



RESULTS

OF THE

MAGNETICAL AND METEOROLOGICAL

OBSERVATIONS

MADE AT

THE ROYAL OBSERVATORY, GREENWICH,

1859.

(EXTRACTED FROM THE GREENWICH OBSERVATIONS, 1859.)

ROYAL OBSERVATORY, GREENWICH.

INDICATIONS

OF

MAGNETOMETERS.

1859.

The establishment of Assistants in the Magnetical and Meteorological Department of the Royal Observatory consisted during the year 1859, of Mr. James Glaisher, the Superintendent, and Mr. Thomas Downs ; with three supernumerary assistants, to aid in the observations and reductions.

For description of the three Magnetometers, the method of observing by the Telescope, and the method of reducing the observations, the reader is referred to the *Greenwich Magnetical and Meteorological Observations* for 1847, Introduction, page i to xlii ; and to corresponding parts of the preceding volumes.

During the year 1859, 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 following pages.

Observations were made of the reading of the Horizontal Circle of the Theodolite by which the DECLINATION MAGNET is observed, corresponding to the Astronomical Meridian, on January 8, 31, February 23, March 9, May 5, 11, 12, 30, July 9, 21, August 13, 27, September 17, October 22, November 24, and December 24.

Observations were made of the Collimation of the DECLINATION MAGNETOMETER; of the Torsion-force of its Suspension skein ; and of the Collimation of the Theodolite-Telescope ; on 1858, December 29, 30, and 31.

Observations of the Angle of Torsion of the HORIZONTAL FORCE MAGNETOMETER were made on 1859, January 3, 4, and 5. The angle determined was $43^{\circ}. 19'$. Observations were made for the times of vibration and readings of the scale for different readings of the torsion-circle on the same days, and the general conclusion was, that the scale-readings were identical and had nearly the same value when the reading of the torsion-circle was $144^{\circ}. 0'$ (marked end West) ; and $230^{\circ}. 30'$ (marked end East). The reading adopted for the adjustment of the torsion-circle throughout the year (marked end West) was $143^{\circ}. 0'$.

The number used for the variation of horizontal force for a disturbance through one division of the scale, in parts of the whole horizontal force, is 0.0020524.

The correction for temperature is $0.0000809 \times (t-32) + 0.000000762 (t-32)^2$, where t is the temperature in degrees of Fahrenheit's scale. This formula, which represents the mean of the results deduced from temperature-experiments made with each end of the magnet alternately near the measuring apparatus, is preferable to that given in the volumes before 1850, which were based on experiments made in one position of the magnet. The correction for temperature is *not* applied to any of the results of observation.

Observations of the times of vibration of the VERTICAL FORCE MAGNETOMETER have usually been made three or four times a week. The adopted time of vibration till January 30, was $16^{\prime}. 2$; and from April 19 to the end of the year $15^{\prime}. 9$.

Observations for the time of vibration in a horizontal plane were made in 1858, December 27 and 28, when the time of vibration was found to be $24^{\prime}. 364$ from 2000 vibrations ; and again on 1859, April 19, when the time of vibration was found to be $24^{\prime}. 258$ from 700 vibrations.

The values of the disturbing force, in terms of the whole vertical force, for one division of the scale, are inferred to be 0'001423 till January 30; and 0'001465 from April 19 to the end of the year: and these numbers have been used throughout their respective periods.

The correction for temperature is $0'00013845 \times (t-32) + 0'000004054 + (t-32)^2$. This formula, like that for the Horizontal Force Magnetometer, is deduced from temperature-experiments made in both positions of the magnet. The correction is *not* applied to any of the results of observation.

The methods adopted in the use of the Photographic Apparatus; in the determination of zeros, both for time and for magnetic indications; and in the translation into numbers of the indications given by the Photographic Traces for arbitrary times; are in every respect the same as those described in the Addendum to the Introduction to the *Greenwich Magnetical and Meteorological Observations*, 1847, pages lxxxiii to xc. The only important alterations that have been made are, that (as mentioned at the end of that Introduction) coal-gas charged with the vapour of coal-naphtha is used to give the light required for forming the Photographic Trace; and that the cylinders carrying the Photographic paper (both that which receives the traces of the Declination Magnet and the Horizontal Force Magnet, and that which receives the traces of the Vertical Force Magnet and the Barometer), are now made to revolve in 24^h. It may be mentioned also that, commencing with the year 1858, the observations are referred to Greenwich Mean Time instead of Göttingen Mean Time as heretofore.

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

In general the ordinates of the Photographic Curves have been measured so frequently, including all maxima and minima, that a reader, laying down a succession of points by means of the given times as abscissæ and the given measures of force as ordinates, connecting these points by straight lines, and attending to the symbols as explained in the foot notes, will very nearly produce the original curves.

At the times when the Vertical Force Trace is dislocated, two ordinates have been taken for the same abscissæ; these are connected by a brace, and the difference of the numbers indicates the amount of the disturbance.

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 0. 7 0. 30 0. 38 1. 0 2. 21 3. 10 5. 15 6. 35 9. 23 9. 45 10. 4 10. 23 11. 17 12. 51 13. 34 14. 28 14. 47 17. 19 20. 48 21. 7 22. 13 23. 35	21. 26. 25 26. 15 28. 10 27. 30 27. 10 26. 25 25. 10 22. 30 22. 30 21. 50 21. 10 22. 5 21. 25 22. 35 22. 35 21. 40 22. 0 22. 35 23. 5 21. 55 23. 0 24. 0 26. 0 (†)																
Jan. 2 6. 37 21. 0	21. 26. 47* 23. 56*																
Jan. 3 1. 0 3. 5 4. 15 6. 7 7. 9 7. 42 8. 46 12. 15 14. 54 15. 50 17. 10 19. 58 20. 37 21. 40 22. 0 23. 15 23. 59	(†) 21. 29. 16* 28. 0 26. 10 26. 0 25. 0 24. 5 23. 10 24. 30 26. 45 24. 35 24. 25 24. 0 23. 30 26. 0 25. 0 26. 0 26. 5																
Jan. 4 0. 0 0. 38	21. 26. 5 27. 20																
Jan. 4 1. 12 2. 10 3. 48 4. 7 5. 27 5. 48 6. 26 7. 55 8. 29 9. 33 9. 53 11. 20 11. 47 12. 8 13. 4 13. 30 14. 12 18. 5 21. 7 22. 47 23. 59	21. 29. 0 29. 0 26. 25 26. 20 25. 15 25. 30 24. 25 24. 50 26. 0 23. 10 24. 0 21. 0 22. 5 21. 30 24. 55 23. 20 25. 20 25. 0 23. 30 26. 25 27. 0																
Jan. 5 0. 0 0. 52 2. 13 2. 40 3. 32 5. 34 6. 38 8. 13 16. 18 21. 7 23. 16	21. 27. 0 28. 5 26. 10 27. 5 24. 30 23. 30 23. 25 21. 30 24. 0 20. 35 25. 5 (†)																
Jan. 5 2. 13 3. 7 4. 13 4. 26 5. 6 10. 51 12. 36 21. 26 23. 33 23. 59	(†) '02968 '02890 '02874 '02930 '02911 '03123 '03221 '03129 '03052 '03007																
Jan. 6 1. 0 3. 0 9. 0 21. 0 Jan. 6 0. 0 1. 32 3. 9 3. 46 4. 50 7. 30 8. 40 16. 46	21. 26. 54* 26. 51* 24. 41* 24. 18* '03007 '02866 '02923 '02916 '03011 '02982 '03060 '03147 '03059																
Jan. 6 1. 0 3. 0 9. 0 21. 0	3. 0 9. 0 44. ° 44. °																

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.

†Till January 5 the Vertical Force Magnet and the Horizontal Force Magnet were under adjustment.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for 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. 0 23. 59																
				Jan. 6 22. 0 23. 59	.03091 .02983															
Jan. 7 0. 0 0. 16 0. 43 1. 11 1. 42 1. 46 3. 13 3. 17 3. 58 5. 13 6. 12 6. 15 7. 10 7. 37 8. 7 8. 18 8. 30 8. 47 9. 15 10. 18 10. 33 11. 28 11. 36 11. 43 16. 18 19. 58 20. 50 23. 59	21. 29. 55 31. 20 31. 30 31. 0 30. 35 30. 5 28. 20 28. 30 27. 50 27. 30 27. 55 28. 35 28. 0 25. 25 27. 50 26. 50 27. 10 26. 45 27. 50 26. 30 27. 0 26. 30 27. 20 27. 55 25. 0 23. 30 28. 50	Jan. 7 1. 0 3. 6 3. 46 5. 0 7. 43 8. 9 8. 37 10. 46 11. 41 17. 18 18. 15 19. 45 22. 22 23. 59	.0898 .0901 .0897 .0897 *** .0910 .0906 .0913 *** .0919 *** .0917 *** .0931 *** .0931 *** .0933 .0909 .0904	Jan. 7 0. 0 2. 15 2. 57 7. 45 11. 20 18. 21 21. 33 23. 3 23. 59	.02983 .02795 .02821 .02948 .03038 .03150 .03047 .03029 .03039 .03018	Jan. 7 1. 0 3. 0 9. 0 21. 0	48. 0 49. 8 48. 3 42. 0	48. 0 50. 0 49. 0 43. 2	Jan. 8 8. 15 8. 33 8. 48 10. 20 10. 34 11. 5 11. 16 11. 42 12. 15 13. 12 13. 30 13. 38 14. 6 14. 47 14. 58 16. 15 16. 45 18. 55 20. 10 22. 15 22. 45 23. 5 23. 15 23. 22 23. 37 23. 50 23. 59	21. 30. 30 30. 20 29. 5 27. 35 27. 5 26. 0 26. 50 25. 10 *** 24. 40 26. 5 25. 30 26. 20 25. 25 *** 25. 50 25. 40 *** 25. 50 25. 0 *** 26. 55 *** 26. 20 *** 27. 30 32. 35 31. 15 32. 30 30. 5 30. 15 33. 25 33. 30	Jan. 8 16. 10 16. 29 19. 28 21. 16 21. 30 22. 10 23. 13 23. 23 23. 45 23. 59	.0920 .0925 .0925 .0918 .0921 .0917 *** .0927 .0922 .0932 .0930	Jan. 8 0. 0 0. 18 0. 34 0. 43 0. 48 1. 43 1. 57 3. 18 3. 27 3. 45 5. 50 6. 2 6. 35 7. 42 7. 58 8. 13 10. 18 11. 16 11. 42 12. 17	21. 33. 30 30. 20 30. 30 29. 5 30. 0 29. 0 29. 30 28. 10 28. 45 28. 0 27. 25 26. 55 28. 0 26. 30 26. 50 26. 15 26. 15 24. 0 26. 30 25. 5 ***	Jan. 9 0. 0 0. 18 0. 34 0. 43 0. 48 1. 43 1. 57 3. 18 3. 27 3. 45 5. 50 6. 2 6. 35 7. 42 7. 58 8. 13 10. 18 11. 16 11. 42 12. 17	21. 33. 30 30. 20 30. 30 29. 5 30. 0 29. 0 29. 30 28. 10 28. 45 28. 0 27. 25 26. 55 28. 0 26. 30 26. 50 26. 15 26. 15 24. 0 26. 30 25. 5 ***	Jan. 9 0. 0 1. 45 3. 25 9. 36 16. 2 19. 7 22. 32 23. 46	.0929 .0922 .0924 .0919 .0922 .0927 .0924 .0935 *** .0925 *** .0930 .0927 *** .0933 .0930 .0934 .0921 .0928 .0925 .0931 .0931 ***	Jan. 9 9. 0 21. 0	42. 7 40. 0 44. 0 40. 6
Jan. 8 0. 0 1. 16 2. 40 3. 2 3. 58 4. 12 4. 56 5. 30 5. 42 5. 48 6. 15 6. 18 6. 27 6. 36 7. 29 7. 43 7. 48	21. 28. 50 *** 30. 30 29. 5 28. 45 27. 10 27. 10 27. 40 26. 45 27. 15 26. 55 29. 0 27. 0 27. 40 29. 25 29. 10 30. 0 29. 50	Jan. 8 0. 0 0. 29 3. 28 4. 36 5. 14 6. 12 6. 30 7. 40 8. 30 9. 43 10. 27 10. 58 11. 15 11. 22 12. 2 12. 42	.0904 .0907 .0907 .0911 .0908 .0914 .0912 .0916 .0911 .0914 .0921 .0917 .0921 .0918 *** .0919 .0913	Jan. 8 0. 0 1. 40 2. 39 3. 34 5. 27 6. 26 11. 18 14. 34 23. 59	.03018 .02870 .02742 .02795 .02771 .02868 .02846 .02980 .03137 .03034	Jan. 8 1. 0 3. 0 9. 20 22. 45	44. 7 47. 0 47. 0 41. 0	46. 0 49. 0 47. 5 43. 0	Jan. 8 1. 43 1. 57 3. 18 3. 27 3. 45 5. 50 6. 2 6. 35 7. 42 7. 58 8. 13 10. 18 11. 16 11. 42 12. 17	29. 0 29. 30 28. 10 28. 45 28. 0 27. 25 26. 55 28. 0 26. 30 26. 50 26. 15 26. 15 24. 0 26. 30 25. 5 ***	Jan. 9 0. 0 1. 45 3. 25 9. 36 16. 2 19. 7 22. 32 23. 46	.0929 .0922 .0924 .0919 .0922 .0927 .0924 .0935 *** .0925 *** .0930 .0927 *** .0933 .0930 .0934 .0921 .0928 .0925 .0931 .0931 ***	Jan. 9 9. 0 21. 0	42. 7 40. 0 44. 0 40. 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.
Jan. 9		Jan. 9							Jan. 10		Jan. 10						
13. 7	21. 26. 10	16. 28	.0946 ***						8. 55	21. 22. 10	7. 58	.0906 ***					
13. 15	27. 35								9. 7	23. 30		.0903 ***					
13. 23	27. 35	18. 0	.0945						9. 48	21. 25	9. 28	.0909					
13. 30	26. 50	18. 21	.0940						9. 52	23. 20	9. 42	.0905					
13. 39	26. 50	19. 40	.0936						10. 20	17. 55	9. 56	.0909					
13. 45	27. 35	20. 0	.0931						10. 33	18. 30	10. 0	.0907					
14. 8	26. 20 ***	21. 10	.0912 ***						10. 46	18. 0	10. 19	.0911					
15. 12	26. 0 ***	23. 59	.0900						11. 17	20. 45	10. 30	.0905					
15. 48	28. 5 ***								11. 25	20. 40 ***	10. 46	.0903					
16. 14	28. 25								11. 32	18. 30	11. 18	.0904 ***					
16. 27	24. 30 ***								11. 48	21. 20 ***	12. 26	.0909 ***					
17. 23	26. 20								12. 17	21. 50 ***	13. 25	.0902					
17. 37	26. 35 ***								13. 7	19. 30	13. 41	.0909					
18. 3	26. 30								13. 23	22. 40	13. 54	.0902					
18. 15	29. 30								13. 40	23. 35	14. 29	.0914					
18. 30	28. 25								13. 58	29. 0 ***	14. 44	.0910					
19. 50	28. 50								14. 21	28. 20	15. 13	.0909					
20. 48	28. 50								14. 45	22. 45	15. 25	.0908 ***					
21. 30	32. 55 ***								15. 2	24. 50		.0917					
23. 17	35. 0 ***								15. 30	22. 10 ***	16. 26	.0923 ***					
23. 59	35. 55								16. 50	25. 30 ***	17. 13	.0914 ***					
Jan. 10		Jan. 10				Jan. 10			18. 5	26. 10 ***	19. 13	.0913					
0. 0	21. 35. 55	0. 0	.0900		(†)	1. 0	44. 045. 0		20. 57	25. 10 ***	20. 0	.0911					
0. 13	36. 0	0. 13	.0893	1. 0	.02776*	3. 0	47. 048. 0		22. 30	31. 0 ***	20. 9	.0906					
0. 17	34. 30 ***	0. 43	.0900	3. 7	.02861	9. 0	47. 048. 0		23. 13	31. 20	21. 54	.0894					
0. 43	35. 0 ***	1. 13	.0902	3. 25	.02890	21. 0	45. 046. 2		23. 19	33. 25 ***	22. 0	.0896 ***					
1. 5	32. 40 ***	1. 35	.0894 ***	4. 4	.02877 .02961				23. 37	33. 50	23. 42	.0881					
1. 37	34. 10	2. 37	.0897 ***	4. 40	.02947				23. 46	35. 0 ***	23. 55	.0863					
1. 44	38. 10	3. 29	.0880	5. 3	.02981				23. 59	33. 0	23. 59	.0864					
1. 58	32. 55	3. 42	.0891	5. 37	.02918				Jan. 11	21. 33. 0	0. 0	.0864					
3. 15	33. 20	3. 51	.0876	7. 15	.02871				0. 7	34. 5	0. 9	.0871					
3. 20	32. 0	4. 9	.0886	11. 53	.02869				0. 16	31. 10 ***	0. 15	.0868					
3. 30	32. 55	4. 14	.0888	14. 10	.02885				1. 33	32. 30 ***	0. 40	.0883					
3. 39	32. 5	15. 3	.0853	22. 15	.03019				1. 52	34. 25	0. 52	.0882					
3. 56	33. 50	23. 59	.0896	23. 59	.02877				2. 8	33. 15	9. 10	.03120					
4. 10	26. 25								2. 14	34. 20 ***	11. 29	.03159					
4. 18	31. 30								2. 33	31. 0	12. 40	.03120					
4. 47	33. 40								2. 52	30. 25	16. 36	.03233					
5. 15	11. 15								3. 4	29. 10 ***	16. 58	.03224					
5. 36	22. 35 ***								3. 20	31. 5	18. 25	.03266					
6. 38	27. 40 ***										21. 33	.03291					
8. 32	25. 20										22. 26	.03305					
8. 43	22. 50										23. 59	.03236					

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		Jan. 11							Jan. 12		Jan. 12		Jan. 12		Jan. 12		
3. 42	21. 28. 0 ***	4. 18	.0806 ***						1. 37	21. 30. 0 ***	2. 15	.0891 ***	12. 25	.03300			
4. 13	27. 10	4. 51	.0895						2. 12	30. 40 ***	2. 49	.0891 ***	21. 49	.03261			
5. 19	27. 50	5. 0	.0899 ***						3. 11	29. 25 ***	3. 13	.0894 ***	23. 59	.03231			
6. 6	26. 20	6. 53	.0889 ***						3. 45	26. 20	4. 13	.0900 ***					
6. 18	26. 30	6. 53	.0889 ***						4. 20	26. 30	4. 45	.0900 ***					
6. 45	25. 0	8. 13	.0893						4. 42	30. 55	5. 4	.0903 ***					
6. 58	25. 0	8. 28	.0902						5. 40	31. 10	5. 57	.0900 ***					
7. 13	24. 45	8. 59	.0895						6. 15	23. 15	6. 19	.0906 ***					
7. 25	24. 10	9. 13	.0897						7. 0	26. 0	7. 30	.0908 ***					
7. 43	20. 50	9. 38	.0899 ***						9. 58	26. 45	9. 58	.0907 ***					
7. 50	20. 35	9. 50	.0894 ***						10. 13	26. 0	10. 10	.0910 ***					
8. 8	18. 20 ***	10. 42	.0903 ***						10. 45	27. 0	11. 30	.0910 ***					
8. 57	23. 0 ***	10. 53	.0898						11. 3	26. 10	12. 44	.0916 ***					
9. 33	23. 45 ***	11. 18	.0917						12. 37	26. 0 ***	13. 41	.0912 ***					
10. 0	24. 55	11. 30	.0915						15. 36	26. 45	17. 0	.0919 ***					
10. 12	22. 50	11. 54	.0926						15. 53	29. 30	17. 13	.0913 ***					
10. 23	23. 0	12. 30	.0909 ***						16. 38	26. 45	20. 5	.0891 ***					
10. 38	22. 45	13. 27	.0903						17. 0	27. 0	20. 12	.0896 ***					
10. 42	21. 50	13. 45	.0907						17. 13	26. 20	22. 15	.0891 ***					
11. 12	25. 40	14. 16	.0903						20. 5	25. 25	23. 59	.0896 ***					
11. 18	24. 30	14. 39	.0908						20. 36	24. 45							
11. 27	26. 0	15. 11	.0901						21. 7	24. 10 ***							
11. 46	26. 20	16. 27	.0917						23. 4	29. 25							
12. 15	23. 5	16. 30	.0915						23. 35	29. 20							
12. 36	23. 15	16. 58	.0917						23. 59	31. 50							
12. 50	25. 40	17. 17	.0910 ***														
13. 26	21. 50								Jan. 13		Jan. 13		Jan. 13		Jan. 13		
13. 53	25. 25	19. 0	.0915 ***						0. 0	21. 31. 50	0. 0	.0896 ***	0. 0	.03231	1. 0	52. 2	53. 0
14. 19	24. 30								0. 11	31. 0 ***	1. 23	.0902 ***	1. 37	.03163	3. 0	54. 0	55. 0
14. 50	26. 10	19. 39	.0912						1. 13	31. 40 ***	1. 49	.0899 ***	5. 9	.02895	9. 0	52. 0	53. 0
15. 17	28. 10	19. 59	.0916						2. 45	27. 20 ***	2. 22	.0900 ***	5. 42	.02890	21. 0	46. 0	47. 2
15. 30	25. 30 ***	20. 44	.0903 ***						4. 18	26. 15 ***	3. 0	.0908 ***	8. 20	.03032			
15. 44	26. 10	21. 16	.0905 ***						6. 16	27. 55 ***	3. 53	.0907 ***	11. 57	.03226			
16. 7	34. 5	23. 43	.0895						8. 34	28. 30	5. 21	.0911 ***	21. 15	.03138			
16. 32	27. 20	23. 59	.0899						9. 3	27. 0	5. 30	.0909 ***	23. 59	.03144			
16. 53	25. 50 ***								9. 15	27. 40	6. 45	.0912 ***					
20. 0	28. 0								9. 30	26. 50 ***	9. 43	.0912 ***					
20. 13	26. 45 ***								10. 8	27. 50 ***	9. 49	.0915 ***					
22. 56	29. 35								11. 30	27. 25	17. 51	.0930 ***					
23. 13	27. 40								17. 50	27. 20	19. 40	.0928 ***					
23. 27	28. 5								20. 0	26. 5	22. 0	.0917 ***					
23. 47	26. 10								21. 30	25. 45	23. 2	.0921 ***					
23. 59	29. 0								23. 20	28. 50							
Jan. 12		Jan. 12				Jan. 12			23. 45	29. 40							
0. 0	21. 29. 0	0. 0	.0899			1. 0	53. 0	54. 0	23. 59	29. 55							
0. 20	28. 15 ***	0. 21	.0895 ***			3. 0	55. 0	56. 0									
0. 45	30. 20	1. 27	.0901			9. 0	55. 0	55. 5									
1. 5	29. 25	1. 32	.0896 ***			21. 0	50. 2	51. 0									
1. 30	32. 25	9. 15	.03188														

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. 14 h m s 0. 0	21. 29. 55	Jan. 14 h m 0. 0	(†)	Jan. 14 h m s 0. 0	0.3144	Jan. 14 h m s 1. 0	48° 0'	49° 0'	Jan. 15 h m s 6. 22	21. 29. 30	Jan. 15 h m s 6. 18	0.877	B	B	Jan. 15 h m s 6. 22	43° 5'	44° 0'
1. 25	29. 55	1. 0	0.930*	2. 22	0.3068	3. 0	49° 0'	50° 0'	6. 29	***	6. 29	0.873			7. 2	43° 5'	44° 0'
2. 26	27. 50	2. 45	0.925	7. 2	0.2813	9. 0	49° 0'	49° 5'	6. 42	29. 0	7. 14	0.883			12. 50	43° 5'	44° 0'
2. 43	27. 40	2. 45	***	12. 50	0.3118	21. 0	43° 5'	44° 0'	7. 13	***	7. 30	0.898			23. 59	43° 5'	44° 0'
3. 0	27. 5	3. 55	0.927	23. 59	0.2994				7. 38	17. 50	7. 30	0.898					
4. 48	26. 45	***	***						7. 38	***	7. 43	0.889					
6. 40	27. 30	5. 15	0.923						8. 20	24. 10	7. 47	0.891					
9. 57	27. 45	8. 8	0.931						8. 20	***	8. 11	0.883					
10. 18	27. 0	8. 16	0.927						8. 32	16. 55	8. 28	0.888					
15. 18	27. 0	8. 57	0.931						8. 32	19. 50	9. 7	0.877					
15. 18	29. 20	9. 10	0.928						8. 50	17. 10	9. 31	0.883					
16. 20	25. 30	11. 56	0.933						9. 40	***	9. 45	0.881					
16. 20	***	***	***						9. 40	18. 15	10. 40	0.891					
17. 5	25. 40	13. 51	0.932						10. 0	17. 0	10. 59	0.885					
17. 12	***	16. 50	0.943						10. 16	17. 0	11. 32	0.883					
17. 12	25. 0	18. 45	0.935						10. 52	18. 5	11. 57	0.893					
19. 0	***	19. 1	0.937						11. 58	***	12. 30	0.887					
19. 0	25. 35	19. 13	0.932						12. 26	12. 10	12. 44	0.887					
19. 17	27. 10	20. 0	0.936						12. 26	15. 25	12. 59	0.895					
19. 27	26. 30	20. 0	0.931						12. 44	17. 55	13. 11	0.888					
20. 0	28. 0	20. 14	***						13. 10	14. 20	13. 46	0.911					
20. 46	26. 20	22. 45	0.923						13. 30	17. 35	14. 10	0.899					
21. 3	27. 55	23. 11	***						13. 42	13. 25	14. 40	0.919					
21. 12	27. 20	23. 28	0.911						14. 28	25. 40	15. 13	0.911					
21. 34	29. 10	23. 45	0.920						15. 11	14. 20	16. 6	0.907					
22. 45	30. 25	23. 59	0.914						16. 26	***	16. 28	0.909					
23. 12	35. 0	23. 59	0.921						16. 38	30. 35	17. 0	0.916					
23. 18	34. 25	23. 59	0.919						16. 45	29. 40	17. 43	0.909					
23. 33	37. 50	23. 59	0.919						17. 30	30. 50	18. 28	0.911					
23. 40	36. 30								17. 30	29. 15	19. 13	0.910					
23. 47	39. 50								17. 45	30. 0	19. 41	0.899					
23. 59	38. 0								18. 27	***	20. 13	0.905					
Jan. 15		Jan. 15		Jan. 15		Jan. 15			18. 42	29. 30	20. 30	0.902					
0. 0	21. 38. 0	0. 0	0.919	0. 0	0.2994	1. 0	47° 0'	48° 0'	18. 42	29. 20	20. 47	0.904					
0. 10	35. 50	0. 11	0.924	2. 10	{ 0.2790	3. 0	49° 0'	50° 0'	19. 0	31. 30	21. 1	0.903					
0. 48	***	0. 46	0.931	4. 20	{ 0.2721	9. 0	48° 5'	48° 8'	19. 0	***	21. 15	0.906					
0. 56	35. 20	0. 50	0.928	7. 52	{ 0.2829	22. 15	42° 5'	43° 8'	20. 40	33. 30	21. 31	0.902					
1. 3	37. 30	0. 59	0.932	12. 25	0.2800				21. 57	31. 0	22. 0	0.905					
1. 7	36. 25	1. 2	0.929	14. 56	0.2886				22. 26	33. 0	23. 28	0.891					
1. 28	38. 10	1. 11	0.934	22. 54	0.3037				23. 59	34. 0	23. 59	0.892					
1. 42	33. 20	1. 31	0.909	23. 59	0.2997												
2. 31	35. 0	2. 11	0.901		0.3020												
3. 45	***	2. 44	0.906														
3. 50	31. 10	3. 0	0.919														
4. 4	37. 45	3. 13	0.903														
4. 13	35. 20	3. 49	0.893														
4. 25	35. 25	4. 13	0.864														
4. 47	32. 30	4. 27	0.870														
5. 15	33. 0	4. 53	0.879														
5. 29	30. 30	5. 10	0.876														
5. 43	34. 0	5. 16	0.871														
5. 58	29. 20	5. 30	0.878														
6. 16	29. 35	5. 44	0.879														
	33. 35	5. 51	0.884														
	27. 25	6. 7	0.866														

