03256			
18. 36	35. 10								8. 21	31. 10	8. 27	*1352	13. 38	*03220			
18. 41	36. 25								8. 29	31. 10	9. 0	*1367	13. 46	*03222			
18. 56	35. 30								8. 51	26. 10	9. 12	*1356	13. 55	*03204			
19. 11	36. 40								8. 59	26. 30	9. 18	*1360	13. 59	*03219			
19. 27	43. 25								9. 9	22. 50	9. 36	*1342	14. 3	*03202			
19. 39	40. 40								9. 16	23. 5	9. 41	*1352	14. 14	*03237			
19. 43	38. 20								9. 26	18. 0	9. 43	*1345	14. 53	*03215			
19. 55	39. 20								9. 29	19. 50	9. 52	*1358	15. 12	*03214			
20. 23	37. 40								9. 39	18. 10	10. 3	*1351	15. 52	*03204			
20. 26	36. 10								9. 42	19. 45	10. 12	*1365	16. 12	*03209			
20. 56	34. 30								9. 45	15. 55	10. 26	*1350	16. 56	*03216			
21. 24	34. 35								9. 48	15. 40	10. 30	*1352	17. 23	*03225			
21. 41	33. 10								9. 54	14. 20	10. 43	*1332	21. 20	*03218			
21. 51	33. 20								9. 56	14. 55	10. 53	*1337		***			
22. 6	32. 40								10. 6	20. 30	11. 11	*1342	22. 54	*03200			
22. 28	33. 25								10. 11	22. 10	11. 17	*1336	23. 59	*03196			
22. 41	34. 30								10. 16	20. 20	11. 36	*1342					
23. 11	35. 30								10. 31	23. 40	11. 44	*1358					
23. 39	38. 25								10. 39	18. 35	11. 58	*1364					
23. 55	43. 20								10. 53	20. 50	12. 18	*1354					
23. 59	39. 30								11. 2	25. 0	12. 25	*1344					
Feb. 24 0. 0	20. 39. 30	Feb. 24 0. 0	*1324	Feb. 24 0. 0	*03206	Feb. 24 1. 0	58. 2	57. 8	11. 10	25. 0	12. 41	*1340					
0. 14	45. 10	0. 25	*1356	0. 7	*03206	3. 0	58. 3	58. 0	12. 20	33. 30	12. 52	*1343					
0. 30	42. 5	0. 41	*1350	0. 14	*03225	9. 0	58. 3	58. 0	12. 49	30. 10	13. 22	*1333					
0. 42	45. 10 ***	0. 49	*1364	0. 29	*03222	22. 0	58. 0	57. 7	12. 57	27. 45	13. 30	*1341					
1. 3	40. 10	0. 57	*1356		***				13. 10	25. 45	13. 41	*1336					
1. 20	39. 50	1. 8	*1343	0. 45	*03246				13. 16	29. 20	13. 45	*1338					
1. 28	39. 45	1. 21	*1339	0. 49	*03230				13. 20	28. 20	13. 56	*1326					
1. 40	37. 40 ***	1. 25	*1316	0. 56	*03242				13. 36	35. 30	14. 0	*1334					
2. 9	36. 5 ***	1. 41	*1323	0. 59	*03227				13. 44	29. 55	14. 3	*1326					
2. 38	36. 40	2. 11	*1343	1. 21	*03246				13. 52	30. 40	14. 11	*1335					
3. 25	34. 35	2. 29	*1357	1. 26	*03223				13. 56	30. 0	14. 21	*1333					
3. 39	34. 5	2. 55	*1344	2. 0	*03255				13. 59	25. 50	14. 41	*1352					
3. 44	34. 40	3. 23	*1351	2. 14	*03263				14. 7	27. 5	14. 57	*1347					
4. 8	33. 15	3. 43	*1356		***				14. 12	20. 55	15. 26	*1348					
4. 41	33. 25	3. 53	*1363	2. 51	*03258				14. 26	28. 5	15. 45	*1341					
5. 26	32. 30	4. 23	*1354	3. 7	*03252				14. 38	27. 30	15. 56	*1343					
6. 10	32. 35	4. 53	*1354	4. 39	*03277				14. 47	29. 40	16. 9	*1339					
6. 12	32. 0	6. 22	*1374	6. 36	*03263				15. 5	29. 40	16. 13	*1344					
				7. 32	*03252				15. 36	34. 50	16. 22	*1340					
				7. 42	*03260				15. 59	32. 25	16. 53	*1346					
				7. 52	*03255				16. 9	30. 25	17. 16	*1345					
									16. 18	31. 25	17. 23	*1350					
									16. 23	29. 55	17. 30	*1347					
									16. 26	30. 10	17. 41	*1354					

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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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Feb. 24		Feb. 24							Feb. 25		Feb. 25		Feb. 25				
16. 29	20. 28. 0	17. 52	.1352						4. 31	20. 38. 50	5. 24	.1399	6. 15	.03500			
16. 51	26. 0	17. 58	.1358						4. 40	41. 50	5. 36	.1445	6. 25	.03556			
17. 14	29. 30 ***	18. 10	.1351 ***						4. 53	37. 35 ***	5. 39	.1357	6. 32	.03424			
17. 46	27. 30	18. 40	.1355						5. 23	43. 10	5. 50	.1414	6. 38	.03434			
17. 52	28. 10	18. 44	.1360 ***						5. 28	42. 15	6. 6	.1355	6. 40	.03438			
18. 29	27. 50								5. 42	57. 45	6. 12	.1392	6. 43	.03382			
19. 13	29. 40	20. 16	.1352						5. 45	46. 0	6. 18	.1376	7. 7	.03320			
19. 19	28. 10	20. 24	.1357						5. 51	49. 20	6. 22	.1331	7. 11	.03290			
19. 27	29. 5	20. 27	.1366						5. 59	39. 35	6. 27	.1360	7. 13	.03306			
19. 52	28. 35	20. 41	.1356						6. 7	43. 50	6. 35	.1333	7. 23	.03267			
20. 9	29. 10	21. 12	.1351						6. 21	34. 25	6. 38	.1365	7. 26	.03292			
20. 14	27. 45	21. 45	.1356 ***						6. 32	14. 10	6. 40	.1354	7. 33	.03262			
20. 26	28. 35								6. 40	20. 40	6. 43	.1360	7. 38	.03277			
20. 28	30. 55	22. 56	.1341						6. 47	15. 40	6. 48	.1344	7. 44	.03244			
20. 32	30. 10	23. 0	.1342						7. 2	29. 45	6. 52	.1363	7. 57	.03230			
21. 4	31. 15	23. 54	.1353						7. 6	24. 30	6. 56	.1360	8. 0	.03263			
21. 13	30. 20	23. 59	.1354						7. 13	34. 55	7. 3	.1380	8. 11	.03221			
21. 17	31. 50								7. 16	34. 55	7. 11	.1360	8. 12	.03246			
21. 27	32. 10								7. 16	34. 55	7. 11	.1376	8. 16	.03219			
21. 38	30. 45								7. 25	39. 55	7. 13	.1349	8. 24	.03228			
21. 51	32. 55								7. 37	41. 50 ***	7. 19	.1368	8. 36	.03185			
22. 9	32. 30								8. 5	39. 30	7. 25	.1356	8. 41	.03192			
22. 20	33. 55								8. 12	42. 20	7. 29	.1383	8. 52	.03217			
22. 36	33. 30								8. 25	39. 30	7. 40	.1362	8. 54	.03173			
22. 57	36. 25								8. 40	30. 10	7. 43	.1363	8. 59	.03523			
23. 2	35. 30								8. 45	29. 15	7. 47	.1347	9. 4	.03523			
23. 27	35. 30								8. 52	31. 50	7. 53	.1398	9. 12	.03426			
23. 55	37. 10								8. 58	27. 20	7. 55	.1374	9. 26	.03364			
23. 59	36. 35								9. 0	30. 10	7. 59	.1393	9. 30	.03364			
									9. 3	25. 25	8. 1	.1370	9. 40	.03324			
									9. 9	25. 25	8. 9	.1392	9. 45	.03326			
									9. 15	19. 20	8. 14	.1360	9. 54	.03303			
									9. 25	24. 10	8. 24	.1339	10. 8	.03312			
									9. 30	22. 25	8. 27	.1343	10. 26	.03265			
									9. 42	28. 0	8. 31	.1333	10. 35	.03265			
									9. 57	20. 50	8. 37	.1338	11. 11	.03217			
									10. 12	17. 15	8. 41	.1337	11. 26	.03203			
									10. 38	26. 55	8. 49	.1352	11. 36	.03211			
									10. 46	26. 20	8. 52	.1336	11. 38	.03196			
									10. 49	28. 20	8. 56	.1375	11. 42	.03203			
									11. 12	28. 5	9. 11	.1331	12. 12	.03186			
									11. 26	30. 20	9. 26	.1309	15. 41	.03157			
									11. 34	32. 55	9. 34	.1313	15. 45	.03172			
									11. 38	30. 10	9. 54	.1302	15. 55	.03163			
									11. 44	32. 35	10. 6	.1305	***				
									12. 5	34. 0	10. 12	.1318	18. 11	.03143			
									12. 8	33. 40	10. 21	.1325	18. 53	.03156			
									12. 57	32. 30	10. 26	.1323	22. 59	.03104			
									13. 19	33. 25	10. 41	.1328	23. 4	.03118			
									13. 32	32. 40	10. 52	.1340	23. 13	.03097			
									13. 53	33. 25	10. 56	.1336	23. 22	.03107			
									14. 6	32. 55	11. 12	.1334	***				
									14. 16	33. 15	11. 25	.1340	23. 46	.03084			
									14. 23	32. 25	11. 27	.1336	23. 59	.03108			
									14. 55	32. 30	11. 40	.1345					
									15. 11	33. 50	11. 42	.1335					
									15. 16	31. 15	11. 46	.1342					
											11. 56	.1337					

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



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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Feb. 25		Feb. 25							Feb. 26		Feb. 26		Feb. 26				
15. 21	20. 33. 15	12. 12	*1340						1. 39	20. 34. 40	1. 57	*1360	2. 22				
15. 29	32. 10	12. 19	*1337						1. 43	31. 15	2. 0	*1352	2. 27				
15. 32	33. 25	13. 20	*1341						1. 50	36. 45	2. 7	*1372	3. 11				
15. 41	30. 20	13. 35	*1338						1. 57	37. 5	2. 11	*1349	4. 56				
15. 44	33. 40	14. 7	*1341						2. 2	36. 35	2. 13	*1363	***				
15. 50	30. 40	14. 27	*1338						2. 12	39. 25	2. 34	*1342	5. 24				
15. 54	33. 15	15. 39	*1347						2. 17	43. 35	2. 56	*1355	5. 41				
16. 0	31. 50	15. 43	*1342						2. 43	39. 20	3. 22	*1346	5. 50				
16. 17	32. 25	15. 50	*1352						3. 7	41. 20	3. 43	*1357	6. 9				
16. 22	31. 20	15. 56	*1344						3. 25	39. 0	3. 57	*1354	6. 27				
16. 26	33. 45	***							3. 43	40. 10	4. 5	*1335	6. 46				
16. 30	31. 40	17. 22	*1351						3. 53	39. 5	4. 25	*1355	6. 57				
16. 36	32. 55	18. 6	*1346						4. 3	41. 35	4. 43	*1344	8. 41				
16. 46	30. 35	18. 27	*1338						4. 17	34. 35	5. 4	*1360	8. 49				
17. 2	30. 55	19. 4	*1344						4. 39	36. 30	5. 43	*1354	9. 36				
17. 4	29. 40	19. 14	*1342						4. 57	29. 10	5. 57	*1367	9. 42				
17. 16	33. 15	19. 41	*1348						5. 8	24. 45	6. 12	*1364	9. 53				
17. 19	30. 10	19. 56	*1345						5. 16	26. 20	6. 19	*1348	10. 10				
17. 26	33. 30	20. 20	*1346						5. 29	25. 15	6. 39	*1364	16. 55				
17. 32	28. 35	20. 42	*1353						5. 52	27. 50	6. 52	*1357	18. 24				
17. 41	32. 40	22. 4	*1353						5. 58	30. 25	7. 8	*1364	18. 57				
17. 47	29. 40	22. 10	*1361						6. 9	29. 55	7. 12	*1359	21. 24				
18. 10	31. 40	22. 20	*1363						6. 15	32. 0	7. 34	*1365	23. 4				
18. 20	31. 20	22. 28	*1362						6. 25	30. 40	7. 53	*1362	23. 59				
18. 33	33. 20	22. 35	*1355						6. 43	34. 35	8. 6	*1364					
18. 45	32. 40	22. 47	*1353						6. 46	33. 55	8. 23	*1362					
19. 2	33. 30	22. 56	*1368						7. 5	35. 30	8. 41	*1367					
19. 13	32. 20	23. 5	*1350						7. 23	34. 25	8. 47	*1355					
19. 29	32. 30	23. 11	*1354						8. 29	34. 25	8. 54	*1358					
19. 43	34. 15	23. 20	*1348						8. 51	30. 45	9. 11	*1353					
19. 50	32. 40	23. 24	*1356						9. 10	29. 55	9. 32	*1368					
20. 26	32. 15	23. 28	*1342						9. 20	30. 15	9. 41	*1342					
20. 32	33. 10	23. 33	*1355						9. 26	31. 20	9. 56	*1349					
20. 38	32. 5	23. 43	*1331						9. 38	30. 30	10. 11	*1354					
20. 44	33. 5	23. 56	*1343						9. 46	31. 55	16. 0	*1349					
21. 48	34. 10	23. 59	*1336						10. 3	29. 25	17. 11	*1339					
22. 0	34. 5								10. 56	31. 55	18. 12	*1353					
22. 55	37. 10								11. 54	32. 15	18. 59	*1346					
22. 58	39. 5								15. 11	31. 40	***						
23. 3	37. 15								15. 49	31. 5	21. 20	*1339					
23. 13	39. 30	***							16. 38	31. 10	22. 22	*1345					
23. 40	40. 15								16. 54	34. 20	23. 2	*1344					
23. 46	38. 40								17. 10	34. 50	23. 11	*1335					
23. 59	41. 45								17. 19	34. 30	23. 19	*1340					
									17. 36	36. 35	23. 43	*1328					
									18. 4	33. 45	23. 59	*1329					
									18. 11	31. 50							
Feb. 26		Feb. 26		Feb. 26		Feb. 26			18. 29	30. 30							
0. 0	20. 41. 45	0. 0	*1336	0. 0	*03108	1. 0	58. 0	58. 1	18. 50	30. 30							
0. 5	44. 45	0. 27	*1350	0. 19	*03085	3. 0	57. 6	57. 9	18. 58	31. 40							
0. 12	40. 10	0. 36	*1335	0. 26	*03114	9. 0	57. 9	57. 6	19. 8	31. 40							
0. 20	46. 30	0. 44	*1340	0. 29	*03104	21. 0	59. 8	61. 0	19. 12	30. 40							
0. 40	40. 50	0. 56	*1357	0. 42	*03113				19. 23	30. 40							
1. 4	46. 50	1. 14	*1313	0. 57	*03143				19. 33	31. 50							
1. 13	40. 0	1. 24	*1342	1. 7	*03126				19. 47	31. 20							
1. 17	41. 15	1. 27	*1354	1. 18	*03126				20. 26	32. 0							
1. 22	39. 5	1. 42	*1346	1. 21	*03137				20. 33	30. 55							
1. 27	40. 10	1. 48	*1359	1. 50	*03195				20. 45	32. 30							
1. 32	37. 20	1. 53	*1353	1. 54	*03217												

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Feb. 26																	
20. 53	20. 30. 55								Feb. 27	20. 29. 0							
20. 58	32. 10								12. 41	17. 0	19. 45	.1362					
21. 24	31. 20								13. 2	16. 20	20. 14	.1368					
21. 33	31. 55								13. 15	13. 25	20. 40	.1358					
21. 56	32. 30								13. 17	17. 20	21. 6	.1360					
22. 27	35. 0								13. 19	17. 20	21. 6	.1357					
22. 42	35. 0								13. 38	27. 5	21. 41	.1363					
22. 56	35. 40								13. 53	32. 20	22. 22	.1362					
23. 5	34. 25								14. 7	31. 0	22. 54	.1346					
23. 17	36. 10								14. 11	31. 30	23. 41	.1350					
23. 59	38. 5								14. 19	30. 20	23. 45	.1347					
									14. 26	30. 40	23. 59	.1350					
									14. 51	28. 40							
									15. 0	29. 55							
Feb. 27		Feb. 27		Feb. 27		Feb. 27			15. 13	29. 50							
0. 0	20. 38. 5	0. 0	.1329	0. 0	.03277	1. 0	59. 2	59. 9	15. 21	28. 35							
0. 23	39. 25	1. 2	.1346	1. 11	.03294	3. 0	58. 5	59. 0	15. 51	30. 10							
0. 55	37. 10	1. 59	.1355	2. 24	.03278	9. 0	57. 8	57. 5	16. 17	29. 20							
1. 13	37. 50	2. 43	.1347	3. 24	.03296	21. 0	56. 7	56. 6	16. 26	29. 40							
	***	3. 11	.1356	6. 40	.03242	22. 0	56. 7	56. 5	16. 36	29. 15							
1. 43	35. 40	3. 24	.1354	6. 52	.03247	23. 0	56. 8	57. 5	17. 1	29. 40							
1. 52	36. 50	3. 41	.1357	8. 14	.03230				19. 13	29. 50							
2. 9	36. 55	4. 35	.1351	11. 12	.03216				19. 20	30. 40							
2. 28	38. 30	4. 55	.1358	11. 15	.03223				20. 4	28. 50							
2. 33	37. 30	5. 11	.1356	11. 31	.03218				20. 17	30. 10							
2. 41	37. 50	5. 34	.1359	12. 11	.03196				20. 23	32. 50							
2. 44	35. 30	6. 11	.1359		***				20. 38	30. 15							
2. 56	34. 15	6. 29	.1352	12. 36	.03157				20. 43	31. 10							
3. 8	33. 55	6. 53	.1361	12. 42	.03157				21. 3	30. 30							
3. 12	34. 40	7. 12	.1363	12. 54	.03143				21. 53	32. 35							
3. 26	33. 25	7. 55	.1362	13. 7	.03147				21. 59	31. 50							
3. 42	33. 5	8. 11	.1357	13. 12	.03138				22. 25	33. 40							
3. 54	33. 55	8. 22	.1361	13. 54	.03196				22. 36	33. 5							
4. 26	33. 15	9. 12	.1356	15. 40	.03194				23. 6	36. 15							
4. 38	32. 10	9. 22	.1362	20. 25	.03126				23. 26	36. 30							
4. 56	33. 20	9. 43	.1361	20. 27	.03145				23. 53	35. 50							
5. 27	32. 10	10. 10	.1356	22. 18	.03113				23. 59	35. 55							
5. 48	33. 0	10. 52	.1362	23. 59	.03138												
6. 14:	32. 50	11. 19	.1360														
6. 36	28. 30	11. 27	.1373						Feb. 28	20. 35. 55	0. 0	.1350	0. 0	.03138	0. 0	56. 8	57. 0
6. 44	30. 0	11. 49	.1386						0. 5	36. 30	0. 14	.1353	1. 16	.03158	1. 0	57. 3	58. 0
6. 58:	27. 40	12. 11	.1379						0. 16	35. 40	0. 29	.1360	1. 41	.03180	2. 0	57. 3	58. 0
7. 26	29. 25	12. 21	.1389						0. 24	36. 55	0. 36	.1356	2. 32	.03183	3. 0	57. 4	57. 5
7. 40	30. 40	12. 31	.1394						0. 30	35. 35	0. 42	.1362	3. 12	.03200	9. 0	58. 3	58. 2
7. 53	30. 15	13. 11	.1373						0. 56	37. 15	1. 12	.1348	3. 39	.03188	21. 0	57. 6	57. 7
7. 58	30. 15	13. 16	.1377						1. 17	34. 40	1. 41	.1357	4. 26	.03197	22. 0	57. 8	57. 6
8. 13	29. 35	13. 27	.1357						1. 28	34. 30	1. 44	.1351	4. 46	.03192	23. 0	57. 8	57. 9
8. 19	30. 5	13. 45	.1341						1. 36	35. 20	1. 56	.1355	10. 55	.03217			
8. 26	29. 55	13. 57	.1349						1. 41	34. 0	2. 39	.1351	17. 10	.03210			
8. 44	31. 5	14. 9	.1346						1. 53	34. 40	2. 43	.1358	21. 18	.03178			
9. 32	30. 40	14. 16	.1353						2. 32	33. 25	2. 56	.1355	23. 4	.03156			
10. 37	31. 40	14. 24	.1350						2. 40	34. 30	3. 12	.1366	23. 59	.03164			
10. 49	29. 5	14. 40	.1355						2. 42	33. 40	3. 43	.1351					
11. 10	29. 10	14. 56	.1350						2. 57	33. 40	4. 12	.1357					
11. 13	30. 10	15. 14	.1356						3. 6	34. 45	4. 37	.1352					
11. 17	29. 40	15. 37	.1354							***	4. 43	.1346					
11. 40	36. 25	17. 44	.1360						3. 28	33. 10	4. 56	.1354					
11. 58	37. 10	18. 20	.1369						3. 49	32. 40	5. 41	.1358					
12. 23	34. 55	19. 9	.1363						4. 11	33. 15	6. 26	.1356					
12. 37	29. 15	19. 24	.1367														

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

## 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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Feb. 28		Feb. 28															
4. 49	20. 32. 30	7. 19	*1360						Mar. 1	1. 34	20. 38. 40	3. 41	*1342	10. 23		*03175	
5. 21	32. 15	9. 20	*1360						1. 44	37. 40	3. 52	*1345	10. 53		*03158		
5. 36	32. 50	9. 35	*1355						1. 56	40. 10	4. 0	*1340	11. 12		*03168		
5. 54	32. 5	10. 0	*1352						2. 7	40. 25	4. 15	*1348	11. 28		*03143		
6. 29	32. 40	10. 13	*1347						2. 12	39. 10	4. 24	*1342	12. 34		*03177		
6. 41	32. 10	10. 54	*1363						2. 15	40. 20	4. 27	*1344	15. 12		*03222		
9. 19	31. 45	11. 40	*1354						2. 22	39. 20	4. 43	*1333	17. 18		*03249		
9. 34	31. 0	11. 57	*1355						2. 50	40. 0	4. 59	*1354	18. 11		*03246		
10. 4	31. 0	13. 41	*1354						2. 56	39. 40	5. 10	*1334	21. 30		*03260		
10. 19	26. 40	13. 57	*1358						3. 0	37. 35	5. 12	*1353	22. 56		*03236		
10. 28	27. 30	16. 38	*1357						3. 19	39. 10	5. 21	*1361	23. 59		*03240		
10. 46	24. 10	18. 21	*1367						3. 41	37. 50	5. 45	*1341					
10. 55	25. 5	19. 24	*1344						3. 51	37. 40	6. 11	*1345					
11. 1	24. 50	19. 44	*1348						3. 59	36. 30	6. 21	*1342					
11. 32	31. 25	20. 0	*1355						4. 10	36. 25	6. 44	*1352					
11. 49	32. 5	21. 22	*1352						4. 16	37. 20	7. 0	*1349					
12. 51	32. 40	22. 11	*1346						4. 23	36. 55	7. 21	*1353					
13. 25	31. 40	22. 42	*1347						4. 32	37. 40	7. 39	*1349					
13. 34	33. 20	22. 54	*1356						4. 41	33. 30	8. 13	*1346					
13. 41	32. 35	23. 12	*1347						4. 43	33. 30	8. 36	*1342					
13. 49	33. 0	23. 59	*1355						4. 56	29. 10	8. 57	*1365					
14. 11	31. 55								4. 58	31. 10	9. 19	*1356					
14. 39	32. 10								5. 13	18. 15	9. 25	*1358					
14. 57	31. 40								5. 23	23. 0	9. 39	*1354					
16. 58	31. 10								5. 41	28. 0	9. 44	*1357					
17. 4	32. 5								5. 44	27. 30	10. 0	*1344					
17. 13	31. 10								6. 8	30. 0	10. 12	*1346					
17. 33	31. 10								6. 14	33. 0	10. 27	*1353					
17. 51	30. 20								6. 45	32. 40	10. 45	*1347					
18. 2	30. 40								6. 56	33. 20	11. 6	*1338					
18. 38	30. 5								7. 40	32. 0	11. 12	*1353					
19. 24	36. 40								7. 56	32. 50	11. 28	*1357					
19. 39	36. 10								8. 10	32. 0	11. 41	*1367					
19. 41	34. 40								8. 26	26. 15	12. 8	*1365					
19. 53	34. 50								8. 33	22. 40	12. 24	*1353					
20. 23	31. 50								8. 39	21. 50	12. 43	*1359					
20. 41	31. 15								9. 3	26. 20	13. 27	*1349					
21. 32	32. 40								9. 11	25. 10	13. 43	*1353					
21. 41	32. 15								9. 25	28. 15	14. 12	*1349					
21. 56	33. 10								9. 30	27. 30	14. 54	*1347					
22. 5	32. 35								9. 44	30. 5	15. 12	*1351					
22. 13	33. 40								9. 57	27. 55	16. 27	*1350					
22. 34	34. 25								10. 10	28. 0	17. 11	*1344					
22. 46	37. 5								10. 14	29. 20	17. 22	*1346					
23. 25	34. 55								10. 24	29. 35	17. 53	*1353					
23. 59	37. 20								10. 28	31. 10	18. 20	*1356					
									10. 36	31. 10	18. 57	*1350					
Mar. 1		Mar. 1		Mar. 1		Mar. 1			10. 41	30. 40	19. 32	*1348					
0. 0	20. 37. 20	0. 0	*1355	0. 0	*03164	0. 0	58. 0	58. 0	10. 46	29. 15	20. 11	*1352					
0. 23	36. 30	0. 22	*1350	3. 11	*03248	1. 0	58. 4	58. 6	11. 9	33. 55	20. 43	*1331					
0. 26	37. 40	1. 14	*1356	4. 56	*03260	3. 0	58. 3	58. 5	11. 27	23. 55	20. 59	*1329					
0. 29	37. 25	1. 23	*1347	5. 11	*03313	9. 0	56. 8	56. 9	11. 38	25. 0	21. 34	*1342					
0. 39	38. 0	1. 42	*1344	5. 14	*03290	21. 0	59. 3	60. 0	11. 44	24. 5	22. 11	*1348					
0. 54	37. 30	1. 55	*1348	5. 25	*03303				12. 2	25. 55	22. 36	*1347					
0. 58	40. 20	2. 11	*1346	6. 54	*03217				12. 5	24. 15	22. 56	*1343					
1. 5	38. 5	2. 39	*1329	8. 40	*03184				13. 12	31. 30	23. 59	*1349					
1. 14	40. 20	2. 58	*1335	8. 56	*03196				13. 42	32. 10							
1. 27	38. 20	3. 19	*1347	10. 4	*03160				13. 56	31. 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.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Mar. 1																	
14. 12	20. 32. 55																
14. 30	32. 25																
14. 39	32. 55																
14. 51	32. 55																
15. 9	34. 0																
15. 24	32. 40																
16. 5	33. 30																
16. 24	32. 10																
16. 43	32. 20																
16. 55	34. 20																
17. 24	37. 5																
18. 12	33. 0																
18. 46	34. 15																
19. 22	34. 40																
19. 33	34. 0																
20. 12	35. 10																
20. 21	34. 20																
20. 25	35. 30																
20. 39	35. 35																
20. 57	33. 55																
21. 9	34. 40																
21. 22	34. 5																
21. 28	35. 25																
21. 51	34. 45																
22. 9	36. 30																
22. 41	37. 50																
23. 11	36. 55																
23. 41	39. 40																
23. 51	39. 20																
23. 59	39. 35																
Mar. 2		Mar. 2		Mar. 2		Mar. 2											
0. 0	20. 30. 35	0. 0	*1349	0. 0	*03240	1. 0	60.6	60.4									
0. 34	38. 55	0. 24	*1350	0. 27	*03253	3. 0	60.5	60.9									
0. 43	39. 0	1. 9	*1354	2. 10	*03309	9. 0	58.3	59.0									
1. 39	38. 20	2. 13	*1356	2. 56	*03320	21. 0	59.4	60.0									
1. 55	38. 55	2. 56	*1354	3. 13	*03338												
2. 9	38. 20	3. 12	*1363	3. 58	*03357												
2. 12	39. 5	3. 23	*1355	4. 11	*03346												
2. 23	38. 0	3. 27	*1359	5. 26	*03334												
2. 27	38. 40	3. 41	*1351	6. 26	*03298												
2. 36	38. 0	3. 54	*1351	9. 34	*03244												
2. 48	37. 55	4. 9	*1339	10. 40	*03260												
3. 3	36. 10	4. 25	*1347	11. 9	*03248												
3. 11	37. 50	4. 41	*1345	12. 12	*03277												
3. 20	36. 55	5. 12	*1355	14. 29	*03288												
3. 26	35. 25	5. 39	*1353	17. 23	*03296												
3. 33	36. 40	7. 27	*1362	22. 40	*03286												
3. 41	33. 45	7. 55	*1360	23. 59	*03229												
3. 45	34. 0	8. 14	*1363														
3. 53	32. 40	8. 56	*1355														
3. 59	34. 0	9. 14	*1358														
4. 17	30. 30	10. 13	*1351														
4. 26	30. 30	10. 52	*1369														
4. 39	32. 25	11. 12	*1354														
4. 54	31. 0	11. 19	*1357														
5. 9	31. 0	11. 55	*1347														
6. 13	34. 45	12. 20	*1352														
Mar. 2									Mar. 2								
6. 46	20. 31. 50																
7. 3	33. 10																
7. 16	33. 25																
8. 28	31. 50																
8. 44	32. 30																
9. 21	32. 25																
9. 43	31. 15																
10. 8	31. 55																
10. 27	31. 55																
10. 42	29. 40																
11. 8	26. 55																
11. 26	28. 15																
11. 33	28. 15																
12. 24	32. 10																
12. 50	31. 55																
14. 13	32. 40																
15. 4	31. 55																
15. 24	32. 40																
16. 8	32. 50																
16. 23	31. 55																
16. 29	33. 0																
16. 41	33. 30																
17. 12	32. 50																
17. 32	34. 40																
18. 4	32. 40																
18. 16	32. 25																
18. 33	33. 10																
19. 30	32. 35																
20. 26	32. 45																
20. 33	32. 25																
20. 43	32. 30																
20. 47	33. 25																
20. 53	32. 30																
21. 26	32. 40																
22. 11	33. 45																
22. 23	33. 30																
23. 11	34. 45																
23. 59	34. 30																
Mar. 3		Mar. 3		Mar. 3		Mar. 3											
0. 0	20. 34. 30	0. 0	*1354	0. 0	*03229	1. 0	57.9	57.5									
0. 17	36. 30	0. 13	*1359	0. 44	*03217	3. 0	57.8	57.2									
0. 40	34. 30	0. 41	*1354	5. 41	*03229	9. 0	58.2	58.2									
1. 6	34. 30	1. 14	*1360	7. 11	*03246	22. 0	59.										

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Mar. 3		Mar. 3							Mar. 4		Mar. 4						
5. 14	20. 32. 40	8. 29	*1342						9. 16	20. 31. 15	11. 41	*1355					
5. 26	32. 50	8. 53	*1336						9. 41	31. 20	12. 11	*1361					
5. 38	31. 50	9. 12	*1341						9. 53	31. 40	12. 21	*1366					
5. 56	31. 25	9. 20	*1340						10. 41	30. 20	12. 55	*1356					
6. 13	33. 15	9. 39	*1356						11. 11	30. 55	13. 42	*1357					
6. 23	32. 55	9. 56	*1351						11. 23	32. 5	14. 11	*1355					
6. 30	31. 0	10. 12	*1356						11. 32	32. 5	15. 22	*1357					
6. 41	30. 45	10. 51	*1344						12. 9	30. 40	18. 42	*1358					
7. 3	33. 25	11. 10	*1350						12. 14	30. 50	20. 19	*1355					
7. 16	21. 25	11. 57	*1353						12. 37	30. 15	21. 11	*1350					
7. 26	27. 10	12. 20	*1351						12. 47	30. 50	21. 46	*1350					
7. 33	27. 50	12. 38	*1354						12. 56	30. 50	22. 37	*1346					
7. 39	27. 25	19. 59	*1355						13. 21	32. 10	23. 59	*1351					
7. 51	29. 15	20. 44	*1351						13. 33	32. 20							
8. 11	25. 50	23. 7	*1352						13. 55	31. 40							
8. 21	25. 20	23. 59	*1353						14. 26	31. 55							
8. 26	25. 50								15. 26	31. 45							
8. 39	25. 20								15. 55	30. 40							
9. 13	31. 40								16. 16	31. 10							
9. 22	27. 0								16. 27	30. 40							
9. 31	27. 20								16. 53	30. 40							
9. 57	22. 40								17. 26	31. 50							
10. 10	25. 50								17. 41	30. 55							
10. 16	26. 20								17. 56	31. 10							
10. 37	26. 0								18. 4	30. 20							
11. 4	32. 20								18. 26	30. 50							
11. 42	32. 30								19. 46	29. 55							
11. 56	31. 50								20. 56	30. 0							
13. 4	32. 25								21. 47	31. 20							
13. 47	32. 10								22. 17	31. 40							
16. 39	32. 20								23. 59	35. 5							
16. 51	32. 55																
16. 56	32. 15								Mar. 5		Mar. 5		Mar. 5		Mar. 5		
18. 3	31. 25								0. 0	20. 35. 5	0. 0	*1351	0. 0	*03263	1. 0	59. 8	59. 9
19. 10	32. 10								0. 28	35. 55	0. 41	*1361	0. 45	*03244	3. 0	58. 7	58. 2
20. 58	32. 0								1. 37	35. 45	3. 23	*1367	3. 57	*03252	9. 0	57. 3	58. 0
21. 58	33. 0								2. 18	36. 15	4. 20	*1366	7. 24	*03222	21. 0	58. 1	58. 2
22. 44	34. 30								3. 0	35. 15	6. 12	*1371	7. 41	*03235			
22. 56	35. 20								3. 17	35. 25	6. 45	*1368	7. 59	*03222			
23. 43	34. 40								4. 24	34. 10	7. 14	*1362	9. 34	*03196			
23. 59	35. 10								5. 26	34. 0	7. 41	*1373	12. 21	*03195			
									5. 40	33. 25	7. 55	*1374	12. 41	*03205			
Mar. 4		Mar. 4		Mar. 4		Mar. 4			6. 0	35. 0	8. 41	*1368	12. 56	*03201			
0. 0	20. 35. 10	0. 0	*1353	0. 0	*03206	1. 0	59. 0	59. 0	6. 14	35. 0	9. 14	*1372	13. 10	*03218			
0. 54	35. 30	1. 11	*1359	1. 23	*03278	8. 30	58. 0	58. 0	6. 33	36. 5	9. 50	*1367	13. 22	*03183			
1. 25	37. 10	1. 25	*1357	1. 53	*03263	21. 0	60. 2	61. 2	6. 54	34. 50	10. 29	*1371	13. 45	*03181			
1. 57	34. 25	1. 55	*1352	4. 25	*03249				7. 27	26. 0	10. 56	*1366	14. 13	*03137			
2. 10	35. 0	2. 12	*1356	9. 40	*03217				7. 35	26. 40	11. 27	*1376	14. 35	*03118			
2. 24	34. 20	2. 55	*1359	11. 49	*03263				7. 58	24. 10	11. 44	*1374	15. 8	*03163			
3. 3	34. 15	3. 6	*1363	12. 38	*03263				8. 26	30. 15	12. 12	*1377	15. 23	*03160			
3. 26	32. 50	5. 17	*1361	13. 29	*03284				8. 43	31. 50	12. 27	*1362	17. 40	*03202			
3. 31	33. 5	7. 23	*1366	15. 55	*03307				9. 16	30. 20	12. 41	*1369	20. 26	*03220			
4. 15	32. 20	7. 41	*1364	19. 15	*03327				9. 43	30. 40	12. 55	*1363	21. 26	*03201			
5. 11	32. 20	7. 56	*1366	21. 36	*03324				10. 23	32. 0	13. 10	*1374	23. 59	*03184			
6. 13	33. 5	8. 21	*1363	23. 59	*03263				10. 29	32. 55	13. 20	*1358					
7. 26	32. 30	8. 55	*1366						10. 43	31. 20	13. 27	*1365					
8. 44	31. 50	9. 53	*1361						11. 39	32. 50	13. 41	*1363					
9. 4	32. 5	10. 19	*1362						11. 58	32. 0	13. 57	*1369					

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Mar. 5		Mar. 5							Mar. 6		Mar. 6		Mar. 6				
12. 14	20. 30. 15	14. 23	.1362						1. 56	20. 39. 0	3. 41	.1370	9. 12	.03273			
12. 34	30. 45	14. 52	.1344						2. 10	37. 10	4. 5	.1355	9. 21	.03268			
13. 16	43. 50	15. 15	.1365						2. 16	37. 45	4. 12	.1352	9. 27	.03240			
13. 32	37. 0	16. 5	.1361						2. 41	38. 10	5. 6	.1354	10. 8	.03231			
13. 39	36. 55	16. 26	.1367						3. 6	40. 0	5. 25	.1348	10. 53	.03246			
13. 56	42. 0	17. 26	.1357						3. 20	40. 0	5. 38	.1345	12. 19	.03213			
14. 21	37. 45	18. 9	.1367						3. 39	42. 30	5. 52	.1362	12. 41	.03213			
14. 30	37. 45	18. 43	.1361						3. 44	41. 30	6. 0	.1359	12. 58	.03180			
14. 56	32. 5	19. 0	.1363						3. 50	41. 55	6. 54	.1371	13. 9	.03196			
15. 3	32. 25	19. 26	.1360						3. 58	40. 20	7. 9	.1362	13. 20	.03184			
15. 33	25. 25	20. 23	.1348						4. 9	34. 40	7. 19	.1357	13. 30	.03188			
15. 58	26. 5	20. 43	.1354						4. 27	37. 20	7. 42	.1364	13. 47	.03170			
16. 11	24. 25	20. 56	.1351						4. 41	36. 55	7. 45	.1362	14. 3	.03119			
16. 23	24. 20	21. 27	.1350						4. 50	38. 40	7. 55	.1364	14. 12	.03144			
16. 26	25. 15	22. 10	.1342						4. 57	39. 20	8. 22	.1344	14. 25	.03128			
16. 33	25. 30	22. 25	.1348						5. 4	38. 40	8. 59	.1378	14. 56	.03172			
16. 40	25. 10	22. 49	.1344						5. 27	39. 20	9. 13	.1372	15. 57	.03220			
16. 56	27. 40	23. 23	.1345						5. 41	35. 20	9. 37	.1351	16. 35	.03238			
17. 11	28. 40	23. 59	.1357						5. 54	37. 55	9. 58	.1342	17. 9	.03243			
17. 23	28. 40								6. 11	35. 5	10. 41	.1337	18. 52	.03248			
17. 33	29. 45								6. 25	35. 30	11. 12	.1350	20. 19	.03236			
17. 43	27. 55								6. 56	34. 10	11. 27	.1362	21. 53	.03223			
17. 56	27. 55								7. 12	34. 45	11. 41	.1359	22. 46	.03216			
18. 10	27. 25								7. 26	34. 0	12. 6	.1342	22. 57	.03227			
18. 26	29. 20								7. 45	34. 30	12. 19	.1338	23. 29	.03205			
18. 45	28. 30								7. 59	33. 55	12. 41	.1342	23. 59	.03213			
19. 21	30. 0								8. 27	18. 0	13. 9	.1338					
19. 32	29. 25								8. 44	14. 20	13. 14	.1345					
20. 6	31. 30								9. 3	17. 25	13. 23	.1341					
20. 23	31. 0								9. 9	17. 30	13. 43	.1350					
20. 39	31. 30								9. 20	21. 20	14. 12	.1316					
20. 44	32. 45								9. 28	18. 50	14. 29	.1338					
20. 56	31. 50								9. 34	20. 10	14. 48	.1356					
21. 5	32. 40								9. 47	18. 30	15. 11	.1346					
21. 26	31. 30								10. 33	26. 20	15. 35	.1342					
21. 39	32. 45								10. 40	26. 20	15. 41	.1344					
21. 53	32. 10								10. 59	29. 0	16. 9	.1340					
22. 8	32. 5								11. 11	28. 30	16. 35	.1344					
22. 37	35. 30								11. 24	29. 20	16. 43	.1350					
22. 53	34. 30								11. 27	29. 0	17. 0	.1349					
22. 56	35. 40								11. 53	32. 10	17. 26	.1354					
23. 6	34. 45								12. 20	29. 10	18. 45	.1349					
23. 28	36. 30								12. 31	28. 50	18. 56	.1353					
23. 36	37. 45								12. 40	30. 0	19. 21	.1348					
23. 55	38. 30								12. 53	28. 20	19. 37	.1357					
23. 59	40. 30								13. 0	26. 55	20. 12	.1343					
									13. 8	28. 10	20. 53	.1334					
									13. 15	22. 0	21. 12	.1337					
Mar. 6		Mar. 6		Mar. 6		Mar. 6			13. 28	20. 25	21. 26	.1345					
0. 0	20. 40. 30	0. 0	.1357	0. 0	.03184	1. 0	58. 7. 59. 1		13. 35	21. 25	22. 0	.1344					
0. 7	40. 25	0. 27	.1353	0. 12	.03180	3. 0	58. 8. 58. 8		13. 43	27. 50	22. 41	.1354					
0. 12	40. 55	0. 40	.1356	1. 54	.03229	9. 0	58. 6. 58. 7		13. 54	31. 10	22. 59	.1354					
0. 18	39. 5	1. 17	.1351	2. 22	.03226	21. 0	58. 6. 59. 0		14. 3	22. 55	23. 15	.1365					
0. 30	39. 45	1. 36	.1355	4. 23	.03280	22. 30	58. 8. 60. 0		14. 10	25. 50	23. 44	.1351					
0. 40	38. 30	1. 43	.1351	5. 48	.03298	23. 0	58. 8. 58. 8		14. 30	16. 15	23. 49	.1357					
0. 54	41. 50	1. 59	.1362	6. 10	.03282				14. 55	24. 30	23. 59	.1354					
1. 19	40. 15	2. 25	.1358	8. 26	.03277				15. 21	26. 0							
1. 33	40. 40	3. 11	.1370	8. 38	.03298				15. 45	30. 20							
1. 49	38. 5	3. 18	.1367	8. 46	.03298												

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Mar. 6																	
15. 56	20. 32. 55																
15. 59	32. 40																
16. 9	33. 55																
16. 29	31. 20																
16. 33	33. 20																
16. 56	30. 20																
17. 6	30. 40																
17. 13	29. 50																
17. 54	32. 15 ***																
18. 40	30. 30 ***																
19. 8	30. 30																
19. 10	29. 15																
19. 20	29. 25																
19. 29	32. 50																
19. 38	31. 40																
19. 44	32. 45																
19. 58	31. 55																
20. 4	33. 25																
20. 33	34. 10																
20. 39	34. 55																
20. 43	34. 0																
21. 11	32. 40																
21. 25	34. 50																
21. 33	34. 10																
21. 53	34. 40																
21. 56	33. 15																
22. 4	35. 20																
22. 10	33. 40																
22. 14	34. 40																
22. 25	34. 40																
22. 28	33. 40																
22. 42	35. 0																
22. 47	34. 30																
23. 9	39. 25																
23. 14	40. 20																
23. 33	38. 25 ***																
23. 59	41. 25																
Mar. 7		Mar. 7		Mar. 7		Mar. 7			Mar. 7								
0. 0	20. 41. 25	0. 0	*1354	0. 0	*03213	0. 0	58. 7 58. 1		12. 0	31. 50	16. 12	*1352					
0. 24	43. 25	0. 23	*1340	0. 44	*03205	1. 0	58. 3 58. 0		12. 20	30. 30	16. 39	*1357					
0. 38	43. 25 ***	0. 33	*1336	1. 56	*03237	2. 0	58. 2 57. 8		12. 41	31. 10	16. 57	*1358					
0. 56	38. 55	0. 41	*1339	2. 21	*03252	3. 0	58. 3 59. 0		12. 56	29. 55	17. 11	*1356					
1. 22	40. 30	0. 45	*1333	2. 30	*03273	9. 0	57. 8 58. 0		13. 7	30. 30	17. 25	*1358					
1. 43	44. 20	1. 9	*1334	2. 41	*03262	21. 0	60. 1 62. 0		13. 12	31. 55	17. 41	*1355					
1. 53	42. 40	1. 16	*1340	3. 7	*03287	22. 0	59. 8 60. 5		13. 24	30. 15	18. 34	*1355					
1. 59	43. 30	1. 50	*1336	3. 23	*03420	23. 0	59. 6 59. 7		13. 31	31. 10	19. 11	*1335					
2. 23	42. 25	2. 3	*1344	3. 28	*03398				13. 43	29. 55	20. 12	*1343					
2. 26	45. 5	2. 22	*1350	3. 35	*03398				14. 7	34. 15	20. 27	*1338					
2. 32	45. 30	2. 29	*1366	4. 11	*03337				14. 12	33. 0	21. 25	*1338					
2. 38	43. 30	2. 53	*1350	4. 38	*03332				14. 38	45. 30	22. 13	*1330					
2. 43	43. 10	2. 56	*1354	5. 25	*03302				14. 52	43. 25	22. 57	*1337					
2. 56	45. 30	3. 11	*1339	5. 40	*03317				15. 1	43. 30	23. 22	*1344					
3. 9	38. 50	3. 20	*1372	***	***				15. 22	36. 30	23. 34	*1348					
		3. 25	*1363	5. 57	*03317				15. 29	36. 25	23. 59	*1338					
									15. 40	34. 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.	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.
Mar. 7																	
16. 9	20. 32. 10									Mar. 8	8. 13	20. 33. 0	11. 40	1356			
16. 41	30. 55									8. 26	30. 50	11. 43	1352				
17. 7	31. 55									8. 33	26. 50	11. 58	1365				
17. 13	30. 55									8. 48	28. 5	12. 24	1356				
17. 27	30. 45									9. 4	22. 0	12. 45	1367				
17. 41	32. 30									9. 23	32. 55	13. 9	1354				
17. 46	31. 20									9. 40	32. 45	13. 27	1358				
18. 25	30. 0									10. 4	28. 0	13. 41	1354				
19. 23	32. 10									10. 21	30. 40	13. 55	1357				
19. 33	33. 40									10. 29	27. 0	14. 27	1348				
19. 51	32. 5									10. 41	26. 0	14. 56	1356				
20. 4	33. 10									11. 3	28. 15	15. 11	1351				
20. 13	31. 40									11. 32	33. 5	16. 52	1362				
20. 29	32. 20									11. 58	31. 40	17. 0	1358				
20. 40	34. 15									12. 4	30. 0	17. 15	1362				
20. 58	33. 30									12. 14	28. 40	17. 59	1361				
21. 7	34. 35									12. 23	29. 55	18. 34	1366				
21. 46	34. 0									12. 33	27. 5	19. 26	1364				
22. 8	35. 0									12. 47	27. 40	20. 15	1358				
22. 36	34. 10									13. 3	32. 40	21. 43	1352				
22. 42	34. 0									13. 13	30. 20	22. 16	1347				
22. 56	33. 5									13. 33	28. 20	22. 43	1353				
23. 7	34. 30									14. 4	31. 15	23. 0	1349				
23. 16	34. 10									14. 33	30. 25	23. 12	1350				
23. 30	36. 40									14. 54	30. 35	23. 50	1352				
23. 40	36. 10									15. 9	29. 20	23. 59	1358				
23. 51	37. 25									15. 22	29. 30						
23. 59	36. 25									15. 40	31. 25						
										15. 47	30. 55						
										16. 40	31. 30						
Mar. 8		Mar. 8		Mar. 8		Mar. 8				16. 54	32. 40						
0. 0	20. 36. 25	0. 0	1338	0. 0	03237	0. 0	59. 7 59. 7			17. 13	31. 45						
0. 6	36. 45	0. 42	1347	1. 11	03240	1. 0	59. 6 60. 6			17. 28	32. 0						
0. 11	35. 10	1. 6	1342	1. 55	03258	3. 0	59. 5 59. 8			17. 53	31. 25						
0. 16	36. 0	1. 22	1337	3. 25	03260	9. 0	58. 2 57. 6			18. 4	31. 40						
0. 23	35. 40	1. 55	1350	4. 49	03239	21. 0	57. 9 57. 8			18. 22	30. 30						
0. 33	38. 0	2. 20	1346	5. 12	03240					19. 42	31. 30						
0. 53	39. 25	2. 41	1352	6. 14	03227					19. 50	32. 15						
1. 21	37. 0	3. 18	1350	8. 43	03218					20. 0	31. 30						
1. 29	37. 20	3. 44	1358	9. 11	03192					20. 24	32. 0						
1. 53	36. 30	4. 46	1361	9. 19	03198					20. 39	32. 40						
1. 59	35. 25	5. 2	1367	9. 54	03160					21. 4	32. 30						
2. 39	35. 55	5. 41	1363	10. 21	03172					21. 23	33. 25						
3. 0	35. 0	5. 54	1367	10. 36	03168					21. 38	32. 45						
3. 11	35. 40	6. 19	1359	11. 24	03198					21. 44	33. 50						
3. 25	34. 55	6. 42	1365	12. 13	03177					22. 14	33. 50						
3. 32	34. 55	7. 11	1359	12. 25	03183					22. 50	37. 55						
3. 44	35. 30	7. 41	1364	12. 55	03173					23. 9	38. 0						
4. 9	34. 20	8. 25	1356	13. 7	03182					23. 25	36. 45						
4. 25	34. 45	8. 41	1368	13. 29	03163					23. 51	37. 35						
4. 41	34. 10	8. 44	1385	14. 48	03180					23. 59	38. 30						
5. 0	34. 45	9. 10	1376	15. 40	03184												
5. 39	34. 0	9. 19	1386	18. 43	03178												
6. 8	33. 35	9. 44	1364	21. 23	03162												
6. 24	30. 20	10. 9	1348	23. 3	03157					Mar. 9	0. 0	38. 30	0. 0	1358	Mar. 9	0. 0	58. 7 59. 3
6. 39	30. 30	10. 20	1352	23. 59	03176					0. 11	39. 5	0. 34	1362	3. 6	03217	3. 0	59. 2 59. 5
7. 24	32. 25	10. 41	1343							0. 30	38. 10	0. 55	1359	5. 13	03222	9. 0	57. 8 58. 3
7. 32	32. 10	11. 11	1348							0. 43	38. 5	1. 13	1364	6. 56	03198	21. 0	60. 4 61. 0
8. 4	33. 15	11. 15	1346							0. 58	37. 0	2. 10	1368	7. 48	03200		

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.
Mar. 9		Mar. 9		Mar. 9					Mar. 9								
1. 54	20. 36. 55	3. 6	*1361	7. 56	*03182				22. 21	20. 36. 40							
2. 10	37. 45	3. 14	*1365	8. 22	*03196				22. 34	34. 30							
2. 33	36. 50	3. 45	*1359	8. 59	*03170				22. 45	33. 50							
2. 42	36. 55	3. 57	*1365	9. 41	*03171				22. 56	35. 20							
3. 43	33. 55	4. 26	*1362	10. 11	*03177				23. 9	35. 15							
3. 58	34. 15	4. 44	*1359	10. 53	*03192				23. 13	37. 20							
4. 46	33. 10	5. 10	*1364	11. 25	*03200				23. 23	36. 40							
7. 11	32. 45	5. 26	*1361	11. 48	*03198				23. 46	39. 20							
7. 31	32. 5	6. 11	*1364	12. 11	*03215				23. 56	37. 55							
7. 43	32. 40	6. 41	*1372	12. 40	*03204				23. 59	38. 15							
7. 56	21. 25	7. 25	*1364	12. 56	*03209												
8. 7	22. 45	7. 35	*1366	13. 25	*03222				Mar. 10		Mar. 10		Mar. 10		Mar. 10		
8. 33	30. 40	7. 46	*1358	14. 20	*03224				0. 0	20. 38. 15	0. 0	*1354	0. 0	*03244	1. 0	59. 8	60. 7
9. 4	22. 50	8. 0	*1369	16. 30	*03243				0. 13	39. 35	0. 19	*1361	0. 27	*03252	3. 0	59. 8	59. 3
9. 16	25. 35	8. 15	*1370	16. 57	*03260				0. 26	40. 5	0. 39	*1350	0. 42	*03244	9. 0	59. 4	59. 2
9. 41	24. 45	8. 41	*1355	18. 39	*03266				0. 50	38. 10	1. 13	*1342	1. 49	*03280	21. 0	59. 8	60. 0
10. 3	28. 50	8. 47	*1360	19. 13	*03278				0. 56	38. 10	1. 50	*1359	2. 26	*03277			
10. 14	28. 50	8. 57	*1358	19. 41	*03283				1. 7	37. 25	2. 18	*1352	2. 38	*03289			
10. 41	30. 0	9. 13	*1374	20. 11	*03296				1. 25	38. 10	2. 37	*1361	3. 11	*03283			
11. 8	29. 35	9. 48	*1367	20. 27	*03284				1. 41	37. 40	2. 43	*1353	4. 43	*03305			
11. 27	32. 20	10. 12	*1354	21. 19	*03287				1. 50	39. 25	3. 8	*1349	5. 11	*03343			
11. 43	29. 0	10. 54	*1360	21. 57	*03277				2. 11	37. 0	3. 16	*1354	5. 25	*03320			
12. 11	30. 50	11. 43	*1350	22. 34	*03257				2. 28	37. 0	3. 40	*1351	5. 34	*03323			
12. 53	28. 10	12. 12	*1368	23. 15	*03260				2. 39	38. 55	3. 55	*1362	5. 55	*03294			
13. 11	28. 55	12. 25	*1364	23. 55	*03248				2. 48	37. 55	4. 12	*1367	6. 14	*03317			
13. 26	31. 40	13. 22	*1353	23. 59	*03244				2. 57	37. 55	4. 41	*1353	7. 13	*03316			
13. 40	29. 10	13. 42	*1346						3. 8	37. 0	4. 56	*1376	7. 34	*03320			
13. 56	29. 5	13. 54	*1348						3. 39	35. 30	5. 12	*1381	7. 53	*03307			
14. 11	30. 50	14. 41	*1336						4. 20	38. 0	5. 21	*1366	8. 25	*03316			
14. 30	36. 50	15. 14	*1353						4. 38	32. 50	5. 27	*1370	9. 20	*03280			
15. 8	33. 20	16. 12	*1366						4. 55	25. 10	5. 41	*1358	9. 43	*03266			
15. 23	33. 30	16. 56	*1358						5. 9	26. 5	5. 50	*1336	10. 45	*03252			
15. 56	29. 40	17. 23	*1363						5. 15	28. 25	6. 15	*1362	10. 56	*03258			
16. 26	28. 35	18. 40	*1360						5. 20	26. 30	6. 42	*1350	11. 24	*03237			
16. 51	30. 30	18. 53	*1355						5. 45	35. 10	6. 57	*1353	11. 45	*03220			
17. 7	29. 55	19. 21	*1357						6. 0	26. 10	7. 11	*1347	12. 11	*03224			
17. 22	30. 30	19. 43	*1351						6. 24	27. 5	7. 26	*1361	13. 13	*03227			
17. 30	31. 40	20. 13	*1355						6. 29	26. 20	7. 43	*1346	14. 7	*03246			
17. 37	30. 55	20. 36	*1349						6. 38	27. 30	7. 57	*1342	14. 56	*03218			
17. 43	31. 40	20. 45	*1352						6. 45	27. 40	8. 12	*1350	15. 40	*03224			
17. 56	30. 55	21. 53	*1344						7. 2	30. 50	8. 26	*1362	16. 22	*03243			
18. 20	32. 30	22. 17	*1355						7. 23	27. 35	8. 43	*1354	18. 9	*03262			
18. 33	31. 55	22. 42	*1343						7. 38	30. 10	8. 55	*1363	21. 56	*03252			
18. 43	32. 40	23. 56	*1357						7. 51	29. 15	9. 11	*1357	23. 59	*03236			
18. 51	32. 20	23. 59	*1354						8. 7	28. 50	9. 43	*1358					
19. 9	33. 30								8. 11	27. 5	10. 0	*1353					
19. 23	32. 45								8. 20	25. 30	10. 45	*1355					
19. 41	33. 50								8. 28	30. 50	11. 14	*1375					
19. 51	33. 30								8. 38	31. 55	11. 34	*1370					
20. 8	35. 5								8. 43	31. 20	12. 0	*1354					
20. 17	33. 30								8. 59	34. 5	12. 19	*1356					
20. 41	35. 5								9. 9	33. 25	12. 41	*1349					
20. 56	33. 30								9. 18	33. 50	13. 22	*1350					
21. 0	34. 5								9. 36	31. 40	13. 54	*1347					
21. 30	32. 50								9. 40	31. 50	14. 13	*1350					
21. 41	33. 40								9. 45	30. 45	14. 56	*1345					
21. 53	33. 10								9. 55	31. 20	15. 18	*1350					
22. 6	36. 15								9. 58	30. 40	15. 43	*1355					

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Mar. 10		Mar. 10															
10. 14	20. 30. 55	16. 27	.1354														
10. 26	28. 50	16. 43	.1357														
10. 43	23. 0	17. 56	.1351														
10. 53	25. 55	18. 26	.1354														
11. 7	26. 30	18. 53	.1349														
11. 12	26. 10	19. 33	.1351														
11. 26	28. 0	20. 27	.1330														
11. 46	24. 10	20. 53	.1346														
12. 0	26. 25	23. 59	.1361														
12. 49	30. 5																
13. 6	27. 10																
13. 19	26. 55																
13. 28	28. 5																
13. 43	28. 50																
14. 6	34. 0																
14. 43	38. 5																
15. 2	35. 50																
15. 13	35. 10																
15. 45	29. 20																
16. 10	28. 25																
16. 38	29. 40																
16. 59	29. 30																
17. 46	30. 40																
18. 27	30. 50																
18. 39	30. 30																
18. 51	29. 45																
19. 21	29. 40																
20. 23	31. 15																
20. 26	30. 20																
20. 39	30. 20																
20. 50	31. 40																
20. 58	31. 30																
21. 26	33. 0																
21. 39	32. 50																
22. 7	33. 55																
23. 11	36. 10																
23. 43	36. 25																
23. 51	37. 30																
23. 59	37. 15																
Mar. 11		Mar. 11		Mar. 11		Mar. 11											
0. 0	20. 37. 15	0. 0	.1361	0. 0	.03236	0. 0	60.3	60.0									
0. 22	38. 25	1. 8	.1360	5. 30	.03315	9. 0	59.8	61.2									
0. 53	37. 50	1. 25	.1364	6. 57	.03304	21. 0	59.8	60.4									
1. 0	38. 5	2. 16	.1368	8. 52	.03312												
1. 12	37. 15	2. 43	.1361	9. 54	.03278												
1. 23	37. 55	3. 12	.1363	11. 23	.03295												
1. 45	37. 30	4. 13	.1349	11. 41	.03282												
2. 22	37. 25	4. 39	.1347	11. 52	.03285												
2. 33	36. 20	4. 57	.1357	12. 14	.03264												
3. 16	36. 0	5. 11	.1354	12. 50	.03245												
3. 26	35. 40	5. 34	.1361	13. 12	.03257												
3. 38	35. 50	6. 4	.1356	15. 43	.03276												
3. 53	34. 55	6. 40	.1362	19. 41	.03265												
4. 7	35. 5	6. 58	.1358	21. 36	.03243												
4. 13	33. 0	7. 21	.1364	23. 39	.03202												
4. 23	32. 30	7. 39	.1362	23. 59	.03209												
4. 31	33. 5	7. 46	.1365														

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.	
Mar. 11																		
22. 24	20. 33. 35									Mar. 12								
23. 12	34. 55									18. 56	20. 30. 20							
23. 24	37. 10									19. 4	29. 40							
23. 31	37. 10									19. 11	30. 40							
23. 59	36. 25									19. 32	30. 30							
										20. 10	30. 55							
										20. 26	32. 10							
Mar. 12		Mar. 12		Mar. 12		Mar. 12				20. 41	31. 15							
0. 0	20. 36. 25	0. 0	*1356	0. 0	*03209	1. 0	59. 9	60. 8		21. 50	34. 25							
0. 9	35. 55	1. 9	*1359	2. 4	*03260	3. 0	59. 4	60. 1		22. 26	35. 10							
0. 44	36. 30	1. 13	*1364	2. 14	*03248	9. 0	58. 9	59. 0		22. 58	37. 30							
1. 13	36. 30	1. 19	*1359	2. 36	*03257	21. 0	58. 8	58. 8		23. 8	37. 5							
1. 46	36. 0	1. 44	*1362	3. 11	*03240					23. 21	37. 50							
1. 59	38. 5	1. 57	*1370	3. 27	*03244					23. 59	37. 50							
2. 11	36. 15	2. 12	*1364	4. 7	*03240													
2. 31	38. 0	2. 33	*1372	4. 37	*03257					Mar. 13		Mar. 13		Mar. 13		Mar. 13		
2. 43	36. 50	2. 52	*1366	4. 58	*03246					0. 0	20. 37. 50	0. 0	*1362	0. 0	*03182	1. 0	58. 9	59. 0
2. 56	36. 55	3. 10	*1362	5. 23	*03263					0. 28	37. 45	1. 14	*1366	3. 28	*03219	3. 0	58. 9	59. 7
3. 8	35. 55	3. 25	*1369	6. 11	*03267					0. 53	38. 40	3. 26	*1371	4. 45	*03224	9. 0	58. 8	59. 0
3. 13	36. 0	3. 57	*1362	7. 4	*03256					1. 16	38. 25	4. 15	*1363	9. 0	*03207	21. 0	60. 6	61. 0
3. 26	36. 50	4. 12	*1364	10. 11	*03227					2. 0	39. 30	4. 26	*1366	10. 11	*03203	22. 0	60. 5	60. 5
3. 43	35. 50	4. 20	*1370	12. 28	*03236					3. 19	35. 50	5. 27	*1362	12. 10	*03238	23. 0	59. 5	59. 1
3. 48	36. 0	4. 38	*1368	14. 41	*03226					3. 26	36. 0	5. 41	*1366	14. 27	*03266			
3. 59	35. 25	4. 52	*1355	15. 54	*03217					3. 57	33. 30	5. 57	*1365	19. 11	*03277			
	***	5. 11	*1354	21. 26	*03197					4. 58	34. 10	6. 11	*1369	22. 36	*03270			
4. 42	36. 35	5. 18	*1362	23. 5	*03177					5. 15	34. 0	6. 46	*1365	23. 59	*03226			
5. 16	34. 40	5. 33	*1358	23. 59	*03182					5. 29	33. 15	7. 23	*1368					
5. 26	35. 30	5. 55	*1350							6. 10	34. 5	7. 40	*1364					
5. 39	35. 35	6. 6	*1361							6. 49	34. 15	7. 59	*1370					
5. 55	33. 20	6. 20	*1366							6. 57	33. 50	8. 12	*1375					
6. 4	29. 5	6. 44	*1362							7. 11	33. 40	8. 23	*1368					
6. 15	29. 45	6. 57	*1365							7. 23	34. 10	8. 34	*1371					
6. 37	33. 25	7. 50	*1365							7. 37	33. 15	8. 48	*1369					
6. 49	33. 45	8. 11	*1368							7. 58	33. 10	8. 56	*1371					
6. 55	32. 45	8. 25	*1365							8. 13	34. 0	10. 56	*1367					
7. 29	32. 50	8. 45	*1367							9. 0	33. 5	11. 22	*1364					
7. 53	31. 0	8. 56	*1366							12. 29	32. 0	11. 43	*1367					
8. 31	32. 40	9. 35	*1369							12. 56	32. 25	12. 3	*1363					
8. 41	32. 0	10. 17	*1364							13. 35	31. 20	13. 0	*1365					
9. 20	31. 40	10. 57	*1365							13. 53	31. 50	13. 21	*1361					
10. 39	32. 50	11. 41	*1362							14. 10	31. 20	14. 20	*1361					
12. 4	32. 30	12. 30	*1364							14. 27	33. 0	14. 51	*1363					
12. 13	33. 10	13. 11	*1361							15. 3	30. 50	16. 49	*1359					
12. 41	32. 5	15. 44	*1363								***	17. 54	*1363					
13. 48	32. 5	16. 12	*1361							16. 55	30. 35	18. 52	*1359					
15. 8	31. 25	17. 56	*1364							16. 59	30. 55	19. 55	*1356					
15. 26	32. 15	19. 18	*1362							17. 14	30. 10	20. 12	*1364					
15. 57	29. 55	19. 43	*1356							18. 16	29. 55	21. 11	*1362					
16. 9	30. 55	20. 12	*1358							18. 48	32. 30	21. 45	*1358					
16. 15	30. 40	20. 47	*1354							18. 54	33. 20	23. 18	*1360					
16. 27	31. 50	22. 38	*1358							19. 12	34. 0	23. 45	*1356					
16. 51	30. 25	23. 6	*1353							19. 37	33. 0	23. 59	*1355					
16. 56	30. 50	23. 22	*1355							19. 43	33. 55							
17. 5	30. 15	23. 59	*1362							19. 55	32. 0							
17. 14	30. 50									20. 11	33. 30							
17. 36	30. 20									20. 34	34. 5							
17. 41	30. 40									20. 43	33. 30							
17. 56	30. 5									21. 8	34. 15							
18. 19	30. 35									21. 30	34. 5							

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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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Mar. 16		Mar. 16		Mar. 16		Mar. 16			Mar. 16								
0. 12	20. 36. 0	1. 12	*1363	2. 20	*03243	9. 0	60. 1	60. 7	16. 57	20. 31. 20							
0. 24	35. 20	2. 19	*1356	3. 12	*03257	21. 0	59. 9	60. 7	17. 9	30. 25							
1. 18	36. 50	2. 36	*1360	3. 56	*03253				17. 28	30. 25							
1. 36	35. 30	2. 53	*1359	4. 6	*03272				17. 43	31. 30							
1. 41	37. 10	3. 18	*1366	4. 9	*03252				17. 54	31. 30							
1. 44	36. 10	3. 55	*1367	4. 11	*03265				17. 58	31. 0							
2. 0	37. 40	4. 11	*1390	4. 13	*03256				18. 2	29. 40							
2. 12	37. 0	4. 12	*1373	6. 21	*03247				18. 10	31. 15							
2. 22	35. 25	4. 29	*1368	6. 41	*03263				18. 20	30. 0							
2. 56	33. 40	4. 57	*1371	7. 53	*03266				18. 26	30. 0							
3. 53	33. 15	5. 15	*1365	8. 25	*03257				18. 43	29. 10							
3. 59	36. 5	5. 56	*1364	8. 57	*03266				18. 54	29. 50							
4. 1	33. 30	6. 20	*1354	9. 53	*03257				18. 59	29. 15							
4. 5	34. 50	6. 39	*1368	10. 26	*03260				19. 10	29. 25							
4. 12	33. 10	6. 43	*1375	11. 17	*03245				19. 23	28. 30							
4. 31	33. 50	6. 56	*1369	11. 41	*03252				19. 41	28. 30							
5. 4	32. 40	7. 11	*1373	11. 50	*03245				19. 57	27. 5							
5. 37	33. 25	7. 36	*1362	12. 11	*03240					***							
5. 51	33. 0	8. 6	*1368	12. 33	*03243				20. 23	28. 15							
6. 7	33. 0	8. 22	*1356	12. 57	*03236				20. 41	29. 5							
6. 33	26. 5	8. 39	*1363	13. 28	*03256				20. 43	27. 30							
6. 53	24. 40	8. 54	*1358	13. 53	*03207				20. 49	27. 30							
7. 0	23. 20	9. 12	*1360	14. 14	*03202				20. 57	29. 50							
7. 21	23. 45	9. 23	*1367	14. 41	*03217				20. 59	28. 45							
7. 33	25. 55	9. 39	*1362	15. 45	*03237				21. 8	29. 40							
7. 44	30. 15	9. 43	*1366	19. 36	*03243				21. 26	29. 5							
7. 53	30. 15	9. 54	*1362	21. 9	*03237				22. 14	31. 40							
7. 58	31. 10	10. 11	*1368	21. 54	*03243				22. 26	31. 25							
8. 9	31. 10	10. 43	*1366	23. 59	*03214				23. 12	34. 0							
8. 28	29. 40	10. 55	*1360						23. 26	36. 5							
8. 56	30. 0	11. 9	*1363						23. 33	35. 30							
9. 22	26. 30	11. 22	*1356						23. 49	36. 55							
9. 34	27. 15	11. 41	*1362						23. 59	36. 25							
10. 0	19. 55	11. 52	*1374														
10. 46	28. 45	12. 18	*1364						Mar. 17								
10. 58	28. 25	12. 54	*1368						0. 0	20. 36. 25	0. 0	*1360	0. 0	*03214	1. 0	60. 0	61. 0
11. 12	30. 10	13. 14	*1360						0. 7	38. 0	0. 15	*1366	0. 14	*03229	3. 0	60. 3	60. 2
11. 21	29. 30	13. 41	*1390						0. 22	38. 30	0. 18	*1366	0. 41	*03221	9. 0	59. 8	60. 0
11. 33	31. 0	13. 51	*1402						0. 38	39. 30	0. 46	*1363	1. 3	*03240	21. 0	58. 8	59. 0
11. 46	30. 20	14. 11	*1387						0. 41	39. 0	0. 59	*1378	1. 35	*03245			
12. 8	32. 50	14. 42	*1363						0. 55	41. 30	1. 10	*1368	1. 41	*03240			
12. 14	32. 35	15. 10	*1366						1. 12	40. 5	1. 35	*1361	2. 11	*03272			
12. 38	34. 20	17. 13	*1368						1. 27	41. 20	1. 54	*1347	2. 28	*03277			
13. 6	29. 55	18. 14	*1376						1. 34	39. 45	2. 6	*1356	2. 35	*03266			
13. 16	31. 55	18. 40	*1375						1. 40	39. 45	2. 12	*1350	2. 53	*03278			
13. 29	36. 10	18. 58	*1377						1. 48	40. 40	2. 26	*1360	2. 56	*03267			
13. 43	34. 0	20. 5	*1370						1. 59	40. 40	2. 36	*1356	5. 0	*03337			
13. 57	28. 0	20. 41	*1374						2. 11	35. 50	2. 50	*1363	5. 57	*03296			
14. 11	25. 25	20. 55	*1366						2. 21	35. 0	3. 26	*1367	6. 34	*03276			
14. 56	29. 10	21. 6	*1369						2. 26	36. 10	3. 43	*1358	9. 11	*03242			
15. 11	28. 5	21. 22	*1355						2. 32	34. 55	4. 17	*1375	9. 41	*03213			
15. 27	28. 30	21. 53	*1350						2. 41	34. 55	4. 57	*1354	10. 30	*03217			
15. 34	27. 35	22. 2	*1356						2. 49	35. 50	5. 12	*1365	11. 51	*03220			
15. 41	27. 50	22. 12	*1352						2. 53	33. 15	5. 20	*1360	12. 38	*03153			
15. 52	30. 10	23. 13	*1354						2. 56	34. 15	5. 30	*1368	12. 53	*03159			
16. 4	29. 55	23. 59	*1360						2. 58	33. 15	6. 0	*1358	13. 13	*03143			
16. 23	30. 10								3. 6	34. 40	6. 12	*1365	14. 12	*03184			
16. 41	30. 0								3. 11	34. 5	6. 41	*1362	15. 16	*03177			

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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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Mar. 17		Mar. 17		Mar. 17													
3. 26	20. 35. 35	6. 55	*1364	18. 0	*03198				Mar. 17								
3. 43	35. 5	7. 43	*1360	18. 27	*03184				18. 13	20. 31. 25							
4. 12	37. 50	8. 25	*1368	21. 54	*03164				18. 21	30. 20							
4. 27	36. 25	8. 50	*1383	23. 59	*03162				18. 26	31. 35							
4. 33	37. 10	9. 0	*1376						18. 33	31. 5							
4. 41	35. 35	9. 26	*1394						18. 40	31. 45							
5. 2	21. 25	9. 43	*1377						18. 45	31. 20							
5. 12	24. 10	10. 0	*1371						18. 55	32. 15							
5. 17	23. 15	10. 22	*1358						19. 8	31. 30							
5. 34	28. 30	10. 41	*1364						19. 18	31. 40							
5. 53	32. 20	10. 54	*1361						19. 58	30. 25							
5. 59	31. 35	11. 13	*1364						19. 59	30. 50							
6. 23	33. 0	11. 27	*1362						20. 5	29. 35							
6. 27	32. 30	11. 45	*1366						20. 10	30. 35							
7. 8	34. 0	12. 11	*1374						20. 16	29. 20							
7. 47	32. 50	12. 35	*1369						20. 20	30. 25							
7. 56	31. 25	13. 0	*1377						20. 26	30. 25							
8. 22	27. 0	13. 48	*1343						20. 30	30. 0							
8. 36	25. 55	13. 57	*1346						20. 39	30. 5							
8. 56	28. 30	14. 10	*1344						20. 43	31. 25							
9. 4	28. 10	14. 51	*1369						20. 51	31. 15							
9. 28	32. 0	15. 11	*1369						20. 53	29. 15							
9. 32	30. 55	15. 56	*1357						20. 58	29. 40							
9. 50	30. 0	16. 20	*1354						21. 8	29. 30							
10. 2	32. 25	16. 41	*1358						21. 14	30. 45							
10. 17	30. 40	16. 57	*1355						21. 21	29. 55							
10. 32	31. 55	17. 27	*1360						21. 43	32. 20							
10. 54	30. 30	17. 43	*1359						21. 58	31. 30							
11. 22	30. 55	18. 11	*1368						22. 10	31. 30							
11. 27	32. 25	18. 29	*1358						22. 26	33. 15							
11. 30	32. 25	18. 36	*1363						22. 33	32. 20							
12. 8	42. 25	18. 49	*1362						22. 43	34. 0							
12. 13	42. 10	18. 55	*1357						23. 53	38. 30							
12. 38	33. 30	19. 43	*1357						23. 59	40. 40							
12. 53	31. 25	20. 25	*1359						Mar. 18		Mar. 18		Mar. 18		Mar. 18		
13. 0	32. 10	20. 41	*1355						0. 0	20. 40. 40	0. 0	*1341	0. 0	*03162	0. 20	59. 4	60. 2
13. 15	29. 10	20. 51	*1361						0. 7	40. 30	0. 24	*1349	0. 11	*03177	9. 0	58. 3	58. 5
13. 23	24. 50	21. 4	*1350						0. 16	38. 20	0. 56	*1361	0. 23	*03164	21. 0	60. 1	61. 6
13. 43	23. 40	21. 6	*1355						0. 33	38. 0	1. 50	*1366	1. 12	*03196			
13. 56	28. 45	21. 41	*1355						0. 51	38. 20	1. 56	*1362	3. 42	*03212			
14. 14	31. 0	22. 6	*1347						1. 23	40. 0	2. 11	*1366	3. 58	*03208			
14. 40	29. 25	22. 26	*1352						1. 42	40. 0	2. 35	*1368	4. 12	*03226			
14. 59	28. 25	23. 19	*1355						1. 50	40. 40	2. 41	*1360	4. 22	*03217			
15. 24	26. 25	23. 26	*1347						1. 56	39. 40	3. 25	*1370	4. 58	*03226			
15. 33	26. 55	23. 44	*1352						2. 10	40. 0	3. 54	*1368	5. 12	*03216			
15. 41	26. 0	23. 59	*1341						2. 17	39. 25	4. 11	*1395	5. 43	*03216			
15. 49	26. 10								2. 26	40. 0	4. 21	*1382	5. 55	*03205			
16. 8	28. 50								2. 43	38. 50	4. 27	*1387	6. 44	*03212			
16. 12	28. 5								2. 56	38. 50	4. 38	*1379	7. 0	*03200			
16. 32	31. 10								3. 8	36. 25	4. 44	*1376	7. 8	*03240			
16. 39	30. 0								3. 16	35. 35	4. 55	*1380	7. 15	*03252			
16. 43	30. 0								3. 26	36. 0	5. 14	*1361	7. 29	*03237			
16. 53	31. 10								3. 39	35. 30	5. 45	*1373	7. 54	*03197			
16. 59	30. 20								3. 53	34. 0	5. 56	*1370	8. 11	*03200			
17. 30	30. 40								3. 56	33. 30	6. 12	*1374	8. 29	*03177			
17. 38	29. 25								4. 0	34. 20	6. 26	*1385	9. 9	*03172			
17. 43	29. 5								4. 29	32. 15	6. 36	*1393	9. 33	*03147			
18. 7	32. 30								4. 43	34. 50	6. 44	*1388	9. 51	*03163			

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

## 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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Mar. 18		Mar. 18		Mar. 18					Mar. 18		Mar. 18						
5. 9	20. 36. 40	6. 58	*1355	9. 56	*03160				16. 42	20. 33. 10	23. 35	*1327					
5. 33	34. 50	7. 11	*1370	10. 12	*03175				16. 46	33. 50	23. 59	*1336					
6. 14	36. 25	7. 13	*1365	11. 8	*03131				16. 54	32. 0							
6. 36	35. 0	7. 40	*1393	11. 21	*03136				17. 7	31. 45							
6. 41	33. 25	7. 55	*1375	11. 27	*03130				17. 26	33. 10							
6. 55	36. 50	8. 14	*1385	11. 41	*03083				17. 34	33. 0							
7. 9	20. 30	8. 24	*1389	12. 0	*03105				17. 50	30. 50							
7. 13	20. 10	8. 29	*1376	12. 16	*03100				18. 12	30. 5							
7. 28	15. 10	9. 3	*1356	12. 59	*03137				18. 14	29. 0							
7. 47	27. 10	9. 12	*1365	13. 14	*03126				18. 17	30. 25							
7. 58	27. 5	9. 24	*1367	13. 30	*03135				18. 28	30. 40							
8. 2	26. 0	9. 42	*1353	13. 55	*03121				18. 37	29. 15							
8. 14	30. 40	9. 56	*1357	14. 29	*03136				18. 42	31. 10							
8. 25	29. 40	10. 10	*1354	14. 45	*03126				19. 2	30. 20							
8. 31	29. 40	10. 20	*1365	15. 7	*03137				19. 9	28. 40							
8. 42	30. 0	10. 41	*1355	15. 29	*03122				19. 12	32. 25							
8. 54	32. 15	10. 59	*1347	15. 57	*03120				19. 21	32. 10							
9. 11	29. 0	11. 21	*1309	16. 14	*03096				19. 25	30. 50							
9. 23	29. 0	11. 40	*1309	16. 24	*03096				19. 39	30. 20							
9. 27	26. 5	11. 47	*1341	16. 40	*03126				19. 51	31. 40							
9. 32	26. 5	12. 10	*1374	16. 56	*03137				19. 56	29. 20							
9. 41	24. 30	12. 23	*1335	17. 26	*03172				19. 59	28. 40							
9. 46	24. 55	12. 39	*1339	18. 22	*03200				20. 16	30. 0							
10. 1	23. 25	12. 50	*1338	19. 27	*03223				20. 24	28. 10							
10. 12	24. 15	13. 12	*1358	21. 7	*03206				20. 27	30. 5							
10. 20	26. 30	13. 26	*1350	21. 51	*03221				20. 33	28. 30							
10. 30	26. 30	13. 42	*1357	22. 20	*03206				20. 58	32. 25							
10. 39	24. 55	14. 6	*1343	23. 59	*03214				21. 3	32. 0							
10. 51	22. 50	14. 29	*1342						21. 12	34. 10							
10. 59	27. 15	14. 50	*1348						21. 22	32. 45							
11. 7	20. 10	15. 6	*1347						21. 26	33. 45							
	(†)	15. 12	*1351						21. 28	36. 10							
11. 33	15. 55	15. 44	*1326						21. 40	32. 25							
11. 39	18. 25	15. 57	*1314						21. 51	35. 10							
11. 48	13. 40	16. 6	*1321						22. 6	33. 45							
12. 11	30. 45	16. 12	*1319						22. 27	36. 55							
12. 20	24. 25	16. 54	*1340						22. 46	37. 40							
12. 36	27. 0	17. 42	*1357						22. 58	37. 25							
12. 52	21. 20	17. 55	*1355						23. 9	37. 45							
13. 5	23. 55	18. 52	*1367						23. 14	37. 30							
13. 13	21. 30	19. 12	*1358						23. 23	39. 20							
13. 22	18. 20	19. 16	*1370						23. 28	39. 10							
13. 49	19. 25	19. 21	*1360						23. 55	41. 55							
14. 9	25. 10	19. 42	*1355						23. 59	42. 0							
14. 24	27. 25	19. 49	*1359														
14. 35	27. 50	20. 11	*1350						Mar. 19		Mar. 19		Mar. 19		Mar. 19		
14. 43	26. 35	20. 14	*1353						0. 0	20. 42. 0	0. 0	*1336	0. 0	*03214	1. 0	60. 0	60. 0
14. 58	26. 5	20. 47	*1339						0. 21	43. 10	0. 18	*1338	0. 11	*03213	3. 0	59. 8	60. 7
15. 11	31. 30	21. 6	*1317						0. 28	48. 0	0. 26	*1335	0. 26	*03224	9. 0	58. 8	59. 0
15. 19	33. 0	21. 18	*1315						0. 33	45. 55	0. 41	*1353	0. 36	*03276	21. 0	59. 8	60. 5
15. 27	30. 10	21. 34	*1327						0. 39	39. 15	0. 43	*1335	0. 40	*03264			
15. 35	29. 55	21. 41	*1321						0. 42	40. 45	0. 48	*1346	0. 53	*03293			
15. 43	33. 20	21. 55	*1329						0. 46	31. 0	0. 55	*1351	1. 11	*03303			
15. 58	36. 15	22. 21	*1316						1. 8	32. 40	0. 57	*1346	1. 20	*03285			
16. 9	34. 0	22. 30	*1320						1. 10	34. 20	1. 10	*1352	1. 51	*03278			
16. 12	33. 50	23. 6	*1316						1. 16	36. 15	1. 16	*1347	2. 0	*03295			
16. 21	32. 30	23. 14	*1324						1. 23	36. 15	1. 42	*1362	2. 11	*03279			
16. 34	34. 35	23. 22	*1321						1. 33	40. 30	1. 59	*1356	2. 40	*03338			

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Mar. 19		Mar. 19		Mar. 19					Mar. 19								
1. 47	20. 41. 40	2. 13	.1326	2. 53	.03342				21. 21	20. 32. 20							
1. 54	44. 0	2. 15	.1332	3. 51	.03273				21. 24	32. 45							
2. 8	52. 40	2. 20	.1326	4. 11	.03278				21. 40	32. 30							
2. 21	43. 55	2. 43	.1358	4. 30	.03255				22. 32	35. 30							
2. 24	43. 20	3. 8	.1369	4. 41	.03262				22. 51	34. 25							
2. 29	36. 55	3. 14	.1366	4. 53	.03246				23. 6	36. 20							
2. 36	32. 40	3. 30	.1366	5. 40	.03218				23. 9	35. 25							
2. 48	31. 10	3. 48	.1358	5. 45	.03222				23. 16	36. 5							
2. 56	32. 10	4. 11	.1367	5. 54	.03216				23. 24	35. 35							
3. 1	30. 55	4. 26	.1350	6. 9	.03219				23. 41	37. 40							
3. 5	32. 0	4. 41	.1365	6. 15	.03214				23. 45	37. 30							
4. 11	40. 25	4. 44	.1355	6. 43	.03203				23. 59	38. 45							
4. 25	37. 30	4. 56	.1362	7. 12	.03215												
4. 39	37. 5	5. 35	.1360	10. 11	.03187				Mar. 20		Mar. 20		Mar. 20		Mar. 20		
4. 46	36. 25	5. 43	.1371	12. 28	.03223				0. 0	20. 38. 45	0. 0	.1365	0. 0	.03158	1. 0	58. 8	59. 2
5. 31	35. 20	5. 52	.1363	14. 22	.03242				0. 16	39. 0	0. 23	.1366	0. 29	.03148	3. 0	59. 0	59. 6
6. 6	35. 5	6. 8	.1367	17. 4	.03245				0. 26	37. 40	0. 40	.1355	1. 56	.03162	9. 0	58. 6	59. 2
6. 13	35. 40	6. 20	.1359	19. 54	.03223				0. 51	36. 5	0. 54	.1351	2. 19	.03183	21. 0	57. 4	58. 0
6. 26	34. 35	6. 25	.1354	21. 44	.03202				1. 40	36. 40	1. 17	.1359	2. 42	.03191	22. 0	57. 6	57. 2
6. 39	34. 10	6. 43	.1365	22. 27	.03200				1. 49	36. 5	1. 44	.1362	4. 27	.03258	23. 0	56. 8	56. 0
6. 43	34. 40	6. 56	.1371	23. 59	.03158					***	2. 11	.1372	5. 6	.03223			
6. 53	33. 40	7. 5	.1368						2. 11	39. 55	2. 27	.1375	5. 41	.03226			
7. 12	35. 15	7. 12	.1374						2. 26	40. 25	2. 55	.1365	5. 52	.03238			
7. 26	34. 40	7. 26	.1369						2. 29	40. 0	3. 12	.1351	6. 15	.03222			
7. 33	35. 0	7. 51	.1369						2. 41	39. 55	3. 40	.1347	6. 41	.03238			
8. 16	34. 0	8. 6	.1375						2. 51	41. 35	3. 45	.1341	6. 46	.03223			
9. 11	33. 0	8. 15	.1369						2. 59	41. 0	4. 4	.1347	6. 55	.03232			
9. 36	33. 10	8. 29	.1375						3. 6	39. 55	4. 30	.1361	7. 12	.03182			
10. 28	31. 55	8. 37	.1371						3. 18	40. 10	4. 50	.1351	7. 26	.03197			
12. 15	31. 50	8. 43	.1373						3. 24	37. 45	5. 5	.1358	8. 5	.03158			
13. 24	31. 5	9. 6	.1364						3. 28	37. 40	5. 14	.1354	8. 19	.03164			
13. 42	31. 30	9. 14	.1361						3. 41	33. 0	5. 27	.1361	9. 22	.03180			
13. 58	31. 0	9. 36	.1366							***	5. 39	.1355	9. 41	.03162			
14. 21	31. 30	10. 12	.1368						4. 3	31. 35	5. 53	.1379	10. 12	.03166			
15. 21	30. 55	10. 20	.1365						4. 26	34. 10	6. 26	.1353	10. 41	.03157			
15. 33	31. 50	10. 41	.1363						4. 28	35. 30	6. 41	.1369	10. 44	.03163			
	***	11. 26	.1366						4. 33	35. 55	6. 45	.1364	11. 10	.03137			
16. 26	30. 30	14. 10	.1357						4. 41	35. 0	6. 56	.1391	11. 26	.03137			
16. 37	31. 35	18. 12	.1358						4. 51	34. 40	7. 12	.1353	11. 41	.03117			
16. 41	30. 55	18. 50	.1355						4. 59	34. 50	7. 21	.1388	13. 9	.03120			
16. 56	30. 55	19. 11	.1357						5. 11	34. 10	7. 33	.1402	13. 25	.03114			
17. 2	31. 30	19. 55	.1344						5. 23	34. 30	7. 54	.1382	13. 57	.03123			
17. 16	30. 40	21. 12	.1353						5. 32	32. 40	8. 0	.1360	14. 28	.03118			
17. 38	30. 40	21. 40	.1349						5. 40	27. 30	8. 10	.1367	14. 45	.03123			
17. 54	31. 15	22. 9	.1339						5. 44	27. 15	8. 26	.1354	16. 54	.03112			
18. 13	31. 15	22. 42	.1355						6. 8	31. 5	8. 41	.1341	17. 3	.03110			
18. 39	29. 40	23. 11	.1357						6. 26	29. 20	9. 3	.1353	17. 56	.03122			
18. 54	30. 10	23. 14	.1364						6. 35	27. 30	9. 12	.1364	19. 56	.03106			
19. 20	29. 0	23. 22	.1360						6. 42	24. 50	9. 18	.1361	20. 50	.03098			
19. 27	30. 25	23. 59	.1365						6. 46	29. 50	9. 25	.1368	22. 14	.03088			
19. 38	30. 0								6. 57	23. 0	9. 42	.1355	23. 59	.03058			
19. 51	31. 45								7. 0	30. 0	10. 21	.1367					
19. 55	31. 30								7. 6	31. 35	10. 39	.1367					
20. 9	32. 55								7. 14	28. 30	10. 43	.1361					
20. 13	32. 25								7. 18	18. 10	10. 53	.1377					
20. 20	33. 10								7. 27	19. 30	11. 13	.1357					
20. 39	32. 30								7. 30	18. 30	11. 28	.1364					
20. 56	33. 0								7. 35	21. 55	11. 43	.1359					

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



## 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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Mar. 20		Mar. 20															
7. 49	20. 26. "	11. 50	*1364						Mar. 21	0. 0	20. 35. 35	0. 0	*1355	0. 0	*03058	0. 0	56. 8
7. 57	28. 10	12. 3	*1366						0. 5	35. 55	0. 59	*1362	1. 11	*03044	1. 0	56. 4	56. 5
8. 8	24. 0	12. 25	*1361						0. 18	35. 35	1. 10	*1356	1. 44	*03052	2. 0	56. 5	56. 0
8. 23	29. 0	12. 38	*1364						0. 43	37. 5	1. 40	*1368	2. 9	*03043	3. 0	57. 8	57. 0
8. 36	32. 30	13. 6	*1357						1. 8	37. 5	2. 0	*1360	2. 53	*03047	9. 0	57. 4	58. 0
9. 8	27. 25	13. 19	*1360						1. 26	38. 25	2. 51	*1363	4. 54	*03131	21. 0	58. 3	59. 0
9. 15	29. 40	13. 31	*1356						1. 29	38. 25	3. 15	*1367	5. 12	*03136	22. 40	58. 3	59. 9
9. 26	34. 35	14. 27	*1349						1. 35	39. 20	3. 41	*1362	5. 22	*03124	23. 0	58. 0	59. 5
9. 47	29. 5	15. 20	*1359						1. 39	39. 15	4. 8	*1370	5. 40	*03180			
10. 4	29. 15	16. 26	*1349						1. 44	38. 0	4. 42	*1372	6. 42	*03122			
10. 11	30. 10	16. 49	*1357						2. 44	35. 35	5. 8	*1353	7. 34	*03105			
10. 28	29. 30	17. 12	*1355						3. 13	36. 15	5. 15	*1333	9. 57	*03093			
10. 33	29. 40	17. 18	*1357						3. 41	34. 0	5. 29	*1380	11. 26	*03108			
10. 39	28. 45	18. 55	*1363						3. 56	34. 55	5. 41	*1388	11. 36	*03112			
10. 56	34. 55	19. 18	*1359						4. 23	34. 50	6. 10	*1365	11. 53	*03083			
11. 3	33. 30	20. 0	*1350						4. 33	34. 20	6. 23	*1368	12. 25	*03059			
11. 23	35. 35	20. 41	*1354						5. 8	34. 40	6. 43	*1365	13. 49	*03091			
11. 29	34. 55	21. 44	*1350						5. 27	14. 55	6. 57	*1370	14. 56	*03105			
11. 34	32. 50	23. 50	*1351						5. 30	16. 25	7. 13	*1367	19. 12	*03119			
11. 42	33. 25	23. 59	*1355						5. 33	16. 40	7. 40	*1370	23. 59	*03117			
11. 55	33. 25								5. 43	19. 55	8. 10	*1366					
12. 28	29. 10								5. 47	19. 55	8. 17	*1369					
13. 9	30. 55								5. 54	21. 20	8. 41	*1365					
13. 18	30. 20								6. 25	30. 40	9. 15	*1368					
13. 23	29. 15								6. 40	33. 25	10. 18	*1363					
13. 37	28. 55								6. 56	32. 40	10. 50	*1366					
13. 58	33. 10								7. 7	33. 25	11. 23	*1363					
14. 26	32. 40								7. 17	33. 0	11. 41	*1378					
14. 51	34. 15								7. 28	33. 20	11. 50	*1374					
15. 5	32. 40								7. 43	32. 45	12. 10	*1386					
15. 12	31. 55								8. 24	32. 20	12. 36	*1374					
15. 26	32. 40								8. 52	32. 35	12. 58	*1361					
15. 44	31. 55								10. 26	32. 0	13. 11	*1363					
16. 0	33. 50								10. 41	31. 35	13. 40	*1357					
16. 42	36. 15								11. 14	31. 20	15. 0	*1362					
16. 56	33. 10								11. 26	32. 35	15. 50	*1360					
17. 10	32. 50								11. 41	40. 55	16. 55	*1362					
17. 25	30. 55								11. 55	36. 20	17. 39	*1359					
17. 39	30. 10								12. 19	35. 40	17. 49	*1363					
17. 55	31. 25								12. 30	31. 45	17. 55	*1359					
18. 28	29. 5								12. 53	31. 0	18. 22	*1364					
18. 38	29. 15									***	18. 42	*1360					
18. 46	28. 50								13. 37	29. 45	19. 11	*1359					
19. 17	30. 0								14. 9	30. 40	19. 41	*1351					
19. 43	32. 5								14. 43	30. 20	21. 29	*1353					
19. 58	31. 0								14. 50	31. 10	22. 18	*1354					
20. 23	32. 20								15. 8	30. 5	23. 49	*1350					
	***								15. 41	30. 30		(†)					
20. 51	31. 0								16. 9	30. 15							
20. 58	31. 35								16. 29	30. 40							
21. 38	32. 5								16. 56	30. 25							
21. 53	32. 55								17. 21	31. 10							
21. 58	32. 35								17. 51	30. 40							
22. 56	34. 55								18. 21	31. 35							
23. 37	35. 0								18. 47	30. 45							
23. 48	35. 35								19. 19	30. 45							
23. 59	35. 35								20. 17	32. 10							
									20. 56	31. 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.	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.	
Mar. 21 h m 21. 8	20. 31. 55																	
21. 23	31. 20																	
21. 54	31. 55																	
22. 19	33. 10																	
23. 8	34. 35																	
23. 35	34. 45 (†)																	
Mar. 22	(†)	Mar. 22		Mar. 22		Mar. 22												
1. 0	20. 37. 39*	1. 0	*1353*	0. 0	*03117	0. 0	59. 0	59. 5	9. 9	30. 55	15. 12	*1364						
3. 0	34. 32*	3. 0	*1366*	0. 53	{*03117	1. 0	58. 8	58. 5	9. 16	31. 35	17. 24	*1373						
9. 0	25. 9*	9. 0	*1374*	8. 0	{*03270	2. 0	58. 5	59. 2	9. 38	31. 25	18. 18	*1375						
21. 0	29. 57*	21. 0	*1342*	8. 26	*03272	3. 0	58. 5	58. 5	9. 49	30. 20	18. 30	*1371						
23. 50	38. 45			10. 13	*03262	9. 0	58. 5	58. 5	10. 3	32. 5	19. 45	*1365						
23. 55	38. 30			13. 21	*03257	21. 0	58. 9	59. 9	10. 18	30. 40	20. 10	*1367						
23. 57	37. 30			14. 36	*03273				10. 25	31. 5	22. 12	*1359						
23. 59	37. 30			15. 14	*03278				10. 39	30. 5	23. 59	*1364						
				15. 45	*03253				10. 43	30. 5								
				16. 24	*03243				10. 56	29. 50								
				19. 9	*03257				11. 6	30. 10								
				21. 10	*03262				11. 12	29. 30								
				21. 50	*03243				11. 52	32. 30								
				22. 48	*03257				12. 11	28. 40								
				23. 59	*03252				12. 26	28. 50								
					*03264				12. 34	29. 55								
									12. 44	29. 45								
									12. 56	30. 10								
Mar. 23	20. 37. 30	Mar. 23	*1351	0. 0	*03264	Mar. 23	1. 0	59. 6	60. 6	13. 9	29. 50							
0. 26	38. 15	0. 11	*1345	1. 55	*03320	3. 0	59. 4	60. 0	13. 38	29. 40								
0. 57	43. 25	0. 43	*1356	2. 12	*03312	9. 0	57. 9	57. 6	13. 45	31. 10								
1. 1	42. 55	1. 16	*1343	2. 26	*03318	21. 0	57. 8	57. 5	13. 53	31. 0								
1. 26	43. 35	1. 40	*1346	2. 40	*03312				14. 17	29. 45								
1. 37	43. 20	1. 47	*1357	3. 6	*03323				14. 39	29. 45								
1. 42	44. 45	2. 6	*1360	3. 30	*03314				14. 46	31. 10								
2. 6	42. 55	2. 14	*1346	4. 20	*03337				15. 12	32. 0								
2. 9	41. 30	2. 29	*1348	4. 33	*03332				15. 23	31. 25								
2. 26	41. 55	2. 42	*1341	4. 54	*03376				15. 39	30. 45								
2. 40	38. 10	3. 0	*1353	4. 59	*03370				16. 10	33. 20								
2. 49	38. 45	3. 10	*1353	5. 23	*03407				16. 42	31. 45								
2. 58	37. 25	3. 22	*1365	6. 42	*03323				17. 6	30. 40								
3. 7	37. 0	3. 41	*1360	10. 8	*03264				17. 24	31. 0								
3. 11	37. 25	3. 54	*1365	10. 54	*03236				17. 54	28. 20								
3. 26	36. 30	4. 12	*1377	11. 26	*03233				18. 59	28. 25								
3. 41	35. 40	4. 25	*1385	11. 58	*03198				19. 43	26. 45								
3. 57	37. 5	4. 50	*1359	12. 29	*03203				19. 58	27. 10								
4. 5	37. 0	5. 9	*1331	14. 19	*03197				20. 28	26. 40								
4. 19	38. 10	5. 41	*1354	19. 24	*03185				21. 30	28. 35								
4. 22	37. 55	5. 54	*1350	22. 54	*03157				22. 26	32. 5								
4. 35	39. 30	6. 10	*1360	23. 59	*03163				23. 59	35. 55								
4. 51	33. 30	6. 35	*1371															
4. 57	28. 10	6. 45	*1366															
5. 12	22. 20	6. 55	*1369															
5. 16	22. 30	7. 11	*1361															
5. 27	26. 0	7. 38	*1359															
5. 34	26. 30	8. 11	*1364															
5. 44	30. 40	8. 44	*1360															
5. 56	29. 35	9. 20	*1367															
6. 8	31. 0	9. 32	*1364															
									Mar. 24	20. 35. 55	Mar. 24	0. 0	*1364	0. 0	*03163	1. 0	57. 8	57. 4
									0. 14	37. 0	0. 33	*1367	4. 33	*03260	3. 0	58. 3	59. 0	
									0. 26	36. 40	1. 20	*1366	4. 53	*03277	9. 0	59. 0	60. 0	
									0. 33	37. 0	2. 21	*1371	5. 13	*03262	21. 12	59. 8	60. 4	
									1. 19	36. 50	2. 27	*1368	5. 36	*03278				
									1. 33	37. 15	2. 43	*1372	6. 3	*03273				
									1. 56	36. 55	2. 56	*1367	6. 27	*03277				

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

March 22. The Declination and Horizontal Force photographic traces were lost, through the zinc case which covers the cylinder not having been placed in its proper position.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Mar. 24		Mar. 24		Mar. 24					Mar. 24								
2. 12	20. 37. 0	3. 19	.1370	6. 42	.03266				21. 51	20. 31. 55							
2. 23	36. 30	3. 43	.1364	6. 56	.03287				22. 16	31. 35							
2. 34	37. 10	4. 33	.1373	7. 25	.03277				22. 40	33. 5							
2. 51	36. 25	4. 41	.1365	10. 54	.03289				22. 50	32. 55							
3. 9	37. 0	4. 59	.1371	11. 4	.03299				23. 14	34. 15							
3. 39	34. 20	5. 20	.1357	11. 27	.03263				23. 20	34. 15							
3. 44	34. 50	5. 43	.1378	13. 26	.03272				23. 59	36. 0							
4. 13	33. 20	5. 59	.1379	14. 9	.03284												
4. 28	33. 20	6. 11	.1375	14. 34	.03276												
4. 36	32. 15	6. 21	.1378	15. 39	.03297				Mar. 25	0. 0	20. 36. 0	0. 0	.1367	0. 0	.03264	0. 0	59. 2
4. 43	32. 15	6. 40	.1375	16. 10	.03288				1. 26	37. 30	2. 42	.1374	1. 32	.03260	9. 0	60. 8	62. 3
4. 54	33. 0	6. 48	.1364	17. 29	.03309				1. 34	38. 15	3. 12	.1371	3. 24	.03294	21. 0	58. 9	58. 5
5. 1	32. 0	7. 9	.1385	19. 11	.03317				1. 39	37. 35	4. 52	.1378	4. 26	.03322			
5. 23	24. 30	7. 12	.1380	22. 26	.03259				1. 44	37. 25	5. 40	.1379	6. 13	.03353			
5. 33	27. 15	7. 20	.1383	23. 59	.03264				1. 59	37. 40	5. 52	.1376	9. 11	.03383			
5. 59	31. 25	7. 28	.1374						3. 8	35. 25	7. 9	.1378	10. 12	.03376			
6. 12	32. 0	7. 41	.1378						3. 17	35. 30	7. 26	.1374	10. 28	.03379			
6. 34	31. 10	7. 59	.1370						4. 23	32. 50	7. 45	.1378	12. 41	.03358			
6. 55	21. 20	8. 14	.1366						5. 7	31. 50	9. 0	.1373	13. 22	.03340			
7. 3	24. 25	9. 10	.1366						6. 36	31. 0	9. 22	.1381	17. 40	.03305			
7. 13	24. 10	9. 26	.1364						7. 51	31. 10	9. 36	.1376	19. 27	.03302			
7. 19	26. 20	9. 58	.1368						8. 42	30. 40	9. 51	.1384	20. 59	.03277			
7. 29	25. 5	10. 32	.1365						9. 12	27. 55	10. 20	.1370	23. 59	.03272			
7. 46	29. 20	10. 55	.1370						10. 1	30. 15	10. 39	.1375					
7. 58	29. 40	11. 10	.1370						10. 17	29. 45	10. 43	.1374					
8. 4	31. 10	11. 19	.1383						10. 41	30. 50	10. 55	.1378					
8. 16	31. 30	11. 27	.1390						11. 3	29. 45	11. 14	.1372					
8. 39	29. 50	11. 43	.1384						11. 16	29. 45	11. 51	.1374					
8. 53	30. 35	12. 10	.1380						11. 26	30. 15	12. 12	.1378					
9. 33	30. 25	12. 34	.1369						12. 3	29. 25	12. 35	.1374					
10. 11	29. 55	13. 10	.1370						12. 29	29. 20	12. 55	.1382					
10. 23	30. 25	14. 11	.1361						12. 50	31. 35	13. 10	.1379					
10. 39	30. 30	14. 26	.1365						12. 56	31. 5	13. 54	.1370					
10. 54	30. 20	14. 53	.1367						13. 1	31. 10	17. 29	.1373					
11. 11	33. 55	15. 35	.1359						13. 14	29. 40	20. 14	.1367					
11. 36	27. 5	16. 13	.1371						13. 29	28. 45	21. 21	.1363					
11. 43	26. 50	17. 24	.1364						14. 9	29. 50	22. 21	.1362					
12. 12	29. 15	18. 6	.1367						14. 16	29. 30	23. 59	.1367					
12. 43	28. 55	19. 41	.1362						14. 53	29. 55							
12. 58	27. 30	21. 18	.1354							***							
	***	22. 12	.1358						15. 2	29. 5							
13. 42	27. 20	23. 59	.1367						15. 39	29. 30							
14. 1	32. 10								18. 2	28. 45							
14. 8	32. 25								18. 45	27. 25							
14. 15	34. 20								18. 59	27. 30							
14. 42	31. 35								19. 13	26. 45							
14. 57	31. 30								19. 19	26. 50							
15. 44	33. 0								19. 26	26. 5							
15. 54	32. 30								19. 30	26. 50							
16. 19	28. 20								20. 26	26. 30							
16. 53	27. 40								21. 6	27. 30							
17. 33	28. 0								23. 59	35. 25							
17. 55	27. 0																
19. 4	26. 55								Mar. 26		Mar. 26		Mar. 26		Mar. 26		
19. 16	27. 15								0. 0	20. 35. 25	0. 0	.1367	0. 0	.03272	1. 0	59. 9	61. 2
19. 54	26. 50								0. 53	35. 25	0. 19	.1368	1. 52	.03317	3. 0	60. 2	60. 8
20. 53	28. 25								1. 0	34. 55	0. 53	.1372	3. 44	.03343	9. 0	59. 8	59. 7
21. 15	28. 50								1. 32	35. 20	1. 0	.1368	10. 12	.03318	21. 0	59. 7	59. 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.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Mar. 26		Mar. 26		Mar. 26					Mar. 27		Mar. 27		Mar. 27		Mar. 27		
2. 22	20. 34. 5	1. 12	.1372	11. 9	.03287				1. 54	20. 38. 30	0. 51	.1362	1. 56	.03292	21. 0	58. 8	59. 0
2. 41	34. 5	2. 19	.1372	11. 54	.03284				2. 13	42. 15	1. 21	.1368	2. 21	.03322	22. 0	59. 0	59. 5
4. 12	31. 40	2. 57	.1376	15. 4	.03298				2. 24	41. 45	1. 56	.1371	2. 40	.03327	23. 0	59. 3	59. 7
4. 53	31. 15	4. 20	.1374	19. 10	.03309				2. 30	41. 45	2. 20	.1390	2. 56	.03308			
8. 0	30. 50	7. 10	.1380	21. 4	.03280				2. 51	38. 0	2. 41	.1386	3. 52	.03338			
9. 37	30. 55	7. 39	.1379	23. 59	.03267				3. 14	37. 0	3. 0	.1365	4. 4	.03335			
9. 53	29. 35	7. 55	.1381						3. 21	37. 5	3. 56	.1380	4. 12	.03351			
9. 58	29. 35	8. 42	.1378						3. 41	35. 35	4. 9	.1375	4. 41	.03360			
10. 32	25. 35	9. 34	.1379						4. 0	34. 25	4. 21	.1388	5. 43	.03369			
10. 47	25. 40	9. 52	.1391						4. 9	35. 10	4. 40	.1387	6. 45	.03353			
11. 8:	25. 0	10. 0	.1381						4. 24	34. 30	4. 55	.1374	7. 10	.03356			
11. 29	27. 45	10. 20	.1391						4. 29	34. 30	5. 9	.1377	8. 52	.03337			
11. 39	27. 30	10. 55	.1399						4. 41	33. 20	5. 35	.1367	11. 9	.03318			
11. 51	27. 45	11. 37	.1382						4. 44	33. 20	5. 44	.1373	11. 34	.03336			
12. 8	26. 20	12. 0	.1375						4. 55	33. 35	6. 15	.1368	12. 0	.03278			
12. 26	26. 30	12. 25	.1379						5. 13	32. 40	6. 40	.1370	12. 26	.03297			
12. 40	31. 5	12. 41	.1375						5. 39	30. 30	7. 12	.1369	13. 6	.03272			
13. 9	31. 20	13. 0	.1375						6. 26	31. 40	8. 11	.1379	13. 27	.03266			
13. 57	29. 20	13. 23	.1379						6. 56	29. 20	8. 43	.1378	14. 21	.03286			
14. 39	29. 30	14. 27	.1376						7. 0	29. 35	8. 54	.1380	15. 43	.03285			
15. 55	27. 55	17. 11	.1378						7. 24:	27. 40	9. 33	.1382	16. 22	.03264			
15. 59	28. 30	17. 42	.1376						7. 34	28. 5	9. 55	.1379	16. 43	.03268			
16. 25	27. 50	17. 54	.1380						7. 45	27. 45	10. 9	.1381	17. 42	.03257			
16. 43	28. 0	18. 37	.1376						8. 11	29. 40	10. 26	.1376	18. 42	.03263			
17. 7	27. 45	19. 3	.1377						8. 23	28. 55	10. 55	.1379	19. 42	.03257			
17. 26	28. 15	19. 43	.1371						8. 34	29. 0	11. 37	.1370	21. 34	.03260			
17. 44	28. 20	20. 22	.1372						9. 0	26. 55	11. 43	.1378	23. 59	.03246			
18. 10	27. 30	21. 22	.1364						9. 29	28. 45	11. 58	.1385					
18. 15	28. 5	21. 59	.1366						9. 48	27. 30	12. 6	.1381					
18. 26	27. 25	22. 13	.1362							***	12. 41	.1397					
18. 29	27. 25	22. 25	.1364						10. 29	29. 25	13. 0	.1393					
18. 58	26. 45	22. 44	.1362						10. 43	30. 10	13. 51	.1370					
19. 3	26. 45	23. 15	.1364						11. 14	28. 25	14. 12	.1365					
19. 12	25. 55	23. 39	.1371						11. 33	37. 15	15. 12	.1374					
	***	23. 59	.1367						11. 41	35. 15	15. 25	.1372					
19. 41	28. 10								12. 5	23. 10	15. 53	.1375					
19. 54	27. 10								12. 14	22. 10	16. 29	.1354					
20. 0	27. 35								12. 39:	27. 55	16. 52	.1368					
20. 8	26. 55								12. 57	25. 50	17. 26	.1383					
20. 16	27. 10								13. 30	23. 30	18. 0	.1376					
20. 30	26. 50								13. 40	23. 40	18. 59	.1379					
20. 36	28. 0								14. 12	30. 25	19. 12	.1375					
20. 53	26. 50								14. 23	30. 20	19. 18	.1379					
21. 9	30. 0								15. 3	30. 20	19. 55	.1368					
21. 20	29. 15								15. 11	30. 0	20. 23	.1356					
21. 34	30. 0								15. 25	30. 0	20. 50	.1353					
22. 0	32. 45								15. 43	31. 45	21. 12	.1356					
22. 13	32. 20								15. 55	31. 35	21. 41	.1366					
22. 28	33. 40								16. 6	29. 50	22. 28	.1363					
23. 10	35. 25								16. 27	29. 50	23. 59	.1369					
23. 36	39. 10								16. 49	33. 5							
23. 55	40. 20								17. 6	32. 10							
23. 59	40. 20								17. 23	32. 40							
									17. 41	29. 40							
Mar. 27		Mar. 27		Mar. 27		Mar. 27			17. 47	30. 20							
0. 0	20. 40. 20	0. 0	.1367	0. 0	.03267	1. 0	60. 260. 1		18. 1	28. 50							
0. 28	38. 50	0. 36	.1364	0. 41	.03277	3. 0	60. 262. 0		18. 12	28. 15							
1. 14	40. 35	0. 42	.1366	1. 36	.03280	9. 0	59. 460. 0		18. 15	26. 55							

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





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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Mar. 31		Mar. 31		Mar. 31					Mar. 31								
6. 52	20. 31. 40	7. 47	*1367	23. 59	*03210				21. 59	20. 33. 30							
7. 9	29. 5	8. 14	*1362						22. 11	33. 0							
7. 39	29. 5	9. 18	*1367						22. 26	33. 15							
7. 49	28. 5	9. 29	*1369						22. 38	32. 50							
8. 2	29. 10	9. 45	*1372						22. 50	33. 20							
8. 25	27. 30	10. 11	*1364						23. 14	39. 10							
8. 44	28. 15	10. 30	*1361						23. 22	39. 0							
8. 57	28. 10	10. 45	*1365						23. 27	39. 30							
9. 10	28. 30	10. 57	*1373						23. 31	39. 30							
9. 19	27. 40	11. 25	*1369						23. 38	38. 55							
9. 28	27. 45	11. 41	*1357						23. 45	40. 30							
9. 41	24. 10	12. 12	*1367						23. 55	41. 10							
9. 59	22. 30	12. 40	*1383						23. 59	41. 0							
10. 8	22. 50	12. 56	*1383														
10. 14	22. 5	13. 14	*1375						Apr. 1		Apr. 1		Apr. 1		Apr. 1		
11. 2	30. 50	14. 0	*1368						0. 0	20. 41. 0	0. 0	*1350	0. 0	*03210	1. 0	59. 5	59. 0
11. 9	30. 45	14. 41	*1374						0. 14	42. 5	0. 12	*1341	0. 9	*03210	9. 0	59. 6	59. 5
11. 25	27. 20	14. 55	*1368						0. 49	39. 50	0. 33	*1340	0. 19	*03227	21. 0	58. 3	58. 0
11. 36	22. 20	15. 26	*1369						0. 58	39. 55	0. 45	*1345	1. 11	*03266			
11. 43	22. 0	16. 26	*1378						1. 10	42. 0	1. 9	*1361	1. 42	*03263			
11. 56	26. 5	17. 12	*1373						1. 22	41. 25	1. 14	*1372	2. 8	*03274			
12. 23	24. 55	18. 33	*1377						1. 53	43. 20	2. 11	*1374	2. 14	*03265			
12. 27	25. 45	18. 57	*1372						2. 3	44. 55	2. 15	*1366	2. 23	*03277			
12. 39	25. 30	20. 9	*1351						2. 11	43. 10	2. 25	*1368	2. 41	*03278			
13. 24	27. 20	20. 55	*1322						2. 23	44. 40	2. 40	*1361	2. 55	*03272			
13. 36	27. 10	21. 12	*1332						2. 33	43. 50	2. 43	*1365	3. 26	*03289			
13. 45	29. 55	21. 54	*1345						2. 40	44. 35	3. 0	*1353	3. 53	*03276			
13. 51	29. 55	22. 22	*1354						2. 53	42. 45	3. 18	*1360	5. 7	*03280			
14. 7	28. 50	23. 12	*1352						3. 14	41. 50	3. 27	*1370	5. 40	*03286			
14. 12	29. 30	23. 21	*1356						3. 26	42. 55	3. 51	*1361	6. 55	*03302			
14. 25	29. 5	23. 26	*1354						3. 58	39. 50	4. 12	*1367	7. 12	*03319			
14. 31	30. 30	23. 49	*1362						4. 24	37. 45	4. 25	*1365	7. 25	*03320			
14. 54	31. 50	23. 59	*1350						5. 9	35. 40	4. 42	*1372	7. 34	*03296			
14. 59	31. 40								5. 19	35. 55	5. 4	*1370	7. 42	*03299			
15. 8	30. 40								5. 40	33. 45	5. 21	*1379	8. 9	*03272			
15. 23	30. 55								5. 51	34. 20	5. 41	*1365	8. 24	*03263			
15. 28	29. 45								6. 7	33. 10	6. 30	*1373	8. 56	*03280			
15. 59	29. 45								6. 11	33. 20	6. 43	*1368	9. 23	*03282			
16. 11	28. 0								6. 24	32. 40	6. 54	*1358	9. 51	*03277			
16. 15	28. 0								6. 39	32. 40	7. 10	*1365	10. 7	*03244			
16. 29	27. 25								6. 54	30. 20	7. 26	*1383	10. 11	*03240			
16. 50	28. 30								7. 1	27. 0	7. 41	*1410	10. 25	*03196			
17. 38	27. 50								7. 13	27. 0	7. 53	*1402	10. 58	*03222			
17. 56	26. 0								7. 30	29. 50	8. 11	*1383	11. 59	*03205			
18. 14	26. 0								7. 39	17. 55	8. 20	*1368	12. 12	*03212			
18. 19	26. 55								7. 47	23. 10	8. 32	*1371	12. 52	*03183			
18. 27	26. 0								8. 2	28. 40	8. 45	*1359	13. 41	*03213			
18. 38	25. 20								8. 10	28. 10	8. 55	*1363	13. 58	*03200			
18. 45	27. 10								8. 14	28. 45	9. 22	*1368	14. 42	*03216			
19. 7	27. 10								8. 20	28. 30	9. 55	*1396	15. 12	*03181			
19. 26	24. 55								8. 29	26. 45	10. 18	*1359	15. 39	*03162			
19. 38	26. 40								8. 46	29. 50	10. 27	*1336	16. 49	*03183			
19. 46	26. 20								8. 58	28. 10	10. 40	*1355	17. 54	*03215			
20. 12	26. 55								9. 22	28. 20	10. 50	*1352	21. 32	*03202			
20. 19	28. 40								9. 40	23. 15	11. 12	*1368	23. 59	*03219			
20. 27	28. 10								9. 45	24. 15	11. 19	*1364					
20. 38	30. 5								9. 54	23. 25	11. 33	*1369					
21. 19	32. 30								9. 59	27. 30	11. 41	*1364					

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 1		Apr. 1							Apr. 2		Apr. 2		Apr. 2		Apr. 2		
10. 4	20. 28. 40	11. 45	*1368						0. 0	20. 40. 15	0. 0	*1362	0. 0	*03219	1. 0	59. 3	59. 1
10. 15	33. 40	12. 6	*1356						0. 26	39. 40	0. 11	*1364	0. 37	*03219	3. 0	59. 5	59. 6
10. 27	34. 20	12. 34	*1376						0. 29	37. 45	0. 25	*1362	2. 44	*03309	9. 0	59. 2	59. 0
10. 37	24. 0	13. 0	*1361						0. 54	39. 10	0. 41	*1350	3. 11	*03297	21. 0	58. 7	58. 8
10. 42	22. 20	13. 49	*1376						0. 59	38. 55	1. 10	*1356	3. 41	*03305			
10. 50	23. 45	14. 39	*1364						1. 27	40. 45	1. 21	*1367	3. 49	*03329			
11. 8	22. 55	15. 10	*1391						2. 9	39. 40	2. 10	*1365	4. 11	*03319			
11. 13	24. 30	15. 27	*1382						2. 33	40. 40	2. 28	*1359	4. 24	*03309			
11. 22	23. 55	15. 47	*1380						2. 40	40. 15	2. 50	*1361	6. 16	*03266			
11. 28	26. 0	15. 57	*1374						2. 48	40. 40	3. 19	*1354	7. 54	*03262			
11. 40	21. 50	16. 27	*1367						2. 54	39. 35	3. 43	*1356	8. 20	*03277			
11. 45	21. 30	17. 22	*1344						3. 9	37. 20	3. 55	*1369	8. 39	*03268			
11. 56	18. 50	17. 51	*1353						3. 33	35. 20	4. 11	*1372	8. 57	*03268			
12. 12	23. 10	18. 7	*1352						3. 42	31. 30	4. 25	*1365		*03117			
12. 38	32. 5	18. 24	*1360						3. 53	30. 20	5. 57	*1374	11. 43	*03108			
12. 50	30. 0	18. 53	*1357						4. 13	34. 45	6. 27	*1371	12. 13	*03100			
12. 57	28. 10	19. 18	*1362						4. 22	34. 25	6. 54	*1376	12. 44	*03102			
13. 3	28. 20	19. 40	*1357						4. 36	35. 25	7. 26	*1373	13. 13	*03083			
13. 12	27. 20	19. 55	*1358						5. 29	33. 0	7. 41	*1374	13. 28	*03083			
13. 16	28. 15	21. 26	*1353						6. 39	31. 20	7. 57	*1364	14. 7	*03072			
13. 26	27. 50	23. 59	*1362						6. 59	31. 35	8. 11	*1368	15. 44	*03070			
13. 29	28. 5								7. 16	30. 55	8. 25	*1363	16. 11	*03082			
13. 54	23. 40								7. 30	31. 40	8. 53	*1391	17. 21	*03077			
14. 1	24. 0								7. 43	30. 20	9. 12	*1365	18. 9	*03080			
14. 9	23. 20								8. 11	31. 5	9. 26	*1376	21. 16	*03082			
14. 29	31. 55								8. 21	29. 30	9. 43	*1365	23. 59	*03100			
14. 40	33. 45								8. 30	29. 30	9. 55	*1367					
14. 50	32. 40								8. 40	19. 0	10. 15	*1361					
15. 32	20. 50								8. 59	22. 0	11. 12	*1366					
15. 43	21. 20								9. 1	24. 25	11. 40	*1361					
15. 51	20. 55								9. 17	27. 30	11. 54	*1366					
16. 9	22. 20								9. 32	33. 15	12. 27	*1364					
16. 16	21. 55								9. 54	30. 40	12. 43	*1367					
16. 33	24. 10								10. 23	30. 5	13. 21	*1361					
16. 43	23. 20								10. 44	32. 0	13. 39	*1366					
16. 53	26. 30								10. 57	32. 0	14. 10	*1369					
17. 6	28. 0								11. 8	32. 15	14. 39	*1364					
17. 13	30. 5								11. 13	32. 15	15. 11	*1376					
17. 26	29. 55								11. 31	31. 10	15. 22	*1372					
17. 32	30. 40								11. 56	34. 15	15. 43	*1375					
17. 46	28. 20								12. 35	31. 50	15. 56	*1368					
18. 6	27. 30								12. 44	31. 15	16. 15	*1367					
	***								12. 58	34. 20	16. 42	*1374					
18. 29	27. 30								13. 26	31. 45	17. 12	*1369					
18. 41	26. 25								13. 47	34. 0	17. 55	*1349					
19. 8	27. 0								13. 59	33. 20	18. 27	*1355					
19. 25	26. 0								14. 14	30. 55	19. 27	*1353					
19. 33	27. 0								14. 46	33. 30	19. 56	*1347					
20. 9	27. 0								15. 9	31. 55	20. 55	*1320					
21. 9	29. 40								15. 12	32. 0	21. 41	*1326					
21. 25	29. 30								15. 23	30. 30	22. 12	*1336					
21. 56	30. 55								15. 27	30. 20	23. 3	*1334					
22. 39	33. 55								15. 39	28. 15	23. 30	*1346					
22. 50	33. 40								15. 50	29. 45	23. 59	*1350					
23. 20	36. 0								15. 59	28. 20							
23. 31	35. 55								16. 27	30. 25							
23. 35	37. 40								16. 44	29. 40							
23. 59	40. 15								16. 57	30. 0							

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



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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 2																	
17. 9	20. 30. 0									Apr. 3							
17. 20	31. 30									7. 43	20. 33. 5	11. 43					
17. 56	33. 55									8. 8	33. 35	12. 4					
18. 14	34. 35									8. 41	32. 40	12. 41					
18. 31	34. 40									9. 2	32. 50	13. 6					
18. 42	32. 5									9. 21	29. 40	13. 25					
18. 48	32. 40									9. 32	29. 0	13. 40					
	***									9. 44	31. 50	14. 11					
19. 10	30. 5									10. 3	30. 40	15. 0					
19. 25	30. 5									10. 10	31. 5	15. 57					
19. 39	29. 30									10. 29	26. 55	16. 39					
19. 53	30. 0									10. 55	30. 5	17. 22					
20. 0	31. 30									11. 26	28. 0	17. 42					
20. 4	31. 5									11. 31	28. 55	17. 57					
20. 8	31. 55									11. 45	29. 5	18. 21					
20. 27	32. 30									12. 3	28. 0	19. 20					
20. 41	34. 35									12. 27	30. 5	19. 36					
20. 57	34. 5									12. 37	29. 40	20. 12					
21. 25	36. 30									12. 46	30. 45	20. 26					
21. 38	38. 5									12. 59	30. 55	20. 43					
22. 1	38. 35									13. 19	28. 20	20. 54					
22. 17	35. 45									13. 36	28. 40	21. 13					
22. 26	36. 15									13. 51	32. 30	22. 25					
22. 34	35. 25									13. 57	32. 30	23. 43					
	***									14. 11	34. 0	23. 51					
23. 41	39. 15									15. 14	30. 50	23. 59					
23. 50	39. 55									15. 28	30. 25						
23. 59	39. 55									15. 39	31. 0						
										15. 46	29. 50						
											***						
Apr. 3	20. 39. 55	Apr. 3	*1350	Apr. 3	*03100	Apr. 3	1. 0	59. 860. 0	16. 21	29. 40							
0. 8	40. 0	0. 29	*1356	1. 43	*03142	3. 0	59. 860. 2		16. 29	29. 10							
0. 13	39. 20	1. 4	*1352	1. 55	*03134	9. 0	58. 859. 0		16. 43	30. 20							
0. 16	40. 20	1. 41	*1361	2. 55	*03157	21. 0	57. 958. 5		17. 3	29. 20							
0. 29	40. 30	1. 55	*1361	3. 25	*03154	22. 0	58. 159. 0		17. 14	30. 10							
1. 26	39. 15	2. 27	*1368	3. 53	*03172	23. 0	58. 058. 5		17. 39	29. 35							
1. 33	40. 10	2. 50	*1363	4. 55	*03174				17. 42	28. 55							
1. 55	38. 30	3. 5	*1368	5. 11	*03154				17. 57	28. 0							
2. 28	39. 0	3. 21	*1362	5. 41	*03180				18. 15	29. 35							
2. 38	38. 20	3. 33	*1354	7. 0	*03137				18. 28	28. 40							
2. 53	38. 50	4. 12	*1379	9. 46	*03104				18. 39	29. 15							
2. 59	37. 40	4. 30	*1377	10. 27	*03074				18. 45	30. 35							
3. 17	37. 25	4. 44	*1381	10. 52	*03083				18. 56	30. 35							
3. 39	32. 45	4. 58	*1377	11. 11	*03077				19. 9	31. 45							
4. 0	34. 40	5. 18	*1340	12. 56	*03083				19. 14	31. 10							
4. 11	34. 20	5. 43	*1373	13. 45	*03078				19. 18	32. 5							
4. 30	35. 20	6. 11	*1375	18. 22	*03082				19. 39	34. 0							
4. 53	34. 55	6. 57	*1370	18. 45	*03076				20. 11	32. 55							
4. 58	33. 30	7. 12	*1375	19. 40	*03073					***							
5. 7	33. 0	7. 59	*1370	20. 41	*03052				20. 35	34. 30							
5. 23	23. 15	8. 41	*1375	20. 44	*03039				20. 42	31. 25							
5. 29	22. 55	9. 5	*1369	21. 10	*03045				20. 59	33. 40							
5. 42	26. 20	9. 25	*1381	22. 19	*03027				21. 28	32. 0							
6. 0	27. 30	9. 43	*1378	23. 6	*03022				21. 39	33. 25							
6. 40	32. 40	10. 10	*1389	23. 59	*03040				21. 48	33. 20							
7. 8	33. 0	10. 39	*1370						22. 0	35. 10							
7. 20	32. 40	10. 56	*1373						22. 39	36. 30							
7. 36	33. 25	11. 22	*1364						23. 0	39. 25							
									23. 11	39. 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.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 3 23. 15	20. 41. 25								Apr. 4 10. 44	20. 28. 45	Apr. 4 12. 46	.1357	Apr. 4 23. 39	.03021			
23. 24	42. 10								10. 53	29. 5	13. 3	.1364	23. 59	.03021			
23. 36	41. 10								11. 1	27. 50	13. 19	.1356					
23. 41	42. 35								11. 25	27. 50	13. 20	.1359					
23. 44	42. 5								11. 39	27. 20	13. 39	.1357					
23. 59	42. 35								11. 52	27. 45	13. 54	.1364					
									12. 2	30. 40	13. 59	.1361					
									12. 13	36. 0	14. 27	.1370					
									12. 29	41. 55	15. 15	.1361					
									12. 52	30. 15	15. 30	.1355					
Apr. 4 0. 0	20. 42. 35	Apr. 4 0. 0	.1334	Apr. 4 0. 0	.03040	Apr. 4 0. 0	59. 358. 1		13. 9	41. 30	15. 56	.1360					
0. 4	43. 10	0. 11	.1338	1. 10	.03068	1. 0	58. 559. 0		13. 18	41. 40	16. 53	.1376					
0. 13	40. 40	0. 22	.1346	1. 24	.03060	2. 0	58. 559. 0		13. 39	35. 50	17. 15	.1369					
0. 23	41. 35	0. 29	.1343	2. 11	.03114	3. 0	58. 559. 0		13. 42	35. 25	17. 41	.1373					
0. 32	39. 45	1. 2	.1370	2. 25	.03124	9. 0	57. 857. 8		14. 6	29. 15	18. 12	.1366					
0. 39	40. 40	1. 12	.1360	2. 44	.03106	21. 0	58. 258. 0		14. 16	28. 50	18. 51	.1340					
0. 41	39. 55	1. 22	.1358	2. 58	.03106	22. 0	58. 659. 3		14. 24	27. 30	19. 13	.1345					
1. 1	45. 45	1. 33	.1335	4. 4	.03083	23. 0	58. 659. 5		14. 48	24. 40	19. 50	.1342					
1. 5	43. 55	1. 54	.1336	5. 41	.03082				15. 14	25. 20	19. 57	.1365					
1. 19	45. 40	2. 7	.1359	5. 44	.03093				15. 25	24. 50	20. 41	.1331					
1. 27	45. 20	2. 26	.1374	6. 0	.03082				15. 50	30. 10	20. 58	.1293					
1. 41	40. 55	2. 49	.1363	6. 11	.03096				16. 46	33. 25	21. 14	.1314					
1. 43	40. 50	2. 56	.1368	6. 14	.03094				17. 13	29. 50	22. 20	.1341					
1. 56	33. 15	3. 14	.1358	6. 57	.03100				17. 21	30. 5	22. 41	.1345					
2. 2	35. 0	3. 27	.1368	7. 44	.03096				17. 36	28. 55	22. 58	.1335					
2. 10	34. 55	4. 48	.1374	7. 54	.03100				17. 50	30. 40	23. 23	.1345					
2. 28	38. 45	5. 7	.1370	8. 22	.03097				17. 59	28. 30	23. 39	.1342					
2. 40	37. 20	5. 13	.1373	8. 30	.03103				18. 15	28. 40	23. 59	.1350					
2. 47	37. 50	5. 24	.1370	8. 51	.03023				18. 28	29. 50							
2. 50	39. 15	5. 39	.1372	9. 26	.03015				18. 39	34. 40							
3. 0	38. 50	5. 43	.1377	9. 41	.03037				18. 46	34. 20							
3. 10	36. 55	5. 57	.1370	10. 0	.03012				18. 53	32. 40							
3. 24	37. 35	6. 11	.1380	10. 18	.03042				19. 4	33. 0							
4. 12	35. 25	6. 26	.1368	12. 19	.03062				19. 11	34. 40							
	***		***	12. 24	.03057				19. 16	32. 40							
6. 6	33. 10	7. 0	.1368	12. 42	.03010				19. 19	33. 20							
6. 17	31. 20	7. 20	.1375	12. 56	.02997				19. 29	31. 20							
6. 37	31. 25	7. 27	.1369	13. 9	.03016					***							
6. 45	30. 50	7. 39	.1374	13. 28	.02983				19. 41	32. 50							
6. 53	31. 35	7. 40	.1368	13. 54	.03000				19. 48	35. 0							
6. 58	31. 35	7. 47	.1376	14. 4	.02994				20. 14	32. 40							
7. 8	32. 10	7. 56	.1369	14. 26	.03017				20. 24	32. 55							
7. 16	30. 25	8. 19	.1376	15. 14	.03037				20. 36	32. 10							
7. 27	30. 50	8. 32	.1421	15. 26	.03035				20. 55	32. 35							
7. 45	26. 30	8. 39	.1402	15. 52	.03057				21. 21	41. 25							
7. 52	28. 55	8. 55	.1375	16. 51	.03052				21. 30	42. 5							
8. 6	30. 15	9. 12	.1367	17. 11	.03038				21. 41	40. 30							
8. 15	28. 50	9. 26	.1388	17. 26	.03041				21. 58	34. 10							
8. 22	29. 10	9. 41	.1392	17. 57	.03037				22. 10	35. 5							
8. 28	26. 40	9. 57	.1351	18. 13	.03026				22. 14	34. 5							
8. 35	33. 40	10. 11	.1359	19. 52	.03037				22. 22	33. 10							
8. 45	31. 55	10. 19	.1362	20. 14	.03018				22. 30	37. 20							
8. 56	25. 0	10. 45	.1357	20. 44	.03004				22. 43	38. 40							
9. 7	24. 30	10. 56	.1363	21. 12	.03038				22. 54	35. 10							
9. 21	17. 10	11. 11	.1361	21. 54	.03020				22. 58	35. 30							
9. 46	28. 30	11. 12	.1365	22. 14	.03023				23. 2	34. 30							
9. 59	19. 15	11. 55	.1359	22. 26	.03033				23. 23	37. 10							
10. 28	29. 15	12. 18	.1354	22. 53	.03023				23. 28	35. 40							
10. 38	29. 35	12. 39	.1367	23. 12	.03034												

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

INDICATIONS OF THE MAGNETOMETERS

Table with multiple columns: Greenwich Mean Solar Time, Western Declination, Horizontal Force in parts of the whole H. F., uncorrected for Temperature, Vertical Force in parts of the whole V. F., uncorrected for Temperature, Mean Solar Time, Readings of Thermometers (Of H. F. Magnet, Of V. F. Magnet), and corresponding values for Apr. 4 and Apr. 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.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 6 h m	20. 38. 10	Apr. 6 h m	•1354	Apr. 6 h m	•03040	Apr. 6 h m	39. 36. 0	3	Apr. 6 h m	20. 28. 20	Apr. 6 h m	•1356	h m		h m		
0. 0	38. 55	0. 0	•1356	2. 22	•03084	3. 0	58. 85. 0	0	12. 36	27. 40	15. 20	•1350					
0. 20	39. 55	0. 18	•1367	3. 22	•03087	9. 0	58. 86. 0	0	12. 52	29. 25	15. 55	•1365					
0. 40	38. 40	1. 15	•1364	5. 6	•03117	21. 0	57. 85. 3	3	13. 11	29. 5	18. 25	•1368					
1. 9	38. 40	1. 41	•1364	5. 6	•03117				13. 17	31. 55	20. 12	•1352					
1. 27	39. 5	1. 55	•1367	5. 43	•03136				13. 37	34. 15	20. 38	•1342					
1. 36	38. 40	2. 0	•1351	6. 3	•03110				13. 44	32. 45	21. 41	•1334					
1. 49	38. 50	2. 10	•1362	6. 10	•03117				13. 54	32. 55	21. 54	•1337					
1. 55	37. 0	2. 17	•1356	6. 14	•03105				14. 5	30. 20	22. 4	•1334					
2. 6	36. 50	2. 20	•1373	6. 40	•03103				14. 31	33. 10	22. 20	•1337					
	***	2. 25	•1354	6. 43	•03122				14. 55	36. 35	22. 35	•1333					
2. 27	38. 10	2. 32	•1370	7. 0	•03113				15. 7	37. 55	23. 12	•1344					
2. 31	36. 45	2. 37	•1352	7. 40	•03107				15. 14	36. 15	23. 41	•1348					
2. 36	37. 50	2. 42	•1372	7. 52	•03070				15. 40	32. 50	23. 59	•1357					
3. 4	36. 0	3. 6	•1361	7. 56	•03085				15. 56	32. 5							
3. 18	36. 0	3. 41	•1363	8. 11	•03077				16. 10	30. 20							
3. 31	35. 20	4. 55	•1380	8. 20	•03038				16. 43	30. 55							
4. 30	34. 25	5. 1	•1374	8. 41	•03040				16. 56	30. 30							
4. 39	36. 0	5. 21	•1366	8. 58	•02998				17. 9	30. 55							
4. 43	35. 20	5. 32	•1371	9. 19	•03038				17. 25	30. 0							
4. 54	35. 40	5. 45	•1407	9. 56	•03030				18. 6	28. 30							
5. 1	35. 15	5. 50	•1403	10. 23	•03056				18. 17	31. 0							
5. 9	35. 50	5. 52	•1407	10. 56	•03022				18. 21	***							
5. 14	35. 0	6. 10	•1384	11. 7	•03038				18. 29	29. 20							
5. 21	34. 50	6. 12	•1374	11. 20	•03019				18. 33	29. 20							
5. 38	27. 30	6. 34	•1369	11. 52	•03036					***							
5. 51	33. 20	6. 40	•1371	12. 12	•03025				19. 10	27. 45							
6. 0	30. 20	6. 43	•1385	13. 54	•03041				19. 16	29. 20							
6. 9	31. 10	7. 10	•1373	14. 41	•03036				19. 31	28. 40							
6. 13	29. 40	7. 19	•1367	14. 55	•03037				19. 45	30. 5							
6. 20	29. 10	7. 40	•1399	15. 57	•03018				20. 4	29. 0							
6. 25	29. 30	7. 46	•1376	17. 54	•03036				20. 30	30. 55							
6. 38	24. 30	7. 55	•1404	19. 38	•03020					***							
6. 44	29. 15	8. 7	•1408	19. 52	•03018				20. 41	30. 40							
6. 54	30. 10	8. 15	•1385	22. 8	•03000				20. 53	31. 50							
7. 6	27. 45	8. 39	•1403	(†)					21. 18	31. 10							
7. 14	28. 40	8. 41	•1395	22. 37	•03540				21. 39	32. 40							
7. 25	27. 30	8. 48	•1366	23. 59	•03536				21. 44	32. 15							
7. 31	23. 30	9. 0	•1352						21. 53	33. 40							
7. 41	30. 10	9. 20	•1379						22. 11	33. 55							
7. 48	16. 20	9. 39	•1369						22. 27	35. 20							
8. 11	32. 35	9. 57	•1355						22. 41	35. 0							
8. 24	24. 10	10. 20	•1358						22. 50	36. 35							
8. 37	32. 30	10. 30	•1372						22. 56	36. 0							
8. 46	31. 20	10. 44	•1365						23. 19	36. 25							
9. 2	21. 25	10. 55	•1369						23. 30	37. 55							
9. 10	21. 15	11. 0	•1361						23. 40	37. 25							
9. 25	26. 30	11. 12	•1372						23. 59	39. 35							
9. 39	29. 10	11. 22	•1367														
9. 56	25. 20	11. 43	•1368														
10. 14	24. 5	11. 56	•1375														
10. 38	33. 10	12. 16	•1367						Apr. 7 0. 0	20. 39. 35	Apr. 7 0. 0	•1357	Apr. 7 0. 0	•03536	Apr. 7 1. 0	59. 06. 1	
10. 53	32. 50	12. 41	•1370						0. 9	40. 10	0. 22	•1358	0. 49	•03546	3. 0	59. 59. 9	
11. 0	30. 55	13. 40	•1355						0. 25	41. 40	0. 44	•1350	1. 56	•03600	9. 0	58. 85. 5	
11. 13	37. 20	13. 45	•1359						0. 34	41. 25	1. 14	•1353	3. 12	•03606	21. 30	58. 85. 0	
11. 28	33. 10	13. 58	•1356						0. 50	42. 10	1. 22	•1350	3. 34	•03627			
11. 41	30. 55	14. 13	•1365						1. 4	42. 0	2. 9	•1371	4. 21	•03657			
11. 56	33. 15	14. 30	•1367						1. 39	38. 30	2. 35	•1366	4. 25	•03643			
12. 15	27. 55	14. 56	•1353						1. 56	39. 10	2. 55	•1371	4. 54	•03672			

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

April 6<sup>d</sup>. 22<sup>h</sup>. 8<sup>m</sup>. Mr. Glaisher adjusted the plane mirror carried by the Vertical Force Magnet, producing an increase in the readings of 0.00540 parts of the whole Vertical Force.