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. 16		Jan. 16							Jan. 17		Jan. 17						
9. 15	21. 19. 40	8. 1	.0894						22. 3	21. 28. 5	17. 22	.0917					
9. 45	22. 15	8. 13	.0899							***	18. 5	.0921					
10. 28	23. 30	8. 48	.0903						23. 0	31. 20	21. 33	.0911					
10. 42	24. 35	9. 8	.0898							***		***					
12. 15	25. 30	9. 40	.0909						23. 28	29. 25		***					
12. 30	26. 55	10. 27	.0916						23. 53	32. 0	22. 0	.0903					
12. 41	26. 50	10. 36	.0920						23. 59	31. 10		***					
12. 50	31. 10	10. 48	.0916								22. 38	.0899					
13. 27	21. 50	12. 2	.0915								22. 57	.0904					
13. 46	19. 0	12. 31	.0921								23. 10	.0895					
14. 26	17. 30	12. 52	.0945								23. 53	.0897					
14. 55	26. 20	13. 15	.0927								23. 59	.0892					
	***	13. 45	.0929														
15. 30	26. 30	14. 13	.0921														
15. 46	23. 30	14. 22	.0922						Jan. 18		Jan. 18		Jan. 18		Jan. 18		Jan. 18
16. 5	23. 50	14. 33	.0917						0. 0	21. 31. 10	0. 0	.0892	0. 0	.02878	1. 0	55. 0	55. 0
16. 26	22. 0	15. 13	.0923						0. 15	33. 15	0. 11	.0896	2. 32	.02970	3. 0	57. 5	58. 0
16. 45	25. 0	15. 17	.0921							***	0. 29	.0894	11. 22	.02886	9. 0	57. 0	56. 0
18. 10	27. 5	16. 6	.0936						0. 43	33. 35	0. 57	.0881	16. 3	.02962	21. 0	53. 0	53. 5
18. 15	28. 45	16. 30	.0927							***	1. 40	.0886	21. 54	.03286			
18. 30	27. 0		***						1. 0	31. 0	2. 5	.0878	23. 59	.03223			
	***	18. 39	.0931							***	2. 35	.0888					
21. 47	26. 10	19. 13	.0923						2. 5	29. 20	2. 45	.0882					
	***	20. 1	.0926						2. 17	32. 55	3. 14	.0881					
23. 30	29. 55	22. 30	.0910						2. 33	36. 0	5. 0	.0895					
23. 37	28. 30	22. 51	.0911						3. 13	31. 30	5. 14	.0894					
23. 59	29. 0	23. 59	.0894						6. 53	24. 45	5. 51	.0900					
									7. 30	26. 10		***					
Jan. 17		Jan. 17		Jan. 17		Jan. 17			7. 50	25. 10	6. 48	.0898					
0. 0	21. 29. 0	0. 0	.0894	0. 0	.02610	1. 0	48. 3	49. 0		***	7. 26	.0904					
	***	0. 58	.0896	3. 0	.02778	3. 0	51. 0	52. 0	11. 15	25. 0	7. 41	.0902					
1. 0	32. 55	1. 46	.0891	4. 45	.02837	9. 0	52. 0	53. 0	11. 52	26. 45	7. 53	.0905					
	***	2. 0	.0894	7. 3	.02789	21. 0	52. 0	52. 5		***	8. 11	.0901					
2. 10	31. 50	2. 12	.0891	10. 5	.02771				13. 54	26. 15		***					
	***	2. 16	.0898	21. 54	.02791				14. 27	24. 5	11. 7	.0903					
3. 32	31. 30	2. 30	.0897	23. 59	.02878					***		***					
	***		***						15. 43	26. 35	12. 44	.0909					
4. 28	29. 30	4. 6	.0901							***	12. 54	.0907					
	***	4. 14	.0899						16. 45	24. 20	13. 55	.0907					
7. 23	26. 20	4. 39	.0907							***	14. 13	.0910					
	***	4. 54	.0901						21. 48	26. 40	14. 30	.0906					
10. 4	25. 30	6. 41	.0909							***	15. 40	.0907					
10. 17	26. 10	7. 11	.0913						23. 59	32. 0	15. 52	.0904					
10. 38	22. 0		***								16. 25	.0908					
	***	9. 56	.0911								18. 9	.0909					
11. 17	28. 5	10. 45	.0907								18. 29	.0911					
12. 14	23. 20		***									***					
	***	11. 44	.0921								19. 11	.0907					
14. 0	28. 0	12. 31	.0914								19. 51	.0908					
14. 31	26. 35		***									***					
14. 46	27. 25	14. 36	.0922								21. 12	.0900					
	***	14. 53	.0917								22. 29	.0898					
17. 42	27. 55		***								22. 41	.0892					
18. 3	25. 30	15. 39	.0921								22. 58	.0896					
	***		***									***					
20. 5	25. 55	16. 16	.0916								23. 59	.0890					
	***		***														

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. 19 0. 0	21. 32. 0 ***	Jan. 19 0. 0	.0890 ***	Jan. 19 0. 0	.03223	Jan. 19 1. 0	56.0	56.0	Jan. 20 4. 19	21. 27. 30 ***	Jan. 20 4. 36	.0902 ***	Jan. 20 23. 59	.03170			
0. 30	33. 0 ***	0. 48	.0881 ***	1. 32	.03122	3. 0	57.5	58.0	8. 4	24. 50	5. 22	.0907					
1. 15	28. 10 ***	1. 30	.0894 ***	3. 42	.03229	9. 0	55.9	55.7	8. 33	22. 25	5. 42	.0906					
1. 28	31. 45	1. 42	.0891 ***	8. 9	.03330	21. 0	46.0	47.0	8. 51	24. 0	5. 57	.0909					
1. 47	28. 30	1. 52	.0897 ***	8. 54	.03378				12. 3	26. 30	6. 45	.0909					
1. 58	32. 5	2. 51	.0883 ***	10. 22	.03304				13. 13	22. 10	6. 56	.0913 ***					
2. 14	30. 15	2. 59	.0888 ***	15. 17	.03209				13. 29	23. 55	7. 45	.0912 ***					
2. 25	32. 0	3. 23	.0881 ***	16. 15	.03140				13. 48	22. 10	7. 45	.0912 ***					
2. 32	30. 10	4. 0	.0894 ***	22. 27	.03119				14. 15	27. 0	8. 59	.0920 ***					
2. 43	32. 0	4. 27	.0895 ***	23. 59	.02983				14. 43	23. 50	8. 59	.0920 ***					
2. 50	30. 50	5. 22	.0903 ***						15. 32	25. 25 ***	12. 43	.0919					
3. 10	33. 20	5. 31	.0899 ***						21. 13	26. 5 ***	12. 58	.0928					
3. 18	30. 10	5. 58	.0901 ***						23. 20	28. 50 ***	13. 27	.0927					
3. 53	28. 30	6. 53	.0905 ***						23. 59	31. 30 ***	13. 58	.0920					
4. 12	29. 20	8. 29	.0897 ***								14. 16	.0924					
6. 26	26. 50	8. 50	.0898 ***								14. 27	.0922					
7. 4	28. 30	9. 11	.0907 ***								14. 45	.0923					
7. 50	26. 20	9. 29	.0919 ***								15. 0	.0920 ***					
9. 32	27. 10	9. 44	.0921 ***								20. 19	.0929 ***					
9. 37	25. 0	10. 0	.0911 ***								21. 41	.0917					
10. 10	24. 50	10. 16	.0918 ***								21. 57	.0920					
10. 30	27. 30	10. 54	.0912 ***								22. 6	.0915					
11. 4	27. 0	12. 15	.0921 ***								23. 15	.0907					
11. 40	28. 0	12. 29	.0918 ***								23. 59	.0890					
12. 17	25. 50	12. 44	.0921 ***						Jan. 21 0. 0	21. 31. 30 ***	Jan. 21 0. 0	.0890	Jan. 21 0. 0	.03170	Jan. 21 1. 0	51.0	51.0
12. 38	26. 40	12. 59	.0917 ***						0. 45	30. 50	0. 28	.0901 ***	1. 50	.03096	3. 0	53.5	54.0
12. 50	25. 55	14. 36	.0923 ***						0. 56	29. 30	1. 29	.0905	4. 53	.02812	9. 0	53.5	53.0
13. 22	27. 30	14. 46	.0919 ***						1. 44	31. 30	2. 28	.0891	10. 15	.02770	21. 0	52.0	53.0
14. 40	23. 25	15. 0	.0918 ***						2. 30	29. 0	3. 20	.0897	21. 25	.02743			
15. 10	33. 45	15. 39	.0931 ***							***	3. 41	.0895	23. 59	.02827			
15. 17	34. 40	15. 56	.0924 ***						6. 7	26. 20	4. 46	.0897					
16. 8	22. 0	16. 11	.0925 ***						7. 58	23. 55	6. 28	.0909					
16. 17	25. 20	16. 18	.0919 ***						10. 15	24. 30	7. 52	.0912					
18. 26	27. 15	16. 44	.0925 ***						10. 43	18. 0	10. 9	.0909					
20. 17	25. 10	20. 40	.0925 ***						11. 4	24. 55	10. 32	.0919					
23. 59	29. 50	21. 30	.0917 ***						11. 30	23. 0	10. 53	.0913					
		22. 28	.0913 ***						11. 47	24. 50 ***	11. 15	.0919					
		22. 58	.0908 ***								11. 52	.0916 ***					
		23. 37	.0914 ***						13. 5	25. 40	17. 0	.0925					
		23. 59	.0912 ***						16. 45	26. 35	19. 6	.0917					
									17. 0	26. 0	19. 43	.0925 ***					
									17. 36	27. 0							
									17. 57	25. 45							
Jan. 20 0. 0	21. 29. 50 ***	Jan. 20 0. 0	.0912 ***	Jan. 20 0. 0	.02983	Jan. 20 1. 0	50.0	51.0	19. 15	28. 50	21. 30	.0909 ***					
0. 57	30. 5	1. 6	.0909 ***	1. 26	.02783	3. 0	53.0	53.0	19. 34	28. 5	23. 46	.0900 (†)					
1. 14	29. 20	1. 23	.0910 ***	3. 20	.02837	9. 0	53.3	53.0	20. 7	31. 20 ***							
1. 45	29. 0	2. 11	.0904 ***	5. 21	.02802	21. 0	49.0	50.0	20. 48	28. 10 ***							
2. 42	27. 15	3. 24	.0897 ***	6. 52	.02771				23. 59	28. 20							
3. 40	26. 25	4. 0	.0903 ***	14. 30	.03033												
				17. 53	.03204												

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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.											
Jan. 22 0. 0 1. 8 3. 5 4. 50 10. 15 16. 58 19. 43 23. 59	21. 28. 20 28. 20 26. 0 27. 0 25. 5 26. 30 25. 20 30. 50	Jan. 22 0. 0 1. 0 2. 45 7. 54 11. 27 14. 26 18. 46 22. 25 23. 59	(†) 0898* 0900 0915 0920 0928 0933 0920 0926	Jan. 22 0. 0 1. 45 3. 16 4. 36 5. 27 7. 26 9. 15 13. 40 20. 38 23. 59	02827 02832 02893 02905 02932 03142 03306 03183 03120 02979	Jan. 22 1. 0 3. 0 9. 0 22. 33	54. 0 56. 0 55. 0 45. 7	54. 0 55. 5 55. 0 47. 0	Jan. 25 21. 45 23. 59	21. 26. 25 29. 30	Jan. 25 22. 13 23. 59	0900 0904	Jan. 25 0. 0 0. 45 3. 34 5. 8 5. 37 7. 3 7. 14 7. 45 8. 4 8. 12 9. 0 13. 20 13. 32 14. 15 14. 46 15. 38 16. 5 16. 32 17. 30 17. 53 18. 40 19. 24 20. 56 21. 45 22. 18 23. 15 23. 28 23. 36 23. 45 23. 50 23. 59	21. 29. 30 29. 30 25. 50 27. 15 26. 50 28. 30 27. 20 21. 40 22. 35 21. 45 24. 40 26. 0 29. 35 22. 10 25. 10 18. 50 18. 0 24. 5 23. 55 22. 55 26. 20 23. 0 32. 50 29. 45 33. 35 33. 20 32. 0 33. 50 33. 0 36. 40 35. 30	Jan. 26 0. 0 1. 34 2. 48 4. 13 5. 27 6. 5 6. 52 7. 36 7. 45 7. 56 8. 13 8. 30 8. 57 9. 55 12. 48 13. 22 13. 28 13. 36 14. 7 14. 27 15. 19 15. 43 15. 46 16. 9 16. 30 18. 30 18. 53 19. 15 19. 48 20. 30 21. 8 21. 43 21. 57 22. 0 22. 6 22. 14 22. 21 22. 30 22. 36 22. 46 23. 0 23. 17 23. 28 23. 40 23. 59	0904 *** 0902 0907 *** 0905 0912 0913 0895 0897 0896 0901 0895 0897 0911 *** 0916 0922 0942 0937 *** 0935 0926 *** 0921 *** 0927 0921 0924 0914 0913 0923 0919 0923 0918 *** 0905 *** 0915 0909 0909 0917 0913 0918 0909 0911 0907 0908 0900 0897 0901 0898 0902	Jan. 26 0. 0 1. 34 2. 56 5. 33 8. 0 14. 20 19. 4 22. 10 23. 59	03249 03221 03107 03225 03200 03297 03178 03196 03177 03095	Jan. 26 1. 0 3. 0 9. 0 21. 0	51. 7 54. 0 52. 5 48. 5	51. 5 55. 0 52. 0 49. 0							
Jan. 23 0. 0 0. 50 1. 13 1. 50 2. 11 3. 12 3. 54 4. 25 5. 16 7. 30 16. 13 20. 37 23. 59	21. 30. 50 30. 30 31. 35 29. 30 29. 30 26. 45 27. 50 27. 0 28. 30 25. 40 27. 50 26. 15 30. 50	Jan. 23 0. 0 2. 46 3. 13 3. 45 4. 14 4. 30 5. 12 5. 44 11. 0 18. 10 20. 0 22. 45 23. 48 23. 59	0926 0938 0932 0935 0933 0936 0933 0939 0937 0950 0945 0921 0916 0919	Jan. 23 0. 0 1. 57 2. 47 5. 33 9. 20 12. 30 15. 45 20. 48 22. 15 23. 59	02979 02834 02800 02600 02629 02621 02768 03062 02973 03031 02970	Jan. 23 6. 36 21. 0	47. 0 44. 0	48. 0 45. 0	Jan. 24 0. 0 1. 28 3. 10 4. 17 8. 20 16. 0 19. 27 22. 43 23. 40 23. 59	21. 30. 50 29. 25 26. 20 27. 25 25. 30 26. 30 25. 40 29. 20 *** 31. 0 30. 30	Jan. 24 0. 0 0. 17 2. 21 2. 27 4. 12 6. 43 8. 57 9. 10 13. 28 15. 12 21. 16 22. 43 23. 59	0919 0913 *** 0917 0915 0913 0917 *** 0917 0921 0920 0923 0917 0898 0898	Jan. 24 0. 0 2. 5 4. 45 6. 47 21. 56 23. 59	02970 02693 02742 02719 02708 02791	Jan. 24 1. 0 3. 0 9. 0 21. 0	47. 0 50. 0 51. 0 50. 0	48. 0 50. 8 50. 5 51. 0	Jan. 25 0. 0 0. 58 1. 45 1. 56 2. 40 3. 27 3. 56 4. 45 6. 53 8. 47 14. 57 20. 0	21. 30. 30 30. 55 30. 0 30. 25 28. 0 26. 50 26. 15 27. 0 26. 20 25. 45 26. 0 24. 50	Jan. 25 0. 0 1. 39 1. 55 2. 40 4. 25 6. 33 11. 44 18. 14 18. 22 19. 52 20. 11 21. 7	0898 0905 0901 0904 0902 0907 0911 0917 0915 0912 0913 0910	Jan. 25 0. 0 2. 13 5. 4 11. 57 17. 26 19. 15 20. 40 23. 59	02791 02883 02884 03042 03047 03127 03258 03249	Jan. 25 1. 0 3. 0 9. 0 21. 0	54. 5 55. 8 55. 0 50. 0	55. 0 56. 0 54. 0 51. 0	Jan. 25 22. 0 22. 6 22. 14 22. 21 22. 30 22. 36 22. 46 23. 0 23. 17 23. 28 23. 40 23. 59	0915 0909 0909 0917 0913 0918 0909 0911 0907 0908 0900 0897 0901 0898 0902

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. 27 0. 0 0. 22 2. 11 3. 15 4. 17 4. 30 5. 56 7. 7 8. 12 10. 14 10. 30 11. 4 11. 26 11. 50 12. 13 12. 34 12. 56 13. 7 13. 38 14. 0 14. 43 14. 54 15. 14 15. 56 16. 15 17. 4 17. 43 18. 42 21. 2 23. 59	21. 35. 30 34. 0 34. 50 29. 40 26. 55 28. 0 29. 15 24. 35 25. 45 23. 30 26. 0 24. 0 27. 30 24. 20 26. 0 23. 50 26. 30 24. 30 23. 10 24. 40 20. 25 22. 10 20. 20 20. 30 23. 30 21. 50 22. 30 27. 25 26. 25 32. 0	Jan. 27 0. 0 0. 43 1. 52 2. 30 3. 6 3. 29 3. 45 3. 58 4. 14 4. 30 5. 22 6. 26 6. 34 6. 50 7. 30 9. 31 9. 44 10. 1 11. 0 11. 13 11. 30 11. 50 12. 22 12. 45 12. 54 13. 35 13. 53 14. 28 14. 45 16. 6 16. 54 18. 10 19. 41 20. 30 21. 44 21. 55 23. 59	0902 *** 0901 *** 0918 *** 0908 *** 0905 0909 0905 0909 0906 0911 0907 *** 0904 0909 0905 0914 *** 0916 0921 0917 0919 0923 0916 0920 0913 0918 0912 0915 0910 0918 0914 0923 0920 0927 0933 *** 0919 0904 *** 0897 0890 *** 0886	Jan. 27 0. 0 2. 22 4. 36 6. 10 6. 16 12. 15 16. 9 19. 56 22. 40 23. 59	03095 02820 02877 02839 02918 03070 03271 03238 03266 03197	Jan. 27 1. 0 3. 0 9. 0 21. 0	51. 0 54. 0 54. 0 49. 2	52. 0 55. 0 54. 0 50. 8	Jan. 28 4. 13 7. 5 7. 58 10. 52 11. 3 11. 16 11. 40 13. 13 15. 15 15. 26 16. 10 19. 43 20. 45 22. 41 23. 59	21. 26. 50 27. 15 24. 25 24. 0 26. 5 23. 30 22. 25 26. 10 25. 45 26. 50 24. 40 24. 10 23. 0 28. 0 30. 30	Jan. 28 3. 15 4. 0 4. 13 5. 22 5. 40 6. 9 6. 15 6. 25 6. 37 6. 48 6. 55 7. 11 7. 35 8. 4 8. 26 8. 51 9. 15 9. 28 10. 20 10. 51 11. 0 11. 15 15. 45 16. 9 18. 34 18. 54 20. 16 21. 52 22. 0 22. 22 22. 44 23. 30 23. 59	0906 0912 0908 *** 0909 0907 0909 0906 0911 0910 0913 0910 0913 0901 0908 0900 0909 0908 0911 0909 0911 0919 0912 *** 0913 0917 0918 0921 0919 0901 0904 0901 0905 0894 0897	Jan. 29 0. 0 0. 57 2. 30 4. 48 5. 21 6. 26 6. 47 7. 8 13. 10 14. 16 14. 40 20. 15 20. 56 23. 59	21. 30. 30 32. 0 29. 15 26. 15 26. 55 24. 30 26. 35 25. 45 26. 30 25. 20 26. 10 22. 40 23. 5 30. 45	Jan. 29 0. 0 0. 17 0. 43 0. 53 2. 11 2. 27 2. 31 4. 9 5. 43 5. 51 5. 58 6. 12 6. 29 6. 48 7. 15 8. 31 9. 12 14. 9 14. 29	0897 0892 0895 0901 *** 0909 0909 0905 0912 0910 0907 0912 0910 0917 0913 0918 0919 0916 *** 0913 0916 ***	Jan. 29 0. 15 2. 45 5. 15 12. 3 16. 37 19. 9 23. 59	(†) 03082 02906 02712 02728 02717 02803 03011	Jan. 29 1. 0 3. 0 9. 0 22. 35	50. 5 52. 5 53. 5 49. 0	51. 0 53. 8 51. 0
Jan. 28 0. 0 0. 7 0. 13 0. 20 1. 40 2. 8 2. 48	21. 32. 0 30. 30 33. 0 32. 0 31. 20 32. 35 29. 20	Jan. 28 0. 0 0. 13 0. 18 0. 45 0. 58 1. 37 1. 56 2. 11	0886 0892 0887 0895 0892 0898 0907 0902 ***	Jan. 28 0. 0 2. 51 4. 5 6. 27 12. 21 21. 36 23. 11	03197 02852 02903 02982 02990 03301 03188 03167 (†)	Jan. 28 1. 0 3. 0 9. 0 21. 0	52. 5 55. 0 55. 0 57. 8	53. 0 56. 2 56. 0 59. 0	Jan. 28 13. 10 14. 16 14. 40 20. 15 20. 56 23. 59	26. 30 25. 20 26. 10 22. 40 23. 5 30. 45	Jan. 28 14. 9 14. 29	0913 0916 ***									

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.

Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for 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. 29 h m 17. 27 20. 15 20. 52 23. 26 23. 36 23. 59	°0921 °0919 °0913 °0905 °0911 °0910														
Jan. 30 h m 0. 0 0. 17 1. 4 3. 57 4. 50 5. 43 6. 56 8. 7 8. 30 8. 48 9. 30 15. 18 17. 3 20. 0 21. 45 23. 4 23. 45 23. 59	21. 30. 45 33. 0 34. 10 *** 27. 50 28. 20 27. 25 28. 0 26. 30 29. 0 24. 0 27. 25 *** 25. 30 *** 26. 5 *** 24. 0 *** 26. 10 *** 31. 20 31. 0 30. 20	Jan. 30 h m 0. 0 0. 13 0. 59 *** 2. 10 2. 19 4. 14 *** 5. 14 5. 36 *** 6. 44 6. 53 *** 8. 18 8. 38 *** 9. 15 *** 9. 37 9. 49 10. 10 *** 11. 56 12. 13 *** 12. 53 13. 17 13. 58 *** 16. 16 17. 54 18. 15 20. 32 20. 53 21. 6 *** 22. 52 23. 59	°0910 °0897 °0916 *** °0920 °0926 *** °0927 *** °0933 *** °0929 °0935 *** °0937 °0934 *** °0935 °0929 *** °0933 *** °0923 °0930 °0920 *** °0924 °0930 *** °0926 °0936 °0930 *** °0929 °0935 °0934 °0942 °0937 °0941 *** °0913 °0913	Jan. 30 h m 0. 0 5. 37 8. 30 9. 27 12. 2 13. 20 21. 50	°03011 °03046 °03153 °03200 °03152 °03044 °03140 °03051 (†)	Jan. 30 h m 7. 50 21. 0	48. 0 49. 4 43. 0 44. 0										
Jan. 31 h m 0. 0 1. 45 3. 32 9. 16 13. 0	21. 30. 20 *** 30. 50 26. 30 25. 0 26. 25	Jan. 31 h m 0. 0 4. 11 6. 12 6. 22 6. 40	°0913 *** °0911 °0913 °0921 °0915	Jan. 31 h m 1. 0 3. 0 9. 0 21. 0	46. 8 49. 0 49. 5 43. 5												
		Jan. 31 h m 16. 43 18. 45 20. 53 23. 59	°0919 °0916 °0923 °0923 °0929 *** 11. 0 *** 20. 0 °0929 °0911 *** 23. 59 °0905	Jan. 31 h m 16. 43 18. 45 20. 53 23. 59	21. 25. 30 25. 25 22. 30 29. 15												
Feb. 1 h m 0. 0 1. 43 3. 52 7. 50 8. 33 8. 56 9. 7 9. 17 9. 54 10. 30 11. 8 11. 33 11. 57 13. 3 13. 42 14. 12 14. 30 16. 55 17. 20 18. 12 18. 38 19. 4 21. 5 22. 26 23. 59	21. 29. 15 *** 30. 50 28. 30 *** 28. 30 25. 25 17. 10 16. 55 21. 20 22. 55 21. 25 23. 15 *** 23. 10 (†) 29. 15 *** 21. 35 *** 22. 20 *** 21. 0 23. 20 *** 24. 0 22. 35 *** 23. 30 22. 50 25. 10 *** 25. 25 *** 29. 20 *** 30. 0	Feb. 1 h m 0. 0 1. 51 2. 12 2. 35 2. 58 5. 45 6. 46 7. 15 7. 54 8. 25 8. 40 9. 3 9. 28 9. 36 9. 52 10. 22 10. 36 11. 21 11. 58 12. 15 12. 51 13. 55 14. 30 14. 42 16. 46 17. 5 17. 55 18. 44 20. 24 20. 31 20. 44 22. 19 22. 36 23. 0 23. 37 23. 59	°0905 °0903 °0904 °0907 °0903 °0907 *** °0909 °0912 °0918 °0912 °0912 °0906 °0919 °0909 °0908 °0911 °0904 °0907 °0908 °0927 °0919 °0925 °0914 °0923 °0921 °0924 °0927 °0922 °0926 *** °0918 °0921 °0917 *** °0913 °0908 °0909 °0906 °0899	Feb. 1 h m 1. 0 3. 0 9. 0 21. 0	47. 2 50. 7 49. 2 47. 0												
Feb. 2 h m 0. 0 2. 2	21. 30. 0 31. 5	Feb. 2 h m 0. 0 3. 0	°0899 °0895	Feb. 2 h m 1. 0 3. 0	50. 2 52. 0												

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

Vertical Force. From January 31 to April 19 the Vertical Force Magnet was in the hands of Mr. Simms.

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. 2 3. 47 7. 38 8. 27 8. 56 10. 8 11. 2 12. 30 15. 26 20. 38 21. 27 23. 59	21. 26. 20 26. 0 23. 10 *** 25. 10 25. 0 23. 40 25. 50 27. 0 *** 23. 50 *** 24. 0 *** 30. 15	Feb. 2 2. 42 3. 22 4. 30 5. 40 7. 11 7. 56 8. 12 8. 23 9. 42 10. 40 11. 11 13. 41 18. 4 19. 0 21. 52 22. 28 23. 5 23. 15 23. 59	.0903 .0903 .0910 .0908 .0913 .0909 .0910 .0914 .0911 .0915 .0913 .0923 .0927 .0932 .0916 .0918 .0909 .0905 .0907			Feb. 2 9. 0 21. 0	51. 0 45. 0		Feb. 4 2. 16 2. 33 2. 48 4. 3 5. 18 6. 13 6. 43 7. 15 8. 0 8. 17 8. 48 9. 4 9. 26 9. 46 10. 50 11. 43 12. 44 13. 0 13. 18 13. 33 14. 7 14. 32 15. 3 15. 17 15. 42 16. 26 19. 7 20. 53 21. 50 22. 33 23. 37 23. 59	21. 33. 0 30. 5 31. 20 30. 10 27. 55 27. 55 27. 10 27. 50 26. 0 27. 0 14. 0 19. 25 21. 20 20. 20 23. 0 23. 0 26. 35 24. 0 25. 15 23. 50 25. 0 24. 10 26. 0 29. 25 30. 0 22. 45 *** 25. 5 24. 10 25. 30 29. 15 30. 50 29. 45	Feb. 4 2. 30 3. 40 4. 22 5. 0 5. 27 5. 49 7. 12 7. 30 8. 12 8. 40 9. 15 9. 28 10. 0 10. 27 12. 0 12. 45 12. 58 13. 12 13. 21 13. 45 14. 54 16. 7 16. 45 18. 14 20. 11 22. 38 23. 12	.0914 *** .0921 .0916 .0915 .0918 .0914 .0920 .0917 .0921 .0907 .0926 .0926 .0919 .0923 *** .0922 .0929 .0927 .0930 .0925 .0928 .0927 .0938 .0931 .0935 .0930 .0909 .0900 (†)			Feb. 5 0. 0 0. 46 2. 20 3. 42 4. 47 5. 32 8. 53 13. 8 14. 17 16. 28 17. 12 18. 6 18. 34 20. 54 22. 17 23. 59	21. 29. 45 *** 29. 50 31. 20 29. 55 *** 26. 20 27. 35 24. 55 23. 15 (†) 24. 30 26. 0 26. 45 25. 5 26. 10 23. 20 *** 26. 25 *** 32. 40	F. 5 1. 3 1. 32 1. 57 2. 56 3. 13 3. 21 4. 0 4. 15 4. 31 5. 21 6. 10 6. 28 12. 52 13. 11 *** 14. 22 *** 19. 18 22. 46 *** 23. 59	.0897 .0903 .0897 .0897 .0898 .0894 .0894 .0896 .0895 .0901 .0902 .0906 .0917 .0921 *** .0917 *** .0933 .0909 *** .0913	Feb. 5 1. 0 3. 0 9. 0 22. 0	50. 3 53. 9 54. 5 46. 0					
Feb. 3 0. 0 1. 20 1. 34 2. 7 2. 45 5. 33 9. 5 9. 17 9. 30 9. 56 10. 32 11. 13 11. 57 12. 28 12. 40 13. 0 13. 17 13. 42 13. 46 14. 53 15. 4 15. 32 21. 23 22. 15 22. 56 23. 59	21. 30. 15 *** 31. 35 30. 0 30. 0 27. 50 26. 15 26. 5 24. 0 25. 0 22. 5 24. 10 *** 23. 45 *** 26. 0 25. 35 26. 20 26. 20 27. 0 26. 30 25. 0 25. 50 25. 30 26. 40 24. 5 26. 45 28. 10 31. 20	Feb. 3 0. 0 0. 8 0. 30 1. 51 2. 23 3. 11 4. 24 8. 15 9. 0 9. 16 9. 52 10. 14 10. 30 13. 12 15. 13 18. 3 20. 14 22. 11 22. 48 23. 43 23. 59	.0907 .0909 .0906 .0912 .0911 .0914 .0912 .0925 .0923 .0916 .0914 .0921 .0920 *** .0935 .0934 .0940 .0937 .0923 .0917 .0915 .0912			Feb. 3 1. 0 3. 0 9. 0 21. 0	47. 5 50. 0 49. 0 41. 0		Feb. 4 0. 0 0. 26 0. 45 1. 47	21. 31. 20 31. 55 30. 0 33. 35	Feb. 4 0. 0 0. 44 1. 55 2. 15	.0912 .0905 .0920 .0919			Feb. 4 1. 0 3. 0 9. 8 21. 0	44. 9 48. 0 49. 0 47. 0		Feb. 4 0. 0 0. 26 0. 45 1. 47	21. 31. 20 31. 55 30. 0 33. 35	Feb. 4 0. 0 0. 44 1. 55 2. 15	.0912 .0905 .0920 .0919			Feb. 4 1. 0 3. 0 9. 8 21. 0	44. 9 48. 0 49. 0 47. 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.
Feb. 6 0. 0	21. 32. 40	Feb. 6 0. 0	*0913			Feb. 6 9. 0	47. 5		Feb. 8 1. 47	21. 32. 15	Feb. 8 2. 0	*0917			Feb. 8 1. 0	50. 0	
0. 11	31. 50	2. 0	*0920			21. 0	42. 6		1. 55	33. 30	2. 57	*0915			3. 0	51. 3	
0. 18	33. 10	4. 25	*0919						3. 12	***	3. 19	*0917			9. 0	51. 0	
4. 12	30. 0	4. 53	*0923						3. 12	30. 50	3. 45	*0913			21. 0	50. 0	
4. 33	29. 0	7. 7	*0926						4. 46	***	***	***					
5. 42	28. 50	7. 30	*0931						4. 46	29. 5	5. 46	*0913					
6. 47	27. 0	7. 53	*0925						5. 45	29. 0	6. 15	*0921					
7. 28	23. 20	9. 20	*0931						7. 58	26. 55	6. 28	*0920					
7. 54	27. 25	9. 38	*0928						10. 42	26. 25	6. 52	*0923					
9. 45	25. 30	***	***						17. 2	***	***	***					
9. 57	26. 15	11. 0	*0931						17. 6	27. 20	8. 10	*0921					
12. 13	25. 0	11. 23	*0933						17. 12	25. 30	8. 28	*0925					
13. 13	25. 10	12. 15	*0927						17. 12	26. 30	***	***					
13. 50	23. 0	12. 43	*0931						20. 43	***	12. 11	*0925					
14. 28	24. 50	13. 11	*0929						21. 50	23. 40	***	***					
14. 45	23. 0	13. 26	*0935						23. 59	***	19. 37	*0935					
18. 23	26. 45	13. 57	*0927						21. 50	25. 10	***	***					
21. 2	24. 35	14. 30	*0936						23. 59	***	23. 8	*0905					
23. 48	32. 0	15. 21	*0927						23. 59	31. 55	23. 18	*0908					
23. 59	31. 10	16. 43	*0933								23. 59	*0902					
Feb. 7 0. 0	21. 31. 10	Feb. 7 0. 0	*0907			Feb. 7 1. 0	45. 0		Feb. 9 0. 0	21. 31. 55	Feb. 9 0. 0	*0902			Feb. 9 1. 0	50. 0	
1. 26	33. 50	0. 26	*0912			3. 0	50. 0		0. 26	***	0. 10	*0909			3. 0	51. 3	
2. 25	33. 15	0. 51	*0911			9. 0	49. 5		0. 33	32. 25	0. 29	*0911			9. 0	51. 0	
2. 50	30. 50	***	***			21. 0	42. 0		0. 50	31. 40	0. 35	*0906			21. 0	50. 0	
4. 16	31. 10	2. 19	*0919						1. 4	34. 30	0. 51	*0912					
4. 53	28. 55	2. 55	*0911						2. 8	33. 25	1. 51	*0902					
9. 30	26. 15	3. 31	*0919						2. 8	***	2. 10	*0903					
16. 28	27. 35	4. 48	*0915						2. 8	37. 0	2. 17	*0897					
18. 27	26. 50	5. 27	*0923						2. 42	***	***	***					
20. 29	24. 25	5. 48	*0921						2. 42	37. 0	3. 26	*0894					
21. 41	24. 0	7. 45	*0924						2. 47	37. 0	3. 45	*0902					
23. 59	33. 45	10. 27	*0925						3. 3	33. 25	3. 54	*0899					
		12. 21	*0931						3. 15	36. 35	4. 0	*0907					
		13. 28	*0931						3. 28	36. 30	4. 14	*0896					
		***	***						3. 59	34. 50	4. 26	*0897					
		17. 0	*0943						4. 17	***	***	***					
		18. 43	*0945						4. 27	37. 5	4. 55	*0891					
		20. 52	*0940						4. 47	33. 20	5. 19	*0917					
		21. 30	*0931						4. 56	34. 45	5. 30	*0900					
		22. 30	*0928						5. 0	***	***	***					
		22. 51	*0922						5. 7	35. 30	5. 50	*0911					
		23. 59	*0919						5. 25	33. 30	5. 56	*0898					
									5. 41	34. 25	6. 7	*0907					
									5. 52	33. 25	6. 14	*0900					
									5. 58	***	6. 17	*0907					
									6. 25	34. 45	6. 26	*0877					
									6. 47	***	6. 30	*0896					
									6. 47	43. 40	6. 42	*0865					
									7. 27	***	6. 58	*0886					
									7. 27	7. 55	7. 15	*0875					
									8. 5	34. 35	7. 22	*0877					
									8. 26	25. 40	7. 28	*0866					
									8. 44	17. 10	7. 38	*0869					
									8. 59	7. 0	7. 43	*0866					
										22. 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. 9 h m		Feb. 9 h m		h m		h m	o	o	Feb. 9 h m		h m		h m		h m	o	o
9. 15	21. 13. 30	7. 58	.0873						23. 34	21. 31. 10							
9. 32	8. 10	8. 11	.0867						23. 59	34. 30							
9. 47	20. 10 ***	8. 43 8. 50	.0895 .0881														
10. 2	18. 30 ***	9. 1 9. 15	.0868 .0881						Feb. 10 0. 0	21. 34. 30	0. 0	.0873			1. 0	52. 0	
10. 30	24. 35 ***	9. 35 9. 55	.0897 .0879						0. 4	37. 15 ***	0. 19	.0862			3. 0	53. 5	
11. 15	24. 45	10. 15	.0896						0. 23	35. 5 ***	0. 57	.0873 ***			9. 0	53. 2	
11. 42	23. 5	10. 22	.0891						1. 7	37. 50	2. 30	.0875			21. 0	47. 2	
11. 47	23. 40		***						1. 20	36. 10 ***	2. 42	.0881 ***					
12. 0	21. 50	11. 44	.0893						2. 13	36. 30	3. 30	.0877					
12. 18	24. 0	11. 53	.0887						2. 32	33. 50	3. 52	.0885					
12. 30	31. 30	12. 12	.0894						2. 43	34. 50 ***	4. 5	.0881					
12. 42	26. 25 ***	12. 16 12. 33	.0889 .0902						3. 25	33. 0	5. 26	.0893					
13. 12	24. 50	12. 45	.0907						3. 37	31. 25	5. 43	.0871					
13. 33	10. 10 ***	13. 0 13. 11	.0895 .0905						3. 50	31. 30	5. 53	.0873					
13. 54	13. 0 ***	13. 23 13. 43	.0901 .0917 ***						3. 57	32. 0	6. 6	.0871					
14. 18	11. 45		***						4. 15	29. 40 ***	6. 43	.0905 .0885					
14. 45	23. 5	14. 15	.0885						5. 33	28. 0	7. 26	.0887					
14. 53	20. 30 ***	14. 31 14. 51	.0893 .0883 ***						5. 54	17. 30 ***	7. 47	.0883					
15. 13	21. 0		***						6. 30	11. 50	8. 38	.0889					
15. 33	30. 15 ***	15. 10 15. 33	.0895 .0881						7. 12	27. 0 ***	8. 49	.0923 .0888					
15. 50	33. 25	16. 0	.0884						8. 17	25. 0	9. 31	.0887					
16. 15	26. 50 ***	16. 21 16. 38	.0896 .0885 ***						8. 43	19. 50	10. 44	.0898					
16. 34	27. 25		***						8. 57	8. 0	11. 0	.0897					
16. 49	35. 0	17. 7	.0883						9. 13	19. 0	11. 14	.0901					
16. 59	39. 0 ***	17. 24 17. 45	.0899 .0905						9. 32	25. 50	11. 50	.0900					
17. 14	38. 45	17. 57	.0897						9. 48	23. 30 ***	13. 10	.0909					
17. 27	35. 10	18. 30	.0918						11. 17	27. 0	14. 23	.0911					
17. 45	31. 10		***						11. 38	25. 50 ***	14. 53	.0919					
17. 53	32. 40	19. 13	.0895						14. 2	27. 20	15. 22	.0916					
18. 2	29. 0 ***	20. 13	.0893						14. 36	30. 10	16. 13	.0909					
19. 8	30. 0 ***	20. 22 20. 34	.0888 .0892 ***						14. 47	28. 30 ***	18. 11	.0918					
19. 38	31. 50		***						16. 15	26. 55 ***	18. 44	.0915					
19. 45	29. 40	21. 27	.0867						17. 45	27. 0	19. 12	.0918					
19. 51	26. 25		***						18. 3	26. 15	23. 28	.0880					
19. 58	28. 0	22. 51	.0874						18. 24	27. 0 ***	23. 59	.0877					
20. 13	25. 15	23. 6	.0865														
20. 19	27. 30	23. 30	.0866						21. 7	25. 35 ***							
20. 32	26. 0	23. 59	.0873														
20. 40	28. 50								22. 5	27. 40							
20. 47	24. 10								22. 10	25. 35							
20. 59	26. 25 ***								22. 45	27. 20							
22. 4	29. 0								23. 0	30. 45							
22. 18	26. 55 ***								23. 17	32. 0							
23. 3	32. 0 ***								23. 30	30. 30							
									23. 40	32. 10							
									23. 46	32. 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.
Feb. 10 23. 52 23. 59	21. 33. 30 32. 55																
Feb. 11 0. 0 0. 30 0. 46 1. 8 1. 30 2. 0 2. 17 2. 29 2. 40 3. 26 4. 0 4. 25 5. 58 6. 50 7. 15 7. 30 7. 50 8. 42 10. 5 16. 41 21. 30 23. 18 23. 59	21. 32. 55 31. 30 32. 25 31. 50 33. 30 *** 31. 30 33. 10 31. 5 32. 40 28. 25 29. 45 28. 20 26. 30 26. 40 25. 50 26. 0 22. 0 26. 20 *** 25. 50 *** 26. 45 *** 26. 0 *** 31. 50 31. 35	Feb. 11 0. 0 2. 11 2. 30 2. 57 3. 43 6. 42 6. 47 7. 13 7. 42 8. 13 15. 29 18. 36 20. 5 23. 59	.0877 .0891 .0889 .0877 .0890 .0899 .0897 .0899 .0887 .0900 .0913 *** .0915 .0907 .0883	Feb. 11 1. 0 3. 0 9. 0 21. 0	51.0 53.0 53.0 49.8												
Feb. 12 0. 0 0. 57 2. 14 2. 30 3. 4 5. 23 6. 30 7. 2 7. 20 7. 38 8. 16 9. 33 9. 48 10. 15 10. 33 10. 54	21. 31. 35 *** 32. 35 *** 32. 30 31. 0 *** 31. 30 27. 25 *** 28. 20 *** 24. 0 26. 25 22. 30 *** 25. 40 *** 22. 50 20. 30 *** 22. 50 22. 20 23. 15	Feb. 12 0. 0 0. 21 1. 36 1. 53 2. 29 3. 26 4. 41 5. 2 5. 35 6. 43 7. 13 7. 29 7. 42 8. 21 8. 46 9. 22 9. 43 9. 49 10. 10 10. 31 11. 36 12. 29 14. 0	.0883 .0887 .0889 .0892 .0891 .0901 .0901 .0897 .0903 *** .0901 .0915 .0914 .0911 .0913 .0907 .0897 .0897 .0901 .0903 .0897 .0903 .0900 .0907	Feb. 12 1. 0 3. 0 9. 0 21. 45	53.0 55.0 53.8 49.5												
Feb. 12 11. 56 13. 3 13. 32 14. 42 17. 58 19. 20 21. 8 21. 50 23. 59	21. 21. 50 *** 25. 0 24. 30 *** 27. 20 *** 25. 55 25. 50 23. 40 24. 0 32. 15	Feb. 12 14. 38 17. 52 20. 19 23. 30 23. 59	.0905 .0914 .0907 .0891 .0893														
Feb. 13 0. 0 2. 6 3. 30 5. 4 5. 47 16. 0 18. 50 19. 30 20. 20 21. 26 22. 20 23. 34 23. 59	21. 32. 15 33. 5 30. 15 27. 45 26. 20 27. 0 26. 10 28. 0 24. 0 23. 40 26. 10 32. 55 31. 25	Feb. 13 0. 0 1. 57 3. 7 5. 17 6. 16 10. 28 14. 50 18. 46 19. 15 19. 54 20. 20 22. 52 23. 35 23. 59	.0893 .0901 .0897 .0905 .0905 .0913 .0915 .0924 .0918 .0923 .0915 .0895 .0891 .0887														
Feb. 14 0. 0 0. 48 1. 35 1. 56 5. 42 9. 30 11. 16 12. 15 13. 28 15. 7 16. 32 17. 4 21. 33 23. 59	21. 31. 25 *** 35. 0 32. 30 33. 30 27. 40 26. 0 26. 10 26. 45 25. 50 *** 27. 50 *** 28. 0 26. 30 *** 23. 20 *** 31. 30	Feb. 14 0. 0 0. 26 0. 45 1. 13 1. 46 2. 15 2. 56 7. 13 10. 43 10. 58 12. 25 12. 51 13. 43 13. 48 16. 0 19. 54 20. 36 21. 19 22. 45 23. 19 23. 41 23. 59	.0887 .0885 .0888 .0885 .0892 .0891 .0897 .0909 .0918 .0914 .0917 .0920 *** .0921 .0915 .0927 *** .0926 .0923 .0911 .0903 .0903 .0905 .0900														
Feb. 15 0. 0 0. 13	21. 31. 30 32. 0	Feb. 15 0. 0 0. 14	.0900 .0903														
Feb. 13 0. 0 2. 6 3. 30 5. 4 5. 47 16. 0 18. 50 19. 30 20. 20 21. 26 22. 20 23. 34 23. 59	21. 32. 15 33. 5 30. 15 27. 45 26. 20 27. 0 26. 10 28. 0 24. 0 23. 40 26. 10 32. 55 31. 25	Feb. 13 7. 0 21. 0	53.0 48.0														
Feb. 14 0. 0 0. 48 1. 35 1. 56 5. 42 9. 30 11. 16 12. 15 13. 28 15. 7 16. 32 17. 4 21. 33 23. 59	21. 31. 25 *** 35. 0 32. 30 33. 30 27. 40 26. 0 26. 10 26. 45 25. 50 *** 27. 50 *** 28. 0 26. 30 *** 23. 20 *** 31. 30	Feb. 14 1. 0 3. 0 9. 0 21. 0	50.5 53.0 52.5 45.0														
Feb. 15 0. 0 0. 13	21. 31. 30 32. 0	Feb. 15 1. 0 3. 0	48.0 50.8														

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. 15 0. 54 1. 12 2. 38 2. 50 5. 5 5. 20 5. 45 6. 10 7. 8 8. 6 8. 18 8. 43 9. 14 9. 58 10. 16 10. 35 11. 4 12. 26 14. 52 18. 42 20. 17 23. 8 23. 59	21. 31. 10 32. 25 *** 33. 0 30. 30 *** 29. 55 28. 30 28. 30 27. 10 27. 30 *** 23. 15 24. 20 23. 0 24. 25 19. 30 21. 50 12. 55 13. 25 26. 0 28. 25 *** 26. 20 *** 22. 30 *** 26. 40 31. 25	Feb. 15 1. 28 2. 36 2. 51 4. 23 5. 0 5. 52 6. 17 7. 52 8. 12 8. 28 9. 0 9. 38 10. 10 10. 13 10. 18 10. 36 10. 54 11. 38 12. 52 14. 29 17. 14 18. 16 18. 33 20. 32 22. 7 23. 40 23. 59	.0898 .0904 .0899 .0910 .0908 .0896 .0901 *** .0894 .0903 .0896 .0906 .0901 .0905 .0911 .0899 .0905 .0894 .0893 *** .0903 .0906 .0917 *** .0913 *** .0917 *** .0905 *** .0888 .0886 .0891			Feb. 15 9. 0 21. 0	53. 0 51. 0		Feb. 16 0. 0 0. 37 1. 0 1. 26 3. 30 3. 45 4. 16 5. 12 6. 43 8. 10 9. 17 9. 58 10. 53 13. 34 15. 15 18. 13	21. 31. 25 26. 35 33. 30 31. 50 *** 30. 45 31. 30 28. 35 29. 0 25. 15 23. 50 24. 30 21. 50 *** 23. 30 *** 26. 45 *** 29. 55 *** 26. 0 *** 13. 59	Feb. 16 0. 0 0. 40 1. 5 1. 23 2. 12 2. 37 2. 54 3. 45 4. 10 5. 7 6. 22 7. 16 8. 12 8. 54 9. 30 10. 29 11. 52 13. 59	.0891 .0881 .0888 .0883 .0885 .0883 .0889 *** .0885 .0879 .0895 .0900 .0897 .0901 .0896 .0901 *** .0900 *** .0907 *** .0905			Feb. 16 1. 0 3. 0 9. 0 21. 0	54. 0 57. 0 58. 0 53. 0		Feb. 16 19. 29 19. 43 19. 56 21. 20 23. 15 23. 42 23. 59 Feb. 17 0. 0 0. 58 1. 37 1. 53 2. 38 3. 0 3. 32 4. 10 5. 15 7. 50 8. 25 9. 20 11. 13 11. 34 12. 10 13. 13 15. 32 15. 57 16. 30 17. 5 18. 48 21. 23 22. 47 23. 3 23. 59	21. 29. 15 27. 0 29. 20 *** 25. 55 *** 28. 20 31. 50 30. 15 Feb. 17 21. 30. 15 *** 34. 0 *** 32. 15 *** 33. 55 *** 33. 30 31. 30 33. 0 *** 28. 40 28. 30 25. 0 21. 40 24. 55 23. 50 27. 30 27. 30 24. 0 *** 28. 0 33. 0 28. 0 25. 50 *** 24. 30 *** 22. 25 *** 26. 10 28. 30 *** 31. 30	Feb. 16 14. 30 15. 10 15. 55 17. 10 17. 53 19. 12 19. 41 20. 1 21. 49 23. 15 23. 39 23. 47 23. 59 Feb. 17 0. 0 0. 11 0. 14 0. 30 0. 49 1. 36 1. 57 2. 54 3. 10 3. 51 4. 26 5. 5 9. 54 11. 1 11. 41 12. 13 12. 52 13. 15 13. 37 15. 31 15. 49 16. 15 17. 5 18. 52 19. 15 20. 11	.0909 *** .0906 .0909 .0919 *** .0912 *** .0917 *** .0913 *** .0917 *** .0897 *** .0895 .0884 .0887 .0884 Feb. 17 1. 0 3. 0 9. 0 21. 0	56. 0 58. 0 58. 0 50. 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.		
h m	o ' "	h m	h m	h m	h m	h m	o	o	h m	o ' "	h m	h m	h m	h m	h m	o	o		
		Feb. 17																	
		22. 15	'0890						Feb. 20		Feb. 20				Feb. 20				
		23. 31	'0885						0. 0	21. 30. 35	0. 0	'0916			9. 50	49. 5			
		23. 59	'0876						1. 27	33. 30	0. 44	'0917			21. 0	49. 0			
										***	1. 28	'0927							
									4. 13	28. 50	1. 48	'0921							
										***	2. 11	'0927							
										***		'0927							
Feb. 18		Feb. 18	'0876			Feb. 18			9. 26	25. 20	3. 22	'0921							
0. 0	21. 31. 30	0. 0	'0869			1. 0	52. 5		9. 52	23. 45	3. 53	'0927							
0. 26	33. 55	0. 13	'0886			3. 0	54. 0		10. 12	25. 30	4. 16	'0919							
0. 50	34. 30	2. 0	'0899			9. 0	53. 0		14. 17	26. 25	6. 32	'0925							
1. 16	33. 25	***	'0876			21. 0	45. 0		19. 28	25. 30	7. 12	'0921							
1. 36	35. 30	3. 5	'0900						20. 40	25. 0	11. 9	'0927							
2. 7	33. 40	***	'0912						22. 15	27. 45	17. 29	'0932							
3. 16	31. 30	5. 22	'0913							***	20. 3	'0924							
4. 17	28. 35	***	'0920						23. 30	28. 30	22. 18	'0905							
5. 42	26. 20	8. 10	'0917						23. 59	30. 10	22. 50	'0907							
8. 46	25. 0	***	'0920								23. 0	'0904							
9. 54	24. 35	11. 49	'0919								23. 13	'0908							
	***	12. 13	'0924								23. 27	'0899							
10. 43	21. 20	13. 12	'0926								23. 59	'0898							
12. 4	23. 50	13. 24	'0931																
12. 40	21. 45	13. 44	'0935						Feb. 21		Feb. 21								
13. 11	23. 25	14. 29	'0925						0. 0	21. 30. 10	0. 0	'0898			Feb. 21	1. 0	53. 0		
13. 32	23. 35	15. 32	'0908						1. 30	31. 25	0. 27	'0901				3. 0	57. 0		
14. 15	26. 45	16. 22	'0904						2. 36	31. 40	0. 58	'0897				9. 0	58. 0		
15. 28	28. 5	19. 10	'0904							***	2. 14	'0898				21. 0	51. 0		
16. 26	26. 15	***	'0909						4. 12	27. 50	2. 30	'0901							
18. 52	25. 55	20. 53	'0909						8. 45	25. 30	2. 40	'0900							
	***	***	'0908							***	2. 48	'0904							
21. 18	23. 10	22. 30	'0911						13. 10	23. 40	3. 0	'0898							
	***	22. 50	'0907						16. 18	25. 5	3. 10	'0904							
23. 59	31. 20	23. 30	(†)						18. 7	24. 15	3. 53	'0897							
									21. 8	21. 0	4. 43	'0901							
									23. 59	29. 45	6. 15	'0901							
											6. 40	'0909							
Feb. 19		Feb. 19	(†)			Feb. 19					7. 10	'0907							
0. 0	21. 31. 20		'0903			1. 0	48. 0				7. 30	'0910							
0. 39	31. 50	0. 15	'0908			3. 0	51. 0				8. 12	'0910							
	***	***	'0904			9. 0	52. 1				8. 45	'0904							
2. 33	32. 20	0. 30	'0909			22. 5	49. 0				9. 21	'0910							
3. 56	28. 35	***	'0909								10. 17	'0913							
8. 50	26. 0	2. 0	'0905								10. 31	'0918							
8. 55	25. 30	***	'0908								11. 29	'0914							
10. 4	25. 20	3. 30	'0904									'0915							
10. 28	21. 45	4. 0	'0909								13. 40	'0915							
10. 49	23. 25	4. 29	'0917								18. 18	'0927							
11. 16	24. 0	5. 16	'0923								20. 13	'0920							
	***	5. 45	'0918								20. 59	'0911							
17. 10	25. 40	10. 15	'0923								23. 52	'0894							
	***	10. 29	'0922								23. 59	'0895							
21. 2	23. 0	10. 53	'0925																
	***	11. 13	'0930																
23. 59	30. 35	12. 31	'0933						Feb. 22		Feb. 22								
		12. 51	'0910						0. 0	21. 29. 45	0. 0	'0895			Feb. 22	1. 0	54. 2		
			'0916						0. 17	31. 20	0. 43	'0899				3. 0	56. 0		
									1. 36	32. 40	2. 13	'0901				9. 0	56. 5		
									1. 50	31. 50	2. 30	'0905				21. 0	47. 0		
									2. 32	31. 20	2. 42	'0903							
									5. 12	26. 20	4. 21	'0912							

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. 22		Feb. 22															
6. 18	21. 26. 10	6. 19	.0910						Feb. 22	21. 27. 0							
6. 59	25. 30	6. 51	.0912						21. 30	21. 27. 0							
7. 30	27. 20	6. 55	.0944						21. 38	23. 45							
8. 12	26. 0	7. 25	.0925							***							
	***		***						21. 54	27. 20							
8. 54	25. 10	8. 0	.0927							(†)							
9. 43	22. 20		***						23. 45	31. 50							
10. 8	22. 30	10. 11	.0919						23. 59	31. 20							
10. 17	21. 50	10. 14	.0926						Feb. 23		Feb. 23						
	(†)	10. 17	.0918						0. 0	21. 31. 20	0. 0	.0887			Feb. 23	1. 0	50.9
11. 13	25. 15	10. 41	.0931							***	0. 27	.0891				3. 0	54.0
11. 48	3. 0	10. 46	.0926						1. 42	34. 15	0. 44	.0895				9. 0	53.7
12. 3	12. 50	10. 52	.0931						1. 54	33. 25	1. 7	.0895				21. 0	44.8
	***	11. 14	.0919						2. 13	34. 20	1. 26	.0899					
12. 20	13. 0	11. 35	.0917						2. 31	29. 50	1. 53	.0897					
12. 45	4. 50	11. 55	.0935						2. 43	32. 20	2. 6	.0904					
13. 0	11. 10	12. 32	.0881						3. 0	31. 35	2. 15	.0906					
	***	12. 50	.0894						3. 10	32. 0	2. 22	.0897					
13. 32	16. 55	13. 10	.0892							***		***					
	***	13. 36	.0901						3. 45	27. 15	2. 58	.0899					
13. 45	15. 0	14. 0	.0892							***	3. 22	.0896					
	***	14. 8	.0897						4. 16	28. 0		***					
14. 12	15. 5	14. 12	.0895							***	3. 54	.0901					
	***	14. 52	.0928						5. 34	25. 5	4. 19	.0897					
14. 17	17. 50	15. 0	.0927							***	4. 21	.0899					
14. 28	24. 0	15. 10	.0933						5. 54	26. 0	4. 58	.0896					
	***	15. 19	.0927						6. 15	17. 40	5. 6	.0898					
15. 37	27. 0		***						6. 36	22. 30	5. 23	.0893					
	***	15. 55	.0931						6. 48	22. 40	5. 31	.0894					
16. 11	26. 0		***						6. 55	19. 40	6. 2	.0877					
16. 32	22. 0	16. 28	.0928						7. 2	20. 30	6. 15	.0888					
16. 38	24. 0	16. 36	.0938						7. 15	13. 35	6. 29	.0890					
16. 47	20. 45	16. 42	.0931						7. 18	14. 0	6. 40	.0888					
	***	17. 0	.0931						7. 30	8. 25	6. 54	.0902					
17. 16	26. 0		***						7. 43	12. 0	7. 0	.0891					
	***	17. 29	.0916						7. 50	11. 0	7. 11	.0906					
17. 50	24. 0	17. 57	.0911						8. 12	17. 40	7. 13	.0905					
18. 8	25. 55	18. 11	.0915						8. 30	24. 30	7. 16	.0910					
18. 30	22. 0		***							***	7. 42	.0867					
18. 34	25. 40	19. 3	.0917						8. 46	19. 30	7. 44	.0872					
18. 46	23. 20	19. 22	.0929						9. 10	21. 15	8. 0	.0850					
19. 2	27. 30		***						9. 42	12. 15	8. 30	.0875					
	***	20. 0	.0931						9. 56	18. 40	8. 42	.0888					
19. 26	24. 10		***						10. 6	19. 0	9. 5	.0877					
19. 31	27. 50	20. 58	.0916						10. 17	5. 30	9. 29	.0868					
	***		***						10. 29	8. 0	10. 7	.0891					
19. 52	24. 50	21. 44	.0916						10. 43	0. 15	10. 15	.0886					
20. 1	26. 5	21. 59	.0909						10. 50	9. 30	10. 28	.0903					
20. 8	24. 45		(†)						11. 5	8. 0	10. 40	.0893					
20. 11	26. 40								11. 32	15. 0	10. 55	.0909					
20. 28	22. 0								11. 46	14. 5	11. 11	.0881					
20. 32	24. 20								12. 13	15. 0	11. 42	.0896					
20. 37	23. 40								12. 30	19. 30	11. 49	.0895					
20. 43	23. 45								12. 45	19. 20	12. 11	.0904					
20. 47	22. 30								13. 3	18. 0	12. 32	.0905					
20. 50	25. 0								13. 34	21. 40	12. 53	.0901					
	***								14. 15	21. 50		***					
21. 0	23. 0								14. 32	24. 30	14. 11	.0913					
	***											***					