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 7		Apr. 7		Apr. 7					Apr. 7								
1. 58	20. 40. 40	3. 16	.1364	5. 12	.03678				13. 23	20. 31. 45	23. 25	.1356					
2. 8	40. 40	3. 41	.1374	6. 56	.03662				13. 41	31. 40	23. 49	.1369					
2. 12	40. 25	4. 0	.1365	8. 44	.03643				13. 47	30. 0	23. 59	.1359					
2. 17	39. 15	4. 12	.1357	9. 11	.03623				13. 53	30. 20							
2. 27	39. 0	4. 22	.1359	9. 26	.03619				13. 58	29. 45							
2. 57	39. 40	4. 25	.1350	9. 40	.03590				14. 7	30. 10							
3. 6	38. 45	4. 49	.1371	9. 52	.03598				14. 14	29. 55							
3. 14	38. 30	5. 11	.1381	10. 0	.03577				14. 28	32. 5							
3. 27	39. 10	5. 14	.1376	10. 22	.03558				15. 6	31. 55							
3. 39	38. 10	5. 22	.1378	10. 42	.03566				15. 10	32. 40							
3. 56	39. 30	5. 42	.1364	11. 19	.03547				15. 23	31. 55							
4. 14	36. 10	6. 14	.1369	11. 33	.03543				15. 30	33. 5							
4. 18	34. 30	6. 23	.1365	12. 40	.03565				15. 58	34. 0							
4. 29	31. 55	6. 45	.1368	12. 57	.03563				16. 9	32. 45							
4. 34	32. 40	6. 55	.1364	13. 30	.03582				16. 24	32. 55							
4. 44	32. 55	7. 14	.1370	14. 3	.03580				16. 45	31. 25							
4. 52	32. 0	7. 21	.1369	14. 54	.03586				16. 56	31. 25							
5. 8	34. 45	7. 34	.1376	15. 34	.03582				17. 4	32. 15							
5. 13	34. 20	7. 41	.1371	17. 6	.03582				17. 23	32. 0							
5. 17	34. 50	7. 56	.1374	17. 33	.03598				17. 40	32. 35							
5. 24	34. 25	8. 21	.1370	19. 44	.03600				17. 53	31. 50							
5. 30	32. 40	8. 40	.1374	20. 54	.03577					***							
5. 40	32. 45	8. 45	.1385	22. 41	.03562				18. 15	32. 10							
5. 51	34. 5	9. 14	.1381	23. 48	.03555				18. 34	31. 0							
5. 55	34. 0	9. 35	.1399	23. 59	.03566				18. 39	29. 30							
6. 1	34. 40	9. 44	.1394						19. 14	27. 40							
6. 25	32. 40	10. 0	.1386						19. 19	25. 10							
6. 42	32. 55	10. 11	.1388						19. 27	28. 0							
6. 49	32. 25	10. 25	.1369						20. 15	26. 15							
7. 5	32. 5	10. 44	.1378						20. 34	27. 45							
7. 12	33. 0	11. 3	.1376						20. 44	27. 30							
7. 28	31. 20	11. 19	.1378						20. 55	29. 10							
7. 39	33. 0	11. 42	.1363						21. 8	29. 20							
7. 59	32. 5	11. 57	.1360						21. 12	29. 55							
8. 12	32. 25	12. 12	.1364						21. 26	29. 40							
8. 24	33. 5	12. 36	.1357						21. 31	31. 55							
8. 38	31. 50	12. 43	.1360							***							
8. 51	33. 5	13. 12	.1353						21. 58	32. 0							
8. 56	32. 0	13. 27	.1357						22. 14	33. 40							
9. 11	32. 30	13. 49	.1359						22. 54	35. 0							
9. 24	31. 15	14. 11	.1356						23. 9	34. 55							
9. 29	33. 10	14. 36	.1361						23. 37	36. 20							
9. 41	32. 35	14. 51	.1358						23. 42	36. 20							
9. 54	36. 40	15. 11	.1364						23. 56	40. 50							
10. 2	32. 40	15. 52	.1355						23. 59	41. 0							
10. 12	34. 25	16. 10	.1360														
10. 29	30. 20	16. 41	.1363						Apr. 8		Apr. 8		Apr. 8		Apr. 8		
10. 37	31. 20	17. 12	.1361						0. 0	20. 41. 0	0. 0	.1359	0. 0	.03566	0. 30	59. 35	59. 7
10. 44	31. 30	17. 35	.1356						0. 8	41. 5	0. 41	.1367	0. 34	.03562	9. 10	59. 36	60. 5
11. 15	20. 10	18. 22	.1365						0. 13	39. 55	0. 56	.1376	1. 23	.03586	21. 0	59. 8	61. 0
11. 25	20. 30	19. 23	.1359						0. 26	39. 35	1. 13	.1375	1. 36	.03584			
11. 31	21. 20	19. 36	.1365						0. 53	40. 40	1. 19	.1368	2. 12	.03607			
11. 38	21. 5	20. 43	.1356						1. 7	43. 20	1. 36	.1371	2. 28	.03603			
11. 45	21. 30	21. 8	.1343						1. 20	44. 20	1. 58	.1366	3. 8	.03612			
12. 26	28. 20	21. 30	.1340						1. 32	43. 15	2. 12	.1352	3. 26	.03628			
12. 38	29. 45	21. 55	.1346						1. 43	43. 50	2. 50	.1366	4. 0	.03632			
12. 49	28. 0	22. 10	.1344						1. 54	43. 35	3. 13	.1375	6. 15	.03662			
13. 11	29. 45	22. 45	.1354						2. 2	44. 0	3. 50	.1370	6. 29	.03676			

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 8		Apr. 8		Apr. 8					Apr. 8								
2. 9	20. 43. 30	4. 8	.1373	7. 8	.03678	h	m	o	o	16. 58	20. 31. 0	h	m		h	m	
2. 18	42. 0	4. 27	.1368	7. 22	.03656					17. 38	30. 40						
3. 0	39. 20	4. 42	.1373	7. 35	.03661					18. 51	28. 20						
3. 25	39. 55	4. 54	.1370	8. 24	.03635					19. 13	28. 15						
3. 56	38. 10	5. 8	.1372	8. 48	.03624					19. 18	27. 35						
4. 13	38. 20	5. 14	.1367	9. 22	.03633					19. 20	27. 45						
4. 29	36. 40	5. 40	.1377	9. 57	.03624					19. 41	27. 20						
4. 41	35. 50	6. 11	.1368	10. 28	.03626					20. 3	27. 55						
4. 50	36. 20	6. 18	.1377	10. 50	.03643					20. 11	27. 35						
4. 55	35. 35	6. 26	.1374	11. 12	.03618					21. 17	30. 55						
5. 8	36. 0	6. 41	.1378	11. 40	.03603					21. 51	32. 40						
5. 24	34. 55	7. 14	.1370	12. 42	.03637					22. 14	34. 30						
5. 39	35. 45	7. 27	.1386	12. 57	.03652						***						
5. 44	35. 35	7. 57	.1399	13. 12	.03624					23. 43	40. 0						
5. 55	34. 30	8. 10	.1389	13. 36	.03626					23. 59	39. 30						
6. 5	34. 20	8. 15	.1372	14. 11	.03637												
6. 18	31. 0	8. 25	.1376	15. 4	.03664												
6. 26	31. 15	8. 43	.1364	17. 15	.03683				Apr. 9								
6. 58	30. 5	8. 54	.1368	18. 11	.03696				0. 0	20. 39. 30	Apr. 9	(†)	0. 0	.03620	1. 0	58. 8	58. 5
7. 2	30. 40	9. 8	.1363	19. 34	.03686				1. 14	39. 40	0. 11	.1355	2. 0	.03645	3. 0	58. 8	58. 2
7. 12	24. 10	9. 19	.1369	20. 45	.03664				1. 43	37. 55	1. 14	.1366	5. 42	.03625	9. 0	58. 2	58. 8
7. 23	17. 0	10. 34	.1356	21. 55	.03660				2. 59	35. 15	1. 26	.1364	8. 57	.03583	21. 0	59. 5	60. 5
7. 44	13. 40	10. 43	.1358	23. 40	.03626				3. 43	34. 5	3. 2	.1371	10. 41	.03577			
8. 10	22. 10	10. 53	.1366	23. 51	.03638				4. 26	32. 50	3. 44	.1370	11. 20	.03604			
8. 19	19. 20	11. 5	.1369	23. 59	.03620				4. 36	31. 50	4. 41	.1371	17. 24	.03623			
8. 28	22. 40	11. 12	.1366						5. 28	30. 20	5. 12	.1376	19. 40	.03637			
8. 43	22. 20	11. 25	.1377						6. 41	31. 30	6. 15	.1372	21. 19	.03603			
8. 55	27. 20	11. 56	.1367						7. 10	30. 50	6. 56	.1378	22. 26	.03607			
9. 6	27. 20	12. 44	.1364						7. 58	31. 55	8. 25	.1374	23. 59	.03588			
9. 26	29. 5	13. 11	.1381						8. 28	31. 0	8. 44	.1377					
9. 56	26. 25	14. 12	.1362						8. 56	31. 35	8. 59	.1374					
10. 23	27. 0	15. 19	.1363						9. 0	31. 35	9. 13	.1378					
	(†)	15. 42	.1368						9. 18	32. 15	9. 37	.1373					
10. 37	36. 0	16. 10	.1361						9. 26	32. 5	9. 47	.1375					
10. 51	39. 55	18. 19	.1361						9. 41	32. 40	12. 6	.1367					
11. 4	37. 35	18. 55	.1357						10. 13	32. 0	12. 39	.1369					
11. 13	37. 25	21. 10	.1348						10. 31	32. 45	12. 59	.1367					
11. 30	32. 55	21. 39	.1345						12. 2	31. 35	13. 14	.1368					
11. 54	29. 45	22. 11	.1346						12. 13	32. 15	13. 41	.1366					
12. 15	29. 50	22. 25	.1341						12. 22	32. 5	14. 16	.1364					
12. 24	29. 30	22. 30	.1344						12. 34	33. 0	14. 57	.1367					
12. 32	29. 55	22. 55	.1340						12. 56	31. 55	15. 14	.1365					
12. 36	29. 50	23. 41	.1351						13. 9	32. 10	17. 55	.1369					
12. 40	35. 30	23. 48	.1348						13. 28	31. 20	19. 19	.1365					
12. 43	35. 40	23. 53	.1350						13. 53	31. 25	21. 42	.1347					
13. 11	34. 35	(†)							14. 3	32. 10	23. 54	.1356					
13. 24	35. 10								14. 55	30. 40	23. 59	.1359					
14. 10	31. 35								15. 28	30. 20							
14. 42	31. 35								15. 56	31. 10							
14. 53	32. 15								16. 47	31. 15							
14. 59	32. 5								17. 41	30. 30							
15. 13	30. 10								18. 53	27. 25							
15. 20	30. 15								19. 13	27. 45							
15. 32	28. 30								19. 28	27. 10							
16. 10	31. 20								20. 5	27. 20							
16. 18	30. 40								21. 42	30. 40							
16. 36	31. 40								22. 36	34. 40							
16. 53	31. 55								23. 14	35. 0							

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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 23. 47 23. 59	20. 35. 55 36. 30																
Apr. 10 0. 0 0. 14 0. 42 1. 26 5. 10 6. 27 7. 18 10. 9 12. 53 13. 28 15. 34 16. 7 16. 30 16. 48 17. 4 17. 51 18. 15 18. 29 18. 38 18. 44 18. 49 18. 56 18. 59 19. 14 19. 16 19. 20 19. 24 19. 28 19. 42 19. 46 19. 49 19. 55 19. 59 20. 18 20. 23 20. 27 20. 40 20. 55 21. 6 21. 26 23. 4 23. 36 23. 41 23. 59	20. 36. 30 38. 0 38. 25 38. 0 31. 55 31. 40 32. 10 32. 30 31. 45 31. 0 30. 20 30. 0 30. 20 29. 50 29. 50 28. 40 29. 25 28. 40 28. 40 27. 35 28. 15 27. 5 27. 40 27. 0 26. 0 26. 0 24. 15 25. 5 25. 30 26. 20 25. 15 27. 40 25. 25 26. 15 25. 30 27. 10 27. 0 27. 45 27. 0 28. 55 34. 10 37. 25 37. 10 39. 15	Apr. 10 0. 0 0. 32 1. 56 2. 22 4. 9 4. 36 6. 0 6. 18 6. 41 6. 54 7. 50 8. 3 12. 47 13. 12 14. 11 17. 53 18. 14 18. 43 18. 59 19. 53 20. 11 20. 29 21. 9 22. 22 23. 20 23. 59	Apr. 10 0. 0 1. 16 2. 35 4. 51 9. 22 14. 12 17. 19 18. 45 23. 21 23. 59	Apr. 10 0. 0 0. 3588 0. 3600 0. 3626 0. 3637 0. 3616 0. 3620 0. 3617 0. 3620 0. 3558 0. 3564	Apr. 10 1. 0 3. 0 9. 0 21. 0 22. 0 23. 0	59. 5 59. 6 58. 8 58. 6 59. 3 59. 3 59. 8	60. 1 60. 1 60. 1 60. 1 60. 1 60. 1 60. 1	Apr. 11 2. 20 2. 29 2. 38 3. 14 3. 26 3. 43 3. 57 4. 55 5. 11 5. 41 6. 21 7. 4 7. 16 7. 43 7. 58 8. 39 8. 53 9. 27 9. 43 11. 39 11. 53 12. 24 12. 44 13. 6 13. 41 14. 10 14. 39 14. 51 14. 59 15. 10 15. 39 15. 54 15. 57 16. 23 16. 28 17. 55 18. 3 18. 10 18. 16 18. 27 18. 46 18. 51 19. 6 19. 16 19. 19 19. 32 19. 41 19. 56 20. 11 20. 26 20. 32 20. 38 20. 43 20. 54 20. 57 21. 26 21. 39 21. 41	20. 39. 45 39. 30 39. 35 38. 40 39. 5 38. 30 38. 40 35. 30 35. 30 34. 25 32. 0 31. 10 30. 35 31. 10 30. 25 30. 50 31. 25 31. 40 32. 5 31. 10 30. 20 31. 5 31. 20 33. 40 30. 45 29. 30 28. 45 29. 45 29. 45 31. 40 34. 20 32. 55 31. 50 31. 30 32. 0 28. 35 29. 30 28. 30 28. 20 29. 40 26. 25 27. 35 27. 30 29. 50 29. 5 30. 50 30. 20 31. 10 34. 40 34. 40 36. 20 35. 15 37. 30 37. 35 37. 10 38. 20 39. 50 39. 10	Apr. 11 2. 44 2. 57 3. 12 3. 24 3. 41 3. 56 4. 18 4. 41 4. 55 5. 21 5. 54 6. 20 6. 34 6. 51 7. 20 7. 51 8. 26 9. 20 10. 10 10. 20 11. 26 12. 10 12. 43 13. 19 13. 33 14. 41 15. 13 16. 9 17. 40 18. 12 18. 34 19. 59 20. 12 20. 45 21. 6 21. 12 21. 37 22. 12 22. 25 22. 45 23. 30 23. 49 23. 59	Apr. 11 15. 58 17. 12 18. 20 18. 52 19. 33 19. 52 20. 12 20. 44 21. 29 21. 54 22. 1 22. 11 22. 19 22. 34 23. 26 23. 59	Apr. 11 0. 3564 0. 3556 0. 3562 0. 3556 0. 3560 0. 3556 0. 3544 0. 3540 0. 3556 0. 3548 0. 3555 0. 3543 0. 3557 0. 3546 0. 3527	Apr. 11 h m o o	Apr. 11 h m o o			
Apr. 11 0. 0 0. 41 0. 55 1. 21 1. 28 1. 36 1. 40 1. 59	20. 39. 15 41. 25 40. 30 40. 50 41. 45 41. 30 41. 50 41. 55	Apr. 11 0. 0 0. 10 0. 42 0. 58 1. 21 1. 41 2. 11 2. 34	Apr. 11 0. 0 1. 18 1. 56 4. 34 9. 19 12. 51 13. 42 15. 15	Apr. 11 0. 0 0. 3582 0. 3625 0. 3677 0. 3646 0. 3616 0. 3596 0. 3585	Apr. 11 1. 0 2. 0 3. 0 9. 0 21. 0 22. 0 23. 0	59. 9 59. 9 59. 9 59. 9 59. 2 58. 4 58. 5	60. 6 60. 8 60. 8 60. 8 60. 0 58. 6 58. 9 58. 9	Apr. 11 20. 32 20. 38 20. 43 20. 54 20. 57 21. 26 21. 39 21. 41	36. 20 35. 15 37. 30 37. 35 37. 10 38. 20 39. 50 39. 10	Apr. 11 0. 0 0. 10 0. 42 0. 58 1. 21 1. 41 2. 11 2. 34	Apr. 11 0. 0 1. 18 1. 56 4. 34 9. 19 12. 51 13. 42 15. 15	Apr. 11 0. 0 0. 3582 0. 3625 0. 3677 0. 3646 0. 3616 0. 3596 0. 3585	Apr. 11 1. 0 2. 0 3. 0 9. 0 21. 0 22. 0 23. 0	59. 9 59. 9 59. 9 59. 9 59. 2 58. 4 58. 5	60. 6 60. 8 60. 8 60. 8 60. 0 58. 6 58. 9 58. 9	Apr. 11 20. 32 20. 38 20. 43 20. 54 20. 57 21. 26 21. 39 21. 41	36. 20 35. 15 37. 30 37. 35 37. 10 38. 20 39. 50 39. 10

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 11 h m 21. 47	20. 42. 50	h m		h m		h m	o	o	Apr. 12 h m 21. 40	20. 29. 25	h m	•1373	h m	h m	h m	o	o
21. 53	42. 10								23. 26	37. 20	14. 22	•1369					
22. 4	43. 0								23. 36	37. 20	14. 42	•1373					
22. 13	40. 20								23. 59	38. 45	17. 9	•1374					
22. 22	42. 10										17. 36	•1371					
22. 33	41. 0										18. 58	•1370					
22. 43	38. 40										20. 41	•1360					
22. 56	37. 20										20. 52	•1363					
23. 12	38. 25										21. 41	•1355					
23. 26	40. 30										23. 11	•1354					
23. 39	41. 5										23. 59	•1359					
23. 51	40. 40																
23. 59	41. 10																
Apr. 12 o. 0	20. 41. 10	Apr. 12 o. 0	•1351	Apr. 12 o. 0	•03527	Apr. 12 o. 0	58. 8	59. 0	Apr. 13 o. 0	20. 38. 45	Apr. 13 o. 0	•1359	Apr. 13 o. 0	•03566	Apr. 13 1. 0	59. 8	61. 0
0. 31	42. 55	0. 36	•1356	0. 44	•03540	1. 0	59. 0	59. 2	0. 11	38. 45	0. 21	•1363	0. 42	•03580	3. 0	59. 8	61. 0
1. 9	40. 40	0. 41	•1361	2. 43	•03576	2. 0	58. 9	59. 4	0. 24	39. 30	0. 31	•1365	2. 34	•03618	9. 0	59. 7	60. 8
1. 20	40. 25	0. 43	•1366	4. 44	•03600	3. 0	59. 2	59. 3	0. 28	40. 10	1. 12	•1366	3. 16	•03614	21. 0	58. 5	58. 6
1. 25	41. 0	1. 22	•1368	8. 41	•03584	9. 0	58. 8	59. 7	1. 15	39. 15	2. 8	•1368	4. 28	•03635			
1. 41	39. 40	1. 29	•1373	12. 29	•03600	21. 0	58. 9	59. 0	2. 1	37. 30	2. 44	•1376	8. 56	•03626			
1. 49	39. 55	1. 43	•1366	18. 50	•03600				3. 11	35. 30	3. 10	•1374	11. 49	•03624			
2. 11	37. 55	1. 56	•1370	21. 6	•03577				3. 25	34. 30	3. 14	•1376	17. 26	•03582			
2. 20	38. 15	2. 18	•1364	23. 25	•03562				4. 43	32. 40	3. 29	•1370	19. 53	•03571			
2. 59	36. 30		***	23. 59	•03566				4. 55	34. 10	3. 51	•1374	23. 59	•03525			
3. 16	36. 35	2. 51	•1367						4. 58	33. 50	4. 41	•1378					
4. 7	34. 55	3. 10	•1362						5. 7	34. 20	4. 50	•1376					
4. 20	35. 10	3. 27	•1368						5. 24	32. 10	5. 7	•1383					
4. 29	33. 40	3. 55	•1373						7. 9	32. 30	5. 26	•1376					
5. 26	32. 30	4. 12	•1370						7. 44	31. 55	5. 41	•1379					
6. 11	31. 20	4. 25	•1377						7. 53	32. 45	5. 53	•1377					
6. 30	31. 40	4. 56	•1377						7. 58	32. 15	6. 12	•1377					
7. 0	31. 25	5. 11	•1374						9. 29	31. 55	6. 26	•1380					
8. 8	31. 50	5. 49	•1378						9. 56	32. 25	6. 43	•1378					
8. 12	31. 15	6. 10	•1374						12. 46	32. 10	7. 12	•1377					
8. 23	31. 30	6. 20	•1378						16. 24	31. 25	7. 40	•1380					
8. 27	30. 45	7. 19	•1379						17. 0	30. 50	7. 55	•1377					
8. 32	31. 30	7. 24	•1381						17. 30	30. 0	8. 25	•1379					
9. 12	31. 20	7. 36	•1376						17. 46	30. 15	9. 26	•1376					
9. 26	31. 50	7. 55	•1383						18. 39	28. 55	14. 55	•1373					
9. 34	31. 40	8. 12	•1382						18. 44	28. 0	16. 55	•1373					
9. 44	32. 40	8. 14	•1375						19. 38	26. 25	17. 41	•1371					
9. 54	31. 45	8. 22	•1379						19. 55	24. 50	18. 24	•1374					
10. 20	31. 50	8. 27	•1368						20. 1	26. 0	21. 31	•1355					
11. 53	31. 20	8. 36	•1372						20. 25	26. 20	21. 43	•1361					
12. 9	31. 40	8. 51	•1375						20. 34	25. 55	21. 58	•1358					
12. 15	31. 10	9. 20	•1369						21. 2	27. 5	22. 24	•1362					
12. 26	31. 45	9. 27	•1373						21. 23	27. 5	22. 54	•1361					
13. 40	31. 30	9. 41	•1371						21. 29	27. 40	23. 3	•1353					
14. 19	30. 40	9. 55	•1389						21. 36	32. 5	23. 10	•1359					
14. 20	31. 20	10. 14	•1379						22. 13	34. 10	23. 19	•1355					
15. 27	30. 40	10. 25	•1381						22. 23	33. 5	23. 59	•1362					
16. 4	30. 50	10. 57	•1378						22. 53	35. 20							
17. 19	29. 45	12. 20	•1376						22. 56	34. 45							
19. 26	26. 0	12. 30	•1371						23. 13	36. 55							
20. 16	25. 45	12. 48	•1374						23. 21	36. 25							
20. 40	26. 20	13. 40	•1372						23. 59	39. 30							
20. 46	26. 20	13. 48	•1373														

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



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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 14 0. 0	20. 39. 30	Apr. 14 0. 0	.1362	Apr. 14 0. 0	.03525	Apr. 14 1. 0	59. 4	60. 1	Apr. 14 22. 41	20. 36. 10							
0. 23	40. 55	0. 15	.1367	2. 22	.03592	3. 0	59. 6	59. 9	23. 59	39. 45							
0. 27	40. 40	0. 38	.1368	6. 10	.03629	9. 0	59. 8	59. 4									
0. 35	42. 20	0. 45	.1375	6. 43	.03620	21. 0	58. 3	59. 0									
0. 45	42. 0		***	9. 0	.03634				Apr. 15 0. 0	20. 39. 45	Apr. 15 0. 0	.1371	Apr. 15 0. 0	.03537	Apr. 15 0. 25	59. 0	59. 0
1. 11	42. 35	3. 11	.1382	10. 26	.03622				0. 18	39. 50	0. 36	.1376	2. 23	.03576	9. 0	59. 3	60. 0
1. 23	41. 45	3. 56	.1375	10. 55	.03600				0. 26	40. 20	0. 41	.1372	4. 11	.03582	21. 0	58. 8	58. 8
1. 32	41. 40	4. 11	.1368	14. 42	.03597				0. 36	39. 45	1. 25	.1380	4. 55	.03600			
1. 45	40. 30	4. 15	.1371	19. 35	.03577				1. 8	40. 20	1. 56	.1379	12. 56	.03572			
2. 11	39. 55	4. 27	.1367	21. 53	.03524				1. 26	39. 20	2. 22	.1382	19. 11	.03565			
2. 20	38. 50	4. 41	.1369	22. 49	.03522				3. 42	34. 40	2. 42	.1380	20. 5	.03548			
3. 51	35. 0	4. 51	.1367	23. 59	.03537				4. 3	33. 40	2. 54	.1381	20. 12	.03553			
4. 6	34. 25	5. 22	.1376						4. 18	32. 40	3. 11	.1378	20. 34	.03540			
4. 39	33. 40	5. 33	.1374						4. 35	32. 0	3. 50	.1379	21. 54	.03542			
	***	6. 11	.1382						5. 6	32. 30	4. 21	.1370	22. 49	.03518			
5. 17	31. 45	6. 55	.1376						8. 27	31. 30	5. 11	.1378	23. 19	.03504			
5. 28	29. 35	7. 17	.1373						10. 18	32. 10	5. 30	.1377	23. 59	.03516			
6. 5	29. 40	7. 54	.1375						10. 53	31. 55	6. 3	.1379					
6. 34	31. 30	8. 40	.1368						11. 9	31. 55	6. 36	.1378					
6. 53	31. 20	8. 47	.1368						11. 45	31. 30	6. 51	.1380					
7. 12	31. 45	9. 12	.1366						12. 9	32. 50	7. 3	.1378					
7. 26	30. 45	9. 34	.1372						13. 8	31. 10	7. 12	.1380					
7. 43	30. 40	9. 47	.1374						13. 21	31. 35	8. 12	.1375					
7. 53	31. 20	10. 12	.1371						14. 10	31. 20	11. 22	.1380					
7. 59	30. 50	10. 20	.1378						16. 2	29. 20	11. 57	.1378					
8. 9	31. 5	10. 37	.1375						16. 28	29. 30	12. 38	.1382					
8. 14	30. 40	10. 40	.1379						16. 40	28. 50	13. 19	.1377					
8. 24	30. 40	10. 44	.1376						16. 58	28. 55	14. 6	.1376					
8. 40	29. 10	11. 14	.1378						17. 12	28. 5	14. 29	.1381					
8. 55	30. 5	13. 6	.1369						17. 28	29. 50	15. 53	.1381					
9. 12	29. 55	13. 14	.1371						17. 41	29. 20	16. 20	.1379					
9. 36	31. 0	14. 22	.1368						17. 58	30. 0	16. 55	.1382					
9. 55	29. 55	15. 33	.1370						18. 21	29. 20	17. 20	.1376					
10. 7	30. 5	16. 43	.1369						18. 42	29. 55	17. 40	.1377					
10. 12	29. 20	17. 41	.1370						18. 57	33. 0	17. 55	.1372					
10. 22	29. 40	19. 51	.1364						19. 16	34. 40	18. 21	.1375					
10. 30	31. 40	21. 22	.1352						19. 32	34. 35	19. 18	.1361					
10. 57	28. 40	22. 42	.1356						19. 39	33. 45	19. 53	.1368					
11. 10	28. 20	22. 55	.1360						19. 43	33. 50	19. 58	.1366					
11. 43	29. 10	23. 59	.1371						19. 54	32. 30	20. 21	.1374					
11. 55	30. 0								19. 57	32. 50	21. 23	.1357					
12. 11	29. 55								20. 8	33. 40	21. 38	.1361					
13. 4	32. 0								20. 23	30. 50	21. 48	.1354					
13. 13	32. 10								20. 44	28. 45	22. 10	.1361					
13. 39	31. 10								21. 21	27. 30	23. 11	.1351					
14. 9	31. 10								21. 30	28. 45	23. 22	.1347					
14. 41	30. 5								21. 42	29. 15	23. 59	.1353					
15. 36	29. 40								21. 47	28. 5							
16. 9	30. 20								22. 22	31. 0							
16. 19	30. 10								22. 56	34. 30							
16. 39	31. 10								23. 11	35. 5							
17. 13	29. 45								23. 19	34. 50							
17. 54	29. 30								23. 39	37. 30							
19. 11	27. 30								23. 56	39. 40							
19. 17	25. 30								23. 59	39. 45							
19. 26	27. 10																
20. 27	27. 0																
21. 20	29. 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.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 16		Apr. 16		Apr. 16		Apr. 16			Apr. 16						Apr. 17		
0. 0	20. 39. 45	0. 0	.1353	0. 0	.03516	1. 0	59. 1	59. 6	21. 45	20. 28. 10					0. 0	59. 8	60. 3
0. 29	40. 20	0. 22	.1356	1. 16	.03537	3. 0	59. 1	59. 7	22. 26	32. 20					0. 23	59. 6	59. 8
0. 40	41. 20	0. 54	.1361	1. 55	.03560	9. 0	59. 0	58. 8	22. 44	32. 0					0. 41	59. 8	60. 0
0. 51	41. 20	1. 6	.1367	2. 30	.03573	21. 0	58. 4	57. 7	22. 56	32. 30					0. 56	58. 4	57. 7
0. 56	42. 50	1. 25	.1361	4. 10	.03577				23. 8	33. 50					1. 43	59. 2	59. 6
1. 12	43. 10	2. 11	.1367	7. 8	.03601				23. 12	33. 40					2. 33	59. 4	60. 0
1. 23	42. 35	2. 26	.1361	10. 42	.03577				23. 32	35. 20					2. 56		
	***	3. 44	.1373	14. 14	.03563				23. 48	35. 30					3. 41		
1. 41	43. 0	4. 25	.1372	18. 57	.03540				23. 59	36. 40					5. 27		
2. 25	41. 40	5. 12	.1381	19. 11	.03549										5. 40		
3. 7	38. 50	6. 11	.1370	22. 56	.03484										5. 59		
3. 33	38. 40	6. 22	.1376	23. 59	.03497				Apr. 17	20. 36. 40	Apr. 17	0. 0	.03497	Apr. 17	0. 0	59. 8	60. 3
4. 31	35. 35	6. 46	.1369						0. 23	38. 45	0. 23	.1367	.03590	5. 26	3. 0	59. 6	59. 8
5. 9	35. 40	7. 19	.1371						0. 41	39. 0	0. 41	.1365	.03603	6. 57	9. 0	59. 8	60. 0
5. 14	34. 55	7. 53	.1376						0. 56	38. 45	0. 44	.1368	.03603	10. 6	21. 0	58. 4	57. 7
5. 32	35. 10	8. 41	.1373						1. 43	40. 30	0. 56	.1365	.03610	10. 40	22. 0	59. 2	59. 6
5. 56	33. 20	9. 14	.1381						2. 33	39. 0	3. 26	.1377	.03578	11. 0	23. 0	59. 4	60. 0
6. 6	32. 10	9. 41	.1377						2. 56	39. 10	3. 43	.1374	.03566	11. 51			
6. 56	29. 55	10. 12	.1379						3. 41	38. 20	4. 12	.1376	.03553	12. 8			
7. 9	30. 55	10. 25	.1376							***	4. 34	.1370	.03523	13. 12			
7. 28	31. 25	12. 41	.1377						5. 27	34. 20	4. 54	.1377	.03522	13. 41			
7. 42	30. 55	12. 50	.1380						5. 40	34. 30	5. 11	.1376	.03504	13. 57			
7. 58	32. 0	12. 59	.1373						5. 59	33. 5	5. 15	.1379	.03512	14. 29			
8. 28	31. 10	13. 12	.1376						6. 29	32. 50	5. 36	.1373	.03479	14. 49			
9. 11	31. 55	14. 4	.1373						6. 33	32. 0	6. 6	.1378	.03496	15. 12			
9. 28	31. 30	15. 36	.1375						6. 43	31. 45	6. 24	.1375	.03483	15. 39			
10. 12	31. 30	15. 56	.1378						6. 52	33. 0	6. 35	.1378	.03512	16. 11			
11. 56	30. 55	16. 27	.1368						6. 59	31. 45	6. 48	.1376	.03544	17. 12			
12. 27	31. 5	17. 58	.1376						7. 12	32. 10	6. 56	.1381	.03556	18. 43			
13. 7	31. 40	19. 12	.1370						7. 46	31. 45	8. 35	.1376	.03548	20. 24			
13. 38	30. 20	19. 22	.1365						8. 42	31. 50	8. 47	.1378	.03536	21. 14			
14. 11	30. 25	19. 45	.1361						9. 2	30. 55	9. 0	.1376	.03527	23. 59			
14. 25	30. 50	20. 22	.1366						9. 12	31. 15	9. 18	.1377					
15. 10	29. 55	21. 4	.1364						9. 16	30. 5	9. 49	.1370					
15. 22	30. 30	21. 51	.1355						9. 44	28. 55	9. 55	.1374					
15. 31	30. 0	21. 59	.1358						9. 55	29. 5	10. 20	.1363					
15. 40	30. 0	22. 22	.1357						10. 15	27. 10	10. 41	.1370					
16. 7	27. 50	22. 57	.1350						10. 25	28. 15	10. 51	.1364					
16. 12	29. 10	23. 21	.1350						10. 36	32. 40	10. 55	.1369					
16. 30	30. 0	23. 44	.1356						10. 47	32. 30	11. 10	.1360					
16. 43	32. 10	23. 59	.1359						11. 27	20. 40	11. 31	.1366					
17. 25	31. 20								11. 41	18. 15	11. 58	.1381					
17. 35	29. 40								11. 49	19. 25	12. 14	.1374					
17. 46	29. 50								12. 0	18. 55	12. 25	.1376					
17. 56	29. 20								12. 46	20. 55	12. 43	.1372					
18. 6	29. 30								12. 56	19. 20	13. 6	.1363					
18. 48	26. 10								13. 10	18. 55	13. 18	.1360					
19. 0	28. 20								13. 33	23. 25	13. 42	.1373					
19. 12	29. 20								13. 51	19. 10	14. 11	.1358					
19. 25	28. 20								14. 4	21. 25	14. 27	.1341					
19. 33	28. 55								14. 18	27. 10	14. 43	.1355					
	***								14. 30	33. 55	15. 25	.1376					
20. 3	26. 40								14. 46	35. 55	15. 43	.1383					
20. 23	27. 10								15. 0	35. 45	16. 14	.1367					
20. 30	26. 35								15. 16	33. 10	16. 28	.1374					
20. 54	26. 35								15. 43	27. 10	17. 10	.1364					
20. 58	27. 10								15. 50	26. 50	17. 14	.1368					
21. 28	27. 40								16. 2	29. 40	17. 44	.1369					

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 17		Apr. 17															
16. 37	20. 28. 20	18. 11	.1364						Apr. 18	7. 38	20. 25. 5	9. 44	.1364				
16. 52	29. 40	20. 19	.1359						7. 46	28. 40	9. 56	.1367					
16. 59	29. 10	20. 54	.1351						8. 0	30. 45	10. 16	.1365					
17. 14	29. 20	21. 49	.1346						8. 7	30. 35	10. 28	.1369					
17. 19	28. 50	22. 22	.1348						8. 13	31. 45	11. 26	.1367					
17. 28	28. 20	22. 47	.1345						8. 39	30. 0	11. 53	.1370					
17. 38	29. 30	23. 11	.1355						8. 46	30. 10	12. 41	.1370					
17. 51	28. 20	23. 43	.1346						8. 58	29. 40	13. 46	.1365					
18. 12	27. 40	23. 56	.1351						9. 19	30. 30	14. 13	.1373					
18. 16	28. 25	23. 59	.1348						9. 34	30. 15	14. 49	.1368					
18. 35	28. 0								9. 56	29. 30	16. 11	.1366					
19. 12	26. 5								10. 10	30. 20	17. 26	.1374					
19. 18	26. 45								10. 26	30. 10	18. 22	.1368					
19. 29	26. 40								10. 38	30. 50	19. 2	.1372					
19. 32	25. 40								11. 12	27. 10	19. 56	.1367					
19. 46	26. 10								11. 15	27. 5	20. 25	.1359					
20. 10	25. 45								11. 21	27. 45	21. 25	.1357					
20. 13	27. 20								11. 31	27. 50	22. 27	.1350					
20. 21	25. 30								12. 7	30. 0	22. 43	.1353					
20. 28	27. 10								12. 29	29. 55	23. 26	.1355					
20. 53	26. 55								12. 46	28. 30	23. 51	.1361					
21. 52	29. 0								13. 20	27. 40	23. 59	.1355					
21. 56	30. 10								13. 50	31. 40							
22. 6	29. 55								14. 2	31. 20							
22. 31	31. 15								14. 22	29. 40							
22. 39	30. 40								14. 45	28. 45							
22. 53	31. 50								14. 58	29. 30							
23. 6	34. 5								15. 13	29. 20							
23. 15	35. 0								16. 25	30. 55							
23. 39	35. 10								17. 24	30. 40							
23. 55	36. 50								17. 38	30. 5							
23. 59	36. 40								17. 46	30. 45							
Apr. 18		Apr. 18		Apr. 18		Apr. 18			18. 13	30. 10							
0. 0	20. 36. 40	0. 0	.1348	0. 0	.03527	0. 0	59.8 60.4		18. 30	29. 15							
0. 39	41. 30	0. 22	.1360	0. 51	.03534	1. 0	59.8 60.4		18. 36	29. 20							
0. 42	41. 10	0. 56	.1351	2. 53	.03608	3. 0	60.3 61.4		18. 39	28. 15							
0. 54	41. 10	1. 11	.1354	3. 27	.03638	9. 0	60.3 60.0		18. 43	28. 55							
1. 4	41. 50	1. 16	.1349	3. 36	.03627	21. 0	59.8 59.7		18. 46	28. 45							
1. 28	42. 20	1. 34	.1353	4. 12	.03672	22. 0	59.6 60.1		18. 53	29. 10							
1. 43	43. 40	2. 11	.1368	7. 12	.03663	23. 0	59.8 60.2		19. 18	28. 30							
	***	2. 20	.1364	7. 25	.03653				19. 28	27. 55							
2. 20	41. 10	2. 28	.1367	7. 40	.03664				19. 49	27. 10							
2. 41	40. 30	2. 52	.1366	9. 12	.03656				19. 58	27. 40							
2. 53	39. 30	3. 40	.1373	10. 26	.03653				20. 12	27. 30							
3. 9	39. 40	3. 44	.1360	10. 57	.03640				20. 15	26. 55							
3. 14	40. 0	4. 0	.1365	13. 45	.03634				20. 54	27. 55							
3. 32	38. 50	4. 15	.1379	14. 26	.03617				21. 1	27. 40							
	***	4. 55	.1369	16. 8	.03622				22. 14	30. 50							
3. 43	36. 15	5. 30	.1371	18. 54	.03605				22. 30	30. 20							
3. 46	36. 5	6. 10	.1366	20. 25	.03577				22. 37	31. 45							
4. 8	32. 0	7. 13	.1369	22. 26	.03556				22. 41	31. 25							
5. 8	35. 20	7. 25	.1363	23. 59	.03558				23. 20	34. 20							
5. 43	35. 30	7. 41	.1379						23. 41	37. 5							
6. 21	33. 45	7. 57	.1366						23. 53	37. 40							
6. 43	33. 45	8. 12	.1370						23. 57	37. 5							
7. 6	33. 0	8. 38	.1373						23. 59	37. 25							
7. 22	32. 55	8. 55	.1367														

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 19		Apr. 19		Apr. 19		Apr. 19			Apr. 19								
0. 0	20. 37. 25	0. 0	.1355	0. 0	.03558	0. 0	59. 8	61. 0	14. 13	20. 27. 40							
0. 21	38. 25	0. 26	.1359	0. 32	.03563	1. 0	60. 1	61. 5	14. 23	28. 25							
0. 27	38. 30	0. 35	.1358	0. 43	.03577	2. 0	60. 1	61. 5	14. 27	28. 10							
0. 35	38. 5	0. 43	.1355	4. 44	.03646	3. 0	60. 1	61. 2	14. 41	29. 10							
0. 42	39. 20	0. 51	.1360	5. 6	.03643	9. 0	59. 8	60. 1	15. 2	27. 30							
0. 56	39. 10	1. 12	.1354	5. 30	.03660	21. 0	59. 8	59. 4	15. 29	27. 40							
1. 9	38. 5	2. 21	.1364	6. 29	.03676				15. 37	26. 55							
2. 3	37. 45	2. 25	.1362	7. 49	.03673				15. 53	29. 40							
2. 26	36. 55	2. 43	.1367	8. 12	.03660				16. 18	31. 10							
2. 38	37. 0	3. 25	.1366	8. 28	.03668				16. 44	30. 55							
3. 26	35. 50	3. 55	.1373	9. 20	.03656				17. 1	30. 15							
3. 34	36. 5	4. 10	.1379	11. 25	.03644				17. 12	28. 40							
3. 56	35. 40	4. 15	.1374	11. 42	.03626				17. 21	29. 55							
4. 3	36. 25	4. 25	.1377	12. 40	.03610				17. 29	29. 40							
4. 9	35. 50	4. 52	.1374	12. 56	.03562				17. 35	30. 0							
4. 25	36. 25	5. 12	.1361	13. 28	.03587				17. 45	29. 30							
4. 52	36. 0	5. 28	.1369	13. 55	.03585				19. 25	28. 5							
5. 2	34. 10	5. 37	.1366	14. 43	.03617				19. 58	27. 0							
5. 8	34. 0	6. 26	.1379	16. 15	.03624				20. 25	27. 25							
5. 25	31. 20	6. 54	.1375	17. 42	.03607				20. 32	26. 55							
5. 44	30. 20	7. 11	.1378	18. 51	.03612				20. 43	26. 50							
5. 59	31. 35	7. 28	.1367	21. 15	.03580				20. 58	27. 30							
	***	7. 47	.1375	22. 42	.03572					***							
6. 32	31. 40	8. 11	.1358	23. 59	.03543				21. 44	29. 30							
6. 43	33. 5	8. 27	.1365						22. 0	30. 55							
7. 11	32. 25	8. 50	.1365						22. 30	32. 15							
7. 23	31. 50	9. 10	.1356						22. 38	32. 55							
7. 30	29. 45	9. 20	.1360						22. 52	33. 0							
7. 36	29. 35	9. 42	.1358						23. 7	33. 40							
7. 40	30. 0	10. 24	.1363						23. 38	36. 0							
7. 46	29. 50	10. 41	.1361						23. 59	37. 25							
7. 56	30. 25	11. 3	.1367														
8. 13	29. 40	11. 24	.1365						Apr. 20		Apr. 20		Apr. 20		Apr. 20		
8. 23	29. 50	11. 38	.1368						0. 0	20. 37. 25	0. 0	.1350	0. 0	.03543	1. 0	59. 9	60. 4
8. 45	26. 25	11. 44	.1365						0. 11	37. 45	0. 13	.1348	0. 26	.03541	3. 0	58. 6	59. 9
8. 53	26. 40	11. 59	.1369						0. 13	38. 55	0. 26	.1346	2. 42	.03592	9. 0	59. 2	59. 8
9. 14	25. 20	12. 34	.1360						0. 16	37. 55	1. 0	.1363	4. 50	.03618	21. 0	58. 6	59. 0
9. 25	25. 30	12. 43	.1363						0. 25	37. 0	1. 21	.1365	5. 26	.03637			
9. 50	27. 30	12. 55	.1356						0. 42	37. 0	1. 52	.1363	5. 42	.03627			
9. 58	27. 0	13. 31	.1383						1. 15	39. 50	2. 21	.1366	5. 56	.03636			
10. 8	27. 10	14. 33	.1356						2. 22	39. 5	2. 41	.1363	6. 7	.03628			
10. 12	27. 55	15. 43	.1359						2. 39	38. 10	2. 50	.1367	7. 25	.03614			
10. 23	28. 25	16. 11	.1356						2. 45	38. 30	2. 57	.1364	11. 56	.03566			
10. 31	27. 50	16. 55	.1361						2. 56	37. 45	3. 11	.1367	14. 0	.03561			
10. 59	29. 55	17. 14	.1360						3. 3	38. 20	3. 30	.1366	14. 41	.03534			
11. 13	29. 20	17. 28	.1364						4. 7	36. 0	3. 52	.1373	16. 9	.03536			
11. 23	30. 55	19. 11	.1365						4. 16	36. 30	4. 12	.1371	19. 41	.03517			
11. 40	26. 50	21. 22	.1355						4. 58	34. 45	5. 10	.1373	23. 4	.03468			
11. 53	26. 25	22. 11	.1344						5. 6	32. 5	5. 29	.1384	23. 59	.03464			
11. 57	27. 40	22. 45	.1342						5. 11	32. 5	5. 42	.1379					
12. 9	28. 45	23. 39	.1346						5. 14	30. 0	5. 55	.1386					
12. 42	39. 50	23. 59	.1350						5. 36	30. 0	6. 12	.1377					
13. 1	25. 0								5. 47	27. 10	6. 19	.1380					
13. 14	22. 45								5. 59	29. 5	6. 40	.1377					
13. 27	24. 10								6. 11	28. 15	6. 50	.1381					
13. 32	26. 0								6. 32	30. 15	7. 9	.1376					
13. 46	27. 40								6. 43	30. 25	7. 53	.1372					
13. 59	27. 25								6. 56	31. 10	8. 25	.1374					

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 20		Apr. 20									Apr. 21				Apr. 21				
7. 41	20. 32. 0	8. 30	*1371								0. 0	20. 34. 45	0. 0	*1364	0. 0	*03464	1. 0	58. 9	59. 0
7. 56	31. 25	8. 56	*1393								0. 21	34. 30	1. 20	*1364	5. 12	*03535	3. 0	58. 8	59. 4
8. 16	31. 25	9. 12	*1377								2. 1	35. 50	1. 57	*1368	13. 26	*03543	9. 0	58. 8	59. 0
8. 29	30. 10	9. 20	*1384								2. 12	35. 25	2. 19	*1366	17. 18	*03535	21. 30	58. 8	58. 9
8. 45	23. 30	9. 43	*1369								2. 33	34. 45	2. 41	*1367	22. 56	*03496			
8. 55	26. 10	9. 57	*1365								2. 49	35. 0	2. 59	*1374	23. 59	*03485			
9. 6	27. 0	10. 14	*1368								4. 43	33. 25	3. 41	*1370					
9. 11	26. 20	10. 28	*1365								4. 55	33. 0	4. 55	*1382					
9. 23	28. 25	11. 11	*1365								6. 23	31. 20	5. 14	*1374					
9. 27	27. 35	11. 24	*1369								7. 0	31. 15	6. 15	*1378					
9. 32	27. 40	12. 24	*1365								7. 35	31. 35	7. 14	*1376					
9. 59	23. 0	13. 5	*1366								7. 42	31. 20	7. 25	*1379					
10. 10	23. 10	13. 24	*1363								8. 11	31. 55	8. 26	*1374					
10. 19	24. 40	14. 3	*1365								8. 22	31. 25	8. 59	*1385					
10. 41	25. 0	14. 15	*1372								8. 34	32. 50	9. 25	*1377					
10. 47	26. 40	14. 39	*1375								8. 52	31. 15	9. 56	*1372					
10. 58	27. 5	14. 50	*1370								9. 16	29. 55	10. 24	*1370					
11. 11	26. 25	14. 54	*1373								9. 36	29. 40	14. 44	*1368					
11. 32	27. 30	15. 44	*1365								9. 53:	28. 40	17. 6	*1366					
11. 41	27. 10	16. 38	*1368								10. 25	30. 40	17. 54	*1370					
11. 55	28. 20	18. 12	*1367								10. 55	31. 45	18. 27	*1365					
12. 34	27. 20	19. 22	*1372								11. 13	31. 5	19. 13	*1367					
12. 43	28. 10	20. 40	*1368								11. 28	31. 15	19. 29	*1362					
12. 57	27. 40	20. 45	*1363								11. 56	31. 5	19. 57	*1365					
13. 13	28. 15	22. 51	*1366								12. 10	31. 10	22. 49	*1354					
13. 33	27. 40	23. 25	*1363								12. 55	30. 40	22. 57	*1357					
14. 1	32. 0	23. 59	*1364								13. 44	30. 40	23. 26	*1355					
14. 11	32. 40										14. 9	30. 10	23. 59	*1356					
14. 44	27. 50										14. 25	30. 20							
14. 54	28. 0										14. 41	29. 45							
15. 33:	26. 0										15. 38	29. 10							
15. 49	26. 50										16. 24	29. 10							
16. 13	26. 50										16. 39:	30. 5							
16. 23	26. 20										16. 57	29. 0							
16. 40	26. 20										17. 46	27. 25							
17. 35	27. 55										18. 14	28. 10							
17. 43	27. 30										18. 44	27. 5							
17. 51	28. 0										18. 50	27. 30							
18. 9	27. 25										19. 13	26. 50							
18. 16	28. 15										19. 23	27. 0							
18. 23	27. 40										19. 43	26. 10							
18. 29	27. 40										20. 13	26. 10							
18. 53	27. 0										22. 4	29. 20							
19. 21	27. 30										22. 17	30. 0							
19. 30	26. 30										22. 38	30. 10							
19. 38	27. 5										22. 42	31. 35							
19. 59	26. 20										23. 29	33. 45							
20. 22	27. 10										23. 59	35. 40							
20. 30	29. 10																		
20. 38	27. 25										Apr. 22				Apr. 22				
20. 55	28. 30										0. 0	20. 35. 40	0. 0	*1356	0. 0	*03485	0. 0	59. 4	59. 7
21. 3	27. 50										0. 29	35. 55	0. 31	*1362	6. 56	*03536	9. 0	58. 5	59. 0
21. 13	29. 5										1. 7	38. 10	0. 54	*1360	9. 12	*03507	21. 0	57. 8	57. 2
21. 41	29. 30										2. 0	37. 40	1. 12	*1367	16. 9	*03505			
23. 42	34. 20										2. 25	36. 55	3. 37	*1380	19. 58	*03481			
23. 55	34. 20										5. 39	34. 50	4. 25	*1381	20. 40	*03457			
23. 59	34. 45										6. 4	33. 40	4. 55	*1385	23. 32	*03440			
											6. 33	30. 30	5. 29	*1387	23. 59	*03438			

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 22 6. 55	20. 30. 15	Apr. 22 6. 3	.1382						Apr. 23 5. 45	20. 30. 5	Apr. 23 3. 41	.1366	Apr. 23 6. 41	.03520	Apr. 23 21. 0	58. 3	58. 8
7. 12	32. 50	6. 27	.1376						6. 43	30. 0	6. 19	.1370	11. 24	.03500			
7. 21	32. 20	7. 20	.1386						9. 55	31. 55	6. 49	.1369	17. 44	.03480			
7. 36	33. 0		***						10. 24	31. 55	9. 13	.1371	23. 59	.03446			
7. 54	33. 10	8. 14	.1388						10. 38	31. 20	11. 44	.1370					
8. 39	32. 5	8. 23	.1381						11. 18	31. 25	18. 42	.1367					
9. 53	32. 0	8. 38	.1384						11. 39	30. 55	21. 26	.1364					
11. 12	29. 50	8. 50	.1381						12. 35	31. 45	22. 22	.1358					
11. 25	30. 20	8. 57	.1385						13. 14	31. 5	23. 12	.1357					
11. 55	30. 25	9. 11	.1378						13. 30	31. 40	23. 59	.1364					
12. 25	31. 20	9. 23	.1384						13. 54	30. 55							
13. 38	30. 20	9. 41	.1382						16. 23	29. 20							
13. 46	30. 45	9. 50	.1384						16. 59	28. 15							
14. 5	30. 0	10. 41	.1375						18. 16	27. 55							
14. 12	30. 25	10. 56	.1376						18. 29	27. 20							
14. 20	30. 20	11. 11	.1380						18. 47	27. 45							
14. 31	29. 40	11. 52	.1377						18. 59	27. 20							
14. 47	29. 50	12. 25	.1371							***							
14. 58	30. 20	12. 41	.1373						20. 4	27. 20							
15. 11	29. 40	14. 44	.1370						20. 13	27. 50							
15. 23	30. 5	15. 41	.1371						20. 21	27. 20							
15. 29	29. 45	15. 57	.1368						21. 13	29. 20							
15. 42	29. 40	17. 40	.1369						22. 26	32. 55							
15. 53	30. 5	18. 36	.1373						23. 59	35. 25							
16. 3	29. 55	19. 5	.1371														
16. 18:	30. 5	19. 20	.1361						Apr. 24 0. 0	20. 35. 25	Apr. 24 0. 0	.1364	Apr. 24 0. 0	.03446	Apr. 24 1. 0	58. 6	59. 0
16. 36	29. 25	19. 40	.1363						0. 23	35. 40	0. 50	.1370	1. 43	.03450	3. 0	58. 3	59. 0
17. 28	27. 50	20. 12	.1359						0. 39	36. 50	1. 47	.1366	2. 17	.03462	9. 0	58. 2	59. 1
17. 33	28. 35	20. 38	.1357						1. 51	34. 45	2. 16	.1375	5. 41	.03484	11. 0	58. 4	58. 2
17. 41	27. 10	21. 11	.1360						2. 9	34. 30	2. 50	.1370	9. 50	.03470	21. 0	58. 3	58. 8
17. 47	27. 50	22. 29	.1357						3. 29	32. 45	2. 57	.1372	15. 25	.03473	22. 0	58. 1	58. 5
18. 5	26. 40	23. 41	.1358						4. 39	32. 5	3. 29	.1371	19. 59	.03476	23. 0	58. 8	59. 3
18. 11	26. 40	23. 59	.1362						5. 14	31. 10	3. 56	.1377	22. 3	.03450			
18. 19	25. 15								5. 52	31. 30	4. 44	.1376	23. 59	.03444			
18. 28	27. 0								6. 5	31. 10	4. 57	.1372					
18. 34	26. 25								6. 43	31. 25	5. 49	.1380					
18. 42	27. 50								6. 53	32. 5	6. 11	.1381					
19. 3	26. 10								7. 38	31. 10	6. 41	.1377					
19. 12	27. 30								8. 59	31. 40	7. 14	.1383					
19. 23	27. 20								10. 26	31. 20	7. 25	.1378					
19. 39	30. 15								11. 0	31. 30	8. 20	.1380					
19. 52	30. 20								11. 14	31. 0	8. 42	.1376					
20. 6	31. 20								13. 11	31. 25	8. 59	.1379					
20. 48	32. 50								13. 41	30. 25	9. 14	.1374					
21. 15	32. 20								14. 0	30. 55	11. 11	.1378					
21. 39	32. 55								14. 27	30. 20	11. 18	.1375					
	***								14. 56	30. 35	14. 29	.1373					
22. 8	32. 10								15. 21	30. 15	15. 23	.1370					
	***								15. 39	31. 20	15. 54	.1373					
23. 9	34. 10								15. 56	30. 0	17. 19	.1368					
23. 43	34. 35								16. 10	29. 55	21. 14	.1365					
23. 53	35. 40								16. 39	28. 30	22. 30	.1361					
23. 59	35. 55									***	23. 26	.1364					
									17. 13	28. 40	23. 59	.1369					
Apr. 23 0. 0	20. 35. 55	Apr. 23 0. 0	.1362	Apr. 23 0. 0	.03438	Apr. 23 1. 0	58. 9	59. 1	17. 47	27. 50							
1. 20	35. 40	0. 46	.1365	2. 41	.03493	3. 0	59. 3	59. 0		***							
3. 41	32. 15	2. 30	.1368	5. 8	.03523	9. 0	58. 8	58. 2		***							

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 24 18. 8	20. 28. 5 ***								Apr. 25 18. 42	20. 29. 10							
18. 51	27. 10								18. 59	28. 40							
19. 26	26. 50 ***								19. 14	27. 25							
20. 39	27. 25								19. 31	28. 20							
21. 32	29. 5								19. 56	28. 10							
23. 16	33. 5								20. 14	28. 50							
23. 25	33. 10								20. 33	28. 10							
23. 59	34. 30								21. 35	29. 5							
Apr. 25 0. 0	20. 34. 30	Apr. 25 0. 0	*1369	Apr. 25 0. 0	*03444	Apr. 25 0. 0	58. 8	59. 3	23. 9	32. 5							
1. 16	36. 30	0. 13	*1373	2. 34	*03464	1. 0	58. 9	59. 6	23. 28	33. 50							
1. 54	36. 25	1. 0	*1376	2. 43	*03480	2. 0	58. 8	59. 6	23. 59	34. 30							
1. 59	37. 15	1. 25	*1376	3. 9	*03470	3. 0	59. 0	59. 9	Apr. 26 0. 0	20. 34. 30	Apr. 26 0. 0	*1359	Apr. 26 0. 0	*03598	Apr. 26 0. 0	60. 8	62. 2
2. 11	36. 40	2. 11	*1385	3. 12	*03479	9. 0	58. 9	59. 9	0. 11	34. 30	0. 24	*1363	2. 57	*03615	1. 0	60. 4	62. 0
2. 26	36. 5	2. 27	*1381	3. 19	*03471	21. 0	61. 1	62. 0	0. 18	35. 20	0. 41	*1367	6. 42	*03647	3. 0	60. 5	61. 0
2. 33	37. 0	2. 42	*1388	3. 55	*03482	22. 0	60. 8	62. 2	0. 28	35. 40	1. 11	*1366	7. 6	*03630	9. 0	60. 4	61. 0
2. 57	36. 0	3. 9	*1382	5. 24	*03505	23. 0	60. 3	61. 8	0. 36	36. 55	2. 42	*1371	7. 24	*03644	21. 0	59. 6	60. 0
3. 3	36. 20	3. 22	*1374	5. 28	*03490				1. 1	36. 30	3. 6	*1368	8. 29	*03646			
3. 10	35. 0	3. 36	*1370	5. 45	*03516				1. 24	36. 45	3. 26	*1373	9. 20	*03634			
3. 25	34. 30	3. 51	*1371	10. 17	*03514				2. 15	35. 35	4. 24	*1370	10. 38	*03634			
3. 43	34. 45	4. 5	*1377	12. 53	*03566				3. 25	33. 40	5. 41	*1370	12. 40	*03571			
3. 55	35. 30	4. 24	*1375	13. 18	*03563				3. 34	32. 55	6. 11	*1379	13. 18	*03580			
4. 18	34. 5	4. 35	*1379	14. 8	*03580				3. 51	33. 0	6. 25	*1384	16. 41	*03599			
4. 26	34. 30	4. 55	*1368	16. 41	*03617				4. 53	31. 55	6. 37	*1380	19. 41	*03596			
4. 39	34. 0	5. 14	*1377	21. 10	*03625				5. 0	32. 10	6. 42	*1382	23. 59	*03547			
5. 13	35. 40	5. 25	*1366	23. 59	*03598				5. 36	31. 30	6. 58	*1372					
5. 24	34. 15	5. 42	*1379						5. 54	30. 20	7. 26	*1382					
5. 26	34. 30 ***	5. 56	*1374						6. 39	30. 40	8. 0	*1369					
5. 54	31. 40	7. 32	*1377						7. 12	32. 20	9. 20	*1377					
6. 4	32. 25	8. 14	*1380						7. 26	30. 45	9. 24	*1372					
6. 9	32. 10	8. 42	*1371						7. 43	30. 40	9. 41	*1374					
6. 17	32. 40	9. 15	*1374						8. 6	29. 30	9. 57	*1369					
6. 28	32. 20	10. 42	*1372						8. 26	31. 45	10. 26	*1374					
6. 38	32. 40	12. 41	*1366						8. 43	31. 15	10. 52	*1372					
6. 50	31. 40	13. 11	*1373						8. 57	29. 35	11. 11	*1379					
7. 43	32. 0	14. 12	*1364						9. 29	28. 40	11. 24	*1381					
8. 17	31. 0	16. 52	*1362						9. 36	29. 55	11. 41	*1377					
10. 23	31. 30	17. 11	*1364						9. 58	29. 50	12. 19	*1399					
10. 54	30. 55	19. 29	*1364						10. 23	31. 0	12. 56	*1374					
12. 28	31. 0	21. 22	*1353						10. 44	30. 40	13. 22	*1368					
12. 40	32. 45	22. 9	*1351						10. 57	31. 15	13. 41	*1371					
12. 49	32. 40	22. 25	*1356						11. 9	30. 20	14. 12	*1366					
12. 53	30. 50	23. 8	*1354						11. 17	30. 10	15. 43	*1368					
13. 15	29. 5	23. 59	*1359						11. 32	28. 0	19. 36	*1363					
13. 28	28. 50								11. 42	28. 20	20. 25	*1356					
13. 51	30. 0								12. 0	26. 0	22. 41	*1355					
14. 39	30. 10								12. 18	28. 55	23. 11	*1358					
15. 42	29. 30								12. 29	26. 50	23. 59	*1366					
17. 34	29. 10								12. 48	24. 50							
17. 38	28. 30								13. 9	24. 35							
17. 45	28. 25								13. 27	26. 50							
17. 53	28. 55								14. 54	29. 25							
17. 58	28. 20								15. 45	28. 45							
18. 21	28. 30								16. 8	29. 10							

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 26									Apr. 28								
16. 25	20. 28. 25								6. 53	20. 31. 5	15. 33	•1367	23. 59	•03453			
17. 0	28. 5								6. 58	30. 30	16. 26	•1373					
18. 22	27. 30								7. 13	31. 10	17. 20	•1369					
18. 26	26. 55								7. 41	30. 20	19. 20	•1367					
18. 30	27. 25								8. 19	31. 15	22. 12	•1358					
18. 39	27. 55								8. 25	31. 0	23. 59	•1363					
19. 6	26. 50								10. 3	31. 15							
19. 31	27. 55								10. 30	30. 55							
20. 2	27. 55								11. 24	31. 30							
21. 57	31. 30								13. 16	31. 20							
23. 41	37. 15								14. 9	30. 35							
23. 48	36. 50								14. 23	30. 45							
23. 59	37. 35								15. 17	30. 0							
									15. 39	30. 0							
									15. 53	31. 0							
Apr. 27		Apr. 27		Apr. 27		Apr. 27			16. 19	30. 20							
0. 0	20. 37. 35	0. 0	•1366	0. 0	•03547	1. 0	60. 2 61. 3		16. 19	30. 20							
0. 55	38. 10	0. 59	•1370	6. 40	•03640	3. 0	60. 1 61. 8		16. 31	29. 45							
1. 21	36. 15	1. 12	•1365	14. 26	•03629	9. 0	60. 8 61. 6		17. 9	28. 45							
1. 27	36. 45	1. 26	•1370	(†)		21. 0	60. 1 60. 9		19. 26	26. 45							
1. 43	36. 10	2. 12	•1373	23. 43	•03548				20. 10	26. 40							
2. 16	36. 10	2. 25	•1367	23. 59	•03552				20. 56	27. 5							
2. 26	35. 0	3. 8	•1372						22. 14	30. 40							
2. 38	35. 30	3. 12	•1378						22. 56	33. 5							
2. 41	35. 10	3. 33	•1360						23. 8	34. 10							
2. 56	35. 55	5. 11	•1376						23. 59	35. 5							
3. 8	35. 30	5. 36	•1374														
3. 11	36. 5	5. 55	•1378						Apr. 29		Apr. 29		Apr. 29		Apr. 29		
3. 26	35. 0	6. 22	•1371						0. 0	20. 35. 5	0. 0	•1363	0. 0	•03453	1. 0	57. 9 57. 2	
5. 42	31. 55	9. 11	•1372						1. 9	36. 0	0. 50	•1364	1. 51	•03456	9. 0	58. 6 58. 0	
6. 13	32. 0	15. 3	•1370						1. 17	35. 40	1. 14	•1360	4. 45	•03480	19. 30	57. 6 57. 1	
6. 52	30. 40	17. 40	•1370						1. 29	36. 10	1. 29	•1364	10. 53	•03477	21. 0	57. 6 57. 8	
7. 3	30. 40	(†)							1. 43	35. 20	1. 47	•1361	13. 42	•03459			
7. 22	29. 50	21. 0	•1361*						2. 11	35. 10	2. 14	•1367	13. 46	•03464			
7. 54	30. 10	23. 59	•1362						3. 26	33. 40	3. 50	•1372	13. 55	•03467			
8. 15	29. 55								4. 29	33. 10	6. 11	•1376	14. 24	•03438			
8. 38	30. 20								6. 13	31. 40	9. 14	•1377	15. 20	•03443			
10. 30	31. 15								6. 46	31. 55	11. 0	•1376	19. 41	•03424			
13. 27	30. 45								7. 21	31. 35	12. 3	•1382	23. 59	•03367			
16. 6	30. 5								7. 41	31. 40	12. 12	•1378					
18. 9	28. 20								8. 25	30. 20	12. 20	•1381					
18. 23	28. 35								8. 59	30. 25	12. 33	•1378					
19. 19	27. 50								9. 30	30. 0	13. 4	•1382					
19. 30	28. 10								10. 13	30. 55	13. 13	•1378					
19. 51	27. 30								11. 32	30. 5	13. 22	•1382					
20. 30	27. 20								11. 58	30. 25	13. 51	•1376					
22. 23	29. 40								12. 9	29. 40	13. 58	•1382					
23. 46	33. 30									***	14. 0	•1377					
23. 59	33. 45								12. 44	30. 40	14. 14	•1388					
									13. 4	29. 20	14. 43	•1376					
									13. 41	29. 45	15. 20	•1368					
Apr. 28		Apr. 28		Apr. 28		Apr. 28			13. 48	33. 20	16. 22	•1372					
0. 0	20. 33. 45	0. 0	•1362	0. 0	•03552	1. 0	60. 2 61. 0		13. 52	32. 55	17. 24	•1371					
0. 58	34. 45	1. 4	•1366	1. 21	•03583	3. 0	60. 4 61. 8		13. 58	33. 55	17. 51	•1376					
1. 27	34. 25	1. 25	•1364	3. 12	•03590	9. 0	60. 1 61. 2		14. 14	29. 30	18. 41	•1369					
	(†)	(†)		5. 55	•03636	22. 0	58. 0 57. 3		14. 34	26. 40	***						
2. 49	33. 10	2. 54	•1372	9. 34	•03623				14. 41	26. 20	19. 55	•1372					
4. 9	32. 30	6. 0	•1375	13. 39	•03587				14. 50	27. 0	21. 11	•1363					
5. 29	31. 15	9. 11	•1370	20. 23	•03526				15. 0	26. 25	21. 42	•1365					
6. 39	30. 55	13. 6	•1373	23. 26	•03456												

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.  
 April 27. The Horizontal Force trace was lost after 17<sup>h</sup>. 40<sup>m</sup>, and the Vertical Force trace after 14<sup>h</sup>. 26<sup>m</sup>, owing to a failure of gas.



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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 29		Apr. 29							Apr. 30		Apr. 30						
15. 24	20. 28. 40	22. 24	.1361						11. 23	20. 28. 5	12. 43	.1370					
15. 42	28. 50	23. 12	.1364						11. 44	27. 25	13. 8	.1370					
16. 12	27. 30	23. 43	.1370						12. 45	29. 5	13. 24	.1363					
16. 58	27. 0	23. 59	.1376						12. 58	30. 20	14. 5	.1367					
17. 8	27. 30								13. 9	29. 40	15. 9	.1363					
17. 18	26. 55								13. 39	32. 40	15. 12	.1369					
17. 32	26. 55								13. 53	31. 50	15. 26	.1364					
	***								14. 14	29. 40	15. 43	.1367					
18. 1	28. 10								14. 56	29. 50	16. 12	.1363					
	***								15. 6	29. 20	19. 36	.1363					
18. 42	27. 10								15. 12	30. 0	21. 5	.1356					
18. 48	27. 40								15. 35	28. 0	21. 14	.1358					
19. 13	27. 55								15. 43	28. 20	22. 31	.1354					
19. 20	27. 20								16. 8	26. 55	23. 59	.1360					
19. 34	27. 30								16. 36	29. 0							
19. 53	26. 25								16. 50	28. 20							
20. 8	26. 50								16. 56	28. 55							
20. 12	26. 5									***							
21. 30	27. 20								18. 6	28. 30							
	***								18. 16	27. 45							
23. 9	31. 50								18. 25	28. 10							
	***								18. 32	27. 40							
23. 51	33. 0									***							
23. 59	34. 20								19. 50	27. 40							
									20. 51	28. 40							
Apr. 30		Apr. 30		Apr. 30		Apr. 30			21. 25	29. 5							
0. 0	20. 34. 20	0. 0	.1376	0. 0	.03367	1. 0	58. 2	58. 1	21. 18	30. 40							
0. 23	35. 40	0. 25	.1380	0. 38	.03370	9. 0	59. 3	59. 8	22. 32	31. 50							
0. 53	35. 40	1. 4	.1372	2. 11	.03414	21. 0	58. 9	59. 4	22. 42	31. 35							
0. 56	35. 10	1. 19	.1377	2. 22	.03403				22. 51	32. 10							
1. 20	36. 40	1. 31	.1375	3. 12	.03417				22. 56	32. 5							
1. 26	36. 5	2. 6	.1379	3. 43	.03420				23. 53	34. 30							
1. 58	36. 50	2. 26	.1372	5. 46	.03478				23. 59	34. 30							
2. 14	35. 5	2. 40	.1370	5. 55	.03472												
2. 21	35. 25	2. 54	.1373	6. 25	.03497				May 1		May 1		May 1		May 1		
2. 44	35. 0	3. 10	.1382	10. 0	.03500				0. 0	20. 34. 30	0. 0	.1360	0. 0	.03440	1. 0	59. 9	60. 7
2. 57	36. 5	3. 29	.1375	13. 41	.03487				0. 45	34. 55	0. 26	.1365	0. 40	.03445	3. 0	59. 6	60. 7
3. 9	35. 40	3. 41	.1366	14. 19	.03470				1. 21	35. 25	0. 51	.1367	4. 55	.03545	9. 0	58. 5	59. 0
3. 39	34. 20	3. 58	.1366	16. 41	.03498				1. 33	36. 50	1. 10	.1374	5. 12	.03530	21. 0	57. 8	59. 0
4. 20	33. 50	4. 15	.1377	20. 13	.03479				2. 26	35. 55	1. 15	.1372	5. 41	.03564	22. 0	57. 8	58. 0
4. 53	34. 5	4. 42	.1376	22. 57	.03440				3. 30	36. 55	1. 40	.1378	6. 41	.03525	23. 0	57. 8	58. 1
5. 39	31. 0	5. 0	.1383	23. 59	.03440				3. 43	36. 10	1. 58	.1373	6. 45	.03527			
6. 6	27. 0	5. 19	.1384						4. 54	37. 0	2. 33	.1371	8. 15	.03503			
6. 20	27. 30	5. 28	.1377						5. 12	31. 20	3. 26	.1376	8. 55	.03512			
6. 29	28. 55	5. 54	.1370						5. 30	26. 10	3. 47	.1371	10. 7	.03488			
6. 41	28. 30	6. 12	.1380						6. 0	32. 35	4. 9	.1376	10. 56	.03493			
7. 0	29. 20	6. 36	.1376						6. 27	33. 25	4. 56	.1380	11. 57	.03476			
7. 15	29. 10	6. 43	.1371						6. 38	31. 50	5. 12	.1362	12. 26	.03482			
7. 28	30. 5	6. 56	.1375						6. 44	33. 30	5. 28	.1374	14. 14	.03477			
8. 1	30. 0	7. 20	.1371						7. 0	32. 30	5. 38	.1386	14. 55	.03440			
8. 28	30. 40	7. 41	.1375						7. 16	32. 30	5. 54	.1390	15. 55	.03463			
9. 11	29. 40	7. 56	.1370						7. 33	32. 55	6. 12	.1376	16. 56	.03478			
9. 26	28. 5	8. 41	.1372						7. 40	31. 40	6. 24	.1378	19. 23	.03472			
9. 43	29. 5	9. 54	.1367						7. 45	31. 15	6. 42	.1357	21. 28	.03433			
	***	10. 40	.1372						7. 56	31. 30	7. 12	.1368	21. 43	.03446			
10. 26	28. 20	11. 13	.1365						8. 7	30. 30	7. 42	.1376	23. 59	.03403			
10. 44	28. 40	11. 28	.1369						8. 30	22. 45	8. 0	.1371					
11. 7	27. 5	12. 20	.1366						8. 56	26. 30	8. 19	.1356					

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.			
May 1		May 1																		
9. 42	20. 28. 55	8. 41	.1362	h	h	h	h	o	o	May 2	7. 42	20. 28. 55	7. 12	.1374	20. 40	.03437	h	h	o	o
9. 56	28. 30	8. 56	.1365								7. 53	27. 45	7. 22	.1377	23. 59	.03486				
10. 12	27. 20	9. 20	.1359								8. 11	28. 25	7. 36	.1374						
10. 29	26. 40	9. 40	.1363								8. 28	28. 25	7. 57	.1370						
10. 56	27. 30	10. 12	.1359								8. 47	26. 30	8. 12	.1374						
11. 16	23. 50	10. 50	.1359								9. 14	27. 5	8. 26	.1373						
11. 43	21. 40	11. 0	.1363								9. 39	28. 0	8. 43	.1366						
11. 56	21. 20	11. 12	.1362								9. 51	28. 0	9. 15	.1368						
12. 48	24. 0	11. 19	.1367								10. 8	29. 0	9. 28	.1370						
12. 59	24. 0	11. 26	.1364								10. 19	30. 10	9. 55	.1364						
13. 34	26. 40	11. 44	.1370								10. 33	30. 10	10. 12	.1367						
13. 44	26. 40	12. 14	.1357								10. 55	28. 0	10. 35	.1378						
14. 21	37. 30	12. 36	.1360								11. 25	29. 45	11. 15	.1374						
15. 0	27. 0	12. 51	.1363									***	11. 30	.1376						
15. 14	25. 45	13. 14	.1363								11. 48	29. 30	11. 55	.1364						
15. 58	28. 10	13. 41	.1366								11. 56	31. 35	12. 6	.1375						
16. 25	27. 35	14. 10	.1360								12. 4	32. 55	12. 25	.1390						
17. 3	28. 15	14. 24	.1372								12. 49	27. 50	13. 6	.1374						
17. 23	27. 20	14. 41	.1381								13. 7	26. 25	13. 13	.1377						
17. 30	27. 20	15. 54	.1365								13. 16	27. 30	13. 22	.1375						
17. 45	27. 55	16. 12	.1367								13. 34	27. 55	13. 35	.1375						
17. 57	26. 30	16. 35	.1364								13. 43	27. 20	14. 19	.1382						
18. 18	27. 10	17. 17	.1366								13. 57	29. 0	14. 42	.1380						
18. 23	26. 50	17. 42	.1367								14. 43	28. 5	15. 15	.1386						
	***	18. 10	.1364								15. 12	30. 25	15. 39	.1383						
19. 6	26. 0	19. 35	.1365								16. 15	30. 45	15. 42	.1380						
20. 4	26. 45	20. 54	.1358								16. 25	29. 30	15. 57	.1376						
20. 30	27. 45	21. 4	.1359								16. 53	27. 25	16. 11	.1379						
20. 41	27. 20	21. 55	.1348									***	16. 23	.1376						
21. 33	29. 20	22. 40	.1353								17. 15	27. 45	16. 39	.1378						
21. 39	30. 20	23. 14	.1360								17. 34	25. 25	16. 56	.1376						
21. 54	30. 10	23. 25	.1365								18. 2	26. 30	17. 13	.1379						
	***	23. 50	.1362								18. 36	25. 20	17. 18	.1378						
22. 46	31. 55	23. 59	.1354								18. 43	26. 30	17. 27	.1380						
23. 23	35. 20										18. 56	26. 35	17. 34	.1380						
23. 44	36. 5										19. 13	25. 15	18. 5	.1371						
23. 55	35. 0										19. 32	26. 50	18. 15	.1374						
23. 59	35. 0										20. 13	28. 20	18. 41	.1371						
											20. 38	28. 10	19. 43	.1359						
May 2		May 2				May 2					20. 50	30. 10	19. 57	.1362						
0. 0	20. 35. 0	0. 0	.1354	0. 0	.03403	0. 0	57. 7	57. 2			21. 11	30. 55	20. 45	.1353						
0. 10	35. 40	0. 22	.1369	0. 39	.03404	1. 0	58. 3	59. 0			21. 18	30. 20	21. 24	.1350						
0. 45	38. 55	0. 55	.1366	2. 8	.03437	3. 0	58. 3	59. 0			21. 27	30. 20	22. 6	.1353						
0. 49	38. 35	1. 12	.1372	2. 41	.03437	9. 0	58. 9	60. 5			21. 38	29. 20	22. 20	.1351						
1. 9	39. 40	1. 29	.1364	5. 34	.03500	21. 0	58. 8	59. 3			21. 47	29. 40	22. 24	.1354						
1. 26	37. 50	1. 57	.1367	6. 4	.03497	22. 0	58. 9	59. 1			22. 9	33. 0	22. 41	.1344						
1. 57	37. 10	2. 15	.1374	8. 54	.03518	23. 0	59. 3	59. 6			22. 12	33. 10	23. 12	.1350						
2. 11	37. 40	2. 41	.1375	10. 25	.03516						22. 20	34. 50	23. 13	.1356						
2. 45	35. 0	2. 56	.1371	10. 56	.03500						22. 26	34. 50	23. 38	.1369						
2. 53	35. 10	3. 12	.1378	11. 11	.03500						22. 39	33. 25	23. 50	.1354						
3. 26	34. 20	3. 29	.1376	11. 42	.03486						22. 53	33. 0	23. 55	.1356						
4. 10	33. 40	4. 55	.1382	11. 55	.03500						22. 57	33. 30	23. 59	.1352						
4. 49	33. 5	5. 21	.1373	12. 36	.03463						23. 21	35. 0								
5. 19	31. 30	5. 41	.1380	13. 25	.03477						23. 30	36. 45								
5. 52	31. 30	5. 50	.1375	15. 11	.03463						23. 47	36. 45								
6. 20	29. 25	6. 11	.1370	15. 41	.03442						23. 55	38. 10								
7. 22	29. 45	6. 25	.1372	17. 40	.03420						23. 59	38. 10								
7. 30	29. 0	6. 40	.1376	20. 9	.03441															

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
May 3		May 3		May 3		May 3			May 3		May 3				May 3		
0. 0	20. 38. 10	0. 0	*1352	0. 0	*03486	0. 0	59. 5	60. 0	15. 21	20. 25. 50	18. 15	*1356					
0. 23	40. 55	0. 5	*1348	2. 34	*03512	1. 0	59. 5	59. 7	15. 26	27. 5	18. 41	*1351					
0. 42	40. 5	0. 10	*1351	2. 54	*03525	3. 0	59. 5	59. 9	15. 53	26. 30	18. 59	*1356					
0. 53	40. 10	0. 18	*1349	3. 14	*03520	9. 0	59. 4	59. 2	15. 58	27. 25	19. 51	*1362					
1. 47	38. 35	0. 25	*1350	3. 37	*03540	21. 0	58. 3	58. 8	16. 8	26. 30		***					
2. 6	39. 5	0. 40	*1345	4. 26	*03548				16. 22	26. 25	21. 12	*1359					
2. 23	38. 35	1. 4	*1356	5. 11	*03557				16. 30	27. 50	21. 37	*1356					
2. 40	38. 40	1. 39	*1356	5. 30	*03554				16. 37	25. 25	22. 17	*1356					
2. 48	39. 35	1. 55	*1360	6. 14	*03576				16. 49	24. 10	22. 40	*1363					
2. 58	39. 5	2. 11	*1367	8. 13	*03580				17. 8	25. 25	22. 45	*1357					
3. 11	39. 15	2. 34	*1366	9. 3	*03563				17. 21	25. 25	22. 56	*1356					
3. 24	38. 25	2. 50	*1375	10. 0	*03536					***	23. 11	*1366					
3. 39	39. 10	3. 0	*1375	10. 40	*03543				18. 8	29. 50	23. 36	*1357					
3. 54	38. 20	3. 12	*1370	11. 51	*03510				18. 16	28. 50	23. 54	*1362					
4. 3	39. 10	3. 18	*1362	12. 58	*03497				18. 21	28. 55	23. 59	*1358					
4. 12	38. 45	3. 47	*1382	13. 21	*03472				18. 35	27. 25							
4. 26	38. 35	3. 54	*1379	13. 42	*03478				18. 44	30. 0							
4. 52	35. 30	4. 11	*1385	14. 27	*03452				18. 50	30. 25							
5. 20	36. 50	4. 17	*1383	15. 34	*03456				19. 12	29. 45							
5. 40	35. 10	4. 23	*1374	16. 4	*03470				19. 23	30. 10							
6. 8	30. 50	4. 33	*1373	17. 56	*03466				19. 56	28. 50							
6. 43	29. 45	4. 47	*1375	18. 42	*03450				20. 4	29. 25							
6. 46	30. 5	5. 4	*1379	18. 55	*03459				20. 15	29. 25							
7. 7	29. 40	5. 18	*1379	23. 59	*03418				20. 20	28. 10							
7. 16	30. 25	5. 33	*1367						20. 27	29. 10							
7. 39	29. 20	5. 37	*1368						20. 33	28. 40							
7. 43	29. 40	5. 50	*1366						21. 7	29. 10							
7. 54	26. 10	6. 12	*1379						21. 13	30. 10							
8. 7	25. 25	6. 33	*1382							***							
8. 15	26. 50	6. 54	*1378						21. 50	29. 40							
8. 21	26. 25	7. 16	*1382						21. 56	30. 20							
8. 38	26. 50	7. 34	*1372						22. 14	30. 0							
8. 49	25. 0	7. 54	*1362						22. 37	32. 5							
8. 58	25. 25	8. 12	*1368						22. 56	31. 20							
9. 5	24. 30	8. 25	*1367						23. 24	33. 55							
9. 28	27. 5	8. 43	*1358						23. 51	33. 55							
9. 32	26. 15	9. 5	*1366						23. 59	34. 55							
9. 50	25. 10	9. 16	*1369														
10. 9	22. 0	9. 42	*1372						May 4		May 4		May 4		May 4		
10. 34	25. 45	10. 19	*1356						0. 0	2c. 34. 55	0. 0	*1358	0. 0	*03418	1. 0	59. 1	60. 1
10. 42	26. 25	10. 53	*1365						0. 6	35. 10	0. 24	*1364	0. 52	*03438	3. 0	59. 4	60. 6
10. 58	26. 0	11. 12	*1363						0. 21	34. 40	0. 58	*1366	1. 55	*03464	9. 0	59. 4	60. 5
11. 10	24. 35	11. 26	*1370						0. 38	35. 35	1. 31	*1368	2. 8	*03460	21. 0	57. 5	59. 1
11. 38	27. 45	11. 54	*1361						1. 37	34. 55	1. 43	*1375	5. 12	*03523			
11. 51	25. 20	12. 12	*1364						1. 41	36. 10	1. 56	*1378	7. 0	*03545			
12. 13	26. 15	12. 21	*1362						2. 2	36. 25	2. 12	*1369	7. 10	*03541			
12. 43	26. 40	12. 57	*1372						2. 11	35. 20	2. 27	*1364	7. 23	*03547			
12. 53	27. 10	13. 18	*1383						2. 56	34. 10	3. 20	*1376	7. 41	*03534			
13. 8	21. 45	13. 25	*1380						3. 13	34. 50	3. 31	*1372	8. 19	*03538			
13. 20	21. 10	13. 55	*1388						3. 56	33. 35	3. 43	*1367	9. 57	*03516			
13. 26	23. 5	14. 16	*1381						4. 36	33. 30	4. 9	*1367	10. 14	*03532			
13. 38	24. 20	14. 47	*1368						6. 33	31. 20	4. 39	*1375	10. 43	*03503			
13. 51	28. 5	15. 20	*1374						6. 43	31. 40	4. 43	*1372	13. 19	*03500			
14. 7	29. 0	16. 0	*1364						7. 9	30. 40	5. 22	*1381	13. 29	*03506			
14. 36	25. 25	16. 41	*1369						7. 14	31. 0	6. 11	*1380	13. 58	*03460			
14. 45	25. 35	16. 53	*1364						7. 24	33. 5	6. 34	*1373	14. 40	*03442			
14. 48	25. 30	17. 13	*1368						7. 27	33. 30	6. 43	*1377	14. 54	*03425			
15. 4	26. 30	17. 44	*1358						7. 41	31. 20	7. 9	*1374	15. 13	*03440			

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
May 4		May 4		May 4					May 5		May 5		May 5		May 5		
8. 3 <sup>h</sup> 20 <sup>m</sup> 29 <sup>s</sup> 5 <sup>u</sup>		7. 20 <sup>h</sup> 30 <sup>m</sup> 5 <sup>s</sup>	·1385	15. 38 <sup>h</sup> 16 <sup>m</sup> 18 <sup>s</sup>	·03421				0. 0 <sup>h</sup> 20 <sup>m</sup> 33 <sup>s</sup> 10 <sup>u</sup>	0. 0	0. 0	·1361	0. 0	·03422	1. 0	58 <sup>o</sup> 6 <sup>u</sup>	59 <sup>o</sup> 7 <sup>u</sup>
8. 12		7. 55	·1373	16. 18	·03440				0. 18	34. 0	0. 12	·1358	2. 4	·03480	3. 0	58 <sup>o</sup> 9 <sup>u</sup>	59 <sup>o</sup> 9 <sup>u</sup>
8. 36		8. 11	·1376	17. 41	·03456				***	***	0. 21	·1360	2. 40	·03483	9. 0	59 <sup>o</sup> 7 <sup>u</sup>	61 <sup>o</sup> 6 <sup>u</sup>
8. 55		8. 20	·1372	18. 13	·03442				0. 39	34. 15	0. 27	·1358	2. 56	·03508	22. 0	60 <sup>o</sup> 2 <sup>u</sup>	61 <sup>o</sup> 0 <sup>u</sup>
9. 26		8. 43	·1374	18. 22	·03444				1. 3	35. 40	1. 10	·1365	5. 52	·03535			
9. 35		9. 25	·1375	21. 26	·03458				1. 54	35. 40	1. 21	·1361	9. 26	·03552			
9. 44		9. 55	·1361	23. 59	·03422				2. 13	36. 40	1. 44	·1364	10. 12	·03543			
10. 12		10. 20	·1384						2. 39	35. 30	2. 15	·1373	10. 40	·03528			
10. 25		10. 45	·1369						2. 54	36. 35	2. 38	·1371	14. 39	·03562			
11. 12		10. 59	·1371						3. 6	36. 5	2. 42	·1365	18. 15	·03557			
11. 31		12. 20	·1368						3. 14	36. 20	2. 47	·1370	20. 40	·03544			
12. 6		12. 41	·1374						3. 53	34. 55	2. 56	·1379	23. 59	·03521			
12. 22		12. 57	·1374						3. 59	35. 5	3. 11	·1370					
12. 30		13. 12	·1370						4. 48	33. 5	3. 28	·1368					
12. 39		13. 27	·1372						5. 9	33. 20	4. 7	·1378					
13. 2		13. 44	·1386						5. 15	32. 35	4. 26	·1374					
13. 12		14. 12	·1380						5. 52	31. 45	4. 52	·1376					
13. 39		14. 43	·1384						5. 59	32. 10	5. 10	·1380					
14. 9		15. 10	·1355						6. 41	31. 20	5. 14	·1375					
14. 35		15. 30	·1358						6. 45	31. 40	5. 47	·1377					
14. 52		15. 50	·1367						7. 0	30. 55	5. 56	·1382					
15. 4		16. 12	·1371						7. 12	31. 35	6. 13	·1378					
15. 15		16. 25	·1367						8. 11	31. 0	6. 29	·1381					
15. 40		16. 40	·1372						8. 30	29. 35	6. 44	·1379					
16. 6		16. 51	·1370						8. 42	30. 20	6. 59	·1373					
16. 14		17. 22	·1362						8. 52	30. 5	7. 11	·1376					
16. 19		17. 51	·1361						9. 12	27. 40	7. 26	·1372					
16. 26		18. 39	·1342						9. 42	31. 15	8. 11	·1371					
16. 39		18. 59	·1352						10. 6	30. 55	8. 39	·1376					
16. 44		19. 56	·1362						10. 12	28. 0	8. 56	·1370					
17. 12		***	***						10. 26	30. 10	9. 12	·1375					
17. 23		22. 40	·1356						10. 43	29. 20	9. 36	·1378					
17. 38		22. 51	·1359						11. 4	30. 0	9. 55	·1374					
17. 44		23. 0	·1358						11. 39	28. 20	10. 13	·1393					
17. 59		23. 42	·1364						12. 20	30. 0	10. 44	·1377					
18. 8		23. 59	·1361						12. 43	29. 30	11. 12	·1376					
18. 14		27. 55							14. 7	28. 40	11. 41	·1370					
18. 31		27. 45							14. 41	31. 15	14. 42	·1364					
18. 46		30. 25							15. 30	28. 45	15. 12	·1368					
18. 58		30. 15							15. 57	29. 35	15. 54	·1365					
19. 7		28. 55							17. 5	27. 20	16. 43	·1367					
19. 11		29. 40							17. 51	27. 0	19. 13	·1365					
19. 14		27. 15							18. 42	27. 30	19. 38	·1367					
19. 17		28. 15							19. 14	27. 10	21. 22	·1361					
19. 28		26. 55							19. 35	28. 10	23. 10	·1368					
19. 54		27. 50							19. 53	27. 25	23. 59	·1373					
20. 2		27. 10							***	***	***	***					
20. 46		28. 45							20. 39	28. 50							
20. 58		28. 5							21. 38	29. 40							
21. 24		29. 25							23. 40	34. 15							
22. 11		29. 35							23. 59	34. 15							
22. 23		30. 5															
22. 34		29. 45							May 6		May 6		May 6		May 6		
22. 42		30. 25							0. 0	20. 34. 15	0. 0	·1373	0. 0	·03521	1. 0	60 <sup>o</sup> 0 <sup>u</sup>	61 <sup>o</sup> 3 <sup>u</sup>
23. 6		30. 30							0. 59	34. 25	1. 6	·1372	1. 41	·03537	8. 0	59 <sup>o</sup> 6 <sup>u</sup>	61 <sup>o</sup> 4 <sup>u</sup>
23. 38		33. 5							2. 3	33. 0	1. 56	·1369	4. 26	·03576	21. 0	58 <sup>o</sup> 8 <sup>u</sup>	60 <sup>o</sup> 8 <sup>u</sup>
23. 59		33. 10							2. 23	33. 40	2. 20	·1373	6. 43	·03580			
									2. 28	33. 0	2. 32	·1369	14. 25	·03560			

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
May 6		May 6		May 6					May 7		May 7						
4. 39	20. 33. 15	3. 20	*1374	15. 22	*03542				6. 38	20. 31. 40	5. 57	*1383					
7. 16	31. 50	4. 11	*1369	16. 28	*03553				6. 53	32. 40	6. 13	*1384					
7. 28	32. 5	4. 49	*1371	18. 16	*03528				7. 9	28. 40	6. 30	*1380					
7. 59	31. 40	5. 27	*1378	21. 10	*03520				7. 19	28. 35	6. 43	*1382					
8. 43	31. 55	8. 10	*1380	23. 59	*03492				7. 26	29. 40	7. 1	*1376					
9. 10	31. 15	9. 20	*1376						7. 36	28. 20	7. 13	*1381					
9. 33	30. 0	9. 56	*1378						8. 0	27. 5	7. 42	*1375					
9. 54	30. 55	10. 12	*1375						8. 53	30. 40	8. 22	*1374					
10. 10	31. 0	10. 41	*1381						9. 4	30. 15	8. 43	*1376					
10. 29	29. 50	11. 26	*1372						9. 58	31. 25	9. 3	*1372					
10. 41	29. 50	11. 57	*1377						10. 18	31. 20	10. 11	*1375					
10. 53	29. 10	12. 14	*1374						10. 28	30. 40	10. 26	*1372					
11. 30	30. 55	12. 39	*1376						11. 10	30. 50	12. 22	*1375					
11. 38	30. 35	12. 56	*1374						13. 43	29. 50	14. 42	*1369					
11. 42	31. 5	13. 41	*1375						15. 13	29. 50	15. 44	*1372					
12. 24	29. 55	14. 20	*1367						15. 28	29. 0	16. 10	*1369					
13. 39	29. 50	15. 11	*1377						16. 44	29. 0	18. 35	*1372					
13. 50	30. 15	15. 55	*1372						17. 45	27. 40	20. 31	*1375					
14. 16	29. 20	16. 27	*1363						18. 20	27. 40	21. 10	*1372					
14. 46	31. 50	17. 55	*1376						18. 27	27. 55	22. 7	*1371					
14. 56	31. 20	19. 12	*1365						18. 32	27. 35	22. 21	*1374					
15. 26	27. 50	20. 24	*1373						19. 40	28. 35	22. 40	*1368					
15. 54	25. 30	22. 26	*1367						20. 41	30. 15	23. 59	*1370					
16. 10	25. 40	23. 44	*1372						20. 54	30. 0							
16. 39	28. 25	23. 59	*1376						21. 13	31. 15							
17. 9	29. 40								22. 8	30. 25							
18. 0	29. 30								22. 21	31. 15							
18. 11	28. 30								22. 26	30. 25							
18. 15	28. 45								22. 38	31. 0							
18. 25	27. 30								23. 4	30. 40							
18. 40	27. 25								23. 59	32. 40							
18. 45	26. 55																
18. 53	27. 40								May 8		May 8		May 8		May 8		
19. 16	27. 40								0. 0	20. 32. 40	0. 0	*1370	0. 0	*03458	1. 0	59. 3	60. 6
20. 8	28. 30								0. 54	33. 5	0. 23	*1371	4. 24	*03546	3. 0	59. 8	60. 9
20. 19	29. 45								1. 33	32. 20	1. 11	*1371	9. 15	*03571	9. 0	59. 7	60. 6
21. 6	30. 35								2. 16	32. 35	1. 35	*1369	10. 11	*03536	21. 0	58. 9	59. 7
21. 39	31. 0								3. 34	31. 55	2. 8	*1374	13. 19	*03525	22. 0	57. 6	59. 0
22. 21	32. 5								6. 54	32. 20	2. 56	*1372	21. 15	*03497	23. 0	57. 9	59. 0
23. 5	32. 20								8. 33	31. 40	3. 41	*1374	23. 16	*03457			
23. 25	33. 20								9. 24	31. 45	4. 11	*1378	23. 59	*03457			
23. 59	33. 20								10. 24	30. 55	4. 59	*1381					
									10. 42	31. 5	5. 26	*1380					
May 7		May 7		May 7		May 7			11. 5	30. 30	5. 43	*1384					
0. 0	20. 33. 20	0. 0	*1376	0. 0	*03492	1. 0	59. 6	61. 0	12. 53	31. 0	7. 7	*1384					
0. 20	33. 30	1. 20	*1373	0. 18	*03493	3. 0	59. 6	60. 5	13. 24	30. 30	9. 8	*1380					
0. 46	32. 50	1. 27	*1370	1. 58	*03538	9. 0	58. 4	58. 0	13. 45	31. 10	9. 13	*1377					
1. 9	32. 50	1. 55	*1378	5. 30	*03577	21. 0	58. 2	59. 5	14. 18	29. 40	10. 46	*1379					
1. 27	32. 25	2. 12	*1370	8. 51	*03584				14. 23	29. 50	12. 13	*1376					
1. 55	33. 0	2. 40	*1377	9. 43	*03558				14. 40	29. 5	14. 6	*1378					
2. 7	32. 5	2. 52	*1370	10. 10	*03544				14. 56	29. 10	14. 56	*1376					
2. 36	33. 40	3. 4	*1372	12. 59	*03542				15. 3	30. 40	15. 12	*1380					
2. 41	32. 55	3. 39	*1363	17. 12	*03520				15. 23	29. 30	16. 20	*1379					
3. 0	33. 20	3. 49	*1368	22. 27	*03457				15. 42	29. 10	16. 54	*1383					
3. 41	32. 10	5. 12	*1380	23. 59	*03458				16. 0	29. 40	21. 25	*1370					
5. 28	32. 20	5. 20	*1377						16. 10	28. 55	21. 44	*1372					
5. 54	31. 50	5. 39	*1383						16. 21	29. 10	23. 11	*1370					
6. 23	32. 15	5. 43	*1380						16. 33	27. 50	23. 48	*1374					

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
May 8 16. 40	20. 28. 0	May 8 23. 59	.1373						May 10 0. 0	20. 33. 40	May 10 0. 0	.1376	May 10 0. 0	.03403	May 10 0. 0	58. 36. 0	
16. 55	26. 55								0. 6	34. 20	0. 40	.1381	0. 58	.03410	1. 0	58. 76. 6	
17. 45	26. 30								0. 24	35. 20	0. 56	.1373	2. 27	.03456	3. 0	58. 75. 7	
17. 58	27. 0								0. 39	35. 30	1. 14	.1371	2. 39	.03476	9. 0	56. 95. 2	
18. 6	26. 20								0. 54	34. 20	1. 33	.1379	***	***	21. 0	58. 16. 0	
18. 9	27. 10								1. 13	34. 30	1. 43	.1371	2. 57	.03455			
18. 28	26. 40								1. 28	36. 0	2. 24	.1373	***	***			
19. 33	26. 40								1. 40	34. 50	2. 30	.1390	3. 38	.03477			
20. 14	26. 55								2. 14	35. 5	2. 58	.1363	3. 50	.03463			
22. 51	32. 40								2. 23	34. 50	3. 27	.1378	4. 11	.03480			
23. 59	34. 15								2. 29	36. 35	3. 35	.1380	6. 38	.03505			
									***	***	3. 41	.1373	9. 6	.03506			
May 9 0. 0	20. 34. 15	May 9 0. 0	.1373	0. 0	.03457	May 9 0. 0	58. 85. 9	59. 9	2. 56	35. 10	3. 45	.1362	10. 4	.03477			
0. 39	34. 45	0. 42	.1375	0. 39	.03464	1. 0	59. 16. 2	60. 2	3. 21	35. 10	4. 12	.1377	13. 18	.03480			
0. 56	34. 10	1. 10	.1373	4. 10	.03535	2. 0	59. 26. 3	60. 3	3. 38	34. 40	4. 17	.1375	17. 4	.03476			
1. 14	34. 35	1. 20	.1376	9. 11	.03560	3. 0	59. 46. 8	60. 8	3. 43	32. 55	4. 26	.1380	21. 23	.03443			
1. 43	34. 10	1. 41	.1374	10. 3	.03524	9. 0	58. 95. 9	99. 9	5. 55	30. 25	4. 34	.1374	23. 59	.03440			
1. 54	34. 30	2. 12	.1376	13. 6	.03503	21. 0	57. 45. 7	58. 7	6. 23	30. 30	4. 40	.1379					
3. 16	32. 55	3. 13	.1381	19. 48	.03437	22. 0	58. 05. 5	59. 5	7. 0	30. 55	4. 54	.1375					
4. 31	33. 0	3. 56	.1378	21. 42	.03396	23. 0	58. 15. 9	59. 9	7. 41	29. 10	5. 0	.1380					
6. 16	32. 5	4. 18	.1381	23. 10	.03392				8. 42	30. 40	5. 12	.1376					
6. 42	31. 55	4. 43	.1380	23. 59	.03403				8. 53	30. 25	5. 41	.1382					
7. 0	32. 30	6. 43	.1384						9. 3	31. 0	6. 18	.1384					
7. 14	32. 20	6. 58	.1389						9. 49	31. 10	6. 41	.1389					
7. 25	31. 40	7. 29	.1384						10. 40	30. 40	7. 3	.1384					
7. 55	31. 55	8. 12	.1382						14. 33	30. 30	7. 20	.1383					
8. 9	31. 20	8. 23	.1384						14. 42	30. 0	7. 53	.1388					
8. 30	31. 45	8. 42	.1382						15. 14	29. 50	8. 41	.1385					
9. 10	31. 20	10. 12	.1380						15. 27	30. 40	8. 53	.1382					
9. 26	31. 55	11. 10	.1379						15. 50	28. 55	9. 15	.1382					
11. 8	30. 55	11. 33	.1382						16. 10	28. 50	9. 42	.1385					
11. 25	31. 25	12. 22	.1377						16. 57	27. 35	10. 0	.1383					
11. 42	30. 50	12. 40	.1379						17. 23	28. 0	11. 20	.1383					
12. 54	30. 0	13. 2	.1377						17. 36	27. 20	12. 12	.1380					
13. 14	30. 10	13. 24	.1381						18. 3	27. 30	12. 50	.1381					
13. 51	29. 40	14. 25	.1379						18. 10	27. 0	15. 19	.1376					
14. 39	29. 50	14. 39	.1381						***	***	15. 42	.1382					
14. 49	29. 10	14. 57	.1378						19. 28	26. 45	17. 6	.1376					
15. 38	28. 55	15. 50	.1380						20. 9	27. 20	21. 26	.1373					
15. 46	28. 0	17. 44	.1376						20. 41	28. 30	23. 5	.1372					
16. 47	27. 40	18. 54	.1376						21. 28	29. 25	23. 59	.1376					
17. 11	26. 20	20. 9	.1373						23. 15	35. 10							
17. 26	26. 20	20. 55	.1377						23. 46	36. 20							
17. 41	24. 45	21. 12	.1375						23. 59	35. 55							
17. 57	26. 20	21. 40	.1378						May 11 0. 0	20. 35. 55	May 11 0. 0	.1376	May 11 0. 0	.03440	May 11 1. 0	58. 86. 0	
18. 8	25. 30	21. 54	.1369						0. 9	35. 50	0. 14	.1376	2. 56	.03497	3. 0	59. 06. 4	
	***	21. 57	.1372						0. 39	36. 50	0. 29	.1379	6. 41	.03518	9. 0	59. 46. 1	
20. 38	25. 30	22. 26	.1376						0. 54	35. 55	0. 59	.1372	9. 26	.03534	9. 30	58. 35. 7	
21. 6	26. 40	22. 54	.1376						1. 23	36. 10	1. 20	.1373	10. 30	.03477	10. 15	57. 85. 9	
21. 30	28. 40	23. 12	.1368						2. 15	34. 20	1. 41	.1371	15. 3	.03413	21. 0	56. 45. 7	
21. 43	28. 20	23. 22	.1374						2. 24	34. 50	1. 54	.1373	16. 36	.03378			
22. 58	32. 0	23. 43	.1376						2. 41	34. 20	2. 0	.1370	17. 40	.03370			
23. 8	31. 40	23. 59	.1376						2. 51	34. 30	2. 22	.1369	21. 27	.03292			
23. 26	33. 35								3. 56	32. 25	2. 35	.1374	23. 59	.03318			
23. 56	33. 35								4. 58	31. 0	2. 43	.1372					
23. 59	33. 40								6. 4	30. 40	2. 58	.1378					

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
May 11		May 11							May 12		May 12						
8. 39	20. 30. 55	3. 14	.1377						9. 35	20. 15. 40	8. 11	.1388	21. 26	.03234			
12. 15	30. 45	3. 45	.1375						9. 46	16. 55	8. 28	.1390	22. 4	.03239			
12. 27	31. 10	4. 19	.1380						10. 6	25. 40	8. 40	.1388	23. 59	.03217			
	***	4. 25	.1378						10. 23	21. 20	9. 25	.1374					
13. 14	30. 20	5. 11	.1377						10. 41	23. 0	9. 41	.1387					
13. 37	30. 55	5. 18	.1380						11. 5	23. 20	9. 54	.1377					
13. 50	30. 25	6. 15	.1380						11. 28	21. 40	10. 10	.1381					
14. 26	30. 0	6. 27	.1383						11. 48	22. 55	10. 25	.1377					
14. 33	30. 50	9. 41	.1380						12. 2	24. 30	10. 41	.1383					
14. 54	30. 50	10. 9	.1383						12. 30	24. 10	10. 56	.1375					
15. 10	30. 20	10. 18	.1379						12. 58	18. 30	11. 44	.1364					
15. 23	30. 30	10. 51	.1380						13. 9	17. 50	12. 5	.1367					
15. 32	30. 5	10. 56	.1375						13. 25	19. 25	12. 27	.1378					
15. 58	30. 30	12. 41	.1377						13. 30	18. 50	12. 50	.1381					
16. 21	29. 40	13. 12	.1374						13. 47	23. 30	13. 14	.1370					
16. 50	27. 0	13. 40	.1377						14. 8	25. 30	13. 35	.1366					
16. 57	26. 45	14. 55	.1373						14. 17	24. 40	13. 43	.1360					
17. 6	27. 10	16. 25	.1376						14. 33	28. 25	13. 57	.1360					
17. 14	26. 35	17. 24	.1373						15. 6	27. 30	14. 12	.1355					
17. 46	26. 40	18. 27	.1374						15. 21	23. 20	14. 41	.1372					
18. 39	25. 30	19. 28	.1370						15. 28	23. 25	15. 22	.1364					
18. 45	25. 55	19. 42	.1372						15. 41	20. 10	15. 34	.1368					
18. 56	25. 20	21. 28	.1366						15. 56	19. 20	15. 43	.1366					
19. 4	25. 55	22. 19	.1369						16. 29	29. 10	16. 12	.1339					
19. 24	24. 20	22. 26	.1364						16. 41	28. 30	16. 25	.1351					
19. 52	26. 30	22. 45	.1369						16. 51	30. 0	16. 42	.1350					
20. 10	26. 30	22. 55	.1365						16. 58	31. 50	17. 24	.1371					
21. 37	29. 10	23. 4	.1369						17. 23	30. 20	17. 42	.1366					
	***	23. 12	.1367						17. 25	29. 10	18. 6	.1353					
22. 13	31. 55	23. 40	.1378						17. 39	25. 10	18. 14	.1356					
22. 22	31. 50	23. 49	.1384						17. 52	24. 35	19. 11	.1353					
23. 10	34. 20	23. 59	.1378						18. 2	22. 55	20. 5	.1351					
23. 41	36. 50								18. 29	23. 55	20. 41	.1344					
23. 59	37. 45								19. 10	24. 10	20. 47	.1350					
									19. 21	23. 40	21. 11	.1348					
May 12		May 12		May 12		May 12			19. 55	26. 30	21. 19	.1342					
0. 0	20. 37. 45	0. 0	.1378	0. 0	.03318	1. 0	58. 0	59. 9	19. 58	28. 20	21. 34	.1345					
0. 15	36. 50	0. 15	.1382	1. 11	.03340	3. 0	58. 5	59. 4	20. 1	27. 50	21. 44	.1348					
0. 26	37. 5	0. 33	.1379		(†)	9. 0	58. 7	59. 9	20. 25	28. 5	22. 11	.1346					
0. 38	35. 35	0. 45	.1367	2. 7	.03320	21. 10	57. 0	58. 5	20. 33	27. 45	23. 3	.1363					
1. 4	35. 20	0. 49	.1364	3. 54	.03319				20. 39	26. 25	23. 15	.1364					
1. 43	36. 5	1. 11	.1364	6. 30	.03349				21. 4	30. 0	23. 36	.1374					
2. 14	35. 20	1. 23	.1372	7. 42	.03340				21. 11	29. 20	23. 55	.1371					
2. 38	36. 45	1. 53	.1378	9. 28	.03348				22. 0	34. 55		.1372					
2. 42	36. 35	2. 11	.1376	9. 43	.03340				22. 30	35. 20							
2. 58	37. 35	2. 50	.1382	9. 54	.03353				22. 41	36. 15							
4. 0	34. 10	3. 11	.1388	10. 12	.03320				22. 46	35. 45							
4. 5	34. 55	3. 30	.1371	12. 0	.03324				22. 58	37. 10							
4. 10	34. 25	3. 56	.1369	12. 59	.03300				23. 11	37. 10							
4. 36	33. 0	4. 10	.1372	13. 38	.03310				23. 27	38. 40							
4. 53	33. 25	4. 19	.1381	14. 14	.03297				23. 55	39. 20							
5. 13	32. 55	4. 42	.1376	14. 26	.03303				23. 59	40. 0							
5. 59	31. 10	4. 56	.1383	14. 55	.03263												
6. 10	31. 10	5. 21	.1382	16. 12	.03240												
6. 44	30. 15	5. 48	.1377	16. 40	.03204				May 13		May 13		May 13		May 13		
8. 44	30. 30	6. 21	.1382	17. 26	.03198				0. 0	20. 40. 0	0. 0	.1372	0. 0	.03217	0. 20	56. 9	58. 5
9. 9	28. 35	7. 26	.1384	18. 11	.03234				0. 12	41. 10	0. 17	.1381	1. 6	.03258	4. 40	56. 9	57. 6
9. 14	28. 25	7. 51	.1381	18. 50	.03249				0. 30	40. 0	0. 26	.1362	2. 1	.03289	9. 0	57. 1	59. 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.

May 12<sup>d</sup>. 1<sup>h</sup>. 15<sup>m</sup>. The Vertical Force Magnet was examined by the Astronomer Royal, and the tightness of the adjusting screws of the magnet tested.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
May 13		May 13		May 13					May 13								
0 56	20. 41. 30	0. 54	.1356	2. 26	.03274	21. 0	58. 1	59. 4	13. 24	20. 30. 30	19. 24	.1346					
1. 10	40. 0	1. 23	.1371	4. 32	.03317				13. 50	31. 25	19. 57	.1345					
1. 15	40. 40	1. 45	.1375	4. 47	.03340				14. 29	31. 25	22. 6	.1356					
1. 24	39. 45	1. 56	.1383	6. 22	.03345				14. 44	29. 40	22. 16	.1354					
1. 29	40. 15	2. 0	.1380	6. 40	.03307				14. 58	29. 40	22. 27	.1360					
1. 34	39. 30	2. 6	.1382	6. 44	.03322				15. 16	27. 55	22. 41	.1354					
1. 43	40. 5	2. 26	.1351	7. 0	.03283				15. 43	27. 55	22. 51	.1357					
1. 55	41. 55	3. 15	.1382	7. 9	.03297				16. 2	29. 30	23. 51	.1362					
2. 6	42. 15	3. 26	.1376	7. 25	.03284				16. 10	29. 0	23. 59	.1365					
2. 11	41. 15	3. 42	.1383	8. 30	.03306				16. 26	29. 0							
2. 18	41. 35	3. 56	.1376	9. 40	.03300				16. 58	26. 55							
2. 26	40. 10	4. 12	.1379	9. 56	.03276					***							
2. 46	39. 20	4. 27	.1373	10. 11	.03295				17. 13	27. 10							
3. 0	39. 35	4. 36	.1376	10. 19	.03280				17. 33	25. 40							
3. 25	39. 15	4. 41	.1374	11. 24	.03264				17. 45	27. 40							
3. 34	39. 50	5. 0	.1394	12. 4	.03287				17. 51	25. 50							
3. 42	38. 45	5. 20	.1387	15. 10	.03302				17. 59	26. 5							
3. 55	38. 0	5. 32	.1380	16. 21	.03316				18. 7	25. 15							
3. 59	38. 10	5. 55	.1384	19. 11	.03314				18. 14	26. 5							
4. 9	37. 15		***	21. 18	.03298				18. 24	25. 15							
4. 33	35. 30	6. 21	.1384	23. 59	.03273				18. 30	26. 10							
4. 37	35. 50	6. 32	.1404						18. 42	26. 0							
4. 56	34. 35	6. 35	.1407						19. 2	24. 20							
5. 15	35. 20	6. 45	.1390						19. 4	26. 25							
5. 38	31. 10	7. 0	.1416						19. 16	26. 55							
5. 46	32. 40	7. 12	.1384						19. 33	25. 55							
5. 55	33. 15	7. 20	.1395						19. 59	25. 30							
5. 59	31. 50	7. 30	.1374						20. 43	26. 0							
6. 16	31. 35	7. 50	.1366						20. 58	27. 5							
6. 18	34. 0	7. 56	.1368						21. 4	26. 45							
6. 25	29. 20	8. 26	.1367						21. 58	29. 35							
6. 32	32. 15	8. 51	.1377						22. 11	31. 10							
6. 44	25. 0	9. 12	.1369						22. 28	31. 0							
6. 57	31. 45	9. 26	.1372						23. 51	36. 10							
7. 6	26. 15	10. 12	.1348						23. 59	36. 0							
7. 20	31. 40	10. 18	.1351														
7. 29	30. 0	10. 28	.1388						May 14		May 14		May 14		May 14		
7. 39	30. 0	10. 37	.1380						0. 0	20. 36. 0	0. 0	.1365	0. 0	.03273	1. 0	58. 3	59. 9
7. 48	27. 25	10. 44	.1385						0. 17	37. 5	0. 42	.1367	0. 55	.03282	3. 0	58. 4	60. 0
8. 6	29. 10	11. 20	.1366						1. 10	38. 50	1. 12	.1374	2. 55	.03336	9. 0	58. 0	59. 0
8. 18	28. 25	11. 27	.1371						1. 26	38. 20	1. 30	.1370	3. 11	.03333	21. 0	58. 3	58. 9
8. 41	30. 30	11. 43	.1366						1. 41	39. 5	1. 54	.1380	8. 48	.03366			
8. 47	30. 15	11. 55	.1362						1. 54	38. 40	2. 6	.1373	9. 22	.03352			
9. 19	23. 15	12. 44	.1364						2. 12	38. 40	2. 29	.1376	12. 26	.03340			
9. 51	22. 40	13. 18	.1370						2. 39	38. 0	2. 41	.1372	12. 57	.03303			
9. 59	20. 55	13. 25	.1368							***	2. 57	.1382	14. 43	.03317			
10. 10	7. 40	13. 36	.1369						3. 32	38. 40	3. 12	.1366	15. 4	.03302			
10. 26	16. 10	13. 57	.1363						3. 46	37. 25		(†)	15. 25	.03308			
10. 29	15. 50	14. 39	.1365						4. 10	37. 0	8. 45	.1379	15. 57	.03303			
10. 44	23. 5	15. 21	.1364						4. 40	34. 45	9. 6	.1372	17. 19	.03325			
10. 59	26. 50	15. 43	.1360						5. 3	34. 55	9. 24	.1361	22. 54	.03300			
11. 30	26. 20		***						5. 27	33. 55	9. 40	.1361	23. 59	.03292			
11. 34	25. 15	16. 23	.1358						5. 57	34. 10	9. 48	.1366					
11. 46	25. 40	16. 58	.1362						6. 25	32. 40	10. 10	.1366					
11. 54	25. 25	17. 41	.1357						6. 28	32. 55	10. 20	.1361					
12. 10	27. 30	17. 55	.1362						7. 14	30. 55	10. 41	.1361					
12. 46	28. 50	18. 11	.1355						7. 39	30. 10	10. 56	.1367					
13. 12	30. 55	19. 6	.1343						8. 1	26. 5	11. 2	.1365					

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.		
May 14		May 14							May 15		May 15		May 15		May 15				
8. 10	20. 25. 50	11. 24	*1368						5. 33	20. 32. 55	2. 54	*1360	19. 22	*03415	23. 0	59. 3	60. 8		
8. 30	18. 20	12. 22	*1357						6. 16	31. 45	4. 6	*1367	23. 59	*03358					
8. 54	25. 0	12. 29	*1359						6. 44	31. 55	4. 20	*1364							
9. 2	24. 40	12. 45	*1357						7. 25	30. 55	4. 38	*1368							
9. 16	25. 40	13. 22	*1368						8. 7	30. 30	4. 46	*1366							
9. 26	25. 20	13. 41	*1373						9. 39	30. 25	5. 41	*1367							
9. 35	25. 30	14. 9	*1364						9. 54	29. 20	6. 0	*1371							
9. 59	27. 10	14. 50	*1359						10. 14	29. 55	6. 12	*1368							
10. 12	26. 30	14. 58	*1363						10. 39	29. 45	6. 35	*1374							
10. 19	26. 45	15. 25	*1357						10. 56	28. 5	8. 6	*1374							
10. 33	28. 40	15. 45	*1364						11. 9	28. 30	8. 55	*1371							
11. 24	28. 55	16. 17	*1368						11. 43	28. 20	9. 22	*1371							
11. 41	28. 0	17. 15	*1355						12. 9	29. 10	9. 43	*1368							
12. 2	28. 30	17. 59	*1357						12. 58	29. 20	10. 9	*1372							
12. 25	35. 20	20. 24	*1344						13. 15	28. 0	10. 41	*1365							
12. 30	34. 55	22. 43	*1357						13. 49	28. 15	11. 10	*1373							
12. 35	35. 55	23. 12	*1354						14. 11	30. 0	11. 40	*1368							
13. 0	29. 30	23. 54	*1362						14. 39	29. 45	12. 26	*1368							
13. 9	29. 30	23. 59	*1360						15. 6	29. 45	12. 54	*1365							
13. 30	25. 10								15. 24	29. 10	14. 9	*1360							
13. 45	23. 45								16. 53	27. 55	14. 40	*1363							
13. 59	23. 50								19. 8	25. 0	14. 54	*1361							
14. 16	26. 0								19. 16	25. 25	15. 8	*1364							
14. 36	25. 20								19. 28	24. 50	15. 11	*1363							
14. 42	26. 5								20. 27	25. 0	18. 42	*1360							
14. 52	29. 20								20. 32	24. 10	21. 10	*1350							
15. 9	29. 30								20. 43	25. 30	22. 56	*1352							
15. 24	32. 30								21. 51	28. 0	23. 38	*1354							
15. 40	32. 0								23. 45	34. 0	23. 59	*1360							
15. 51	30. 45								23. 59	35. 0									
15. 55	30. 25																		
16. 14	27. 55								May 16	20. 35. 0	0. 0	*1360	May 16	0. 0	*03358	May 16	0. 0	59. 3	60. 9
16. 48	25. 25								1. 0	36. 55	0. 12	*1359	0. 42	*03363	1. 0	59. 6	61. 0		
17. 41	26. 0								2. 9	37. 25	0. 35	*1362	5. 43	*03412	3. 0	59. 6	61. 0		
17. 48	25. 10								2. 43	36. 25	0. 45	*1364	12. 15	*03409	9. 0	58. 8	60. 0		
17. 57	26. 10								4. 52	34. 20	1. 6	*1367	19. 34	*03383	21. 0	58. 8	60. 7		
18. 6	25. 35								5. 21	32. 55	1. 12	*1364	23. 59	*03344	22. 0	58. 8	60. 4		
18. 26	25. 40								5. 59	32. 35	3. 26	*1374			23. 0	58. 8	60. 0		
18. 39	24. 30								6. 22	31. 55	5. 0	*1376							
18. 55	25. 5								8. 42	30. 40	6. 2	*1383							
18. 59	25. 0								9. 3	29. 5	6. 44	*1380							
19. 18	26. 20								10. 0	30. 0	9. 10	*1378							
19. 26	26. 15								10. 44	30. 0	9. 14	*1382							
19. 42	27. 55								10. 58	30. 20	10. 25	*1374							
20. 9	27. 40 ***								11. 22	29. 55	13. 55	*1371							
20. 58	29. 55								12. 8	30. 10	17. 23	*1373							
21. 7	29. 30								13. 26	29. 55	22. 42	*1356							
23. 7	34. 40								14. 58	30. 30	23. 51	*1356							
23. 52	35. 10								15. 13	29. 50	23. 59	*1357							
23. 59	35. 20								16. 9	29. 25									
May 15		May 15		May 15		May 15			16. 30	28. 45									
0. 0	20. 35. 20	0. 0	*1360	0. 0	*03292	1. 0	58. 6	59. 2	16. 39	29. 40									
1. 23	37. 30	0. 23	*1365	2. 57	*03354	3. 0	58. 6	59. 5	16. 43	28. 40									
2. 42	36. 55	0. 46	*1365	5. 43	*03364	9. 0	58. 8	59. 7	19. 34	26. 30									
2. 56	36. 0	1. 22	*1364	11. 53	*03382	21. 0	59. 6	60. 0	20. 36	26. 40									
3. 9	36. 0	2. 12	*1358	15. 42	*03413	22. 0	59. 2	60. 0	22. 14	30. 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.	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.		
May 16 22. 36 23. 59	20. 30. 30 33. 50																		
May 17 0. 0 1. 39 3. 33 6. 53 8. 3 8. 26 9. 9 9. 17 9. 44 10. 13 10. 26 10. 56 11. 12 11. 36 12. 28 12. 53 13. 10 13. 20 13. 47 14. 16 14. 47 15. 6 15. 23 15. 38 15. 42 16. 22 16. 28 17. 1 17. 9 17. 26 17. 32 17. 44 18. 10 18. 38 18. 45 18. 54 19. 21 19. 29 19. 42 19. 45 20. 4 20. 15 20. 23 20. 40 20. 58 22. 36 23. 59	20. 33. 50 35. 5 35. 10 31. 40 31. 35 30. 40 30. 50 30. 10 30. 15 29. 50 30. 20 29. 55 30. 55 29. 55 29. 30 28. 55 30. 45 30. 25 26. 15 26. 5 27. 40 27. 5 27. 35 27. 25 27. 0 *** 26. 10 26. 30 25. 25 26. 5 24. 50 25. 25 25. 0 25. 0 23. 35 24. 10 23. 10 24. 0 23. 25 23. 40 25. 30 25. 20 31. 55 35. 30	May 17 0. 0 0. 22 0. 42 0. 54 2. 41 2. 45 3. 41 4. 12 5. 12 6. 41 7. 6 7. 40 7. 44 8. 31 9. 26 9. 51 11. 12 12. 45 13. 23 14. 34 14. 44 15. 13 16. 22 16. 40 17. 11 18. 20 18. 56 20. 11 20. 49 22. 20 23. 11 23. 42 23. 59	May 17 0. 0 4. 56 10. 24 13. 10 13. 41 16. 24 17. 16 18. 30 19. 25 23. 59	May 17 0. 0 1. 0 2. 0 3. 0 9. 0 21. 0	58. 7 59. 3 59. 2 59. 1 60. 5 57. 7	60. 5 60. 0 60. 1 60. 8 59. 2	May 18 0. 0 0. 23 1. 48 2. 45	20. 35. 30 37. 10 39. 45 38. 45	May 18 0. 0 0. 23 0. 45 1. 26	May 18 0. 0 2. 58 5. 16 5. 27	May 18 1. 0 3. 0 9. 0 21. 0	58. 7 58. 9 59. 4 58. 8	59. 8 60. 1 60. 5 60. 4	May 18 3. 2 3. 9 3. 21 3. 26 3. 32 3. 56 4. 13 4. 20 4. 25 4. 56 5. 10 5. 20 5. 46 6. 5 6. 21 6. 58 7. 51 8. 8 8. 25 9. 10 9. 24 9. 38 9. 50 10. 10 10. 43 10. 53 11. 8 11. 44 11. 48 11. 55 11. 59 12. 10 12. 30 12. 54 13. 37 13. 51 14. 26 14. 48 15. 11 15. 35 16. 1 16. 23 16. 31 17. 10 17. 20 18. 4 18. 14 18. 33 19. 1 19. 8 19. 17 19. 23 19. 30 20. 0 20. 14 20. 20 20. 30	20. 39. 15 38. 30 39. 10 38. 25 38. 55 38. 0 39. 0 38. 55 37. 40 34. 0 34. 45 33. 50 34. 10 33. 15 32. 5 31. 20 32. 0 31. 25 31. 50 30. 25 31. 10 30. 20 30. 45 29. 40 30. 0 29. 25 30. 55 29. 10 29. 40 28. 50 29. 40 28. 50 30. 20 29. 55 31. 10 28. 45 25. 45 24. 55 26. 5 25. 5 26. 40 26. 10 25. 40 24. 25 25. 20 *** 25. 25 26. 35 26. 40 25. 55 27. 25 26. 45 26. 50 24. 30 27. 0 26. 45 25. 25 27. 0	May 18 1. 56 2. 25 2. 40 2. 55 3. 11 3. 17 3. 26 3. 35 3. 42 3. 55 4. 3 4. 6 4. 9 4. 20 4. 36 5. 15 5. 26 5. 51 6. 10 6. 12 6. 25 6. 55 7. 3 7. 12 7. 25 7. 44 8. 6 8. 33 8. 41 8. 50 9. 8 9. 20 9. 41 9. 44 10. 12 10. 54 11. 10 11. 25 11. 41 11. 44 11. 57 12. 4 12. 13 12. 35 12. 49 13. 12 13. 56 15. 41 16. 14 16. 30 17. 34 18. 17 19. 11 19. 35 19. 55 20. 20	May 18 5. 53 9. 2 11. 19 12. 44 13. 55 16. 4 21. 19 23. 59	May 18 0. 3437 0. 3420 0. 3416 0. 3400 0. 3363 0. 3378 0. 3340 0. 3332	May 18 h m o o

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
May 18		May 18								May 19							
20. 36	20. 26. 45	20. 31	·1365							11. 40	20. 29. 0	13. 25	·1371				
20. 45	27. 55	20. 33	·1364							11. 49	27. 30	13. 44	·1373				
20. 58	28. 0	20. 48	·1366							12. 2	27. 55	14. 6	·1368				
21. 9	26. 50	21. 11	·1364							12. 10	28. 55	14. 16	·1372				
21. 43	28. 25	21. 29	·1364							12. 13	28. 0	14. 22	·1371				
22. 55	34. 25	22. 11	·1355							12. 26	27. 30		***				
23. 37	35. 25	22. 51	·1358							12. 35	29. 10	15. 59	·1372				
23. 59	35. 20	22. 59	·1356							12. 57	25. 20	17. 22	·1367				
		23. 15	·1360							13. 8	25. 25		***				
		23. 26	·1358							13. 20	27. 0	18. 44	·1369				
		23. 42	·1361							13. 27	27. 0	18. 55	·1365				
		23. 59	·1357							13. 40	28. 25	19. 12	·1369				
										13. 51	28. 0	19. 56	·1360				
May 19		May 19		May 19		May 19			14. 7	29. 45	20. 26	·1359					
0. 0	20. 35. 20	0. 0	·1357	0. 0	·03332	1. 0	59. 7	62. 1	14. 18	29. 45	20. 42	·1364					
0. 30	36. 0	0. 30	·1360	0. 40	·03343	3. 0	60. 0	61. 0	14. 24	29. 0	21. 25	·1359					
0. 55	36. 55	0. 43	·1361	3. 48	·03438	9. 0	60. 1	62. 1	14. 36	29. 10	21. 54	·1364					
1. 6	36. 30	1. 12	·1361	4. 9	·03424	22. 0	59. 6	60. 0	15. 4	28. 15	22. 36	·1366					
	***	1. 24	·1366	4. 28	·03462				15. 40	28. 30	22. 59	·1364					
1. 53	38. 30	1. 40	·1371	4. 41	·03452				15. 54	28. 10	23. 23	·1372					
	***	1. 44	·1368	5. 5	·03480				16. 37	27. 0	23. 44	·1364					
2. 40	39. 5	2. 20	·1371	5. 22	·03470				17. 4	27. 30	23. 56	·1367					
2. 47	39. 50		***	6. 27	·03480				17. 26	***	23. 59	·1366					
2. 51	39. 20	2. 54	·1381	6. 48	·03468					26. 25							
3. 7	38. 25	2. 57	·1373	7. 12	·03482					***							
3. 12	39. 30	3. 22	·1381	10. 34	·03464				17. 54	27. 10							
3. 23	39. 40	3. 39	·1364	11. 30	·03443				18. 0	25. 25							
3. 44	43. 20	3. 50	·1376	12. 41	·03440				18. 7	26. 5							
3. 56	43. 20	3. 57	·1372	12. 55	·03424				18. 29	26. 10							
4. 10	40. 20	4. 11	·1355	14. 56	·03440				18. 32	24. 0							
4. 16	40. 0	4. 26	·1379	17. 36	·03437				18. 41	24. 15							
4. 28	41. 10	4. 41	·1369	19. 29	·03416				18. 44	25. 20							
4. 40	39. 50	5. 4	·1394	19. 35	·03422				18. 50	24. 10							
4. 43	40. 35	5. 19	·1372	23. 59	·03400				18. 58	26. 10							
4. 52	40. 20	5. 27	·1367						19. 7	25. 10							
4. 59	41. 15	6. 14	·1388						19. 17	24. 50							
5. 10	41. 0	6. 15	·1386						19. 26	27. 15							
5. 21	39. 0	6. 35	·1396							***							
5. 37	38. 5	6. 53	·1384						20. 18	27. 25							
5. 54	35. 40	7. 12	·1394						20. 40	29. 45							
6. 23	34. 10	7. 34	·1384						20. 52	29. 40							
6. 31	34. 30	7. 58	·1382						21. 0	28. 30							
7. 9	31. 55	8. 33	·1375						21. 15	28. 10							
7. 25	32. 25	8. 45	·1378						23. 15	33. 55							
7. 53	31. 55	9. 0	·1381						23. 42	33. 5							
8. 9	32. 0	9. 22	·1375						23. 55	33. 50							
8. 16	30. 45	9. 43	·1380						23. 59	33. 50							
8. 58	31. 15	9. 56	·1375														
9. 14	28. 5	10. 26	·1377						May 20		May 20		May 20				
9. 25	27. 40	10. 41	·1383						0. 0	20. 33. 50	0. 0	·1366	0. 0	·03400	1. 0	60. 2	61. 7
9. 47	29. 40	10. 55	·1381						0. 13	33. 25	0. 12	·1364	0. 23	·03410	9. 15	60. 4	62. 1
9. 57	29. 25	11. 16	·1387						0. 26	34. 40	0. 26	·1368	6. 41	·03472	21. 0	59. 2	61. 0
10. 6	30. 10	11. 27	·1383						0. 46	34. 30	0. 47	·1366	9. 42	·03478			
10. 26	30. 20	11. 54	·1380						1. 23	35. 25	1. 12	·1370	10. 12	·03457			
10. 42	29. 55	12. 22	·1383						3. 23	33. 25	1. 43	·1370	13. 45	·03443			
10. 58	31. 0	12. 36	·1380						3. 59	33. 25	2. 11	·1374	18. 54	·03405			
11. 12	30. 40	12. 54	·1383						4. 29	32. 40		***	20. 36	·03407			
11. 26	29. 0	13. 10	·1376						4. 57	32. 50	3. 41	·1375	23. 59	·03378			

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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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
May 20		May 20															
6. 9	20. 31. 40	4. 10	•1378 ***														
7. 30	31. 50																
7. 53	31. 40	4. 41	•1377														
8. 26	32. 5	5. 36	•1382														
9. 33	31. 0	6. 13	•1380														
9. 54	31. 20	6. 42	•1383														
10. 2	30. 50	6. 50	•1380														
11. 58	30. 20	7. 0	•1383														
12. 20	29. 50	7. 14	•1380														
12. 40	29. 45	9. 12	•1380														
12. 50	30. 15	9. 55	•1375														
12. 55	29. 40	10. 47	•1376														
13. 21	28. 55	12. 44	•1374														
14. 14	29. 30	12. 52	•1377 ***														
14. 57	28. 20																
15. 14	30. 0	15. 24	•1377														
15. 38	28. 30	15. 40	•1374														
15. 56	29. 50	16. 11	•1380														
16. 28	27. 55	17. 13	•1376														
16. 56	28. 0	17. 55	•1380														
17. 26	27. 50	18. 55	•1376														
17. 37	27. 0	19. 9	•1377														
17. 46	27. 0	19. 56	•1374														
18. 3	26. 5	20. 44	•1372														
18. 14	26. 5	20. 52	•1377														
18. 53	25. 0	21. 24	•1369														
19. 6	25. 35	22. 11	•1369														
19. 29	25. 10	22. 19	•1366														
19. 41	25. 40	22. 42	•1370														
19. 51	25. 0	22. 57	•1367														
20. 3	25. 55	23. 12	•1355														
20. 38	26. 10	23. 28	•1367														
20. 41	27. 15	23. 59	•1370														
20. 56	27. 40																
21. 14	32. 30																
22. 1	34. 10																
22. 12	34. 0																
22. 43	35. 25																
22. 55	35. 35																
22. 59	34. 10																
23. 44	34. 40																
23. 59	35. 5																
May 21		May 21															
0. 0	20. 35. 5	0. 0	•1370	0. 0	•03378	1. 0	59. 9	60. 8									
0. 43	36. 35	0. 41	•1373	1. 32	•03404	3. 0	59. 7	61. 8									
0. 55	37. 20	0. 56	•1376	1. 44	•03416	9. 0	59. 4	61. 0									
1. 32	37. 0	1. 10	•1373	3. 58	•03437	21. 0	58. 3	60. 0									
1. 38	32. 55	1. 36	•1372	8. 54	•03434												
3. 41	30. 5	1. 42	•1376	13. 43	•03417												
5. 41	29. 55	2. 15	•1371	16. 29	•03397												
7. 28	30. 15	3. 40	•1373	21. 20	•03343												
7. 32	31. 25	4. 11	•1379	22. 44	•03340												
8. 11	30. 55	4. 22	•1376	23. 59	•03316												
8. 32	31. 10	4. 56	•1378														
12. 0	30. 0	6. 55	•1376														
12. 12	30. 20	7. 11	•1380														
12. 26	30. 10	7. 26	•1377														
	***																
May 21		May 21															
13. 50	20. 30. 5	10. 26	•1379														
14. 8	29. 30	11. 52	•1379														
14. 21	29. 40	12. 21	•1382														
15. 41	27. 50	13. 10	•1378														
15. 56	27. 50	13. 39	•1380														
16. 13	28. 50	13. 50	•1376														
16. 43	27. 35	14. 53	•1380														
16. 55	28. 10	15. 20	•1378														
	***	15. 41	•1375														
17. 57	27. 30	17. 41	•1376														
18. 6	27. 50	18. 51	•1379														
18. 55	26. 30	19. 57	•1375														
19. 7	27. 0	20. 14	•1376														
	***	20. 51	•1373														
19. 48	25. 25	21. 11	•1368														
20. 11	25. 50	21. 41	•1367														
20. 44	25. 10	21. 50	•1362														
20. 53	26. 20	22. 0	•1362														
21. 17	26. 30	22. 22	•1356														
21. 53	28. 30	22. 41	•1359														
22. 5	30. 0	22. 56	•1366														
22. 9	30. 0	23. 11	•1364														
22. 50	34. 45	23. 23	•1372														
23. 8	33. 55	23. 42	•1368														
23. 21	35. 25	23. 59	•1376														
23. 41	34. 30																
23. 59	36. 20																
May 22		May 22															
0. 0	20. 36. 20	0. 0	•1376	0. 0	•03316	1. 0	59. 5	61. 1									
0. 12	35. 40	0. 11	•1379	3. 41	•03374	3. 0	59. 6	61. 2									
0. 18	36. 10	0. 18	•1375	5. 41	•03412	9. 0	59. 2	60. 8									
0. 25	35. 5	0. 23	•1377	9. 12	•03403	21. 0	58. 3	58. 7									
0. 58	36. 0	0. 26	•1370	9. 44	•03383	22. 0	58. 3	58. 8									
1. 8	37. 5	0. 33	•1372	19. 0	•03333	23. 20	58. 4	58. 9									
1. 53	36. 10	1. 22	•1384	21. 11	•03320												
1. 59	35. 30	1. 53	•1380	23. 25	•03283												

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.		
May 22		May 22							May 23		May 23								
15. 45	20. 30. 25	12. 23	*1374	h h		h h	o o	o o	23. 59	20. 34. 45	19. 20	*1376	b h		h h	o o	o o		
15. 57	29. 50	12. 41	*1376								20. 5	*1371							
16. 13	29. 50	12. 56	*1375								20. 27	*1372							
16. 44	28. 15	14. 57	*1377								21. 58	*1361							
16. 59	28. 20	15. 41	*1374								22. 22	*1356							
17. 54	27. 40	16. 22	*1378								22. 35	*1357							
18. 25	27. 55	17. 12	*1377								23. 40	*1367							
18. 28	29. 30	17. 27	*1380								23. 55	*1366							
18. 40	27. 20	18. 10	*1381								23. 59	*1368							
18. 54	30. 0	18. 42	*1375																
19. 8	30. 10	18. 54	*1365																
19. 26	29. 5	19. 6	*1361																
19. 59	28. 50	19. 27	*1370						May 24	20. 34. 45	0. 0	*1368	May 24	0. 0	*03269	May 24	0. 0	58. 1	58. 1
20. 43	27. 40	20. 18	*1375						0. 4	35. 25	0. 13	*1367	5. 13	*03316	1. 0	58. 6	58. 5		
21. 57	29. 30	21. 13	*1374						0. 12	34. 50	0. 22	*1370	8. 56	*03302	2. 0	58. 2	58. 7		
22. 32	31. 55	22. 4	*1369						2. 7	36. 35	0. 41	*1376	9. 0	*03297*	3. 0	58. 3	59. 1		
22. 40	32. 0	22. 26	*1370						2. 22	36. 0	0. 56	*1371		(†)	9. 0	58. 3	58. 9		
23. 50	34. 30	22. 45	*1366						3. 55	32. 45	1. 26	*1375	20. 56	*03300	21. 0	58. 8	60. 2		
23. 59	34. 40	23. 10	*1366						4. 4	33. 0	1. 43	*1373	23. 59	*03269					
		23. 14	*1371						5. 33	30. 55	2. 10	*1377							
		23. 44	*1364						6. 40	30. 5	3. 26	*1378							
		23. 59	*1366						7. 23	30. 5	3. 41	*1381							
									8. 0	30. 40	4. 8	*1378							
May 23		May 23		May 23		May 23			8. 11	30. 20	4. 14	*1380							
0. 0	20. 34. 40	0. 0	*1366	0. 0	*03300	0. 0	58. 7	60. 2	9. 10	30. 10	4. 53	*1377							
0. 41	35. 55	0. 44	*1373	1. 25	*03306	1. 0	59. 1	60. 7	9. 55	30. 0	4. 59	*1381							
0. 54	35. 30	1. 11	*1374	6. 10	*03383	2. 0	58. 8	60. 0	10. 28	28. 50	5. 14	*1378							
1. 0	36. 0	1. 20	*1373	9. 26	*03388	3. 0	59. 3	60. 2	10. 41	29. 20	5. 31	*1382							
1. 16	35. 30	1. 56	*1377	10. 11	*03368	9. 0	59. 7	60. 7	10. 46	28. 55	5. 41	*1380							
1. 26	35. 40	2. 10	*1375	19. 10	*03340	21. 0	58. 7	59. 0	11. 8	29. 50	5. 57	*1383							
4. 15	31. 40	2. 20	*1376	22. 10	*03303	22. 0	57. 1	57. 6	11. 54	26. 15	6. 11	*1381							
5. 41	30. 10	2. 36	*1379	23. 11	*03263	23. 0	57. 8	58. 1	12. 13	27. 40	6. 44	*1381							
7. 26	30. 20	3. 10	*1378	23. 59	*03269				12. 27	26. 45	6. 57	*1383							
8. 25	29. 55	3. 14	*1380						13. 18	27. 10	8. 43	*1379							
10. 50	30. 35	3. 44	*1377						13. 22	26. 55	9. 13	*1381							
11. 55	30. 0	3. 55	*1379						13. 33	27. 35		(†)							
12. 13	30. 25	4. 6	*1377							***	21. 0	*1363*							
13. 37	29. 40	4. 12	*1378						14. 24	28. 15	21. 43	*1366							
13. 42	30. 15	4. 23	*1376						14. 56	29. 30	22. 11	*1364							
14. 9	29. 40	5. 12	*1380						15. 36	28. 0	22. 43	*1366							
14. 21	29. 50	5. 47	*1378						15. 40	28. 15	23. 29	*1363							
14. 43	29. 20	7. 44	*1383						15. 58	27. 35	23. 59	*1365							
15. 0	29. 30	10. 32	*1376						16. 11	27. 20									
15. 29	27. 15	10. 44	*1379						16. 22	27. 55									
15. 56	28. 45	11. 57	*1376						16. 39	27. 55									
16. 41	27. 0	12. 25	*1379						16. 59	27. 20									
17. 16	26. 25	12. 56	*1379						17. 12	26. 10									
17. 48	27. 35	13. 14	*1375						17. 19	26. 40									
18. 6	27. 15	13. 49	*1380						17. 28	25. 20									
18. 23	26. 40	14. 13	*1376						17. 37	26. 10									
18. 39	25. 20	15. 26	*1378						17. 43	26. 0									
18. 54	25. 0	15. 56	*1374						18. 0	26. 40									
19. 15	25. 40	16. 42	*1381						19. 48	24. 5									
19. 32	24. 40	17. 20	*1374						20. 2	24. 30									
20. 56	25. 30	18. 0	*1377						20. 14	24. 20									
21. 56	28. 10	18. 8	*1376						20. 48	25. 45									
23. 40	34. 20	18. 29	*1379						21. 6	25. 50									
23. 57	34. 40	19. 11	*1374						22. 4	28. 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.

May 24. The Horizontal Force trace was lost from 9<sup>h</sup>. 13<sup>m</sup>. to 21<sup>h</sup>. 43<sup>m</sup>. and the Vertical Force trace was lost from 8<sup>h</sup>. 56<sup>m</sup>. to 20<sup>h</sup>. 56<sup>m</sup>. through a partial failure in the supply of gas.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.									
May 24 22. 51 23. 59	20. 31. 25 33. 55								May 26 20. 22 21. 26 22. 30 23. 30 23. 59	20. 26. 30 26. 35 29. 50 33. 55 35. 20	May 26 11. 19 11. 27 11. 41 12. 7 12. 15 13. 44 13. 54 14. 24 17. 43 19. 56 20. 20 20. 33 21. 23 21. 54 22. 20 22. 51 22. 56 23. 0 23. 25 23. 42															
May 25 0. 0 1. 59 3. 28 3. 44 5. 24 5. 30 6. 21 7. 29 7. 56 8. 16 11. 19 11. 34 11. 56 12. 36 12. 58 13. 25 13. 53 14. 9 15. 11 15. 53 18. 12 18. 32 19. 2 19. 51 20. 0 20. 13 20. 41 22. 8 22. 55 23. 59	20. 33. 55 36. 50 35. 0 35. 0 32. 20 32. 50 31. 5 30. 20 30. 55 30. 20 30. 20 30. 30 29. 45 29. 40 30. 35 30. 0 29. 55 30. 50 28. 50 29. 10 24. 30 24. 50 23. 50 24. 5 23. 30 24. 20 24. 30 29. 5 31. 30 33. 55	May 25 0. 0 0. 50 1. 21 1. 49 2. 8 2. 21 2. 41 2. 50 3. 44 5. 42 6. 26 7. 11 7. 29 8. 42 9. 0 10. 23 11. 42 11. 56 12. 51 13. 54 14. 11 15. 31 15. 43 18. 57 21. 17 21. 25 22. 41 23. 59	*1365 *1374 *1378 *1374 *1377 *1374 *1377 *1374 *1373 *** *1380 *1381 *1378 *1380 *1378 (†) *1382*	May 25 0. 0 5. 28 10. 57 18. 24 22. 21 23. 59	*03269 *03338 *03320 *03329 *03282 *03297	May 25 1. 0 3. 0 9. 0 21. 0	58. 8 59. 2 58. 6 58. 4	60. 2 60. 4 59. 4 59. 0	May 26 0. 0 0. 54 2. 30 4. 20 4. 39 6. 18 7. 51 7. 57 8. 18 9. 10 9. 16 11. 14 11. 40 11. 51 13. 47 14. 21 14. 53 18. 53 19. 13 19. 44 20. 11	20. 33. 55 34. 25 33. 55 32. 10 32. 10 30. 45 30. 55 30. 30 31. 10 30. 35 31. 5 30. 40 31. 10 31. 0 29. 30 29. 30 28. 55 25. 55 26. 0 25. 0 25. 20	May 26 0. 0 0. 25 0. 54 1. 13 2. 29 2. 59 3. 13 3. 27 3. 59 4. 27 5. 20 6. 5 6. 51 7. 14 7. 36 7. 52 8. 59 9. 13 9. 42 10. 3 10. 24	*1372 *1373 *1378 *1375 *1381 *1377 *1380 *1377 *1380 *1377 *1382 *1381 *1383 *1380 *1384 *1382 *1381 *1384 *1382 *1384 *1382 *1381	May 26 0. 0 4. 24 7. 12 8. 44 11. 53 15. 34 20. 12 23. 23 23. 59	*03297 *03383 *03406 *03360 *03398 *03417 *03403 *03360 *03363	May 26 1. 0 3. 0 9. 0 22. 0	59. 4 60. 1 59. 5 59. 8	61. 4 62. 2 61. 3 61. 7	May 27 0. 0 1. 0 2. 9 2. 56 3. 28 5. 0 6. 4 7. 29 8. 24 8. 33 8. 53 9. 22 9. 39 10. 13 10. 30 10. 46 11. 30 12. 14 12. 44 13. 33 13. 43 14. 0 15. 56 16. 22 16. 39 16. 53 17. 0 17. 26 17. 36 17. 41 17. 46 18. 5 18. 23 18. 39 18. 48	20. 35. 20 37. 25 36. 35 35. 0 33. 30 31. 15 30. 55 30. 0 30. 40 29. 40 28. 40 28. 40 30. 10 29. 35 30. 0 29. 30 30. 10 29. 45 30. 0 29. 10 29. 45 28. 55 27. 35 28. 20 28. 20 29. 10 27. 25 26. 0 26. 0 27. 5 25. 10 24. 0 26. 0 25. 30 24. 30	May 27 0. 24 0. 55 1. 20 1. 44 2. 30 3. 34 4. 41 6. 14 7. 53 8. 8 8. 34 8. 54 9. 11 10. 31 10. 41 10. 51 11. 26 11. 41 11. 54 15. 43 16. 25 17. 23 17. 40 17. 51 18. 11 18. 36 19. 42 19. 51 20. 11 20. 14 20. 44 20. 55	(†) *1373 *1376 *1374 *1378 *1376 *1379 *1383 *1385 *1381 *1385 *1383 *1386 *1381 *** *1378 *1381 *1377 *1377 *1379 *1377 *1378 *1376 *** *1379 *1376 *1380 *1377 *1382 *1370 *1372 *1366 *1368 *1356 *1357	May 27 0. 0 5. 12 10. 57 16. 50 21. 23 22. 12 23. 59	*03363 *03439 *03457 *03438 *03396 *03401 *03400	May 27 1. 0 8. 30 21. 0	60. 4 60. 7 59. 8	61. 6 62. 4 60. 7

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
May 27		May 27							May 28		May 28						
19. 14	20. 22. 40	21. 11	*1352						7. 28	20. 26. 40	7. 42	*1375					
19. 29	22. 25	21. 27	*1348						7. 46	29. 55	7. 53	*1378					
19. 39	23. 55	21. 30	*1353							***	8. 22	*1379					
19. 52	22. 10	21. 39	*1348						8. 40	30. 50	8. 56	*1378					
19. 59	22. 15	21. 42	*1350						8. 54	30. 30	9. 10	*1375					
20. 6	24. 20	21. 54	*1346						9. 55	30. 20	9. 56	*1373					
20. 12	23. 10	22. 26	*1349						10. 29	31. 10	10. 32	*1380					
20. 15	23. 25	22. 50	*1366						10. 59	29. 40	10. 42	*1381					
20. 27	22. 30	22. 59	*1361						11. 9	29. 55	10. 49	*1377					
20. 31	24. 10	23. 4	*1368						11. 18	29. 10	11. 11	*1373					
20. 35	22. 40	23. 11	*1361						11. 35	31. 15	11. 24	*1370					
	***	23. 37	*1350						11. 46	28. 15	11. 42	*1386					
20. 56	25. 10	23. 59	*1358						12. 13	34. 0	12. 12	*1374					
21. 8	25. 10								12. 25	32. 45	12. 35	*1384					
21. 31	29. 30								12. 34	29. 10	13. 0	*1381					
21. 37	29. 15								12. 55	26. 30	13. 12	*1384					
21. 39	30. 5								13. 9	28. 10	14. 6	*1361					
21. 44	29. 20								13. 38	24. 30	14. 27	*1376					
21. 53	31. 20								13. 58	27. 40	15. 0	*1376					
21. 59	31. 55								14. 3	30. 10	15. 20	*1371					
22. 9	33. 10								14. 20	31. 40	15. 55	*1367					
22. 28	33. 10								14. 28	31. 45	16. 22	*1373					
23. 6	37. 10								14. 48	26. 40	16. 33	*1368					
23. 25	37. 50								15. 18	25. 5	17. 35	*1370					
23. 40	37. 30								15. 23	26. 10	17. 56	*1366					
23. 55	38. 0								15. 39	25. 35	18. 23	*1369					
23. 59	37. 45								15. 58	25. 55	21. 15	*1358					
									16. 12	27. 0	21. 29	*1362					
May 28		May 28		May 28		May 28			16. 22	24. 55	22. 12	*1351					
0. 0	20. 37. 45	0. 0	*1358	0. 0	*03400	1. 0	60. 6	62. 0	16. 42	27. 0	22. 36	*1359					
0. 23	37. 0	0. 17	*1365	1. 23	*03408	3. 0	59. 9	62. 1	16. 47	27. 0	22. 47	*1353					
0. 32	37. 20	0. 27	*1370	1. 53	*03434	9. 0	60. 9	62. 0	17. 4	28. 25	23. 11	*1358					
0. 40	36. 10	0. 49	*1375	3. 13	*03457	21. 0	58. 8	59. 9		***	23. 30	*1361					
0. 43	37. 55	1. 12	*1365	4. 57	*03497				17. 51	26. 55	23. 59	*1366					
0. 53	37. 10	1. 25	*1368	6. 26	*03518				18. 10	27. 0							
1. 23	37. 0	1. 51	*1385	6. 43	*03505				18. 16	26. 10							
1. 45	39. 50	2. 0	*1384	7. 6	*03520				18. 44	26. 0							
1. 50	39. 0	2. 21	*1369	9. 21	*03496				19. 12	26. 35							
1. 56	39. 50	2. 43	*1356	11. 22	*03426				19. 16	25. 55							
2. 5	39. 0	2. 48	*1358	11. 53	*03400				20. 28	26. 25							
2. 21	39. 40	2. 56	*1354	12. 7	*03406				20. 48	27. 0							
2. 39	38. 30	3. 28	*1369	12. 26	*03371				21. 15	29. 10							
2. 44	39. 0	3. 41	*1365	12. 57	*03364				21. 23	29. 0							
2. 53	37. 55	4. 0	*1371	13. 50	*03352				21. 45	30. 55							
3. 3	38. 0	4. 17	*1383	14. 12	*03360				22. 11	31. 25							
3. 39	35. 50	4. 29	*1377	14. 44	*03335				22. 37	34. 0							
3. 56	35. 10	4. 41	*1380	16. 34	*03312				22. 42	33. 20							
4. 6	36. 5	5. 6	*1368	17. 30	*03306				23. 9	35. 30							
4. 12	36. 10	5. 25	*1380	19. 12	*03320				23. 59	36. 0							
4. 29	34. 0	5. 48	*1386	21. 8	*03303												
4. 40	34. 0	6. 10	*1384	22. 26	*03335				May 29		May 29		May 29		May 29		
5. 7	32. 5	6. 14	*1390	23. 59	*03338				0. 0	20. 36. 0	0. 0	*1366	0. 0	*03338	1. 0	60. 1	62. 4
6. 6	30. 30	6. 34	*1383						0. 28	36. 50	0. 39	*1370	3. 43	*03419	3. 0	60. 3	61. 8
6. 13	31. 15	6. 40	*1378						0. 38	37. 40	1. 6	*1366	5. 56	*03444	6. 30	60. 6	62. 0
6. 23	30. 10	6. 44	*1374						1. 14	38. 50	1. 38	*1362	7. 4	*03443	9. 0	58. 6	59. 5
6. 29	30. 10	7. 11	*1386						1. 39	38. 30	1. 53	*1366	9. 33	*03362	21. 0	57. 3	58. 0
6. 54	22. 40	7. 25	*1381							***	2. 32	*1374	10. 27	*03358	22. 0	57. 9	59. 5
7. 14	25. 15	7. 29	*1384						2. 29	38. 30	3. 27	*1371	12. 2	*03322	23. 0	58. 4	60. 0

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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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
May 29		May 29		May 29					May 30		May 30		May 30		May 30		
3. 1	20. 37. 20	4. 9	.1376	13. 13	.03315				3. 0	20. 34. 50	0. 44	.1360	5. 19	.03368	2. 0	59. 3	61. 0
4. 4	34. 30	4. 18	.1374	13. 54	.03280				3. 38	35. 0	0. 56	.1373	8. 54	.03384	3. 0	59. 8	62. 0
4. 23	34. 20	4. 29	.1378	14. 56	.03238				4. 42	33. 15	1. 16	.1379	9. 55	.03325	9. 0	57. 8	58. 0
5. 21	30. 50	4. 54	.1371	18. 5	.03222				4. 59	32. 55	2. 23	.1388	12. 12	.03322	21. 0	58. 8	60. 0
5. 51	31. 0	5. 15	.1376	23. 59	.03244				5. 4	33. 40	2. 38	.1383	15. 12	.03340	22. 0	59. 0	60. 6
6. 55	30. 0	5. 41	.1381						5. 25	32. 15	2. 45	.1394	18. 57	.03334	23. 0	59. 3	60. 8
8. 2	29. 50	5. 43	.1379						5. 34	31. 0	3. 11	.1397	22. 11	.03299			
9. 6	30. 20	5. 55	.1383						6. 9	29. 35	3. 28	.1389	23. 14	.03277			
9. 14	30. 55	6. 22	.1376						6. 22	28. 5	3. 43	.1382	23. 59	.03279			
9. 38	28. 0	6. 41	.1378						7. 42	29. 30	4. 43	.1382					
9. 54	27. 30	6. 55	.1369						7. 58	28. 55	4. 57	.1378					
9. 58	28. 5	7. 20	.1372						8. 51	30. 0	5. 25	.1377					
10. 13	28. 0	7. 50	.1368						9. 18	29. 10	6. 0	.1381					
10. 38	24. 40	9. 4	.1373						9. 30	29. 40	7. 14	.1385					
10. 49	21. 0	9. 20	.1380						10. 6	28. 25	7. 54	.1382					
11. 1	22. 0	10. 13	.1376						10. 28	29. 5	8. 8	.1377					
11. 12	25. 25	10. 35	.1371						10. 40	30. 30	8. 43	.1380					
11. 16	25. 15	10. 41	.1376						11. 3	28. 50	9. 11	.1374					
11. 43	29. 55	10. 46	.1374						11. 13	30. 0	9. 40	.1377					
12. 14	28. 45	11. 9	.1384						11. 37	29. 40	10. 41	.1376					
12. 25	29. 10	11. 27	.1363						12. 2	28. 0	10. 45	.1382					
12. 33	28. 50	12. 0	.1374						13. 12	28. 55	11. 11	.1377					
12. 40	29. 40	12. 41	.1369						13. 43	28. 25	11. 56	.1384					
12. 57	28. 30	13. 13	.1370						14. 51	29. 20	12. 30	.1377					
13. 11	29. 40	13. 18	.1374						15. 43	29. 25	13. 4	.1376					
13. 26	29. 50	13. 42	.1369						15. 56	28. 40	14. 11	.1379					
14. 0	33. 50	14. 40	.1376						16. 3	28. 40	15. 26	.1375					
14. 9	33. 50	15. 26	.1368						16. 20	27. 30	16. 44	.1379					
14. 19	32. 10	15. 55	.1370						16. 28	27. 30	20. 59	.1366					
14. 26	31. 50	16. 12	.1364							***	21. 12	.1360					
14. 55	27. 35	16. 43	.1368						17. 19	25. 30	21. 19	.1364					
15. 11	29. 10	17. 7	.1364						17. 32	25. 50	***	***					
15. 31	28. 35	17. 27	.1368							***	23. 27	.1362					
15. 55	28. 35	17. 56	.1368						18. 27	25. 25	23. 43	.1369					
16. 5	27. 10	18. 11	.1370						18. 33	24. 50	23. 59	.1372					
16. 32	26. 20	19. 13	.1360						18. 42	25. 55							
16. 40	27. 25	19. 29	.1363						18. 51	25. 20							
16. 51	27. 10	20. 19	.1355						19. 46	25. 20							
17. 10	25. 5	20. 42	.1356						20. 24	26. 0							
17. 32	25. 40	21. 43	.1351						20. 53	25. 55							
17. 49	24. 10	22. 0	.1339						21. 57	27. 55							
18. 1	24. 55	***	***						22. 59	31. 20							
	***	22. 31	.1337						23. 59	34. 25							
19. 4	24. 55	***	***														
19. 17	23. 15	23. 12	.1348						May 31		May 31		May 31		May 31		
19. 26	24. 50	23. 59	.1349						0. 0	20. 34. 25	0. 0	.1372	0. 0	.03279	0. 0	59. 5	61. 1
19. 48	24. 10								0. 29	35. 20	0. 12	.1374	1. 25	.03314	1. 0	59. 8	61. 9
20. 4	24. 20								0. 44	35. 20	0. 29	.1371	4. 11	.03397	2. 0	60. 2	62. 3
20. 17	23. 45	***	***						1. 13	35. 55	0. 56	.1378	7. 14	.03388	3. 0	60. 2	62. 4
	***								2. 26	35. 0	1. 9	.1380	19. 57	.03356	9. 0	59. 4	61. 0
20. 53	24. 55								2. 50	35. 10	1. 55	.1384	21. 11	.03343	21. 0	59. 7	60. 4
21. 56	27. 0								4. 33	32. 15	2. 13	.1391	23. 59	.03376			
23. 53	35. 15								6. 55	32. 5	2. 26	.1386					
23. 59	35. 30								7. 33	31. 20	2. 38	.1389					
									11. 54	29. 5	2. 43	.1387					
May 30		May 30		May 30		May 30			12. 18	29. 50	3. 20	.1389					
0. 0	20. 35. 30	0. 0	.1349	0. 0	.03244	0. 0	58. 7	60. 0	12. 27	30. 15	3. 25	.1387					
1. 43	37. 10	0. 26	.1350	2. 55	.03307	1. 0	58. 9	61. 0	12. 51	29. 30	3. 37	.1390					

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



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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
May 31		May 31							June 1		June 1						
13. 58	20. 29. 45	4. 9	•1386	h	h	h	h	o	o	18. 39	20. 24. 25	15. 42	•1385	h	h	h	h
14. 25	28. 0	4. 26	•1390							18. 59	23. 35	17. 11	•1384				
14. 46	27. 40	5. 15	•1385							19. 16	24. 10	19. 54	•1371				
15. 32	29. 50	5. 41	•1389							19. 33	23. 50	20. 10	•1373				
16. 38	26. 25	6. 56	•1390							20. 20	25. 50	20. 39	•1367				
16. 46	26. 30	7. 11	•1387							20. 43	25. 35	21. 12	•1365				
17. 10	25. 45	7. 34	•1389							21. 24	27. 20	21. 20	•1368				
17. 23	26. 0	8. 40	•1386							21. 49	27. 30	21. 40	•1366				
18. 43	24. 5	10. 26	•1388							22. 37	30. 50	22. 47	•1373				
19. 15	25. 10	10. 56	•1385							22. 56	31. 20	22. 56	•1373				
19. 40	24. 55	11. 42	•1389								(†)	(†)					
20. 56	26. 20	12. 14	•1386							June 2		June 2		June 2		June 2	
22. 10	29. 10	12. 43	•1388							1. 0	20. 36. 12*	1. 0	•1368*	1. 0	•03460*	1. 0	62. 7. 65. 0
22. 58	31. 40	13. 42	•1385							3. 0	34. 39*	3. 0	•1380*	3. 0	•03501*	3. 0	63. 0. 64. 1
23. 9	31. 35	13. 56	•1388							5. 39	29. 40	5. 38	•1378	5. 30	•03620	9. 0	63. 3. 64. 6
23. 23	32. 10	15. 26	•1382							7. 51	29. 30	5. 45	•1386	6. 39	•03655	21. 30	62. 4. 63. 8
23. 29	31. 45	15. 56	•1385							8. 26	29. 55	***	***	8. 48	•03614		
23. 50	32. 55	19. 23	•1380							8. 45	29. 20	7. 14	•1389	9. 11	•03618		
23. 59	32. 35	21. 27	•1369							9. 26	29. 10	7. 28	•1386	11. 40	•03546		
		22. 12	•1367							9. 41	29. 40	7. 57	•1389	12. 26	•03519		
		23. 24	•1374							9. 56	28. 35	8. 42	•1384	19. 40	•03529		
		23. 38	•1372							10. 5	29. 10	8. 57	•1388	20. 57	•03512		
		23. 43	•1376							10. 19	28. 35	9. 25	•1383	22. 39	•03522		
		23. 59	•1374							10. 58	28. 35	9. 41	•1387	23. 10	•03505		
June 1		June 1		June 1		June 1				11. 25	26. 20	9. 55	•1381	23. 59	•03523		
0. 0	20. 32. 35	0. 0	•1374	0. 0	•03376	1. 0	60. 5. 62. 1			11. 39	28. 0	10. 21	•1384				
0. 15	32. 45	0. 25	•1375	0. 26	•03381	3. 0	60. 6. 62. 1			11. 59	28. 10	10. 42	•1383				
0. 17	31. 20	0. 43	•1377	4. 16	•03442	9. 0	60. 1. 60. 8			12. 25	26. 40	11. 12	•1392				
0. 20	32. 0	1. 14	•1387	9. 6	•03460	21. 0	60. 3. 61. 1			12. 30	27. 5	11. 24	•1387				
0. 46	31. 25	1. 33	•1382	9. 42	•03438					13. 3	26. 25	11. 43	•1389				
1. 16	33. 5	1. 43	•1385	12. 12	•03403					13. 26	27. 25	11. 56	•1396				
1. 33	32. 10	2. 45	•1387	12. 52	•03406					15. 6	27. 35	12. 35	•1384				
1. 40	32. 30	2. 56	•1384	15. 55	•03403					16. 26	25. 50	13. 11	•1379				
3. 8	31. 25	3. 11	•1386	22. 43	•03384					17. 32	23. 40	17. 35	•1385				
3. 43	31. 45	3. 47	•1387		(†)					17. 56	23. 40	21. 4	•1370				
3. 58	30. 55	4. 11	•1384							19. 8	22. 30	21. 57	•1367				
5. 57	30. 0	4. 42	•1391							19. 13	23. 0	22. 12	•1363				
6. 20	30. 30	5. 3	•1389							19. 26	22. 40	22. 27	•1364				
7. 57	30. 20	5. 12	•1391							21. 33	25. 30	22. 41	•1366				
8. 9	29. 55	5. 24	•1388							22. 19	27. 50	23. 12	•1367				
10. 0	29. 30	5. 55	•1388							23. 59	33. 15	23. 59	•1366				
10. 39	27. 55	6. 5	•1391							June 3		June 3		June 3		June 3	
10. 56	28. 40	6. 26	•1394							0. 0	20. 33. 15	0. 0	•1366	0. 0	•03523	0. 0	63. 1. 63. 8
11. 17	27. 30	6. 33	•1392							1. 15	35. 20	2. 40	•1381	3. 43	•03554	9. 8	63. 6. 65. 0
11. 50	28. 20	6. 44	•1398							2. 7	35. 20	2. 56	•1380	5. 10	•03588	21. 0	63. 1. 65. 0
12. 11	26. 30	7. 12	•1388							2. 14	34. 30	5. 43	•1392	10. 54	•03590		
12. 32	26. 50	7. 32	•1392							2. 22	34. 50	6. 9	•1391	20. 19	•03557		
12. 47	30. 5	8. 40	•1388							4. 22	32. 10	6. 41	•1393	21. 27	•03536		
12. 59	30. 5	8. 56	•1393							6. 10	29. 45	8. 56	•1388	23. 59	•03543		
13. 28	28. 25	9. 26	•1389							7. 12	28. 40	9. 40	•1390				
13. 45	29. 10	10. 41	•1387							8. 38	29. 35	10. 7	•1387				
14. 44	27. 35	10. 54	•1392							9. 57	29. 0	10. 22	•1389				
15. 9	28. 15	11. 40	•1386							10. 25	29. 35	10. 45	•1387				
15. 36	26. 55	12. 6	•1393							10. 43	29. 35	11. 12	•1389				
15. 54	26. 55	12. 43	•1385							11. 12	30. 5	11. 26	•1394				
17. 24	24. 40	13. 25	•1388														
18. 23	24. 10	13. 55	•1383														

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
June 3		June 3							June 4		June 4						
11. 19	20. 28. 30	11. 43	.1389						16. 36	20. 25. 25	16. 9	.1384					
11. 43	27. 40	12. 54	.1384						17. 18	26. 15	17. 19	.1381					
11. 50	27. 50	12. 57	.1387						17. 29	25. 55	18. 12	.1381					
12. 11	27. 45	13. 44	.1382						17. 42	28. 20	18. 43	.1379					
12. 28	27. 40	16. 52	.1386						18. 16	25. 0	19. 3	.1380					
12. 42	26. 40	18. 12	.1384						18. 28	25. 0	19. 51	.1378					
12. 48	27. 40	18. 37	.1382						18. 39	24. 20	20. 6	.1381					
13. 6	27. 40	18. 41	.1382						18. 48	24. 50	23. 55	.1369					
13. 27	26. 20	19. 6	.1376						19. 8	24. 20	23. 59	.1370					
14. 10	27. 20	19. 21	.1378						19. 20	24. 20							
14. 25	28. 15	20. 15	.1371						19. 41	25. 20							
14. 38	27. 40	20. 59	.1373						19. 59	25. 20							
14. 59	27. 30	21. 21	.1368							***							
15. 17	27. 50	22. 10	.1369						20. 54	24. 25							
15. 48	26. 45	22. 41	.1374						20. 58	25. 0							
15. 53	27. 10	23. 56	.1373						21. 36	24. 55							
16. 3	26. 20	23. 59	.1374						22. 13	26. 30							
16. 13	26. 40								23. 59	31. 30							
17. 8	26. 10																
17. 29	25. 30								June 5		June 5		June 5		June 5		
	***								0. 0	20. 31. 30	0. 0	.1370	0. 0	.03337	1. 0	61. 0	62. 4
18. 12	25. 25								1. 56	34. 35	0. 56	.1380	0. 41	.03345	3. 0	61. 2	62. 7
18. 28	24. 30								2. 26	34. 0	1. 44	.1376	4. 25	.03424	9. 0	58. 8	59. 8
18. 40	24. 30								3. 26	34. 20	2. 46	.1382	6. 14	.03415	21. 0	58. 6	59. 0
18. 49	25. 35								4. 15	32. 40	3. 51	.1381	9. 15	.03377	22. 0	58. 2	58. 5
19. 28	25. 55								4. 27	33. 5	4. 27	.1392	16. 24	.03313	23. 0	58. 1	58. 3
19. 47	25. 25								4. 48	32. 40	4. 51	.1388	22. 26	.03257			
20. 8	25. 25								5. 3	31. 35	5. 8	.1380	23. 19	.03238			
20. 45	27. 0								5. 33	31. 50	5. 31	.1386	23. 59	.03238			
21. 13	26. 50								6. 44	29. 30	6. 35	.1393					
22. 10	28. 20								7. 43	29. 10	6. 51	.1391					
22. 38	30. 35								8. 21	29. 20	7. 4	.1395					
23. 46	34. 20								9. 10	28. 40	7. 42	.1393					
23. 55	34. 10								10. 13	29. 0	9. 56	.1390					
23. 59	34. 45								10. 59	28. 30	11. 11	.1385					
June 4		June 4		June 4		June 4			11. 26	28. 35	12. 26	.1389					
0. 0	20. 34. 45	0. 0	.1374	0. 0	.03543	1. 0	63. 6	65. 0	11. 45	27. 30	12. 56	.1384					
0. 56	35. 45	0. 45	.1380	0. 48	.03552	3. 0	64. 2	65. 0	12. 9	28. 25	16. 25	.1385					
1. 59	35. 20	0. 59	.1376	1. 12	.03544	9. 0	59. 9	61. 0	12. 39	26. 40	18. 41	.1381					
2. 16	36. 0	1. 59	.1381	3. 54	.03603	21. 0	60. 1	62. 0	12. 52	26. 40	19. 45	.1381					
4. 29	32. 30	2. 19	.1386	6. 19	.03618				13. 26	27. 40	21. 19	.1376					
6. 35	30. 30	2. 36	.1382	7. 38	.03605				13. 42	26. 40	23. 49	.1380					
7. 43	30. 30	3. 14	.1383	8. 19	.03592				14. 13	27. 15	23. 59	.1382					
8. 56	28. 25	3. 30	.1381	10. 11	.03537				14. 37	26. 25							
9. 30	29. 0	3. 56	.1380	13. 10	.03500				14. 58	26. 50							
9. 58	28. 20	4. 19	.1383	15. 43	.03464				15. 59	25. 5							
11. 16	28. 55	4. 50	.1385	19. 36	.03423				16. 10	25. 15							
11. 43	28. 25	5. 12	.1381	22. 58	.03361				16. 30	24. 30							
13. 8	28. 15	5. 35	.1385	23. 59	.03337				16. 44	24. 30							
13. 16	28. 55	7. 11	.1385						16. 59	23. 30							
13. 25	28. 25	7. 26	.1389						17. 44	23. 40							
13. 39	29. 55	8. 11	.1384						18. 26	25. 0							
14. 0	29. 0	9. 40	.1389						19. 31	24. 30							
14. 46	28. 5	9. 59	.1385						19. 56	25. 25							
14. 52	28. 15	13. 9	.1382						20. 16	24. 35							
15. 33	26. 40	13. 12	.1385						20. 40	25. 20							
15. 46	27. 10	13. 30	.1383						21. 0	26. 30							
									21. 33	26. 10							

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

## 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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
June 5									June 6								
22.30	20. 29. 10								23.49	20. 32. 55							
22.59	30. 30								23.59	32. 45							
23.16	32. 5																
23.59	33. 20								June 7		June 7		June 7		June 7		
		June 6		June 6		June 6			0. 0	20. 32. 45	0. 0	*1374	0. 0	*03352	0. 0	61. 4. 62. 4	
June 6		0. 0	*1382	0. 0	*03238	0. 0	59. 2	59. 5	0. 3c	32. 25	0. 36	*1370	0. 38	*03366	1. 0	61. 6. 63. 3	
1. 34	35. 20	0. 55	*1387	1. 44	*03296	1. 0	59. 8	61. 0	1. 30	33. 20	1. 20	*1374	2. 56	*03422	2. 0	61. 7. 63. 5	
2. 16	34. 45	1. 12	*1384	5. 12	*03360	2. 0	60. 5	60. 8	3. 32	32. 0	1. 45	*1371	4. 27	*03458	3. 0	61. 9. 64. 0	
2. 43	33. 15	1. 41	*1388	5. 31	*03352	3. 0	60. 3	60. 8	3. 56	30. 25	2. 17	*1376	6. 51	*03460	9. 0	62. 5. 64. 1	
3. 25	32. 30	1. 56	*1381	8. 23	*03360	9. 0	58. 9	58. 2	4. 26	29. 45	3. 42	*1379	9. 26	*03485	21. 0	62. 2. 63. 6	
3. 40	32. 55	2. 13	*1384	9. 34	*03317	21. 0	60. 7	62. 2	4. 41	30. 0	2. 11	*1381	13. 34	*03435			
3. 56	32. 20	2. 24	*1382	13. 28	*03341	22. 0	60. 7	62. 5	5. 9	29. 45	3. 49	*1368	19. 38	*03424			
4. 10	33. 0	3. 24	*1392	13. 55	*03336	23. 0	61. 1	63. 0	5. 19	30. 5		***	23. 59	*03420			
4. 27	32. 20	3. 44	*1401	15. 11	*03338				5. 26	29. 45	6. 0	*1390					
4. 41	32. 20	3. 56	*1388	15. 26	*03343				10. 49	29. 5	6. 44	*1386					
	***	4. 15	*1404	17. 4	*03356				11. 6	29. 30	9. 27	*1382					
5. 12	33. 10	4. 41	*1395	21. 11	*03344				11. 33	27. 45	9. 57	*1384					
5. 42	31. 25	4. 56	*1406	23. 59	*03352				11. 51	28. 15	10. 41	*1381					
5. 48	31. 25	5. 0	*1402						12. 29	27. 45	11. 4	*1384					
6. 16	30. 30	5. 12	*1408						12. 53	28. 5	11. 48	*1382					
6. 47	30. 35	5. 41	*1380						13. 3	27. 50	13. 14	*1378					
7. 43	30. 0	6. 40	*1389						13. 21	29. 5	17. 56	*1381					
8. 10	30. 10	7. 24	*1391						13. 30	27. 45	19. 13	*1377					
8. 51	29. 20	7. 45	*1395						13. 43	27. 30	20. 59	*1370					
9. 42	29. 40	7. 56	*1393						14. 40	27. 55	22. 10	*1369					
10. 4	30. 0	8. 11	*1395						15. 24	26. 0	23. 12	*1373					
10. 11	30. 20	8. 41	*1389						15. 37	26. 55	23. 59	*1376					
10. 41	28. 10	10. 4	*1390						16. 29	24. 20							
11. 36	28. 30	10. 25	*1388						16. 48	24. 20							
11. 49	29. 30	10. 58	*1387						16. 56	23. 30							
12. 4	29. 40	12. 10	*1389						17. 23	23. 30							
12. 32	29. 0	12. 18	*1386						17. 33	22. 50							
12. 45	27. 55	12. 34	*1389						17. 43	23. 25							
13. 16	29. 20	12. 54	*1386						17. 53	23. 10							
13. 26	28. 20	13. 36	*1391						18. 9	24. 0							
13. 36	28. 20	13. 49	*1399						19. 8	24. 0							
13. 43	30. 5	14. 11	*1394						20. 26	25. 0							
14. 13	27. 25	14. 41	*1387						22. 8	28. 30							
14. 38	27. 45	14. 55	*1389						22. 58	31. 5							
14. 58	26. 15	15. 40	*1382						23. 59	32. 20							
15. 25	23. 25	16. 35	*1386						June 8		June 8		June 8		June 8		
15. 43	25. 15	17. 12	*1380						0. 0	20. 32. 20	0. 0	*1376	0. 0	*03420	1. 0	63. 2. 65. 0	
15. 56	23. 40	17. 31	*1383						1. 39	33. 50	0. 42	*1374	5. 0	*03543	3. 0	63. 3. 65. 4	
16. 24	24. 40	19. 56	*1377						3. 10	32. 10	2. 6	*1374	9. 53	*03572	9. 0	64. 2. 66. 0	
	***	21. 22	*1374						4. 55	30. 30	2. 29	*1377	15. 42	*03397	21. 0	61. 2. 62. 0	
17. 10	22. 55	23. 13	*1374						6. 8	30. 0	3. 11	*1370	18. 4	*03334			
	***	23. 25	*1370						6. 36	28. 40	3. 17	*1373	21. 19	*03380			
17. 45	23. 0	23. 45	*1374						6. 56	29. 10	3. 33	*1371	23. 59	*03403			
17. 53	23. 50	23. 59	*1374						8. 9	29. 5	4. 25	*1379					
	***								9. 32	29. 40	5. 12	*1379					
19. 30	25. 30								11. 34	28. 45	5. 38	*1373					
20. 4	24. 25								13. 19	27. 30	5. 50	*1379					
22. 3	29. 40								14. 9	27. 25	6. 26	*1379					
22. 23	29. 40								15. 19	26. 20	7. 10	*1385					
23. 25	32. 15								15. 40	26. 30	7. 43	*1382					
23. 33	31. 50								16. 29	24. 55	7. 56	*1385					
									17. 18	23. 40	8. 19	*1383					