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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. 25 2. 57	21. 36. 30 ***	Feb. 25 2. 52 3. 3	*0903 *0900 ***						Feb. 26 4. 18	21. 48. 50 ***	Feb. 26 6. 14 6. 30	*0894 *0891 *0891 *0908 *0900 *0915 *0896 *0911 *0892 *0902 *0897 *0907 *0905 ***								
4. 12 5. 11	33. 25 33. 0 ***	4. 4 5. 3	*0897 *0902 ***						4. 40 4. 47 4. 56 5. 42 5. 50 6. 7	40. 35 50. 0 45. 0 27. 20 31. 10 25. 30 ***	7. 0 7. 31 7. 50 8. 16 8. 36 9. 7 9. 25 9. 45 10. 16 10. 29 ***									
6. 8 6. 30 6. 40 7. 0 7. 12 7. 28 7. 46 8. 4 8. 38 9. 7 13. 15 17. 26	29. 0 22. 30 29. 20 23. 30 26. 0 25. 50 28. 30 27. 0 28. 30 27. 0 28. 30 ***	6. 10 6. 31 6. 42 6. 56 7. 5 7. 13 7. 27 7. 54 8. 15 11. 52 16. 26 17. 22	*0897 *0928 *0916 *0913 *0917 *0911 *0911 *0901 *0905 *0913 *0929 ***						8. 13 8. 27 9. 0 9. 29 9. 38 10. 12	22. 55 17. 50 27. 0 20. 0 21. 20 *** 18. 45 ***	11. 44 11. 58 12. 39 13. 14 15. 56 18. 30 ***	*0917 *0912 *0916 *0907 *0911 *0908 *0914 *** *0917 *0925 ***								
21. 45 22. 11 22. 17 22. 26 22. 48 23. 7 23. 18 23. 41 23. 59	30. 0 30. 0 29. 0 33. 30 31. 0 31. 0 35. 0 35. 45 *** 38. 55	21. 30 21. 40 22. 18 22. 35 22. 52 23. 3 23. 15 23. 36 23. 59	*0913 *0919 *0896 *0904 *0886 *0882 *0891 *0889 *0901						10. 33 11. 15 11. 30 11. 40 11. 56 12. 18 13. 26	23. 15 25. 50 23. 50 25. 35 23. 15 25. 0 (†) 27. 20 ***	21. 36 21. 45 22. 22 22. 29 23. 12 23. 35 23. 49 23. 59	*0906 *0909 *0901 *0904 *0904 *0897 *0900 *0898								
Feb. 26 0. 0 0. 28 0. 45 0. 56 1. 8 1. 15 1. 19 1. 44 1. 50 2. 3 2. 15 2. 28 2. 33 2. 45 2. 52 3. 16 3. 24 3. 33 3. 42 3. 47 3. 56 4. 0 4. 4	21. 38. 55 *** 41. 0 41. 0 46. 0 41. 5 39. 10 42. 50 40. 15 41. 10 39. 0 41. 30 39. 10 40. 50 38. 30 40. 5 *** 40. 10 43. 30 39. 0 33. 25 36. 40 33. 20 34. 0 33. 0	Feb. 26 0. 0 0. 34 0. 45 0. 58 1. 13 1. 22 1. 28 1. 50 2. 3 3. 9 3. 13 3. 26 3. 38 3. 49 3. 57 4. 15 4. 32 4. 43 4. 54 4. 59 5. 23 5. 42 5. 54 6. 1	*0901 *0916 *0913 *0927 *0915 *0924 *0919 *0923 *0908 *** *0924 *0919 *0937 *0923 *0926 *0915 *0945 *0901 *0917 *0895 *0896 *0872 *0887 *0887 *0881						Feb. 26 1. 0 3. 0 9. 0 22. 35	49. 0 51. 8 52. 0 48. 0										
2. 52 3. 16 3. 24 3. 33 3. 42 3. 47 3. 56 4. 0 4. 4	40. 5 *** 40. 10 43. 30 39. 0 33. 25 36. 40 33. 20 34. 0 33. 0	3. 57 4. 15 4. 32 4. 43 4. 54 4. 59 5. 23 5. 42 5. 54 6. 1	*0915 *0945 *0901 *0917 *0895 *0896 *0872 *0887 *0887 *0881						Feb. 27 0. 0 1. 47 2. 18 2. 43 2. 52 3. 6 3. 14 3. 18 3. 28 3. 47	21. 34. 30 *** 38. 0 *** 37. 15 *** 38. 35 37. 0 38. 25 37. 30 40. 0 33. 20 33. 50 ***	0. 0 1. 15 1. 54 2. 39 2. 45 3. 9 3. 15 3. 29 3. 44 4. 7 4. 39 4. 45	*0898 *0903 *** *0896 *** *0903 *0896 *0909 *0918 *0896 *0900 *0895 *0915 *0912								

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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 Thermometers.		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 Thermometers.	
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
Feb. 27 h m 4. 12	° / // 21. 31. 20 ***	Feb. 27 h m 4. 52	° '0920	h m		h m	°	°	Feb. 28 h m 14. 32	° / // 21. 15. 50	Feb. 28 h m 18. 52	° '0913	h m	h m	h m	°	°
4. 41	32. 0 ***	5. 0	'0914						14. 50	15. 30	19. 43	'0909					
5. 27	29. 50	5. 11	'0919						15. 15	23. 10	20. 11	'0980					
7. 45	27. 30 ***	5. 40	'0915						15. 45	27. 5	20. 25	'0907					
9. 13	26. 10	6. 5	'0922						16. 26	24. 45 ***	21. 45	'0897					
16. 7	28. 30	7. 16	'0916						17. 20	26. 30	21. 58	'0889					
18. 53	25. 50	8. 11	'0922 ***						17. 46	25. 30	23. 44	'0881					
19. 45	23. 30	9. 27	'0916						18. 18	26. 45 ***	23. 59	'0881					
20. 11	23. 30	9. 50	'0920 ***						19. 27	26. 10							
20. 33	21. 50	10. 22	'0919						19. 47	24. 0 ***							
22. 32	24. 40	11. 2	'0921						21. 30	27. 0							
22. 56	27. 0	11. 22	'0921						21. 40	29. 0							
23. 8	26. 30	14. 30	'0930						23. 59	31. 30							
23. 15	29. 0	16. 10	'0933						Mar. 1		Mar. 1						
23. 30	27. 30	18. 56	'0929						0. 0	21. 31. 30	0. 0	'0881					
23. 39	30. 20	20. 0	'0912						0. 38	32. 0	0. 39	'0874					
23. 59	31. 45	21. 27	'0914						0. 51	33. 20	0. 45	'0880					
		21. 40	'0899 ***						1. 4	32. 30	1. 53	'0876					
		22. 29	'0903						1. 13	33. 10	4. 14	'0885					
		23. 10	'0897						1. 56	29. 30	4. 40	'0882					
		23. 15	'0902						4. 22	25. 25 ***	5. 6	'0889					
		23. 27	'0898 (†)						7. 3	25. 20	5. 24	'0885					
		23. 46							8. 39	26. 30	6. 7	'0889					
									8. 47	25. 0	6. 30	'0884					
Feb. 28	21. 31. 45	Feb. 28	(†)			Feb. 28	1. 0 49. 0		8. 53	20. 0	7. 13	'0890					
0. 0	29. 0	0. 20	'0896				3. 0 53. 2		10. 5	23. 10	8. 15	'0890					
0. 12	32. 30	0. 34	'0902				9. 0 52. 0		11. 8	23. 25	8. 29	'0893					
0. 18	34. 30	0. 43	'0897				21. 0 48. 0		12. 12	21. 0	8. 52	'0883					
0. 29	33. 35		'0901						13. 58	23. 25	9. 12	'0888					
0. 43	34. 5	2. 57	'0904						15. 27	23. 30	9. 30	'0891					
1. 42	33. 10	3. 22	'0905						15. 50	20. 15	9. 45	'0887					
1. 55	33. 50	4. 45	'0923						16. 17	18. 35	11. 15	'0887					
2. 4	31. 10 ***	7. 50	'0919						20. 55	23. 30	11. 51	'0895					
2. 30	29. 15 ***	8. 27	'0897						21. 57	25. 30	12. 28	'0889					
3. 45	27. 10 ***	8. 45	'0902						22. 32	28. 30	15. 13	'0900					
5. 0	26. 40 ***	9. 38	'0895						22. 48	27. 40 ***	15. 45	'0914					
7. 40	27. 0	10. 7	'0893						23. 30	32. 30	16. 47	'0909					
8. 8	21. 30	10. 45	'0897						23. 59	32. 45	18. 41	'0915					
8. 47	27. 35	11. 10	'0894 ***								21. 4	'0909					
9. 50	23. 45	11. 26	'0906 ***								21. 52	'0897					
10. 15	23. 0	12. 45	'0906 ***								22. 0	'0901					
11. 23	20. 15	13. 15	'0917 ***								22. 43	'0895					
11. 48	21. 10	14. 11	'0907 ***								22. 53	'0897					
13. 17	16. 5	14. 56	'0915 ***								23. 59	'0887					
13. 48	16. 25								Mar. 2		Mar. 2						
14. 13									0. 0	21. 32. 45 ***	0. 0	'0887					
									2. 18	32. 30	1. 30	'0888					
									2. 39	36. 35	2. 14	'0883					
									3. 19	35. 20	3. 11	'0885					
									3. 34	33. 50	3. 28	'0879					
									4. 5	32. 30	4. 43	'0886					
									4. 50	33. 0	5. 11	'0885					
											5. 28	'0887					

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. 4 P M		Mar. 4 P M				Mar. 5 P M			Mar. 5 P M						Mar. 6 P M		
10. 45	21. 25. 0	12. 10	'0901			1. 0	60. 0		0. 0	21. 37. 20	0. 0	'0885			6. 25	58. 5	
11. 26	26. 55	12. 28	'0909			3. 0	62. 2		0. 30	***	0. 30	'0881			21. 0	54. 0	
11. 30	30. 5	13. 9	'0895			9. 0	61. 3		2. 22		2. 22	'0893					
11. 44	27. 10	14. 15	'0893			22. 0	53. 0		8. 7		8. 7	'0905					
12. 42	31. 30	16. 13	'0899						9. 55		9. 55	'0905					
	***	17. 12	'0897						17. 18		17. 18	'0917					
13. 36	28. 35	17. 40	'0892						17. 51		17. 51	'0915					
	***	18. 1	'0897						18. 11		18. 11	'0917					
15. 3	29. 55	18. 33	'0895						18. 43		18. 43	'0913					
	***	19. 46	'0899						***		***	***					
15. 57	29. 30		***						11. 20		29. 5	'0910					
16. 25	27. 5	21. 55	'0880						15. 45		30. 5	'0910					
17. 15	29. 0	22. 41	'0881						17. 57		29. 30	'0885					
17. 33	31. 25	23. 0	'0876						18. 18		28. 50	'0884					
18. 16	29. 45	23. 17	'0881						18. 57		31. 0	'0879					
18. 43	30. 10	23. 45	'0880						***		***	'0881					
19. 23	28. 0	23. 59	'0873						20. 11		26. 20						
	***								20. 18		27. 15						
20. 40	26. 30								21. 12		26. 50						
	***								***		***						
21. 3	28. 30								22. 9		28. 55						
21. 27	27. 25								23. 59		35. 35						

23. 2	33. 25								Mar. 7	21. 35. 35	0. 0	'0881			Mar. 7	1. 0	56. 0
23. 19	36. 45								0. 0	***	0. 36	'0879			3. 0	58. 0	
23. 59	36. 30								1. 2	38. 10	***	***			9. 0	58. 0	
									2. 14	38. 15	***	'0884			21. 0	49. 7	
Mar. 5 P M		Mar. 5 P M				Mar. 5 P M			1. 30		1. 30	'0884					
0. 0	21. 36. 30	0. 0	'0873			1. 0	60. 0		1. 52		1. 52	'0882					
	***	0. 11	'0871			3. 0	62. 2		***		2. 21	'0889					
0. 17	35. 30	0. 30	'0881			9. 0	61. 3		2. 45		2. 45	'0887					
0. 39	38. 35	1. 15	'0873						***		4. 42	'0897					
1. 1	38. 0	1. 38	'0884						3. 54		34. 20	'0887					
1. 17	36. 35	2. 12	'0881						6. 50		30. 30	'0897					
1. 45	39. 45	2. 29	'0884						8. 30		30. 0	'0897					
2. 30	39. 15	***	***						8. 46		9. 0	'0886					
2. 43	39. 25	3. 6	'0874								9. 16	'0880					
	***	3. 37	'0885								10. 10	'0892					
3. 11	34. 30	3. 49	'0881								10. 26	'0891					
3. 27	34. 35	4. 0	'0883								10. 46	'0909					
	***	4. 16	'0873														
3. 54	32. 40	4. 55	'0882														
4. 13	34. 30	5. 23	'0877														
4. 40	33. 20	***	***														
5. 4	34. 10	6. 12	'0883														
6. 15	31. 15	6. 44	'0874														
6. 30	32. 0	7. 0	'0884														
7. 0	26. 40	***	***														
7. 15	29. 30	7. 44	'0883														
7. 38	30. 30	8. 4	'0915														
8. 3	22. 30	8. 18	'0890														
8. 17	29. 30	8. 30	'0899														
8. 30	23. 30	8. 40	'0889														
8. 46	25. 15	9. 0	'0886														
	***	9. 16	'0880														
9. 4	25. 20	10. 10	'0892														
9. 22	29. 5	10. 26	'0891														
	***	10. 46	'0909														

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							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.					
Mar. 7 16. 12 18. 12 21. 7 22. 42 22. 50 23. 59	21. 30. 30 29. 45 *** 24. 35 *** 30. 55 30. 35 *** 34. 40	Mar. 7 8. 13 18. 52 20. 0 21. 45 22. 22 23. 11 23. 59	.0905 .0922 .0919 .0897 .0891 .0882 .0893						Mar. 9 13. 17 13. 45 14. 10 14. 28 14. 57 18. 2 20. 27 21. 40 22. 3 22. 19 23. 21 23. 46	21. 26. 20 25. 50 26. 40 26. 5 27. 30 27. 45 *** 23. 55 *** 24. 30 26. 40 27. 5 33. 0 *** 34. 0 (†)	Mar. 9 10. 35 10. 52 11. 25 11. 44 12. 5 12. 21 14. 12 14. 22 17. 40 18. 15 19. 0 20. 4 20. 37 21. 39 21. 45 22. 18 22. 42 23. 13 23. 40 23. 59	.0912 .0904 .0901 .0911 .0915 .0909 *** .0925 .0921 *** .0933 .0932 .0935 .0926 .0925 .0915 .0918 .0903 .0907 .0900 .0896 .0900					Mar. 10 0. 13 0. 28 1. 4 1. 52 2. 13 3. 15 3. 20 4. 46 5. 0 5. 32 6. 43 6. 58 7. 17 7. 30 7. 56 9. 13 9. 45 10. 28 10. 50 11. 25 11. 40 11. 56 13. 18 13. 30 13. 45	(†) 21. 31. 5 30. 55 33. 10 *** 34. 0 31. 30 *** 30. 0 30. 40 *** 25. 20 26. 30 *** 24. 0 *** 23. 15 23. 50 22. 45 23. 30 20. 0 *** 20. 20 *** 16. 50 21. 40 22. 30 *** 18. 0 19. 30 16. 25 *** 11. 48 11. 57 12. 12 26. 0	Mar. 10 0. 0 0. 15 0. 58 1. 21 1. 52 2. 15 2. 38 4. 52 5. 10 5. 28 5. 42 5. 55 6. 15 6. 38 7. 21 7. 35 7. 46 8. 9 8. 22 8. 38 8. 45 9. 0 9. 22 10. 0 10. 58 11. 22 11. 34 11. 48 11. 57 12. 12 12. 23	.0900 .0894 *** .0904 .0897 .0901 .0896 .0901 *** .0894 .0899 .0904 .0899 .0903 .0893 .0895 *** .0892 .0896 .0887 .0883 .0884 .0892 .0891 .0898 .0893 *** .0895 .0909 .0906 .0909 .0906 .0911 .0893 .0905	Mar. 10 1. 0 3. 0 9. 6 21. 0	47. 2 52. 0 53. 0 45. 0
Mar. 8 0. 0 0. 15 0. 28 0. 43 0. 50 0. 56 1. 23 2. 14 4. 0 4. 32 6. 15 10. 4 14. 15 14. 36 15. 41 15. 50 16. 13 17. 5 19. 7 20. 32 21. 6 22. 0 22. 8 22. 30 22. 45 22. 59 23. 18 23. 59	21. 34. 40 34. 10 38. 40 38. 0 39. 15 38. 0 36. 25 38. 15 34. 30 32. 0 29. 55 29. 30 28. 25 30. 30 26. 30 27. 30 25. 0 29. 0 *** 28. 30 26. 30 27. 0 31. 30 30. 30 31. 30 33. 35 33. 30 32. 15 33. 0	Mar. 8 0. 0 0. 16 *** 0. 55 1. 12 *** 2. 9 *** 3. 43 3. 53 *** 4. 24 4. 56 6. 30 7. 25 9. 25 11. 0 11. 33 12. 0 13. 13 14. 28 15. 16 15. 46 16. 9 16. 54 18. 30 20. 36 22. 0 22. 37 23. 59	.0893 .0889 *** .0894 .0883 *** .0889 *** .0894 .0884 *** .0893 .0890 .0902 .0903 .0910 .0912 .0917 .0914 .0919 *** .0918 .0927 .0930 .0921 .0919 .0925 .0917 .0899 .0886 .0889			Mar. 8 1. 0 3. 0 9. 0 21. 0	51. 0 52. 5 49. 5 42. 0		Mar. 9 0. 0 0. 24 1. 55 2. 15 2. 30 3. 48 4. 0 4. 45 5. 50 7. 0 10. 30 10. 45 11. 17 11. 48	21. 33. 0 34. 40 36. 5 35. 0 35. 20 32. 20 32. 45 29. 5 27. 0 29. 20 25. 0 20. 0 26. 10 22. 5 ***	Mar. 9 0. 0 0. 22 0. 45 1. 10 2. 16 3. 18 3. 49 3. 58 5. 21 5. 50 6. 22 6. 42 7. 2 7. 49 ***	.0889 .0895 .0892 .0895 .0892 .0892 .0894 .0897 .0896 .0903 .0895 .0898 .0899 .0905 ***			Mar. 9 1. 0 3. 0 9. 0 21. 0	47. 0 50. 0 50. 0 41. 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.
Mar. 10 14. 3	21. 23. 45	Mar. 10 12. 42	0897							Mar. 11 19. 48	21. 23. 35	Mar. 11 14. 28	0929				
14. 50	27. 0	13. 2	0903							20. 0	26. 5	14. 41	0925				
15. 15	23. 50	13. 21	0913							20. 28	24. 0	14. 59	0926				
15. 32	28. 55	13. 33	0910							20. 37	25. 35	15. 15	0921				
16. 40	25. 40	15. 7	0913							20. 59	23. 30	16. 4	0923				
17. 20	25. 20	15. 54	0925							21. 17	27. 5	16. 14	0927				
17. 28	23. 45	16. 5	0923							21. 25	25. 30	16. 26	0926				
17. 40	25. 0	17. 47	0929							22. 3	26. 5	16. 43	0930				
18. 12	22. 40	18. 8	0940							23. 59	29. 40	18. 8	0931				
18. 36	24. 0	18. 52	0930									18. 14	0926				
19. 30	21. 50	19. 15	0934									18. 40	0931				
19. 52	22. 50	20. 14	0931									19. 0	0923				
20. 4	21. 0	20. 59	0924									19. 57	0922				
20. 37	23. 30	21. 31	0909									20. 28	0912				
20. 45	22. 0	21. 43	0912									20. 54	0913				
21. 30	26. 5	23. 4	0895									21. 2	0919				
22. 57	26. 45	23. 59	0899									22. 15	0902				
23. 59	33. 0											23. 2	0902				
												23. 59	0893				
Mar. 11 0. 0	21. 33. 0	Mar. 11 0. 0	0899			Mar. 11 1. 0	51. 0			Mar. 12 0. 0	21. 29. 40	Mar. 12 0. 0	0893			Mar. 12 1. 0	58. 0
0. 17	31. 30	0. 21	0891			3. 0	54. 0			1. 16	31. 50	1. 15	0893			3. 0	58. 8
2. 18	33. 30	2. 0	0895			9. 0	55. 5			1. 55	35. 50	2. 0	0903			9. 0	58. 5
3. 14	31. 35	2. 15	0899			21. 0	54. 8			2. 41	32. 0	2. 39	0889			22. 10	56. 0
3. 30	32. 40	2. 39	0896							3. 3	31. 15	3. 2	0891				
4. 2	28. 45	3. 14	0900							3. 25	33. 10	3. 27	0909				
5. 43	25. 35	3. 43	0911							3. 45	30. 25	3. 47	0904				
7. 8	25. 30	4. 13	0898							3. 59	30. 20	4. 11	0907				
7. 30	22. 50	5. 15	0913							4. 30	28. 15	5. 9	0905				
7. 53	25. 0	5. 30	0909							5. 27	26. 45	5. 27	0913				
8. 15	21. 20	6. 21	0914							5. 58	23. 20	5. 54	0911				
8. 48	24. 25	6. 52	0908							6. 37	13. 45	6. 12	0905				
12. 20	26. 5	7. 39	0925							7. 4	22. 0	6. 46	0917				
12. 30	27. 40	8. 13	0918							7. 15	25. 0	7. 2	0910				
12. 57	22. 35	8. 43	0931							10. 50	25. 30	7. 12	0913				
13. 15	20. 45	9. 10	0918							11. 26	24. 35	11. 29	0919				
13. 32	21. 0	11. 15	0923							11. 50	15. 20	11. 53	0940				
14. 3	30. 0	11. 36	0921							13. 12	24. 30	12. 13	0918				
14. 45	21. 50	12. 30	0924							14. 41	23. 30	12. 27	0923				
16. 15	25. 30	12. 48	0937							15. 10	27. 0	12. 58	0915				
16. 38	23. 5	13. 28	0918							15. 33	24. 0	13. 40	0916				
19. 20	26. 30	13. 44	0915							16. 15	26. 40	16. 14	0924				
										16. 46	20. 30	16. 45	0929				
										17. 15	20. 45	19. 13	0924				
										18. 12	26. 20	19. 36	0913				
										19. 17	24. 50	20. 50	0919				
										20. 2	28. 15						

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.
Mar. 12 20. 29	21. 24. 25 ***	Mar. 12 21. 45	.0907						Mar. 14 17. 15	21. 23. 55 ***	Mar. 14 20. 24	.0917					
23. 13	28. 30	22. 12	.0907						18. 33	24. 10	20. 52	.0904					
23. 20	30. 40	23. 10	.0895						18. 45	22. 5	21. 30	.0888					
23. 59	33. 15	23. 59	.0895						18. 52	23. 35	22. 18	.0883					
Mar. 13 0. 0	21. 33. 15	Mar. 13 0. 0	.0895			Mar. 13 11. 0	56.5		19. 0	22. 5	22. 41	.0889					
1. 33	34. 35	1. 49	.0905			21. 0	54.8		19. 7	24. 0	23. 56	.0886					
2. 50	33. 20	2. 2	.0901						19. 23	22. 0	23. 59	.0880					
2. 56	33. 30	2. 31	.0907						19. 32	23. 25 ***							
3. 48	30. 30	2. 36	.0904						20. 4	21. 0							
4. 11	30. 30	2. 45	.0908						20. 15	21. 30							
4. 53	27. 45	2. 51	.0907						20. 26	20. 25							
7. 58	24. 0 ***	3. 0	.0912						20. 41	23. 50							
11. 0	25. 25	3. 22	.0909 ***						20. 47	22. 55							
14. 47	25. 40	5. 30	.0913						21. 24	26. 30							
15. 0	24. 35 ***	6. 36	.0912						22. 3	27. 50							
16. 13	25. 45	7. 22	.0915						22. 15	26. 30							
16. 44	24. 20	8. 9	.0909						22. 42	29. 20							
16. 45	25. 10	10. 10	.0917						22. 57	29. 25							
17. 8	24. 0 ***	12. 51	.0917 ***						23. 40	34. 30							
17. 15	25. 20 ***	15. 51	.0920						23. 59	33. 50							
20. 16	20. 15	17. 13	.0917						Mar. 15 0. 0	21. 33. 50	Mar. 15 0. 0	.0880			Mar. 15 1. 0	54.0	
20. 27	18. 50	17. 52	.0920						0. 15	33. 25	0. 13	.0877			3. 0	56.0	
20. 42	20. 20	20. 53	.0906						0. 56	38. 20	1. 0	.0894			9. 0	53.7	
20. 54	19. 10 ***	21. 42	.0897						1. 37	34. 55	1. 40	.0875			21. 0	48.2	
21. 53	20. 25 ***	21. 49	.0899						1. 54	35. 45 ***	2. 17	.0889					
23. 15	28. 15 ***	22. 26	.0889						3. 8	33. 15	3. 28	.0897					
23. 43	27. 50	22. 43	.0894						3. 27	33. 50	3. 45	.0895					
23. 59	32. 15	23. 13	.0885						3. 45	31. 30 ***	4. 40	.0900					
Mar. 14 0. 0	21. 32. 15 ***	23. 32	.0878						4. 30	30. 0	4. 51	.0899					
0. 47	36. 20 ***	23. 51	.0889						5. 36	26. 30	7. 0	.0911					
2. 26	35. 20 ***	23. 59	.0884						9. 39	24. 25	8. 6	.0911					
4. 45	29. 0								10. 17	26. 20	8. 26	.0914					
6. 20	26. 45 ***								13. 15	26. 5 ***	8. 45	.0909					
9. 32	26. 5								18. 14	23. 20	9. 0	.0919					
10. 13	25. 30								18. 41	21. 45 ***	9. 31	.0908					
11. 58	26. 0								19. 42	25. 30 ***	10. 27	.0915 ***					
12. 46	25. 30								20. 7	22. 0 ***	14. 52	.0923					
13. 48	26. 35								20. 48	24. 10	15. 11	.0921					
14. 26	24. 45 ***								21. 6	29. 0	16. 30	.0930					
15. 30	27. 0 ***								21. 27	26. 0	18. 4	.0930					
16. 32	26. 45 ***								21. 36	27. 30	18. 44	.0935					
									21. 48	26. 50 ***	19. 31	.0927					
									22. 43	32. 40	19. 50	.0931 ***					
									22. 51	35. 0 ***	20. 55	.0910					
									23. 42	34. 0	21. 5	.0912					
											21. 51	.0906					
											23. 11	.0882					
											23. 40	.0888					
											23. 59	.0901					

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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. 15 h m 23. 50 23. 59	° ' " 21. 40. 5 38. 10	h m		h m		h m	°	°	Mar. 16 h m 19. 15 19. 20 19. 33	° ' " 21. 23. 25 21. 30 23. 35 ***	h m 17. 41 17. 49 17. 58	' 0905 0910 0903 ***	h m		h m	°	°
Mar. 16 0. 0 0. 15 0. 31 1. 17 2. 12 2. 20 2. 48 3. 0 3. 42 3. 53 4. 10 4. 15 5. 12 5. 18 5. 37 7. 9 7. 26 7. 41 7. 50 8. 5 8. 16 8. 26 8. 42 8. 48 9. 40 9. 57 11. 43 11. 57 13. 3 13. 50 14. 6 14. 38 15. 10 15. 15 15. 32 15. 45 16. 15 16. 29 16. 38 16. 46 17. 0 17. 42 17. 50 18. 3	21. 38. 10 32. 20 31. 35 35. 40 *** 34. 15 35. 50 36. 35 34. 10 *** 34. 10 29. 20 *** 28. 30 30. 0 25. 0 25. 55 23. 50 *** 25. 30 20. 10 12. 30 18. 5 15. 45 15. 30 19. 5 16. 30 21. 40 *** 18. 45 *** 19. 0 *** 28. 30 23. 50 *** 23. 0 31. 0 29. 30 35. 5 28. 20 29. 0 23. 0 23. 0 *** 32. 30 30. 0 31. 20 28. 0 29. 0 *** 24. 45 26. 30 25. 25 ***	Mar. 16 h m 0. 0 0. 22 0. 57 2. 12 2. 22 3. 47 4. 4 4. 21 5. 0 5. 21 5. 40 6. 7 6. 12 6. 22 6. 45 6. 51 7. 12 7. 18 7. 41 7. 52 8. 6 8. 27 8. 44 8. 49 9. 13 9. 41 9. 46 10. 22 10. 42 11. 11 11. 30 11. 58 12. 30 12. 48 12. 55 13. 9 13. 25 14. 4 14. 21 14. 52 15. 6 15. 16 15. 45 16. 1 16. 11 16. 32 16. 43 17. 13	Mar. 16 h m 1. 0 3. 0 9. 0 21. 0	° 53. 0 56. 0 57. 0 52. 0	Mar. 16 h m 20. 6 20. 13 20. 18 20. 37 20. 42 20. 45 21. 30 21. 52 22. 46 22. 50 23. 15 23. 22 23. 59	° 23. 35 21. 30 23. 30 *** 23. 25 25. 30 22. 30 *** 26. 30 *** 25. 25 *** 29. 50 28. 0 *** 31. 45 30. 15 *** 33. 30	Mar. 16 h m 18. 19 19. 16 19. 30 20. 9 20. 35 21. 0 21. 21 21. 45 22. 17 22. 45 22. 49 22. 59 23. 3 23. 10 23. 23 23. 55 23. 59	' 0905 0910 0903 *** 0905 *** 0899 0906 *** 0899 *** 0889 0892 *** 0882 0886 0885 0877 0887 0881 0886 *** 0882 0889 0887	Mar. 17 h m 0. 0 0. 46 1. 8 1. 37 2. 20 2. 44 2. 56 3. 25 3. 42 4. 18 5. 32 5. 48 6. 6 6. 30 7. 7 7. 28 9. 17 9. 36 9. 47 10. 15	21. 33. 30 *** 33. 50 35. 15 33. 30 *** 35. 5 *** 31. 35 32. 20 *** 30. 0 *** 25. 30 *** 28. 0 *** 23. 20 24. 30 23. 25 24. 20 20. 35 22. 30 *** 24. 30 21. 35 23. 20 23. 10	Mar. 17 h m 0. 0 0. 14 0. 51 1. 13 1. 33 1. 51 2. 5 2. 22 2. 36 2. 43 2. 54 3. 11 3. 30 3. 46 4. 13 4. 36 4. 51 5. 11 5. 30 5. 44 6. 1 6. 15 6. 58 7. 18 7. 30 7. 41	' 0887 0891 0883 0896 0893 0902 0897 0903 0901 0897 0904 0894 *** 0893 0905 0891 0895 0881 0893 0884 0887 0884 0891 0890 0901 0898 0902	Mar. 17 h m 1. 0 3. 0 9. 0 21. 0	° 54. 0 56. 0 55. 8 49. 8			

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. 17		Mar. 17							Mar. 18		Mar. 18						
10. 52	21. 24. 30	8. 1	.0897						9. 15	21. 23. 20	6. 54	.0873					
11. 13	23. 0	8. 45	.0897						9. 56	15. 50	7. 11	.0877					
11. 26	20. 15	8. 58	.0905						10. 28	23. 0	7. 26	.0886					
12. 0	25. 20	10. 13	.0903						10. 36	23. 0	8. 0	.0886					
12. 37	23. 35	11. 11	.0907						10. 47	25. 30	8. 16	.0890					
	***	11. 33	.0915						11. 6	24. 20	9. 23	.0885					
13. 58	24. 30	12. 13	.0905							***	9. 43	.0879					
14. 8	26. 25	12. 22	.0908						12. 45	26. 30	10. 14	.0896					
	***	12. 39	.0904							***	10. 27	.0891					
14. 48	25. 0	12. 44	.0907						15. 12	27. 25	10. 36	.0893					
	***	***	***						15. 50	30. 50	10. 53	.0885					
15. 30	31. 45	13. 30	.0904						16. 45	23. 10	11. 12	.0891					
	***	13. 42	.0907						16. 55	25. 30	12. 40	.0896					
16. 15	25. 20	14. 11	.0905						17. 2	23. 0	***	***					
	***	14. 21	.0910						17. 15	24. 45	15. 39	.0900					
18. 4	22. 30	14. 28	.0908							***	16. 9	.0905					
	***	14. 47	.0912						17. 46	23. 5	16. 37	.0905					
18. 13	26. 0	14. 57	.0907						17. 57	24. 10	17. 53	.0911					
	***	15. 14	.0909						18. 7	22. 30	18. 4	.0907					
18. 50	28. 30	15. 20	.0907							***	***	***					
19. 7	33. 25	15. 38	.0910						18. 28	23. 30	20. 4	.0901					
	***	16. 2	.0907							***	23. 11	.0877					
19. 56	21. 45	16. 33	.0910						19. 54	20. 35	23. 59	.0876					
20. 11	23. 40	17. 9	.0907						20. 43	21. 5							
20. 17	21. 30	17. 17	.0911						22. 0	26. 15							
20. 30	21. 40	17. 43	.0911						23. 59	31. 25							
20. 42	20. 0	17. 58	.0917														
20. 45	22. 30	18. 55	.0900														
21. 0	21. 0	19. 12	.0908						Mar. 19	21. 31. 25	0. 0	.0876					
	***	19. 15	.0903						0. 47	33. 20	1. 10	.0877					
21. 37	23. 20	***	***						1. 32	33. 45	1. 38	.0882					
	***	19. 44	.0903						3. 15	30. 25	3. 19	.0886					
22. 7	27. 35	20. 7	.0911						4. 35	27. 5	3. 59	.0881					
	***	***	***						5. 45	25. 0	5. 37	.0885					
23. 59	35. 40	21. 41	.0891						7. 18	25. 25	6. 21	.0889					
		***	***						8. 7	24. 30	6. 38	.0889					
		21. 52	.0895						10. 59	23. 45	7. 21	.0895					
		23. 4	.0880						11. 27	25. 10	8. 7	.0893					
		23. 23	.0877						11. 46	24. 0	8. 22	.0896					
		23. 59	.0873							***	11. 34	.0903					
Mar. 18		Mar. 18				Mar. 18			18. 26	23. 30	12. 0	.0900					
0. 0	21. 35. 40	0. 0	.0873			1. 0	53. 5		20. 9	19. 50	18. 25	.0912					
0. 8	37. 0	***	***			3. 0	56. 4			***	19. 57	.0910					
	***	1. 57	.0876			9. 0	56. 5		21. 4	20. 35	21. 0	.0903					
2. 14	33. 15	2. 13	.0879			21. 0	46. 8		23. 59	34. 25	21. 10	.0905					
	***	2. 22	.0873								21. 30	.0896					
4. 4	25. 20	2. 34	.0874								22. 36	.0887					
	***	2. 47	.0869								23. 59	.0887					
5. 18	24. 30	2. 56	.0870						Mar. 20		Mar. 20						
	***	3. 9	.0867						0. 0	21. 34. 25	0. 0	.0887					
6. 8	22. 25	3. 43	.0872						1. 20	35. 20	2. 0	.0897					
6. 17	20. 30	3. 52	.0867						2. 27	33. 50	2. 11	.0901					
	***	4. 38	.0872						4. 30	28. 30	5. 14	.0906					
7. 5	23. 15	4. 59	.0881						7. 45	24. 35	9. 11	.0917					
7. 16	21. 50	5. 52	.0879						18. 25	24. 45	10. 0	.0915					
	***	6. 14	.0873						20. 50	20. 25	10. 15	.0917					
8. 17	25. 0	6. 35	.0879						21. 48	23. 30	14. 49	.0921					

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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. 20 23. 59	21. 35. 30	Mar. 20 15. 37 19. 2 19. 30 21. 55 22. 24 23. 31 23. 59	.0925 .0931 .0929 .0897 .0895 .0883 .0887														
Mar. 21 0. 0	21. 35. 30 ***	Mar. 21 0. 0 0. 15 2. 14 3. 27 3. 38 5. 9 5. 45 6. 30 6. 48 7. 9 7. 28 7. 45 7. 58 8. 15 8. 44 9. 3 9. 40 11. 13 11. 30 11. 55 12. 25 15. 3 15. 26 15. 40 16. 15 16. 46 17. 18 17. 56 19. 0 19. 4 19. 11 19. 17 19. 52 20. 50 22. 37 23. 59	.0887 .0883 .0890 .0889 .0897 .0896 .0888 .0890 .0896 .0885 .0898 .0892 .0913 .0897 .0902 .0896 .0900 .0896 *** .0905 .0909 .0905 .0907 .0902 *** .0915 .0912 .0926 .0931 .0918 .0916 .0925 .0927 .0921 *** .0895 .0888 *** .0881 .0883 *** .0879 .0882			Mar. 21 1. 0 3. 0 9. 0 21. 0	52.2 54.0 54.0 45.0		Mar. 21 5. 56 6. 25 7. 24 8. 57 9. 15 10. 43 15. 41 16. 2 18. 26 20. 30 21. 3 21. 25 23. 59	21. 24. 20 21. 50 24. 30 24. 15 22. 20 25. 0 25. 25 26. 30 23. 30 *** 18. 25 20. 10 20. 20 31. 30	Mar. 22 2. 13 3. 15 4. 26 5. 13 5. 42 6. 16 6. 53 7. 41 8. 58 9. 15 9. 43 13. 26 14. 28 18. 15 22. 45 23. 21 23. 59	.0885 .0882 .0895 .0893 .0897 .0889 .0900 .0905 .0901 .0905 .0901 *** .0911 .0911 .0921 .0895 .0898 .0894			Mar. 22 21. 0	49.0	
Mar. 23 0. 0	21. 32. 0	Mar. 23 0. 0 1. 11 5. 33	.0882 .0883 .0880			Mar. 23 1. 0 3. 0 9. 0	49.0 52.7 53.5		Mar. 23 0. 0 0. 10 0. 17	21. 31. 30 34. 15 34. 25 29. 40 27. 55 26. 0 25. 30 24. 25 25. 55 25. 0 27. 30 22. 35 21. 5 25. 0 *** 27. 50 *** 31. 0 *** 29. 45 32. 10 28. 20 23. 25 23. 25 21. 20 23. 40 24. 25 31. 0 32. 40 34. 45 34. 30 36. 25 35. 35	Mar. 23 0. 0 2. 57 6. 30 7. 0 7. 26 7. 53 8. 7 10. 17 *** 11. 48 12. 12 12. 22 *** 15. 46 16. 15 16. 35 17. 4 17. 54 19. 9 19. 32 20. 13 20. 35 21. 3 21. 40 22. 14 22. 28 23. 25 23. 36 23. 45 23. 59	.0894 *** .0908 *** .0906 .0911 .0909 .0911 .0909 .0917 *** .0916 .0920 .0915 *** .0914 .0926 .0922 .0927 .0909 .0904 .0921 .0905 .0902 .0906 .0893 .0889 .0894 .0876 .0877 .0872 .0876			Mar. 23 1. 0 3. 0 9. 0 21. 0	53.0 54.8 54.2 51.5	
Mar. 24 0. 0	21. 35. 35	Mar. 24 0. 0 1. 11 5. 33	.0876 .0881 .0893			Mar. 24 1. 0 3. 0 9. 0	49.0 52.7 53.5		Mar. 24 0. 0 0. 10 0. 17	21. 35. 35 35. 20 37. 0 ***	Mar. 24 0. 0 0. 28 0. 45	.0876 .0881 .0893			Mar. 24 1. 0 3. 0 9. 0	54.8 56.7 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.	
Mar. 24 1. 30 3. 12 3. 20 3. 58 5. 1 5. 40 5. 59 6. 7 6. 15 6. 33 6. 44 6. 53 8. 2 8. 30 9. 33 9. 46 10. 4 10. 42 12. 20 12. 45 13. 30 13. 56 14. 42 14. 50 15. 12 15. 20 17. 28 17. 43 19. 58 20. 40 21. 19 21. 42 22. 50 23. 15 23. 32 23. 59	21. 38. 30 *** 33. 30 34. 15 31. 0 26. 10 26. 20 21. 30 17. 35 18. 0 15. 55 16. 30 15. 35 *** 23. 25 26. 0 24. 50 22. 25 23. 50 22. 10 23. 50 25. 35 23. 50 26. 5 22. 30 22. 40 21. 50 22. 45 *** 21. 40 22. 20 20. 30 21. 35 21. 45 24. 25 29. 20 34. 10 35. 25 34. 50	Mar. 24 0. 53 1. 27 2. 43 2. 59 3. 10 3. 30 3. 51 4. 36 4. 59 5. 41 6. 11 6. 15 6. 22 6. 41 6. 48 6. 57 7. 15 7. 31 7. 41 7. 46 7. 55 8. 10 9. 30 10. 43 11. 27 11. 44 12. 12 12. 43 12. 53 13. 21 13. 48 14. 30 14. 45 16. 53 17. 32 19. 16 19. 42 21. 40 22. 12 23. 19 23. 59	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	
Mar. 25 0. 0 0. 29 1. 9 2. 33 3. 2 3. 43 3. 57 4. 15 4. 47 5. 38 6. 12 6. 45 7. 30 7. 47 8. 0	21. 34. 50 36. 20 35. 50 37. 10 36. 0 32. 20 32. 5 30. 30 29. 25 29. 35 25. 40 27. 55 27. 20 25. 40 26. 5	Mar. 25 0. 0 0. 35 0. 54 1. 21 1. 59 2. 14 2. 36 3. 14 3. 54 4. 21 4. 29 4. 53 5. 36 5. 59 6. 14	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	
Mar. 25 0. 0 0. 15 1. 16 1. 25 1. 50 3. 9 3. 20 3. 45 3. 56 4. 5 4. 20 4. 45 4. 58 5. 37 5. 48 6. 11 6. 38 6. 56	21. 36. 15 34. 35 37. 30 36. 25 38. 40 36. 45 34. 40 33. 50 36. 25 34. 35 30. 0 28. 15 30. 20 30. 5 28. 10 29. 0 26. 45 28. 40	Mar. 25 1. 0 3. 0 9. 0 21. 0	55. 8 58. 0 58. 0 53. 0	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	
Mar. 25 8. 13 8. 40 9. 10 9. 23 9. 42 10. 4 10. 45 11. 26 11. 40 11. 48 12. 27 12. 54 13. 15 13. 50 14. 29 14. 45 15. 15 15. 40 17. 13 17. 50 18. 30 19. 36 19. 52 20. 14 20. 23 20. 54 21. 53 22. 3 22. 14 23. 7 23. 29 23. 42 23. 59	21. 25. 25 27. 45 21. 20 22. 50 18. 20 21. 30 *** 23. 15 *** 21. 20 21. 50 20. 30 19. 40 21. 0 25. 50 15. 35 20. 30 17. 55 19. 5 22. 15 19. 30 22. 0 *** 20. 0 *** 22. 50 20. 35 21. 40 20. 35 21. 50 32. 0 31. 15 32. 30 32. 25 34. 35 33. 45 *** 36. 15	Mar. 25 6. 28 6. 45 7. 0 7. 36 8. 14 9. 15 9. 30 9. 52 10. 13 *** 12. 13 12. 57 13. 17 13. 38 14. 0 14. 23 14. 44 14. 59 15. 28 *** 16. 52 17. 9 *** 17. 45 18. 13 *** 18. 18 18. 29 19. 9 20. 29 20. 44 21. 25 *** 22. 5 23. 46 23. 7 23. 59	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Mar. 26 0. 0 0. 15 1. 16 1. 25 1. 50 3. 9 3. 20 3. 45 3. 56 4. 5 4. 20 4. 45 4. 58 5. 37 5. 48 6. 11 6. 38 6. 56	21. 36. 15 34. 35 37. 30 36. 25 38. 40 36. 45 34. 40 33. 50 36. 25 34. 35 30. 0 28. 15 30. 20 30. 5 28. 10 29. 0 26. 45 28. 40	Mar. 26 0. 0 0. 17 0. 43 1. 14 2. 0 2. 22 3. 9 3. 22 3. 43 4. 0 4. 15 4. 22 4. 42 4. 56 5. 1 5. 15 5. 43 6. 13	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
Mar. 26 0. 0 3. 0 9. 0 22. 25	55. 5 57. 5 58. 0 54. 0	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m

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.
							h	m								s	s
Mar.26 7.30	21. 23. 50	Mar.26 6.30	·0892						Mar.26 19.42	21. 28. 50							
7.42	25. 50	6.58	·0895						20. 4	27. 30							
8. 7	25. 0	7.18	·0887						20.12	28. 30							
8.30	22. 30	7.31	·0891						20.27	27. 20							
8.48	25. 0	7.52	·0887						20.34	27. 35							
8.59	24. 30	8.10	·0880						20.50	26. 25							
9.15	23. 20	8.26	·0878							***							
9.35	23. 35	8.43	·0886						21.48	29. 45							
9.50	16. 20	9.10	·0879						22. 7	31. 0							
10. 8	26. 0	9.39	·0890							***							
10.27	21. 40	9.45	·0885						22.45	31. 30							
10.42	10. 35	9.52	·0899						22.58	33. 5							
10.48	20. 25	10. 0	·0889						23.29	31. 25							
10.57	17. 0	10.14	·0906						23.40	32. 0							
11. 4	19. 45	10.22	·0915						23.45	33. 10							
11.20	13. 15	10.33	·0896						23.50	32. 30							
11.27	15. 0	10.45	·0908						23.59	36. 35							
11.33	13. 40	10.58	·0875														
11.56	16. 5	11.11	·0859						Mar.27 0. 0	21. 36. 35	Mar.27 0. 0	·0890			Mar.27 6. 25	55.5	
	***	11.28	·0870						0.12	38. 20	0.13	·0897			21. 3	52.5	
12.30	17. 10		***						0.30	35. 45	0.28	·0885					
12.52	9. 30	12.13	·0865						0.44	38. 0	0.43	·0887					
13. 0	10. 35	12.26	·0871						0.50	36. 20	0.50	·0882					
13.14	9. 20	12.46	·0900						1.10	38. 45	1.10	·0888					
13.19	11. 5	12.58	·0891						1.21	38. 0	1.30	·0874					
13.32	16. 50	13.13	·0878						1.32	38. 20	1.52	·0877					
13.45	15. 45	13.52	·0887						1.56	35. 30	2.10	·0899					
13.57	16. 20	14.22	·0879						2.12	37. 40	2.14	·0898					
14.30	12. 15	14.53	·0891						2.45	37. 45		***					
14.45	15. 55	15.28	·0892							***	2.48	·0910					
15. 7	17. 45	15.39	·0886						3.26	33. 10	3.22	·0904					
15.26	17. 45	15.45	·0891						3.34	33. 30	3.38	·0913					
15.30	16. 30	16. 2	·0889						3.45	32. 20	3.55	·0910					
15.44	17. 20	16.12	·0893						4.11	33. 0	4.30	·0895					
15.50	16. 30	16.45	·0884						4.36	31. 0	4.45	·0902					
16.13	19. 35		***						4.43	31. 35	4.57	·0894					
16.30	19. 10	17.15	·0897						5. 0	29. 50	5.11	·0892					
	***	17.22	·0894						5.20	27. 50	5.44	·0903					
16.53	23. 55	17.36	·0903						5.50	27. 0	6. 0	·0898					
17. 0	23. 25	17.52	·0907						6.15	22. 45	6.23	·0912					
	***	18. 2	·0899						6.58	26. 55	7.18	·0905					
17.28	26. 15	18.19	·0896							***	7.28	·0909					
17.34	23. 40	18.39	·0884						8.30	28. 10	7.41	·0905					
17.45	23. 20	18.58	·0877						9.40	27. 30	8.45	·0906					
17.52	22. 0	19.22	·0885						9.47	18. 15	9.42	·0910					
18. 3	23. 50		***						10. 3	20. 30	9.59	·0935					
18.12	23. 20	20.13	·0886						10.15	17. 20	10. 9	·0918					
18.16	24. 20		***						10.19	19. 0	10.15	·0924					
18.23	23. 10	20.40	·0881						11. 0	12. 30	10.22	·0913					
18.32	23. 35		***						11. 7	21. 0	10.38	·0920					
18.36	26. 5	21.26	·0889						11.32	27. 0	10.46	·0926					
18.42	24. 0		***						11.50	19. 30	11.35	·0881					
18.50	23. 30	22. 8	·0876						12.15	20. 20	11.52	·0895					
	***	22.46	·0878						12.45	15. 0	12.15	·0896					
19. 2	27. 40	23. 3	·0887						13. 8	18. 20	12.32	·0904					
	***	23.22	·0881						13.20	17. 45	13.15	·0895					
19.20	26. 10	23.52	·0885						13.54	20. 40	13.33	·0900					
	***	23.59	·0889														

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. 27		Mar. 27							Mar. 28		Mar. 28						
14. 12	21. 23. 15	13. 39	'0899						10. 12	21. 23. 50	10. 10	'0892					
14. 30	22. 55	13. 55	'0905						10. 27	24. 30	10. 21	'0897					
14. 43	23. 0	14. 19	'0902						10. 56	20. 40	10. 51	'0899					
14. 57	21. 30	14. 30	'0907						11. 8	23. 0	11. 13	'0893					
15. 15	22. 0	15. 28	'0911						11. 28	22. 0	11. 44	'0907					
15. 42	17. 50	16. 7	'0904						11. 40	26. 0	12. 11	'0913					
16. 0	17. 10	16. 15	'0904						11. 50	26. 0	12. 29	'0904					
16. 8	21. 10	16. 32	'0892						12. 6	29. 5	12. 59	'0911					
16. 17	21. 10	17. 10	'0908						12. 36	25. 20	13. 42	'0910					
16. 42	24. 0	17. 44	'0912						13. 4	28. 30	14. 36	'0913					
16. 53	23. 0	18. 7	'0904						13. 42	26. 20	15. 14	'0907					
16. 56	24. 40	18. 15	'0906						14. 3	26. 20	***	'0907					
17. 7	24. 30	18. 28	'0899						14. 45	22. 30	16. 57	'0911					
17. 18	26. 30	18. 54	'0905						15. 18	25. 15	17. 37	'0905					
18. 3	24. 45	19. 33	'0897						16. 57	***	18. 42	'0915					
18. 17	22. 30	19. 45	'0899						18. 2	22. 40	19. 58	'0909					
18. 26	23. 20	20. 31	'0889						18. 2	***	20. 30	'0900					
18. 45	21. 5	21. 4	'0875						19. 40	26. 10	20. 46	'0903					
19. 6	23. 0	***	'0881						20. 0	***	21. 4	'0895					
19. 32	23. 0	23. 59							20. 0	23. 35	21. 27	'0897					
19. 45	21. 10	***							20. 42	27. 0	21. 54	'0891					
21. 0	23. 35	***							20. 42	***	22. 10	'0880					
22. 9	28. 40								20. 42	22. 15	22. 42	'0885					
22. 23	27. 40								22. 18	***	23. 15	'0883					
22. 30	29. 0								22. 18	28. 35	23. 50	'0875					
22. 35	28. 30								23. 22	***	23. 59	'0877					
22. 45	31. 0								23. 45	34. 40							
23. 0	30. 40								23. 59	34. 30							
23. 30	32. 0								Mar. 29	36. 10							
23. 38	32. 25								Mar. 29	21. 36. 10	Mar. 29	0. 0	'0878				Mar. 29
23. 59	37. 10								0. 0	***	0. 12	'0883					1. 0
Mar. 28	21. 37. 10	Mar. 28	'0881	Mar. 28	1. 0	55. 0			0. 56	37. 5	0. 44	'0877					3. 0
0. 0	***	0. 0	'0869	1. 0	3. 0	57. 2			1. 15	34. 50	0. 52	'0885					9. 0
1. 4	34. 50	0. 58	'0869	3. 0	9. 0	57. 0			1. 33	34. 30	1. 0	'0878					21. 0
1. 45	37. 0	1. 57	'0882	21. 0	21. 0	52. 5			1. 45	33. 0	1. 5	'0883					
2. 30	33. 30	2. 45	'0885						1. 53	34. 40	1. 28	'0872					
2. 56	33. 30	3. 12	'0882						2. 7	34. 0	1. 46	'0873					
3. 5	31. 35	3. 38	'0888						2. 32	37. 5	1. 59	'0879					
3. 27	30. 30	3. 56	'0895						2. 58	33. 0	2. 12	'0878					
3. 40	29. 0	5. 13	'0897						3. 42	33. 15	2. 43	'0903					
3. 55	29. 30	5. 23	'0894						4. 10	30. 30	3. 7	'0887					
4. 56	26. 20	5. 42	'0895						4. 15	31. 0	3. 41	'0897					
5. 17	24. 30	5. 53	'0901						4. 32	25. 30	***	'0897					
8. 15	27. 15	6. 56	'0897						4. 56	27. 30	4. 28	'0901					
8. 46	23. 35	7. 42	'0903						5. 16	26. 20	4. 42	'0895					
9. 0	23. 35	8. 0	'0900						5. 30	27. 45	4. 58	'0899					
9. 37	19. 40	8. 16	'0904						5. 52	25. 50	5. 18	'0891					
	***	8. 37	'0898						6. 41	25. 50	5. 36	'0895					
		8. 46	'0900						6. 52	26. 0	5. 46	'0888					
		9. 7	'0895						7. 6	24. 50	6. 0	'0887					
		***	'0881						8. 30	26. 0	6. 15	'0892					
									9. 3	23. 30	6. 28	'0891					
									9. 12	23. 40	7. 3	'0904					
									9. 30	18. 0	7. 33	'0905					
									9. 50	26. 15	7. 45	'0899					
									10. 6	15. 0	8. 16	'0900					