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
June 8		June 8							June 10		June 10						
19. 39	20. 23. 55	15. 11	.1379	" "	" "	" "	o	o	15. 6	20. 27. 20	18. 0	.1382	" "	" "	" "	h	m
20. 23	25. 0	18. 59	.1381						15. 26	27. 30	18. 41	.1373					
20. 35	24. 35		***						15. 43	26. 55	18. 55	.1373					
21. 47	27. 55	19. 56	.1378						15. 55	27. 30	19. 21	.1369					
22. 12	28. 40	21. 24	.1378						16. 16	26. 30	19. 42	.1365					
23. 52	33. 30	22. 14	.1374							***	20. 9	.1363					
23. 59	33. 45	23. 59	.1372						16. 54	25. 30	20. 13	.1367					
									17. 0	26. 0	20. 25	.1365					
June 9		June 9		June 9		June 9				***	20. 45	.1372					
0. 0	20. 33. 45	0. 0	.1372	0. 0	.03403	1. 0	63.5	63.9	17. 33	25. 0	21. 4	.1369					
2. 40	35. 0	1. 54	.1370	1. 11	.03414	3. 0	63.5	64.7	17. 51	25. 30	21. 39	.1368					
5. 46	28. 55	2. 12	.1374	5. 8	.03527	9. 0	64.4	65.9	18. 14	23. 55	21. 54	.1372					
7. 34	28. 5	2. 19	.1372	10. 26	.03586	11. 0	64.6	65.8	18. 23	24. 40	22. 3	.1369					
8. 10	28. 25	2. 26	.1375	16. 40	.03579	21. 20	64.5	66.1	18. 34	22. 25	22. 30	.1373					
8. 59	27. 30	3. 18	.1372	19. 36	.03582					***	22. 44	.1368					
9. 54	28. 30	5. 45	.1382	21. 33	.03543				18. 51	24. 10	22. 59	.1365					
10. 26	27. 20	8. 12	.1387	23. 59	.03597				19. 11	22. 35	23. 30	.1371					
10. 54	28. 30	8. 55	.1383						19. 26	22. 45	23. 59	.1370					
11. 21	28. 50	11. 44	.1375						19. 28	22. 0							
12. 53	28. 20	15. 12	.1378						19. 39	22. 0							
13. 18	28. 30	18. 10	.1373						19. 57	23. 30							
15. 15	27. 5	20. 0	.1364						20. 10	25. 55							
15. 32	27. 20	21. 8	.1366						20. 15	25. 20							
16. 46	25. 20	21. 55	.1362						20. 22	25. 50							
16. 54	25. 50	22. 12	.1367						20. 26	25. 30							
16. 59	24. 35	22. 30	.1363						20. 40	28. 25							
17. 8	25. 0	23. 15	.1368							***							
18. 55	21. 30	23. 18	.1367						21. 9	29. 30							
19. 24	21. 45	23. 59	.1366						21. 44	28. 30							
21. 21	26. 5								22. 2	29. 35							
21. 51	27. 50								22. 14	29. 20							
21. 57	29. 20								22. 49	31. 20							
22. 26	30. 5								22. 55	30. 40							
23. 59	35. 10								23. 41	34. 10							
									23. 59	34. 5							
June 10		June 10		June 10		June 10			June 11		June 11		June 11		June 11		
0. 0	20. 35. 10	0. 0	.1366	0. 0	.03597	0. 15	65.7	67.1	0. 0	20. 34. 5	0. 0	.1370	0. 0	.03491	1. 0	64.2	65.8
0. 39	36. 10	1. 26	.1368	0. 58	.03638	6. 30	66.1	68.0	0. 54	34. 10	0. 11	.1371	1. 26	.03519	3. 0	64.1	65.0
1. 39	36. 10	2. 15	.1364	3. 42	.03672	9. 10	64.1	66.0	0. 59	35. 30	0. 41	.1370	5. 36	.03591	9. 0	63.9	64.5
2. 23	35. 10	2. 38	.1368	7. 40	.03698	21. 0	63.0	64.0	1. 8	35. 10	0. 56	.1375	9. 26	.03565	21. 0	61.7	63.0
2. 29	35. 25	3. 35	.1374	12. 26	.03597				1. 31	37. 50	1. 0	.1381	11. 4	.03483			
4. 34	31. 45	3. 57	.1373	17. 27	.03502				1. 44	36. 5	1. 11	.1378	11. 56	.03407			
5. 22	30. 40		***	20. 42	.03513				1. 59	36. 40	1. 33	.1385	12. 24	.03411			
6. 4	30. 15	6. 22	.1386	23. 59	.03491				2. 15	36. 0	1. 51	.1368	17. 23	.03338			
6. 17	29. 55	6. 34	.1390						2. 24	36. 15	2. 0	.1369	22. 5	.03366			
8. 11	28. 40	8. 55	.1393						2. 43	35. 10	2. 15	.1362	22. 58	.03349			
9. 51	29. 30	11. 11	.1387						3. 25	33. 55	2. 29	.1367	23. 59	.03355			
10. 43	28. 30	11. 22	.1382						3. 39	34. 25	2. 55	.1363					
11. 6	28. 30	11. 42	.1386						3. 56	34. 25	3. 25	.1370					
11. 32	27. 40	12. 8	.1387						4. 10	33. 5	3. 42	.1380					
12. 0	27. 40	12. 12	.1384						4. 26	32. 5	4. 5	.1387					
	***	12. 41	.1387						4. 44	32. 5	4. 28	.1374					
12. 59	27. 20	13. 22	.1379						6. 39	28. 20	4. 54	.1384					
13. 16	27. 40	13. 49	.1383						7. 25	28. 30	5. 18	.1384					
13. 26	27. 10	14. 6	.1380						7. 49	27. 40	6. 20	.1379					
13. 54	27. 40		***						8. 18	28. 20	7. 0	.1386					
14. 3	27. 30	16. 41	.1383						8. 46	28. 20	7. 15	.1381					
14. 29	27. 40	17. 30	.1379														

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.
June 11 9. 26	20. 24. 5 ***	June 11 7. 38	.1382						June 12 5. 13	20. 31. 25	June 12 7. 25	.1394	June 12 23. 59	.03215			
10. 8	24. 20	7. 55	.1379						5. 59	31. 10	7. 54	.1382					
10. 23	25. 40	8. 22	.1382						6. 26	29. 55	9. 43	.1381					
10. 41	25. 40	9. 15	.1376						6. 49	29. 45	11. 42	.1371					
10. 54	25. 40	9. 55	.1378						6. 56	28. 30	12. 14	.1381					
11. 14	24. 30	10. 43	.1372						7. 9	28. 35	12. 46	.1373					
11. 19	34. 10	11. 18	.1385						7. 23	27. 55	13. 23	.1390					
11. 19	34. 10	12. 22	.1374						7. 39	28. 10	13. 52	.1385					
12. 30	22. 0	12. 54	.1380						7. 58	26. 35	14. 12	.1398					
12. 51	22. 30	13. 38	.1373						8. 7	27. 15	17. 6	.1382					
13. 8	21. 40	16. 43	.1378						8. 24	25. 55	17. 25	.1375					
13. 44	24. 20	17. 0	.1382						8. 33	26. 10	19. 19	.1370					
13. 55	24. 20	17. 25	.1378						8. 52	25. 25	19. 41	.1373					
14. 19	25. 10	18. 12	.1367						9. 13	26. 0	20. 27	.1363					
14. 34	24. 10	19. 35	.1367						9. 39	25. 20	21. 13	.1363					
14. 59	26. 10	19. 45	.1373						9. 52	26. 10	22. 0	.1367					
15. 26	25. 20	20. 43	.1371						10. 10	23. 0	22. 43	.1366					
15. 39	25. 30	21. 0	.1374						10. 24	23. 10	23. 23	.1372					
16. 0	23. 40	21. 27	.1371						10. 53	19. 45	23. 59	.1382					
16. 8	23. 40	21. 38	.1374						11. 4	21. 5							
16. 53	20. 30	22. 50	.1376						11. 35	19. 40							
17. 0	21. 0	23. 32	.1370						12. 7	22. 10							
17. 32	19. 50	23. 45	.1374						12. 56	22. 20							
17. 51	21. 20	23. 50	.1373						13. 11	25. 0							
18. 7	21. 55	23. 59	.1378						13. 23	24. 0							
18. 13	21. 45								13. 49	19. 0							
18. 37	23. 35								14. 9	17. 40							
18. 58	22. 40								14. 26	17. 50							
19. 11	22. 55								14. 57	19. 40							
19. 30	21. 55								15. 8	17. 40							
19. 47	24. 15								15. 28	17. 20							
20. 8	23. 0								16. 10	22. 45							
20. 41	23. 0								16. 41	21. 5							
20. 57	24. 35								17. 9	22. 55							
21. 15	25. 35								17. 36	22. 40							
21. 26	25. 35								17. 47	23. 45							
22. 5	28. 40								17. 54	22. 55							
22. 58	30. 5								18. 0	24. 0							
23. 24	31. 0								18. 38	23. 45							
23. 35	30. 40								18. 54	24. 0							
23. 59	31. 20								19. 26	22. 50							
June 12 0. 0	20. 31. 20	June 12 0. 0	.1378	June 12 0. 0	.03355	June 12 1. 0	62. 6	63. 2	20. 12	25. 30	June 13 0. 0	.1382	June 13 0. 0	.03215	June 13 0. 0	59. 7	60. 0
0. 9	31. 30	0. 26	.1379	2. 26	.03427	3. 0	61. 8	62. 9	20. 32	25. 5	0. 55	.1381	3. 23	.03260	1. 0	60. 2	60. 6
0. 22	32. 30	0. 49	.1376	4. 18	.03438	9. 0	58. 6	59. 7	21. 9	27. 50	1. 14	.1386	7. 9	.03276	3. 0	59. 4	60. 0
1. 43	34. 35	1. 1	.1379	8. 52	.03363	21. 0	59. 1	59. 7	21. 39	28. 0	1. 39	.1396	9. 12	.03217	9. 0	58. 0	57. 0
2. 11	34. 20	1. 18	.1374	11. 43	.03303	22. 0	59. 2	59. 2	23. 32	35. 0	2. 6	.1394	13. 14	.03208	12. 35	58. 1	58. 3
2. 33	35. 15	1. 35	.1376	13. 0	.03262	23. 0	59. 6	60. 3	23. 59	35. 50	2. 21	.1406	14. 12	.03183	19. 0	58. 2	58. 2
3. 13	35. 5	1. 54	.1384	13. 41	.03228				June 13 0. 0	20. 35. 50	June 13 0. 9	.1381	June 13 3. 23	.03260	June 13 1. 0	60. 2	60. 6
3. 38	32. 20	2. 14	.1382	14. 11	.03220				1. 14	36. 45	0. 26	.1386	7. 9	.03276	3. 0	59. 4	60. 0
4. 9	30. 50	3. 11	.1395	15. 19	.03177				1. 39	36. 30	0. 51	.1396	9. 12	.03217	9. 0	58. 0	57. 0
4. 28	32. 5	4. 26	.1394	15. 42	.03180				2. 6	37. 0	1. 10	.1394	13. 14	.03208	12. 35	58. 1	58. 3
		5. 11	.1385	17. 26	.03163					36. 10	1. 43	.1406	14. 12	.03183	19. 0	58. 2	58. 2
		5. 56	.1396	20. 55	.03197					36. 30							
		6. 27	.1388	22. 26	.03193												

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
June 13		June 13		June 13		June 13			June 14		June 14		June 14		June 15		
2. 40	20. 35. 35	2. 12	.1399	15. 23	.03176	21. 0	59. 2	60. 1	7. 54	20. 29. 20	5. 25	.1393			0. 0	20. 30. 5	0. 0
3. 24	36. 5	2. 45	.1395	17. 28	.03147	22. 30	59. 7	61. 0	8. 22	28. 35	6. 20	.1388			0. 30	31. 50	0. 27
5. 7	33. 10	2. 56	.1397	21. 15	.03182	23. 0	59. 8	61. 0	8. 32	28. 45	6. 26	.1391			0. 38	32. 30	1. 36
5. 33	33. 45	3. 15	.1395	23. 59	.03196				9. 29	28. 0	6. 43	.1387			1. 6	33. 0	***
5. 56	32. 45	3. 34	.1398						11. 21	27. 45	8. 15	.1382			***	***	1. 51
6. 33	29. 30	3. 56	.1394						13. 8	28. 50	8. 42	.1383			2. 28	35. 55	2. 14
6. 43	29. 45	4. 35	.1395						13. 36	28. 20	9. 25	.1381			2. 54	35. 20	2. 41
7. 15	27. 30	4. 54	.1391						14. 3	28. 30	10. 43	.1385			3. 7	36. 10	2. 58
7. 29	27. 55	5. 24	.1398						14. 21	27. 50	11. 30	.1382			3. 33	36. 20	3. 21
7. 34	27. 25	5. 55	.1396						16. 6	26. 30	13. 56	.1385			4. 4	36. 0	3. 52
7. 59	28. 5	6. 4	.1391						16. 29	25. 20	17. 57	.1383			4. 36	34. 55	4. 26
8. 51	27. 25	6. 22	.1396						17. 4	25. 45	19. 13	.1376			5. 27	33. 30	5. 9
9. 12	28. 15	6. 40	.1395						17. 59	24. 55	20. 9	.1374			5. 41	33. 40	5. 20
9. 53	27. 0	7. 0	.1384						18. 26	23. 20	20. 18	.1377			6. 8	32. 20	5. 34
10. 26	27. 50	7. 41	.1391						***	***	21. 14	.1370			6. 15	32. 25	5. 50
10. 49	27. 0	8. 36	.1387						19. 25	23. 20	22. 30	.1367			7. 9	30. 55	6. 5
11. 21	27. 40	9. 3	.1390						19. 32	24. 10	23. 35	.1368			7. 26	31. 0	7. 12
11. 46	26. 20	9. 13	.1394						19. 50	23. 55	23. 59	.1372			7. 54	30. 20	7. 33
12. 6	26. 40	9. 40	.1389						19. 58	24. 5					7. 59	31. 5	7. 55
12. 23	28. 5	10. 11	.1391						20. 9	23. 20					8. 16	30. 30	8. 12
12. 29	28. 0	10. 43	.1385						20. 24	24. 10					8. 54	29. 10	9. 0
12. 41	27. 5	11. 20	.1391						20. 29	23. 25					9. 24	29. 20	9. 19
13. 8	26. 20	12. 25	.1390						21. 26	24. 20					9. 38	28. 25	10. 20
13. 26	27. 25	12. 53	.1386						21. 59	25. 55					9. 47	28. 35	11. 52
13. 33	26. 50	13. 41	.1383						22. 21	27. 10					10. 5	27. 50	12. 3
13. 39	27. 30	14. 14	.1388						22. 41	27. 20					10. 36	27. 50	***
13. 58	28. 10	14. 42	.1387						22. 50	27. 55					10. 54	28. 15	13. 10
14. 18	26. 0	15. 11	.1381						23. 49	29. 25							
14. 31	26. 25	15. 57	.1386						23. 55	30. 5							
14. 50	26. 15	17. 23	.1380						23. 59	30. 5							
15. 25	28. 50	18. 26	.1378														
	***	20. 29	.1366														
15. 53	28. 5	23. 19	.1369						June 15	20. 30. 5	0. 0	.1372	June 15	0. 0	.03260	1. 0	61. 6
16. 29	25. 40	23. 59	.1372						0. 30	31. 50	0. 27	.1377	0. 26	.03258	3. 0	61. 3	61. 8
16. 41	25. 20								0. 38	32. 30	1. 36	.1383	5. 54	.03357	9. 0	61. 7	62. 7
16. 48	24. 25								1. 6	33. 0	***	***	10. 12	.03368	21. 0	60. 6	61. 0
16. 56	25. 10								***	***	1. 51	.1386	15. 5	.03317			
17. 8	24. 20								2. 28	35. 55	2. 14	.1387	16. 53	.03283			
17. 16	25. 5								2. 54	35. 20	2. 41	.1392	17. 41	.03242			
17. 23	24. 30								3. 7	36. 10	2. 58	.1389	18. 29	.03263			
18. 13	24. 20								3. 33	36. 20	3. 21	.1391	21. 59	.03292			
18. 26	23. 45								4. 4	36. 0	3. 52	.1389	22. 42	.03280			
	***								4. 36	34. 55	4. 26	.1393	23. 59	.03315			
19. 43	23. 20								5. 27	33. 30	5. 9	.1392					
21. 6	24. 40								5. 41	33. 40	5. 20	.1394					
23. 34	33. 45								6. 8	32. 20	5. 34	.1393					
23. 59	34. 35								6. 15	32. 25	5. 50	.1396					
June 14		June 14		June 14		June 14			7. 9	30. 55	6. 5	.1394					
0. 0	20. 34. 35	0. 0	.1372	0. 0	.03196	0. 0	59. 9	62. 0	7. 26	31. 0	7. 12	.1395					
0. 59	34. 55	1. 12	.1375	2. 56	.03280	1. 0	60. 8	62. 1	7. 54	30. 20	7. 33	.1400					
1. 11	35. 25	1. 29	.1373	4. 56	.03327	2. 0	61. 1	62. 2	7. 59	31. 5	7. 55	.1399					
1. 55	35. 40	2. 8	.1384	9. 29	.03356	3. 0	61. 3	63. 0	8. 16	30. 30	8. 12	.1408					
2. 24	34. 30	2. 29	.1384	17. 25	.03242	9. 0	61. 6	62. 5	8. 54	29. 10	9. 0	.1403					
3. 26	34. 15	3. 0	.1390	19. 24	.03263	21. 0	60. 5	61. 0	9. 24	29. 20	9. 19	.1407					
4. 43	32. 10	3. 14	.1387	23. 59	.03260				9. 38	28. 25	10. 20	.1399					
5. 0	31. 30	3. 41	.1391						9. 47	28. 35	11. 52	.1395					
5. 14	31. 30	4. 56	.1394						10. 5	27. 50	12. 3	.1401					
6. 9	30. 0	5. 12	.1391						10. 36	27. 50	***	***					
									10. 54	28. 15	13. 10	.1402					

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

(c)

## 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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
June 15		June 15							June 16		June 16		June 16				
11. 36	20. 27. 20	13. 43	.1396						1. 26	20. 35. 25	1. 45	.1383	6. 50	.03413			
11. 42	27. 20	14. 11	.1388						1. 41	34. 35	2. 0	.1391	7. 12	.03400			
11. 51	28. 0		***						1. 48	35. 55	2. 22	.1386	7. 23	.03406			
11. 58	27. 5	15. 15	.1392						2. 16	34. 50	2. 36	.1395	7. 53	.03400			
12. 47	26. 30	15. 26	.1396						2. 25	35. 45	3. 10	.1383	8. 59	.03403			
13. 11	26. 45	16. 4	.1395						2. 38	35. 20	3. 21	.1389	10. 10	.03340			
13. 21	27. 35	16. 40	.1386						3. 8	35. 30	3. 45	.1388	12. 3	.03268			
	***	16. 55	.1390						3. 26	35. 5	3. 55	.1391	12. 12	.03275			
13. 39	28. 0	17. 11	.1400						3. 43	35. 10	4. 28	.1383	12. 38	.03246			
14. 1	26. 0	17. 29	.1398						4. 31	33. 40	4. 57	.1381	13. 22	.03244			
14. 13	26. 55	17. 59	.1390						4. 41	33. 40	5. 20	.1367	17. 50	.03145			
14. 19	26. 30	18. 54	.1391						4. 51	33. 5	5. 41	.1377	18. 57	.03136			
14. 41	27. 45	20. 22	.1376						5. 4	33. 35	6. 11	.1373	22. 31	.03074			
14. 49	27. 25	20. 43	.1372						5. 14	32. 55	6. 15	.1378	23. 59	.03093			
14. 59	27. 55	21. 19	.1365						5. 24	33. 5	6. 22	.1377					
15. 12	26. 5	21. 26	.1372						5. 38	31. 20	6. 45	.1389					
15. 24	27. 45	22. 10	.1362						5. 54	30. 25	7. 12	.1381					
15. 33	27. 20	22. 21	.1368						6. 9	30. 25	7. 33	.1391					
15. 51	27. 35	22. 50	.1349						6. 32	29. 30	7. 55	.1383					
15. 59	28. 5	23. 12	.1337						6. 56	30. 5	8. 11	.1386					
16. 10	26. 0	23. 49	.1342						7. 13	29. 40	8. 50	.1383					
16. 37	30. 5	23. 59	.1349						7. 41	29. 40	9. 11	.1376					
16. 42	30. 0								7. 53	28. 40	9. 45	.1385					
16. 51	31. 50								8. 2	28. 40	10. 14	.1376					
17. 4	33. 5								8. 25	26. 40	10. 41	.1380					
17. 12	32. 50								8. 39	26. 20	10. 56	.1378					
17. 39	27. 30								8. 44	26. 40	12. 7	.1384					
17. 45	26. 50								9. 1	25. 0	12. 20	.1397					
17. 55	26. 35								9. 10	22. 0	12. 41	.1388					
18. 9	24. 40								9. 26	21. 5	13. 8	.1384					
18. 20	25. 10								9. 51	25. 30		***					
18. 39	24. 10								10. 6	24. 25	15. 54	.1389					
18. 42	23. 20								10. 36	26. 5	17. 13	.1384					
18. 51	24. 5								10. 52	26. 20	17. 42	.1386					
19. 9	22. 45								11. 7	27. 25	17. 56	.1383					
19. 26	21. 55								11. 18	27. 25	18. 11.	.1385					
20. 6	21. 50								11. 29	26. 55		***					
20. 24	23. 5								12. 14	27. 50	20. 23	.1375					
20. 38	23. 0								12. 32	31. 15	20. 44	.1376					
20. 47	24. 0								12. 42	29. 15	21. 25	.1370					
20. 57	24. 5								13. 16	29. 5	21. 45	.1372					
21. 8	25. 0								13. 32	30. 0	22. 0	.1369					
21. 21	23. 55								14. 6	27. 40	23. 11	.1372					
21. 47	27. 25								14. 51	27. 50	23. 59	.1376					
22. 12	26. 55								15. 3	27. 0							
22. 36	28. 30								15. 16	27. 35							
22. 43	28. 30									***							
23. 26	32. 55								16. 0	26. 40							
23. 40	33. 10								16. 13	26. 40							
23. 47	34. 5								16. 56	25. 30							
23. 59	33. 55								17. 13	24. 10							
June 16		June 16		June 16		June 16			17. 26	24. 10							
0. 0	20. 33. 55	0. 0	.1349	0. 0	.03315	1. 0	61. 9 62. 8		17. 33	25. 30							
0. 16	34. 30	0. 15	.1364	0. 46	.03337	3. 0	62. 0 62. 9		17. 40	25. 5							
0. 21	33. 30	0. 24	.1361	5. 3	.03406	9. 0	59. 0 60. 2		17. 49	23. 20							
0. 39	34. 10		***	5. 19	.03397	22. 0	57. 3 57. 1		18. 4	25. 10							
0. 54	33. 55	1. 26	.1382	5. 28	.03407				18. 11	23. 40							
									18. 21	25. 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.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
June 16 h m	20. 23. 40								June 17 h m								
18. 24	23. 40								13. 50	20. 28. 0	15. 27	.1394					
18. 28	24. 35								14. 21	24. 35	16. 12	.1395					
18. 39	23. 20								14. 40	24. 30	16. 40	.1402					
19. 3	23. 45								14. 56	25. 25	17. 12	.1383					
19. 8	23. 10								15. 8	27. 20	17. 41	.1388					
19. 26	23. 40								15. 13	27. 10	17. 59	.1382					
19. 28	22. 55								15. 23	26. 20	18. 55	.1382					
19. 48	23. 40								15. 39	25. 30		***					
20. 29	23. 55								16. 6	28. 0	22. 12	.1367					
20. 56	24. 40								16. 15	29. 40	23. 14	.1371					
21. 11	24. 10								16. 40	27. 35	23. 25	.1368					
21. 23	25. 0								16. 50	30. 25	23. 40	.1371					
21. 58	25. 55									***	23. 59	.1371					
22. 26	26. 0								17. 29	31. 55							
23. 6	28. 10								17. 41	30. 30							
23. 10	28. 40								18. 19	25. 55							
23. 14	28. 15								18. 55	23. 55							
23. 24	29. 55								19. 4	22. 20							
23. 59	31. 30								19. 16	22. 50							
										***							
June 17 o. 0	20. 31. 30	June 17 o. 0	.1376	June 17 o. 0	.03093	June 17 1. 0	58.4	58.4	19. 38	21. 55							
0. 58	33. 25	1. 6	.1374	2. 43	.03142	9. 15	58.8	59.2	19. 44	22. 50							
1. 4	32. 55	1. 41	.1386	3. 10	.03163	21. 0	58.9	59.7	19. 52	21. 30							
2. 6	35. 25	2. 4	.1378	4. 34	.03198				19. 56	23. 0							
2. 24	35. 25	2. 13	.1379	9. 8	.03223				20. 3	22. 0							
2. 43	34. 10	2. 25	.1386	9. 57	.03178				20. 8	22. 50							
3. 42	36. 50	2. 38	.1385	10. 58	.03180					***							
4. 10	34. 20	3. 12	.1407	11. 55	.03136				20. 56	23. 20							
4. 34	33. 50	3. 43	.1398	13. 9	.03127				21. 29	24. 25							
4. 51	34. 5	4. 15	.1380	13. 44	.03085				21. 58	26. 10							
5. 25	32. 55	4. 59	.1397	14. 14	.03082				22. 7	25. 55							
5. 43	32. 40	5. 20	.1396	16. 11	.03103				23. 26	30. 30							
5. 56	32. 0	5. 41	.1404	16. 41	.03094				23. 37	30. 20							
6. 4	32. 10	5. 56	.1398	17. 50	.03087				23. 59	31. 20							
6. 20	31. 0	6. 11	.1401	19. 42	.03143												
6. 42	31. 0	6. 15	.1396	23. 59	.03147				June 18 o. 0	20. 31. 20	June 18 o. 0	.1371	June 18 o. 0	.03147	June 18 1. 0	58.9	60.0
7. 6	29. 55	6. 43	.1406							***	0. 12	.1374	2. 57	.03188	3. 0	59.4	61.0
7. 15	30. 5	7. 41	.1399						1. 39	34. 20	1. 20	.1380	4. 59	.03226	9. 0	60.0	62.2
7. 43	29. 30	7. 55	.1402						1. 42	35. 0	1. 44	.1395	6. 30	.03257	21. 0	59.3	60.2
8. 39	29. 20	8. 39	.1399						2. 7	34. 10	1. 57	.1384	8. 43	.03260			
9. 12	29. 40	8. 43	.1403							***	2. 24	.1378	14. 55	.03173			
9. 47	28. 20	9. 13	.1400						2. 52	34. 20	2. 59	.1397	15. 36	.03140			
9. 56	25. 55	9. 40	.1396						2. 58	35. 0	3. 14	.1388	16. 26	.03157			
10. 19	24. 0	9. 53	.1399						3. 9	34. 30	3. 33	.1395	17. 3	.03141			
10. 28	22. 30	10. 29	.1390						3. 13	35. 0	3. 44	.1405	17. 15	.03156			
11. 9	27. 30	10. 45	.1393						3. 20	34. 30	4. 10	.1393	17. 53	.03150			
11. 32	25. 20	11. 6	.1389						3. 36	34. 25	4. 24	.1394	19. 56	.03197			
11. 51	25. 30	11. 11	.1393						3. 42	35. 25	4. 41	.1406	23. 59	.03217			
12. 11	22. 45	11. 45	.1404						4. 3	33. 55	4. 55	.1413					
12. 29	26. 0	12. 13	.1392						4. 12	34. 0	5. 6	.1410					
12. 33	25. 40	12. 22	.1399						4. 28	33. 30	5. 13	.1400					
12. 40	24. 20	12. 35	.1397						4. 41	34. 0	5. 27	.1393					
12. 53	24. 30	12. 45	.1387						4. 54	33. 30	5. 41	.1397					
13. 0	26. 25	13. 25	.1386						5. 30	31. 15	5. 50	.1394					
13. 9	28. 20	13. 38	.1393						5. 40	31. 15	6. 14	.1397					
13. 19	32. 40	13. 55	.1399						6. 12	30. 15	6. 29	.1404					
13. 33	34. 0	14. 36	.1400						6. 39	30. 15	6. 42	.1398					
			***							***							

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



## INDICATIONS OF THE MAGNETOMETERS

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.	Readings of Thermo- meters.		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.	Readings of Thermo- meters.		
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.	
June 18		June 18							June 19		June 19							June 20
h m	o ' "	h m		h m		h m	o	o	h m	o ' "	h m		h m		h m	o	o	h m
7. 4	20. 30. 0	6. 55	.1395						4. 26	20. 31. 25	2. 30	.1387						4. 26
7. 14	29. 20	7. 9	.1399						4. 42	31. 40	2. 36	.1386						4. 42
7. 26	29. 40	7. 14	.1395						4. 55	31. 25	2. 43	.1384						4. 55
8. 14	28. 10	7. 41	.1398						5. 4	32. 20	3. 10	.1392						5. 4
8. 40	21. 45	8. 22	.1394						5. 26	30. 10	3. 57	.1397						5. 26
9. 4	25. 30	8. 50	.1416						5. 36	30. 10	4. 23	.1394						5. 36
9. 29	24. 45	9. 34	.1394						5. 41	30. 30	4. 47	.1397						5. 41
9. 41	25. 10	9. 47	.1396						5. 48	29. 55	5. 6	.1406						5. 48
9. 48	24. 45	10. 49	.1390						6. 2	30. 45	5. 20	.1392						6. 2
9. 55	25. 35	13. 12	.1400						6. 30	30. 30	5. 34	.1388						6. 30
10. 14	24. 45	14. 56	.1392						6. 40	31. 5	5. 43	.1391						6. 40
10. 30	25. 40	15. 35	.1401						6. 49	30. 20	5. 52	.1388						6. 49
11. 24	25. 30	16. 14	.1393						6. 56	30. 55	6. 6	.1393						6. 56
11. 40	26. 30	16. 42	.1404						7. 22	27. 50	6. 11	.1390						7. 22
11. 45	25. 40	17. 26	.1390						7. 28	27. 40	6. 27	.1395						7. 28
12. 38	27. 40	18. 15	.1384						7. 53	28. 35	6. 41	.1400						7. 53
12. 49	29. 5	18. 54	.1384						7. 57	27. 55	6. 47	.1393						7. 57
13. 4	29. 5		***						8. 8	28. 35	6. 55	.1397						8. 8
13. 21	27. 40	19. 41	.1368						8. 24	27. 10	7. 20	.1392						8. 24
	***	19. 55	.1373						8. 47	29. 30	7. 42	.1396						8. 47
14. 23	26. 30	20. 12	.1379						8. 57	28. 50	7. 56	.1385						8. 57
14. 44	32. 0	20. 38	.1375						9. 8	29. 10	8. 2	.1388						9. 8
15. 0	34. 5	21. 6	.1378						9. 25	28. 50	8. 12	.1387						9. 25
15. 11	34. 0	22. 11	.1368						10. 10	29. 35	8. 27	.1394						10. 10
15. 32	27. 50	22. 35	.1370						11. 26	29. 30	8. 55	.1386						11. 26
15. 55	25. 40	22. 47	.1364						11. 49	28. 40	9. 43	.1383						11. 49
16. 25	25. 25	23. 6	.1366						12. 7	28. 55	10. 10	.1386						12. 7
16. 34	26. 10	23. 13	.1370						12. 44	28. 50	12. 45	.1383						12. 44
16. 56	25. 5	23. 43	.1366						12. 56	29. 20	13. 11	.1387						12. 56
16. 59	25. 30	23. 59	.1369						13. 56	27. 25	14. 42	.1386						13. 56
17. 9	24. 20								14. 12	29. 20	14. 56	.1381						14. 12
17. 22	26. 5								14. 26	29. 20	15. 47	.1382						14. 26
17. 33	26. 15								14. 33	28. 35		***						14. 33
17. 56	25. 0								15. 14	28. 35	16. 44	.1389						15. 14
18. 15	25. 10								15. 37	29. 40	17. 12	.1385						15. 37
18. 32	26. 0								15. 51	28. 45	19. 42	.1381						15. 51
18. 40	26. 40								16. 11	29. 5	21. 12	.1371						16. 11
19. 3	26. 0								16. 57	25. 55	22. 43	.1374						16. 57
19. 16	26. 10								18. 5	23. 35	23. 59	.1371						18. 5
19. 36	24. 25								18. 21	23. 45								18. 21
	***								18. 31	23. 10								18. 31
20. 4	26. 40								18. 53	24. 10								18. 53
20. 33	24. 25								19. 8	23. 30								19. 8
20. 53	23. 45								20. 26	24. 35								20. 26
21. 24	25. 5								20. 54	26. 0								20. 54
22. 4	24. 35								21. 33	27. 0								21. 33
23. 43	29. 50								21. 57	27. 0								21. 57
23. 59	29. 55								22. 29	28. 20								22. 29
June 19		June 19		June 19		June 19			23. 21	30. 25								23. 21
o. 0	20. 29. 55	o. 0	.1369	o. 0	.03217	1. 0	60.161.5		23. 40	31. 50								23. 40
o. 12	29. 55	o. 18	.1371	1. 10	.03224	3. 0	60.763.0		23. 59	32. 5								23. 59
	***	o. 41	.1374	5. 19	.03323	9. 0	60.863.0		June 20	20. 32. 5	o. 0	.1371	o. 0	.03296	o. 0	60.961.8		June 20
o. 53	32. 5	o. 54	.1379	8. 6	.03352	21. 0	60.361.0		o. 0	32. 5	o. 0	.1374	5. 54	.03380	1. 0	60.962.0		o. 0
1. 15	32. 5	1. 12	.1376	18. 12	.03316	22. 0	60.561.1		o. 39	32. 20	o. 12	.1374	6. 24	.03400	3. 0	61.362.4		o. 39
2. 38	33. 45	1. 26	.1378	23. 59	.03296	23. 0	60.561.0		o. 53	33. 0	o. 34	.1377	9. 9	.03384	9. 0	61.062.0		o. 53
3. 8	32. 10	1. 56	.1380						1. 8	32. 20	1. 1	.1376	12. 28	.03323	21. 0	61.462.6		1. 8
3. 39	32. 20	2. 11	.1383						1. 24	33. 15	1. 10	.1372						1. 24

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.			
June 20		June 20		June 20		June 20			June 21		June 21				June 21					
1. 44	20. 33. 25	2. 28	.1380	14. 26	.03307	22. 0	61. 5	62. 8	14. 32	20. 30. 10	15. 12	.1394								
2. 30	32. 10	2. 56	.1387	16. 9	.03318	23. 0	61. 6	63. 0	14. 39	30. 20	16. 19	.1392								
3. 26	32. 25	3. 18	.1383	18. 0	.03315				15. 10	27. 5	17. 12	.1393								
4. 13	31. 10	3. 36	.1387	19. 57	.03327				15. 41	24. 30	18. 57	.1384								
4. 25	31. 50	3. 57	.1383	23. 59	.03342				16. 53	23. 50	20. 12	.1377								
5. 33	29. 30	4. 20	.1386						17. 14	23. 10	21. 57	.1377								
5. 41	28. 25	4. 35	.1400						18. 29	23. 30	23. 3	.1380								
5. 50	28. 35	4. 56	.1404						18. 35	23. 10	23. 10	.1378								
6. 14	25. 10	5. 12	.1399						18. 56	24. 10	***	***								
6. 38	26. 55	5. 35	.1395						19. 6	23. 40	23. 59	.1386								
6. 41	26. 35	5. 41	.1399						20. 7	23. 40										
7. 44	29. 25	5. 56	.1393						20. 59	25. 10										
9. 19	29. 0	6. 10	.1388						21. 6	24. 5										
9. 59	29. 25	6. 25	.1397						22. 41	28. 55										
13. 47	27. 35	6. 44	.1391						22. 49	28. 55										
14. 6	28. 0	6. 55	.1394						23. 5	30. 25										
14. 42	27. 10	7. 25	.1389						23. 30	30. 40										
15. 9	27. 30	7. 53	.1391						23. 49	30. 55										
15. 39	25. 40	8. 12	.1386						23. 59	31. 30										
15. 54	25. 20	8. 25	.1389																	
16. 8	26. 30	8. 42	.1384						June 22	20. 31. 30	June 22	0. 0	.1386	June 22	0. 0	.03436	June 22	1. 0	63. 8	66. 0
16. 17	25. 50	9. 57	.1387						0. 9	32. 20	0. 12	.1382	0. 25	.03442	0. 25	.03444	3. 0	64. 2	66. 2	
16. 26	26. 30	10. 56	.1383						0. 17	31. 50	0. 26	.1393	0. 43	.03444	0. 43	.03444	9. 0	63. 9	66. 2	
16. 58	23. 45	11. 22	.1386						0. 22	32. 30	0. 41	.1395	0. 56	.03437	0. 56	.03437	21. 0	61. 6	62. 9	
17. 7	24. 35	12. 10	.1383						0. 35	32. 50	0. 52	.1405	1. 52	.03464	1. 52	.03464				
17. 25	23. 55	15. 22	.1389						0. 53	34. 10	1. 11	.1372	4. 23	.03496	4. 23	.03496				
17. 40	23. 55	16. 56	.1388						1. 6	31. 45	1. 27	.1382	6. 38	.03527	6. 38	.03527				
17. 51	25. 20	18. 11	.1381						1. 29	33. 20	1. 41	.1375	9. 41	.03526	9. 41	.03526				
17. 54	23. 40	18. 43	.1381						1. 41	32. 20	***	***	11. 57	.03424	11. 57	.03424				
18. 10	24. 35	***	***						2. 11	32. 40	2. 25	.1394	14. 34	.03377	14. 34	.03377				
19. 5	24. 20	19. 56	.1371						2. 21	31. 35	2. 35	.1393	17. 41	.03280	17. 41	.03280				
19. 22	24. 0	20. 19	.1373						2. 27	31. 40	2. 45	.1388	20. 24	.03334	20. 24	.03334				
19. 47	24. 50	20. 40	.1367						2. 36	30. 55	2. 52	.1402	23. 59	.03344	23. 59	.03344				
19. 54	23. 15	21. 10	.1369						2. 39	31. 50	3. 12	.1399								
20. 8	25. 25	21. 41	.1371						2. 48	31. 40	3. 38	.1404								
20. 21	26. 20	22. 8	.1370						***	***	4. 7	.1393								
20. 27	25. 40	22. 36	.1373						3. 6	32. 20	5. 12	.1387								
21. 47	26. 55	23. 59	.1370						3. 33	31. 20	5. 33	.1393								
22. 37	28. 15								4. 53	30. 40	5. 44	.1398								
23. 9	30. 0								5. 26	31. 0	5. 58	.1393								
23. 45	30. 55								6. 13	28. 35	6. 38	.1397								
23. 59	30. 55								6. 51	28. 50	7. 10	.1396								
June 21		June 21		June 21		June 21			7. 8	26. 20	7. 41	.1389								
0. 0	20. 30. 55	0. 0	.1370	0. 0	.03342	0. 0	62. 1	63. 8	7. 23	26. 10	8. 4	.1387								
1. 9	32. 15	0. 20	.1372	3. 42	.03436	1. 0	62. 7	64. 1	7. 56	28. 10	8. 4	.1387								
2. 23	31. 5	1. 35	.1377	5. 41	.03441	2. 0	62. 8	65. 2	8. 4	28. 0	8. 57	.1390								
3. 39	30. 25	3. 27	.1386	10. 14	.03498	3. 0	62. 8	64. 8	8. 26	29. 20	9. 23	.1383								
5. 26	28. 45	5. 26	.1386	14. 8	.03463	9. 0	64. 1	65. 9	8. 43	28. 40	9. 54	.1385								
6. 49	29. 40	6. 43	.1388	17. 43	.03415	11. 30	62. 8	64. 2	10. 12	29. 50	10. 25	.1380								
10. 17	29. 10	8. 8	.1389	20. 30	.03428	21. 0	62. 8	64. 7	11. 3	28. 35	10. 44	.1384								
11. 25	28. 50	9. 11	.1384	22. 44	.03416				11. 40	25. 10	11. 43	.1382								
11. 56	28. 25	9. 26	.1389	23. 59	.03436				11. 59	24. 5	12. 24	.1387								
12. 59	28. 55	10. 0	.1387						13. 10	25. 0	12. 55	.1386								
13. 24	28. 35	***	***						13. 34	26. 10	13. 19	.1377								
13. 30	27. 55	12. 11	.1392						13. 43	25. 45	14. 0	.1383								
13. 54	28. 25	13. 50	.1394						13. 53	26. 40	15. 4	.1381								
14. 10	27. 5	14. 21	.1390									.1389								

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.		
June 22		June 22							June 23		June 23								
13. 58	20. 25. 55	16. 45	*1391	h m		h m	o	o	15. 36	20. 23. 45	12. 42	*1403	h m		h m	o	o		
14. 43	28. 0	17. 30	*1384						15. 52	24. 30	12. 57	*1401							
14. 58	27. 40	17. 42	*1390						16. 8	24. 10	13. 25	*1404							
15. 10	26. 30	18. 12	*1390						16. 27	24. 45	14. 0	*1398							
15. 58	25. 0	19. 35	*1382						17. 5	23. 20	14. 57	*1388							
16. 6	25. 20	19. 44	*1384						17. 26	23. 30	15. 44	*1391							
16. 31	23. 40	20. 12	*1379						17. 36	24. 25	16. 27	*1393							
17. 8	22. 55	20. 50	*1382						17. 41	23. 55	17. 36	*1385							
17. 20	23. 30	21. 19	*1379						18. 10	24. 30	19. 11	*1382							
18. 21	23. 20	21. 30	*1382						18. 56	24. 20	19. 55	*1382							
18. 40	23. 55	21. 56	*1380						19. 36	24. 30	21. 42	*1376							
19. 3	23. 40	23. 59	*1391						20. 14	24. 30	22. 12	*1378							
19. 13	24. 20								21. 39	27. 50	22. 29	*1376							
19. 32	23. 50								23. 14	30. 25	23. 12	*1380							
19. 51	24. 30								23. 26	31. 35	23. 25	*1388							
20. 6	24. 30								23. 33	31. 20	23. 41	*1383							
20. 23	25. 45								23. 59	32. 25	23. 59	*1384							
20. 32	25. 35								June 24	20. 32. 25	0. 0	*1384	June 24	0. 0	*03389	June 24	1. 0	63.1	65.4
21. 11	26. 30								0. 19	32. 25	0. 56	*1386	2. 14	*03433	8. 30	64.0	65.6		
21. 56	29. 30								1. 36	34. 20	1. 15	*1385	5. 56	*03457	21. 0	60.7	62.9		
22. 53	30. 50								1. 47	33. 50	1. 41	*1390	8. 55	*03484					
23. 21	30. 50								2. 4	33. 15	2. 5	*1391	10. 38	*03414					
23. 29	31. 25								2. 8	34. 15	2. 12	*1397	12. 23	*03356					
23. 48	31. 30								2. 22	32. 50	2. 29	*1389	15. 40	*03268					
23. 59	32. 5								4. 12	30. 30	3. 20	*1393	17. 34	*03218					
June 23		June 23		June 23		June 23			4. 27	30. 55	3. 49	*1388	19. 52	*03244					
0. 0	20. 32. 5	0. 0	*1391	0. 0	*03344	1. 0	62.9	64.0	6. 7	29. 55	5. 55	*1394	23. 59	*03282					
0. 43	32. 40	0. 13	*1388	4. 19	*03435	3. 0	63.7	65.8	7. 5	29. 55	6. 21	*1390							
1. 8	33. 10	1. 14	*1392	9. 26	*03478	9. 0	63.8	66.0	8. 3	29. 20	8. 35	*1395							
1. 50	34. 0	1. 57	*1400	11. 7	*03414	22. 0	62.4	64.2	8. 57	28. 55	8. 43	*1387							
2. 56	33. 0	2. 12	*1395	14. 12	*03343				10. 6	28. 25		***							
3. 42	31. 50	2. 29	*1400	15. 13	*03357				10. 13	27. 45	10. 23	*1396							
4. 40	31. 50	2. 43	*1397	16. 53	*03354				10. 26	28. 0	10. 42	*1392							
5. 8	31. 5	3. 6	*1399	17. 40	*03338				10. 41	25. 25	12. 13	*1396							
7. 15	30. 10	3. 30	*1395	20. 56	*03367				10. 54	24. 10	12. 52	*1392							
7. 29	27. 25	3. 56	*1400	23. 59	*03389				11. 8	23. 50	13. 24	*1394							
8. 3	30. 20	4. 25	*1396						11. 39	25. 30	14. 46	*1396							
8. 40	29. 0	4. 51	*1398						12. 26	24. 40	15. 3	*1393							
8. 54	27. 30	5. 36	*1395						12. 39	25. 10	16. 35	*1398							
9. 41	27. 30	5. 47	*1393						12. 43	24. 55	19. 13	*1396							
9. 55	28. 25	6. 6	*1395						13. 6	26. 0	21. 20	*1380							
10. 26	27. 55	6. 27	*1400						13. 45	25. 50	22. 36	*1376							
10. 55	28. 30	6. 42	*1396						14. 26	25. 45	22. 54	*1378							
11. 8	27. 50	7. 4	*1402						14. 39	24. 35	23. 10	*1375							
11. 22	28. 20	7. 22	*1400						14. 53	25. 20	23. 25	*1378							
11. 54	27. 25	7. 43	*1406						15. 6	24. 25	23. 59	*1380							
12. 39	28. 10	8. 5	*1403						15. 28	25. 35									
13. 15	24. 25	8. 12	*1406						16. 41	23. 55									
13. 23	25. 0	8. 45	*1397						17. 19	23. 30									
13. 35	24. 10	9. 10	*1398						17. 37	23. 30									
13. 39	22. 40	9. 34	*1393						17. 41	24. 10									
13. 49	23. 5	9. 54	*1399						17. 53	23. 30									
14. 9	21. 30	10. 41	*1400						18. 24	24. 40									
14. 29	21. 0	11. 12	*1399						18. 29	23. 30									
14. 50	21. 30	11. 25	*1401						18. 40	24. 25									
	***	11. 57	*1397						18. 49	24. 5									
15. 11	23. 45	12. 24	*1397																

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.	
June 24 h m 20. 10	20. 24. 40								June 25 h m 23. 21	20. 33. 0								
20. 19	24. 25								23. 51	32. 40								
20. 34	24. 25								23. 59	33. 5								
21. 23	27. 20								June 26	20. 33. 5	June 26	0. 0	June 26	0. 0	June 26	1. 0	63. 0	
21. 39	27. 55								0. 11	34. 10	0. 41	.1384	0. 11	.03385	3. 0	64. 5	65. 7	
21. 54	28. 50								1. 9	35. 0	0. 57	.1384	4. 10	.03463	9. 0	64. 1	66. 0	
22. 2	28. 30								1. 30	35. 5	1. 7	.1387	9. 34	.03503	19. 0	63. 5	64. 0	
23. 0	32. 10								2. 26	33. 50	1. 57	.1391	15. 12	.03433	21. 0	63. 3	65. 7	
23. 11	32. 10								3. 1	33. 5	2. 14	.1396	17. 45	.03407	22. 0	63. 1	64. 5	
23. 37	33. 55								3. 22	32. 20	2. 45	.1392	19. 56	.03434	23. 0	63. 6	66. 0	
23. 59	34. 35								6. 56	29. 5	3. 6	.1395	22. 43	.03415				
June 25	20. 34. 35	June 25	.1380	June 25	.03282	June 25	1. 0	61. 9	63. 4	7. 40	28. 35	3. 25	.1393	23. 59	.03440			
0. 4	34. 45	0. 41	.1388	0. 30	.03297	3. 0	62. 7	63. 7	7. 49	29. 0			***					
0. 14	33. 50	1. 50	.1395	3. 53	.03363	9. 0	62. 9	65. 0	8. 14	26. 45	4. 51	.1394						
0. 22	34. 10	2. 25	.1392		(†)	21. 0	62. 1	63. 6	8. 36	28. 10	5. 6	.1399						
0. 39	33. 20	4. 11	.1395	9. 0	.03406*				9. 6	29. 0	5. 22	.1395						
0. 59	32. 20	4. 20	.1391	21. 0	.03353*				10. 14	29. 0	5. 59	.1397						
1. 26	32. 10	4. 48	.1395	22. 3	.03353				11. 6	28. 20	6. 55	.1397						
1. 41	32. 45	4. 57	.1392	22. 58	.03346				11. 33	27. 25	7. 19	.1395						
2. 56	31. 40		***	23. 59	.03363				11. 45	28. 0	7. 35	.1397						
4. 3	31. 25	7. 11	.1404						11. 57	27. 20	8. 8	.1392						
5. 7	30. 30	7. 22	.1400						12. 39	28. 20	8. 22	.1398						
7. 6	30. 20	7. 50	.1397						12. 59	28. 10	8. 33	.1394						
7. 30	29. 35	9. 42	.1397						13. 22	27. 0	8. 49	.1397						
9. 23	29. 20	11. 42	.1397						13. 56	27. 20	12. 6	.1392						
9. 33	28. 35		***						14. 10	28. 5	12. 14	.1389						
9. 45	28. 50	13. 12	.1392						15. 9	27. 35	12. 34	.1393						
10. 9	27. 30	14. 26	.1396						15. 14	26. 40	13. 26	.1389						
11. 9	28. 40	15. 26	.1391						15. 21	26. 55	14. 5	.1388						
11. 34	28. 0	16. 35	.1393							***	14. 20	.1392						
12. 7	26. 55	17. 49	.1386						16. 6	25. 35	17. 13	.1391						
12. 36	27. 20	19. 11	.1386						17. 13	22. 55	18. 20	.1383						
13. 25	26. 40	21. 44	.1377						17. 50	22. 10	19. 12	.1380						
14. 11	28. 0	22. 54	.1378						18. 6	22. 20	19. 42	.1383						
15. 7	26. 55	22. 57	.1375						18. 10	23. 50	20. 26	.1380						
15. 39	25. 40	23. 19	.1380						18. 15	21. 20	21. 13	.1382						
16. 19	25. 40	23. 59	.1384						18. 23	24. 40	21. 55	.1381						
17. 22	23. 5								18. 51	23. 40	22. 17	.1383						
17. 33	23. 40								19. 11	24. 20	22. 55	.1376						
17. 39	23. 25									***	23. 42	.1383						
18. 12	24. 35								19. 41	25. 50	23. 59	.1383						
18. 19	24. 20								20. 59	25. 20								
18. 28	25. 10								21. 9	25. 50								
18. 33	24. 35								21. 21	26. 0								
18. 54	25. 5								21. 45	27. 40								
19. 3	24. 40								22. 12	28. 30								
19. 16	25. 45								22. 29	29. 20								
19. 26	25. 20								22. 56	30. 5								
20. 19	25. 35								23. 14	32. 0								
20. 38	21. 15								23. 41	33. 25								
20. 42	21. 15								23. 59	32. 40								
22. 12	30. 55								June 27	20. 32. 40	June 27	0. 0	June 27	0. 0	June 27	0. 0	63. 6	65. 5
22. 26	32. 10								0. 22	33. 20	0. 27	.1388	6. 11	.03546	1. 0	64. 6	67. 0	
22. 41	32. 20								2. 54	32. 40	1. 52	.1393	11. 48	.03577	2. 0	64. 6	67. 0	
22. 55	33. 15																	
23. 4	32. 10																	

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.  
 June 25. The Vertical Force time-piece was not going from 3<sup>h</sup>. 53<sup>m</sup>. to 22<sup>h</sup>. 3<sup>m</sup>.

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
June 27		June 27		June 27		June 27			June 28		June 28						
3. 11	20. 33. 10	2. 0	*1386	12. 24	*03546	3. 0	64. 6	67. 1	16. 42	20. 25. 20	17. 12	*1391					
5. 6	31. 10	2. 12	*1394	23. 59	*03523	9. 0	65. 4	68. 1	17. 46	23. 0	19. 3	*1384					
5. 41	31. 20	2. 26	*1390			21. 0	64. 8	66. 8	18. 26	23. 0	20. 25	*1376					
7. 11	29. 50	4. 18	*1387			22. 0	65. 0	67. 2		***	20. 53	*1376					
7. 39	30. 5	4. 41	*1390			23. 0	65. 0	67. 3	19. 8	22. 10	21. 11	*1372					
8. 43	28. 5	5. 9	*1389							***		***					
8. 59	28. 30	5. 58	*1391						19. 54	22. 10	22. 10	*1379					
9. 26	27. 25	6. 12	*1388						20. 12	23. 30	22. 32	*1370					
9. 38	28. 0	6. 43	*1392						20. 29	22. 25	22. 53	*1367					
10. 26	25. 0	6. 56	*1390							***	23. 12	*1372					
11. 8	24. 45	7. 12	*1394						21. 3	25. 5	23. 34	*1368					
11. 39	25. 50	7. 20	*1392						21. 32	25. 30	23. 52	*1366					
11. 56	27. 45	7. 27	*1395						22. 12	28. 10	23. 59	*1369					
12. 23	25. 0	7. 52	*1391						22. 24	30. 10							
12. 55	24. 0	8. 2	*1394						22. 39	30. 10							
13. 8	24. 30	8. 15	*1392						22. 44	31. 10							
13. 22	24. 10	8. 41	*1392						22. 53	30. 40							
14. 13	26. 30	8. 45	*1388						23. 13	32. 55							
15. 20	26. 40	9. 0	*1394						23. 28	32. 50							
16. 0	25. 45	9. 12	*1392						23. 59	35. 5							
16. 9	26. 20	9. 24	*1387														
16. 42	25. 10	10. 12	*1392						June 29		June 29		June 29		June 29		
17. 6	25. 0	10. 31	*1389						0. 0	20. 35. 5	0. 0	*1369	0. 0	*03490	1. 0	64. 9	66. 0
17. 17	24. 25	10. 58	*1386						0. 25	35. 5	0. 40	*1378	1. 0	*03500*	3. 0	64. 8	67. 0
19. 11	23. 5	11. 43	*1387						0. 40	36. 30	0. 48	*1382	3. 0	*03537*	9. 0	66. 0	67. 0
19. 23	22. 40	12. 12	*1406						1. 28	35. 10	1. 11	*1376		(†)	21. 0	64. 1	66. 2
19. 54	23. 40	13. 46	*1386						2. 13	35. 20	1. 41	*1382					
20. 36	23. 30	17. 5	*1388						2. 47	34. 30	2. 45	*1392					
22. 9	26. 0	19. 50	*1383						3. 17	35. 55	3. 12	*1405					
23. 23	30. 55	21. 41	*1367						3. 26	35. 40	3. 20	*1412					
23. 28	30. 30	21. 55	*1370						3. 39	34. 25	3. 43	*1389					
23. 59	32. 15	22. 56	*1366						4. 3	33. 40	3. 55	*1384					
		23. 12	*1369						4. 26	33. 40	4. 15	*1391					
		23. 30	*1366						4. 47	32. 0	4. 42	*1403					
		23. 59	*1373						5. 23	30. 55	4. 56	*1392					
									5. 47	29. 30	5. 38	*1403					
June 28		June 28		June 28		June 28			6. 12	28. 20	5. 52	*1398					
0. 0	20. 32. 15	0. 0	*1373	0. 0	*03523	0. 0	65. 1	67. 4	6. 41	27. 40	6. 14	*1397					
1. 26	34. 10	0. 40	*1375	1. 26	*03532	1. 0	65. 3	67. 0	7. 6	27. 40	6. 26	*1399					
1. 56	35. 40	1. 16	*1383	1. 57	*03546	3. 0	65. 3	67. 0	7. 26	28. 20	6. 55	*1394					
3. 22	33. 55	1. 27	*1380	3. 38	*03554	9. 0	65. 7	67. 6	8. 14	26. 55	7. 13	*1399					
3. 41	33. 5	2. 5	*1392	4. 57	*03577	21. 0	64. 1	65. 0	8. 47	27. 30	7. 40	*1397					
4. 15	32. 35	2. 16	*1384	9. 26	*03602				8. 56	26. 55	7. 50	*1399					
6. 26	28. 50	2. 42	*1385	11. 57	*03556				9. 13	27. 15	8. 12	*1394					
8. 53	27. 30	3. 25	*1390	13. 41	*03507				9. 26	27. 0	8. 26	*1396					
9. 29	28. 0	4. 12	*1390	17. 15	*03502				9. 50	28. 5	8. 45	*1392					
10. 45	28. 0	4. 50	*1388	21. 34	*03464				10. 8	27. 10	8. 54	*1389					
11. 29	26. 55	6. 12	*1394	23. 59	*03490					***	9. 28	*1391					
11. 51	27. 40	6. 39	*1392						10. 44	27. 30	9. 50	*1399					
12. 9	27. 10	7. 26	*1396						10. 54	27. 0	10. 10	*1390					
12. 22	27. 50	7. 50	*1394						12. 24	27. 55	11. 3	*1397					
12. 39	26. 30	***	***						13. 57	27. 20		***					
13. 8	29. 10	9. 26	*1389						14. 20	28. 10	12. 12	*1391					
13. 23	29. 10	***	***						14. 41	27. 55	12. 26	*1392					
13. 51	26. 25	13. 26	*1395						15. 10	26. 20	13. 57	*1391					
14. 7	27. 0	***	***						15. 22	27. 20	14. 23	*1394					
14. 44	26. 50	14. 0	*1389						15. 53	26. 50	15. 32	*1391					
16. 30	25. 10	***	***						16. 10	26. 10	16. 42	*1394					

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
June 29 h m 16. 41	20. 26. 15	June 29 h m 17. 47	.1389						June 30 h m 22. 56	20. 29. 30							
17. 11	24. 15	19. 2	.1382						23. 21	32. 0							
17. 20	25. 0	20. 26	.1382						23. 46	32. 0							
	***	20. 42	.1380						23. 55	32. 30							
18. 52	23. 0	21. 59	.1376						23. 59	32. 35							
18. 59	23. 30	22. 43	.1371														
19. 17	23. 5	22. 56	.1378						July 1		July 1		July 1		July 1		
20. 4	23. 10	23. 11	.1376						0. 0	20. 32. 35	0. 0	.1388	0. 0	.03368	0. 0	62. 7	63. 8
20. 25	24. 35	23. 27	.1373						0. 26	32. 55	0. 19	.1383	1. 45	.03363	9. 0	61. 2	62. 9
20. 34	24. 0	23. 59	.1376						0. 55	34. 5	0. 57	.1387	4. 43	.03423	21. 0	59. 7	60. 3
20. 52	24. 10								1. 37	34. 5	1. 15	.1382	6. 12	.03428			
21. 3	25. 10								2. 6	33. 0	1. 56	.1385	7. 26	.03420			
21. 10	24. 50								4. 3	30. 0	2. 26	.1399	9. 8	.03420			
22. 11	27. 55								5. 44	28. 40	3. 6	.1391	11. 4	.03328			
22. 38	27. 30								6. 23	29. 20	3. 41	.1396	17. 54	.03140			
22. 52	29. 15								7. 23	28. 25	4. 22	.1394	20. 42	.03134			
22. 56	28. 40								8. 23	28. 50	5. 12	.1394	23. 26	.03164			
23. 59	31. 0								8. 58	28. 5	6. 43	.1399	23. 40	.03154			
									10. 10	27. 40	7. 51	.1397	23. 59	.03160			
June 30	20. 31. 0	June 30	.1376	June 30	.03477	June 30	1. 0	65. 0	66. 4	11. 50	27. 10	***					
1. 21	32. 20	0. 56	.1383	6. 21	.03562	3. 0	65. 4	66. 8	12. 33	26. 40	10. 42	.1401					
2. 0	31. 50	2. 0	.1383	9. 8	.03565	9. 0	64. 2	66. 3	14. 39	26. 20	16. 54	.1406					
2. 7	32. 0	2. 13	.1389	10. 56	.03522	12. 0	61. 4	63. 7	15. 27	25. 30	18. 20	.1400					
2. 23	31. 10	2. 26	.1386	13. 4	.03484	21. 30	61. 6	63. 0	15. 53	25. 30	18. 43	.1402					
3. 54	30. 0	3. 13	.1385	18. 14	.03386				17. 9	22. 15	19. 14	.1398					
4. 44	30. 0	3. 35	.1387	19. 30	.03391				17. 21	23. 20	19. 40	.1400					
5. 11	30. 20	3. 56	.1383	23. 0	.03337				17. 24	21. 50	19. 40	.1400					
5. 39	30. 0	4. 24	.1386	23. 59	.03368				17. 31	21. 5	20. 12	.1393					
7. 59	28. 55	4. 42	.1384						17. 44	22. 55	20. 26	.1381					
8. 59	29. 0	4. 59	.1389						17. 56	21. 50	20. 56	.1368					
9. 26	28. 20	6. 9	.1391						18. 10	22. 30	21. 36	.1385					
10. 52	28. 30	6. 22	.1390							***	21. 52	.1391					
11. 26	27. 10	6. 41	.1393						18. 33	21. 45	21. 58	.1389					
12. 0	27. 40	6. 57	.1391						19. 7	22. 5	23. 14	.1399					
13. 42	27. 55	8. 54	.1387						19. 18	21. 45	23. 30	.1407					
14. 26	26. 25		***						19. 41	22. 30	23. 49	.1399					
14. 51	27. 20	13. 21	.1395						20. 4	20. 40	23. 59	.1396					
15. 6	25. 35		***						20. 16	21. 35							
15. 48	27. 55	16. 8	.1395						20. 24	21. 5							
16. 23	24. 50	17. 42	.1390						20. 29	22. 55							
16. 31	24. 50	19. 40	.1382						20. 49	24. 0							
16. 44	24. 20	20. 21	.1380						21. 23	30. 20							
17. 3	24. 35	20. 42	.1382						21. 26	29. 55							
17. 25	23. 30	21. 9	.1378						21. 35	30. 50							
17. 39	24. 20	21. 43	.1379						21. 41	29. 55							
18. 8	23. 30	21. 56	.1377						21. 56	30. 20							
18. 13	23. 40	22. 45	.1381						22. 28	28. 5							
18. 33	23. 20	23. 20	.1390						23. 0	28. 0							
18. 54	24. 45	23. 34	.1385						23. 26	29. 50							
19. 16	23. 55	23. 59	.1388						23. 37	31. 40							
20. 9	25. 5								23. 46	30. 40							
20. 37	24. 40								23. 59	31. 20							
20. 49	25. 40																
20. 56	25. 20								July 2		July 2		July 2		July 2		
21. 59	26. 30								0. 0	20. 31. 20	0. 0	.1396	0. 0	.03160	1. 0	60. 8	62. 0
22. 26	27. 30								0. 25	31. 30	0. 26	.1390	1. 25	.03182	3. 0	61. 5	63. 0
22. 36	28. 55								0. 55	32. 10	0. 39	.1396	3. 56	.03236	9. 0	60. 1	63. 5
									1. 3	31. 40	1. 11	.1385	4. 55	.03257	21. 0	59. 3	60. 6
										***							

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
July 2		July 2		July 2					July 2								
1. 16	20. 32. 30	1. 43	*1389	6. 12	*03276				21. 49	20. 28. 0							
1. 43	31. 40	1. 57	*1397	9. 22	*03278				22. 41	30. 30							
1. 59	32. 15	2. 10	*1393	10. 32	*03214				23. 6	31. 20							
2. 6	31. 55	2. 14	*1395	10. 41	*03214				23. 15	32. 10							
2. 18	32. 0	2. 26	*1388	11. 33	*03182				23. 25	32. 20							
2. 28	30. 55	2. 41	*1395	14. 42	*03155				23. 39	33. 10							
2. 39	31. 55	2. 55	*1394	16. 10	*03141				23. 59	33. 30							
3. 12	31. 20	3. 24	*1398	17. 41	*03114												
3. 24	31. 50	4. 4	*1397	21. 14	*03147												
4. 9	30. 40	4. 11	*1403	22. 54	*03138				July 3	20. 33. 30	0. 0	*1378	0. 0	*03143	1. 0	60. 9	61. 2
4. 41	31. 10	4. 17	*1399	23. 59	*03143				0. 13	32. 10	0. 11	*1377	2. 6	*03180	3. 0	60. 7	61. 7
5. 9	30. 25	4. 24	*1403						0. 26	33. 0	0. 27	*1394	4. 21	*03217	9. 0	57. 3	58. 4
6. 11	29. 40	4. 54	*1405						1. 11	32. 0	0. 44	*1400	6. 22	*03224	21. 0	59. 6	61. 5
6. 30	29. 40	5. 13	*1401						1. 48	33. 0	1. 14	*1402	7. 55	*03165	22. 0	59. 5	59. 8
6. 48	28. 15	5. 42	*1399						2. 8	32. 10	1. 23	*1408	10. 0	*03123	23. 0	59. 8	59. 9
8. 9	28. 30	5. 54	*1402						2. 55	32. 45	2. 9	*1397	12. 41	*03153			
8. 24	28. 0	6. 20	*1406						3. 30	33. 40	2. 27	*1404	13. 10	*03137			
8. 42	28. 40	6. 43	*1404						3. 43	33. 0		***	13. 49	*03137			
9. 5	28. 10	6. 57	*1406						4. 17	33. 0	3. 26	*1409	14. 18	*03120			
9. 53	24. 0	7. 14	*1406						4. 35	31. 50	3. 41	*1413	16. 6	*03126			
10. 13	24. 55	7. 33	*1410						4. 46	32. 0	3. 55	*1407	17. 57	*03115			
10. 30	23. 10	7. 57	*1406						5. 20	30. 30	4. 15	*1403	19. 35	*03124			
11. 0	25. 35	8. 13	*1407						5. 33	30. 30	4. 37	*1407	21. 12	*03117			
11. 18	24. 30	8. 56	*1405						6. 3	29. 30	4. 43	*1405	21. 56	*03127			
11. 36	25. 10	9. 25	*1399						7. 59	29. 0	4. 57	*1411	22. 55	*03105			
11. 58	25. 10	10. 11	*1404						8. 9	28. 20	5. 11	*1409	23. 59	*03137			
12. 13	26. 0	10. 36	*1402						8. 59	28. 0	5. 19	*1413					
12. 36	26. 0	10. 57	*1408						9. 42	27. 10		***					
12. 54	27. 15	12. 41	*1406						11. 5	26. 30	5. 54	*1408					
13. 10	26. 40	12. 50	*1412						11. 21	27. 30	6. 11	*1412					
13. 33	24. 25	13. 12	*1407							***	9. 26	*1408					
14. 6	25. 55	14. 6	*1408						12. 23	26. 30	10. 12	*1408					
14. 33	24. 40	15. 8	*1404						12. 36	29. 30	10. 36	*1405					
14. 41	26. 5	15. 50	*1408						13. 9	25. 30	10. 54	*1407					
14. 51	24. 25	17. 29	*1406						13. 23	27. 10	11. 9	*1403					
15. 36	25. 30	18. 11	*1401						13. 37	27. 0	11. 22	*1408					
15. 51	25. 0	18. 28	*1404						13. 53	28. 10	11. 44	*1406					
16. 44	23. 10	19. 6	*1400						14. 23	22. 40	12. 2	*1407					
16. 59	23. 55	19. 22	*1405						14. 44	23. 0	12. 25	*1402					
17. 32	22. 55	19. 35	*1403						14. 55	22. 10	12. 47	*1409					
17. 51	24. 10	19. 58	*1404						15. 4	23. 25	13. 27	*1405					
17. 59	24. 10	20. 54	*1396						15. 26	23. 30	13. 59	*1412					
18. 7	25. 25	21. 2	*1399						15. 47	25. 10	14. 28	*1405					
18. 19	25. 25	21. 35	*1393						15. 59	25. 10	15. 42	*1399					
18. 39	26. 20	21. 53	*1394						16. 14	24. 30	16. 55	*1402					
18. 53	25. 30	22. 5	*1397						16. 26	25. 0	17. 34	*1392					
18. 58	25. 40	22. 20	*1392						17. 7	23. 0	17. 51	*1398					
19. 6	24. 0	23. 11	*1392						17. 37	23. 0	18. 12	*1394					
19. 10	24. 10	23. 41	*1387						17. 53	24. 55	18. 42	*1397					
19. 14	25. 10	23. 50	*1380						18. 24	23. 15	18. 55	*1393					
	***	23. 59	*1378						18. 41	23. 5	19. 5	*1397					
19. 36	24. 0								18. 48	23. 40	19. 54	*1398					
19. 53	25. 5								18. 56	21. 25	20. 12	*1393					
19. 59	24. 55								19. 9	22. 40	20. 40	*1393					
	***								19. 20	22. 5	21. 24	*1383					
20. 37	26. 30								19. 28	22. 35	22. 6	*1387					
20. 43	25. 40								19. 41	22. 30	22. 52	*1389					
	***								20. 23	24. 40	23. 11	*1387					

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.																
July 3 20. 28 21. 28 22. 43 23. 9 23. 32 23. 51 23. 59	20. 24. 5 26. 15 30. 5 30. 5 30. 30 30. 30 31. 5	July 3 23. 26 23. 42 23. 59	*1394 *1389 *1392						July 4 12. 38 12. 49 13. 21 13. 30 14. 7 14. 28 14. 58 15. 25 15. 40 15. 55 16. 9 16. 27 16. 55 17. 7 17. 41 18. 9 18. 38 18. 44 19. 9 19. 24 19. 33 20. 10 20. 21 20. 33 20. 42 20. 57 21. 8 21. 22 21. 53 22. 0 22. 8 22. 26 22. 41 23. 34 23. 40 23. 53 23. 59	20. 14. 40 14. 0 18. 35 17. 50 23. 45 34. 50 24. 30 22. 15 22. 25 23. 20 23. 0 24. 0 22. 35 23. 20 22. 20 23. 20 22. 25 23. 0 22. 10 23. 0 22. 30 23. 0 24. 35 24. 25 21. 40 *** 25. 45 25. 55 27. 40 27. 40 28. 20 27. 40 *** 29. 10 29. 0 30. 30 32. 30 32. 0 32. 55	July 4 23. 56 23. 59	*1402 *1406						July 4 0. 0 0. 14 0. 26 0. 48 0. 56 1. 32 1. 42 2. 21 2. 29 2. 47 3. 7 3. 19 3. 24 3. 55 4. 7 4. 23 4. 44 5. 51 6. 6 6. 21 6. 28 6. 41 7. 9 7. 25 7. 36 7. 51 8. 7 8. 26 8. 32 8. 43 8. 58 9. 10 9. 23 9. 29 9. 42 9. 50 9. 57 10. 11 10. 19 10. 32 10. 56 11. 8 11. 23 11. 36 11. 49 12. 12 12. 23	20. 31. 5 32. 15 31. 55 31. 30 32. 0 31. 55 32. 20 32. 0 32. 30 *** 31. 55 31. 55 31. 0 31. 35 29. 25 29. 25 28. 20 30. 25 *** 30. 5 30. 40 27. 10 28. 15 32. 20 10. 10 18. 20 16. 55 25. 45 21. 15 24. 10 24. 10 25. 55 22. 55 22. 55 20. 30 22. 40 22. 5 20. 40 21. 20 16. 50 15. 10 11. 10 17. 30 18. 0 26. 0 26. 0 23. 50 15. 0 13. 45	July 4 0. 0 0. 11 0. 36 0. 58 1. 21 1. 50 2. 24 2. 42 2. 53 3. 12 3. 22 3. 26 3. 52 *** 4. 49 5. 13 5. 45 5. 59 6. 12 6. 22 6. 41 7. 0 7. 26 7. 41 7. 43 8. 5 8. 15 8. 40 8. 41 8. 50 9. 9 9. 26 11. 12 11. 56 12. 41 15. 35 17. 20 18. 13 18. 34 21. 18 22. 6 22. 25 22. 35 22. 43 22. 58 23. 11 23. 14 23. 34 23. 42	*1392 *1395 *1393 *1398 *1400 *1408 *1403 *1411 *1407 *1413 *1408 *1413 *1403 *** *1420 *1407 *1415 *1408 *1407 *1413 *1438 *1399 *1439 *1423 *1431 *1397 *1405 *1392 *1394 *1389 *1396 *1382 *1384 *1420 *1389 *1415 *1403 *1402 *1391 *1396 *1401 *1394 *1404 *1400 *1403 *1390 *1396 *1408	July 4 0. 0 1. 21 3. 11 4. 32 4. 57 6. 12 6. 25 6. 52 7. 10 7. 26 7. 41 7. 55 8. 12 8. 25 8. 39 9. 21 9. 26 9. 52 10. 13 10. 26 11. 9 11. 16 11. 34 12. 6 12. 26 13. 12 13. 34 14. 15 14. 32 14. 53 16. 26 18. 21 19. 15 20. 52 22. 41 23. 59	*03137 *03148 *03172 *03235 *03235 *03262 *03276 *03236 *03262 *03243 *03257 *03238 *03252 *03242 *03253 *03220 *03225 *03203 *03174 *03152 *03126 *03132 *03078 *03037 *03030 *03060 *03057 *03064 *03057 *03017 *03060 *03064 *03077 *03063 *03090 *03102	July 4 0. 0 1. 0 3. 0 9. 0 21. 0 22. 0 23. 0	59. 8 60. 5 61. 0 61. 1 59. 0 58. 8 59. 1 60. 0 60. 7 61. 6 61. 6 59. 8 60. 3 60. 6	July 5 0. 0 0. 26 0. 39 1. 3 1. 20 1. 30 1. 38 1. 52 2. 5 2. 11 2. 24 2. 56 3. 18 3. 43 3. 55 4. 54 4. 59	20. 32. 55 32. 20 33. 10 33. 10 34. 30 34. 0 32. 0 33. 55 33. 55 33. 0 33. 40 32. 50 32. 50 32. 0 32. 15 30. 45 33. 5	July 5 0. 0 0. 17 0. 25 0. 56 1. 6 1. 25 1. 30 1. 38 1. 43 1. 54 2. 11 2. 12 2. 26 3. 14 3. 22 3. 42 3. 56	*1406 *1396 *1392 *1400 *1398 *1412 *1404 *1383 *1387 *1399 *1400 *1395 *1404 *1383 *1393 *1398 *1396 *1404	July 5 0. 0 1. 23 1. 34 1. 53 2. 56 4. 55 5. 0 5. 14 8. 53 11. 12 13. 54 17. 26 20. 16 22. 15 23. 22 23. 59	*03102 *03128 *** *03110 *03143 *03164 *03184 *03200 *03183 *03200 *03137 *03100 *03014 *03058 *03062 *03080 *03068	July 5 0. 0 1. 0 2. 0 3. 0 9. 0 21. 0	59. 4 59. 8 59. 6 60. 0 58. 0 57. 6 61. 4 61. 6 61. 6 61. 8 61. 1 61. 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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.												
July 7 13. 40 14. 14 14. 41 14. 56 15. 42 16. 6 16. 26 17. 14 20. 11 20. 43 21. 53 22. 26 23. 59	20. 22. 0 22. 30 27. 25 28. 0 25. 30 23. 35 24. 10 22. 0 24. 5 25. 20 26. 30 26. 5 28. 50	July 7 23. 0 23. 59	*1387 *1388						July 9 2. 33 2. 38 3. 5 3. 26 3. 37 3. 43 3. 55 5. 49 6. 0 6. 26 6. 49 8. 6 8. 55 9. 26 9. 40 9. 57 10. 27 10. 54 11. 4 12. 4 12. 29	20. 32. 30 33. 0 32. 30 32. 45 32. 0 32. 5 30. 20 30. 25 31. 0 30. 30 30. 35 29. 30 30. 0 28. 55 29. 5 28. 10 28. 20 27. 40 28. 20 27. 0 27. 35 ***	July 9 3. 45 4. 9 4. 24 5. 24 5. 52 6. 12 6. 34 7. 36 8. 22 8. 34 8. 54 *** 10. 13 10. 24 10. 35 10. 55 11. 8 11. 42 11. 55 12. 12 ***	*1409 *1391 *1400 *1405 *1399 *1404 *1400 *1407 *1400 *1405 *1399 *** *1404 *1397 *1403 *1402 *1407 *** *1400 *1405 *1402 *1388 *1397 *1390 *1399 *1393 *1400 *1391 *1394 *1386 *** *1385 *1384 *1378 *1379 *1374 *1379 *1384 *1382 *1394 *1392 *1398 *1394 *1385 *1392 *1394	17. 56 18. 12 19. 12 19. 30 20. 9 21. 36 23. 11 23. 59	{*03277 *03291 *03282 *03288 *03273 *03263 *03411 *03407 *03426															
July 8 0. 0 1. 12 1. 20 2. 30 3. 11 4. 27 4. 56 5. 54 6. 56 7. 11 7. 26 7. 56 13. 5 13. 25 15. 30 16. 19 16. 56 18. 41 18. 51 19. 33 19. 45 19. 54 20. 11 20. 38 21. 26 22. 21 22. 29 23. 3 23. 19 23. 27 23. 37 23. 59	20. 28. 50 30. 45 31. 30 31. 45 31. 30 30. 10 30. 10 28. 40 28. 40 29. 25 28. 40 29. 10 26. 55 27. 5 26. 20 25. 40 25. 40 23. 55 24. 0 22. 25 22. 30 21. 55 23. 10 22. 40 22. 55 25. 30 25. 40 27. 0 28. 10 28. 10 28. 45 30. 10	July 8 0. 0 0. 57 1. 20 1. 33 2. 6 2. 14 2. 56 4. 12 5. 0 5. 43 7. 11 7. 50 10. 42 16. 56 17. 26 21. 10 21. 21 21. 44 22. 40 23. 59	*1388 *1392 *1397 *1397 *1402 *1401 *1406 *1409 *1411 *1405 *1403 *1406 *1404 *1404 *1398 *1389 *1391 *1390 *1399 *1407	July 8 0. 0 2. 54 4. 40 10. 42 16. 24 23. 38 23. 59	*03076 *03124 *03146 *03200 *03191 *03187 *03192	July 8 0. 20 8. 30 21. 0	59. 9 61. 6 60. 4 62. 6 60. 8 62. 1	July 9 1. 0 3. 0 9. 0 21. 0	61. 5 63. 5 62. 1 64. 3 63. 0 65. 7 62. 4 64. 6	July 9 19. 8 19. 10 19. 16 19. 21 19. 25 19. 31 19. 38 19. 41 19. 58 20. 8	25. 15 27. 20 24. 5 24. 40 22. 30 27. 20 26. 15 28. 15 26. 35 24. 20	July 9 0. 0 0. 21 0. 27 0. 37 0. 59 2. 8 2. 13 2. 21	0. 0 0. 41 0. 44 2. 11 2. 15 2. 26 3. 34 3. 40	*1407 *1405 *1409 *1412 *1406 *1410 *** *1415 *1407	July 9 0. 0 1. 38 4. 12 7. 11 10. 26 16. 9 16. 26 16. 57 17. 25	*03192 *03204 *03277 *03296 *03343 *03300 *03307 *03296 *03300	July 9 1. 0 3. 0 9. 0 21. 0	61. 5 63. 5 62. 1 64. 3 63. 0 65. 7 62. 4 64. 6	July 9 19. 8 19. 10 19. 16 19. 21 19. 25 19. 31 19. 38 19. 41 19. 58 20. 8	25. 15 27. 20 24. 5 24. 40 22. 30 27. 20 26. 15 28. 15 26. 35 24. 20	July 9 0. 0 0. 21 0. 27 0. 37 0. 59 2. 8 2. 13 2. 21	0. 0 0. 41 0. 44 2. 11 2. 15 2. 26 3. 34 3. 40	*1407 *1405 *1409 *1412 *1406 *1410 *** *1415 *1407	July 9 0. 0 1. 38 4. 12 7. 11 10. 26 16. 9 16. 26 16. 57 17. 25	*03192 *03204 *03277 *03296 *03343 *03300 *03307 *03296 *03300	July 9 1. 0 3. 0 9. 0 21. 0	61. 5 63. 5 62. 1 64. 3 63. 0 65. 7 62. 4 64. 6	July 9 19. 8 19. 10 19. 16 19. 21 19. 25 19. 31 19. 38 19. 41 19. 58 20. 8	25. 15 27. 20 24. 5 24. 40 22. 30 27. 20 26. 15 28. 15 26. 35 24. 20

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
July 9									July 10								
20. 12	20. 24. 30	h m		h m		h m	o	o	11. 13	20. 26. 0	h m		h m		o	o	
20. 26	27. 50								11. 44	25. 30		.1395					
20. 28	25. 30								12. 0	26. 20		.1391					
20. 38	26. 10								13. 0	26. 20		.1394					
20. 44	24. 40								13. 30	28. 40		.1389					
20. 56	26. 10								13. 47	28. 0		.1390					
21. 9	26. 25								14. 25	24. 25		.1385					
21. 18	29. 20								14. 54	23. 40		.1381					
21. 25	28. 40								15. 8	22. 30		.1383					
21. 33	29. 20								15. 38	21. 15		.1384					
21. 39	27. 40								15. 54	21. 15		.1379					
22. 55	31. 40								16. 9	23. 0		.1374					
23. 14	31. 40								16. 59	21. 30		.1376					
23. 54	34. 35								17. 56	21. 30		.1372					
23. 59	34. 15								18. 20	22. 15		.1378					
									18. 26	21. 40		.1376					
									18. 59	22. 5							
July 10		July 10	July 10	July 10	July 10	July 10			19. 19	21. 30							
0. 0	2c. 34. 15	0. 0	.1394	0. 0	.03426	1. 0	63.7	65.6	19. 40	23. 0							
0. 28	33. 30	0. 22	.1389	2. 52	.03537	3. 0	64.0	65.9	20. 17	21. 20							
0. 39	34. 10	0. 26	.1391	4. 9	.03560	9. 0	64.9	67.4	20. 31	22. 20							
0. 56	33. 50	0. 50	.1396	4. 14	.03555	21. 0	63.4	64.2	20. 56	21. 40							
1. 4	34. 15	0. 57	.1393	4. 39	.03562	22. 0	63.9	65.0	22. 32	25. 30							
1. 25	33. 40	1. 12	.1395	5. 41	.03580	23. 0	63.9	65.3	22. 44	27. 10							
1. 32	34. 45	1. 27	.1391	5. 53	.03577				22. 59	27. 0							
1. 41	35. 0	1. 57	.1401	6. 5	.03592				23. 47	30. 0							
1. 49	35. 45	2. 18	.1379	6. 25	.03608				23. 59	29. 50							
	***	2. 25	.1380	10. 44	.03597												
2. 58	30. 45	2. 27	.1376	12. 58	.03573				July 11		July 11	July 11	July 11	July 11	July 11	July 11	
3. 10	32. 0	2. 57	.1397	14. 22	.03523				0. 0	20. 29. 50	0. 0	.1376	0. 0	.03507	0. 0	64.3	
3. 25	32. 30	3. 11	.1390	17. 57	.03483				0. 43	29. 35	0. 42	.1381	4. 37	.03596	1. 0	64.5	
3. 38	31. 0	3. 21	.1387	18. 43	.03488				1. 55	30. 40	1. 11	.1382	7. 46	.03596	2. 0	64.6	
3. 54	31. 20	3. 30	.1391	19. 55	.03516				2. 21	29. 40	1. 19	.1380	10. 26	.03623	3. 0	64.8	
4. 6	31. 10	3. 43	.1387	20. 38	.03508				4. 34	26. 15	1. 56	.1383	12. 11	.03597	9. 0	65.4	
4. 33	28. 0	4. 11	.1402	23. 59	.03507				7. 43	25. 40	2. 21	.1380	14. 55	.03517	21. 0	63.5	
4. 48	28. 50	4. 20	.1390						8. 23	23. 30	3. 3	.1386	17. 44	.03483	22. 0	63.5	
5. 11	28. 5	4. 37	.1385						9. 11	25. 5	3. 54	.1386	19. 12	.03497	23. 0	64.4	
5. 35	28. 40	5. 10	.1403						9. 56	24. 25	5. 43	.1394	21. 25	.03522		64.7	
5. 41	28. 15	5. 36	.1411						10. 23	25. 10	6. 6	.1398	23. 23	.03516		64.9	
5. 51	26. 20	5. 50	.1410						10. 42	24. 20	6. 26	.1394	23. 59	.03521			
5. 54	27. 0	5. 57	.1395						11. 15	24. 20	7. 14	.1397					
5. 59	26. 30	6. 8	.1397						11. 47	25. 25	7. 44	.1393					
6. 18	19. 20	6. 13	.1385						11. 56	24. 50	7. 55	.1395					
6. 26	19. 20	6. 27	.1398						12. 13	25. 5	8. 12	.1392					
6. 59	24. 0	6. 57	.1398						12. 24	24. 20	8. 23	.1394					
7. 23	24. 5	7. 20	.1393						12. 30	24. 55	8. 33	.1392					
7. 28	25. 20	7. 40	.1395						13. 9	25. 40	8. 50	.1396					
7. 39	25. 0	7. 46	.1393						13. 14	25. 0	9. 56	.1390					
7. 53	25. 20	8. 33	.1392						13. 28	25. 40	10. 26	.1394					
8. 10	24. 55	8. 52	.1395						13. 38	25. 15	10. 56	.1391					
8. 49	25. 30	9. 11	.1391						13. 56	27. 10	11. 27	.1393					
8. 58	25. 0	9. 20	.1393						14. 14	27. 40	11. 51	.1390					
9. 34	25. 50	9. 34	.1390						14. 36	25. 20	12. 15	.1394					
9. 51	25. 0	9. 43	.1392						15. 9	23. 0	12. 44	.1391					
10. 10	25. 0	10. 28	.1390						15. 46	22. 10	13. 13	.1395					
10. 26	25. 40	10. 42	.1388						16. 0	21. 15	13. 27	.1392					
10. 32	25. 20	10. 56	.1392						16. 29	21. 20	14. 25	.1393					
10. 46	26. 0	11. 34	.1389						16. 41	22. 10	14. 54	.1399					
11. 3	25. 30	13. 35	.1390														

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
July 11		July 11							July 12		July 12						
16. 53	20. 21. 50	15. 42	*1396						13. 38	20. 16. 20	12. 37	*1399					
17. 13	22. 25	16. 3	*1398						14. 7	18. 0	12. 59	*1399					
17. 54	21. 30	16. 56	*1392						14. 11	19. 0	13. 29	*1417					
	***	17. 30	*1392						14. 14	19. 40	13. 55	*1400					
18. 45	20. 55	18. 23	*1389						14. 44	11. 20	14. 20	*1405					
18. 59	21. 55	18. 45	*1386						15. 2	15. 10	14. 35	*1397					
19. 9	21. 20	19. 12	*1387						15. 9	15. 0	15. 0	*1412					
19. 54	21. 50	19. 43	*1388						15. 18	17. 0	15. 24	*1407					
20. 5	22. 30	20. 18	*1383						15. 23	16. 40	15. 41	*1412					
20. 11	21. 50	20. 54	*1379						15. 35	20. 30	15. 45	*1407					
20. 43	22. 40	21. 12	*1380							***	16. 0	*1410					
	***	21. 41	*1376						16. 3	20. 50	16. 12	*1397					
21. 25	24. 10	23. 59	*1390						16. 6	16. 15	16. 13	*1402					
22. 21	27. 20								16. 9	19. 20	16. 24	*1398					
22. 53	27. 55								16. 16	14. 30	16. 35	*1389					
23. 11	29. 20								16. 23	14. 20		***					
23. 34	29. 20								16. 29	10. 55	17. 12	*1374					
23. 59	30. 15								16. 57	15. 40	17. 34	*1370					
									16. 59	14. 30	17. 57	*1375					
July 12		July 12		July 12		July 12			17. 6	17. 20	18. 20	*1372					
0. 0	20. 30. 15	0. 0	*1390	0. 0	*03521	0. 0	63. 9	65. 1	17. 11	16. 20	18. 51	*1371					
1. 14	31. 0	0. 12	*1389	2. 29	*03556	1. 0	65. 0	66. 1	17. 16	18. 25	19. 3	*1379					
1. 40	32. 10	0. 40	*1391	4. 11	*03600	2. 0	63. 9	66. 1	17. 23	18. 20	19. 59	*1373					
2. 15	31. 30	1. 14	*1388	4. 22	*03596	3. 0	65. 0	66. 1	17. 31	16. 20	20. 22	*1366					
2. 40	30. 30	1. 25	*1391	4. 38	*03616	9. 0	65. 3	67. 7	17. 38	16. 50	20. 55	*1367					
3. 56	29. 20	4. 12	*1397	4. 44	*03607	21. 0	65. 0	66. 4	17. 41	14. 35	21. 12	*1358					
4. 19	27. 45	4. 26	*1387	6. 49	*03612				17. 53	14. 30	21. 41	*1355					
4. 26	27. 45	4. 40	*1395	11. 25	*03620				17. 56	16. 0	21. 50	*1356					
4. 32	28. 40	4. 43	*1412	11. 29	*03605					***	21. 57	*1352					
4. 40	28. 15	4. 53	*1408	11. 42	*03622				18. 29	14. 40	22. 10	*1360					
4. 54	28. 30	5. 11	*1406	13. 12	*03566					***	22. 18	*1353					
5. 11	27. 55	5. 21	*1401	13. 41	*03521				18. 41	15. 5	22. 26	*1342					
6. 40	28. 0	5. 29	*1405	14. 13	*03486				18. 48	13. 40	22. 44	*1343					
6. 55	28. 35	5. 49	*1404	14. 24	*03456				19. 6	16. 30	23. 21	*1354					
7. 8	28. 0	6. 5	*1407	14. 55	*03427				19. 13	15. 45	23. 59	*1364					
7. 19	28. 0	6. 50	*1407	15. 23	*03403				19. 18	15. 20							
7. 47	25. 55	7. 0	*1414	15. 50	*03382				19. 25	16. 30							
7. 56	26. 30	7. 11	*1405	15. 58	*03353				19. 34	16. 0							
8. 13	26. 30	7. 41	*1412	16. 7	*03372				19. 56	16. 10							
8. 37	24. 35	7. 44	*1405	16. 14	*03364				20. 2	17. 30							
8. 58	24. 25	7. 59	*1407	16. 26	*03363				20. 10	17. 25							
9. 13	23. 30	8. 20	*1405	17. 34	*03462				20. 22	18. 15							
9. 26	23. 30	8. 34	*1406	18. 28	*03503				20. 26	17. 10							
10. 13	25. 50	8. 44	*1411	22. 11	*03528				20. 55	20. 30							
10. 26	25. 0	8. 57	*1407	22. 18	*03518				20. 58	20. 30							
10. 40	25. 0	9. 20	*1405	23. 59	*03557				21. 8	21. 40							
10. 55	25. 40	9. 33	*1407						21. 16	20. 0							
11. 18	24. 40	9. 50	*1403						21. 26	22. 30							
11. 23	22. 50	10. 11	*1406						21. 39	22. 30							
11. 32	23. 55	10. 30	*1401						21. 53	24. 20							
11. 41	25. 40	10. 55	*1411						21. 56	23. 50							
11. 54	25. 30	11. 12	*1409							***							
12. 9	27. 5	11. 25	*1410						22. 11	27. 35							
12. 43	24. 30	11. 36	*1385						22. 26	26. 30							
12. 50	25. 10	11. 53	*1403						22. 34	27. 35							
12. 56	24. 25	11. 59	*1399						22. 40	27. 30							
13. 4	25. 30	12. 10	*1403						23. 9	29. 30							
13. 10	22. 30	12. 20	*1404						23. 24	31. 55							

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.
July 12 23. 34 23. 59	20. 31. 25 32. 55																
July 13 0. 0 0. 7 0. 11 0. 16 0. 24 0. 27 0. 39 0. 43 1. 6 1. 26 1. 33 2. 36 2. 52 3. 9 3. 18 3. 43 4. 21 4. 30 4. 39 4. 51 5. 38 5. 44 6. 13 6. 23 6. 42 7. 19 7. 27 7. 40 8. 11 8. 47 9. 23 9. 36 9. 50 9. 58 10. 17 10. 26 10. 47 10. 57 11. 12 11. 34 12. 7 12. 13 12. 48 13. 10 13. 18 13. 29 13. 54 14. 10 14. 26 14. 39 15. 11 15. 21 15. 47 15. 56	20. 32. 55 33. 0 32. 15 33. 20 33. 25 32. 15 33. 40 32. 50 33. 30 33. 10 34. 40 31. 25 31. 35 30. 15 30. 50 29. 35 29. 30 28. 40 29. 0 28. 0 27. 40 27. 55 27. 0 27. 30 26. 20 26. 20 26. 55 26. 15 26. 55 25. 25 26. 0 25. 30 25. 55 25. 20 26. 10 25. 50 26. 30 22. 50 19. 40 22. 10 24. 30 23. 20 26. 30 25. 25 25. 30 23. 30 23. 30 25. 10 24. 35 24. 40 22. 25 22. 55 21. 30 22. 10	July 13 0. 0 0. 18 0. 22 0. 40 0. 42 0. 48 0. 55 1. 11 1. 21 1. 33 1. 41 1. 51 1. 55 2. 6 2. 12 2. 26 2. 54 3. 11 3. 26 4. 12 4. 20 4. 34 4. 41 4. 51 5. 18 5. 34 5. 54 6. 19 6. 30 6. 48 7. 35 7. 56 8. 23 8. 35 8. 54 9. 7 9. 13 9. 26 9. 43 9. 54 10. 11 10. 36 10. 44 11. 34 11. 57 12. 11 12. 27 12. 42 13. 18 13. 37 13. 56 14. 19	July 13 0. 0 2. 36 4. 59 8. 28 10. 37 10. 57 11. 55 13. 43 14. 23 15. 45 16. 47 17. 13 20. 29 22. 55 23. 59	July 13 0. 0 3. 0 9. 0 21. 0	65. 7 67. 2 66. 9 68. 0 66. 4 68. 7 65. 6 68. 0	July 13 16. 21 16. 33 16. 41 17. 3 17. 7 17. 11 17. 22 17. 26 17. 41 17. 46 18. 4 18. 46 19. 43 20. 9 20. 24 20. 51 21. 9 22. 43 23. 59	20. 22. 10 22. 40 23. 40 22. 35 22. 55 22. 20 22. 25 21. 40 21. 40 22. 10 21. 15 20. 40 21. 15 20. 20 21. 55 23. 0 23. 0 25. 40 30. 20	July 13 14. 55 15. 24 15. 34 16. 6 16. 29 17. 0 18. 43 19. 39 19. 56 21. 40 22. 55 23. 59	July 13 1389 1393 1389 1384 1384 1387 1375 1373 1370 1364 1372 1376	July 14 0. 0 1. 3 3. 38 4. 12 4. 40 4. 51 4. 56 5. 13 5. 46 5. 54 6. 10 6. 22 6. 47 6. 54 7. 12 7. 36 7. 43 7. 52 7. 56 8. 13 8. 23 8. 31 8. 47 9. 6 9. 51 9. 58 10. 9 10. 24 10. 39 10. 56 11. 4 11. 33 11. 40 11. 48 12. 7 12. 26	20. 30. 20 32. 50 29. 15 29. 35 29. 25 28. 30 29. 0 28. 20 28. 0 28. 20 27. 50 27. 55 23. 35 23. 25 25. 30 24. 0 25. 0 24. 40 25. 5 25. 0 23. 20 23. 25 24. 50 24. 50 20. 55 21. 20 20. 20 21. 0 24. 0 20. 25 20. 0 23. 20 25. 55 23. 0 19. 0 21. 20	July 14 0. 0 0. 40 2. 15 2. 32 2. 57 3. 43 3. 52 4. 44 4. 54 5. 11 5. 14 5. 26 5. 44 6. 3 6. 12 6. 25 6. 42 7. 2 7. 12 7. 40 7. 44 7. 56 8. 0 8. 11 8. 18 8. 29 8. 41 9. 6 9. 12 9. 51 10. 5 10. 11 10. 20 10. 36 10. 50 11. 40	July 14 0. 0 4. 58 6. 42 7. 6 7. 22 8. 51 10. 4 10. 12 10. 34 10. 53 11. 43 12. 40 13. 2 17. 44 18. 39 19. 15 21. 51 22. 26 23. 59	July 14 03606 03700 03703 03717 03708 03714 03717 03704 03717 03700 03686 03623 03635 03577 03560 03573 03568 03580 03580	July 14 1. 0 3. 0 9. 0 22. 0	66. 3 68. 0 66. 6 69. 0 67. 0 68. 4 65. 5 65. 7	

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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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
July 14		July 14				July 15			July 15								
12. 58	20. 20. 20	11. 51	.1377			12. 9	20. 23. 20	10. 40	.1403								
13. 4	21. 40	12. 8	.1379			12. 34	25. 30	10. 56	.1398								
13. 37	23. 35	12. 22	.1395			12. 52	25. 30	11. 15	.1389								
14. 16	24. 40	12. 41	.1385			13. 4	23. 55	11. 40	.1396								
14. 43	23. 40	13. 7	.1390			13. 18	24. 10	11. 57	.1385								
15. 25	22. 55	13. 41	.1387			13. 33	25. 25	12. 36	.1395								
15. 56	22. 35	14. 47	.1389			13. 54	25. 25	12. 44	.1389								
	***	15. 40	.1386			14. 6	25. 55	13. 14	.1393								
17. 9	19. 20	16. 15	.1390			14. 12	27. 30	13. 29	.1390								
17. 18	19. 45	16. 53	.1390			14. 38	25. 0	14. 0	.1395								
17. 26	19. 30	17. 36	.1385			14. 53	25. 0	14. 51	.1393								
18. 7	20. 0	17. 51	.1386			15. 9	24. 30	15. 25	.1396								
18. 21	20. 0	18. 55	.1380			15. 44	28. 20	15. 49	.1392								
18. 42	19. 55	21. 21	.1366			16. 12	27. 0	16. 15	.1397								
18. 59	19. 40	21. 50	.1371			16. 18	25. 45	***									
19. 9	20. 20	22. 15	.1366			16. 23	26. 0	17. 52	.1392								
19. 30	20. 0	23. 24	.1372			16. 40	23. 25	18. 9	.1396								
19. 50	20. 25	23. 59	.1374			16. 47	23. 50	18. 24	.1389								
20. 8	20. 10						***	18. 42	.1396								
20. 15	21. 0					17. 30	22. 55	19. 0	.1376								
21. 38	21. 40					17. 39	21. 35	19. 11	.1383								
23. 47	29. 5					17. 47	21. 35	19. 22	.1373								
23. 59	29. 15					17. 51	22. 45	19. 42	.1373								
						17. 56	21. 50	20. 10	.1383								
July 15		July 15		July 15		18. 3	21. 40	***									
0. 0	20. 29. 15	0. 0	.1374	0. 0	.03580	18. 7	22. 15	20. 51	.1378								
0. 46	31. 25	0. 22	.1382	3. 12	.03646	18. 18	21. 50	21. 10	.1383								
0. 58	32. 40	0. 27	.1377	3. 21	.03660	18. 23	22. 45	21. 18	.1378								
1. 7	32. 30	0. 50	.1377		***	18. 26	20. 40	21. 44	.1377								
2. 13	34. 30	0. 56	.1384	5. 11	.03691	18. 32	20. 0	22. 14	.1375								
2. 29	33. 30	1. 1	.1379	9. 30	.03702	18. 51	25. 40	22. 57	.1363								
3. 11	34. 5	1. 12	.1382	10. 12	.03695	19. 6	23. 15	***									
3. 16	33. 0	1. 57	.1387	10. 43	.03649	19. 21	30. 50	23. 21	.1370								
3. 32	33. 50	2. 12	.1393	11. 55	.03619	19. 28	30. 50	23. 45	.1365								
4. 6	32. 30	2. 28	.1388	14. 3	.03583	19. 40	29. 50	23. 59	.1370								
4. 21	32. 55	2. 45	.1395	14. 26	.03562	19. 51	29. 50										
4. 28	31. 45	3. 12	.1392	15. 12	.03560	20. 6	30. 30										
4. 41	30. 55	3. 21	.1383	17. 29	.03505	20. 10	31. 40										
4. 47	29. 30	3. 42	.1398	18. 20	.03522	20. 13	30. 40										
	***	4. 11	.1396	18. 26	.03517	20. 19	31. 20										
5. 11	28. 30	4. 21	.1389	18. 52	.03537	20. 21	28. 10										
5. 24	28. 30	4. 30	.1380	19. 4	.03524	20. 26	29. 50										
5. 41	29. 30	4. 41	.1383	19. 19	.03538	20. 28	26. 20										
7. 6	28. 40	4. 48	.1375	19. 32	.03529	20. 34	27. 40										
7. 33	27. 35	5. 41	.1391	20. 57	.03533	20. 42	26. 10										
	***	5. 55	.1388	***		20. 56	25. 20										
8. 26	27. 40	6. 10	.1396	21. 12	.03544	21. 9	27. 0										
9. 16	25. 40	6. 12	.1393	21. 25	.03544	21. 18	25. 20										
9. 39	22. 15	6. 40	.1393	(†)		21. 57	28. 20										
9. 44	22. 15	7. 0	.1404			22. 9	28. 0										
10. 12	18. 20	7. 44	.1401			22. 25	28. 45										
10. 21	18. 35	8. 11	.1395			22. 31	27. 50										
10. 26	20. 20	9. 1	.1396			22. 38	29. 5										
10. 36	19. 30	9. 25	.1387			22. 55	26. 0										
11. 25	22. 50	9. 30	.1381			23. 14	27. 50										
11. 42	22. 30	9. 43	.1386			23. 40	27. 50										
11. 53	23. 0	9. 55	.1384			23. 59	30. 20										
11. 58	24. 35	10. 9	.1386														

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

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 Thermo-meters.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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 Thermo-meters.	
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
July 16 h m	20° 30' 20"	July 16 h m	·1370	July 16 h m	(†)	July 16 h m	1. 0	65. 9	67. 0	July 16 h m	20° 21' 10"	July 16 h m	·1378	h m	h m	o	o
0. 0	30. 20	0. 0	·1378	0. 26	·03552	3. 0	66. 4	67. 9	19. 33	20. 30	20. 20	·1381					
0. 11	31. 5	0. 42	·1390	1. 26	·03568	9. 0	66. 6	68. 2	19. 44	21. 20	20. 27	·1376					
0. 23	30. 15	1. 11	·1385		***	21. 0	64. 1	65. 0	20. 24	21. 20	20. 45	·1371					
0. 41	***	1. 20	·1385	2. 52	·03620				20. 34	22. 15	21. 52	·1371					
1. 38	32. 20	1. 44	·1382	5. 43	·03663				20. 45	21. 40		***					
1. 43	32. 0	1. 56	·1384	6. 11	·03677				21. 23	24. 0	22. 53	·1371					
2. 6	32. 45	2. 8	·1379	9. 26	·03660				21. 40	23. 25	23. 12	·1364					
2. 16	31. 55	2. 23	·1387	10. 10	·03624				21. 54	22. 35	23. 35	·1371					
	***		·1387	10. 59	·03556				22. 0	23. 45	23. 43	·1367					
3. 11	32. 10	2. 44	·1384	13. 35	·03523				22. 6	22. 50	23. 59	·1370					
	***	3. 7	·1389	14. 12	·03493				22. 13	24. 20							
3. 58	31. 0	3. 24	·1384	16. 24	·03502				22. 29	25. 10							
4. 6	31. 55	3. 28	·1391	17. 20	·03497				22. 43	25. 0							
4. 18	30. 40	***	·1391	19. 19	·03518				22. 57	26. 40							
4. 27	31. 25	3. 53	·1382	22. 56	·03520				23. 0	27. 55							
5. 22	29. 5	4. 5	·1392	23. 59	·03537				23. 4	27. 0							
5. 28	29. 30	4. 15	·1381						23. 23	26. 20							
5. 50	28. 15	4. 28	·1387						23. 43	28. 5							
5. 58	25. 30	4. 34	·1383						23. 59	28. 40							
6. 21	27. 10	4. 42	·1387														
7. 23	27. 40	4. 55	·1380						July 17	20. 28. 40	July 17	·1370	July 17	h m	July 17	h m	o
7. 41	26. 30	5. 11	·1386						0. 0	29. 30	0. 41	·1379	0. 41	·03537	1. 0	65. 1	66. 5
7. 55	27. 0	5. 20	·1382						0. 9	30. 0	0. 56	·1385	2. 19	·03552	3. 0	65. 6	67. 0
8. 7	26. 40	5. 34	·1387						0. 54	30. 40	2. 0	·1391	2. 27	·03603	9. 0	62. 6	63. 9
8. 28	27. 20	5. 51	·1378						1. 3	32. 45	2. 12	·1391	3. 8	·03594	13. 0	59. 5	60. 2
8. 41	27. 10	6. 3	·1388						1. 46	32. 45	2. 12	·1383	3. 8	·03617	21. 0	61. 9	63. 0
8. 59	24. 40	6. 15	·1391						2. 7	32. 40	2. 20	·1387	3. 57	·03603	22. 0	62. 8	63. 0
9. 33	25. 25	6. 26	·1388							***	2. 29	·1374	7. 8	·03619	23. 0	62. 6	63. 6
10. 6	25. 30	6. 50	·1393						2. 25	34. 0	2. 50	·1372	8. 28	·03557			
10. 38	28. 10	7. 14	·1390						2. 32	30. 45	3. 18	·1399	8. 42	·03537			
10. 56	27. 0	7. 27	·1393						2. 38	30. 20	3. 35	·1400	9. 21	·03523			
11. 8	25. 25	7. 40	·1391						2. 47	31. 30	3. 50	·1396	9. 55	·03474			
11. 24	24. 20	7. 50	·1394						2. 57	28. 40	4. 33	·1398	11. 41	·03457			
11. 50	25. 30	***	·1394						3. 11	27. 50	5. 12	·1394	16. 55	·03238			
12. 12	24. 30	9. 11	·1393						3. 32	29. 5	5. 26	·1399	17. 42	·03243			
12. 24	25. 0	9. 27	·1391						4. 33	28. 55	6. 8	·1399	18. 23	·03243			
12. 30	24. 10	10. 6	·1393						5. 53	26. 50	6. 29	·1396	21. 11	·03272			
13. 13	24. 30	10. 34	·1409						6. 42	26. 30	6. 45	·1398	23. 59	·03348			
13. 37	31. 35	11. 9	·1396						6. 59	25. 40	6. 53	·1403					
13. 49	30. 20	11. 37	·1391						7. 11	26. 15	7. 15	·1393					
13. 55	30. 5	11. 45	·1394						7. 43	26. 25	7. 51	·1398					
14. 9	27. 10	***	·1394						7. 47	27. 40	8. 0	·1406					
14. 20	27. 30	12. 30	·1390						7. 52	26. 10	8. 40	·1403					
15. 7	24. 30	12. 43	·1394						7. 59	26. 15	8. 49	·1395					
15. 16	24. 20	13. 15	·1388						8. 11	25. 25	8. 57	·1402					
15. 23	23. 10	13. 43	·1395						8. 26	25. 25	9. 14	·1394					
15. 24	24. 0	14. 11	·1392						8. 47	19. 0	9. 23	·1397					
	***	14. 20	·1396						8. 57	18. 20	9. 33	·1430					
16. 6	22. 50	14. 43	·1390						9. 11	21. 20	9. 51	·1409					
16. 11	23. 0	15. 23	·1396						9. 19	14. 15	10. 16	·1391					
16. 26	22. 30	15. 30	·1390						9. 36	24. 10	10. 48	·1389					
16. 56	22. 20	15. 56	·1390						9. 43	23. 50	11. 12	·1390					
17. 23	21. 30	17. 11	·1394						9. 54	24. 0	11. 45	·1399					
17. 51	21. 30	17. 43	·1392						10. 6	25. 0	11. 58	·1395					
18. 22	20. 30	***	·1392						10. 14	23. 10	12. 26	·1402					
18. 46	19. 30	19. 20	·1384						10. 22	23. 40	***						
	***	19. 27	·1387						10. 30	22. 50	13. 10	·1396					
									10. 41	22. 50	13. 43	·1404					

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
July 17		July 17															
10. 57	20. 24. 10	14. 0	.1399														
11. 8	23. 0	14. 15	.1398														
11. 33	24. 25	14. 41	.1403														
11. 41	25. 25	15. 14	.1402														
11. 59	25. 35	15. 44	.1406														
12. 21	25. 0	16. 40	.1410														
12. 37	26. 5	17. 26	.1392														
13. 10	29. 25	18. 11	.1399														
13. 35	27. 30	19. 12	.1398														
14. 3	26. 10	19. 54	.1394														
14. 13	26. 40	20. 42	.1392														
14. 53	25. 10	22. 35	.1385														
14. 56	26. 0	22. 54	.1381														
15. 17	24. 0	23. 15	.1385														
15. 50	26. 30	23. 51	.1384														
16. 24	24. 30	23. 59	.1386														
16. 31	24. 40																
16. 39	24. 10																
16. 47	25. 25																
16. 58	23. 35																
17. 9	24. 0																
17. 21	23. 10																
17. 43	24. 40																
17. 53	26. 30																
18. 8	25. 10																
18. 14	25. 30																
18. 21	23. 25																
	***																
18. 56	20. 25																
	***																
19. 33	20. 35																
19. 53	20. 0																
20. 6	21. 0																
20. 12	20. 20																
21. 18	22. 30																
22. 32	27. 0																
22. 43	27. 5																
23. 8	29. 5																
23. 34	30. 25																
23. 52	30. 55																
23. 59	31. 10																
July 18		July 18		July 18		July 18			July 18		July 18		July 18		July 18		
0. 0	20. 31. 10	0. 0	.1386	0. 0	.03348	0. 0	63. 0	64. 2	0. 0	20. 29. 55	0. 0	.1390	0. 0	.03306	0. 0	63. 6	65. 4
0. 14	30. 40	0. 34	.1392	3. 32	.03417	1. 0	63. 7	65. 0	2. 23	30. 25	0. 41	.1393	2. 41	.03397	1. 0	63. 6	65. 5
1. 8	32. 20	0. 40	.1394	8. 55	.03486	2. 0	63. 8	65. 2	2. 56	30. 5	0. 53	.1395	5. 53	.03452	3. 0	63. 9	65. 5
1. 12	32. 10	1. 12	.1395	9. 52	.03424	3. 0	63. 8	65. 2	3. 14	30. 5	1. 20	.1393	8. 54	.03463	9. 0	63. 9	65. 5
1. 21	33. 5	1. 30	.1402	11. 43	.03356	9. 0	62. 8	63. 6	3. 41	29. 15	1. 58	.1398	11. 10	.03354	21. 0	58. 9	60. 0
1. 28	33. 30	1. 59	.1395	13. 22	.03304	21. 0	61. 6	62. 5	5. 29	27. 10	2. 12	.1396	12. 40	.03303			
2. 43	31. 35	2. 21	.1398	14. 42	.03283	22. 0	62. 1	63. 3	7. 17	28. 0	2. 43	.1401	15. 5	.03262			
3. 10	30. 5	2. 43	.1400	15. 40	.03253	23. 0	62. 2	63. 7	8. 25	27. 35	3. 7	.1397	17. 34	.03200			
3. 27	30. 5	2. 54	.1403	17. 20	.03224				9. 7	27. 35	3. 36	.1400	20. 20	.03196			
3. 56	29. 10	3. 15	.1397	17. 56	.03231				10. 30	24. 20	3. 55	.1399	22. 39	.03166			
4. 9	29. 35	3. 25	.1399	19. 12	.03258				11. 13	26. 0	4. 29	.1400	23. 59	.03194			
4. 37	28. 5	3. 55	.1399	21. 13	.03282				11. 28	27. 20	5. 43	.1408					
4. 41	28. 30	4. 25	.1394	23. 59	.03306				11. 38	27. 25	6. 54	.1406					
4. 55	28. 0	5. 25	.1398						12. 11	25. 30	7. 12	.1408					
6. 4	28. 30	5. 44	.1402						13. 28	24. 55	7. 51	.1406					
									13. 41	25. 20	9. 12	.1405					

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.		
July 19 15. 6 15. 54 16. 41 17. 47 18. 23 18. 28 18. 41 18. 51 18. 56 19. 3 19. 6 19. 12 20. 36 20. 43 21. 34 21. 56 22. 41 23. 34 23. 59	20. 23. 40 23. 45 23. 10 *** 23. 45 23. 0 23. 40 22. 30 22. 30 23. 15 22. 20 23. 10 22. 30 24. 10 25. 0 25. 0 26. 0 26. 55 29. 55 30. 5	July 19 9. 27 9. 56 10. 44 11. 25 11. 51 13. 50 16. 42 17. 12 17. 40 18. 26 18. 56 20. 11 21. 5 22. 41 23. 59	*1399 *1399 *** *1406 *1404 *1409 *** *1404 *1406 *1400 *1405 *1406 *1401 *1400 *1394 *1392 *1404																
July 20 0. 0 1. 39 2. 23 3. 7 4. 43 5. 33 6. 22 7. 53 8. 30 8. 46 9. 24 9. 39 9. 57 11. 26 11. 39 11. 52 13. 36 14. 6 14. 11 14. 36 15. 19 15. 57 16. 14 16. 42 17. 11 17. 43 18. 56 19. 40 20. 14 22. 23 23. 51 23. 59	20. 30. 5 31. 50 31. 45 29. 55 28. 20 28. 50 28. 30 27. 20 26. 30 26. 30 25. 40 26. 0 25. 20 25. 40 25. 15 24. 50 26. 0 25. 40 27. 0 24. 40 24. 30 23. 0 22. 35 21. 50 21. 0 21. 50 20. 40 21. 0 25. 20 31. 20 31. 30	July 20 0. 0 1. 5 3. 10 7. 12 8. 52 9. 11 9. 20 9. 56 11. 33 12. 25 13. 30 13. 56 14. 24 15. 10 15. 26 16. 7 19. 10 21. 22 21. 43 *** 23. 12 23. 59	*1404 *1407 *1412 *1415 *1412 *1414 *1408 *1412 *1410 *1409 *1413 *1411 *1414 *1411 *1414 *1409 *1399 *1397 *** *1400 *1406	July 20 0. 0 4. 56 7. 27 9. 19 11. 36 17. 45 20. 38 23. 59	*03194 *03331 *03340 *03357 *03277 *03144 *03192 *03220	July 20 1. 0 3. 0 9. 0 13. 0 21. 0	61. 5 62. 1 62. 6 58. 2 60. 2	63. 1 64. 0 64. 0 59. 8 61. 0											
July 21 0. 0 1. 43	20. 31. 30 33. 20	July 21 0. 0 0. 40	*1406 *1410	July 21 0. 0 2. 49	*03220 *03317	July 21 1. 0 3. 0	62. 0 62. 1	62. 0 64. 0											
July 21 3. 2 5. 12 5. 44 6. 49 7. 13 7. 27 8. 26 9. 47 10. 17 10. 26 10. 41 10. 59 13. 9 13. 14 13. 55 15. 36 16. 42 16. 52 17. 9 17. 25 17. 33 17. 36 17. 40 17. 42 17. 57 18. 20 18. 28 18. 41 19. 10 19. 23 19. 39 19. 48 19. 59 20. 7 20. 42 20. 58 21. 12 21. 17 22. 21 22. 41 23. 26 23. 56 23. 59	20. 32. 10 27. 20 26. 50 26. 55 27. 15 26. 40 26. 10 26. 45 26. 0 26. 20 25. 25 26. 20 25. 0 25. 30 24. 40 23. 20 21. 45 22. 0 21. 10 20. 30 22. 0 20. 45 21. 10 19. 50 21. 25 19. 50 20. 45 20. 10 *** 20. 55 19. 40 21. 30 21. 30 22. 20 21. 20 22. 40 22. 10 23. 20 23. 20 27. 5 27. 25 30. 50 32. 0 32. 0	July 21 1. 54 3. 9 3. 12 3. 26 4. 6 4. 12 4. 22 4. 36 4. 43 5. 12 5. 26 5. 43 6. 0 6. 45 7. 21 8. 0 8. 20 8. 50 9. 10 9. 19 10. 9 10. 15 10. 40 10. 58 11. 43 11. 55 12. 10 13. 41 14. 20 14. 55 15. 40 18. 6 18. 55 20. 10 21. 25 22. 0 23. 5 23. 26 23. 59	*1414 *1412 *1415 *1412 *1404 *1408 *1406 *1409 *1407 *1409 *1407 *1411 *1408 *1411 *1415 *1409 *1414 *1411 *1411 *1414 *1411 *1414 *1412 *1410 *1408 *1415 *1410 *1415 *1411 *1406 *1407 *1405 *1409 *1408 *1403 *1393 *1390 *1393 *1395 *1398 *1402																
July 22 0. 0 0. 13 0. 59 1. 13 1. 43 2. 35 2. 49 3. 16 3. 39 3. 55	20. 32. 0 31. 30 33. 20 32. 55 *** 33. 5 *** 31. 35 32. 20 31. 40 30. 30 31. 0	July 22 0. 0 2. 12 3. 14 4. 52 5. 6 8. 21 10. 26 14. 54 15. 53 16. 55	*1402 *1401 *1404 *1415 *** *1412 *1406 *1409 *1405 *1408 *1404 *1407 *1405																
July 21 0. 0 1. 43	20. 31. 30 33. 20	July 21 0. 0 0. 40	*1406 *1410	July 21 0. 0 2. 49	*03220 *03317	July 21 1. 0 3. 0	62. 0 62. 1	62. 0 64. 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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
July 22		July 22		July 22		July 22			July 23		July 23		July 23		July 23		
4. 8	20. 29. 55	2. 18	*1409	17. 52	*03138				7. 25	20. 27. 20	5. 11	*1412	11. 42	*03227			
4. 53	28. 40	2. 22	*1404	19. 12	*03158				7. 41	27. 45	6. 8	*1420	13. 4	*03183			
5. 10	29. 15	2. 26	*1409	20. 56	*03134				8. 4	27. 0	6. 20	*1417	13. 26	*03191			
6. 8	28. 30	2. 29	*1403	23. 59	*03176				8. 19	27. 40	6. 35	*1419	15. 15	*03196			
6. 14	29. 0	2. 41	*1407						8. 42	27. 20	6. 47	*1416	17. 13	*03184			
6. 36	28. 0	2. 43	*1404						8. 56	28. 50	6. 57	*1419	17. 26	*03181			
6. 40	28. 40	2. 50	*1411						9. 9	28. 50	7. 20	*1417	18. 55	*03206			
6. 57	27. 45	2. 55	*1408						9. 13	28. 0	7. 29	*1423	20. 43	*03192			
7. 27	26. 40	3. 0	*1413						9. 23	28. 30	7. 41	*1420	23. 59	*03239			
8. 30	27. 5	3. 14	*1408						9. 26	27. 45	7. 57	*1424					
9. 42	26. 20	3. 22	*1409						9. 36	28. 30	8. 12	*1425					
9. 53	25. 35	3. 29	*1405						9. 56	27. 0	8. 20	*1427					
10. 6	26. 0	3. 44	*1405						10. 8	23. 30	8. 27	*1414					
10. 22	25. 0	4. 9	*1413						10. 30	15. 5	8. 56	*1427					
10. 45	25. 50	4. 35	*1406						11. 11	23. 30	9. 17	*1420					
11. 24	25. 50	4. 57	*1407						11. 26	20. 30	9. 35	*1425					
12. 21	24. 25	5. 12	*1412						11. 41	20. 30	10. 10	*1410					
14. 40	24. 0	5. 54	*1411						11. 54	21. 10	10. 17	*1408					
15. 28	22. 40	6. 12	*1415						12. 3	20. 20	10. 28	*1419					
15. 52	21. 25	6. 20	*1411						12. 14	20. 30	10. 35	*1416					
16. 23	21. 25	6. 37	*1414						12. 26	23. 10	10. 50	*1424					
16. 51	23. 10	6. 55	*1410						13. 13	19. 55	11. 6	*1411					
17. 6	22. 45	7. 29	*1414						13. 42	22. 40	11. 16	*1419					
17. 11	22. 0	8. 26	*1409						14. 4	23. 0	11. 25	*1402					
18. 12	21. 10	8. 56	*1408						14. 18	21. 35	11. 35	*1407					
18. 39	21. 10	10. 15	*1411						14. 41	21. 30	11. 46	*1415					
18. 45	21. 40	***	***						14. 51	20. 5	***	***					
19. 6	21. 0	11. 56	*1408						15. 8	20. 15	12. 21	*1419					
19. 25	21. 20	12. 12	*1413						15. 26	22. 20	12. 33	*1411					
19. 36	20. 55	12. 24	*1409						15. 40	20. 10	12. 36	*1414					
19. 43	21. 30	***	***						15. 51	20. 30	12. 55	*1404					
20. 15	21. 30	14. 15	*1415						15. 57	20. 0	12. 57	*1411					
	***	14. 43	*1410						16. 24	20. 30	13. 12	*1406					
21. 28	23. 50	15. 40	*1414						16. 33	21. 30	13. 43	*1415					
21. 50	24. 10	***	***						17. 3	20. 40	13. 55	*1414					
22. 43	26. 40	16. 56	*1408						17. 9	21. 0	14. 12	*1406					
23. 41	28. 10	17. 56	*1411						17. 13	20. 15	14. 18	*1411					
23. 59	29. 10	18. 57	*1407						17. 23	22. 5	14. 26	*1414					
		***	***						18. 6	22. 5	14. 46	*1408					
		21. 34	*1398						18. 12	21. 10	14. 55	*1413					
		22. 42	*1398						18. 17	22. 20	15. 0	*1409					
		22. 59	*1401						18. 28	19. 40	15. 25	*1416					
		23. 26	*1404						18. 36	21. 30	15. 42	*1422					
		23. 37	*1401						19. 3	23. 40	15. 56	*1413					
		23. 59	*1410						19. 9	22. 45	16. 11	*1408					
									19. 18	22. 0	***	***					
July 23		July 23		July 23		July 23			19. 38	22. 40	17. 13	*1401					
0. 0	20. 29. 10	0. 0	*1410	0. 0	*03176	1. 0	61. 6	63. 0	19. 38	22. 40	17. 13	*1401					
0. 9	28. 25	0. 50	*1412	1. 12	*03183	3. 0	61. 9	63. 7	19. 43	23. 30	18. 12	*1404					
1. 6	29. 55	1. 6	*1408	3. 9	*03247	9. 0	61. 0	62. 4	19. 53	23. 20	18. 29	*1399					
1. 18	32. 0	1. 20	*1413	5. 0	*03296	21. 0	60. 3	60. 9	20. 4	23. 30	18. 43	*1402					
1. 29	31. 30	1. 39	*1410	7. 11	*03312				21. 7	27. 20	19. 3	*1398					
1. 59	32. 20	2. 0	*1414	8. 24	*03320				22. 14	26. 20	19. 15	*1392					
2. 56	32. 5	2. 28	*1412	8. 56	*03339				22. 28	26. 40	19. 56	*1387					
3. 36	30. 30	3. 11	*1418	9. 57	*03272				22. 40	26. 20	20. 33	*1391					
5. 0	28. 0	3. 22	*1414	10. 58	*03232					***	21. 12	*1386					
5. 38	27. 40	3. 43	*1411	11. 12	*03237				23. 23	29. 0	21. 54	*1384					
6. 51	28. 0	4. 11	*1414	11. 16	*03222				23. 59	30. 20	22. 40	*1389					
											22. 51	*1395					

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.						
		July 23 h m 23. 20 23. 29 23. 59	.1397 .1394 .1399																				
July 24 o. o o. 12 1. 7 1. 53 3. 28 3. 38 3. 49 4. 32 4. 51 8. 21 8. 44 9. 28 10. 56 11. 11 13. 26 14. 20 14. 30 14. 51 15. 6 15. 20 15. 41 15. 58 16. 11 16. 45 17. 40 17. 59 18. 23 18. 30 19. 3 19. 56 20. 7 20. 23 20. 38 22. 21 22. 43 23. 8 23. 59	20. 30. 20 30. 5 30. 30 31. 20 28. 25 28. 40 28. 5 28. 10 27. 30 26. 50 25. 50 27. 0 26. 50 26. 10 26. 40 25. 15 25. 30 24. 45 25. 30 25. 0 25. 50 24. 55 25. 25 24. 30 23. 50 23. 0 23. 20 22. 50 22. 30 24. 55 24. 40 25. 15 25. 0 27. 20 28. 20 28. 5 29. 50	July 24 o. o o. 42 2. 14 2. 22 2. 54 3. 14 3. 42 3. 53 4. 11 4. 26 4. 45 5. 26 5. 41 5. 56 6. 25 6. 41 6. 55 8. 54 9. 10 9. 26 10. 42 13. 23 15. 27 16. 40 16. 55 17. 36 17. 54 18. 7 18. 30 18. 45 19. 14 19. 55 20. 41 21. 10 21. 47 22. 25 22. 45 23. 59	.1399 .1401 .1407 .1405 .1407 .1405 .1408 .1406 .1408 .1404 .1403 .1407 .1404 .1409 .1404 .1411 .1405 .1407 .1402 .1408 .1409 .1407 .1408 .1406 .1404 .1401 .1406 .1402 .1398 .1402 .1395 .1399 .1396 .1403	July 24 o. o 1. 26 4. 39 8. 59 10. 44 14. 13 17. 27 19. 13 21. 57 23. 59	.03239 .03277 .03343 .03357 .03296 .03237 .03217 .03228 .03204 .03245	July 24 h m 1. o 3. o 9. o 21. o 22. o 23. o	62.0 62.3 62.6 59.8 60.5 60.8	63.9 63.9 64.0 60.9 61.2 62.1	July 25 h m 11. o 11. 38 12. o 12. 47 13. 21 14. 9 14. 20 14. 23 14. 26 14. 43 14. 59 15. 16 15. 21 15. 41 15. 51 16. 11 16. 53 17. o 17. 23 17. 33 17. 43 17. 56 18. 6 18. 14 18. 38 18. 51 19. 8 19. 23 19. 30 19. 56 20. 4 20. 16 20. 33 21. 18 21. 27 21. 43 21. 56 22. 26 23. 38 23. 59	20. 28. 5 24. 20 25. 25 23. 20 23. 20 21. 50 21. 50 21. o 22. 40 23. 50 23. 10 24. 35 24. 25 27. o 26. 30 27. 10 24. 15 26. 25 26. o 26. 40 25. 50 27. 45 26. 25 26. 10 21. 20 20. o 20. 15 19. o 19. 40 19. 10 19. 35 19. o 18. 50 22. o 23. o 23. o 24. o 25. o 30. 20 31. 25	July 25 h m 7. 12 7. 25 8. 12 8. 42 8. 57 9. 27 9. 47 10. 12 10. 41 10. 55 11. 35 12. 8 12. 43 14. 14 14. 24 14. 44 14. 55 15. 12 15. 35 15. 43 15. 55 16. 14 16. 35 16. 55 17. 27 17. 41 17. 50 18. 6 18. 17 18. 38 18. 55 19. 26 19. 39 20. 10 20. 15 20. 29 21. 26 21. 44 21. 56 22. 25 23. 59	.1408 .1412 .1413 .1409 .1411 .1412 .1409 .1415 .1422 .1413 .1417 .1411 .1414 .1406 .1414 .1411 .1415 .1411 .1415 .1411 .1415 .1412 .1417 .1420 .1414 .1418 .1413 .1415 .1408 .1412 .1410 .1402 .1399 .1394 .1397 .1394 .1396 .1392 .1395 .1392	July 25 h m 21. 24 21. 56 22. 20 23. 59	.03224 .03224 .03236 .03272	July 25 h m o. o 3. 14 5. 10 9. 12 10. 26 10. 54 17. 25 18. 58 21. 25 23. 59	.03272 .03342 .03378 .03416 .03376 .03346 .03267 .03296 .03277 .03300	July 26 h m o. o 1. o 2. o 3. o 3. 19 3. 33 5. 8 5. 21 6. 10 6. 38 6. 44 8. 5	20. 31. 25 32. 55 31. 40 31. 55 29. 40 30. 10 29. 20 27. 30 27. 50 27. o 27. 25 26. 30 26. 50 26. o	July 26 h m o. o 3. 14 5. 10 9. 12 10. 26 10. 54 17. 25 18. 58 21. 25 23. 59	.03272 .03342 .03378 .03416 .03376 .03346 .03267 .03296 .03277 .03300	July 26 h m o. o 1. o 2. o 3. o 9. o 21. o 22. o 23. o	62.3 62.6 62.8 63.3 61.1	64.1 64.8 65.0 64.0 65.8 62.0

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
July 26		July 26							July 27		July 27						
8. 43	20. 27. 5	5. 32	.1406	h	h	h	h	o	9. 26	20. 25. 35	5. 0	.1404	h	h	h	h	o
8. 59	25. 30	5. 45	.1400						9. 56	23. 30	5. 37	.1398					
9. 10	25. 40	6. 10	.1404						10. 9	24. 25	6. 7	.1404					
9. 41	24. 20	6. 20	.1400						10. 12	24. 0	6. 22	.1403					
9. 53	25. 0	6. 43	.1404						10. 41	25. 20	6. 40	.1406					
10. 12	25. 0	6. 54	.1409						11. 12	23. 0	6. 57	.1407					
10. 36	22. 5	6. 59	.1407						11. 28	22. 40	7. 13	.1404					
10. 55	21. 20	7. 22	.1410						11. 43	23. 35	7. 27	.1407					
11. 23	23. 35	7. 34	.1406						12. 34	23. 30	7. 53	.1408					
11. 28	23. 25	7. 53	.1404						13. 14	24. 40	8. 6	.1405					
11. 40	24. 55	8. 0	.1407						13. 40	23. 55	8. 21	.1409					
11. 56	24. 20	9. 13	.1403						15. 26	24. 5	8. 37	.1407					
12. 4	25. 0	9. 39	.1400						15. 56	23. 10	9. 29	.1411					
12. 26	24. 0	10. 12	.1403						16. 13	23. 45	9. 43	.1409					
12. 43	25. 0	10. 40	.1413						16. 41	23. 5	10. 6	.1419					
13. 25	25. 0	10. 53	.1411						17. 11	23. 0	10. 13	.1412					
13. 43	24. 20	10. 59	.1406						17. 40	23. 40	10. 40	.1416					
13. 58	24. 45	11. 25	.1403						18. 3	22. 40	10. 59	.1415					
14. 16	23. 30	11. 44	.1406						18. 14	23. 55	11. 20	.1409					
14. 40	24. 25	12. 15	.1407						18. 40	23. 0	11. 37	.1412					
14. 44	23. 55	12. 40	.1404						19. 2	22. 50	11. 54	.1409					
15. 9	25. 0	***							19. 18	22. 25	12. 12	.1411					
15. 30	24. 20	14. 26	.1401						19. 56	23. 0	12. 34	.1407					
15. 40	24. 55	16. 53	.1410						20. 7	22. 40	13. 21	.1409					
16. 0	24. 0	17. 19	.1406						22. 18	24. 0	13. 38	.1406					
16. 11	24. 40	18. 16	.1401						22. 53	25. 20	14. 14	.1408					
16. 23	24. 0	19. 10	.1408						23. 9	26. 5	14. 55	.1406					
16. 38	24. 40	21. 21	.1398						23. 59	27. 40	15. 26	.1407					
17. 15	23. 20	21. 46	.1391								15. 55	.1405					
17. 25	23. 30	22. 41	.1389								16. 44	.1407					
17. 37	22. 40	23. 7	.1392								17. 26	.1402					
18. 7	22. 30	23. 20	.1391								18. 13	.1403					
18. 14	23. 5	23. 43	.1395								19. 25	.1397					
18. 24	21. 40	23. 59	.1395								20. 12	.1397					
18. 27	22. 20										20. 41	.1394					
18. 49	22. 30										21. 50	.1395					
18. 56	21. 55										21. 59	.1392					
19. 26	22. 40										23. 37	.1403					
19. 53	21. 30										23. 59	.1404					
20. 4	22. 10																
20. 46	22. 30								July 28		July 28		July 28		July 28		
22. 39	24. 30								0. 0	20. 27. 40	0. 0	.1404	0. 0	.03337	1. 0	63.265.1	
22. 59	26. 20								1. 33	30. 0	0. 40	.1403	2. 33	.03383	3. 0	63.464.8	
23. 39	28. 25									***	1. 26	.1396	3. 46	.03381	9. 0	63.664.6	
23. 59	29. 20								3. 8	29. 40	1. 41	.1399	6. 26	.03411	21. 0	62.664.0	
									4. 39	27. 40	2. 3	.1396	9. 12	.03422			
									7. 26	25. 20	2. 12	.1398	11. 4	.03384			
									7. 59	25. 30	2. 29	.1396	14. 56	.03358			
									8. 56	23. 40	2. 44	.1401	21. 11	.03345			
									9. 44	25. 0	3. 29	.1396	23. 24	.03312			
									11. 19	24. 40	4. 35	.1397	23. 59	.03324			
									12. 11	25. 20	5. 10	.1402					
									12. 21	26. 25	5. 41	.1403					
									12. 38	25. 40	5. 57	.1399					
									13. 6	27. 5	6. 41	.1408					
									13. 24	26. 0	7. 11	.1404					
									14. 18	25. 5	7. 59	.1404					
									14. 56	25. 5	8. 55	.1401					

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
July 28 16. 33 17. 14 18. 40 19. 0 20. 3 21. 20 23. 59	20. 24. 0 22. 55 22. 5 21. 35 21. 30 24. 5 33. 50	July 28 9. 21 9. 55 10. 18 10. 53 12. 11 13. 20 13. 40 16. 57 18. 57 20. 22 21. 20 22. 19 22. 57 23. 59	*1403 *1403 *1405 *1402 *1403 *1408 *1406 *1406 *1397 *1389 *1384 *1385 *1386 *1396						July 30 0. 0 0. 41 1. 27 2. 27 2. 37 3. 6 4. 14 5. 26 6. 41 7. 41 8. 9 8. 19 9. 23 9. 37 10. 13 11. 14 11. 36 12. 24 13. 7 13. 26 13. 56 14. 11 14. 26 14. 43 16. 5 16. 34 16. 40 17. 25 17. 28 17. 36 18. 43 19. 8 19. 39 19. 51 20. 18 21. 36 21. 41 21. 50 23. 59	20. 32. 50 33. 25 32. 40 30. 45 30. 50 30. 0 27. 0 25. 45 26. 0 26. 55 26. 30 26. 55 26. 5 26. 45 26. 30 25. 35 26. 0 24. 20 24. 45 25. 20 24. 30 25. 10 24. 20 25. 0 24. 10 23. 30 23. 30 22. 30 23. 0 22. 35 23. 0 22. 10 21. 55 22. 10 22. 20 25. 0 25. 50 25. 45 30. 20	July 30 0. 0 1. 24 2. 12 3. 10 4. 12 4. 30 4. 43 4. 59 5. 26 5. 46 6. 11 6. 45 8. 10 8. 21 8. 35 9. 12 9. 21 9. 36 11. 44 11. 57 12. 31 13. 55 16. 27 17. 27 17. 45 18. 23 18. 55 21. 24 23. 42 23. 59 ***	*1399 *1401 *1404 *1409 *1411 *1406 *1408 *1407 *1406 *1409 *1406 *1411 *1410 *1411 *1409 *1408 *1409 *1407 *1405 *1409 *1405 *1408 *1410 *1407 *1408 *1405 *1405 *1397 *1409 *1406	July 30 0. 0 5. 14 9. 38 12. 26 16. 36 17. 25 19. 4 21. 24 23. 21 23. 59	*03177 *03300 *03304 *03218 *03163 *03148 *03176 *03116 *03075 *03057	July 30 1. 0 3. 0 9. 0 21. 0	61. 3 61. 6 62. 0 56. 9	62. 6 63. 0 63. 5 58. 6
July 29 0. 0 0. 30 2. 25 4. 33 4. 44 5. 0 5. 56 6. 4 6. 41 7. 25 7. 37 7. 55 8. 16 8. 37 8. 43 8. 58 9. 18 9. 35 10. 2 11. 56 13. 34 13. 54 14. 38 14. 56 15. 14 15. 29 16. 16 16. 51 17. 11 17. 44 18. 11 18. 58 19. 28 20. 29 21. 43 22. 24 23. 39 23. 53 23. 59	20. 33. 50 34. 5 32. 55 28. 15 28. 20 27. 25 26. 5 26. 20 25. 30 25. 40 24. 30 24. 30 23. 40 24. 55 24. 0 25. 30 25. 20 25. 40 25. 5 25. 5 25. 55 25. 30 26. 0 25. 15 24. 0 26. 0 26. 50 23. 30 22. 40 22. 50 21. 55 22. 0 20. 30 20. 35 22. 45 27. 15 28. 40 32. 10 32. 53 32. 50	July 29 0. 0 0. 10 1. 41 2. 19 3. 8 3. 42 4. 38 4. 54 5. 31 6. 9 6. 22 10. 20 11. 21 13. 27 14. 24 14. 52 15. 5 15. 41 16. 27 16. 54 17. 6 18. 26 19. 26 20. 13 21. 16 22. 26 23. 26 23. 59	*1396 *1394 *1405 *1404 *1407 *1404 *1407 *1408 *1404 *1406 *1408 *1407 *1407 *1412 *1407 *1410 *1413 *1407 *1408 *1404 *1402 *1398 *1392 *1384 *1388 *1395 *1399	July 29 0. 0 0. 53 2. 19 3. 55 6. 31 10. 12 14. 24 17. 43 19. 12 23. 14 23. 59	*03324 *03336 *03380 *03407 *03420 *03319 *03263 *03203 *03200 *03156 *03177	0. 15 6. 0 10. 0 14. 30 21. 0	63. 6 63. 7 59. 6 58. 7 59. 7	64. 7 64. 8 62. 0 59. 6 60. 5	July 31 0. 0 1. 22 1. 28 1. 43 1. 52 2. 21 2. 56 3. 11 3. 43 4. 59 5. 17 5. 28 5. 42 6. 6 6. 40 7. 28	20. 30. 20 32. 50 32. 30 32. 40 32. 5 32. 5 30. 55 30. 40 28. 10 26. 20 26. 55 26. 10 26. 30 26. 0 26. 50 26. 0	July 31 0. 0 1. 40 2. 40 3. 19 3. 50 3. 56 4. 26 4. 42 4. 55 5. 22 5. 36 5. 43 6. 12 6. 34 6. 43	*1406 *1411 *1413 *1422 *1415 *1415 *1418 *1414 *1418 *1417 *1427 *1423 *1427 *1417 *1420 *1417	July 31 0. 0 1. 23 2. 15 5. 40 9. 0 9. 40 11. 24 12. 43 13. 28 16. 19 17. 26 19. 46 21. 14 23. 38 23. 59	*03057 *03076 *03122 *03174 *03146 *03126 *03116 *03096 *03074 *03093 *03062 *03092 *03076 *03076 *03086	July 3 1. 0 3. 0 9. 0 21. 0 22. 0 23. 0	58. 7 58. 8 59. 1 58. 9 58. 3 58. 6	60. 4 60. 6 60. 4 59. 0 59. 0 59. 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.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
July 31		July 31															
7. 58	20. 26. 55	7. 11	.1421														
8. 8	24. 0	7. 23	.1419														
8. 25	21. 30	7. 51	.1428														
8. 58	14. 55	8. 22	.1423														
9. 28	20. 40	8. 33	.1419														
9. 43	18. 40	8. 40	.1422														
10. 11	20. 40	8. 44	.1420														
10. 26	18. 40	9. 10	.1428														
10. 41	17. 25	9. 21	.1426														
10. 54	17. 55	9. 42	.1404														
11. 9	19. 25	9. 56	.1410														
11. 29	19. 10	10. 12	.1404														
11. 43	18. 0	10. 55	.1404														
11. 56	17. 20	11. 6	.1406														
12. 9	19. 35	11. 14	.1403														
12. 26	22. 30	11. 42	.1411														
12. 33	23. 55	12. 22	.1401														
12. 43	23. 30	12. 57	.1416														
13. 31	16. 50	13. 26	.1409														
13. 37	17. 10	13. 30	.1411														
13. 46	16. 0	13. 45	.1408														
14. 33	17. 40	14. 30	.1410														
14. 58	19. 15	14. 42	.1408														
15. 6	19. 25	14. 59	.1414														
15. 18	21. 45	15. 12	.1409														
15. 39	22. 0	15. 26	.1413														
15. 42	21. 15	15. 45	.1408														
15. 55	22. 0	16. 12	.1405														
16. 10	26. 20	16. 40	.1408														
16. 14	26. 25	17. 0	.1414														
16. 41	30. 5	17. 33	.1407														
16. 46	29. 55	17. 42	.1407														
16. 55	29. 55	18. 12	.1414														
17. 9	31. 15	18. 42	.1404														
17. 36	29. 0	19. 0	.1406														
17. 39	29. 10	19. 27	.1398														
17. 53	27. 55	19. 55	.1388														
17. 58	28. 10	20. 27	.1380														
18. 8	27. 20	20. 55	.1366														
18. 11	27. 40	21. 12	.1366														
18. 19	26. 15	21. 20	.1370														
18. 25	26. 25	21. 41	.1374														
18. 34	25. 10	21. 54	.1379														
18. 40	25. 30	22. 20	.1384														
18. 44	25. 10	22. 40	.1382														
18. 56	26. 30	22. 54	.1386														
19. 4	26. 40	23. 12	.1384														
19. 14	25. 45	23. 53	.1399														
19. 39	28. 0	23. 59	.1391														
19. 59	26. 55																
20. 17	28. 10																
20. 53	29. 20																
21. 5	30. 50																
21. 26	30. 20																
22. 19	34. 30																
	***																
23. 7	32. 30																
23. 11	31. 50																
July 31		July 31															
23. 26	20. 31. 0	23. 26															
23. 59	32. 5	23. 59															
Aug. 1		Aug. 1															
0. 0	20. 32. 5	0. 0	.1391														
0. 6	32. 20	0. 6	.1395														
0. 16	31. 40	0. 15	.1393														
0. 29	32. 25	0. 44	.1401														
0. 53	32. 45	1. 5	.1399														
2. 4	34. 10	1. 11	.1401														
2. 53	33. 10	1. 13	.1392														
3. 24	34. 5	1. 25	.1396														
3. 34	35. 0	1. 41	.1391														
3. 44	34. 20	2. 12	.1389														
3. 54	33. 25	2. 42	.1401														
4. 8	33. 55	2. 52	.1399														
4. 13	34. 40	3. 11	.1405														
4. 28	33. 45	3. 21	.1400														
4. 36	34. 0	3. 42	.1409														
4. 56	31. 30	3. 56	.1386														
5. 9	31. 10	4. 40	.1424														
5. 25	29. 5	5. 10	.1409														
5. 41	27. 50	5. 12	.1410														
5. 46	28. 0	5. 30	.1405														
6. 3	24. 40	5. 46	.1404														
6. 11	25. 20	5. 55	.1411														
6. 26	25. 0	6. 12	.1406														
6. 42	25. 50	6. 42	.1422														
6. 53	27. 5	6. 55	.1419														
7. 11	26. 10	7. 0	.1421														
7. 36	27. 0	7. 11	.1418														
7. 55	26. 5	***															
8. 11	27. 10	7. 59	.1412														
8. 17	26. 35	8. 12	.1415														
8. 28	26. 0	8. 20	.1419														
8. 41	26. 40	8. 56	.1406														
11. 41	23. 35	9. 24	.1409														
15. 28	22. 45	10. 25	.1408														
16. 44	21. 15	13. 54	.1408														
18. 13	21. 10	16. 30	.1411														
18. 20	21. 55	17. 26															

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.		
Aug. 2		Aug. 2		Aug. 2		Aug. 2			Aug. 3		Aug. 3								
1. 41	20. 29. 30	2. 40	*1405	11. 28	*03323	3. 0	62. 6	63. 9	15. 31	20. 24. 0	7. 22	*1403							
2. 20	29. 30	2. 52	*1407	14. 12	*03280	9. 0	62. 6	64. 0	16. 53	21. 0	7. 36	*1408							
2. 30	28. 45	3. 9	*1406	15. 42	*03255	21. 0	61. 5	62. 8	19. 26	21. 40	8. 6	*1406							
5. 3	26. 30	3. 39	*1412	17. 22	*03243	22. 0	61. 5	62. 9	20. 26	23. 10	8. 42	*1408							
5. 21	27. 0	5. 55	*1408	18. 56	*03255	23. 0	61. 4	63. 0	21. 38	24. 40	8. 57	*1411							
5. 43	26. 20	6. 12	*1411	23. 10	*03246				21. 59	24. 40	9. 11	*1410							
6. 11	26. 55	6. 25	*1409	23. 59	*03254				23. 44	29. 55	9. 20	*1411							
6. 36	26. 30	6. 57	*1414						23. 59	29. 55	9. 36	*1406							
7. 34	27. 0	7. 38	*1413								12. 43	*1406							
8. 4	25. 30	7. 57	*1405								13. 45	*1410							
8. 11	25. 55	8. 22	*1404								17. 7	*1408							
8. 17	25. 10	8. 56	*1406								17. 20	*1405							
9. 23	25. 45	9. 12	*1405								18. 42	*1404							
10. 9	25. 35	15. 54	*1407								20. 14	*1400							
10. 38	25. 40	16. 57	*1404								21. 27	*1400							
10. 45	25. 25	19. 26	*1396								22. 6	*1390							
11. 20	24. 40	19. 43	*1398								23. 10	*1396							
11. 40	25. 30	21. 22	*1389								23. 26	*1395							
12. 9	23. 30	23. 25	*1392								23. 54	*1398							
12. 24	23. 55	23. 59	*1399								23. 59	*1397							
13. 23	23. 25																		
13. 33	24. 0								Aug. 4	20. 29. 55	Aug. 4	*1397	Aug. 4	0. 0	*03177	Aug. 4	1. 0	61. 0	63. 4
13. 59	24. 0								0. 11	30. 5	0. 41	*1398	0. 25	*03188	3. 0	61. 5	63. 0		
14. 26	25. 10								0. 19	29. 35	1. 12	*1397	3. 6	*03243	9. 0	61. 8	63. 4		
15. 36	22. 40								0. 55	30. 0	1. 20	*1400	6. 4	*03273	9. 40	58. 9	61. 0		
17. 25	21. 50								2. 29	29. 30	3. 23	*1403	9. 11	*03284	21. 10	59. 2	60. 2		
17. 40	21. 20								5. 11	25. 10	3. 57	*1400	10. 19	*03235					
18. 40	21. 20								7. 30	25. 0	5. 14	*1400	12. 6	*03184					
19. 33	22. 5								8. 6	24. 30	6. 22	*1405	17. 24	*03103					
21. 25	26. 40								9. 18	25. 35	6. 45	*1407	19. 10	*03116					
21. 39	26. 40								12. 53	24. 55	8. 53	*1407	20. 24	*03107					
22. 12	28. 0								19. 44	21. 10	11. 20	*1410	22. 54	*03092					
23. 17	29. 50								20. 54	22. 10	17. 17	*1413	23. 59	*03111					
23. 40	29. 50								20. 57	20. 30	18. 52	*1411							
23. 59	30. 50								21. 56	23. 10	19. 58	*1405							
Aug. 3		Aug. 3		Aug. 3		Aug. 3			22. 6	24. 20	20. 45	*1404							
0. 0	20. 30. 50	0. 0	*1399	0. 0	*03254	0. 0	61. 5	63. 2	23. 32	28. 50	21. 1	*1410							
0. 39	31. 20	0. 20	*1401	0. 56	*03273	1. 0	62. 3	63. 4	23. 54	31. 0	21. 54	*1410							
1. 8	31. 20	0. 38	*1405	3. 12	*03335	2. 0	62. 6	64. 6	23. 59	30. 55	21. 59	*1413							
1. 43	29. 55	0. 51	*1403	4. 34	*03346	3. 0	62. 5	64. 0			22. 25	*1415							
2. 14	29. 30	1. 44	*1403	5. 6	*03337	9. 0	63. 2	65. 0			22. 54	*1423							
3. 18	27. 30	1. 54	*1406	9. 39	*03364	12. 0	59. 6	62. 0			23. 11	*1421							
3. 43	27. 10	2. 10	*1404	10. 41	*03353	21. 0	59. 4	61. 6			23. 24	*1417							
4. 13	26. 5	2. 21	*1406	11. 58	*03316						23. 44	*1424							
4. 58	25. 30	2. 43	*1405	14. 49	*03232						23. 59	*1418							
6. 29	25. 25	2. 57	*1409	17. 41	*03183														
7. 33	26. 20	3. 34	*1404	18. 54	*03193														
8. 43	26. 5	3. 43	*1406	20. 41	*03172				Aug. 5	20. 30. 55	Aug. 5	*1418	Aug. 5	0. 0	*03111	Aug. 5	0. 20	60. 5	62. 1
11. 3	25. 40	4. 10	*1404	23. 14	*03164				0. 11	30. 50	0. 35	*1411	1. 59	*03163	9. 0	61. 1	62. 8		
11. 17	24. 50	4. 26	*1405	23. 59	*03177				0. 36	33. 0	0. 42	*1403	4. 8	*03196	21. 0	59. 3	60. 2		
13. 3	24. 25	4. 50	*1402						0. 41	31. 30	1. 12	*1406	6. 11	*03207	22. 0	59. 8	60. 9		
13. 26	23. 40	4. 59	*1405						1. 13	32. 20	1. 24	*1416	9. 24	*03225	23. 0	59. 8	61. 2		
13. 51	24. 30	5. 12	*1403						1. 26	33. 30	1. 41	*1413	10. 14	*03221					
14. 0	24. 0	5. 27	*1410						2. 16	33. 20	2. 9	*1414	11. 6	*03200					
14. 9	22. 55	5. 43	*1407						3. 9	32. 30	2. 20	*1417	11. 58	*03137					
14. 39	23. 40	6. 11	*1415						4. 4	29. 40	2. 57	*1413	12. 51	*03128					
14. 58	23. 5	6. 26	*1416						5. 16	27. 0	3. 24	*1405	13. 40	*03107					

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Aug. 5		Aug. 5		Aug. 5					Aug. 6		Aug. 6						
7. 43	20. 27. 5	3. 54	'1403	15. 42	'03104				4. 43	20. 28. 0	3. 25	'1413					
8. 13	26. 25	4. 0	'1407	17. 21	'03098				5. 7	25. 15	3. 51	'1416					
8. 39	26. 45	4. 20	'1406	19. 13	'03128					***	4. 12	'1429					
8. 52	24. 5	4. 43	'1413	20. 54	'03105				6. 55	25. 30	4. 25	'1423					
9. 6	22. 35	4. 55	'1410	23. 40	'03129				7. 40	19. 30	4. 42	'1425					
9. 23	22. 55	5. 20	'1411	23. 59	'03138				8. 7	23. 5	5. 22	'1408					
9. 39	22. 20	5. 36	'1417						8. 11	21. 30	5. 55	'1413					
10. 4	24. 10	5. 48	'1416							***	6. 25	'1425					
10. 39	23. 30	6. 11	'1416						9. 10	25. 10	6. 59	'1424					
10. 54	25. 30	6. 25	'1420						9. 34	25. 0	7. 25	'1410					
11. 8	29. 10	6. 44	'1415						9. 51	26. 0	7. 55	'1417					
11. 27	29. 10	7. 20	'1419						10. 18	24. 50	8. 12	'1411					
12. 6	20. 55	7. 43	'1416							***	8. 15	'1416					
12. 36	18. 50	7. 59	'1418						12. 43	24. 50	8. 25	'1413					
12. 42	18. 50	8. 22	'1414						13. 6	26. 5	8. 56	'1416					
13. 11	14. 45	8. 36	'1418							***	9. 21	'1413					
13. 33	12. 55	8. 52	'1416						15. 9	22. 0	9. 40	'1418					
14. 7	17. 10	9. 20	'1418						16. 11	23. 10	9. 55	'1413					
14. 36	18. 5	9. 42	'1410						16. 45	21. 55	10. 55	'1416					
14. 55	17. 25	10. 12	'1407						17. 44	21. 0	11. 54	'1414					
15. 16	17. 25	10. 20	'1414						19. 17	20. 20	12. 24	'1411					
15. 42	19. 10	10. 42	'1409						22. 0	23. 30	12. 45	'1412					
16. 4	18. 55	11. 7	'1408						23. 41	27. 55	13. 6	'1419					
16. 13	17. 30	11. 35	'1422						23. 59	28. 35	13. 25	'1416					
16. 50	16. 0	12. 12	'1417								13. 35	'1417					
17. 9	17. 30	12. 49	'1411								13. 50	'1412					
17. 14	16. 25	13. 12	'1421								15. 5	'1410					
17. 57	20. 20	13. 40	'1417								15. 54	'1405					
18. 21	20. 10	13. 45	'1413								16. 41	'1408					
18. 30	20. 55	14. 22	'1407								19. 23	'1395					
18. 38	20. 25	14. 43	'1411								19. 45	'1396					
19. 18	22. 50	15. 35	'1404								20. 27	'1389					
19. 42	22. 30	16. 6	'1410								23. 4	'1391					
19. 56	21. 10	16. 57	'1409								23. 40	'1395					
19. 58	22. 0	18. 24	'1399								23. 59	'1398					
20. 16	23. 15	18. 53	'1397						Aug. 7		Aug. 7		Aug. 7		Aug. 7		
20. 36	23. 10	19. 12	'1400						0. 0	20. 28. 35	0. 0	'1398	0. 0	'03176	0. 0	60. 9	62. 5
21. 24	25. 30	19. 36	'1396						0. 27	29. 0	0. 25	'1400	2. 41	'03224	1. 0	61. 6	63. 2
21. 58	25. 25	***	***						0. 44	29. 5	0. 41	'1399	6. 47	'03269	2. 0	61. 6	63. 0
22. 56	27. 30	21. 25	'1393						1. 13	30. 25	1. 10	'1404	7. 58	'03273	3. 0	61. 6	63. 4
23. 25	29. 30	22. 45	'1400						1. 40	29. 55	1. 36	'1398	8. 24	'03282	9. 0	58. 8	61. 0
23. 56	29. 50	23. 8	'1404						2. 11	29. 50	2. 25	'1408	10. 44	'03192	14. 0	55. 4	58. 0
23. 59	30. 5	23. 29	'1404						3. 41	27. 10	2. 54	'1404	15. 4	'03100	21. 0	59. 1	61. 0
		23. 59	'1405						4. 11	27. 5	3. 26	'1404	17. 10	'03137	22. 0	59. 8	61. 3
Aug. 6		Aug. 6		Aug. 6		Aug. 6			4. 19	26. 30	3. 43	'1399	18. 53	'03155	23. 0	59. 7	61. 2
0. 0	20. 30. 5	0. 0	'1405	0. 0	'03138	0. 0	60. 3	62. 5	4. 47	25. 50	4. 10	'1404	20. 28	'03105			
0. 58	30. 55	0. 10	'1410	2. 54	'03192	1. 0	60. 9	62. 9	7. 11	25. 40	4. 22	'1403	21. 3	'03097			
1. 6	31. 30	0. 27	'1407	6. 9	'03156	2. 0	60. 7	62. 9	7. 39	24. 20	4. 41	'1406	23. 59	'03122			
1. 25	31. 35	0. 38	'1415	7. 41	'03149	3. 0	60. 3	61. 0	8. 3	20. 0	5. 5	'1405					
1. 37	30. 25	0. 50	'1415	7. 56	'03160	9. 0	59. 7	60. 0	8. 11	19. 20	5. 33	'1398					
2. 14	29. 30	1. 8	'1422	10. 12	'03156	21. 0	60. 4	62. 0	8. 56	24. 25	5. 58	'1403					
2. 23	29. 45	1. 29	'1412	14. 41	'03151	22. 0	60. 6	62. 0	9. 50	25. 5	6. 47	'1411					
2. 31	28. 30	1. 53	'1416	18. 13	'03177	23. 0	60. 5	62. 0	11. 26	23. 40	6. 56	'1408					
2. 39	29. 0	2. 12	'1413	23. 59	'03176				11. 41	24. 35	7. 19	'1407					
	***	2. 33	'1419						11. 53	23. 25	7. 33	'1409					
3. 28	27. 10	2. 43	'1423						12. 44	24. 10	7. 56	'1401					
	***	3. 11	'1422						13. 4	23. 25	8. 12	'1409					

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



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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.	
Aug. 7 13. 35 16. 28 19. 40 23. 11 23. 51 23. 59	20. 24. 0 23. 0 21. 0 27. 30 30. 0 30. 10	Aug. 7 12. 28 14. 33 17. 47 18. 53 21. 12 22. 27 23. 6 23. 12 23. 29 23. 44 23. 59	*1416 *1413 *1409 *1407 *1401 *1405 *1409 *1408 *1410 *1415 *1411															
Aug. 8 0. 0 0. 52 1. 9 2. 11 2. 33 3. 56 4. 28 6. 23 7. 43 8. 43 9. 44 9. 58 10. 9 10. 27 11. 13 11. 41 14. 9 15. 53 16. 11 16. 24 17. 11 17. 32 18. 9 18. 24 18. 42 18. 53 19. 43 19. 53 20. 8 21. 3 21. 39 22. 24 23. 42 23. 59	20. 30. 10 30. 50 32. 10 31. 35 30. 20 28. 10 26. 40 25. 25 26. 5 25. 25 25. 10 23. 40 24. 5 22. 20 23. 30 25. 10 24. 40 23. 30 22. 40 23. 0 22. 30 22. 35 21. 55 22. 35 22. 25 23. 5 22. 0 22. 15 21. 40 22. 55 22. 30 24. 5 29. 20 30. 0	Aug. 8 0. 0 0. 45 0. 55 1. 11 1. 24 2. 43 3. 15 3. 56 4. 46 5. 11 5. 22 5. 41 5. 54 6. 57 7. 12 7. 26 7. 45 9. 14 9. 43 9. 55 10. 13 10. 26 10. 45 10. 56 11. 26 11. 56 12. 51 13. 55 16. 8 17. 43 19. 24 21. 23 22. 11 22. 21 23. 40 23. 59	*1411 *1413 *1417 *1418 *1412 *1416 *1413 *1412 *1405 *1413 *1409 *1408 *1412 *1408 *1413 *1411 *1414 *1411 *1412 *1415 *1410 *1412 *1408 *1411 *1409 *1410 *1408 *1404 *1398 *1394 *1399 *1397 *1407 *1409			Aug. 8 0. 0 1. 0 2. 0 3. 0 9. 0 21. 0 22. 0 23. 30	60. 4 60. 8 61. 2 61. 4 61. 3 60. 5 60. 8	62. 0 62. 2 62. 6 63. 1 63. 0 61. 9 62. 0 62. 2										
Aug. 9 0. 0 0. 10 0. 56 2. 4 2. 48 2. 56 3. 25	20. 30. 0 30. 25 31. 30 33. 5 32. 20 21. 25 32. 10	Aug. 9 0. 0 0. 24 0. 40 0. 47 1. 24 1. 41 1. 49	*1409 *1409 *1412 *1409 *1417 *1412 *1415			Aug. 9 0. 0 0. 24 2. 50 2. 56 3. 54 5. 34 7. 32	61. 4 61. 7 61. 7 61. 0 57. 8 59. 6 60. 0	63. 3 64. 1 64. 0 62. 9 58. 7 61. 4 61. 6										
Aug. 9 3. 43 3. 55 4. 11 4. 24 5. 10 5. 33 7. 11 7. 40 7. 56 8. 39 9. 4 9. 26 9. 33 9. 42 10. 34 10. 55 11. 13 11. 23 11. 26 11. 56 12. 48 12. 58 13. 13 13. 22 13. 33 13. 42 13. 58 14. 26 14. 36 14. 40 14. 46 14. 56 15. 11 15. 23 15. 33 15. 41 15. 47 15. 56 16. 2 16. 17 16. 44 16. 56 17. 0 17. 13 17. 23 17. 30 17. 41 17. 55 18. 11 18. 23 18. 54 19. 6 19. 12 19. 15 19. 16 19. 25	20. 30. 20 31. 0 28. 30 29. 40 29. 40 28. 0 27. 45 27. 0 27. 30 27. 0 26. 0 26. 0 26. 20 25. 35 24. 0 25. 10 23. 0 23. 0 23. 40 22. 40 24. 10 24. 10 26. 20 23. 40 24. 5 21. 25 22. 10 20. 10 20. 40 19. 30 16. 10 14. 55 14. 45 15. 20 13. 10 11. 55 12. 30 13. 30 20. 55 20. 55 22. 10 *** 12. 41 22. 50 21. 25 21. 10 19. 10 18. 30 20. 20 19. 45 20. 20 17. 55 21. 30 20. 0 22. 20 22. 0	Aug. 9 9. 19 10. 16 10. 20 10. 44 10. 59 11. 23 11. 29 11. 40 12. 39 13. 4 14. 41 14. 45 15. 12 15. 40 15. 44 16. 55 17. 41 18. 41 19. 11 19. 20 19. 29 19. 56 20. 11 23. 59	*03257 *03227 *03216 *03221 *03203 *03200 *03187 *03200 *03163 *03160 *03065 *03067 *03057 *03060 *03056 *03077 *03060 *03081 *03076 *03087 *03076 *03080 *03095 *03123			Aug. 9 23. 0 60. 2 61. 8												