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.	
Mar.30 19. 20 19. 47 19. 53 20. 0 20. 6 20. 15 20. 24 20. 50 20. 54 21. 15 22. 27 22. 45 22. 52 23. 4 23. 26 23. 59	21. 25. 45 23. 40 21. 30 24. 0 21. 10 23. 15 21. 45 25. 5 27. 40 25. 15 32. 35 32. 50 35. 40 36. 0 34. 10 *** 36. 20	Mar.30 23. 59	.0881															
Mar.31 0. 0 0. 15 0. 37 0. 57 2. 5 3. 4 3. 38 4. 20 6. 8 6. 32 6. 52 7. 8 7. 33 8. 15 9. 6 9. 27 10. 7 10. 32 11. 15 11. 45 12. 13 13. 6 14. 2 15. 18 15. 40 15. 54 16. 15 17. 3 17. 44 18. 26 18. 45 20. 32 21. 27 22. 17 23. 0 23. 26	21. 36. 20 36. 0 38. 45 36. 50 35. 25 35. 5 31. 15 30. 55 25. 30 23. 0 16. 55 20. 35 17. 50 23. 5 24. 0 17. 10 26. 15 26. 15 23. 25 *** 25. 50 29. 50 27. 10 28. 0 26. 20 27. 15 26. 0 27. 10 25. 50 26. 40 30. 0 27. 30 *** 21. 20 25. 15 34. 20 35. 30 35. 0	Mar.31 0. 0 0. 54 1. 14 2. 11 3. 16 3. 55 4. 11 4. 16 4. 50 5. 12 5. 16 5. 20 5. 51 6. 10 6. 27 6. 43 6. 46 7. 13 7. 24 8. 0 8. 40 9. 4 9. 25 9. 36 9. 54 10. 15 10. 30 10. 59 11. 10 11. 25 11. 42 11. 51 12. 1 12. 12 12. 22 12. 53	.0881 *** .0903 .0901 .0903 .0920 .0901 .0904 .0903 .0915 .0919 .0917 .0920 .0915 .0918 .0912 .0918 .0916 .0933 .0921 .0927 .0913 .0921 .0915 .0924 .0930 .0919 .0917 *** .0922 .0919 .0921 .0917 .0923 .0923 .0930 .0923 .0930			Mar.31 1. 0 3. 6 9. 0 21. 0	45.0 48.2 49.0 40.0											
Mar.31 23. 45 23. 59	21. 37. 0 36. 0	Mar.31 13. 25	.0921 *** .0934 .0923 .0926 .0923 .0932 .0922 .0882 .0889 .0885 .0896 .0891 (†)															
Apr. 1 0. 0 0. 30 1. 10 1. 15 2. 17 2. 45 3. 12 3. 42 3. 54 4. 3 4. 18 4. 40 5. 38 6. 4 6. 17 6. 33 6. 50 7. 4 7. 18 7. 43 8. 0 8. 37 9. 3 9. 50 11. 42 12. 8 12. 17 12. 47 13. 26 13. 58 16. 22 17. 25 18. 0 18. 27 18. 45	21. 36. 0 *** 37. 25 *** 37. 25 38. 30 *** 40. 0 *** 35. 10 38. 20 30. 0 30. 35 27. 50 27. 0 27. 45 *** 24. 0 16. 30 *** 16. 30 21. 0 13. 0 22. 10 22. 10 16. 40 21. 5 20. 0 22. 5 21. 50 24. 0 24. 30 22. 0 22. 10 21. 30 22. 45 *** 10. 10 22. 50 *** 10. 40 26. 30 25. 5 22. 25 20. 30	Apr. 1 0. 0 0. 14 0. 28 0. 47 0. 56 1. 11 1. 23 1. 45 2. 0 2. 7 2. 14 2. 44 3. 10 3. 16 3. 24 3. 28 3. 46 3. 54 4. 0 4. 13 4. 28 4. 40 4. 50 5. 20 5. 36 5. 48 6. 0 6. 11 6. 22 6. 35 6. 49 7. 15 7. 38 8. 3 8. 31 10. 10 10. 29 10. 40 10. 58 11. 21 11. 42 11. 53	.0886 *** .0897 .0904 .0897 .0898 .0896 .0901 .0894 .0897 .0893 .0896 .0885 .0894 .0890 .0895 .0890 .0899 .0894 .0904 .0905 .0913 .0908 .0905 .0910 .0905 .0891 .0903 .0900 .0910 .0903 .0934 .0901 .0915 .0905 .0909 *** .0911 .0918 .0917 .0921 .0918 .0945 .0943			Apr. 1 1. 0 3. 0 9. 0 21. 0	47.0 50.5 51.0 47.0											

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.
Apr. 1 h m	° ' "	Apr. 1 h m		h m		h m	°	°	Apr. 2 h m	° ' "	Apr. 2 h m		h m		h m	°	°
19. 6	21. 20. 30	12. 10	·0947						17. 15	21. 23. 50	16. 16	·0914					
19. 16	17. 25	12. 40	·0917						17. 30	23. 15	16. 39	·0917					
19. 26	20. 40	12. 58	·0913						17. 52	27. 5	17. 23	·0913					
19. 50	17. 30	13. 22	·0919							***	18. 12	·0925					
20. 50	18. 25	13. 37	·0915						18. 42	21. 20	18. 45	·0923					
22. 56	28. 20	14. 48	·0919						18. 53	17. 50	18. 51	·0917					
23. 25	29. 30	16. 10	·0933							***	19. 11	·0926					
23. 32	31. 35	16. 43	·0929						19. 18	20. 0		***					
23. 59	32. 15	17. 22	·0933						19. 29	18. 0	20. 42	·0911					
		17. 53	·0943						19. 34	19. 10	21. 29	·0900					
		18. 15	·0944						19. 45	14. 15	22. 44	·0888					
		18. 35	·0936						19. 56	17. 50	23. 59	·0891					
		19. 0	·0933							***							
		19. 13	·0939						20. 28	18. 20							
		19. 40	·0928						21. 39	21. 25							
		19. 54	·0929						23. 59	33. 10							
		21. 5	·0916														
		22. 14	·0899														
		22. 31	·0895						Apr. 3	21. 33. 10	0. 0	·0891			Apr. 3	9. 0	60. 0
			***						1. 25	36. 30		***			21. 0	54. 5	
		23. 24	·0895						2. 15	35. 20	3. 33	·0919					
		23. 36	·0897						5. 8	26. 35	3. 45	·0917					
		23. 59	·0891						5. 45	26. 25	4. 7	·0921					
Apr. 2	21. 32. 15	Apr. 2	·0891			Apr. 2	1. 0	51. 0	6. 25	24. 40	4. 23	·0916					
0. 0	34. 20	0. 45	·0895			3. 0	0	54. 0	8. 15	26. 30	5. 47	·0917					
0. 32	34. 20	0. 59	·0893			9. 0	0	56. 5	8. 30	23. 10	6. 15	·0913					
0. 46	33. 30	1. 22	·0896			22. 0	0	52. 2		***	6. 50	·0920					
0. 57	33. 30	2. 32	·0913						9. 45	26. 0	7. 17	·0914					
1. 50	33. 30	2. 56	·0911						10. 0	21. 15		***					
2. 2	34. 50	3. 33	·0918						10. 50	25. 30	9. 4	·0911					
2. 18	35. 0	3. 45	·0916						11. 12	24. 0	9. 40	·0913					
3. 7	31. 30	4. 4	·0922						12. 4	25. 45	9. 58	·0925					
3. 18	31. 40	4. 28	·0924						12. 17	27. 30	10. 30	·0911					
4. 42	27. 50	4. 46	·0921						12. 45	25. 30	10. 49	·0913					
5. 12	27. 40	5. 11	·0925						13. 25	26. 30	11. 7	·0922					
5. 47	26. 15	5. 39	·0923						14. 15	25. 30	11. 30	·0912					
6. 18	26. 45	6. 7	·0916						16. 30	26. 0	12. 12	·0913					
7. 3	19. 10	6. 39	·0923						17. 52	23. 30	12. 29	·0916					
7. 15	19. 40	6. 51	·0922							***	13. 22	·0912					
7. 36	23. 20	7. 11	·0931						19. 55	19. 45	17. 39	·0919					
8. 20	23. 35	7. 28	·0922							***	18. 43	·0915					
9. 45	24. 0	7. 41	·0928						20. 50	19. 30		***					
	***	7. 50	·0924						22. 34	28. 15	22. 39	·0876					
10. 37	26. 10	8. 11	·0919							(†)		(†)					
10. 58	23. 0	9. 36	·0909						Apr. 4	(†)	Apr. 4	(†)			Apr. 4	1. 0	60. 0
11. 15	22. 30	10. 27	·0913						0. 19	21. 34. 5	0. 15	·0885			3. 0	63. 2	
11. 38	21. 20	10. 42	·0935							***	0. 32	·0884			9. 0	65. 5	
11. 50	22. 30	10. 56	·0925						1. 27	34. 50	0. 51	·0888			21. 0	56. 0	
12. 7	22. 20	11. 11	·0927							***	1. 12	·0885					
12. 30	23. 40	11. 39	·0917						2. 28	33. 35		(†)					
13. 3	24. 35	11. 48	·0918						3. 20	30. 30	2. 51	·0888					
13. 47	23. 30	12. 0	·0913						4. 33	26. 45	4. 11	·0890					
15. 15	26. 0	12. 54	·0910						5. 45	24. 25	5. 12	·0893					
15. 48	22. 30	13. 36	·0915						7. 3	24. 30	5. 29	·0903					
16. 9	22. 5	14. 23	·0912						7. 32	23. 30	5. 45	·0901					
16. 40	23. 10	15. 40	·0917						8. 47	24. 10	5. 51	·0904					

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. 4 h m 10. 18	21. 23. 5	Apr. 4 h m 7. 55	'0901	h m		h m	o	o	Apr. 5 h m 22. 22		h m	'0895	h m		h m	o	o
12. 18	23. 0	10. 51	'0910						22. 52			'0892					
13. 20	24. 0	11. 1	'0909						23. 28			'0896					
13. 45	23. 5	12. 43	'0913						23. 37			'0900					
14. 2	23. 20	12. 51	'0923									(†)					
14. 20	22. 5	12. 58	'0920						Apr. 6 h m 0. 0	21. 33. 0	Apr. 6 h m 1. 0	'0994*			Apr. 6 h m 1. 0	62. 0	
14. 42	22. 5	13. 50	'0918						0. 24	34. 10	3. 0	'0906*			3. 0	66. 0	
15. 11	23. 20	14. 12	'0922						1. 37	34. 0	3. 0	'0862			9. 0	69. 4	
15. 24	25. 30	15. 5	'0919						2. 16	34. 0	5. 45	'0862			21. 0	61. 2	
16. 6	27. 35	15. 19	'0922						2. 41	32. 5		***					
16. 22	26. 10	15. 32	'0918						2. 54	33. 10	6. 53	'0877					
16. 42	26. 50	16. 13	'0926						3. 12	32. 20		***					
18. 55	20. 15		***						3. 33	33. 25	10. 13	'0883					
19. 23	17. 10	17. 0	'0924						3. 50	31. 20	10. 21	'0880					
19. 34	19. 0	17. 26	'0926						4. 6	31. 20		***					
19. 47	19. 50	18. 45	'0927						4. 22	29. 15	11. 0	'0882					
20. 0	18. 15	20. 51	'0905						4. 40	29. 15	11. 13	'0879					
20. 18	18. 35	21. 30	'0897						5. 4	31. 20	12. 5	'0883					
20. 30	18. 5	21. 58	'0888						5. 30	27. 10	12. 15	'0888					
20. 53	19. 20	22. 21	'0886						6. 15	27. 35	12. 44	'0884					
23. 5	29. 30	22. 43	'0891						7. 42	25. 15	13. 0	'0896					
23. 59	32. 45	23. 5	'0890						11. 50	23. 20	13. 8	'0895					
		23. 59	'0896							(†)	13. 17	'0898					
Apr. 5 h m 0. 0	21. 32. 45	Apr. 5 h m 0. 0	'0896			Apr. 5 h m 1. 0	59. 0		21. 0	24. 34*	13. 57	'0884					
0. 22	32. 45	0. 17	'0897			3. 0	61. 0				14. 18	'0869					
0. 33	34. 20	0. 38	'0906			9. 0	64. 2				14. 44	'0889					
1. 7	32. 50	0. 58	'0902			21. 0	58. 0				15. 9	'0887					
1. 27	35. 0	1. 23	'0912								15. 14	'0894					
2. 2	33. 40	1. 51	'0905								15. 26	'0887					
2. 38	33. 45	2. 11	'0913								***						
3. 42	29. 25	2. 39	'0920								16. 13	'0897					
5. 4	26. 20	3. 49	'0893								16. 23	'0895					
6. 10	26. 20	4. 11	'0891								16. 42	'0903					
6. 32	26. 30	4. 43	'0904								16. 57	'0898					
7. 15	25. 20	5. 0	'0901								17. 17	'0906					
7. 55	25. 30	6. 52	'0907								18. 4	'0895					
8. 20	24. 0	7. 21	'0916								18. 27	'0884					
8. 45	24. 20	7. 51	'0917								18. 53	'0896					
9. 35	23. 30	8. 11	'0909								***						
10. 15	23. 50	8. 23	'0910								20. 0	'0897					
11. 6	21. 55	8. 37	'0917								20. 30	'0885					
	***	9. 24	'0909								21. 14	'0873					
12. 5	23. 45	9. 35	'0910								21. 30	'0877					
12. 15	23. 0	9. 45	'0908								21. 58	'0869					
13. 48	25. 35	10. 11	'0909								22. 16	'0872					
17. 23	24. 50	10. 13	'0908								22. 30	'0867					
18. 37	20. 30	10. 28	'0914								22. 42	'0871					
18. 56	20. 35	11. 32	'0912								22. 53	'0866					
19. 43	18. 30	11. 47	'0915								23. 59	'0857					
20. 20	18. 15	11. 57	'0909														
21. 11	20. 40	12. 22	'0914						Apr. 7 h m 1. 0	(†)	Apr. 7 h m 0. 0	'0857			Apr. 7 h m 1. 0	66. 0	
22. 48	29. 30	12. 55	'0911						3. 0	21. 40. 10*	0. 13	'0855			3. 0	69. 0	
23. 6	29. 40	16. 12	'0925						3. 7	33. 20*	0. 22	'0862			9. 0	72. 0	
23. 59	33. 0	18. 11	'0924						5. 50	30. 50	0. 31	'0859			21. 0	60. 0	
		18. 43	'0927							21. 40	0. 40	'0863					
		19. 11	'0920														

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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.
		Apr. 9															
		20. 21	'0906						Apr. 11								
		21. 57	'0890						9. 18	21. 26. 15	5. 3	'0895					
		22. 45	'0883						9. 37	26. 0	5. 30	'0903					
		23. 12	'0885						10. 1	27. 5	5. 53	'0897					
		23. 36	'0892						14. 5	27. 35	7. 27	'0904					
		23. 53	'0871						14. 28	26. 0	8. 4	'0903					
		23. 59	'0873						15. 12	27. 10	8. 22	'0896					
									15. 28	25. 45	8. 36	'0901					
									16. 29	25. 30	9. 0	'0899					
										***	9. 13	'0903					
Apr. 10		Apr. 10				Apr. 10			18. 47	21. 45	9. 19	'0901					
0. 0	21. 35. 40	0. 0	'0873			8. 0	59. 0		19. 6	19. 15	9. 45	'0904					
1. 5	38. 30	1. 7	'0890			21. 0	51. 4			***	9. 58	'0901					
2. 23	35. 50	1. 16	'0889						19. 41	19. 20	***	'0901					
4. 26	28. 35	1. 39	'0893						20. 4	23. 45	12. 0	'0905					
5. 39	26. 10	1. 57	'0891						20. 39	19. 52	12. 11	'0908					
8. 11	26. 30	2. 28	'0897						20. 42	22. 30	12. 21	'0905					
9. 18	25. 25	2. 41	'0895						20. 50	21. 35	12. 41	'0910					
9. 38	21. 45	2. 57	'0901						21. 6	24. 25	12. 53	'0907					
10. 18	25. 50	3. 36	'0896						21. 50	23. 45	13. 26	'0909					
11. 15	25. 20	***	'0900							***	13. 42	'0907					
11. 43	26. 20	5. 45	'0899						22. 20	28. 30	13. 58	'0909					
12. 47	26. 25	5. 57	'0897						22. 32	27. 40	14. 11	'0912					
13. 15	28. 20	6. 36	'0901						22. 51	30. 55	14. 37	'0910					
14. 15	26. 45	7. 13	'0899						23. 59	33. 40	15. 21	'0917					
14. 44	27. 40	7. 37	'0903								15. 42	'0914					
	***	7. 52	'0900								15. 53	'0915					
16. 50	25. 50	8. 14	'0905								16. 45	'0914					
18. 26	20. 50	8. 49	'0900								17. 18	'0919					
19. 52	19. 15	***	'0900								18. 52	'0908					
20. 30	20. 50	11. 13	'0900								19. 19	'0911					
20. 47	20. 0	***	'0900								19. 40	'0901					
21. 0	23. 55	12. 28	'0907								19. 45	'0903					
21. 22	24. 20	12. 59	'0904								20. 27	'0888					
	***	13. 15	'0907								20. 51	'0895					
22. 45	35. 0	14. 14	'0904								21. 50	'0887					
22. 53	34. 30	16. 22	'0914								21. 54	'0891					
23. 59	38. 35	19. 11	'0908								***	'0891					
		20. 45	'0895								22. 13	'0891					
		21. 30	'0883								22. 30	'0882					
		22. 42	'0868								22. 51	'0883					
		22. 59	'0861								23. 30	'0877					
		23. 29	'0870								23. 59	'0879					
		23. 43	'0868														
		23. 59	'0869														
									Apr. 12								
Apr. 11		Apr. 11				Apr. 11			0. 0	21. 33. 40	0. 0	'0879				Apr. 12	
	(†)	0. 0	'0869			1. 0	56. 0		0. 46	36. 30	0. 15	'0887				1. 0	53. 0
0. 45	21. 40. 50	0. 53	'0879			3. 0	59. 0		1. 2	34. 55	0. 23	'0884				3. 0	56. 0
1. 22	41. 10	1. 21	'0890			9. 0	59. 5		1. 14	36. 20	0. 39	'0886				9. 0	56. 0
	***	1. 45	'0885			21. 0	50. 0		1. 35	35. 35	0. 57	'0881				21. 0	49. 6
3. 12	33. 45	1. 57	'0891						1. 47	36. 25	1. 13	'0889					
3. 18	35. 0	2. 15	'0891						2. 6	35. 0	1. 30	'0887					
3. 40	30. 15	2. 39	'0896						2. 18	35. 20	1. 44	'0892					
5. 32	26. 0	2. 49	'0891						2. 40	33. 5	2. 0	'0889					
6. 20	25. 0	3. 17	'0900						5. 30	26. 25	2. 13	'0896					
6. 47	25. 20	3. 36	'0895						6. 55	24. 50	2. 30	'0889					
7. 6	25. 30	3. 44	'0897						7. 37	26. 45	2. 53	'0892					
8. 8	25. 40	4. 11	'0895						8. 45	25. 50	3. 15	'0905					
8. 47	20. 55	4. 41	'0897						9. 0	28. 40	3. 36	'0903					
											***	'0903					

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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.	
Apr. 14 3. 38 3. 53 4. 50 5. 22 9. 24 11. 43 12. 25 12. 40 13. 0 13. 22 13. 37 14. 15 15. 15 17. 2 18. 30 20. 8 20. 50 21. 30 23. 59	21. 30. 40 31. 20 23. 0 26. 30 28. 5 26. 50 28. 10 27. 55 34. 30 30. 0 28. 15 28. 20 23. 5 27. 50 23. 20 20. 10 20. 10 21. 50 37. 20	Apr. 14 2. 20 2. 27 2. 48 3. 6 3. 16 3. 48 4. 10 4. 25 5. 3 5. 36 5. 47 5. 56 7. 11 7. 25 7. 51 7. 58 8. 15 8. 30 8. 52 9. 7 9. 36 9. 44 9. 51 10. 10 10. 18 11. 29 12. 12 12. 54 13. 21 14. 1 14. 20 14. 52 15. 19 16. 11 16. 52 17. 22 18. 52 19. 10 20. 59 22. 7 22. 15 22. 41 22. 50 23. 36	'0889 '0892 '0883 '0891 '0889 '0904 '0896 '0894 '0913 '0899 '0899 '0904 '0907 '0904 '0909 '0907 '0906 '0909 '0907 '0911 '0900 '0911 '0909 '0911 '0908 '0909 '0914 '0912 '0923 '0915 '0920 '0922 '0908 '0910 '0905 '0911 '0903 '0899 '0877 '0874 '0869 '0870 '0868 '0875 (†)															
Apr. 15 0. 0 0. 56 2. 45 3. 41	21. 37. 20 39. 0 34. 20 30. 45	Apr. 15 0. 17 1. 39 1. 50 2. 52	(†) '0877 '0882 '0888 '0896 ***			Apr. 15 1. 0 3. 0 9. 0 21. 0	50. 5 52. 2 50. 5 44. 0											
Apr. 15 3. 50 4. 13 5. 45 5. 58 7. 47 8. 30 9. 40 9. 50 10. 52 11. 15 11. 30 11. 42 12. 10 12. 18 13. 22 13. 56 14. 12 14. 17 14. 30 15. 52 16. 17 16. 38 16. 43 17. 27 18. 57 19. 8 19. 45 21. 30 22. 52 23. 59	21. 31. 20 28. 30 24. 15 22. 30 27. 10 26. 20 22. 50 24. 30 24. 15 25. 45 28. 20 25. 50 21. 45 23. 0 27. 30 26. 15 27. 35 26. 20 27. 30 27. 55 30. 5 29. 0 29. 50 25. 35 22. 30 21. 20 19. 35 21. 5 26. 30 33. 10	Apr. 15 3. 30 3. 49 3. 55 4. 13 4. 18 4. 31 5. 3 5. 30 5. 53 6. 15 6. 37 7. 52 8. 5 8. 15 9. 18 9. 43 10. 0 10. 51 11. 28 11. 42 11. 54 13. 52 18. 15 18. 36 18. 44 20. 43 22. 5 22. 55 23. 21 23. 50 23. 59	'0895 '0909 '0904 '0898 '0900 '0897 '0917 '0898 '0915 '0901 '0899 '0910 '0909 '0912 '0904 '0911 '0906 '0901 '0911 '0909 '0915 '0909 '0929 '0924 '0926 '0907 '0884 '0878 '0880 '0884 '0884															
Apr. 16 0. 0 2. 46 3. 2 3. 16 3. 32 4. 33 5. 4 5. 48 7. 43 10. 0 10. 9 11. 15 11. 57	21. 33. 10 35. 20 34. 15 35. 20 33. 15 30. 25 27. 30 25. 20 24. 15 26. 50 26. 0 26. 20 25. 5 26. 20 25. 25 25. 10 27. 45 23. 15 25. 35	Apr. 16 0. 0 0. 10 0. 27 1. 0 2. 44 2. 52 2. 58 3. 18 3. 37 3. 52 4. 13 4. 39 4. 46 5. 2 5. 22 5. 30 6. 11 6. 30 7. 12 7. 43 8. 13	'0884 '0881 '0884 '0888* '0892 '0895 '0893 '0904 '0897 '0902 '0902 '0909 '0904 '0898 '0899 '0903 '0906 '0901 '0903 '0907 '0901															
		Apr. 16 1. 0 3. 0 9. 0 22. 17	47. 8 50. 5 52. 0 44. 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.	
Apr. 19 15. 30 ***	21. 25. 25	Apr. 19 5. 13 5. 51 6. 6 6. 37 7. 0 7. 10 7. 17 8. 11 8. 30 9. 31 9. 52 15. 15 15. 30 17. 40 19. 11 21. 6 21. 33 22. 15 22. 27 23. 36 23. 59	.0881 .0882 .0886 .0887 .0885 .0888 .0881 .0887 .0885 .0891 .0888 *** .0905 .0907 .0914 .0912 .0887 .0886 .0877 .0879 .0871 .0876								Apr. 21 0. 0 0. 56 1. 45 2. 12 2. 28 2. 44 2. 48 3. 0 5. 7 5. 18 5. 29 5. 40 5. 45 5. 53 6. 17 6. 46 6. 58 7. 20 7. 42 8. 21 9. 0	21. 33. 5 35. 0 36. 20 (†) 40. 50 37. 0 41. 5 40. 0 41. 50 (†) 38. 45 32. 10 37. 20 31. 15 35. 20 31. 55 41. 10 27. 0 29. 25 18. 20 28. 50 22. 35 20. 44* (†) 23. 45 19. 40 20. 35 0. 15 9. 50 11. 0 9. 30 12. 5 8. 25 8. 40 8. 10 10. 5 9. 20 27. 25 16. 10 *** 20. 20 20. 35 18. 40 20. 10 18. 35 20. 56 21. 52 22. 3 23. 38 23. 53 23. 59	.0884 .0880 .0885 .0886 .0900 .0941 .0932 .0936 .0935 .0901 .0903 .0898 .0930 .0928 .0935 .0927 .0965 .0960 .0979 .0975 .0977 .0973 .0949 .0979 .0971 .0980 .0969 .0974 .0948 .0961 .0953 .0966 .0957 .0965 .0872 7. 5 .0944 .0864 .0872 .0881 .0861 *** .0872 .0852 .0887 .0854 .0871 .0840 .0867 .0883 .0849 .0839 .0848 .0839 .0842	0. 0 2. 3 4. 4 4. 37 4. 51 5. 6 5. 17 5. 52 6. 30 7. 6 7. 25 7. 40 7. 56 8. 15 8. 32 8. 37 8. 46 8. 50 9. 18 10. 44 11. 56 12. 20 12. 43 13. 40 14. 22 15. 28 15. 56 18. 47 23. 59	Apr. 21 1. 0 3. 0 9. 0 21. 0	52. 5 54. 0 56. 0 57. 8 49. 8 51. 0	Apr. 21 1. 0 3. 0 9. 5 22. 23	54. 0 54. 0 57. 0 57. 2 60. 0 61. 0 49. 0 50. 0
Apr. 20 0. 0 1. 17 1. 40 1. 54 3. 9 4. 13 4. 19 4. 32 4. 50 7. 38 10. 45 16. 44 19. 53 20. 58 23. 59	21. 32. 0 36. 10 35. 5 35. 20 31. 45 30. 10 28. 5 29. 55 27. 0 24. 50 24. 55 23. 25 *** 17. 40 20. 0 33. 5	Apr. 20 0. 0 1. 9 1. 27 1. 40 2. 2 2. 51 3. 0 4. 11 4. 22 4. 40 4. 54 5. 37 7. 22 8. 11 8. 18 8. 48 10. 41 10. 56 11. 30 11. 43 11. 53 12. 25 13. 13 17. 23 19. 11 21. 5 21. 45 23. 15 23. 54 23. 59	.0876 *** .0881 .0884 .0883 .0889 .0891 .0887 .0899 .0889 .0906 .0886 .0894 *** .0897 .0901 .0905 .0900 *** .0908 .0905 .0907 .0903 .0907 .0910 .0908 .0917 .0916 .0902 .0887 .0881 .0885 .0884	Apr. 20 0. 0 2. 3 3. 53 11. 42 14. 15 19. 47 23. 59	.02355 .02037 .02399 .02372 .02510 .03026 .02927	Apr. 20 1. 0 3. 0 9. 0 21. 0	52. 5 54. 0 56. 0 57. 8 49. 8 51. 0	Apr. 21 12. 11 12. 30 12. 43 13. 15 13. 32 13. 50 13. 56 14. 6 14. 17 14. 23 14. 34 14. 45 15. 0 15. 38 16. 17 16. 55 18. 10 19. 18 19. 30 20. 7 20. 56 21. 52 22. 3 23. 38 23. 53 23. 59	23. 45 19. 40 20. 35 0. 15 9. 50 11. 0 9. 30 12. 5 8. 25 8. 40 8. 10 10. 5 9. 20 27. 25 16. 10 *** 20. 20 20. 35 18. 40 20. 10 18. 35 20. 56 21. 52 22. 3 23. 38 23. 53 23. 59	.0979 .0971 .0980 .0969 .0974 .0948 .0961 .0953 .0966 .0957 .0965 .0872 7. 5 .0944 .0864 .0872 .0881 .0861 *** .0872 .0852 .0887 .0854 .0871 .0840 .0867 .0883 .0849 .0839 .0848 .0839 .0842	11. 56 12. 20 12. 43 13. 40 14. 22 15. 28 15. 56 18. 47 23. 59	Apr. 21 1. 0 3. 0 9. 5 22. 23	54. 0 54. 0 57. 0 57. 2 60. 0 61. 0 49. 0 50. 0					

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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.			
Apr. 23 1. 0 3. 0 9. 0 22. 0	21. 34. 16* 35. 16* 23. 51* 23. 27*	Apr. 23 0. 0 0. 27 0. 41 0. 52 1. 7 1. 14 1. 22 1. 39 1. 52 2. 15 2. 27 2. 47 3. 43 3. 53 3. 57 4. 11 4. 21 4. 46 4. 54 5. 15 5. 22 5. 30 5. 40 5. 44 5. 50 6. 9 6. 15 6. 42 6. 48 7. 4 7. 17 7. 29 7. 43 7. 53 8. 11 8. 29 8. 46 9. 15 9. 36 9. 53 10. 22 10. 38 10. 52 11. 0 11. 22 11. 33 11. 45 12. 4 12. 16 12. 29 12. 51 13. 14 13. 39 14. 10 14. 29 14. 38 14. 45 14. 55	Apr. 23 0. 0 1. 52 3. 2 3. 47 4. 58 7. 33 9. 45 11. 4 11. 56 12. 25 15. 0 16. 36 20. 17 21. 40 23. 59	Apr. 23 1. 0 3. 0 9. 0 22. 0	53. 0 57. 0 57. 4 51. 0	53. 0 58. 0 57. 0 52. 0	Apr. 23 15. 15 15. 45 16. 13 16. 33 16. 53 17. 0 17. 16 17. 27 17. 33 18. 2 18. 15 18. 24 18. 43 19. 4 19. 15 19. 39 21. 20 22. 48 23. 3 23. 35 23. 59	Apr. 23 15. 15 15. 45 16. 13 16. 33 16. 53 17. 0 17. 16 17. 27 17. 33 18. 2 18. 15 18. 24 18. 43 19. 4 19. 15 19. 39 21. 20 22. 48 23. 3 23. 35 23. 59	Apr. 23 15. 15 15. 45 16. 13 16. 33 16. 53 17. 0 17. 16 17. 27 17. 33 18. 2 18. 15 18. 24 18. 43 19. 4 19. 15 19. 39 21. 20 22. 48 23. 3 23. 35 23. 59	Apr. 23 15. 15 15. 45 16. 13 16. 33 16. 53 17. 0 17. 16 17. 27 17. 33 18. 2 18. 15 18. 24 18. 43 19. 4 19. 15 19. 39 21. 20 22. 48 23. 3 23. 35 23. 59	Apr. 23 15. 15 15. 45 16. 13 16. 33 16. 53 17. 0 17. 16 17. 27 17. 33 18. 2 18. 15 18. 24 18. 43 19. 4 19. 15 19. 39 21. 20 22. 48 23. 3 23. 35 23. 59	Apr. 24 0. 0 0. 52 1. 17 1. 57 2. 8 3. 0 3. 50 5. 6 6. 15 6. 38 7. 11 7. 45 8. 46 9. 35 9. 44 9. 53 10. 9 10. 24 10. 47 11. 5 11. 36 11. 54 13. 23 13. 52 14. 43 14. 56 15. 8 15. 26 16. 4 16. 17 17. 0 17. 13	Apr. 24 21. 32. 40 32. 45 35. 30 35. 30 37. 10 33. 45 33. 20 29. 35 25. 45 26. 10 19. 5 *** 24. 20 *** 26. 10 21. 45 24. 5 22. 30 24. 15 14. 45 23. 30 14. 20 *** 19. 0 17. 15 23. 40 22. 30 23. 45 23. 10 24. 25 23. 20 25. 0 26. 30 23. 20 24. 45	Apr. 24 0. 0 0. 37 0. 57 1. 12 1. 37 1. 46 2. 11 2. 21 3. 20 3. 54 4. 24 4. 53 5. 24 5. 30 5. 44 5. 58 7. 12 7. 17 7. 32 8. 30 8. 42 9. 19 9. 45 9. 57 10. 4 10. 22 10. 38 10. 58 11. 15 11. 29 11. 45 12. 2 12. 26 12. 59 13. 23	Apr. 24 0. 0 6. 20 11. 56 15. 46 19. 4 22. 45 23. 59	Apr. 24 0. 0 9. 5 21. 6	Apr. 24 0. 0 0. 3122 0. 2857 0. 2976 0. 3100 0. 3072 0. 3006	Apr. 24 9. 5 21. 6	54. 0 53. 6	55. 0 54. 0

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							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.									
Apr. 24 h m 17. 20 17. 29 17. 56 18. 15 18. 43 18. 58 19. 20 19. 42 20. 13 20. 45 21. 13 22. 0 22. 25 23. 15 23. 48 23. 59	° / ′ ″ 21. 23. 45 23. 50 20. 40 22. 35 22. 30 23. 35 20. 20 23. 5 *** 20. 20 *** 22. 5 21. 30 24. 25 24. 10 29. 40 *** 32. 5 *** 30. 45	Apr. 24 h m 14. 43 14. 54 15. 44 16. 11 16. 35 16. 43 17. 17 17. 43 18. 0 19. 22 19. 37 19. 51 20. 30 21. 11 22. 2 22. 28 22. 57 23. 33 23. 48 23. 59	° 0909 0913 0905 0906 0911 0908 0912 0911 0915 0900 0903 0896 0884 0889 0889 0876 0885 0881 0873 0875	h m 0 0	h m 0 0	h m 1. 0 3. 0 9. 0 21. 0	° ′ ″ 57. 0 57. 0 58. 5 59. 0 59. 5 54. 5 56. 0	° 0 0	Apr. 25 h m 0. 0 0. 5 0. 59 1. 11 2. 5 2. 56 3. 25 6. 28 7. 8 7. 33 7. 45 8. 3 8. 23 8. 50 9. 7 9. 32 10. 9 11. 8 12. 11 13. 5 15. 20 16. 18 17. 30 19. 37 19. 58 20. 9 20. 27 20. 57 22. 42 23. 3 23. 59	° / ′ ″ 21. 30. 45 32. 0 33. 15 31. 50 33. 45 32. 30 30. 25 26. 5 22. 20 23. 45 18. 15 23. 20 20. 30 22. 45 21. 10 23. 40 21. 45 *** 25. 20 22. 10 24. 45 24. 45 21. 20 23. 40 *** 19. 25 19. 35 21. 10 *** 19. 15 19. 45 *** 27. 20 31. 5 34. 25	Apr. 25 h m 0. 0 0. 5 0. 59 1. 12 1. 53 2. 45 2. 59 3. 21 3. 45 4. 0 4. 20 4. 58 5. 36 6. 11 6. 53 7. 37 7. 50 8. 7 8. 30 8. 47 9. 17 10. 5 10. 13 10. 29 10. 40 11. 0 12. 13 12. 23 13. 21 14. 15 16. 13 18. 9 21. 7 22. 15 22. 45	° 0875 0871 0890 0886 0903 0905 0909 0902 0908 0901 0926 0925 0913 0919 0914 0919 0931 0913 0917 0908 0909 0904 0907 0904 0907 0907 0913 0909 0909 0913 0910 0912 0895 0880 0879	h m 0. 0 5. 20 9. 22 12. 40 18. 27 23. 59	° 03006 02677 02563 02627 03071 02833	Apr. 25 h m 1. 0 3. 0 9. 0 21. 0	° ′ ″ 57. 0 57. 0 58. 5 59. 0 59. 5 54. 5 56. 0	Apr. 25 h m 22. 55 23. 59	° 0884 0878	Apr. 26 h m 0. 0 0. 15 0. 28 1. 0 1. 41 3. 5 3. 27 4. 43 5. 42 6. 5 6. 30 6. 52 7. 26 7. 53 8. 15 8. 27 8. 45 9. 3 9. 35 10. 8 10. 43 11. 5 11. 56 12. 43 12. 54 14. 8 14. 27 15. 13 16. 51 17. 0 17. 13 17. 26 17. 50 18. 5 18. 37 19. 12 19. 33 21. 27 21. 53 22. 48 23. 59	° / ′ ″ 21. 34. 25 33. 50 35. 30 34. 25 37. 15 34. 10 31. 25 30. 30 23. 45 25. 0 24. 10 25. 15 23. 50 18. 10 11. 30 16. 10 13. 15 18. 5 20. 40 20. 15 23. 10 21. 30 24. 55 22. 30 23. 5 17. 20 20. 35 *** 19. 25 *** 20. 20 21. 10 19. 20 21. 30 20. 15 21. 0 *** 18. 10 20. 25 *** 20. 20 *** 24. 5 *** 26. 40 27. 55 31. 50	Apr. 26 h m 0. 0 0. 12 0. 22 0. 40 0. 43 0. 53 1. 37 2. 10 2. 28 3. 0 3. 30 4. 22 4. 38 4. 44 4. 51 5. 11 5. 34 6. 21 7. 8 7. 28 7. 51 8. 11 8. 24 8. 43 9. 2 9. 41 9. 58 10. 13 10. 25 10. 41 10. 54 11. 2 11. 11 11. 29 11. 45 12. 13 12. 45 13. 42 13. 57 14. 36 15. 0 15. 43 16. 40 17. 17 17. 29 19. 28 20. 50 21. 56 22. 11 22. 41 23. 59	° 0878 0873 0877 0871 0872 0868 0890 0889 0895 0897 0899 0895 0901 0897 0899 0895 0901 0891 0884 0905 0896 0896 0910 0890 0892 0880 0891 0884 0890 0887 0895 0889 0894 0891 0897 0894 0898 0895 0905 0897 0919 0909 0904 0904 0909 0909 0905 *** 0891 0895 0890 0883 0884 0879	Apr. 26 h m 0. 0 2. 15 4. 51 8. 23 14. 50 19. 36 23. 37 23. 59	° 02833 02706 02128 01881 02310 02803 02448 02392 02400	Apr. 26 h m 1. 0 3. 0 9. 0 21. 0	° ′ ″ 58. 0 61. 0 60. 5 52. 0 59. 0 62. 0 54. 0

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

INDICATIONS OF THE MAGNETOMETERS.

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							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
Apr. 30 13. 48	21. 23. 25 ***	Apr. 30 7. 52	*0897 ***						May 1 18. 15	21. 22. 50	May 1 9. 18	*0897					
14. 43	23. 30	10. 44	*0901						18. 52	21. 20	10. 18	*0897					
14. 50	21. 50	10. 58	*0905						19. 13	19. 5	10. 45	*0900					
15. 11	23. 45	11. 14	*0897 ***						19. 30	21. 0	11. 26	*0897					
15. 16	22. 25	12. 30	*0896						19. 47	19. 30	12. 22	*0901					
16. 39	23. 0	12. 30	*0896						20. 2	21. 25	12. 53	*0899					
16. 50	21. 50	12. 43	*0901						20. 11	20. 20	13. 15	*0902					
16. 55	22. 50	12. 53	*0894						20. 19	21. 30	13. 42	*0897					
17. 3	21. 35	13. 15	*0896						20. 38	21. 30	13. 56	*0899					
17. 30	22. 5	13. 27	*0904						20. 50	23. 50	15. 0	*0897					
18. 6	20. 0	13. 40	*0899 ***						21. 39	23. 15	16. 44	*0902					
18. 14	22. 10	14. 11	*0896						21. 57	25. 45	18. 49	*0895					
18. 21	19. 50	14. 25	*0900						22. 23	25. 45	19. 25	*0897					
18. 33	21. 40	14. 44	*0901						22. 38	27. 35	20. 41	*0876					
18. 45	21. 30	14. 56	*0894						23. 59	31. 20	20. 52	*0879					
19. 10	18. 10	15. 13	*0899								22. 22	*0871					
19. 23	19. 45	15. 37	*0895								23. 8	*0880					
19. 46	19. 5	15. 45	*0897								23. 40	*0874					
20. 47	21. 20	16. 28	*0896								23. 59	*0876					
23. 8	26. 55	16. 35	*0899						May 2 0. 0	21. 31. 20	0. 0	*0876	May 2 0. 0	*01836	1. 0	55. 0	55. 0
23. 20	29. 50	16. 44	*0896 ***						0. 27	31. 0	0. 30	*0878	2. 8	*01752	3. 0	57. 0	57. 0
23. 32	29. 15	18. 42	*0895						0. 52	33. 40	0. 51	*0885	10. 15	*01071	9. 0	59. 5	58. 5
23. 40	30. 30	21. 45	*0877						1. 3	32. 20	1. 0	*0879	19. 40	*01500	21. 0	53. 0	53. 5
23. 59	31. 10	22. 10	*0881						1. 15	34. 5	1. 14	*0885	23. 59	*01632			
		22. 52	*0879						1. 33	31. 10	1. 30	*0869					
		23. 22	*0888						1. 58	32. 50	1. 45	*0872					
		23. 29	*0885						2. 40	27. 30	1. 59	*0884					
		23. 43	*0887							***	2. 39	*0863					
		23. 59	*0883						3. 47	27. 25	2. 55	*0865					
									4. 48	25. 0	3. 52	*0880					
									6. 8	24. 35	4. 30	*0883					
									6. 42	22. 10	4. 52	*0881					
									7. 20	21. 20	5. 45	*0882					
									9. 5	23. 30	6. 12	*0897					
									9. 22	21. 55	6. 44	*0891					
									9. 37	22. 40	7. 7	*0879					
									10. 5	20. 45	7. 51	*0881					
									11. 8	23. 35	8. 30	*0887					
									11. 56	23. 35	9. 0	*0880					
									12. 39	24. 10	9. 50	*0888					
										***	10. 15	*0885					
									13. 36	25. 30	10. 43	*0887					
									13. 53	28. 5	11. 42	*0885					
									14. 42	23. 40	12. 15	*0891					
									16. 43	21. 35	12. 43	*0886					
									16. 56	22. 30	13. 12	*0894					
										***	13. 26	*0885					
									18. 30	20. 45	13. 43	*0885					
										***	14. 7	*0892					
									20. 39	21. 20	14. 51	*0891					
									23. 59	***	16. 53	*0897 ***					
											19. 28	*0891 ***					
											20. 42	*0880					
											22. 45	*0871					

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. h m	Western Declination. ° ' "	Greenwich Mean Solar Time. h m	Horizontal Force in parts of the whole H. F. uncorrected for Temperature. °	Greenwich Mean Solar Time. h m	Vertical Force in parts of the whole V. F. uncorrected for Temperature. °	Greenwich Mean Solar Time. h m	Readings of Thermometers.		Greenwich Mean Solar Time. h m	Western Declination. ° ' "	Greenwich Mean Solar Time. h m	Horizontal Force in parts of the whole H. F. uncorrected for Temperature. °	Greenwich Mean Solar Time. h m	Vertical Force in parts of the whole V. F. uncorrected for Temperature. °	Greenwich Mean Solar Time. h m	Readings of Thermometers.		
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.	
		May 2 23. 22 23. 59	°0875 °0871															
May 3 0. 0 0. 29 1. 4 1. 40 2. 9 3. 28 3. 43 4. 11 5. 13 7. 42 7. 58 8. 29 9. 27 10. 18 10. 42 11. 8 11. 27 11. 40 12. 47 13. 15 13. 28 13. 57 16. 3 17. 2 18. 43 20. 3 21. 27 22. 55 23. 59	21. 33. 25 31. 50 33. 15 30. 45 31. 40 27. 5 29. 30 23. 45 *** 23. 20 24. 30 25. 35 24. 25 25. 25 23. 40 *** 24. 50 21. 5 25. 0 22. 35 25. 30 24. 10 25. 45 22. 35 23. 10 21. 5 *** 22. 50 20. 20 23. 15 30. 0 33. 20	May 3 0. 0 0. 30 0. 36 0. 47 0. 56 1. 7 1. 39 2. 21 2. 45 3. 2 3. 31 3. 44 4. 5 4. 36 4. 44 5. 14 6. 13 6. 58 7. 16 7. 32 8. 0 8. 12 8. 30 9. 11 9. 37 9. 52 10. 43 10. 54 11. 14 11. 40 12. 6 12. 15 12. 22 12. 42 12. 58 13. 6 13. 37 13. 53 16. 22 18. 41 20. 36 22. 0 22. 27 22. 44 23. 14 23. 35 23. 59	°0872 °0880 °0878 °0886 °0883 °0884 °0875 °0891 °0890 °0897 °0896 °0909 °0919 °0895 °0897 °0885 °0886 °0880 °0883 °0878 °0879 °0883 °0878 °0878 °0883 °0880 °0886 °0885 °0906 °0889 °0883 °0885 °0889 °0885 °0889 °0887 °0891 °0889 °0897 °0885 °0870 °0870 °0865 °0869 °0867 °0872	May 3 0. 0 2. 47 5. 3 9. 36 12. 2 20. 10 22. 56 23. 59	°01632 °01442 °01120 °01362 °01441 °02209 °02288 °02264	May 3 1. 0 3. 0 9. 0 21. 0	56. 0 59. 0 61. 2 52. 5	56. 0 59. 0 60. 4 53. 0										
May 4 0. 0 0. 48 1. 14 5. 17 7. 36	21. 33. 20 32. 30 33. 50 22. 25 22. 25	May 4 0. 0 0. 54 1. 5 1. 58 2. 22	°0872 °0884 °0895 °0881 °0877	May 4 0. 0 1. 53 6. 9 8. 36 11. 47	°02264 °02147 °01368 °01740 °01871	May 4 1. 0 3. 0 9. 0 21. 0	56. 6 61. 0 64. 0 53. 0	57. 0 61. 0 64. 0 54. 0										
		May 4 7. 57 8. 26 9. 39 10. 42 13. 15 13. 29 13. 42 14. 15 14. 40 15. 12 15. 26 16. 27 16. 44 17. 45 18. 30 18. 57 19. 18 19. 47 20. 2 20. 13 20. 28 21. 40 21. 52 22. 15 23. 16 23. 35 23. 59	21. 21. 50 22. 40 17. 45 22. 5 24. 30 26. 20 25. 30 24. 30 26. 5 23. 40 24. 30 23. 35 22. 25 29. 20 26. 5 30. 15 28. 10 25. 25 22. 30 22. 45 21. 20 *** 22. 30 25. 20 25. 30 35. 30 34. 25 35. 35	May 4 4. 51 6. 41 8. 42 8. 53 9. 43 10. 7 10. 22 13. 13 13. 36 14. 14 14. 44 15. 45 16. 26 17. 25 18. 29 18. 52 19. 13 19. 35 19. 52 20. 49 21. 11 21. 40 22. 14 22. 30 23. 13 23. 37 23. 53 (†)	°0885 °0881 °0881 °0886 °0877 °0884 °0880 °0894 °0900 °0899 °0905 °0905 °0911 °0904 °0910 °0903 °0909 °0905 °0908 °0896 °0897 °0889 °0872 °0877 °0874 °0855 °0866 (†)	May 5 0. 17 1. 42 4. 47 5. 16 6. 10 7. 3 7. 25 8. 9 9. 3 10. 21 10. 40 10. 54 11. 2 11. 33 13. 32 13. 58 14. 18 14. 57 15. 15 15. 25 16. 43 16. 57 17. 17 17. 38	(†) 32. 25 33. 5 23. 35 23. 20 20. 30 21. 15 20. 10 21. 25 20. 40 20. 35 23. 20 21. 25 22. 45 26. 20 17. 0 22. 30 21. 50 25. 50 18. 25 17. 25 19. 40 20. 20 19. 5 21. 50 19. 0 21. 15	May 5 0. 27 0. 53 1. 0 1. 30 1. 43 1. 52 2. 10 2. 15 2. 37 2. 54 3. 10 3. 28 3. 55 4. 2 4. 24 4. 43 4. 54 5. 10 5. 51 6. 0 6. 13 6. 36 6. 44 7. 3 7. 25	°0871 °0870 °0875 °0869 °0871 °0869 °0877 °0873 °0876 °0884 °0881 °0886 °0885 °0891 °0889 °0892 *** °0893 °0897 °0885 °0887 °0883 °0886 °0881	May 5 0. 0 0. 38 5. 39 8. 15 11. 36 15. 9 18. 47 22. 21 23. 59	°02504 °02463 °01642 °01785 °01873 °02280 °02842 °02433 °02317	May 5 1. 0 3. 0 9. 0 21. 0	58. 0 61. 0 62. 2 52. 0	58. 0 61. 2 62. 2 52. 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.
May 5 17. 50 18. 16 18. 30 19. 15 19. 27 19. 43 19. 54 20. 2 20. 15 20. 43 21. 7 21. 21 20. 11 23. 59	21. 19. 30 20. 10 17. 5 16. 0 16. 25 15. 30 16. 45 16. 20 17. 35 17. 20 18. 30 20. 35 22. 15 32. 20	May 5 7. 36 7. 47 8. 12 8. 26 8. 43 8. 57 9. 15 9. 37 10. 51 11. 11 11. 30 11. 58 12. 11 12. 16 12. 57 13. 11 13. 28 13. 57 14. 13 14. 45 15. 5 15. 25 15. 37 15. 42 15. 45 16. 30 16. 53 17. 11 17. 30 18. 2 18. 45 19. 11 19. 39 20. 10 21. 39 23. 28 23. 59	.0888 .0884 .0891 .0885 .0888 .0885 .0891 .0886 .0890 .0909 .0893 .0894 .0899 .0895 .0898 .0897 .0899 .0893 .0893 .0904 .0907 .0902 .0907 .0903 .0906 .0906 .0911 .0908 .0910 .0907 .0898 .0895 .0897 .0887 .0872 .0870 .0866	h h		h h	o o		May 6 19. 53 20. 2 20. 15 20. 37 20. 46 21. 20 22. 44 23. 30 23. 48 23. 59	21. 12. 30 14. 35 15. 10 13. 45 16. 50 17. 20 23. 10 27. 30 27. 25 29. 0	May 6 8. 30 9. 0 10. 5 11. 52 12. 11 12. 21 16. 33 18. 42 19. 9 20. 27 21. 12 21. 54 22. 8 23. 12 23. 39 23. 59	.0903 .0900 .0900 .0907 .0911 .0908 .0921 .0918 .0913 .0908 .0896 .0895 .0890 .0893 .0891 .0896	h h		h h	o o	
									May 7 0. 0 0. 17 0. 38 0. 50 1. 5 1. 16 1. 45 2. 2 2. 45 3. 11 3. 30 4. 4 6. 23 6. 45 7. 2 7. 51 8. 25 8. 42 8. 53 9. 3 9. 26 9. 43 10. 2 11. 15 11. 54 13. 0 14. 13 14. 47 15. 2 16. 12 16. 36 17. 14 17. 52 18. 20 19. 9	21. 29. 0 27. 55 28. 50 28. 20 28. 45 27. 45 29. 50 29. 10 30. 5 28. 10 28. 15 25. 30 22. 20 20. 20 21. 15 18. 25 20. 5 19. 30 20. 45 19. 35 19. 35 20. 40 18. 45 23. 10 21. 5 27. 50 16. 20 17. 5 16. 10 18. 35 16. 50 *** 22. 45 *** 20. 20 *** 21. 35 *** 15. 0 ***	May 7 0. 0 0. 21 0. 44 0. 56 1. 43 2. 13 2. 40 3. 4 3. 37 4. 10 4. 29 4. 44 4. 56 5. 15 5. 46 6. 9 6. 22 6. 52 7. 11 7. 31 8. 5 8. 15 8. 42 8. 58 9. 37 9. 45 10. 5 10. 32 10. 51 10. 56 11. 23 11. 43 11. 59 12. 39 12. 49 13. 22 14. 7 14. 30 15. 34	.0896 .0887 .0885 .0883 .0892 .0890 .0897 .0888 .0907 .0887 .0898 .0895 .0903 .0903 .0895 .0903 .0900 .0897 .0906 .0905 .0900 .0903 .0897 .0903 .0901 .0904 .0897 .0897 .0900 .0897 .0900 .0899 .0905 .0904 .0928 .0908 .0904 *** .0907	May 7 0. 0 1. 50 5. 26 7. 17 11. 8 14. 4 17. 40 20. 36 23. 59	.02462 .02277 .01568 .01762 .01879 .01900 .02319 .02538 .02703	May 7 1. 0 3. 0 9. 0 22. 30	61.0 65.0 67.0 60.0	61.2 65.0 66.8 60.5
May 6 0. 0 0. 6 1. 0 1. 27 2. 5 3. 28 3. 43 4. 37 5. 26 5. 51 7. 25 8. 27 9. 8 12. 50 13. 26 15. 3 17. 25 18. 58 19. 37	21. 32. 25 31. 15 34. 10 33. 20 34. 15 30. 25 30. 25 25. 30 24. 30 22. 15 20. 50 17. 0 20. 40 21. 30 21. 0 19. 55 16. 20 16. 5 15. 10	May 6 0. 0 0. 16 1. 0 1. 33 2. 4 2. 18 2. 33 2. 50 3. 45 4. 22 4. 39 5. 11 5. 22 5. 45 6. 22 7. 22 7. 36 7. 43 8. 7	.0866 .0865 .0879 .0875 .0887 .0884 .0887 .0883 .0911 .0886 .0898 .0903 .0908 .0895 .0904 .0910 .0903 .0906 .0891	May 6 0. 0 2. 8 4. 46 7. 17 10. 20 11. 53 18. 39 22. 15 23. 44 23. 59	.02317 .02051 .01509 .01783 .01835 .01943 .02911 .02587 .02506 .02462	May 6 1. 0 3. 0 9. 0 21. 0	58.8 61.5 63.0 55.0	59.0 62.0 63.5 55.0									

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.
May 7 19. 50 20. 13 21. 18 22. 21 23. 59	21. 18. 50 17. 30 17. 10 *** 19. 25 27. 5	May 7 16. 0 16. 52 17. 12 17. 55 19. 28 20. 15 20. 46 21. 11 21. 22 21. 44 21. 54 22. 6 22. 32 23. 59	.0917 .0905 .0905 .0911 *** .0908 .0899 .0900 .0895 .0897 .0892 .0895 .0891 .0890 .0895	h m		h m	o	o									
May 8 0. 0 0. 42 1. 13 3. 0 5. 10 5. 47 6. 18 8. 10 9. 50 10. 9 10. 45 11. 14 11. 58 12. 32 12. 47 13. 26 13. 37 13. 53 14. 38 14. 53 15. 15 15. 29 16. 13 16. 42 17. 38 17. 42 17. 50 18. 3 18. 37 18. 46 18. 53 19. 10 19. 22 19. 36 19. 50 20. 7 20. 20 20. 28 20. 32	21. 27. 5 27. 55 29. 50 26. 0 24. 10 22. 35 23. 0 21. 5 *** 20. 25 14. 10 18. 50 14. 35 13. 20 16. 30 14. 35 19. 50 19. 10 21. 30 19. 30 18. 45 21. 30 19. 35 18. 10 19. 45 18. 5 19. 10 17. 30 19. 50 18. 45 20. 0 18. 35 12. 15 19. 0 17. 10 20. 25 19. 10 16. 20 17. 45 16. 15	May 8 0. 0 0. 39 0. 53 1. 14 2. 4 2. 13 2. 30 2. 43 4. 28 4. 37 4. 49 5. 3 5. 10 5. 15 5. 28 5. 44 6. 22 6. 53 7. 30 8. 14 8. 28 10. 0 10. 13 10. 26 10. 40 11. 43 12. 0 12. 36 12. 58 13. 24 13. 59 14. 58 15. 13 15. 24 15. 52 17. 13 18. 10 18. 21 18. 54	.0895 .0896 .0905 .0907 .0895 .0899 .0894 .0899 .0903 .0906 .0902 .0901 .0905 .0906 .0904 .0908 .0900 .0906 .0901 .0905 .0907 .0904 .0901 .0905 .0907 .0911 *** .0905 .0897 .0901 .0897 .0904 .0898 .0900 .0907 .0905 .0907 .0903 .0909 .0904 .0902	May 8 0. 0 2. 40 10. 53 17. 54 19. 58 23. 13	.02703 .02787 .02220 .02933 .02726 .02368 (†)	May 8 7. 30 21. 0	65. 2 56. 0	65. 5 57. 0									
May 8 21. 0 21. 26 22. 10 22. 36 23. 9 23. 22 23. 59	21. 21. 20 19. 10 24. 20 24. 20 28. 25 28. 0 33. 5	May 8 19. 13 19. 52 20. 22 22. 58 23. 15 23. 29	.0896 .0899 .0893 .0882 .0888 .0880 (†)														
May 9 0. 0 0. 20 0. 57 1. 33 1. 45 2. 3 2. 18 3. 25 5. 22 5. 43 6. 8 8. 27 9. 2 9. 15 9. 27 9. 48 10. 35 12. 18 13. 45 14. 0 15. 37 17. 45 19. 43 21. 17 21. 43 22. 15 22. 30 22. 36 22. 45 22. 56 23. 35 23. 59	21. 33. 5 30. 30 *** 33. 20 31. 15 32. 20 30. 35 31. 25 28. 40 (†) 23. 10 21. 5 22. 20 21. 15 19. 30 21. 20 18. 45 20. 30 20. 30 18. 45 18. 5 17. 5 17. 0 13. 30 11. 25 19. 10 *** 19. 50 22. 35 20. 35 22. 0 20. 40 23. 30 *** 24. 5 27. 20	May 9 0. 20 0. 30 0. 40 0. 58 1. 36 1. 45 1. 58 2. 18 2. 51 3. 30 3. 56 4. 29 5. 20 5. 45 6. 15 6. 43 6. 52 7. 6 7. 52 8. 38 9. 10 9. 18 9. 40 9. 51 10. 18 11. 28 11. 33 11. 51 12. 6 12. 15 12. 22 14. 2 14. 13 14. 28 15. 39 17. 18 19. 15 19. 30 22. 28 22. 50 22. 59 23. 13 23. 21	(†) .0871 .0878 .0875 .0886 .0874 .0873 .0881 .0879 .0891 .0888 .0892 .0904 .0921 .0879 .0903 .0902 .0905 .0904 .0909 .0907 .0911 .0904 .0909 .0906 .0910 .0904 .0907 .0913 .0906 .0905 .0913 .0909 .0910 .0915 .0910 .0907 .0910 .0904 .0907 *** .0897 .0910 .0906 .0907 .0903 (†)	May 9 1. 10 2. 40 4. 51 8. 48 11. 47 18. 40 20. 38 21. 47 22. 36 23. 59	(†) .02085* .01836 {.01382 {.01471 {.01329 {.01422 {.02146 {.02232 {.02137 {.02061 {.02059 {.01920 {.01917	May 9 1. 10 3. 0 9. 0 21. 0	62. 0 63. 5 62. 2 55. 7	62. 0 64. 0 63. 0 56. 8									