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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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Aug. 9		Aug. 9							Aug. 10		Aug. 10						
19. 27	20. 19. 30	16. 25	.1413	h	h	h	h	o	12. 41	20. 20. 20	9. 56	.1414	h	h	h	h	o
	***	16. 29	.1415						13. 33	24. 20	10. 11	.1421					
19. 41	21. 40	16. 41	.1410						13. 47	23. 40	10. 36	.1408					
19. 53	19. 45	16. 53	.1409						14. 3	24. 15	11. 9	.1416					
19. 57	19. 45	16. 58	.1417						14. 43	23. 20	11. 57	.1411					
20. 1	22. 0	17. 13	.1421						14. 54	24. 10	12. 52	.1406					
20. 9	23. 40	17. 25	.1419						15. 6	23. 30	13. 45	.1406					
20. 17	22. 40	17. 41	.1412						15. 11	23. 50	13. 57	.1410					
20. 26	24. 40	18. 12	.1403						16. 26	21. 30	14. 22	.1409					
20. 42	25. 45	18. 54	.1403						16. 51	22. 50	15. 41	.1413					
20. 53	24. 30	19. 5	.1401							***	16. 26	.1409					
21. 51	27. 50	19. 16	.1407						17. 9	20. 0	16. 44	.1411					
22. 13	27. 5	19. 27	.1400						17. 21	21. 40	16. 54	.1416					
22. 24	27. 20	19. 54	.1398						17. 33	19. 50	17. 10	.1413					
22. 32	27. 5	19. 58	.1399						17. 56	19. 20	17. 20	.1416					
23. 29	29. 55	20. 21	.1388						18. 3	20. 20	18. 0	.1411					
23. 47	29. 55	20. 41	.1391						18. 11	19. 55	18. 22	.1412					
23. 59	31. 20	20. 48	.1387						18. 25	20. 0	18. 44	.1405					
		21. 12	.1390						18. 28	19. 15	18. 54	.1410					
		21. 25	.1382						18. 37	20. 30	19. 25	.1403					
		22. 12	.1377						18. 41	19. 30	19. 42	.1405					
		22. 35	.1380							***	20. 5	.1398					
		22. 54	.1385						18. 59	19. 30	20. 12	.1403					
		23. 42	.1390						19. 12	22. 0	20. 23	.1396					
		23. 59	.1395						19. 25	20. 0	20. 43	.1397					
									19. 37	21. 20	20. 54	.1392					
Aug. 10		Aug. 10		Aug. 10		Aug. 10			19. 42	20. 35	21. 13	.1386					
0. 0	20. 31. 20	0. 0	.1395	0. 0	.03123	0. 0	60.462.0		19. 46	21. 30	21. 41	.1382					
0. 29	31. 30	0. 24	.1396	2. 12	.03184	1. 0	60.762.6		19. 53	20. 50	21. 59	.1375					
0. 56	32. 40	0. 53	.1401	3. 5	.03207	3. 0	61.363.2		20. 11	22. 15	22. 12	.1378					
1. 41	32. 20	1. 13	.1399	5. 12	.03217	9. 0	59.862.1		20. 18	22. 0	22. 35	.1388					
1. 54	33. 25	1. 40	.1402	5. 34	.03208	10. 0	58.760.1		20. 36	24. 30	22. 55	.1394					
	***	1. 56	.1401	8. 56	.03216	11. 0	57.959.0		20. 40	24. 30	23. 10	.1391					
3. 3	29. 20	2. 0	.1397	9. 55	.03180	21. 0	59.160.0		20. 56	26. 0	23. 23	.1387					
3. 13	29. 30	2. 11	.1395	10. 35	.03132	22. 0	59.360.5		21. 26	26. 0	23. 35	.1389					
	***	2. 21	.1396	12. 30	.03111	23. 0	59.460.5		22. 9	31. 25	23. 42	.1395					
4. 9	27. 25	2. 40	.1404	16. 45	.03097					***	23. 59	.1390					
4. 26	27. 25	2. 50	.1402	17. 59	.03083				22. 33	30. 55							
5. 7	26. 0	2. 57	.1406	19. 12	.03086				22. 43	32. 0							
5. 22	26. 20	3. 20	.1403	20. 27	.03066				22. 58	31. 30							
5. 34	25. 50	3. 37	.1400	23. 21	.03086				23. 26	32. 55							
6. 14	26. 0	3. 55	.1403	23. 59	.03103				23. 36	32. 20							
6. 41	25. 20	4. 3	.1401						23. 41	33. 40							
6. 56	25. 50	4. 26	.1404						23. 56	32. 0							
7. 13	25. 0	4. 41	.1407						23. 59	32. 0							
7. 33	25. 25	4. 55	.1404														
9. 4	24. 55	5. 12	.1404						Aug. 11		Aug. 11		Aug. 11				
9. 23	23. 45	5. 27	.1409						0. 0	20. 32. 0	0. 0	.1390	0. 0	.03103	0. 0	59.661.0	
9. 29	24. 5	5. 42	.1406						0. 26	31. 40	1. 39	***	1. 39	.03132	1. 0	60.461.5	
9. 41	23. 50	6. 3	.1409						1. 12	32. 10	0. 40	.1403	1. 51	.03127	2. 0	60.662.0	
10. 6	28. 10	6. 14	.1406						1. 32	31. 55	0. 55	.1405	3. 19	.03153	3. 0	60.662.2	
10. 13	27. 40	6. 29	.1407						1. 41	32. 40	1. 26	.1404	3. 38	.03166	9. 0	59.761.0	
10. 41	21. 10	6. 43	.1405						2. 6	31. 0	1. 41	.1406	4. 41	.03180	22. 0	59.761.0	
10. 58	20. 35	7. 3	.1405						2. 11	31. 20	1. 47	.1411	5. 14	.03201			
11. 12	22. 20	7. 12	.1408						2. 17	30. 30	2. 11	.1403	5. 41	.03205			
11. 38	22. 45	8. 42	.1404						2. 28	31. 5	2. 27	.1408	6. 32	.03201			
12. 0	22. 30	9. 18	.1408						2. 34	30. 20	2. 40	.1404	6. 55	.03194			
12. 25	22. 25	9. 42	.1407						2. 53	30. 25	2. 54	.1405	7. 26	.03200			

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.			
Aug. 11		Aug. 11		Aug. 11					Aug. 11		Aug. 11									
3. 26	20. 29. 5	3. 11	*1400	7. 47	*03192				16. 41	20. 25. 50	23. 6	*1404								
3. 38	30. 20	3. 20	*1403	8. 36	*03213				16. 47	25. 30	23. 43	*1406								
3. 51	29. 55	3. 25	*1400	9. 20	*03202				16. 56	26. 50	23. 51	*1411								
3. 59	29. 55	3. 43	*1416	10. 39	*03140				17. 7	25. 50	23. 59	*1406								
4. 11	29. 0	3. 55	*1412	10. 50	*03100				17. 12	26. 0										
4. 18	29. 0	4. 8	*1412	11. 41	*03077				17. 29	25. 20										
4. 43	27. 0	4. 20	*1396	12. 4	*03088				17. 38	26. 20										
4. 53	27. 10	4. 43	*1390	13. 12	*03076				17. 55	26. 20										
5. 6	26. 0	4. 57	*1401	13. 30	*03083				18. 13	27. 20										
5. 13	27. 20	5. 9	*1400	15. 4	*03048				18. 28	29. 15										
5. 23	27. 30	5. 18	*1406	16. 19	*03046				18. 37	28. 30										
5. 31	25. 15	5. 33	*1393	17. 19	*03020				18. 51	28. 40										
5. 38	25. 0	5. 43	*1398	17. 52	*03023				19. 18	32. 50										
5. 46	25. 10	5. 51	*1396	18. 26	*03044				19. 43	28. 40										
5. 58	23. 25	6. 12	*1405	19. 22	*03057				20. 9	26. 40										
6. 56	25. 25	6. 25	*1415	21. 59	*03060				20. 51	27. 35										
7. 17	25. 0	6. 45	*1417	23. 59	*03076				21. 28	26. 40										
7. 36	26. 5	7. 6	*1413						21. 48	28. 0										
7. 42	25. 0	7. 33	*1425						22. 17	27. 40										
7. 51	23. 30	7. 50	*1412						22. 26	26. 30										
7. 56	23. 25	7. 59	*1404						22. 39	26. 5										
8. 9	19. 0	8. 12	*1398						22. 57	26. 30										
8. 17	17. 25	8. 20	*1402						23. 50	30. 30										
8. 39	21. 10	8. 39	*1406						23. 59	30. 20										
8. 55	21. 0	8. 54	*1402																	
9. 7	23. 55	9. 18	*1416						Aug. 12	20. 30. 20	Aug. 12	0. 0	*1406	Aug. 12	0. 0	*03076	Aug. 12	1. 0	60. 8	62. 2
9. 23	19. 0	9. 26	*1418						0. 9	30. 15	0. 10	*1400	0. 3	*03152	2. 3	*03152	5. 0	61. 3	62. 9	
9. 32	19. 40	9. 42	*1407						0. 28	32. 0	0. 29	*1402	2. 39	*03150	9. 30	*03150	9. 30	61. 4	62. 6	
9. 40	16. 10	9. 56	*1418						0. 37	31. 40	0. 51	*1395	2. 43	*03168	21. 0	***	21. 0	60. 9	62. 5	
9. 54	19. 55	10. 11	*1408						0. 41	30. 25	1. 2	*1404			22. 0		22. 0	61. 3	62. 6	
10. 12	22. 50	10. 17	*1413						0. 45	30. 30	1. 43	*1398	3. 10	*03163	23. 0		23. 0	61. 7	62. 7	
10. 25	28. 40	10. 35	*1403						0. 53	29. 0	1. 57	*1400	4. 39	*03197						
10. 27	28. 40	10. 43	*1419						0. 57	30. 30	2. 22	*1408	5. 23	*03197						
10. 39	33. 55	10. 56	*1413						1. 6	29. 50	2. 40	*1400	5. 38	*03205						
10. 45	27. 0	11. 13	*1433						1. 24	29. 50	2. 44	*1402	6. 14	*03197						
10. 58	22. 20	11. 26	*1430						1. 26	30. 40	2. 53	*1397	6. 57	*03192						
11. 13	24. 30	11. 52	*1415						1. 37	30. 55	3. 5	*1406	7. 14	*03214						
11. 25	25. 55	12. 18	*1420						1. 55	30. 0	3. 27	*1394	8. 7	*03197						
11. 41	22. 0	12. 35	*1417						2. 18	30. 25	3. 44	*1400	8. 29	*03203						
11. 54	21. 20	12. 42	*1421						2. 28	29. 55	3. 55	*1397	9. 26	*03209						
11. 59	22. 50	13. 21	*1403						2. 38	30. 25	4. 21	*1408	10. 11	*03188						
12. 27	19. 55	14. 11	*1410						2. 41	30. 0	4. 29	*1406	11. 12	*03182						
12. 34	20. 35	14. 51	*1411						2. 47	31. 0	4. 52	*1411	12. 55	*03177						
13. 13	19. 10	15. 12	*1406						2. 56	30. 0	5. 5	*1406	13. 27	*03158						
13. 26	22. 20	16. 53	*1419						2. 58	30. 45	5. 29	*1398	14. 56	*03132						
13. 34	22. 30	17. 39	*1408						3. 7	29. 45	5. 54	*1415	16. 13	*03140						
13. 39	23. 40	18. 11	*1402						3. 25	29. 30	6. 24	*1400	17. 13	*03117						
13. 48	23. 5	18. 25	*1406						3. 33	29. 45	6. 44	*1407	18. 7	*03120						
13. 59	23. 55	18. 48	*1394						3. 51	28. 0	7. 8	*1413	19. 15	*03157						
14. 10	23. 20	19. 6	*1390						3. 59	25. 50	7. 12	*1410	20. 13	*03153						
14. 24	23. 30	19. 44	*1404						4. 24	27. 30	7. 27	*1434	21. 11	*03166						
14. 39	25. 0	20. 10	*1400						4. 53	26. 20	8. 2	*1416	23. 59	*03187						
15. 13	23. 55	20. 25	*1403						5. 4	27. 10	8. 24	*1406								
15. 25	26. 5	20. 44	*1398						5. 23	26. 20	8. 43	*1415								
15. 39	24. 40	21. 6	*1400						5. 34	26. 55	9. 12	*1407								
15. 52	24. 40	21. 27	*1394						5. 43	26. 10	9. 35	*1410								
16. 13	22. 25	22. 20	*1397						5. 56	27. 0	9. 55	*1421								
16. 26	24. 30	22. 29	*1401																	

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Aug. 12		Aug. 12							Aug. 12								
6. 17	20. 25. 45	10. 20	•1410						21. 25	20. 24. 0							
6. 36	25. 45	10. 41	•1415						21. 29	23. 5							
6. 44	23. 50	11. 10	•1414						21. 41	23. 0							
7. 4	16. 50	11. 36	•1406						22. 11	26. 0							
7. 16	22. 15	12. 12	•1410						22. 19	25. 30							
7. 37	25. 40	12. 28	•1407							***							
7. 43	25. 10	12. 38	•1410						22. 53	26. 20							
7. 56	25. 50	13. 23	•1424						23. 4	27. 40							
8. 13	23. 50	14. 20	•1416						23. 11	27. 30							
8. 41	25. 0	14. 59	•1419						23. 31	29. 50							
8. 56	22. 40	15. 21	•1407						23. 59	28. 25							
9. 39	22. 25	15. 35	•1409														
9. 51	26. 0	15. 57	•1406						Aug. 13		Aug. 13		Aug. 13		Aug. 13		
10. 21	22. 50	16. 10	•1409						0. 0	20. 28. 25	0. 0	•1388	0. 0	•03187	0. 0	61. 9	63. 6
10. 41	21. 10	16. 55	•1407						0. 4	28. 35	0. 46	•1397	1. 56	•03240	1. 0	62. 4	64. 0
10. 56	21. 0	17. 24	•1395						0. 13	28. 10	0. 57	•1383	5. 19	•03305	3. 0	62. 5	64. 2
11. 9	19. 25	18. 3	•1410						0. 42	33. 20	1. 26	•1388	9. 24	•03297	9. 0	62. 2	63. 7
12. 32	24. 0	18. 12	•1404						1. 43	32. 0	2. 12	•1408	10. 11	•03254	21. 0	61. 4	62. 7
12. 41	23. 25	18. 36	•1406						2. 9	32. 50	2. 40	•1400	10. 29	•03248	22. 0	61. 4	62. 9
12. 58	24. 10	18. 54	•1403						3. 46	28. 40	2. 44	•1403	11. 25	•03220	23. 0	61. 7	63. 2
13. 8	26. 55	18. 58	•1405						4. 26	28. 40	2. 57	•1396	13. 42	•03198			
13. 21	26. 30	19. 20	•1401						4. 52	27. 10	3. 13	•1395	14. 21	•03154			
13. 26	27. 20	19. 30	•1403						5. 9	25. 30	3. 26	•1402	15. 56	•03167			
13. 40	25. 25	19. 41	•1399						5. 24	25. 45	3. 41	•1399	17. 27	•03156			
13. 56	25. 25	19. 55	•1404						5. 34	25. 15	4. 3	•1407	18. 45	•03187			
14. 11	28. 40	20. 24	•1392						5. 58	25. 45	4. 26	•1398	22. 24	•03204			
14. 21	27. 40	20. 43	•1387						6. 24	23. 55	4. 57	•1400	23. 59	•03207			
14. 38	27. 25	20. 55	•1392						6. 40	20. 25	5. 25	•1406					
14. 43	26. 30	21. 25	•1392						6. 55	23. 20	5. 39	•1403					
14. 51	26. 55	21. 41	•1389						7. 6	23. 55	5. 43	•1407					
15. 6	23. 0	21. 55	•1393						7. 17	25. 35	5. 55	•1406					
15. 34	22. 30	22. 20	•1385						7. 36	23. 45	6. 11	•1413					
15. 43	20. 55	22. 42	•1389						7. 51	23. 5	6. 35	•1404					
15. 54	20. 40	23. 11	•1376						8. 3	23. 0	6. 51	•1424					
16. 4	22. 15	23. 26	•1384						8. 16	24. 30	7. 13	•1410					
16. 9	22. 10	23. 41	•1386						8. 27	24. 40	7. 31	•1406					
16. 42	27. 20	23. 59	•1388						8. 43	23. 0	7. 41	•1410					
17. 9	30. 30								9. 0	23. 0	8. 15	•1408					
17. 18	30. 0								9. 17	19. 35	8. 58	•1402					
17. 36	30. 45								9. 28	20. 20	9. 32	•1412					
17. 51	29. 50								9. 39	17. 40	9. 43	•1430					
18. 7	27. 10								9. 56	19. 45	9. 55	•1423					
18. 17	24. 5								10. 14	19. 45	10. 22	•1410					
18. 38	22. 25								10. 26	18. 25	10. 51	•1411					
18. 42	22. 40								10. 51:	22. 10	11. 12	•1407					
18. 56	21. 20								11. 0	22. 0	11. 23	•1409					
19. 0	23. 0								11. 13	20. 0	11. 41	•1399					
19. 8	21. 10								11. 26	19. 50	11. 54	•1396					
19. 11	22. 40								11. 41	17. 50	12. 14	•1394					
19. 17	20. 40								11. 55	18. 5	13. 18	•1402					
19. 32	22. 0								12. 3	21. 0	13. 27	•1411					
19. 36	20. 30								12. 24	21. 0	14. 6	•1405					
19. 41	20. 20								12. 41	23. 5	14. 22	•1399					
19. 53	24. 30								13. 8	23. 0	15. 12	•1412					
20. 19	22. 20								13. 30	25. 0	16. 0	•1412					
20. 39	22. 50								13. 42	28. 45	16. 41	•1404					
20. 42	21. 45								13. 46	28. 50	17. 3	•1402					
21. 16	22. 25								14. 0	32. 40	17. 30	•1405					

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Aug. 13		Aug. 13							Aug. 14		Aug. 14						
14. 9	20. 32. 5	18. 16	*1400	h m		h m	o	o	9. 43	20. 22. 40	9. 20	*1409	h m		h m	o	o
14. 34	25. 35	18. 59	*1393						10. 11	23. 55	9. 42	*1407					
15. 38	21. 40	19. 14	*1388						10. 33	24. 30	9. 57	*1413					
16. 8	23. 0	20. 11	*1393						11. 16	23. 15	10. 58	*1408					
16. 26	23. 0	20. 26	*1391						11. 34	23. 40	12. 11	*1415					
16. 51	26. 10	20. 46	*1394						11. 46	23. 25	12. 30	*1411					
17. 18	26. 30	21. 10	*1388						12. 7	24. 50	13. 37	*1430					
17. 38	24. 10	21. 25	*1387						12. 23	23. 30	14. 41	*1400					
17. 49	24. 15	21. 55	*1379						12. 38	25. 25	15. 33	*1402					
17. 57	23. 25	22. 22	*1384						12. 51	24. 0	16. 49	*1412					
18. 15	23. 30	22. 30	*1382						13. 9	20. 15	17. 25	*1409					
18. 23	23. 10	22. 41	*1385						13. 28	24. 50	17. 43	*1405					
18. 28	24. 5	22. 55	*1382						14. 20	18. 45	17. 55	*1407					
18. 58	24. 40	23. 35	*1388						14. 40	20. 35	18. 12	*1404					
19. 7	23. 50	23. 59	*1386						15. 6	21. 0	18. 41	*1410					
19. 17	22. 45								15. 17	22. 20	19. 11	*1406					
20. 11	20. 40								15. 58	21. 30	19. 40	*1407					
20. 17	19. 20								16. 15	23. 0	20. 13	*1395					
21. 4	23. 50								16. 28	22. 50	20. 27	*1389					
21. 26	23. 5								16. 39	21. 45		***					
21. 38	23. 40								17. 8	20. 45	21. 22	*1386					
21. 43	22. 50								17. 25	22. 40	21. 54	*1385					
22. 23	23. 30								17. 30	22. 40	22. 21	*1385					
22. 28	25. 0								17. 39	23. 35		***					
23. 59	28. 5								18. 21	23. 25	23. 18	*1390					
									18. 41	23. 35	23. 43	*1404					
									19. 8	22. 0	23. 54	*1396					
									19. 13	20. 30		(†)					
Aug. 14		Aug. 14		Aug. 14		Aug. 14			19. 20	21. 0							
0. 0	20. 28. 5	0. 0	*1386	0. 0	*03207	0. 0	62. 1	63. 7	19. 27	20. 45							
0. 13	28. 10	0. 44	*1389	1. 8	*03216	1. 0	62. 5	64. 2	19. 43	22. 45							
0. 22	27. 55	0. 56	*1391	4. 28	*03287	2. 0	62. 4	64. 0	20. 4	23. 45							
0. 53	30. 10	1. 26	*1396	5. 54	*03301	3. 0	62. 6	64. 3	20. 39	22. 30							
0. 57	29. 55	2. 10	*1404	6. 2	*03313	9. 0	62. 3	63. 8	20. 44	22. 55							
1. 11	30. 15	2. 57	*1405	6. 56	*03317	21. 0	60. 5	62. 0	20. 57	22. 10							
1. 24	29. 55	3. 13	*1404	9. 12	*03308	22. 30	60. 9	62. 8	21. 4	23. 20							
1. 52	30. 15	3. 40	*1407	12. 43	*03215	23. 0	60. 9	63. 0	21. 13	22. 30							
1. 56	31. 40	3. 43	*1406	13. 12	*03194				22. 9	26. 10							
2. 0	30. 20	3. 56	*1410	13. 22	*03197				22. 13	26. 10							
2. 7	30. 55	4. 20	*1406	14. 12	*03157				22. 54	27. 50							
2. 14	30. 10	4. 27	*1404	16. 13	*03177				23. 0	29. 0							
3. 4	29. 55	4. 51	*1410	17. 37	*03163				23. 24	29. 10							
3. 11	29. 5	5. 14	*1409	19. 53	*03180				23. 51	32. 10							
3. 58	28. 15	5. 24	*1419	21. 25	*03175				23. 59	31. 40							
4. 13	27. 20	5. 40	*1412	23. 40	*03191												
4. 58	27. 20	5. 55	*1402	23. 59	*03183												
5. 43	25. 10	6. 10	*1408						Aug. 15	20. 31. 40	Aug. 15	(†)	Aug. 15		Aug. 15		
5. 54	23. 30	6. 26	*1403						0. 0	33. 50	0. 48	*1397	0. 0	*03183	0. 0	61. 4	63. 9
6. 9	24. 15	6. 42	*1409						0. 29	33. 0	1. 14	*1384	1. 24	*03212	1. 0	61. 7	63. 5
6. 23	24. 10	6. 56	*1406						0. 56	33. 30	1. 27	*1392	2. 0	*03253	2. 0	61. 6	63. 5
6. 33	22. 45	7. 11	*1400						1. 9	32. 40	1. 42	*1389	5. 6	*03284	3. 0	61. 6	63. 5
6. 43	22. 10	7. 26	*1407						1. 26	30. 10	1. 57	*1393	6. 43	*03258	9. 0	61. 0	62. 2
6. 58	25. 10	7. 36	*1404						1. 44	30. 0	2. 6	*1398	8. 57	*03265	21. 0	60. 3	61. 7
7. 7	24. 45	7. 43	*1409						1. 53	31. 50	2. 12	*1393	10. 7	*03225	22. 0	59. 9	61. 7
7. 28	25. 20	7. 55	*1406						2. 3	31. 30	2. 26	*1396	13. 40	*03192	23. 0	60. 1	61. 9
8. 31	24. 10	8. 5	*1409						2. 10	32. 5	2. 40	*1394	17. 14	*03150			
8. 37	24. 50	8. 40	*1410						2. 26	30. 20	2. 52	*1399	18. 57	*03174			
9. 9	23. 0	8. 44	*1404						3. 3	29. 30	3. 12	*1401	19. 56	*03157			
9. 26	23. 20	9. 11	*1404						3. 10				22. 4	*03146			

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Aug. 15 h m 3. 17	20. 29. 30	Aug. 15 h m 3. 25	.1398	Aug. 15 h m 23. 30	.03109				Aug. 16 h m 1. 23	20. 31. 10	Aug. 16 h m 2. 14	.1411	Aug. 16 h m 5. 26	.03187	Aug. 16 h m 21. 0	57. 8	59. 3
3. 30	30. 0	3. 36	.1401	23. 59	.03117				1. 43	30. 20	3. 26	.1415	7. 50	.03174	22. 0	58. 4	59. 9
3. 56	28. 35	3. 56	.1400						1. 55	29. 5	4. 41	.1399	9. 32	.03137	23. 0	58. 9	60. 3
4. 10	28. 55	4. 7	.1398						2. 11	28. 55	5. 14	.1409	9. 51	.03110			
4. 26	27. 40	4. 18	.1403						2. 23	27. 55	5. 24	.1404	10. 42	.03083			
4. 36	28. 20	4. 36	.1396						2. 40	27. 55	5. 42	.1411	13. 57	.03041			
4. 58	25. 0	4. 52	.1393						3. 21	27. 0	6. 12	.1408	17. 12	.03000			
5. 10	25. 20	5. 8	.1396						3. 58	27. 50	6. 27	.1400	18. 52	.03014			
5. 28	24. 55	5. 18	.1409						4. 23	26. 45	6. 42	.1406	19. 57	.03004			
5. 44	25. 15	5. 25	.1407						4. 43	24. 35	6. 55	.1401	21. 19	.02984			
5. 57	25. 0	5. 41	.1410						4. 57	24. 40	7. 12	.1412	23. 59	.03017			
6. 24	25. 25	6. 8	.1404						5. 8	26. 0	7. 56	.1402					
	***	6. 54	.1413						5. 21	24. 30	9. 12	.1405					
6. 49	25. 25	6. 59	.1407						5. 28	26. 0	9. 28	.1421					
6. 53	24. 45	7. 14	.1410						5. 32	25. 5	9. 43	.1416					
7. 2	25. 30	7. 36	.1408						6. 41	25. 10	9. 57	.1422					
7. 13	24. 55	8. 30	.1411						6. 58	21. 15	10. 11	.1416					
7. 28	25. 30	9. 43	.1408						7. 12	21. 55	10. 41	.1410					
7. 38	25. 0	10. 12	.1411						7. 38	24. 45	12. 25	.1416					
7. 54	25. 40	10. 41	.1408						8. 49	24. 55	16. 56	.1414					
8. 38	25. 45	11. 24	.1407						9. 11	24. 20	17. 11	.1415					
8. 56	25. 10	11. 26	.1411						9. 23	25. 0	17. 24	.1412					
9. 8	25. 35	12. 13	.1406						9. 33	27. 10	17. 43	.1415					
9. 25	25. 0	12. 26	.1409						9. 54	22. 25	18. 25	.1410					
10. 55	24. 30	13. 49	.1405						10. 6	23. 50	20. 9	.1404					
11. 4	25. 0	14. 6	.1408						10. 23	23. 10	20. 38	.1404					
11. 26	24. 10	14. 12	.1406						10. 50	24. 20	21. 45	.1397					
12. 4	24. 0	14. 25	.1409						10. 57	23. 45	22. 45	.1397					
12. 17	24. 55	15. 6	.1404						11. 11	23. 50	23. 12	.1391					
12. 18	24. 20	15. 21	.1407						11. 21	24. 30	23. 59	.1399					
12. 51	25. 25	15. 43	.1402						11. 53	24. 30							
13. 26	23. 15	16. 10	.1405						12. 26	25. 35							
14. 0	26. 0	17. 26	.1400						14. 49	22. 55							
14. 41	24. 50	18. 11	.1402						16. 39	23. 0							
14. 53	25. 20	18. 29	.1399						17. 6	22. 25							
15. 23	24. 0	18. 56	.1395						17. 13	23. 5							
15. 45	23. 55	21. 5	.1388						18. 4	21. 35							
15. 58	24. 30	21. 23	.1391						18. 38	21. 55							
16. 41	22. 15	21. 41	.1389						19. 58	20. 20							
16. 58	21. 55	23. 7	.1384						21. 3	21. 35							
17. 21	22. 25	23. 59	.1391						22. 11	24. 20							
18. 26	21. 5								22. 51	26. 30							
19. 54	21. 45								23. 8	27. 0							
20. 12	22. 10								23. 59	30. 30							
20. 26	21. 35																
	***								Aug. 17	20. 30. 30	Aug. 17	.1399	Aug. 17	.03017	Aug. 17	59. 1	61. 6
21. 7	21. 50								0. 0	31. 50	0. 35	.1401	0. 40	.03017	0. 0	59. 6	62. 0
21. 41	23. 5								0. 23	31. 20	1. 39	.1408	3. 6	.03095	1. 0	59. 6	61. 3
22. 28	25. 5								0. 41	32. 0	2. 12	.1406	5. 20	.03126	2. 0	60. 0	61. 8
22. 58	25. 40								1. 27	29. 30	2. 45	.1408	9. 21	.03143	3. 0	60. 5	62. 8
23. 43	27. 40								2. 43	29. 30	3. 12	.1417	11. 30	.03057	9. 0	58. 8	60. 2
23. 59	27. 45								2. 57	28. 30	3. 40	.1417	13. 23	.03023	21. 0	58. 8	60. 2
									3. 29	28. 45	4. 41	.1406	14. 11	.03033	22. 0	59. 3	60. 4
									3. 51	28. 0	4. 56	.1404	17. 25	.02997	23. 0	59. 3	60. 4
Aug. 16	20. 27. 45	Aug. 16	.1391	Aug. 16	.03117	Aug. 16	0. 0	59. 9	61. 9	4. 21	28. 0	5. 11	.1408	18. 19	.03019		
0. 0	28. 5	0. 41	.1402	2. 29	.03178	1. 0	60. 8	62. 4	4. 54	25. 45	5. 33	.1419	18. 59	.03034			
0. 28	30. 30	1. 43	.1402	4. 41	.03189	3. 0	59. 8	62. 3	5. 41	26. 50	5. 57	.1411	21. 12	.03008			
0. 43	30. 20	1. 56	.1399	5. 14	.03197	9. 0	58. 9	60. 6	6. 14	26. 30							
1. 7					***												

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Aug. 17 h m 6. 32	20. 27. 0	Aug. 17 h m 6. 12	*1409	Aug. 17 h m 23. 59	°3025	h m	o	o	Aug. 18 h m 3. 56	20. 28. 50	Aug. 18 h m 3. 27	*1411	Aug. 18 h m 20. 4	*02918	h m	o	o
6. 42	26. 30	6. 52	*1418						4. 9	29. 40	3. 39	*1405	23. 59	*02997			
7. 26	26. 40	7. 12	*1411						4. 43	27. 35	3. 47	*1407					
7. 38	26. 0	7. 36	*1418						5. 10	28. 20	4. 0	*1404					
8. 39	26. 0	7. 57	*1414						5. 25	30. 5	4. 12	*1409					
8. 54	26. 30	8. 23	*1417						5. 56	29. 20	4. 22	*1408					
9. 18	25. 10	8. 56	*1411						6. 7	29. 40	4. 28	*1411					
9. 33	25. 25	9. 24	*1408						6. 27	27. 55	4. 42	*1407					
9. 51	24. 20	***	***						7. 6	27. 40	5. 3	*1416					
9. 58	24. 20	10. 12	*1411						7. 55	28. 10	5. 22	*1419					
10. 23	21. 30	10. 35	*1416						8. 13	29. 30	5. 30	*1414					
11. 13	23. 35	10. 55	*1412						8. 33	27. 0	5. 42	*1415					
11. 53	21. 0	11. 12	*1412						8. 57	26. 55	5. 55	*1410					
12. 25	24. 30	11. 27	*1415						9. 6	27. 20	6. 11	*1414					
13. 14	22. 50	12. 21	*1409						10. 7	14. 15	6. 14	*1413					
13. 51	22. 50	13. 0	*1414						10. 12	15. 30	6. 37	*1423					
14. 14	24. 10	13. 44	*1409						10. 53	26. 40	6. 49	*1423					
14. 56	20. 40	14. 20	*1414						11. 10	23. 45	7. 0	*1418					
15. 28	21. 30	14. 46	*1416						12. 11	23. 10	7. 21	*1418					
16. 0	23. 50	15. 41	*1407						12. 24	22. 15	7. 29	*1425					
16. 10	23. 55	16. 14	*1411						12. 38	23. 35	7. 37	*1426					
16. 28	25. 0	16. 29	*1416						***	***	7. 42	*1424					
17. 23	23. 25	17. 12	*1416						13. 4	23. 30	7. 56	*1427					
17. 28	23. 40	17. 35	*1409						13. 19	27. 10	8. 12	*1420					
17. 38	23. 10	17. 57	*1410						13. 40	25. 55	8. 24	*1415					
18. 18	25. 30	18. 44	*1415						13. 56	23. 0	8. 41	*1421					
18. 54	23. 0	19. 58	*1404						14. 8	23. 15	8. 43	*1418					
19. 12	22. 10	20. 11	*1407						14. 17	22. 30	9. 11	*1424					
19. 40	22. 25	20. 58	*1403						14. 25	23. 10	9. 15	*1414					
19. 51	21. 45	21. 20	*1397						14. 32	20. 25	9. 24	*1410					
20. 6	21. 45	21. 40	*1397						14. 38	20. 50	9. 42	*1414					
20. 33	22. 55	21. 52	*1393						14. 51	19. 40	10. 4	*1395					
20. 55	22. 25	21. 56	*1397						15. 3	22. 40	10. 26	*1406					
21. 7	23. 15	22. 27	*1399						15. 9	22. 50	10. 43	*1414					
21. 42	23. 0	22. 40	*1403						15. 36	18. 0	10. 55	*1411					
22. 25	25. 5	22. 55	*1399						15. 44	18. 30	11. 6	*1419					
22. 33	24. 20	23. 11	*1402						15. 53	17. 30	11. 26	*1414					
22. 50	26. 25	23. 38	*1408						16. 3	20. 0	11. 43	*1407					
23. 8	25. 55	23. 42	*1405						16. 13	21. 10	11. 55	*1417					
23. 28	27. 0	23. 51	*1408						16. 28	25. 30	11. 59	*1414					
23. 34	28. 0	23. 59	*1407						16. 43	23. 10	12. 11	*1418					
23. 39	27. 50								16. 53	24. 25	12. 14	*1415					
23. 59	29. 30								17. 7	24. 20	12. 29	*1412					
									17. 12	25. 25	12. 34	*1417					
									17. 23	23. 30	12. 46	*1414					
Aug. 18 o. 0	20. 29. 30	Aug. 18 o. 0	*1407	Aug. 18 o. 0	°3025	Aug. 18 o. 0	59. 6	61. 0	17. 32	25. 0	13. 22	*1417					
0. 18	30. 0	0. 15	*1411	2. 34	°3094	1. 0	59. 8	61. 5	17. 50	23. 10	13. 41	*1423					
0. 43	30. 45	0. 21	*1409	4. 57	°3137	2. 0	60. 1	61. 8	18. 0	21. 30	13. 53	*1417					
1. 3	29. 55	0. 41	*1409	8. 56	°3166	3. 0	60. 6	62. 0	18. 28	21. 30	14. 11	*1421					
1. 6	30. 10	1. 4	*1401	10. 16	°3100	9. 0	61. 0	63. 0	***	***	14. 13	*1417					
1. 22	30. 0	1. 11	*1403	11. 10	°3023	21. 0	58. 2	59. 7	19. 9	23. 40	14. 20	*1424					
1. 37	31. 30	1. 21	*1402	13. 11	°2973				19. 14	21. 55	14. 29	*1416					
2. 7	30. 20	1. 29	*1410	13. 52	°2928				19. 20	22. 55	14. 41	*1423					
2. 28	31. 10	2. 11	*1405	15. 30	°2884				19. 33	23. 10	15. 8	*1421					
3. 4	29. 55	2. 38	*1413	16. 12	°2878				19. 54	21. 5	15. 12	*1425					
3. 23	30. 0	2. 45	*1408	16. 28	°2861				20. 12	21. 0	15. 26	*1422					
3. 33	28. 40	3. 12	*1406	17. 21	°2836				20. 21	22. 0	15. 42	*1426					
3. 48	29. 15	3. 24	*1408	17. 56	°2838				20. 39	21. 20	15. 52	*1423					

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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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Aug. 18		Aug. 18															
20. 51	20. 21. 50	16. 8	.1424	h m		h m	o	o	Aug. 19	20. 22. 0	9. 48	.1408	h m		h m	o	o
21. 0	21. 5	16. 14	.1429						14. 54	20. 21. 40	11. 9	.1407					
	***	16. 30	.1426						15. 9	22. 30	11. 24	.1412					
22. 2	24. 30	16. 42	.1429						15. 24	22. 20	11. 35	.1419					
22. 43	25. 40	17. 22	.1407						15. 32	22. 50	11. 43	.1412					
23. 6	25. 25	17. 40	.1418						15. 55	21. 20	11. 57	.1407					
23. 37	27. 30	17. 42	.1415						16. 33	21. 20	12. 36	.1410					
23. 55	27. 20	17. 54	.1418						16. 56	22. 25	13. 12	.1404					
23. 59	27. 30	17. 59	.1416						17. 11	21. 40	13. 49	.1407					
		18. 13	.1418						17. 25	21. 0	14. 9	.1404					
		18. 35	.1413						18. 55	21. 10	15. 35	.1402					
		18. 55	.1402						19. 23	20. 30	16. 12	.1405					
		19. 14	.1389						19. 39	21. 10	16. 33	.1407					
		19. 25	.1395						19. 52	20. 30	16. 59	.1405					
		19. 42	.1392						19. 55	21. 30	17. 12	.1407					
		20. 24	.1405						20. 13	20. 25	17. 20	.1405					
		20. 43	.1397						20. 26	21. 40	17. 54	.1406					
		22. 27	.1394						20. 49	21. 20	17. 59	.1404					
		22. 54	.1383						20. 57	23. 30	18. 44	.1409					
		23. 59	.1392						21. 40	25. 10	20. 6	.1400					
									21. 54	25. 40	20. 30	.1397					
									22. 13	27. 5	20. 42	.1399					
									22. 32	28. 40	21. 11	.1398					
									23. 12	28. 50	21. 17	.1396					
									23. 27	29. 50	21. 45	.1394					
									23. 59		21. 52	.1385					
											22. 15	.1382					
											22. 26	.1384					
											22. 34	.1388					
											22. 54	.1383					
											23. 59	.1390					
Aug. 19		Aug. 19		Aug. 19		Aug. 19			Aug. 20		Aug. 20		Aug. 20		Aug. 20		
0. 0	20. 27. 30	0. 0	.1392	0. 0	.02997	0. 10	59. 8	61. 0	0. 0	20. 29. 50	0. 0	.1390	0. 0	.03116	0. 0	61. 6	64. 0
0. 22	28. 0	0. 21	.1393	1. 41	.03037	9. 0	60. 8	63. 1	0. 11	30. 0	0. 20	.1395	0. 46	.03116	1. 0	61. 6	64. 0
0. 29	27. 40	0. 27	.1390	2. 30	.03044	21. 0	61. 0	63. 0	0. 19	30. 55	0. 27	.1393	1. 56	.03155	3. 0	61. 7	64. 1
0. 56	28. 20	0. 45	.1391	2. 43	.03040	22. 0	61. 2	63. 4	0. 54	30. 5	0. 43	.1394	4. 41	.03177	9. 0	62. 6	64. 1
1. 18	27. 25	1. 0	.1395	3. 4	.03052	23. 0	61. 2	63. 7	0. 57	30. 40	0. 57	.1403	5. 42	.03187	21. 0	61. 1	62. 5
1. 22	28. 5	1. 11	.1392	3. 57	.03074				1. 11	29. 50	1. 19	.1402	5. 50	.03179	22. 0	61. 1	61. 8
2. 11	27. 30	1. 28	.1398	7. 25	.03102				1. 26	29. 40	1. 34	.1407	6. 2	.03192	23. 0	61. 1	62. 0
2. 23	28. 20	1. 51	.1398	9. 24	.03137				1. 29	30. 10	2. 6	.1413	6. 26	.03184			
2. 43	26. 20	2. 16	.1400	11. 12	.03120				1. 39	30. 0	2. 14	.1406	8. 22	.03218			
2. 53	26. 55	2. 33	.1408	11. 43	.03105				1. 58	31. 10	2. 36	.1404	11. 35	.03206			
3. 3	25. 40	2. 43	.1401	12. 3	.03116				2. 8	30. 10	2. 50	.1407	14. 9	.03183			
3. 9	24. 45	2. 52	.1393	17. 10	.03083				2. 47	29. 40	3. 3	.1405	15. 25	.03142			
3. 26	23. 30	2. 56	.1396	18. 55	.03108				3. 49	27. 10	3. 45	.1410	17. 12	.03128			
3. 53	24. 40	2. 58	.1403	23. 59	.03116				4. 48	27. 0	3. 56	.1408	19. 12	.03144			
4. 9	24. 20	3. 13	.1404						4. 58	26. 10	4. 12	.1410	23. 59	.03120			
4. 43	25. 0	3. 23	.1398						5. 26	25. 35	4. 28	.1407					
5. 13	24. 40	3. 44	.1407						5. 41	26. 5	4. 40	.1411					
6. 18	25. 0	4. 11	.1411						5. 49	26. 50	4. 58	.1413					
7. 7	26. 0	4. 24	.1408						5. 57	25. 20	5. 9	.1410					
9. 12	24. 40	4. 52	.1414						6. 5	25. 35	5. 26	.1411					
9. 24	25. 30	5. 12	.1410						6. 11	25. 10	5. 42	.1407					
9. 33	24. 25	5. 36	.1415						6. 26	26. 10	5. 54	.1412					
10. 55	24. 20	5. 59	.1412						7. 4	26. 5	6. 2	.1423					
11. 1	25. 45	6. 17	.1415						7. 25	25. 0	6. 10	.1417					
11. 9	25. 15	6. 34	.1411														
11. 21	25. 50	6. 57	.1412														
11. 46	22. 0	7. 11	.1409														
11. 56	23. 0	7. 50	.1410														
12. 9	22. 30	8. 20	.1407														
12. 26	23. 0	8. 28	.1409														
12. 40	22. 15	9. 3	.1405														
12. 55	23. 0	9. 27	.1410														
13. 39	22. 45	9. 33	.1415														
14. 18	21. 30	9. 41	.1409														

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.
Aug. 20		Aug. 20							Aug. 21		Aug. 21				Aug. 21		Aug. 21
7. 42	20. 25. 35	6. 13	.1419						0. 0	20. 28. 5	0. 0	.1397	0. 0	.03120	0. 0	61. 1	62. 5
8. 3	24. 30	6. 26	.1409						0. 24	30. 0	0. 25	.1403	3. 40	.03198	1. 0	61. 7	63. 0
8. 25	15. 20	6. 51	.1406						1. 23	30. 5	0. 48	.1401	7. 12	.03187	2. 0	61. 7	63. 0
8. 53	19. 0	6. 57	.1409						1. 43	29. 30	1. 20	.1405	7. 41	.03199	3. 0	61. 8	63. 0
8. 59	18. 5	7. 12	.1406						1. 55	29. 40	1. 27	.1404	16. 49	.03117	9. 0	61. 6	63. 0
9. 23	20. 25	7. 26	.1411						2. 20	28. 40	1. 54	.1410	19. 40	.03139	21. 0	60. 0	61. 7
9. 37	19. 20	7. 40	.1412						2. 32	28. 40	2. 7	.1417	21. 21	.03120	22. 0	60. 9	61. 7
9. 43	20. 10	7. 56	.1403						2. 57	27. 40	2. 25	.1411	23. 59	.03118	23. 0	61. 4	62. 1
9. 51	19. 30	8. 12	.1404						3. 9	28. 20	2. 43	.1415					
10. 15	22. 10	8. 20	.1403						3. 18	26. 50	3. 11	.1409					
10. 28	22. 20	8. 34	.1415						3. 24	27. 25	3. 13	.1415					
11. 4	21. 0	8. 40	.1420						3. 57	25. 30	3. 27	.1405					
12. 7	24. 10	9. 12	.1411						4. 42	25. 0	3. 41	.1402					
13. 16	24. 10	9. 22	.1413						5. 50	25. 25	4. 0	.1412					
13. 29	23. 25	9. 40	.1401						6. 56	25. 0	4. 13	.1415					
13. 48	24. 20	9. 56	.1396						7. 23	18. 45	4. 25	.1410					
14. 4	23. 55	10. 20	.1399						7. 54	22. 30	4. 39	.1408					
14. 7	24. 40	10. 27	.1398						7. 56	22. 40	5. 12	.1414					
14. 40	23. 20	10. 42	.1404						8. 11	24. 5	5. 29	.1410					
14. 55	24. 10	11. 14	.1403						8. 27	24. 20	5. 41	.1416					
15. 9	23. 0	11. 41	.1408						8. 43	25. 10	5. 55	.1412					
15. 20	24. 10	11. 50	.1406						10. 8	24. 30	6. 11	.1413					
15. 38	21. 0	12. 3	.1409						10. 25	25. 0	6. 37	.1410					
15. 49	21. 55	12. 12	.1407						10. 56	24. 20	6. 48	.1411					
15. 53	23. 20	12. 40	.1409						11. 18	24. 30	7. 21	.1404					
16. 12	23. 5	13. 11	.1409						11. 55	23. 40	7. 45	.1419					
16. 33	25. 10	13. 30	.1406						12. 39	23. 20	8. 12	.1413					
16. 41	24. 0	14. 5	.1410						12. 54	25. 15	8. 40	.1409					
17. 5	24. 30	14. 12	.1408						13. 9	24. 50	9. 11	.1413					
17. 23	23. 0	15. 12	.1413						13. 28	23. 0	9. 46	.1412					
17. 39	23. 30	15. 28	.1419						14. 16	23. 35	11. 12	.1409					
17. 53	20. 45	15. 35	.1416						14. 42	22. 40	11. 25	.1413					
	***	15. 56	.1407						15. 12	24. 30	11. 40	.1410					
18. 38	20. 30	16. 27	.1407						15. 38	25. 40	12. 10	.1409					
18. 43	21. 25	16. 38	.1404						16. 4	25. 40	12. 45	.1409					
18. 51	20. 0	17. 4	.1409						16. 26	24. 30	12. 57	.1413					
	***	17. 13	.1406						16. 47	25. 30	13. 26	.1410					
19. 37	21. 50	17. 39	.1414						16. 58	25. 0	14. 6	.1409					
19. 42	21. 0	17. 44	.1406						17. 14	25. 55	14. 27	.1411					
20. 6	22. 30	18. 1	.1410						17. 53	25. 50	14. 53	.1407					
20. 11	22. 10	18. 25	.1415						18. 24	23. 10	15. 2	.1411					
	***	18. 45	.1409						18. 49	22. 25	15. 11	.1407					
20. 39	24. 30	19. 11	.1411						18. 57	22. 35	15. 15	.1410					
22. 15	24. 35	19. 38	.1399						19. 11	21. 30	15. 27	.1407					
22. 39	27. 25	20. 18	.1387						21. 34	22. 30	15. 55	.1410					
23. 12	28. 0	21. 36	.1386						22. 9	23. 40	16. 39	.1414					
23. 20	27. 30	22. 5	.1387						22. 21	23. 30	17. 11	.1406					
23. 38	27. 20	22. 21	.1384						23. 59	27. 50	17. 42	.1406					
23. 59	28. 5	22. 39	.1387								18. 7	.1413					
		22. 55	.1386								18. 42	.1409					
		23. 0	.1391								19. 27	.1402					
		23. 14	.1387								20. 6	.1402					
		23. 26	.1390								20. 27	.1397					
		23. 55	.1398								21. 29	.1394					
		23. 59	.1397								22. 15	.1393					
											22. 35	.1397					
											22. 47	.1395					

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
		Aug. 21 23. 56 23. 59	.1397 .1398												Aug. 23 23. 0	63. 0 64. 5	
Aug. 22		Aug. 22		Aug. 22		Aug. 22			Aug. 23		Aug. 23		Aug. 23		Aug. 23		
0. 0	20. 27. 50	0. 0	.1398	0. 0	.03118	0. 0	61. 8 62. 4		3. 6	20. 34. 50	1. 41	.1407	5. 39	.03262			
0. 41	29. 10	0. 41	.1401	1. 19	.03122	1. 0	61. 6 62. 8		3. 11	36. 5	2. 6	.1413	5. 52	.03260			
0. 57	28. 30	0. 56	.1401	3. 20	.03156	2. 0	61. 7 62. 8		3. 21	36. 30	2. 24	.1409	6. 12	.03242			
1. 6	28. 50	1. 8	.1405	9. 32	.03183	3. 0	61. 6 62. 7		3. 39	34. 20	2. 41	.1413		***			
3. 17	25. 40	1. 25	.1404	11. 26	.03134	9. 0	62. 4 63. 2		3. 56	38. 35	2. 57	.1421	6. 54	.03253			
4. 10	23. 30	4. 27	.1409	13. 41	.03084	21. 0	59. 9 61. 0		4. 6	37. 30	3. 4	.1419	6. 57	.03242			
5. 4	22. 55	4. 55	.1408	13. 57	.03093	22. 0	60. 4 62. 0		4. 17	34. 0	3. 24	.1431	7. 15	.03258			
5. 55	23. 25	5. 25	.1411	14. 40	.03056	23. 0	60. 2 62. 0		4. 26	30. 10	3. 35	.1428	7. 40	.03283			
6. 53	22. 55	5. 54	.1408	15. 43	.03041				4. 36	31. 20	3. 49	.1432	7. 44	.03268			
7. 4	21. 45	6. 11	.1407	16. 22	.03020				4. 55	24. 40	4. 11	.1416	7. 59	.03312			
8. 40	23. 40	6. 20	.1411	19. 56	.03042				4. 57	25. 25	4. 30	.1419	8. 4	.03306			
8. 58	23. 20	6. 35	.1407	23. 59	.03018				5. 9	25. 40	4. 50	.1391	8. 12	.03316			
11. 11	24. 5	7. 11	.1411						5. 27	27. 20	4. 57	.1386	8. 28	.03210			
11. 28	23. 20	7. 51	.1411						5. 48	25. 20	5. 11	.1383	8. 36	.03252			
12. 6	24. 30	8. 12	.1408						6. 9	28. 10	5. 20	.1393	8. 44	.03275			
12. 34	24. 0	8. 35	.1412						6. 14	27. 5	5. 41	.1399	9. 41	.03284			
12. 57	24. 50	8. 52	.1412						6. 39	26. 20	5. 59	.1419	11. 19	.03222			
13. 7	23. 40	9. 4	.1409						6. 51	25. 30	6. 0	.1415	11. 24	.03237			
13. 21	24. 0	10. 5	.1412						6. 58	27. 0	6. 10	.1418	11. 46	.03131			
13. 41	23. 20	10. 59	.1409						7. 18	22. 45	6. 18	.1408	11. 54	.03116			
14. 6	29. 20	11. 11	.1413						7. 39	20. 30	6. 34	.1417	12. 20	.03116			
14. 21	28. 40	11. 41	.1410						7. 43	20. 55	6. 42	.1414	12. 39	.03139			
14. 43	24. 15	11. 57	.1413						7. 53	19. 50	6. 52	.1416	13. 0	.03153			
15. 14	22. 55	12. 43	.1410						8. 11	10. 25	7. 0	.1423	13. 26	.03133			
15. 43	25. 10	13. 32	.1413						8. 26	20. 30	7. 14	.1414	13. 52	.03136			
16. 24	20. 30	13. 53	.1409						8. 33	22. 20	7. 27	.1396	14. 19	.03077			
16. 27	20. 40	14. 27	.1419						8. 53	6. 10	7. 43	.1405	14. 26	.03085			
16. 38	19. 50	14. 57	.1412						9. 9	17. 10	7. 56	.1374	14. 51	.03077			
16. 54	19. 50	15. 34	.1409						9. 26	20. 25	8. 0	.1364	15. 10	.03088			
17. 11	21. 10	16. 7	.1416						9. 37	20. 25	8. 4	.1367	15. 46	.03090			
17. 22	21. 10	16. 25	.1416						9. 53	23. 0	8. 9	.1365	15. 57	.03104			
17. 40	22. 45	16. 53	.1407						10. 39	22. 25	8. 17	.1383	16. 35	.03122			
18. 10	22. 10	17. 12	.1408						10. 58	24. 0	8. 20	.1380	17. 10	.03100			
18. 33	20. 40	17. 27	.1405						11. 18	21. 45	8. 26	.1388	18. 14	.03112			
19. 9	20. 40	18. 11	.1410						11. 26	22. 30	8. 35	.1357	18. 52	.03104			
19. 55	23. 40	18. 42	.1406						11. 44	36. 30	8. 43	.1367	18. 59	.03111			
20. 26	23. 40	19. 8	.1395						12. 7	27. 50	8. 56	.1386	19. 11	.03118			
20. 55	24. 5	19. 37	.1396						12. 11	28. 0	9. 5	.1374	19. 19	.03116			
21. 8	25. 0	19. 47	.1399						12. 39	21. 30	9. 41	.1391	19. 41	.03146			
21. 28	25. 0	20. 27	.1399						12. 53	19. 50	9. 48	.1388	19. 55	.03142			
21. 41	25. 30	21. 21	.1393						12. 58	19. 40	10. 20	.1397	20. 3	.03151			
21. 56	25. 25	22. 28	.1395						13. 13	22. 30	10. 24	.1395	20. 9	.03142			
22. 10	26. 10	(†)							13. 33	19. 20	10. 54	.1401	20. 15	.03160			
22. 15	25. 30	23. 59	.1410						13. 41	21. 0	11. 13	.1400	20. 26	.03160			
22. 28	27. 40	(†)							14. 1	26. 20	11. 26	.1406	20. 41	.03197			
Aug. 23	(†)	Aug. 23	.1410	Aug. 23	.03018	Aug. 23	60. 5 62. 0		14. 20	18. 10	11. 42	.1455	21. 9	.03188			
0. 11	20. 33. 20	0. 0	.1407	0. 0	.03052	0. 0	61. 2 62. 5		14. 29	20. 0	12. 6	.1414	21. 39	.03221			
0. 20	32. 40	0. 36	.1416	0. 55	.03180	1. 0	61. 8 63. 9		14. 43	18. 45	12. 33	.1386	22. 20	.03228			
0. 49	34. 55	0. 40	.1418	3. 12	.03240	3. 0	62. 8 65. 9		15. 11	21. 20	13. 12	.1412	22. 54	.03252			
1. 41	34. 25	0. 44	.1411	4. 2	.03321	9. 0	62. 1 63. 7		15. 53	19. 20	13. 28	.1402	23. 59	.03237			
2. 53	35. 45	1. 26	.1411	4. 43	.03324	21. 0	62. 4 63. 8		15. 56	20. 30	13. 45	.1408					
						22. 0			16. 15	21. 40	14. 11	.1424					
									16. 23	21. 20	14. 26	.1403					
									16. 43	27. 0	14. 58	.1387					
									17. 9	25. 5	15. 29	.1399					
									17. 23	22. 50	15. 50	.1397					
									17. 41	28. 35	15. 59	.1400					
									17. 51	28. 20	16. 18	.1391					

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.	
Aug. 23		Aug. 23								Aug. 24								
17. 56	20. 31. 10	16. 43	*1398							9. 27	20. 24. 25	6. 24	*1404					
18. 0	31. 0	17. 12	*1410							10. 27	23. 35	6. 27	*1393					
18. 7	32. 50	17. 26	*1403							11. 26	25. 10	6. 40	*1400					
18. 10	32. 25	17. 48	*1387							12. 27	23. 30	6. 42	*1399					
18. 18	33. 30	17. 56	*1379							12. 42	26. 0	6. 49	*1405					
18. 26	37. 40	18. 10	*1377							12. 50	25. 10	7. 4	*1399					
18. 33	35. 30	18. 13	*1379							12. 58	26. 20	7. 16	*1400					
18. 39	34. 20	18. 26	*1368							13. 12	26. 0	7. 24	*1404					
18. 43	36. 50	18. 29	*1374							13. 38	23. 5	7. 30	*1399					
	***	18. 36	*1378							14. 10	23. 25	7. 52	*1398					
18. 56	34. 10	18. 56	*1355							14. 38	22. 30	8. 0	*1401					
19. 3	34. 40	19. 12	*1356							15. 6	22. 45	8. 11	*1397					
19. 13	32. 50	19. 19	*1349							15. 26	22. 0	8. 14	*1400					
19. 21	30. 40	19. 29	*1340							15. 43	22. 15	8. 22	*1399					
19. 32	28. 40	19. 41	*1336							15. 57	21. 40	8. 39	*1403					
19. 41	30. 10	19. 44	*1342							16. 29	21. 40	8. 51	*1395					
19. 43	27. 40	19. 59	*1329							16. 57	20. 30	9. 14	*1396					
19. 51	29. 50	20. 12	*1313							17. 10	20. 50	10. 17	*1393					
19. 55	28. 10	20. 20	*1319							17. 20	20. 25	10. 56	*1395					
19. 59	25. 50	20. 26	*1312							17. 56	23. 40	12. 3	*1394					
20. 4	26. 15	20. 34	*1323							18. 6	23. 40	12. 14	*1396					
20. 13	23. 40	20. 45	*1354							18. 42	19. 50	12. 34	*1393					
20. 21	27. 15	21. 24	*1359							19. 11	19. 30	12. 49	*1403					
20. 28	26. 20	21. 43	*1369							19. 25	19. 5	13. 3	*1404					
20. 53	37. 45	21. 57	*1377							19. 36	19. 40	13. 20	*1399					
21. 23	31. 40	22. 13	*1374							19. 43	19. 0	13. 41	*1394					
21. 33	31. 50	22. 27	*1380							19. 56	19. 30	13. 55	*1396					
21. 50	29. 50	22. 41	*1377							20. 8	18. 50	14. 3	*1394					
21. 58	31. 25	22. 57	*1378							20. 41	20. 55	14. 27	*1395					
22. 13	30. 0	23. 12	*1383							20. 56	20. 25	14. 41	*1391					
22. 26	30. 0	23. 59	*1377							22. 35	28. 0	15. 45	*1394					
22. 40	28. 10									22. 56	28. 0	16. 43	*1391					
22. 57	28. 30									23. 11	29. 5	16. 57	*1395					
23. 33	31. 20									23. 28	28. 40	17. 12	*1391					
23. 41	31. 20									23. 59	30. 10	17. 20	*1393					
23. 49	32. 0											17. 40	*1387					
23. 59	31. 0											17. 55	*1383					
												18. 25	*1391					
												18. 55	*1391					
												19. 28	*1385					
												19. 56	*1382					
												20. 15	*1383					
												20. 44	*1379					
												20. 55	*1381					
												21. 26	*1381					
												22. 9	*1374					
												22. 41	*1376					
												22. 55	*1374					
												23. 13	*1381					
												23. 45	*1388					
												23. 59	*1384					
Aug. 24		Aug. 24		Aug. 24		Aug. 24				Aug. 25				Aug. 25				
0. 0	20. 31. 0	0. 0	*1377	0. 0	*03237	0. 0	63. 4	64. 7		0. 0	20. 30. 10	0. 0	*1384	0. 0	*03258	0. 0	63. 1	64. 6
0. 28	31. 40	0. 26	*1379	3. 30	*03316	1. 0	63. 7	64. 9		0. 19	32. 5	0. 12	*1387	0. 29	*03263	1. 0	63. 6	65. 1
1. 26	29. 30	0. 55	*1384	6. 23	*03328	3. 0	63. 8	65. 0		0. 40	30. 40	0. 48	*1378	2. 34	*03347	2. 0	63. 6	65. 5
2. 3	29. 30	2. 19	*1383	6. 25	*03320	9. 0	64. 4	65. 2		0. 56	31. 55	0. 52	*1380	3. 4	*03348	3. 0	63. 6	65. 5
2. 26	28. 50	2. 28	*1385	6. 34	*03336	21. 0	62. 1	63. 5		1. 3	30. 50	0. 56	*1384	3. 28	*03357	9. 0	64. 5	66. 5
2. 39	28. 5	2. 40	*1380	9. 45	*03355	22. 0	63. 1	64. 0										
2. 42	28. 15	2. 45	*1385	12. 32	*03300	23. 0	62. 6	64. 0										
3. 12	27. 25	3. 12	*1386	12. 42	*03300													
3. 28	28. 30	3. 33	*1403	13. 30	*03253													
3. 43	27. 50	3. 45	*1395	14. 32	*03237													
4. 23	27. 30	3. 57	*1399	16. 53	*03226													
5. 54	25. 5	4. 19	*1397	17. 40	*03207													
6. 14	25. 0	4. 43	*1397	20. 15	*03228													
6. 28	24. 15	4. 58	*1399	23. 19	*03231													
6. 44	25. 0	5. 11	*1398	23. 59	*03258													
7. 7	24. 25	5. 20	*1401															
7. 58	24. 30	5. 46	*1400															
8. 33	25. 20	5. 58	*1403															
8. 58	23. 55	6. 11	*1401															

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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 L. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
Aug. 25		Aug. 25		Aug. 25		Aug. 25			Aug. 25		Aug. 25						
1. 9	20. 30. 50	1. 11	.1381	4. 26	.03357	21. 45	62. 8	65. 0	19. 43	20. 35	18. 41	.1391					
2. 7	28. 30	1. 30	.1384	5. 10	.03375				19. 58	21. 40	18. 57	.1393					
2. 13	29. 30	1. 45	.1389	6. 3	.03376				20. 17	20. 0	19. 10	.1398					
2. 25	28. 25	2. 12	.1391	7. 22	.03355				20. 40	20. 20	19. 18	.1392					
2. 51	29. 20	2. 19	.1397	9. 53	.03360				22. 44	27. 45	19. 26	.1394					
2. 58	28. 40	2. 25	.1392	12. 50	.03263				22. 56	29. 20	19. 53	.1388					
3. 12	29. 45	2. 43	.1406	13. 55	.03240				23. 59	31. 25	19. 58	.1391					
3. 56	28. 50	2. 56	.1405	14. 23	.03219						20. 41	.1382					
4. 11	29. 40	3. 12	.1401	15. 28	.03235						20. 56	.1383					
4. 45	29. 0	3. 22	.1409	16. 56	.03216						21. 22	.1381					
5. 12	27. 20	3. 34	.1406	19. 24	.03247						21. 30	.1384					
5. 28	27. 30	3. 44	.1408	22. 10	.03240						21. 57	.1380					
5. 43	24. 0	3. 54	.1412	23. 59	.03258						22. 43	.1379					
5. 57	23. 50	4. 14	.1402								22. 58	.1384					
6. 8	24. 45	4. 26	.1392								23. 36	.1384					
6. 26	22. 50	4. 45	.1392								23. 56	.1379					
6. 38	23. 10	5. 6	.1396								23. 59	.1388					
6. 59	25. 30	5. 14	.1401														
7. 13	24. 30	5. 22	.1395						Aug. 26		Aug. 26		Aug. 26				
7. 33	25. 40	5. 29	.1396						0. 0	20. 31. 25	0. 0	.1388	0. 0	.03258	0. 35	64. 1	66. 2
7. 51	23. 55	5. 42	.1391						0. 37	31. 40	0. 40	.1391	0. 42	.03276	5. 0	64. 6	66. 7
8. 28	23. 35	5. 54	.1393						0. 54	31. 0	0. 55	.1390	2. 6	.03340	9. 20	64. 8	66. 9
8. 43	24. 30	5. 57	.1396						1. 22	31. 40	1. 23	.1394	2. 32	.03351	21. 0	63. 8	66. 1
9. 31	25. 10	6. 8	.1394						1. 33	32. 55	1. 37	.1401	2. 43	.03342	22. 0	64. 2	66. 0
9. 51	24. 25	6. 12	.1398						1. 53	31. 55	1. 56	.1395	3. 19	.03366	23. 0	64. 2	66. 0
10. 3	25. 40	6. 20	.1394						2. 4	31. 45	2. 11	.1397	6. 39	.03368			
10. 22	24. 20	6. 43	.1398						2. 22	30. 50	2. 22	.1392	6. 56	.03380			
10. 26	25. 10	7. 3	.1398						2. 35	31. 25	2. 41	.1392	9. 44	.03386			
10. 46	25. 0	7. 14	.1395						2. 44	28. 30	2. 46	.1382	10. 41	.03372			
10. 56	23. 40	7. 27	.1398						2. 54	28. 50	2. 56	.1388	11. 41	.03324			
11. 23	24. 30	7. 40	.1395						2. 58	27. 30	3. 3	.1385	14. 5	.03320			
12. 43	23. 5	7. 48	.1398						3. 34	26. 0	3. 24	.1396	16. 49	.03294			
12. 56	23. 50	8. 21	.1396						3. 41	26. 0	3. 35	.1394	18. 20	.03307			
13. 11	23. 20	8. 30	.1399						3. 52	24. 30	3. 52	.1399	23. 59	.03326			
13. 43	27. 20	8. 45	.1396						4. 13	23. 15	3. 56	.1394					
13. 55	27. 0	8. 57	.1399						4. 52	24. 30	4. 5	.1397					
14. 8	29. 50	9. 14	.1394						5. 23	24. 5	4. 12	.1393					
14. 28	25. 35	10. 19	.1403						5. 33	24. 55	4. 16	.1399					
14. 54	23. 0	10. 47	.1399						5. 43	24. 20	4. 24	.1396					
15. 42	23. 40	11. 36	.1395						6. 3	24. 45	4. 55	.1394					
16. 3	22. 0	11. 49	.1402						6. 26	23. 50	5. 3	.1397					
16. 13	22. 10	12. 20	.1400						6. 41	22. 20	5. 25	.1396					
16. 17	23. 5	12. 44	.1397						6. 56	19. 40	5. 42	.1403					
16. 44	22. 5	13. 25	.1399						7. 12	22. 30	6. 6	.1400					
16. 56	22. 20	13. 54	.1396						7. 49	25. 10	6. 14	.1396					
17. 9	21. 30	14. 13	.1401						8. 3	25. 0	6. 20	.1398					
17. 28	21. 30	14. 54	.1400						8. 33	26. 0	6. 36	.1392					
17. 40	22. 25	15. 12	.1395						8. 58	25. 20	6. 54	.1387					
17. 43	21. 30	15. 45	.1399						9. 14	23. 20	7. 12	.1400					
17. 56	22. 10	16. 6	.1397						9. 56	23. 30	7. 22	.1396					
18. 19	21. 30	16. 34	.1398						10. 53	24. 25	8. 8	.1396					
18. 27	22. 10	16. 54	.1400						11. 15	29. 30	8. 41	.1398					
18. 39	21. 5	17. 11	.1397						11. 33	29. 30	9. 11	.1397					
18. 45	21. 0	17. 32	.1393						11. 53	26. 20	9. 43	.1397					
19. 6	22. 30	17. 38	.1396						12. 37	24. 10	9. 57	.1398					
19. 13	22. 10	18. 8	.1395						13. 39	24. 10	10. 6	.1404					
19. 23	20. 40	18. 20	.1390						13. 55	25. 10	10. 13	.1402					
19. 34	21. 10	18. 26	.1393						14. 11	24. 10	10. 42	.1401					

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Aug-26		Aug-26							Aug-27		Aug-27						
14. 43	20. 24. 0	10. 58	*1413						11. 55	20. 16. 55	12. 41	*1387					
15. 3	23. 0	11. 16	*1405						12. 38	22. 45	13. 11	*1391					
15. 25	23. 0	11. 40	*1406						12. 51	23. 40	13. 37	*1400					
15. 39	24. 10	12. 43	*1395						13. 6	30. 20	13. 54	*1395					
15. 53	24. 20	13. 20	*1398						13. 14	29. 15	14. 14	*1398					
16. 12	23. 35	13. 57	*1396						13. 24	29. 5	14. 21	*1404					
16. 26	24. 35	15. 11	*1401						13. 32	26. 50	14. 40	*1406					
17. 30	21. 0	15. 45	*1396						13. 41	26. 0	15. 7	*1401					
17. 59	20. 20	16. 6	*1398						13. 54	24. 20	15. 45	*1403					
18. 18	21. 40	16. 25	*1394						14. 22	25. 55	16. 27	*1409					
18. 22	20. 20	16. 49	*1399						15. 23	21. 0	16. 49	*1403					
18. 41	21. 20	17. 55	*1395						15. 38	21. 20	16. 54	*1405					
19. 23	21. 40	18. 14	*1398						15. 53	20. 20	17. 12	*1400					
19. 25	20. 30	18. 25	*1394						16. 12	21. 10	17. 25	*1401					
19. 54	21. 30	18. 43	*1396						16. 23	20. 20	17. 41	*1404					
21. 26	25. 40	19. 30	*1390						16. 37	20. 45	17. 52	*1399					
21. 40	25. 20	19. 54	*1392						16. 50	19. 40	18. 5	*1399					
22. 47	29. 0	20. 42	*1383						17. 6	20. 45	18. 10	*1394					
22. 54	28. 45	21. 7	*1380						17. 51	21. 0	18. 24	*1391					
23. 12	29. 20	21. 41	*1379						18. 4	22. 40	18. 53	*1399					
23. 40	31. 20	21. 56	*1382						18. 26	23. 0	19. 55	*1390					
23. 59	32. 0	22. 41	*1381						18. 56	27. 50	20. 43	*1384					
		22. 56	*1379						19. 0	26. 55	20. 57	*1380					
		23. 12	*1382						19. 9	27. 10	23. 24	*1389					
		23. 59	*1386						19. 21	26. 0	23. 32	*1395					
									19. 40	26. 40	23. 43	*1389					
									19. 45	26. 40	23. 59	*1395					
Aug-27		Aug-27		Aug-27		Aug-27			20. 3	24. 5							
0. 0	20. 32. 0	0. 0	*1386	0. 0	*03326	0. 0	64. 366. 1		20. 15	23. 35							
0. 13	32. 25	0. 43	*1389	1. 37	*03343	1. 0	65. 066. 6		20. 21	25. 5							
0. 51	31. 45	2. 41	*1397	3. 11	*03380	2. 0	65. 066. 6		20. 26	25. 40							
1. 0	32. 0	2. 53	*1395	4. 54	*03396	3. 0	65. 066. 6		20. 36	23. 55							
3. 3	27. 45	3. 6	*1397	7. 20	*03380	9. 0	63. 964. 4			***							
3. 10	28. 0	3. 12	*1403	7. 43	*03397	9. 30	62. 663. 5		21. 28	26. 45							
3. 36	26. 25	3. 37	*1395	9. 10	*03394	21. 0	61. 964. 1		22. 18	27. 5							
3. 41	26. 55	3. 43	*1402	10. 49	*03290	22. 0	62. 564. 2		23. 24	29. 35							
4. 9	25. 0	3. 55	*1397	11. 38	*03258	23. 0	62. 664. 5		23. 41	30. 45							
4. 17	25. 0	4. 13	*1394	11. 46	*03236				23. 59	30. 10							
4. 50	23. 10	4. 20	*1395	12. 27	*03205												
5. 41	24. 15	4. 42	*1388	12. 45	*03212				Aug-28		Aug-28		Aug-28				
6. 23	23. 50	5. 8	*1392	13. 11	*03195				0. 0	20. 30. 10	0. 0	*1395	0. 0	*03236	1. 0	63. 665. 3	
6. 37	25. 0	5. 20	*1390	13. 40	*03187				0. 13	29. 30	0. 12	*1401	3. 22	*03328	3. 0	63. 965. 9	
6. 58	24. 10	5. 51	*1395	14. 13	*03197				0. 55	30. 5	0. 55	*1400	8. 43	*03337	9. 0	61. 463. 9	
7. 9	24. 15	6. 24	*1394	17. 11	*03186				1. 7	29. 45	0. 58	*1399	10. 12	*03258	21. 0	61. 563. 0	
7. 28	21. 10	7. 6	*1398	18. 42	*03218				1. 40	29. 35	1. 27	*1401	13. 24	*03200	22. 0	60. 662. 2	
8. 6	24. 40	7. 28	*1393	19. 56	*03205				1. 55	28. 20	1. 52	*1399	13. 58	*03200	23. 0	60. 462. 0	
8. 25	24. 25	7. 51	*1402	21. 55	*03206				2. 1	29. 10	1. 57	*1402	14. 54	*03176			
8. 33	25. 50	8. 26	*1400	23. 59	*03236				2. 16	28. 30	2. 12	*1399	16. 33	*03176			
9. 3	24. 0	8. 42	*1407						2. 46	29. 0	2. 20	*1403	17. 10	*03163			
9. 13	24. 20	8. 58	*1403						3. 1	28. 0	2. 37	*1403	19. 26	*03198			
9. 25	23. 0	9. 13	*1399						3. 23	28. 30	2. 44	*1405	22. 20	*03184			
9. 33	23. 25	9. 43	*1406						4. 56	23. 55	3. 8	*1403	23. 59	*03163			
9. 43	22. 10	10. 12	*1429						5. 9	24. 10	3. 22	*1409					
9. 58	16. 15	10. 24	*1419						5. 23	23. 55	3. 33	*1403					
10. 12	20. 20	10. 43	*1417						5. 42	24. 40	3. 51	*1399					
10. 43	22. 45	11. 11	*1407						6. 26	23. 55	4. 6	*1392					
11. 3	21. 35	11. 26	*1401						6. 41	24. 20	4. 24	*1396					
11. 23	21. 35	11. 54	*1406						7. 13	23. 45	4. 52	*1403					
11. 39	20. 40	12. 9	*1411														

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Aug. 28		Aug. 28							Aug. 29		Aug. 29						
7. 54	20. 24. 30	5. 12	.1402						10. 13	20. 24. 10	13. 11	.1419	20. 47	.03044			
8. 23	23. 55	5. 19	.1398						10. 41	24. 5	13. 30	.1421	20. 56	.03046			
8. 38	19. 45	5. 26	.1399						11. 8	24. 55	14. 11	.1411	21. 4	.03028			
9. 9	22. 50	5. 43	.1394						12. 13	24. 0	17. 7	.1418	22. 12	.03007			
9. 32	14. 55	6. 12	.1399						12. 26	26. 0	17. 34	.1417	22. 34	.03037			
10. 3	20. 30	6. 33	.1403						12. 43	25. 10	17. 49	.1415	22. 53	.03013			
10. 21	20. 30	6. 42	.1407						12. 53	27. 15	17. 56	.1416	23. 59	.03042			
10. 39	22. 55	7. 0	.1403						13. 14	25. 50	18. 12	.1413					
11. 12	19. 20	7. 16	.1407						13. 33	23. 45	19. 30	.1408					
11. 34	20. 20	7. 34	.1404						14. 7	23. 10	19. 38	.1404					
11. 40	20. 10	7. 43	.1407						14. 26	24. 45	19. 55	.1408					
11. 58	22. 25	7. 57	.1404						14. 59	23. 45	20. 6	.1413					
12. 26	22. 30	8. 14	.1407						15. 13	23. 45	20. 14	.1407					
12. 51	21. 20	8. 33	.1404						15. 38	22. 35	20. 25	.1413					
	***	8. 45	.1406						15. 57	23. 0	20. 45	.1409					
13. 25	20. 55	9. 25	.1406						16. 25	22. 35	20. 56	.1397					
13. 58	23. 55	9. 43	.1424						16. 40	23. 0	21. 11	.1401					
14. 9	23. 20	10. 26	.1404						16. 51	22. 35	21. 23	.1395					
14. 20	24. 0	10. 41	.1407						17. 8	22. 35	21. 29	.1386					
14. 39	23. 0	11. 6	.1403						17. 26	21. 30	21. 46	.1379					
14. 56	22. 0	11. 43	.1398						17. 42	21. 30	22. 11	.1367					
15. 13	21. 30	11. 59	.1401						17. 54	22. 0	22. 26	.1385					
	***	12. 18	.1398						18. 4	21. 15	22. 36	.1380					
16. 14	23. 10	12. 52	.1404						18. 41	20. 55	22. 50	.1377					
16. 34	22. 25	13. 12	.1403						19. 27	21. 30	23. 0	.1386					
16. 59	23. 0	13. 36	.1397						19. 29	22. 30	23. 11	.1381					
17. 24	22. 35	13. 54	.1402						19. 33	19. 45	23. 27	.1382					
17. 29	22. 50	14. 58	.1403						19. 46	20. 30	23. 42	.1387					
18. 9	21. 30	15. 38	.1399						20. 9	24. 30	23. 52	.1376					
18. 43	22. 20	15. 49	.1403						20. 14	23. 40	23. 59	.1379					
18. 56	22. 0	16. 22	.1400						20. 23	23. 40							
	***	16. 42	.1403						20. 34	21. 35							
19. 13	22. 55	17. 20	.1400						20. 41	21. 45							
19. 26	22. 35	17. 42	.1403						20. 44	22. 10							
19. 33	23. 0	18. 27	.1399						20. 54	20. 0							
20. 2	22. 40	19. 14	.1398						21. 9	24. 0							
20. 10	21. 40	20. 36	.1394						21. 23	22. 10							
21. 9	22. 45	20. 43	.1391						21. 32	24. 0							
21. 33	22. 30	21. 24	.1387						21. 53	24. 0							
22. 19	24. 0	21. 44	.1396						22. 13	27. 10							
22. 29	24. 0	22. 41	.1394						22. 26	32. 0							
22. 53	24. 30	23. 12	.1396						22. 34	29. 20							
23. 59	29. 10	23. 38	.1395						22. 41	28. 10							
		23. 54	.1398						22. 43	29. 30							
		23. 59	.1395						22. 51	29. 5							
Aug. 29		Aug. 29		Aug. 29		Aug. 29			23. 0	32. 30							
0. 0	20. 29. 10	0. 0	.1395	0. 0	.03163	0. 0	62. 063. 2		23. 9	31. 10							
0. 55	30. 15	0. 13	.1400	1. 36	.03200	1. 0	62. 463. 8		23. 14	31. 55							
1. 51	28. 10	3. 56	.1409	3. 55	.03183	2. 0	60. 162. 5		23. 23	31. 50							
3. 40	25. 30	5. 59	.1415	6. 41	.03122	3. 0	59. 561. 8		23. 26	33. 10							
4. 18	25. 30	7. 56	.1413	12. 56	.03112	9. 0	58. 860. 6		23. 32	32. 30							
5. 14	24. 55	8. 34	.1416	13. 41	.03092	21. 0	58. 759. 9		23. 39	33. 10							
7. 26	23. 50	9. 6	.1412	14. 26	.03094	22. 0	58. 859. 9		23. 53	30. 55							
9. 23	24. 25	9. 34	.1415	17. 25	.03056	23. 0	59. 360. 7		23. 59	32. 30							
9. 40	25. 10	10. 6	.1413	19. 38	.03076				Aug. 30		Aug. 30		Aug. 30		Aug. 30		
9. 51	24. 50	12. 26	.1409	19. 43	.03065				0. 0	20. 32. 40	0. 0	.1379	0. 0	.03042	0. 0	59. 761. 4	
9. 58	25. 0	12. 56	.1413	20. 32	.03062				0. 3	33. 30	0. 48	.1411	0. 19	.03066	1. 0	60. 962. 3	

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Aug. 30		Aug. 30		Aug. 30		Aug. 30			Aug. 30		Aug. 30						
0. 11	20. 33. 10	0. 58	*1403	0. 33	*03060	2. 0	61. 5	62. 7	14. 24	20. 18. 30	14. 25	*1401					
0. 17	36. 20	1. 3	*1395	0. 55	*03087	3. 0	61. 3	62. 6	14. 43	15. 35	14. 43	*1394					
0. 33	36. 10	1. 14	*1395	1. 10	*03083	9. 0	59. 6	61. 7	15. 8	19. 40	14. 55	*1399					
0. 37	33. 45	1. 32	*1409	1. 42	*03122	21. 0	59. 6	60. 1	15. 14	19. 40	15. 12	*1396					
0. 51	37. 30	1. 43	*1418	1. 54	*03120	22. 0	60. 1	61. 9	15. 34	22. 5	15. 27	*1404					
0. 59	41. 25	1. 51	*1409	2. 44	*03174	23. 0	60. 1	62. 0	15. 42	19. 40	15. 44	*1394					
1. 4	41. 20	1. 59	*1405	2. 52	*03162				15. 56	22. 5	15. 56	*1401					
1. 8	42. 10	2. 21	*1404	3. 10	*03184				16. 9	21. 0	16. 18	*1403					
1. 23	41. 50	2. 26	*1412	4. 49	*03168				16. 17	21. 40	16. 33	*1401					
1. 30	44. 5	2. 43	*1417	4. 56	*03150				16. 30	19. 30	16. 41	*1403					
1. 39	44. 10	2. 55	*1405	5. 14	*03155				16. 53	19. 20	16. 50	*1400					
1. 46	45. 5	3. 12	*1422	5. 19	*03127				17. 4	20. 5	16. 54	*1403					
	***	3. 16	*1416	5. 26	*03152				17. 20	19. 20	17. 8	*1398					
		3. 26	*1406		***				17. 28	22. 40	17. 36	*1396					
2. 12	41. 10	3. 26	*1422	6. 58	*03133				17. 43	20. 35	18. 0	*1396					
2. 21	38. 40	3. 50	*1425	8. 33	*03138				18. 9	21. 0	18. 13	*1398					
2. 30	37. 10	3. 57	*1418	9. 8	*03144				18. 24	22. 30	18. 22	*1401					
2. 38	35. 30	4. 6	*1417	10. 21	*03094				18. 36	21. 30	18. 40	*1397					
2. 43	35. 45	4. 23	*1423	11. 12	*03077				19. 47	23. 0	19. 14	*1394					
2. 54	33. 30	4. 27	*1417	11. 41	*03050				19. 51	21. 55	20. 22	*1389					
3. 25	35. 0	4. 40	*1423	11. 58	*03038				19. 55	24. 10	20. 54	*1392					
3. 36	33. 10	4. 41	*1409	12. 22	*03020				19. 58	21. 5	21. 10	*1389					
3. 57	32. 5	5. 3	*1418	13. 9	*03003				20. 13	22. 10	21. 22	*1382					
4. 7	30. 50	5. 15	*1386	13. 54	*02982				20. 33	25. 0	21. 54	*1373					
4. 26	30. 5	5. 24	*1407	14. 18	*02982				20. 54	24. 5	22. 32	*1388					
4. 41	30. 20	5. 33	*1408	14. 25	*02972				20. 56	25. 55	22. 58	*1397					
5. 11	29. 30	6. 6	*1410	16. 43	*02883				21. 2	24. 10	23. 25	*1395					
5. 14	29. 50	6. 14	*1411	18. 22	*02932				21. 24	24. 0	23. 36	*1403					
5. 25	27. 40	6. 18	*1403	21. 17	*02944				21. 42	28. 0	23. 59	*1395					
6. 42	28. 20	6. 40	*1409	22. 56	*02983				22. 11	27. 5							
6. 56	27. 20	6. 54	*1413	23. 59	*02996				22. 25	28. 5							
7. 26	27. 45	7. 11	*1413						22. 53	27. 30							
7. 41	26. 50	7. 25	*1413						23. 1	28. 55							
7. 48	27. 10	7. 32	*1415						23. 13	27. 30							
8. 8	26. 30	8. 6	*1415						23. 27	27. 40							
8. 12	27. 30	8. 29	*1409						23. 35	29. 20							
8. 28	26. 20	8. 41	*1406						23. 49	31. 15							
8. 33	26. 20	9. 2	*1412						23. 59	30. 50							
8. 56	22. 45	9. 11	*1410														
9. 1	23. 25	9. 14	*1415														
9. 9	23. 0	9. 34	*1407						Aug. 31	20. 30. 50	Aug. 31	0. 0	*1395	Aug. 31	0. 0	60. 7	62. 8
9. 13	21. 50	9. 55	*1397						0. 11	32. 5	0. 28	*1397	0. 22	*03043	0. 0	61. 0	62. 9
9. 29	22. 30	10. 12	*1397						0. 24	31. 5	0. 44	*1393	4. 26	*03077	3. 0	61. 5	63. 0
9. 43	21. 30	10. 36	*1399						0. 56	31. 55	0. 55	*1402	7. 21	*03098	8. 20	62. 0	64. 1
9. 53	21. 45	10. 57	*1397						1. 41	29. 30	0. 59	*1399	7. 38	*03095	9. 0	60. 1	61. 9
9. 56	21. 20	11. 11	*1405						2. 11	30. 25	1. 8	*1403	7. 56	*03107	9. 30	59. 7	61. 0
10. 19	22. 55	11. 25	*1398						3. 6	28. 50	1. 11	*1402	8. 11	*03110	20. 0	60. 8	61. 5
10. 33	20. 25	11. 40	*1397						3. 16	28. 50	1. 29	*1407	8. 22	*03103	21. 0	60. 9	62. 1
10. 55	22. 0	11. 45	*1415						3. 28	27. 55	1. 43	*1406	8. 44	*03116	22. 0	61. 3	62. 5
11. 9	21. 25	12. 12	*1421						4. 13	27. 30	1. 57	*1413	9. 34	*03078	23. 0	61. 5	63. 1
11. 34	25. 30	12. 26	*1408						4. 32	26. 45	2. 19	*1410	9. 41	*03076			
11. 40	25. 0	12. 45	*1397						5. 41	27. 0	2. 44	*1408	10. 53	*03034			
11. 56	27. 40	12. 59	*1401						5. 59	26. 0	2. 56	*1410	13. 10	*03023			
12. 17	22. 45	13. 11	*1399						6. 23	26. 40	3. 12	*1410	13. 44	*02997			
	***	13. 20	*1401						6. 52	25. 50	3. 20	*1414	14. 12	*02998			
13. 17	18. 30	13. 48	*1398						7. 25	26. 5	3. 36	*1409	14. 34	*02972			
13. 26	19. 15	13. 55	*1399						7. 40	22. 0	3. 41	*1413	14. 44	*02980			
13. 53	15. 5	14. 12	*1403						8. 9	25. 10	3. 46	*1409	15. 12	*02966			
14. 3	15. 0	14. 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.	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.
Aug. 31		Aug. 31		Aug. 31					Sept. 1		Sept. 1		Sept. 1		Sept. 1		
8. 26.	20. 21. 20	3. 55	*1415	15. 44	*02963	" "	°	°	1. 17	20. 31. 0	1. 57	*1408	2. 3	*03088	2. 0	62. 1	63. 8
8. 57	25. 0	4. 8	*1410	16. 12	*02977				1. 38	31. 0	2. 19	*1400	5. 4	*03133	3. 0	62. 6	64. 0
9. 11	23. 30	4. 21	*1413	16. 59	*02960				1. 43	32. 45	4. 14	*1410	6. 53	*03152	9. 0	60. 5	62. 0
9. 17	24. 45	4. 30	*1409	18. 54	*03007				1. 58	32. 45	4. 50	*1408	7. 6	*03144	21. 25	61. 6	63. 0
9. 25	24. 0	5. 11	*1410	23. 2	*03048				2. 4	32. 0	5. 5	*1412	7. 22	*03158	22. 40	59. 7	60. 9
9. 36	24. 0	5. 25	*1413	23. 59	*03048				3. 8	29. 30	5. 17	*1409	9. 7	*03107			
9. 53	26. 30	6. 0	*1407						4. 46	25. 50	5. 29	*1415	11. 11	*03068			
9. 56	26. 30	6. 15	*1410						5. 10	25. 50	6. 14	*1407	11. 34	*03057			
9. 58	28. 0	6. 59	*1411						5. 36	25. 0	6. 55	*1409	12. 52	*03076			
10. 25	26. 40	7. 16	*1410						6. 2	25. 0	7. 10	*1403	13. 29	*03058			
10. 37	26. 55	7. 24	*1412						6. 23	25. 50	7. 18	*1411	16. 11	*03083			
10. 53	23. 30	7. 41	*1404						6. 37	25. 25	9. 12	*1406	19. 52	*03103			
11. 8	24. 30	7. 55	*1413						6. 42	25. 45	10. 12	*1408	21. 32	*03088			
11. 47	21. 45	8. 6	*1411						6. 55	25. 0	10. 22	*1433	23. 59	*03040			
12. 13	21. 5	8. 12	*1412						7. 15	18. 40	10. 41	*1412					
12. 24	20. 15	8. 24	*1406						7. 28	21. 20	10. 52	*1418					
12. 30	20. 15	9. 6	*1403						7. 39	21. 5	11. 10	*1414					
12. 53	22. 40	9. 20	*1412						7. 44	22. 10	11. 21	*1418					
13. 11	23. 35	9. 41	*1403						8. 3	21. 20	11. 27	*1416					
13. 47	23. 0	9. 55	*1407						8. 14	22. 25	12. 6	*1406					
14. 11	27. 10	10. 5	*1406						8. 39	22. 0	12. 12	*1408					
14. 28	26. 50	10. 29	*1408						8. 56	22. 40	12. 51	*1404					
14. 39	25. 25	10. 57	*1401						9. 13	22. 0	13. 16	*1406					
14. 43	27. 0	11. 14	*1408						10. 2	26. 5	13. 41	*1402					
14. 58	25. 30	11. 24	*1405						10. 14	25. 0	14. 34	*1406					
15. 21	22. 5	11. 42	*1405						10. 41	26. 20	15. 0	*1402					
15. 38	23. 0	11. 56	*1410						10. 50	27. 30	15. 42	*1400					
15. 49	21. 25	11. 58	*1408						10. 56	27. 30	16. 12	*1404					
16. 6	23. 10	12. 12	*1415						11. 17	28. 30	16. 51	*1405					
16. 34	27. 35	12. 40	*1404						11. 41	24. 30	17. 42	*1400					
16. 45	27. 40	13. 3	*1394						12. 2	23. 0	17. 55	*1403					
16. 58	26. 10	13. 41	*1407						12. 23	23. 0	18. 18	*1400					
17. 8	24. 20	14. 5	*1399						12. 32	23. 55	18. 33	*1401					
18. 3	20. 35	14. 35	*1393						12. 36	26. 30	19. 12	*1400					
18. 13	21. 20	15. 25	*1406						12. 59	29. 40	19. 25	*1402					
18. 28	20. 45	16. 3	*1388						13. 14	28. 40	20. 18	*1397					
19. 24	23. 30	16. 22	*1391						13. 25	28. 40	21. 44	*1394					
19. 43	22. 0	16. 53	*1398						14. 41	23. 30	23. 26	*1396					
20. 39	22. 0	17. 8	*1398						15. 40	22. 35	23. 59	*1396					
21. 55	24. 25	17. 28	*1406						15. 51	23. 15							
23. 8	28. 30	18. 12	*1396						16. 51	21. 20							
23. 24	28. 0	18. 26	*1389						17. 24	22. 0							
23. 53	29. 0	18. 41	*1390						17. 27	23. 0							
23. 59	28. 55	18. 50	*1394						17. 39	21. 55							
		19. 15	*1391						18. 9	22. 40							
		19. 26	*1394						18. 17	21. 55							
		21. 11	*1388						18. 36	22. 40							
		21. 22	*1389						18. 49	22. 20							
		22. 6	*1388						19. 3	22. 55							
		22. 38	*1384						19. 17	22. 30							
		22. 59	*1387						19. 22	22. 55							
		23. 20	*1386						19. 39	22. 0							
		23. 44	*1389						19. 51	23. 0							
		23. 59	*1393						21. 23	24. 50							
									21. 32	25. 25							
Sept. 1		Sept. 1		Sept. 1		Sept. 1			21. 43	24. 30							
0. 0	20. 28. 55	0. 0	*1393	0. 0	*03048	0. 0	61. 6	63. 1		***							
0. 19	30. 0	0. 26	*1396	1. 26	*03066	1. 0	62. 1	63. 5									

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



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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Sept. 1 22. 59 23. 59	20. 27. 35 29. 55																
Sept. 2 0. 0 1. 4 1. 34 1. 56 2. 33 3. 23 4. 21 4. 49 5. 11 5. 33 6. 22 6. 55 7. 13 7. 25 7. 56 8. 21 8. 27 9. 6 9. 39 9. 51 10. 26 10. 51 11. 17 11. 37 11. 59 12. 24 13. 10 13. 28 14. 4 14. 21 14. 49 14. 57 15. 52 17. 11 18. 9 18. 56 19. 23 19. 47 19. 54 21. 41 22. 11 22. 16 22. 25 22. 57 23. 27 23. 59	20. 29. 55 31. 0 30. 0 29. 50 27. 25 26. 30 24. 20 24. 10 23. 25 23. 35 24. 30 22. 20 23. 50 21. 40 20. 10 22. 40 20. 50 23. 30 24. 0 23. 40 24. 5 23. 20 24. 45 23. 40 25. 50 25. 40 23. 5 24. 40 23. 25 23. 55 22. 45 22. 55 22. 0 23. 0 22. 20 22. 30 22. 0 22. 0 21. 30 24. 45 26. 40 27. 35 27. 25 28. 35 28. 30 29. 55	Sept. 2 0. 0 0. 26 1. 6 1. 20 1. 34 1. 44 1. 56 2. 12 2. 24 2. 39 2. 57 3. 8 3. 26 3. 43 3. 59 4. 23 4. 45 5. 6 5. 20 5. 41 5. 50 6. 12 6. 19 6. 24 6. 35 6. 49 7. 6 7. 18 7. 33 7. 43 7. 56 8. 23 8. 39 9. 9 9. 59 10. 19 10. 28 10. 49 11. 11 11. 33 12. 57 13. 22 16. 20 18. 41 20. 24 21. 43 22. 48 23. 59	Sept. 2 0. 0 2. 14 3. 26 9. 19 12. 52 18. 45 21. 0 23. 59	Sept. 2 0. 0 *03040 *03137 *03166 *03177 *03107 *03066 *03007 *03036	Sept. 2 0. 0 1. 0 9. 0 22. 0 23. 0	Sept. 2 61. 6 61. 9 62. 1 58. 8 59. 8 60. 6 61. 0											
Sept. 3 0. 0 0. 25 1. 28 1. 41	20. 29. 55 30. 30 30. 5 30. 30	Sept. 3 0. 0 1. 12 1. 22 1. 27	Sept. 3 0. 0 *1410 *1412 *1410	Sept. 3 0. 0 2. 21 5. 38 6. 0	Sept. 3 0. 0 *03036 *03085 *03112 *03100	Sept. 3 0. 0 1. 0 2. 0 3. 0	Sept. 3 60. 5 60. 9 61. 1 61. 2										
Sept. 3 2. 54 3. 4 3. 56 4. 55 6. 9 6. 26 6. 49 7. 4 7. 12 7. 40 7. 58 8. 11 9. 14 9. 36 10. 6 10. 14 10. 30 10. 58 11. 21 11. 58 12. 21 12. 41 12. 58 13. 9 13. 15 14. 6 14. 20 14. 43 15. 21 16. 10 16. 44 17. 26 17. 51 17. 56 18. 26 18. 51 19. 59 21. 33 21. 44 22. 3 22. 29 22. 38 22. 58 23. 39 23. 59	20. 27. 20 27. 40 25. 40 25. 10 26. 0 24. 35 24. 40 26. 0 26. 0 27. 0 26. 0 26. 10 24. 25 24. 55 23. 40 24. 20 23. 45 23. 45 24. 20 23. 20 24. 50 22. 55 29. 55 29. 5 29. 10 24. 0 20. 55 19. 55 19. 50 20. 50 24. 10 23. 0 21. 30 21. 55 21. 0 21. 40 21. 20 23. 20 24. 40 24. 30 26. 10 25. 35 25. 35 27. 30 28. 0	Sept. 3 1. 42 2. 13 2. 41 2. 54 3. 3 3. 13 3. 18 3. 29 4. 18 5. 22 5. 34 5. 45 5. 54 6. 11 6. 29 7. 3 7. 22 7. 54 8. 41 8. 50 10. 9 10. 56 11. 14 11. 56 12. 15 12. 43 13. 12 13. 47 13. 59 14. 12 14. 51 15. 11 15. 50 16. 12 16. 34 17. 12 18. 12 21. 20 21. 56 22. 24 22. 55 23. 59	Sept. 3 1. 416 *1413 *1414 *1410 *1416 *1413 *1416 *1413 *1416 *1413 *1416 *1415 *1409 *1414 *1413 *1419 *1416 *1423 *1417 *1411 *1415 *1412 *1416 *1414 *1416 *1413 *1422 *1412 *1416 *1412 *1412 *1408 *1408 *1403 *1407 *1398 *1408 *1207 *1395 *1392 *1397 *1394 *1403	Sept. 3 8. 59 12. 41 12. 52 13. 23 14. 9 15. 12 19. 57 23. 59	Sept. 3 *03136 *03118 *03127 *03100 *03086 *03106 *03117 *03098	Sept. 3 9. 0 20. 0 21. 0 22. 0 23. 0	Sept. 3 61. 6 61. 4 61. 6 61. 8 61. 8	Sept. 3 63. 0 63. 1 62. 9 63. 0 63. 1									
Sept. 4 0. 0 0. 22 0. 29 0. 38 0. 43 1. 19 2. 13 2. 21 2. 37 4. 49 5. 13	20. 28. 0 28. 15 27. 30 28. 10 27. 55 28. 5 27. 0 27. 20 26. 25 24. 15 24. 35	Sept. 4 0. 0 0. 13 0. 34 0. 44 2. 2 2. 4 2. 35 3. 6 3. 14 3. 26 3. 56	Sept. 4 *1403 *1403 *1400 *1404 *1406 *1409 *1406 *1406 *1409 *1407 *1407 *1394 *1403	Sept. 4 0. 0 3. 52 10. 36 11. 4 11. 53 14. 12 19. 10 23. 59	Sept. 4 *03098 *03164 *03202 *03194 *03202 *03222 *03241 *03226	Sept. 4 0. 0 1. 0 2. 0 3. 0 9. 0 20. 0 21. 0 22. 0 23. 0	Sept. 4 62. 1 62. 3 62. 4 62. 6 63. 0 63. 7 63. 6 63. 6	Sept. 4 63. 7 64. 1 64. 1 64. 0 64. 7 65. 0 65. 1 65. 1 65. 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.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Sept. 4		Sept. 4							Sept. 5		Sept. 5						
5. 47	20. 23. 55	4. 20	.1409	h	h	h	h	o	7. 56	20. 23. 15	3. 46	.1401	h	h	h	h	o
5. 57	24. 5	4. 34	.1407						8. 12	22. 15	3. 50	.1398					
6. 10	23. 30	4. 50	.1409						8. 42	23. 0	4. 3	.1399					
6. 23	23. 30	5. 8	.1414						9. 25	23. 0	4. 19	.1404					
6. 40	24. 20	5. 20	.1414						9. 33	22. 35	5. 35	.1404					
6. 51	25. 10	5. 36	.1410						9. 56	22. 10	6. 44	.1410					
6. 58	25. 10	6. 0	.1414						10. 21	22. 50	7. 18	.1407					
7. 21	23. 10	6. 24	.1411						10. 59	22. 10	7. 34	.1413					
7. 26	24. 0	6. 36	.1414						11. 28	22. 40	8. 9	.1409					
7. 37	23. 30	7. 10	.1412						11. 46	21. 50	8. 26	.1412					
8. 9	24. 0	7. 24	.1415						12. 53	23. 10	8. 41	.1409					
8. 42	23. 10	7. 33	.1412						13. 4	22. 45	9. 18	.1410					
9. 29	23. 0	7. 44	.1418						13. 31	23. 40	9. 30	.1413					
10. 32	19. 25	8. 52	.1415						13. 56	22. 45	9. 43	.1410					
10. 46	21. 5	9. 43	.1418						14. 14	24. 15	10. 5	.1409					
11. 9	21. 0	10. 9	.1416						14. 33	24. 0	10. 26	.1410					
11. 48	22. 0	10. 20	.1419						14. 41	22. 50	10. 41	.1413					
12. 8	21. 40	10. 29	.1417						15. 9	21. 40	10. 56	.1409					
13. 26	22. 40	10. 56	.1428						15. 24	21. 40	11. 20	.1410					
14. 3	22. 10	11. 12	.1422						15. 32	22. 40	11. 36	.1414					
14. 11	22. 45	11. 56	.1407						15. 58	21. 40	12. 11	.1408					
14. 22	21. 55	12. 20	.1411						16. 33	23. 50	12. 16	.1410					
14. 28	23. 0	13. 38	.1407						16. 50	23. 50	13. 43	.1407					
14. 41	21. 55	14. 12	.1409						17. 17	25. 30	14. 11	.1407					
14. 59	22. 5	14. 21	.1407						17. 39	25. 15	14. 26	.1411					
15. 33	21. 20	14. 33	.1411						17. 51	25. 50	15. 35	.1405					
15. 59	21. 25	14. 40	.1407						18. 23	24. 10	15. 43	.1407					
16. 6	22. 5	16. 25	.1407						18. 41	24. 0	16. 12	.1403					
16. 27	21. 20	18. 55	.1403						19. 2	22. 30	16. 24	.1399					
16. 50	21. 40	19. 12	.1398						19. 24	22. 5	17. 12	.1404					
16. 59	21. 0	19. 42	.1399						19. 53	22. 55	17. 43	.1406					
17. 36	21. 0	21. 6	.1392						20. 32	22. 10	19. 11	.1417					
18. 3	19. 40	21. 16	.1394						21. 14	22. 20	19. 42	.1415					
18. 16	20. 25	21. 50	.1391						23. 59	28. 40	20. 14	.1416					
18. 29	19. 40	22. 24	.1385								21. 38	.1408					
18. 38	20. 10	23. 59	.1397								23. 59	.1404					
18. 44	19. 50																
19. 26	21. 10								Sept. 6		Sept. 6		Sept. 6		Sept. 6		
19. 53	23. 0								0. 0	20. 28. 40	0. 0	.1404	0. 0	.03206	0. 0	63.6	65.0
20. 21	23. 10								0. 7	28. 20	0. 54	.1400	2. 34	.03257	1. 0	64.1	65.1
20. 40	24. 30								0. 55	28. 10	1. 26	.1396	7. 19	.03245	3. 0	64.1	65.2
21. 9	24. 0								1. 53	25. 30	1. 43	.1397	12. 26	.03247	7. 25	64.1	65.6
21. 27	25. 25								2. 25	24. 50	2. 8	.1402	12. 59	.03232	9. 0	63.6	65.0
22. 14	26. 25								3. 2	25. 0	2. 56	.1405	13. 34	.03226	20. 0	63.4	64.5
22. 56	28. 55								3. 13	24. 20	3. 12	.1401	14. 25	.03203	21. 0	63.4	64.3
23. 47	28. 55								4. 7	24. 20	4. 41	.1401	16. 43	.03214	22. 0	63.5	64.5
23. 59	29. 10								4. 41	23. 45	5. 16	.1406	21. 56	.03184	23. 0	63.7	64.6
									5. 12	24. 5	7. 12	.1409	23. 11	.03198			
Sept. 5		Sept. 5		Sept. 5		Sept. 5			5. 47	23. 35	7. 27	.1415	23. 59	.03193			
0. 0	20. 29. 10	0. 0	.1397	0. 0	.03226	0. 0	64.1	65.5	7. 51	23. 35	7. 36	.1412					
0. 52	29. 30	0. 33	.1396	3. 19	.03263	1. 0	64.5	65.9	8. 36	22. 50	8. 54	.1413					
3. 41	23. 55	1. 12	.1398	10. 12	.03281	2. 0	64.4	66.1	11. 34	23. 35	9. 10	.1416					
3. 45	24. 30	1. 15	.1397	16. 42	.03252	3. 0	64.1	66.2	12. 24	22. 30	9. 27	.1414					
3. 55	23. 50	1. 51	.1395	21. 51	.03206	9. 0	64.2	66.1	12. 39	25. 55	11. 20	.1413					
4. 6	23. 10	2. 42	.1399	23. 59	.03206	20. 0	63.5	64.5	13. 4	21. 15	11. 39	.1416					
5. 29	23. 50	3. 11	.1395			21. 0	63.4	64.4	13. 22	20. 55	12. 0	.1412					
6. 25	23. 30	3. 26	.1397			22. 0	63.5	65.0	13. 52	26. 0	12. 11	.1415					
6. 59	24. 0	3. 38	.1395			23. 0	63.5	64.9	14. 23	21. 30	12. 25	.1412					

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Sept. 6		Sept. 6							Sept. 7		Sept. 7						
14. 42	20. 19. 40	12. 35	*1416						12. 41	20. 26. 30	15. 36	*1402					
15. 3	19. 10	12. 54	*1418						12. 47	27. 10	15. 48	*1404					
15. 28	17. 30	13. 26	*1414						12. 55	26. 40	17. 23	*1401					
17. 6	22. 50	13. 49	*1417						13. 6	25. 10	18. 26	*1403					
17. 23	21. 55	14. 12	*1420						13. 26	24. 0	18. 44	*1398					
17. 35	22. 45	14. 25	*1417						13. 36	24. 30	20. 44	*1400					
17. 51	23. 0	15. 7	*1410						13. 54	23. 30	21. 37	*1392					
18. 29	20. 0	15. 19	*1409						14. 8	23. 30	21. 56	*1400					
19. 13	21. 20	15. 57	*1401						14. 43	21. 10	22. 19	*1390					
19. 26	20. 55	16. 55	*1405						14. 56	21. 30	22. 30	*1392					
19. 38	21. 30	17. 36	*1405						15. 4	21. 0	23. 15	*1382					
19. 52	21. 5	18. 12	*1413						15. 28	20. 25	23. 42	*1390					
19. 59	22. 0	19. 20	*1409						15. 53	21. 0	23. 59	*1387					
20. 24	21. 30	20. 26	*1403						16. 21	19. 45							
20. 40	23. 5	20. 39	*1406						16. 33	20. 10							
21. 4	23. 0	21. 42	*1404						16. 43	20. 0							
22. 14	27. 50	22. 11	*1391						17. 13	20. 55							
22. 41	27. 20	22. 45	*1398						17. 33	20. 0							
23. 59	28. 0	23. 11	*1405						17. 42	20. 35							
		23. 59	*1410						17. 58	20. 10							
									18. 19	21. 40							
									18. 25	21. 15							
									18. 36	21. 55							
									18. 44	20. 10							
									18. 58	20. 0							
									19. 13	21. 0							
									20. 4	21. 30							
									20. 41	23. 30							
									20. 45	23. 10							
										***							
									21. 43	25. 20							
									22. 2	27. 55							
									22. 18	27. 50							
									22. 26	29. 0							
									22. 52	28. 50							
									23. 27	32. 5							
									23. 59	35. 30							
									Sept. 8		Sept. 8		Sept. 8		Sept. 8		
									0. 0	20. 35. 30	0. 0	*1387	0. 0	*03196	0. 0	63. 8	65. 1
									0. 39	32. 50	0. 27	*1394	2. 5	*03247	1. 0	64. 1	65. 1
									0. 45	32. 50	1. 5	*1402	5. 13	*03253	2. 0	64. 1	65. 0
									1. 24	29. 20	1. 9	*1401	6. 15	*03260	3. 0	64. 1	65. 0
									1. 51	28. 0	1. 41	*1406	6. 42	*03252	9. 0	63. 7	64. 9
									2. 9	28. 35	2. 0	*1415	7. 20	*03266	22. 0	63. 1	64. 5
									2. 39	26. 55	2. 36	*1404	7. 40	*03250			
									3. 25	25. 25	3. 9	*1409	7. 52	*03250			
									3. 39	26. 0	3. 24	*1407	7. 57	*03235			
									4. 11	25. 15	3. 38	*1417	9. 56	*03224			
									4. 17	25. 55	3. 50	*1412	10. 11	*03218			
									4. 32	25. 0	4. 11	*1399	10. 26	*03197			
									4. 51	25. 20	4. 15	*1406	10. 39	*03201			
									5. 26	22. 35	4. 28	*1396	11. 4	*03180			
									5. 57	22. 55	4. 45	*1397	12. 26	*03193			
									6. 11	24. 30	5. 11	*1394	12. 56	*03158			
									6. 17	24. 30	5. 24	*1397	14. 34	*03192			
									6. 38	20. 30	5. 55	*1399	15. 26	*03200			
									6. 56	8. 0	6. 14	*1406	17. 25	*03194			

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.	
Sept. 8		Sept. 8		Sept. 8					Sept. 8									
7. 3	20. 6. 0	6. 44	*1392	18. 12	*03163	h	h	o	o	21. 56	20. 27. 30	h	h		h	h	o	o
7. 25	17. 0	7. 11	*1411	18. 56	*03172					22. 21	26. 10							
7. 27	17. 10	7. 19	*1426	19. 28	*03154					22. 26	26. 45							
7. 46	22. 55	7. 25	*1424	20. 39	*03143					22. 35	26. 15							
7. 57	19. 30	7. 34	*1414	21. 45	*03164					22. 52	31. 0							
8. 7	19. 15	7. 41	*1416	22. 43	*03167					23. 4	29. 25							
8. 33	21. 40	7. 57	*1400	23. 4	*03150					23. 18	28. 55							
8. 51	20. 20	8. 9	*1403		***					23. 25	29. 10							
9. 9	20. 45	8. 27	*1404	23. 59	*03176					23. 34	32. 10							
9. 17	20. 30	8. 41	*1399							23. 40	31. 25							
9. 28	21. 10	9. 35	*1400							23. 52	32. 30							
9. 41	20. 50	9. 43	*1399							23. 59	31. 25							
9. 52	22. 0	9. 57	*1409															
10. 24	13. 40	10. 11	*1426							Sept. 9		Sept. 9		Sept. 9				
10. 43	18. 20	10. 24	*1421							0. 0	20. 31. 25	0. 0	*1383	0. 0	*03176	1. 0	63.7	65.0
10. 57	16. 15	10. 41	*1434							0. 20	32. 20	0. 20	*1379	1. 57	*03240	9. 15	63.7	64.8
11. 6	16. 30	11. 3	*1413							0. 26	35. 0	0. 40	*1372	2. 7	*03237	20. 0	63.4	64.2
11. 18	19. 0	11. 41	*1399							0. 33	34. 20	0. 49	*1381	2. 28	*03272	21. 0	63.6	64.1
11. 51	15. 50	12. 24	*1394							0. 58	34. 0	1. 6	*1381		***	22. 0	63.7	65.3
12. 25	29. 45	12. 43	*1403							1. 5	32. 45	1. 12	*1389	2. 55	*03300	23. 0	63.8	65.6
13. 6	24. 0	12. 55	*1401								***	1. 22	*1385	3. 11	*03288			
13. 21	22. 30	13. 22	*1413							1. 17	32. 20	1. 45	*1397	3. 21	*03308			
13. 34	22. 30	13. 40	*1408							1. 26	30. 50	2. 5	*1378	3. 28	*03297			
13. 44	21. 30	14. 16	*1407							1. 42	31. 30	2. 20	*1396	3. 38	*03308			
13. 56	21. 50	14. 31	*1403							2. 1	34. 40	2. 41	*1393	3. 43	*03300			
14. 25	20. 10	15. 16	*1403							2. 13	32. 10	2. 54	*1400	3. 54	*03316			
15. 9	22. 55	16. 10	*1413							2. 22	32. 10	3. 7	*1386	4. 6	*03318			
15. 12	22. 30	16. 41	*1410							2. 26	33. 20	3. 18	*1389	4. 12	*03300			
15. 45	23. 55	17. 11	*1401							2. 39	28. 10	3. 20	*1384	4. 22	*03317			
15. 59	22. 55	17. 43	*1415							2. 41	28. 15	3. 27	*1393	4. 54	*03322			
16. 10	21. 50	18. 15	*1388							2. 46	26. 50	3. 40	*1384		***			
16. 26	20. 45	18. 43	*1389							2. 55	29. 30	3. 56	*1406	5. 19	*03366			
16. 33	21. 40	19. 11	*1409							3. 4	29. 30	4. 9	*1379	5. 38	*03338			
16. 42	21. 15	19. 35	*1392							3. 9	27. 10	4. 20	*1396	5. 42	*03300			
16. 51	22. 50	20. 11	*1405							3. 17	28. 0	4. 24	*1393	6. 56	*03260			
17. 6	25. 30	20. 20	*1409							3. 26	26. 10	4. 34	*1399	6. 59	*03264			
17. 25	28. 0	20. 34	*1402							3. 36	28. 15	4. 51	*1372	9. 42	*03232			
17. 36	30. 20	20. 43	*1399								***	4. 57	*1366	9. 58	*03212			
17. 40	28. 40	21. 13	*1398							3. 55	26. 40	5. 4	*1364	10. 9	*03200			
18. 12	34. 5	21. 25	*1402							4. 4	28. 10	5. 11	*1382	10. 20	*03177			
18. 19	33. 50	21. 35	*1398							4. 11	23. 50	5. 27	*1454	10. 32	*03177			
18. 27	36. 0	21. 44	*1405							4. 26	26. 25	5. 34	*1466	10. 42	*03188			
18. 52	34. 30	22. 12	*1396							4. 36	22. 15	5. 36	*1456	12. 55	*03202			
19. 3	37. 0	22. 36	*1398							4. 48	28. 15	5. 43	*1421	14. 11	*03180			
19. 14	36. 30	22. 45	*1413							4. 55	27. 30	5. 50	*1423	16. 51	*03203			
19. 33	36. 0	23. 11	*1393							5. 10	12. 20	5. 55	*1416	19. 56	*03218			
	***	23. 33	*1405							5. 14	20. 11. 25	6. 23	*1408	22. 14	*03180			
19. 58	33. 40	23. 40	*1394							5. 28	19. 51. 30	6. 30	*1409	22. 53	*03193			
	***	23. 47	*1397							5. 42	20. 13. 10	6. 43	*1392	23. 59	*03194			
20. 20	32. 0	23. 59	*1383							5. 51	9. 15	6. 53	*1387					
20. 38	27. 50									5. 55	11. 50	7. 7	*1397					
20. 54	24. 20									6. 1	10. 20	7. 19	*1400					
20. 58	24. 15									6. 40	22. 25	7. 42	*1401					
21. 3	23. 25									6. 53	21. 55	7. 55	*1396					
21. 14	23. 25									6. 57	20. 30	8. 10	*1401					
21. 28	24. 30									7. 11	21. 20	8. 25	*1397					
21. 32	23. 10									7. 32	24. 0	8. 48	*1401					
21. 38	24. 40									7. 50	23. 55	9. 10	*1413					

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.	
Sept. 9 h m 7. 56	20. 23. 0	Sept. 9 h m 9. 13	*1405	h m		h m	o	o	Sept. 9 h m 22. 36	20. 27. 40	Sept. 10 h m 0. 0	(†)	Sept. 10 h m 0. 0	o	o	Sept. 10 h m 0. 0	64. 0	65. 7
8. 16	23. 45	9. 26	*1411						22. 51	29. 0	0. 52	*1396	1. 26	*03212	1. 0	64. 3	66. 2	
8. 41	22. 10	9. 43	*1440						23. 11	29. 30	1. 12	*1400	2. 55	*03242	2. 0	64. 2	66. 1	
8. 56	13. 20	9. 55	*1431						23. 24	29. 10	1. 24	*1397	3. 39	*03242	3. 0	64. 1	66. 2	
9. 12	16. 40	10. 6	*1432						23. 35	29. 30	1. 56	*1399	3. 46	*03260	9. 0	64. 0	65. 7	
9. 22	12. 55	10. 12	*1412						23. 41	31. 20	2. 5	*1394	4. 24	*03273	20. 0	62. 7	63. 4	
9. 40	12. 40	10. 21	*1403						23. 48	31. 30	2. 28	*1398	4. 46	*03266	21. 0	62. 5	63. 1	
9. 47	16. 30	10. 32	*1399						23. 59	27. 10	2. 59	*1393	5. 14	*03277	22. 30	62. 5	64. 0	
9. 55	15. 10	10. 53	*1387								3. 9	*1396	5. 40	*03267	23. 0	62. 6	64. 0	
10. 4	18. 5	11. 40	*1396								3. 26	*1386	5. 53	*03277				
10. 13	11. 0	12. 10	*1397								3. 34	*1397	5. 57	*03276				
10. 23	10. 30	12. 19	*1393								3. 51	*1394	6. 0	*03296				
10. 33	17. 10	12. 52	*1400								3. 55	*1401	6. 21	*03263				
10. 41	17. 10	13. 6	*1399								4. 11	*1396	6. 38	*03254				
10. 55	19. 15	13. 25	*1395								4. 26	*1397	6. 43	*03273				
11. 2	21. 0	13. 49	*1402								4. 44	*1390	7. 3	*03252				
	***	14. 8	*1397								4. 58	*1396	7. 12	*03252				
12. 11	22. 30	14. 25	*1402								5. 11	*1400	8. 4	*03228				
12. 27	25. 45	14. 43	*1403								5. 14	*1392	11. 7	*03203				
12. 54	24. 15	14. 55	*1406								5. 36	*1386	11. 12	*03222				
13. 3	26. 30	15. 3	*1400								5. 41	*1388	11. 41	*03160				
13. 9	26. 15	15. 20	*1397								5. 53	*1399	12. 21	*03168				
13. 38	28. 30	15. 26	*1400								6. 2	*1424	13. 10	*03160				
13. 44	30. 20	15. 36	*1395								6. 13	*1399	15. 24	*03184				
14. 9	29. 55	15. 58	*1399								6. 24	*1401	16. 14	*03173				
14. 23	28. 0	16. 12	*1396								6. 28	*1383	16. 42	*03180				
14. 28	28. 0	16. 43	*1400								6. 43	*1414	17. 53	*03162				
15. 13	22. 25	***	***								6. 54	*1396	18. 20	*03174				
15. 34	20. 40	18. 3	*1393								7. 13	*1392	23. 59	*03137				
15. 39	22. 5	18. 13	*1397								7. 24	*1400						
15. 55	20. 40	18. 19	*1392								7. 36	*1399						
16. 15	21. 20	18. 32	*1394								7. 54	*1407						
16. 41	21. 10	19. 24	*1389								8. 8	*1394						
16. 55	21. 40	19. 36	*1393								8. 12	*1397						
17. 4	20. 30	20. 2	*1376								8. 43	*1401						
17. 55	20. 45	20. 12	*1378								9. 56	*1403						
18. 8	21. 30	20. 29	*1370								10. 11	*1407						
18. 18	20. 50	21. 26	*1383								10. 23	*1402						
18. 28	22. 15	21. 40	*1378								10. 41	*1429						
18. 37	20. 30	21. 58	*1371								10. 59	*1417						
18. 43	20. 25	22. 12	*1375								11. 17	*1405						
18. 53	21. 30	22. 19	*1372								11. 53	*1408						
19. 13	20. 45	22. 29	*1379								11. 57	*1405						
19. 28	21. 35	22. 42	*1379								12. 4	*1419						
19. 36	21. 20	22. 56	*1385								12. 12	*1407						
19. 41	18. 35	23. 12	*1387								12. 12	*1407						
19. 42	20. 40	23. 21	*1380								12. 42	*1409						
19. 45	20. 30	23. 25	*1374								13. 29	*1397						
19. 51	22. 15	23. 47	*1395								13. 51	*1400						
19. 58	22. 0	(†)	(†)															
	***																	
20. 30	25. 20																	
21. 7	24. 10																	
21. 38	26. 55																	
21. 43	28. 5																	
22. 9	28. 15																	
22. 12	27. 40																	
22. 26	28. 10																	

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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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Sept. 10		Sept. 10							Sept. 11		Sept. 11						
14. 33	20. 22. 30	14. 51	.1397	" "	" "	" "	" "	" "	9. 34	20. 25. 30	7. 47	.1408	" "	" "	" "	" "	" "
14. 44	21. 0	15. 24	.1397						10. 6	20. 50	8. 51	.1410					
14. 53	21. 35	15. 34	.1400						10. 35	22. 10	9. 6	.1425					
15. 9	21. 5	15. 43	.1397						10. 47	21. 40	9. 18	.1414					
15. 23	23. 45	16. 0	.1400						11. 4	21. 45	9. 24	.1405					
15. 28	23. 25	16. 26	.1385						11. 14	23. 40	9. 40	.1422					
15. 33	23. 55	16. 55	.1396						11. 23	23. 20	10. 12	.1405					
15. 51	22. 30	17. 27	.1401						11. 39	20. 55	10. 44	.1409					
16. 17	24. 30	18. 4	.1383						11. 54	21. 10	11. 11	.1407					
16. 39	24. 0	18. 42	.1394						12. 9	22. 30	11. 22	.1409					
16. 47	26. 5	18. 55	.1391						12. 27	22. 30	11. 37	.1418					
17. 9	25. 0	18. 58	.1395						12. 58	24. 10	12. 13	.1405					
17. 26	23. 15	19. 24	.1384						13. 29	23. 30	12. 51	.1408					
17. 43	24. 25	20. 11	.1388						13. 42	24. 30	13. 38	.1408					
18. 7	23. 0		***						14. 15	24. 0	14. 25	.1410					
18. 21	23. 30	22. 29	.1387						14. 53	22. 30	14. 49	.1406					
18. 26	22. 50	23. 24	.1393						15. 21	24. 5	15. 20	.1405					
18. 41	23. 55	23. 40	.1399						15. 41	23. 20	15. 42	.1408					
18. 51	22. 30	23. 44	.1395						15. 55	23. 30	15. 55	.1406					
18. 58	23. 0	23. 59	.1396						15. 58	24. 20	16. 14	.1407					
19. 8	22. 0								16. 38	24. 55	16. 26	.1404					
19. 14	21. 55								16. 51	25. 40	16. 43	.1407					
19. 27	20. 20								17. 3	25. 20	16. 57	.1405					
19. 38	20. 10								17. 26	27. 45	17. 20	.1410					
19. 42	20. 40								17. 41	27. 20	17. 44	.1413					
19. 48	19. 55								17. 53	28. 20	18. 19	.1395					
20. 27	20. 30								18. 9	29. 5	18. 54	.1396					
21. 43	24. 0								18. 21	28. 25	19. 20	.1399					
21. 52	25. 0								18. 41	25. 55	19. 41	.1403					
22. 38	26. 50								18. 54	27. 40	19. 56	.1398					
23. 26	29. 30								19. 8	27. 35	21. 0	.1394					
23. 28	30. 5								19. 17	28. 25	21. 11	.1390					
	***								19. 53	27. 20		***					
23. 59	28. 50								20. 3	27. 50	21. 55	.1388					
									20. 12	26. 40	22. 11	.1383					
									20. 17	26. 40	22. 36	.1390					
Sept. 11		Sept. 11		Sept. 11		Sept. 11			20. 31	28. 25	22. 55	.1389					
0. 0	20. 28. 50	0. 0	.1396	0. 0	.03137	0. 0	62.6 64.0		20. 42	28. 30	23. 12	.1397					
0. 21	29. 30	0. 49	.1405	2. 39	.03176	1. 0	62.8 64.0		20. 54	27. 55	23. 59	.1397					
0. 27	28. 55	1. 6	.1407	8. 56	.03168	2. 0	62.8 64.0		21. 11	27. 35							
0. 40	29. 30	1. 24	.1409	9. 11	.03158	3. 0	62.7 64.0		21. 17	29. 10							
1. 26	28. 20	2. 21	.1408	9. 25	.03178	9. 0	62.6 63.8		21. 29	27. 40							
2. 14	26. 20	2. 30	.1414	9. 55	.03140	20. 0	61.6 62.5		21. 47	28. 5							
2. 28	27. 20	2. 44	.1412	11. 15	.03156	21. 0	61.7 62.5		21. 57	23. 5							
2. 38	26. 50	3. 10	.1404	11. 43	.03141	22. 0	61.6 62.3		22. 10	29. 25							
2. 44	26. 55		***	12. 16	.03147	23. 0	61.6 62.3		22. 32	29. 30							
2. 59	25. 45	3. 37	.1401	15. 52	.03135				22. 43	30. 10							
3. 57	25. 0	3. 49	.1404	18. 25	.03106				22. 59	30. 10							
4. 8	25. 20	4. 2	.1403	19. 12	.03109				23. 25	31. 30							
5. 12	24. 0	4. 18	.1406	20. 23	.03086				23. 55	31. 10							
6. 4	23. 35	4. 43	.1408	23. 26	.03063				23. 59	30. 25							
6. 23	22. 50	4. 54	.1404	23. 59	.03068												
6. 52	23. 25	5. 13	.1407						Sept. 12		Sept. 12		Sept. 12		Sept. 12		
7. 16	22. 30	5. 22	.1406						c. 0	20. 30. 25	0. 0	.1397	0. 0	.03068	0. 0	61.7 62.5	
8. 13	23. 10	5. 40	.1409						0. 13	29. 30	0. 20	.1408	2. 57	.03137	1. 0	62.1 63.0	
8. 42	22. 5	6. 13	.1408						0. 39	31. 20	0. 41	.1406	5. 3	.03127	2. 0	62.0 63.0	
8. 54	17. 10	6. 33	.1413						0. 55	31. 55	0. 58	.1409	5. 42	.03138	3. 0	62.1 62.9	
9. 8	18. 45	6. 54	.1408						1. 11	30. 55	1. 19	.1401	10. 33	.03097	9. 0	62.1 62.8	
9. 21	20. 10	7. 22	.1412														

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Sept. 12		Sept. 12		Sept. 12		Sept. 12			Sept. 12		Sept. 12				Sept. 12		
1. 43	20. 33. 5	1. 38	*1400	11. 41	*03100	20. 0	62. 1	62. 8	20. 17	20. 22. 40	22. 22	*1380					
2. 1	30. 55	1. 43	*1403	12. 41	*03082	21. 0	62. 0	63. 1	20. 24	20. 10	22. 41	*1374					
2. 10	27. 50	2. 12	*1396	13. 10	*03085	22. 0	62. 0	63. 0	20. 28	22. 30	23. 6	*1399					
2. 16	26. 30	2. 21	*1399	13. 26	*03056	23. 0	62. 2	63. 7	20. 48	23. 50	23. 25	*1372					
2. 22	27. 5	2. 30	*1393	13. 55	*03020				21. 0	26. 10	23. 41	*1381					
2. 39	24. 0	2. 54	*1398	14. 40	*03044					***	23. 55	*1363					
2. 53	25. 40	3. 25	*1410	15. 0	*03040				21. 36	27. 55	23. 59	*1367					
2. 58	25. 20	3. 50	*1405	15. 21	*03056				21. 41	26. 30							
3. 32	26. 30	4. 9	*1407	16. 3	*03060				22. 13	30. 35							
3. 41	26. 10	4. 25	*1401		*03079				22. 26	30. 35							
3. 58	26. 55	4. 57	*1405	17. 24	*03087				22. 36	31. 45							
4. 23	26. 50	5. 6	*1411	18. 22	*03077				22. 40	30. 45							
4. 56	24. 45	5. 27	*1400	19. 42	*03084				22. 51	31. 30							
5. 1	23. 40	5. 52	*1410	20. 57	*03072				22. 56	33. 35							
5. 25	21. 55	6. 24	*1408	21. 11	*03081				23. 7	33. 10							
5. 47	23. 45	6. 48	*1412	22. 9	*03063				23. 21	33. 55							
5. 57	23. 0	7. 19	*1410	22. 41	*03078				23. 26	35. 20							
6. 11	23. 20	9. 25	*1412		***				23. 39	35. 0							
6. 39	22. 55	9. 44	*1417	23. 54	*03074				23. 43	37. 20							
7. 55	22. 55	10. 27	*1418	23. 59	*03083					***							
8. 14	22. 15	10. 49	*1415						23. 59	32. 40							
9. 21	22. 15	11. 11	*1414														
9. 29	21. 30	11. 33	*1416						Sept. 13		Sept. 13		Sept. 13		Sept. 13		
9. 39	21. 55	11. 39	*1419						0. 0	20. 32. 20	0. 0	*1367	0. 0	*03083	0. 0	62. 5	64. 0
9. 53	21. 20	11. 57	*1418						0. 9	31. 40	0. 21	*1388	0. 44	*03116	1. 0	62. 9	64. 2
10. 8	22. 10	12. 6	*1421						0. 12	32. 30	0. 26	*1393	2. 7	*03127	3. 0	62. 8	64. 3
10. 41	21. 10	12. 27	*1423						0. 36	28. 10	0. 41	*1400	2. 15	*03148	9. 0	62. 6	64. 0
11. 16	21. 55	12. 54	*1418						0. 40	29. 40	0. 57	*1397	2. 37	*03135	20. 0	62. 4	63. 3
11. 25	22. 40	13. 11	*1420						0. 56	28. 50	1. 11	*1399	2. 41	*03152	21. 0	62. 6	63. 3
11. 28	22. 5	13. 33	*1438						1. 22	32. 0	1. 22	*1409	3. 6	*03142	22. 0	62. 4	63. 0
11. 43	23. 25	13. 56	*1438						1. 28	31. 30		***	3. 12	*03168	23. 0	62. 5	63. 1
11. 55	23. 10	14. 3	*1433						1. 33	33. 10	1. 54	*1394	3. 28	*03178			
11. 59	23. 40	14. 11	*1412						1. 40	32. 0	2. 2	*1397		(†)			
12. 38	19. 50	14. 18	*1419						1. 54	32. 10	2. 11	*1395	8. 26	*03140			
13. 9	30. 10	14. 23	*1416						1. 57	32. 55	2. 17	*1409	9. 11	*03119			
13. 26	28. 5	14. 27	*1423						2. 8	31. 55	2. 26	*1396	9. 18	*03132			
13. 51	26. 55	14. 43	*1418						2. 14	33. 25	2. 41	*1392	9. 49	*03100			
13. 56	23. 0	14. 56	*1419						2. 26	32. 15	2. 51	*1402	10. 12	*03108			
14. 11	19. 30	15. 17	*1411						2. 41	31. 40	3. 10	*1373	10. 40	*03100			
14. 53	16. 40	15. 43	*1413						2. 47	34. 0	3. 14	*1386	11. 17	*03121			
15. 7	13. 40	16. 0	*1406						3. 1	29. 30	3. 41	*1402	13. 52	*03115			
15. 14	15. 20	16. 12	*1395						3. 11	24. 0	3. 43	*1398	15. 9	*03128			
15. 26	14. 50	16. 30	*1390						3. 21	23. 40	4. 9	*1416	17. 45	*03116			
15. 36	16. 30	16. 54	*1399						3. 26	22. 25	4. 12	*1412	19. 5	*03122			
15. 43	16. 20	17. 13	*1401						3. 40	23. 30	4. 20	*1397	23. 0	*03088			
16. 13	22. 45	17. 39	*1415						3. 54	26. 20	4. 27	*1399	23. 59	*03097			
16. 20	22. 45	17. 54	*1425						4. 6	27. 20	4. 41	*1386					
16. 39	25. 20	18. 48	*1414						4. 9	28. 30	4. 55	*1379					
16. 57	24. 5	18. 56	*1405						4. 22	25. 0	5. 4	*1399					
	***	19. 23	*1400						4. 33	26. 30	5. 12	*1393					
17. 26	25. 50	19. 44	*1405						4. 42	26. 10	5. 26	*1393					
17. 32	25. 0	19. 56	*1406						4. 56	21. 20	5. 38	*1398					
17. 51	24. 50	20. 11	*1400							***	5. 49	*1389					
17. 57	23. 0	20. 50	*1396						5. 33	26. 20	6. 6	*1410					
18. 53	19. 50	21. 10	*1386						5. 54	13. 40	6. 19	*1427					
19. 9	20. 30	21. 21	*1380						5. 57	14. 10	6. 36	*1416					
19. 13	21. 45	21. 55	*1379						6. 11	10. 45	6. 45	*1400					
19. 28	20. 55	22. 12	*1372						6. 17	11. 50	7. 6	*1426					

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Sept. 13		Sept. 13							Sept. 13								
6. 39	20. 21. 30	7. 25	.1404						22. 57	20. 29. 10							
6. 54	10. 55	7. 41	.1409						23. 28	30. 10							
7. 11	15. 10	7. 52	.1399						23. 40	29. 40							
7. 15	15. 30	8. 6	.1406						23. 55	30. 40							
7. 24	18. 15	8. 8	.1400						23. 59	29. 45							
7. 29	17. 40	8. 22	.1418														
7. 43	20. 10	8. 38	.1423														
7. 56	17. 0	8. 58	.1412						Sept. 14		Sept. 14		Sept. 14		Sept. 14		
8. 8	17. 15	9. 12	.1399						0. 0	20. 29. 45	0. 0	.1368	0. 0	.03097	0. 0	62. 6	63. 3
8. 23	14. 30	9. 19	.1397						0. 23	32. 0	0. 26	.1369	3. 4	.03138	1. 0	62. 9	63. 5
8. 43	18. 0	9. 24	.1417						0. 32	31. 0	0. 35	.1376	8. 25	.03146	2. 0	62. 7	63. 6
8. 56	18. 10	9. 42	.1419						0. 39	31. 40	0. 41	.1381	8. 57	.03125	3. 0	63. 1	64. 0
9. 8	19. 40	9. 57	.1409						0. 53	33. 10	1. 4	.1390	10. 45	.03120	9. 0	62. 7	64. 3
9. 17	18. 10	10. 11	.1419						0. 58	32. 5	1. 12	.1382	11. 50	.03103	20. 0	61. 7	62. 5
9. 37	26. 35	10. 22	.1425						1. 4	32. 50	1. 34	.1388	16. 12	.03098	21. 0	61. 5	62. 1
9. 52	22. 10	10. 44	.1412						1. 13	29. 30	1. 41	.1395	18. 4	.03092	22. 0	61. 5	62. 5
10. 9	15. 50	11. 25	.1397						1. 34	28. 10	2. 10	.1400	18. 54	.03066	23. 0	61. 5	62. 5
10. 27	18. 55	12. 12	.1406						2. 11	27. 30	2. 20	.1397	20. 29	.03068			
10. 43	17. 0	12. 34	.1402						2. 34	27. 30	2. 50	.1406	21. 14	.03057			
10. 58	18. 35	13. 27	.1407						3. 43	24. 30	3. 21	.1400	22. 11	.03066			
11. 13	19. 10	13. 42	.1403						4. 8	24. 25	3. 25	.1404	23. 59	.03067			
11. 34	23. 20	13. 55	.1405						4. 51	22. 55	3. 55	.1401					
11. 53	23. 40	14. 13	.1399						5. 9	23. 10	4. 11	.1402					
12. 10	24. 55	14. 21	.1403						5. 43	22. 15	4. 37	.1397					
12. 21	23. 20	14. 37	.1399						5. 56	22. 40	5. 12	.1403					
12. 33	23. 30	14. 42	.1402						6. 21	21. 55	5. 55	.1400					
12. 42	23. 25	14. 55	.1399						7. 11	23. 40	6. 19	.1405					
12. 49	24. 30	15. 11	.1397						7. 55	21. 40	6. 22	.1404					
13. 0	23. 20	15. 23	.1403						8. 6	22. 15	7. 5	.1404					
13. 11	24. 20	15. 41	.1403						8. 14	19. 40	7. 14	.1408					
13. 20	23. 25	15. 54	.1398						8. 33	22. 10	7. 41	.1409					
13. 26	24. 0	16. 27	.1404						8. 48	22. 0	7. 54	.1406					
	***	16. 41	.1399						9. 6	23. 0	8. 12	.1408					
14. 10	21. 40	16. 51	.1393						9. 19	22. 5	8. 36	.1430					
	***	17. 12	.1394						9. 26	22. 10	8. 41	.1423					
14. 43	23. 40	17. 42	.1408						9. 56	20. 0	9. 18	.1406					
15. 4	23. 0	18. 3	.1404						10. 14	19. 30	9. 30	.1408					
15. 11	24. 0	19. 6	.1404						10. 37	20. 40	10. 14	.1402					
15. 22	23. 40	20. 11	.1398						11. 4	24. 5	10. 28	.1405					
15. 33	24. 40	20. 50	.1389						11. 25	22. 30	11. 15	.1406					
15. 42	22. 40	21. 0	.1385						11. 39	24. 20	11. 42	.1409					
15. 55	22. 30	21. 20	.1385						12. 11	22. 50	11. 58	.1406					
	***	21. 43	.1582						12. 25	23. 30	12. 26	.1408					
16. 28	25. 20	22. 26	.1389						13. 48	23. 25	13. 45	.1401					
16. 39	25. 5	22. 55	.1396						13. 53	24. 5	14. 6	.1407					
16. 48	25. 55	23. 27	.1391						14. 6	22. 45	14. 24	.1404					
16. 59	25. 15	23. 56	.1384						14. 52	23. 15	15. 12	.1406					
17. 13	27. 0	23. 59	.1368						14. 57	22. 40	16. 21	.1410					
17. 23	26. 45								15. 4	23. 5		***					
18. 17	22. 0								15. 13	22. 30	17. 18	.1409					
18. 36	22. 25								15. 53	23. 30	17. 49	.1403					
	***								16. 13	23. 0	18. 38	.1415					
19. 38	20. 35								16. 33	23. 55	19. 11	.1404					
	***								16. 53	23. 30	19. 26	.1405					
20. 28	21. 50								17. 12	26. 20	19. 42	.1396					
20. 36	21. 0								17. 29	25. 15	20. 4	.1388					
21. 42	22. 40								17. 40	26. 30	20. 35	.1386					
22. 41	25. 30								17. 49	26. 30	21. 12	.1366					
									18. 6	29. 30	21. 21	.1356					

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



## 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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Sept. 14		Sept. 14							Sept. 15		Sept. 15						
18. 21	20. 30. 25	21. 43	*1358						8. 57	20. 18. 10	11. 56	*1406					
18. 32	30. 5	21. 53	*1356						9. 34	18. 10	12. 26	*1393					
18. 41	27. 35	22. 11	*1367						9. 51	22. 45	13. 11	*1406					
19. 4	25. 0	22. 12	*1365						9. 58	19. 50	13. 24	*1410					
19. 26	24. 40	22. 45	*1374						10. 29	22. 55	13. 50	*1405					
19. 53	26. 30	22. 57	*1383						10. 55	19. 0	14. 43	*1404					
19. 58	25. 30	23. 4	*1379						11. 11	19. 15	15. 12	*1406					
20. 32	26. 40	23. 43	*1390						11. 34	11. 0	15. 36	*1405					
20. 39	26. 10	23. 59	*1381						11. 42	11. 30	16. 30	*1407					
20. 43	27. 5								11. 58	16. 10	16. 55	*1400					
21. 9	27. 30								12. 18	20. 0	17. 29	*1396					
21. 24	24. 35								12. 41	30. 40	18. 12	*1411					
21. 46	28. 0								12. 44	30. 30	18. 26	*1408					
21. 58	27. 45								13. 8	27. 40	18. 41	*1410					
22. 17	30. 0								13. 38	23. 0	19. 21	*1403					
22. 32	28. 40								14. 26	22. 10	21. 38	*1395					
22. 41	28. 45								14. 33	23. 35	22. 25	*1396					
22. 51	28. 5								15. 16	22. 0	22. 44	*1391					
23. 2	29. 30								15. 38	22. 25	23. 24	*1398					
23. 9	28. 40								16. 12	22. 25	23. 59	*1392					
23. 12	29. 0								16. 39	24. 55							
23. 34	29. 0								16. 51	25. 10							
23. 59	30. 10								17. 14	30. 50							
									17. 26	30. 50							
Sept. 15		Sept. 15		Sept. 15		Sept. 15			18. 10	23. 20							
0. 0	20. 30. 10	0. 0	*1381	0. 0	*03067	0. 0	61. 9	62. 8	18. 14	23. 5							
0. 13	29. 50	0. 15	*1387	1. 42	*03112	1. 0	62. 2	64. 0	18. 33	21. 40							
0. 33	31. 20	0. 40	*1384	2. 12	*03115	2. 0	62. 4	64. 2	18. 42	21. 55							
0. 42	28. 10	0. 56	*1390	3. 10	*03122	3. 0	62. 4	63. 4	18. 54	21. 25							
0. 54	27. 0	1. 10	*1388	5. 14	*03125	9. 0	61. 6	62. 5	19. 11	21. 55							
0. 59	27. 25	1. 43	*1394	5. 29	*03114	20. 0	60. 8	61. 8	19. 33	21. 10							
1. 9	27. 10	2. 6	*1389	5. 53	*03135	22. 0	60. 9	62. 2	21. 44	23. 0							
1. 41	29. 20	2. 21	*1392	6. 28	*03120				22. 29	25. 25							
1. 50	30. 15	2. 26	*1388	7. 42	*03132				22. 52	24. 55							
2. 21	28. 10	2. 54	*1393	8. 57	*03107				23. 55	26. 0							
2. 26	27. 20	3. 36	*1406	9. 55	*03080				23. 59	26. 40							
2. 34	27. 10	3. 56	*1400	10. 42	*03053												
2. 40	25. 40	4. 41	*1408	11. 25	*03044				Sept. 16		Sept. 16		Sept. 16		Sept. 16		
2. 43	26. 0	4. 45	*1404	12. 41	*03066				0. 0	2c. 26. 40	0. 0	*1392	0. 0	*03019	1. 0	62. 0	63. 2
2. 54	25. 20	5. 6	*1406	13. 12	*03053				0. 24	26. 0	0. 20	*1393	0. 54	*03043	8. 0	62. 4	63. 8
3. 30	25. 45	5. 15	*1405	14. 25	*03064				0. 39	26. 30	0. 50	*1398	4. 43	*03077	20. 0	60. 6	61. 8
4. 10	24. 30	5. 40	*1389	17. 12	*03060				0. 56	29. 0	0. 55	*1404	5. 48	*03095	21. 0	60. 6	61. 1
4. 17	24. 45	5. 58	*1406	17. 34	*03048				0. 59	29. 0	1. 13	*1395	8. 15	*03100	22. 0	60. 7	61. 2
5. 26	23. 45	6. 22	*1405	18. 56	*03043				1. 9	27. 55	2. 3	*1399	8. 30	*03063	23. 0	60. 9	61. 4
5. 41	20. 45	6. 34	*1400	20. 36	*03040				1. 53	28. 10	2. 36	*1406	8. 53	*03055			
5. 56	22. 20	7. 2	*1410	23. 59	*03019				2. 6	27. 55	2. 54	*1402	9. 9	*03064			
6. 14	21. 55	7. 22	*1405						2. 32	28. 15	3. 12	*1407	9. 26	*03057			
6. 26	22. 0	7. 41	*1405						2. 47	27. 20	3. 24	*1404	11. 22	*03063			
6. 40	19. 20	8. 12	*1400						3. 9	27. 45	4. 12	*1406	15. 3	*03034			
6. 54	18. 20	8. 29	*1409						3. 23	27. 0	4. 29	*1410	15. 25	*03036			
7. 13	18. 25	9. 0	*1408						4. 27	26. 30	4. 34	*1406	16. 22	*03022			
7. 23	19. 40	9. 31	*1411						4. 51	25. 20	4. 42	*1412	16. 54	*03020			
	***	9. 41	*1416						4. 58	26. 20	4. 54	*1408	19. 6	*03033			
8. 3	21. 5	9. 54	*1414						5. 28	24. 20	5. 12	*1404	21. 14	*03008			
8. 9	20. 30	10. 25	*1428						5. 37	22. 30	5. 18	*1408	22. 49	*02992			
8. 18	21. 0	10. 42	*1416						5. 43	22. 40	5. 25	*1402	23. 59	*03007			
8. 26	18. 20	10. 52	*1413						6. 8	24. 20	5. 30	*1404					
8. 31	20. 5	11. 12	*1417						6. 54	23. 10	5. 41	*1399					
8. 37	20. 30	11. 40	*1399														

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Sept. 16		Sept. 16							Sept. 17		Sept. 17		Sept. 17		Sept. 17		
7. 3	20. 22. 15	6. 27	'1403						0. 52	20. 29. 30	0. 55	'1399	0. 0	'03007	0. 0	60. 9	61. 5
7. 33	23. 20	6. 50	'1407						1. 24	29. 40	1. 41	'1393	1. 44	'03013	1. 0	61. 3	62. 1
7. 52	22. 30	6. 59	'1403						1. 44	28. 5	2. 20	'1404	6. 57	'03083	3. 0	61. 4	62. 1
7. 56	22. 30	7. 12	'1409							***	2. 38	'1399	7. 24	'03088	9. 0	61. 3	62. 4
8. 23	21. 25	7. 25	'1411						2. 55	27. 0	3. 6	'1397	7. 49	'03076	20. 0	59. 9	60. 6
8. 39	16. 10	7. 52	'1406						3. 3	26. 20	3. 24	'1408	8. 12	'03078	21. 0	60. 0	60. 7
8. 53	19. 30	8. 11	'1406						3. 24	28. 0	3. 27	'1405	8. 43	'03060	22. 0	60. 1	60. 8
8. 59	17. 10	8. 30	'1437						3. 42	27. 0	3. 36	'1409	11. 18	'03038	23. 0	60. 1	60. 8
9. 17	21. 55	8. 47	'1422						4. 8	28. 0	3. 55	'1404	11. 36	'03047			
9. 23	20. 10	9. 3	'1396						4. 17	27. 10	4. 20	'1398	11. 56	'02980			
9. 39	18. 5	9. 16	'1418						4. 26	27. 30	4. 33	'1393	12. 42	'02966			
10. 13	21. 55	9. 35	'1408						4. 33	26. 5	4. 41	'1396	13. 11	'02951			
10. 28	21. 20	9. 57	'1413						4. 47	25. 30	4. 57	'1387	13. 43	'02967			
10. 42	22. 40	10. 35	'1400						4. 56	24. 10	5. 13	'1394	14. 11	'02960			
11. 18	23. 55	10. 45	'1404						5. 3	24. 0	5. 30	'1402	14. 43	'02977			
11. 26	23. 20	11. 5	'1403						5. 11	23. 5	6. 6	'1401	15. 8	'02983			
11. 38	24. 45	11. 25	'1407						5. 25	24. 20	6. 27	'1395	16. 4	'02960			
11. 55	24. 0	11. 30	'1404						5. 33	24. 30	6. 52	'1399	16. 55	'02977			
12. 10	26. 20	11. 53	'1408						5. 48	23. 0	7. 12	'1392	18. 54	'02984			
12. 24	24. 40	12. 15	'1404						6. 10	22. 30	7. 34	'1403	19. 35	'02973			
12. 56	25. 10	12. 24	'1407						6. 42	19. 5	7. 48	'1392	23. 22	'02964			
	***	12. 43	'1407						6. 56	19. 30	8. 17	'1416	23. 40	'03004			
13. 26	23. 40	13. 4	'1403						7. 12	15. 10	8. 42	'1400	23. 44	'02992			
13. 42	21. 30	13. 39	'1406						7. 21	15. 20	8. 56	'1406	***				
14. 23	21. 30	13. 48	'1411						7. 39	17. 10	9. 23	'1400	23. 59	'02996			
14. 52	26. 0	13. 55	'1406						7. 49	13. 20	9. 40	'1400					
15. 8	26. 0	14. 38	'1410						8. 4	15. 30	9. 52	'1406					
	***	15. 5	'1409						8. 26	22. 0	10. 11	'1408					
15. 43	22. 50	15. 33	'1397						8. 40	20. 55	10. 54	'1417					
16. 26	22. 20	15. 55	'1401						8. 56	21. 45	11. 10	'1410					
16. 44	23. 40	16. 20	'1413						9. 46	20. 55	11. 26	'1407					
16. 55	23. 0	16. 26	'1408						9. 56	21. 55	11. 38	'1414					
16. 59	24. 55	16. 50	'1413						10. 6	21. 55	11. 44	'1439					
17. 10	24. 10	17. 20	'1400						10. 39	23. 0	11. 57	'1431					
17. 16	25. 0	17. 34	'1403						10. 44	21. 35	12. 16	'1444					
17. 33	24. 30	***							10. 58	22. 50	12. 27	'1430					
17. 46	22. 5	18. 41	'1398						11. 17	21. 10	12. 45	'1422					
18. 11	23. 40	19. 10	'1402						11. 26	21. 15	13. 11	'1404					
18. 28	26. 40	19. 50	'1372						11. 48	34. 40	13. 21	'1407					
18. 43	26. 40	20. 5	'1367						12. 6	24. 40	13. 30	'1405					
19. 4	30. 15	20. 35	'1386						12. 24	29. 10	13. 49	'1413					
	***	20. 55	'1396						12. 36	29. 35	14. 10	'1406					
19. 39	34. 40	21. 26	'1390						12. 41	29. 5	14. 21	'1394					
19. 55	33. 10	21. 50	'1394						13. 42	13. 5	14. 50	'1399					
20. 8	30. 55	22. 0	'1390						13. 59	18. 30	14. 55	'1395					
20. 58	27. 40	22. 43	'1400						14. 23	18. 30	15. 10	'1397					
21. 6	26. 0	23. 7	'1390						14. 38	16. 25	15. 26	'1404					
21. 19	25. 0	23. 23	'1372						14. 53	19. 20	15. 40	'1411					
21. 46	28. 5	23. 27	'1397						14. 57	19. 30	15. 55	'1409					
22. 23	27. 25	23. 37	'1396						15. 14	23. 35	16. 6	'1414					
22. 40	29. 50	23. 54	'1400						15. 27	22. 30	16. 18	'1403					
22. 43	29. 10	(†)							15. 32	21. 30	16. 52	'1398					
	***								15. 54	20. 20	17. 33	'1400					
23. 13	29. 30								15. 57	21. 10	17. 43	'1398					
23. 23	28. 20								16. 6	20. 5	17. 52	'1406					
23. 28	29. 5								16. 9	20. 15	18. 0	'1403					
23. 38	29. 10	(†)							16. 26	17. 10	18. 35	'1409					

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Sept. 17		Sept. 17							Sept. 18		Sept. 18						
16. 56.	20. 21. 0	18. 42	*1404						2. 39	20. 28. 30	3. 21	*1393	8. 56	*03023			
17. 35	21. 50	18. 51	*1410						2. 54	29. 0	3. 33	*1389	9. 6	*03040			
17. 51	20. 15	19. 40	*1396						2. 58	28. 5	3. 41	*1364	9. 42	*02996			
17. 55	22. 45	20. 15	*1367						3. 7	28. 30	3. 50	*1388	12. 30	*03004			
18. 2	22. 50	20. 26	*1369						3. 11	27. 35	4. 2	*1434	14. 25	*02985			
18. 9	21. 45	20. 41	*1360						3. 22	30. 10	4. 12	*1428	15. 49	*03007			
18. 27	21. 40	21. 2	*1365						3. 30	30. 0	4. 22	*1399	19. 5	*03026			
18. 39	22. 35	21. 41	*1363						3. 39	25. 40	4. 30	*1392	21. 19	*03015			
18. 47	21. 0	21. 45	*1360						3. 41	26. 5	4. 37	*1395		***			
18. 53	21. 0	22. 19	*1373						3. 52	3. 10	4. 43	*1382	23. 59	*03012			
19. 10.	25. 30	22. 45	*1367						4. 12	16. 50	4. 55	*1386					
19. 35	24. 0	23. 11	*1376						4. 15	16. 10	5. 7	*1394					
19. 41	22. 10	23. 13	*1359						4. 39	25. 20	5. 36	*1400					
	***	23. 26	*1369						4. 53	22. 30	5. 54	*1391					
19. 51	24. 30	23. 40	*1377						5. 3	24. 5	6. 0	*1395					
19. 56	26. 30	23. 56	*1376						5. 12	23. 40	6. 6	*1393					
	***	23. 59	*1378						5. 33	24. 55	6. 21	*1400					
20. 20	29. 5								5. 55	24. 10	6. 24	*1397					
20. 30	29. 0								6. 10	25. 15	6. 37	*1403					
	***								6. 33	24. 5	6. 44	*1401					
21. 7	33. 25								6. 51	22. 5	7. 3	*1410					
21. 11	32. 10								6. 56	22. 30	7. 12	*1405					
21. 17	33. 30								7. 20	20. 0	7. 24	*1400					
21. 29	31. 5								7. 32	21. 0	7. 40	*1402					
	***								7. 56	19. 0	7. 47	*1399					
22. 14	29. 20								8. 10	22. 0	7. 57	*1417					
22. 25	31. 15								8. 21	18. 0	8. 15	*1395					
22. 33	28. 40								8. 26	13. 20	8. 24	*1405					
22. 40	29. 30								8. 39	18. 0	8. 40	*1404					
22. 51	29. 5								8. 47	16. 50	8. 51	*1400					
23. 4	29. 30								9. 3	6. 0	9. 11	*1446					
23. 9	30. 30								9. 12	14. 30	9. 20	*1442					
23. 12	30. 40								9. 36	18. 35	9. 50	*1412					
23. 18	32. 20								9. 51	16. 20	9. 55	*1414					
23. 24	29. 40								9. 56	17. 5	10. 5	*1405					
23. 28	31. 10								10. 3	16. 10	10. 12	*1408					
23. 36	35. 55								10. 11	17. 55	10. 20	*1397					
23. 40	32. 10								10. 23	14. 30	10. 56	*1401					
23. 42	33. 20								10. 53	17. 30	11. 12	*1395					
23. 53	31. 10								11. 13	16. 25	11. 57	*1397					
23. 59	31. 30								12. 26	22. 45	12. 14	*1400					
									12. 39	22. 45	12. 21	*1397					
									12. 44	22. 5	12. 54	*1406					
Sept. 18		Sept. 18		Sept. 18		Sept. 18			13. 14	22. 45	13. 12	*1408					
0. 0	20. 31. 30	0. 0	*1378	0. 0	*02996	0. 0	60. 9	61. 7	13. 25	21. 30	13. 40	*1393					
0. 8	32. 40	0. 14	*1387		***	1. 0	61. 0	62. 6	13. 45	25. 30	13. 45	*1395					
0. 13	30. 50	0. 25	*1381	1. 7	*03006	2. 0	60. 9	61. 8	14. 9	25. 55	13. 59	*1404					
0. 29	27. 45	0. 42	*1388	1. 53	*03053	3. 0	61. 1	61. 9	14. 17	25. 10	14. 24	*1407					
0. 51	29. 55	0. 51	*1397	1. 57	*03067	9. 15	60. 6	61. 9	14. 18	22. 55	14. 39	*1403					
1. 11	32. 10	1. 10	*1379	2. 11	*03056	20. 0	61. 6	62. 6	14. 48	23. 40	14. 54	*1405					
1. 22	31. 25	1. 20	*1376		***	21. 0	61. 6	62. 4	14. 55	22. 30	15. 6	*1401					
1. 26	31. 30	1. 37	*1383	3. 11	*03102	22. 0	61. 5	62. 5	15. 11	20. 20	15. 35	*1406					
1. 34	34. 50	1. 43	*1376	3. 40	*03074	23. 0	61. 6	62. 6	15. 58	***	16. 3	*1406					
1. 41	34. 30	1. 54	*1370	3. 56	*03146					16. 24	21. 45	16. 11	*1402				
1. 53	30. 15	1. 58	*1380	4. 24	*03100					16. 38	21. 45	16. 15	*1405				
2. 3	33. 30	2. 20	*1349	6. 19	*03054					16. 44	22. 45	16. 57	*1406				
2. 12	32. 30	2. 41	*1386	7. 56	*03056					16. 55	22. 0	17. 12	*1404				
	***	2. 55	*1397	8. 16	*03033					22. 30	17. 34	*1406					
2. 33	27. 10	3. 12	*1386	8. 29	*03037					***							

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Sept. 18		Sept. 18							Sept. 19		Sept. 19						
18. 19	20. 21. 40	18. 36	*1398	h	m	h	m	o	o	6. 41	20. 12. 40	7. 27	*1394	h	m	h	m
18. 33	23. 10	19. 11	*1405							7. 0	17. 40	7. 43	*1386				
18. 39	22. 15	20. 10	*1399							7. 12	17. 0	7. 54	*1395				
18. 41	24. 0	20. 29	*1399							7. 28	14. 40	7. 58	*1411				
19. 5	23. 30	21. 22	*1381							7. 41	19. 20	8. 11	*1403				
19. 9	24. 20	21. 54	*1389							7. 56	16. 10	8. 28	*1410				
19. 13	23. 25	22. 14	*1390							8. 4	17. 30	8. 41	*1399				
19. 39	22. 30	22. 36	*1377							8. 9	21. 40	8. 56	*1405				
20. 6	23. 5	22. 51	*1381							8. 13	20. 20	9. 12	*1402				
20. 11	22. 30	22. 54	*1377							8. 41	24. 30	9. 34	*1389				
	***	23. 14	*1385							8. 45	19. 0	9. 42	*1396				
20. 59	25. 5	23. 35	*1376							8. 55	17. 30	9. 55	*1396				
21. 27	24. 30	23. 54	*1385							9. 28	22. 10	10. 20	*1407				
21. 41	25. 0	23. 59	*1380							9. 47	21. 20	11. 6	*1399				
21. 54	26. 30									9. 58	24. 40	12. 12	*1401				
22. 2	26. 5									10. 11	23. 40	12. 54	*1399				
22. 17	27. 25									10. 28	25. 10	13. 14	*1402				
22. 27	27. 20									11. 11	23. 0	13. 54	*1397				
22. 34	26. 40									11. 41	24. 0	14. 15	*1402				
22. 40	26. 30									12. 12	24. 0	14. 51	*1399				
22. 47	27. 40									12. 43	25. 45	15. 8	*1404				
22. 51	26. 45									12. 58	25. 35	15. 29	*1403				
22. 58	26. 15									13. 28	23. 25	15. 57	*1395				
	***									14. 6	24. 40	16. 19	*1402				
23. 12	29. 40									14. 9	25. 55	16. 41	*1404				
23. 21	28. 25									14. 34	25. 40	16. 58	*1399				
23. 26	28. 30									15. 2	24. 0	17. 56	*1405				
23. 36	27. 35									15. 12	22. 50	18. 20	*1403				
23. 54	28. 15									15. 33	23. 30	18. 55	*1392				
23. 59	27. 30									15. 53	25. 20	19. 24	*1395				
										16. 9	25. 30	20. 15	*1389				
										16. 50	22. 30	21. 19	*1397				
Sept. 19	20. 27. 20	Sept. 19	0. 0 *1380	Sept. 19	0. 0 *03012	Sept. 19	0. 0 62. 1 63. 0		Sept. 19	17. 24	23. 10	22. 16	*1390				
0. 8	26. 45	0. 24	*1389	0. 41	*03028	1. 0	62. 0 63. 4			17. 41	22. 30	23. 59	*1396				
0. 19	28. 30	0. 46	*1390	***	***	2. 0	62. 0 63. 4			18. 28	23. 25						
0. 51	28. 30	0. 56	*1388	2. 45	*03077	3. 0	62. 3 63. 5			18. 48	22. 50						
0. 58	27. 45	1. 6	*1392	3. 57	*03072	9. 0	62. 1 63. 4			19. 23	24. 15						
1. 11	29. 30	1. 18	*1390	4. 58	*03080	20. 0	61. 2 62. 0			19. 51	23. 15						
1. 24	28. 50	1. 44	*1402	5. 19	*03077	21. 0	61. 3 62. 0			20. 47	26. 30						
	***	2. 9	*1392	5. 41	*03097	22. 0	61. 2 62. 2			21. 5	25. 50						
1. 50	31. 5	2. 23	*1374	5. 48	*03083	23. 0	61. 3 62. 5			21. 54	27. 5						
1. 58	30. 10	2. 36	*1392	6. 6	*03088					21. 57	26. 10						
2. 11	30. 5	2. 55	*1399	6. 54	*03082					22. 3	27. 0						
2. 33	20. 40	3. 8	*1395	7. 12	*03074					22. 10	26. 30						
2. 41	20. 55	3. 41	*1407	7. 27	*03083					22. 21	26. 45						
2. 44	19. 15	3. 55	*1403	7. 43	*03077					22. 33	25. 30						
2. 57	23. 20	4. 14	*1404	7. 55	*03082					22. 47	27. 5						
3. 6	24. 30	4. 26	*1405	8. 42	*03037					22. 54	26. 20						
3. 56	26. 5	4. 56	*1406	10. 18	*03056					23. 11	27. 55						
4. 38	24. 20	5. 12	*1400	10. 43	*03046					23. 52	27. 0						
5. 6	24. 55	5. 26	*1385	11. 41	*03056						(†)						
5. 21	23. 45	5. 43	*1400	14. 9	*03050												
5. 39	18. 20	5. 49	*1396	15. 18	*03036					Sept. 20	(†)	Sept. 20	0. 0 *1396	Sept. 20	0. 0 *02977	Sept. 20	0. 0 61. 4 62. 7
5. 43	19. 10	5. 56	*1408	19. 41	*03023					0. 49	20. 27. 20	0. 18	*1405	0. 39	*02986	1. 0	61. 8 62. 9
5. 58	10. 55	6. 6	*1414	22. 57	*02980					1. 11	27. 30	0. 24	*1397	2. 15	*03037	3. 0	62. 6 63. 3
6. 9	12. 0	6. 14	*1410	23. 59	*02977					1. 26	29. 0	0. 34	*1398	8. 52	*03023	9. 0	61. 7 62. 7
6. 26	11. 20	6. 54	*1419							1. 43	28. 0	1. 6	*1402	10. 53	*03003	20. 0	61. 6 63. 0
6. 37	12. 30	7. 22	*1390														

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

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 Thermo-meters.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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 Thermo-meters.	
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
Sept. 20 2. 5	20. 28. 25	Sept. 20 1. 26	*1406	Sept. 20 11. 40	*03006	Sept. 20 21. 0	61. 6	62. 8	Sept. 20 21. 43	20. 26. 0	Sept. 20 23. 42	*1391					
2. 9	29. 10	1. 55	*1388	12. 15	*02992	22. 0	61. 8	62. 9	21. 57	26. 0	23. 49	*1386					
2. 24	27. 15	2. 11	*1396	13. 21	*03003	23. 0	62. 0	62. 9	22. 6	25. 0	23. 59	*1389					
2. 27	24. 45	2. 26	*1380	16. 56	*02997				22. 21	27. 55							
2. 38	22. 55	2. 43	*1388	23. 59	*02978				22. 32	26. 40							
	***	3. 14	*1391						22. 59	28. 55							
3. 8	24. 35	4. 4	*1402						23. 9	28. 20							
3. 11	23. 40	4. 12	*1400						23. 59	30. 30							
3. 21	23. 20	4. 28	*1400														
4. 17	25. 50	4. 51	*1403						Sept. 21 0. 0	20. 30. 30	Sept. 21 0. 0	*1389	Sept. 21 0. 0		Sept. 21 0. 0	62. 1	63. 0
4. 39	25. 45	4. 59	*1400						2. 48	25. 0	0. 30	*1393	0. 28		0. 0	62. 1	63. 0
4. 57	24. 50	5. 22	*1398						3. 7	26. 40	0. 34	*1392	2. 43		1. 0	62. 1	63. 0
5. 34	25. 0	6. 0	*1400						3. 48	21. 10	0. 44	*1398	***		3. 0	61. 7	63. 0
5. 56	23. 45	6. 25	*1404						4. 41	25. 30	0. 54	*1393	3. 19		9. 0	61. 5	62. 8
6. 25	24. 45	6. 41	*1410						5. 14	23. 55	1. 23	*1394	3. 42		20. 0	59. 8	60. 4
6. 33	24. 35	6. 52	*1408						5. 52	24. 45	1. 27	*1390	4. 9		21. 0	59. 7	60. 2
6. 41	25. 30	7. 5	*1411						6. 10	21. 55	1. 40	*1395	4. 54		22. 0	59. 9	61. 0
6. 50	24. 25	7. 12	*1406						6. 21	22. 30	1. 55	*1388	9. 10		23. 0	60. 0	60. 8
6. 58	24. 30	7. 25	*1411						6. 28	21. 40	2. 5	*1393	10. 18				
7. 20	23. 50	7. 50	*1404						6. 53	13. 25	2. 26	*1387	12. 41				
7. 42	24. 0	8. 40	*1406						7. 17	20. 0	2. 41	*1391	13. 4				
8. 28	21. 50	8. 57	*1415						7. 41	21. 30	2. 54	*1403	13. 26				
8. 47	18. 0	9. 11	*1410						7. 58	21. 40	3. 6	*1411	14. 20				
8. 56	18. 0	9. 36	*1406						8. 13	20. 35	3. 21	*1400	14. 55				
9. 44	23. 0	10. 19	*1414						10. 22	23. 0	3. 38	*1384	20. 11				
10. 22	21. 0	***							11. 9	22. 50	3. 55	*1400	21. 56				
10. 28	21. 30	10. 41	*1407						11. 39	23. 20	4. 12	*1410	23. 59				
10. 57	19. 55	10. 57	*1403						12. 11	22. 30	4. 23	*1404					
11. 4	20. 45	11. 5	*1405						12. 25	23. 20	4. 43	*1406					
11. 14	20. 30	11. 11	*1403						12. 29	22. 50	4. 57	*1411					
11. 39	24. 0	11. 27	*1412						12. 41	25. 0	5. 27	*1403					
11. 58	21. 20	11. 35	*1408						13. 14	22. 50	5. 56	*1406					
12. 13	20. 0	11. 41	*1412						13. 40	25. 20	6. 16	*1400					
12. 39	19. 20	12. 8	*1412						14. 10	20. 40	6. 37	*1390					
12. 59	20. 30	12. 36	*1402						14. 32	19. 25	7. 10	*1419					
13. 21	23. 5	13. 9	*1397						14. 56	22. 10	7. 37	*1409					
13. 43	22. 55	13. 50	*1404						15. 23	21. 20	7. 51	*1405					
14. 26	26. 5	14. 29	*1402						15. 34	21. 40	8. 3	*1408					
14. 51	25. 0	14. 50	*1407						16. 27	20. 30	8. 22	*1403					
15. 12	22. 50	15. 6	*1405						16. 58	21. 35	8. 54	*1405					
15. 23	23. 0	15. 20	*1408						17. 21	21. 20	10. 11	*1408					
15. 40	20. 30	15. 56	*1409						18. 44	22. 40	11. 9	*1406					
16. 14	22. 10	16. 14	*1404						19. 9	22. 0	11. 26	*1409					
16. 26	25. 35	16. 40	*1403						19. 20	22. 35	11. 56	*1406					
16. 40	24. 45	17. 26	*1408						20. 9	22. 50	12. 18	*1406					
17. 43	26. 0	18. 24	*1397						20. 41	24. 30	12. 31	*1412					
18. 13	28. 30	18. 40	*1403						21. 44	25. 0	12. 43	*1409					
18. 23	28. 5	18. 58	*1398						22. 4	25. 55	12. 50	*1411					
18. 26	28. 40	19. 41	*1400						22. 23	25. 40	13. 11	*1410					
19. 4	25. 30	19. 56	*1403						22. 41	27. 10	13. 21	*1405					
19. 11	26. 20	20. 41	*1393						23. 12	27. 30	13. 41	*1412					
19. 21	25. 45	20. 56	*1395						23. 26	28. 20	14. 5	*1412					
19. 26	26. 50	21. 26	*1384						23. 36	27. 30	14. 41	*1402					
19. 39	26. 0	21. 50	*1395						23. 43	28. 10	15. 0	*1407					
19. 56	27. 0	22. 11	*1389						23. 59	27. 25	15. 22	*1404					
20. 49	26. 40	22. 25	*1395								16. 2	*1408					
21. 16	27. 0	22. 39	*1391								16. 22	*1405					
21. 31	24. 40	22. 57	*1396														

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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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Sept. 23 23. 43 23. 59	20. 26. 30 26. 50																
Sept. 24 0. 0 0. 39 1. 10 1. 34 3. 13 3. 33 3. 56 4. 9 4. 21 4. 33 4. 59 5. 11 5. 25 5. 53 6. 11 6. 44 7. 9 7. 38 7. 52 8. 9 8. 51 9. 39 10. 6 10. 36 11. 9 12. 12 12. 21 13. 11 13. 26 14. 3 14. 23 14. 55 15. 26 16. 17 16. 23 16. 58 17. 36 17. 51 18. 9 18. 34 18. 41 18. 54 19. 20 19. 28 19. 36 19. 41 19. 59 20. 21 20. 27 20. 36 21. 11 21. 17	20. 26. 50 27. 10 26. 25 26. 55 25. 45 26. 5 23. 40 23. 15 23. 55 23. 25 23. 10 23. 20 24. 30 24. 0 22. 50 22. 20 23. 0 21. 55 22. 0 21. 5 22. 40 22. 10 23. 15 23. 5 23. 30 24. 10 23. 40 *** 24. 15 29. 40 22. 55 22. 35 23. 10 22. 0 21. 20 21. 55 21. 40 22. 50 21. 45 22. 10 21. 30 22. 0 21. 10 21. 25 20. 55 21. 25 20. 30 *** 20. 50 22. 15 21. 20 22. 30 23. 25 24. 35	Sept. 24 0. 0 0. 40 2. 21 3. 20 3. 40 3. 54 4. 7 4. 27 4. 36 4. 55 5. 21 6. 3 6. 14 6. 30 6. 51 7. 7 7. 14 7. 35 7. 44 8. 43 8. 53 9. 13 10. 33 10. 54 11. 20 11. 57 12. 11 12. 21 13. 12 13. 26 13. 45 13. 55 14. 18 14. 47 15. 50 16. 51 17. 51 18. 2 18. 46 18. 56 19. 11 19. 29 19. 40 19. 45 19. 57 21. 14 21. 33 22. 12 23. 11 23. 21 23. 33 23. 42 23. 54 23. 59	Sept. 24 0. 0 3. 23 5. 11 5. 58 7. 12 9. 34 13. 12 13. 19 13. 54 14. 53 19. 28 23. 59	Sept. 24 0. 0 1. 0 2. 0 3. 0 9. 0 20. 0 21. 0 22. 0 23. 0	Sept. 24 60. 6 60. 6 60. 9 60. 7 60. 7 59. 7 59. 8 59. 7 60. 0	Sept. 24 61. 6 62. 0 62. 1 62. 1 62. 0 60. 2 60. 3 60. 3 60. 6	Sept. 24 0. 0 0. 15 0. 24 0. 55 1. 7 1. 19 1. 40 1. 55 2. 4 2. 12 2. 36 2. 43 3. 2 3. 35 3. 51 3. 54 4. 6 4. 20 4. 27 4. 35 4. 50 5. 6 5. 21 5. 24 5. 51 6. 3 6. 19 6. 40 6. 54 7. 12 7. 27 7. 50 8. 44 8. 54 9. 23 9. 33 9. 55 10. 20 10. 35 11. 11 11. 41 11. 47	Sept. 25 0. 0 0. 10 0. 25 0. 48 1. 9 1. 18 1. 21 1. 26 1. 33 1. 39 1. 40 1. 56 2. 2 2. 7 2. 17 2. 23 2. 25 2. 28 2. 42 2. 57 3. 3 3. 6 3. 12 3. 23 3. 27 3. 32 3. 41 3. 51 4. 3 4. 10 4. 26 4. 33 4. 39 4. 56 5. 8 5. 13 5. 26 5. 29 5. 38 5. 43 5. 55	Sept. 25 20. 35. 55 *** 33. 0 *** 30. 20 32. 35 31. 30 28. 25 29. 55 28. 20 29. 30 33. 0 36. 10 28. 40 28. 40 27. 10 30. 20 30. 10 31. 0 31. 0 36. 40 31. 40 32. 15 30. 40 30. 40 28. 0 28. 30 27. 50 27. 50 30. 0 27. 15 34. 20 30. 55 32. 40 33. 55 31. 10 30. 55 33. 40 32. 30 31. 55 30. 10 31. 55	Sept. 25 0. 0 0. 15 0. 24 0. 55 1. 7 1. 19 1. 40 1. 55 2. 4 2. 12 2. 36 2. 43 3. 2 3. 35 3. 51 3. 54 4. 6 4. 20 4. 27 4. 35 4. 50 5. 6 5. 21 5. 24 5. 51 6. 3 6. 19 6. 40 6. 54 7. 12 7. 27 7. 50 8. 44 8. 54 9. 23 9. 33 9. 55 10. 20 10. 35 11. 11 11. 41 11. 47	Sept. 25 0. 0 0. 45 1. 25 1. 43 2. 0 2. 7 2. 44 2. 59 3. 18 3. 26 *** 4. 22 4. 34 5. 42 6. 6 6. 13 6. 50 7. 10 7. 41 8. 7 9. 15 11. 41 12. 12 12. 26 13. 12 14. 41 16. 27 18. 42 18. 55 19. 41 20. 13 22. 31 22. 39 22. 49 22. 56 23. 4 23. 18 23. 29 23. 59	Sept. 25 0. 0 1. 0 3. 0 9. 0 20. 0 21. 0 22. 0 23. 0 0. 0 60. 1 60. 7 60. 8 60. 6 60. 7 60. 8 60. 8 60. 7 60. 8 60. 8 60. 7 60. 6 60. 5 60. 4 60. 3 60. 2 60. 1 60. 0 59. 9 59. 8 59. 7 59. 6 59. 5 59. 4 59. 3 59. 2 59. 1 59. 0 58. 9 58. 8 58. 7 58. 6 58. 5 58. 4 58. 3 58. 2 58. 1 58. 0 57. 9 57. 8 57. 7 57. 6 57. 5 57. 4 57. 3 57. 2 57. 1 57. 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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Sept. 25		Sept. 25							Sept. 25								
6. 8	20. 22. 30	12. 0	*1420						19. 21	20. 31. 40							
6. 26	32. 20	12. 24	*1407						19. 26	32. 50							
6. 39	25. 0	12. 34	*1420						19. 29	30. 0							
6. 43	24. 55	12. 56	*1423						19. 41	28. 0							
6. 47	22. 30	13. 20	*1410						20. 6	23. 15							
6. 56	22. 0	13. 35	*1412						20. 12	26. 50							
7. 4	23. 0	14. 12	*1406						20. 13	23. 10							
7. 13	20. 50	14. 54	*1407						20. 14	25. 10							
7. 24	19. 40	15. 3	*1402						20. 23	23. 20							
7. 32	20. 5	15. 18	*1408						20. 27	24. 30							
7. 38	19. 10	15. 45	*1405						20. 38	24. 20							
7. 55	22. 0	16. 9	*1406						20. 41	25. 40							
8. 6	21. 45	16. 24	*1409						20. 56	23. 0							
8. 17	23. 0	16. 59	*1420						21. 18	24. 15							
8. 30	22. 0	17. 42	*1406						21. 24	25. 40							
9. 9	23. 25	17. 54	*1409						21. 27	24. 55							
9. 24	21. 55	18. 5	*1402						21. 34	26. 5							
9. 40	23. 5	18. 13	*1406						21. 41	26. 10							
9. 47	23. 0	18. 45	*1373						21. 48	25. 30							
9. 59	23. 40	18. 57	*1381						22. 2	26. 30							
10. 56	22. 55	19. 27	*1429						22. 7	27. 30							
11. 2	22. 0	20. 9	*1403						22. 14	26. 25							
11. 15	21. 45	20. 19	*1409						22. 27	32. 0							
11. 25	22. 5	20. 26	*1402						22. 44	28. 20							
11. 47	19. 55	20. 35	*1407						22. 51	30. 5							
11. 58	19. 25	20. 46	*1404						22. 58	29. 30							
12. 9	16. 0	21. 4	*1396						23. 9	32. 10							
12. 20	14. 50	21. 12	*1400						23. 15	31. 0							
13. 4	25. 5	21. 25	*1394						23. 21	29. 25							
13. 21	23. 55		***						23. 32	29. 10							
13. 43	21. 0	22. 25	*1392						23. 59	30. 40							
14. 19	19. 20	22. 40	*1405														
14. 29	21. 0	22. 45	*1391						Sept. 26		Sept. 26		Sept. 26		Sept. 26		
14. 44	21. 30	22. 55	*1385						0. 0	20. 30. 40	0. 0	*1389	0. 0	*02873	0. 0	61. 1	62. 5
14. 58	20. 0	23. 1	*1391						0. 39	27. 35	0. 21	*1396	0. 31	*02896	1. 0	61. 3	62. 5
15. 3	20. 40	23. 8	*1389						0. 48	29. 55	0. 29	*1405	0. 54	*02905	2. 0	61. 4	62. 8
15. 28	20. 40	23. 20	*1395						0. 55	30. 10	0. 38	*1395	1. 9	*02902	3. 0	61. 5	63. 0
	***	23. 30	*1384						1. 21	28. 20	0. 56	*1406	3. 22	*02964	9. 0	61. 6	62. 9
16. 9	21. 50	23. 56	*1393						1. 28	28. 30	1. 21	*1394	3. 39	*02957	20. 0	60. 9	62. 1
16. 18	20. 55	23. 59	*1389						1. 41	27. 55	1. 33	*1397	3. 56	*02973	21. 0	61. 0	61. 8
16. 26	22. 5								1. 56	28. 5	1. 44	*1395	4. 21	*02964	22. 0	61. 0	61. 9
16. 30	21. 55								2. 11	27. 0	2. 11	*1395	5. 6	*02977	23. 0	61. 2	62. 0
16. 41	19. 5								2. 47	27. 0	2. 43	*1403	5. 58	*02975			
16. 58	19. 35								2. 57	27. 55	2. 57	*1407	6. 36	*02996			
17. 28	18. 40								3. 9	27. 5	3. 11	*1405	9. 18	*02964			
17. 34	19. 40								3. 16	28. 35	3. 19	*1414	9. 53	*02944			
17. 41	19. 0								3. 28	27. 0	3. 38	*1400	12. 11	*02957			
17. 52	20. 10								3. 56	28. 0	3. 56	*1409	12. 56	*02948			
17. 59	19. 10								3. 59	27. 30	4. 11	*1400	14. 44	*02964			
18. 3	19. 15								4. 24	27. 0	4. 39	*1399	19. 56	*02943			
18. 9	20. 50								4. 41	25. 35	5. 4	*1412	22. 12	*02905			
18. 24	23. 15								4. 56	26. 0	5. 14	*1408	23. 59	*02916			
18. 32	22. 50								5. 10	25. 10	5. 29	*1414					
18. 39	27. 50								5. 25	25. 45	5. 50	*1405					
18. 44	40. 0								5. 39	25. 0	6. 11	*1392					
18. 53	43. 30								5. 48	23. 15	6. 27	*1396					
19. 3	41. 55								5. 57	24. 0	6. 45	*1406					
19. 14	33. 55																

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



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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Sept. 26		Sept. 26							Sept. 26								
6. 13	20. 17. 0	7. 6	*1410						21. 43	20. 22. 55							
6. 29	15. 30	7. 33	*1402						21. 58	25. 15							
6. 43	16. 40	7. 42	*1407						22. 8	24. 30							
6. 58	15. 10	7. 59	*1400						23. 26	27. 0							
7. 23	20. 30	8. 16	*1407						23. 33	26. 50							
7. 39	21. 35	8. 25	*1404						23. 48	28. 30							
7. 46	23. 5	8. 40	*1413						23. 59	28. 0							
8. 6	22. 55	8. 43	*1408														
8. 17	23. 0	9. 11	*1413						Sept. 27		Sept. 27		Sept. 27		Sept. 27		
8. 28	22. 0	9. 20	*1410						0. 0	20. 28. 0	0. 0	*1398	0. 0	*02916	0. 0	61. 5	62. 6
8. 37	23. 20	9. 36	*1426						0. 9	27. 55	0. 29	*1401	4. 43	*02958	1. 0	61. 4	62. 6
8. 56	20. 30	9. 43	*1418						0. 17	27. 20	0. 40	*1404	5. 27	*02955	2. 0	61. 4	62. 6
9. 10	21. 50	10. 0	*1418						0. 24	29. 5	1. 19	*1402	5. 58	*02962	3. 0	61. 3	62. 6
9. 25	21. 20	10. 33	*1404						0. 39	28. 10	1. 35	*1399	7. 57	*02968	9. 0	61. 4	62. 8
9. 37	23. 50	10. 54	*1409						0. 42	28. 25	1. 54	*1405	8. 21	*02943	20. 0	60. 7	62. 0
9. 56	19. 45	11. 3	*1406						0. 56	27. 30	2. 7	*1401	8. 43	*02937	21. 0	61. 1	62. 1
10. 26	21. 15	11. 14	*1408						1. 13	28. 30	2. 15	*1406	9. 6	*02940	22. 0	60. 8	62. 1
10. 34	20. 55	11. 20	*1404						1. 17	27. 50	2. 40	*1403	9. 40	*02912	23. 0	61. 1	62. 3
10. 55	22. 40	11. 40	*1408						1. 43	26. 30	2. 50	*1406	11. 12	*02948			
11. 14	20. 20	11. 55	*1401						1. 51	27. 20	3. 6	*1402	13. 26	*02920			
11. 27	20. 5	12. 15	*1410						2. 7	26. 10	3. 56	*1406	13. 52	*02926			
11. 37	20. 55	12. 26	*1406						2. 25	26. 25	4. 10	*1401	15. 32	*02917			
11. 56	20. 55	12. 37	*1410						2. 33	25. 40	4. 34	*1409	15. 57	*02923			
12. 13	22. 45	12. 54	*1410						2. 48	25. 40	4. 56	*1410	20. 19	*02918			
12. 25	22. 10	13. 21	*1401						2. 57	24. 50	5. 40	*1400	22. 12	*02897			
12. 43	23. 20	13. 34	*1403						3. 6	25. 10	5. 56	*1408	23. 59	*02892			
13. 7	22. 15	13. 43	*1399						3. 23	24. 30	6. 6	*1405					
13. 27	22. 55	14. 11	*1403						3. 51	24. 35	6. 34	*1412					
14. 0	21. 55	15. 14	*1402						4. 0	23. 20	6. 45	*1407					
14. 7	22. 25	15. 27	*1405						4. 33	23. 20	7. 5	*1404					
14. 34	21. 45	15. 55	*1403						4. 57	24. 10	7. 12	*1407					
14. 41	22. 30	16. 13	*1407						5. 24	22. 50	7. 20	*1403					
14. 51	22. 20	16. 20	*1404						5. 36	20. 50	7. 34	*1416					
15. 6	23. 25	18. 31	*1405						6. 13	22. 40	7. 47	*1411					
15. 25	22. 55	18. 40	*1411							***	8. 9	*1432					
15. 28	23. 25	18. 45	*1402						7. 4	22. 50	8. 15	*1424					
15. 41	22. 30	18. 50	*1408						7. 19	19. 20	8. 35	*1422					
15. 6	22. 40	19. 5	*1401						7. 41	23. 0	8. 39	*1416					
16. 10	22. 15	19. 21	*1406						7. 47	21. 45	9. 10	*1429					
16. 20	23. 10	21. 39	*1394						8. 3	25. 30	9. 41	*1413					
16. 26	22. 0	22. 0	*1401						8. 10	24. 30	9. 56	*1416					
17. 23	22. 25	22. 19	*1386						8. 13	24. 30	10. 15	*1406					
17. 50	21. 45	22. 30	*1390						8. 23	23. 0	10. 41	*1404					
18. 36	21. 45	23. 53	*1401						8. 30	24. 25	11. 15	*1408					
18. 41	21. 30	23. 59	*1398						8. 56	21. 10	11. 34	*1408					
18. 46	22. 45								9. 10	24. 35	11. 52	*1400					
18. 51	20. 30								9. 25	24. 5	12. 20	*1408					
18. 56	22. 0								9. 44	20. 20	12. 41	*1410					
19. 3	20. 30								9. 56	20. 25	12. 44	*1408					
19. 20	20. 25								10. 10	19. 0	12. 55	*1412					
19. 28	21. 5								10. 26	18. 30	13. 11	*1407					
19. 49	20. 40								10. 44	19. 0	13. 25	*1411					
19. 54	21. 35								10. 57	21. 10	13. 45	*1404					
19. 59	20. 25								11. 11	21. 20	14. 6	*1408					
20. 6	22. 0								11. 23	19. 50	14. 14	*1405					
20. 12	21. 20								11. 44	24. 30	14. 29	*1409					
20. 35	21. 10								11. 57	25. 50	14. 43	*1406					
21. 28	23. 0								12. 6	24. 50	14. 57	*1409					

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Sept. 27		Sept. 27							Sept. 28		Sept. 28						
12. 17	20. 23. 55	15. 21	.1409						7. 54	20. 22. 45	11. 12	.1407					
12. 29	23. 30	15. 50	.1403						8. 31	23. 0	11. 36	.1411					
12. 39	24. 15	16. 26	.1408						8. 41	22. 25	11. 55	.1417					
13. 7	21. 0	17. 15	.1407						9. 38	23. 0	12. 30	.1410					
13. 12	21. 30	17. 40	.1411						10. 56	22. 10	14. 23	.1407					
13. 20	20. 50	18. 12	.1410						11. 21	22. 30	15. 20	.1408					
13. 39	22. 40	19. 5	.1406						11. 36	23. 20	15. 34	.1406					
13. 41	22. 20	20. 51	.1396						12. 10	22. 10	16. 12	.1406					
13. 50	23. 40	20. 56	.1395						13. 6	22. 5	16. 42	.1408					
14. 8	22. 15	22. 30	.1397						13. 25	21. 40	16. 55	.1406					
14. 26	24. 10	23. 59	.1405						13. 33	22. 10	19. 53	.1406					
14. 41	24. 10								13. 53	21. 30	21. 14	.1398					
14. 58	23. 30								14. 6	22. 0	21. 36	.1400					
15. 14	23. 40								14. 21	21. 20	23. 15	.1405					
15. 38	22. 50								14. 35	21. 40	23. 24	.1403					
15. 51	24. 5								15. 0	20. 50	23. 37	.1407					
16. 14	22. 20								16. 11	22. 40	23. 59	.1407					
17. 9	21. 20								16. 27	22. 0							
17. 11	21. 50								18. 40	22. 10							
17. 20	21. 20									***							
17. 26	22. 5								19. 33	21. 20							
17. 43	20. 50								19. 51	21. 30							
18. 24	22. 0								20. 24	21. 0							
18. 41	21. 10								21. 9	21. 30							
18. 51	22. 0								22. 4	23. 20							
18. 56	21. 5								23. 3	25. 10							
	***								23. 12	26. 0							
19. 55	21. 5								23. 21	25. 30							
20. 5	22. 0								23. 28	26. 25							
20. 13	21. 30								23. 59	27. 0							
21. 25	23. 0								Sept. 29		Sept. 29		Sept. 29		Sept. 29		
21. 30	23. 50								0. 0	20. 27. 0	0. 0	.1407	0. 0	.02940	0. 0	62.6	63.7
21. 34	23. 10								2. 14	26. 20	1. 6	.1406	3. 26	.02986	1. 0	62.8	64.5
21. 41	24. 30								2. 38	25. 15	3. 26	.1404	9. 41	.03006	2. 0	62.8	64.4
21. 51	24. 0								6. 11	24. 20	5. 56	.1412	16. 53	.03035	3. 0	63.0	64.0
22. 15	25. 55								6. 55	23. 40	8. 53	.1414	20. 18	.03024	9. 0	63.1	64.2
23. 26	27. 50								13. 41	22. 0	9. 12	.1416	22. 32	.03000	21. 10	62.8	65.0
23. 39	27. 40								15. 11	22. 30	13. 7	.1408	23. 59	.02998			
23. 42	28. 55								15. 36	22. 0	13. 20	.1410					
23. 50	28. 50								15. 55	22. 25	13. 55	.1407					
23. 55	28. 10								16. 26	22. 0	16. 43	.1408					
23. 59	27. 55								18. 27	22. 30	17. 42	.1411					
Sept. 28		Sept. 28		Sept. 28		Sept. 28			19. 56	21. 55	18. 19	.1408					
0. 0	20. 27. 55	0. 0	.1405	0. 0	.02892	0. 0	61.4	62.5	21. 25	22. 25	19. 6	.1408					
0. 17	26. 55	0. 16	.1403	4. 4	.02947	1. 0	61.6	62.7	22. 56	24. 30	21. 37	.1396					
	***	0. 30	.1411	11. 32	.02980	2. 0	61.6	62.5	23. 10	24. 30	23. 14	.1395					
0. 29	28. 55	1. 0	.1403	12. 12	.02974	3. 0	61.8	63.1	23. 39	24. 55	23. 59	.1399					
0. 39	28. 55	1. 43	.1400	21. 11	.02968	9. 0	62.4	63.9	23. 59	26. 0							
0. 51	27. 55	2. 5	.1397	23. 59	.02940	20. 0	62.8	63.1	Sept. 30		Sept. 30		Sept. 30		Sept. 30		
1. 29	27. 40	2. 57	.1408			21. 0	62.2	63.0	0. 0	20. 26. 0	0. 0	.1399	0. 0	.02998	0. 0	63.6	65.5
1. 41	27. 10	3. 34	.1402			22. 0	62.2	63.7	1. 11	27. 30	1. 15	.1404	0. 17	.03005	9. 20	63.6	65.9
1. 55	27. 40	3. 50	.1405			23. 0	62.2	63.7	1. 26	27. 20	2. 59	.1408	2. 52	.03040	20. 0	62.6	64.0
2. 14	25. 10	4. 40	.1406						1. 41	27. 40	3. 36	.1407	9. 52	.03048	21. 0	62.8	64.2
3. 26	23. 10	5. 13	.1409						2. 38	26. 30	6. 26	.1413	20. 12	.03032	22. 0	63.0	64.6
5. 21	23. 0	6. 41	.1413						2. 48	27. 0	6. 55	.1409	23. 59	.03000	23. 0	62.8	64.0
5. 50	23. 30	9. 42	.1409						3. 23	25. 30	8. 12	.1416					
7. 23	23. 5	10. 20	.1410														

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

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 Thermo-meters.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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 Thermo-meters.	
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
Sept. 30		Sept. 30							Oct. 1		Oct. 1						
5. 4	20. 24. 30	8. 28	*1412						17. 58	20. 22. 40	22. 11	*1390					
5. 39	25. 0	8. 41	*1415						18. 43	21. 40	22. 52	*1393					
6. 55	24. 30	8. 54	*1412						19. 3	22. 0	23. 21	*1398					
7. 13	25. 5	9. 6	*1415							***	23. 40	*1398					
7. 43	24. 55	9. 15	*1411						19. 21	21. 20	23. 55	*1401					
8. 2	23. 30	9. 57	*1412							***	23. 59	*1394					
8. 40	22. 35	10. 55	*1410						19. 35	22. 0							
8. 58	23. 30	14. 36	*1409						19. 49	21. 0							
9. 11	23. 0	19. 49	*1404						20. 11	20. 45							
9. 28	23. 30	21. 6	*1396						20. 21	21. 20							
18. 45	22. 10	21. 18	*1398						20. 39	21. 0							
19. 43	21. 10	22. 27	*1395						21. 26	23. 30							
20. 56	20. 20	23. 59	*1403						21. 48	27. 10							
21. 51	22. 0								21. 56	26. 45							
22. 6	23. 0								22. 18	28. 30							
22. 11	22. 15								22. 41	28. 15							
23. 47	26. 10								22. 44	27. 30							
23. 59	26. 20								23. 16	30. 0							
									23. 41	30. 10							
									23. 53	30. 50							
									23. 56	30. 5							
									23. 59	30. 0							
Oct. 1	20. 26. 20	Oct. 1	*1403	Oct. 1	*03000	Oct. 1	62.9	63.9	Oct. 2	20. 30. 0	Oct. 2	*1394	Oct. 2	*02964	Oct. 2	62.1	63.2
1. 26	27. 50	0. 26	*1401	4. 5	*03031	1. 0	63.4	64.2	0. 26	31. 30	0. 13	*1391	1. 30	*02973	1. 0	62.6	64.0
1. 57	27. 50	2. 6	*1405	9. 5	*03043	2. 0	63.2	64.0	0. 30	31. 0	0. 25	*1397	1. 57	*02992	2. 0	62.6	64.0
2. 39	26. 20	2. 37	*1403	9. 54	*03035	3. 0	63.2	64.4	0. 36	32. 40	0. 30	*1394	2. 12	*02983	3. 0	62.6	64.0
2. 52	26. 40	2. 45	*1407	22. 12	*02976	9. 0	63.6	64.1	0. 57	33. 30	0. 42	*1396	5. 24	*03048	9. 0	62.6	64.1
3. 6	26. 0	3. 26	*1403	23. 19	*02957	20. 0	62.6	63.3	1. 28	32. 30	1. 26	*1400	5. 53	*03091	20. 0	62.6	63.5
3. 10	26. 30	4. 12	*1406	23. 59	*02964	21. 0	62.4	63.2	1. 56	35. 10	1. 55	*1405	6. 40	*03074	21. 0	62.7	64.2
4. 34	24. 55	4. 34	*1404			22. 0	62.1	63.0	2. 11	31. 15	2. 12	*1395	7. 11	*03074	22. 0	63.0	64.2
4. 44	25. 10	4. 56	*1406			23. 0	62.1	63.0	2. 27	31. 0	2. 24	*1397	8. 59	*03063	23. 0	62.8	63.9
5. 19	23. 40	5. 10	*1404						2. 33	30. 20	2. 36	*1395	11. 43	*03023			
5. 36	24. 5	5. 26	*1411						2. 40	28. 50	2. 42	*1398	13. 55	*03016			
5. 53	23. 55	5. 40	*1407						2. 48	29. 30	2. 53	*1396	14. 30	*02976			
6. 12	25. 10	6. 11	*1412						2. 54	28. 40	3. 20	*1398	15. 55	*02996			
	***	6. 27	*1409						2. 58	29. 10	3. 37	*1400	20. 0	*03007			
6. 58	24. 30	6. 51	*1409						3. 4	28. 30	3. 43	*1398	23. 43	*02977			
7. 18	24. 55	7. 12	*1410						3. 11	30. 20	4. 0	*1400	23. 59	*02982			
7. 39	23. 40	7. 43	*1407						3. 20	29. 30	4. 19	*1389					
7. 57	22. 15	8. 17	*1406						3. 46	31. 25	4. 34	*1397					
8. 18	23. 0	9. 11	*1410						4. 10	33. 30	4. 45	*1395					
8. 27	22. 45	9. 27	*1414						4. 35	30. 30	5. 2	*1400					
8. 49	23. 10	9. 40	*1418						5. 8	30. 20	5. 12	*1398					
9. 29	21. 35	10. 2	*1411						5. 38	23. 30	5. 29	*1376					
9. 47	22. 50	10. 37	*1411						5. 41	23. 30	5. 55	*1379					
10. 23	21. 30	10. 54	*1415						6. 6	18. 0	6. 3	*1374					
10. 58	22. 10	11. 11	*1410						6. 20	22. 0	6. 21	*1385					
11. 23	21. 0	12. 27	*1409						6. 28	23. 0	6. 30	*1388					
12. 39	22. 55	12. 46	*1411						6. 47	21. 0	6. 41	*1380					
13. 41	22. 40	13. 2	*1407						6. 58	21. 40	7. 20	*1394					
14. 3	24. 0	13. 43	*1411						7. 14	21. 0	7. 25	*1390					
14. 12	23. 20	15. 14	*1410						7. 29	18. 45	7. 41	*1394					
14. 36	23. 25	15. 30	*1413						7. 52	20. 30	7. 49	*1391					
14. 59	21. 55	17. 9	*1410							***	7. 59	*1393					
15. 9	23. 0	19. 19	*1414						8. 13	20. 30	8. 20	*1391					
15. 21	22. 0	19. 51	*1409						8. 21	19. 30	8. 45	*1400					
15. 55	21. 30	20. 42	*1404														
16. 13	22. 30	21. 26	*1390														
16. 41	22. 5	21. 45	*1392														
17. 26	22. 45	21. 56	*1388														

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Oct. 2		Oct. 2															
8. 36	20. 21. 40	8. 56	*1396							Oct. 3	3. 52	20. 25. 10	5. 5	*1395	15. 9	*03021	
9. 9	20. 25	9. 13	*1403								4. 50	25. 50	5. 11	*1396	15. 52	*02957	
9. 35	20. 55	9. 26	*1401								5. 4	24. 0	5. 20	*1394	15. 57	*02960	
9. 54	22. 10	9. 45	*1406								5. 10	23. 55	5. 49	*1405	16. 12	*02948	
10. 9	21. 30	10. 6	*1404								5. 24	22. 0	6. 14	*1403	16. 50	*02932	
10. 42	22. 55	10. 37	*1408								5. 39	21. 55	6. 25	*1405	17. 11	*02943	
11. 6	22. 20		***								5. 52	23. 0	6. 51	*1396	17. 25	*02937	
11. 56	22. 20	12. 44	*1406								6. 11	22. 35	7. 12	*1393	17. 34	*02952	
12. 3	22. 55	12. 59	*1408								6. 26	23. 30	7. 40	*1426	18. 6	*02975	
12. 38	22. 30	13. 12	*1405								6. 33	22. 15	7. 57	*1422	21. 21	*03000	
13. 46	20. 40	13. 36	*1408								6. 40	21. 30	8. 12	*1414	23. 59	*03014	
13. 58	25. 40	13. 48	*1405								7. 0	15. 0	8. 27	*1393			
14. 8	25. 0	13. 57	*1408								7. 20	12. 5	8. 43	*1398			
14. 33	18. 30	14. 10	*1417								7. 26	9. 40	8. 56	*1396			
14. 41	17. 50	14. 21	*1415								7. 34	11. 50	9. 13	*1400			
15. 7	18. 20	14. 35	*1419								7. 41	11. 50	9. 57	*1403			
	***	14. 51	*1417								8. 13	20. 20	10. 7	*1407			
15. 44	21. 45	15. 12	*1408								8. 26	18. 25	10. 27	*1400			
15. 58	21. 0	15. 35	*1404								8. 48	22. 50	10. 36	*1404			
16. 8	22. 0	15. 50	*1408								8. 56	22. 15	11. 12	*1407			
16. 14	20. 50	15. 57	*1406								9. 11	22. 50	11. 27	*1400			
16. 30	21. 30	16. 39	*1409								9. 32	22. 5	11. 43	*1406			
16. 52	20. 50	17. 2	*1413								9. 43	22. 45	11. 56	*1402			
16. 58	19. 55	17. 38	*1406								9. 57	21. 20	12. 19	*1408			
17. 28	22. 15	17. 53	*1409								10. 5	21. 55	12. 26	*1405			
17. 36	22. 0	18. 50	*1400								10. 17	21. 40	12. 46	*1404			
17. 51	22. 35	18. 59	*1403								10. 26	20. 40	12. 59	*1408			
17. 59	22. 0	19. 26	*1400								11. 6	21. 50	13. 35	*1410			
18. 34	21. 30	19. 39	*1403								11. 23	20. 40	13. 42	*1406			
18. 43	22. 10	20. 42	*1401								11. 36	21. 50	14. 0	*1408			
18. 49	21. 30	21. 20	*1395								11. 49	21. 10	14. 9	*1414			
18. 57	22. 10	21. 38	*1399								12. 28	23. 25	14. 43	*1404			
19. 21	22. 0	21. 46	*1394								12. 39	23. 0	15. 6	*1394			
19. 28	21. 30	22. 19	*1398								12. 45	23. 25	15. 23	*1396			
21. 21	22. 20	22. 55	*1394								12. 58	22. 15	15. 55	*1415			
21. 29	23. 35	23. 10	*1396								14. 6	21. 45	16. 6	*1427			
21. 42	22. 40	23. 20	*1393								14. 10	22. 55	16. 14	*1425			
22. 3	23. 40	23. 34	*1395								14. 26	21. 50	16. 40	*1435			
22. 27	26. 0	23. 51	*1389								14. 34	22. 20	16. 55	*1421			
22. 56	25. 35	23. 59	*1395								14. 40	21. 30	17. 24	*1412			
23. 6	26. 30										14. 51	21. 0	17. 28	*1398			
23. 20	25. 40										14. 56	21. 25	17. 35	*1404			
23. 35	27. 0										15. 34	35. 5	17. 55	*1397			
23. 48	25. 55										15. 40	34. 20	18. 22	*1404			
23. 59	27. 55										15. 43	34. 40	18. 30	*1400			
											15. 55	30. 0	18. 51	*1403			
Oct. 3		Oct. 3				Oct. 3					16. 5	27. 20	19. 12	*1398			
0. 0	20. 27. 55	0. 0	*1395	0. 0	*02982	0. 0	63. 0	64. 0			16. 11	27. 20	19. 34	*1392			
0. 13	28. 15	0. 30	*1396	1. 12	*03016	1. 0	63. 2	64. 4			16. 28	24. 0	19. 55	*1394			
0. 34	28. 20	1. 6	*1387	2. 19	*03037	2. 0	63. 2	64. 2			16. 43	18. 55	20. 1	*1399			
0. 50	27. 55	1. 29	*1395	3. 9	*03020	3. 0	63. 2	64. 5			16. 58	15. 5	20. 6	*1393			
0. 56	26. 15	1. 43	*1401	6. 58	*03042	9. 0	63. 6	65. 0			17. 9	13. 50	20. 12	*1396			
0. 59	26. 45	1. 54	*1400	7. 29	*03057	20. 0	63. 5	64. 4			17. 21	16. 0	20. 20	*1388			
1. 9	25. 50	2. 5	*1402	7. 56	*03040	21. 0	63. 3	64. 6			17. 38	15. 0	20. 34	*1384			
1. 27	25. 45	2. 55	*1397	8. 20	*03026	22. 0	63. 3	64. 2			17. 41	12. 15	20. 40	*1388			
2. 26	28. 30	3. 25	*1395	8. 42	*03043	23. 0	63. 3	64. 2			17. 46	15. 25	21. 24	*1381			
3. 6	26. 50	3. 43	*1400	11. 41	*03054						18. 21	23. 0	23. 11	*1390			
3. 28	24. 30	4. 33	*1405	13. 57	*03042						18. 36	25. 25	23. 25	*1388			

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Oct. 3 18. 41	20. 23. 40	Oct. 3 23. 59	*1396						Oct. 4 3. 58	20. 26. 55	Oct. 4 4. 14	*1373	Oct. 4 12. 36	*02986			
18. 55	23. 20								4. 8	28. 50	4. 24	*1394	12. 43	*02986			
18. 58	24. 15								4. 13	25. 45	4. 29	*1404	13. 30	*02963			
19. 28	26. 0								4. 21	20. 20	4. 35	*1379	13. 44	*02978			
19. 43	24. 30								4. 24	20. 40	4. 45	*1381	15. 58	*02984			
19. 53	24. 40								4. 28	27. 50	4. 50	*1379	16. 23	*02970			
19. 58	23. 20								4. 40	21. 55	4. 57	*1370	17. 11	*02976			
20. 8	23. 30								4. 43	20. 25	5. 0	*1377	17. 42	*02958			
20. 11	23. 0								4. 48	21. 30	5. 3	*1372	19. 14	*03024			
20. 22	24. 40								4. 51	21. 15	5. 6	*1380		***			
20. 26	24. 10								4. 59	16. 0	5. 12	*1378	20. 4	*03015			
20. 33	25. 5								5. 10	15. 15	5. 20	*1389	20. 54	*03022			
20. 41	23. 40								5. 23	20. 1. 0	5. 27	*1416	23. 45	*03014			
20. 43	24. 40								5. 26	19. 49. 30	5. 42	*1437		(†)			
20. 55	25. 0								5. 37	20. 7. 40	5. 55	*1375					
21. 11	28. 0								5. 48	32. 10	6. 7	*1393					
21. 25	28. 10								5. 56	20. 0	6. 20	*1386					
21. 28	26. 35								6. 6	22. 25	6. 36	*1396					
21. 51	27. 30								6. 13	19. 30	6. 43	*1392					
22. 0	26. 40								6. 28	19. 20	6. 57	*1374					
22. 8	27. 30								6. 33	18. 30	7. 20	*1388					
22. 11	26. 30								6. 43	21. 20	7. 30	*1377					
22. 21	27. 10								7. 4	14. 0	7. 42	*1382					
22. 33	26. 40								7. 13	14. 0	7. 44	*1380					
22. 59	27. 10								7. 18	18. 10	7. 52	*1388					
23. 11	26. 15								7. 26	19. 10	8. 0	*1382					
23. 27	26. 0 ***								7. 35	17. 30	8. 4	*1386					
23. 59	28. 30								7. 43	14. 10	8. 12	*1377					
									7. 55	19. 30	8. 23	*1385					
									8. 1	19. 0	8. 29	*1384					
Oct. 4 0. 0	20. 28. 30	Oct. 4 0. 0	*1396	Oct. 4 0. 0	*03014	Oct. 4 0. 0	63.364.2		8. 11	15. 0	8. 43	*1392					
0. 6	29. 40	0. 12	*1410	0. 57	*03007	1. 0	63.464.6		8. 18	15. 55	9. 7	*1380					
0. 10	29. 10	0. 35	*1390	2. 45	*03077	2. 0	63.564.7		8. 33	13. 5	9. 21	*1392					
0. 14	32. 5	0. 50	*1395	5. 6	*03203	3. 0	63.565.7		8. 46	17. 40	9. 40	*1445					
0. 25	30. 20	1. 20	*1400	5. 15	*03268	9. 0	63.565.1		9. 6	15. 0	9. 55	*1457					
0. 41	30. 20	1. 25	*1410	5. 18	*03258	20. 0	62.664.0		9. 11	20. 12. 50	10. 9	*1435					
0. 52	27. 55	1. 40	*1394	5. 22	*03266	21. 0	62.964.2		9. 28	19. 57. 10	10. 13	*1352					
1. 6	29. 0	1. 45	*1403	5. 36	*03156	22. 0	62.663.5		9. 43	20. 7. 20	10. 43	*1416					
1. 12	28. 10	1. 56	*1387	5. 43	*03140	23. 0	62.863.7		10. 6	20. 32. 55	10. 54	*1405					
1. 20	30. 30	2. 6	*1394	5. 53	*03097				10. 26	19. 59. 0	11. 7	*1376					
1. 33	28. 0	2. 10	*1393	6. 6	*03105				10. 39	20. 9. 0	11. 21	*1364					
1. 40	30. 5	2. 26	*1407	6. 23	*03092				10. 56	19. 30	11. 39	*1378					
1. 51	29. 45	2. 36	*1403	6. 30	*03096				11. 3	17. 20	11. 43	*1369					
1. 56	27. 50	2. 41	*1405	6. 54	*03082				11. 14	15. 0	11. 50	*1371					
2. 3	28. 5	2. 44	*1400	7. 12	*03097				11. 25	12. 50	11. 56	*1367					
2. 13	26. 40	2. 46	*1403	8. 10	*03095				11. 38	16. 50	12. 12	*1372					
2. 21	28. 15	2. 57	*1396	9. 0	*03045				11. 48	12. 10	12. 14	*1370					
2. 33	26. 0	2. 58	*1397	9. 27	*03052				11. 54	13. 10	12. 15	*1375					
2. 43	25. 20	3. 6	*1390	9. 56	*03011				12. 6	17. 0	12. 24	*1371					
2. 51	27. 15	3. 11	*1395	10. 12	*02943				12. 10	17. 0	12. 44	*1386					
2. 53	26. 50	3. 25	*1376	10. 26	*02973				12. 26	31. 50	13. 7	*1388					
2. 58	28. 30	3. 37	*1383	10. 35	*02991				12. 36	30. 0	13. 36	*1378					
3. 3	28. 0	3. 42	*1381	11. 9	*02963				12. 43	31. 0	13. 55	*1395					
3. 13	31. 30	3. 46	*1383	11. 27	*02985				13. 3	25. 30		***					
3. 39	24. 55	3. 55	*1395	11. 41	*02980				13. 26	20. 10	14. 21	*1387					
3. 43	24. 55	4. 4	*1392	12. 4	*03004				13. 47	25. 30	14. 26	*1389					
3. 54	28. 40	4. 13	*1375	12. 12	*03004				13. 53	24. 5	14. 30	*1384					
									13. 56	26. 0	14. 35	*1389					

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Oct. 4		Oct. 4															
13. 59	20. 25. 30	14. 40	1382						Oct. 5	20. 28. 0	0. 12	1373	1. 16	03024	2. 0	63. 0	63. 8
14. 3	27. 30	14. 56	1390						0. 25	27. 0	0. 15	1377	2. 4	03024	3. 0	62. 9	63. 6
14. 11	27. 30	15. 13	1392						0. 36	27. 0	0. 20	1372	2. 45	03057	9. 0	62. 5	63. 5
14. 22	29. 30	15. 20	1397						0. 42	27. 0	0. 24	1383	4. 22	03035	20. 0	62. 4	63. 0
14. 29	28. 5	15. 31	1394						0. 52	27. 55	0. 43	1384	5. 26	03032	21. 0	62. 1	63. 2
14. 39	30. 35	15. 37	1397						0. 58	27. 55	0. 43	1384	5. 26	03032	21. 0	62. 1	63. 2
14. 41	31. 5	15. 45	1387						1. 9	26. 50	1. 6	1393	6. 20	03042	22. 0	62. 1	63. 5
15. 3	26. 5	16. 6	1398						1. 26	27. 30	1. 12	1388	7. 6	03020	23. 0	62. 1	63. 5
15. 11	26. 5	16. 13	1387						1. 42	28. 55	1. 17	1394	7. 12	03037			
15. 21	21. 5	16. 37	1380						2. 4	27. 10	2. 3	1383	7. 36	03013			
15. 27	22. 40	16. 43	1384						2. 13	25. 20	2. 17	1388	8. 12	02995			
15. 47	20. 15	16. 54	1380						2. 20	21. 45	2. 21	1384	8. 51	03003			
15. 59	24. 0	17. 16	1391						2. 38	14. 50	2. 31	1390	8. 42	02964			
16. 29	27. 10	17. 30	1389						2. 51	20. 0	2. 54	1410	11. 11	02975			
16. 41	29. 20	17. 40	1391						2. 55	19. 55	3. 17	1394	11. 55	02915			
16. 52	29. 30	17. 50	1385						3. 2	22. 10	3. 53	1402	12. 18	02924			
17. 18	33. 20	17. 55	1386						3. 29	23. 50	4. 3	1397	12. 43	02917			
17. 39	31. 45	18. 3	1381						3. 41	23. 30	4. 13	1400	13. 12	02938			
18. 9	27. 5	18. 22	1380						3. 44	24. 0	4. 22	1397	13. 39	02925			
18. 22	26. 10	18. 29	1384						3. 56	23. 40	4. 26	1400	15. 42	02963			
18. 26	27. 40	18. 41	1376						4. 6	24. 30	4. 59	1387	17. 39	02958			
18. 32	25. 25	18. 45	1379						4. 15	23. 30	5. 20	1399	19. 27	02975			
18. 55	21. 55	19. 0	1397						4. 23	22. 55	5. 42	1392	***	***			
19. 3	23. 10	19. 10	1395						4. 28	21. 20	5. 54	1396	22. 26	02952			
19. 9	22. 20	19. 27	1404						***	***	6. 12	1386	***	***			
19. 13	24. 10	***	***						4. 53	20. 0	6. 24	1391	23. 59	02956			
19. 25	25. 0	19. 32	1397						5. 9	21. 5	6. 38	1392					
19. 33	28. 5	19. 35	1399						5. 37	19. 20	6. 44	1403					
19. 43	28. 0	19. 47	1388						5. 41	19. 45	7. 0	1401					
19. 56	26. 50	20. 13	1374						5. 54	19. 10	7. 22	1441					
20. 12	27. 15	20. 21	1376						6. 3	20. 40	7. 42	1429					
20. 36	26. 15	20. 28	1373						6. 14	21. 35	7. 55	1412					
20. 42	27. 5	20. 44	1376						6. 36	13. 40	8. 21	1392					
21. 26	25. 5	21. 6	1384						6. 43	13. 40	8. 43	1398					
21. 33	26. 30	21. 27	1379						6. 59	7. 30	8. 52	1405					
21. 54	25. 30	21. 41	1383						7. 11	1. 0	9. 0	1402					
***	***	21. 56	1377						7. 14	6. 10	9. 10	1414					
22. 13	26. 10	21. 59	1378						7. 28	14. 30	9. 19	1418					
22. 23	23. 55	22. 0	1372						7. 32	14. 30	9. 26	1410					
22. 39	26. 30	22. 27	1370						7. 43	19. 20	9. 37	1414					
***	***	22. 39	1379						7. 56	20. 20	9. 47	1410					
23. 11	24. 50	22. 43	1373						8. 0	19. 55	10. 10	1404					
23. 44	25. 30	22. 46	1383						8. 6	20. 30	10. 19	1406					
23. 54	25. 15	22. 48	1375						8. 25	17. 10	10. 34	1398					
23. 59	26. 40	22. 52	1379						8. 39	17. 30	10. 42	1400					
		22. 56	1370						8. 49	19. 45	10. 56	1397					
		23. 1	1377						9. 0	16. 0	11. 12	1399					
		23. 5	1373						9. 17	22. 5	11. 30	1410					
		23. 12	1373						9. 24	21. 0	11. 54	1396					
		23. 15	1369						9. 30	22. 5	11. 59	1398					
		23. 20	1374						9. 53	21. 50	12. 11	1394					
		23. 34	1372						10. 2	20. 20	12. 25	1401					
		23. 44	1377						10. 16	19. 25	12. 34	1409					
		23. 56	1374						10. 24	18. 0	12. 56	1399					
		23. 59	1377						10. 42	17. 10	13. 12	1406					
									10. 54	17. 30	13. 44	1420					
Oct. 5		Oct. 5							11. 28	32. 5	14. 0	1409					
0. 0	20. 26. 40	0. 0	1377						11. 36	31. 55	14. 11	1409					
0. 9	26. 40	0. 11	1382						11. 43	29. 10	14. 25	1405					
				Oct. 5		Oct. 5			12. 3	27. 55							
				1. 0	03015*	1. 0	63. 1 64. 0	1. 0									

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

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		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Oct. 5		Oct. 5													Oct. 6		
12. 37	20. 25. 0	14. 35	*1400												0. 0	20. 30. 40	0. 0
12. 51	22. 5	14. 45	*1398												0. 6	30. 50	0. 10
13. 4	21. 10	14. 55	*1400												0. 12	32. 0	0. 48
13. 17	23. 0	15. 19	*1399												0. 19	34. 0	1. 4
13. 26	23. 0	15. 25	*1396												0. 25	32. 0	1. 19
13. 56	20. 30	15. 43	*1400												0. 39	28. 20	1. 34
13. 59	20. 40	15. 54	*1398												0. 53	27. 10	1. 40
14. 21	18. 0	16. 8	*1405												1. 9	26. 50	1. 55
14. 39	18. 45	16. 20	*1399												1. 40	30. 50	2. 9
14. 44	20. 0	16. 45	*1407												1. 56	29. 30	2. 20
14. 54	19. 20	16. 59	*1402												2. 16	29. 30	2. 41
15. 3	19. 30	17. 6	*1405												2. 43	32. 10	2. 56
15. 9	20. 50	17. 26	*1403												2. 56	26. 40	3. 12
15. 21	20. 5	17. 39	*1405												3. 13	28. 25	3. 26
15. 38	21. 35	18. 14	*1394												3. 35	19. 40	3. 59
15. 44	21. 0	18. 29	*1400												3. 41	19. 10	4. 21
15. 54	21. 0	18. 54	*1394												4. 8	25. 5	4. 27
15. 58	22. 45	19. 15	*1397												4. 12	24. 55	4. 40
16. 4	22. 0	19. 34	*1390												4. 21	25. 40	4. 50
16. 11	21. 45	19. 44	*1393												4. 33	25. 30	5. 5
16. 13	22. 50	19. 55	*1389												4. 42	24. 0	5. 20
16. 28	22. 0	20. 7	*1393												4. 58	16. 50	5. 25
16. 41	22. 5	20. 15	*1389												5. 4	17. 30	5. 37
16. 54	21. 35	20. 26	*1391												5. 12	21. 55	5. 47
16. 58	22. 5	20. 52	*1379												5. 28	22. 20	5. 57
17. 21	21. 30	21. 19	*1374												5. 37	21. 45	6. 13
17. 28	22. 55	21. 24	*1369												5. 48	10. 30	6. 30
17. 39	21. 20	21. 35	*1373												5. 57	16. 25	6. 54
17. 56	22. 0	22. 6	*1371												6. 14	20. 0	7. 10
17. 59	23. 30	22. 13	*1366												6. 40	22. 10	7. 14
18. 12	22. 30	22. 29	*1366												6. 55	20. 35	7. 28
18. 34	25. 40	22. 43	*1373												7. 6	21. 0	7. 56
18. 55	24. 25	23. 11	*1374												7. 26	19. 0	8. 12
19. 6	22. 0	23. 23	*1367												7. 59	21. 10	8. 25
19. 26	23. 5	23. 43	*1372												8. 20	12. 5	8. 33
19. 34	24. 0	23. 55	*1382												8. 33	19. 20	8. 56
19. 42	23. 0	23. 59	*1375												8. 38	19. 50	9. 25
19. 56	23. 15														9. 39	18. 55	9. 40
20. 9	22. 20														9. 56	16. 0	9. 50
20. 13	23. 40														10. 31	22. 30	10. 6
	***														10. 50	22. 55	10. 26
20. 39	24. 35														11. 15	21. 0	10. 50
	***														11. 30	23. 20	11. 4
20. 51	24. 30														11. 38	23. 20	11. 20
20. 56	25. 50														12. 7	25. 0	11. 35
21. 6	25. 30														12. 12	26. 0	12. 13
21. 56	26. 55														12. 23	25. 40	13. 11
21. 59	25. 55														12. 30	26. 25	13. 19
22. 9	25. 50														13. 14	24. 5	13. 34
22. 16	26. 20														13. 23	24. 35	13. 45
22. 26	28. 5														13. 41	23. 10	14. 1
22. 39	28. 0														13. 50	23. 30	14. 20
22. 56	30. 10														14. 21	22. 50	14. 43
23. 4	30. 10														14. 30	23. 30	15. 3
23. 27	28. 40														14. 39	22. 40	15. 41
23. 39	29. 5														14. 55	23. 0	15. 57
23. 56	31. 20														14. 58	24. 25	16. 38
23. 59	30. 40														15. 10	24. 30	17. 3

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.





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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Oct. 7		Oct. 7															
17. 12	20. 23. 30	18. 20	*1401														
17. 26	21. 25	18. 39	*1402														
17. 36	21. 55	19. 6	*1407														
17. 41	21. 30	19. 27	*1400														
17. 55	23. 5	19. 54	*1400														
18. 4	22. 50	20. 25	*1386														
18. 14	23. 25	21. 25	*1393														
18. 25	22. 30	22. 4	*1398														
18. 28	23. 0	22. 12	*1404														
18. 43	23. 0	22. 24	*1393														
19. 12	25. 15	22. 40	*1399														
19. 49	24. 20	22. 55	*1397														
20. 3	23. 50	23. 12	*1376														
20. 19	25. 40	23. 26	*1379														
20. 41	25. 0	23. 40	*1372														
20. 58	25. 0	23. 51	*1365														
21. 25	23. 40	23. 59	*1375														
21. 53	25. 0																
22. 4	30. 0																
22. 17	27. 0																
22. 28	30. 30																
22. 46	30. 55																
22. 59	30. 5																
23. 10	31. 0																
23. 16	33. 20																
23. 30	34. 40																
23. 48	31. 25																
23. 56	32. 0																
23. 59	31. 55																
Oct. 8		Oct. 8		Oct. 8		Oct. 8											
0. 0	20. 31. 55	0. 0	*1375	0. 0	*02943	0. 0	62. 2	63. 2									
0. 25	29. 55	0. 4	*1371	0. 15	*02927	1. 0	62. 5	63. 8									
0. 42	33. 0	0. 12	*1374	2. 11	*02983	3. 0	62. 5	64. 4									
0. 56	32. 20	0. 40	*1394	4. 46	*03014	9. 0	62. 4	63. 5									
1. 1	32. 35	0. 55	*1384	5. 54	*02998	21. 0	61. 6	62. 3									
1. 26	32. 20	1. 6	*1387	6. 11	*02980	22. 0	61. 1	62. 0									
1. 29	33. 10	1. 11	*1385	6. 23	*02990	23. 0	61. 5	62. 2									
1. 38	33. 0	1. 21	*1395	9. 5	*02977												
1. 41	31. 20	1. 55	*1382	9. 52	*02960												
1. 44	32. 5	1. 57	*1385	9. 57	*02960												
1. 53	31. 10	2. 10	*1381	10. 39	*02937												
2. 6	31. 55	2. 12	*1377	12. 0	*02952												
2. 13	29. 55	2. 58	*1397	13. 5	*02943												
2. 29	29. 0	3. 15	*1391	13. 39	*02922												
3. 8	29. 0	3. 35	*1393	13. 50	*02922												
3. 26	27. 20	3. 42	*1389	14. 19	*02904												
3. 33	27. 50	4. 2	*1409	16. 10	*02933												
3. 41	24. 40	4. 12	*1409	19. 57	*02920												
3. 53	22. 30	4. 25	*1399	22. 53	*02896												
3. 59	23. 0	4. 40	*1402	23. 59	*02906												
4. 8	24. 50	4. 56	*1411														
4. 16	24. 50	5. 8	*1405														
4. 33	19. 40	5. 30	*1417														
4. 41	18. 0	5. 37	*1412														
4. 51	19. 45	5. 44	*1420														
5. 4	17. 30	5. 55	*1423														
5. 10	18. 0	6. 5	*1419														

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Oct. 8																	
20. 54	20. 27. 30																
21. 3	26. 30 ***																
21. 47	27. 25																
22. 14	28. 35																
22. 26	28. 20																
22. 58	29. 40																
23. 11	29. 20																
23. 26	29. 20																
23. 30	30. 20																
23. 36	28. 30																
23. 59	28. 25																
Oct. 9		Oct. 9		Oct. 9		Oct. 9											
0. 0	20. 28. 25	0. 0	*1392	0. 0	*02906	0. 0	61. 7	62. 6									
0. 17	29. 0	0. 39	*1401	3. 39	*02973	1. 0	62. 1	63. 0									
0. 26	28. 50	0. 57	*1396	3. 54	*02966	2. 0	62. 0	63. 0									
0. 48	30. 0	1. 35	*1404	4. 14	*02997	3. 0	61. 8	63. 0									
1. 9	28. 20	2. 3	*1404	5. 12	*02960	9. 0	61. 4	62. 6									
1. 26	29. 25	2. 14	*1396	9. 41	*02920	21. 0	60. 9	62. 0									
1. 51	29. 30	2. 25	*1394	9. 53	*02928	22. 0	61. 0	62. 0									
1. 58	30. 10	2. 34	*1397	10. 8	*02892	23. 0	61. 2	62. 2									
2. 11	29. 10	2. 54	*1386	10. 55	*02857												
2. 17	29. 30	3. 17	*1399	12. 6	*02886												
2. 24	29. 0	3. 23	*1392	13. 11	*02892												
2. 27	30. 0	3. 34	*1391	14. 36	*02870												
2. 41	30. 0	3. 40	*1374	15. 22	*02838												
2. 46	29. 30	3. 50	*1366	16. 41	*02828												
2. 56	26. 25	4. 12	*1404	17. 12	*02817												
3. 12	27. 45	4. 29	*1410	17. 42	*02800												
3. 21	26. 30	4. 54	*1402	18. 3	*02817												
3. 26	26. 30	5. 56	*1407	18. 33	*02800												
3. 33	25. 20	6. 17	*1401	19. 40	*02839												
3. 41	22. 0	6. 40	*1404		***												
3. 53	15. 45	6. 56	*1397	23. 59	*02859												
3. 59	14. 20	7. 8	*1405														
4. 20	18. 30	7. 17	*1404														
4. 39	23. 25	7. 29	*1412														
4. 58	24. 45	8. 10	*1409														
5. 14	24. 30	8. 47	*1410														
5. 25	24. 50	8. 59	*1406														
5. 54	23. 0	9. 28	*1407														
6. 8	23. 10	9. 41	*1414														
6. 33	21. 30	9. 52	*1434														
6. 52	19. 20	10. 23	*1443														
6. 57	17. 5	10. 43	*1424														
7. 4	17. 25	10. 55	*1423														
7. 22	15. 30	11. 14	*1402														
7. 34	18. 20	11. 37	*1394														
8. 15	22. 45	12. 6	*1405														
8. 44	22. 35	13. 3	*1409														
9. 41	20. 40	13. 11	*1407														
9. 53	23. 50	13. 23	*1410														
10. 6	19. 25	13. 56	*1409														
10. 26	22. 10	14. 11	*1398														
10. 56	17. 45	14. 58	*1423														
11. 6	18. 50	15. 27	*1425														
11. 11	18. 40	15. 44	*1410														

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.
Oct. 9 h m 23. 20	20. 26. 40 ***	h m		h m		h m			h m	20. 19. 35	h m		h m	h m	h m		
23. 33	28. 35 ***									20. 21	*1407						
23. 52	28. 0									20. 25	*1390						
23. 59	28. 0									21. 4	*1385						
Oct. 10 h m	20. 28. 0	Oct. 10 h m		Oct. 10 h m		Oct. 10 h m			h m	21. 53	*1385						
0. 0	27. 25	0. 0	*1389	0. 0	*02857	0. 0	61. 4 62. 7			21. 5	***						
0. 25	28. 30	0. 33	*1396	1. 23	*02903	1. 0	61. 5 62. 9			22. 40	*1393						
0. 29	28. 0	0. 53	*1394	5. 56	*02900	2. 0	61. 4 63. 0			22. 0	*1386						
0. 33	31. 0	1. 7	*1365	6. 28	*02918	3. 0	61. 5 62. 6			22. 52	*1374						
0. 53	28. 1. 25	1. 25	*1388	6. 53	*02903	9. 0	61. 3 62. 8			23. 2	*1374						
0. 58	30. 50	1. 27	*1382	7. 52	*02892	10. 45	61. 3 62. 2			23. 6	*1349						
1. 9	26. 40	1. 34	*1388	8. 11	*02902	21. 0	60. 6 61. 1			23. 10	*1358						
1. 18	23. 40	1. 41	*1386	8. 34	*02840	22. 0	60. 6 61. 1			23. 21	*1348						
1. 24	24. 55	2. 16	*1405	8. 40	*02842	23. 0	60. 6 61. 2			23. 32	*1359						
1. 27	23. 40	3. 26	*1408	9. 12	*02832					23. 53	*1364						
1. 39	22. 35	3. 42	*1404	10. 33	*02864					23. 59	*1357						
1. 43	21. 0	4. 54	*1406	11. 42	*02873												
1. 51	21. 55	5. 8	*1409	12. 41	*02856												
1. 55	20. 40	5. 21	*1401	13. 6	*02860												
2. 7	21. 30 ***	5. 36	*1406	13. 57	*02844												
2. 26	24. 25	5. 56	*1396	15. 14	*02816												
2. 47	26. 0	6. 26	*1415	16. 41	*02833												
3. 14	26. 0	6. 44	*1404	21. 44	*02822												
4. 11	25. 0	7. 16	*1422	23. 12	*02800												
4. 25	25. 30	7. 38	*1413	23. 18	*02805												
4. 53	24. 40	7. 44	*1403	23. 23	*02807												
5. 0	24. 55	7. 59	*1398	23. 42	*02858												
5. 23	22. 45	8. 14	*1424	23. 59	*02863												
5. 28	23. 20	8. 29	*1395														
5. 41	23. 0	8. 42	*1414														
6. 3	15. 55	9. 19	*1384														
6. 13	15. 0	9. 32	*1414														
6. 36	21. 30	9. 56	*1398														
6. 42	21. 40	10. 51	*1408														
6. 56	18. 25	11. 26	*1401														
7. 11	17. 55	12. 11	*1416														
7. 21	18. 30	12. 28	*1413														
7. 38	17. 10	12. 43	*1405														
7. 53	17. 10	13. 14	*1406														
8. 6	14. 10	13. 28	*1401														
8. 13	19. 20	13. 41	*1405														
8. 25	27. 30	13. 54	*1398														
8. 40	29. 0	13. 59	*1401														
8. 44	19. 20	14. 10	*1398														
8. 52	21. 0	14. 53	*1415														
8. 57	21. 30	15. 9	*1416														
9. 3	20. 0	15. 17	*1412														
	25. 10	15. 26	*1417														
	(†)	16. 14	*1408														
9. 14	24. 0	16. 40	*1397														
9. 31	11. 10	18. 12	*1413														
9. 36	15. 30	18. 23	*1409														
9. 51	19. 20	19. 9	*1409														
9. 57	18. 55	19. 57	*1404														
10. 25	20. 10	20. 6	*1399														

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.																		
Oct. 10 23. 55 23. 59	20. 33. 30 32. 25	h m		h m		h m	o	o	Oct. 11 15. 35 15. 56 16. 26 16. 39 16. 56 17. 11 17. 18 17. 25 17. 41 18. 3 18. 43 18. 58 19. 9 19. 14 19. 22 19. 34 20. 0 20. 19 21. 23 21. 39 21. 58	20. 26. 0 25. 35 27. 10 26. 15 26. 30 28. 15 27. 45 27. 45 25. 30 23. 50 26. 5 25. 15 26. 5 25. 55 24. 40 23. 55 26. 20 25. 25 25. 15 25. 55 25. 15	Oct. 11 19. 9 19. 26 20. 26 20. 42 20. 53 21. 4 21. 41 21. 47 22. 2 22. 17 22. 29 22. 39 22. 49 23. 2 23. 26 23. 37 23. 44 23. 59 23. 59	h m		h m	o	o	Oct. 11 14. 06 13. 99 13. 91 13. 95 13. 93 13. 93 13. 83 13. 86 13. 84 13. 94 13. 89 13. 92 13. 85 13. 88 13. 68 13. 71 13. 61 *** 13. 52	h m		h m	o	o	Oct. 11 60. 8. 62. 0 60. 9. 62. 1 61. 3. 62. 2 61. 1. 62. 2 60. 1. 61. 0 60. 2. 61. 0 60. 2. 61. 0	Oct. 12 20. 27. 30 27. 40 27. 10 (†) 33. 20* 34. 0 27. 10 24. 20 25. 0 23. 25 23. 30 20. 21. 30 19. 49. 0 20. 9. 20 22. 40 20. 40 18. 30 19. 0 15. 15 21. 30 20. 10	Oct. 12 0. 0 0. 7 0. 9 0. 17 0. 23 1. 0 3. 0 4. 0 5. 11 5. 53 6. 11 6. 39 7. 25 7. 40 7. 59 8. 23 9. 9 9. 54 10. 26 10. 59	Oct. 12 0. 0 0. 14 1. 0 3. 0 9. 0 21. 0	Oct. 12 0. 0 1. 0 2. 0 3. 0 9. 0 21. 0 23. 0	Oct. 12 60. 3. 61. 0 60. 7. 62. 1 60. 9. 62. 1 61. 1. 62. 2 60. 5. 61. 5 58. 7. 58. 7 59. 0. 60. 0	Oct. 12 60. 3. 61. 0 60. 7. 62. 1 60. 9. 62. 1 61. 1. 62. 2 60. 5. 61. 5 58. 7. 58. 7 59. 0. 60. 0	Oct. 12 60. 3. 61. 0 60. 7. 62. 1 60. 9. 62. 1 61. 1. 62. 2 60. 5. 61. 5 58. 7. 58. 7 59. 0. 60. 0	Oct. 12 60. 3. 61. 0 60. 7. 62. 1 60. 9. 62. 1 61. 1. 62. 2 60. 5. 61. 5 58. 7. 58. 7 59. 0. 60. 0	Oct. 12 60. 3. 61. 0 60. 7. 62. 1 60. 9. 62. 1 61. 1. 62. 2 60. 5. 61. 5 58. 7. 58. 7 59. 0. 60. 0	Oct. 12 60. 3. 61. 0 60. 7. 62. 1 60. 9. 62. 1 61. 1. 62. 2 60. 5. 61. 5 58. 7. 58. 7 59. 0. 60. 0	Oct. 12 60. 3. 61. 0 60. 7. 62. 1 60. 9. 62. 1 61. 1. 62. 2 60. 5. 61. 5 58. 7. 58. 7 59. 0. 60. 0	Oct. 12 60. 3. 61. 0 60. 7. 62. 1 60. 9. 62. 1 61. 1. 62. 2 60. 5. 61. 5 58. 7. 58. 7 59. 0. 60. 0

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.  
October 12. The V. F. photographic trace 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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Oct. 12		Oct. 12							Oct. 13		Oct. 13						
h m	° ' "	h m	° ' "	h m		h m	°	°	h m	° ' "	h m	° ' "	h m		h m	°	°
10. 21	20. 24. 50	11. 26	*1408						9. 13	20. 16. 20	11. 38	*1402					
10. 51	21. 10	12. 3	*1395						9. 37	19. 25	11. 53	*1404					
11. 10	21. 35	12. 42	*1400						9. 55	20. 15	12. 8	*1418					
11. 31	20. 0	13. 0	*1399						10. 25	16. 0	12. 26	*1426					
12. 14	28. 15	13. 25	*1401						10. 52	17. 55	13. 8	*1401					
12. 50	24. 50	13. 59	*1406						11. 7	15. 45	13. 26	*1408					
13. 25	27. 30	14. 32	*1397						11. 28	18. 0	13. 56	*1402					
13. 42	24. 0	14. 56	*1397						11. 36	18. 10	14. 8	*1405					
14. 3	22. 15	15. 44	*1405						11. 49	22. 10	14. 28	*1399					
14. 11	24. 10	18. 32	*1402						11. 56	22. 30	15. 21	*1411					
14. 30	30. 0	18. 59	*1393						12. 6	24. 25	15. 51	*1389					
14. 38	30. 20	20. 9	*1399						12. 14	25. 30	16. 1	*1392					
15. 44	23. 0	20. 54	*1396						12. 34	19. 0	16. 11	*1389					
16. 36	24. 30	21. 14	*1383						13. 8	18. 20	16. 53	*1408					
16. 57	22. 50	21. 26	*1384						13. 21	19. 30	17. 10	*1406					
17. 39	24. 15	21. 29	*1391						13. 42	25. 0	17. 41	*1408					
17. 56	23. 50		(†)						13. 58	22. 55	17. 50	*1414					
18. 11	24. 15								14. 8	23. 10	18. 3	*1410					
18. 33	23. 25								14. 23	27. 30	18. 11	*1414					
18. 51	24. 10								14. 39	29. 0	18. 33	*1410					
19. 3	23. 45								14. 51	26. 30	18. 58	*1408					
19. 26	24. 0								15. 9	28. 20	19. 23	*1399					
19. 53	23. 0								15. 26	24. 30	19. 51	*1399					
20. 11	23. 10								15. 40	24. 5	20. 3	*1402					
20. 23	24. 15								15. 56	28. 55	20. 14	*1397					
20. 38	23. 45								16. 9	30. 20	20. 38	*1398					
20. 44	24. 0								16. 16	30. 0	20. 43	*1393					
20. 56	26. 20								16. 26	26. 40	20. 51	*1396					
21. 21	25. 45								16. 43	27. 5	20. 57	*1393					
21. 26	27. 30								17. 26	25. 30	21. 39	*1393					
	(†)								17. 36	25. 30	22. 26	*1389					
									17. 39	27. 0		(†)					
									17. 58	25. 25							
Oct. 13	(†)	Oct. 13	(†)	Oct. 13	(†)	Oct. 13	0. 0	59. 3	59. 5	17. 58	25. 25						
1. 0	20. 29. 43*	1. 0	*1398*	1. 0	*02713*	1. 0	59. 3	59. 8	18. 12	24. 55							
2. 40	25. 20	2. 41	*1404	2. 54	*02764	3. 0	59. 6	60. 3	18. 38	22. 0							
2. 52	24. 20	3. 12	*1397	8. 22	*02757	9. 0	59. 6	60. 6	19. 3	22. 5							
3. 7	25. 0	3. 58	*1411	10. 32	*02737	21. 30	59. 2	60. 0	19. 27	21. 0							
3. 18	23. 5	4. 14	*1404	11. 41	*02728					***							
3. 28	23. 10	4. 32	*1404	12. 20	*02684				19. 55	21. 25							
3. 36	22. 15	4. 47	*1415	13. 0	*02689				20. 9	20. 40							
3. 41	22. 25	5. 12	*1408	14. 11	*02652				20. 41	21. 5							
4. 19	21. 30	5. 41	*1407	15. 23	*02646				20. 43	22. 20							
4. 30	19. 10	6. 14	*1416	16. 11	*02680				20. 53	21. 30							
4. 36	19. 0	7. 16	*1409	20. 19	*02737				21. 4	21. 20							
5. 13	21. 50	7. 38	*1414	22. 23	*02712				21. 11	21. 30							
5. 25	21. 15	8. 8	*1415		(†)				21. 21	22. 55							
5. 38	21. 40	8. 25	*1411						21. 26	22. 25							
5. 51	19. 45	8. 35	*1415						21. 54	23. 45							
6. 13	19. 5	8. 43	*1413						21. 57	23. 20							
6. 26	19. 40	8. 56	*1414						22. 11	24. 45							
6. 39	20. 10	9. 9	*1407						22. 22	24. 20							
7. 11	23. 20	9. 25	*1410							(†)							
7. 26	22. 55	9. 41	*1407						Oct. 14	(†)	Oct. 14	(†)	Oct. 14	(†)	Oct. 14	1. 0	60. 1
7. 51	23. 0	10. 8	*1420						0. 51	20. 28. 40	0. 56	*1401	1. 0	*02744*	8. 30	59. 6	61. 5
8. 26	22. 5	10. 29	*1421						0. 59	29. 30	1. 21	*1402	1. 58	*02788	21. 0	57. 8	58. 8
8. 41	22. 15	10. 53	*1405						1. 22	27. 15	1. 41	*1396	7. 56	*02758	22. 0	58. 1	58. 7
8. 47	20. 0	11. 23	*1408														

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Oct. 14 h m s 1. 26	20. 28. 0	Oct. 14 h m s 1. 59	.1403	Oct. 14 h m s 12. 41	.02729	Oct. 14 h m s 23. 0	58. 0	58. 7	Oct. 15 h m s 1. 9	20. 28. 0	Oct. 15 h m s 2. 41	.1405	Oct. 15 h m s 3. 34	.02722	Oct. 15 h m s 2. 0	58. 8	60. 4
1. 58	27. 55	2. 14	.1404	14. 54	.02696				1. 23	28. 0	3. 1	.1405	11. 17	.02697	3. 0	58. 8	59. 8
2. 17	26. 5	2. 32	.1409	21. 14	.02660				1. 42	28. 30	3. 34	.1412	14. 19	.02715	9. 0	59. 2	59. 7
2. 29	25. 30	2. 50	.1401	23. 12	.02637				2. 32	27. 55	5. 23	.1419	18. 12	.02713	21. 0	58. 0	57. 8
2. 39	24. 10	3. 4	.1406		(†)				2. 43	26. 5	5. 41	.1415		(†)	22. 0	58. 0	58. 3
2. 41	24. 10	4. 33	.1408						2. 55	25. 55	6. 26	.1418	21. 9	.02664*	23. 0	58. 2	57. 5
2. 53	21. 25	4. 51	.1401						3. 9	23. 55	6. 41	.1413	23. 16	.02620			
3. 13	24. 25	5. 22	.1402						3. 56	22. 30	7. 1	.1415	23. 59	.02624			
3. 30	23. 50	5. 41	.1413						4. 6	22. 30	7. 39	.1409					
3. 43	24. 0	6. 4	.1412						4. 16	21. 40	8. 6	.1409					
4. 41	23. 0	6. 34	.1415						4. 24	21. 40	8. 50	.1417					
4. 55	21. 10	6. 53	.1412						4. 33	20. 25	8. 55	.1424					
5. 9	21. 30	7. 21	.1420						5. 11	21. 40	9. 23	.1419					
5. 30	18. 50	7. 51	.1413						5. 21	20. 55	9. 33	.1419					
6. 7	22. 55	8. 16	.1416						5. 29	21. 5	9. 55	.1411					
6. 53	21. 0	8. 26	.1415						6. 3	23. 15	10. 16	.1429					
7. 6	19. 50	9. 13	.1412						6. 23	22. 30	11. 12	.1411					
7. 33	21. 50	11. 9	.1411						6. 58	22. 25	11. 35	.1412					
7. 40	21. 50	11. 34	.1418						7. 9	23. 10	12. 11	.1407					
8. 6	23. 5	12. 13	.1411						8. 4	20. 30	14. 34	.1407					
10. 41	22. 30	12. 43	.1419						8. 13	21. 10	15. 29	.1411					
11. 28	23. 20	13. 17	.1418						8. 37	21. 30	17. 41	.1414					
11. 52	21. 55	13. 52	.1407						8. 52	18. 50		(†)					
11. 56	22. 0	14. 17	.1419						9. 12	23. 0	21. 0	.1399*					
12. 8	21. 15	14. 53	.1416						9. 36	20. 0	23. 14	.1398					
12. 56	25. 0	15. 26	.1406						9. 51	20. 0	23. 59	.1396					
13. 27	19. 45	16. 24	.1419						10. 4	17. 15							
13. 40	23. 5	16. 51	.1419						10. 37	21. 25							
14. 9	24. 15	17. 21	.1412						10. 55	21. 40							
14. 50	20. 15	17. 53	.1416						11. 20	20. 30							
15. 4	20. 15	18. 57	.1406						11. 42	22. 30							
15. 49	24. 15	19. 58	.1406						11. 56	22. 5							
16. 41	22. 0	20. 13	.1399						13. 6	23. 55							
16. 56	22. 5	20. 23	.1401						13. 55	22. 25							
17. 52	23. 45	20. 54	.1397						14. 9	23. 35							
18. 25	22. 10	22. 23	.1394						14. 23	23. 45							
18. 33	22. 50	23. 2	.1396						14. 36	23. 10							
18. 43	22. 30	23. 17	.1394						15. 7	23. 55							
18. 51	22. 55		(†)						15. 23	23. 5							
18. 56	22. 0								15. 53	23. 5							
19. 8	21. 45								16. 26	24. 20							
19. 51	22. 55								17. 5	23. 50							
19. 58	23. 30								17. 24	23. 50							
20. 11	22. 45								17. 38	24. 20							
20. 20	23. 5								17. 56	23. 50							
20. 40	22. 5								20. 6	22. 20							
21. 4	22. 0								21. 7	23. 5							
21. 13	22. 50									(†)							
21. 18	22. 40								23. 15	29. 30							
22. 15	25. 40								23. 26	29. 10							
22. 49	28. 50								23. 35	29. 55							
23. 12	29. 5		(†)						23. 41	29. 45							
									23. 45	30. 40							
									23. 59	30. 35							
Oct. 15 1. 0	(†) 20. 28. 25*	Oct. 15 1. 0	(†) .1402*	Oct. 15 0. 58	(†) .02682	Oct. 15 1. 0	58. 5	59. 6	Oct. 16 0. 0	20. 30. 35	Oct. 16 0. 0	.1396	Oct. 16 0. 0	.02624	Oct. 16 0. 0	57. 8	58. 0
									0. 11	30. 40		(†)	2. 0	.02663	1. 0	58. 7	58. 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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Oct. 16 1. 17	20. 29. 30	Oct. 16 1. 0	*1405*	Oct. 16 6. 16	*02697	Oct. 16 2. 0	58. 8	59. 0	Oct. 16 22. 33	20. 26. 35	Oct. 17 0. 0	*1395	Oct. 17 0. 0	*02688	Oct. 17 0. 0	59. 3	60. 0
1. 49	29. 30	1. 59	*1411	10. 24	*02658	3. 0	58. 9	60. 0	23. 59	27. 10	0. 38	*1397	4. 56	*02726	1. 0	59. 6	60. 6
2. 47	26. 10	3. 13	*1414	11. 53	*02677	9. 0	58. 5	59. 3			0. 43	*1405	8. 43	*02718	2. 0	59. 7	60. 6
3. 54	24. 45	3. 47	*1410	12. 35	*02663	21. 0	59. 6	61. 0	Oct. 17 0. 0	20. 27. 10	1. 37	*1400	9. 56	*02695	3. 0	59. 6	60. 5
5. 3	23. 30	4. 56	*1412	13. 11	*02680	22. 0	59. 3	60. 2	0. 56	28. 0	1. 59	*1406	14. 11	*02692	9. 0	59. 0	60. 0
5. 26	20. 25	5. 29	*1404	15. 41	*02697	23. 0	59. 3	60. 0	1. 7	28. 45	2. 10	*1405	14. 42	*02669	21. 0	58. 8	60. 1
5. 29	20. 25	6. 20	*1416	19. 54	*02700				1. 27	27. 20	2. 25	*1400	18. 10	*02676	22. 0	58. 8	60. 1
5. 41	18. 10	6. 43	*1414	21. 53	*02717				1. 38	27. 55	2. 44	*1407	21. 12	*02700	23. 0	59. 1	60. 5
5. 55	17. 15	7. 55	*1421	23. 59	*02688				1. 44	27. 0	3. 43	*1399	22. 40	*02693			
6. 11	19. 50	8. 39	*1420						1. 53	27. 20	4. 3	*1406		(†)			
6. 37	23. 15	9. 20	*1416						2. 26	26. 20	4. 27	*1406					
6. 54	23. 50	9. 26	*1416						2. 51	26. 20	4. 47	*1399					
7. 39	22. 55	9. 37	*1410						3. 55	23. 25	4. 58	*1405					
9. 8	22. 40	9. 52	*1418						4. 28	23. 15	5. 10	*1403					
9. 21	21. 55	10. 10	*1410						4. 41	24. 20	5. 55	*1416					
9. 41	22. 10	10. 21	*1418						5. 9	22. 20	7. 11	*1419					
10. 17	13. 40	10. 38	*1421						5. 20	20. 55	7. 26	*1416					
10. 37	7. 0	11. 6	*1406						5. 33	22. 0	7. 40	*1419					
10. 50	7. 40	11. 41	*1409						5. 56	22. 55	8. 5	*1416					
11. 33	21. 10	11. 53	*1407						7. 4	22. 30	8. 33	*1416					
11. 43	21. 45	12. 26	*1419						7. 35	22. 50	8. 54	*1432					
12. 3	25. 0	12. 51	*1407						7. 41	22. 20	9. 21	*1422					
12. 13	24. 25	13. 0	*1406						7. 58	23. 0	9. 33	*1424					
12. 32	20. 30	13. 11	*1409						8. 11	22. 30	9. 48	*1418					
12. 49	20. 30	14. 41	*1406						8. 25	22. 45	10. 26	*1413					
12. 59	23. 5	14. 59	*1401						8. 54	20. 5	11. 4	*1413					
13. 21	21. 40	15. 29	*1408						9. 56	21. 35	11. 33	*1418					
13. 29	21. 40	15. 54	*1420						10. 14	22. 0	11. 44	*1413					
13. 49	20. 15	16. 10	*1420						10. 28	21. 5	11. 53	*1414					
14. 6	22. 45	16. 26	*1423						10. 41	21. 5	12. 2	*1411					
14. 14	22. 0	17. 20	*1419						10. 56	21. 50	12. 32	*1413					
14. 42	21. 50	18. 21	*1422						11. 4	21. 5	12. 59	*1407					
15. 18	25. 55	18. 53	*1416						11. 26	22. 50	14. 3	*1409					
15. 24	25. 50	19. 13	*1413						11. 53	20. 15	14. 24	*1419					
15. 35	27. 35	19. 57	*1400						12. 24	21. 50	14. 37	*1415					
15. 48	26. 25	20. 42	*1396						13. 9	21. 0	14. 43	*1416					
15. 57	24. 0	21. 3	*1404						13. 37	22. 45	14. 55	*1411					
16. 7	23. 55	22. 17	*1389						13. 45	21. 40	15. 6	*1411					
16. 21	24. 40	23. 7	*1389						13. 53	21. 40	15. 17	*1413					
16. 54	22. 0	23. 47	*1395						14. 7	25. 0	15. 41	*1408					
16. 59	22. 0	23. 59	*1395						14. 12	25. 5	18. 4	*1426					
17. 29	23. 10								14. 38	21. 5	19. 13	*1410					
17. 49	22. 10								14. 44	20. 50	19. 26	*1412					
18. 7	23. 35								14. 59	23. 5	19. 51	*1407					
18. 29	23. 50								15. 8	22. 50	20. 8	*1410					
18. 41	24. 20								15. 17	23. 5	20. 41	*1401					
19. 0	24. 10								15. 26	22. 0	21. 8	*1384					
19. 29	25. 45								15. 33	21. 50	21. 37	*1378					
19. 42	26. 55								15. 53	24. 0	21. 56	*1385					
19. 58	26. 45								16. 39	21. 55	22. 1	*1382					
20. 24	28. 10								17. 28	23. 40	22. 34	*1399					
20. 41	25. 35								17. 44	23. 15		(†)					
21. 8	26. 25								17. 51	24. 0							
21. 36	25. 25								17. 58	23. 15							
21. 53	25. 25																
22. 6	26. 10																
22. 14	25. 40																

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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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Oct. 19		Oct. 19		Oct. 19					Oct. 19								
1. 57	20. 27. 45	2. 9	*1412	7. 59	*02812	h	m	o	o	21. 56	20. 24. 25	h	m				
2. 20	27. 10	2. 21	*1407	13. 11	*02803					22. 10	24. 10						
2. 41	25. 55	2. 56	*1407	13. 41	*02795					22. 26	26. 15						
2. 53	26. 10	4. 11	*1411	17. 0	*02787					22. 40	26. 0						
3. 12	25. 0	4. 36	*1407	21. 15	*02797					22. 56	27. 35						
3. 24	24. 55	5. 3	*1411	23. 59	*02778					23. 2	27. 20						
3. 43	25. 10	5. 13	*1408							23. 8	28. 20						
5. 4	22. 25	5. 26	*1418							23. 14	28. 0						
5. 11	22. 30	5. 45	*1423							23. 24	27. 15						
5. 28	17. 55	6. 10	*1416							23. 59	28. 35						
5. 56	22. 40	6. 51	*1413														
6. 16	22. 0	7. 20	*1420							Oct. 20							
6. 56	22. 30	7. 49	*1412							0. 0	20. 28. 35	0. 0	*1406	0. 0	*02778	0. 0	61. 0 62. 1
7. 3	22. 5	8. 3	*1419							0. 8	28. 35	0. 56	*1412	1. 25	*02783	1. 0	61. 4 62. 6
7. 23	22. 50	8. 19	*1420							0. 19	27. 50	2. 41	*1405	2. 43	*02817	2. 0	61. 2 62. 4
7. 36	21. 30	8. 39	*1413							0. 42	25. 40	3. 20	*1408	4. 55	*02823	3. 0	61. 5 62. 4
7. 47	19. 0	8. 55	*1415							1. 26	26. 20	4. 8	*1404	8. 52	*02815	9. 0	60. 9 62. 6
7. 56	18. 20	9. 26	*1411							2. 10	25. 45	5. 44	*1411	14. 39	*02800	21. 0	60. 8 61. 5
8. 0	19. 0	9. 38	*1407							2. 51	24. 15	7. 8	*1412	18. 8	*02782		
8. 13	18. 20	10. 18	*1419							3. 41	23. 0	7. 28	*1415	21. 39	*02780		
8. 23	19. 0	10. 43	*1414							3. 48	23. 20	8. 24	*1412		(†)		
8. 53	18. 15	10. 56	*1418							3. 56	22. 55	10. 54	*1410				
9. 43	21. 10	11. 25	*1414							4. 20	23. 5	11. 16	*1411				
9. 55	22. 30	11. 45	*1416							4. 45	22. 50	11. 26	*1417				
10. 3	22. 50	12. 54	*1412							5. 45	23. 30	11. 49	*1410				
10. 10	21. 55	13. 18	*1416							6. 50	22. 30	12. 6	*1414				
10. 21	22. 55	14. 6	*1413							7. 24	23. 0	12. 29	*1409				
10. 43	22. 15	14. 56	*1418							7. 38	22. 45		***				
10. 51	21. 20	15. 37	*1413							8. 14	22. 45	15. 41	*1409				
11. 39:	24. 5	16. 23	*1417							8. 30	23. 5	15. 56	*1406				
12. 5	23. 30	16. 36	*1414							11. 32	23. 0	16. 17	*1411				
12. 39	23. 25	16. 46	*1415							11. 43	22. 20	17. 36	*1414				
12. 57	24. 10	17. 2	*1412							11. 56	23. 0	18. 26	*1404				
13. 14	26. 10	17. 40	*1416							12. 11	21. 20	18. 41	*1406				
13. 37	24. 20	18. 40	*1424							13. 10	23. 30	18. 53	*1402				
13. 41	24. 0	19. 51	*1411							13. 24	23. 0	19. 19	*1403				
13. 57	24. 10	20. 23	*1410							13. 59	23. 15	20. 7	*1411				
14. 18	23. 45	20. 59	*1407							14. 10	22. 10	21. 26	*1401				
14. 33	25. 0	23. 14	*1403							14. 17	23. 0	21. 59	*1398				
14. 54	24. 0	23. 59	*1406							14. 31	22. 0	22. 9	*1402				
15. 4	24. 10									14. 50	21. 55	22. 53	*1393				
15. 14	22. 55									14. 55	22. 25	23. 33	*1400				
15. 41	23. 45									15. 2	22. 10	23. 59	*1401				
15. 56	22. 40									15. 11	22. 45						
16. 10	22. 50									15. 28	22. 0						
16. 17	22. 0									15. 41	22. 25						
16. 26	22. 30									15. 56	24. 20						
16. 39	21. 55									16. 38	24. 5						
16. 51	22. 30									16. 52	24. 40						
17. 3	21. 50									17. 30	23. 55						
17. 23	22. 40									18. 13	24. 30						
18. 13	22. 45									18. 22	25. 30						
18. 26	23. 10									18. 41	24. 30						
18. 59	22. 10									18. 58	24. 20						
19. 43	23. 5									19. 14	25. 10						
20. 9	25. 0									19. 29	24. 35						
20. 54	23. 25									19. 41	25. 45						
21. 48	25. 0									20. 6	25. 0						

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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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Oct. 20 h m s 20. 51 20. 22. 30																	
21. 27 21. 35																	
21. 33 22. 25																	
21. 51 23. 10																	
21. 57 22. 45																	
22. 11 24. 40																	
22. 18 23. 20																	
22. 34 24. 30																	
23. 23 25. 5																	
23. 28 24. 40																	
23. 59 25. 55																	
Oct. 21 o. o 20. 25. 55		Oct. 21 o. o	*1401	Oct. 21 o. o	*02782*	Oct. 21 o. o	61. 0	61. 9	Oct. 21 o. o	20. 22. 30							
o. 42 26. 0		1. 29	*1406		(†)	8. 45	60. 9	62. 0		19. 24 20. 22. 30							
o. 48 26. 30		1. 41	*1413	4. 15	*02797	21. 0	60. 6	62. 1		19. 33 23. 30							
1. 28 26. 20		2. 11	*1406	8. 41	*02800	22. 0	60. 7	62. 0		19. 40 23. 5							
1. 41 27. 30		3. 44	*1406	13. 13	*02794	23. 0	61. 7	62. 0		19. 53 24. 0							
1. 57 26. 20		3. 56	*1413	17. 34	*02763					20. 25 24. 0							
3. 38 23. 35		4. 13	*1406	20. 12	*02764					20. 39 22. 25							
3. 43 24. 0		4. 18	*1411	21. 57	*02760					20. 44 22. 35							
3. 49 23. 0		4. 29	*1405	23. 59	*02742					20. 54 22. 20							
4. 13 22. 40		5. 23	*1410							21. 6 23. 0							
4. 23 23. 5		6. 3	*1401							21. 33 21. 50							
5. 3 22. 30		6. 29	*1403							21. 39 22. 20							
5. 28 21. 55		6. 46	*1414							22. 3 22. 0							
5. 40 22. 10		6. 51	*1410							22. 28 22. 10							
6. 3 22. 0		7. 7	*1419							22. 28 22. 10							
6. 21 22. 55		7. 25	*1408							23. 44 25. 40							
6. 35 22. 55		7. 42	*1412							23. 56 25. 15							
6. 56 19. 0		8. 11	*1405							23. 59 26. 0							
7. 12 21. 40		8. 56	*1414														
7. 26 20. 10			***														
7. 56 22. 5		12. 32	*1413														
8. 6 21. 30		12. 56	*1410														
8. 26 22. 35		13. 19	*1414														
8. 45 22. 20		14. 8	*1407														
9. 3 22. 55		15. 11	*1414														
9. 46 22. 35		16. 38	*1411														
11. 7 23. 45		17. 14	*1419														
11. 48 22. 45		17. 56	*1414														
11. 59 23. 30		19. 3	*1418														
12. 39 22. 0		19. 36	*1407														
12. 50 22. 25		19. 56	*1404														
13. 3 24. 0		20. 23	*1409														
13. 23 21. 25		21. 2	*1407														
14. 26 23. 40		21. 44	*1400														
14. 41 22. 55		23. 59	*1408														
14. 53 22. 55																	
15. 18 20. 30																	
15. 53 22. 30																	
16. 6 22. 0																	
16. 56 25. 30																	
17. 3 25. 30																	
17. 33 22. 45																	
18. 3 21. 35																	
18. 50 22. 30																	
19. 3 23. 20																	

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.
Oct. 22																	
21. 49	20. 21. 25																
21. 52	21. 5																
22. 1	22. 25																
	(†)																
22. 51	24. 0																
22. 56	23. 10																
23. 8	23. 40																
23. 26	27. 55																
23. 36	25. 35																
23. 43	25. 25																
23. 59	26. 0																
Oct. 23		Oct. 23		Oct. 23		Oct. 23			Oct. 23								
0. 0	20. 26. 0	0. 0	*1415	0. 0	*02619	0. 0	59. 0	59. 2	10. 37	20. 19. 0	16. 55	*1418					
0. 17	25. 50	0. 16	*1416	0. 31	*02622	1. 0	59. 6	60. 3	10. 57	21. 55	17. 26	*1416					
0. 27	26. 30	0. 22	*1414	3. 14	*02680	2. 0	59. 8	60. 7	11. 26	22. 0	17. 51	*1409					
0. 57	25. 20	1. 29	*1419	5. 10	*02732	3. 0	59. 9	60. 8	11. 38	23. 5	17. 58	*1414					
1. 21	27. 0	1. 41	*1418	5. 43	*02752	9. 0	60. 0	61. 4	11. 56	23. 10	18. 8	*1410					
1. 28	26. 10	1. 55	*1427	7. 11	*02764	21. 0	59. 7	60. 2	12. 8	23. 55		***					
1. 37	26. 10	2. 8	*1417	7. 55	*02753	22. 0	59. 8	60. 2	12. 13	22. 50	18. 26	*1415					
1. 51	28. 50	2. 43	*1419	9. 0	*02718	23. 0	59. 8	60. 0	12. 21	23. 0	18. 33	*1409					
2. 3	27. 0	3. 9	*1417	9. 56	*02734				13. 10	22. 25	18. 39	*1417					
2. 26	26. 10	3. 38	*1419	10. 12	*02723				13. 38	22. 25	18. 41	*1411					
2. 40	27. 5	3. 46	*1426	11. 0	*02728				13. 58	21. 45	18. 48	*1417					
2. 54	26. 15	4. 10	*1419	14. 25	*02725				14. 6	22. 30	18. 56	*1409					
3. 23	25. 55	4. 25	*1421	14. 41	*02717				14. 23	23. 0	19. 7	*1414					
3. 29	25. 10	5. 14	*1385	14. 56	*02722				14. 33	20. 55	19. 18	*1418					
3. 59	26. 10	5. 17	*1387	18. 26	*02702				14. 37	22. 25	19. 26	*1410					
4. 11	25. 45	5. 29	*1384	22. 55	*02680				14. 52	22. 10	19. 33	*1422					
4. 24	27. 50	5. 51	*1396	23. 6	*02665				15. 22	21. 20	19. 36	*1410					
4. 42	26. 0	6. 5	*1409	23. 12	*02680				15. 33	23. 0	19. 59	*1416					
4. 58	28. 0	6. 35	*1398	23. 47	*02667				15. 53	22. 15	20. 33	*1409					
5. 1	27. 50	6. 55	*1401	23. 59	*02675				16. 3	22. 55	20. 56	*1407					
5. 11	25. 35	7. 4	*1398						16. 10	22. 20	21. 10	*1410					
5. 26	24. 50	7. 16	*1408						16. 24	22. 20	21. 38	*1404					
5. 32	23. 15	7. 45	*1411						16. 33	23. 30	21. 38	*1404					
5. 38	24. 0	8. 7	*1427						16. 38	23. 30	21. 53	*1408					
5. 43	23. 15	8. 53	*1414						16. 51	20. 15	22. 11	*1404					
6. 10	25. 50	9. 7	*1406						16. 57	20. 45	22. 39	*1403					
6. 14	27. 0	9. 17	*1408						17. 14	19. 45	22. 53	*1412					
6. 26	27. 30	9. 36	*1406						17. 23	20. 30	23. 4	*1402					
6. 43	24. 10	9. 54	*1415						17. 26	20. 20	23. 9	*1411					
6. 56	23. 5	10. 10	*1411						17. 43	21. 40	23. 26	*1411					
7. 11	17. 30	10. 22	*1413						18. 4	22. 5	23. 44	*1387					
7. 16	17. 10	10. 29	*1409						18. 21	22. 45	23. 59	*1396					
7. 32	11. 25	10. 45	*1410						18. 26	23. 30							
7. 40	11. 55	11. 0	*1409						18. 29	23. 10							
7. 51	11. 0	11. 33	*1412						18. 36	23. 55							
7. 59	11. 30	11. 46	*1410						18. 50	23. 20							
8. 39	19. 0	12. 2	*1412						18. 56	24. 0							
8. 53	19. 40	12. 17	*1409						19. 3	23. 25							
9. 8	17. 0	14. 15	*1409						19. 11	25. 0							
9. 16	17. 0	14. 28	*1414						19. 20	23. 40							
9. 34	19. 0	14. 39	*1409						19. 26	26. 10							
9. 44	19. 0	14. 53	*1413						19. 33	25. 35							
9. 58	21. 35	15. 49	*1411						19. 37	25. 40							
10. 17	18. 30	16. 33	*1415						19. 51	23. 0							
10. 26	19. 10	16. 44	*1410						19. 56	22. 50							
									20. 8	21. 30							
									20. 21	21. 10							
									20. 30	22. 0							
									20. 38	21. 15							
									20. 41	21. 35							
									20. 52	21. 0							
									21. 0	22. 10							
									21. 20	22. 10							
									21. 30	21. 50							
									21. 41	23. 30							
									21. 50	23. 55							
									21. 59	23. 0							
									22. 33	23. 30							
									22. 42	27. 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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Oct. 23 h m 22. 49	20. 27. 0																
22. 55	25. 15																
23. 19	30. 30																
23. 23	29. 55																
23. 29	27. 0																
23. 43	26. 0																
23. 59	26. 0																
Oct. 24 h m 0. 0	20. 26. 0	Oct. 24 h m 0. 0	*1396	Oct. 24 h m 0. 0	*02675	Oct. 24 h m 0. 0	59. 8	60. 5	Oct. 24 h m 12. 57	20. 21. 20	Oct. 24 h m 16. 37	*1412					
0. 24	24. 50	0. 19	*1406	1. 45	*02697	1. 0	60. 2	60. 8	13. 9	20. 50	16. 42	*1419					
0. 59	26. 50	1. 32	*1417	2. 26	*02724	2. 0	60. 2	61. 0	13. 44	26. 0	16. 51	*1411					
1. 26	25. 20	1. 56	*1413	3. 16	*02733	3. 0	60. 2	61. 5	14. 23	20. 10	17. 49	*1424					
1. 38	25. 55	2. 8	*1419	5. 56	*02738	9. 0	60. 1	60. 4	14. 33	20. 5	18. 51	*1406					
1. 54	25. 15	2. 21	*1414	7. 33	*02734	21. 0	59. 0	59. 6	14. 41	21. 0		***					
2. 13	25. 30	2. 33	*1420	7. 55	*02712	22. 0	59. 3	59. 9	14. 56	20. 0	19. 26	*1408					
2. 23	27. 20	2. 44	*1411	9. 57	*02703	23. 0	59. 3	59. 9	15. 14	20. 45	19. 41	*1411					
2. 38	26. 20	3. 3	*1411	12. 42	*02695				15. 21	22. 20	19. 53	*1417					
2. 47	26. 50	3. 9	*1419	13. 4	*02670				15. 25	22. 20	20. 2	*1410					
2. 56	25. 50	3. 23	*1413	13. 34	*02696				15. 33	23. 50		***					
3. 4	26. 45	3. 31	*1413	14. 4	*02683				16. 4	21. 0	20. 38	*1412					
3. 11	26. 5	3. 59	*1410	15. 24	*02694				16. 13	22. 5	21. 3	*1407					
4. 10	25. 10	4. 13	*1418	17. 37	*02683				16. 23	22. 10	22. 29	*1406					
4. 18	26. 0	4. 23	*1417	18. 11	*02669				16. 32	20. 40		***					
4. 24	25. 50	4. 34	*1406	23. 59	*02647				16. 37	23. 35	22. 47	*1401					
4. 35	26. 30	4. 52	*1402						16. 51	21. 25		***					
4. 42	25. 30	5. 6	*1408						16. 58	21. 30	23. 28	*1408					
5. 26	22. 15	5. 20	*1410						17. 3	20. 20	23. 59	*1407					
5. 39	24. 25	5. 33	*1402						17. 31	20. 45							
5. 53	23. 55	6. 16	*1417						17. 43	22. 50							
6. 13	24. 20	6. 32	*1411						17. 59	22. 0							
6. 23	23. 50	6. 43	*1412						18. 9	22. 0							
6. 28	22. 45	6. 50	*1409						18. 21	21. 20							
6. 48	21. 30	6. 59	*1415						18. 33	23. 30							
6. 56	23. 0	7. 14	*1411						18. 50	23. 15							
7. 3	22. 20	7. 29	*1426						18. 59	23. 55							
7. 25	12. 20	7. 38	*1440						19. 21	22. 20							
7. 37	16. 0	7. 45	*1433						19. 44	24. 0							
7. 41	16. 10	7. 54	*1435						20. 3	22. 10							
7. 44	17. 15	8. 9	*1423						20. 51	***							
7. 52	17. 0	8. 24	*1427						21. 25	22. 45							
8. 1	18. 20	9. 14	*1409						21. 25	21. 25							
8. 11	17. 5	10. 6	*1410						21. 38	22. 15							
8. 24	20. 30	10. 24	*1415						21. 53	21. 50							
8. 53	21. 55	11. 7	*1412						21. 58	23. 0							
9. 21	19. 40	11. 45	*1417						22. 9	23. 0							
9. 36	19. 50	12. 2	*1410						22. 20	23. 20							
9. 50	21. 0	12. 18	*1407						22. 20	24. 30							
10. 9	20. 30	12. 43	*1408						22. 36	24. 10							
10. 23	21. 55	12. 58	*1417						22. 57	24. 40							
10. 36	20. 55	13. 24	*1403						23. 7	26. 50							
10. 41	21. 0	13. 59	*1411						23. 7	26. 50							
11. 4	20. 15		***						23. 10	28. 50							
11. 21	22. 55	14. 42	*1412						23. 12	27. 30							
11. 25	23. 0	14. 59	*1404						23. 26	28. 30							
11. 56	19. 35	15. 16	*1409						23. 36	26. 0							
12. 26	24. 20	15. 40	*1413						23. 52	27. 10							
12. 41	24. 0		***						23. 56	26. 40							
									23. 59	26. 40							
									Oct. 25 h m 0. 0	20. 26. 40	Oct. 25 h m 0. 0	*1407	Oct. 25 h m 0. 0	*02647	Oct. 25 h m 0. 0	59. 5	60. 4
									0. 25	30. 50	0. 23	*1398	2. 44	*02712	1. 0	59. 6	60. 2
									0. 35	30. 15	0. 40	*1397	4. 42	*02712	2. 0	59. 8	60. 4
									0. 43	26. 20	1. 7	*1408	4. 58	*02693	3. 0	59. 6	59. 9
									0. 55	25. 10	1. 21	*1407	5. 14	*02706	9. 0	58. 9	59. 7
									1. 3	25. 5	1. 41	*1417	5. 52	*02696	21. 0	60. 2	61. 7
									1. 22	26. 30	1. 53	*1411	6. 47	*02672	22. 0	60. 1	60. 8
									1. 39	25. 30	2. 3	*1411	8. 12	*02674	23. 0	59. 9	60. 7

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.
Oct. 25		Oct. 25		Oct. 25					Oct. 25		Oct. 25						
1. 41	20. 25. 45	2. 25	*1400	8. 34	*02678				16. 17.	20. 22. 30	20. 56	*1402					
1. 45	26. 45	2. 32	*1407	9. 3	*02678				16. 27	21. 0	21. 33	*1398					
2. 6	26. 0	2. 39	*1404	9. 26	*02653				16. 44	23. 10	21. 47	*1396					
2. 13	27. 5	2. 51	*1414	10. 27	*02664				17. 3	23. 50	21. 56	*1400					
2. 25	25. 50	3. 6	*1403	11. 22	*02678				17. 13	23. 10		***					
2. 40	23. 10	3. 25	*1415	11. 45	*02672				17. 23	23. 55	22. 29	*1396					
2. 48	23. 20		***	12. 11	*02682				17. 39	22. 15	23. 59	*1401					
2. 55	24. 5	4. 8	*1411	12. 29	*02662				17. 56	23. 20							
3. 12	21. 20	4. 26	*1414	12. 42	*02663				18. 6	23. 20							
3. 26	21. 45	4. 40	*1409	13. 8	*02675				18. 21	24. 45							
3. 41	23. 0	4. 53	*1394	13. 42	*02658				18. 36	23. 40							
3. 44	23. 0	5. 17	*1426	15. 43	*02702				18. 57	24. 30							
3. 53	23. 55	5. 37	*1410	19. 11	*02712				19. 18	27. 50							
3. 56	23. 15	5. 47	*1414	22. 14	*02700				19. 39	25. 10							
4. 15	24. 0	5. 56	*1407	23. 59	*02700				19. 51	24. 10							
4. 43	23. 40	6. 8	*1408						19. 55	23. 0							
5. 6	8. 20	6. 26	*1419						19. 58	24. 10							
5. 11	8. 20	6. 39	*1419						20. 4	22. 30							
5. 28	17. 30	6. 50	*1415						20. 13	23. 25							
6. 3	22. 55	6. 56	*1417						20. 26	22. 10							
6. 18	18. 40	7. 10	*1412							***							
6. 29	18. 5	7. 20	*1415						20. 42	23. 0							
6. 53	19. 30	7. 40	*1410						20. 56	22. 15							
7. 7	22. 0	7. 59	*1414						21. 18	22. 30							
7. 19	21. 20	8. 26	*1403						21. 29	22. 10							
7. 39	21. 35	8. 36	*1408						21. 38	23. 15							
7. 55	19. 45	8. 42	*1404						21. 43	22. 40							
8. 27	19. 55	9. 4	*1442						21. 56	24. 30							
8. 36	19. 5	9. 21	*1414							***							
8. 47	13. 30	9. 35	*1417						22. 29	24. 15							
8. 53	13. 30	9. 54	*1407						23. 33	27. 0							
9. 7	23. 20	11. 7	*1412						23. 59	27. 0							
9. 26	18. 10	11. 34	*1420														
9. 44	20. 20	11. 56	*1412						Oct. 26		Oct. 26		Oct. 26		Oct. 26		
9. 57	19. 50	12. 17	*1422						0. 0	20. 27. 0	0. 0	*1401	0. 0	*02700	1. 0	60. 7	61. 5
10. 23	22. 30	12. 43	*1411						0. 19	27. 0	0. 18	*1401	1. 15	*02738	2. 0	60. 6	61. 7
10. 53	22. 50	13. 14	*1420							(†)	0. 29	*1407	3. 6	*02762	3. 0	60. 6	61. 7
11. 7	23. 25	14. 7	*1405						1. 39	27. 0	0. 51	*1410	3. 51	*02757	6. 0	60. 3	60. 8
11. 32	21. 10	15. 8	*1406						1. 48	26. 30	2. 6	*1409	4. 30	*02761	7. 25	60. 1	60. 5
11. 43	20. 20	15. 20	*1403						2. 3	26. 5	2. 28	*1405	8. 29	*02710	8. 0	59. 9	60. 4
12. 18	25. 10	15. 55	*1409						2. 10	25. 15	3. 3	*1416	13. 26	*02700	9. 0	60. 0	60. 8
12. 29	23. 30	16. 5	*1407						2. 26	24. 30	3. 55	*1397	18. 11	*02632	10. 0	60. 2	60. 8
12. 39	23. 25	16. 22	*1411						3. 32	27. 0	4. 28	*1409	19. 59	*02609	21. 0	57. 4	57. 1
12. 51	21. 15	16. 50	*1401						3. 41	25. 0	7. 0	*1413	(†)		22. 0	57. 5	57. 4
13. 20	28. 55	17. 26	*1406						3. 58	20. 0	7. 22	*1409	21. 0	*02593*	23. 0	57. 5	57. 4
13. 32	28. 20	18. 6	*1406						4. 9	18. 40	7. 33	*1410					
13. 49	26. 45	18. 21	*1402						4. 38	22. 10	7. 50	*1406					
14. 15	23. 50	18. 39	*1405						5. 13	23. 55	8. 8	*1409					
14. 23	23. 35	18. 49	*1398						5. 56	23. 5	8. 23	*1407					
14. 28	22. 50	19. 3	*1401						7. 3	23. 0	10. 9	*1410					
14. 41	22. 40	19. 23	*1397						7. 23	22. 0	13. 7	*1408					
14. 56	21. 30	19. 47	*1406						7. 38	22. 10		(†)					
15. 2	22. 10	19. 54	*1401						8. 3	20. 30	21. 0	*1405*					
15. 7	22. 0	19. 59	*1406						8. 10	20. 30							
15. 11	23. 10	20. 3	*1402						8. 25	19. 30							
15. 24	23. 0	20. 13	*1407						8. 50	20. 0							
15. 39	23. 50	20. 28	*1403						9. 26	22. 40							
16. 8	22. 5		***						10. 6	22. 10							

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.	
Oct. 26 h m	° ' "	h m		h m		h m	°	°	h m	° ' "	h m		h m		h m	°	°	
10. 18	20. 22. 50								Oct. 27 h m	20. 22. 55								
10. 43	22. 15								22. 14	23. 0								
11. 13	22. 50								22. 26	23. 0								
12. 43	21. 55								22. 36	24. 20								
13. 30	23. 0								23. 59	26. 10								
14. 18	22. 50								Oct. 28 c. o	20. 26. 10	Oct. 28 o. o	*1402	Oct. 28 h m	(†)	Oct. 28 h m	o. 30	60. 5	61. 2
	(†)								o. 38	26. 45	o. 56	*1413		*02673*	5. 45	59. 7	60. 0	
21. 0	20. 51*								1. 58	26. 15	2. 5	*1413	o. 59	*02696	9. 0	58. 9	59. 5	
23. 52	26. 30								2. 10	26. 40	2. 16	*1417	5. 29	*02663	21. 0	58. 3	59. 5	
23. 59	26. 30								2. 27	26. 0	2. 32	*1414	9. 34	*02640	22. 0	58. 3	59. 5	
		Oct. 27	(†)	Oct. 27	(†)	Oct. 27	57. 8	58. 1	2. 39	26. 0	3. 29	*1417	17. 11	*02628	23. 0	57. 8	58. 0	
Oct. 27 o. o	20. 26. 30	1. 0	*1409*	1. 0	*02556*	1. 0	58. 2	58. 7	3. 55	24. 55	3. 50	*1414	20. 58	*02612				
o. 16	26. 45	1. 44	*1414	3. 0	*02602*	2. 0	58. 5	59. 4	5. 3	25. 10	4. 16	*1418	23. 59	*02595				
o. 58	27. 5	2. 42	*1417	9. 0	*02641*	3. 0	58. 5	59. 4	8. 21	23. 50	4. 32	*1416						
2. 10	24. 45	3. 32	*1410	17. 20	*02683	5. 0	59. 2	59. 8	8. 42	23. 20	4. 43	*1420						
2. 49	24. 15	4. 8	*1412	22. 48	*02672	6. 0	59. 4	60. 0	10. 23	23. 15	6. 11	*1420						
3. 26	22. 45	4. 26	*1409		(†)	7. 0	59. 4	60. 1	12. 4	22. 10	6. 29	*1424						
4. 3	23. 10	5. 7	*1408			7. 45	59. 7	60. 5	12. 53	22. 40	7. 0	*1422						
5. 13	21. 55	5. 47	*1415			9. 0	59. 5	60. 8	18. 21	22. 20	8. 2	*1422						
5. 58	22. 50	6. 13	*1411			21. 15	60. 5	62. 1	20. 0	21. 25	12. 41	*1410						
6. 23	21. 25	7. 41	*1416						22. 8	22. 5	18. 23	*1414						
6. 39	22. 40	9. 9	*1413						22. 53	24. 0	19. 32	*1412						
7. 27	22. 15	9. 29	*1415						22. 57	25. 10	20. 14	*1407						
8. 39	22. 55	9. 52	*1410						23. 9	24. 40	22. 38	*1400						
9. 23	21. 5	10. 18	*1419						23. 34	25. 40	23. 20	*1404						
9. 44	21. 30	10. 56	*1411						23. 48	25. 30	23. 59	*1403						
10. 6	18. 10	13. 21	*1410						23. 57	26. 50								
10. 59	21. 20	13. 56	*1407						23. 59	26. 30								
11. 14	21. 0	15. 3	*1413						Oct. 29 o. o	20. 26. 30	Oct. 29 o. o	*1403	Oct. 29 o. o	*02595	1. 10	58. 8	58. 9	
11. 26	21. 30	16. 4	*1409						o. 7	26. 20	o. 14	*1406	o. 28	*02582	2. 0	58. 8	58. 9	
11. 38	21. 10	18. 53	*1414						o. 55	27. 0	o. 23	*1403		(†)	3. 0	58. 9	59. 0	
11. 50	22. 50	19. 14	*1417						1. 54	26. 0	2. 13	*1413	1. 10	*02587*	9. 0	58. 2	58. 8	
12. 23	22. 20	19. 35	*1414						3. 24	24. 0	2. 55	*1410	3. 0	*02602*	21. 0	58. 8	59. 1	
12. 41	22. 25	19. 59	*1416						4. 16	24. 0	6. 26	*1421	9. 0	*02609*	22. 0	58. 7	59. 0	
13. 1	21. 25	20. 32	*1417						4. 55	24. 30	7. 4	*1414	11. 57	*02593	23. 0	58. 6	58. 9	
13. 52	20. 55	20. 46	*1410						5. 13	23. 55	7. 21	*1415	12. 59	*02572				
14. 13	22. 30	21. 51	*1400						5. 59	24. 5	7. 43	*1407	14. 19	*02583				
14. 39	24. 10	22. 32	*1400						6. 15	23. 55	8. 21	*1413	23. 59	*02577				
15. 4	22. 45	23. 59	*1402						7. 26	24. 0	8. 41	*1407						
15. 20	22. 30								7. 41	22. 5	9. 10	*1416						
15. 56	19. 0								7. 58	24. 0	9. 33	*1409						
16. 38	19. 20								8. 9	24. 0	9. 50	*1420						
17. 14	21. 0								8. 26	26. 5	10. 11	*1413						
17. 41	21. 10								9. 8	21. 0	11. 11	*1414						
17. 56	20. 45								9. 12	22. 30	11. 35	*1423						
18. 14	21. 30								9. 28	23. 5	11. 51	*1417						
18. 28	21. 5								9. 41	22. 20	12. 9	*1429						
18. 51	21. 55								9. 56	22. 55	12. 24	*1421						
19. 14	20. 55								10. 44	20. 50	12. 40	*1424						
20. 45	21. 25								10. 56	21. 0	13. 9	*1415						
20. 56	20. 50								11. 51	18. 15	13. 48	*1410						
21. 14	21. 0								12. 11	24. 5	16. 13	*1420						
21. 23	22. 20								12. 26	20. 30	17. 3	*1416						
21. 38	21. 40								12. 40	21. 45	17. 32	*1417						
22. 3	22. 30								13. 6	19. 45	17. 59	*1409						
22. 8	23. 15																	

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.  
October 27. The greater part of the V. F. photographic trace was too faint for use.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Oct. 29 h m		Oct. 29 h m							Oct. 30 h m								
13. 12	20. 20. 5	18. 36	*1418						12. 39	20. 18. 0	15. 32	*1420					
13. 20	19. 50	18. 57	*1418						12. 42	20. 30		***					
13. 29	20. 20	19. 23	*1424						12. 48	22. 45	16. 8	*1407					
13. 35	19. 55	19. 46	*1421						13. 3	20. 45	16. 32	*1423					
14. 15	22. 0	20. 24	*1410						13. 23	20. 25		***					
14. 49	21. 20	20. 59	*1403						13. 36	23. 30	17. 8	*1417					
14. 56	21. 55	21. 10	*1406						13. 42	22. 50	17. 25	*1415					
15. 20	20. 5	21. 58	*1403						13. 51	23. 0	17. 33	*1417					
15. 41	20. 0	22. 43	*1399						14. 16	19. 0	17. 56	*1398					
15. 50	20. 20	22. 58	*1394						14. 29	12. 45	18. 11	*1409					
15. 56	20. 5	23. 27	*1404						15. 11	27. 0	18. 19	*1403					
16. 14	21. 10	23. 59	*1385						15. 29	22. 0	18. 39	*1427					
16. 39	20. 45								15. 40	21. 10	18. 48	*1418					
17. 6	22. 40								15. 50	24. 0	19. 9	*1409					
17. 21	22. 5								15. 58	25. 50	19. 25	*1412					
17. 43	25. 0								16. 9	28. 25	19. 56	*1401					
18. 18	25. 20								16. 18	28. 30	20. 8	*1404					
18. 53	23. 20								16. 36	24. 50	20. 56	*1362					
19. 3	23. 0								16. 58	22. 55	21. 5	*1376					
19. 14	23. 15								17. 35	30. 40	21. 33	*1380					
19. 30	22. 55								18. 10	43. 35	21. 56	*1395					
20. 11	25. 10								18. 17	41. 45	22. 17	*1396					
20. 39	24. 25								18. 24	41. 55	22. 24	*1392					
21. 21	26. 45								18. 33	39. 30	22. 32	*1399					
21. 42	25. 5								18. 39	36. 15	22. 37	*1391					
22. 20	24. 45								18. 50	36. 55	22. 40	*1398					
22. 28	25. 10								19. 7	33. 10	22. 42	*1391					
22. 52	24. 30								19. 18	34. 25	22. 46	*1397					
23. 3	24. 40								19. 58	26. 10	22. 50	*1385					
23. 14	25. 50								20. 23	26. 0	22. 55	*1397					
23. 34	29. 40								20. 29	24. 50	22. 57	*1383					
23. 48	30. 20								20. 33	24. 50	23. 4	*1393					
23. 59	28. 50								20. 44	27. 45	23. 6	*1384					
									20. 56	26. 0	23. 16	*1393					
Oct. 30 o o	2c. 28. 50	Oct. 30 o o	*1385	Oct. 30 o o	*02577	Oct. 30 h m	1. 0	59. 459. 8	21. 19	31. 55	23. 30	*1389					
o 12	28. 10	o 47	*1396	o 56	*02597	3. 0	60. 160. 3		21. 24	29. 0	23. 37	*1395					
o 23	28. 20	1. 2	*1394	3. 25	*02663	9. 0	59. 560. 7		21. 28	29. 40		***					
o 53	31. 50	1. 10	*1397	11. 41	*02628	21. 0	57. 257. 8		21. 39	28. 0	23. 59	*1393					
o 58	31. 0		(†)	11. 55	*02643	22. 0	57. 558. 0		21. 55	30. 0							
1. 7	31. 20	2. 19	*1398	12. 30	*02583	23. 0	57. 658. 3		22. 0	29. 5							
1. 42	34. 10	2. 58	*1397	14. 8	*02578				22. 4	29. 30							
3. 6	28. 55	3. 40	*1406	14. 43	*02523				22. 9	28. 45							
3. 23	24. 10	5. 23	*1412	15. 22	*02578				22. 20	29. 30							
3. 47	24. 0	7. 10	*1415	15. 53	*02526				22. 26	28. 40							
4. 9	25. 0	8. 3	*1420	16. 22	*02540				22. 41	28. 0							
4. 17	24. 45	10. 26	*1409	16. 55	*02517				22. 43	28. 55							
4. 41	25. 20	10. 58	*1415	18. 7	*02534				22. 51	27. 35							
6. 13	23. 15	11. 16	*1407	18. 54	*02505					***							
10. 18	22. 20	11. 48	*1407	19. 56	*02526				23. 10	27. 0							
10. 34	20. 40	12. 8	*1432	22. 4	*02552				23. 17	28. 30							
10. 47	20. 55	12. 26	*1429		***				23. 28	27. 40							
11. 3	18. 10	12. 53	*1404	23. 5	*02540				23. 32	28. 15							
11. 28	19. 30	13. 23	*1407		***				23. 39	28. 20							
11. 39	20. 45	13. 37	*1417	23. 59	*02540				23. 41	28. 55							
11. 53	21. 5	14. 2	*1416						23. 52	28. 10							
12. 3	30. 10	14. 26	*1436						23. 55	29. 0							
		15. 6	*1397						23. 59	28. 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.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Oct. 31 h m 0. 0	20. 28. 5	Oct. 31 h m 0. 0	.1393	Oct. 31 h m 0. 0	.02540	Oct. 31 h m 0. 0	58.1	59.0	Oct. 31 h m 14. 41	20. 30. 50	Oct. 31 h m 19. 12	.1416	h m	h m	h m	o	o
0. 43	26. 5	0. 13	.1394	0. 42	.02537	1. 0	58.7	59.7	14. 51	30. 50	19. 38	.1408					
1. 10	27. 20	1. 2	.1402	1. 27	.02562	2. 0	58.8	59.7	14. 58	31. 55	20. 56	.1408					
1. 49	25. 25	1. 25	.1402	2. 25	.02600	3. 0	58.8	59.7	15. 8	30. 40	21. 22	.1404					
2. 8	28. 40	1. 36	.1404	3. 55	.02618	9. 0	57.9	59.2	15. 21	27. 0	22. 37	.1406					
2. 40	23. 0	1. 47	.1402	4. 55	.02672	11. 0	57.6	58.7	15. 36	27. 15	22. 44	.1405					
3. 10	23. 55		(†)	5. 42	.02656	21. 0	57.3	58.0	15. 49	29. 45	22. 53	.1409					
3. 23	23. 45	2. 8	.1381	7. 46	.02604	22. 0	57.4	58.0	15. 57	27. 0	23. 0	.1405					
3. 43	27. 0	2. 39	.1400	9. 47	.02540	23. 0	57.5	58.1	16. 8	27. 5	23. 37	.1407					
3. 54	24. 10	3. 6	.1402	9. 56	.02542				16. 15	26. 0	23. 59	.1410					
4. 8	22. 15	3. 20	.1399	10. 12	.02524				16. 29	26. 25							
4. 13	14. 25	3. 35	.1388	10. 29	.02527				16. 43	24. 0							
4. 24	13. 50	3. 43	.1391	10. 52	.02523				16. 51	24. 5							
4. 40	16. 0	4. 3	.1376	11. 21	.02534				16. 56	22. 30							
4. 51	11. 50	4. 17	.1386	12. 26	.02497				17. 5	23. 25							
4. 57	13. 30	4. 28	.1378	12. 44	.02478				17. 20	22. 30							
5. 4	11. 30	5. 3	.1387	13. 4	.02482				17. 36	23. 30							
5. 12	12. 5	5. 13	.1386	13. 19	.02470				17. 53	21. 30							
5. 22	11. 0		(†)	13. 41	.02477				18. 12	23. 50							
5. 28	12. 0	6. 21	.1389	14. 19	.02452				18. 35	23. 50							
5. 42	9. 0	6. 33	.1396	14. 45	.02458				19. 3	21. 20							
6. 3	18. 5	6. 59	.1395	15. 29	.02423				19. 11	23. 0							
6. 12	16. 0	7. 17	.1407	16. 36	.02457				19. 23	23. 0							
6. 23	19. 45	7. 36	.1407	18. 26	.02480				19. 30	22. 10							
6. 41	19. 10	7. 49	.1419	18. 57	.02476				20. 16	21. 55							
6. 53	21. 40	8. 10	.1407	21. 12	.02494				20. 27	22. 50							
6. 58	21. 10	8. 16	.1414	23. 59	.02497				20. 37	22. 0							
7. 8	19. 0	8. 28	.1414						20. 48	23. 0							
7. 13	17. 30	8. 58	.1421						20. 50	25. 20							
7. 30	21. 0	9. 10	.1423						20. 56	23. 50							
7. 39	20. 30	9. 23	.1426						21. 24	22. 0							
7. 52	14. 5	9. 39	.1423						21. 50	22. 55							
8. 5	20. 40	9. 56	.1430						22. 14	22. 45							
8. 23	21. 0	10. 7	.1414						22. 43	24. 5							
8. 49	17. 45	10. 26	.1400						22. 51	25. 15							
8. 59	18. 0	10. 35	.1403						22. 56	24. 15							
9. 14	27. 0	10. 53	.1392						22. 59	25. 30							
9. 25	22. 55	11. 28	.1407						23. 14	26. 0							
9. 32	23. 30	11. 43	.1400						23. 41	25. 5							
9. 56	16. 20	12. 3	.1406						23. 53	25. 50							
10. 11	20. 5	12. 11	.1403						***								
10. 27	15. 40	12. 29	.1405						23. 59	26. 0							
10. 39	14. 10	12. 44	.1394														
10. 53	16. 0	13. 14	.1417						Nov. 1		Nov. 1		Nov. 1				
11. 3	14. 50	13. 41	.1412						0. 0	20. 26. 0	0. 0	.1410	0. 0	.02497	0. 0	58.2	58.7
11. 14	15. 10	14. 10	.1416						0. 15	26. 15	0. 44	.1413	0. 23	.02507	1. 0	58.7	60.0
11. 24	14. 45	14. 34	.1409						0. 28	27. 50	1. 5	.1403		(†)	2. 0	58.8	60.1
11. 41	17. 30	14. 53	.1416						0. 51	27. 50	1. 52	.1389	1. 0	.02536*	3. 0	58.8	59.6
11. 49	17. 5	15. 20	.1402						1. 0	26. 10	2. 5	.1396	3. 0	.02610*	9. 0	58.7	60.1
11. 56	17. 55	15. 50	.1402						1. 21	29. 30	2. 17	.1394	4. 42	.02644	21. 0	58.4	59.7
12. 9	17. 15	16. 4	.1397						1. 30	28. 50	2. 33	.1399	5. 11	.02645	22. 0	58.7	59.8
12. 24	18. 5	16. 35	.1413						1. 49	25. 15	2. 41	.1392	5. 36	.02657	23. 0	58.8	60.2
12. 49	21. 0	16. 58	.1413						2. 6	27. 20	3. 6	.1399	6. 26	.02614			
12. 57	21. 0	17. 9	.1417						2. 11	27. 20	3. 17	.1394	8. 11	.02592			
13. 12	19. 10	17. 28	.1417						2. 18	26. 55	3. 26	.1398	8. 27	.02576			
13. 42	24. 25	17. 48	.1410						2. 30	28. 0	3. 38	.1393	9. 12	.02594			
14. 9	19. 40	18. 41	.1424						2. 43	26. 55	3. 44	.1396	9. 29	.02567			
14. 33	25. 0	19. 2	.1415						2. 58	26. 55	3. 53	.1384	10. 4	.02555			

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



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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Nov. 1		Nov. 1		Nov. 1					Nov. 1		Nov. 1						
3. 9	20. 27. 30	4. 2	*1382	14. 21	*02552				16. 33	20. 23. 55	22. 4	*1397					
3. 16	24. 5	4. 15	*1395	14. 56	*02528				16. 54	26. 30	22. 36	*1396					
3. 25	25. 10	4. 28	*1390	15. 9	*02534				17. 3	25. 20	22. 52	*1398					
3. 34	25. 5	4. 38	*1397	15. 45	*02483				17. 10	26. 30	23. 18	*1384					
3. 43	26. 25	4. 41	*1393	17. 7	*02511				17. 16	26. 0		(†)					
3. 53	24. 50	4. 55	*1402	18. 0	*02504				17. 20	26. 10							
3. 56	24. 30	5. 10	*1369	19. 17	*02536				17. 57	23. 30							
4. 8	19. 50	5. 20	*1366	21. 19	*02540				18. 7	21. 10							
4. 19	19. 45	5. 43	*1412	23. 20	*02563				18. 17	22. 45							
4. 38	21. 40	5. 56	*1409		(†)				18. 26	22. 15							
4. 43	18. 50	6. 20	*1414						18. 36	23. 35							
4. 56	22. 10	6. 33	*1407						18. 41	23. 0							
5. 8	21. 20	6. 55	*1415						18. 50	24. 55							
5. 36	0. 25	7. 21	*1412						18. 53	22. 50							
5. 55	14. 5	7. 49	*1417						19. 3	22. 30							
5. 58	14. 5	8. 6	*1411						19. 9	23. 45							
6. 28	25. 20	8. 25	*1418						19. 9	23. 0							
6. 44	24. 0	8. 34	*1411						19. 13	23. 0							
6. 55	23. 50	8. 56	*1418						19. 28	23. 15							
7. 10	25. 0	9. 3	*1429						19. 31	22. 10							
7. 26	24. 15	9. 25	*1415						19. 36	23. 20							
7. 36	24. 55	9. 38	*1418						19. 36	23. 20							
8. 4	22. 50	9. 52	*1436						19. 40	22. 45							
8. 17	23. 10	10. 36	*1412						19. 44	23. 30							
8. 29	22. 50	11. 17	*1404						19. 51	22. 55							
8. 37	21. 30	11. 56	*1409						20. 11	23. 10							
8. 42	14. 55	12. 13	*1416						20. 16	22. 20							
8. 48	14. 55	12. 55	*1412						20. 29	22. 50							
9. 3	4. 10	13. 58	*1415						20. 33	21. 50							
9. 9	6. 30	14. 21	*1413						20. 38	23. 5							
9. 31	19. 20	14. 41	*1418						20. 40	22. 15							
9. 48	11. 0	15. 36	*1441						20. 44	24. 50							
9. 54	12. 50	15. 46	*1433						20. 51	23. 10							
10. 9	14. 10	15. 56	*1434						20. 56	24. 30							
10. 20	16. 50	16. 26	*1419						21. 3	24. 50							
10. 39	18. 30	16. 56	*1413						21. 11	24. 0							
10. 56	21. 25	17. 9	*1422						21. 21	25. 50							
11. 8	21. 25	17. 39	*1430						21. 53	23. 40							
11. 24:	18. 55	18. 11	*1417						22. 21	27. 50							
12. 3	23. 10	18. 25	*1414						22. 26	27. 40							
12. 49	22. 55	18. 33	*1417						22. 32	28. 5							
13. 21	23. 50	18. 40	*1413						22. 59	27. 10							
13. 34	23. 5	18. 48	*1415						23. 12	29. 30							
13. 41	23. 25	18. 53	*1405						23. 22	28. 5							
13. 50	22. 55	19. 3	*1414						23. 29	27. 0							
13. 58	23. 0	19. 24	*1418							(†)							
14. 14	27. 20	19. 43	*1412						Nov. 2		Nov. 2	(†)	Nov. 2	(†)	Nov. 2	0. 0	59. 260. 5
14. 26	27. 50		***						0. 56	20. 29. 40	1. 0	*1396	0. 53	*02590	1. 0	59. 862. 3	
14. 30	28. 55	20. 11	*1408						1. 6	29. 40	1. 25	*1400	1. 18	*02616	2. 0	60. 862. 2	
14. 40	27. 0	20. 17	*1404						1. 20	32. 5	1. 56	*1381	2. 13	*02684	3. 0	60. 862. 0	
14. 51	27. 5	20. 26	*1410						1. 33	32. 0	2. 9	*1399	2. 26	*02680	9. 0	59. 660. 6	
15. 3	32. 50	20. 32	*1404						1. 41	34. 10	2. 12	*1395	2. 45	*02690	21. 0	59. 060. 3	
15. 21	35. 40		***						2. 8	19. 40	2. 26	*1404	5. 13	*02664	22. 0	59. 460. 6	
15. 49	26. 50	20. 45	*1414						2. 11	19. 40	2. 41	*1389	5. 34	*02677	23. 0	59. 760. 8	
15. 56	25. 45	20. 53	*1407						2. 23	16. 5	2. 55	*1398	5. 41	*02668			
15. 58	26. 0	21. 17	*1403						2. 33	19. 50	3. 13	*1394	5. 56	*02691			
16. 8	26. 0	21. 35	*1388						2. 41	19. 0	3. 26	*1399	6. 19	*02666			
16. 18	24. 20	21. 44	*1390						2. 44	17. 55	3. 59	*1404	9. 41	*02657			

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Nov. 2		Nov. 2		Nov. 2					Nov. 2		Nov. 2				Nov. 2		
2. 58	20. 20. 50	4. 10	.1400	10. 22	.02608	h	m	o	o	15. 9	20. 26. 45	23. 48	.1402	h	m		
2. 59	21. 50	4. 35	.1405	11. 40	.02617					15. 28	24. 20	23. 59	.1397				
3. 9	22. 0	4. 44	.1402	12. 31	.02602					15. 51	27. 50						
3. 11	23. 30	4. 53	.1406	14. 35	.02607					15. 59	27. 50						
3. 13	25. 10	5. 10	.1397	15. 9	.02596					16. 7	26. 40						
3. 21	24. 40	5. 35	.1391	17. 41	.02589					16. 14	25. 50						
3. 30	25. 50	5. 43	.1399	23. 59	.02623					16. 21	26. 55						
3. 57	23. 10	5. 54	.1386							16. 43	23. 55						
4. 8	25. 30	6. 2	.1403							17. 8	26. 55						
4. 20	25. 10	6. 14	.1417							17. 21	26. 0						
4. 26	25. 40	6. 21	.1409							17. 43	27. 5						
4. 38	23. 55	6. 36	.1416							18. 13	24. 5						
4. 48	24. 0	6. 50	.1405							18. 21	24. 0						
4. 56	22. 55	6. 59	.1410							18. 53	25. 20						
4. 59	23. 0	7. 22	.1394							19. 12	24. 20						
5. 36	19. 0	7. 43	.1405							19. 34	25. 20						
5. 41	17. 25	8. 8	.1406							19. 50	25. 40						
5. 48	18. 5	8. 28	.1403							19. 56	24. 35						
6. 3	9. 0	8. 41	.1406							20. 11	25. 30						
6. 9	11. 20	8. 56	.1404							20. 25	25. 0						
6. 13	10. 50	9. 7	.1409							20. 41	25. 40						
6. 24	11. 40	9. 26	.1404							21. 21	23. 10						
6. 29	7. 20	9. 50	.1438							21. 28	24. 15						
6. 33	7. 5	10. 3	.1445							21. 38	23. 0						
6. 53	15. 0	10. 13	.1442								***						
6. 58	15. 10	10. 25	.1432							22. 10	26. 30						
7. 18	20. 45	10. 44	.1417							22. 21	27. 10						
7. 38	19. 10	11. 11	.1406							22. 26	27. 0						
7. 48	21. 0	11. 44	.1409							22. 40	27. 50						
7. 56	20. 45	11. 56	.1405							22. 45	29. 30						
8. 8	21. 25	12. 6	.1410								***						
8. 32	21. 30	12. 15	.1407							23. 20	28. 10						
8. 53	22. 55	12. 34	.1412							23. 28	27. 10						
9. 26	21. 50	12. 45	.1408							23. 39	27. 0						
9. 36	20. 40	13. 5	.1410							23. 43	28. 0						
9. 43	17. 15	13. 21	.1405							23. 59	27. 5						
9. 50	20. 0	13. 32	.1411														
9. 56	22. 10	13. 50	.1408							Nov. 3							
10. 8	20. 55	14. 43	.1410							0. 0	20. 27. 5	0. 0	.1397	0. 0	.02623	0. 0	60. 2 61. 2
10. 13	21. 50	15. 11	.1399							0. 9	26. 50	0. 23	.1404	0. 21	.02632	1. 0	60. 3 61. 7
10. 21	21. 10	15. 52	.1406							0. 26	29. 0	0. 29	.1403		(†)	2. 0	60. 4 61. 9
10. 33	21. 30	16. 7	.1405								(†)		(†)	1. 0	.02652*	3. 0	60. 8 62. 1
10. 44	19. 45	16. 56	.1417							1. 0	27. 11*	1. 0	.1390*	3. 0	.02673*	9. 0	58. 9 60. 4
11. 3	21. 40	17. 14	.1415							1. 26	24. 0	1. 56	.1386	9. 0	.02612*	21. 30	56. 3 56. 6
11. 16	20. 30	17. 55	.1423							1. 36	26. 50	2. 24	.1394	10. 41	.02585		
11. 25	21. 20	18. 26	.1418							1. 48	25. 15	2. 33	.1402	11. 26	.02564		
11. 30	21. 5	18. 53	.1417							1. 55	27. 20	4. 26	.1411	16. 45	.02545		
11. 41	21. 25	19. 36	.1408							2. 0	26. 0	4. 43	.1398	22. 43	.02476		
11. 56	18. 20	19. 49	.1414							2. 13	28. 10	5. 3	.1398	23. 59	.02517		
11. 59	20. 55	19. 59	.1408							2. 29	27. 10	5. 21	.1406				
12. 13	23. 15	20. 34	.1410							2. 41	27. 40	5. 41	.1402				
12. 35	23. 5	21. 8	.1390							2. 56	26. 50	6. 12	.1386				
13. 28	26. 0	21. 29	.1401							2. 58	27. 40	6. 59	.1393				
13. 56	25. 50	21. 39	.1399							3. 12	25. 15	7. 22	.1401				
14. 9	25. 25	21. 54	.1405							3. 18	26. 0	7. 35	.1403				
14. 19	24. 40	22. 53	.1407							3. 24	24. 5	7. 53	.1428				
14. 34	24. 20	***	***							3. 43	25. 0	8. 3	.1416				
14. 44	27. 50	23. 21	.1395							3. 55	23. 55	8. 16	.1426				

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.
Nov. 3		Nov. 3							Nov. 3								
4. 10	20. 24. 20	8. 33	*1413						20. 16	20. 25. 30							
4. 26	23. 10	8. 43	*1424						20. 28	24. 45							
4. 42	24. 55	8. 57	*1413						20. 59	25. 20							
5. 3	22. 0	9. 18	*1412						21. 29	24. 45							
5. 21	23. 40	9. 34	*1404						21. 39	24. 20							
5. 35	20. 30	9. 56	*1404						21. 51	26. 0							
5. 41	19. 55	10. 18	*1426						21. 58	25. 0							
5. 54	20. 0	10. 26	*1421						22. 4	26. 30							
6. 11	17. 30	10. 35	*1428						22. 18	27. 50							
6. 24	18. 20	11. 14	*1419						22. 33	27. 0							
6. 29	18. 0	11. 29	*1409						22. 39	26. 0							
6. 56	20. 10	11. 48	*1417						22. 44	26. 20							
7. 1	20. 0	11. 54	*1413						22. 51	25. 35							
7. 21	22. 0	12. 8	*1418						23. 59	26. 5							
7. 33	22. 0	12. 23	*1411														
7. 43	19. 45	13. 18	*1414						Nov. 4	20. 26. 5	Nov. 4		Nov. 4		Nov. 4		
7. 51	19. 45	13. 56	*1404						0. 0	27. 30	0. 0	*1406	0. 0	*02517	0. 30	58. 5	59. 0
7. 58	16. 40	14. 17	*1411						1. 1	27. 30	1. 12	*1410	1. 7	*02546	5. 0	58. 8	59. 6
8. 9	16. 45	14. 36	*1406						1. 18	29. 40	1. 40	*1405	1. 41	*02543	8. 0	58. 0	57. 9
8. 23	20. 0	16. 11	*1413						1. 41	28. 10	2. 10	*1407	3. 54	*02632	21. 0	60. 6	62. 1
8. 33	16. 5	16. 21	*1410						1. 59	28. 20	2. 35	*1389	4. 57	*02584	22. 0	60. 8	62. 6
8. 53	21. 55	16. 50	*1421						2. 14	30. 30	2. 50	*1380	7. 13	*02563	23. 0	60. 8	62. 0
9. 17	20. 50	17. 10	*1418						2. 36	27. 35	3. 2	*1394	8. 39	*02542			
9. 26	19. 40	17. 28	*1409						2. 48	29. 20	3. 14	*1378	10. 23	*02535			
9. 56	19. 15	18. 6	*1403						2. 53	27. 25	3. 23	*1392	13. 55	*02580			
10. 6	16. 40	19. 5	*1418						2. 58	27. 30	3. 32	*1392	16. 24	*02586			
10. 20	18. 5	19. 53	*1418						3. 8	25. 50	3. 56	*1415	17. 57	*02606			
10. 41	27. 0	20. 53	*1410						3. 23	15. 40	4. 33	*1404	22. 4	*02642			
10. 56	23. 10	21. 26	*1411						3. 30	15. 0	5. 18	*1411	23. 59	*02666			
11. 11	24. 0	21. 53	*1402						3. 33	12. 15	6. 4	*1397					
11. 29	21. 25	22. 53	*1399						3. 41	13. 30	6. 19	*1422					
11. 53	19. 50	23. 59	*1406						4. 20	27. 10	6. 36	*1424					
12. 4	20. 20								4. 33	27. 30	6. 51	*1433					
12. 11	19. 50								4. 42	25. 20	7. 39	*1407					
12. 20	21. 45								5. 28	24. 20	8. 32	*1406					
12. 29	21. 30								5. 54	20. 40	8. 56	*1413					
12. 57	22. 50								6. 12	10. 10	9. 11	*1409					
13. 17	22. 0								6. 23	12. 55	9. 42	*1415					
13. 28	22. 55								6. 32	11. 5	10. 2	*1433					
13. 54	21. 55								7. 11	19. 50	10. 26	*1417					
14. 30	24. 55								7. 33	21. 10	12. 6	*1402					
14. 40	24. 20								7. 36	21. 10	14. 21	*1409					
14. 51	25. 30								7. 51	22. 10	14. 51	*1407					
15. 21	22. 0								8. 11	22. 35	15. 23	*1414					
15. 43	23. 0								8. 26	23. 5	15. 56	*1410					
15. 54	22. 25								9. 23	22. 10	17. 44	*1409					
16. 14	23. 5								9. 34	22. 30	18. 23	*1414					
16. 21	24. 20								9. 56	18. 25	18. 43	*1408					
16. 33	23. 30								10. 8	20. 30	19. 9	*1410					
16. 55	23. 0								10. 23	21. 45	19. 56	*1407					
17. 40	24. 10								10. 48	18. 25	20. 26	*1399					
17. 52	25. 50								11. 57	23. 25	20. 53	*1398					
17. 59	25. 55								12. 26	24. 40	21. 3	*1403					
18. 9	27. 20								12. 46	24. 35	21. 29	*1398					
18. 28	27. 10								13. 49	24. 55	22. 41	*1398					
18. 34	26. 30								14. 3	23. 55	22. 51	*1386					
18. 43	27. 25								14. 33	23. 30	22. 58	*1392					
19. 6	25. 5								14. 51	24. 20	23. 3	*1386					

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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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Nov. 4																	
14. 56	20. 26. 30																
15. 7	27. 25																
15. 27	25. 10																
15. 36	25. 10																
16. 9	26. 0																
16. 23	24. 5																
16. 55	22. 55																
17. 39	25. 0																
17. 55	25. 0																
18. 9	24. 5																
18. 27	24. 45																
18. 49	23. 20																
18. 56	23. 15																
19. 17	24. 0																
19. 26	23. 45																
19. 38	24. 10																
19. 56	23. 55																
20. 8	25. 0																
20. 29	24. 40																
20. 34	25. 25																
20. 53	24. 20																
21. 5	26. 5																
21. 14	25. 40																
21. 21	26. 0																
21. 38	24. 30																
21. 43	25. 10																
21. 50	24. 15																
22. 0	26. 10																
22. 23	26. 20																
22. 41	27. 30																
22. 53	27. 5																
23. 4	27. 30																
23. 29	26. 30																
23. 39	27. 10																
23. 43	27. 0																
23. 59	27. 50																
Nov. 5		Nov. 5	(†)	Nov. 5		Nov. 5			Nov. 5								
0. 0	20. 27. 50		0. 0	0. 0	02666	1. 0	62. 663. 0		19. 26	26. 20							
0. 23	26. 55	0. 41	1409	0. 43	02667	2. 0	62. 062. 9		19. 39	26. 55							
0. 56	28. 45	1. 42	1405	2. 33	02716	3. 0	62. 663. 5		20. 0	25. 20							
1. 59	27. 10	2. 9	1391	6. 41	02745	9. 0	61. 963. 7		20. 50	25. 0							
2. 18	25. 30	2. 41	1399	12. 50	02740	21. 0	60. 862. 6		21. 19	26. 30							
2. 26	25. 40	3. 26	1398	17. 56	02723	22. 0	60. 862. 0		22. 8	25. 50							
2. 36	24. 45	5. 32	1411	23. 40	02706	23. 0	61. 162. 1		22. 14	25. 10							
2. 56	25. 50	6. 11	1408		(†)				22. 38	25. 20							
3. 21	25. 55	6. 27	1412						22. 44	28. 30							
3. 55	23. 30	8. 4	1412						22. 59	29. 40							
4. 12	23. 55	8. 29	1420						23. 16	29. 15							
4. 32	25. 0	9. 4	1407						23. 33	30. 5							
5. 25	24. 0	9. 27	1408						23. 59	29. 55							
5. 37	24. 5	9. 54	1421														
6. 1	22. 45	10. 36	1406						Nov. 6								
6. 13	21. 0	11. 33	1410						0. 0	20. 29. 55	Nov. 6						
6. 26	21. 0	12. 14	1401						0. 28	31. 5	0. 32	1383	0. 55	(†)	0. 0	61. 162. 1	
6. 36	22. 55	12. 44	1402						0. 48	31. 15	1. 15	1393	3. 18	02756	1. 0	61. 362. 1	
6. 41	22. 55	12. 56	1407						1. 15	28. 30	1. 27	1399	3. 50	02771	2. 0	61. 162. 1	
6. 55	23. 10	15. 44	1407						1. 30	30. 5	1. 50	1396	4. 11	02806	3. 0	61. 162. 1	
									2. 25	27. 30	2. 13	1393	5. 13	02797	6. 0	60. 161. 1	
														02793	7. 0	60. 161. 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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.	
Nov. 6		Nov. 6		Nov. 6		Nov. 6			Nov. 6						Nov. 7			
2. 34	20. 26. 0	2. 43	*1400	6. 58	*02744	8. 0	60. 2	61. 1	22. 42	20. 25. 0								
2. 49	27. 25	3. 9	*1379	7. 27	*02738	9. 0	60. 0	60. 9	22. 56	27. 50								
2. 57	27. 15	3. 19	*1385	8. 10	*02712	11. 0	59. 7	60. 5	23. 8	26. 55								
3. 19	21. 5	3. 49	*1397	11. 8	*02677	12. 0	59. 7	60. 5	23. 59	29. 0								
3. 37	20. 0	3. 59	*1393	11. 23	*02686	12. 30	59. 7	60. 5										
3. 55	25. 20	4. 7	*1395	11. 41	*02663	21. 0	59. 9	60. 8										
4. 13	24. 30	4. 14	*1391	14. 25	*02672	22. 0	60. 0	61. 0	Nov. 7	20. 29. 0	Nov. 7	0. 0	Nov. 7	0. 0	Nov. 7	0. 0	60. 2	61. 2
4. 28	26. 5	4. 20	*1392	21. 24	*02657	23. 0	60. 0	61. 1	0. 11	29. 15	0. 16	*1407	0. 40	*02663	1. 0	59. 9	61. 1	
4. 39	24. 0	4. 33	*1383	23. 12	*02665				0. 20	28. 10	1. 34	*1396	2. 5	*02663	2. 0	60. 0	61. 1	
4. 45	24. 0	4. 40	*1387	23. 59	*02665				0. 41	29. 30	1. 44	*1399	2. 25	*02687	3. 0	60. 7	61. 7	
4. 53	23. 0	4. 52	*1379						0. 51	28. 50	2. 0	*1389	5. 51	*02703	9. 0	59. 6	61. 0	
5. 0	22. 35	4. 59	*1381						1. 20	29. 55	2. 54	*1404	9. 44	*02675	21. 0	59. 7	60. 3	
5. 12	24. 25	5. 6	*1389						1. 36	29. 5	3. 20	*1403	10. 14	*02650	22. 0	59. 7	60. 1	
5. 23	24. 30	5. 39	*1398						1. 51	30. 15	3. 29	*1399	14. 12	*02646	23. 0	59. 7	59. 9	
5. 31	25. 30	6. 19	*1407						2. 11	27. 15	4. 3	*1412	19. 0	*02614				
6. 27	22. 30	6. 44	*1409						2. 56	26. 0	5. 14	*1416	21. 36	*02620				
7. 9	23. 10	7. 44	*1406						3. 11	26. 50	5. 56	*1415		(†)				
7. 33	22. 50		(†)						3. 16	28. 20	6. 20	*1408						
7. 56	18. 0	7. 56	*1399						3. 22	28. 10	6. 35	*1415						
8. 20	22. 0	8. 14	*1410						3. 41	26. 0	7. 23	*1416						
8. 31	20. 5	8. 35	*1404						3. 57	26. 0	8. 38	*1411						
8. 43	20. 15	9. 6	*1403						4. 14	25. 10	9. 23	*1412						
8. 59	22. 0	9. 29	*1417						4. 34	25. 30	9. 56	*1433						
9. 26	21. 0	9. 53	*1407						4. 48	25. 0	10. 26	*1421						
9. 36	19. 15	10. 18	*1414						5. 24	24. 20	10. 34	*1421						
9. 53	19. 15	10. 51	*1406						5. 38	25. 10	10. 50	*1415						
10. 26	20. 10	10. 57	*1407						5. 56	25. 10	11. 14	*1410						
10. 51	19. 30	11. 26	*1398						6. 21	21. 5	11. 37	*1414						
11. 9	20. 0	11. 35	*1405						6. 39	23. 50	13. 56	*1414						
11. 26	26. 30	11. 44	*1402						6. 56	22. 55	15. 59	*1419						
11. 37	26. 30	12. 6	*1408						7. 15	22. 20	16. 26	*1415						
11. 51	23. 55	12. 36	*1402						7. 37	22. 55	16. 56	*1421						
11. 56	24. 0	13. 6	*1410						8. 30	23. 0	18. 59	*1426						
12. 23	23. 30	14. 3	*1406						8. 41	22. 25	20. 14	*1417						
12. 47	24. 45	15. 14	*1409						8. 59	22. 25	21. 3	*1405						
13. 26	23. 0	15. 38	*1404						9. 11	21. 40	21. 43	*1406						
14. 23	24. 15	17. 33	*1412						9. 28	18. 50		(†)						
14. 51	23. 10		***						9. 38	13. 10								
15. 10	23. 10	19. 27	*1411						9. 53	16. 45								
15. 43	25. 30	20. 33	*1401						10. 8	16. 15								
15. 53	25. 0	20. 45	*1396						10. 26	18. 0								
16. 12	25. 30	21. 6	*1397						10. 32	20. 5								
16. 38	24. 55		***						10. 44	20. 10								
16. 56	25. 10	21. 50	*1396						10. 58	21. 0								
17. 9	24. 30	22. 41	*1402						11. 18	21. 0								
17. 21	25. 0	23. 9	*1400						12. 4	23. 0								
17. 34	24. 10	23. 14	*1405						12. 11	24. 5								
17. 38	25. 0	23. 23	*1401						12. 19	23. 20								
17. 58	24. 30	23. 59	*1403						13. 41	23. 55								
18. 7	25. 0								13. 51	23. 20								
18. 28	23. 50								14. 15	24. 5								
18. 36	24. 10								14. 28	25. 0								
18. 40	23. 0								14. 51	24. 10								
19. 21	23. 30								15. 6	27. 0								
20. 10	22. 40								15. 23	26. 20								
20. 40	23. 40								15. 51	24. 20								
20. 51	23. 10								16. 11	24. 20								
20. 59	24. 30								16. 20	25. 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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Nov. 7 16. 43 17. 27 17. 53 18. 11 19. 23 19. 30 19. 55 20. 10 20. 41 21. 7 21. 38	20. 24. 30 24. 55 23. 40 23. 10 24. 5 23. 45 25. 0 24. 20 24. 25 23. 40 23. 55 (†)																
Nov. 8 1. 0 3. 0 4. 38 5. 59 6. 8 6. 20 6. 29 6. 43 7. 7 7. 14 7. 38 7. 46 7. 56 8. 15 8. 27 8. 56 9. 8 9. 26 9. 44 11. 12 11. 42 11. 58 12. 13 13. 10 13. 26 15. 53 16. 3 17. 2 17. 59 18. 44 19. 44 20. 6 20. 26 20. 59 21. 37 21. 44 21. 56 21. 59 22. 11 22. 13 22. 23 22. 25	(†) 20. 26. 2* 24. 18* 24. 10 23. 55 23. 0 23. 20 23. 5 23. 55 18. 50 18. 30 22. 10 19. 30 16. 55 18. 20 18. 30 21. 50 21. 10 21. 50 21. 10 23. 30 23. 0 23. 55 23. 10 23. 50 23. 20 24. 5 23. 50 24. 30 22. 55 23. 45 23. 0 22. 10 21. 55 22. 30 22. 10 22. 50 22. 50 21. 55 22. 20 23. 40 23. 55 22. 55	Nov. 8 1. 0 3. 0 4. 26 6. 24 6. 56 7. 33 7. 53 8. 13 8. 28 8. 36 9. 9 9. 33 10. 7 10. 37 11. 46 12. 10 17. 56 18. 24 18. 41 19. 3 19. 58 20. 15 20. 45 21. 51 23. 59	(†) *1409 *1410 *1418 *1419 *1408 *1411 *1419 *1409 *1409 *1406 *1402 *1410 *1406 *1412 *1409 *1416 *1414 *1417 *1413 *1415 *1412 *1413 *1409 *1413	Nov. 8 1. 0 3. 0 5. 57 10. 44 15. 18 21. 56 22. 55	(†) *02599 *02592 *02665 *02624 *02603 *02476 *02468 (†)	Nov. 8 0. 0 1. 0 2. 0 3. 0 5. 0 9. 0 21. 0 22. 0 23. 0	59. 4 59. 2 59. 2 59. 6 59. 9 60. 1 61. 5 62. 2 59. 3 60. 0 56. 8 57. 1 57. 0 57. 3										
Nov. 8 23. 47 23. 49 23. 59	20. 24. 0 25. 20 25. 20																
Nov. 9 0. 0 0. 27 0. 59 1. 20 1. 48 3. 4 3. 26 3. 37 4. 57 5. 42 5. 53 5. 58 6. 13 6. 33 6. 39 7. 0 7. 11 7. 36 7. 43 7. 55 8. 8 8. 15 8. 39 8. 56 9. 13 9. 26 9. 30 9. 49 10. 3 10. 11 10. 28 10. 41 10. 56 11. 21 11. 26 11. 44 12. 7 12. 14 13. 6 13. 44 13. 56 14. 3 14. 17 15. 41 15. 59 16. 11 16. 27 16. 41 17. 4 17. 42 17. 52 18. 32 18. 40	20. 25. 20 25. 20 26. 5 25. 0 25. 0 24. 15 24. 50 23. 50 23. 40 24. 20 25. 5 24. 50 25. 20 22. 50 20. 22. 50 19. 57. 0 19. 51. 45 20. 13. 30 16. 10 22. 5 20. 55 22. 20 21. 30 21. 30 18. 5 19. 50 18. 0 19. 5 17. 30 20. 0 16. 0 18. 5 18. 50 16. 20 17. 10 16. 0 16. 55 18. 50 18. 20 23. 50 22. 10 23. 0 22. 10 24. 10 23. 10 23. 20 22. 15 22. 15 23. 5 22. 0 22. 50 21. 55 22. 30	Nov. 9 0. 0 0. 30 1. 17 1. 35 2. 9 3. 12 3. 33 4. 32 4. 50 5. 26 5. 38 5. 50 5. 58 6. 6 6. 23 6. 33 6. 44 7. 8 7. 12 7. 18 7. 28 7. 41 7. 53 8. 13 8. 31 9. 3 9. 17 9. 32 9. 51 10. 1 10. 15 10. 33 11. 9 11. 23 11. 34 11. 53 12. 21 12. 50 13. 18 13. 39 13. 55 14. 19 14. 38 15. 50 16. 11 18. 44 20. 3 21. 8 21. 35 21. 44 22. 56 23. 26	*1413 *1417 *1416 *1419 *1414 *1418 *1413 *1418 *1424 *1421 *1417 *1423 *1413 *1414 *1397 *1400 *1393 *1422 *1416 *1421 *1405 *1402 *1385 *1405 *1403 *1409 *1426 *1427 *1415 *1419 *1403 *1416 *1404 *1407 *1406 *1408 *1402 *1405 *1399 *1408 *1406 *1409 *1406 *1411 *1415 *1417 *1414 *1409 *1400 *1401 *1396 *1390 *1398	Nov. 9 0. 0 1. 0 2. 0 3. 0 9. 0 21. 0 23. 0	0. 0 57. 3 57. 3 57. 6 57. 8 58. 0 56. 8 57. 2 53. 9 54. 8 54. 9 55. 8	Nov. 9 0. 0 1. 0 2. 0 3. 0 9. 0 21. 0 23. 0	(†) *02476 *02488 *02497 *02516 *02503 *02540 *02519 *02510 *02444 *02457 *02443 *02440 *02407 *02343 *02336 *02344 *02358	Nov. 9 0. 0 1. 0 2. 26 6. 19 6. 41 6. 52 7. 8 7. 43 8. 9 10. 20 10. 33 11. 12 13. 30 17. 4 21. 42 23. 6 23. 26 23. 59									

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Nov. 9 19. 39 19. 53 20. 36 21. 26 21. 33 21. 44 22. 13 22. 53 22. 57 23. 10 23. 27 23. 53 23. 59	20. 21. 20 22. 0 21. 35 23. 10 24. 30 24. 0 25. 30 29. 5 28. 50 31. 15 31. 15 29. 0 29. 25	Nov. 9 23. 34 23. 59	*1395 *1400						Nov. 10 18. 17 18. 26 19. 10 19. 26 19. 58 20. 15 20. 38 21. 7 21. 25 21. 33 21. 55 22. 8 22. 24 22. 40 22. 48 23. 3 23. 13 23. 56 23. 59	20. 22. 50 23. 30 22. 50 23. 40 23. 0 24. 30 23. 25 22. 40 23. 25 24. 40 24. 0 24. 5 26. 0 25. 45 27. 30 25. 20 27. 35 25. 50 26. 0							
Nov. 10 0. 0 0. 33 1. 21 1. 33 2. 2 2. 14 2. 43 3. 41 5. 46 6. 10 6. 29 6. 38 6. 59 7. 12 7. 29 8. 0 8. 54 9. 57 10. 8 10. 24 10. 53 11. 12 11. 26 11. 32 11. 44 12. 10 12. 26 12. 59 13. 14 13. 34 13. 59 14. 2 14. 17 14. 51 15. 7 15. 18 15. 55 16. 10 16. 43 16. 54 17. 14 17. 41 17. 50	20. 29. 25 30. 10 26. 15 26. 55 26. 0 27. 5 25. 15 25. 55 23. 0 24. 5 23. 10 23. 10 17. 10 18. 0 21. 40 22. 55 21. 50 21. 30 20. 50 21. 15 21. 30 26. 0 24. 10 24. 0 22. 10 22. 20 23. 20 21. 0 21. 20 22. 30 25. 50 28. 0 29. 40 25. 30 22. 50 22. 5 22. 45 23. 50 23. 0 23. 10 22. 0 22. 30 23. 15	Nov. 10 0. 0 1. 58 2. 9 2. 18 2. 27 3. 6 5. 56 6. 13 6. 33 6. 59 7. 14 7. 29 8. 24 8. 55 10. 56 11. 21 11. 37 12. 18 12. 52 13. 43 14. 13 14. 35 15. 2 15. 26 16. 9 17. 4 17. 56 19. 6 20. 26 20. 42 21. 9 22. 0 22. 23 22. 28 22. 51 22. 55 23. 15 23. 39	*1400 *1412 *1406 *1410 *1405 *1414 *1418 *1413 *1410 *1386 *1390 *1402 *1415 *1412 *1413 *1418 *1427 *1411 *1417 *1414 *1405 *1411 *1423 *1423 *1412 *1424 *1415 *1422 *1415 *1407 *1407 *1400 *1392 *1383 *1394 *1390 *1404 *1406 (†)	Nov. 10 0. 0 2. 50 6. 52 7. 20 10. 59 11. 44 13. 57 15. 11 16. 59 20. 12 22. 38 23. 12	*02358 *02415 *02437 *02463 *02440 *02416 *02421 *02403 *02417 *02474 *02480 *02493 (†)	Nov. 10 0. 0 1. 0 2. 0 3. 0 9. 0 21. 35	55. 3 55. 9 56. 4 56. 8 57. 1 58. 6	56. 5 57. 0 57. 5 58. 0 58. 0 60. 5	Nov. 11 0. 0 0. 20 0. 26 0. 42 1. 12 1. 39 1. 58 2. 12 2. 26 2. 40 2. 53 3. 3 3. 23 3. 29 3. 41 3. 47 3. 56 4. 9 4. 13 4. 26 4. 39 4. 48 4. 56 5. 18 5. 26 5. 41 5. 45 5. 56 6. 9 6. 26 6. 33 6. 41 6. 57 7. 11 7. 27 7. 38 7. 44	20. 26. 0 26. 55 25. 45 25. 45 26. 50 26. 0 27. 0 28. 20 27. 30 27. 55 26. 20 27. 5 25. 5 25. 55 23. 20 19. 0 16. 40 15. 5 15. 35 12. 10 19. 30 21. 0 18. 25 21. 20 20. 20 23. 30 23. 25 25. 5 23. 0 16. 40 15. 10 10. 55 21. 0 22. 50 19. 30 19. 10 20. 20	Nov. 11 0. 15 1. 7 1. 53 2. 36 2. 50 3. 7 3. 13 3. 38 3. 56 4. 6 4. 21 4. 27 4. 43 5. 4 5. 13 5. 34 5. 48 5. 54 6. 3 6. 9 6. 16 6. 25 6. 36 6. 56 7. 23 7. 38 7. 50 8. 3 8. 13 8. 25 8. 43 9. 26 9. 53 10. 3 10. 40	(†) (†) *02518* *02528 *02520 *02497 *02477 *02494 *02480 *02463 *02471 *02452 *02456 *02443 *02463	Nov. 11 1. 0 2. 35 6. 41 8. 41 9. 16 9. 56 10. 34 12. 10 12. 19 12. 57 19. 25 21. 29 23. 59	Nov. 11 1. 0 8. 30 21. 0 22. 0 23. 0	58. 6 58. 4 57. 2 57. 1 57. 2 58. 6 58. 8 58. 9 60. 2 60. 0 58. 6 58. 0 58. 8 58. 9		

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Nov. 11		Nov. 11							Nov. 12		Nov. 12		Nov. 12		Nov. 12		
8. 10	20. 14. 55	11. 26	'1407						0. 0	20. 26. 25	0. 0	'1403	0. 0	'02463	0. 0	56. 8	59. 3
8. 20	15. 0	12. 12	'1413						0. 26	25. 10	0. 21	'1405	0. 4	'02463	1. 0	56. 9	59. 4
8. 27	13. 50	12. 26	'1412						0. 49	25. 15		(†)		(†)	2. 0	57. 4	59. 8
8. 47	17. 35	12. 40	'1418						1. 3	28. 5	1. 0	'1405*	1. 0	'02489*	3. 0	57. 9	59. 8
8. 54	17. 55	13. 43	'1412						1. 42	25. 40	3. 0	'1395*	3. 0	'02521*	5. 0	58. 8	59. 8
9. 9	19. 20	14. 23	'1412						1. 54	26. 30	4. 0	'1412	8. 54	'02545	9. 0	59. 6	61. 0
9. 39	12. 30	14. 42	'1409						1. 59	26. 5	5. 10	'1412	10. 26	'02566	11. 0	60. 5	62. 0
9. 54	17. 0	14. 56	'1411							***	7. 4	'1418	13. 0	'02585	12. 0	60. 1	61. 5
9. 59	17. 50	15. 23	'1412						2. 54	27. 10	7. 56	'1414	20. 29	'02580	13. 0	59. 6	61. 3
10. 9	17. 35	15. 38	'1416						2. 59	26. 5	8. 39	'1422	21. 41	'02576	14. 0	59. 8	61. 6
10. 21	19. 0	17. 6	'1411						3. 8	26. 5	8. 55	'1416	23. 59	'02576	15. 0	59. 8	61. 1
10. 39	17. 40	17. 26	'1416						3. 20	22. 50	9. 8	'1423			21. 0	59. 8	60. 9
11. 23	24. 0	18. 11	'1410						3. 26	23. 10	9. 43	'1416			22. 0	59. 6	61. 0
11. 28	23. 20	18. 48	'1417						3. 37	22. 45	11. 13	'1413			23. 0	59. 7	60. 9
11. 37	23. 55	19. 11	'1410						3. 56	25. 0	11. 28	'1421					
11. 56	23. 5	19. 27	'1415						4. 11	24. 40	11. 53	'1421					
12. 4	23. 50	20. 3	'1416						5. 6	25. 5	12. 20	'1416					
12. 13	27. 20	21. 23	'1408						6. 39	22. 45	12. 40	'1422					
12. 43	28. 45	21. 43	'1399						6. 56	22. 45	13. 32	'1417					
13. 13	22. 45	22. 9	'1396						7. 23	23. 20	16. 53	'1419					
13. 36	22. 45	22. 26	'1401						7. 41	22. 30	17. 10	'1416					
13. 59	23. 55	22. 34	'1396						7. 57	20. 0	18. 41	'1419					
14. 13	23. 20	22. 56	'1396						8. 12	21. 40	18. 49	'1423					
14. 17	23. 20	23. 2	'1401						8. 26	21. 0	18. 55	'1419					
14. 26	24. 20	23. 9	'1396						8. 37	21. 5	19. 2	'1423					
14. 30	24. 0	23. 13	'1403						8. 53	19. 25	19. 8	'1419					
14. 39	24. 15	23. 18	'1397						9. 39	21. 10	19. 14	'1423					
14. 44	25. 30	23. 55	'1405						10. 33	21. 10	19. 29	'1425					
14. 53	24. 55	23. 59	'1403						11. 8	21. 30	19. 37	'1420					
14. 59	24. 55								11. 21	24. 0	19. 51	'1423					
15. 20	23. 25								11. 57	20. 40	21. 6	'1414					
15. 26	23. 45								12. 21	22. 35		***					
15. 52	23. 15								12. 39	23. 20	23. 11	'1409					
16. 55	24. 50								13. 2	22. 15	23. 23	'1402					
17. 6	23. 15								13. 9	22. 45	23. 59	'1406					
17. 59	24. 55								13. 53	22. 30							
18. 10	23. 40								14. 6	23. 5							
18. 17	24. 0								14. 58	22. 50							
18. 28	23. 25								15. 36	23. 20							
19. 3	23. 55								15. 46	23. 10							
19. 21	22. 45								16. 16	23. 55							
19. 36	23. 20								16. 41	23. 45							
19. 55	22. 30								17. 6	24. 45							
20. 47	22. 50								18. 50	23. 30							
21. 50	25. 0								18. 56	24. 20							
21. 57	25. 30								19. 2	23. 15							
22. 11	25. 10								19. 11	23. 50							
22. 24	25. 45									***							
22. 54	25. 30								19. 44	22. 40							
23. 3	26. 20								19. 55	23. 20							
23. 11	25. 50								20. 59	22. 55							
23. 13	26. 50								21. 11	21. 50							
23. 15	25. 55								21. 21	22. 45							
23. 33	25. 0								21. 29	22. 10							
23. 39	25. 50								22. 19	23. 15							
23. 50	25. 50								22. 29	24. 30							
23. 56	26. 55								22. 36	23. 55							
23. 59	26. 25								22. 55	24. 45							

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



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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Nov. 12									Nov. 13								
23. 4	20. 24. 25								13. 28	20. 20. 20	Nov. 13						
23. 13	25. 30								14. 8	23. 5							
23. 21	25. 30								14. 19	22. 50							
23. 26	27. 10								14. 39	24. 5							
23. 38	26. 25								14. 49	23. 55							
23. 42	26. 40								14. 58	24. 30							
23. 56	25. 30								15. 28	23. 50							
23. 59	25. 40								15. 42	24. 20							
									16. 17	24. 0							
									16. 24	23. 25							
Nov. 13	20. 25. 40	Nov. 13		Nov. 13		Nov. 13			16. 47	23. 35							
0. 0	25. 5	0. 0	*1406	0. 0	*02576	0. 0	60. 161. 0		17. 3	25. 10							
0. 20	26. 20	0. 25	*1410	0. 21	*02603	1. 0	60. 661. 1		17. 6	24. 0							
0. 24	26. 30	1. 4	*1406	4. 23	*02632	2. 0	60. 161. 1		17. 17	22. 45							
0. 41	26. 30	1. 28	*1410	5. 1	*02622	3. 0	60. 060. 9		17. 17	23. 32							
0. 48	27. 0	2. 33	*1409	5. 22	*02614	6. 0	58. 660. 0		17. 25	23. 25							
1. 8	26. 10	3. 22	*1399	6. 21	*02603	7. 0	58. 559. 8		17. 36	23. 5							
1. 26	27. 0	3. 44	*1407	8. 50	*02572	8. 0	58. 559. 8		17. 42	24. 15							
1. 41	26. 50	3. 55	*1402	10. 15	*02543	9. 0	58. 458. 7		17. 51	23. 40							
2. 41	27. 40	4. 7	*1402	13. 6	*02540	10. 0	58. 158. 6		18. 19	25. 5							
3. 3	26. 50	4. 14	*1406	13. 36	*02525	11. 0	58. 459. 0		18. 24	24. 0							
3. 21	26. 50	4. 18	*1402	17. 22	*02517	15. 0	57. 859. 0		18. 53	24. 20							
3. 29	25. 30	4. 34	*1406	21. 13	*02520	17. 0	57. 659. 0		19. 10	26. 5							
3. 53	24. 0	4. 40	*1398	22. 42	*02492	18. 0	57. 858. 3		19. 21	25. 50							
3. 59	24. 55	4. 57	*1410	23. 59	*02497	21. 0	58. 358. 1		19. 33	26. 45							
4. 10	24. 35	5. 9	*1397			22. 0	58. 358. 5		19. 56	25. 40							
4. 20	25. 10	5. 28	*1395			23. 0	57. 858. 0		20. 29	26. 25							
4. 27	25. 10	5. 46	*1400						20. 38	27. 30							
4. 36	26. 30	5. 59	*1392						20. 57	28. 0							
4. 43	25. 0	6. 13	*1404						21. 54	26. 20							
4. 57	30. 0	6. 26	*1394						22. 15	26. 30							
5. 12	27. 20	7. 8	*1409						22. 29	27. 45							
5. 25	24. 45	7. 26	*1407						22. 56	27. 20							
5. 39	23. 45	8. 13	*1412						23. 11	27. 35							
5. 54	25. 0	9. 4	*1409						23. 29	26. 20							
6. 5	22. 50	9. 18	*1409						23. 59	25. 30							
6. 9	22. 50	9. 39	*1403														
6. 20	27. 50	10. 4	*1417						Nov. 14		Nov. 14		Nov. 14		Nov. 14		
6. 41	23. 50	10. 26	*1412						0. 0	20. 25. 30	0. 0	*1401	0. 0	*02497	0. 0	58. 058. 2	
7. 2	23. 0	10. 38	*1418						0. 28	26. 25	1. 21	*1411	0. 52	*02510	1. 0	58. 359. 0	
7. 14	24. 10	10. 57	*1414						0. 44	25. 55	1. 43	*1401	1. 53	*02518	2. 0	58. 360. 0	
7. 29	22. 40	11. 10	*1406						1. 17	28. 30	2. 17	*1402	3. 14	*02543	3. 0	58. 259. 1	
7. 43	22. 10	11. 29	*1403						1. 28	27. 15	2. 29	*1406	7. 12	*02524	9. 0	57. 358. 1	
8. 24	22. 10	11. 44	*1406						1. 41	27. 55	2. 38	*1402	8. 55	*02505	21. 0	55. 456. 0	
8. 40	22. 30	12. 8	*1403						1. 56	27. 55	3. 14	*1413	12. 23	*02451	22. 30	55. 856. 6	
9. 8	21. 10	12. 56	*1403						2. 11	26. 0	3. 58	*1411	12. 40	*02463	23. 0	55. 956. 9	
9. 16	21. 15	13. 25	*1426						2. 14	26. 10	5. 28	*1416	13. 19	*02425			
9. 41	17. 15	13. 46	*1413						2. 43	24. 20	5. 59	*1412	14. 41	*02437			
9. 53	18. 10	14. 10	*1411						3. 8	23. 40	6. 26	*1414	21. 25	*02363			
10. 11	18. 0	14. 24	*1406						3. 26	22. 10	6. 38	*1411	23. 59	*02380			
10. 27	12. 30	14. 56	*1409						3. 54	24. 5	6. 53	*1412					
10. 42	13. 25	16. 26	*1410						4. 5	23. 40	7. 24	*1401					
10. 59	12. 20	16. 36	*1414						5. 14	24. 15	7. 40	*1402					
11. 19	16. 0	16. 49	*1412						5. 26	23. 45	7. 55	*1412					
12. 3	19. 15	17. 4	*1416						5. 44	24. 15	8. 9	*1414					
12. 9	19. 5	17. 9	*1412						6. 23	23. 55	8. 28	*1405					
12. 51	21. 10	17. 22	*1419						6. 37	24. 30	8. 45	*1406					
12. 57	20. 20	17. 29	*1415						6. 50	24. 5	9. 10	*1421					
13. 11	21. 0	17. 43	*1419						7. 10	20. 40	9. 32	*1406					

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Nov. 14		Nov. 14							Nov. 14								
7. 23	20. 21. 0	9. 49	*1407						23. 28	20. 25. 50							
7. 34	21. 0	10. 13	*1421						23. 55	25. 20							
7. 43	19. 40	10. 33	*1417						23. 59	25. 30							
7. 56	19. 15	10. 48	*1419														
8. 17	21. 40	11. 16	*1412						Nov. 15		Nov. 15		Nov. 15		Nov. 15		
8. 23	21. 50	12. 41	*1413						0. 0	20. 25. 30	0. 0	*1410	0. 0	*02380	0. 0	56. 2	57. 3
8. 56	15. 30	13. 9	*1425						0. 38	27. 0	0. 36	*1416	0. 43	*02411	1. 0	56. 8	57. 7
9. 8	16. 5	13. 54	*1408						1. 4	27. 15	1. 11	*1409	1. 56	*02460	2. 0	56. 9	58. 0
9. 15	17. 30	14. 0	*1412						1. 11	28. 30	1. 26	*1396	2. 30	*02444	3. 0	57. 2	58. 6
9. 44	19. 20	14. 6	*1410						1. 21	27. 0	1. 29	*1397	6. 8	*02453	9. 0	57. 4	58. 7
9. 57	17. 0	14. 24	*1412						1. 29	27. 25	1. 41	*1390	9. 14	*02443	21. 0	58. 6	60. 2
10. 3	16. 0	14. 41	*1407						1. 41	26. 30	1. 59	*1405	10. 12	*02437	22. 0	59. 3	61. 0
10. 28	18. 30	15. 23	*1412						1. 51	26. 30	2. 9	*1400	10. 41	*02440	23. 0	59. 3	61. 0
11. 12	20. 45	15. 32	*1408						2. 7	28. 35	2. 47	*1414	11. 12	*02433			
11. 44	18. 55	16. 28	*1421						2. 24	26. 55	4. 23	*1418	16. 55	*02460			
12. 28	20. 20	16. 56	*1417						2. 30	26. 55	4. 27	*1415	18. 26	*02460			
12. 51	29. 25	17. 8	*1419						2. 44	25. 50	5. 37	*1419	19. 59	*02476			
12. 56	29. 25	17. 14	*1414						2. 57	25. 50	5. 54	*1416	22. 57	*02500			
13. 23	21. 0	18. 17	*1417						3. 13	25. 0	8. 13	*1419	23. 59	*02520			
13. 32	21. 40	18. 28	*1416						3. 43	26. 5	8. 25	*1425					
13. 46	20. 25	18. 44	*1420						3. 51	25. 20	8. 41	*1420					
13. 53	21. 10	19. 6	*1416						3. 58	25. 30	9. 8	*1421					
14. 13	19. 30		***						4. 12	24. 0	9. 25	*1434					
14. 28	21. 0	19. 39	*1411						4. 25	24. 5	9. 38	*1429					
14. 41	23. 40	19. 52	*1417						4. 32	23. 20	9. 54	*1428					
14. 56	23. 45	20. 14	*1418						4. 53	24. 45	10. 26	*1417					
15. 11	23. 10	20. 21	*1413						4. 57	24. 35	11. 8	*1425					
15. 17	23. 30	20. 33	*1414						5. 14	25. 10	11. 17	*1422					
15. 34	23. 0	20. 53	*1418						5. 26	24. 45	11. 27	*1428					
15. 56	23. 30	21. 12	*1412						5. 38	25. 0	11. 59	*1418					
16. 11	21. 50	21. 44	*1407						5. 46	24. 50	12. 33	*1420					
16. 33	22. 0	22. 14	*1407						5. 57	23. 30	12. 53	*1415					
16. 41	22. 55	22. 28	*1403						6. 13	22. 50	13. 53	*1418					
17. 9	24. 0	22. 56	*1403						6. 39	23. 30	14. 23	*1416					
17. 12	23. 30	23. 8	*1408						6. 55	22. 55	15. 14	*1421					
17. 40	23. 20	23. 59	*1410						7. 29	23. 5	16. 9	*1421					
17. 43	24. 30								7. 54	22. 0	16. 29	*1418					
18. 11	23. 30								8. 8	20. 25	16. 37	*1423					
18. 14	24. 30								8. 21	17. 20	16. 44	*1420					
18. 29	24. 0								8. 41	22. 0	17. 28	*1428					
19. 3	27. 0								9. 0	22. 0	18. 21	*1419					
19. 17	27. 25								9. 13	16. 55	19. 13	*1418					
19. 36	26. 30								10. 3	19. 20	19. 28	*1420					
19. 41	27. 5								10. 21	18. 25	19. 41	*1416					
20. 8	26. 50								10. 51	20. 50	19. 53	*1422					
20. 12	26. 10								11. 3	19. 45	19. 57	*1416					
20. 23	26. 10								11. 21	15. 10	20. 11	*1423					
20. 34	27. 0								11. 56	18. 5		***					
20. 56	25. 30								12. 7	19. 20	20. 49	*1415					
21. 24	25. 45								12. 39	19. 30	21. 28	*1417					
21. 38	24. 30								13. 29	23. 10	21. 48	*1412					
21. 43	25. 0								13. 41	22. 40	22. 56	*1403					
21. 52	25. 0								13. 56	22. 40	22. 29	*1410					
21. 58	26. 40								14. 3	23. 20	23. 50	*1407					
22. 18	26. 0								14. 22	23. 30	23. 59	*1411					
22. 26	25. 10								14. 42	23. 20							
22. 41	24. 50								15. 9	24. 20							
22. 46	23. 30								15. 14	23. 0							

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Nov. 15																	
15. 37	20. 22. 30																
15. 51	22. 30																
15. 57	23. 10																
16. 10	22. 30																
16. 26	24. 0																
16. 33	25. 15																
16. 39	24. 55																
17. 6	26. 0																
17. 39	25. 25																
17. 54	25. 30																
17. 59	25. 55																
18. 9	25. 20																
18. 21	26. 5																
18. 36	25. 25																
18. 42	24. 30																
19. 26	21. 45																
19. 38	22. 50																
19. 46	22. 25																
19. 51	21. 15																
19. 58	23. 40																
20. 9	22. 5																
20. 17	23. 45																
20. 24	23. 5																
20. 27	23. 35																
20. 32	22. 40																
20. 41	22. 20																
20. 47	22. 35																
20. 54	21. 50																
21. 24	23. 55																
21. 41	23. 45																
22. 23	26. 50																
22. 29	26. 40																
22. 39	27. 40																
22. 53	27. 5																
22. 59	27. 0																
23. 14	29. 10																
23. 25	28. 20																
23. 39	29. 5																
23. 52	30. 40																
23. 59	30. 10																
Nov. 16		Nov. 16		Nov. 16		Nov. 16			Nov. 16								
0. 0	20. 30. 10	0. 0	*1411	0. 0	*02520	0. 0	59. 25. 59. 8		0. 0	20. 26. 25	0. 0	*1415	0. 0	*02314	0. 0	55. 4	55. 1
0. 39	28. 25	0. 9	*1412	1. 53	*02544	1. 0	59. 56. 0		0. 34	26. 10	1. 19	*1419	3. 12	*02343	1. 0	55. 7	56. 8
2. 16	25. 50	0. 30	*1409	4. 30	*02560	2. 0	59. 56. 0		1. 1	27. 25	2. 51	*1420	8. 0	*02332	2. 0	55. 6	56. 0
2. 24	25. 5		(†)	5. 14	*02548	3. 0	59. 60. 0		1. 26	26. 50	6. 41	*1426	12. 28	*02294	3. 0	55. 7	56. 1
2. 33	25. 20	1. 0	*1413*	5. 44	*02568	9. 0	57. 8. 58. 0		1. 38	26. 55	10. 40	*1422	18. 54	*02278	9. 0	54. 8	56. 0
2. 59	24. 50	3. 0	*1420*	6. 43	*02547	21. 0	53. 9. 53. 8		2. 3	25. 25	11. 17	*1429	22. 40	*02283	21. 30	54. 9	55. 7
3. 9	24. 10	3. 38	*1419		(†)	22. 0	54. 1. 54. 3		2. 13	25. 55	11. 46	*1424		(†)			
3. 53	24. 0	4. 24	*1411	9. 0	*02497*	23. 0	54. 4. 54. 7		2. 41	25. 0	16. 14	*1429					
4. 13	19. 45	5. 6	*1420	12. 10	*02465				2. 59	24. 50	16. 36	*1425					
4. 21	19. 45	5. 39	*1396	16. 19	*02440				3. 17	23. 40	17. 9	*1430					
4. 59	24. 50	6. 13	*1412	19. 4	*02388				3. 44	24. 0	17. 25	*1427					
5. 8	24. 5	7. 3	*1413	23. 2	*02311				4. 28	23. 5	17. 51	*1433					
5. 45	12. 20	7. 29	*1410	23. 59	*02314				9. 29	21. 50	19. 12	*1427					
5. 52	12. 35	7. 53	*1413						9. 51	20. 5	19. 56	*1431					
6. 44	22. 10	8. 29	*1411						10. 23	21. 0	21. 39	*1426					
7. 43	22. 50	9. 43	*1418						10. 41	21. 0		(†)					
									11. 3:	18. 40							
									11. 31	20. 20							
									11. 38	20. 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.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Nov. 17									Nov. 18								
12. 41	20. 22. 20								18. 26	20. 21. 50							
12. 52	21. 50								18. 56	22. 30							
13. 8	22. 15								19. 6	22. 30							
13. 18	22. 5									(†)							
13. 56	22. 50								21. 0	21. 28*							
14. 38	22. 0								23. 2	25. 35							
15. 51	22. 40								23. 14	25. 35							
16. 6	22. 10								23. 23	26. 5							
16. 26	23. 45								23. 37	24. 30							
16. 57	23. 0								23. 41	24. 30							
17. 23	23. 40								23. 51	25. 15							
17. 51	21. 55								23. 59	24. 55							
17. 56	22. 0																
18. 12	21. 30								Nov. 19		Nov. 19		Nov. 19		Nov. 19		
18. 26	22. 45								0. 0	20. 24. 55	0. 0	'1430	(†)	0. 0	53. 3	54. 0	
18. 30	22. 15								0. 26	24. 40	0. 37	'1430	1. 0	'02196*	1. 0	54. 0	54. 4
19. 20	23. 0								0. 30	24. 0	1. 34	'1434	3. 0	'02214*	3. 0	54. 5	55. 0
19. 55	22. 30								0. 51	24. 10	1. 53	'1431	9. 0	'02274*	9. 0	53. 5	54. 0
20. 36	23. 10								0. 57	25. 45	2. 23	'1436	11. 30	'02212	21. 0	51. 3	52. 3
20. 51	22. 50								1. 7	25. 25	2. 44	'1428	12. 29	'02184	22. 0	51. 3	52. 3
21. 26	23. 20								1. 23	26. 40	3. 43	'1429	12. 42	'02195	23. 0	50. 7	51. 3
21. 48	24. 0								1. 31	25. 40	3. 56	'1435	13. 0	'02180			
22. 15	25. 30								1. 40	25. 55	4. 13	'1429	15. 42	'02176			
22. 26	25. 5								1. 51	25. 0	4. 28	'1435	21. 0	'02137			
22. 43	25. 25								2. 3	24. 50	4. 43	'1435	22. 26	'02118			
	(†)								2. 8	26. 0	4. 59	'1445	23. 59	'02090			
									2. 13	25. 20	5. 11	'1432					
Nov. 18	(†)	Nov. 18	(†)	Nov. 18		Nov. 18			2. 26	27. 50	5. 32	'1431					
0. 59	20. 25. 50	0. 0	'1429*	0. 0	'02280*	0. 0	55. 0	55. 9	2. 43	26. 40	5. 45	'1443					
1. 40	25. 30	0. 10	'1430	9. 0	'02293*	9. 0	55. 0	55. 4	3. 4	24. 10	6. 9	'1421					
2. 21	24. 40	0. 59	'1431	21. 0	'02201*	21. 0	52. 9	53. 0	3. 13	24. 35	6. 18	'1426					
2. 43	25. 0	2. 48	'1429			22. 0	52. 8	52. 8	3. 24	24. 5	6. 26	'1421					
3. 11	24. 5	3. 6	'1422			23. 0	52. 5	52. 1	3. 43	25. 10	6. 33	'1426					
3. 26	24. 30	4. 26	'1430						3. 50	24. 55	6. 50	'1421					
4. 33	23. 25	5. 29	'1434						4. 11	26. 20	7. 14	'1428					
5. 15	23. 20	8. 11	'1432						4. 53	24. 30	7. 32	'1424					
5. 26	22. 50	8. 33	'1433						5. 7	26. 50	7. 53	'1424					
6. 29	22. 30	9. 56	'1429						5. 21	25. 55	8. 3	'1407					
7. 25	22. 55	10. 13	'1431						5. 36	25. 25	8. 32	'1382					
7. 43	22. 0	10. 39	'1424						5. 53	28. 0	9. 17	'1408					
8. 14	22. 20	11. 6	'1429						6. 11	25. 20	9. 36	'1404					
9. 44	20. 40	11. 33	'1422						6. 20	26. 15	9. 48	'1413					
10. 10	19. 20	11. 56	'1426						6. 39	25. 5	9. 58	'1427					
10. 26	19. 45	17. 21	'1431						6. 47	23. 50	10. 13	'1415					
10. 36	19. 45	19. 23	'1433						7. 3	23. 40	10. 44	'1419					
10. 56	20. 10	19. 46	'1437						7. 21	24. 15	11. 2	'1415					
11. 11	20. 0	20. 2	'1432						7. 38	23. 10	11. 9	'1421					
11. 23	21. 20	20. 12	'1435						7. 51	23. 20	11. 38	'1415					
11. 39	20. 35	20. 33	'1430						7. 57	22. 20	11. 59	'1415					
13. 3	22. 45	21. 25	'1425						8. 6	9. 10	12. 29	'1423					
13. 56	22. 45	21. 44	'1427						8. 11	9. 30	12. 48	'1417					
14. 9	22. 20	22. 45	'1431						8. 14	8. 15	12. 56	'1421					
15. 11	22. 25	23. 59	'1430						8. 20	8. 40	13. 13	'1411					
15. 41	21. 55								8. 29	12. 40	13. 33	'1418					
16. 42	22. 5								8. 38	10. 30	13. 59	'1415					
17. 36	21. 20								8. 51	14. 0	14. 12	'1422					
18. 6	22. 15								9. 3	13. 5	14. 41	'1415					
									9. 8	13. 40	14. 56	'1421					

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.  
 November 18, 21, 22, and 23. The photographic traces for Vertical Force on these days were 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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Nov. 19		Nov. 19							Nov. 19								
9. 28	20. 18. 5	15. 25	*1425						20. 55	20. 21. 10							
9. 32	18. 10	15. 43	*1420						21. 5	22. 10							
9. 39	19. 20	15. 56	*1425						21. 24	21. 0							
9. 51	19. 25	16. 4	*1420						21. 27	21. 20							
9. 57	22. 0	16. 18	*1421						21. 33	20. 50							
10. 5	23. 5	16. 56	*1433						21. 43	22. 5							
10. 10	21. 0	17. 20	*1424						21. 53	21. 40							
10. 27	18. 15	17. 48	*1422						22. 7	23. 0							
10. 39	18. 15	18. 44	*1432						22. 11	22. 40							
10. 51	19. 0	19. 12	*1422						22. 15	23. 10							
10. 57	18. 20	19. 23	*1426						22. 24	22. 5							
11. 3	19. 10	19. 26	*1421						22. 27	23. 0							
11. 9	17. 55	19. 33	*1428						22. 29	22. 50							
11. 23	19. 0	19. 43	*1424						22. 32	24. 25							
11. 27	18. 20	20. 0	*1428						22. 36	22. 40							
11. 39:	18. 0	20. 12	*1422							(†)							
11. 53	19. 55	20. 18	*1426						23. 51	27. 5							
12. 14	19. 35	20. 41	*1422						23. 59	27. 45							
12. 33	20. 15	21. 9	*1427														
12. 51	18. 0	21. 41	*1421														
12. 58	18. 40		***						Nov. 20		Nov. 20		Nov. 20		Nov. 20		
13. 24	17. 25	22. 40	*1421						0. 0	20. 27. 45	0. 0	*1417	0. 0	*02090	0. 0	50. 6	51. 0
13. 36	17. 45		(†)						0. 7	26. 55	0. 5	*1419	1. 14	*02104	1. 0	51. 5	52. 6
13. 44	19. 10	23. 56	*1416						0. 11	27. 0	0. 14	*1402	3. 44	*02122	2. 0	51. 7	52. 8
13. 59	19. 30	23. 59	*1417						0. 17	23. 50	0. 20	*1418	4. 26	*02132	3. 0	51. 8	53. 0
14. 7	20. 55								0. 27	24. 55	0. 22	*1412	7. 54	*02123	9. 0	51. 4	52. 5
14. 17	20. 55								0. 31	22. 25	0. 36	*1425	8. 10	*02129	21. 0	50. 3	50. 5
14. 36	23. 5									***		(†)	8. 28	*02105	22. 0	50. 1	50. 9
14. 51	21. 20								0. 49	23. 50	1. 0	*1429	9. 26	*02132	23. 0	50. 2	50. 4
15. 21	21. 20								1. 21	24. 35	1. 37	*1432	10. 15	*02076			
15. 37:	22. 15								1. 53	27. 50	1. 59	*1432	11. 11	*02092			
15. 51	21. 55								2. 10	27. 10	2. 23	*1428	13. 0	*02065			
16. 0	23. 50								2. 38	27. 20	2. 36	*1430	13. 36	*02076			
16. 11	22. 0								2. 59:	27. 55	2. 53	*1428	19. 45	*02040			
16. 27	20. 35								3. 53	21. 25	3. 4	*1428	22. 44	*02013			
16. 50	22. 45								4. 6	22. 0	3. 32	*1406	23. 50	*02035			
17. 0	21. 55								4. 25	25. 5	3. 55	*1407	23. 56	*02022			
	***								4. 28	25. 5	4. 19	*1424		(†)			
17. 28	23. 50								4. 46	27. 10	4. 37	*1421					
17. 36	23. 0								5. 11	24. 55	4. 57	*1426					
17. 39	23. 20								5. 42	24. 55	5. 41	*1426					
17. 54	21. 55								5. 53	25. 10	5. 54	*1429					
17. 58	22. 10								6. 20	23. 40	6. 9	*1420					
18. 16	20. 25								6. 33	20. 50	6. 26	*1424					
18. 28	21. 45								7. 6	23. 5	6. 36	*1419					
18. 44	20. 50								7. 21	22. 40	6. 55	*1429					
18. 56	20. 55								7. 38	20. 0	7. 13	*1426					
19. 13	19. 20								7. 53	16. 5	7. 38	*1429					
19. 24	20. 55								8. 12	20. 55	7. 56	*1420					
19. 27	19. 45								8. 28	19. 40	8. 26	*1431					
19. 33	21. 30								8. 53	12. 50	8. 59	*1411					
19. 56	21. 0								8. 59	11. 55	9. 23	*1426					
20. 3	21. 10								9. 13	10. 0	9. 43	*1467					
20. 14	20. 10								9. 36	19. 10	10. 23	*1428					
20. 26	21. 15								9. 59	17. 55	11. 4	*1418					
20. 28	20. 55								10. 33	10. 55	11. 40	*1415					
20. 44	21. 0								10. 53	14. 30	12. 21	*1426					
20. 47	22. 40								11. 5	16. 20	12. 32	*1425					
									11. 41	17. 0	12. 46	*1429					

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Nov.20		Nov.20							Nov.21		Nov.21						
11. 56	20. 18. 50	13. 13	*1414						2. 3	20. 25. 40	3. 49	*1438					
12. 14	16. 0	13. 32	*1419						2. 39	25. 40	4. 18	*1431					
12. 23	17. 5	13. 53	*1414						3. 8	24. 35	4. 56	*1432					
12. 29	16. 40		***						3. 26	25. 10	5. 11	*1437					
12. 41	16. 50	15. 11	*1424						3. 51	23. 55	5. 53	*1433					
12. 53	17. 55	15. 32	*1423						4. 14	23. 10	6. 14	*1420					
13. 4	15. 0	15. 58	*1414						4. 25	22. 30	6. 41	*1434					
13. 23	14. 30	16. 28	*1421						5. 28	24. 10	7. 2	*1429					
13. 40	21. 50	16. 46	*1417						5. 59	22. 50	7. 33	*1434					
13. 56	23. 0	18. 12	*1427						6. 21	15. 0	8. 41	*1434					
14. 8	22. 50	18. 50	*1427						6. 43	20. 55	9. 18	*1430					
14. 20	24. 5		***						6. 53	20. 55	10. 2	*1431					
14. 28	23. 20	19. 6	*1431						6. 57	20. 20	10. 16	*1435					
14. 41	23. 40	19. 17	*1428						7. 16	20. 40	10. 36	*1430					
15. 24	21. 55	19. 36	*1430						7. 33	22. 0	10. 51	*1430					
15. 52	23. 40	20. 6	*1425						8. 7	22. 5	11. 4	*1434					
16. 3	23. 20	21. 56	*1425						8. 18	22. 45	11. 43	*1427					
16. 10	24. 0		***						8. 40	21. 30	12. 0	*1428					
16. 16	23. 55	22. 43	*1401						8. 58	21. 45	12. 13	*1431					
16. 38	26. 0		***						9. 12	20. 55	12. 26	*1427					
16. 55	25. 50	23. 28	*1421						10. 5	20. 50	12. 43	*1430					
17. 13	23. 30		***						10. 14	20. 0	13. 13	*1429					
17. 32	22. 40	23. 51	*1417						10. 42	21. 55	16. 23	*1435					
17. 44	23. 15	23. 59	*1421						10. 56	20. 20	19. 8	*1436					
17. 56	22. 45								11. 21	22. 0	20. 48	*1432					
18. 26	21. 50								11. 33	22. 0	21. 43	*1426					
18. 41	22. 55								11. 51	21. 20	22. 41	*1433					
18. 44	22. 20								11. 58	21. 35	22. 58	*1429					
18. 56	23. 10								12. 9	22. 50	23. 59	*1431					
19. 3	22. 30								12. 26	22. 0							
19. 14	23. 0								12. 35	22. 30							
19. 43	21. 55								12. 47	23. 10							
20. 21	21. 30								13. 23	22. 40							
20. 56	22. 15								13. 38	23. 35							
	(†)								13. 43	23. 35							
21. 0	21. 16*								13. 49	23. 0							
21. 56	23. 20								13. 55	23. 55							
22. 8	24. 55								13. 59	23. 5							
	***								14. 19	23. 0							
22. 50	24. 50								14. 26	23. 30							
22. 56	23. 30								14. 33	23. 30							
23. 4	24. 45								14. 55	24. 40							
23. 9	24. 10								15. 9	23. 55							
23. 12	25. 0								15. 26	23. 40							
23. 20	24. 15								15. 29	22. 45							
23. 27	26. 10								15. 41	23. 30							
23. 41	31. 10								16. 0	22. 50							
23. 47	28. 0								16. 8	23. 25							
23. 59	30. 25								16. 33	22. 45							
									16. 53	23. 10							
Nov.21		Nov.21		Nov.21		Nov.21			17. 11	22. 40							
0. 0	20. 30. 25	0. 0	*1421	1. 0	*02033*	0. 0	50. 7	50. 9	17. 28	23. 0							
0. 12	27. 55	0. 9	*1413	3. 0	*02052*	1. 0	51. 1	51. 9	17. 40	22. 40							
	(†)		(†)	9. 0	*02066*	3. 0	51. 5	51. 9	19. 28	22. 30							
1. 0	28. 18*	1. 0	*1429*	21. 0	*02007*	9. 0	52. 0	52. 4	20. 27	21. 40							
1. 12	24. 45	1. 43	*1429			21. 0	51. 7	52. 9	20. 37	22. 0							
	***	2. 32	*1431			22. 0	51. 7	52. 9	20. 59	21. 45							
1. 38	23. 45	3. 14	*1430			23. 0	51. 7	52. 9	22. 33	24. 30							

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Nov.21									Nov.22								
22.43	20. 26. 30								19.32	20. 20. 55							
22.59	25. 0								20. 5	21. 50							
23.15	26. 10								20. 9	22. 20							
23.28	25. 30								20.17	21. 50							
23.41	25. 30								20.33	21. 10							
23.53	27. 0								21. 8	21. 30							
23.59	26. 25								21.33	22. 25							
									21.42	23. 30							
Nov.22		Nov.22		Nov.22		Nov.22			21.55	23. 0							
0. 0	20. 26. 25	0. 0	*1431	1. 0	*02037*	0. 0	52.0	53.1	22. 2	24. 0							
0.50	25. 35	0.41	*1436	3. 0	*02067*	1. 0	52.0	53.1	22. 9	23. 30							
0.56	26. 5	1.41	*1432	9. 0	*02062*	2. 0	52.4	53.6	22.17	24. 35							
1. 9	25. 50	2.46	*1440	21. 0	*02024*	3. 0	52.5	53.5	22.26	24. 20							
1.28	23. 40	5. 8	*1435			9. 0	52.6	53.7	22.43	25. 25							
4. 9	23. 0	5.54	*1443			21. 0	52.1	53.0	22.58	25. 0							
4.27	23.50	6.26	*1435			22. 0	52.2	53.0	23.24	25. 55							
4.37	23.20	6.56	*1437			23. 0	53.1	54.0	23.33	25. 25							
4.54	23. 10	7.12	*1433						23.53	25. 40							
5.10	19.50	7.38	*1439						23.57	24. 55							
5.24	18.50	7.53	*1435						23.59	25. 15							
5.34	19. 10	8. 3	*1439														
5.41	19. 0	8.28	*1433						Nov.23		Nov.23		Nov.23		Nov.23		
6.23	23. 5	9.26	*1436						0. 0	20. 25. 15	0. 0	*1422	1. 0	*02145*	0. 0	54.4	55.3
6.34	22. 20	10. 6	*1432						0.12	24. 30	0.30	*1419	3. 0	*02229*	1. 0	55.9	56.8
6.41	22. 35	11.45	*1435						0.27	25. 40		(†)	9. 0	*02272*	2. 0	56.1	57.5
6.49	22. 5	12.41	*1429						1.13	25. 40	1. 0	*1429*	21. 0	*02268*	3. 0	55.8	57.0
6.56	22.30	13.35	*1440						1.54	24.50	2. 8	*1432			9. 0	56.7	58.0
7. 8	20.45	14.21	*1433						7.23	22.55	3. 0	*1436			21. 0	55.8	56.6
7.17	19. 0	14.50	*1431						8. 6	22.30	5.41	*1435			22. 0	55.2	55.5
7.54	20. 10	18.23	*1435						8.32	22.50	9. 3	*1429			23. 0	54.4	54.4
7.59	19.50	18.50	*1433						9.44	22. 5	12.56	*1426					
8.37	21.15	19.22	*1436						12.30	22.25	15.59	*1428					
8.54	21. 10	19.40	*1432						13.43	23. 0	16.26	*1425					
9. 6	20. 10	19.58	*1437						14. 6	23.50	17. 6	*1430					
9.17	20.30	20. 4	*1432						14.19	23.25	17.36	*1429					
10.16	20.15	20.12	*1438						14.51	23.40	18.26	*1430					
11.26	20.45	20.18	*1432						15. 8	25. 5	21.11	*1426					
11.55	19.55	21.30	*1428						15.21	24.10		(†)					
12.44	22.20	21.57	*1426						15.38	23.45							
13. 7	26. 0		***						15.50	24.45							
13.55	20.30	22.32	*1429						15.59	24.25							
14. 7	21. 5	23.30	*1419						16.18	26.30							
14.28	23.20	23.59	*1422						16.38	25.50							
14.41	23.30								16.55	23.45							
14.57	22.20								17.24	22.50							
15.11	23.10								18. 0	23. 0							
15.58	22.30								18.11	22.30							
16.20	22.50								20. 8	22. 0							
16.41	21.45								21.11	22.30							
17.13	22.40									(†)							
17.23	22.20								Nov.24		Nov.24		Nov.24		Nov.24		
17.33	22.50									(†)		(†)		(†)	0. 0	54.0	54.0
17.43	22. 0								1. 0	20. 25. 48*	1. 0	*1431*	1. 0	*02210*	1. 0	54.0	53.9
18.16	22.40								2.51	24.30	3. 0	*1429*	3. 0	*02205*	2. 0	53.5	53.6
18.26	21.55								3. 3	24.10	6.14	*1432	5.11	*02214	3. 0	53.4	53.6
18.54	22.10								3.19	24.30	9. 8	*1430	8.52	*02257	4. 0	54.1	55.0
19. 7	21.30								8.32	22.30	9.24	*1435	16. 6	*02298	9. 0	55.2	56.6
19.23	21.25																

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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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Nov. 24		Nov. 24		Nov. 24		Nov. 24			Nov. 25		Nov. 25		Nov. 25		Nov. 25		
8. 41	20. 21. 20	11. 21	*1429	21. 51	*02300	21. 40	56. 5	57. 7	18. 22	20. 22. 45							
9. 6	21. 55	12. 9	*1430	23. 59	*02277				18. 33	23. 0							
9. 21	19. 30	12. 48	*1427						19. 3	22. 35							
10. 4	21. 10	19. 37	*1434						19. 11	23. 0							
10. 32	21. 0	21. 28	*1425						19. 41	22. 20							
10. 56	19. 45	22. 39	*1425						20. 0	22. 50							
11. 9	20. 50	22. 53	*1430						20. 11	22. 30							
11. 29	20. 5	23. 26	*1429						20. 42	24. 5							
12. 4	21. 20	23. 59	*1431						20. 54	23. 10							
12. 41	20. 50								21. 8	23. 45							
12. 57	22. 5								21. 11	23. 10							
13. 14	22. 0								21. 53	23. 35							
13. 29	22. 50								22. 6	25. 10							
13. 51	22. 20								22. 39	23. 15							
14. 24	23. 25								22. 43	24. 20							
14. 45	22. 50								22. 49	23. 0							
14. 58	23. 30								22. 55	23. 40							
15. 17	23. 5								22. 58	25. 10							
15. 43	23. 45								23. 8	25. 15							
16. 3	23. 5								23. 11	24. 0							
17. 42	23. 0									***							
17. 53	22. 25								23. 24	26. 15							
21. 12	21. 55								23. 27	27. 50							
22. 44	24. 0								23. 29	27. 30							
22. 53	25. 10								23. 48	29. 45							
23. 59	25. 10								23. 59	28. 20							
Nov. 25		Nov. 25		Nov. 25		Nov. 25			Nov. 26		Nov. 26		Nov. 26		Nov. 26		
0. 0	20. 25. 10	0. 0	*1431	0. 0	*02277	0. 5	56. 5	57. 7	0. 0	20. 28. 20	0. 0	*1436	(†)	0. 0	55. 2	56. 0	
1. 27	25. 0	1. 35	*1432	1. 14	*02296	8. 45	55. 7	56. 9	0. 12	26. 55	0. 33	*1423	1. 0	*02293*	1. 0	55. 8	56. 7
3. 26	23. 20	4. 12	*1430	4. 12	*02318	21. 0	55. 0	56. 0	0. 21	28. 0	0. 39	*1411	3. 0	*02443*	2. 0	55. 9	57. 0
4. 1	23. 35	5. 3	*1423	8. 57	*02312	22. 0	55. 0	55. 6	0. 26	27. 0	0. 45	*1418	4. 11	*02460	3. 0	56. 1	57. 0
4. 51	25. 30	6. 8	*1432	10. 23	*02293	23. 0	55. 0	55. 8	0. 30	27. 50	0. 58	*1406	4. 26	*02460	9. 0	56. 1	57. 2
6. 37	23. 20	6. 40	*1432	15. 11	*02306				0. 38	26. 5	1. 23	*1408	4. 36	*02516	21. 0	55. 7	56. 7
6. 59	23. 55	7. 48	*1420	20. 12	*02266				0. 44	30. 25	1. 39	*1390	4. 54	*02543	22. 0	56. 1	57. 0
7. 13	23. 20	8. 9	*1429	23. 53	*02248				0. 53	29. 25	1. 49	*1399	5. 14	*02516	23. 0	56. 2	57. 4
7. 28	23. 40	8. 27	*1424		(†)				1. 6	31. 0	1. 58	*1396	5. 40	*02510			
7. 51	19. 40	8. 50	*1426						1. 21	34. 10	2. 6	*1406	5. 55	*02485			
7. 58	17. 30	9. 53	*1423						1. 33	32. 30	2. 18	*1396	6. 18	*02465			
8. 10	17. 0	10. 10	*1427						1. 39	32. 40	2. 25	*1410	6. 41	*02479			
8. 25	17. 25	10. 48	*1425						1. 53	36. 50	2. 38	*1404	6. 57	*02423			
8. 34	19. 30	11. 4	*1429						2. 3	35. 45	2. 50	*1410	7. 12	*02400			
8. 55	20. 40	14. 55	*1429						2. 8	37. 30	3. 2	*1401	7. 44	*02458			
10. 18	21. 0	18. 53	*1434						2. 11	38. 20	3. 23	*1448	8. 52	*02400			
10. 55	22. 25	19. 53	*1434						2. 14	36. 5	3. 26	*1408	10. 23	*02376			
11. 14	22. 0	20. 39	*1422						2. 26	35. 0	3. 29	*1436	11. 35	*02347			
11. 39	22. 45	21. 56	*1418						2. 32	35. 35	3. 43	*1384	11. 43	*02363			
11. 56	22. 10	22. 11	*1427						2. 39	33. 45	3. 53	*1408	12. 0	*02346			
12. 13	23. 30	23. 41	*1440						2. 43	33. 30	3. 57	*1401	14. 55	*02348			
12. 23	25. 20	23. 59	*1436						2. 50	32. 45	4. 9	*1416	19. 18	*02332			
12. 56	23. 20								2. 58	37. 45	4. 24	*1388	21. 30	*02297			
13. 56	23. 0								3. 3	36. 30	4. 35	*1411	23. 59	*02291			
14. 8	23. 30								3. 8	26. 0	4. 43	*1391					
16. 38	22. 55									***	4. 57	*1407					
16. 55	22. 25								3. 23	22. 10	5. 5	*1396					
17. 16	22. 45								3. 26	25. 50	5. 25	*1391					
17. 23	22. 25								3. 31	12. 15	5. 36	*1405					
17. 44	23. 0								3. 36	29. 55	5. 43	*1398					

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



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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Nov. 26		Nov. 26							Nov. 26								
3. 51	20. 9. 0	5. 54	*1406						13. 17	20. 22. 15							
3. 56	14. 20	6. 14	*1402						13. 30	21. 20							
4. 10	26. 0	6. 23	*1405						13. 41	22. 55							
4. 16	39. 30	6. 35	*1391						13. 53	22. 0							
4. 19	40. 20	6. 50	*1433						14. 3	20. 30							
4. 30	31. 10	6. 58	*1414						14. 7	21. 10							
4. 41	42. 10	7. 4	*1415						14. 15	20. 25							
4. 50	33. 50	7. 11	*1383						14. 20	20. 25							
4. 55	30. 10	7. 20	*1399						14. 28	18. 50							
5. 3	35. 25	7. 29	*1376						14. 33	18. 10							
5. 10	33. 50	7. 43	*1392						14. 54	22. 0							
5. 13	34. 25	7. 45	*1388						15. 0	21. 50							
5. 25	33. 30	8. 3	*1399						15. 4	22. 30							
5. 29	29. 40	8. 14	*1397						15. 12	22. 40							
5. 39	32. 45	8. 28	*1407						15. 21	21. 50							
5. 51	29. 20	8. 38	*1400						15. 41	24. 10							
5. 57	32. 30	8. 53	*1405						15. 57	23. 0							
6. 7	33. 55	8. 58	*1395						16. 7	23. 40							
6. 21	32. 45	9. 14	*1437						16. 13	23. 5							
6. 27	33. 10	9. 32	*1392						16. 44	23. 30							
6. 39	20. 10	10. 48	*1402							***							
6. 51	31. 45	10. 56	*1398						17. 59	22. 30							
6. 57	27. 55	11. 23	*1408						18. 36	23. 5							
7. 3	27. 10	11. 39	*1394						19. 12	22. 30							
7. 7	30. 0	11. 56	*1418						19. 28	23. 40							
7. 12	20. 0	12. 9	*1402						19. 42	22. 30							
7. 23	25. 10	12. 18	*1395						19. 56	23. 45							
7. 33	21. 10	12. 41	*1404						20. 5	23. 0							
7. 37	20. 25	12. 53	*1400						20. 20	22. 50							
7. 46	23. 5	13. 9	*1404						20. 27	23. 35							
7. 59	26. 55	13. 23	*1400						20. 39	23. 5							
8. 11	26. 40	13. 32	*1402						20. 43	23. 45							
8. 20	24. 0	13. 43	*1398						21. 7	23. 20							
8. 27	26. 0	14. 11	*1401							***							
8. 30	26. 25	14. 25	*1397						21. 41	25. 0							
8. 39	24. 30	14. 44	*1408						21. 49	24. 20							
8. 53	25. 50	14. 55	*1404						22. 6	25. 25							
9. 1	14. 10	15. 4	*1407						22. 36	24. 40							
9. 18	27. 0	15. 15	*1404						22. 38	26. 0							
9. 33	17. 35	15. 32	*1409						22. 43	24. 30							
9. 45	15. 40	15. 51	*1408						22. 57	25. 10							
9. 56	17. 5	16. 53	*1415						23. 22	25. 20							
10. 0	16. 40	17. 13	*1413						23. 34	24. 30							
10. 11	18. 30	19. 11	*1416						23. 59	24. 50							
10. 17	18. 30	19. 28	*1419														
10. 26	19. 35	19. 52	*1417						Nov. 27								
10. 36	19. 0	21. 0	*1421						0. 0	20. 24. 50	0. 0	*1419	0. 0	*02291	0. 0	56.6	57.7
10. 43	19. 55	21. 29	*1427						1. 33	24. 50	0. 30	*1420	3. 11	*02362	1. 0	57.3	58.1
10. 49	19. 10	22. 3	*1426						3. 0	23. 35	1. 33	*1425	6. 11	*02383	3. 0	57.4	57.6
10. 57	20. 0		***						4. 23	23. 35	3. 29	*1419	9. 5	*02367	9. 0	56.4	57.5
11. 4	20. 0	22. 56	*1417						5. 41	24. 10	6. 13	*1421	15. 25	*02307	21. 0	54.2	55.1
11. 12	22. 30	23. 33	*1420						6. 47	23. 50	7. 39	*1416	19. 42	*02276	22. 0	54.5	55.4
11. 21	23. 20	23. 43	*1415						6. 58	23. 10	8. 41	*1417	22. 6	*02252	23. 0	54.5	55.4
11. 34	16. 0	23. 59	*1419						7. 9	23. 45	8. 52	*1414	23. 59	*02255			
11. 53	23. 40								7. 33	22. 55	10. 10	*1418					
11. 58	21. 50								8. 21	22. 20	10. 38	*1415					
12. 39	19. 5								9. 24	22. 40	10. 57	*1419					
13. 10	21. 20								9. 58	21. 20	12. 3	*1415					

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Nov. 27		Nov. 27							Nov. 28		Nov. 28						
10. 4	20. 21. 45	12. 23	*1418						3. 9	20. 25. 0	2. 43	*1417	13. 28			*02184	
10. 13	21. 0	13. 18	*1416						3. 14	22. 40	2. 53	*1424	14. 8			*02160	
10. 38	21. 25	14. 24	*1420						3. 26	22. 0	2. 58	*1418	16. 22			*02168	
10. 50	22. 5	15. 27	*1420						3. 51	23. 0	3. 13	*1416	20. 56			*02137	
10. 59	22. 5	15. 41	*1427						4. 3	21. 55	3. 26	*1423	21. 33			*02116	
11. 12	21. 40	16. 21	*1432						4. 15	22. 0	3. 39	*1418	23. 59			*02122	
12. 2	22. 40	16. 58	*1429						4. 33	24. 10	3. 57	*1419					
12. 32	22. 30	17. 6	*1431						4. 51	23. 55	4. 23	*1428					
14. 19	24. 5	17. 54	*1429						4. 58	24. 45	5. 14	*1431					
14. 56	22. 40	18. 33	*1423						5. 9	24. 25	5. 29	*1427					
15. 33	24. 10	18. 51	*1424						5. 17	25. 40	5. 44	*1428					
15. 38	26. 5	19. 6	*1428						5. 26	25. 25	6. 13	*1419					
15. 51	24. 50	20. 23	*1429						5. 42	26. 55	6. 31	*1405					
16. 21	24. 45	20. 56	*1424						5. 51	28. 0	6. 44	*1410					
16. 38	23. 40	21. 9	*1425						6. 0	28. 10	7. 5	*1402					
16. 55	24. 25	21. 48	*1416						6. 23	24. 40	7. 23	*1410					
17. 5	23. 30	22. 3	*1419						6. 40	23. 0	7. 37	*1423					
17. 8	24. 0	22. 26	*1411						6. 55	20. 55	7. 44	*1422					
17. 28	23. 20	22. 56	*1410						7. 9	19. 55	8. 3	*1429					
17. 39	23. 35	23. 0	*1415						7. 21	20. 50	8. 11	*1415					
17. 49	23. 5		***						7. 39	24. 25	8. 26	*1411					
17. 55	23. 20	23. 59	*1413							***	8. 43	*1417					
17. 59	24. 45								8. 5	22. 20	8. 56	*1433					
18. 3	22. 40								8. 14	23. 30	9. 14	*1425					
18. 42	25. 5								8. 28	22. 0	9. 29	*1426					
19. 26	23. 30								8. 45	10. 0	9. 43	*1412					
19. 39	23. 40								8. 57	12. 40	10. 29	*1419					
20. 6	23. 0								9. 3	12. 10	10. 43	*1426					
	***								9. 14	8. 40	11. 30	*1419					
21. 4	22. 40								9. 33	15. 20	12. 6	*1428					
21. 17	24. 30								9. 44	12. 20	12. 14	*1423					
21. 25	24. 0								9. 58	17. 0	12. 28	*1427					
21. 33	24. 25								10. 12	19. 20	12. 42	*1432					
21. 53	23. 30								10. 17	19. 20	13. 26	*1415					
22. 8	23. 30								10. 29	20. 35	14. 10	*1433					
22. 12	24. 20								10. 40	20. 35	14. 43	*1424					
22. 23	24. 5								10. 51	21. 45	16. 21	*1424					
22. 33	25. 0								11. 12	18. 30	16. 34	*1434					
22. 43	24. 20								11. 29	18. 0	17. 32	*1424					
22. 53	25. 30								11. 44	18. 20	17. 54	*1430					
23. 4	25. 40								12. 9	22. 10	19. 14	*1429					
23. 8	25. 0								12. 25	19. 45	19. 58	*1419					
23. 18	26. 50								12. 28	20. 30	20. 56	*1430					
23. 26	25. 25								12. 38	18. 55	21. 36	*1418					
23. 44	24. 35								12. 43	21. 10	21. 49	*1404					
23. 59	24. 40								12. 51	21. 10	22. 53	*1416					
Nov. 28		Nov. 28		Nov. 28		Nov. 28			13. 10	29. 20	23. 17	*1413					
0. 0	20. 24. 40	0. 0	*1413	0. 0	*02255	0. 0	55. 0 56. 0		13. 21	27. 50	23. 37	*1417					
0. 26	25. 30	0. 18	*1420	1. 57	*02283	1. 0	55. 4 56. 2		13. 26	26. 0	23. 59	*1413					
0. 51	25. 30	0. 53	*1418	4. 41	*02300	2. 0	55. 4 56. 3		13. 53	21. 5							
1. 3	24. 50	1. 7	*1424	6. 18	*02294	3. 0	55. 4 56. 2		14. 29	23. 10							
1. 41	26. 50		***	7. 24	*02318	9. 0	55. 0 55. 6		14. 50	21. 45							
1. 52	25. 30	2. 9	*1426	8. 0	*02300	21. 0	52. 2 52. 9		15. 43	23. 40							
2. 18	27. 25	2. 11	*1422	9. 1	*02284	22. 0	52. 6 53. 3		15. 56	22. 0							
2. 36	26. 30	2. 17	*1427	11. 19	*02237	23. 0	53. 0 53. 6		16. 28	24. 30							
2. 47	24. 30	2. 26	*1418	12. 13	*02219				16. 33	24. 20							
2. 58	23. 30		***	13. 14	*02184				16. 55	25. 10							
									17. 7	24. 30							

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

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 Thermo meters.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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 Thermo meters.		
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.	
Nov. 28																		
17. 12	20. 24. 55																	
17. 28	23. 35																	
17. 35	23. 30																	
17. 41	24. 5																	
17. 56	23. 25																	
18. 13	25. 30																	
18. 38	24. 55																	
18. 59	25. 20																	
19. 17	24. 45																	
19. 41	22. 25																	
20. 11	23. 50																	
20. 33	26. 25																	
20. 50	25. 5																	
20. 57	25. 0																	
21. 21	28. 20																	
21. 36	31. 20																	
21. 43	31. 15																	
22. 10	25. 35																	
22. 26	26. 50																	
22. 43	25. 0																	
23. 9	29. 10																	
23. 24	28. 15																	
23. 59	26. 10																	
Nov. 29		Nov. 29		Nov. 29		Nov. 29			Nov. 29									
0. 0	20. 26. 10	0. 0	*1413	0. 0	*02122	0. 0	53. 25. 4. 1		17. 14	25. 10								
0. 21	25. 0	1. 25	*1431	0. 41	*02147	1. 0	54. 0. 55. 0		17. 54	26. 0								
0. 47	24. 30	2. 11	*1425	2. 13	*02198	2. 0	54. 2. 55. 2		18. 13	26. 50								
1. 28	25. 50	2. 26	*1417	5. 55	*02224	3. 0	54. 4. 55. 5		18. 18	26. 25								
1. 41	25. 5	2. 33	*1418	7. 12	*02257	9. 0	54. 0. 55. 1		18. 24	27. 0								
2. 14	25. 55	2. 47	*1414	7. 29	*02226	21. 0	53. 9. 54. 9		18. 29	27. 0								
2. 34	23. 40	3. 17	*1416	7. 41	*02275	22. 0	54. 0. 55. 1		19. 4	26. 15								
2. 43	24. 30	3. 44	*1429	8. 12	*02184	23. 0	54. 5. 55. 6		19. 14	25. 30								
2. 58	22. 15	3. 58	*1428	8. 34	*02220				19. 21	25. 50								
3. 21	18. 55	5. 29	*1426	9. 21	*02210				19. 40	24. 35								
3. 42	18. 10	6. 9	*1410	14. 21	*02244				20. 39	24. 10								
4. 4	23. 15	6. 53	*1410	20. 25	*02192				21. 21	25. 0								
4. 21	22. 10	7. 26	*1432	23. 59	*02212				21. 28	24. 25								
4. 34	21. 50	7. 41	*1422						22. 10	25. 55								
4. 58	24. 25	7. 44	*1454						22. 30	25. 0								
5. 27	24. 45	8. 3	*1442						22. 42	25. 10								
5. 38	23. 15	8. 22	*1396						23. 2	26. 25								
5. 49	23. 30	8. 44	*1443						23. 33	27. 20								
6. 4	22. 45	9. 16	*1408						23. 42	26. 40								
6. 21	23. 0	10. 40	*1421						23. 48	27. 15								
6. 49	21. 20	11. 39	*1421						23. 59	26. 25								
6. 54	22. 0	11. 55	*1417															
7. 6	19. 40	15. 25	*1422						Nov. 30	20. 26. 25	Nov. 30	0. 0	*1411	0. 0	*02212	Nov. 30	0. 0	54. 8. 56. 0
7. 23	9. 20	15. 48	*1418						0. 58	28. 0	0. 4	0. 0	*1411	5. 12	*02304	1. 0	55. 6. 56. 8	
7. 26	9. 55	16. 56	*1418						1. 40	26. 20		(†)	5. 56	*02300	2. 0	55. 6. 56. 8		
7. 34	8. 0	17. 39	*1425						2. 26	25. 45	1. 0	*1413*	7. 11	*02263	3. 0	55. 6. 57. 0		
7. 44	14. 50	18. 23	*1420						2. 36	24. 40	1. 27	*1412	13. 12	*02160	4. 20	55. 7. 57. 0		
7. 58	5. 10	18. 53	*1425						3. 0	26. 30	2. 28	*1409	22. 30	*02041	9. 0	54. 1. 55. 0		
8. 10	25. 40	20. 3	*1422						3. 17	25. 50	2. 43	*1412	23. 59	*02048	21. 0	50. 8. 51. 8		
8. 21	26. 45	20. 57	*1415						3. 31	27. 40	2. 59	*1406			22. 0	51. 2. 52. 2		
8. 27	29. 45	21. 26	*1401						3. 53	23. 40	3. 14	*1409			23. 0	52. 0. 53. 0		
8. 53	9. 55	21. 56	*1410						4. 6	23. 40	3. 35	*1404						
9. 13	20. 10	22. 43	*1415						4. 13	25. 0	4. 13	*1408						
									4. 42	21. 35	4. 32	*1400						

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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.
Nov. 30		Nov. 30															
h m	o ' "	h m	'	h m		h m	o	o	h m	o ' "	h m	'	h m	o ' "	h m	o	o
4. 51	20. 22. 40	4. 41	'1410						Dec. 1	o. 0	20. 24. 10	0. 0	0. 0	0. 0	0. 0	52. 2	53. 2
4. 58	19. 45	4. 57	'1409						0. 9	25. 10	1. 56	'1428	2. 55	'02048	1. 0	52. 6	53. 9
5. 3	21. 0	5. 4	'1417						0. 23	24. 25	2. 13	'1432	7. 12	'02117	2. 0	52. 6	53. 9
5. 13	17. 40	5. 14	'1414						0. 36	24. 20	2. 46	'1429	12. 42	'02102	3. 0	52. 6	54. 1
5. 23	17. 50	5. 21	'1419						0. 42	25. 0	3. 18	'1434	18. 7	'02116	9. 0	52. 8	54. 3
5. 38	12. 15	5. 33	'1414						0. 53	24. 15	5. 11	'1434	23. 59	'02112	21. 0	53. 2	55. 0
5. 58	20. 10	5. 48	'1433						1. 2	24. 25	5. 41	'1428					
6. 11	19. 55	6. 17	'1416						1. 30	24. 15	6. 11	'1432					
6. 24	18. 20	6. 40	'1422						2. 38	23. 20	6. 33	'1426					
6. 53	20. 50	7. 2	'1414						2. 53	23. 30	8. 14	'1430					
7. 13	19. 15	7. 21	'1418						4. 42	22. 10	9. 13	'1428					
7. 33	21. 10	7. 43	'1416						4. 53	22. 25	9. 39	'1430					
7. 51	21. 15	8. 18	'1424						5. 11	21. 55	9. 56	'1426					
8. 11	22. 0	8. 48	'1422						5. 23	22. 0	11. 6	'1430					
8. 28	21. 50	10. 43	'1423						5. 40	21. 20	14. 32	'1426					
8. 49	20. 20	11. 25	'1429						6. 8	22. 30	16. 56	'1432					
9. 12	21. 5	12. 30	'1422						6. 43	17. 45	19. 26	'1434					
9. 45	20. 25	12. 44	'1425						7. 12	20. 55	21. 52	'1425					
9. 59	21. 5	13. 30	'1424						7. 34	22. 0	22. 26	'1418					
10. 7	20. 40	16. 59	'1431						7. 58	21. 30	22. 45	'1421					
10. 39	21. 5	19. 14	'1429						8. 42	21. 30		(†)					
11. 10	20. 40	19. 37	'1431						9. 8	20. 20	23. 59	'1420					
11. 26	21. 20	20. 40	'1426						9. 28	15. 0							
11. 34	20. 45	20. 54	'1430						9. 48	18. 40							
12. 11	22. 10	23. 59	'1425						10. 25	20. 0							
12. 32	22. 0								10. 36	18. 55							
12. 43	22. 55								10. 56	20. 0							
12. 58	22. 10								11. 35	19. 50							
14. 3	23. 0								12. 26	22. 0							
14. 10	23. 20								12. 33	21. 15							
14. 55	23. 45								12. 41	21. 40							
15. 41	22. 50								13. 13	21. 0							
15. 57	23. 0								13. 24	21. 45							
16. 6	24. 0								13. 37	21. 50							
16. 12	23. 45								13. 45	21. 40							
16. 27	24. 10								13. 54	21. 55							
16. 51	22. 40								14. 8	21. 20							
17. 14	22. 10								14. 44	22. 0							
17. 21	22. 35								14. 56	22. 45							
17. 36	21. 50								15. 14	21. 50							
17. 43	22. 25								15. 32	22. 20							
18. 6	21. 20								16. 10	21. 25							
18. 14	21. 55								16. 21	21. 30							
18. 53	21. 50								16. 27	22. 5							
19. 20	22. 25								17. 1	21. 30							
19. 33	22. 55								17. 25	22. 5							
20. 2	22. 0								17. 47	21. 25							
20. 32	22. 10								18. 2	21. 50							
20. 41	21. 20								18. 23	21. 20							
20. 45	22. 5								18. 27	21. 50							
20. 51	21. 30								19. 3	21. 5							
21. 4	22. 20								19. 13	21. 45							
21. 23	22. 20								19. 23	21. 20							
22. 39	23. 30								20. 34	21. 25							
22. 54	24. 0								20. 51	22. 0							
23. 59	24. 10								21. 2	22. 0							
									21. 38	23. 20							
									22. 24	25. 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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 3		Dec. 3							Dec. 4		Dec. 4						
5. 7	20. 25. 45	11. 23	*1428	h	h	h	h	o	9. 4	20. 21. 15	18. 48	*1438	h	h	h	h	o
5. 19	26. 20	11. 44	*1423						9. 11	21. 25	19. 26	*1436					
5. 26	25. 5	14. 43	*1427						9. 25	19. 50	19. 36	*1431					
5. 39	24. 25	14. 59	*1424						9. 33	19. 30	20. 9	*1434					
5. 57	23. 20	16. 41	*1427						9. 41	19. 40	20. 13	*1428					
6. 10	23. 30	22. 0	*1419						10. 2	18. 0	20. 30	*1433					
6. 24	22. 45	23. 59	*1419						11. 9	22. 30	22. 50	*1421					
6. 49	23. 5								11. 33	22. 20	23. 43	*1428					
7. 11	22. 45								11. 56	21. 25	23. 53	*1434					
7. 44	20. 0								13. 8	23. 10		(†)					
8. 10	21. 55								13. 26	26. 0							
8. 33	20. 5								13. 43	23. 25							
8. 59	21. 30								14. 11	21. 30							
9. 9	21. 15								14. 53	22. 45							
9. 26	21. 45								15. 43	22. 5							
9. 33	21. 10								17. 2	21. 55							
10. 16	21. 0								17. 23	23. 10							
10. 23	21. 50								17. 34	23. 20							
10. 30	21. 15								17. 51	22. 30							
10. 41	21. 55								18. 50	21. 45							
11. 11	21. 10								19. 7	22. 40							
11. 34	21. 10								19. 14	21. 20							
11. 59	22. 20								19. 42	22. 30							
13. 21	23. 45								19. 51	21. 25							
13. 32	23. 20								20. 9	22. 10							
14. 21	23. 50								20. 18	21. 40							
14. 41	22. 55								20. 53	21. 40							
15. 12	23. 55								20. 56	22. 30							
15. 23	23. 25								21. 3	22. 0							
15. 55	24. 5								21. 39	23. 10							
16. 28	22. 55								21. 42	22. 35							
17. 26	22. 25								21. 54	23. 20							
17. 44	21. 45								22. 11	23. 30							
17. 59	22. 35								22. 21	22. 40							
18. 32	22. 20								22. 27	23. 50							
18. 51	22. 45								23. 16	23. 50							
20. 36	22. 30								23. 17	25. 20							
22. 26	24. 30								23. 33	24. 40							
23. 46	24. 30								23. 45	25. 20							
23. 59	24. 10								23. 59	25. 0							
Dec. 4		Dec. 4		Dec. 4		Dec. 4			Dec. 5		Dec. 5		Dec. 5		Dec. 5		
0. 0	20. 24. 10	0. 0	*1419	0. 0	*02522	0. 0	60. 0	61. 3	0. 0	20. 25. 0	(†)	0. 0	*02464	0. 0	59. 7	60. 4	
0. 12	23. 20	0. 56	*1420	2. 33	*02552	1. 0	60. 1	61. 3	1. 12	24. 5	0. 38	*1429	2. 44	*02488	1. 0	59. 8	60. 9
0. 25	23. 40	5. 13	*1429	6. 41	*02501	2. 0	60. 1	61. 4	2. 25	22. 20	1. 51	*1434	6. 11	*02507	2. 0	59. 8	60. 9
2. 46	21. 45	5. 56	*1426	13. 32	*02488	3. 0	60. 3	61. 5	2. 33	22. 30	2. 3	*1430	7. 4	*02526	3. 0	59. 9	61. 0
2. 58	22. 30	6. 6	*1430	14. 14	*02472	9. 0	58. 9	59. 6	2. 46	22. 0	4. 48	*1430	12. 56	*02484	9. 0	59. 6	60. 6
3. 11	22. 20	6. 39	*1426	17. 42	*02473	21. 0	58. 8	59. 8	3. 21	22. 10	5. 21	*1420	21. 26	*02416	21. 0	57. 8	58. 3
3. 23	22. 50	9. 50	*1422	22. 44	*02457	22. 0	59. 5	60. 0	3. 32	21. 50	5. 42	*1419	23. 59	*02418	22. 0	57. 8	58. 5
4. 3	22. 15	10. 12	*1431	23. 59	*02464	23. 0	59. 4	60. 1	3. 41	22. 20	6. 9	*1411			23. 0	57. 8	58. 8
4. 20	22. 25	10. 57	*1423						4. 39	22. 45	6. 28	*1412					
4. 35	21. 40	11. 33	*1428						5. 6	22. 15	6. 42	*1408					
5. 44	22. 25	12. 4	*1423						5. 15	21. 30	6. 57	*1416					
5. 59	21. 15	13. 27	*1426						5. 39	23. 0	7. 9	*1412					
6. 27	21. 55	13. 56	*1436						6. 7	20. 35	7. 55	*1425					
8. 18	21. 30	14. 40	*1430						6. 24	21. 30	8. 11	*1422					
8. 32	21. 0	16. 36	*1433						6. 44	19. 35	9. 6	*1429					
8. 56	21. 40	17. 41	*1430						6. 58	21. 25	9. 35	*1425					

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 5		Dec. 5							Dec. 6		Dec. 6						
7. 8	20. 21. 10	10. 8	*1429						5. 1	20. 22. 30	7. 29	*1423					
7. 12	21. 40	10. 28	*1425						5. 14	22. 50	7. 47	*1436					
7. 36	20. 25	18. 11	*1436						5. 39	21. 30	8. 3	*1432					
8. 3	21. 5	18. 50	*1441						5. 51	21. 50	8. 13	*1434					
8. 20	20. 30	19. 27	*1434						6. 18	20. 30	8. 21	*1432					
8. 35	20. 30	20. 20	*1431						6. 34	21. 10	8. 37	*1438					
8. 55	21. 0	20. 44	*1426						6. 44	21. 15	8. 52	*1431					
9. 32	20. 55	21. 43	*1419						6. 57	20. 40	9. 23	*1446					
11. 43	22. 10	22. 11	*1420						7. 6	20. 50	9. 50	*1439					
12. 16	21. 55	22. 29	*1408						7. 13	18. 55	9. 58	*1440					
12. 37	22. 30	23. 25	*1421						7. 16	18. 55	10. 16	*1432					
13. 26	22. 20	23. 59	*1425						7. 30	15. 10	10. 36	*1434					
13. 32	22. 55								7. 48	19. 20	10. 50	*1433					
13. 42	22. 30								8. 4	18. 10	10. 57	*1434					
14. 20	23. 5								8. 21	19. 20	11. 3	*1431					
14. 37	22. 45								8. 32	19. 10	11. 25	*1436					
14. 43	23. 20								8. 41	20. 10	11. 32	*1419					
15. 2	22. 50								9. 6	13. 30	11. 51	*1435					
15. 26	23. 0								9. 39	17. 20	12. 6	*1430					
15. 42	22. 25								9. 44	17. 0	12. 33	*1433					
15. 58	22. 35								10. 6	18. 50	13. 6	*1430					
16. 12	24. 40								10. 12	18. 40	14. 4	*1429					
16. 41	21. 55								10. 36	19. 55	14. 14	*1431					
16. 56	21. 40								10. 57	19. 10	17. 4	*1434					
17. 6	22. 40								11. 15	20. 45	17. 32	*1431					
19. 9	22. 5								11. 27	20. 25	18. 53	*1434					
19. 21	21. 20								11. 39	22. 10	20. 20	*1433					
19. 34	22. 5								11. 42	22. 10	20. 48	*1428					
19. 41	21. 40								11. 52	23. 0	20. 59	*1426					
20. 14	22. 40								12. 7	22. 0	21. 28	*1427					
20. 28	22. 0								12. 11	22. 20	22. 1	*1422					
20. 38	22. 10								12. 39	21. 45	22. 26	*1425					
20. 44	21. 40								12. 45	22. 0	22. 53	*1423					
20. 57	22. 5								13. 14	21. 55	23. 43	*1427					
21. 40	21. 15								13. 44	22. 20	23. 59	*1427					
21. 53	22. 20								13. 53	22. 45							
21. 59	22. 10								14. 3	23. 55							
22. 40	25. 25								14. 11	23. 15							
23. 4	25. 25								14. 32	23. 45							
23. 24	26. 50								14. 50	23. 25							
23. 59	25. 30								14. 56	23. 40							
									15. 14	23. 0							
									15. 38	24. 5							
Dec. 6		Dec. 6		Dec. 6		Dec. 6			15. 53	23. 30							
0. 0	20. 25. 30	0. 0	*1425	0. 0	*02418	0. 0	58. 259. 1		15. 53	23. 30							
0. 53	25. 30	2. 2	*1428	0. 33	*02427	1. 0	58. 859. 6		15. 56	23. 45							
1. 4	26. 0	2. 42	*1418	3. 6	*02482	2. 0	58. 960. 0		16. 41	23. 5							
2. 6	26. 0	3. 22	*1420	5. 14	*02502	3. 0	59. 260. 3		17. 20	22. 55							
2. 26	24. 30	3. 53	*1416	7. 52	*02495	9. 0	59. 560. 3		17. 48	24. 10							
2. 29	24. 25	5. 10	*1416	8. 56	*02472	21. 0	57. 958. 7		17. 56	23. 25							
2. 42	23. 30	5. 20	*1420	11. 12	*02475	22. 0	58. 058. 8		18. 12	24. 10							
2. 56	23. 35	5. 29	*1418	11. 23	*02463	23. 0	58. 058. 8		18. 23	23. 55							
3. 14	24. 55	5. 44	*1421	11. 40	*02476				18. 43	23. 45							
3. 37	25. 20	5. 57	*1422	15. 11	*02463				19. 21	25. 20							
3. 43	24. 55	6. 36	*1430	19. 54	*02428				19. 59	25. 10							
4. 6	25. 25	6. 54	*1427	23. 59	*02384				20. 39	24. 20							
4. 13	25. 5	7. 3	*1428						20. 53	24. 55							
4. 26	25. 25	7. 13	*1423						21. 44	23. 25							
4. 53	23. 40	7. 23	*1425						22. 23	26. 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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 6 h m 22. 37 23. 3 23. 43 23. 59	20. 26. 0 24. 40 25. 40 24. 10																
Dec. 7 h m 0. 0 0. 30 0. 47 0. 59 1. 19 1. 32 1. 53 1. 59 2. 13 2. 23 2. 29 2. 36 2. 51 2. 58 3. 14 3. 40 3. 48 3. 56 4. 8 4. 17 4. 33 5. 11 5. 43 5. 55 6. 21 6. 44 7. 4 8. 4 8. 30 8. 51 9. 14 9. 30 9. 48 9. 58 10. 23 10. 43 10. 53 11. 29 12. 4 12. 20 12. 33 12. 44 12. 58 13. 57 14. 11 14. 53 15. 5 15. 21 15. 55 16. 11 16. 43 17. 31	20. 24. 10 24. 30 25. 50 25. 55 25. 25 26. 0 25. 10 25. 40 25. 5 25. 20 24. 10 24. 0 25. 10 25. 0 25. 45 24. 20 24. 30 24. 0 25. 10 24. 55 25. 10 24. 30 23. 0 23. 40 23. 10 23. 20 22. 10 22. 10 21. 5 21. 10 19. 5 18. 55 19. 50 18. 30 18. 15 19. 50 18. 55 21. 0 22. 0 22. 45 22. 30 22. 45 22. 15 23. 30 22. 20 23. 25 22. 45 23. 10 23. 10 23. 20 22. 50 23. 5	Dec. 7 h m 0. 0 1. 13 2. 11 2. 23 2. 38 2. 56 3. 52 5. 20 7. 6 8. 59 9. 13 9. 36 10. 27 10. 56 12. 55 17. 18 20. 8 20. 56 21. 13 21. 37 22. 13 23. 59	'1427 '1431 '1419 '1421 '1415 '1419 '1413 '1427 '1428 '1422 '1426 '1427 '1432 '1423 '1423 '1432 *** '1431 '1425 '1425 '1427 '1425	Dec. 7 h m 0. 0 2. 25 3. 26 4. 20 9. 41 12. 21 15. 0 19. 25 23. 49	'02384 '02440 '02456 '02464 '02417 (†) '02407 '02411 '02380 '02336 (†)	Dec. 7 h m 0. 0 1. 0 2. 0 3. 0 9. 0 21. 0 22. 0 23. 0	58.1 59.0 58.4 59.6 58.4 59.6 58.2 59.3 57.4 58.4 56.6 57.8 56.7 58.0 56.9 58.1		Dec. 7 h m 17. 39 17. 59 18. 13 18. 23 18. 33 18. 41 18. 52 19. 26 19. 36 20. 14 20. 23 20. 32 21. 11 22. 26 22. 40 23. 9 23. 59	20. 22. 30 22. 30 23. 0 22. 5 22. 45 22. 0 22. 30 22. 10 22. 40 21. 50 22. 40 21. 40 23. 10 22. 55 24. 5 24. 20 25. 40							
		Dec. 8 h m 0. 0 0. 51 1. 24 1. 46 2. 21 2. 26 2. 41 2. 53 3. 3 3. 21 3. 57 4. 20 4. 32 4. 55 5. 48 6. 12 6. 36 7. 9 7. 26 7. 39 7. 56 8. 13 8. 47 9. 4 9. 58 11. 51 12. 2 12. 58 13. 36 13. 44 13. 58 14. 25 14. 42 14. 56 15. 3 15. 51 16. 3 16. 11 16. 43	20. 25. 40 26. 25 26. 10 26. 50 24. 5 24. 5 22. 25 22. 50 22. 20 23. 0 24. 10 23. 10 23. 40 23. 45 22. 25 23. 45 11. 29 11. 42 23. 45 22. 10 21. 35 17. 30 19. 5 17. 40 19. 30 21. 5 20. 25 21. 25 21. 0 22. 5 21. 40 22. 35 24. 25 21. 45 22. 55 23. 5 22. 30 23. 10 22. 30 22. 35 21. 25	Dec. 8 h m 0. 0 2. 17 2. 55 3. 56 4. 13 6. 2 6. 36 6. 53 7. 24 7. 36 7. 42 8. 13 8. 38 9. 38 11. 29 11. 42 11. 53 12. 3 12. 14 13. 44 13. 59 14. 40 16. 41 19. 22 19. 41 20. 41 21. 11 22. 14 23. 59	'1425 '1422 '1418 '1424 '1422 '1428 '1423 '1414 '1415 '1420 '1416 '1426 '1422 '1427 '1426 '1430 '1427 '1432 '1427 '1435 '1426 '1437 '1432 '1436 '1434 '1430 '1433 '1432	Dec. 8 h m 0. 0 0. 34 2. 22 3. 11 6. 26 7. 20 7. 38 7. 52 10. 10 13. 44 14. 20 23. 9	(†) '02363 '02376 '02383 '02395 '02396 '02385 '02395 '02340 '02304 '02288 '02168 (†)	Dec. 8 h m 0. 0 1. 0 3. 0 9. 0 21. 30	57.4 58.5 57.7 58.8 57.8 59.1 55.7 57.0 53.7 54.6								

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



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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 8									Dec. 9								
17. 2	20. 22. 5								22. 44	20. 23. 25							
17. 11	21. 35								23. 11	22. 30							
17. 23	22. 5									***							
17. 41	21. 40								23. 25	23. 30							
18. 11	21. 50								23. 41	23. 15							
18. 23	22. 40								23. 55	24. 0							
18. 56	21. 45								23. 59	23. 50							
19. 8	21. 40																
19. 20	22. 30																
19. 44	21. 20								Dec. 10		Dec. 10		Dec. 10		Dec. 10		
19. 56	22. 0								0. 0	20. 23. 50	0. 0	*1427	0. 0	*02246	0. 0	57. 4	58. 9
20. 6	22. 10								1. 17	25. 20	2. 29	*1434	0. 39	*02276	1. 0	57. 8	59. 0
20. 14	21. 30								1. 41	25. 10	2. 51	*1426	2. 41	*02322	2. 0	57. 8	59. 0
20. 50	22. 0								1. 53	24. 55	3. 8	*1434	3. 40	*02325	3. 0	57. 8	59. 2
21. 8	21. 30								2. 49	26. 0	3. 39	*1426	3. 57	*02337	9. 0	56. 3	57. 5
21. 49	22. 0								3. 11	25. 45	4. 2	*1427	5. 35	*02340	21. 0	52. 1	53. 3
22. 11	22. 45								3. 18	26. 0	4. 25	*1424	8. 57	*02317	22. 0	52. 3	53. 3
22. 22	23. 15								3. 28	25. 35	4. 40	*1427	10. 0	*02292	23. 0	52. 4	53. 3
23. 59	23. 0								3. 56	25. 10	5. 2	*1423	13. 41	*02256			
									4. 9	24. 40	7. 56	*1433	15. 14	*02232			
Dec. 9		Dec. 9		Dec. 9		Dec. 9			4. 20	24. 35	9. 21	*1436	16. 22	*02220			
0. 0	20. 23. 0	0. 0	*1432		(†)	1. 0	54. 0	55. 1	4. 39	26. 0	9. 40	*1444	21. 26	*02124			
0. 56	23. 15	5. 23	*1435	1. 0	*02164*	9. 0	55. 2	56. 7	4. 43	26. 10	10. 4	*1428	23. 59	*02088			
1. 23	22. 55	6. 13	*1430	7. 55	*02198	21. 0	56. 6	58. 0	5. 2	24. 30	10. 13	*1430					
2. 11	23. 15	7. 2	*1437	10. 20	*02204	22. 0	56. 8	58. 3	5. 14	23. 55	11. 57	*1431					
3. 49	23. 0	9. 21	*1433	13. 42	*02238	23. 0	57. 2	58. 6	5. 32	24. 45	12. 23	*1436					
4. 14	23. 20	12. 56	*1434	17. 15	*02257				6. 0	24. 40	12. 41	*1432					
4. 53	23. 10	16. 38	*1441	19. 54	*02250				6. 18	23. 20	12. 56	*1434					
5. 14	23. 30	18. 36	*1442	21. 9	*02255				6. 32	23. 30	13. 8	*1429					
5. 38	21. 10	22. 26	*1435	23. 11	*02221				7. 23	22. 20	13. 36	*1429					
5. 42	21. 15	23. 28	*1427	23. 59	*02246				7. 46	22. 0	14. 3	*1439					
5. 57	20. 20	23. 59	*1427						8. 13	21. 0	14. 24	*1437					
6. 11	21. 55								8. 26	21. 5	15. 6	*1441					
6. 26	21. 55								8. 42	19. 50	15. 41	*1435					
6. 32	21. 30								8. 56	19. 50	17. 29	*1443					
7. 6	22. 0								8. 59	20. 15	19. 55	*1442					
7. 13	21. 45								9. 10	19. 40	20. 36	*1430					
7. 26	21. 55								9. 26	15. 20	21. 57	*1430					
9. 0	20. 55								9. 43	16. 45	22. 28	*1422					
9. 34	21. 0								9. 49	16. 25	22. 52	*1425					
9. 47	20. 50								9. 56	17. 5	23. 59	*1425					
10. 2	20. 55								10. 0	16. 15							
10. 12	21. 40								10. 17	17. 55							
10. 26	20. 50								10. 27	17. 40							
10. 44	20. 20								10. 32	18. 0							
11. 21	21. 40								10. 43	16. 55							
11. 38	21. 20								10. 56	17. 55							
11. 51	22. 10								11. 3	17. 55							
11. 56	22. 0								11. 14	19. 10							
12. 11	22. 40								12. 4	21. 0							
12. 36	21. 55								12. 13	22. 15							
13. 56	23. 0								12. 26	21. 5							
	***								12. 41	20. 25							
18. 2	22. 35								12. 53	20. 50							
21. 4	21. 45								13. 13	20. 0							
21. 51	21. 55								13. 23	21. 20							
22. 13	23. 0								13. 35	21. 55							
22. 36	23. 0								13. 43	24. 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.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 10																	
h m	° ' "	h m		h m		h m	°	°	h m	° ' "	h m		h m	° ' "	h m	°	°
13. 59	20. 22. 0								Dec. 11	3. 26	20. 26. 40	7. 34	21. 12	02182			
14. 25	21. 20								3. 54	24. 20	7. 50	22. 23	02180				
14. 29	22. 20								4. 7	25. 20	8. 11		(†)				
14. 42	22. 20								4. 23	25. 15	8. 41						
14. 54	20. 45								4. 34	24. 0	8. 53						
14. 58	20. 20								4. 54	20. 10	9. 38						
15. 9	18. 25								4. 59	18. 50	11. 25						
15. 32	20. 25								5. 8	19. 30	11. 41						
15. 50	21. 5								5. 14	19. 5	11. 57						
16. 4	22. 10								5. 36	22. 10	14. 30						
16. 8	21. 45								5. 53	20. 40	14. 55						
16. 21	22. 30								6. 55	23. 55	16. 43						
16. 27	21. 50								7. 0	23. 15	19. 9						
16. 44	21. 40								7. 16	13. 10	19. 43						
16. 56	22. 5								7. 23	9. 5	***						
17. 9	21. 20								7. 36	14. 25	20. 33						
17. 19	22. 5								7. 55	18. 35	20. 56						
17. 27	21. 40								8. 15	18. 5	21. 26						
17. 58	22. 15								8. 28	20. 5	21. 44						
18. 9	22. 45								8. 42	21. 50	22. 56						
18. 14	21. 45								8. 56	20. 45	23. 10						
	***								9. 13	21. 10	23. 59						
18. 29	22. 25								10. 36	20. 30							
	***								11. 3	19. 40							
19. 9	22. 5								11. 17	19. 50							
19. 13	22. 50								11. 36	22. 5							
19. 27	22. 20								11. 58	19. 55							
20. 6	22. 55								12. 7	20. 15							
20. 13	22. 25								12. 20	19. 40							
20. 59	26. 0								12. 32	20. 30							
21. 18	25. 45								12. 55	21. 10							
21. 28	26. 30								13. 8	21. 0							
21. 41	25. 25								13. 23	21. 40							
21. 48	25. 25								13. 43	20. 25							
22. 6	26. 50								14. 11	20. 35							
22. 28	27. 25								14. 15	22. 30							
22. 39	27. 10								14. 32	23. 20							
23. 6	28. 30								14. 44	25. 30							
23. 12	28. 15								15. 25	21. 20							
23. 21	28. 25								15. 31	21. 30							
23. 42	26. 25								15. 36	21. 5							
23. 59	27. 45									***							
Dec. 11		Dec. 11		Dec. 11		Dec. 11			16. 56	23. 0							
h m	° ' "	h m		h m		h m	°	°	17. 6	22. 15							
0. 0	20. 27. 45	0. 0	*1425	0. 0	*02088	0. 0	52.6	53.7	17. 11	22. 40							
0. 20	27. 0	1. 23	*1425	1. 45	*02125	1. 0	54.2	55.3	17. 24	22. 20							
0. 37	27. 20	1. 39	*1416	2. 4	*02144	2. 0	54.6	55.9	17. 53	22. 45							
0. 50	26. 40	2. 27	*1425	4. 41	*02202	3. 0	55.1	55.9	18. 3	22. 10							
1. 14	26. 30	2. 55	*1418	5. 32	*02209	9. 0	55.4	56.3	18. 53	22. 30							
1. 21	27. 0	3. 8	*1419	7. 16	*02200	10. 40	55.5	56.3	19. 50	23. 55							
1. 43	24. 40	3. 26	*1413	7. 37	*02215	21. 0	56.1	57.0	20. 7	23. 30							
1. 56	24. 50	4. 6	*1423	8. 13	*02191	22. 0	56.8	57.3	20. 21	23. 40							
2. 10	23. 45	4. 30	*1423	8. 41	*02209	23. 0	56.7	57.6	20. 32	23. 10							
2. 33	27. 0	4. 56	*1412	10. 56	*02178				21. 14	23. 5							
2. 40	26. 25	5. 36	*1429	11. 36	*02183				21. 33	24. 10							
2. 52	27. 5	5. 55	*1424	11. 56	*02172				21. 49	23. 40							
2. 58	27. 0	6. 25	*1430	14. 29	*02180				21. 56	23. 55							
3. 17	28. 20	7. 9	*1415	15. 14	*02167				22. 25	23. 20							

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

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 Thermo-meters.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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 Thermo-meters.		
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.	
Dec. 11 h m																		
22. 32	20. 22. 40									Dec. 12 h m								
22. 53	23. 25									14. 56	20. 20. 25							
23. 10	22. 25									15. 13	21. 55							
23. 14	22. 55									15. 24	21. 50							
23. 51	22. 30									15. 32	22. 30							
23. 59	22. 45									15. 40	20. 30							
										15. 59	21. 50							
										16. 18	21. 30							
										16. 58	22. 5							
Dec. 12 o. o	20. 22. 45	Dec. 12 o. o	*1429	Dec. 12 h m	(†)	Dec. 12 o. o	57. 4	58. 2		17. 13	21. 0							
o. 16	22. 50	o. 26	*1436	1. 0	*02247*	1. 0	58. 0	59. 0		17. 53	22. 50							
o. 25	23. 55	3. 26	*1431	1. 26	*02250	2. 0	58. 0	59. 0		18. 3	22. 30							
1. 9	24. 15	4. 6	*1419	2. 57	*02293	3. 0	58. 3	59. 0		18. 53	22. 30							
1. 44	23. 0	6. 25	*1435	5. 53	*02323	9. 0	57. 9	58. 5		19. 43	24. 30							
1. 51	23. 20	6. 57	*1430	10. 54	*02317	21. 0	57. 0	58. 0		19. 56	23. 30							
1. 57	22. 55	8. 14	*1428	11. 35	*02297	22. 0	57. 4	58. 4		20. 23	23. 15							
2. 14	23. 40	8. 27	*1432	15. 52	*02276	23. 0	57. 8	58. 7		20. 32	23. 35							
2. 23	23. 20	8. 49	*1429	23. 59	*02300					20. 43	22. 55							
2. 40	23. 20	9. 22	*1428							21. 53	23. 30							
2. 59	24. 10	10. 11	*1422							22. 23	24. 20							
3. 8	24. 0	10. 42	*1422							23. 42	22. 45							
3. 36	24. 15	11. 13	*1436							23. 59	23. 55							
3. 44	25. 20	11. 34	*1430															
3. 58	25. 30	12. 27	*1425							Dec. 13 o. o	20. 23. 55	Dec. 13 o. o	*1431	Dec. 13 o. o	*02300	Dec. 13 o. o	58. 4	59. 0
4. 9	24. 25	13. 26	*1426							1. 6	24. 30	2. 9	*1423	1. 22	*02318	1. 0	58. 9	59. 6
4. 23	24. 5	14. 27	*1432							1. 34	23. 50	3. 36	*1421	2. 43	*02346	2. 0	58. 6	59. 2
4. 33	24. 50	14. 54	*1427							1. 56	24. 5	3. 57	*1411	5. 0	*02360	3. 0	58. 8	59. 5
4. 44	24. 5	15. 38	*1433							2. 4	23. 30	4. 14	*1409	10. 20	*02327	9. 0	57. 5	58. 0
4. 59	24. 35	16. 21	*1428							2. 33	23. 40	4. 51	*1420	13. 15	*02288	11. 0	57. 0	57. 2
5. 9	24. 0	17. 26	*1435							2. 41	23. 10	4. 57	*1420	18. 43	*02258	12. 0	56. 4	56. 9
5. 14	24. 10	17. 57	*1430							3. 42	23. 30	5. 13	*1423	23. 11	*02207	21. 0	55. 0	55. 4
5. 28	23. 25	18. 33	*1434							4. 9	21. 15	6. 33	*1421	23. 59	*02195	22. 0	54. 9	54. 4
5. 36	23. 30	19. 23	*1427							4. 19	22. 5	6. 57	*1424			23. 0	54. 9	55. 2
6. 7	22. 45	21. 28	*1433							4. 28	22. 5	11. 26	*1424					
6. 24	22. 55	23. 59	*1431							4. 44	22. 50	20. 32	*1431					
6. 50	21. 50									4. 58	22. 15	22. 32	*1428					
6. 56	22. 20									5. 7	21. 55	23. 12	*1431					
7. 23	21. 25									5. 15	22. 15	23. 59	*1431					
7. 39	21. 55									5. 33	22. 15							
8. 55	20. 40									6. 11	23. 0							
9. 24	20. 40									6. 33	22. 35							
9. 36	19. 30									6. 42	21. 55							
9. 50	19. 10									7. 4	21. 30							
10. 10	17. 55									7. 23	22. 0							
10. 32	19. 50									9. 28	21. 20							
10. 41	20. 10									9. 58	21. 45							
10. 48	19. 40									10. 36	21. 0							
10. 59	19. 45									10. 56	21. 30							
11. 6	20. 30									17. 16	22. 10							
11. 36	17. 30									19. 1	22. 15							
11. 43	18. 5									20. 9	22. 55							
11. 53	17. 40									20. 18	22. 30							
12. 43	20. 20									22. 26	22. 30							
12. 51	20. 5									22. 41	22. 55							
13. 42	21. 25									22. 56	22. 10							
13. 53	22. 35									22. 59	23. 0							
14. 20	20. 0									23. 59	23. 10							
14. 33	19. 45																	
14. 48	20. 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.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 14 h m s 0. 0	20. 23. 10	Dec. 14 h m s 0. 0	•1431	Dec. 14 h m s 0. 0	•02195	Dec. 14 h m s 0. 0	55. 0	55. 3	Dec. 14 h m s 22. 6	20. 23. 0	h m s		h m s		h m s	o	o
0. 28	23. 45	0. 32	•1430	1. 14	•02203	1. 0	55. 4	55. 8	22. 10	22. 45							
0. 59	23. 0	0. 59	•1425	3. 27	•02221	2. 0	55. 6	56. 1	22. 26	23. 10							
1. 17	23. 20	1. 21	•1427	5. 41	•02255	3. 0	55. 7	56. 6	22. 32	24. 5							
1. 36	22. 55	5. 27	•1429	7. 41	•02263	9. 0	56. 2	56. 8	22. 59	23. 40							
2. 26	22. 30	6. 11	•1426	9. 44	•02248	21. 0	53. 5	54. 0	23. 5	25. 0							
2. 40	23. 0	6. 26	•1422	14. 11	•02196	22. 0	53. 9	54. 1	23. 12	25. 10							
2. 51	22. 45	6. 56	•1418	18. 7	•02153	23. 0	54. 1	54. 6	23. 23	23. 55							
4. 6	23. 0	7. 28	•1426	22. 25	•02088				23. 32	25. 50							
4. 23	22. 0	7. 56	•1421	23. 42	•02093				23. 36	26. 0							
4. 41	22. 45	8. 55	•1421		(†)				23. 41	27. 10							
5. 26	21. 55	9. 23	•1426						23. 44	26. 5							
5. 47	22. 25	9. 36	•1423						23. 55	26. 0							
6. 7	22. 25	13. 32	•1422						23. 59	27. 45							
6. 26	20. 45	14. 8	•1429														
6. 39	20. 55	15. 12	•1425														
6. 51	19. 30	16. 9	•1426						Dec. 15 0. 0	20. 27. 45	Dec. 15 0. 0	•1433	Dec. 15 0. 55	(†)	Dec. 15 0. 0	54. 5	55. 0
6. 58	19. 25	17. 28	•1433						0. 12	25. 50	0. 18	•1429	0. 55	•02157	1. 0	55. 0	55. 5
7. 11	17. 40	21. 0	•1437						0. 15	26. 0	0. 35	•1429	5. 32	•02203	2. 30	55. 0	55. 5
7. 39	21. 10	21. 8	•1445						0. 21	25. 25	0. 54	•1421	10. 25	•02180	3. 0	55. 0	55. 8
7. 56	20. 55	21. 27	•1439						0. 36	26. 5	1. 4	•1425	19. 15	•02125	9. 0	54. 9	55. 7
8. 15	21. 55	21. 38	•1442						0. 41	25. 50	1. 14	•1419	23. 59	•02083	21. 45	53. 6	54. 1
8. 43	21. 20	22. 38	•1428						0. 56	27. 50	1. 54	•1424					
8. 53	21. 45	22. 59	•1428						1. 38	26. 0	2. 0	•1430					
9. 8	21. 5	23. 59	•1433						1. 45	24. 45	2. 13	•1428					
9. 26	21. 5								1. 57	25. 30	2. 32	•1433					
9. 38	20. 20								2. 11	23. 55	2. 53	•1429					
9. 56	21. 5								2. 26	25. 5	3. 10	•1431					
10. 8	20. 40								2. 41	25. 5	3. 14	•1428					
10. 23	20. 40								2. 56	23. 30		***					
10. 28	21. 0								3. 7	24. 10	3. 35	•1431					
10. 39	20. 25								3. 11	22. 0	3. 53	•1424					
10. 47	20. 45								3. 13	24. 5	4. 11	•1429					
12. 21	21. 35								3. 18	23. 0	4. 47	•1421					
12. 33	22. 10								3. 21	23. 50	5. 11	•1423					
12. 41	21. 40								3. 26	23. 50	5. 29	•1414					
13. 6	21. 45								3. 33	22. 55	5. 56	•1422					
13. 20	22. 40								3. 53	24. 10	7. 16	•1427					
13. 36	22. 0								3. 58	23. 50	7. 36	•1422					
13. 47	22. 55								4. 24	26. 45	7. 50	•1425					
14. 4	22. 55								4. 37	26. 40	8. 9	•1425					
14. 32	21. 0								4. 59	25. 20	8. 19	•1421					
15. 8	21. 50								5. 23	22. 5	8. 52	•1424					
15. 27	22. 15								5. 30	21. 50	8. 59	•1421					
15. 56	22. 5								5. 41	20. 55	9. 33	•1426					
16. 9	21. 30								5. 56	20. 0	10. 17	•1423					
16. 22	22. 20								6. 3	20. 10	10. 27	•1426					
16. 26	22. 0								6. 14	19. 50	10. 33	•1423					
16. 31	22. 45								6. 37	21. 20	10. 44	•1426					
16. 54	21. 55								6. 41	21. 20	11. 9	•1420					
19. 42	21. 55								6. 53	22. 45	11. 24	•1423					
20. 33	21. 10								7. 13	22. 15		***					
20. 55	21. 25								7. 23	22. 45	14. 7	•1420					
20. 59	20. 35								7. 38	22. 0	14. 18	•1426					
21. 32	23. 5								7. 46	22. 15	14. 27	•1423					
21. 39	22. 45								7. 56	22. 5	14. 40	•1427					
21. 53	23. 35								7. 59	22. 35	14. 43	•1424					
21. 59	22. 25								8. 37	20. 40	15. 0	•1429					

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 15		Dec. 15							Dec. 16		Dec. 16		Dec. 16		Dec. 16		
8. 55	20. 21. 55	15. 26	*1425						0. 14	20. 24. 40	1. 23	*1431	2. 54	*02100	22. 0	51. 7	52. 4
9. 58	20. 50	15. 41	*1428						0. 25	25. 45	1. 59	*1439	3. 13	*02117	23. 0	51. 7	52. 4
10. 26	21. 30	15. 54	*1425						0. 32	24. 40	2. 50	*1427	3. 53	*02106			
10. 34	20. 55	17. 16	*1429						0. 53	26. 40	3. 10	*1437	4. 39	*02145			
10. 55	21. 45	17. 26	*1424						1. 0	25. 45	3. 33	*1426	6. 29	*02137			
11. 12	20. 30	17. 54	*1431						1. 13	26. 10	3. 52	*1406	8. 6	*02141			
11. 21	21. 20	17. 59	*1427						1. 33	25. 20	4. 34	*1426	9. 33	*02125			
12. 22	21. 10	18. 30	*1431						1. 49	27. 40	5. 6	*1425		(†)			
12. 44	20. 0	18. 50	*1435						1. 58	27. 10	5. 13	*1429	12. 24	*02084			
13. 26	20. 10	20. 39	*1437						2. 11	26. 55	5. 27	*1423	12. 45	*02070			
14. 1	21. 0	20. 48	*1431						2. 23	27. 30	6. 2	*1427	14. 21	*02044			
14. 9	20. 50		***						2. 48	25. 30	6. 18	*1432	18. 26	*02036			
14. 15	22. 5	21. 4	*1440						2. 56	25. 50	6. 33	*1419	23. 59	*02000			
14. 33	21. 40	21. 26	*1440						3. 3	25. 15	6. 43	*1427					
14. 44	20. 50	21. 44	*1437						3. 19	30. 10	6. 56	*1422					
15. 12	21. 5	23. 59	*1432						3. 26	29. 30	7. 6	*1423					
15. 21	20. 25								3. 34	30. 5	7. 13	*1416					
15. 52	21. 0								4. 6	19. 50	7. 33	*1424					
16. 10	22. 25								4. 11	19. 40	7. 49	*1424					
16. 21	22. 0								4. 17	18. 0	7. 57	*1431					
16. 26	22. 25								4. 27	17. 55	8. 9	*1430					
16. 43	21. 25								4. 44	25. 20	8. 16	*1426					
17. 10	22. 0								4. 54	25. 15	8. 43	*1427					
17. 23	22. 30								5. 6	27. 0	9. 6	*1415					
17. 29	21. 25								5. 19	29. 30	9. 32	*1421					
17. 41	21. 55								5. 26	28. 5	9. 41	*1417					
17. 52	21. 20									***	9. 46	*1421					
17. 56	22. 10								6. 6	24. 15	9. 55	*1417					
18. 3	21. 40		***						6. 9	23. 20	10. 11	*1418					
18. 55	20. 45								6. 14	23. 20	10. 42	*1432					
19. 4	21. 45								6. 26	25. 10	11. 21	*1403					
19. 28	21. 35								6. 39	23. 30	11. 41	*1405					
19. 42	22. 10								6. 48	23. 35	12. 32	*1428					
19. 53	21. 55								6. 59	21. 40	12. 47	*1417					
20. 0	22. 20								7. 9	22. 40	13. 14	*1426					
20. 30	21. 45								7. 13	22. 10	13. 25	*1421					
20. 40	22. 15								7. 28	18. 0		***					
20. 49	21. 25								7. 41	17. 10	14. 8	*1427					
20. 54	21. 0								7. 50	18. 10	14. 27	*1419					
20. 58	21. 40								7. 56	18. 15	14. 39	*1424					
21. 6	21. 50								8. 10	21. 10	15. 26	*1424					
21. 14	21. 15								8. 26	21. 40	15. 29	*1418					
21. 23	22. 10								8. 33	19. 15	15. 41	*1426					
21. 32	22. 30								8. 42	19. 10	16. 29	*1426					
	***								9. 9	14. 50	16. 35	*1421					
21. 59	21. 50								9. 14	15. 20	16. 44	*1426					
22. 14	22. 45								9. 18	15. 20	16. 56	*1423					
22. 33	22. 20								9. 26	16. 50	17. 9	*1428					
22. 55	24. 10								9. 43	18. 35	17. 53	*1427					
23. 14	23. 35								10. 26	18. 25	18. 8	*1431					
23. 55	24. 15								10. 28	17. 20	18. 18	*1429					
23. 59	25. 0								10. 41	18. 10	18. 41	*1436					
									10. 48	20. 0	18. 56	*1429					
									10. 58	20. 40		***					
Dec. 16		Dec. 16		Dec. 16		Dec. 16			11. 14	16. 5	19. 32	*1417					
0. 0	2c. 25. 0	0. 0	*1432	0. 0	*02083	1. 0	53. 9	54. 1	11. 28	17. 5	19. 43	*1425					
	***	0. 23	*1434	0. 47	*02080	8. 30	53. 2	54. 0	11. 41	15. 0	19. 58	*1424					
0. 8	25. 0	0. 35	*1430	2. 11	*02118	21. 0	51. 7	52. 3	12. 9	19. 40	20. 6	*1430					
												***					

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 16		Dec. 16							Dec. 16								
12. 21	20. 18. 25	20. 41	*1427						21. 9	20. 25. 20							
12. 42	21. 25	20. 53	*1422							***							
12. 54	20. 0	20. 58	*1425						21. 56	22. 25							
12. 59	20. 0	21. 7	*1425						22. 25	25. 0							
13. 7	18. 45	21. 13	*1431						22. 28	23. 55							
13. 14	18. 25		***						22. 42	25. 0							
13. 36	22. 10	21. 55	*1419						23. 21	23. 0							
13. 41	22. 0	22. 2	*1426						23. 39	23. 55							
14. 8	22. 20	22. 20	*1429						23. 59	23. 45							
14. 16	21. 5	22. 29	*1424														
14. 32	20. 40	22. 51	*1425						Dec. 17		Dec. 17		Dec. 17		Dec. 17		
14. 39	22. 5	23. 2	*1422						0. 0	20. 23. 45	0. 0	*1432	0. 0	*02000	0. 0	52. 1	52. 8
14. 43	21. 0	23. 59	*1432						0. 24	25. 0	0. 53	*1436	3. 6	*02157	1. 0	52. 2	53. 4
14. 53	21. 10								0. 39	24. 10	1. 59	*1432	4. 28	*02205	2. 0	52. 6	53. 9
14. 58	20. 20								0. 53	25. 20	2. 53	*1425	6. 41	*02227	3. 0	53. 2	54. 7
15. 6	20. 30								0. 57	24. 55	3. 24	*1432	7. 10	*02247	3. 0	54. 7	56. 6
15. 19	19. 40								1. 18	26. 55	3. 44	*1428	7. 58	*02236	21. 0	55. 2	56. 4
15. 33	20. 40								1. 26	26. 0	3. 57	*1420	9. 56	*02264	22. 0	55. 4	57. 0
15. 34	20. 15								1. 39	26. 10	4. 18	*1428	10. 8	*02296	23. 0	55. 7	57. 2
15. 43	21. 20								1. 50	25. 50	4. 33	*1424	10. 26	*02257			
15. 56	19. 0								2. 23	25. 50	4. 48	*1432	11. 24	*02263			
16. 4	19. 0								2. 29	24. 40	4. 58	*1429	12. 4	*02258			
16. 17	19. 20								2. 38	23. 40	5. 41	*1434	12. 41	*02280			
16. 29	21. 5								2. 50	24. 55	5. 56	*1431	13. 26	*02262			
16. 36	22. 15								2. 56	23. 40	6. 18	*1431	18. 15	*02283			
16. 43	20. 25								3. 6	23. 0	6. 39	*1421	23. 59	*02322			
16. 51	20. 35								3. 17	21. 30	7. 19	*1455					
16. 54	21. 55								3. 26	21. 30	7. 35	*1453					
16. 58	20. 20								3. 34	19. 45	7. 49	*1435					
17. 6	20. 5								3. 47	18. 20	7. 56	*1438					
17. 12	21. 40								3. 58	15. 30	8. 14	*1427					
17. 16	20. 30								4. 8	14. 0	8. 28	*1430					
17. 38	21. 15								4. 12	14. 0	8. 48	*1426					
17. 41	20. 55								4. 15	16. 55	9. 3	*1433					
17. 53	21. 0								4. 19	15. 20	9. 23	*1428					
17. 58	21. 55								4. 26	16. 45	9. 36	*1415					
	***								4. 29	16. 10	9. 59	*1419					
18. 14	21. 0								4. 51	20. 0	10. 10	*1439					
18. 31	22. 40								4. 56	19. 20	10. 18	*1428					
18. 37	24. 0								4. 59	19. 5	10. 32	*1424					
18. 51	23. 20								5. 18	21. 20	10. 39	*1430					
18. 56	22. 0								5. 26	21. 20	10. 49	*1427					
19. 0	21. 55								5. 40	22. 40	11. 10	*1443					
19. 4	23. 0								5. 58	23. 0	11. 26	*1433					
19. 11	22. 20								6. 28	21. 40	11. 41	*1432					
19. 23	23. 40								6. 44	13. 0	11. 59	*1425					
19. 25	25. 0								6. 56	6. 45	12. 9	*1416					
19. 34	23. 50								7. 8	9. 50	12. 27	*1414					
19. 49	27. 0								7. 21	11. 50	12. 51	*1425					
20. 14	24. 50								7. 41	19. 10	13. 11	*1426					
20. 23	23. 5								7. 52	17. 20	13. 57	*1433					
20. 25	24. 15								7. 56	18. 15	14. 21	*1428					
20. 26	22. 0								8. 11	18. 25	14. 56	*1426					
20. 27	25. 5								8. 27	20. 20	15. 6	*1430					
20. 30	23. 15								8. 37	20. 0	15. 27	*1427					
20. 35	25. 10								8. 43	20. 25	15. 59	*1430					
20. 43	25. 30								9. 8	19. 0	16. 27	*1426					
20. 51	24. 30								9. 20	20. 30	16. 59	*1427					

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. 17		Dec. 17							Dec. 17								
9. 32	20. 15. 40	17. 34	*1424						23. 40	20. 24. 0							
9. 58	17. 30	18. 13	*1430						23. 52	23. 40							
10. 9	29. 5	18. 29	*1425						23. 59	24. 5							
10. 30	20. 40	18. 37	*1431														
10. 38	20. 10	18. 49	*1425						Dec. 18		Dec. 18		Dec. 18		Dec. 18		
10. 55	14. 20	19. 2	*1431						0. 0	20. 24. 5	0. 0	*1426	0. 0	*02322	0. 0	56. 2	57. 4
10. 59	15. 25	19. 31	*1430						0. 13	23. 5	1. 34	*1432	4. 19	*02386	1. 0	56. 8	58. 0
11. 6	15. 25	20. 18	*1433						0. 50	23. 40	2. 59	*1429	7. 52	*02400	2. 0	56. 8	58. 0
11. 28	19. 10	20. 43	*1429						1. 42	23. 15	3. 21	*1433	8. 52	*02362	3. 0	56. 8	58. 0
11. 56	14. 40	21. 42	*1430						1. 52	22. 30	3. 56	*1416	9. 9	*02377	9. 0	56. 5	57. 5
12. 7	14. 0	23. 19	*1426						1. 58	23. 30	4. 26	*1430	9. 28	*02358	21. 0	57. 4	59. 0
12. 36	18. 5	23. 59	*1426						2. 29	23. 25	4. 44	*1426	10. 25	*02360	22. 0	57. 6	59. 3
12. 51	25. 20								2. 39	23. 40	5. 29	*1430	10. 54	*02377	23. 0	57. 3	58. 9
12. 58	25. 55								2. 43	23. 0	5. 58	*1424	12. 40	*02398			
13. 10	24. 55								2. 58	23. 25	7. 40	*1425	23. 59	*02437			
13. 22	24. 20								3. 7	22. 45	7. 56	*1442					
13. 26	25. 10								3. 33	23. 0	8. 11	*1435					
13. 41	24. 0								3. 58	19. 30	8. 26	*1445					
13. 56	21. 20								4. 12	19. 30	8. 39	*1431					
14. 24	20. 10								4. 20	18. 55	8. 50	*1426					
14. 37	20. 50								4. 39	21. 55	9. 13	*1450					
14. 50	19. 50								4. 52	20. 40	9. 33	*1435					
15. 0	21. 5								5. 16	21. 50	9. 50	*1438					
15. 11	19. 25								5. 28	21. 10	10. 19	*1422					
15. 42	22. 10								5. 53	21. 50	10. 27	*1411					
15. 50	20. 40								6. 11	20. 35	10. 53	*1425					
16. 8	19. 10								6. 32	21. 20	11. 6	*1418					
16. 15	20. 15								6. 40	21. 0	11. 27	*1418					
16. 20	20. 0								6. 56	21. 50	11. 41	*1411					
16. 29	22. 0								7. 3	22. 45	12. 32	*1410					
16. 33	22. 10								7. 26	23. 10	12. 43	*1418					
16. 53	21. 15								7. 42	19. 55	13. 13	*1413					
17. 4	21. 35								7. 58	23. 0	13. 37	*1418					
17. 26	21. 0								8. 11	22. 10	15. 10	*1417					
	***								8. 17	23. 10	15. 28	*1421					
18. 37	22. 10								8. 26	25. 0	16. 36	*1421					
18. 50	21. 0								8. 43	14. 30	17. 32	*1429					
19. 7	22. 5								8. 55	15. 5	17. 41	*1426					
19. 28	21. 30								9. 0	14. 0	17. 56	*1429					
19. 58	21. 55								9. 14	17. 50	18. 14	*1423					
20. 13	21. 20								9. 25	16. 30	19. 3	*1421					
20. 22	21. 45								9. 39	15. 45	19. 53	*1426					
20. 37	21. 0								9. 59	20. 30	20. 56	*1428					
20. 46	22. 5								10. 10	21. 10	21. 3	*1424					
20. 56	21. 20								10. 15	21. 5	21. 53	*1420					
20. 59	21. 50								10. 30	15. 30	22. 11	*1424					
21. 33	22. 35								10. 55	19. 25	23. 59	*1419					
21. 43	22. 15								11. 12	19. 45							
21. 56	22. 50								11. 45	18. 35							
22. 6	22. 30								12. 3	19. 25							
22. 20	23. 15								12. 13	20. 0							
22. 30	23. 0								12. 33	19. 40							
22. 39	23. 40								12. 43	21. 55							
22. 41	22. 5								12. 53	21. 55							
22. 47	24. 30								12. 58	21. 15							
22. 57	25. 50								13. 9	22. 15							
23. 19	24. 0								13. 17	21. 40							
23. 27	23. 45								13. 47	22. 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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 18																	
13. 56	20. 22. 50									Dec. 19							
14. 3	22. 45									5. 39	20. 16. 15	12. 13	'1419				
14. 13	22. 10									5. 44	13. 40	12. 32	'1416				
14. 41	22. 50									5. 53	13. 55	13. 27	'1420				
14. 57	21. 35									5. 56	13. 10	15. 18	'1421				
	***									6. 4	13. 20	15. 41	'1424				
15. 29	22. 20									6. 23	17. 30	16. 16	'1418				
15. 44	20. 45									6. 36	19. 20	16. 42	'1423				
	***									6. 41	19. 20	16. 56	'1420				
16. 23	22. 0									7. 3	20. 55	17. 12	'1425				
16. 29	21. 45									7. 25	20. 30	19. 19	'1429				
16. 39	21. 20									7. 56	22. 5	20. 29	'1428				
16. 44	22. 0									8. 56	20. 40	21. 6	'1422				
16. 56	21. 20									9. 7	19. 45	22. 20	'1424				
17. 12	21. 30									9. 26	21. 10	***					
17. 26	19. 40									9. 53	21. 0	23. 59	'1428				
17. 56	21. 25									10. 9	23. 5						
18. 57	21. 25									10. 25	20. 25						
19. 9	22. 0									10. 33	20. 50						
19. 23	21. 40									10. 43	19. 45						
20. 2	22. 25									11. 2	22. 50						
20. 8	22. 0									11. 14	21. 25						
20. 26	23. 0									11. 30	21. 25						
20. 41	23. 0									11. 59	19. 50						
21. 3	22. 30									12. 43	22. 30						
21. 24	22. 30									12. 57	22. 30						
21. 34	22. 0									13. 6	23. 5						
22. 18	23. 55									13. 17	22. 30						
22. 32	25. 25									13. 26	22. 55						
22. 42	24. 20									13. 44	22. 5						
22. 59	24. 0									14. 11	22. 5						
23. 8	24. 20									14. 23	23. 10						
23. 11	25. 15									14. 43	22. 20						
23. 14	24. 40									15. 11	22. 30						
23. 59	24. 40									15. 45	21. 0						
										15. 56	21. 45						
										16. 14	21. 45						
										16. 27	20. 45						
										16. 51	22. 20						
										17. 13	21. 10						
										17. 49	20. 40						
										18. 13	21. 10						
										18. 30	20. 30						
										19. 16	20. 40						
										19. 26	21. 20						
										19. 38	20. 55						
										19. 42	21. 35						
										20. 55	21. 0						
										21. 16	21. 40						
										21. 25	21. 5						
										22. 11	24. 5						
										22. 18	23. 0						
										22. 32	23. 0						
										22. 39	22. 20						
										22. 53	23. 10						
										23. 10	22. 25						
										23. 14	23. 50						
										23. 37	23. 0						
										23. 59	23. 10						

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



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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 20 h m s 0. 0	20. 23. 10	Dec. 20 h m s 0. 0	*1428	Dec. 20 h m s 0. 0	*02205	Dec. 20 h m s 0. 0	53. 9	55. 0	Dec. 21 h m s 2. 30	20. 22. 50	Dec. 21 h m s 9. 24	*1422	Dec. 21 h m s 21. 40	*02176	Dec. 21 h m s 9. 0	54. 4	55. 7
0. 13	23. 45	2. 14	*1430	3. 42	*02266	1. 0	54. 2	55. 5	3. 2	22. 55	9. 42	*1431	23. 59	*02207	21. 0	53. 0	54. 3
0. 26	23. 35	2. 38	*1428	4. 11	*02260	2. 0	54. 5	55. 8	3. 13	22. 35	10. 2	*1424			22. 30	53. 4	55. 0
0. 56	25. 0	3. 44	*1430	4. 45	*02274	3. 0	55. 1	56. 1	3. 43	21. 50	10. 31	*1425			23. 0	53. 8	55. 2
1. 17	23. 45	4. 18	*1416	6. 30	*02265	9. 0	54. 7	56. 0	4. 20	22. 20	11. 6	*1418					
2. 12	24. 0	5. 6	*1430	9. 19	*02276	21. 0	54. 0	55. 1	5. 0	22. 5	11. 21	*1425					
2. 55	22. 45	6. 36	*1428	16. 27	*02255	22. 0	54. 4	55. 5	5. 26	23. 0	12. 32	*1428					
3. 29	23. 0	6. 49	*1422	23. 59	*02260	23. 0	54. 8	56. 0	5. 41	22. 30	14. 23	*1425					
3. 43	23. 55	7. 7	*1425						5. 48	22. 45	14. 37	*1429					
3. 57	23. 50	7. 25	*1422						5. 59	22. 10	14. 54	*1426					
4. 21	19. 25	7. 49	*1428						6. 54	23. 10	18. 23	*1428					
5. 3	21. 50	8. 13	*1423						7. 23	22. 20	18. 57	*1430					
5. 23	21. 50	8. 28	*1422						7. 39	22. 20	20. 40	*1432					
6. 26	22. 40	8. 42	*1427						8. 9	21. 20	22. 56	*1428					
6. 36	23. 25	8. 58	*1419						8. 23	21. 45	23. 59	*1428					
6. 55	23. 5	9. 40	*1425						8. 38	21. 10							
7. 25	21. 0	11. 26	*1425						9. 6	21. 10							
7. 29	20. 10	11. 43	*1424						9. 10	20. 50							
7. 43	19. 15	16. 11	*1424						9. 39	16. 10							
8. 18	21. 15	17. 58	*1429						9. 56	18. 30							
8. 26	20. 45	20. 29	*1423						10. 12	20. 20							
8. 41	22. 5	20. 43	*1425						10. 26	20. 20							
8. 59	21. 15	21. 29	*1422						10. 42	20. 50							
9. 11	21. 55	21. 41	*1426						11. 8	19. 55							
9. 28	20. 45	***							11. 20	21. 10							
9. 59	21. 30	23. 59	*1431						12. 26	23. 0							
10. 17	21. 0								13. 6	21. 45							
11. 6	21. 10								***								
11. 59	22. 5								13. 39	22. 50							
12. 18	22. 0								14. 25	22. 20							
12. 59	22. 30								14. 41	22. 30							
13. 50	21. 50								14. 50	23. 10							
14. 44	22. 15								15. 7	22. 15							
14. 56	21. 50								15. 26	22. 0							
15. 43	21. 40								15. 36	21. 30							
16. 6	22. 20								15. 44	22. 0							
16. 28:	21. 45								16. 9	21. 20							
16. 49	22. 30								16. 33	21. 30							
17. 9	22. 25								16. 55	20. 50							
17. 46:	20. 45								17. 27	21. 55							
18. 10	21. 10								18. 59	20. 20							
18. 44	21. 25								19. 13	20. 50							
	***								20. 4	21. 0							
20. 57	20. 40								20. 11	20. 40							
21. 14	21. 50								21. 30	21. 30							
21. 23	21. 5								21. 36	20. 55							
21. 48	22. 20								21. 42	21. 55							
21. 58	22. 20								22. 18	22. 0							
22. 26	22. 40								22. 41	22. 55							
22. 30	21. 55								23. 41	23. 15							
22. 40	23. 0								23. 59	23. 15							
23. 19	23. 0																
23. 59	23. 55																
Dec. 21 h m s 0. 0	20. 23. 55	Dec. 21 h m s 0. 0	*1431	Dec. 21 h m s 0. 0	*02260	Dec. 21 h m s 0. 0	54. 9	56. 4	Dec. 22 h m s 0. 11	20. 23. 15	Dec. 22 h m s 0. 0	*1428	Dec. 22 h m s 0. 0	*02207	Dec. 22 h m s 0. 0	54. 5	56. 0
0. 16	23. 0	3. 40	*1431	5. 42	*02300	1. 0	53. 9	56. 3	0. 17	23. 30	0. 27	*1432	3. 55	*02277	1. 0	55. 2	56. 4
0. 39	23. 50	8. 52	*1428	9. 10	*02286	3. 0	53. 5	56. 3	0. 23	23. 10	1. 11	*1429	9. 57	*02295	2. 0	54. 2	56. 0
									0. 36	24. 10	3. 0	*1434	14. 55	*02320	3. 0	55. 1	57. 0
										23. 45	3. 26	*1429	20. 38	*02317	9. 0	55. 3	56. 7

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 22 0. 53 1. 8 1. 40 1. 44 1. 53 2. 54 2. 58 3. 23 3. 29 4. 10 4. 16 5. 33 5. 42 5. 53 6. 26 7. 13 8. 9 8. 13 8. 40 9. 12 9. 46 11. 37 11. 53 11. 59 12. 17 12. 43 13. 30 15. 40 15. 53 16. 9 16. 14 17. 12 18. 20 20. 25 22. 25 23. 59	20. 23. 55 24. 40 24. 0 23. 15 23. 55 23. 40 22. 50 23. 50 23. 10 23. 0 23. 30 23. 10 23. 20 22. 55 22. 50 21. 10 21. 45 21. 10 22. 25 21. 10 21. 40 21. 10 22. 5 21. 20 22. 5 21. 30 22. 0 21. 55 21. 20 22. 10 21. 50 21. 40 22. 5 21. 30 23. 5 22. 30	Dec. 22 4. 48 5. 44 7. 26 8. 11 8. 39 11. 29 11. 51 12. 17 16. 26 23. 59	*1430 *1428 *1430 *1427 *1430 *1423 *1428 *1424 *1429 *1428	Dec. 22 23. 59	*02325	Dec. 22 10. 0 21. 0	55. 0 55. 7	57. 0 57. 2	Dec. 23 9. 55 12. 59 13. 38 13. 55 16. 32 16. 41 16. 53 18. 15 20. 56 22. 26 23. 59	20. 20. 25 21. 50 21. 30 22. 5 22. 10 22. 50 22. 0 22. 30 21. 25 22. 20 23. 20	Dec. 23 0. 0 1. 13 2. 39 3. 14 3. 26 3. 43 3. 56 5. 3 7. 13 7. 34 7. 51 8. 8 8. 14 8. 24 8. 28 8. 56 9. 10 10. 11 10. 25 10. 44 11. 12 18. 17 18. 42 19. 38 21. 0 21. 21 21. 32 22. 26 22. 36 23. 59	20. 23. 20 23. 45 23. 15 22. 50 23. 0 22. 30 22. 55 22. 0 21. 55 21. 15 21. 40 18. 55 19. 0 20. 5 19. 50 20. 50 20. 0 19. 50 20. 10 19. 50 22. 0 21. 40 21. 30 20. 30 20. 50 22. 0 22. 55 22. 30 23. 55	Dec. 24 0. 0 1. 38 5. 35 10. 27 17. 4 20. 41 22. 53	*1424 *1432 *1433 *1427 *1430 *1428 *1423 *1426 *1423 *1426 *1431 *1435 *1432 *1436 *1433 *1435	Dec. 24 0. 0 1. 38 5. 35 10. 27 17. 4 20. 41 22. 53	*02320 *02347 *02353 *02317 *02307 *02277 *02234 (†)	Dec. 24 0. 0 1. 0 2. 0 3. 0 9. 0 21. 15	55. 0 56. 1 56. 2 55. 5 54. 9 54. 0	57. 4 57. 7 57. 3 57. 1 56. 1 55. 3 (†)	Dec. 23 0. 0 1. 3 1. 58 3. 2 3. 14 3. 46 3. 55 4. 39 5. 25 5. 49 6. 25 6. 34 7. 18 7. 26 7. 36 8. 0 8. 25 8. 39 9. 12 9. 33	20. 22. 30 23. 30 22. 55 23. 15 22. 30 22. 20 23. 0 22. 5 22. 40 21. 0 21. 20 21. 0 21. 45 20. 30 21. 10 21. 0 21. 20 20. 5 21. 0 19. 10	Dec. 23 0. 0 2. 26 2. 45 4. 13 4. 51 5. 43 6. 36 7. 20 9. 26 9. 48 10. 6 10. 23 10. 47 11. 6 16. 29 16. 48 20. 32 22. 23 23. 59	*1428 *1427 *1424 *1425 *1430 *1427 *1432 *1429 *1427 *1431 *1428 *1429 *1425 *1427 *1431 *1429 *1428 *1422 *1424	Dec. 23 0. 0 4. 45 8. 22 17. 56 23. 59	*02325 *02344 *02356 *02337 *02320	Dec. 23 0. 0 8. 30 21. 0 22. 0 23. 0	55. 5 55. 8 55. 5 54. 3	56. 9 57. 4 57. 0 57. 2	Dec. 23 21. 21 21. 32 22. 26 22. 36 23. 59	20. 50 22. 0 22. 55 22. 30 23. 55	Dec. 25 0. 0 0. 9 0. 21 0. 33 0. 55 1. 32 1. 41 2. 23 2. 52 3. 10 3. 23 3. 28 3. 43	20. 23. 55 23. 50 24. 40 24. 5 24. 5 25. 10 24. 55 25. 10 24. 5 24. 55 24. 0 23. 50 25. 0	Dec. 25 0. 0 2. 26 3. 25 3. 37 3. 51 4. 10 4. 41 4. 57 5. 8 5. 18 5. 27 5. 54 6. 3	*1435 *1439 *1428 *1435 *1432 *1441 *1443 *1434 *1439 *1432 *1438 *1413 *1423	Dec. 25 0. 42 2. 15 4. 20 5. 0 5. 52 7. 40 8. 12 8. 30 9. 55 12. 34 18. 55 23. 18	(†) *02217 *02246 *02268 *02273 *02303 *02407 *02364 *02377 *02328 *02320 *02344 *02357 (†)	Dec. 25 0. 35 9. 30 21. 0 22. 0 23. 0	54. 0 55. 7 56. 6 56. 4 56. 4	55. 5 57. 0 57. 8 57. 8 58. 2
Dec. 23 0. 0 1. 3 1. 58 3. 2 3. 14 3. 46 3. 55 4. 39 5. 25 5. 49 6. 25 6. 34 7. 18 7. 26 7. 36 8. 0 8. 25 8. 39 9. 12 9. 33	20. 22. 30 23. 30 22. 55 23. 15 22. 30 22. 20 23. 0 22. 5 22. 40 21. 0 21. 20 21. 0 21. 45 20. 30 21. 10 21. 0 21. 20 20. 5 21. 0 19. 10	Dec. 23 0. 0 2. 26 2. 45 4. 13 4. 51 5. 43 6. 36 7. 20 9. 26 9. 48 10. 6 10. 23 10. 47 11. 6 16. 29 16. 48 20. 32 22. 23 23. 59	*1428 *1427 *1424 *1425 *1430 *1427 *1432 *1429 *1427 *1431 *1428 *1429 *1425 *1427 *1431 *1429 *1428 *1422 *1424	Dec. 23 0. 0 4. 45 8. 22 17. 56 23. 59	*02325 *02344 *02356 *02337 *02320	Dec. 23 0. 0 8. 30 21. 0 22. 0 23. 0	55. 5 55. 8 55. 5 54. 3	56. 9 57. 4 57. 0 57. 2	Dec. 23 21. 21 21. 32 22. 26 22. 36 23. 59	20. 50 22. 0 22. 55 22. 30 23. 55	Dec. 25 0. 0 0. 9 0. 21 0. 33 0. 55 1. 32 1. 41 2. 23 2. 52 3. 10 3. 23 3. 28 3. 43	20. 23. 55 23. 50 24. 40 24. 5 24. 5 25. 10 24. 55 25. 10 24. 5 24. 55 24. 0 23. 50 25. 0	Dec. 25 0. 0 2. 26 3. 25 3. 37 3. 51 4. 10 4. 41 4. 57 5. 8 5. 18 5. 27 5. 54 6. 3	*1435 *1439 *1428 *1435 *1432 *1441 *1443 *1434 *1439 *1432 *1438 *1413 *1423	Dec. 25 0. 42 2. 15 4. 20 5. 0 5. 52 7. 40 8. 12 8. 30 9. 55 12. 34 18. 55 23. 18	(†) *02217 *02246 *02268 *02273 *02303 *02407 *02364 *02377 *02328 *02320 *02344 *02357 (†)	Dec. 25 0. 35 9. 30 21. 0 22. 0 23. 0	54. 0 55. 7 56. 6 56. 4 56. 4	55. 5 57. 0 57. 8 57. 8 58. 2																				

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 25 h m s 3. 58 20. 24. 10		Dec. 25 h m s 6. 20	.1406						Dec. 25 h m s 23. 6 20. 25. 10								
4. 22 24. 45		6. 36	.1408						23. 47 24. 45								
4. 30 26. 15		6. 51	.1385						23. 59 26. 5								
4. 38 25. 10		7. 18	.1393														
4. 53 27. 45		7. 28	.1380														
4. 57 26. 55		7. 43	.1398														
5. 11 28. 20		8. 9	.1403														
5. 23 28. 45		8. 28	.1376														
5. 36 32. 25		8. 42	.1395														
5. 44 31. 5		9. 7	.1405														
5. 57 26. 10		10. 13	.1413														
6. 19 24. 0		11. 33	.1414														
6. 38 26. 50		12. 9	.1420														
6. 55 19. 5		12. 32	.1414														
7. 6 19. 0		12. 43	.1416														
7. 11 20. 10		12. 58	.1414														
7. 13 19. 55		14. 56	.1416														
7. 21 23. 0		17. 38	.1421														
7. 38 14. 10		20. 20	.1426														
7. 43 15. 10		20. 56	.1420														
***		21. 26	.1422														
7. 56 13. 10		21. 58	.1418														
8. 9 17. 40		22. 27	.1417														
8. 20 16. 55		22. 48	.1421														
8. 29 11. 10		22. 56	.1418														
8. 46: 18. 30		23. 6	.1420														
9. 4 21. 20		23. 16	.1419														
9. 19 21. 45		23. 59	.1420														
9. 36 20. 55																	
9. 59 22. 0																	
10. 26 21. 15																	
11. 33 22. 30																	
11. 55 21. 20																	
12. 21 23. 0																	
12. 56: 21. 10																	
13. 9 21. 45																	
13. 18 21. 20																	
13. 56 22. 20																	
14. 14 22. 15																	
14. 36 23. 0																	
14. 46 22. 20																	
14. 57 22. 45																	
***																	
16. 52 22. 25																	
16. 57 23. 0																	
17. 9 22. 20																	
17. 23 22. 50																	
19. 26 22. 20																	
20. 10 22. 25																	
20. 29 21. 55																	
***																	
21. 18 22. 55																	
21. 36 22. 30																	
22. 12 23. 20																	
22. 28 24. 35																	
22. 38 24. 0																	
22. 44 24. 20																	
22. 55 24. 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.	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. 27 0. 0	20. 24. 30	Dec. 27 0. 0	1419	Dec. 27 1. 0	(†)	Dec. 27 0. 0	55. 9	56. 8	Dec. 27 22. 53	20. 23. 45	Dec. 28 0. 0	1414	Dec. 28 0. 26	(†)	Dec. 28 0. 0	55. 7	57. 9
0. 55	25. 35		(†)	3. 0	02339*	1. 0	54. 0	56. 5	23. 0	25. 20	0. 13	1416	0. 43	02356	1. 0	56. 7	58. 3
1. 13	25. 10	2. 36	1416	3. 0	02347*	3. 0	55. 2	56. 9	23. 6	26. 5	0. 23	1417	1. 7	02405	2. 0	56. 7	58. 3
1. 29	25. 45	3. 8	1411	4. 30	02383	9. 0	57. 0	58. 3	23. 12	24. 15	0. 33	1411	1. 28	02424	3. 0	56. 2	58. 0
1. 58	24. 30	5. 41	1426	9. 36	02416	21. 0	57. 2	58. 7	23. 23	26. 0	0. 59	***	10. 29	02402	9. 0	56. 8	58. 4
2. 10	24. 40	6. 35	1423	10. 55	02400	22. 0	55. 9	57. 8	23. 30	26. 20	1. 37	1419	11. 20	02372	11. 20	55. 9	56. 9
2. 56	22. 20	7. 38	1421	13. 26	02397	23. 0	55. 0	57. 4	23. 36	25. 40	2. 7	1415	12. 58	02378	22. 0	55. 3	55. 8
3. 24	25. 10	7. 49	1424	13. 58	02403				23. 52	26. 0	2. 26	1418	16. 20	02360	23. 0	55. 9	56. 0
3. 38	24. 5	8. 8	1416	15. 4	02387				23. 59	25. 10	2. 42	1402	21. 42	02337			
3. 53	24. 40	9. 11	1426	15. 54	02403						3. 0	1408	23. 59	02278			
4. 32	24. 0	10. 56	1421	23. 33	02366						3. 13	1408					
4. 41	23. 10	11. 23	1423	23. 44	02368						3. 17	1419					
4. 58	22. 55	11. 43	1419		(†)						3. 26	1419					
5. 11	23. 5	11. 56	1424								3. 39	1424					
5. 44	22. 15	12. 8	1419								3. 57	1421					
7. 21	22. 10	12. 20	1424								4. 4	1423					
7. 53	20. 45	12. 32	1420								4. 15	1416					
8. 12	16. 10	12. 45	1428								4. 44	1420					
8. 19	16. 5	12. 59	1421								5. 27	1445					
8. 27	16. 40	13. 8	1430								6. 13	1439					
8. 55	20. 20	13. 17	1432								6. 56	1423					
9. 3	19. 50	13. 39	1417								7. 14	1426					
9. 37	21. 40	14. 0	1418								7. 56	1417					
11. 35	21. 40	14. 20	1417								8. 11	1413					
12. 11	20. 15	14. 50	1430								8. 21	1419					
12. 21	20. 15	15. 11	1424								8. 28	1419					
12. 33	19. 50	15. 51	1423								8. 41	1426					
12. 44	20. 55	17. 26	1428								8. 57	1431					
12. 56	20. 0	17. 56	1433								9. 28	1427					
13. 6	19. 45	18. 28	1429								9. 36	1429					
13. 33	16. 55	18. 56	1428								9. 55	1421					
13. 55	20. 55	19. 13	1423								10. 9	***					
14. 6	20. 30	19. 43	1429								10. 26	1426					
14. 28	22. 20	20. 11	1423								10. 34	1423					
14. 38	22. 10	20. 25	1427								10. 40	1423					
15. 13	18. 0	20. 34	1422								10. 57	19. 40					
15. 53	19. 5	21. 6	1421								11. 9	18. 5					
16. 10	20. 20	21. 25	1425								11. 13	16. 30					
16. 42	20. 35	21. 28	1413								11. 23	17. 20					
16. 53	21. 10	21. 40	1407								11. 31	17. 20					
17. 4	20. 35	22. 23	1416								11. 43	18. 55					
17. 26	22. 0	23. 18	1418								11. 56	18. 20					
17. 33	21. 20	23. 37	1411								11. 59	20. 50					
17. 51	22. 50	23. 59	1414								***	***					
18. 9	22. 0										12. 38	21. 15					
18. 16	22. 50										12. 55	20. 10					
18. 36	22. 0										13. 11	20. 50					
18. 53	23. 10																
20. 28	25. 40																
20. 49	27. 0																
20. 58	26. 25																
21. 6	25. 0																
21. 25	24. 40																
21. 28	23. 40																
22. 4	23. 0																
22. 25	25. 30																
22. 39	24. 10																
22. 42	25. 5																

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

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.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 28																	
13. 21	20. 20. 25																
13. 58	21. 15																
14. 13	20. 50																
14. 24	21. 30																
14. 51	21. 40																
15. 21	25. 20																
16. 6	21. 20																
16. 21	22. 20																
16. 51	22. 50																
16. 58	22. 30																
17. 12	23. 0																
17. 42	22. 20																
17. 53	22. 55																
17. 59	22. 25																
18. 35	22. 55																
19. 9	23. 30																
19. 19	23. 10																
19. 52	23. 0																
20. 38	23. 20																
20. 53	24. 0																
20. 59	23. 25																
21. 25	25. 20																
21. 43	24. 25																
21. 58	25. 20																
22. 10	24. 30																
22. 39	25. 50																
23. 59	25. 40																
Dec. 29		Dec. 29		Dec. 29		Dec. 29											
0. 0	20. 25. 40	0. 0	*1423	0. 0	*02278	0. 0	56.8	57.0									
0. 18	25. 0	1. 44	*1424	1. 39	*02340	1. 0	56.8	57.2									
0. 35	25. 20	2. 18	*1419	3. 14	*02343	2. 0	56.4	57.0									
0. 56	24. 10	3. 5	*1426	6. 26	*02395	3. 0	56.1	57.2									
1. 26	23. 40	3. 25	*1423	10. 20	*02420	9. 0	57.8	59.0									
2. 3	23. 10	3. 48	*1428	21. 18	*02297	21. 0	54.9	55.4									
2. 12	22. 15	4. 41	*1420	23. 59	*02245												
2. 56	21. 30	6. 29	*1426														
3. 20	23. 0	11. 54	*1417														
3. 49	23. 0	12. 23	*1423														
4. 16	23. 50	12. 56	*1418														
4. 24	23. 20	13. 8	*1424														
4. 36	23. 40	14. 14	*1417														
4. 48	23. 0	15. 21	*1420														
5. 7	23. 50	18. 28	*1432														
5. 29	23. 0	20. 57	*1427														
5. 43	23. 10	23. 59	*1427														
5. 56	22. 45																
6. 14	23. 5																
9. 58	21. 30																
10. 24	22. 0																
10. 39	20. 30																
11. 6	21. 30																
11. 44	21. 5																
12. 2	23. 0																
12. 53	21. 20																
13. 6	20. 5																
13. 20	21. 25																
13. 43	20. 30																
Dec. 29									Dec. 30								
13. 53	20. 20. 30								0. 0		*1427	0. 0	*02245	1. 0	54.0	55.0	
13. 57	21. 10								0. 15	24. 0	1. 28	*1428	2. 44	*02223	8. 30	54.0	54.6
14. 15	21. 5								0. 35	24. 35	2. 13	*1421	5. 11	*02228	21. 0	51.2	52.1
14. 35	20. 25									***	4. 10	*1420	9. 0	*02197	22. 0	52.3	53.4
15. 26	20. 25								1. 20	24. 25	5. 3	*1427	11. 58	*02182	23. 0	52.3	53.3
15. 44	21. 15								1. 43	23. 30	6. 9	*1424	19. 41	*02097			
16. 33	21. 5								3. 36	22. 30	8. 39	*1429	22. 32	*02076			
17. 41	23. 10								3. 51	22. 50	11. 44	*1423	23. 59	*02076			
18. 6	23. 10								3. 58	21. 20	12. 21	*1433					
20. 3	21. 5								4. 8	21. 20	12. 50	*1423					
20. 49	21. 0								4. 17	19. 45	13. 11	*1422					
21. 26	22. 5								4. 38	20. 20	13. 37	*1425					
22. 0	22. 0								4. 56	21. 55	15. 28	*1426					
23. 38	24. 5								5. 6	21. 55	18. 5	*1432					
23. 59	24. 0								5. 26	22. 15	19. 3	*1428					
									6. 17	22. 5	20. 11	*1433					
									6. 39	22. 30	21. 6	*1425					
									10. 59	20. 55	21. 21	*1423					
									11. 12	20. 15	21. 33	*1427					
									11. 41	21. 0	21. 59	*1422					
									11. 57	19. 0	22. 15	*1429					
									12. 26	20. 15	23. 59	*1430					
									12. 39	19. 50							
									13. 8	21. 20							
									13. 21	21. 30							
									13. 26	22. 20							
									13. 56	21. 5							
									14. 35	21. 0							
									15. 55	21. 20							
									16. 18	20. 45							
									18. 37	21. 55							
									19. 5	21. 50							
									19. 16	22. 50							
									19. 36	23. 0							
									20. 32	21. 50							
									20. 41	21. 5							
									20. 54	21. 30							
									21. 6	20. 50							
									21. 16	20. 50							
									21. 29	21. 20							
					</												

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. 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. 30 h m 22. 0 22. 16 23. 23 23. 59	20. 20. 25 23. 25																
Dec. 31 o. 0 o. 15 o. 40 o. 55 1. 19 1. 28 1. 52 2. 2 2. 9 2. 29 3. 18 3. 59 4. 26 4. 39 5. 8 5. 39 6. 6 6. 38	20. 22. 55 23. 35 23. 35 25. 0 24. 0 25. 10 24. 5 24. 40 24. 5 24. 5 *** 22. 25 23. 0 22. 10 22. 45 22. 5 22. 45 21. 30 22. 40	Dec. 31 o. 0 2. 5 2. 33 3. 39 3. 56 5. 12 5. 49 6. 28 6. 43 7. 17 7. 29 7. 43 8. 6 8. 22 9. 14 12. 56 13. 32 14. 18 18. 36	*1430 *1430 *1427 *1429 *1426 *1428 *1425 *1428 *1414 *1429 *1421 *1422 *1429 *1424 *1425 *1429 *1436 *1429 *1432	Dec. 31 o. 0 1. 0 2. 0 3. 0 4. 0 9. 0 21. 0 22. 0 23. 0	52. 6 53. 2 53. 0 53. 0 53. 0 52. 1 51. 8 51. 8	53. 6 54. 0 54. 0 54. 0 54. 0 53. 2 53. 2 52. 8 52. 8	Dec. 31 h m 6. 58 7. 9 7. 19 7. 37 7. 41 7. 56 8. 3 8. 26 8. 39 9. 10 11. 11 12. 59 13. 21 13. 44 14. 36 15. 27 16. 30 18. 29 18. 44 20. 29 21. 12 21. 53 22. 29 22. 32 23. 59	20. 16. 55 15. 0 12. 10 17. 5 17. 5 19. 20 19. 30 21. 50 20. 45 20. 0 21. 30 21. 0 21. 10 23. 10 20. 20 21. 40 21. 30 22. 0 21. 45 21. 45 22. 0 23. 25 23. 35 25. 25 25. 30	Dec. 31 h m 20. 38 22. 26 22. 43 23. 59	*1429 *1427 *1429 *1430							

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

December 31. The Vertical Force Magnet was removed from the agate planes, and its time of vibration in the horizontal plane was redetermined.

APPROXIMATE MEAN MONTHLY DECLINATION.

TABLE showing the APPROXIMATE MEAN MONTHLY DECLINATION, at the ROYAL OBSERVATORY, GREENWICH, in the Year 1866.

MONTH.	1866.
January.....	° ' " 20. 33. 7
February.....	32. 56
March.....	31. 44
April.....	32. 13
May.....	30. 35
June.....	28. 47
July.....	26. 16
August.....	25. 13
September.....	23. 39
October.....	23. 38
November.....	22. 56
December.....	22. 22
Mean.....	20. 27. 47

ROYAL OBSERVATORY, GREENWICH.

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RESULTS

OF

OBSERVATIONS

OF THE

MAGNETIC DIP.

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1866.



## MAGNETIC DIP, observed at the ROYAL OBSERVATORY, GREENWICH, in the Year 1866.

Day and Approximate Hour, 1866.		Needle.	Length of Needle.	Magnetic Dip.	Observer.	Day and Approximate Hour, 1866.		Needle.	Length of Needle.	Magnetic Dip.	Observer.		
d	h			° ' "		d	h			° ' "			
January	4.	2	C 2	6 inches	68. 1. 48	N	June	15.	2	D 1	3 inches	68. 0. 45	N
	4.	2	D 2	3 "	68. 5. 6	N		22.	2	B 1	9 "	67. 59. 17	N
	19.	0	B 1	9 "	68. 0. 20	N	July	2.	18	B 1	9 "	67. 58. 23	N
	19.	1	B 2	9 "	68. 0. 51	N		2.	19	D 1	3 "	68. 0. 42	N
	25.	2	D 1	3 "	68. 5. 34	N		9.	22	C 2	6 "	68. 1. 20	A H
	29.	0	C 1	6 "	68. 2. 18	N		11.	22	B 1	9 "	68. 0. 18	N
	29.	1	C 2	6 "	68. 5. 55	N		11.	23	B 2	9 "	67. 57. 50	N
	29.	2	D 1	3 "	68. 3. 46	N		12.	0	C 1	6 "	68. 2. 22	N
February	8.	1	C 1	6 "	68. 3. 44	N		20.	2	C 2	6 "	67. 59. 38	N
	8.	2	C 2	6 "	68. 4. 24	N		25.	2	D 2	3 "	68. 0. 4	N
	19.	1	D 1	3 "	68. 2. 39	N	28.	0	D 1	3 "	68. 0. 21	N	
	24.	2	D 2	3 "	68. 7. 1	N	August	7.	0	C 1	6 "	68. 2. 3	N
	27.	22	B 1	9 "	68. 1. 20	N		7.	2	C 2	6 "	68. 4. 40	N
	27.	23	B 2	9 "	68. 2. 3	N		14.	2	D 1	3 "	68. 3. 36	N
	28.	2	D 2	3 "	68. 1. 21	N		15.	1	D 1	3 "	68. 1. 48	N
	March	7.	0	C 1	6 "	68. 3. 3		N	15.	2	D 2	3 "	68. 3. 11
7.		1	B 1	9 "	68. 5. 36	N		23.	2	C 1	6 "	67. 59. 46	N
15.		2	D 1	3 "	68. 2. 14	N		27.	23	B 1	9 "	67. 59. 27	N
22.		0	D 2	3 "	68. 5. 24	N		28.	2	B 2	9 "	67. 59. 46	N
22.		2	C 1	6 "	68. 1. 58	N	31.	1	D 2	3 "	67. 59. 25	N	
22.		23	D 1	3 "	68. 3. 17	N	31.	2	C 2	6 "	68. 0. 13	N	
23.		0	D 2	3 "	68. 0. 26	N	September	6.	3	D 1	3 "	68. 1. 24	N
23.		1	D 3	3 "	68. 7. 14	N		11.	2	D 2	3 "	68. 1. 53	N
28.	23	C 2	6 "	68. 2. 55	N	14.		1	D 1	3 "	68. 1. 49	N	
29.	2	B 2	9 "	68. 0. 41	N	14.		2	D 2	3 "	68. 1. 39	N	
29.	2	D 2	3 "	68. 5. 50	N	19.		2	C 1	6 "	67. 58. 29	N	
April	10.	1	B 1	9 "	67. 59. 24	N		27.	2	B 1	9 "	67. 59. 53	N
	10.	2	D 1	3 "	68. 3. 6	N		28.	1	B 2	9 "	68. 1. 23	N
	14.	2	D 2	3 "	67. 55. 50	N		28.	2	C 2	6 "	68. 1. 48	N
	18.	2	B 2	9 "	68. 1. 32	N	October	8.	2	D 1	3 "	68. 1. 18	N
	19.	2	D 1	3 "	68. 0. 56	N		13.	3	B 1	9 "	67. 59. 58	N
	24.	2	D 2	3 "	68. 1. 8	N		13.	4	C 1	6 "	68. 0. 28	N
	24.	23	C 1	6 "	68. 0. 51	N		24.	3	D 2	3 "	67. 58. 58	N
	25.	0	C 2	6 "	67. 57. 1	N		30.	22	B 2	9 "	68. 2. 35	N
25.	1	B 1	9 "	68. 1. 32	N	30.		23	B 1	9 "	68. 2. 15	N	
May	9.	1	D 1	3 "	68. 2. 24	N		31.	3	C 2	6 "	68. 2. 43	N
	9.	2	D 2	3 "	67. 56. 19	N		November	6.	2	C 1	6 "	68. 2. 27
	16.	2	C 2	6 "	68. 3. 32	N	9.		0	C 2	6 "	68. 1. 52	N
	16.	23	C 1	6 "	67. 59. 43	N	9.		1	D 1	3 "	68. 1. 25	N
	17.	0	C 2	6 "	67. 59. 53	N	24.		3	D 2	3 "	68. 1. 16	N
	17.	1	B 1	9 "	67. 58. 25	N	26.		22	B 1	9 "	67. 56. 25	N
	17.	2	B 2	9 "	67. 58. 42	N	26.		23	C 1	6 "	67. 58. 34	N
	19.	1	D 1	3 "	68. 2. 46	N	29.		2	C 2	6 "	68. 4. 53	N
19.	2	D 2	3 "	68. 2. 12	N	29.	22		C 2	6 "	68. 5. 13	N	
21.	2	C 1	6 "	68. 4. 36	N	29.	23	B 2	9 "	68. 1. 19	N		
29.	23	D 1	3 "	67. 59. 14	N	30.	3	B 1	9 "	68. 0. 48	N		
June	7.	23	D 2	3 "	68. 2. 49	N	December	7.	2	D 1	3 "	68. 3. 52	N
	14.	2	D 1	3 "	68. 2. 34	N		13.	22	D 1	3 "	68. 0. 59	N
	14.	22	C 1	6 "	67. 58. 47	N		13.	23	D 2	3 "	67. 59. 52	N
	14.	23	C 2	6 "	68. 0. 17	N		19.	0	C 1	6 "	67. 58. 22	N
	15.	0	C 3	6 "	68. 2. 2	N		19.	1	C 2	6 "	68. 3. 15	N
	15.	0	D 3	3 "	67. 53. 0	N							
	15.	1	D 2	3 "	67. 57. 32	N							

The initials N and A H are those of Mr. W. C. Nash and Mr. A. Harding respectively.

MONTHLY MEANS OF MAGNETIC DIPS at the ROYAL OBSERVATORY, GREENWICH, in the Year 1866.

Month, 1866.	B 1, 9-inch Needle.	Number of Observations.	B 2, 9-inch Needle.	Number of Observations.	C 1, 6-inch Needle.	Number of Observations.	C 2, 6-inch Needle.	Number of Observations.
January .....	° ' "		° ' "		° ' "		° ' "	
January .....	68. 0. 20	1	68. 0. 51	1	68. 2. 18	1	68. 3. 52	2
February .....	68. 1. 20	1	68. 2. 3	1	68. 3. 44	1	68. 4. 24	1
March .....	68. 5. 36	1	68. 0. 41	1	68. 2. 30	2	68. 2. 55	1
April .....	68. 0. 28	2	68. 1. 32	1	68. 0. 51	1	67. 57. 1	1
May .....	67. 58. 25	1	67. 58. 42	1	68. 2. 10	2	68. 1. 43	2
June .....	67. 59. 17	1	....	..	67. 58. 47	1	68. 0. 17	1
July .....	67. 59. 20	2	67. 57. 50	1	68. 2. 22	1	68. 0. 29	2
August .....	67. 59. 27	1	67. 59. 46	1	68. 0. 55	2	68. 2. 26	2
September .....	67. 59. 53	1	68. 1. 23	1	67. 58. 29	1	68. 1. 48	1
October .....	68. 1. 6	2	68. 2. 35	1	68. 0. 28	1	68. 2. 43	1
November .....	67. 58. 37	2	68. 1. 19	1	68. 0. 30	2	68. 3. 59	3
December .....	....	..	....	..	67. 58. 22	1	68. 3. 15	1
Means .....	(68. 0. 10)	Sum 15	(68. 0. 30)	Sum 10	68. 1. 6	Sum 16	68. 2. 18	Sum 18
Month, 1866.	C 3, 6-inch Needle, loaded.	Number of Observations.	D 1, 3-inch Needle.	Number of Observations.	D 2, 3-inch Needle.	Number of Observations.	D 3, 3-inch Needle, loaded.	Number of Observations.
January .....	° ' "		° ' "		° ' "		° ' "	
January .....	....	..	68. 4. 40	2	68. 5. 6	1	....	..
February .....	....	..	68. 2. 39	1	68. 4. 11	2	....	..
March .....	....	..	68. 2. 46	2	68. 3. 53	3	68. 7. 14	1
April .....	....	..	68. 2. 1	2	67. 58. 29	2	....	..
May .....	....	..	68. 1. 28	3	67. 59. 16	2	....	..
June .....	68. 2. 2	1	68. 1. 40	2	68. 0. 10	2	67. 53. 0	1
July .....	....	..	68. 0. 32	2	68. 0. 4	1	....	..
August .....	....	..	68. 2. 42	2	68. 1. 18	2	....	..
September .....	....	..	68. 1. 36	2	68. 1. 46	2	....	..
October .....	....	..	68. 1. 18	1	67. 58. 58	1	....	..
November .....	....	..	68. 1. 25	1	68. 1. 16	1	....	..
December .....	....	..	68. 2. 25	2	67. 59. 52	1	....	..
Means .....	....	..	68. 2. 7	Sum 22	68. 1. 22	Sum 20	....	..

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 21<sup>h</sup> and at 3<sup>h</sup>.

In combining the monthly results, to form the annual means, weights have been given proportional to the number of observations.

The means in brackets have been found by applying to the mean of the observed results a correction deduced by taking the difference between the mean result for the same months and that of the whole year, as given by the Needles which were observed throughout the year.

YEARLY MEANS of MAGNETIC DIPS for each of the NEEDLES, and GENERAL MEAN for the Year 1866.

Lengths of the several Sets of Needles.	Needles.	Number of Observations with each Needle.	Mean Yearly Dip from Observations with each Needle.	Mean Yearly Dip from each Set of Needles.	Mean Yearly Dip from all the Sets of Needles.
9-inch Needles .....	B 1	15	68. 0. 10	68. 0. 20	68. 1. 16
	B 2	10	68. 0. 30		
6-inch Needles .....	C 1	16	68. 1. 6	68. 1. 42	
	C 2	18	68. 2. 18		
3-inch Needles .....	D 1	22	68. 2. 7	68. 1. 45	
	D 2	20	68. 1. 22		

ROYAL OBSERVATORY, GREENWICH.

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OBSERVATIONS  
OF  
DEFLEXION OF A MAGNET  
FOR  
ABSOLUTE MEASURE  
OF  
HORIZONTAL FORCE.

---

1866.

ABSTRACT of the OBSERVATIONS of DEFLEXION of a MAGNET for ABSOLUTE MEASURE of HORIZONTAL FORCE, made with the KEW UNIFILAR INSTRUMENT.							
Month and Day, 1866.	Distances of Centers of Magnets.	Temperature.	Observed Deflexion.	Mean of the Times of Vibration of Deflecting Magnet.	Number of Vibrations.	Temperature.	Observer.
January 26	ft. 1'0 1'3	° 46'0	12.42.26 5.45.7	5'295 5'305	100 100	51'6 49'4	N
February 9	1'0 1'3	50'7	12.43.25 5.45.16	5'315 5'314	100 100	51'4 53'9	N
February 28	1'0 1'3	38'0	12.44.29 5.46.0	5'312 5'285	100 100	39'5 40'5	N
March 13	1'0 1'3	42'3	12.42.50 5.45.24	5'288 5'285	100 100	43'8 45'8	N
March 29	1'0 1'3	58'3	12.39.54 5.44.12	5'320 5'318	100 100	64'0 62'6	N
April 19	1'0 1'3	62'5	12.39.25 5.43.59	5'321 5'316	100 100	64'8 66'6	N
May 18	1'0 1'3	67'6	12.37.26 5.43.14	5'312 5'322	100 100	71'8 72'5	N
May 29	1'0 1'3	64'5	12.37.41 5.43.0	5'319 5'315	100 100	67'8 65'8	N
June 8	1'0 1'3	74'9	12.34.52 5.41.42	5'302 5'306	100 100	78'7 79'4	N
July 13	1'0 1'3	81'2	12.35.36 5.42.14	5'319 5'317	100 100	85'7 87'2	N
July 25	1'0 1'3	63'5	12.35.33 5.42.10	5'300 5'299	100 100	66'2 68'2	N
August 17	1'0 1'3	60'0	12.37.49 5.43.18	5'318 5'314	100 100	62'6 62'8	N
August 31	1'0 1'3	66'7	12.34.21 5.41.29	5'315 5'319	100 100	68'7 69'3	N
September 21	1'0 1'3	62'4	12.32.16 5.40.52	5'330 5'326	100 100	65'1 63'0	N
October 31	1'0 1'3	51'6	12.33.3 5.40.54	5'327 5'333	100 100	54'9 58'3	N
November 30	1'0 1'3	47'5	12.34.55 5.41.45	5'328 5'323	100 100	52'0 51'9	N
December 18	1'0 1'3	51'4	12.31.58 5.40.44	5'326 5'325	100 100	52'6 51'8	N

The position of the Deflecting Magnet with regard to the suspended Magnet is always that which was formerly termed "Lateral." The Deflecting Magnet is placed on the East side of the suspended Magnet, with its marked pole alternately E. and W., and it is placed on the West side with its pole alternately E. and W.; and the deflexion in the table above is the mean of the four deflexions observed in those positions of the magnets.

The lengths of 1 foot and 1.3 foot answer to 304.8 and 396.2 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, 1866.	In English Measure.									Value of X in French Measure.
	Apparent Value of A <sup>1</sup> .	Apparent Value of A <sup>2</sup> .	Apparent Value of P.	Mean Value of P.	Log. A corrected by the Application of Mean Value of P. = Log. $\frac{m}{X}$	Adopted Time of Vibration of Deflecting Magnet.	Log. <i>m X</i> .	Value of X.	Value of <i>m</i> .	
January 26	+0.11017	0.11027	-0.00223	-0.00291	9.04327	5.3000	0.21195	3.840	0.4242	1.771
February 9	+0.11040	0.11041	-0.00022		9.04399	5.3145	0.20974	3.827	0.4235	1.765
February 28	+0.11032	0.11041	-0.00200		9.04383	5.2985	0.21154	3.836	0.4243	1.769
March 13	+0.11016	0.11029	-0.00289		9.04330	5.2865	0.21380	3.848	0.4252	1.774
March 29	+0.11004	0.11021	-0.00379		9.04289	5.3190	0.20969	3.832	0.4230	1.767
April 19	+0.11006	0.11022	-0.00357		9.04295	5.3185	0.20993	3.833	0.4231	1.767
May 18	+0.10987	0.11008	-0.00469		9.04230	5.3170	0.21063	3.839	0.4231	1.770
May 29	+0.10984	0.10995	-0.00246		9.04198	5.3170	0.21027	3.838	0.4228	1.770
June 8	+0.10965	0.10973	-0.00179		9.04117	5.3040	0.21326	3.855	0.4239	1.778
July 13	+0.10988	0.11003	-0.00335		9.04222	5.3180	0.21154	3.843	0.4235	1.772
July 25	+0.10952	0.10966	-0.00314		9.04078	5.2995	0.21319	3.857	0.4236	1.778
August 17	+0.10978	0.10996	-0.00403		9.04188	5.3160	0.21017	3.838	0.4227	1.770
August 31	+0.10941	0.10950	-0.00202	9.04025	5.3170	0.21040	3.846	0.4220	1.774	
September 21	+0.10903	0.10923	-0.00450	9.03895	5.3280	0.20827	3.843	0.4204	1.772	
October 31	+0.10894	0.10903	-0.00203	9.03838	5.3300	0.20742	3.842	0.4197	1.771	
November 30	+0.10913	0.10923	-0.00225	9.03915	5.3255	0.20786	3.840	0.4203	1.771	
December 18	+0.10878	0.10898	-0.00451	9.03795	5.3255	0.20806	3.846	0.4198	1.774	



ROYAL OBSERVATORY, GREENWICH.

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R E S U L T S

OF

METEOROLOGICAL OBSERVATIONS.

---

1866.



RESULTS OF DAILY METEOROLOGICAL OBSERVATIONS

Main meteorological observation table with columns for Month and Day, Phases of the Moon, Barometer readings, Thermometer readings (Dry, Dew Point, etc.), Air Temperature, Wind direction and pressure, and Rainfall measurements.

BAROMETER READINGS FROM EYE-OBSERVATIONS.

The first maximum in the month was 29.877 on the 2nd; the first minimum in the month was 29.515 on the 2nd. The second maximum was 29.854 on the 3rd; the second minimum was 29.669 on the 4th. The third maximum was 29.945 on the 6th; the third minimum was 29.058 on the 8th. The fourth maximum was 29.130 on the 8th; the fourth minimum was 28.870 on the 9th. The fifth maximum was 29.096 on the 10th; the absolute minimum was 28.661 on the 11th. The sixth maximum was 29.827 on the 12th; the sixth minimum was 29.356 on the 13th. The seventh maximum was 29.731 on the 14th; the seventh minimum was 29.629 on the 14th. The eighth maximum was 29.955 on the 15th; the eighth minimum was 29.533 on the 16th. The ninth maximum was 30.093 on the 17th; the ninth minimum was 29.538 on the 19th. The tenth maximum was 29.612 on the 19th; the tenth minimum was 29.430 on the 20th. The eleventh maximum was 29.701 on the 21st; the eleventh minimum was 29.625 on the 22nd. The absolute maximum was 30.500 on the 25th; the twelfth minimum was 29.633 on the 29th. The thirteenth maximum was 29.937 on the 30th.

The range in the month was 1.839. The mean for the month was 29.702, being 0.055 lower than the average of the preceding 25 years.

TEMPERATURE OF THE AIR.

The highest in the month was 54.3 on the 22nd; the lowest was 23.7 on the 13th. The range was 30.6. The mean of all the highest daily readings was 47.8, being 4.7 higher than the average of the preceding 25 years. The mean of all the lowest daily readings was 36.7, being 3.3 higher than the average of the preceding 25 years. The mean daily range was 11.1, being 1.4 greater than the average of the preceding 25 years. The mean for the month was 42.6, being 4.5 higher than the average of the preceding 25 years.

MONTH and DAY, 1866.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Jan. 1			o	o : o : 1, ci
2			4, ci, ci.-cu, ci.-s	10, ci.-cu, sc : 10, th.-cl, ci.-s, sc : 10, ci.-s, sc, h.-r, st.-w
3			10, r, w : o	1, ci, ci.-s : 8, li.-cl, ci : 10, th.-cl
4			10	8, ci, ci.-s : v, ci, ci.-cu, ci.-s : 4, ci, ci.-cu
5			10, sl.-r : 10, oc.-shs	10 : 10 : 10, li.-cl, h
6	o	o : w	9, th.-cl	9, ci.-cu, ci.-s, h : o, h.-fr, ms
7	w N	o	10, ci.-s, sc, r	10, cu.-s, ci.-cu : o : o
8	o	ss P, ss N, sp, g.-cur : o	10, h.-r : 1, ci, st.-w, sq	v, ci, ci.-s, cu.-s, r, st.-w : v, l, oc.-shs, w : v, l, ms
9			h.-fr : 5, li.-cl	2, li.-cl, ci : o, l, h.-fr, ms
10			h.-fr : 5, ci, ci.-cu, sl.-r	10, sc : v, ci, ci.-s, cu.-s, sc : 10, th.-r
11			10, h.-r : 10, sn : 10, sc, sn	10, sc, sn, st.-w : o, ms
12			10, sn : 10, sc, glm	4, ci, ci.-cu, ci.-s : o, h : o, sl.-f
13			10, h.-r, sc, w	10, c.-h.-r : 10 : 10
14			10, sc	10, ci.-s, sc, vv : 10, sc : 10, st.-w, sc, r
15			10, h.-r : o	3, ci, ci.-cu, v : vv, th.-cl, sl.-r, ms
16			10, r, sc	v, r, sc : 6, li.-cl, v : v, th.-cl, ms
17			10, sl.-r	10, sc : vv, sl.-r : o
18			10, sc, th.-r	10, sc, th.-r : 10
19			v, ci, ci.-s, sc, oc.-r	6, ci.-cu, cu, cu.-s, ci.-s, sl.-r : vv, th.-cl, m
20			7, ci, ci.-cu, ci.-s, sc, v, r	10, ci.-s, cu.-s, ci, sc, v : v
21			10, sc, th.-r	10, ci.-s, cu.-s, sc : 1, ci.-s
22			10, sl.-r	10, sc : 10, h.-r : 10
23			10, ci.-cu, li.-cl, v	8, ci, ci.-cu, ci.-s, v : vv : vv, ci.-cu, cu.-s
24		o : w	h.-fr : 3, h.-fr, h	6, ci, h : 7, ci, ci.-cu, h, glm, v : 10, li.-cl, f
25	o	w	10, li.-cl, h	10 : 10, ci.-s
26	w	w	9, th.-cl, sl.-f	9, th.-cl, h, sl.-f : 10
27	w	w	10	10 : v : 10
28	w	w	10, th.-r, v	10 : 10, sl.-r : 10, ci, ci.-cu
29	o	o	vv : vv, ci, ci.-s, cu.-s, ci.-cu	6, ci.-cu, ci, vv : vv, ci, ci.-cu, cu.-s : vv, th.-cl, lu.-co
30	m	w	10, ci.-cu, ci.-s	8, ci.-cu, ci, sl.-r : 10, oc.-r : 10
31	o	s N, sp, g.-cur : w	7, ci, ci.-s, th.-r	10, th.-r, sc : 10, c.-r : o : 10, ci.-s

**HUMIDITY OF THE AIR.**

*Temperature of the Dew Point.*

The highest in the month was 49°·2 on the 22nd ; and the lowest was 22°·4 on the 12th.

The mean ,, was 38°·4, being 3°·4 higher than the average of the preceding 25 years.

*Elastic Force of Vapour.*—The mean for the month was 0<sup>in</sup>·234, being 0<sup>in</sup>·032 greater than the average of the preceding 25 years.

*Weight of Vapour in a Cubic Foot of Air.*—The mean for the month was 2<sup>gr</sup>·7, being 0<sup>gr</sup>·3 greater than the average of the preceding 25 years.

*Degree of Humidity.*—The mean for the month was 86 (that of Saturation being represented by 100), being 2 less than the average of the preceding 25 years.

*Weight of a Cubic Foot of Air.*—The mean for the month was 548 grains, being 6 grains less than the average of the preceding 25 years.

**CLOUDS.**

The mean amount for the month, a clear sky being represented by o and a cloudy sky by 10, was 7·5.

**OZONE.**

The mean amount for the month, on a scale ranging from o to 10, was 1·0.

**WIND.**

The proportions were of N. 2, S. 9, W. 18, E. 1, and Calm 1. The greatest pressure in the month was 33<sup>lb</sup>·0 on the square foot, on the 8th.

**RAIN.**

Fell on 17 days in the month, amounting to 3<sup>in</sup>·68, as measured in the simple cylinder gauge partly sunk below the ground ; being 1<sup>in</sup>·92 greater than the average fall of the preceding 51 years.

**ELECTRICITY.**—The electrical apparatus was not in action from January 1 to 5, and January 9 to 23.

MONTH and DAY, 1866.	Phases of the Moon.	READINGS OF THERMOMETERS.											Difference between the Dew Point Temperature and Air Temperature.	WIND AS DEDUCED FROM ANEMOMETERS.							
		Dry.			Dew Point.	Highest in the Sun, as shown by a blackened bulb in vacuo, placed on the Grass.	Lowest on the Grass, as shown by a Self-Registering Minimum Thermometer.	In the Water of the Thames, at Greenwich, by Self-Registering Thermometers, read at 9 <sup>h</sup> A.M.		OSLER'S.		ROBINSON'S									
		Highest.	Lowest.	Mean Daily Value.				Highest.	Lowest.	Mean Daily Value.	Greatest.			Least.	General Direction.	Pressure in lbs. on the square foot.					
		A.M.		P.M.		Greatest.	Least.	Mean of 24 Obs.	Amount of Horizontal Movement of the Air on each Day.	Rain in Inches, collected in a Gauge whose receiving surface is 5 inches above the Ground.											
Feb. 1	..	29.194	57.0	45.3	50.8	47.9	70.0	41.5	..	41.7	2.9	5.9	0.8	+ 13.0	SW	SW : WSW	7.0	0.0	0.7	488	0.07
2	..	29.341	53.6	41.5	46.3	42.7	62.1	36.0	..	41.2	3.6	7.0	0.0	+ 8.6	W : WSW	NW : WNW	7.0	0.0	0.8	340	0.33
3	In Equator.	29.569	49.0	36.9	42.7	38.4	77.8	31.2	..	40.7	4.3	6.5	1.0	+ 4.9	W : SW	SW : W : W by N	7.5	0.0	0.7	437	0.17
4	..	29.743	50.6	35.9	44.1	40.1	50.6	31.0	..	40.7	4.0	5.9	3.2	+ 6.1	W : WSW	WSW	12.5	0.0	2.4	517	0.34
5	..	29.784	50.7	38.2	44.1	38.5	89.0	33.2	..	41.7	5.6	11.3	0.0	+ 5.8	W	W : SW	5.5	0.0	0.6	495	0.00
6	Apogee	29.643	55.0	44.7	50.6	43.1	104.5	42.8	..	40.7	7.5	12.4	4.2	+ 12.0	WSW	W : WSW	13.0	0.0	3.8	675	0.00
7	Last Qr.	29.484	54.8	40.7	47.5	42.5	67.1	36.2	..	41.7	5.0	8.8	0.6	+ 8.7	WSW	W	15.0	0.0	4.2	531	0.09
8	..	29.792	49.5	37.5	42.4	34.0	100.7	33.0	..	39.7	8.4	12.0	1.9	+ 3.5	W by S	W : WSW	6.3	0.0	1.4	352	0.00
9	..	29.542	52.7	39.6	46.8	46.0	68.3	35.2	..	42.3	0.8	4.6	0.4	+ 7.9	SW : S	SW	4.5	0.0	0.5	343	0.26
10	Greatest Declination s.	29.377	51.6	41.4	45.4	38.4	103.2	39.0	..	39.7	7.0	12.4	1.1	+ 6.6	SW	SW	6.5	0.0	0.7	432	0.21
11	..	28.715	48.1	40.2	42.8	39.6	58.8	37.0	..	43.7	3.2	5.0	1.2	+ 4.2	SW : S	SW : W	30.0	0.0	7.2	675	0.72
12	..	29.258	44.8	33.0	39.0	32.7	61.0	28.0	..	42.7	6.3	8.8	1.0	+ 0.6	W	WNW : NW	8.0	0.0	0.9	..	0.10
13	..	29.552	42.5	29.8	35.4	28.0	74.2	23.7	..	42.2	7.4	13.8	0.0	- 2.9	W : NW	WNW : WSW	0.6	0.0	0.0	..	0.00
14	..	29.427	45.2	28.9	38.1	34.9	73.6	22.9	..	38.9	3.2	7.4	0.0	- 0.1	WSW : SSW	SSW	7.5	0.0	0.7	320	0.34
15	New	29.322	43.8	31.9	38.2	34.1	69.0	28.8	..	38.2	4.1	8.6	0.0	+ 0.1	SW	W : SW : S	1.5	0.0	0.1	303	0.02
16	..	29.363	48.0	37.7	42.5	41.7	53.4	37.0	..	37.7	0.8	2.6	0.4	+ 4.4	SW	Calm	0.0	0.0	0.0	136	0.61
17	In Equator.	29.754	43.1	33.6	36.3	31.3	46.5	27.0	..	35.7	5.0	6.9	3.8	- 1.9	NW : N	N	0.5	0.0	0.0	135	0.00
18	Perigee	29.830	39.5	24.2	30.6	25.4	54.6	17.3	..	38.7	5.2	12.0	0.0	- 7.7	Calm : WSW	NNW : Calm	0.0	0.0	0.0	123	0.00
19	..	29.896	40.3	26.5	32.7	30.7	74.6	20.9	..	37.2	2.0	5.8	0.0	- 5.8	Calm : WSW	Calm	0.0	0.0	0.0	64	0.00
20	..	29.876	43.3	25.7	34.6	30.7	91.5	20.0	..	35.7	3.9	10.6	1.3	- 4.1	Calm	NE : N	0.0	0.0	0.0	218	0.00
21	..	30.131	44.1	31.9	36.7	31.2	69.1	25.8	..	36.7	5.5	8.8	1.9	- 2.1	N by E	NE : Calm	1.0	0.0	0.0	192	0.00
22	First Qr.	29.928	44.7	26.7	36.8	34.7	53.0	22.4	..	36.7	2.1	7.1	0.5	- 2.2	SW	WSW : W	2.5	0.0	0.1	299	0.02
23	Greatest Declination N.	29.625	51.7	34.9	42.8	38.9	73.9	30.0	..	36.9	3.9	7.4	1.8	+ 3.6	WSW	WSW : W	9.0	0.0	0.6	342	0.02
24	..	29.767	46.5	33.9	39.4	30.5	87.9	28.7	..	37.4	8.9	13.0	4.2	0.0	WNW	WNW : W : SW	3.2	0.0	0.1	436	0.00
25	..	29.303	48.0	37.0	41.7	37.7	64.6	33.8	..	38.2	4.0	8.2	2.4	+ 2.1	SW	SW	3.5	0.0	0.4	219	0.27
26	..	29.225	46.4	35.0	39.6	34.6	93.2	30.6	..	39.7	5.0	9.0	1.7	- 0.2	SW	SW : E	0.0	0.0	0.0	111	0.10
27	..	29.275	38.7	31.2	34.3	31.8	49.5	27.9	..	40.2	2.5	3.9	1.5	- 5.6	NE : N	NE	1.6	0.0	0.1	330	0.35
28	..	29.101	36.3	29.1	31.5	25.1	49.8	23.1	..	39.7	6.4	13.3	2.6	- 8.6	NNE	NNE : N	7.5	0.0	0.9	249	0.01
Means	..	29.529	47.1	34.7	40.5	35.9	71.1	30.1	..	39.5	4.6	8.5	1.3	+ 1.8	...	...	..	..	..	8762	4.03

BAROMETER READINGS FROM EYE-OBSERVATIONS.

The first maximum in the month was 29<sup>in</sup>.671 on the 3rd ; the second minimum ,, was 29<sup>in</sup>.428 on the 3rd.  
The second maximum ,, was 29<sup>in</sup>.907 on the 4th ; the third minimum ,, was 29<sup>in</sup>.554 on the 4th.  
The third maximum ,, was 29<sup>in</sup>.837 on the 5th ; the fourth minimum ,, was 29<sup>in</sup>.418 on the 7th.  
The fourth maximum ,, was 29<sup>in</sup>.859 on the 8th ; the absolute minimum ,, was 28<sup>in</sup>.584 on the 11th.  
The fifth maximum ,, was 29<sup>in</sup>.628 on the 13th ; the sixth minimum ,, was 29<sup>in</sup>.261 on the 14th.  
The sixth maximum ,, was 29<sup>in</sup>.855 on the 18th ; the seventh minimum ,, was 29<sup>in</sup>.824 on the 18th.  
The absolute maximum ,, was 30<sup>in</sup>.197 on the 21st ; the eighth minimum ,, was 29<sup>in</sup>.536 on the 23rd.  
The eighth maximum ,, was 29<sup>in</sup>.802 on the 24th ; the ninth minimum ,, was 29<sup>in</sup>.189 on the 26th.  
The ninth maximum ,, was 29<sup>in</sup>.302 on the 27th ; the tenth minimum ,, was 29<sup>in</sup>.013 on the 28th.  
The range in the month was 1<sup>in</sup>.613.  
The mean for the month was 29<sup>in</sup>.529, being 0<sup>in</sup>.269 lower than the average of the preceding 25 years.

TEMPERATURE OF THE AIR.

The highest in the month was 57° 0 on the 1st ; the lowest was 24° 2 on the 18th.  
The range ,, was 32° 8.  
The mean ,, of all the highest daily readings was 47° 1, being 2° 3 higher than the average of the preceding 25 years.  
The mean ,, of all the lowest daily readings was 34° 7, being 1° 2 higher than the average of the preceding 25 years.  
The mean daily range was 12° 4, being 1° 1 greater than the average of the preceding 25 years.  
The mean for the month was 40° 5, being 1° 9 higher than the average of the preceding 25 years.

MONTH and DAY, 1866.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Feb. 1	w	w	10, ci.-s, r	9, r, ci, ci.-cu
2	o	w	10, ci.-s, sc, h.-r	9, ci, ci.-cu, sl.-r, v: 10, th.-cl, v, oc.-r: vv, lu.-co
3	w	ssP,ssN,sp,g.-cur: w	5, ci, ci.-cu, v	10, sl.-r, ci.-s, ci.-cu : o, m
4	o	o	10, ci.-s, sc, oc.-r	9, ci, ci.-cu, ci.-s, h.-r, hl: vv, sl.-r : vv
5			6, ci	10, ci.-s, cu.-s, sc, oc.-r: vv : 10, l, h.-sqs, h.-r
6			4, ci, ci.-s, w	7, ci, ci.-cu, ci.-s, vv : 10, th.-r
7			10, w, ci.-s, sc, oc.-shs	8, li.-cl, ci, st.-w: 10, th.-cl, w : 10, l, ci.-cu, ci
8			o	10, ci, ci.-s, cu.-s, sc, vv, h.-shs, r, hl, w : o, m
9			r : h.-r : 10, th.-r	v, ci, ci.-cu : o : o, h
10			10, r	10, sc : 10, h.-r
11			v, a, m : 10, r : 10, h.-r, w	5, ci, ci.-cu, th.-cl: v, oc.-r, m : h.-r, vv, m
12			10, r : 9, ci, ci.-cu, ci.-s	10, sc, fr.-h.-sqs, r, st.-w: 10, h.-sqs, r, w
13			o, h.-fr : 4, ci, h, sl.-sn	9, ci, ci.-cu, ci.-s: o : v, a, h.-fr, hl
14		ssN,ssP,sp,g.-cur: mN	h.-fr : 8, li.-cl	6, li.-cl, h : o : v, h.-fr, ms
15	w	w : o : w	10 : 10, ci, ci.-s, ci.-cu, cu.-s, h.-fr	v, ci, ci.-cu, oc.-h.-shs, hl: 10, h.-r
16	m	o : m : w	10, c.-r, gt.-glm	10, sc : 10, cu.-s, ci.-s : 10, r
17	o	o	10, ci.-s, cu.-s, s, glm	10, c.-r : 10, th.-r : 10, r
18	w	w	h.-fr : h.-fr : 1, h.-fr, h	10, ci.-s, ci.-cu, glm: 10, ci.-s : o, sl.-f, h.-fr
19	w	w : o	h.-fr : 5, h.-fr, h, li.-cl	1, h, f, ci : f : o, f
20			2, h.-fr, f, h, li.-cl	v, ci, ci.-cu, ci.-s, h : o, th.-f, h.-fr
21			10, ci, ci.-cu, ci.-s	5, ci, ci.-s, li.-cl, sl.-f: 8, li.-cl : 10
22			10, th.-cl, ci.-s, sl.-r	10, ci, ci.-cu, ci.-s, cu.-s: v, li.-cl : o, h.-fr, v
23			h.-fr : 10, sc	10, ci.-s, th.-r, sc : 8, li.-cl, f, h, lu.-co, lu.-ha
24			6, ci, h	6, ci, ci.-s, cu.-s, v, sl.-r: v, shs.-r, hl: v, ci, lu.-co
25			10, sc, r	4, ci, ci.-s, cu.-s, h : o, h, lu.-ha
26			10, r	10, sc, h.-r, hl : 10, th.-cl : 10, ci.-s, cu.-s
27			h.-r : sl.-sn : 10, gt.-glm, h, ci.-s	5, ci, cu, cu.-s : v, oc.-r : 10, glm, lu.-co, r
28			fr : 10, fr, sl	10, ci.-s : 10, ci.-s : o, lu.-co, lu.-ha

**HUMIDITY OF THE AIR.**

*Temperature of the Dew Point.*

The highest in the month was 51°·8 on the 2nd; and the lowest was 16°·4 on the 28th.

The mean , , was 35°·9, being 1°·3 higher than the average of the preceding 25 years.

*Elastic Force of Vapour.*—The mean for the month was 0<sup>in</sup>·211, being 0<sup>in</sup>·009 greater than the average of the preceding 25 years.

*Weight of Vapour in a Cubic Foot of Air.*—The mean for the month was 2<sup>gr</sup>·4, being the same as the average of the preceding 25 years.

*Degree of Humidity.*—The mean for the month was 85 (that of Saturation being represented by 100), being the same as the average of the preceding 25 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 25 years.

**CLOUDS.**

The mean amount for the month, a clear sky being represented by o and a cloudy sky by 10, was 7·2.

**OZONE.**

The mean amount for the month, on a scale ranging from o to 10, was 0·7.

**WIND.**

The proportions were of N. 5, S. 6, W. 14, E. o, and Calm 3. The greatest pressure in the month was 30<sup>lbs</sup>·o on the square foot on the 11th.

**RAIN.**

Fell on 18 days in the month, amounting to 4<sup>in</sup>·03, as measured in the simple cylinder gauge partly sunk below the ground; being 2<sup>in</sup>·50 greater than the average fall of the preceding 51 years.

**ELECTRICITY.**—February 5 to 13 and 20 to 28, the electrical apparatus was not in action.

RESULTS OF DAILY METEOROLOGICAL OBSERVATIONS

Main meteorological data table with columns for Month and Day, Phases of the Moon, Mean Daily Reading of the Barometer, Readings of Thermometers (Dry, Dew Point, Water of the Thames), Difference between Dew Point and Air Temperature, Wind as deduced from Anemometers (Osler's, General Direction, Pressure), and Amount of Horizontal Movement of the Air.

BAROMETER READINGS FROM EYE-OBSERVATIONS.

The first maximum in the month was 29.570 on the 2nd; the first minimum in the month was 29.491 on the 3rd. The second maximum ,, was 29.659 on the 5th; the second minimum ,, was 29.019 on the 7th. The absolute maximum ,, was 30.233 on the 10th; the third minimum ,, was 28.973 on the 17th. The fourth maximum ,, was 29.179 on the 18th; the fourth minimum ,, was 29.062 on the 19th. The fifth maximum ,, was 29.774 on the 22nd; the absolute minimum ,, was 28.912 on the 24th. The sixth maximum ,, was 30.053 on the 26th; the sixth minimum ,, was 29.941 on the 27th. The seventh maximum ,, was 30.042 on the 28th; the seventh minimum ,, was 29.952 on the 28th. The eighth maximum ,, was 30.050 on the 30th. The range in the month was 1.321. The mean for the month was 29.527, being 0.229 lower than the average of the preceding 25 years.

TEMPERATURE OF THE AIR.

The highest in the month was 64.0 on the 30th; the lowest was 22.5 on the 1st. The range ,, was 41.5. The mean ,, of all the highest daily readings was 48.4, being 1.6 lower than the average of the preceding 25 years. The mean ,, of all the lowest daily readings was 34.5, being 0.8 lower than the average of the preceding 25 years. The mean daily range was 13.9, being 0.8 less than the average of the preceding 25 years. The mean for the month was 40.5, being 1.2 lower than the average of the preceding 25 years.

MONTH and DAY, 1866.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Mar. 1			o, h.-fr : 10, ci.-s, cu.-s	10, sn : 10, sn, th.-cl : 8, th.-cl, m
2			10, ci.-cu : 3, ci	3, ci, ci.-cu, cu : o, h : o, lu.-co, f, h.-fr
3			o, h.-fr : 2, li.-cl, h.-fr, h, sl.-f	10, glm, sl.-f : 10, ci.-s, th.-cl, f : 10, th.-cl, f
4	o	o	10, li.-cl, h, gt.-glm	10, li.-cl, ci, ci.-s, v : v
5	o	o : m	8, ci.-cu, ci	5, ci, ci.-cu, cu.-s : 10, sl
6	o	ssN,ssP,sp,g.-cur : m : w	9, ci, ci.-cu	10, r : o, h.-fr, m
7	o	w : m	6, ci, ci.-s, v	6,ci,ci.-s,ci.-cu,cu.-s : v : o
8	w : ss N,ss P,g.-cur,sp	ssN,ssP,sp,g.-cur : w : w	10, ci.-s, hl, r	v, ci, ci.-cu, cu, ci.-s, hl, r : vv, m
9			vv : 9, ci.-cu, ci.-s	8, ci.-cu, ci, cu, ci.-s, sl.-r : v
10			10, ci.-cu, ci.-s, sc, sl.-r, sl.-sn	9, ci, ci.-cu, cu.-s, v : v, th.-cl
11			10, ci.-s, h, sl.-f	10,h,li.-cl,ci.-s,gt.-glm : v : v, th.-cl
12			10	8, ci, ci.-cu, ci.-s : 8, sl.-r : o, ms
13			10, ci.-s, sl.-r	10, oc.-sn, oc.-r : o, h.-fr, m
14			o, h.-fr : 7, ci, h, h.-fr	8, li.-cl, h, ci, ci.-cu : 9, ci.-s, cu.-s, h : o, fr, h, ms
15			10, li.-cl	10, ci.-s, ci.-cu, ci : 10, oc.-r
16			8, ci, li.-cl	10, v, ci, li.-cl : 10 : o, ms
17			o : 10, h.-r	v,ci,ci.-s,cu,cu.-s : v, ci, th.-cl : v, th.-cl, ms
18			6, ci, ci.-s	10, li.-cl : 10, li.-cl, th.-r : 10, r
19		o : o : w	10, sl.-r	9, li.-cl, ci, ci.-cu : v : 10
20	o	o	10, ci.-s, sc, sl.-r	10, oc.-r : 10, oc.-r : 10, h.-r
21	m	o	10, sl.-r, sl.-sn	10, th.-r, sl : v, oc.-r : 10
22	w	ssP,ssN,sp,g.-cur : w	10 : 6, li.-cl, h	8, cu, ci.-cu, ci.-s, sl.-sn, v : v, h.-fr
23	w	w : o	10	9, li.-cl, ci, ci.-cu, ci.-s, w : 10, h.-sq, h.-r, st.-w
24			10, c.-r : v, r	v, oc.-h.-shs : 10, oc.-shs
25			10, sl.-r : 10, v	v : v, li.-cl
26		m : o : m	10, ci.-cu, ci.-s	10, th.-cl, ci, ci.-cu, ci.-s : 10, ci.-cu, ci.-s
27	w	w : o	10, r, sc	4, ci, ci.-cu, ci.-s : o
28	m	w : o	8, ci, ci.-cu, ci.-s	10, cu.-s, ci.-s, sc : 10, ci.-s, cu.-s, sc, sl.-r
29	o	o : w : o	10, th.-cl, glm	10, li.-cl, h : v, sl.-r : 10
30	m	w : o	10	8, li.-cl : 10, th.-cl, h, sl.-r : 10, th.-cl, sl.-r
31	w N	w : o : w	10, h.-r : 10, c.-h.-r : 10, sc, th.-r	10, gt.-glm, th.-r : 10, oc.-r, glm : 10, ci.-s, cu.-s

**HUMIDITY OF THE AIR.**

*Temperature of the Dew Point.*

The highest in the month was 52°·2 on the 29th; and the lowest was 20°·6 on the 14th.

The mean " was 34°·8, being 1°·7 lower than the average of the preceding 25 years.

*Elastic Force of Vapour.*—The mean for the month was 0<sup>in</sup>·202, being 0<sup>in</sup>·015 less than the average of the preceding 25 years.

*Weight of Vapour in a Cubic Foot of Air.*—The mean for the month was 2<sup>grs</sup>·3, being 0<sup>gr</sup>·2 less than the average of the preceding 25 years.

*Degree of Humidity.*—The mean for the month was 81 (that of Saturation being represented by 100), being 1 less than the average of the preceding 25 years.

*Weight of a Cubic Foot of Air.*—The mean for the month was 547 grains, being 3 grains less than the average of the preceding 25 years.

**CLOUDS.**

The mean amount for the month, a clear sky being represented by 0 and a cloudy sky by 10, was 8·1.

**OZONE.**

The mean amount for the month, on a scale ranging from 0 to 10, was 0·6.

**WIND.**

The proportions were of N. 8, S. 7, W. 7, E. 5, and Calm 4. The greatest pressure in the month was 15<sup>lbs</sup>·0 on the square foot on the 23rd.

**RAIN.**

Fell on 15 days in the month, amounting to 1<sup>in</sup>·63, as measured in the simple cylinder gauge partly sunk below the ground; being 0<sup>in</sup>·04 greater than the average fall of the preceding 51 years.

**ELECTRICITY.**—The insulating lamp was not burning from March 1 to 3, 10 to 18, and 24 to 26.

RESULTS OF DAILY METEOROLOGICAL OBSERVATIONS

Main meteorological data table with columns for Month and Day, Phases of the Moon, Readings of Thermometers (Dry, Dew Point, etc.), Difference between Dew Point and Air Temperature, Wind as deduced from Anemometers (OSLER'S, General Direction, Pressure), and Amount of Horizontal Movement of the Air.

BAROMETER READINGS FROM EYE-OBSERVATIONS.

The first maximum in the month was 29.886 on the 6th; the absolute minimum in the month was 29.264 on the 2nd. The second maximum was 29.946 on the 8th; the second minimum was 29.750 on the 7th. The third maximum was 30.134 on the 15th; the third minimum was 29.266 on the 11th. The fourth maximum was 29.852 on the 18th; the fourth minimum was 29.741 on the 16th. The absolute maximum was 30.286 on the 22nd; the fifth minimum was 29.617 on the 19th. The sixth maximum was 29.705 on the 29th; the sixth minimum was 29.291 on the 28th. The range in the month was 1.022. The mean for the month was 29.743, being 0.026 lower than the average of the preceding 25 years.

TEMPERATURE OF THE AIR.

The highest in the month was 79.0 on the 27th; the lowest was 34.2 on the 5th and 30th. The range was 44.8. The mean of all the highest daily readings was 58.2, being 0.8 higher than the average of the preceding 25 years. The mean of all the lowest daily readings was 40.8, being 1.9 higher than the average of the preceding 25 years. The mean daily range was 17.4, being 1.1 less than the average of the preceding 25 years. The mean for the month was 47.9, being 1.1 higher than the average of the preceding 25 years.

MONTH and DAY, 1866.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
April 1	w	w : o	10 : 4, ci, ci-cu, h	7, ci, ci-cu, h, ci-s : 6, ci, ci-cu, ci-s, h, sl-r : 4, ci, ci-cu, ci-s
2	w	ssN,ssP,g.-cur,sp:w:mN	10, th-r	9, ci-s, fr.-shs, r, hl : 1c, fr.-shs, r, hl
3	w	ssN,ssP,g.-cur,sp : w	9, ci, ci-cu, cu.-s, ci.-s, r, hl, v	v, ci-cu, cu, cu.-s, ci, oc-r : v, h-r : 6, ci, th-cl
4	ssP	ssN,ssP,g.-cur,sp:m:w	h, v	10, shs.-r, ci.-s, cu.-s, li.-cl : v, r
5	w	w : m	o : 10, sl-r	7, ci, ci-cu, ci.-s : v, th.-cl : 10, r
6	w	w : o	10, h.-r : 10 : 10	v, ci, ci-cu, cu : 6, li.-cl
7	o	w : m	10	10, th.-r : th.-cl : 10, li.-cl, ci.-cu
8	sP, g.-cur, sp	w	10, f	10, ci.-s, cu.-s, ci, v : v, ci, ci.-s
9	w	o	10, th.-r	10, h.-r : 10, r
10	w	w	10	10 : v, th.-cl, m
11	w	wP,ssN : w	10, ci.-s, th.-cl	10, ci.-s, ci, h.-r : v, ci, ci.-s, sc, r, m
12	o		10, ci.-s, ci.-cu, v	8, ci.-cu, ci, ci.-s : 10, ci.-s : 10, ci.-s
13			10 : 9, ci, ci-cu, ci.-s, th.-r, v	9, ci, ci.-s, ci.-cu, cu.-s, v, oc-r : v : o, l, m
14			o : 9, ci, ci-cu, ci.-s, cu.-s, v	7, ci-cu, cu, ci.-s, oc.-shs : v : o, ms
15			5, ci, ci-cu, ci.-s, cu.-s	9, ci, ci-cu, cu.-s : 10, li.-cl
16			10, r : 10, ci.-s, sc	10, sc, th.-r, sqs, li.-cl : o, ms
17			o : 8, ci.-cu, ci, ci.-s, cu.-s	v, ci, ci-cu, ci.-s, cu.-s, h : o, ms
18		: w	o, h	7, ci, ci-cu, cu, ci.-s, cu.-s : v : o, m
19	m	w	7, ci, ci-cu, h	8, ci.-cu, cu.-s, sl.-r : 10, li.-cl
20	w	wN : o	6, ci, ci-cu, cu, ci.-s	8, cu.-s, cu, ci-cu, ci, h.-r : 10, oc.-shs, hl, r : 1, ci, ci-cu
21	o	o : w	2, ci, ci-cu, h	8, li.-cl, ci-cu, cu : v, li.-cl : o, sl.-f, ms
22	m	w	o : 1, ci	6, ci, ci-cu : v : o
23	w	o	ci	o : o
24	w	w : o	ci	o : o
25	o	o	o : o	o : o
26	o	o	o : 1, ci	4, ci-cu, cu, ci.-s, v : o
27	m	o	li.-cl : 2, ci, h	3, ci : v, ci, th.-cl, ci.-s : v, ci.-s
28	w		10, ci.-s : 10, ci.-s, oc.-shs, v	10, oc.-r, ci.-s : 10, h.-r : 10, c.-h.-r
29			10, c.-r : 10, c.-r	10, c.-r, ci.-s, cu.-s, v : 10, ci.-s, cu.-s : 10, ci.-s, cu.-s
30			10, ci.-s, cu.-s, hl	v, ci-cu, ci.-s, cu.-s : 10, ci.-s

**HUMIDITY OF THE AIR.**

*Temperature of the Dew Point.*

The highest in the month was 57°·2 on the 28th; and the lowest was 30°·6 on the 30th.

The mean , , was 41°·5, being 1°·2 higher than the average of the preceding 25 years.

*Elastic Force of Vapour.*—The mean for the month was 0<sup>11</sup>·262, being 0<sup>11</sup>·011 greater than the average of the preceding 25 years.

*Weight of Vapour in a Cubic Foot of Air.*—The mean for the month was 3<sup>57</sup>·0, being 0<sup>87</sup>·1 greater than the average of the preceding 25 years.

*Degree of Humidity.*—The mean for the month was 79 (that of Saturation being represented by 100), being the same as the average of the preceding 25 years.

*Weight of a Cubic Foot of Air.*—The mean for the month was 543 grains, being the same as the average of the preceding 25 years.

**CLOUDS.**

The mean amount for the month, a clear sky being represented by 0 and a cloudy sky by 10, was 6·3.

**OZONE.**

The mean amount for the month, on a scale ranging from 0 to 10, was 1·2.

**WIND.**

The proportions were of N. 3, S. 5, W. 8, E. 10, and Calm 4. The greatest pressure in the month was 6<sup>15</sup>·7 on the square foot on the 24th.

**RAIN.**

Fell on 13 days in the month, amounting to 2<sup>11</sup>·44, as measured in the simple cylinder gauge partly sunk below the ground; being 0<sup>11</sup>·73 greater than the average fall of the preceding 51 years.

**ELECTRICITY.**—The insulating lamp was not burning from April 13 to 18, and 28 to 30.



RESULTS OF DAILY METEOROLOGICAL OBSERVATIONS

Main meteorological data table with columns for Month and Day, Phases of the Moon, Barometer readings, Thermometer readings (Dry, Dew Point, Water of the Thames), Air Temperature, Wind direction, and Pressure. Includes a 'Means' row at the bottom.

BAROMETER READINGS FROM EYE-OBSERVATIONS.

The first maximum in the month was 30.114 on the 7th; the absolute minimum in the month was 29.299 on the 1st. The second maximum ,, was 29.836 on the 10th; the second minimum ,, was 29.608 on the 9th. The absolute maximum ,, was 30.252 on the 16th; the third minimum ,, was 29.434 on the 12th. The fourth maximum ,, was 30.230 on the 21st; the fourth minimum ,, was 30.015 on the 18th. The fifth maximum ,, was 29.694 on the 28th; the fifth minimum ,, was 29.459 on the 26th. The sixth maximum ,, was 29.812 on the 30th; the sixth minimum ,, was 29.630 on the 29th. The range in the month was 0.953. The mean for the month was 29.813, being 0.039 higher than the average of the preceding 25 years.

TEMPERATURE OF THE AIR.

The highest in the month was 73.0 on the 28th; the lowest was 32.6 on the 4th. The range ,, was 40.5. The mean ,, of all the highest daily readings was 61.4, being 3.2 lower than the average of the preceding 25 years. The mean ,, of all the lowest daily readings was 40.8, being 3.5 lower than the average of the preceding 25 years. The mean daily range was 20.6, being 0.3 greater than the average of the preceding 25 years. The mean for the month was 50.1, being 2.9 lower than the average of the preceding 25 years.

MONTH and DAY, 1866.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
May 1			10, oc.-r	10, ci.-s, cu.-s, sc, oc.-r : 10
2			10, sl.-r	7, glm, ci, ci.-cu : 4, ci.-cu, ci : 4, ci.-cu, ci.-s
3	o : ssN, ssP, g.-cur, sp	ssP, g.-cur, sp : o	10 : 10, cu.-s, ci.-s, h-shs, t	8, hl, v, cu.-s, cu : v : 4, th.-cl, h
4			5, ci, ci.-cu, h, v	8, ci.-cu, cu, ci.-s : 8, ci.-cu, cu, ci.-s : o, h
5			o : o : 4, ci, ci.-cu, ci.-s	8, ci.-cu, cu, li.-cl, r : v
6			v : 8, ci, ci.-cu, ci.-s, h, glm	10 : 10
7			8, ci, ci.-cu, h, glm	8, ci.-s, ci, h : o, ms
8			1, ci, h	6, li.-cl, h : v, th.-cl, h : 10, th.-cl
9			10, r	8, ci.-s, cu.-s, cu, ci.-cu : li.-cl : o
10			6, ci, ci.-cu, ci.-s, cu.-s	9, ci, ci.-cu, ci.-s, cu.-s : 3, ci, ci.-s
11			10, r : 10, c.-r : 10, c.-r, v	7, ci, ci.-s, cu.-s, v : v, ci.-cu, ci.-s, cu.-s, oc.-shs : 6, ci.-cu, ci.-s, cu.-s
12			10, r	10, r : v, ci.-s, r : v
13			o : 9, ci, ci.-cu, ci.-s, cu.-s	10 : 10
14			10	10, ci.-s, cu.-s, ci.-cu : 10, ci.-s, cu.-s
15			10, ci.-cu, ci.-s, cu.-s, glm	10, ci.-cu, ci.-s, cu.-s : 10, glm
16	o	o	7, ci, ci.-cu, ci.-s	10 : 7, ci, ci.-cu, ms
17	o	o	li.-cl, h.-d : 3, ci	4, ci, ci.-cu, ci.-s : 3, ci, ci.-cu, ci.-s : o, ms
18	o	o : w	o, h.-d : o	3, li.-cl, ci.-cu : o : o, d, ms
19	o	o : w : w	o, ms, h.-d : 1, ci	3, li.-cl, ci : o : o
20	w	o	o	o : o
21	w	wN : o : w	o	o : o
22	o	o	o	o : o
23	w	o : w : o	o	2, li.-cl, ci, ci.-cu : o : o, d
24	w	o	10, ci.-s, cu.-s, glm	9, ci.-s, ci.-cu : o, d
25	o	o	8, ci.-cu, cu.-s	5, ci, ci.-cu, li.-cl : v, ci, ci.-cu : 8, ci, ci.-cu, ci.-s
26	o	o : o : w	10, ci, ci.-cu, cu	4, ci, ci.-cu, cu, cu.-s, ci.-s, v : 10, sl.-r
27			10, h.-r : 10, glm	v, ci, ci.-cu, ci.-s, sl.-r : v : 6, ci, ci.-cu, ci.-s
28	o	o	o, h, li.-cl	7, ci, ci.-cu, cu, cu.-s : o, d
29	o	o	o	6, ci, ci.-cu, cu.-s, h, v : v : 10
30	o	o	5, ci, ci.-cu, h	8, ci, ci.-cu, ci.-s, cu.-s, h : 10, ci.-s, cu.-s : 10, ci.-s, cu.-s, sl.-r
31	w	o	10, ci.-s, cu.-s	10 : 10 : 10, h.-r

**HUMIDITY OF THE AIR.**

*Temperature of the Dew Point.*

The highest in the month was 53°·0 on the 31st; and the lowest was 33°·4 on the 15th.

The mean was 40°·8, being 4°·9 lower than the average of the preceding 25 years.

*Elastic Force of Vapour.*—The mean for the month was 0<sup>in</sup>·255, being 0<sup>in</sup>·049 less than the average of the preceding 25 years.

*Weight of Vapour in a Cubic Foot of Air.*—The mean for the month was 2<sup>gr</sup>·9, being 0<sup>gr</sup>·6 less than the average of the preceding 25 years.

*Degree of Humidity.*—The mean for the month was 71 (that of Saturation being represented by 100), being 5 less than the average of the preceding 25 years.

*Weight of a Cubic Foot of Air.*—The mean for the month was 542 grains, being the same as the average of the preceding 25 years.

**CLOUDS.**

The mean amount for the month, a clear sky being represented by 0 and a cloudy sky by 10, was 6·1.

**OZONE.**

The mean amount for the month, on a scale ranging from 0 to 10, was 1·0.

**WIND.**

The proportions were of N. 6, S. 4, W. 6, E. 9, and Calm 6. The greatest pressure in the month was 10<sup>lbs</sup>·0 on the square foot on the 11th.

**RAIN.**

Fell on 8 days in the month, amounting to 1<sup>in</sup>·94, as measured in the simple cylinder gauge partly sunk below the ground; being 0<sup>in</sup>·22 less than the average fall of the preceding 51 years.

**ELECTRICITY.**—The electrical apparatus was not in action on May 1 and 2, from May 4 to 15, and on May 27.

RESULTS OF DAILY METEOROLOGICAL OBSERVATIONS

Table with columns: MONTH and DAY, 1866; Phases of the Moon; Mean Daily Reading of the Barometer; READINGS OF THERMOMETERS (Dry, Dew Point, In the Water of the Thames); Difference between the Dew Point Temperature and Air Temperature; WIND AS DEDUCED FROM ANEMOMETERS (OSLER'S, General Direction, Pressure); and Rain in Inches. Rows include dates from June 1 to 30 and a Means row.

BAROMETER READINGS FROM EYE-OBSERVATIONS.

The first maximum in the month was 29.734 on the 2nd; the first minimum in the month was 29.511 on the 1st. The absolute maximum was 30.107 on the 8th; the second minimum was 29.660 on the 3rd. The third maximum was 29.935 on the 11th; the third minimum was 29.884 on the 10th. The fourth maximum was 29.849 on the 14th; the fourth minimum was 29.431 on the 12th. The fifth maximum was 29.629 on the 17th; the absolute minimum was 29.350 on the 16th. The sixth maximum was 29.921 on the 20th; the sixth minimum was 29.370 on the 18th. The seventh maximum was 30.054 on the 24th; the seventh minimum was 29.701 on the 21st. The eighth maximum was 29.842 on the 29th; the eighth minimum was 29.735 on the 27th. The range in the month was 0.757. The mean for the month was 29.774, being 0.023 lower than the average of the preceding 25 years.

TEMPERATURE OF THE AIR.

The highest in the month was 86.5 on the 27th; the lowest was 42.2 on the 17th. The range was 44.3. The mean of all the highest daily readings was 73.2, being 2.2 higher than the average of the preceding 25 years. The mean of all the lowest daily readings was 52.0, being 1.9 higher than the average of the preceding 25 years. The mean daily range was 21.2, being 0.4 greater than the average of the preceding 25 years. The mean for the month was 60.9, being 1.9 higher than the average of the preceding 25 years.

MONTH and DAY, 1866.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
June 1	o	o : wN : m	10, c.-h.-r : 10	: 10, cu-s, ci.-cu
2	w	w : o	1, ci	10, cu.-s, ci.-s, r: v, d : 10, ci.-s, cu.-s
3	w	w : m	10, ci.-s, s, glm	6, ci, ci.-cu, cu, cu.-s : o
4	o	o : w : o	h.-r	10, ci.-s, s, glm : 5, ci, ci.-cu, ci.-s, l
5	o	o : w : o	c.-r : 10	10, sl.-r : 10, cu.-s, ci.-s, sc, r
6	o	o : w	th.-r : 10	9, cu.-s, ci.-cu, cu, oc.-r : 10, th.-r
7	w	w	10	9, ci.-cu, ci.-s, cu.-s, oc.-shs : v, li.-cl : 7, li.-cl, ci.-s
8	w	o	2, ci, ci.-s, v	8, ci, ci.-s, ci.-cu : 4, ci
9	w	o	o	7, ci, ci.-cu, cu : v, ci, ci.-s
10	w	o	6, ci, ci.-s	5, ci, ci.-cu, cu : 10, th.-cl, ci.-s
11	o	o : w	8, ci.-cu, ci, h	1, ci, ci.-cu : v, ci, ci.-cu, cu.-s, ci.-s
12	o	o : w	10, sc	7, ci, ci.-cu, cu.-s : v : 8, th.-cl, ci.-s, cu.-s
13	o : o : ssN, sp, g.-cur	ssN, sp, g.-cur : o	10, sc, oc.-shs	10, sl.-r, se : v : 10
14	o	o : w	7, ci.-cu, h	10, r : 10, cu.-s, ci.-cu, ci
15	o	o	10	9, ci.-cu : 4, ci, ci.-cu, ci.-s, sl.-r
16	o	o	10	10, ci.-s : 10, th.-r
17	o	o	r	7, ci, ci.-cu : v : 1, m
18	o	o	10, r	vv, oc.-shs : vv, oc.-shs
19	o	o	7, ci, ci.-s, sc, oc.-shs, v	10, sc, sl.-r : 10, sl.-r
20	o	o	o	v, oc.-r, w : v
21	o	o	8, ci, ci.-cu	10, ci.-s, cu.-s, ci.-cu, glm : 10, ci.-s
22	o	o	c.-h.-r : oc.-r	5, ci, ci.-s : v : 9, cu.-s, ci.-s, t.-s, h.-r, m
23	o : w	o : o : w	o	5, ci, ci.-cu, h : 4, ci, ci.-cu : o
24	w	o	o	3, ci, ci.-cu : o : o, h
25	o	o	10, li.-cl, ci.-s, glm	o : o, m
26	w	w : o : o	o, ci	10, ci.-cu, ci, ci.-s : o, d
27	o	o	7, ci, ci.-cu	1, ci.-cu : o
28	o	w : o	oc.-r : 8, ci, ci.-cu, h	7, ci, ci.-s, ci.-cu : 6, ci, ci.-cu : 7, ci, ci.-cu, cu.-s, l, sl.-r
29	o	o	10, ci.-s, glm	8, ci, ci.-cu, h, cu, cu.-s, t, l : v, t, l, ci, ci.-cu, cu.-s, cu : o
30	o	ssN, sp, g.-cur : o : o	2, ci, ci.-cu, h, v	9, ci.-s, cu.-s, ci.-cu, li.-cl, v : 10, ci.-s, cu.-s

HUMIDITY OF THE AIR.

Temperature of the Dew Point.

The highest in the month was 64°·6 on the 28th and 30th; and the lowest was 39°·8 on the 17th.

The mean ,, was 53°·5, being 2°·8 higher than the average of the preceding 25 years.

Elastic Force of Vapour.—The mean for the month was 0<sup>m</sup>·410, being 0<sup>m</sup>·038 greater than the average of the preceding 25 years.

Weight of Vapour in a Cubic Foot of Air.—The mean for the month was 45<sup>r</sup>·6, being 0<sup>r</sup>·4 greater than the average of the preceding 25 years.

Degree of Humidity.—The mean for the month was 77 (that of Saturation being represented by 100), being 3 greater than the average of the preceding 25 years.

Weight of a Cubic Foot of Air.—The mean for the month was 529 grains, being 2 grains less than the average of the preceding 25 years.

CLOUDS.

The mean amount for the month, a clear sky being represented by o and a cloudy sky by 10, was 6·9.

OZONE.

The mean amount for the month, on a scale ranging from o to 10, was 1·1.

WIND.

The proportions were of N. 3, S. 9, W. 11, E. 5, and Calm 2. The greatest pressure in the month was 10<sup>lb</sup>·0 on the square foot on the 19th.

RAIN.

Fell on 15 days in the month, amounting to 3<sup>m</sup>·64, as measured in the simple cylinder gauge partly sunk below the ground; being 1<sup>m</sup>·68 greater than the average fall of the preceding 51 years.

ELECTRICITY.—June 17 to 22. The electrical apparatus was not in action.

RESULTS OF DAILY METEOROLOGICAL OBSERVATIONS

Main meteorological data table with columns for Month and Day, Phases of the Moon, Readings of Thermometers (Dry, Dew Point, Water), Difference between Dew Point and Air Temperature, Wind as deduced from Anemometers (General Direction, Pressure), and Amount of Horizontal Movement of the Air.

BAROMETER READINGS FROM EYE-OBSERVATIONS.

The absolute minimum in the month was 29<sup>in</sup>.123 on the 3rd.

The first maximum in the month was 29<sup>in</sup>.393 on the 4th; the second minimum was 29<sup>in</sup>.338 on the 5th. The absolute maximum was 30<sup>in</sup>.174 on the 11th; the third minimum was 29<sup>in</sup>.916 on the 13th. The third maximum was 30<sup>in</sup>.006 on the 15th; the fourth minimum was 29<sup>in</sup>.745 on the 19th. The fourth maximum was 30<sup>in</sup>.001 on the 22nd; the fifth minimum was 29<sup>in</sup>.844 on the 23rd. The fifth maximum was 30<sup>in</sup>.088 on the 25th; the sixth minimum was 29<sup>in</sup>.375 on the 29th. The sixth maximum was 29<sup>in</sup>.655 on the 30th; the seventh minimum was 29<sup>in</sup>.476 on the 31st.

The range in the month was 1<sup>in</sup>.051.

The mean for the month was 29<sup>in</sup>.770, being 0<sup>in</sup>.033 lower than the average of the preceding 25 years.

TEMPERATURE OF THE AIR.

The highest in the month was 87° 2 on the 13th; the lowest was 46° 0 on the 31st.

The range was 41° 2.

The mean of all the highest daily readings was 72° 6, being 1° 2 lower than the average of the preceding 25 years.

The mean of all the lowest daily readings was 52° 5, being 0° 4 lower than the average of the preceding 25 years.

The mean daily range was 20° 1, being 0° 8 less than the average of the preceding 25 years.

The mean for the month was 61° 0, being 0° 7 lower than the average of the preceding 25 years.

MONTH and DAY, 1866.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
July 1	m N	o : w	h.-r : 10, oc.-r : 10, h.-r, li.-cl	9, ci.-cu, cu, r : v : 2, ci.-s, ci, l
2	o	o	6, ci, ci.-cu, cu, cu.-s, sl.-r	10, r, ci.-cu, cu.-s : v, ci.-cu, cu, cu.-s : 4, ci, ci.-cu, ci.-s
3	o : ss N, ss P, g.-cur, sp	o	8, ci, ci.-cu, cu.-s, oc.-shs	10, ci, ci.-cu, sc, h.-r : 10, r
4			10, oc.-shs	v, oc.-shs : v, oc.-shs : 3, ci.-cu, ci.-s
5		ssN, g.-cur, sp. : o	h.-r : 7, ci.-cu, cu.-s, r	9, ci.-cu, cu.-s, cu, ci, oc.-shs : 10, glm
6	o : ssN, g.-cur, sp	v : ssP, g.-cur, sp	10, cu, cu.-s, oc.-shs, t	10, ci.-cu, cu, ci, h, l, t : 10, cu.-s, n, t, l : 10, t, sl.-r
7	o	o	9, ci.-cu, h	6, ci.-cu, cu.-s, h : 3, ci, ci.-s
8	o	o	10, th.-r, glm	10, glm, sc : 10, sc, glm
9	o		10, th.-r : 10, ci.-s, cu.-s, v	7, ci, ci.-s, ci.-cu : o
10			o, m	4, li.-cl, ci, ci.-cu, cu, h : v, li.-cl : o
11			1, ci	6, ci, ci.-cu, h : v, ci, ci.-cu, h : 8, ci, ci.-cu, ci.-s
12			o	5, ci.-cu : o, m
13	o	o	h.-d : o	1, ci, ci.-cu : li.-cl, ci
14	o	w : o : w	8, ci, h	8, ci, ci.-s, ci.-cu, cu.-s, h : v : o, d
15	w	o	3, ci, h	8, ci.-cu, cu, ci.-s, h, th.-cl : th.-cl, h
16	w		7, ci, ci.-s, ci.-cu	6, ci, ci.-cu, cu : v : 3, ci, d
17			10, ci, ci.-cu, ci.-s	10, ci.-cu, ci.-s : 10, ci.-s, ms
18		w	o, ms : 7, ci.-cu, ci, h	6, ci.-cu, ci : o
19	o	o	2, ci.-cu, ci, h	10, ci, ci.-cu, ci.-s, h : th.-cl : o, h.-d, ms
20	o	w : o	10	9, ci, ci.-cu, ci.-s : o : 4, ci, ci.-cu, cu.-s, h, h.-d, ms
21	w	o	o, h.-d, h, ms : o, h	o, h : o, h : 2, ci.-cu, cu.-s
22	o	o	9, ci.-cu, ci.-s	6, ci, ci.-cu : o
23	o	o	10, ci.-s, glm, ci	3, ci : th.-cl : 8, ci, ci.-cu
24	w	o : w : o	10	10, ci.-cu : 10
25	w	w	10, sl.-r	10, ci.-s, ci.-cu : 10
26	o	o	7, ci, ci.-cu, cu, h	10 : 10, ci.-s, ci.-cu, sl.-r
27	o	o : w	10, oc.-r	10, ci.-cu, oc.-r : 10 : 10, ci.-cu, s
28	w	o : w : w	10, ci.-cu, li.-cl	10, ci.-cu, ci.-s : 10
29	o : s N	o	r : 10, sc, shs.-r	v, ci.-cu, cu.-s, ci.-s : v : o, h.-d, ms
30			o, ms : 8, ci, ci.-cu, ci.-s	7, ci, ci.-cu, cu.-s, ci.-s : 8, ci, ci.-cu, ci.-s, cu.-s, m
31			10, r	9, c.-r, ci, ci.-cu, ci.-s : 10, oc.-r : 10, oc.-r

**HUMIDITY OF THE AIR.**

*Temperature of the Dew Point.*

The highest in the month was 67°·8 on the 13th; and the lowest was 46°·4 on the 20th.

The mean " was 53°·9, being 0°·2 higher than the average of the preceding 25 years.

*Elastic Force of Vapour.*—The mean for the month was 0<sup>in</sup>·416, being 0<sup>in</sup>·003 greater than the average of the preceding 25 years.

*Weight of Vapour in a Cubic Foot of Air.*—The mean for the month was 4<sup>grs</sup>·7, being 0<sup>grs</sup>·1 greater than the average of the preceding 25 years.

*Degree of Humidity.*—The mean for the month was 78 (that of Saturation being represented by 100), being 2 greater than the average of the preceding 25 years.

*Weight of a Cubic Foot of Air.*—The mean for the month was 528 grains, being the same as the average of the preceding 25 years.

**CLOUDS.**

The mean amount for the month, a clear sky being represented by 0 and a cloudy sky by 10, was 7·0.

**OZONE.**

The mean amount for the month, on a scale ranging from 0 to 10, was 0·9.

**WIND.**

The proportions were of N. 6, S. 4, W. 11, E. 6, and Calm 4. The greatest pressure in the month was 6<sup>lbs</sup>·7 on the square foot on the 5th.

**RAIN.**

Fell on 9 days in the month, amounting to 1<sup>in</sup>·62, as measured in the simple cylinder gauge partly sunk below the ground; being 0<sup>in</sup>·97 less than the average fall of the preceding 51 years.

**ELECTRICITY.**—The insulating lamp was not burning from July 3 to 5, 10 to 12, 16 to 18, and on 30 and 31.

RESULTS OF DAILY METEOROLOGICAL OBSERVATIONS

Main meteorological data table with columns for Month and Day, Phases of the Moon, Barometer readings, Thermometer readings (Dry, Dew Point, Water), Air Temperature, Wind direction and pressure, and Rainfall. Includes a 'Means' row at the bottom.

BAROMETER READINGS FROM EYE-OBSERVATIONS.

The first maximum in the month was 29.766 on the 1st; the first minimum in the month was 29.389 on the 2nd. The second maximum ,, was 29.642 on the 3rd; the second minimum ,, was 29.538 on the 4th. The third maximum ,, was 29.686 on the 5th; the third minimum ,, was 29.288 on the 7th. The fourth maximum ,, was 29.583 on the 8th; the fourth minimum ,, was 29.403 on the 9th. The absolute maximum ,, was 29.961 on the 11th; the fifth minimum ,, was 29.552 on the 12th. The sixth maximum ,, was 29.791 on the 13th; the sixth minimum ,, was 29.610 on the 14th. The seventh maximum ,, was 29.806 on the 15th; the seventh minimum ,, was 29.508 on the 16th. The eighth maximum ,, was 29.825 on the 18th; the eighth minimum ,, was 29.546 on the 20th. The ninth maximum ,, was 29.928 on the 23rd; the ninth minimum ,, was 29.840 on the 24th. The tenth maximum ,, was 29.941 on the 25th; the absolute minimum ,, was 29.157 on the 29th. The range in the month was 0.804. The mean for the month was 29.638, being 0.153 lower than the average of the preceding 25 years.

TEMPERATURE OF THE AIR.

The highest in the month was 78.5 on the 26th; the lowest was 45.0 on the 19th. The range ,, was 33.5. The mean ,, of all the highest daily readings was 69.4, being 3.4 lower than the average of the preceding 25 years. The mean ,, of all the lowest daily readings was 52.3, being 0.8 lower than the average of the preceding 25 years. The mean daily range was 17.1, being 2.6 less than the average of the preceding 25 years. The mean for the month was 59.4, being 1.8 lower than the average of the preceding 25 years.

MONTH and DAY, 1866.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
August 1			10, sl, r : 10, gt.-glm	7, cu, ci.-cu, ci : 10, ci.-cu
2			10, ci.-s, oc.-r	10, cu.-s, n, ci.-s, li.-cl, h.-r, v : 10, li.-cl, ci
3			10, cu.-s, ci.-s	10, li.-cl, ci.-s, cu, s : v, sl.-r : 6, ci.-s, cu.-s, ci, ms
4			o, ms : o : 10, sc, li.-cl, v	7, ci, ci.-cu, ci.-s : v : o, ms
5			10, sl.-r, glm	6, ci, ci.-s, ci.-cu, cu.-s : 3, ci, ci.-cu, cu.-s, ms
6			10, ci.-s, cu.-s	10, oc.-r, sc : 10, th.-r : 10, th.-r
7			r	8, cu, ci.-cu, n, r : 2, ci.-s, ms
8			o, ms	v, sl.-r : sl.-r : 10, h.-r, v
9			r	6, ci, ci.-s, cu.-s, ci.-cu : vv : 1, ci, ci.-s, ms
10		ssN, sP, g.-cur, sp: o	li.-cl, ms	6, ci, ci.-cu, ci.-s, oc.-shs : v : v, r, ci, ci.-cu, ci.-s, cu.-s
11	o	o	v, l	9, ci.-cu, h : 9, ci.-cu, ci.-s
12	o	w	r	9, ci, ci.-cu, cu.-s, glm : glm : 10, sl.-r, glm
13	o	o : w	oc.-shs	9, ci, ci.-s, cu.-s, ci.-cu : 10, ci.-cu, cu.-s, ci.-s : 10
14	o	o : o : w	h.-r	10, ci.-s, ci.-cu, h : vv, w : o
15	w	o	10, ci, ci.-cu, ci.-s,	10 : 10
16	o	o	10	9, oc.-shs, ci, ci.-cu, ci.-s, w, v, w : o, l, w
17	w	w : o	5, ci, ci.-cu, cu.-s, ci.-s, w	9, ci, ci.-s, cu.-s, ci.-cu, v, w, v, sl.-r : 3, ci, ci.-s
18	o	o	2, ci, ci.-cu, cu, h	7, ci, ci.-cu, cu, cu.-s, h : ci.-cu : o
19	o	o	li.-cl	8, ci, ci.-cu : 8, ci, ci.-s, ci.-cu, cu.-s
20	o	o	10, f, glm, r	8, th.-cl, ci, ci.-cu, ci.-s, sl.-f : 10, h : 10, ci.-s, cu.-s, h, r
21	o	o	c.-r : 10, ci.-cu, h : 10, ci.-cu, h	9, ci.-cu, h : ci.-cu : o
22	o	o	10, ci.-s, h	10, ci.-cu, cu.-s, ci.-s : ci, h, d
23	o	o : w : o	h.-d	5, ci, ci.-cu, cu.-s, ci.-s : 10, ci, ci.-s, li.-cl
24			ci, d	10, sc, th.-r : 10 : ci, d, lu.-co
25			d	10, ci, ci.-cu, h, sl.-r : 9, ci, ci.-cu, d
26			2, ci, f, sl.-r	7, ci, ci.-s, ci.-cu : 4, ci : 10, ci, l
27	w	w	9, cu, ci.-cu, cu.-s	6, ci.-cu, ci, ci.-s, sl.-r : li.-cl : 1, ci.-s
28	w	o	10, ci, ci.-cu, ci.-s	10, ci.-s, cu.-s, ci.-cu, r, glm : 10, ci.-s, cu.-s : ci.-cu, cu.-s
29	w	o	10, h.-r	10, r : 9, cu.-s, ci.-cu, s, sc
30	o	o	10, r	9, ci, ci.-cu, ci.-s : 10, sl.-r : 10, th.-cl, cu.-s
31	w	o	d	7, ci, ci.-s, cu.-s, ci.-cu : 4, ci, ci.-cu, ci.-s : o

**HUMIDITY OF THE AIR.**

*Temperature of the Dew Point.*

The highest in the month was 63°·2 on the 2nd; and the lowest was 43°·4 on the 16th.

The mean was 52°·7, being 1°·1 lower than the average of the preceding 25 years.

*Elastic Force of Vapour.*—The mean for the month was 0<sup>in</sup>·399, being 0<sup>in</sup>·019 less than the average of the preceding 25 years.

*Weight of Vapour in a Cubic Foot of Air.*—The mean for the month was 4<sup>grs</sup>·5, being 0<sup>gr</sup>·1 less than the average of the preceding 25 years.

*Degree of Humidity.*—The mean for the month was 79 (that of Saturation being represented by 100), being 2 greater than the average of the preceding 25 years.

*Weight of a Cubic Foot of Air.*—The mean for the month was 528 grains, being 1 grain less than the average of the preceding 25 years.

**CLOUDS.**

The mean amount for the month, a clear sky being represented by 0 and a cloudy sky by 10, was 7·7.

**OZONE.**

The mean amount for the month, on a scale ranging from 0 to 10, was 1·1.

**WIND.**

The proportions were of N. 5, S. 8, W. 13, E. 2, and Calm 3. The greatest pressure in the month was 10<sup>lbs</sup>·8 on the square foot on the 7th.

**RAIN.**

Fell on 18 days in the month, amounting to 2<sup>in</sup>·42, as measured in the simple cylinder gauge partly sunk below the ground; being 0<sup>in</sup>·03 greater than the average fall of the preceding 51 years.

**ELECTRICITY.**—The insulating lamp was not burning from August 1 to 9, and 24 to 26.



Main meteorological data table with columns for Month and Day, Phases of the Moon, Readings of Thermometers (Dry, Dew Point, Water of the Thames), Difference between Dew Point and Air Temperature, Wind as deduced from Anemometers (Osler's, General Direction, Pressure), and Rain in Inches. Includes a 'Means' row at the bottom.

BAROMETER READINGS FROM EYE-OBSERVATIONS.

The first maximum in the month was 29.757 on the 1st; the first minimum in the month was 29.361 on the 2nd. The second maximum was 29.735 on the 3rd; the second minimum was 29.215 on the 5th. The third maximum was 29.523 on the 6th; the third minimum was 29.280 on the 6th. The fourth maximum was 29.661 on the 9th; the fourth minimum was 29.350 on the 10th. The fifth maximum was 29.483 on the 10th; the fifth minimum was 29.372 on the 11th. The sixth maximum was 29.794 on the 12th; the sixth minimum was 29.332 on the 14th. The seventh maximum was 29.596 on the 15th; the seventh minimum was 29.048 on the 16th. The eighth maximum was 29.935 on the 18th; the eighth minimum was 29.785 on the 19th. The ninth maximum was 29.868 on the 20th; the absolute minimum was 29.034 on the 22nd. The tenth maximum was 29.868 on the 25th; the tenth minimum was 29.612 on the 28th. The absolute maximum was 29.953 on the 30th. The range in the month was 0.919. The mean for the month was 29.575, being 0.253 lower than the average of the preceding 25 years.

TEMPERATURE OF THE AIR.

The highest in the month was 71.0 on the 28th; the lowest was 41.3 on the 25th. The range was 29.7. The mean of all the highest daily readings was 65.1, being 2.6 lower than the average of the preceding 25 years. The mean of all the lowest daily readings was 50.6, being 1.6 higher than the average of the preceding 25 years. The mean daily range was 14.5, being 4.2 less than the average of the preceding 25 years. The mean for the month was 56.4, being 0.7 lower than the average of the preceding 25 years.

MONTH and DAY, 1866.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Sept. 1	o	o	6, ci.-cu, cu, cu.-s, sl.-r	9, ci.-cu, cu, cu.-s, ci, sl.-r: v, s
2	o	o : w	o : 10, h.-r, w	v, ci.-s, cu.-s, oc.-r, t : vv, oc.-r, sq, l
3			1, ci, ci.-cu	v, ci, ci.-cu, cu : v, th.-cl, h
4			v : 10, r : 10, ci.-s, sc, sl.-r	10, oc.-r, ci.-s, sc: oc.-r : 10, sl.-r
5			10, ci.-s, sc, r, st.-w	5, ci.-cu, cu, cu. s, sc, st.-w, ci : o, w
6			v, oc.-r	10, ci.-s, cu.-s, ci.-cu, sc, oc.-r, w: 10, oc.-r, st.-w, vv
7			st.-w : 10, ci.-cu, cu.-s, sc	9, li.-cl, ci.-cu, cu.-s, ci.-s : 10, glm, ci.-s, cu.-s
8	o	o	10, ci.-s	10, h.-r : 10, h.-r : 10, li.-shs
9	o	o	10	10, ci.-cu, ci.-s, cu.-s: 10 : 10, h.-r
10	w	sP, sN, sp, g.-cur : o	10, oc.-r, v	v, ci, ci.-cu, cu, ci.-s, cu.-s, oc.-r : v, li.-cl, ci
11			10, sc, h.-r, w	v, ci.-s, cu.-s, st.-w, oc.-r: v, ci.-s, cu.-s, st.-w: 10, sl.-r
12			10, th.-cl	10, th.-cl, ci.-s, cu.-s, sl.-r: 10, th.-r
13			10	9, ci.-cu, cu.-s : 10
14			h.-r : c.-h.-r : 8, ci, ci.-s, sc, w	7, cu.-s, ci.-cu, cu, sc, sl.-r, w: v : o
15		ssN, sp, g.-cur : o	2, ci, ci.-cu, cu	vv, oc.-h.-shs : oc.-shs : 7, ci.-s
16			10, sc, sl.-r	10, oc.-r : v, oc.-r : 10
17			h.-d, sl.-r : 5, ci, ci.-cu, h	8, ci.-cu, cu, cu.-s: li.-cl, cu.-s : o, h.-d
18		o : w : o	2, ci, h.-d, v	9, ci.-cu, cu, ci.-s, h: 10, th.-cl, sl.-r : 10, th.-cl, sl.-r
19	o	o	sl.-r, d : 10, li.-cl, ci, h, d	10, ci.-cu, cu, cu.-s, sc : 1, ci, ci.-s
20	o	o	o : 10, th.-cl, ci, ci.-cu, ci.-s	10, th.-cl, ci.-cu, ci.-s: v, sl.-r : 10, sl.-r, w
21			10, w, r : sl.-r, li.-cl : 8, ci, ci.-cu, h	8, ci.-cu, cu, cu.-s, ci : vv, li.-shs : v, lu.-co, h
22			th.-r : r : 10, th.-r	9, th.-cl, cu.-s : 10, th.-cl
23			h.-d : 10, li.-cl, h	9, li.-cl : li.-cl, sl.-r : 10, ci.-s, cu.-s
24			10, th.-r, ci.-s, cu.-s, li.-cl	7, ci.-s, ci.-cu, cu.-s, oc.-shs: v, ci.-cu : o
25		w : o	o, d : o, h.-d	o : 7, ci, ci.-s
26	o	o	10, sl.-r	10, oc.-r, ci.-s : 10, oc.-r
27	o	w	10, r : 10	8, f, li.-cl, h : v, sl.-f, d, th.-cl, h
28	o	w : o	10	5, cu, cu.-s, ci.-s, ci, h: 7, ci, th.-cl, s, f : 9, ci.-cu, ci.-s, f, d
29	w	o	d : 10	8, ci, ci.-cu, ci.-s : 10
30	o	o	10	10 : 10, sl.-f

**HUMIDITY OF THE AIR.**

*Temperature of the Dew Point.*

The highest in the month was 62°·3 on the 30th; and the lowest was 45°·0 on the 12th.

The mean , , was 51°·5, being 0°·4 higher than the average of the preceding 25 years.

*Elastic Force of Vapour.*—The mean for the month was 0<sup>in</sup>·381, being the same as the average of the preceding 25 years.

*Weight of Vapour in a Cubic Foot of Air.*—The mean for the month was 4<sup>grs</sup>·3, being 0<sup>grs</sup>·1 greater than the average of the preceding 25 years.

*Degree of Humidity.*—The mean for the month was 84 (that of Saturation being represented by 100), being 3 greater than the average of the preceding 25 years.

*Weight of a Cubic Foot of Air.*—The mean for the month was 530 grains, being 4 grains less than the average of the preceding 25 years.

**CLOUDS.**

The mean amount for the month, a clear sky being represented by 0 and a cloudy sky by 10, was 7·8.

**OZONE.**

The mean amount for the month, on a scale ranging from 0 to 10, was 1·8.

**WIND.**

The proportions were of N. 2, S. 13, W. 11, E. 2, and Calm 2. The greatest pressure in the month was 22<sup>lbs</sup>·0 on the square foot on the 11th.

**RAIN.**

Fell on 19 days in the month, amounting to 3<sup>in</sup>·90, as measured in the simple cylinder gauge partly sunk below the ground; being 1<sup>in</sup>·50 greater than the average fall of the preceding 51 years.

**ELECTRICITY.**—The insulating lamp was not burning from September 3 to 7, 11 to 17, and 21 to 24.

MONTH and DAY, 1866.	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.			WIND AS DEDUCED FROM ANEMOMETERS.					
			Dry.			Dew Point.	In the Water of the Thames, at Greenwich, by Self-Registering Thermometers, read at 9h A.M.			In the Water of the Thames, at Greenwich, by Self-Registering Thermometers, read at 9h A.M.			OSLER'S.		Pressure in lbs. on the square foot.		Amount of Horizontal Movement of the Air on each Day.	Rain in Inches, collected in a Gauge whose receiving surface is 5 inches above the Ground.			
			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.					
Oct. 1	Last Qr.	29.913	60.2	53.4	56.1	54.3	79.6	52.0	56.8	56.7	1.8	3.8	0.4	+ 2.2	N : NNE	N	lbs.	lbs.	lbs.	miles.	in.
2	..	29.842	62.6	53.7	56.9	56.5	71.2	52.9	58.7	57.7	0.4	3.6	0.0	+ 3.1	N	NE : Calm	0.7	0.0	0.1	208	0.00
3	..	29.914	68.1	57.2	61.8	57.8	110.0	54.3	58.7	58.7	4.0	10.1	0.4	+ 8.1	Calm	NE : E	0.0	0.0	0.0	108	0.00
4	..	29.952	61.6	55.6	57.5	56.8	74.5	54.2	59.3	58.7	0.7	2.7	0.2	+ 4.0	NNE	Calm	0.0	0.0	0.0	99	0.00
5	..	30.140	56.8	54.1	55.0	53.1	61.9	54.1	59.3	59.1	1.9	3.2	0.4	+ 1.7	N	N : NNE	0.3	0.0	0.0	196	0.00
6	..	30.305	62.8	53.6	56.7	54.9	77.1	52.5	57.8	57.2	1.8	5.1	0.4	+ 3.8	NE	N : E	0.5	0.0	0.0	124	0.02
7	In Equator	30.307	61.8	50.4	55.0	53.1	93.1	44.6	59.1	58.2	1.9	4.4	0.0	+ 2.5	Calm : NE	NE	0.2	0.0	0.0	166	0.00
8	New	30.203	66.0	50.1	56.4	51.5	116.8	48.3	59.1	58.0	4.9	13.1	0.0	+ 4.3	NE	E : ENE	1.6	0.0	0.1	170	0.00
9	..	30.049	59.2	49.1	53.8	49.4	85.1	43.0	58.0	57.7	4.4	8.9	0.6	+ 2.0	NE	NE	2.6	0.0	0.3	211	0.00
10	..	29.894	60.2	49.6	53.6	48.1	89.8	43.7	57.8	57.0	5.5	9.9	2.5	+ 2.0	NE	NE	1.5	0.0	0.2	286	0.00
11	..	29.886	56.4	46.7	51.7	47.0	74.1	39.3	56.8	55.7	4.7	8.6	2.7	+ 0.3	ENE	ENE	1.8	0.0	0.1	184	0.00
12	Apogee	29.838	59.2	42.6	50.4	46.6	111.8	36.9	56.4	55.7	3.8	11.2	0.0	- 0.8	Calm : ENE	E	0.3	0.0	0.0	122	0.00
13	..	29.770	55.9	35.6	45.9	44.7	78.8	35.1	55.8	54.7	1.2	8.4	0.0	- 5.0	SW	SW	0.0	0.0	0.0	112	0.00
14	Greatest Declination S.	29.807	54.6	44.8	48.4	45.5	75.0	41.9	55.8	54.7	2.9	6.0	1.5	- 2.2	SW	N : NE	1.8	0.0	0.0	169	0.01
15	..	30.009	54.0	34.0	44.3	38.4	94.2	31.2	54.8	53.9	5.9	13.2	1.4	- 6.0	N	NNW	0.1	0.0	0.0	112	0.00
16	First Quarter.	30.052	54.6	33.0	43.9	38.2	101.7	24.8	54.8	52.7	5.7	12.8	1.5	- 6.1	SW : Calm	NE : ESE	0.1	0.0	0.0	161	0.00
17	..	29.884	56.3	40.8	48.2	40.9	110.4	32.1	53.8	52.2	7.3	16.4	3.5	- 1.6	ESE	E	3.6	0.0	0.5	243	0.00
18	..	29.730	52.9	44.8	49.0	49.0	54.0	38.2	52.8	51.7	0.0	1.0	0.0	- 0.6	E	SE	1.0	0.0	0.2	208	0.79
19	..	29.910	63.5	52.6	57.5	57.2	79.5	50.2	51.8	51.6	0.3	3.4	0.0	+ 8.2	SE : S	SSE : S	0.4	0.0	0.0	130	0.03
20	..	30.030	62.2	52.3	56.0	55.8	73.2	45.1	52.8	51.7	0.2	2.3	0.0	+ 6.9	Calm	E	0.4	0.0	0.0	147	0.02
21	In Equator.	29.859	65.1	53.1	56.9	53.3	101.0	52.6	53.8	52.7	3.6	8.4	0.6	+ 8.0	SE	SSE	0.5	0.0	0.0	156	0.07
22	..	29.793	59.8	41.4	50.7	50.6	66.0	32.0	53.8	51.7	0.1	1.7	0.0	+ 2.0	SSE	SW : WNW : WSW	2.8	0.0	0.1	228	0.19
23	..	29.985	58.0	40.5	50.5	48.9	78.4	32.2	54.3	52.7	1.6	4.8	0.0	+ 2.0	SW	SW : SSW	0.3	0.0	0.0	196	0.00
24	Full	29.708	60.8	48.2	52.4	46.6	94.2	47.0	54.5	53.7	5.8	10.1	0.8	+ 4.2	SSW	SSW : SSE	2.6	0.0	0.2	202	0.00
25	Perigee.	29.518	50.9	43.3	44.6	43.4	61.0	41.6	53.4	52.7	1.2	2.9	0.0	- 3.3	SW : SE	N	0.6	0.0	0.0	208	0.87
26	..	29.773	54.0	40.7	45.9	41.4	96.0	32.2	52.8	..	4.5	9.8	2.1	- 1.7	NE	N	0.6	0.0	0.0	140	0.00
27	Greatest Declination N.	29.854	52.3	31.0	42.6	39.1	82.0	25.1	51.8	..	3.5	12.2	0.0	- 4.7	Calm : SW	SW : S	0.0	0.0	0.0	166	0.00
28	..	29.981	54.8	44.0	48.6	42.0	94.5	40.0	54.8	54.7	6.6	12.2	0.4	+ 1.6	SW : WSW : NNW	NNW	5.3	0.0	0.7	309	0.05
29	..	30.193	51.5	33.7	43.6	39.6	94.4	26.5	54.1	52.7	4.0	9.2	0.0	- 3.2	WSW	SW	1.5	0.0	0.2	396	0.00
30	Last Quarter.	29.686	55.6	46.6	51.0	49.0	62.0	41.8	53.8	49.7	2.0	8.0	0.8	+ 4.4	SW	WSW : WNW	22.5	0.0	1.9	310	0.04
31	..	29.951	51.9	39.8	43.9	40.1	81.0	34.6	53.8	47.7	3.8	11.0	1.2	- 2.6	WNW : WSW	SW	0.6	0.0	0.0	250	0.00
Means	..	29.927	58.2	45.7	51.3	48.2	84.6	41.3	55.5	54.5	3.1	7.7	0.7	+ 1.1	...	...	..	..	..	Sum 5768	Sum 2.09

BAROMETER READINGS FROM EYE-OBSERVATIONS.

The absolute maximum in the month was 30<sup>in</sup>.344 on the 7th; the first minimum in the month was 29<sup>in</sup>.834 on the 2nd.  
The second maximum ,, was 30<sup>in</sup>.078 on the 16th; the second minimum ,, was 29<sup>in</sup>.752 on the 13th.  
The third maximum ,, was 30<sup>in</sup>.078 on the 20th; the third minimum ,, was 29<sup>in</sup>.723 on the 18th.  
The fourth maximum ,, was 30<sup>in</sup>.017 on the 23rd; the fourth minimum ,, was 29<sup>in</sup>.747 on the 22nd.  
The fifth maximum ,, was 30<sup>in</sup>.250 on the 29th; the absolute minimum ,, was 29<sup>in</sup>.510 on the 25th.  
The sixth maximum ,, was 29<sup>in</sup>.984 on the 31st; the sixth minimum ,, was 29<sup>in</sup>.624 on the 30th.  
The range in the month was 0<sup>in</sup>.834.  
The mean for the month was 29<sup>in</sup>.927, being 0<sup>in</sup>.241 higher than the average of the preceding 25 years.

TEMPERATURE OF THE AIR.

The highest in the month was 68° 1 on the 3rd; the lowest was 31° 0 on the 27th.  
The range ,, was 37° 1.  
The mean ,, of all the highest daily readings was 58° 2, being 0° 5 lower than the average of the preceding 25 years.  
The mean ,, of all the lowest daily readings was 45° 7, being 1° 6 higher than the average of the preceding 25 years.  
The mean daily range was 12° 5, being 2° 1 less than the average of the preceding 25 years.  
The mean for the month was 51° 3, being 0° 8 higher than the average of the preceding 25 years.

MONTH and DAY, 1866.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
October 1	o	o	10, ci.-s, cu.-s, ci, ci-cu	10 : 10
2	o	o	10 : 10, m.-r, f	10, sl.-f : 10 : 10, m.-r
3	o	o	10 : 10 : 5, h	v, li.-cl, ci, h : 10, li.-cl
4	o	o	10, ci.-s, m.-r	10, ci.-s : 10
5	o	o : w : o	10, m.-r	10, h : 10, m.-r
6	o	o : w : o	10, m.-r	9, ci.-s, ci.-cu, cu.-s : v : 10
7	w	w : o	6, ci, ci.-cu, cu.-s, h	v : v, th.-cl, h.-d, sl.-f, m
8	w	o	10	o : o, m : 10, th.-cl, ci, ci.-cu, d
9	w	w	9, ci, ci.-cu, ci.-s, cu.-s	9, cu.-s, ci.-cu : v : 10
10	o	w : o	10	9, ci.-cu, ci, ci.-s : 8, ci.-cu, th.-cl
11	o	o	10, ci.-cu, cu.-s	10, cu.-s, ci.-s : li.-cl : 4, li.-cl, ci.-cu
12	w	w : o	o, h.-d : 9, ci.-cu, cu.-s	4, ci.-cu, cu.-s : o, m
13	o	w : o	o, sl.-f, d : 8, ci, ci.-cu, cu.-s, f, h	5, th.-cl, cu.-s, ci.-s, ci.-cu, h : 10, f, h
14	o	o	10, sl.-r : 10, f	v, ci, ci.-cu, ci.-s, th.-cl : v, li.-cl, ci
15	w	w : o : w	o, d : o, h	3, li.-cl : li.-cl : o, d, sl.-f
16	w	o : w	h.-d, h.-fr : o, h, sl.-f	o, h : o, h : 3, ci, ci.-s
17	o	o : w : w	d : o	3, ci, ci.-s : v, ci, ci.-s : 9, ci, ci.-s, ci.-cu
18	o	o : w	10 : 10, sl.-r : 10, h.-r	10, c.-h.-r : 10, r : 10, h.-r
19	o	ssP, sp, g.-cur : o : o	10, m.-r : 10	10, ci.-s, cu.-s, ci.-cu, ci, r : 9, ci, ci.-cu, cu.-s, ci.-s
20	o	w : o	10, f	10 : 10, r, ci.-s, glm
21	o	o	10, s, ci.-s	10, ci.-s, s, ci.-cu, oc.-r : v, ci, s, ci.-s
22	o : ssP, wN, g.-cur	o	10, h.-r	10, c.-h.-r : 5, oc.-r : o, h.-d, h
23	o	o	10, ci, ci.-cu, ci.-s	10, ci, ci.-cu, ci.-s : 10, ci, ci.-cu, ci.-s
24	o	o : o : w	2, ci	7, ci.-cu, cu.-s, ci.-s, ci : 7, ci.-s, ci.-cu, h
25	wN	o : w	10, h.-r : 10, c.-h.-r : 10, ci.-s, oc.-r, gt.-glm	10, glm, sl.-r : 10, glm, oc.-r
26			4, ci, h	4, ci.-cu, cu.-s, ci, h : ci, ci.-cu, h : 4, ci, h, d, lu.-ha, sl.-f
27			o, ci, h, f	6, ci, ci.-cu, h : 10, sl.-r : 10
28			10, oc.-r, w	2, ci, ci.-s : o, m
29			o, h.-fr : 6, ci, h	10, ci.-s, cu.-s : 10
30			10, ci.-s, sc, ci, s, w, th.-r	10, sc, w : 10, sc : o
31			4, th.-cl, h, f, glm	4, sl.-f, h, th.-cl : o, d, ms

**HUMIDITY OF THE AIR.**

*Temperature of the Dew Point.*

The highest in the month was 59°·7 on the 3rd; and the lowest was 37°·2 on the 15th.

The mean ,, was 48°·2, being 1°·8 higher than the average of the preceding 25 years.

*Elastic Force of Vapour.*—The mean for the month was 0<sup>in</sup>·338, being 0<sup>in</sup>·022 greater than the average of the preceding 25 years.

*Weight of Vapour in a Cubic Foot of Air.*—The mean for the month was 35<sup>grs</sup>·8, being 0<sup>grs</sup>·1 greater than the average of the preceding 25 years.

*Degree of Humidity.*—The mean for the month was 90 (that of Saturation being represented by 100), being 3 greater than the average of the preceding 25 years.

*Weight of a Cubic Foot of Air.*—The mean for the month was 542 grains, being 4 grains greater than the average of the preceding 25 years.

**CLOUDS.**

The mean amount for the month, a clear sky being represented by 0 and a cloudy sky by 10, was 7·3.

**OZONE.**

The mean amount for the month, on a scale ranging from 0 to 10, was 0·7.

**WIND.**

The proportions were of N. 9, S. 6, W. 5, E. 8, and Calm 3. The greatest pressure in the month was 22<sup>lbs</sup>·5 on the square foot on the 30th.

**RAIN.**

Fell on 10 days in the month, amounting to 2<sup>in</sup>·09, as measured in the simple cylinder gauge partly sunk below the ground; being 0<sup>in</sup>·73 less than the average fall of the preceding 51 years.

**ELECTRICITY.**—From October 26 to 31 the electrical apparatus was not in action.

RESULTS OF DAILY METEOROLOGICAL OBSERVATIONS

Main meteorological observation table with columns for Month and Day, Phases of the Moon, Barometer readings, Thermometer readings (Dry, Dew Point, Water in Thames), Air Temperature, Wind direction, and Pressure.

BAROMETER READINGS FROM EYE-OBSERVATIONS.

The first maximum in the month was 29.855 on the 4th; the first minimum in the month was 29.549 on the 3rd. The second maximum was 30.018 on the 6th; the second minimum was 29.744 on the 5th.

TEMPERATURE OF THE AIR.

The highest in the month was 59.6 on the 5th; the lowest was 26.5 on the 21st. The range was 33.1. The mean of all the highest daily readings was 50.5, being 1.3 higher than the average of the preceding 25 years.

MONTH and DAY, 1866.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Nov. 1			10, ci.-s, cu.-s	10, ci.-s, cu.-s : 10 : 4, li.-cl, ci
2		o : o : sP,g.-cur,sps	10, ci.-s, ci.-cu, cu.-s. th.-r	10, ci.-s, ci.-cu : 5, ci.-s, cu.-s
3	w		10, ci.-cu, ci.-s, sl.-r	v,oc.-r,ci,ci.-s,ci.-cu : v, oc.-r : o, f, d
4			h.-d : 6, ci, ci.-cu, v	v, ci, ci.-cu, h : 10
5			sl.-r : 10, ci.-s	10, ci.-s : 10
6			8, ci.-cu, cu.-s, d	3, ci, ci.-s, cu.-s, ci.-cu, m : o, h.-d, ms
7			th.-cl : 10, sc, ci.-s, cu.-s, w	v, li.-cl, ci, ci.-cu : v, sl.-r : v, li.-cl, d
8			10, ci.-s, sl.-r	v, se, w : 10, h.-r
9			o, m : o	6, ci.-cu, cu.-s, h : o, d, ms
10			o, h.-d, m : th.-f	3, ci, ci.-s, v : 10, r
11			10, h.-r, w : 3, li.-cl, ci, ci.-cu, v	10, ci, ci.-cu, ci.-s : v : o, d
12			10, cu.-s, ci.-s	9, ci.-s, cu.-s, ci.-cu, ci, glm : 10, ci.-s, oc.-r : 10, ci.-s, w
13			10, sc, st.-w : 10, sc, fr.-h.-sq	v, ci, ci.-cu, ci.-s, cu.-s, sc, m : vv, li.-cl, ms
14			o, ms : 1, li.-cl, h, w	v, ci, ci.-cu, cu.-s, h : o, h
15			d : 4, ci, v	10, sl.-r : 10, sl.-r
16			10, ci.-s, cu.-s, sc, th.-r	v, se, oc.-shs, st.-w : v, se, oc.-shs, w
17			h.-fr : o	1, li.-cl, h, sl.-f : o, f, lu.-ha, lu.-co, h.-fr, h
18			10, r : 10, oc.-r : 10, r, sc	v, se : v, se : 10, cu.-s
19			h.-fr, sl.-r : 1, ci	5, ci, h, ci.-s : o
20			h.-fr : o	4, ci, ci.-s, h : v : 10, ci, ci.-cu, h
21			9, ci, ci.-cu, ci.-s, cu.-s, sl.-f	5, ci.-cu, ci.-s, h, f : o, d, f
22			d, sl.-f : 10, sl.-f	10, f : 10, f
23			10, ci.-s, s, th.-r	10, th.-r, se : 2, ci.-cu, cu.-s
24			h.-fr : 1, li.-cl, h, sl.-f, v	10, ci, ci.-s : 10
25			1, ci.-cu, ci.-s, sl.-f	10, ci.-s, cu.-s, sq, r : v
26			d : 10	6, ci.-cu, cu.-s, ci.-s, ci, h : 10
27			6, ci, ci.-cu, ci.-s	7, ci, ci.-cu, ci.-s : v : o
28			h.-fr : o, h	1, li.-cl, h : o, h.-fr, f
29		o : o : w	h.-fr : 3, li.-cl, h, f	o, h : 10 : 10
30	w	w	o, h	o : o, h.-fr

**HUMIDITY OF THE AIR.**

*Temperature of the Dew Point.*

The highest in the month was 54°·7 on the 13th; and the lowest was 20°·4 on the 19th.

The mean , , was 39°·7, being 0°·2 lower than the average of the preceding 25 years.

*Elastic Force of Vapour.*—The mean for the month was 0<sup>in</sup>·244, being 0<sup>in</sup>·008 less than the average of the preceding 25 years.

*Weight of Vapour in a Cubic Foot of Air.*—The mean for the month was 2<sup>gr</sup>·8, being the same as the average of the preceding 25 years.

*Degree of Humidity.*—The mean for the month was 84 (that of Saturation being represented by 100), being 5 less than the average of the preceding 25 years.

*Weight of a Cubic Foot of Air.*—The mean for the month was 548 grains, being 1 grain greater than the average of the preceding 25 years.

**CLOUDS.**

The mean amount for the month, a clear sky being represented by 0 and a cloudy sky by 10, was 6·1.

**OZONE.**

The mean amount for the month, on a scale ranging from 0 to 10, was 0·6.

**WIND.**

The proportions were of N. 3, S. 10, W. 15, E. 2, and Calm 0. The greatest pressure in the month was 22<sup>lbs</sup>·0 on the square foot on the 16th.

**RAIN.**

Fell on 13 days in the month, amounting to 1<sup>in</sup>·48, as measured in the simple cylinder gauge partly sunk below the ground; being 0<sup>in</sup>·95 less than the average fall of the preceding 51 years.

**ELECTRICITY.**

The electrical apparatus was not in action on November 1, and from November 3 to 28.

RESULTS OF DAILY METEOROLOGICAL OBSERVATIONS

Main meteorological observation table with columns for Month and Day, Phases of the Moon, Readings of Thermometers (Dry, Dew Point, Air Temperature), Difference between Dew Point and Air Temperature, Wind as deduced from Anemometers (General Direction, Pressure), and Amount of Horizontal Movement of the Air.

BAROMETER READINGS FROM EYE-OBSERVATIONS.

The first maximum in the month was 29.698 on the 2nd; the second minimum was 29.557 on the 4th. The first minimum in the month was 29.626 on the 1st. The second maximum was 29.739 on the 6th; the third minimum was 29.361 on the 7th. The third maximum was 30.335 on the 8th; the fourth minimum was 29.806 on the 9th. The fourth maximum was 30.189 on the 11th; the fifth minimum was 29.218 on the 13th. The fifth maximum was 29.409 on the 15th; the sixth minimum was 29.186 on the 15th. The sixth maximum was 30.152 on the 18th; the seventh minimum was 30.044 on the 18th. The absolute maximum was 30.355 on the 20th; the eighth minimum was 30.147 on the 21st. The eighth maximum was 30.277 on the 22nd; the ninth minimum was 29.587 on the 26th. The ninth maximum was 29.860 on the 28th; the absolute minimum was 29.078 on the 30th. The range in the month was 1.277. The mean for the month was 29.784, being 0.048 lower than the average of the preceding 25 years.

TEMPERATURE OF THE AIR.

The highest in the month was 56.3 on the 6th; the lowest was 27.7 on the 31st. The range was 28.6. The mean of all the highest daily readings was 47.6, being 2.3 higher than the average of the preceding 25 years. The mean of all the lowest daily readings was 37.4, being 1.7 higher than the average of the preceding 25 years. The mean daily range was 10.2, being 0.7 greater than the average of the preceding 25 years. The mean for the month was 42.9, being 2.5 higher than the average of the preceding 25 years.

MONTH and DAY, 1866.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Dec. 1	w	w	o, h.-fr : 10	10 : 10 : 10, r
2	o	o	10, c.-r : 10, cu.-s, f, v	v, ci.-s, cu.-s : v, ci.-s : 10, r
3	o	o	10 : 6, ci, ci.-cu, ci.-s, th.-r	10, w : 10, sqs
4			sqs : 10, sc, sl.-r, w	10, sc, oc.-r, st.-w : 10, oc.-r, sc, st.-w : 10, sc
5			10, sc, r	10, oc.-r, sc : 10, oc.-r, sc : 10, r, sc
6			10, c.-r, sc : sl.-r : 10, h.-r	10, oc.-r, sc : 10, sc, st.-w : 10, sl.-r, st.-w
7			10, w, sl.-r : 10 : 10, glm	8, ci.-s, ci.-cu, sqs, v : v, r : o
8			h.-fr : o, h, sl.-f	1, ci, ci.-s, h : o : o, f
9			h.-fr : 10, th.-cl, ci.-s, cu.-s	10, w : 10, st.-w, oc.-r : 10, sl.-r
10			2, h, ci	5, ci, ci.-cu, v : o, f
11			10, li.-cl, f	9, li.-cl, ci, sl.-f : 10, li.-cl
12			10, sc, oc.-r	10, sc, cu.-s, sl.-r : v, sl.-r
13			10, sc, th.-r, w	10, h.-r, s, sc, w : v : o, ms
14			o : r : 3, ci, ci.-cu	v, ci, ci.-cu, ci.-s : o
15			9, ci.-s, ci.-cu, sl.-r	10, oc.-r, sc, w : v, l, h.-r, sc, w
16			4, ci, ci.-s, w	10 : v : li.-cl
17			10, ci.-s, cu.-s	10, ci.-s, glm, sl.-r : li.-cl, lu.-co, lu.-ha
18			sl.-r : 8, ci.-cu, ci.-s	10, ci.-s, s : o, d
19			5, ci, ci.-s, ci.-cu, h, sl.-f, gt.-glm	1, ci, ci.-s, h : f : o
20			9, ci, ci.-cu, cu.-s, h.-fr, f	8, ci, ci.-cu, ci.-s, f : 10
21			10	8, cu.-s, h : v, lu.-ha, h.-fr, f, h
22			10, f	10, th.-f : 10, th.-f, m.-r
23			10, f	10, sl.-f : 2, ci, d
24		o	10	10 : 10, m.-r : 10, m.-r
25	w	w	5, ci, ci.-cu, ci.-s, sl.-f	10 : 10
26	o	w	10, sl.-r, li.-cl	5, li.-cl : v : 10, h.-sqs
27			10, h.-sqs : li.-cl : 8, ci.-cu, cu.-s, ci.-s, sl.-f	10, ci.-s, cu.-s, ci.-cu, sc, sl.-r : v, oc.-r
28			sl.-r : 10	9, ci, ci.-cu, ci.-s, cu.-s : o
29			6, ci, ci.-cu	9, ci, ci.-cu, cu.-s, w : 10, w : 1, cu.-s
30			h.-fr : o, h	3, ci, ci.-s, w : o : o, h.-fr
31			h.-fr : 8, ci, ci.-cu	6, ci, ci.-cu, v, th.-cl : v, f : v, f, sl.-sn

**HUMIDITY OF THE AIR.**

*Temperature of the Dew Point.*

The highest in the month was 53°·3 on the 5th; and the lowest was 24°·9 on the 1st.

The mean " was 39°·3, being 2°·2 higher than the average of the preceding 25 years.

*Elastic Force of Vapour.*—The mean for the month was 0<sup>in</sup>·240, being 0<sup>in</sup>·017 greater than the average of the preceding 25 years.

*Weight of Vapour in a Cubic Foot of Air.*—The mean for the month was 25<sup>grs</sup>·8, being 0<sup>grs</sup>·2 greater than the average of the preceding 25 years.

*Degree of Humidity.*—The mean for the month was 87 (that of Saturation being represented by 100), being 1 less than the average of the preceding 25 years.

*Weight of a Cubic Foot of Air.*—The mean for the month was 549 grains, being 3 grains less than the average of the preceding 25 years.

**CLOUDS.**

The mean amount for the month, a clear sky being represented by 0 and a cloudy sky by 10, was 7·4.

**OZONE.**

The mean amount for the month, on a scale ranging from 0 to 10, was 0·6.

**WIND.**

The proportions were of N. 0, S. 12, W. 16, E. 1, and Calm 2. The greatest pressure in the month was 30<sup>lbs</sup>·0 on the square foot on the 6th and 13th.

**RAIN.**

Fell on 18 days in the month, amounting to 1<sup>in</sup>·85, as measured in the simple cylinder gauge partly sunk below the ground; being 0<sup>in</sup>·02 less than the average fall of the preceding 51 years.

**ELECTRICITY.**—The electrical apparatus was not in action from December 4 to 24, and 27 to 31.



## MAXIMA AND MINIMA BAROMETER-READINGS,

## 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, 1866.		Reading.		Approximate Mean Solar Time, 1866.		Reading.		Approximate Mean Solar Time, 1866.		Reading.		Approximate Mean Solar Time, 1866.		Reading.			
d	h	m	in.	d	h	m	in.	d	h	m	in.	d	h	m	in.		
January	1.	22.	30	29	880	January	2.	13.	23	29	321	February	27.	21.	12	29	018
	3.	6.	20:	29	854		4.	17.	6	29	623	March	3.	4.	30:	29	473
	5.	22.	21:	29	951		6.	23.	49	29	366		7.	4.	19:	29	015
	7.	7.	4	29	450		7.	18.	26	29	036		16.	18.	20:	28	945
	8.	11.	30	29	140		9.	0.	34	28	866		19.	2.	26	29	046
	10.	4.	46:	29	118		10.	19.	58:	28	643		23.	15.	56:	28	896
	12.	12.	20:	29	853		13.	1.	20	29	312		26.	17.	0:	29	925
	13.	22.	34:	29	736		14.	14.	4	29	565		28.	13.	12	29	936
	15.	10.	57:	29	963		16.	1.	43	29	512	April	1.	19.	57	29	256
	16.	21.	46:	30	098		17.	2.	53	29	954		7.	2.	17	29	750
	17.	12.	30	30	046		18.	19.	36	29	538		11.	12.	24:	29	178
	19.	6.	11:	29	630		19.	18.	16	29	406		16.	6.	6	29	725
	21.	6.	41	29	728		22.	5.	41	29	571		19.	6.	40	29	589
	24.	22.	30:	30	506		28.	16.	16:	29	537		28.	2.	58	29	280
	29.	22.	45:	29	950	February	1.	3.	37	29	165	May	1.	5.	0	29	278
February	1.	15.	20:	29	336		1.	22.	10	29	135		9.	1.	55	29	585
	2.	15.	39	29	765		3.	2.	10	29	376		11.	15.	40	29	400
	3.	19.	27	29	933		4.	9.	40	29	523		18.	6.	16	29	995
	4.	11.	35	29	596		4.	13.	40	29	540		26.	1.	32:	29	455
	5.	0.	28	29	866		5.	13.	20	29	560		28.	15.	32	29	594
	5.	20.	13	29	682		6.	21.	23:	29	418		31.	14.	16	29	462
	8.	11.	15:	29	866		11.	4.	34	28	450	June	2.	9.	45	29	736
	13.	13.	51:	29	640		14.	15.	21:	29	232		3.	16.	12	29	760
	15.	7.	21:	29	406		15.	15.	37:	29	275		8.	11.	55:	30	118
	17.	13.	51:	29	864		18.	5.	25	29	793		10.	3.	28	29	857
	18.	23.	41	29	920		20.	3.	17:	29	843		12.	10.	22	29	425
	21.	10.	22:	30	197		23.	3.	21	29	523		16.	12.	16	29	200
	23.	22.	38:	29	812		25.	17.	15:	29	155		18.	4.	48	29	348
													21.	15.	36	29	662



ABSOLUTE MAXIMA AND MINIMA READINGS OF THE BAROMETER for each Month in the Year 1866.  
[Extracted from the preceding Table.]

1866, MONTH.	Readings of the Barometer.		Range of Reading in each Month.
	Maxima.	Minima.	
January.....	30 <sup>in.</sup> ·506	28 <sup>in.</sup> ·643	1 <sup>in.</sup> ·863
February.....	30·197	28·450	1·747
March.....	30·240	28·896	1·344
April.....	30·294	29·178	1·116
May.....	30·252	29·278	0·974
June.....	30·118	29·200	0·918
July.....	30·174	29·097	1·077
August.....	29·970	29·120	0·850
September.....	29·938	29·025	0·913
October.....	30·344	29·488	0·856
November.....	30·169	29·053	1·116
December.....	30·355	29·078	1·277

The highest reading in the year was 30<sup>in.</sup>·506 in the month of January. The lowest reading in the year was 28<sup>in.</sup>·450 in the month of February.  
The range of reading in the year was 2<sup>in.</sup>·056.

MONTHLY MEANS OF RESULTS FOR METEOROLOGICAL ELEMENTS at the ROYAL OBSERVATORY, GREENWICH, in the Year 1866.

1866, MONTH.	Mean Reading of the Barometer.	TEMPERATURE OF THE AIR.							Mean Tempera- ture 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 Tempera- ture.				
January ..	in. 29·702	° 54·3	° 23·7	° 30·6	° 47·8	° 36·7	° 11·1	° 42·6	° 38·4	in. 0·234	grs. 2·7	grs. 0·5
February..	29·529	57·0	24·2	32·8	47·1	34·7	12·4	40·5	35·9	0·211	2·4	0·5
March ....	29·527	64·0	22·5	41·5	48·4	34·5	13·9	40·5	34·8	0·202	2·3	0·6
April .....	29·743	79·0	34·2	44·8	58·2	40·8	17·4	47·9	41·5	0·262	3·0	0·8
May .....	29·813	73·1	32·6	40·5	61·4	40·8	20·6	50·1	40·8	0·255	2·9	1·2
June .....	29·774	86·5	42·2	44·3	73·2	52·0	21·2	60·9	53·5	0·410	4·6	1·4
July .....	29·770	87·2	46·0	41·2	72·6	52·5	20·1	61·0	53·9	0·416	4·7	1·3
August ...	29·638	78·5	45·0	33·5	69·4	52·3	17·1	59·4	52·7	0·399	4·5	1·2
September.	29·575	71·0	41·3	29·7	65·1	50·6	14·5	56·4	51·5	0·381	4·3	0·8
October ...	29·927	68·1	31·0	37·1	58·2	45·7	12·5	51·3	48·2	0·338	3·8	0·4
November .	29·786	59·6	26·5	33·1	50·5	38·0	12·5	44·3	39·7	0·244	2·8	0·5
December .	29·784	56·3	27·7	28·6	47·6	37·4	10·2	42·9	39·3	0·240	2·8	0·4
Means ....	29·714	69·6	33·1	36·5	58·3	43·0	15·3	49·8	44·2	0·299	3·4	0·8

1866, MONTH.	Mean Degree of Humidity. (Sat. = 100.)	Mean Weight of a Cubic Foot of Air.	Mean Amount of Cloud. 0-10	RAIN.			WIND.											
				Number of Rainy Days.	Amount collected on the Ground.		From Osler's Anemometer.											From Robin- son's Anemo- meter.  Mean Daily Horizontal Movement of Wind in Miles.
					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 ½ lb. on the Sq. Foot.	Mean Daily Pressure in lbs. on the Square Foot.		
							N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.				
January.....	86	grs. 548	7·5	17	in. 3·68	in. 3·48	1	1	0	0	2	15	9	2	1	0·80	361	
February.....	85	547	7·2	18	4·03	3·90	3	1	0	0	1	11	7	2	3	0·96	337	
March .....	81	547	8·1	15	1·63	1·56	5	5	1	1	4	5	4	2	4	0·22	239	
April .....	79	543	6·3	13	2·44	2·44	2	3	7	2	1	7	4	0	4	0·27	292	
May .....	71	542	6·1	8	1·94	1·95	3	5	5	2	0	6	3	1	6	0·12	240	
June.....	77	529	6·9	15	3·64	3·57	1	3	3	2	2	12	4	1	2	0·13	242	
July.....	78	528	7·0	9	1·62	1·58	3	4	3	1	1	5	7	3	4	0·17	233	
August .....	79	528	7·7	18	2·42	2·40	2	1	1	1	3	9	6	5	3	0·54	254	
September.....	84	530	7·8	19	3·90	3·90	1	1	1	2	5	14	3	1	2	0·79	251	
October .....	90	542	7·3	10	2·09	2·05	5	7	4	2	2	6	1	1	3	0·15	186	
November.....	84	548	6·1	13	1·48	1·48	2	0	1	1	3	13	7	3	0	0·71	333	
December .....	87	549	7·4	18	1·85	1·78	0	0	1	0	4	16	7	1	2	1·00	340	
Means .....	82	540	7·1	Sum 173	Sum 30·72	Sum 30·09	Sum 28	Sum 31	Sum 27	Sum 14	Sum 28	Sum 119	Sum 62	Sum 22	Sum 34	..	..	



ROYAL OBSERVATORY, GREENWICH.

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OBSERVATIONS

WITH THE

A C T I N O M E T E R .

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1866.

OBSERVATIONS WITH THE ACTINOMETER.													
Day, 1866.	Greenwich Mean Solar Time of the Initial Reading.	Instrument exposed to the Sun's Rays, or in the Shade.	Readings of the Graduated Scale.		Change in One Minute, B-A.	Apparent Effect of the Sun's Radiation in parts of the Scale.	Mean Result of each Group in parts of the Scale.	Greenwich Mean Solar Time cor- responding to the Mean of each Group.	Altitude of the Sun.	Thermo- meter attached to the Acti- nometer.	Blackened Bulb Thermo- meter placed on Grass.	General Remarks.	Observer.
			Initial A.	Terminal B.									
Jan. 0	23. 45. 0	Sun	9.9	37.0	27.1	..	24.5	23. 51. 30	11	49.6	45.2	Cloudless.	AH
	46. 30	Shade	40.0	43.3	3.3	23.8				50.5	49.6	"	"
	48. 0	Sun	5.8	32.9	27.1	24.3				..	49.0	"	"
	49. 30	Shade	35.2	37.5	2.3	24.4				51.0	49.4	"	"
	51. 0	Sun	13.7	40.0	26.3	24.3				..	49.4	"	"
	52. 30	Shade	41.6	43.3	1.7	24.6				51.7	49.0	"	"
	54. 0	Sun	5.5	31.9	26.4	25.0				..	50.0	"	"
	55. 30	Shade	33.5	34.6	1.1	25.1				52.2	49.2	"	"
	23. 57. 0	Sun	34.8	60.7	25.9	..				..	49.6	"	AH
	Jan. 3	0. 24. 0	Sun	9.6	39.2	29.6				..	13.2	0. 29. 0	11
25. 30		Shade	42.0	45.0	3.0	19.7	52.2	55.3	"	"			
27. 0		Sun	46.2	62.0	15.8	13.1	52.6	53.5	Thin clouds in front of Sun.	"			
28. 30		Shade	63.7	66.0	2.3	11.1	53.0	51.0	"	"			
30. 0		Sun	67.0	78.0	11.0	9.2	53.0	50.0	Cirro-stratus.	"			
31. 30		Shade	78.8	80.0	1.2	12.7	53.3	50.0	"	"			
0. 33. 0		Sun	80.6	97.4	16.8	..	53.8	50.8	Somewhat brighter.	N			
Jan. 22	23. 3. 0	Sun	37.5	49.2	11.7	..	8.5	23. 8. 0	16	51.2	54.0	Sun partially obscured by clouds.	AH
	4. 30	Shade	52.0	56.7	4.7	6.9				..	53.0	"	"
	6. 0	Sun	14.7	26.3	11.6	7.5				..	52.8	Thin cloud. Dense haze.	"
	7. 30	Shade	28.7	32.2	3.5	8.4				51.5	52.8	"	"
	9. 0	Sun	34.0	46.2	12.2	9.3				..	52.4	"	"
	10. 30	Shade	47.7	50.0	2.3	10.6				51.8	53.8	"	"
	23. 12. 0	Sun	51.0	64.5	13.5	..				52.1	54.0	Haze.	AH
Jan. 28	22. 31. 0	Sun	15.0	40.4	25.4	..	22.0	22. 36. 0	15	51.6	65.2	Clear about Sun.	AH
	32. 30	Shade	43.2	47.2	4.0	21.6				51.8	65.3	Light cirrus about Sun.	"
	34. 0	Sun	13.6	39.4	25.8	22.4				..	65.2	"	"
	35. 30	Shade	41.6	44.4	2.8	22.1				52.5	65.2	"	"
	37. 0	Sun	8.7	32.7	24.0	21.8				..	65.0	Clear about Sun.	"
	38. 30	Shade	35.0	36.5	1.5	22.2				53.0	65.2	"	"
	22. 40. 0	Sun	17.7	41.2	23.5	..				53.4	65.4	Cirrus about Sun.	AH
Jan. 29	1. 41. 0	Sun	20.0	44.2	24.2	..	10.6	1. 44. 30	15	54.5	51.7	Light clouds about Sun.	AH
	42. 30	Shade	46.8	49.5	2.7	14.2				54.5	52.2	"	"
	44. 0	Sun	6.7	16.3	9.6	7.8				54.8	52.0	Sun obscured with light cirrus.	"
	45. 30	Shade	17.2	18.0	0.8	9.8				54.8	53.5	"	"
	1. 47. 0	Sun	18.0	29.6	11.6	..				55.0	54.2	"	AH
Feb. 5	23. 30. 0	Sun	11.0	44.7	33.7	..	30.8	23. 36. 30	18	53.7	81.5	Light cirrus.	AH
	31. 30	Shade	48.0	51.0	3.0	30.4				53.9	81.3	"	"
	33. 0	Sun	0.7	33.8	33.1	30.1				..	81.2	"	"
	34. 30	Shade	36.7	39.6	2.9	30.6				54.7	80.7	"	"
	36. 0	Sun	7.8	41.8	34.0	31.0				..	79.7	"	"
	37. 30	Shade	44.6	47.6	3.0	31.2				55.7	79.6	"	"
	39. 0	Sun	8.0	42.3	34.3	31.2				..	79.5	"	"
	40. 30	Shade	44.8	48.0	3.2	31.1				56.5	78.8	"	"
	23. 42. 0	Sun	50.3	84.6	34.3	..				57.2	78.6	"	AH

In every observation, whether in the Sun's rays or in the shade, the terminal reading was taken exactly one minute after the initial reading.  
 The "Apparent Effect of the Sun's Radiation" is found by comparing each change (whether in the Sun's rays or in the shade) with the mean of that which immediately precedes and that which immediately follows it.  
 The initials N. and A. H. are those of Mr. W. C. Nash and Mr. A. Harding.

OBSERVATIONS WITH THE ACTINOMETER—continued.

Day, 1866.	Greenwich Mean Solar Time of the Initial Reading.	Instrument exposed to the Sun's Rays, or in the Shade.	Readings of the Graduated Scale.		Change in One Minute, B.-A.	Apparent Effect of the Sun's Radiation in parts of the Scale.	Mean Result of each Group in parts of the Scale.	Greenwich Mean Solar Time cor- responding to the Mean of each Group.	Altitude of the Sun.	Thermo- meter attached to the Acti- nometer.	Blackened Bulb Thermo- meter placed on Grass.	General Remarks.	Observer.
			Initial A.	Terminal B.									
Feb. 10	1. 26. 0	Sun	20.6	60.2	39.6	..	31.1	1. 31. 0	18	54.2	76.3	Cloudless.	AH
	27. 30	Shade	64.1	68.9	4.8	31.0				55.0	78.2	"	"
	29. 0	Sun	11.2	43.2	32.0	28.0				..	79.0	Light cirrus over Sun.	"
	30. 30	Shade	46.1	49.3	3.2	30.4				..	78.0	"	"
	32. 0	Sun	14.4	49.6	35.2	32.5				..	78.9	Cirrus over Sun about 20 secs.	"
	33. 30	Shade	52.1	54.3	2.2	33.4				..	77.0	Cirrus about Sun.	"
	1. 35. 0	Sun	8.0	44.1	36.1	..				57.3	78.5	Clear about Sun.	AH
Mar. 2	2. 32. 0	Sun	31.4	75.0	43.6	..	41.2	2. 38. 30	20	49.0	48.6	Light cirrus.	AH
	33. 30	Shade	81.0	88.6	7.6	38.8				50.0	55.4	"	"
	35. 0	Sun	8.5	57.7	49.2	42.4				..	60.6	"	"
	36. 30	Shade	62.8	68.8	6.0	44.2				50.9	63.2	"	"
	38. 0	Sun	6.8	57.9	51.1	45.7				..	67.3	"	"
	39. 30	Shade	62.2	67.0	4.8	41.8				51.7	68.0	"	"
	41. 0	Sun	4.6	46.8	42.2	37.9				..	68.0	"	"
	42. 30	Shade	50.2	54.0	3.8	37.3				52.5	67.7	"	"
2. 44. 0	Sun	2.0	41.9	39.9	..	53.1	68.0	Light and high cirrus.	AH				
Mar. 6	22. 43. 0	Sun	10.2	49.9	39.7	..	37.3	22. 48. 0	25	30.4	85.3	Clear about Sun.	AH
	44. 30	Shade	53.8	59.0	5.2	35.6				31.4	83.2	"	"
	46. 0	Sun	0.0	41.8	41.8	36.4				..	83.7	"	"
	47. 30	Shade	45.6	51.3	5.7	37.4				33.0	83.8	"	"
	49. 0	Sun	4.4	48.8	44.4	38.8				..	84.0	Light cirrus about Sun.	"
	50. 30	Shade	52.6	58.1	5.5	38.5				34.0	84.0	"	"
22. 52. 0	Sun	10.0	53.7	43.7	..	34.7	84.2	Clear about Sun.	AH				
May 21	1. 15. 0	Sun	3.2	39.8	36.6	..	39.7	1. 21. 30	54	52.4	76.5	Cloudless.	N
	16. 30	Shade	40.7	40.5	-0.2	37.7				..	76.4	"	"
	18. 0	Sun	39.8	78.2	38.4	39.0				..	74.0	"	"
	19. 30	Shade	79.5	78.5	-1.0	40.3				..	74.0	"	"
	21. 0	Sun	5.5	46.7	40.2	40.8				54.2	74.7	"	"
	22. 30	Shade	47.8	47.5	-0.3	40.1				..	77.0	"	"
	24. 0	Sun	47.5	87.0	39.5	39.5				..	77.0	"	"
	25. 30	Shade	1.0	1.4	0.4	40.3				56.0	78.2	"	"
1. 27. 0	Sun	1.3	43.3	42.0	..	58.0	79.6	"	N				
May 21	2. 32. 0	Sun	0.0	35.5	35.5	..	41.3	2. 40. 0	45	56.0	72.7	Cloudless.	AH
	33. 30	Shade	33.3	28.6	-4.7	40.6				..	75.2	"	"
	35. 0	Sun	26.2	62.4	36.2	41.1				..	77.2	"	"
	36. 30	Shade	61.0	55.9	-5.1	41.6				56.5	76.1	"	"
	38. 0	Sun	2.0	38.9	36.9	41.5				..	77.8	"	"
	39. 30	Shade	38.1	33.9	-4.2	40.7				..	76.2	"	"
	41. 0	Sun	32.0	68.1	36.1	39.9				..	76.0	"	"
	42. 30	Shade	68.0	64.7	-3.3	41.4				58.2	74.6	"	"
	44. 0	Sun	4.8	45.0	40.2	43.0				..	74.5	"	"
	45. 30	Shade	45.2	42.8	-2.4	41.7				..	75.3	"	"
	2. 47. 0	Sun	41.5	80.0	38.5	..				58.6	76.4	"	AH

In every observation, whether in the Sun's rays or in the shade, the terminal reading was taken exactly one minute after the initial reading.  
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 The initials N. and A. H. are those of Mr. W. C. Nash and Mr. A. Harding.  
 From March 7 till May 21 the Actinometers were in the hands of Messrs. Negretti and Zambra for repair.



OBSERVATIONS WITH THE ACTINOMETER—concluded.

Day, 1866.	Greenwich Mean Solar Time of the Initial Reading.	Instrument exposed to the Sun's Rays, or in the Shade.	Readings of the Graduated Scale.		Change in One Minute, B-A.	Apparent Effect of the Sun's Radiation in parts of the Scale.	Mean Result of each Group in parts of the Scale.	Greenwich Mean Solar Time cor- responding to the Mean of each Group.	Altitude of the Sun.	Thermo- meter attached to the Actino- meter.	Blackened Bulb Thermo- meter placed on Grass.	General Remarks.	Observer.
			Initial A.	Terminal B.									
May 21	23. 11. 0	Sun	div. 9.6	div. 52.0	div. 42.4	div. ..	} 37.7	23. 15. 15	56	0 49.0	0 72.0	Cloudless.	N
	12. 30	Shade	55.5	59.8	4.3	37.9				..	78.4	"	
	14. 0	Sun	46.0	88.0	42.0	37.0				51.7	83.7	"	
	15. 30	Shade	6.8	12.6	5.8	37.0				..	85.5	"	
	17. 0	Sun	14.8	58.3	43.5	37.7				..	88.2	"	
	18. 30	Shade	62.0	67.7	5.7	39.1				54.0	88.8	"	
	20. 0	Sun	4.8	51.0	46.2	40.5				..	88.0	"	
	21. 30	Shade	54.6	60.2	5.6	40.4				..	90.1	"	
	23. 0	Sun	5.3	51.0	45.7	41.2				56.2	90.7	"	
	24. 30	Shade	58.2	61.5	3.3	42.6				56.6	87.2	"	
23. 26. 0	Sun	5.4	51.4	46.0	..	..	88.4	"	N				
May 22	0. 8. 0	Sun	11.5	47.3	35.8	..	} 41.6	0. 13. 0	58	0 59.0	0 75.7	Cloudless.	N
	9. 30	Shade	47.6	44.2	-3.4	40.2				..	79.7	"	
	11. 0	Sun	42.8	80.5	37.7	41.0				..	83.0	"	
	12. 30	Shade	80.2	77.0	-3.2	42.1				..	82.6	"	
	14. 0	Sun	5.0	45.0	40.0	42.5				60.5	86.2	"	
	15. 30	Shade	45.3	43.5	-1.8	42.0				..	87.1	"	
	0. 17. 0	Sun	42.5	82.8	40.3	..				62.2	86.7	"	

In every observation, whether in the Sun's rays or in the shade, the terminal reading was taken exactly one minute after the initial reading.  
 The "Apparent Effect of the Sun's Radiation" is found by comparing each change (whether in the Sun's rays or in the shade) with the mean of that which immediately precedes and that which immediately follows it.  
 The initials N. and A. H. are those of Mr. W. C. Nash and Mr. A. Harding.

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.

Days of the Month, 1866.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	o	o	o	o	o	o	o	o	o	o	o	o
1	52·58	52·01	51·25	S	49·91	49·71	S	50·45	51·34	52·05	52·55	52·67
2	52·57	52·00	51·26	50·59	49·89	49·71	49·84	50·49	S	52·07	52·57	S
3	52·57	51·92	51·12	50·57	49·88	S	49·85	50·48	51·32	52·10	52·57	52·72
4	52·60	S	S	50·55	49·88	49·72	49·86	50·52	51·32	52·11	S	52·74
5	52·58	51·92	51·20	50·52	49·88	49·68	49·89	S	51·38	52·14	52·63	52·74
6	52·48	51·91	51·17	50·52	S	49·68	49·88	50·55	51·46	52·15	52·63	52·74
7	S	51·90	51·15	50·47	49·86	49·70	49·93	50·61	51·48	S	52·63	52·74
8	52·45	51·78	51·12	S	49·84	49·71	S	50·63	51·51	52·20	52·63	52·70
9	52·44	51·84	51·13	50·40	49·84	49·72	49·97	50·65	S	52·21	52·64	S
10	52·43	51·80	51·09	50·39	49·80	S	49·99	50·74	51·57	52·22	52·60	52·70
11	52·37	S	S	50·38	49·80	49·70	50·01	50·71	51·57	52·26	S	52·67
12	52·36	51·73	51·07	50·36	49·78	49·70	50·08	S	51·61	52·27	52·66	52·73
13	52·37	51·68	51·03	50·36	S	49·70	50·08	50·77	51·63	52·26	52·70	52·72
14	S	51·67	50·98	50·31	49·75	49·69	50·16	50·78	51·66	S	52·67	52·67
15	52·36	51·63	50·97	S	49·75	49·69	S	50·82	51·68	52·30	52·66	52·66
16	52·34	51·62	51·00	50·26	49·75	49·71	50·09	50·85	S	52·32	52·69	S
17	52·33	51·58	50·96	50·24	49·76	S	50·13	50·87	51·77	52·33	52·66	52·66
18	52·32	S	S	50·21	49·76	49·69	50·14	50·93	51·75	52·34	S	52·67
19	52·31	51·50	50·91	50·21	49·75	49·73	50·14	S	51·80	52·37	52·66	52·65
20	52·28	51·49	50·88	50·17	S	49·74	50·16	50·97	51·78	52·41	52·65	52·60
21	S	51·46	50·84	50·17	49·73	49·75	50·20	51·02	51·83	S	52·69	52·61
22	52·24	51·45	50·84	S	49·72	49·75	S	51·06	51·81	52·44	52·71	52·57
23	52·21	51·43	50·82	50·09	49·72	49·78	50·24	51·07	S	52·43	52·70	S
24	52·17	51·41	50·80	50·08	49·71	S	50·25	51·20	51·89	52·42	52·68	52·57
25	52·15	S	S	50·08	49·68	49·80	50·28	51·30	51·93	52·44	S	Christmas Day 52·56
26	52·13	51·34	50·77	50·06	49·72	49·80	50·32	S	51·86	52·47	52·72	52·60
27	52·10	51·32	50·76	50·06	S	49·83	50·32	51·20	51·96	52·45	52·70	52·60
28	S	51·28	50·75	50·03	49·72	49·82	50·35	51·23	52·01	S	52·68	52·60
29	52·08		50·73	S	49·70	49·83	S	51·20	52·02	52·52	52·70	52·55
30	52·04		Good Friday. 50·66	49·94	49·68	49·86	50·39	51·27	S	52·58	52·72	S
31	52·08				49·68		50·38	51·29		52·51		52·43
Means.	52·33	51·65	50·97	50·28	49·78	49·74	50·11	50·88	51·68	52·31	52·66	52·65

(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.

Days of the Month, 1866.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	o	o	o	o	o	o	o	o	o	o	o	o
1	51·62	49·72	48·57	S	47·78	49·26	S	54·52	55·60	55·84	55·28	53·38
2	51·56	49·69	48·55	47·05	47·81	49·32	51·80	54·67	S	55·83	55·24	S
3	51·50	49·62	48·47	47·06	47·88	S	51·86	54·69	55·60	55·85	55·20	53·30
4	51·45	S	S	47·10	47·90	49·45	51·95	54·75	55·70	55·82	S	53·25
5	51·40	49·54	48·38	47·06	48·07	49·48	52·10	S	55·68	55·80	55·15	53·15
6	51·30	49·52	48·32	47·18	S	49·56	52·18	54·84	55·71	55·77	55·07	53·11
7	S	49·49	48·27	47·15	48·15	49·66	52·31	54·94	55·74	S	55·00	52·93
8	51·18	49·41	48·20	S	48·20	49·76	S	54·98	55·74	55·78	54·96	52·80
9	51·10	49·41	48·18	47·09	48·24	49·83	52·57	55·02	S	55·75	54·86	S
10	51·05	49·36	48·10	47·13	48·28	S	52·68	55·03	55·78	55·74	54·74	52·72
11	50·96	S	S	47·16	48·33	49·98	52·77	55·20	55·78	55·72	S	52·52
12	50·88	49·16	48·00	47·18	48·35	50·02	52·90	S	55·80	55·73	54·74	52·51

## READINGS OF THERMOMETERS SUNK IN THE GROUND,

(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.—concluded.

Days of the Month, 1866.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
13	50·86	49·12	47·92	47·23	S	50·10	53·04	55·20	55·80	55·70	54·71	52·40
14	S	49·14	47·81	47·20	48·42	50·20	53·05	55·18	55·85	S	54·61	52·28
15	50·61	49·09	47·79	S	48·46	50·30	S	55·21	55·87	55·71	54·54	52·24
16	50·53	49·10	47·75	47·27	48·52	50·40	53·18	55·22	S	55·68	54·55	S
17	50·46	49·05	47·67	47·31	48·57	S	53·25	55·24	55·86	55·70	54·41	52·08
18	50·38	S	S	47·30	48·62	50·51	53·33	55·35	55·88	55·65	S	52·03
19	50·32	48·94	47·57	47·36	48·66	50·66	53·40	S	55·85	55·68	54·29	51·95
20	50·27	48·94	47·51	47·36	S	50·77	53·46	55·34	55·88	55·71	54·21	51·83
21	S	48·94	47·47	47·40	48·75	50·89	53·60	55·39	55·92	S	54·20	51·80
22	50·15	48·93	47·40	S	48·75	50·96	S	55·41	55·84	55·64	54·17	51·70
23	50·18	48·92	47·38	47·46	48·81	51·10	53·77	55·42	S	55·57	54·11	S
24	50·02	48·87	47·34	47·52	48·82	S	53·86	55·45	55·93	55·60	54·00	51·58
25	49·96	S	S	47·60	48·86	51·26	53·96	55·49	55·94	55·62	S	ChristmasDay
26	49·90	48·78	47·26	47·60	48·95	51·36	54·17	S	55·88	55·50	53·90	51·51
27	49·87	48·73	47·25	47·68	S	51·46	54·15	55·52	55·91	55·41	53·82	51·44
28	S	48·63	47·24	47·73	49·17	51·50	54·24	55·51	55·95	S	53·67	51·37
29	49·82		47·20	S	49·08	51·56	S	55·47	55·90	55·40	53·64	51·31
30	49·76		GoodFriday.	47·74	49·11	51·70	54·40	55·54	S	55·36	53·53	S
31	49·74				49·18		54·40	55·56		55·27		51·08
Means.	50·62	49·17	47·80	47·32	48·51	50·42	53·17	55·19	55·82	55·66	54·48	52·25

(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.

Days of the Month, 1866.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	49·30	47·71	45·87	S	49·35	51·86	S	59·60	59·21	57·57	55·36	51·04
2	49·30	47·72	45·88	46·02	49·48	52·01	56·81	59·61	S	57·61	55·20	S
3	49·24	47·66	45·79	46·23	49·52	S	57·16	59·49	59·11	57·58	55·07	50·72
4	49·16	S	S	46·40	49·51	52·31	57·36	59·45	59·12	57·69	S	50·63
5	49·10	47·71	45·53	46·48	49·53	52·70	57·50	S	59·10	57·72	54·91	50·40
6	49·00	47·68	45·36	46·58	S	52·88	57·50	59·33	59·05	57·78	54·83	50·30
7	S	47·72	45·28	46·64	49·45	53·10	57·59	59·35	59·02	S	54·76	50·09
8	48·94	47·67	45·11	S	49·46	53·27	S	59·26	58·99	57·86	54·68	50·13
9	48·82	47·77	45·06	46·78	49·51	53·44	57·70	59·21	S	57·85	54·35	S
10	48·79	47·72	45·00	46·86	49·52	S	57·72	59·12	59·00	57·87	54·50	50·26
11	48·70	S	S	46·94	49·64	53·76	57·74	59·11	58·95	57·82	S	50·26
12	48·49	47·46	44·89	47·02	49·70	53·98	57·85	S	58·93	57·81	54·37	50·21
13	48·25	47·60	44·88	47·11	S	54·21	58·00	59·02	58·90	57·74	54·26	50·12
14	S	47·60	44·77	47·14	49·90	54·48	58·11	58·93	58·91	S	54·10	50·00
15	47·00	47·54	44·68	S	50·00	54·66	S	58·92	58·86	57·53	53·94	49·93
16	47·10	47·38	44·90	47·40	50·03	54·78	58·48	58·88	S	57·39	53·91	S
17	47·10	46·90	44·86	47·35	50·10	S	58·70	58·89	58·72	57·25	53·71	49·87
18	47·23	S	S	47·65	50·11	54·91	58·90	58·96	58·62	57·10	S	49·72
19	47·36	47·00	44·60	47·80	50·10	55·05	59·08	S	58·60	56·90	53·40	49·68
20	47·43	46·98	44·73	47·86	S	55·10	59·20	58·84	58·42	56·70	53·17	49·46
21	S	46·84	44·89	48·02	50·25	55·19	59·40	58·73	58·33	S	53·04	49·55
22	47·61	46·75	45·00	S	50·32	55·15	S	58·80	58·18	56·40	52·81	49·45
23	47·68	46·58	44·96	48·24	50·52	55·25	59·51	58·84	S	56·28	52·58	S
24	47·77	46·45	45·11	48·41	50·63	S	59·60	58·88	58·13	56·30	52·24	49·24
25	47·82	S	S	48·52	50·80	55·53	59·55	58·91	58·04	56·22	S	ChristmasDay
26	47·77	46·19	44·98	48·60	51·01	55·71	59·40	S	57·89	56·11	51·93	49·06

(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—concluded.

Days of the Month, 1866.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
27	47·90	46·03	45·12	48·78	S	55·95	59·60	58·97	57·82	56·00	51·67	49·00
28	S	45·91	45·20	48·88	51·23	56·11	59·45	59·01	57·80	S	51·50	48·91
29	47·84		45·30	S	51·40	56·30	S	59·00	57·67	55·71	51·40	48·90
30	47·75		Good Friday.	49·16	51·57	56·63	59·63	59·12	S	55·34	51·27	S
31	47·76		45·63		51·69		59·62	59·18		55·50		48·78
Means .	48·16	47·19	45·13	47·47	50·16	54·40	58·51	59·09	58·61	57·02	53·58	49·83

(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.

Days of the Month, 1866.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	46·00	44·98	41·90	S	49·96	53·61	S	61·38	60·45	57·86	52·80	46·19
2	45·59	45·30	41·50	45·89	49·45	53·96	61·68	61·14	S	58·05	52·62	S
3	45·74	45·77	41·11	45·76	48·99	S	61·30	61·02	60·12	58·17	52·74	45·44
4	45·71	S	S	45·69	48·74	55·12	60·87	61·09	59·90	58·31	S	45·68
5	45·78	45·18	40·62	45·50	48·64	56·01	60·61	S	59·75	38·50	52·80	46·46
6	45·91	45·15	40·57	45·45	S	55·87	60·26	60·70	59·99	58·50	52·80	47·18
7	S	45·50	40·69	45·62	48·76	55·85	60·20	60·55	60·01	S	52·91	47·71
8	45·43	45·85	40·66	S	49·00	56·02	S	60·48	59·95	58·41	52·85	47·98
9	45·28	45·73	40·78	45·92	49·27	56·44	60·01	60·31	S	58·31	52·90	S
10	45·00	45·58	40·92	46·08	49·69	S	60·26	60·11	59·96	58·17	52·52	46·98
11	44·50	S	S	46·11	49·99	57·90	60·86	60·05	59·90	57·91	S	46·89
12	43·92	45·34	41·16	46·21	50·18	58·25	61·50	S	59·71	57·60	51·62	46·58
13	43·45	45·06	41·40	46·52	S	58·25	61·15	59·99	59·41	57·19	51·50	46·62
14	S	44·63	41·46	46·96	50·06	58·09	62·70	60·10	59·25	S	51·61	46·87
15	42·78	44·00	41·16	S	48·99	57·80	S	60·23	59·20	56·26	51·34	46·88
16	43·62	43·52	41·02	47·37	49·68	57·80	63·51	60·11	S	55·73	50·90	S
17	43·97	43·59	41·12	47·58	49·65	S	63·70	60·01	58·62	55·21	50·70	46·44
18	44·22	S	S	47·67	49·75	57·45	63·77	59·81	58·30	54·66	S	46·20
19	44·62	43·28	41·92	47·86	50·06	57·15	63·66	S	58·11	54·64	49·71	46·32
20	44·92	42·81	42·39	48·12	S	57·00	63·41	59·67	58·00	54·61	49·16	46·46
21	S	42·39	42·56	48·45	51·08	57·05	63·21	59·93	57·97	S	48·40	46·07
22	45·37	42·24	42·50	S	51·47	57·48	S	60·18	57·73	55·21	47·66	45·72
23	45·72	42·04	42·22	48·60	51·78	58·29	62·81	60·29	S	55·31	47·40	S
24	45·81	42·10	42·09	48·64	51·98	S	62·78	60·39	57·27	55·15	47·40	45·21
25	45·43	S	S	48·70	52·23	59·33	62·79	60·60	57·21	54·78	S	
26	45·05	42·34	42·67	48·95	52·38	59·69	62·71	S	57·00	54·45	47·50	45·27
27	44·85	42·30	43·02	49·40	S	60·19	62·50	60·91	56·99	54·03	47·30	45·41
28	S	42·23	43·59	50·09	53·01	60·68	62·39	61·15	57·16	S	47·21	45·52
29	44·78		44·15	S	53·27	61·20	S	61·10	57·28	53·47	47·00	45·68
30	44·88		Good Friday.	50·48	53·30	61·56	61·62	61·00	S	53·10	46·54	S
31	44·82		45·31		53·36		61·67	60·65		52·81		45·43
Means .	44·93	44·04	41·86	47·34	50·55	57·62	62·00	60·48	58·77	56·16	50·30	46·29

## READINGS OF THERMOMETERS SUNK IN THE GROUND,

(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.

Days of the Month, 1866.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	o	o	o	o	o	o	o	o	o	o	o	o
1	43·5	48·4	35·1	S	47·1	59·7	S	59·0	61·5	60·6	51·5	34·4
2	44·2	48·5	38·3	45·5	45·2	60·8	62·8	64·3	S	59·0	52·9	S
3	44·7	46·1	35·4	46·6	47·5	S	61·5	62·7	58·4	61·4	55·0	45·0
4	46·3	S	S	45·5	47·8	63·4	60·5	61·5	60·7	60·7	S	50·2
5	47·5	44·5	37·2	46·4	49·2	58·7	61·8	S	62·5	58·9	53·0	51·9
6	42·7	48·6	40·0	48·2	S	57·8	60·0	60·5	62·1	58·8	54·5	49·8
7	S	50·5	39·2	46·8	52·5	61·1	60·5	61·5	61·7	S	52·1	48·5
8	45·4	45·2	39·5	S	53·4	63·7	S	60·5	61·1	60·2	54·3	43·0
9	41·3	46·8	41·3	46·5	53·6	65·0	64·4	60·2	S	58·0	48·5	S
10	41·1	47·0	40·2	47·2	53·4	S	67·7	59·9	62·0	57·7	44·8	46·0
11	38·0	S	S	48·8	53·9	64·2	68·8	59·5	59·7	57·0	S	42·7
12	37·3	43·8	42·0	49·5	52·1	62·5	69·3	S	58·0	55·6	48·7	47·0
13	39·5	40·4	41·3	52·9	S	60·5	73·4	63·1	59·0	51·5	53·6	50·3
14	S	40·6	37·1	50·9	50·5	61·0	77·1	62·1	58·7	S	48·6	45·2
15	46·1	40·5	39·4	S	48·9	61·5	S	61·3	59·8	48·4	45·6	45·0
16	45·9	45·0	43·2	50·7	50·7	61·5	68·6	60·5	S	57·6	51·3	S
17	44·5	42·7	44·4	51·1	51·5	S	67·9	59·4	56·1	51·5	44·0	44·7
18	47·3	S	S	51·0	53·5	66·0	66·2	60·0	56·4	51·3	S	48·1
19	47·5	37·0	45·1	52·1	55·3	59·5	66·4	S	59·2	56·0	42·0	47·6
20	47·5	36·9	43·9	53·0	S	60·0	62·4	62·0	57·4	56·5	40·6	36·4
21	S	39·3	40·2	52·5	55·9	64·5	64·5	62·0	57·7	S	40·0	41·9
22	50·2	38·0	38·5	S	55·8	64·1	S	62·0	53·5	57·3	43·2	41·0
23	46·0	44·8	42·4	49·7	56·2	64·1	63·6	62·5	S	53·4	45·2	S
24	42·9	40·1	44·1	50·8	54·1	S	64·8	65·2	56·8	54·5	43·6	43·7
25	42·0	S	S	53·5	53·4	64·7	63·8	64·5	56·8	51·2	S	ChristmasDay
26	42·2	41·2	46·0	55·0	58·4	67·1	65·0	S	58·7	51·5	44·0	45·7
27	43·1	40·0	48·2	57·8	S	69·5	63·9	65·8	57·0	48·3	46·0	45·0
28	S	37·3	49·0	59·4	56·1	69·4	65·0	64·1	59·0	S	41·3	45·9
29	45·4		49·7	S	57·3	65·8	S	61·5	61·0	48·7	41·2	45·7
30	42·6		Good Friday.	47·2	55·2	69·3	61·5	59·7	S	52·0	42·3	S
31	46·9		50·1		57·9		58·0	60·2		53·1		37·6
Means.	44·1	43·1	42·0	50·3	52·8	63·3	65·0	51·7	59·0	55·2	47·2	44·9

(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.

Days of the Month, 1866.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	o	o	o	o	o	o	o	o	o	o	o	o
1	43·5	52·5	33·2	S	44·8	68·3	S	61·0	67·1	61·1	55·4	34·1
2	46·9	47·6	41·3	45·5	42·3	71·4	65·2	70·0	S	59·6	57·0	S
3	47·1	48·3	34·2	49·5	47·2	S	61·5	65·0	62·3	66·6	57·0	50·3
4	48·0	S	S	45·7	55·0	71·0	61·4	65·7	65·4	59·8	S	54·1
5	49·4	47·0	43·5	51·6	57·5	60·4	65·0	S	64·7	57·2	57·6	54·3
6	40·0	54·0	43·9	55·2	S	59·7	60·2	61·5	66·1	60·0	57·5	52·8
7	S	52·4	43·8	46·0	57·4	68·3	64·7	66·5	65·8	S	53·7	47·7
8	46·2	47·2	42·4	S	63·7	74·0	S	64·8	63·5	66·0	56·4	40·5
9	40·6	51·0	46·7	44·0	59·3	79·4	73·3	63·9	S	58·7	48·4	S
10	41·9	49·4	41·2	50·4	56·6	S	79·5	62·5	67·3	58·6	40·6	46·3
11	33·7	S	S	55·4	58·5	71·0	80·1	63·3	61·7	55·7	S	37·3
12	35·2	42·7	47·4	56·8	56·4	64·0	82·0	S	59·5	59·9	51·3	52·0
13	41·5	38·4	40·5	61·5	S	60·9	84·5	70·6	60·4	53·4	55·2	54·0
14	S	43·2	36·2	58·0	52·1	66·9	80·5	63·5	59·9	S	47·5	44·3
15	49·2	40·8	42·2	S	53·1	65·0	S	62·7	66·4	53·6	46·9	44·7

(VI.)—Reading of a Thermometer within the case covering the deep-sunk Thermometers—concluded.

Days of the Month, 1866.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
a	°	°	°	°	°	°	°	°	°	°	°	°
16	48·1	46·3	50·4	51·8	56·3	67·4	73·9	61·9	S	55·2	54·7	S
17	46·6	38·3	48·2	56·5	60·8	S	72·3	62·4	59·7	56·8	40·7	46·4
18	48·8	S	S	60·6	65·5	54·6	71·7	67·3	61·5	51·4	S	52·0
19	50·4	36·4	48·4	60·7	68·7	65·9	71·6	S	65·5	61·0	38·9	47·3
20	50·9	39·8	44·0	58·5	S	65·9	63·0	65·2	60·3	59·5	37·9	37·8
21	S	40·4	38·1	59·6	61·9	74·1	72·1	65·8	58·5	S	41·0	39·0
22	53·6	39·8	40·7	S	62·1	70·6	S	64·7	50·9	58·9	44·9	39·3
23	46·5	48·0	47·2	55·1	67·0	74·0	68·7	70·9	S	56·1	46·8	S
24	39·4	43·4	48·8	57·5	53·7	S	68·0	72·1	62·3	57·6	44·3	42·6
25	41·7	S	S	64·6	58·8	73·0	65·9	72·2	62·5	46·8	S	Christmas Day
26	42·7	43·3	53·4	68·7	68·8	77·5	71·4	S	60·7	53·4	44·9	47·7
27	41·2	38·4	54·5	73·4	S	83·9	65·0	69·3	59·2	50·2	47·1	45·0
28	S	35·2	55·9	70·5	68·2	75·8	69·3	67·9	66·6	S	38·6	48·9
29	46·8		57·8	S	67·0	67·7	S	59·5	66·2	51·5	43·5	48·2
30	45·0		Good Friday.	49·1	61·1	79·6	64·1	63·3	S	53·4	41·7	S
31	49·2		52·3		64·6		53·1	65·2		45·2		32·6
Means .	45·0	44·3	45·2	56·2	58·8	69·6	69·5	65·5	62·6	56·5	48·1	45·6

(cclxviii) WEEKLY MEANS OF READINGS OF DEEP-SUNK THERMOMETERS, AND CHANGES OF THE DIRECTION OF THE WIND,

WEEKLY MEANS OF READINGS OF THERMOMETERS.							
Thermometers sunk in the ground.						Thermometer inclosed in the box which covers the scales of the deep-sunk Thermometers, and placed on a level with their scales.	
1866. 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.		
January	1 to 7	52.56	51.47	49.18	45.79	44.8	45.8
	8 to 14	52.40	51.01	48.67	44.60	40.4	39.9
	15 to 21	52.32	50.43	47.20	44.02	46.5	49.0
	22 to 28	52.17	50.01	47.76	45.37	44.4	44.2
	29 to February 4	52.02	49.72	47.74	45.09	46.3	48.2
February	5 to 11	51.86	49.46	47.71	45.50	47.1	50.2
	12 to 18	51.65	49.11	47.41	44.36	42.2	41.6
	19 to 25	51.46	48.92	46.77	42.48	39.4	41.3
	26 to March 4	51.26	48.62	45.95	41.90	37.9	37.6
March	5 to 11	51.14	48.24	45.22	40.71	39.6	43.6
	12 to 18	51.00	47.82	44.83	41.22	41.2	44.2
	19 to 25	50.85	47.45	44.88	42.28	42.4	44.5
	26 to April 1	50.73	47.22	45.25	43.75	48.6	54.8
April	2 to 8	50.54	47.10	46.39	45.65	46.5	48.9
	9 to 15	50.37	47.17	46.98	46.30	49.3	54.4
	16 to 22	50.21	47.33	47.68	47.84	51.7	58.0
	23 to 29	50.07	47.60	48.57	49.06	54.4	65.0
	30 to May 6	49.90	47.86	49.43	49.38	47.3	49.3
May	7 to 13	49.82	48.26	49.55	49.48	53.1	58.6
	14 to 20	49.75	48.54	50.04	49.70	51.7	59.4
	21 to 27	49.71	48.82	50.59	51.82	55.6	62.1
	28 to June 3	49.70	49.19	51.63	53.42	57.8	66.8
June	4 to 10	49.70	49.62	52.95	55.89	61.6	68.8
	11 to 17	49.70	50.17	54.31	58.02	61.9	65.9
	18 to 24	49.74	50.82	55.11	57.40	63.0	67.5
	25 to July 1	49.82	51.47	56.04	60.44	67.6	76.3
July	2 to 8	49.88	52.03	57.32	60.82	61.2	63.0
	9 to 15	50.05	52.84	57.85	61.08	70.1	80.0
	16 to 22	50.14	53.37	58.96	63.54	66.0	60.8
	23 to 29	50.29	54.02	59.52	62.66	64.3	68.0
	30 to August 5	50.45	54.57	59.57	61.32	61.2	63.2
August	6 to 12	50.65	55.00	59.23	60.37	60.4	63.8
	13 to 19	50.84	55.23	58.93	60.04	61.1	61.4
	20 to 26	51.10	55.42	58.83	60.18	63.0	68.6
	27 to September 2	51.26	55.53	59.08	60.88	62.1	65.4
September	3 to 9	51.41	55.69	59.06	59.95	61.1	64.6
	10 to 16	51.62	55.81	58.93	59.57	59.5	62.5
	17 to 23	51.79	55.87	58.48	58.12	56.7	59.4
	24 to 30	51.95	55.92	57.89	57.15	58.2	62.9
October	1 to 7	52.10	55.82	57.66	58.23	59.9	60.7
	8 to 14	52.24	55.74	57.83	57.93	56.7	58.6
	15 to 21	52.35	55.69	57.15	55.19	53.6	56.8
	22 to 28	52.44	55.56	56.22	54.82	52.7	53.8
	29 to November 4	52.55	55.29	55.36	52.92	52.2	53.3
November	5 to 11	52.63	54.96	54.67	52.80	51.2	52.4
	12 to 18	52.67	54.59	54.05	51.28	48.6	49.4
	19 to 25	52.68	54.16	52.87	48.29	42.4	42.3
	26 to December 2	52.70	53.66	51.47	46.96	41.5	41.7
December	3 to 9	52.73	53.09	50.38	46.74	48.0	49.9
	10 to 16	52.69	52.45	50.13	46.80	46.0	46.4
	17 to 23	52.63	51.90	49.62	46.20	43.3	43.6
	24 to 31	52.55	51.38	48.98	45.42	43.9	44.2

## 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.

<sup>d</sup> <sup>h</sup>  
1865. Dec. 31. 12. The direction of the wind was E.

1866. Jan. 31. 12. ,, ,, S.W., which implies a direct motion of 135°.

On Jan. 10. 21. 10<sup>m</sup>, 12<sup>d</sup>. 2<sup>h</sup>. 30<sup>m</sup>, the trace was shifted to the next set of lines upwards; on Jan. 27<sup>d</sup>. 8<sup>h</sup>. 10<sup>m</sup>, the trace was shifted to the next set of lines downwards, implying retrograde motion of 720°, and direct motion of 360°.

Therefore the whole excess of retrograde motion in the month of January was 225°.

<sup>d</sup> <sup>h</sup>  
1866. Jan. 31. 12. The direction of the wind was S.W.

Feb. 28. 12. ,, ,, N., which implies a direct motion of 135°.

On Feb. 11. 1. 30<sup>m</sup>, 16<sup>d</sup>. 9<sup>h</sup>. 30<sup>m</sup>, 21<sup>d</sup>. 22<sup>h</sup>, the trace was shifted to the next set of lines downwards; on Feb. 20<sup>d</sup>. 2<sup>h</sup>. 40<sup>m</sup>, 27<sup>d</sup>. 22<sup>h</sup>, the trace was shifted to the next set of lines upwards, implying direct motion of 1080°, and retrograde motion of 720°.

Therefore the whole excess of direct motion in the month of February was 495°.

<sup>d</sup> <sup>h</sup>  
1866. Feb. 28. 12. The direction of the wind was N.

March 31. 12. ,, ,, N.W., which implies a retrograde motion of 45°.

On March 5. 20. 45<sup>m</sup>, 31<sup>d</sup>. 3<sup>h</sup>. 10<sup>m</sup>, the trace was shifted to the next set of lines downwards; on March 7<sup>d</sup>. 22<sup>h</sup>, 20<sup>d</sup>. 22<sup>h</sup>, the trace was shifted to the next set of lines upwards, implying direct motion of 720°, and retrograde motion of 720°.

Therefore the whole excess of retrograde motion in the month of March was 45°.

<sup>d</sup> <sup>h</sup>  
1866. March 31. 12. The direction of the wind was N.W.

April 30. 12. ,, ,, N.E., which implies a direct motion of 90°.

On April 1. 22. 7<sup>d</sup>. 3<sup>h</sup>. 10<sup>m</sup>, 24<sup>d</sup>. 22<sup>h</sup>, the trace was shifted to the next set of lines upwards; on April 3<sup>d</sup>. 22<sup>h</sup>, 6<sup>d</sup>. 9<sup>h</sup>. 30<sup>m</sup>, 21<sup>d</sup>. 22<sup>h</sup>, the trace was shifted to the next set of lines downwards, and on 26<sup>d</sup>. 22<sup>h</sup>, to the second set of lines downwards; implying retrograde motion of 1080°, and direct motion of 1800°.

Therefore the whole excess of direct motion in the month of April was 810°.

<sup>d</sup> <sup>h</sup>  
1866. April 30. 12. The direction of the wind was N.E.

May 31. 12. ,, ,, E., which implies a retrograde motion of 315°.

On May 4. 22. 7<sup>d</sup>. 9<sup>h</sup>. 10<sup>m</sup>, 16<sup>d</sup>. 22<sup>h</sup>, 29<sup>d</sup>. 22<sup>h</sup>, the trace was shifted to the next set of lines downwards, and on 30<sup>d</sup>. 2<sup>h</sup>. 40<sup>m</sup>, to the second set of lines downwards; on May 14<sup>d</sup>. 8<sup>h</sup>. 30<sup>m</sup>, 17<sup>d</sup>. 22<sup>h</sup>, 18<sup>d</sup>. 2<sup>h</sup>. 30<sup>m</sup>, 22<sup>d</sup>. 22<sup>h</sup>, 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 405°.

<sup>d</sup> <sup>h</sup>  
1866. May 31. 12. The direction of the wind was E.

June 30. 12. ,, ,, S.W., which implies a direct motion of 135°.

On June 2. 22. 21<sup>d</sup>. 22<sup>h</sup>, 24<sup>d</sup>. 8<sup>h</sup>, 27<sup>d</sup>. 2<sup>h</sup>. 40<sup>m</sup>, 27<sup>d</sup>. 10<sup>h</sup>, 28<sup>d</sup>. 3<sup>h</sup>. 20<sup>m</sup>, 28<sup>d</sup>. 22<sup>h</sup>, 29<sup>d</sup>. 22<sup>h</sup>, the trace was shifted to the next set of lines downwards; on June 27<sup>d</sup>. 22<sup>h</sup>, the trace was shifted to the next set of lines upwards, implying direct motion of 2880°, and retrograde motion of 360°.

Therefore the whole excess of direct motion in the month of June was 2655°.

<sup>d</sup> <sup>h</sup>  
1866. June 30. 12. The direction of the wind was S.W.

July 31. 12. ,, ,, N., which implies a direct motion of 135°.

On July 6. 22. 10<sup>d</sup>. 3<sup>h</sup>, 12<sup>d</sup>. 0<sup>h</sup>, 13<sup>d</sup>. 22<sup>h</sup>, 14<sup>d</sup>. 9<sup>h</sup>. 30<sup>m</sup>, the trace was shifted to the next set of lines downwards; on July 7<sup>d</sup>. 8<sup>h</sup>, 15<sup>d</sup>. 0<sup>h</sup>, 18<sup>d</sup>. 0<sup>h</sup>. 20<sup>m</sup>, 19<sup>d</sup>. 9<sup>h</sup>. 30<sup>m</sup>, 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 July was 495°.





AMOUNT OF RAIN COLLECTED IN EACH MONTH OF THE YEAR 1866.

1866, 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.....	1·20	1·42	(1·32)	2·23	3·43	3·08	3·68	3·48
February.....	2·01	2·14	2·67	2·66	3·77	3·55	4·03	3·90
March.....	0·88	0·90	1·01	1·08	1·45	1·28	1·63	1·56
April.....	1·43	1·47	1·62	2·14	2·40	2·16	2·44	2·44
May.....	1·26	1·37	1·50	1·71	1·89	1·76	1·94	1·95
June.....	2·80	2·87	3·13	3·36	3·62	3·55	3·64	3·57
July.....	...	...	1·58	1·39	1·60	1·68	1·62	1·58
August.....	...	...	2·06	2·01	2·36	2·44	2·42	2·40
September.....	2·76	2·84	3·19	3·09	3·75	3·91	3·90	3·90
October.....	1·74	1·83	2·02	2·00	2·06	1·80	2·09	2·05
November.....	0·77	0·74	1·01	1·04	1·41	1·30	1·48	1·48
December.....	0·90	0·93	1·43	1·14	1·61	1·57	1·85	1·78
Sums.....	...	...	22·54	23·85	29·35	28·08	30·72	30·09

The heights of the receiving surfaces are as follows :

	Above the Mean Level of the Sea.		Above the Ground.	
	Ft.	In.	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

At the end of the month of January it was found that the Gauge on the Roof of the Octagon Room was leaky, and it was therefore replaced by a new gauge.

The two Gauges at Osler's Anemometer were partly covered over during the months of July and August : the Anemometer then being in course of alteration.



ROYAL OBSERVATORY, GREENWICH.

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OBSERVATIONS  
OF  
LUMINOUS METEORS.

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1866.

## OBSERVATIONS OF LUMINOUS METEORS

Month and Day, 1866.	Greenwich Mean Solar Time.	Observer.	Apparent Size of Meteor in Star-Magnitudes.	Colour of Meteor.	Duration of Meteor in Seconds of Time.	Appearance and Duration of Train.	Length of Meteor's Path in Degrees.	Number for Refer- ence.
	h m s						°	
January 6	8. 48. 0	H.	3	Blue	Momentary	None	10	1
"	8. 54. 0	H.	2	Blue	1		10	2
"	9. 59. 0	W.	> Jupiter	Brilliant blue	5	Yellow, 3 s.	20	3
January 8	5. 54. 0	N.	4	Bluish-white	< 0.5	None	6	4
"	9. 22. 0	W.	2	Bluish	3	None	20	5
"	9. 46. 0	W.	3	White	1	None	6	6
"	10. 5. 0	W.	2	Bluish-white	2	None	5	7
January 9	9. 14. 0	W.	2	Bluish-white	0.5	None	6	8
"	9. 35. 0	W.	2	Bluish-white	2	None	10	9
"	9. 38. 0	W.	1	White	1	None	8	10
January 11	8. 30. 0	T.	3	Blue	0.5	None	3	11
"	9. 53. 30	J.	2, increasing till > Sirius.	Yellow	3	Fine	35	12
January 15	9. 19. 0	W.	1	Bluish-white	Momentary	None	10	13
"	9. 47. 0	W.	2	White	1	None	8	14
January 16	9. 53. 30	J.	2	Yellow	Momentary	Small	12	15
"	10. 4. 0	J.	2	Yellow	Momentary	Slight	6	16
January 19	9. 24. 15	W.	3	Bluish-white	1	None	10	17
February 2	6. 56. 0	N.	1	Bright blue	1		15	18
February 7	8. 23. 0+	W.	2	Bluish-white	1	None	8	19
February 10	7. 30. 0	T.	3	Bluish	0.5	None	5	20
"	9. 16. 0	H.	> Sirius	Brilliant blue	Very short	None	10	21
"	12. 52. 0	N.	2	Bluish-white	Momentary	None	8	22
February 13	9. 18. 5	W.	2	Yellow	< 0.5	None	12	23
"	9. 25. 35	N.	4	Bluish-white	0.5	None	8	24
"	9. 45. 55	N., J.	3	Bluish-white	0.5	None	6	25
March 1	9. 16. 0	N.	= Venus	Yellowish-white	0.7	Fine	7	26
March 6	11. 9. 51	N.	3	White	0.7	None	..	27
March 8	8. 15. 43	N.	3	White	< 1	None	30	28
March 12	11. 23. 0	J.	3	Yellow	Momentary	None	3	29
"	11. 33. 0	J.	1	Bluish	2	Fine	10	30
"	11. 58. 30	J.	2	Bluish	0.5	Slight	5	31
March 13	8. 26. 0	N.	2	Bluish-white	0.7	Train	11	32
March 14	10. 3. 0	H.	3	Blue	1.5	None	15	33
"	10. 7. 0	H.	2	Blue	1	None	12	34
"	10. 9. 0	H.	2	Bluish-white	Short	None	15	35
March 16	8. 16. 0	N.	2	Bluish-white	0.5	None	7	36
"	10. 12. 0	W.	= Rigel	Yellow	3	Fine, 1 s.	15	37
March 17	10. 47. 0	N., W.	= Venus	Yellow	1	Fine	15	38
"	10. 52. 0	W.	2	Bluish-white	0.5	None	8	39
"	11. 0. 0	N.	3	Bluish-white	0.5	None	10	40
April 10	9. 29. 0	H.	2	Blue	1	None	10	41

in the YEAR 1866.

Number for Refer- ence.	Path of Meteor through the Stars.
1	From direction of $\zeta$ Cassiopeiæ towards $\alpha$ Andromedæ.
2	From direction of $\pi$ Cygni towards $\gamma$ Cygni.
3	From a point about $1^\circ$ above and North of $\mu$ Cygni, disappeared a few degrees North of $\epsilon$ Pegasi.
4	From the direction of $\alpha$ Orionis, passed between $\zeta$ and $\kappa$ Orionis.
5	From a point about $3^\circ$ or $4^\circ$ North of $\kappa$ Cassiopeiæ, fell towards $\delta$ Cephei.
6	From a point a little above $\xi$ Ursæ Minoris, passed $\tau$ Ursæ Minoris, towards $\theta$ Draconis.
7	From about $1^\circ$ above and West of $\eta$ Orionis, disappeared a few degrees below and East of $\beta$ Orionis.
8	From a point a little above Sirius, disappeared about $1^\circ$ above and beyond $\beta$ Canis Majoris.
9	From about $5^\circ$ above and South of $\alpha$ Pegasi, disappeared about $5^\circ$ below that star. Seen through trees.
10	From a little above $e$ Lacertæ, passed midway between $e$ and $g$ Lacertæ, and disappeared a little below $n$ Lacertæ.
11	From a point near $\epsilon$ Cygni towards $g$ Vulpeculæ.
12	From a point a few degrees below the Pleiades to $\alpha$ Piscium; center of path opposite $\gamma$ Arietis.
13	From a point $1^\circ$ or $2^\circ$ above $\beta$ Ursæ Minoris, passed $\gamma$ Ursæ Minoris towards $\eta$ Draconis.
14	From about $3^\circ$ above Aldebaran, passed on the East side of that star to a point $1^\circ$ East of $c$ Tauri.
15	From a point $\frac{1}{3}$ rd of the distance from $\theta$ Andromedæ, towards $\beta$ Andromedæ, passed midway between $\delta$ and $\alpha$ Andromedæ.
16	Passed horizontally from E. to W. between the Pleiades and $\zeta$ Persei.
17	From the direction of Pollux, midway between $\gamma$ and $\nu$ Geminorum, towards $\alpha$ Orionis.
18	Passed parallel to Orion's belt, across $\gamma$ Eridani; center of path near that star.
19	From a point a few degrees East of $\iota$ 2 Can. Venat., towards $\eta$ Ursæ Maj., parallel to the line joining those stars.
20	Appeared about $2^\circ$ below $\Lambda$ Draconis and disappeared between $\zeta$ and $\theta$ Draconis.
21	From a point $2^\circ$ or $3^\circ$ West of $\alpha$ Cephei towards $\alpha$ Cygni.
22	From $R$ Ursæ Majoris towards Castor. (Faint auroral light at this time).
23	From the direction of $\epsilon$ Cassiopeiæ, passed rapidly across the zenith, midway between Capella and $\epsilon$ Aurigæ, towards $\theta$ Aurigæ.
24	From the direction of $\lambda$ Ursæ Majoris, passed across $\alpha$ Ursæ Majoris to a point $2^\circ$ or $3^\circ$ beyond that star.
25	From the direction of $\gamma$ Cephei, passed across $\kappa$ Cassiopeiæ, and disappeared at $\eta$ Cassiopeiæ.
26	Appeared about $10^\circ$ North of $\alpha$ Ursæ Majoris, disappeared about $12^\circ$ North of $\delta$ Ursæ Majoris.*
27	Directed from $\epsilon$ Virginis, passed about $7^\circ$ below $\alpha$ Hydræ; center of path nearly opposite that star.
28	Fell vertically from a point near $\delta$ Persei almost to $\beta$ Trianguli.
29	From a point a few degrees below $\epsilon$ Cassiopeiæ, fell nearly vertically.
30	Directed from $\beta$ Leonis, below $\delta$ Virginis, passed midway between $\zeta$ and $\gamma$ Virginis.
31	Point of appearance midway between $\beta$ and $\delta$ Serpentis; path S. to N., nearly horizontal.
32	Passed across $\kappa$ Draconis and disappeared close to $\alpha$ Draconis; sparks at disappearance.
33	From a point just below $\delta$ Draconis, perpendicularly downwards.
34	From a point about $3^\circ$ West and above Polaris, fell towards $\gamma$ Cephei.
35	From the direction of $\chi$ Ursæ Majoris to a point just below $\alpha$ Ursæ Majoris.
36	From a point near $\epsilon$ Geminorum, fell towards $\beta$ Tauri.
37	Fell from a point a little above $\chi$ Persei, and passed a little North of $\phi$ Andromedæ; path slightly curved.
38	Directed from $\alpha$ Ursæ Majoris, passed across $\delta$ Cassiopeiæ and about $5^\circ$ farther.
39	Passed $\kappa$ Lyræ towards $\beta$ Lyræ.
40	From the direction of $\theta$ Geminorum, passed across $\xi$ Geminorum and $4^\circ$ beyond.
41	From the direction of $\beta$ Ursæ Minoris to a point between $\eta$ and $\zeta$ Draconis.

\* The Moon was shining brightly through cirro-cumulus clouds, and the observer believed that the meteor was seen on this side of the clouds.



in the YEAR 1866—*continued.*

Number for Refer- ence.	Path of Meteor through the Stars.
1	Passed midway between $\delta$ and $\lambda$ Persei ; center of track between those stars.
2	From the direction of $\alpha$ Ursæ Majoris, disappeared near $\theta$ Ursæ Majoris.
3	Fell vertically from a point $2^\circ$ East and above Polaris.
4	From $\gamma$ Cancri, passed across $\epsilon$ and $\eta$ Hydræ to a point a little above and South of $\alpha$ Hydræ.
5	Appeared midway between $\delta$ and $\eta$ Hydræ, and passed towards $g$ Monocerotis.
6	From a point about midway between $\eta$ and $\gamma$ Virginis.
7	From near $h$ and $m$ Canum Venaticorum towards $\gamma$ Boötis.
8	From a point about $4^\circ$ from $d$ Canum Venaticorum, passed across that star towards $\epsilon$ Ursæ Majoris.
9	Passed across $\theta$ and $\beta$ Cancri.
10	From the direction of $\zeta$ Boötis, passed $\delta$ Boötis towards $\epsilon$ Boötis.
11	Moved on a path parallel to a line joining $\alpha$ and $\gamma$ Coronæ Borealis.
12	Fell vertically from a point midway between $\alpha$ and $\beta$ Libræ.
13	From a point $1^\circ$ or $2^\circ$ East of $\beta$ Libræ, fell past $\gamma$ Libræ and disappeared near $\beta$ Scorpii ; wavering motion.
14	From a point a little below and West of $\pi$ Leonis passed, midway between $\epsilon$ and $\eta$ Hydræ towards Procyon.
15	In the South ; above Scorpio.
16	First seen $7^\circ$ or $8^\circ$ below $\beta$ Leonis ; moved W., passing close to Regulus ; the view of the end of path interrupted.
17	Directed from Arcturus, disappeared close to $\beta$ Virginis.
18	From the direction of $\epsilon$ Virginis ; disappeared near $\iota$ Virginis.
19	Fell vertically from the direction of $\xi$ Boötis, passed $\phi$ Boötis towards Saturn.
20	Moved past Polaris and $\omega$ Cephei ; the track of the meteor parallel to the line joining these stars.
21	From the direction of $\epsilon$ Boötis, across $\pi$ and $\zeta$ Boötis.
22	From a point $1^\circ$ or $2^\circ$ South of $\delta$ Crateris, vertically to a point about the same distance from $\beta$ Hydræ.
23	Passed from near $\beta$ Ursæ Minoris to a point near $g$ Camelopardali.
24	From $\epsilon$ Lyræ to a point near $\circ$ Cygni.
25	From $\circ$ Cephei to a point $2^\circ$ East of $\alpha$ Cassiopeia.
26	From $\gamma$ Draconis towards $\theta$ Cephei.
27	From $\beta$ to $\zeta$ Ophiuchi.
28	From $\alpha$ Coronæ Borealis, passed midway between $\xi$ and $\circ$ Boötis.
29	Moved past $\gamma$ and $\beta$ Ophiuchi ; the track of the meteor parallel to the line joining these stars.
30	Fell vertically past $\eta$ and $\nu$ Boötis.
31	Moved past $\alpha$ and $\epsilon$ Ophiuchi.
32	From $\delta$ Coronæ Borealis, past $\pi$ Herculis towards $\gamma$ Herculis.
33	From the direction of $\beta$ Ursæ Majoris, passed between $\mu$ and $\lambda$ Ursæ Majoris to a point near $d$ Leonis Minoris.
34	From a point $2^\circ$ or $3^\circ$ left of $\lambda$ Ursæ Majoris fell vertically towards horizon.
35	Described a slightly curved path about $8^\circ$ above $\beta$ Libræ.
36	From a point about $5^\circ$ above $\zeta$ Ophiuchi, passed about the same distance from $\eta$ Ophiuchi.
37	Passed horizontally between $\alpha$ and $\beta$ Aquilæ, $\frac{1}{3}$ rd of distance from $\beta$ Aquilæ.
38	From a point a few degrees below $\beta$ Ursæ Majoris to $\mu$ Ursæ Majoris.
39	From the direction of $\delta$ Aquilæ towards $\beta$ Ophiuchi.
40	From a point midway between $\alpha$ and $\nu$ Cygni to a point $2^\circ$ left of $\epsilon$ Cygni.
41	From $\theta$ Aquilæ to $\lambda$ Aquilæ.
42	Moved from the direction of $\gamma$ Cygni, disappeared near $\gamma$ Aquilæ.
43	From $8^\circ$ below $\eta$ Ursæ Majoris, passed a few degrees above $12$ Canum Venaticorum ; the center of track opposite that star.



OBSERVATIONS of LUMINOUS METEORS

Month and Day, 1866.	Greenwich Mean Solar Time.	Observer.	Apparent Size of Meteor in Star-Magnitudes.	Colour of Meteor.	Duration of Meteor in Seconds of Time.	Appearance and Duration of Train.	Length of Meteor's Path in Degrees.	Number for Reference.	
July	17						°		
		h m s							
		12. 8. 12	N.	2	Bluish-white	0.5	.	15	1
	"	12. 10. 52	F.	2	Bluish-white	2	None	20	2
	"	12. 22. 7	N., F.	1	Bluish-white	0.7	Slight	..	3
	"	12. 28. 42	F.	4	Bluish-white	2	None	..	4
	"	12. 38. 15	N.	3	Bluish-white	0.4	None	..	5
	"	12. 43. 1	N.	> 1	Blue	1	Fine	10	6
	"	12. 48. 30	F.	2	Bluish-white	.	.	..	7
	"	12. 49. 2	N.	3	Bluish-white	0.5	None	..	8
	"	12. 55. 49	N.	3	Bluish-white	0.5	None	..	9
"	13. 14. 0	N.	1	Bluish-white	2	Train	30	10	
"	13. 18. 26	N.	4	Bluish-white	.	.	..	11	
July	19								
		11. 15. 52	N.	2	Bluish-white	1	Train	..	12
"	11. 38. 47	N.	2	Bluish-white	0.7	Train	15	13	
July	20								
		11. 26. 48	J.	2	Bluish	0.5	None	5	14
	"	11. 40. 0	N.	3	Bluish-white	0.5	None	7	15
	"	11. 48. 41	F.	4	Bluish-white	0.5	.	..	16
	"	11. 50. 20	N., S.	2	Bluish-white	0.8	Train	15	17
	"	12. 11. 20	N.	1	Bluish-white	1	Train	12	18
	"	12. 14. 15	S.	3	Bluish-white	0.5	None	10	19
	"	12. 21. 5	J.	3	Bluish	.	None	5	20
	"	12. 22. 27	N., F.	3	Bluish-white	0.4	None	5	21
	"	12. 25. 1	W., S.	= Jupiter	Yellowish	1	Yellow	..	22
	"	12. 40. 40	F.	2	Bluish-white	0.5	.	..	23
	"	12. 41. 15	W., S.	3	Bluish-white	0.5	None	3	24
	"	12. 44. 31	N., F.	< Jupiter	Blue	2	Fine 1 <sup>st</sup>	20	25
	"	12. 45. 17	N., F., S.	4	Bluish-white	0.5	None	12	26
"	12. 47. 55	W., J.	3	Bluish-white	0.5	Slight	10	27	
July	29								
		10. 15. 0	T.	3	Blue	0.5	.	6	28
	"	10. 40. 0	T.	3	Blue	0.5	.	4	29
	"	10. 49. 30	J.	1	Bluish	2	Fine	30	30
	"	11. 2. 0	H.	2	Blue	2	Faint	20	31
	"	11. 11. 0	J.	2	Bluish	0.5	None	10	32
	"	11. 45. 0	H., J.	> 1	Blue	2	Faint	20	33
	"	11. 55. 0	J.	2	Blue	0.5	Fine	6	34
	"	12. 2. 0	J.	2	Blue	1	None	9	35
	"	12. 17. 0	J.	1	White	1	None	8	36
	"	12. 26. 30	H., J.	> 1	Blue	2	None	30	37
	"	12. 27. 30	J.	2	Blue	0.5	None	8	38
	"	12. 33. 0	H.	1	Bluish-white	1	Faint	12	39
	"	12. 38. 30	H.	2	Blue	1	None	7	40
	"	12. 52. 0	J.	3	Blue	0.5	None	4	41
	"	12. 57. 15	H.	= Jupiter	Yellow	5	Fine	35	42
	"	13. 9. 30	H.	2	Bluish-white	2	Faint	25	43
	"	13. 12. 0	H., J.	1	Brilliant blue	1	None	6	44
	"	13. 14. 0	H., J.	2	Blue	2	None	14	45
	"	13. 18. 0	J.	2	Blue	2	None	18	46
	"	13. 21. 30	H.	2	Blue	Short	None	20	47
	"	13. 26. 45	H.	1	Brilliant blue	1	None	6	48
	"	13. 27. 30	H., J.	2	Blue	2	None	15	49
	"	13. 39. 0	J.	2	Blue	1	Fine	12	50
	"	13. 42. 0	J.	1	Blue	2	Fine	7	51
	"	13. 42. 0	H.	1	Blue	1	None	12	52
	"	13. 43. 0	H.	2	Blue	1	None	10	53
	"	13. 51. 0	H.	2	Bluish-white	1	None	8	54
	"	14. 1. 0	H.	2	Bluish-white	1	Faint	10	55
"	14. 2. 0	H.	1	Blue	1	None	25	56	
"	14. 8. 30	J.	2	Blue	1	None	10	57	
"	14. 11. 0	J.	2	Blue	0.5	Slight	6	58	

in the YEAR 1866—continued.

Number for Refer- ence.	Path of Meteor through the Stars.
1	Directed from $\epsilon$ Aquilæ, from a point $10^\circ$ below that star, passed within $2^\circ$ or $3^\circ$ of $\gamma$ Ophiuchi.
2	From a point near $\zeta$ Ursæ Majoris, disappeared close to $\iota$ Canum Venaticorum.
3	Directed from $\epsilon$ Aquilæ, passed almost midway between $\alpha$ Ophiuchi and $\alpha$ Herculis, then across $\iota$ Ophiuchi.
4	Curved path from a point near $\eta$ Ursæ Majoris towards $\iota$ Canum Venaticorum.
5	From the vicinity of $\beta$ Aquilæ to $\delta$ Aquilæ.
6	Directed from $\beta$ Aquarii; center of path opposite Jupiter, $5^\circ$ below that planet.
7	From a point near $\alpha$ Ursæ Majoris, disappeared close to $\gamma$ Ursæ Minoris.
8	From a point near $\zeta$ Cygni, disappeared near $\lambda$ Pegasi.
9	Directed from $\epsilon$ Cygni, disappeared near $\beta$ Aquilæ.
10	From a point not far distant from $\epsilon$ Boötis to a point $10^\circ$ or $12^\circ$ below $\iota$ Canum Venaticorum.
11	From a point midway between $\alpha$ and $\beta$ Pegasi to a point midway between $\alpha$ Andromedæ and $\gamma$ Pegasi.
12	From a point midway between $\gamma$ and $\delta$ Cygni to $\theta$ Herculis.
13	Directed from $\epsilon$ Cassiopeiæ, disappeared near $c$ Camelopardali.
14	Appeared between $\alpha$ and $\gamma$ Cygni passing towards $\xi$ Cygni.
15	From near $\delta$ Herculis towards $\alpha$ Coronæ Borealis.
16	From $10^\circ$ West and above $\eta$ Ursæ Majoris, passed midway between $\eta$ and $\zeta$ Urs. Maj., and disappeared $2^\circ$ or $3^\circ$ below $\delta$ Urs. Maj.
17	From a point near $\circ$ Cephei, fell at inclination $15^\circ$ from vertical.
18	From a point about $10^\circ$ West of $\eta$ Ursæ Majoris, fell vertically.
19	From a point immediately above $\iota$ Ursæ Majoris to a point as much below $\circ$ Ursæ Majoris.
20	From a point about $3^\circ$ West and below $\delta$ Ursæ Majoris fell nearly vertically on the West side of $\gamma$ Ursæ Majoris.
21	Directed from $\iota$ Pegasi, disappeared near $\lambda$ Pegasi.
22	Fell vertically from a point about $5^\circ$ West of $\gamma$ Equulei to a point as much West of $\epsilon$ Equulei.
23	Appeared close to $\delta$ Herculis, passed midway between $\alpha$ Ophiuchi and $\alpha$ Herculis to a point $5^\circ$ beyond.
24	Fell vertically about $1^\circ$ East of $\zeta$ Aquilæ; center of path opposite that star.
25	Directed from $\alpha$ Pegasi, at inclination $45^\circ$ to vertical.
26	From a point near $\theta$ Pegasi, pursued a path parallel to a line joining $\alpha$ and $\beta$ Aquarii.
27	From a point a little above $\alpha$ Persei.
28	A few degrees left of $\alpha$ Ophiuchi; center of path opposite that star. Path at right angles to line joining $\alpha$ Ophiuchi and $\alpha$ Herculis.
29	Disappeared a few degrees below $\beta$ Aquilæ.
30	Appeared below clouds, passing from North to South across zenith.* No stars visible.
31	From a point about $2^\circ$ below $\delta$ Ophiuchi, moved nearly horizontally towards Arcturus.
32	Appeared midway between $\alpha$ and $\beta$ Ursæ Majoris, and fell vertically.
33	From a point just above $\delta$ Aurigæ, disappeared almost vertically below Polaris; path nearly horizontal.
34	Appeared about $10^\circ$ above $\theta$ Ursæ Majoris, and fell vertically towards horizon.
35	Appeared close to $\epsilon$ Ursæ Majoris; point of disappearance $\gamma$ Ursæ Majoris.
36	From a few degrees above $\alpha$ Ophiuchi, disappeared about $3^\circ$ below $\alpha$ Herculis.
37	Passed about $2^\circ$ above $\delta$ Aurigæ at an inclination $45^\circ$ to vertical; the center of path opposite $\delta$ Aurigæ.
38	Appeared near $\gamma$ Persei and disappeared near $\delta$ Persei; path nearly vertical.
39	From a point about $2^\circ$ right of $\gamma$ Persei to a point about $1^\circ$ left of $\delta$ Persei; path nearly vertical.
40	Fell vertically from a point about $3^\circ$ below and to the left of $\delta$ Persei.
41	Appeared midway between $\alpha$ and $\beta$ Ursæ Majoris, and fell vertically towards the horizon past the latter star.
42	Fell almost vertically from a point a little above $\iota$ Cassiopeiæ to a point about $2^\circ$ left of Capella.
43	Fell vertically from a point midway between Polaris and $f$ Custodis.
44	Fell vertically from a point $4^\circ$ left of $\eta$ Ursæ Majoris.
45	Appeared about $3^\circ$ West and below $\epsilon$ Ursæ Majoris, disappeared $3^\circ$ East and above $\gamma$ Ursæ Majoris.
46	Appeared a few degrees above $\beta$ Herculis, disappeared close to $\alpha$ Herculis; path vertical.
47	Fell from a point just below $f$ Custodis; path nearly vertical.
48	Passed midway between $\eta$ and $\zeta$ Ursæ Majoris.
49	From about $5^\circ$ below $\theta$ Draconis, disappeared about $5^\circ$ above $\beta$ Boötis; path vertical.
50	Appeared a few degrees East of $\gamma$ Aquilæ, disappeared near $\theta$ Ophiuchi; path nearly horizontal.
51	Appeared between $\alpha$ and $\gamma$ Aquilæ, and fell past the former star towards horizon; path nearly vertical.
52	From a point about $3^\circ$ left of Capella to a point about $1^\circ$ beyond and left of $\beta$ Aurigæ.
53	Passed about $1^\circ$ above $\alpha$ and $\gamma$ Cassiopeiæ.
54	Fell vertically from a point $3^\circ$ right of $h$ Ursæ Majoris.
55	Fell vertically from a point midway between $\zeta$ and $\delta$ Herculis.
56	From the neighbourhood of $\iota$ and $\kappa$ Cygni to a point midway between $\alpha$ Lyræ and $\gamma$ Draconis.
57	From near $\epsilon$ Lyræ to a point about $4^\circ$ below $\delta$ Lyræ.
58	Appeared near $\epsilon$ Lyræ, disappeared about $6^\circ$ to the right of that star.

\* The observer believed that this Meteor was nearer than the clouds.

OBSERVATIONS OF LUMINOUS METEORS

Month and Day, 1866.	Greenwich Mean Solar Time.	Observer.	Apparent Size of Meteor in Star-Magnitudes.	Colour of Meteor.	Duration of Meteor in Seconds of Time.	Appearance and Duration of Train.	Length of Meteor's Path in Degrees.	Number for Refer- ence.
July 29	h m s 14. 16. 0	H., J.	> 1	Brilliant blue	2	Train	30	1
"	14. 29. 0	J.	2	Blue	1	None	12	2
"	14. 31. 45	H.	1	Blue	1	None	20	3
July 30	11. 33. 35	N.	> 1	Bluish-white	1.5	Fine	15	4
August 3	9. 21. 0	W.	1	Bluish-white	0.5	.	5	5
"	11. 18. 40	N.	2	White	2	Faint	..	6
"	11. 26. 22	N.	3	Bluish-white	0.5	None	14	7
"	11. 34. 41	N.	2	Bluish-white	0.5	Faint	7	8
"	12. 5. 0	N.	1	Bluish-white	1	Train	12	9
"	12. 13. 5	N.	2	Bluish-white	0.5	None	5	10
"	13. 5. 0	N.	1	Bluish-white	1.5	Train	20	11
August 4	9. 12. 0	F.	2	Yellowish-white	3	Train	40	12
"	9. 27. 0	F.	4	Bluish-white	0.7	Short	8	13
"	9. 30. 0	S.	3	Bluish-white	0.5	None	8	14
"	11. 13. 30	N.	1	Bluish-white	0.8	Fine	..	15
August 5	9. 17. 0	W.	2	Yellowish	1	None	7	16
"	9. 49. 47	W.	3	Bluish-white	1	None	..	17
"	9. 50. 22	S.	1	Blue	1	.	25	18
"	9. 53. 0	F.	3	Bluish-white	1	None	6	19
"	9. 57. 48	S.	3	Bluish-white	0.5	None	6	20
"	10. 3. 57	W., F., S.	1	Bluish	1	Fine, 1 <sup>st</sup>	..	21
"	10. 6. 57	W.	3	Bluish-white	0.5	None	7	22
"	10. 15. 7	S.	3	Bluish:	0.5	None	6	23
"	10. 17. 24	W.	3	Bluish-white	0.5	None	6	24
"	10. 21. 7	S.	2	Bluish-white	0.5	.	60	25
"	10. 21. 32	W.	1	Bluish	1	Fine	15	26
"	10. 21. 34	W.	1	Bluish-white	1	None	..	27
"	10. 35. 12	W., S.	2	Bluish-white	0.5	None	5	28
"	10. 38. 28	W.	1	Yellowish	1	None	Short	29
"	10. 41. 57	W., S.	1	Yellowish	1	None	..	30
"	10. 47. 47	W.	3	Bluish-white	0.5	None	3	31
"	10. 48. 9	W.	3	Bluish-white	0.5	None	3	32
"	10. 53. 34	W., S.	2	Yellowish	0.5	None	8	33
"	10. 54. 17	W., S.	1	Yellowish	1.5	Fine	..	34
"	11. 24. 0	W.	1	Bluish-white	1	None	..	35
"	11. 30. 0	T.	= Jupiter.	Bluish-white	2	Fine	9	36
"	11. 35. 0	T.	3	Bluish-white	0.5	None	11	37
August 7	9. 4. 14	W.	1	Bluish-white	1	None	..	38
"	9. 6. 33	S.	3	Bluish-white	0.5	None	30	39
"	9. 13. 0	H.	3	Blue	1	None	10	40
"	9. 13. 0	T.	1	Bluish-white	1	Train	7	41
"	9. 13. 30	H., J.	1	Flame	5	Fine	35	42
"	9. 15. 45	W.	1	Yellowish	1	Train	10	43
"	9. 18. 38	W.	4	Bluish-white	0.7	None	6	44
"	9. 21. 26	W.	3	Bluish-white	0.5	None	..	45
"	9. 23. 0	T.	2	Bluish-white	1	Train	12	46
"	9. 24. 45	W., S.	1	Yellowish	1	Train	..	47
"	9. 24. 47	W., S.	2	Bluish-white	0.5	None	..	48
"	9. 29. +	T.	2	Bluish-white	0.5	None	7	49
"	9. 47. 59	W.	3	Bluish-white	0.5	None	..	50
"	9. 49. 0	T.	2	Blue	0.5	None	28	51
"	9. 51. 33	W.	1	Bluish-white	0.4	None	10	52
"	9. 58. 3	W.	4	Bluish-white	0.5	None	3	53
"	10. 2. 54	W.	1	Yellowish	1	Fine	6	54
"	10. 5. 52	W.	2	Bluish-white	1	None	6	55
"	10. 7. 0	T.	3	Blue	0.5	None	11	56

in the YEAR 1866—*continued.*

Number for Refer- ence.	Path of Meteor through the Stars.
1	From a point just below $f$ Custodis to a point $2^\circ$ right of $\alpha$ Ursæ Majoris ; path curved.
2	Appeared near $\delta$ Herculis, disappeared near $\beta$ Herculis.
3	Passed from direction of $\alpha$ Lyræ, from a point a few degrees below $\sigma$ Herculis, midway between $\zeta$ Herculis and $\zeta$ Cor. Bor.
4	From a point a few degrees left of $\beta$ Aurigæ, fell at inclination $7^\circ$ to vertical, towards N. horizon.
5	Seen through a break in the clouds at about the altitude of $30^\circ$ . Delphinus seen about $15^\circ$ above and to the right.
6	Directed from $\alpha$ Andromedæ, passed across Honores to $g$ Lacertæ.
7	From the direction of $\psi$ Draconis, disappeared midway between $\gamma$ Cephei and Polaris.
8	Directed from $\rho$ Piscium, passed $8^\circ$ below $\gamma$ Pegasi, parallel to line joining $\alpha$ Andromedæ and $\alpha$ Pegasi.
9	From near $n$ Lyræ, nearly horizontal ; point of disappearance $\alpha$ Herculis.
10	Fell perpendicularly and disappeared near $\pi$ Cygni.
11	From a point near $\zeta$ Herculis.
12	Shot from a point about midway between $\gamma$ and $\epsilon$ Boötis to a point about $24^\circ$ below $\zeta$ Ursæ Majoris.
13	From $\epsilon$ Ursæ Majoris, fell towards Arcturus.
14	From a point $2^\circ$ below $\eta$ Ursæ Majoris to a point about $2^\circ$ above $\zeta$ Ursæ Majoris.
15	From the direction of $\gamma$ Draconis to a point near $\alpha$ Herculis.
16	Fell vertically from the direction of $\epsilon$ Ursæ Majoris, midway between $\chi$ Ursæ Majoris and $12$ Canum Venaticorum.
17	From the direction of $\zeta$ Cygni, passed between R and $f$ Pegasi, at right angles to the line joining those stars.
18	From the direction of $\gamma$ Ursæ Majoris, about $5^\circ$ below $12$ Canum Venaticorum.
19	Passed about $2^\circ$ above $\eta$ Ursæ Majoris, towards Arcturus ; the center of path opposite $\eta$ Ursæ Majoris.
20	From a point about $3^\circ$ above $\epsilon$ Ursæ Majoris, passed midway between $\epsilon$ and $\zeta$ Ursæ Majoris.
21	From a point about midway between $\zeta$ and $\epsilon$ Ursæ Majoris, disappeared near $\eta$ Boötis.
22	Passed vertically about $5^\circ$ East of $\alpha$ Ophiuchi ; the center of path opposite $\alpha$ Ophiuchi.
23	From a point near $\mu$ Aquilæ, passed midway between $\delta$ and $19$ Aquilæ.
24	Passed about $6^\circ$ above L and $p$ Camelopardali, from the direction of Cassiopeia.
25	From Polaris, passed between $\zeta$ and $\epsilon$ Ursæ Majoris to $\alpha$ Coronæ Borealis.
26	From a point about $3^\circ$ below $u$ Capricorni, passed $v$ Capricorni, parallel to the line joining those stars.
27	Vertically from about $5^\circ$ above and West of $\alpha$ Pegasi, passed $\theta$ Piscium, parallel to the line joining those stars.
28	From a point about $5^\circ$ above $\beta$ Ophiuchi, passed at the same distance above $\sigma$ Ophiuchi.
29	$\delta$ Aquilæ opposite center of track ; path vertical.
30	From a point about $3^\circ$ above $\delta$ Sagittæ, passed about $2^\circ$ above $\alpha$ Sagittæ.
31	Passed $\chi$ Pegasi vertically (about $3^\circ$ East).
32	Passed vertically about $5^\circ$ East of $g$ Pegasi ; the center of path opposite that star.
33	From the direction of $\delta$ Aquilæ, passed about $5^\circ$ above $\lambda$ Aquilæ and $l$ Scuti, parallel to the line joining them.
34	From a point about $7^\circ$ above $\beta$ Aquarii, passed $\alpha$ Capricorni towards Jupiter.
35	Horizontally from a point about $3^\circ$ above $\beta$ Arietis, passed $\alpha$ Arietis.
36	Appeared $2^\circ$ below $\gamma$ Aquilæ, and disappeared $3^\circ$ left of $\delta$ Aquilæ.
37	Appeared midway between $\alpha$ and $\beta$ Aquilæ, disappeared $3^\circ$ West of $\epsilon$ Delphini.
38	Fell vertically from a point about $10^\circ$ West of $\beta$ Lyræ past $\mu$ Herculis.
39	From a point $5^\circ$ below $\delta$ Ophiuchi, passed $2^\circ$ above $\zeta$ Ophiuchi towards $\mu$ Ophiuchi.
40	From the direction of $\beta$ Cephei, passed about $2^\circ$ below $i$ Cephei towards $\tau$ Cassiopeïæ.
41	Appeared $4^\circ$ above $\beta$ Cassiopeïæ, and disappeared $3^\circ$ beyond the same star.
42	From the direction of $\epsilon$ Pegasi, passed between $\zeta$ and $\theta$ Pegasi (a pear-shaped meteor).
43	From the direction of $\eta$ Ursæ Majoris, passed $\eta$ Boötis.
44	From a point above $\alpha$ Cygni, disappeared $3^\circ$ East of that star.
45	From the direction of $\eta$ Boötis, passed about $10^\circ$ above and West of $12$ Canum Venaticorum.
46	Appeared $3^\circ$ below $g$ Draconis, and disappeared $5^\circ$ from $\theta$ Draconis.
47	Passed $\lambda$ Draconis towards $\alpha$ Ursæ Majoris ; from the direction of $\delta$ Ursæ Minoris.
48	Path almost identical with that of the preceding meteor.
49	Appeared midway between $\alpha$ and $\theta$ Draconis, and disappeared $2^\circ$ below $b$ Quadrantis.
50	Described a slight curve about $5^\circ$ above $n$ , $m$ , and $p$ Scuti.
51	Horizontally from $\alpha$ Draconis to a point $2^\circ$ above $i$ Draconis.
52	Passed on the West side of $\gamma$ Cor. Bor., midway between that star and $\alpha$ Cor. Bor. ; the center of its path opposite $\gamma$ Coronæ.
53	Passed about $6^\circ$ above and East of $\alpha$ Aquilæ.
54	Horizontally near S. horizon, immediately below Jupiter.
55	From a point immediately above $\alpha$ Ophiuchi, passed horizontally above $\alpha$ Herculis.
56	Appeared midway between $\alpha$ and $\gamma$ Coronæ Borealis, and disappeared $2^\circ$ above $\beta$ Serpentis.

OBSERVATIONS of LUMINOUS METEORS

Month and Day, 1866.	Greenwich Mean Solar Time.	Observer.	Apparent Size of Meteor in Star-Magnitudes.	Colour of Meteor.	Duration of Meteor in Seconds of Time.	Appearance and Duration of Train.	Length of Meteor's Path in Degrees.	Number for Refer- ence.
August	h m s						°	
7	10. 8. 13	W., S.	3	Bluish-white	0.5	None	10	1
"	10. 9. 13	S.	1	Yellow	1	Fine, 0.5	6	2
"	10. 9. 17	W., S.	1	Yellowish	1	None	6	3
"	10. 10. 0	T.	3	Blue	0.5	None	8	4
"	10. 10. 38	W., F.	3	Bluish-white	.	None	6	5
"	10. 11. 49	S.	2	Bluish-white	0.5	None	10	6
"	10. 13. 55	W.	1	Bluish-white	1	Train	..	7
"	10. 17. 37	W.	3	Bluish-white	0.5	None	..	8
"	10. 19. 0	N.	2	Bluish-white	0.5	Train	7	9
"	10. 19. 55	W.	1	Bluish-white	1	None	7	10
"	10. 22. 30	N.	2	Bluish-white	0.5	Faint	7	11
"	10. 24. 0	T.	1	Bluish-white	1	Fine	18	12
"	10. 27. 43	S.	1	Yellowish	1	Fine	17	13
"	10. 36. 29	H.	2	Blue	1	None	8	14
"	10. 36. 36	F.	2	Bluish-white	0.5	None	..	15
"	10. 50. 47	N.	3	Bluish-white	0.6	None	..	16
"	10. 53. 33	H.	3	Bluish-white	1	None	12	17
"	10. 54. 8	N., F., S.	1	Bluish-white	1	Fine	30	18
"	10. 54. 11	N.	3	Bluish-white	0.5	None	8	19
"	10. 54. 28	H., S.	2	Blue	1	None	10	20
"	10. 54. 30	H.	3	Blue	1	None	10	21
"	10. 57. 3	N.	1	Blue	1	Fine	20	22
"	10. 58. 26	H., F., S.	1	Blue	1	Train	12	23
"	11. 2. 3	H.	2	Blue	1	None	12	24
"	11. 3. 7	N., H.	3	Bluish-white	1	None	6	25
"	11. 4. 13	N., H.	3	Blue	1	None	8	26
"	11. 6. 58	H.	3	Blue	1	None	10	27
"	11. 8. 18	H., W.	3	Blue	1	None	12	28
"	11. 9. 15	H.	4	Blue	1	None	8	29
"	11. 11. 27	N., W.	1	Bluish-white	1.5	Faint	15	30
"	11. 11. 53	S.	2	Bluish-white	0.5	None	20	31
"	11. 12. 27	H., S.	1	Bluish-white	2	Train	15	32
"	11. 15. 11	H.	3	Blue	1	Faint	12	33
"	11. 16. 13	H.	2	Blue	1	Train, 1.5	16	34
"	11. 17. 46	H.	3	Blue	0.5	None	10	35
"	11. 18. 55	H., S.	1	Blue	1	Streak	12	36
"	11. 19. 47	N.	1	Blue	0.7	Train	10	37
"	11. 27. 33	N., W.	2	Bluish-white	1	Train	..	38
"	11. 27. 34	N., W.	2	Bluish-white	1	Train	..	39
"	11. 29. 42	S.	2	Bluish-white	0.5	None	8	40
"	11. 30. 25	S.	2	Yellow	1	Faint	5	41
"	11. 30. 56	H.	2	Yellow	1	Train	8	42
"	11. 31. 59	N.	4	Bluish-white	0.6	.	..	43
"	11. 32. 2	N., W.	3	Bluish	0.5	None	8	44
"	11. 34. 12	H., S.	3	Blue	1	Faint	10	45
"	11. 35. 9	W.	3	Bluish-white	0.5	None	..	46
"	11. 35. 53	W.	3	Bluish-white	1	None	..	47
"	11. 36. 30	H.	3	Blue	Short	None	15	48
"	11. 40. 23	W.	3	Bluish-white	0.5	None	6	49
"	11. 40. 26	H.	4	Blue	1	None	12	50
"	11. 43. 5	N., H.	4	Blue	1	None	10	51
"	11. 44. 11	N.	2	.	1	Fine	12	52
"	11. 45. 6	H.	2	Blue	1	Train	20	53
"	11. 45. 59	H.	3	Blue	1	None	20	54
"	11. 46. 51	N.	4	Bluish-white	.	None	5	55
"	11. 48. 9	W.	4	Bluish-white	0.5	None	5	56
"	11. 53. 38	N.	2	Bluish-white	0.8	Train	15	57
"	11. 55. 22	N.	1	Blue	1	Fine	15	58
"	11. 56. 21	H.	4	Blue	Short	None	15	59
"	11. 58. 24	S.	1	Bluish-white	1	Train	25	60
"	11. 58. 38	H.	3	Blue	1	None	10	61

in the YEAR 1866—continued.

Number for Reference.	Path of Meteor through the Stars.
1	From a point 5° West of <i>l</i> Scuti, passed about 3° West of <i>m</i> Scuti.
2	Passed horizontally 2° below <i>m</i> and <i>o</i> Canum Venaticorum.
3	From a point about 4° East of $\gamma$ Delphini, fell vertically past $\gamma$ Equulei.
4	Appeared near $\gamma$ Serpentis, and disappeared 4° left of $\alpha$ Serpentis.
5	Fell vertically about 3° West of $\phi$ Ursæ Minoris; center of track opposite that star.
6	From $\kappa$ Ophiuchi to $\alpha$ Ophiuchi.
7	From the direction of $\alpha$ Lyræ, passed midway between $\gamma$ and $\xi$ Draconis, and disappeared close to $\beta$ Draconis.
8	From $\zeta$ Cygni, passed about 4° above $\iota$ Cygni.
9	From a point 2° below $\eta$ Pegasi, passed across $\beta$ Pegasi.
10	Near East horizon, immediately below $\gamma$ Pegasi. No stars visible near the meteor.
11	From the direction of $\beta$ Andromedæ, about 5° below $\gamma$ Pegasi; the center of track opposite that star.
12	Point of appearance $\epsilon$ Ursæ Majoris; disappeared midway between 12 and <i>g</i> Canum Venaticorum.
13	From $\gamma$ Boötis to $\alpha$ Coronæ Borealis.
14	Passed from the direction of $\alpha$ Cassiopeïæ between $\lambda$ and $\zeta$ Honorium.
15	From a point 1° below $\alpha$ Ursæ Majoris, disappeared midway between $\kappa$ and $\iota$ Ursæ Majoris.
16	Directed from Delphinus, disappeared near $\epsilon$ Cygni.
17	From a point about 3° above and to the left of $\lambda$ Draconis towards $\beta$ Ursæ Majoris.
18	Directed from $\alpha$ Draconis, disappeared at $\gamma$ Boötis.
19	Directed from $\gamma$ Cephei, passed across Polaris.
20	From a point 3° left of $\iota$ Cassiopeïæ towards <i>F</i> Custodis.
21	From direction of $\iota$ Cassiopeïæ, passed just above <i>B</i> and <i>C</i> Camelopardali.
22	Directed from $\iota$ Draconis, passed midway between $\alpha$ Coronæ Borealis and $\gamma$ Boötis.
23	From direction of $\delta$ Boötis, passed between $\epsilon$ and $\delta$ Coronæ Borealis.
24	From a point 3° left of $\lambda$ Ophiuchi, disappeared 1° left of $\epsilon$ Ophiuchi.
25	From direction of Polaris, passed across $\beta$ Ursæ Minoris.
26	From the direction of $\delta$ Draconis to a point 3° right of $\zeta$ Draconis.
27	From a point between $\gamma$ and $\delta$ Coronæ Borealis.
28	Passed between $\xi$ and $\zeta$ Piscium towards $\theta$ Piscium.
29	Vertically from a point about 2° right of $\tau$ Custodis.
30	Passed across $\iota$ Draconis and between $\tau$ and $\phi$ Herculis.
31	Passed almost horizontally about 1° above $\theta$ Boötis; the center of path opposite that star.
32	From direction of $\alpha$ Cephei towards <i>f</i> Custodis.
33	From the direction of $o$ Custodis, disappeared at a point vertically below Polaris.
34	From the direction of $\pi$ Herculis, passed across $\alpha$ Ophiuchi and 5° beyond that star.
35	From the direction of $\beta$ Ursæ Majoris, passed about 1° below 12 Can. Venat.; the center of path opposite that star.
36	From the direction of Polaris, disappeared about 3° below $\beta$ Ursæ Minoris.
37	From a point 7° or 8° below $\gamma$ Pegasi, nearly vertical.
38	From a point 1° or 2° above $\beta$ Herculis to a point about 2° below $\alpha$ Coronæ Borealis.
39	From a point about 6° East of $\alpha$ Coronæ Borealis, fell towards $\zeta$ Boötis.
40	Passed between $\eta$ and $\theta$ Draconis, and disappeared 6° or 7° above $\iota$ Draconis; center of path opposite $\theta$ Draconis.
41	Appeared near $\alpha$ Ursæ Minoris, and disappeared near $o$ Camelopardali.
42	Passed horizontally 1° below $o$ Custodis.
43	From a point near $\theta$ Aquilæ towards $\epsilon$ Aquarii.
44	Fell vertically from the direction of $\theta$ Serpentis, past $\eta$ Aquilæ, towards $\theta$ Aquilæ; center of path opposite $\eta$ Aquilæ.
45	From the direction of $\alpha$ Ursæ Majoris towards a point about 2° below $o$ Ursæ Majoris.
46	From a point about 3° above $\alpha$ Aquarii, passed 3° above $\beta$ Aquarii.
47	From a point about 5° below $\alpha$ Pegasi, passed 5° below $\xi$ Pegasi.
48	From the direction of $\iota$ Draconis across $\lambda$ Boötis.
49	From about 3° above $\epsilon$ Piscium, passed midway between that star and $\delta$ Piscium, at right angles to the line joining them.
50	Passed from the direction of $\beta$ Andromedæ across $\eta$ Persei.
51	From a point 2° above $\alpha$ Andromedæ towards $\tau$ Pegasi.
52	Passed from South to North 5° East of <i>d</i> Cygni.
53	From the direction of $\gamma$ Piscium, passed between $\lambda$ and $\delta$ Aquarii.
54	From the direction of $\gamma$ Pegasi towards $\theta$ Piscium.
55	From near $o$ Cygni, passed midway between $\gamma$ and $\delta$ Cygni.
56	Passed about 3° West of $\delta$ Ursæ Minoris; path vertical, its center opposite the star.
57	Directed from <i>K</i> Herculis, disappeared midway between $\alpha$ Ophiuchi and <i>s</i> Tauri Poniatowski.
58	Directed from $\eta$ Cygni, disappeared 5° East of Delphinus.
59	From a point midway between $\gamma$ Draconis and $\alpha$ Lyræ, passed between $\xi$ and $o$ Herculis.
60	From $\alpha$ Ursæ Minoris to $\iota$ Draconis.
61	From the direction of $\beta$ Boötis, passed just above $\delta$ Boötis towards $\alpha$ Coronæ Borealis.

OBSERVATIONS of LUMINOUS METEORS

Month and Day, 1866.	Greenwich Mean Solar Time.	Observer.	Apparent Size of Meteor in Star-Magnitudes.	Colour of Meteor.	Duration of Meteor in Seconds of Time.	Appearance and Duration of Train.	Length of Meteor's Path in Degrees.	Number for Reference.
August	h m s						°	
7	12. 1. 13	W.	3	Bluish-white	1	None	12	1
"	12. 3. 23	N.	1	Bluish-white	1'2	Fine	7	2
"	12. 3. 45	H.	2	Blue	1	None	10	3
"	12. 5. 50	N., II.	1	White	1'5	Fine, 1 <sup>s</sup> .	18	4
"	12. 6. 23	H.	3	Blue	1	None	20	5
"	12. 6. 42	S.	1	Bluish-white	0'5	None	26	6
"	12. 7. 4	N.	4	Blue	0'5	None	7	7
"	12. 7. 4	W.	3	Bluish-white	0'5	None	4	8
"	12. 8. 38	H.	3	Blue	1	None	12	9
"	12. 12. 43	W., S.	1	Yellowish	1	Fine, 1 <sup>s</sup> .	12	10
"	12. 13. 34	N.	2	Bluish-white	0'8	Small	3	11
"	12. 16. 30	W.	3	Bluish-white	0'5	None	6	12
"	12. 20. 42	N., H., W.	2	Bluish-white	0'5	Train	18	13
"	12. 21. 10	H.	3	Blue	0'5	None	5	14
"	12. 21. 56	W.	3	Bluish-white	1	None	14	15
"	12. 23. 43	S.	1	Bluish-white	1	None	35	16
"	12. 30. 18	S.	1	Yellow	1	Fine	..	17
"	12. 30. 23	N., H., W.	> 1	.	1'5	Fine	25	18
"	12. 32. 25	H.	3	Blue	1	None	15	19
"	12. 34. 1	W., S.	1	Bluish-white	1	None	6	20
"	12. 37. 2	N., W.	2	Bluish-white	1	.	12	21
"	12. 37. 4	N., H., W.	3	Blue	1	None	10	22
"	12. 39. 23	N.	3	Bluish-white	0'7	Train	..	23
"	12. 41. 16	H., W.	3	Bluish	1	None	7	24
"	12. 41. 21	H.	4	White	0'5	None	8	25
"	12. 42. 16	N., W.	4	Bluish-white	0'4	.	..	26
"	12. 43. 7	N.	4	.	0'3	.	..	27
"	12. 43. 27	H.	4	Bluish-white	0'5	None	6	28
"	12. 45. 54	N., W.	2	Bluish-white	0'8	Train	..	29
"	12. 46. 6	H., W.	2	Blue	0'5	None	8	30
"	12. 50. 3	N., W.	3	Bluish-white	.	None	5	31
"	12. 51. 3	S.	> 1	Yellow	1	Yellow, 0 <sup>s</sup> .5	25	32
"	12. 51. 6	H.	2	Blue	1	Train	12	33
"	12. 52. 12	N.	2	Bluish-white	0'8	Train	10	34
"	12. 55. 13	S.	1	Bright blue	1	Fine	10	35
"	12. 56. 21	H., W.	2	Bluish-white	3	Train	20	36
"	12. 57. 4	H.	4	Blue	0'5	None	10	37
"	12. 57. 35	H.	3	Bluish-white	0'5	Train	5	38
"	12. 58. 3	S.	2	Yellow	1	Fine	7	39
"	12. 59. 4	N.	3	.	.	None	8	40
"	13. 2. 1	S.	3	Bluish-white	0'5	None	..	41
"	13. 2. 21	N.	2	Blue	0'6	Train	10	42
"	13. 2. 27	W.	3	Bluish-white	0'5	None	6	43
"	13. 7. 15	W.	1	Blue	1	Fine	12	44
"	13. 8. 10	H.	2	Blue	1	None	15	45
"	13. 10. 22	H.	4	Bluish-white	1	None	20	46
"	13. 11. 47	N.	2	Bluish-white	.	Train	12	47
"	13. 11. 48	W.	3	Bluish-white	0'4	None	6	48
"	13. 12. 45	H.	2	Blue	> 1	Faint	12	49
"	13. 13. 40	H.	3	Blue	1	None	6	50
"	13. 13. 53	H.	2	Bluish-white	1	None	8	51
"	13. 14. 29	N.	4	.	1	.	7	52
"	13. 14. 54	W.	3	Bluish-white	0'5	None	6	53
"	13. 16. 5	N., W., S.	1	Bluish-white	1'5	Fine	20	54
"	13. 17. 25	W.	3	Bluish-white	0'5	None	6	55
"	13. 18. 11	N.	4	Bluish-white	0'5	None	7	56
"	13. 20. 51	N.	2	Bluish-white	0'7	None	5	57
"	13. 20. 53	N.	3	Bluish-white	0'5	Train	..	58
"	13. 21. 25	H.	3	Bluish-white	1	None	13	59
"	13. 23. 23	H., S.	1	Blue	1	Fine	8	60
"	13. 24. 4	N.	2	Bluish-white	0'8	Train	..	61

in the YEAR 1866—continued.

Number for Refer- ence.	Path of Meteor through the Stars.
1	From a point about 5° below and left of $\beta$ Boötis, passed 5° below $\gamma$ Boötis.
2	Fell vertically from a point a little below $p$ Tauri Poniatowski.
3	From the direction of $\delta$ Ursæ Majoris, disappeared perpendicularly below $\zeta$ Ursæ Majoris.
4	Directed from $\tau$ Herculis, passed 4° above $\beta$ Herculis towards $\iota$ Ophiuchi.
5	From the direction of $\gamma$ Ursæ Majoris, passed between $\eta$ Ursæ Majoris and $\iota$ Canum Venaticorum.
6	From a point near $\alpha$ Ursæ Minoris to $\alpha$ Ursæ Majoris.
7	Directed from R Draconis, passed horizontally across $\alpha$ Draconis.
8	Passed about 1° West and above $\alpha$ Draconis; the center of its track opposite that star.
9	From the direction of $\gamma$ Pegasi, passed between $\iota$ and $\gamma$ Piscium.
10	From the direction of $\gamma$ Ursæ Majoris towards $\epsilon$ Ursæ Majoris.
11	Moved slowly from a point 2° from $\alpha$ Aquarii (measuring towards $\gamma$ Aquarii), disappeared 1°·5 beyond that star towards $\circ$ Aquarii.
12	Passed vertically about 3° to the left of $\beta$ Andromedæ; center of track opposite that star.
13	From near $\gamma$ Piscium, disappeared near Fomalhaut.
14	Vertically from a point about 8° left of Fomalhaut.
15	From a point about 5° below $\gamma$ Andromedæ, disappeared just below $\gamma$ Trianguli.
16	From $\gamma$ Ursæ Majoris, disappeared between $\eta$ and $\theta$ Draconis.
17	Fell vertically from $\epsilon$ Ursæ Majoris to the horizon.
18	Directed from $\gamma$ Equulei, passed close to $\beta$ Capricorni to within 5° of Jupiter.
19	From $\iota$ Aquarii, passed across $\kappa$ and $\epsilon$ Capricorni.
20	From the direction of $\epsilon$ Ursæ Majoris towards $\iota$ Canum Venaticorum.
21	From the direction of $\mu$ Cygni, passed $\beta$ Pegasi; center of path opposite $\beta$ Pegasi.
22	From direction of $\pi$ Pegasi across $\mu$ Cygni.
23	7° below $\gamma$ Pegasi, directed from $\eta$ Andromedæ.
24	Fell vertically from the direction of $\theta$ Draconis towards $\lambda$ Boötis.
25	Vertically from a point about 2° to the right and above $\circ$ Ursæ Majoris.
26	Passed 7° East of Delphinus towards $\theta$ Aquilæ.
27	Path horizontal; disappeared near $\delta$ Capricorni.
28	Horizontally from a point just below $\alpha$ towards $\pi$ Andromedæ.
29	Directed from $\gamma$ Pegasi, passed to $\omega$ Piscium.
30	Center of track between $\alpha$ and $\beta$ Aquilæ; path horizontal, South to West.
31	Passed almost horizontally about 3° above $\epsilon$ Aquarii; center of path opposite the star.
32	Horizontally about 5° above $\alpha$ Ursæ Majoris, disappeared near $\eta$ Ursæ Majoris.
33	From the direction of $\beta$ Andromedæ, passed $\zeta$ and $\eta$ Andromedæ.
34	From the direction of $\gamma$ Pegasi to 5° West of $\alpha$ Andromedæ; the center of path opposite the latter star.
35	From $\gamma$ Draconis to $\alpha$ Lyræ.
36	From the direction of $\beta$ Arietis, passed across $\eta$ Piscium.
37	Passed just above $\phi$ Andromedæ in the direction of $\beta$ Andromedæ.
38	From the direction of $\delta$ Piscium towards $\pi$ Piscium.
39	Fell vertically from $\zeta$ to $\iota$ Draconis.
40	From $\omega$ Piscium to a point a few degrees above $\beta$ Ceti.
41	Appeared near $\eta$ Draconis; point of disappearance $\eta$ Ursæ Majoris.
42	Passed midway between $\alpha$ and $\gamma$ Pegasi, disappeared near $\iota$ Piscium.
43	Path inclined 45° to vertical; meteor disappeared about 4° above $\iota$ Ceti.
44	From a point about 3° immediately below $e$ Delphini, disappeared close to $\epsilon$ Delphini.
45	From the direction of $\lambda$ Draconis, passed just below $\delta$ Ursæ Majoris.
46	From the direction of $\delta$ Cygni, passed between $\alpha$ and $\beta$ Lyræ.
47	From near $\tau$ Pegasi, passed midway between $\beta$ and $\alpha$ Pegasi.
48	Fell from a point about 3° West of $d$ Pegasi towards $\gamma$ Pegasi.
49	From the direction of $\phi$ Andromedæ, passed just above $\beta$ Andromedæ.
50	From $\lambda$ Ceti towards $\delta$ Ceti.
51	From the direction of the Pleiades towards $\lambda$ Ceti.
52	Directed from $\tau$ Pegasi, passed 4° above $\alpha$ Andromedæ; motion slow.
53	Passed a little below $b$ and $c$ Aquarii towards Fomalhaut; center of track opposite $b$ Aquarii.
54	From $\gamma$ Persei, passed about 5° above $\beta$ Persei.
55	Passed midway between $\gamma$ and $\beta$ Piscium at right angles to their joining lines; center of track opposite $\beta$ Piscium.
56	Below $b$ and $\mu$ Persei.
57	From the direction of Cassiopeia, passed midway between $\beta$ and $\gamma$ Cephei.
58	Across $\gamma$ Andromedæ and $\beta$ Persei.
59	From the direction of $d$ to $m$ Ursæ Majoris.
60	Passed about 1° below $\delta$ Persei, path nearly horizontal; center opposite the star.
61	From $\alpha$ Cygni almost to $\beta$ Cygni.



OBSERVATIONS OF LUMINOUS METEORS								
Month and Day, 1866.	'Greenwich Mean Solar Time.	Observer.	Apparent Size of Meteor in Star-Magnitudes.	Colour of Meteor.	Duration of Meteor in Seconds of Time.	Appearance and Duration of Train.	Length of Meteor's Path in Degrees.	Number for Refer- ence.
	h m s						°	
August	7	H., S.	3	Blue	1	Faint	12	1
"	13. 25. 56	W.	1	Yellowish	1	Fine	..	2
"	13. 26. 42	N., S.	3	Bluish-white	. . .	Train	7	3
"	13. 28. 24	N.	3	Bluish-white	. . .	None	..	4
"	13. 31. 26	N.	3	Blue	2	Faint	13	5
"	13. 31. 47	W.	3	Bluish-white	0.5	None	4	6
"	13. 32. 40	H.	1	Yellow	1.5	Fine	10	7
"	13. 34. 23	S.	1	Yellow	1	None	5	8
"	13. 34. 31	N.	2	Bluish-white	. . .	Train	5	9
"	13. 36. 31	N.	2	Bluish-white	1	Train	15	10
"	13. 37. 24	S.	1	Bluish-white	1	Fine	5	11
"	13. 39. 53	N.	3	Bluish-white	0.7	Train	..	12
"	13. 43. 3	N., H., W., S.	> 1	Bluish-white	2.5	Fine, 2 <sup>s</sup> .	40	13
"	13. 45. 3	N.	3	Blue	0.5	None	5	14
"	13. 45. 53	H.	3	Blue	1	None	10	15
"	13. 47. 48	S.	1	Blue	1	None	..	16
"	13. 48. 13	W.	1	Bluish-white	0.5	None	Short	17
"	13. 49. 6	H.	2	Blue	1	None	10	18
"	13. 51. 38	W.	3	Bluish-white	1	None	7	19
"	13. 52. 37	H.	3	Blue	1	None	12	20
"	13. 55. 35	H.	3	Blue	1	None	6	21
"	13. 55. 37	H.	2	Blue	1	None	10	22
"	13. 57. 25	N.	1	Blue	0.9	Fine	..	23
"	13. 59. 30	N.	2	. . .	. . .	Train	20	24
"	13. 59. 30	N.	2	. . .	. . .	Train	20	25
"	13. 59. 30	N.	1	. . .	. . .	Train	20	26
"	13. 59. 38	H.	1	Blue	1	None	6	27
"	14. 2. 15	H.	1	Blue	1	Fine	10	28
"	14. 2. 18	S.	> 1	Bluish-white	1	Fine	26	29
"	14. 2. 26	H.	1	Blue	1	Train	15	30
"	14. 5. 56	W.	3	Bluish-white	0.5	None	7	31
"	14. 8. 58	W.	3	Bluish-white	1	None	5	32
"	14. 16. 53	W.	3	Bluish-white	0.5	None	..	33
"	14. 18. 56	H.	2	Blue	1	Faint	6	34
"	14. 21. 59	H.	2	Bright blue	1	Fine	15	35
"	14. 22. 0	W.	1	Yellowish	. . .	Fine	..	36
"	14. 25. 31	W.	2	Blue	1	None	10	37
August	9	T.	2	Blue	0.5	None	10	38
"	9. 31. 0	J.	1	Bluish-white	2	Fine	25	39
"	9. 39. 50	J.	2	Bluish	0.5	None	7	40
"	9. 46. 45	J.	2	Bluish	0.5	None	12	41
"	9. 47. 0	H.	1	Blue	> 1	Fine	20	42
"	9. 47. 30	H.	1	Blue	1	Fine	12	43
"	9. 47. 45	H.	2	Blue	1	Fine	10	44
"	9. 50. 0	T.	1	Blue	1	Fine	8	45
"	9. 52. 0	T.	1	Bluish-white	1	Fine	8	46
"	9. 56. 0	T.	1	Bluish-white	1	None	..	47
"	10. 0. 22	W.	. . .	Bluish-white	0.5	None	10	48
"	10. 4. 50	T.	1	Bluish-white	1	Train	10	49
"	10. 6. 5	W.	3	Bluish-white	0.5	Train	7	50
"	10. 6. 24	J.	2	Bluish	0.5	None	3	51
"	10. 11. 15	H.	1	Blue	1	Train	15	52
"	10. 11. 23	J.	2	Bluish	0.5	None	8	53
"	10. 12. 15	H.	2	Blue	Short	Train	12	54
"	10. 12. 18	W., F.	1	Bluish-white	1.5	Bluish	..	55
"	10. 16. 25	J.	2	Bluish	2	Slight	20	56
"	10. 17. 14	T.	1	Bluish-white	1	Train	5	57
"	10. 18. 45	H.	2	Blue	1	Faint	10	58
"	10. 20. 15	T.	1	Bluish-white	1	6° long	10	59
"	10. 20. 17	J.	1	Bluish	2	Fine	18	60

in the YEAR 1866—*continued*.

Number for Reference.	Path of Meteor through the Stars.
1	From the direction of $\epsilon$ Muscæ, passed $1^\circ$ above $\epsilon$ Persei.
2	Fell from a point about $10^\circ$ West of $\alpha$ Aquilæ, past $\delta$ Aquilæ, and disappeared near $\lambda$ Aquilæ.
3	$5^\circ$ below Polaris, moving horizontally W. to E.
4	From a point $5^\circ$ above $\gamma$ Pegasi to a point $10^\circ$ or $12^\circ$ below $\alpha$ Pegasi.
5	From the direction of $\beta$ Aquarii, passed slowly $5^\circ$ below $\gamma$ Aquarii.
6	Passed about $3^\circ$ below $\epsilon$ Aquarii; the path inclined $45^\circ$ to vertical; center opposite the star.
7	From a point just below $\gamma$ Andromedæ to a point about $2^\circ$ beyond $\beta$ Trianguli.
8	Passed between $\theta$ and $\zeta$ Ceti; center of path $1^\circ$ below $\eta$ Ceti.
9	From the direction of $\iota$ Draconis, passed between $\epsilon$ and $\zeta$ Ursæ Majoris.
10	From $\delta$ Cygni, passed across $\gamma$ Lyræ.
11	Passed horizontally with center of path $3^\circ$ above $\theta$ Ceti.
12	From a point $5^\circ$ to the left of Delphinus, passed across $\theta$ Aquilæ.
13	From $\beta$ Andromedæ, passed across $\gamma$ Cassiopeiæ, and disappeared near $\gamma$ Cephei.
14	Path inclined $20^\circ$ to vertical, midway between $\beta$ and $\iota$ Ceti; fell towards S.E. horizon.
15	Vertically from a point $2^\circ$ South of $\nu$ Tarandi.
16	From between $\gamma$ and $\beta$ Ursæ Minoris, and disappeared between $\epsilon$ and $\zeta$ Ursæ Majoris.
17	Passed about $5^\circ$ above and West of $\alpha$ Ursæ Majoris, with center of path opposite that star.
18	Vertically from a point midway between $\delta$ and $\zeta$ Herculis.
19	From a point about $4^\circ$ above $f$ Ursæ Majoris, passed about $4^\circ$ above $\theta$ Ursæ Majoris.
20	Vertically from a point $2^\circ$ West of $\beta$ Boötis.
21	From the direction of $\alpha$ Lyræ, passed across $\gamma$ Cygni.
22	From the direction of $\alpha$ Equulei, passing about $2^\circ$ above $\beta$ Aquarii.
23	Passed a few degrees below $\omega$ Piscium; path inclined $45^\circ$ to vertical.
24	From $\eta$ Andromedæ, passed between $\beta$ and $\gamma$ Andromedæ.
25	Passed $4^\circ$ below $\alpha$ Pegasi; path inclined $20^\circ$ from horizontal.
26	Across $\iota$ Piscium. These three meteors started simultaneously from Pegasus.
27	From $\zeta$ Aquilæ.
28	From the direction of $\alpha$ Lyræ, passed $3^\circ$ North of $\zeta$ Herculis; center of path opposite $\zeta$ Herculis.
29	Fell from $\alpha$ Ursæ Minoris to $\alpha$ Ursæ Majoris.
30	Vertically across $\epsilon$ Herculis, the star in the center of its path.
31	From a point about $8^\circ$ below and East of $\lambda$ Ceti, passed about $4^\circ$ above $\gamma$ Ceti.
32	From a point about $3^\circ$ above $\theta$ Ceti, passed about $3^\circ$ above $\beta$ Ceti.
33	From the direction of Aldebaran towards $\nu$ Tauri, disappeared near $\mu$ Tauri.
34	Vertically from a point $2^\circ$ East and below $\theta$ Aurigæ.
35	From the direction of $\tau$ Cygni, passing just below $\zeta$ Cygni, towards Delphinus.
36	From about $2^\circ$ to right of $\alpha$ Lyræ, passed midway between $\gamma$ and $\xi$ Draconis, disappearing close to $\beta$ Draconis.
37	From near $\iota$ Draconis towards $\iota$ and $\kappa$ Boötis.
38	Appeared near $\beta$ Ursæ Majoris, disappeared midway between $\delta$ and $\gamma$ Ursæ Majoris.
39	From about $15^\circ$ West of $\epsilon$ Ursæ Majoris, disappearing in the direction of Arcturus.
40	Appeared about $10^\circ$ North of $\alpha$ Cassiopeiæ, disappearing towards $\gamma$ Andromedæ.
41	Appeared about $10^\circ$ East of $\theta$ Ursæ Majoris, disappearing about $2^\circ$ West of that star.
42	From the direction of $\mu$ Pegasi, passed about $3^\circ$ above $\epsilon$ Pegasi towards $\alpha$ Equulei.
43	From the direction of $\lambda$ Pegasi, passed between $\epsilon$ Pegasi and $\alpha$ Aquarii towards $\beta$ Aquarii.
44	From the direction of $\beta$ Piscium, passed below $\gamma$ Aquarii towards $\sigma$ Piscium.
45	Appeared about $3^\circ$ above $\eta$ Boötis, disappeared a few degrees beyond Arcturus.
46	Appeared $5^\circ$ below Arcturus, disappeared $2^\circ$ below $\zeta$ Boötis.
47	Appeared $2^\circ$ below $\epsilon$ Pegasi, disappeared near $\alpha$ Aquarii.
48	From the direction of $\gamma$ Ursæ Minoris, passed $\gamma$ Cephei towards $\delta$ Cassiopeiæ.
49	Appeared $3^\circ$ to the left of $\zeta$ Ursæ Majoris, disappeared $5^\circ$ beyond $\eta$ Ursæ Majoris.
50	From a point about $3^\circ$ above $\phi$ Persei, passed $\xi$ Andromedæ.
51	From $\pi$ Sagittarii, directed towards $\sigma$ Sagittarii.
52	From the direction of $\alpha$ , passed about $3^\circ$ below $\beta$ Aquarii; center of path opposite that star.
53	From $\theta$ Aquarii towards $\delta$ Aquarii.
54	Across $\epsilon$ Pegasi; this star was the center of the track.
55	From a point about $3^\circ$ below $\beta$ Ursæ Minoris, passing $\alpha$ Draconis to $\eta$ Ursæ Majoris.
56	From $\alpha$ Equulei towards $\alpha$ Capricorni.
57	Appeared $2^\circ$ above $\lambda$ Boötis, disappeared about $5^\circ$ below $\epsilon$ Boötis.
58	From $\lambda$ Aquarii towards $\theta$ Capricorni.
59	Appeared $2^\circ$ below $\beta$ Ursæ Majoris, disappeared near $\lambda$ Ursæ Majoris.
60	From $\alpha$ Equulei towards $\alpha$ Capricorni; same path as the meteor at 10 <sup>h</sup> . 16 <sup>m</sup> . 25 <sup>s</sup> .

OBSERVATIONS OF LUMINOUS METEORS								
Month and Day, 1866.	Greenwich Mean Solar Time.	Observer.	Apparent Size of Meteor in Star-Magnitudes.	Colour of Meteor.	Duration of Meteor in Seconds of Time.	Appearance and Duration of Train.	Length of Meteor's Path in Degrees.	Number for Refer- ence.
August	h m s						°	
9	10. 24. 28	F.	2	Bluish-white	0.5	Slight	..	1
"	10. 27. 10	W.	4	Bluish-white	1	None	20	2
"	10. 33. 30	J.	2	Bluish	0.5	Fine	4	3
"	10. 35. 58	H.	2	Blue	1	Faint	10	4
"	10. 36. 21	N.	3	Bluish-white	0.4	..	6	5
"	10. 37. 14	T.	1	Bluish	1	None	12	6
"	10. 40. 13	N.	3	Bluish-white	0.7	Slight	8	7
"	10. 40. 38	F.	2	Bluish-white	0.5	Long	..	8
"	10. 44. 8	H.	3	Blue	1	None	10	9
"	10. 45. 56	J.	2	Bluish	1.5	None	..	10
"	10. 49. 17	H.	1	Blue	1	Faint	14	11
"	10. 50. 28	T.	1	Bluish	1	None	6	12
"	10. 50. 30	F.	3	Bluish-white	0.5	Slight	..	13
"	10. 52. 55	J.	2	Bluish	1.5	Fine	..	14
"	10. 54. 26	H.	3	Blue	1	None	15	15
"	10. 54. 28	T.	1	Bluish-white	1	Fine	7	16
"	10. 58. 27	T.	1	Blue	1	Fine	19	17
"	11. 0. 14	H., J.	1	Blue	> 1	Train	12	18
"	11. 2. 57	J.	2	Bluish	1.5	Fine	..	19
"	11. 7. 55	T.	1	Bluish-white	1	None	9	20
"	11. 8. 30	H.	1	Blue	2	Fine	20	21
"	11. 9. 45	H.	1	Blue	1	Train	12	22
"	11. 11. 15	J., T.	2	Bluish	0.5	None	..	23
"	11. 11. 42	T.	1	Bluish-white	1	None	16	24
"	11. 13. 14	T.	1	Bluish-white	1	None	11	25
"	11. 19. 8	H., J.	2	Blue	1	None	5	26
"	11. 19. 9	H., J.	2	Blue	1	None	5	27
"	11. 24. 43	H.	1	Blue	1	Train	8	28
"	11. 25. 21	J.	1	Bluish	3	Fine	25	29
"	11. 25. 53	J.	1	Bluish	3	Fine	30	30
"	11. 27. 45	T.	1	Bluish-white	1	Train	11	31
"	11. 27. 46	T.	1	Bluish-white	1	None	8	32
"	11. 30. 35	H.	1	Bright blue	2	Train	6	33
"	11. 30. 37	H.	2	Blue	1	None	12	34
"	11. 35. 30	H., J.	1	Bluish	0.5	Fine	10	35
"	11. 36. 30	H.	1	Blue	1	Train	10	36
"	11. 37. 0	H.	1	Blue	1	Train	15	37
"	11. 45. 55	F.	1	Bluish-white	.	Train	..	38
"	11. 46. 2	H.	> 1	Brilliant blue	2	Fine	25	39
"	11. 46. 47	T.	1	Bluish-white	1	12° long.	17	40
"	11. 48. 0	T.	= Jupiter	Blue	1	Train	10	41
"	11. 51. 5	H.	2	Blue	1	Train	20	42
"	11. 52. 50	F.	1	Bluish-white	0.5	Train	16	43
"	11. 53. 45	T.	1	Bluish-white	1	Train	9	44
"	11. 55. 0	F.	1	Bluish-white	0.5	Train	20	45
"	11. 57. 39	H.	1	Bright blue	1	Fine	18	46
"	12. 0. 2	N., W.	3	Bluish-white	.	Train	..	47
"	12. 1. 40	T.	1	Blue	1	Train	16	48
"	12. 1. 52	H.	2	Blue	1	Train	10	49
"	12. 2. 0	F.	1	Bluish-white	1	Train	24	50
"	12. 5. 0	F.	1	Bluish-white	0.5	Train	..	51
"	12. 5. 45	T.	2	Blue	1	Train	10	52
"	12. 6. 33	H.	2	Blue	1	Train	15	53
"	12. 8. 37	T.	1	Blue	2	20° long	25	54
"	12. 12. 5	H.	2	Blue	1	Train	15	55
"	12. 12. 27	N.	1	Bluish-white	1.3	..	17	56
"	12. 13. 20	N.	1	Bluish-white	1	Fine	..	57
"	12. 14. 15	H.	2	Blue	1	Faint	10	58
"	12. 15. 44	T.	1	Blue	1	Train	14	59
"	12. 17. 43	N., H., W.	1	Blue	1	Train	22	60
"	12. 18. 35	N., F.	4	Bluish-white	.	None	..	61

in the YEAR 1866—continued.

Number for Refer- ence.	Path of Meteor through the Stars.
1	From a point about $4^{\circ}$ below $\beta$ Ursæ Minoris, passing $4^{\circ}$ above $\alpha$ Draconis to $12^{\circ}$ above $\eta$ and $\zeta$ Ursæ Majoris.
2	From a point about $3^{\circ}$ above $\alpha$ Aquarii, passed $\kappa$ Aquarii towards Jupiter.
3	From $\alpha$ Aquarii towards $\theta$ Capricorni; path curved.
4	From the direction of $\beta$ Piscium, about $3^{\circ}$ above $\lambda$ Aquarii.
5	Directed from $\gamma$ Persei, passing across $\gamma$ Trianguli.
6	Appeared $3^{\circ}$ below $\beta$ Ursæ Majoris, disappeared near $\psi$ Ursæ Majoris.
7	Directed from $\gamma$ Trianguli to $\alpha$ Arietis.
8	Passed $10^{\circ}$ to the West and above $\beta$ Aquilæ.
9	From the direction of $\theta$ Persei, passed $2^{\circ}$ North of $\beta$ Persei towards $\zeta$ Persei.
10	From $\alpha$ Coronæ Borealis towards $\zeta$ Herculis.
11	From the direction of $\theta$ Andromedæ, disappearing $3^{\circ}$ below $\tau$ Pegasi.
12	Appeared near $\delta$ Ursæ Minoris, disappeared midway between Polaris and $\epsilon$ Ursæ Minoris.
13	From a point near $\alpha$ Draconis, parallel to a line joining $\eta$ and $\zeta$ Ursæ Majoris above $\theta$ Boötis.
14	From $\alpha$ Andromedæ towards $\tau$ Pegasi.
15	From the direction of $\sigma$ Honorium, passed just below $\pi$ Pegasi to a point about $4^{\circ}$ below $\mu$ Pegasi.
16	Appeared $3^{\circ}$ below $\delta$ Ursæ Minoris, disappeared $2^{\circ}$ above $\epsilon$ Ursæ Minoris.
17	From $\alpha$ Boötis, disappeared between $\gamma$ and $\beta$ Serpentis.
18	From direction of $\sigma$ Ursæ Majoris, passed between $\theta$ and $\iota$ Ursæ Majoris. No stars visible at point of disappearance.
19	From $\theta$ Aquarii to a point about $10^{\circ}$ below $\delta$ Capricorni.
20	Appeared midway between $\beta$ and $\gamma$ Ursæ Minoris, disappeared about $5^{\circ}$ before $\alpha$ Draconis.
21	From the direction of $\epsilon$ Cassiopeiæ, passed close to $\beta$ Persei towards $\xi$ Persei.
22	From the direction of $\epsilon$ Ursæ Minoris, passed between $\beta$ and $\gamma$ Ursæ Minoris.
23	From $\zeta$ Ursæ Majoris to a point about $5^{\circ}$ below $\epsilon$ Ursæ Majoris.
24	Appeared $3^{\circ}$ below Capella, disappeared $3^{\circ}$ above $\gamma$ Aurigæ.
25	Appeared $2^{\circ}$ to the left of $\beta$ Serpentis, disappeared midway between $\gamma$ and $\alpha$ Coronæ Borealis.
26	Appeared $8^{\circ}$ above horizon, passed $5^{\circ}$ to the right of the Pleiades.
27	Appeared $8^{\circ}$ above horizon, passed $5^{\circ}$ to the left of the Pleiades.
28	Vertically from a point $3^{\circ}$ East of $\epsilon$ Aurigæ, passed between $\eta$ and $\zeta$ Aurigæ.
29	From $\alpha$ Pegasi towards $\beta$ Capricorni.
30	From $\alpha$ Aquilæ towards $\alpha$ Lyræ.
31	Appeared midway between $\alpha$ and $\beta$ Capricorni, disappeared $2^{\circ}$ above Jupiter.
32	Appeared midway between $\beta$ and $\gamma$ Herculis, disappeared before $\delta$ Coronæ Borealis.
33	Passed horizontally East to West across $\alpha$ Equulei; slow motion.
34	From the direction of $g$ Pegasi towards $\epsilon$ Delphini.
35	Appeared about $5^{\circ}$ East of $\gamma$ Pegasi, disappeared $5^{\circ}$ West of that star.
36	Passed almost horizontally East to West, just above $\delta$ Aquarii; the center of track opposite that star.
37	From the direction of $\theta$ Aquarii, passed just above $\delta$ and $\gamma$ Aquarii.
38	Passed about $6^{\circ}$ above $\alpha$ Capricorni and $16^{\circ}$ above Jupiter, from East to West.
39	From the direction of $\rho$ Aquilæ, passed across $\alpha$ Aquilæ towards $\lambda$ Aquilæ.
40	Appeared midway between $\lambda$ and $\iota$ Aquilæ, disappeared $2^{\circ}$ before $\zeta$ Sagittarii.
41	Appeared midway between $\nu$ and E. Ursæ Majoris, and disappeared $2^{\circ}$ below $\beta$ Ursæ Majoris.
42	From the direction of $\zeta$ Cygni towards $\alpha$ Aquilæ.
43	Passed from a point about $5^{\circ}$ below and East of $\alpha$ Ursæ Majoris towards $\beta$ Ursæ Majoris.
44	Appeared $3^{\circ}$ below $\beta$ Ursæ Majoris, disappeared $2^{\circ}$ below $\lambda$ Ursæ Majoris.
45	Passed $6^{\circ}$ above $\zeta$ and $2^{\circ}$ above $\eta$ Ursæ Majoris towards horizon.
46	From the direction of $\epsilon$ Cygni, passed close to $\epsilon$ Delphini towards $\theta$ Aquilæ.
47	From near $\nu$ Piscium to $\delta$ Piscium.
48	Appeared $2^{\circ}$ to the right of $\alpha$ Ursæ Majoris, and disappeared $2^{\circ}$ before $\epsilon$ Ursæ Majoris.
49	Across zenith from South to North from the direction of $\lambda$ Honorium, disappeared about $3^{\circ}$ West of $\beta$ Cassiopeiæ.
50	Passed between $\alpha$ and $\beta$ Cassiopeiæ above R Cassiopeiæ.
51	From near Polaris, passed $8^{\circ}$ below $\beta$ Ursæ Minoris; end of path obscured by clouds.
52	Appeared midway between $\gamma$ and $\beta$ Herculis, and disappeared $3^{\circ}$ below $\alpha$ Herculis.
53	From the direction of $\beta$ Arietis towards $\sigma$ Ceti.
54	From the direction of $\delta$ Aurigæ to N.N.E. horizon.
55	From the direction of $\kappa$ Honorium, passed between $\beta$ and $\eta$ Pegasi to $\mu$ Pegasi.
56	From $\alpha$ to $\delta$ Aquarii.
57	Directed from $\beta$ , Andromedæ, passed across $\delta$ Piscium.
58	From the direction of $\sigma$ Honorium across $\iota$ Pegasi towards $\chi$ Pegasi; the center of track opposite $\alpha$ Andromedæ.
59	Appeared $5^{\circ}$ to the left of $\gamma$ Aquilæ, and disappeared $3^{\circ}$ to the left of $\lambda$ Aquilæ.
60	From $5^{\circ}$ North of $\beta$ Trianguli to a point a few degrees North of $\delta$ Arietis.
61	From a point about $5^{\circ}$ below $\beta$ Andromedæ to $\alpha$ Trianguli.

OBSERVATIONS OF LUMINOUS METEORS								
Month and Day, 1866.	Greenwich Mean Solar Time.	Observer.	Apparent Size of Meteor in Star-Magnitudes.	Colour of Meteor.	Duration of Meteor in Seconds of Time.	Appearance and Duration of Train.	Length of Meteor's Path in Degrees.	Number for Refer- ence.
	h m s						°	
August	9	J.	1	Bluish	2	Fine	15	1
"	12. 20. 15	N.	2	Bluish-white	0.6	Fine	..	2
"	12. 23. 2	F.	1	Bluish-white	0.5	Train	14	3
"	12. 24. 20	F.	1	Bluish-white	1	Fine	..	4
"	12. 26. 55	W.	3	Bluish-white	0.5	None	10	5
"	12. 28. 28	J.	1	Bluish	2	Fine	15	6
"	12. 29. 20	H.	2	Blue	1	Faint	10	7
"	12. 29. 56	T.	1	Bluish-white	1	None	10	8
"	12. 33. 5	H.	2	Blue	0.5	None	10	9
"	12. 33. 32	J.	1	Bluish	1	Fine	4	10
"	12. 33. 36	N.	2	Bluish-white	0.8	Fine	..	11
"	12. 33. 47	T.	2	Blue	1	None	7	12
"	12. 34. 0	H.	3	Blue	1	Faint	12	13
"	12. 34. 30	N.	2	Bluish-white	1	Train	..	14
"	12. 41. 7	N., H.	3	Blue	1	Faint	20	15
"	12. 41. 28	H.	2	Blue	1	None	10	16
"	12. 45. 15	T.	= Jupiter	Blue	1.5	26° long.	38	17
"	12. 45. 30	H.	2	Blue	1	Train	15	18
"	12. 50. 5	H., T.	2	Blue	0.5	None	..	19
"	13. 2. 43	W.	1	Yellowish	1	Fine	15	20
"	13. 10. 0	W.	3	.	0.5	None	6	21
"	13. 10. +	J.	= Jupiter	Yellowish	3	None	10	22
"	13. 10. +	N., H.	2	Bluish-white	.	Train	10	23
"	13. 11. 7	H.	1	Blue	1	Train	20	24
August	10	W., S.	1	Bluish-white	1	None	10	25
"	9. 29. 0	N.	1	Bluish-white	0.8	Train	10	26
"	10. 48. 0	N.	1	Bluish-white	0.7	Train	10	27
"	10. 48. +	N.	2	Bluish-white	0.5	.	5	28
"	11. 19. 12	H.	1	Bluish-white	1	Faint	12	29
"	11. 22. 28	N.	4	.	0.5	None	..	30
"	11. 22. 57	N.	2	Bluish-white	0.6	Train	12	31
"	11. 24. 22	N.	.	.	.	.	..	32
"	11. 25. 0	N.	.	.	.	.	..	32
"	12. 0. 0	N.	3	Bluish	0.5	Train	6	33
"	12. 2. 19	N.	1	Bluish-white	1.5	Fine	20	34
"	12. 4. 48	N.	2	Bluish-white	1	Train, 2 <sup>s</sup> .	..	35
"	12. 12. 25	N.	1	Bluish-white	1.3	Fine, 3 <sup>s</sup> .	15	36
"	12. 15. 43	N.	1	Bluish-white	1	Fine, 2 <sup>s</sup> .	15	37
"	12. 17. 18	N.	3	Bluish-white	0.4	.	3	38
"	12. 19. 28	N.	2	Bluish-white	.	.	5	39
"	12. 19. 53	N.	2	Bluish-white	.	.	4	40
"	12. 23. 31	N.	1	Bluish-white	1	Train	16	41
"	12. 24. 43	N.	2	Bluish-white	1	Train, 0 <sup>s</sup> · 8.	..	42
"	12. 27. 57	N.	4	Bluish-white	0.5	None	..	43
"	12. 35. 48	N.	3	Bluish-white	0.7	Fine	..	44
"	12. 41. 53	N.	.	.	.	.	..	45
"	12. 42. 0	N.	1	Bluish-white	1.5	Train	15	46
"	13. 15. 54	N.	3	Bluish-white	1	Train	..	47
"	13. 19. 59	N.	2	Bluish-white	1	Train, 1 <sup>s</sup> · 5.	12	48
"	13. 23. 52	N.	.	.	.	.	..	49
"	13. 27. 0	N.	.	.	.	.	..	49
August	11	H.	1	Bluish-white	1	Faint	15	50
"	9. 10. 5	H.	1	Blue	1	Faint	12	51
"	9. 17. 10	S.	1	Bluish-white	0.5	None	5	52
"	9. 17. 10+	H., S.	1	Bluish-white	1	.	10	53
August	14	N.	2	Blue	0.7	Train	..	54
"	10. 51. 30	N.	3	Bluish-white	0.5	Train	20	55
"	11. 17. 21	N.	4	Blue	0.5	Faint	2	56
"	11. 18. 43	N.	3	Blue	0.7	Slight	16	57

in the YEAR 1866—continued.

Number for Refer- ence.	Path of Meteor through the Stars.
1	From Polaris towards $\beta$ Ursæ Majoris.
2	Directed from $\alpha$ Cassiopeiæ across $\zeta$ Cygni.
3	From midway between $\delta$ and $\epsilon$ Ursæ Majoris towards Arcturus.
4	From $\epsilon$ Cassiopeiæ towards $\alpha$ Ursæ Minoris.
5	From the direction of $\gamma$ Cassiopeiæ towards $\delta$ Ursæ Minoris.
6	Directed from $\alpha$ Cassiopeiæ towards Polaris.
7	From the direction of $\iota$ Piscium, passed below $\gamma$ Pegasi; the center of track opposite $\gamma$ Pegasi.
8	Appeared $2^\circ$ to the right of $\beta$ Pegasi, and disappeared $2^\circ$ before $\gamma$ Pegasi.
9	Vertically from a point just below $\gamma$ Pegasi.
10	From Capella towards $\eta$ Aurigæ.
11	From near $\epsilon$ Cassiopeiæ, passed midway between $\beta$ Cassiopeiæ and $\iota$ Cephei.
12	Appeared $3^\circ$ to the right of $\beta$ Delphini, disappeared near $\gamma$ Equulei.
13	From the direction of $\psi$ Pegasi, passed midway between $\gamma$ Pegasi and $\alpha$ Andromedæ.
14	Directed from $\epsilon$ Pegasi, passed midway between $\beta$ and $\theta$ Aquilæ to a point near $\iota$ Aquilæ.
15	From the direction of $\eta$ Pegasi across $\xi$ and $\zeta$ Pegasi.
16	From the direction of $\eta$ Ceti, passed just above $\beta$ Ceti.
17	Appeared midway between $o$ and $\epsilon$ Cygni, disappeared $4^\circ$ to the left of Equuleus.
18	From the direction of $\xi$ Draconis towards $\rho$ Herculis.
19	From a point midway between $\alpha$ and $\zeta$ Aquilæ.
20	Passed vertically about $5^\circ$ East of $\beta$ Ceti towards horizon.
21	Fell vertically from a point immediately below $\beta$ Ceti towards horizon.
22	Passed from East to West about $3^\circ$ below $\beta$ Ceti; the center of path opposite that star.
23	Passed $5^\circ$ below $\beta$ Ceti, path inclined $45^\circ$ to vertical; the center of path opposite $\beta$ Ceti. Hazy and cloudy.
24	Vertically from a point about $1^\circ$ North of $\alpha$ and $\beta$ Sagittæ.
25	Fell from a point just below $\gamma$ Cephei towards horizon.
26	Moved rapidly across $\gamma$ Persei towards $\gamma$ Andromedæ.
27	Appeared between $\gamma$ and $\beta$ Andromedæ, passed across $\beta$ Trianguli.
28	Passed between $\lambda$ and $\alpha$ Draconis, directed towards $\lambda$ Boötis.
29	From a point just above $\epsilon$ Ursæ Majoris towards horizon, inclination $40^\circ$ to vertical. Disappeared in clouds.
30	Directed from $\beta$ Cephei, disappeared $5^\circ$ West of Polaris.
31	Passed across $\lambda$ Draconis towards $h$ Ursæ Majoris.
32	Generally cloudy till $12^h$ , entirely clear afterwards.
33	Passed rapidly between $\lambda$ and $\alpha$ Draconis towards $\lambda$ Boötis.
34	Passed midway between $\alpha$ Coronæ Borealis and $\gamma$ Herculis, directed from $\theta$ Draconis.
35	From $\alpha$ Draconis, passed $1^\circ$ or $2^\circ$ beyond $\lambda$ Boötis.
36	From $10^\circ$ below R Cephei to $\eta$ Draconis.
37	From near $\delta$ Persei, shot $15^\circ$ towards $\alpha$ Ursæ Majoris.
38	Directed from $\gamma$ Persei, passed between $c$ and $d$ Camelopardali.
39	Fell almost vertically past $\beta$ Aurigæ; the center of path opposite that star.
40	Moved perpendicularly upwards from $\zeta$ Cassiopeiæ.
41	From the vicinity of $c$ and $d$ Camelopardali towards $o$ Ursæ Majoris.
42	Passed across $\eta$ Pegasi towards $\alpha$ Equulei.
43	From the direction of $\gamma$ Persei, passed across $\beta$ Trianguli. (A flash of lightning in the East.)
44	From a little to the South of $\beta$ Andromedæ to $\gamma$ Pegasi.
45	At $12^h. 42^m$ . the sky became suddenly cloudy.
46	From the direction of $\gamma$ Pegasi, passed across $\kappa$ Piscium.
47	From the direction of $c$ and $d$ Camelopardali, fell towards North horizon, disappearing at altitude $12^\circ$ .
48	Directed from $\gamma$ Persei towards K Camelopardali.
49	Lightning seen in N.E.
50	From the direction of $\lambda$ Aquilæ, passed between $o$ and $m$ Scuti towards $o$ Serpentis.
51	From a point just below $\nu$ Aquarii, passed about $5^\circ$ below $\alpha$ and $\beta$ Capricorni.
52	Fell vertically between $o$ and $\nu$ Serpentis.
53	From a point $5^\circ$ below $\beta$ Capricorni, passed about the same distance below Jupiter towards S.S.W. horizon.
54	From a point between $\lambda$ and $\nu$ Cygni to $\zeta$ Cygni.
55	From $\beta$ Cygni across $\zeta$ Aquilæ.
56	From a point between $o$ and $f$ Cygni, moved towards $\pi$ Cygni.
57	From the direction of $\eta$ Pegasi, passed midway between Delphinus and $\epsilon$ Pegasi.

## OBSERVATIONS OF LUMINOUS METEORS

Month and Day, 1866.	Greenwich Mean Solar Time.	Observer.	Apparent Size of Meteor in Star-Magnitudes.	Colour of Meteor.	Duration of Meteor in Seconds of Time.	Appearance and Duration of Train.	Length of Meteor's Path in Degrees.	Number for Refer- ence.
August 16	h m s 9.30. 0+	J.	2	Bluish	0.5	None	3	1
October 7	8.47. 0	W.	3	Bluish-white	0.5	None	6	2
October 8	7.40. 0	W.	1	Yellowish	0.5	Slight	8	3
October 12	7.58. 0	W.	1	Bluish-white	0.5	None	10	4
October 22	10.22. 20	N.	> 1	Bluish-white	2	Fine	25	5
October 28	10. 4. 20	N.	= Jupiter	Bluish-white	1	Fine	12	6
October 31	8.25.51	W., S.	1	Bluish-white	3	Slight	20	7
"	8.30. 0	J., W., S.	1	Bluish-white	0.5	None	5	8
"	8.35.51	J., W., S.	1	Bluish-white	3	Fine	20	9
"	11.17. 0	W., S.	1	Bluish-white	2	Fine	..	10
"	11.21. 2	W.	1	Bluish-white	1	None	..	11
"	11.30.12	W.	1	Bluish-white	1	Fine	..	12
"	11.31. 0	J., W., S.	1	Bluish-white	1	Fine	10	13
"	11.45. 0	W.	1	Bluish-white	0.5	Fine	..	14
"	11.47.12	W.	= Sirius	Bluish-white	2	Fine	30	15
November 3	11.31. 0	N.	3	Bluish-white	.	.	..	16
November 6	5.57. 0	W.	2	Bluish-white	1	None	15	17
"	8.56. 0	N.	2	Bluish-white	0.9	Slight	7	18
"	10.41.34	N.	3	.	1	Train, > 1°	25	19
"	11. 2.50	N.	2	Blue	0.8	None	..	20
"	11. 5.40	N.	1	Blue	0.6	Slight	12	21
"	11. 9.19	N., W.	3	Bluish-white	0.5	None	10	22
"	11.13.35	N.	1	Blue	1.5	Train	6	23
"	11.42.24	N., W.	1	Bluish-white	1	Fine	12	24
"	11.55.32	N., W.	2	Bluish-white	1	Train	6	25
"	11.58.30	N.	1	Bluish-white	0.7	Train	..	26
"	11.58.40	N., W.	1	Bluish-white	0.5	Train	6	27
November 8	12.30. 0	W.	= Sirius	Bluish-white	1	Train	20	28
"	13.29. 0	J.	2	Bluish	.	Slight	7	29
November 9	7.45. 0	H.	3	Blue	1	None	12	30
"	8.34. 0	H.	= Jupiter	Brilliant blue	2	Faint	25	31
"	8.53. 0	H., T., W.	> 1	Blue	3	Train	35	32
"	9.11.30	H., T.	2	Blue	1	None	10	33
"	9.31. 0	H.	1	Bluish-white	> 1	None	20	34
"	14.35.41	N.	3	Bluish-white	0.7	Slight	10	35
November 11	9.57. 0	T.	1	Blue	1	None	7	36
November 13	5.37.30	H.	4	Bluish-white	1	None	8	37
"	6.11.45	H.	1	Yellowish	6	Fine	45	38
"	7.30. 0	T.	3	Bluish-white	0.5	None	9	39
"	7.33. 0	H.	1	Blue	1	None	10	40
"	7.33. 0	T.	3	Bluish-white	0.5	None	..	41
"	7.47. 0	T.	3	Blue	0.3	None	..	42
"	9.13.34	W.	3	Bluish-white	0.5	None	10	43
"	9.18. 0	F., S., C.	2	Yellow	3	Splendid, 1°	110	44
"	9.19.31	J.	2	Bluish	Momentary	None	5	45
"	9.20. 0	T.	2	Bluish-white	0.5	None	..	46
"	9.36.50	H.	2	Bluish-white	1	Train	12	47
"	9.37.26	J.	2	Bluish	0.5	None	8	48
"	9.39.41	W.	3	Bluish-white	0.5	.	5	49

in the YEAR 1866—*continued*.

Number for Refer- ence.	Path of Meteor through the Stars.
1	From $\gamma$ Ursæ Majoris, directed towards $\zeta$ Ursæ Majoris.
2	From a point about $3^\circ$ immediately below $\zeta$ Persei, passed towards $\delta$ Persei.
3	From a point just above Capella, moved about $4^\circ$ above $\epsilon$ Aurigæ; path slightly curved.
4	Fell vertically from a point about $6^\circ$ to the right of the Pleiades.
5	From the direction of $\gamma$ Cygni, $10^\circ$ below that star, passed slowly across $\gamma$ Lyræ.
6	Fell from the direction of $\delta$ Arietis past $\xi$ Tauri.
7	From the direction of $\alpha$ Draconis, moved slowly towards $\lambda$ Boötis
8	Fell vertically about $3^\circ$ East of $\beta$ Aurigæ; the center of path opposite that star.
9	From the direction of $\zeta$ Persei, passed over the Pleiades to $\xi$ Tauri.
10	From a point midway between Rigel and $\beta$ Eridani, disappeared near $\gamma$ Eridani.
11	From a point about $3^\circ$ East of $\mu$ Geminorum towards $\beta$ Canis Minoris.
12	From $\chi$ Cygni across Vulpecula, disappeared about $1^\circ$ above $\gamma$ Delphini.
13	Passed between $\lambda$ and $\mu$ Ursæ Majoris; line joining those stars at right angles to track of meteor.
14	Passed a little above $\beta$ Persei towards $\gamma$ Andromedæ; center of path opposite $\beta$ Persei.
15	From the direction of $\circ$ Ursæ Majoris, passed about midway between $\chi$ and $\psi$ Ursæ Majoris towards horizon.
16	From the direction of $\delta$ Draconis, passed midway between $\alpha$ Cephei and $\alpha$ Cygni, and about $5^\circ$ above $\gamma$ Cygni.
17	From the direction of Polaris, passed midway between $\gamma$ and $\delta$ Ursæ Majoris towards horizon.
18	From $\iota$ Tauri, disappeared close to $\zeta$ Tauri.
19	From near $c$ Camelopardali, passed $6^\circ$ from $\epsilon$ and $\delta$ Cassiopeïæ and parallel to line joining those stars.
20	Directed from $\alpha$ Persei; appeared near $c$ Camelopardali, moved towards Polaris.
21	Directed from $P$ Camelopardali, passed across $\gamma$ Ursæ Minoris.
22	Fell from the direction of $c$ Camelopardali towards $\circ$ Ursæ Majoris.
23	Appeared nearly midway between $\alpha$ and $\phi$ Orionis; passed across $\alpha$ Orionis, the star in the center of its path.
24	Directed from $\beta$ Aurigæ to a point about $2^\circ$ below $\circ$ Ursæ Majoris.
25	From $\zeta$ Geminorum to about $5^\circ$ above $\beta$ Canis Minoris.
26	Directed from $\circ$ Ursæ Majoris, disappeared $2^\circ$ North of $\alpha$ Geminorum.
27	Center of path $20^\circ$ below Mars; directed from $\alpha$ Ursæ Majoris.
28	Directed from a point about midway between $\alpha$ Orionis and $\gamma$ Geminorum, passed $3^\circ$ above $\beta$ Canis Minoris.
29	Appeared near $r$ Ursæ Majoris, disappeared about $4^\circ$ West of $\alpha$ Ursæ Majoris.
30	From the direction of $\eta$ Aurigæ towards $\iota$ Tauri; center of track opposite $\iota$ Aurigæ.
31	Vertically from a point below $\beta$ and $\gamma$ Draconis.
32	From the direction of $\gamma$ Piscium, passed below $\gamma$ Aquarii towards $\alpha$ and $\beta$ Capricorni.
33	From a point just below $\gamma$ Herculis, directed towards W. horizon.
34	Vertically from a point about $15^\circ$ below $\alpha$ Lyræ.
35	From $\iota$ Ursæ Majoris, passed across $\lambda$ and $\mu$ Ursæ Majoris.
36	Appeared midway between $\delta$ and $\epsilon$ Persei, disappeared $2^\circ$ below Capella.
37	Passed, with inclination $15^\circ$ from horizontal, between $\epsilon$ and $\zeta$ Herculis, moving from North to South.
38	Moved slowly from the direction of $\epsilon$ Persei, disappearing below Polaris and $5^\circ$ above and East of $\alpha$ Ursæ Majoris.
39	Appeared midway between $O$ and $N$ Camelopardali, disappeared $2^\circ$ below $\beta$ Ursæ Minoris.
40	From the direction of $\beta$ Aurigæ, commencing about $6^\circ$ from that star, towards N.E. horizon.
41	Appeared $2^\circ$ above $\iota$ Draconis, disappeared $3^\circ$ below $l$ Quadrantis.
42	Appeared $4^\circ$ above $\alpha$ Draconis, and disappeared at $\eta$ Ursæ Majoris.
43	From the direction of $\gamma$ Cygni, directed towards $\gamma$ Delphini.
44	Shot from between $\alpha$ and $\beta$ Ursæ Majoris, across Cassiopeïæ and disappeared near $\alpha$ Aquilæ.
45	From $\iota$ Piscium towards $\theta$ Piscium.
46	Appeared at $\beta$ Ursæ Minoris, and disappeared at $\delta$ Ursæ Majoris.
47	From direction of $\nu$ Orionis, passing just above $\phi$ Orionis.
48	From the direction of $\theta$ Cephei towards $\delta$ Draconis.
49	Fell from $\epsilon$ Lyræ past $\delta$ Lyræ.

November 9. From  $14^h 30^m$  to  $14^h 45^m$  a watch was maintained for meteors, especially near Leo; the only one seen was that at  $14^h 35^m 41^s$ .



OBSERVATIONS OF LUMINOUS METEORS								
Month and Day, 1866.	Greenwich Mean Solar Time.	Observer.	Apparent Size of Meteor in Star-Magnitudes.	Colour of Meteor.	Duration of Meteor in Seconds of Time.	Appearance and Duration of Train.	Length of Meteor's Path in Degrees.	Number for Refer- ence.
	h m s						°	
November 13	9. 42. 46	H., C.	1	Blue	1	Train	10	1
"	9. 44. 23	J.	3	Bluish	0.5	None	8	2
"	9. 49. 4	H.	2	Bluish-white	1	None	11	3
"	9. 52. 59	H., W.	2	Bluish-white	2	None	9	4
"	10. 6. 0	T.	1	Blue	0.5	None	..	5
"	10. 6. 22	W.	3	Bluish-white	0.5	None	6	6
"	10. 7. 31	C.	4	Yellow	0.5	Small	..	7
"	10. 7. 46	S.	1	Bluish-white	0.5	Fine, 0.5.	30	8
"	10. 9. 51	C.	6	Yellow	0.5		6	9
"	10. 10. 23	W.	1	Yellowish	1.5	Fine	8	10
"	10. 10. 24	F.	1	Yellowish	1.5	Short	8	11
"	10. 12. 48	C.	5	Yellow	1		12	12
"	10. 20. 21	C.	2	Yellow	3	Small	..	13
"	10. 28. 37	W., C.	2	Bluish-white	3.5	None	80	14
"	10. 28. 43	W., C.	3	Bluish-white	1	None	10	15
"	10. 33. 14	C.	3	Bluish-white	1	None	..	16
"	10. 34. 11	W.	3	Bluish-white	1	None	10	17
"	10. 43. 23	W.	3	Bluish-white	1	None	12	18
"	10. 44. 31	S.	1	Bluish-white	3	Fine	40	19
"	10. 44. 32	H.	2	Bluish-white	1	Faint	15	20
"	10. 45. 25	T.	1	White	3	Long	48	21
"	10. 47. 4	N., W.	1	Bluish-white	3	Fine	..	22
"	10. 48. 6	H.	3	Flame	Short	Faint	6	23
"	10. 48. 6	J.	2	Bluish	3	Slight	30	24
"	10. 52. 1	H.	1	Bluish-white	1	Train	12	25
"	10. 52. 18	H.	1	Blue	1	Train	15	26
"	10. 54. 7	T.	2	Bluish-white	0.5	None	8	27
"	10. 56. 45	T.	1	Bluish-white	2	Fine	22	28
"	10. 57. 20	J.	1	Orange	2	Fine	25	29
"	11. 0. 13	H.	2	Flame	1	Fine	20	30
"	11. 1. 15	T.	1	White	2	Fine	40	31
"	11. 2. 15	T.	1	Bluish-white	1.5	Fine	30	32
"	11. 2. 42	J.	2	Bluish	1	None	20	33
"	11. 4. 23	T.	2	Blue	1	None	38	34
"	11. 6. 48	N., H.	1 increasing.	Blue	5	Fine	50	35
"	11. 6. 57	W.	1	Bluish-white	2	Green	15	36
"	11. 7. 43	N., H., J., S.	1	Blue	3	Bright	..	37
"	11. 7. 52	T.	1	Bluish-white	2	Long	20	38
"	11. 7. 58	C.	1	White	4	Train	30	39
"	11. 8. 46	N.	2	Blue	1	Train	..	40
"	11. 11. 14	H., C.	1	Green	3	Train, 3 s.	15	41
"	11. 13. 6	T.	1	Bluish-white	2.5	Long	28	42
"	11. 14. 46	C.	1		2	Large	40	43
"	11. 14. 50	N., J.	1	Yellowish	3	Fine	35	44
"	11. 17. 31	T.	1	Bluish-white	1.5	Long	40	45
"	11. 19. 20	T.	1	Bluish-white	1.5	Long	12	46
"	11. 19. 41	N., H.	1	Orange	2	Fine	14	47
"	11. 20. 48	C.	2	Yellow	2		..	48
"	11. 21. 11	C.	1	White	3	Green	20	49
"	11. 21. 58	N.	= Jupiter	Reddish	2.5	Fine	45	50
"	11. 23. 32	T.	1	Blue	1	Long	20	51
"	11. 25. 42	N.	1		1	Train	..	52
"	11. 26. 0	H.	1	Orange	3	Bluish	35	53
"	11. 26. 3	W.	1	Bluish-white	2	Blue	30	54
"	11. 26. 9	J.	1	Yellowish	1	Fine	7	55
"	11. 27. 4	H.	2	Blue	2	Fine	20	56
"	11. 28. 13	H.	> Jupiter	Orange	3	Blue	40	57
"	11. 28. 22	W., C.	= Sirius	Bluish-white	4	Green	50	58
"	11. 29. 20	J.	1	Bluish	2	Fine	55	59
"	11. 30. 0	W.	= Sirius	Bluish-white	4	Green	50	60
"	11. 31. 6	N.	= Jupiter	Reddish	1	Fine	10	61

in the YEAR 1866—*continued.*

Number for Reference.	Path of Meteor through the Stars.
1	Passed 2° below $\epsilon$ Ceti ; center of track opposite that star.
2	Appeared near $\delta$ Tauri, disappeared about 6° West of Aldebaran.
3	From a point just below $\alpha$ Trianguli towards $\eta$ Piscium.
4	From direction of $\pi$ Orionis, passed close to $\epsilon$ Orionis ; center of track opposite $\epsilon$ Orionis.
5	Appeared at $\alpha$ Orionis, disappeared at $m$ Monocerotis.
6	Fell from the direction of $\eta$ Draconis past $\theta$ Draconis.
7	From $\beta$ Tauri to Procyon.
8	From the direction of $\iota$ Ursæ Majoris, disappeared near $\beta$ Ursæ Majoris.
9	From $\alpha$ Orionis to $\pi$ Orionis.
10	From the direction of $h$ Ursæ Majoris, past $\alpha$ towards $\delta$ Ursæ Majoris.
11	From a point midway between $\alpha$ and $\gamma$ Ursæ Majoris, passed midway between $\alpha$ and $\beta$ Ursæ Majoris.
12	From Aldebaran through Orion's Belt.
13	From Castor to $\beta$ Ceti.
14	From a point about midway between Castor and Pollux ; passed above Aldebaran, and disappeared near $\circ$ Piscium.
15	Fell vertically from a point situated midway between $\gamma$ and $\delta$ Ceti.
16	From $\alpha$ Orionis to $\kappa$ Orionis.
17	From the direction of $h$ Ursæ Majoris, passed 3° below $\lambda$ and $\kappa$ Draconis ; center of path opposite $\lambda$ Draconis.
18	From a point 3° above $\xi$ Ceti, passing $\alpha$ Piscium and $\eta$ Ceti, and disappeared near $\iota$ Ceti.
19	Appeared at a point about 1° above the Pleiades, disappeared near $\beta$ Ceti.
20	From the direction of the Pleiades, passed just above $\mu$ Piscium ; the centre of path opposite $\mu$ Piscium.
21	Appeared at Pleiades, disappeared about 3° before $\beta$ Cephei.
22	From a point near $\zeta$ Ceti, passed a few degrees below $\beta$ Ceti.
23	Passed a little to the East and below $\kappa$ Orionis.
24	Appeared about 5° above Procyon, disappearing in the direction of $\beta$ Orionis.
25	From the direction of $n$ Lyncis, passed about 6° below $\mu$ Ursæ Majoris.
26	From the direction of $\eta$ Ursæ Majoris, passed horizontally towards N.W. No stars visible in track of meteor.
27	Appeared near $\theta$ Ursæ Majoris, disappeared at $\lambda$ Ursæ Majoris.
28	Appeared near $\alpha$ Ursæ Majoris, disappeared near $\beta$ Cephei.
29	Directed from $\beta$ Canis Minoris, passing about 7° below $\beta$ Orionis.
30	From the direction of $\beta$ Orionis, passed just below $\gamma$ Eridani towards $m$ Eridani.
31	Appeared near Rigel, disappeared near the S.W. horizon.
32	From near $\gamma$ Ceti to a point near $\alpha$ Orionis.
33	Appeared about 12° below Procyon, passing from East to West.
34	Appeared 3° below $\gamma$ Ursæ Majoris, disappeared near the N.E. horizon.
35	From the direction of Aldebaran towards $\beta$ Ceti.
36	From $\alpha$ Ceti, passed across $\delta$ Ceti, and 6° below $\eta$ Ceti.
37	From a point a little below $\alpha$ Orionis, disappeared near $\circ$ Eridani.
38	Appeared 2° above $\delta$ Draconis, disappeared 3° below $\theta$ Draconis.
39	From Mars across zenith to $\beta$ Ceti.
40	From a point 1° or 2° above $\delta$ Ursæ Majoris, passed across $\alpha$ Draconis, disappeared above $\eta$ Draconis.
41	From the direction of Procyon towards $\kappa$ Orionis.
42	Appeared near $\beta$ Ursæ Minoris to a point of disappearance near $\alpha$ Cephei.
43	From Castor to the Pleiades.
44	Appeared about 5° above $\alpha$ Geminorum, passed about 3° above $\beta$ Tauri, and above the Pleiades.
45	Appeared near $\eta$ Draconis, disappeared near $\gamma$ Cygni.
46	Appeared 3° below $\alpha$ Lyræ, disappeared at $\alpha$ Cygni.
47	From about 10° below Procyon towards Sirius.
48	From Mars to horizon at an inclination of 80°.
49	From $\kappa$ Orionis to horizon.
50	In South, directed from $\kappa$ Orionis ; point of appearance 20° West and below $\beta$ Orionis.
51	Appeared near $\chi$ Ursæ Majoris, to a point near $\lambda$ Draconis.
52	Started midway between $\alpha$ Tauri and the Pleiades, moved towards the West above $\alpha$ Piscium.
53	Commenced about 5° East of $\beta$ Tauri, passing that star, and about 3° above the Pleiades towards $\beta$ Arietis.
54	From a little below $\gamma$ Draconis to a point about midway between $\gamma$ and $\chi$ Cygni.
55	Appeared near $\zeta$ Orionis, disappearing near $\beta$ Orionis.
56	From direction of Rigel towards $m$ Eridani.
57	From direction of Polaris towards $\beta$ Pegasi.
58	From Castor, passed across $\beta$ Tauri and across the Pleiades.
59	Appeared near Castor, and disappeared about 3° West of the Pleiades.
60	From Castor, passed across $\beta$ Tauri and across the Pleiades.
61	In W.S.W., no stars near for reference. Inclination 45°.

## OBSERVATIONS OF LUMINOUS METEORS

Month and Day, 1866.	Greenwich Mean Solar Time.	Observer.	Apparent Size of Meteor in Star-Magnitudes.	Colour of Meteor.	Duration of Meteor in Seconds of Time.	Appearance and Duration of Train.	Length of Meteor's Path in Degrees.	Number for Reference.
November	h m s						°	
13	11. 32. 46	N., J.	= Jupiter	Blue	2	Fine	..	1
"	11. 33. 20	J.	2	Bluish	2	None	14	2
"	11. 35. 46	T.	1	Bluish-white	1	Fine	29	3
"	11. 35. 46	C.	4	Yellow	1	None	10	4
"	11. 37. 5	N., H.	1	Flame	2.5	Fine	25	5
"	11. 38. 16	N., J.	= Jupiter	Flame	2	Train, 2 <sup>s</sup> .	25	6
"	11. 38. 16	N., J.	= Jupiter	Flame	2	Train, 2 <sup>s</sup> .	25	7
"	11. 38. 26	C.	1	.	3	Green	90	8
"	11. 39. 3	W.	> 1	Bluish-white	1	Fine	10	9
"	11. 39. 31	N., J.	1	Yellow	2	Fine, 2 <sup>s</sup> .	25	10
"	11. 39. 33	T.	1	Bluish-white	1	Fine	12	11
"	11. 40. 26	C.	.	.	1	None	..	12
"	11. 40. 33	H.	1	Flame	2	Fine	20	13
"	11. 41. 5	H., J.	> Jupiter	Yellow	3	Fine	20	14
"	11. 43. 17	W.	2	Yellowish	1	None	..	15
"	11. 44. 18	H.	1	Blue	1	Train	12	16
"	11. 45. 11	N., H., J.	= Jupiter	Blue	3	Grand	..	17
"	11. 47. 57	N., H.	1	Blue	2	Fine	25	18
"	11. 48. 48	H., J.	= Jupiter	Yellow	2	Fine	25	19
"	11. 49. 46	T.	1	Bluish-white	1	Long	24	20
"	11. 50. 4	H., J.	2	Blue	1	Train	13	21
"	11. 50. 21	C.	.	Yellow	3	Long	40	22
"	11. 51. 37	H.	1	Blue	> 1	Train	12	23
"	11. 51. 58	N.	1	Blue	> 1	Fine	..	24
"	11. 52. 0	C.	.	Bluish-white	.	Train	30	25
"	11. 53. 7	J.	1	Bluish	1.5	Fine	27	26
"	11. 54. 13	H.	2	Flame	1	Train	10	27
"	11. 54. 48	N.	= Jupiter increasing	Blue	1	Fine	12	28
"	11. 56. 45	H.	1	Blue	2	Train	20	29
"	11. 58. 9	C.	2	Bluish-white	2	Train	20	30
"	11. 58. 17	H.	1	Flame	1	Train	12	31
"	11. 58. 26	H.	= Jupiter	Flame	3	Fine	50	32
"	11. 59. 45	W.	> 1	Bluish-white	1	Blue	20	33
"	11. 59. 47	N.	> 1	Blue	1	Train, 1 <sup>s</sup> .	8	34
"	11. 59. 47	N.	> 1	Blue	1	Train, 1 <sup>s</sup> .	8	35
"	11. 59. 47	J.	= Jupiter	Yellow	2	Fine	40	36
"	12. 0. 41	C.	1	White	0.5	None	5	37
"	12. 1. 46	H.	1	Flame	1	Train	12	38
"	12. 1. 56	H.	1	Blue	1	Train	8	39
"	12. 4. 11	H.	1	Blue	2	Fine	20	40
"	12. 6. 42	N.	= Jupiter	Blue	1	Train	10	41
"	12. 7. 3	H.	3	Flame	1	Train	10	42
"	12. 10. 16	H.	2	Bluish-white	1	Train	8	43
"	12. 13. 32	N.	2	Blue	0.6	.	3	44
"	12. 14. 58	H.	1	Bluish-white	1	Train	15	45
"	12. 18. 0	N., H.	1	Bluish-white	1	Train	14	46
"	12. 18. 27	N.	= Jupiter	Blue	2	Fine	30	47
"	12. 18. 58	H.	1	Bluish-white	> 1	Train	12	48
"	12. 22. 43	H.	> Jupiter	Blue	2	Fine	12	49
"	12. 23. 0	H.	1	Blue	1	Train	15	50
"	12. 26. 10	N.	> 1	Bluish-white	2	Fine	..	51
"	12. 26. 15	N.	1	Blue	1.5	Fine	..	52
"	12. 26. 44	C.	.	White	2	Green	40	53
"	12. 27. 8	H.	1	Bluish-white	> 1	Train	12	54
"	12. 28. 11	W.	> 1	Yellowish	1	Fine	25	55
"	12. 29. 4	C.	1	Bluish-white	3	Train	60	56
"	12. 30. 0	H.	= Jupiter	Red	2	Fine	15	57
"	12. 30. 40	N.	= Jupiter	Blue	2	Fine	..	58
"	12. 30. 50	W., C.	1	Bluish-white	2	Fine	20	59
"	12. 32. 21	N.	> 1	Reddish	1	Fine	..	60
"	12. 33. 20	N.	> 1	Reddish	1	Train	..	61

in the YEAR 1866—*continued.*

Number for Refer- ence.	Path of Meteor through the Stars.
1	From $5^{\circ}$ East of $\alpha$ Orionis, passed across that star to $\kappa$ Ceti.
2	From $\zeta$ Orionis, passing below $\beta$ Orionis from East to West.
3	Appeared at $\beta$ Ursæ Minoris, disappeared near $\beta$ Cephei.
4	Vertically from Aldebaran through Rigel to horizon.
5	From the direction of Aldebaran, passed about $2^{\circ}$ below $\alpha$ and $\delta$ Ceti towards S.W. horizon.
6	Directed from Leo, passed across $\beta$ Geminorum towards $\beta$ Tauri.
7	Directed from Leo, passed across Mars..
8	From horizon to $\beta$ Tauri.
9	Passed horizontally East to West above $\beta$ Canis Minoris ; center of track opposite that star.
10	Directed from Leo, passed midway between $\alpha$ and $\beta$ Geminorum.
11	Appeared near Pollux, disappeared midway between $\epsilon$ and $\delta$ Hydræ.
12	From $\kappa$ Orionis to horizon.
13	From the direction of $\epsilon$ Ursæ Majoris, passed between $\zeta$ and $\eta$ Draconis.
14	From the direction of $\delta$ Geminorum towards $\zeta$ Orionis.
15	From $\delta$ Orionis towards Procyon.
16	Disappeared just below Sirius.
17	Started at $\sigma$ Ursæ Majoris, passed $7^{\circ}$ above Polaris, and disappeared $10^{\circ}$ beyond and below Cassiopeia.
18	From the direction of $\zeta$ Tauri, passed across $\sigma$ Tauri, and $5^{\circ}$ below Aldebaran.
19	Appeared near $\zeta$ Orionis, passing East to West above $\beta$ Orionis.
20	Appeared near $\epsilon$ Ursæ Majoris, disappeared $6^{\circ}$ before E Leonis.
21	Passed just below $\beta$ Canis Majoris.
22	From Mars through Aldebaran.
23	Directed from Mars, passing about $2^{\circ}$ above Procyon ; center of track opposite that star. Cloudy.
24	Fell from $10^{\circ}$ below $\alpha$ Cassiopeia towards West horizon ; inclined $40^{\circ}$ to vertical.
25	From Castor to Orion.
26	Appeared midway between Castor and Pollux, passing towards the Pleiades.
27	From the direction of $\beta$ Eridani, passed about $2^{\circ}$ above $\gamma$ Eridani ; the center of track opposite that star.
28	Appeared at a point $35^{\circ}$ below $\gamma$ Pegasi ; fell, with slight inclination, from perpendicular, and burst into fragments.
29	Across zenith East to West.*
30	From Aldebaran to Rigel.
31	Vertically from a point about $6^{\circ}$ below Aldebaran.
32	Across zenith East to West. No stars visible on account of cloud.
33	Passed horizontally East to West, midway between $\beta$ and $\kappa$ Orionis.
34	Directed from Sirius towards West. Inclined $7^{\circ}$ from horizontal.
35	Point of appearance vertically below Lepus, moving Westward. Inclined $7^{\circ}$ from horizontal.
36	Passed from South to North across the zenith, below the clouds.*
37	From $\zeta$ Orionis to $\kappa$ Orionis.
38	From a point about $5^{\circ}$ below Procyon to a point about $3^{\circ}$ above and East of Sirius. Cloudy.
39	Disappeared a few degrees below Sirius.
40	Commenced on Aldebaran and proceeded towards $\alpha$ Ceti.
41	From the direction of Leo, across the zenith. Very cloudy, stars not seen.
42	Directed from horizon, disappearing about $3^{\circ}$ East of Mars.
43	Passed about $3^{\circ}$ above $\alpha$ Leporis ; center of track opposite that star.
44	From $1^{\circ}$ West of $\epsilon$ Orionis to $1^{\circ}$ West of $\zeta$ Orionis.
45	From the direction of $\alpha$ Ursæ Majoris, disappearing midway between $\beta$ Ursæ Minoris and Polaris.
46	Passed between $\alpha$ Andromedæ and $\beta$ Pegasi from the direction of Honores.
47	Across Cassiopeia, disappeared close to $\beta$ Pegasi.
48	Passed vertically $2^{\circ}$ North of $\alpha$ Andromedæ ; center of track opposite that star.
49	From a point about $2^{\circ}$ East and above $\lambda$ Ursæ Majoris towards zenith.
50	From the direction of $\alpha$ Ursæ Majoris, passed about $3^{\circ}$ above and beyond $\beta$ Ursæ Minoris.
51	From the direction of $\delta$ Ursæ Majoris, passed across $\alpha$ Draconis towards $\gamma$ Draconis.
52	From the direction of $\epsilon$ Leonis, passed between $\eta$ and $\zeta$ Draconis.
53	From Castor to Pleiades.
54	From the direction of N.E. horizon, passed across $\lambda$ Ursæ Majoris towards zenith.
55	From $\delta$ Orionis towards $\delta$ Eridani.
56	From Mars to Aldebaran.
57	Directed from a point $4^{\circ}$ below Procyon towards $\beta$ Canis Majoris.
58	From $\sigma$ Leonis towards $\zeta$ Ursæ Majoris.
59	From $\lambda$ Ursæ Majoris, passed midway between $\alpha$ and $\beta$ Ursæ Majoris, towards $\epsilon$ Ursæ Minoris ; path curved.
60	From a point $7^{\circ}$ above $\alpha$ Lyræ, passed towards West, disappearing close to $\beta$ Cygni ; path slightly curved.
61	From a point $5^{\circ}$ East of $\alpha$ Cygni, passed midway between $\gamma$ and $\epsilon$ Cygni.

\* The Observers believed that these meteors were nearer than the clouds.

## OBSERVATIONS OF LUMINOUS METEORS

Month and Day, 1866.	Greenwich Mean Solar Time.	Observer.	Apparent Size of Meteor in Star Magnitudes.	Colour of Meteor.	Duration of Meteor in Seconds of Time.	Appearance and Duration of Train.	Length of Meteor's Path in Degress.	Number for Reference.
November 13	h m s 12. 33. 26	H.	> 1	Very bright blue	1	Train	25	1
"	12. 34. 1	W., C.	> 1	Bluish-white	1	Fine	15	2
"	12. 34. 4	H.	= Jupiter	Blue	2	Fine	12	3
"	12. 35. 20	H.	1	Blue	1	Fine	18	4
"	12. 35. 52	N., F.	Very large.	.	...	.	..	5
"	12. 36. 17	W., C.	= Sirius	Bluish-white	2	Fine	20	6
"	12. 37. 14	W.	= Sirius.	Bluish-white	3	Blue	15	7
"	12. 38. 32	C.	1	Blue	3	.	40	8
"	12. 39. 15	W.	1	Yellowish	0.5	None	6	9
"	12. 40. 4	H.	1	Green	1	Train	8	10
"	12. 40. 52	N.	= Jupiter	Yellow	2	Fine	20	11
"	12. 41. 17	W.	= Mars.	Yellowish	> 1	Fine	20	12
"	12. 41. 17	W.	= Mars.	Yellowish	> 1	Fine	30	13
"	12. 41. 17	W.	= Mars.	Yellowish	> 1	Fine	25	14
"	12. 44. 22	H.	= Jupiter.	Blue	1	Train	14	15
"	12. 44. 36	C.	1	Blue	3	Green, 4 <sup>s</sup> .	90	16
"	12. 45. 50	W.	= Sirius.	Bluish-white	2	Grand	30	17
"	12. 46. 14	C.	1	.	3	Green	40	18
"	12. 48. 9	N.	> 1	Blue	2	Train	..	19
"	12. 48. 16	C.	1	.	3	Green	40	20
"	12. 48. 19	H.	1	Bluish-white	1	Train	15	21
"	12. 48. 19	H.	1	Bluish-white	1	Train	12	22
"	12. 48. 36	W.	= Sirius.	Bluish-white	2	Fine	20	23
"	12. 48. 40	H.	> Jupiter increasing	Green	3	Train	40	24
"	12. 50. 1	H.	> Mars.	Reddish	1	Fine	12	25
"	12. 53. 12	H.	= Jupiter.	Bluish-white	2	Fine	18	26
"	13. 22. 48	T.	1	Bluish-white	1	Fine, 1 <sup>s</sup> .	9	27
"	13. 22. 48	T., C.	1	Blue	3	Train	..	28
"	13. 25. 14	C.	1	Blue	2	Train	15	29
"	13. 26. 41	C.	1	Blue	2	Train	..	30
"	13. 28. 42	C.	1	Blue	3	Train, 4 <sup>s</sup> .	..	31
"	13. 30. 46	T.	1	Bluish-white	1.5	Long	..	32
"	13. 31. 2	C.	1	Blue	4	Train	..	33
"	13. 33. 16	T.	1	Bluish-white	2	Long	6	34
"	13. 35. 3	N.	= Jupiter.	Yellow	2	Bright	..	35
"	13. 36. 2	H., C.	1	Blue	3	Train	35	36
"	13. 40. 28	N.	= Jupiter.	Yellow	1	Fine	..	37
"	13. 44. 56	C.	= Sirius.	Blue	6	Train	..	38
"	13. 46. 33	N.	= Jupiter.	Yellow	1.5	Train, 2 <sup>s</sup> .	35	39
"	13. 46. 54	C.	1	Blue	5	Train	..	40
"	13. 49. 44	C.	1	Blue	5	Train	..	41
"	13. 50. 51	T.	1	Bluish-white	3	Long, 4 <sup>s</sup> .	..	42
"	13. 52. 5	T.	1	Bluish-white	3	Long	..	43
"	13. 53. 14	T.	1	Bluish-white	3	Long	..	44
"	13. 53. 30	T.	1	Bluish-white	3	Long	..	45
"	13. 53. 54	T.	1	Bluish-white	3	Long	33	46
"	13. 55. 24	T.	1	Bluish-white	3	Long	33	47
"	13. 55. 51	T.	1	Bluish-white	3	Long	31	48
"	13. 57. 50	T.	1	Bluish-white	4	Long	65	49
"	14. 0. 11	T.	= Sirius.	Bluish-white	6	Green, 3 <sup>s</sup> . 5	..	50
"	14. 2. 51	T.	= Jupiter.	Bluish-white	6	Long	..	51
"	14. 4. 48	T.	1	Bluish-white	5	Fine	12	52
"	14. 5. 3	T.	1	Bluish-white	5.5	Fine	..	53
"	14. 15. 43	N.	> Jupiter.	Green	1.5	*	Nearly stationary.	54
"	14. 23. 45	N.	1	White	1	Train	6	55
"	14. 41. 30	H.	> Jupiter.	Bluish-white	2	Train, 10 <sup>s</sup> .	10	56
"	16. 9. 29	N.	1	Blue	2	Fine	25	57
"	16. 10. 48	H.	1	Blue	1	Train	10	58
"	16. 11. 24	N.	1	Blue	1	Fine	6	59
"	16. 14. 54	H.	2	Blue	1	Faint	8	60
"	16. 18. 55	N., H.	1	Blue	1	Fine	..	61

\* The meteor burst into several sparkling fragments, and left a dense vapour, which entirely obscured  $\eta$  Leonis. After the lapse of some seconds (15<sup>s</sup> or 20<sup>s</sup>) the star was seen faintly through the vapour, but this appearance was not dissipated until *one minute and a half* had elapsed, the vapour gradually fading away during that time. While dense, the vapour was examined through the spectroscope, but nothing could be elucidated from this examination.

in the YEAR 1866—*continued.*

Number for Refer- ence.	Path of Meteor through the Stars.
1	From the direction of $\zeta$ Geminorum, passed midway between $\alpha$ and $\epsilon$ Orionis towards S.W. horizon.
2	From a point about $15^\circ$ below Procyon, shot towards Sirius.
3	From a point about $5^\circ$ below Procyon towards Sirius.
4	From the direction of $\mu$ Ursæ Majoris, disappeared in the center of the four stars $\alpha, \beta, \gamma, \delta$ Ursæ Majoris.
5	Very bright flash in the N.N.W., behind clouds; like a flash of lightning.
6	From $\lambda$ Ursæ Majoris, passed midway between $\alpha$ and $\beta$ Ursæ Majoris towards $\epsilon$ Ursæ Minoris.
7	From $\xi$ Geminorum to $\alpha$ Orionis.
8	From Castor to Aldebaran.
9	Passed midway between $\lambda$ and $\mu$ Ursæ Majoris, directed towards $\beta$ Ursæ Majoris.
10	From direction of E. horizon, passed across $n$ Lynceis towards zenith.
11	From Leo, passed midway between $\zeta$ and $\eta$ Ursæ Majoris.
12	From the direction of a point about $3^\circ$ below $\zeta$ Ursæ Majoris, passed a little above $\theta$ Draconis.
13	From the direction of $\zeta$ Ursæ Majoris, passed a little below $\theta$ Draconis.
14	From the direction of a point about $1^\circ$ above $\zeta$ Ursæ Majoris, passed about $6^\circ$ below $\theta$ Draconis.
15	From the direction of $\lambda$ Ursæ Majoris, passing about $2^\circ$ below $\alpha$ Ursæ Majoris.
16	From Capella, through $\beta$ Aurigæ towards horizon.
17	From Mars, disappeared near $\alpha$ Orionis.
18	From Mars to $\alpha$ Orionis.
19	From Procyon to $\kappa$ Orionis.
20	From Pollux to $\alpha$ Orionis.
21	Disappeared about $2^\circ$ above $\kappa$ Orionis; path inclined upwards.
22	Disappeared about $1^\circ$ East and $4^\circ$ below $\kappa$ Orionis; path inclined upwards.
23	Passed about $10^\circ$ below Procyon, path horizontal; center of track opposite Procyon.
24	From the direction of $\alpha$ Geminorum, passed between $\beta$ and $\alpha$ Aurigæ, and disappeared about $4^\circ$ below $\alpha$ Persei.
25	Passed directly across Mars from the direction of $\alpha$ Leonis.
26	From the direction of $\beta$ Tauri, passing across the Pleiades.
27	Appeared at $\alpha$ Orionis, disappeared at Rigel.
28	From Rigel to horizon.
29	From Mars to Aldebaran.
30	From Procyon to Sirius.
31	From Mars to $\epsilon$ Orionis.
32	Appeared at Procyon, disappeared near $\alpha$ Orionis.
33	From Mars to $\pi$ Orionis.
34	Appeared at $\gamma$ Ursæ Majoris, disappeared at $\epsilon$ Ursæ Majoris.
35	Across Cassiopeia, from $\circ$ Ursæ Majoris.
36	From $\alpha$ Ursæ Majoris to $\alpha$ Lyræ.
37	From $\chi$ to $\epsilon$ Ursæ Majoris.
38	From Mars, through $\alpha$ Orionis to horizon.
39	Fell vertically $1^\circ$ or $2^\circ$ on south side of Aries towards West horizon.
40	From Castor to Pleiades.
41	From Mars to Aldebaran.
42	From Sirius to the S.E. horizon.
43	From Sirius to South horizon.
44	From Sirius to South horizon.
45	From Sirius to South horizon.
46	Appeared at Pollux, passed to a point midway between Aldebaran and Pleiades.
47	Appeared at Pollux, disappeared midway between Aldebaran and Pleiades.
48	Appeared at $\gamma$ Geminorum, disappeared at Sirius.
49	Appeared at $\alpha$ Ursæ Majoris, disappeared at $\alpha$ Lyræ.
50	Appeared at Castor, through the Pleiades to $\alpha$ Cygni.
51	Appeared at Pollux, disappeared at the Pleiades.
52	Appeared at $\beta$ Ursæ Majoris, disappeared at Polaris.
53	Appeared at $\beta$ Geminorum, disappeared at Aldebaran.
54	Burst close to $\eta$ Leonis.
55	Directed from $\gamma$ Leonis, moved from a point $2^\circ$ North of $\alpha$ Leonis.
56	From the direction of $\theta$ Draconis towards $\tau$ Cygni. The meteor burst.
57	Directed from $\gamma$ Leonis, passed across $\gamma$ and $\delta$ Ursæ Majoris.
58	From the direction of $\epsilon$ Arietis towards $\gamma$ Arietis.
59	Directed from $\psi$ Ursæ Majoris, passed $5^\circ$ North of $\beta$ Leonis.
60	From the direction of Aldebaran, passing about $2^\circ$ South of $\alpha$ Ceti. Center of track opposite $\alpha$ Ceti.
61	From $\gamma$ Leonis, passed above $\delta$ Leonis.

OBSERVATIONS OF LUMINOUS METEORS								
Month and Day, 1866.	Greenwich Mean Solar Time.	Observer.	Apparent Size of Meteor in Star-Magnitudes.	Colour of Meteor.	Duration of Meteor in Seconds of Time.	Appearance and Duration of Train.	Length of Meteor's Path in Degrees.	Number for Re- ference.
November 13	h m s 16. 19. 15	H.	= Jupiter.	Greenish.	2	Green	30	1
"	16. 21. 30	N.	3	Blue	0.7	Train	6	2
"	16. 23. 3	H.	1	Blue	1	None	10	3
"	16. 23. 58	H.	1	Bluish-white	> 1	Train	20	4
"	16. 24. 20	N.	1	Blue	1	Train	10	5
"	16. 24. 30	N.	2	Blue	1	Train	15	6
"	16. 27. 26	H.	1	Blue	1	Train	12	7
"	16. 28. 25	N.	1	Blue	1	Fine	20	8
"	16. 30. 55	N.	1	Blue	1	Fine	15	9
"	16. 35. 0	N.	1	Blue	1	Train	..	10
"	16. 35. 29	H.	1	Blue	1	Train	10	11
"	16. 37. 46	H.	1	Blue	1	Train	12	12
"	16. 37. 52	N.	1	Blue	1	Train	..	13
"	16. 40. 50	N.	1	Blue	1	Train	..	14
"	16. 43. 22	H.	1	Blue	1	Train	10	15
"	16. 43. 22	H.	1	Blue	1	Train	12	16
"	16. 46. 36	H.	2	Blue	1	None	8	17
"	16. 48. 33	H.	1	Blue	1	Train	20	18
"	16. 50. 20	H.	1	Bluish-white	> 1	Fine	20	19
"	16. 53. 34	N.	1	Blue	1	Train	15	20
"	16. 55. 55	N.	1	Blue	1	Train	9	21
"	16. 59. 0	N.	1	Blue	0.8	Train	9	22
"	16. 59. 2	N.	1	Blue	0.8	Train	8	23
"	17. 0. 30	N.	1	Blue	0.7	Train	10	24
"	17. 1. 59	H.	1	Bluish-white	1	Train	14	25
"	17. 2. 14	H.	1	Blue	1	Train	12	26
"	17. 15. 17	H.	1	Blue	1	Train	10	27
"	17. 16. 24	H.	1	Blue	1	Train	12	28
"	17. 17. 49	H.	1	Blue	> 1	Fine	20	29
"	17. 21. 22	H.	1	Blue	1	Train	18	30
"	17. 25. 46	H.	1	Blue	1	Train	15	31
"	17. 27. 56	H.	1	Bluish-white	1	Train	12	32
"	17. 28. 1	H.	1	Bluish-white	> 1	Fine	14	33
"	17. 29. 0	J.	= Jupiter.	Bluish	3	Fine	24	34
"	17. 32. 10	H.	1	Bluish-white	1	Train	11	35
"	17. 36. 0	H., J., C.	> 1	Blue	1.5	Fine	16	36
"	17. 38. 15	J.	= Jupiter.	Bluish	2.5	Fine	20	37
"	17. 38. 29	H.	2	Blue	1	Train	15	38
"	17. 38. 46	N.	2	Blue	1	Train	20	39
"	17. 42. 17	H.	1	Bluish-white	> 1	Train	18	40
"	17. 47. 19	H.	1	Blue	1	Train	12	41
"	17. 49. 44	H.	1	White	1	Fine	15	42
November 28	10. 51. 58	N.	2	Bluish-white	0.5	Train	5	43
November 30	10. 47. 57	N.	1	Bluish-white	1.4	Faint	25	44
"	11. 7. 42	N.	2	Blue	0.7	None	12	45
December 7	10. 37. 30	N.	2	Bluish-white	0.8	Slight	..	46
December 12	7. 15. 0	N.	1	Bluish-white	1	Train	..	47
"	7. 16. 30	N.	3	White	0.5	None	..	48
December 13	5. 13. 0	N.	2	White	0.7	Train	7	49
"	10. 55. 0	N.	2	Bluish-white	1	Train	15	50
"	10. 58. 0	N.	3	Bluish-white	0.7	Slight	15	51
"	11. 24. 55	N.	2	Bluish-white	1	Slight	12	52
"	11. 41. 45	N.	2	Bluish-white	0.8	Slight	10	53
"	11. 46. 56	N.	3	White	0.6	None	6	54
"	13. 15. 0	N.	2	Bluish-white	1	Train	18	55
"	13. 25. 0	N.	2	Bluish-white	0.7	Train	12	56

in the YEAR 1866—concluded.

Number for Reference.	Path of Meteor through the Stars.
1	From a point midway between $\alpha$ Cassiopeiæ and $\gamma$ Andromedæ to a point $4^\circ$ North of $\alpha$ Andromedæ.
2	From $\omega$ to $\psi$ Eridani.
3	Vertically from a point a little to the East of $f$ Sextantis.
4	From the direction of $\beta$ Leonis, passed between $\delta$ and $\gamma$ Virginis.
5	From direction of Procyon, passed midway between Sirius and $\kappa$ Orionis.
6	From the direction of $\alpha$ Orionis, passed across $m$ Monocerotis.
7	Directed from $\alpha$ Hydræ towards $\delta$ Canis Majoris.
8	From the direction of $\delta$ Leonis to $\eta$ Boötis.
9	From the direction of $\gamma$ Leonis, fell perpendicularly from an altitude of $30^\circ$ .
10	From $\beta$ to $\alpha$ Cephei.
11	Directed from $\beta$ Leonis, passing midway between $\delta$ and $\gamma$ Virginis.
12	Directed from $\gamma$ Leonis towards $\sigma$ Leonis.
13	From the direction of $\zeta$ Leonis, passed between $l$ and $o$ Leonis almost to $\epsilon$ Ursæ Majoris.
14	From the direction of $\zeta$ Ursæ Majoris, passed across $\eta$ Draconis.
15	Directed from $\gamma$ Leonis, and passed between $\nu$ and $\xi$ Ursæ Majoris.
16	Directed from $\gamma$ Leonis, and passed between $\nu$ and $\xi$ Ursæ Majoris.
17	Vertically from a point about $3^\circ$ North and below Arcturus.
18	From the direction of $12$ Canum Venaticorum, passing between $\gamma$ and $\delta$ Boötis.
19	From the direction of $\sigma$ Ursæ Majoris towards $\gamma$ Cephei.
20	Directed from $\lambda$ Geminorum, passed midway between $\kappa$ and $\beta$ Orionis.
21	Passed midway between Sirius and $\gamma$ Canis Majoris towards horizon.
22	Fell from Sirius towards horizon.
23	Directed from $\gamma$ Leonis, fell from a point $10^\circ$ left of Sirius towards horizon.
24	Directed from $\gamma$ Leonis. Point of disappearance $\gamma$ Canis Majoris.
25	From the direction of $12$ Canum Venaticorum, passing between $\lambda$ and $\gamma$ Boötis.
26	From the direction of $\psi$ Ursæ Majoris, passing across $\chi$ Ursæ Majoris towards $\zeta$ Ursæ Majoris.
27	From the direction of $\alpha$ Cephei, disappearing about $4^\circ$ below $\beta$ Cassiopeiæ.
28	From $\alpha$ Ursæ Majoris towards $\lambda$ Ursæ Majoris.
29	Almost vertically from the direction of $\alpha$ Cephei.
30	From the direction of $\eta$ Ursæ Majoris towards $\beta$ Draconis.
31	From the direction of $\psi$ Ursæ Majoris towards $\eta$ Ursæ Majoris.
32	From the direction of $\xi$ Ursæ Majoris towards $12$ Canum Venaticorum.
33	From just below $\psi$ Ursæ Majoris, passing $1^\circ$ below $\gamma$ and $\delta$ Ursæ Majoris ; path parallel to the latter stars.
34	From $\beta$ Ursæ Minoris, passing near $\epsilon$ Draconis towards horizon ; path vertical.
35	From the direction of $\theta$ Draconis towards $\beta$ Draconis.
36	From a point about $6^\circ$ below and West of Polaris, disappearing a few degrees East of $\beta$ Cassiopeiæ.
37	Appeared near $\gamma$ Ursæ Minoris, passing $\zeta$ Draconis vertically towards horizon.
38	From the direction of $\psi$ Ursæ Majoris, passing $1^\circ$ or $2^\circ$ North of $12$ Canum Venaticorum towards Arcturus.
39	From $\beta$ Leonis towards Arcturus.
40	Vertically from a point just below $\eta$ Cephei towards $\alpha$ Cygni.
41	From the direction of $\beta$ Ursæ Minoris, passing $\zeta$ and $\psi$ Draconis.
42	Vertically from a point midway between $\alpha$ Cephei and $\beta$ Cassiopeiæ.
43	From $\nu$ Persei to a point close to $\beta$ Persei.
44	From direction of the Pleiades, passed across $\eta$ Piscium and below $\gamma$ Pegasi, disappearing a short distance beyond that star.
45	From the direction of $\alpha$ Geminorum, disappeared midway between $\alpha$ and $\gamma$ Orionis.
46	From $\alpha$ Trianguli, disappeared close to $\gamma$ Pegasi.
47	From the zenith, passed midway between $\beta$ and $\gamma$ Andromedæ, across $\beta$ Trianguli and disappeared in Musca.
48	Across $\alpha$ Persei, disappeared between $\beta$ and $\gamma$ Trianguli.
49	Passed across $\beta$ Trianguli towards $\beta$ Arietis.
50	From $\gamma$ Eridani to $19$ Eridani, descended with a wavering motion.
51	Passed midway between $\alpha$ Trianguli and $\alpha$ Arietis, and across $\gamma$ Pegasi.
52	Across $\alpha$ Persei, passed midway between $\beta$ and $\epsilon$ Persei towards the Pleiades.
53	Directed from $\zeta$ Tauri, disappeared near $r$ Orionis.
54	Across Capella to $b$ Camelopardali ; center of path Capella.
55	From direction of $\beta$ Andromedæ, passed $7^\circ$ left of $\alpha$ Andromedæ ; path parallel to line joining $\alpha$ and $\beta$ Arietis.
56	Passed across $\gamma$ and $z$ Orionis.



NUMBER of METEORS counted during the METEOR SHOWER of 1866, November 13.				
1866, November 13. Hours of Observation.		Number of Meteors counted in each Period.	Number of Meteors in each Hour.	Remarks.
From	h m	to	h m	
	9. 0	to	9. 10	0
"	9. 10	"	9. 20	3
"	9. 20	"	9. 30	1
"	9. 30	"	9. 40	3
"	9. 40	"	9. 50	3
"	9. 50	"	10. 0	1
"	10. 0	"	10. 10	5
"	10. 10	"	10. 20	3
"	10. 20	"	10. 30	3
"	10. 30	"	10. 40	2
"	10. 40	"	10. 50	7
"	10. 50	"	11. 0	5
"	11. 0	"	11. 10	12
"	11. 10	"	11. 20	20
"	11. 20	"	11. 30	23
"	11. 30	"	11. 40	33
"	11. 40	"	11. 50	42
"	11. 50	"	12. 0	38
"	12. 0	"	12. 1	5
"	12. 1	"	12. 2	5
"	12. 2	"	12. 3	4
"	12. 3	"	12. 4	2
"	12. 4	"	12. 5	2
"	12. 5	"	12. 10	15
"	12. 10	"	12. 15	17
"	12. 15	"	12. 20	74
"	12. 20	"	12. 25	96
"	12. 25	"	12. 30	151
"	12. 30	"	12. 35	182
"	12. 35	"	12. 40	293
"	12. 40	"	12. 45	348
"	12. 45	"	12. 50	231
"	12. 50	"	12. 55	280
"	12. 55	"	13. 0	327
"	13. 0	"	13. 1	37
"	13. 1	"	13. 2	77
"	13. 2	"	13. 3	96
"	13. 3	"	13. 4	100
"	13. 4	"	13. 5	132
"	13. 5	"	13. 10	591
"	13. 10	"	13. 17	605
"	13. 17	"	13. 22	539
"	13. 22	"	13. 27	611
"	13. 27	"	13. 30	313
"	13. 30	"	13. 31	76
"	13. 31	"	13. 32	84
"	13. 32	"	13. 33	96
"	13. 33	"	13. 34	111
"	13. 34	"	13. 35	101
"	13. 35	"	13. 40	399
"	13. 40	"	13. 45	307
"	13. 45	"	13. 50	171
"	13. 50	"	13. 55	264
"	13. 55	"	14. 0	148
"	14. 0	"	14. 35	No record
"	14. 35	"	14. 40	64
"	14. 40	"	14. 45	83
"	14. 45	"	14. 50	61
"	14. 50	"	15. 0	No record
				11
				25
				168
				2032
				4858
				Estimated, 995

During the periods marked "No record" no special watch was maintained for counting the meteors. The estimated numbers are formed by applying to these times a numerical frequency inferred from the preceding and succeeding frequencies.

NUMBER of METEORS counted during the METEOR SHOWER of 1866, November 13—concluded.

1866, November 13.				Number of Meteors counted in each Period.	Number of Meteors in each Hour.	Remarks.		
Hours of Observation.								
From	h	m	to	h	m	} Estimated, 541	Cloudless. " " " "	
	15.	0		15.	35			No record
"	15.	35	"	15.	40			40
"	15.	40	"	15.	45			47
"	15.	45	"	15.	50			45
"	15.	50	"	16.	0			No record
"	16.	0	"	16.	45			No record
"	16.	45	"	17.	0			10

During the periods marked "No record" no special watch was maintained for counting the meteors. The estimated numbers are formed by applying to these times a numerical frequency inferred from the preceding and succeeding frequencies.