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 10 0. 0 1. 15 2. 2 2. 20 4. 6 4. 27 4. 50 6. 43 6. 58 7. 27 8. 42 10. 25 10. 36 10. 53 11. 42 12. 16 12. 43 13. 30 13. 52 14. 3 14. 17 18. 7 19. 13 19. 20 21. 28 23. 43 23. 59	21. 27. 20 26. 10 23. 35 24. 30 21. 20 21. 30 19. 40 20. 0 19. 0 20. 15 19. 5 19. 45 20. 35 19. 30 19. 45 18. 10 19. 10 17. 15 18. 5 19. 10 17. 50 14. 15 *** 13. 40 14. 50 17. 30 24. 20 24. 45	May 10 0. 21 0. 51 1. 12 2. 45 3. 20 4. 27 4. 42 4. 59 5. 13 5. 28 5. 36 5. 44 5. 54 6. 11 6. 51 7. 11 7. 30 8. 6 10. 42 11. 28 12. 5 12. 14 12. 30 13. 28 13. 34 13. 50 14. 11 14. 43 16. 58 18. 42 21. 10 21. 36 22. 11 22. 19 23. 59	(†)	May 10 0. 0 0. 28 5. 30 7. 47 10. 29 14. 14 17. 3 20. 9 21. 30 22. 32 23. 16 23. 59	0.1917 { 0.1883 0.1700 0.1694 0.1510 0.1477 0.1649 0.1830 0.1657 { 0.1496 0.1381 0.1357 0.1302 0.1263 0.1207 0.1192	May 10 1. 0 3. 0 9. 0 21. 0	56.0 57.8 59.2 54.4	57.0 58.5 60.0 55.8	May 11 13. 59 16. 13 16. 30 17. 5 17. 57 18. 9 18. 25 18. 45 19. 24 20. 37 20. 48 21. 0 21. 41 23. 3 23. 59	21. 16. 35 *** 17. 45 19. 30 18. 15 10. 55 14. 20 11. 35 15. 50 12. 0 14. 10 16. 5 15. 10 18. 30 31. 15 33. 30	May 11 12. 30 12. 42 12. 49 13. 0 13. 15 13. 45 13. 55 14. 22 14. 28 14. 54 15. 52 16. 28 16. 50 17. 22 18. 15 18. 30 19. 7 19. 32 19. 50 20. 40 22. 0 22. 12 22. 22 23. 15 23. 59	0.915 0.917 0.915 0.920 0.914 0.911 0.914 0.912 0.915 0.913 0.920 0.909 0.923 0.929 0.917 0.909 0.891 0.890 0.883 (†) 0.882 0.883 0.877 0.873 0.879	May 12 0. 0 0. 47 3. 52 4. 5 4. 33 5. 26 6. 19 6. 40 7. 3 7. 20 7. 38 8. 9 8. 20 9. 12 10. 0 10. 20 10. 38 10. 51 11. 12 11. 25 13. 42 14. 13 14. 42 15. 2 15. 27 15. 46 16. 19 18. 40	21. 33. 30 34. 25 23. 10 24. 20 20. 15 *** 23. 10 *** 20. 5 21. 30 19. 15 20. 20 17. 15 21. 50 20. 45 22. 40 21. 10 17. 0 18. 5 17. 20 19. 10 17. 50 20. 30 19. 0 20. 25 18. 10 20. 5 18. 15 19. 20 11. 0	May 12 0. 0 0. 55 5. 50 6. 5 11. 20 18. 10 21. 19 23. 59	0.879 0.901 0.872 0.880 0.899 0.901 0.896 0.899 0.895 0.901 0.894 0.897 0.891 0.901 0.905 0.903 0.905 0.901 0.903 0.900 0.902 0.893 0.896 0.905 0.905 0.911 0.902 0.904 0.892 0.889	May 12 0. 0 3. 0 9. 5 21. 0	0.1501 0.1460 0.0703 { 0.0726 0.0862 0.0987 0.1872 { 0.1524 0.1460 0.1234	May 12 1. 0 3. 0 9. 5 21. 0	59.8 62.7 63.8 63.5 65.0 57.0 57.0
May 11 0. 0 0. 30 1. 52 3. 12 4. 56 5. 13 5. 30 6. 8 7. 55 8. 12 8. 20 9. 50 10. 6 10. 48 11. 16 11. 45 12. 43 13. 30 13. 47	21. 24. 45 25. 20 24. 55 20. 25 18. 10 19. 30 18. 25 21. 10 21. 15 21. 50 21. 15 20. 45 19. 50 21. 45 20. 35 21. 0 *** 14. 5 18. 10 18. 40	May 11 0. 0 0. 56 2. 4 3. 45 4. 5 4. 43 4. 55 5. 15 5. 55 7. 7 7. 22 7. 56 8. 12 9. 43 10. 7 11. 0 11. 14 11. 42 11. 48 12. 4	0.912 0.917 0.910 0.915 0.913 0.923 0.921 0.937 0.912 0.917 0.915 0.917 0.913 0.918 0.914 0.920 0.917 0.927 0.924 0.926	May 11 0. 0 0. 33 2. 10 6. 0 7. 6 10. 6 13. 20 20. 43 23. 15 23. 59	0.1192 0.1183 0.1038 0.0663 0.0517 0.0684 0.0742 0.1482 0.1535 0.1501	May 11 1. 0 3. 0 9. 0 21. 0	56.0 59.0 63.3 58.0	57.0 60.0 64.0 57.0	May 11 13. 59 16. 13 16. 30 17. 5 17. 57 18. 9 18. 25 18. 45 19. 24 20. 37 20. 48 21. 0 21. 41 23. 3 23. 59	21. 33. 30 34. 25 23. 10 24. 20 20. 15 *** 23. 10 *** 20. 5 21. 30 19. 15 20. 20 17. 15 21. 50 20. 45 22. 40 21. 10 17. 0 18. 5 17. 20 19. 10 17. 50 20. 30 19. 0 20. 25 18. 10 20. 5 18. 15 19. 20 11. 0	May 11 12. 30 12. 42 12. 49 13. 0 13. 15 13. 45 13. 55 14. 22 14. 28 14. 54 15. 52 16. 28 16. 50 17. 22 18. 15 18. 30 19. 7 19. 32 19. 50 20. 40 22. 0 22. 12 22. 22 23. 15 23. 59	0.915 0.917 0.915 0.920 0.914 0.911 0.914 0.912 0.915 0.913 0.920 0.909 0.923 0.929 0.917 0.909 0.891 0.890 0.883 (†) 0.882 0.883 0.877 0.873 0.879	May 11 1. 0 3. 0 9. 5 21. 0	0.1501 0.1460 0.0703 { 0.0726 0.0862 0.0987 0.1872 { 0.1524 0.1460 0.1234	May 11 1. 0 3. 0 9. 5 21. 0	59.8 62.7 63.8 63.5 65.0 57.0 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.	
		May 16 h m 14. 42 15. 45 19. 11 19. 24 19. 52 20. 0 21. 10 21. 28 22. 7 22. 59 23. 59	.0932 .0937 .0930 .0926 .0925 .0928 .0930 .0914 .0909 .0908 .0912															
May 17 h m o. 0 0. 40 3. 22 6. 12 8. 20 14. 56 17. 7 17. 21 18. 5 19. 46 20. 13 20. 48 21. 30 23. 59	21. 27. 45 29. 40 27. 20 20. 35 18. 45 18. 25 13. 50 12. 0 11. 10 10. 40 11. 35 10. 30 11. 15 22. 0	May 17 h m o. 0 0. 43 1. 9 2. 28 6. 16 6. 52 7. 0 7. 39 8. 26 9. 10 9. 44 10. 10 10. 39 11. 0 15. 0 15. 27 18. 5 20. 41 21. 6 22. 30 22. 44 23. 15 23. 23 23. 51 23. 59	.0912 .0916 .0915 .0927 .0922 .0918 .0921 .0911 .0923 .0925 .0923 .0926 .0925 .0927 .0928 .0927 .0913 .0913 .0899 .0901 .0894 .0896 .0892 .0895	May 17 h m o. 0 5. 47 9. 10 13. 15 17. 0 20. 10 22. 37 23. 59	.00682 .00677 .00581 .00647 .00779 .00710 .00792 .00806 .00737	May 17 h m 1. 0 3. 0 9. 0 21. 0	59.0 59.7 60.0 62.0 58.2											
May 18 h m o. 0 0. 45 1. 50 2. 8 2. 20 2. 27 2. 43 4. 30 5. 48 6. 57 9. 46 10. 3 16. 28 19. 17 19. 40 19. 52 20. 3	21. 22. 0 23. 55 24. 0 23. 5 24. 20 23. 15 24. 35 21. 20 20. 20 17. 45 18. 10 17. 5 14. 5 7. 50 6. 5 6. 30 5. 15	May 18 h m o. 0 0. 22 1. 2 1. 45 2. 39 4. 14 4. 45 4. 54 7. 26 8. 57 9. 19 9. 49 13. 26 14. 0 17. 45 19. 51 20. 0	.0895 .0899 .0901 .0897 .0905 .0909 .0916 .0915 .0923 .0918 .0920 .0917 .0921 .0920 .0921 .0908 .0909	May 18 h m o. 0 5. 17 10. 59: 20. 13 22. 46 23. 59	.00737 .00624 .00380 .00743 .00718 .00758 .00583	May 18 h m 1. 0 3. 0 9. 0 21. 0	59.0 60.0 61.0 64.0 59.8											
		May 18 h m 20. 17 21. 0 22. 50 23. 9 23. 55	.0896 .0897 .0891 .0889 .0900 .0914 .0914															
		May 19 h m o. 50 1. 16 1. 57 2. 5 2. 20 2. 32 2. 45 2. 53 3. 15 3. 23 3. 37 3. 50 4. 18 4. 39 4. 43 4. 47 4. 56 5. 7 5. 38 5. 50 6. 10 6. 20 6. 37 7. 8 7. 55 8. 10 8. 15 8. 40 9. 14 9. 40 10. 2 10. 8 10. 40 10. 47 11. 6 11. 23 11. 30 12. 54 13. 39 17. 6 17. 50 18. 30 20. 12 20. 17 20. 43 22. 6 23. 2	21. 33. 20 33. 50 38. 20 37. 25 39. 10 37. 30 43. 25 41. 25 35. 10 36. 15 36. 50 31. 20 33. 55 30. 10 33. 50 32. 5 33. 0 26. 30 18. 5 21. 10 19. 5 15. 0 12. 25 18. 10 19. 40 17. 15 19. 40 5. 20 12. 15 10. 10 12. 5 14. 20 12. 10 14. 50 11. 0 14. 0 10. 20 21. 5 17. 10 14. 15 15. 40 12. 45 *** 12. 30 10. 55 13. 25 19. 25 21. 20	.0914 (†) .0946* .0941 .0902 .0906 .0896 .0904 .0896 .0961 .0926 .0929 .0919 .0922 .0907 .0917 .0913 .0907 .0909 .0896 .0898 .0888 .0894 .0893 .0868 .0869 .0875 .0872 .0881 .0880 .0871 .0873 .0891 *** .0869 .0899 .0897 .0901 .0895 *** .0888 .0885 .0895 .0887 .0889 .0883 .0885 .0880 ***	May 19 h m o. 0 4. 0 5. 13 7. 40 13. 5 21. 8 22. 10	.00583 .00578 .00629 .00281 .00342 .00962 .00978 (†)	May 19 h m 1. 0 3. 7 3. 19 3. 28 3. 32 3. 45 3. 57 5. 5 5. 11 5. 14 5. 18 5. 26 5. 39 5. 49 5. 57 6. 4 6. 24 6. 57 7. 22 7. 44 8. 0 8. 30 9. 7 9. 15 9. 30 9. 49 10. 10 10. 29 11. 4 11. 29 12. 22 13. 0 13. 10 13. 15 13. 33 14. 13 15. 36 16. 19 16. 24 16. 40 16. 52 17. 4 17. 21 ***	May 19 h m 1. 0 3. 0 9. 0 21. 0	61.0 61.7 63.0 64.0 65.2 66.2 59.2 60.2									

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 19 23. 59	21. 30. 0	May 19 19. 3	•0882 ***						May 21 9. 0	21. 16. 19*	May 21 9. 0	•0903*	May 21 9. 0	•01092*	May 21 9. 0	63. 0	63. 3			
		21. 5	•0872						22. 20	19. 28*	22. 20	•0874*	22. 20	•01158*	22. 20	57. 0	59. 0			
		21. 45	•0860						May 22		May 22		May 22		May 22					
		22. 5	•0863						0. 0	21. 25. 10	0. 0	•0884	0. 0	•01065	8. 30	62. 3	62. 2			
		22. 10	•0859						0. 27	25. 35	0. 20	•0883	3. 6	•01065	21. 0	55. 0	56. 0			
		22. 10	•0859						1. 13	30. 0	1. 10	•0902	11. 20	•00518						
		22. 48	•0870						1. 50	29. 5	1. 39	•0897	18. 30	•01084						
		23. 27	•0881						2. 0	30. 10	2. 0	•0897	19. 37	•00983						
		23. 59	•0881						2. 17	26. 10	2. 43	•0915	20. 8	•01010						
May 20 0. 0	21. 30. 5	May 20 0. 0	•0881		(†)	May 20	1. 0	61. 0	61. 5											
1. 20	26. 10	0. 15	•0879	1. 0	•00885*	3. 0	62. 0	63. 0	3. 20	27. 20	3. 51	•0911	21. 18	{ •00963						
2. 33	29. 0		(†)	3. 0	•00545*	9. 0	65. 0	65. 0	3. 50	28. 0	4. 11	•0901	23. 59	•00800						
2. 57	28. 30	1. 0	•0882*	4. 15	•00656	21. 0	59. 2	60. 0	4. 10	27. 10	4. 55	•0912		•00777						
3. 15	25. 50	3. 0	•0895*	12. 20	•00770				4. 56	28. 30	5. 25	•0904								
3. 32	26. 0	4. 10	•0904	12. 43	•00730				5. 21	25. 20	5. 46	•0907								
3. 40	28. 5	5. 11	•0921	20. 54	•01302				5. 43	25. 0	6. 19	•0918								
4. 37	23. 25	6. 11	•0905	23. 18	•01237				6. 0	22. 25	6. 42	•0912								
5. 4	16. 30	6. 30	•0904		(†)				6. 28	23. 5	7. 11	•0910								
5. 38	21. 50	7. 13	•0896						6. 55	21. 30	7. 23	•0920								
5. 56	21. 5	7. 40	•0899						7. 18	17. 15	8. 5	•0907								
6. 15	22. 30	7. 53	•0897						8. 15	21. 25	8. 28	•0902								
6. 50	21. 25	8. 11	•0907						10. 2	20. 0	8. 45	•0905								
7. 42	22. 0	8. 21	•0902						10. 45	13. 10	9. 5	•0900								
8. 3	18. 5	8. 42	•0901						11. 7	22. 20	9. 14	•0903								
8. 12	21. 10	8. 46	•0906						12. 3	16. 10	9. 22	•0901								
9. 0	24. 50	9. 0	•0898						12. 37	16. 30	9. 41	•0904								
9. 23	23. 0	9. 22	•0910						12. 55	15. 50	9. 57	•0903								
9. 37	19. 10	9. 37	•0902						14. 27	17. 45	10. 19	•0907								
10. 6	21. 5	9. 53	•0910						17. 28	15. 30	10. 39	•0907								
10. 30	18. 35	10. 50	•0895						19. 29	12. 20	10. 59	•0916								
10. 43	12. 30	11. 5	•0908						21. 40	16. 10	11. 30	•0907								
10. 57	13. 55	11. 22	•0909						22. 3	21. 20	11. 44	•0907								
11. 26	9. 50	11. 41	•0905						22. 20	18. 55	12. 7	•0904								
12. 5	24. 10	12. 2	•0888						23. 44	26. 20	12. 26	•0904								
13. 2	12. 15	12. 15	•0884						23. 59	25. 45	12. 40	•0909								
13. 17	13. 40	12. 40	•0898								12. 52	•0905								
13. 36	12. 55	12. 44	•0897								13. 33	•0905								
14. 3	14. 10	13. 22	•0913								13. 50	•0900								
14. 17	13. 5	13. 40	•0904								14. 7	•0901								
15. 28	16. 0	13. 58	•0900								14. 15	•0905								
16. 4	18. 20	14. 29	•0905								14. 39	•0902								
16. 53	14. 15	14. 54	•0902								15. 18	•0906								
17. 20	15. 45	15. 0	•0897								15. 52	•0905								
17. 38	14. 5	15. 53	•0897								16. 30	•0895								
17. 46	15. 5	16. 45	•0887								18. 40	•0904								
18. 40	10. 10	17. 46	•0901								19. 28	•0901								
18. 48	11. 0	18. 45	•0894								20. 35	•0889								
19. 13	8. 10	19. 45	•0880								20. 54	•0889								
20. 2	10. 30	21. 48	•0879								21. 41	•0881								
20. 45	15. 25	22. 30	•0875								22. 44	•0890								
23. 11	21. 40	22. 55	•0879								23. 59	•0888								
	(†)	23. 8	•0878						May 23	21. 25. 45	May 23	0. 0	•0888	May 23	0. 0	•00777	May 23	1. 0	59. 0	59. 0
		23. 39	•0883						0. 15	25. 10	1. 56	•0887	1. 6	•00762	3. 0	63. 0	64. 0			
		(†)	(†)							(†)	2. 24	•0892	(†)	(†)	9. 0	65. 0	66. 5			
May 21 1. 0	21. 24. 57*	May 21 1. 0	•0884*	May 21 1. 0	•01260*	May 21 1. 0	61. 0	61. 0	1. 0	27. 3*	2. 51	•0887	3. 0	•00404*	21. 0	58. 0	58. 0			
3. 0	25. 49*	3. 0	•0890*	3. 0	•01202*	3. 0	62. 8	63. 0	1. 54	26. 40	3. 21	•0891	3. 45	•00480						
									2. 10	25. 50	3. 52	•0887	5. 43	•00946						

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.
 May 21. The Photographic Traces for the three Magnetometers 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.
May 23		May 23		May 23					May 25		May 25		May 25		May 25		
2. 38	21. 27. 55	4. 7	.0890	9. 6	.01384				12. 50	21. 21. 55	4. 58	.0887	17. 45	.02718			
3. 27	27. 40		***	13. 35	.01582				13. 12	23. 50	5. 30	.0891		.02462			
5. 23	23. 50	5. 15	.0887	18. 4	.02152				13. 48	21. 25	5. 54	.0885	22. 7	.02381			
7. 19	22. 50	5. 37	.0895	23. 59	.01440				17. 3	16. 35	6. 36	.0890	23. 59	.02271			
7. 47	19. 40	6. 13	.0899						18. 25	19. 30	6. 45	.0889					
9. 23	18. 35	6. 32	.0895						19. 42	17. 15	7. 33	.0889					
10. 12	21. 25	6. 53	.0904						20. 59	17. 5	8. 57	.0897					
13. 9	21. 30	7. 29	.0898						23. 59	27. 50	10. 21	.0905					
13. 43	19. 30	7. 43	.0903								12. 43	.0910					
14. 13	20. 25	8. 4	.0895								13. 22	.0909					
15. 45	17. 40	8. 49	.0892								15. 44	.0919					
16. 32	18. 20	10. 50	.0897								16. 26	.0918					
19. 50	13. 5	11. 11	.0895								16. 50	.0921					
21. 36	17. 45	11. 23	.0899								18. 11	.0911					
23. 59	27. 20	12. 11	.0900								19. 43	.0920					
		12. 32	.0896								21. 30	.0901					
		13. 18	.0904								23. 24	.0894					
		13. 44	.0903								23. 32	.0899					
		14. 45	.0910								23. 59	.0895					
		16. 6	.0907														
		16. 54	.0909														
		18. 10	.0908														
		19. 40	.0896														
		20. 12	.0895														
		20. 29	.0892														
		21. 45	.0895														
		22. 50	.0890														
		23. 59	.0889														
May 24		May 24		May 24		May 24			May 26		May 26		May 26		May 26		
0. 0	21. 27. 20	0. 0	.0889	0. 0	.01440	1. 0	64. 0	64. 2	0. 0	21. 27. 50	0. 0	.0895	0. 0	.02271	1. 0	68. 5	69. 0
0. 43	29. 15	0. 27	.0893	1. 20	.01300	3. 0	68. 0	68. 2	2. 11	30. 20	0. 26	.0893	3. 4	.01806	3. 0	71. 0	71. 5
2. 12	28. 25	1. 40	.0877	3. 37	.00718	9. 0	70. 5	70. 2	4. 6	25. 45	0. 45	.0897		.01578	9. 0	72. 0	72. 0
3. 56	24. 50	2. 53	.0882	7. 43	.01642	21. 0	62. 5	61. 5	5. 37	23. 30	1. 22	.0898	4. 40	.01347	21. 0	63. 5	63. 0
6. 43	21. 55	3. 21	.0887	9. 17	.01730				8. 0	23. 0	2. 26	.0910	5. 43	.01481			
7. 26	21. 25	5. 50	.0885	13. 20	.01869				8. 45	22. 5	3. 40	.0905	9. 52	.01509			
9. 40	22. 20	6. 53	.0908	18. 22	.02532				10. 2	21. 35	3. 55	.0907	12. 46	.01764			
13. 10	20. 40	7. 45	.0889	21. 56	.02180				10. 45	17. 50	4. 59	.0906	17. 15	.02537			
13. 40	21. 30	8. 13	.0887	23. 59	.02060				11. 8	20. 0	5. 34	.0899	18. 15	.02500			
15. 26	16. 30	10. 7	.0895						12. 10	17. 50	6. 7	.0900	20. 56	.02246			
20. 30	14. 5	11. 21	.0894						12. 27	19. 35	6. 38	.0905	23. 16	.02037			
22. 20	21. 25	12. 7	.0898						15. 38	19. 25	7. 13	.0897	23. 59	.01940			
23. 30	27. 30	12. 58	.0896						17. 39	15. 20	9. 10	.0903					
23. 59	30. 20	16. 0	.0901						19. 1	16. 10	10. 9	.0908					
		16. 40	.0898						19. 20	15. 20	10. 26	.0906					
		17. 26	.0910						19. 45	17. 5	11. 22	.0909					
		18. 10	.0913						20. 40	17. 40	11. 39	.0913					
		22. 37	.0881						21. 46	23. 25	12. 11	.0908					
		23. 59	.0873								13. 42	.0911					
			(†)								16. 37	.0920					
											17. 36	.0918					
											18. 39	.0909					
											19. 7	.0911					
											20. 53	.0900					
											21. 33	.0903					
												(†)					
May 25		May 25		May 25		May 25			May 27		May 27		May 27		May 27		
0. 0	21. 30. 20	0. 0	.0873	0. 0	.02060	1. 0	67. 5	67. 2	1. 0	21. 29. 38*	1. 0	.0894*	0. 0	.01940	1. 0	67. 0	67. 0
4. 33	22. 0	0. 50	.0879	1. 0	.01892	3. 0	70. 0	70. 0	3. 0	29. 22*	3. 0	.0905*	1. 30	.01696	3. 0	69. 0	69. 0
6. 50	19. 30	1. 18	.0880	3. 24	.01351	9. 0	72. 0	73. 0	9. 0	24. 32*	9. 0	.0914*	4. 5	.01125	9. 0	70. 0	71. 5
7. 44	20. 25	2. 50	.0890	4. 47	.01577	21. 0	64. 0	64. 0	21. 0	19. 14*	21. 0	.0939*	5. 22	.01350	21. 0	61. 0	62. 0
8. 27	20. 10	3. 41	.0879	6. 36	.01762									.01443			
8. 54	21. 5	4. 33	.0892	12. 6	.01847									.01460			
														.01600			
														.01783			
														.02519			
														.01670			

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 27. The Photographic Traces of the Declination and Horizontal Force Magnets were 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.
May 28		May 28		May 28		May 28			May 29		May 29				May 29		
0. 19	21. 28. 25	0. 58	(†) .0902	0. 0	.01670	1. 0	63. 0 64. 8		11. 56	21. 30. 30	7. 17	.0905					
1. 22	29. 30	3. 4	.0898	0. 46	.01660	3. 0	66. 0 67. 0		12. 15	26. 5	8. 11	.0898					
2. 14	28. 10	3. 23	.0900	3. 42	.01600	9. 0	69. 0 69. 0		12. 25	30. 20	8. 26	.0899					
3. 45	27. 35	3. 45	.0898	10. 30	.01477	22. 35	62. 7 63. 5		13. 2	19. 30	8. 30	.0905					
7. 3	24. 40	4. 21	.0900	20. 15	.01030				13. 40	20. 0	8. 43	.0902					
9. 47	24. 40	5. 7	.0907	23. 59	.01625				13. 57	23. 0	8. 53	.0907					
10. 30	22. 35	6. 30	.0905		.01440				14. 46	23. 5	9. 4	.0900					
11. 6	23. 30	8. 12	.0907						15. 15	21. 30	9. 43	.0904					
14. 23	22. 25	8. 27	.0909						15. 45	22. 35	9. 54	.0910					
	***	9. 23	.0904						16. 14	22. 10	10. 18	.0906					
15. 25	21. 15	9. 55	.0906							***	10. 49	.0895					
	***	10. 30	.0901						17. 10	23. 45	11. 3	.0903					
16. 13	22. 20	11. 19	.0909						17. 17	22. 20	11. 20	.0904					
16. 42	17. 50	11. 27	.0904						17. 24	23. 50	11. 42	.0897					
18. 15	18. 35	12. 5	.0903						17. 51	20. 45	12. 12	.0911					
18. 27	17. 20	12. 28	.0907						18. 14	23. 35	12. 39	.0894					
18. 38	18. 50	12. 42	.0904						18. 33	23. 20	13. 11	.0903					
18. 47	16. 45	13. 22	.0903						19. 17	15. 50		***					
19. 11	20. 40	13. 45	.0907						19. 30	19. 45	15. 16	.0897					
19. 45	21. 50		***						19. 52	18. 30	16. 24	.0901					
20. 12	21. 15	15. 11	.0903						20. 0	20. 50	16. 54	.0896					
20. 21	19. 10	16. 5	.0912						20. 12	17. 0	17. 11	.0897					
20. 45	26. 25	19. 45	.0905						20. 26	22. 10	17. 54	.0887					
21. 17	23. 50	20. 16	.0897						20. 40	22. 5	18. 23	.0888					
	***	20. 27	.0903						21. 2	24. 15	19. 11	.0877					
23. 30	31. 0	20. 54	.0898						21. 38	23. 30	19. 28	.0884					
23. 59	32. 5	21. 13	.0902						21. 54	27. 10	20. 8	.0873					
		21. 49	.0899						23. 9	28. 40	20. 18	.0876					
		22. 11	.0904						23. 59	33. 25	21. 12	.0864					
		22. 20	.0900								21. 40	.0871					
		22. 31	.0902								23. 11	.0877					
		23. 51	.0891								23. 30	.0884					
		23. 59	.0894								23. 59	.0875					
May 29		May 29		May 29		May 29			May 30		May 30			May 30			
0. 0	21. 32. 5	0. 0	.0894	0. 0	.01440	8. 7	67. 0 68. 0		0. 0	21. 33. 25	0. 0	.0875	0. 0	.00744	1. 0	69. 0 70. 0	
	***	0. 10	.0890	1. 30	.01438	21. 0	64. 0 65. 0		3. 57	27. 30	0. 44	.0868		(†)	3. 0	72. 0 73. 0	
1. 25	32. 35	1. 6	.0896	5. 45	.01278				6. 22	21. 15	1. 13	.0872	1. 0	.00578*	9. 0	73. 0 73. 8	
2. 40	31. 50	1. 21	.0902	8. 20	.01282				8. 13	22. 40	1. 43	.0865	3. 0	.00244*	21. 0	64. 0 65. 0	
3. 4	29. 20	1. 30	.0897	12. 0	.01430				8. 56	18. 5	2. 19	.0873	5. 5	.00230			
3. 15	31. 30	1. 41	.0902	12. 46	.01402				9. 43	23. 20	3. 24	.0875	6. 56:	.00489			
3. 33	30. 5	2. 19	.0896	13. 17	.01421				13. 5	23. 20	3. 42	.0877	9. 27	.00611			
3. 42	31. 50	2. 40	.0922	14. 36	.01338				13. 37	25. 10	3. 53	.0874		.00852			
3. 56	28. 35	2. 45	.0925	15. 0	.01366				14. 2	24. 30	5. 35	.0884	11. 50	.00953			
4. 13	27. 30	2. 59	.0896	20. 15	.00958				14. 18	27. 45	6. 10	.0869	17. 26	.01600			
4. 45	30. 0	3. 14	.0935	21. 37	.00860				15. 3	26. 30	6. 45	.0880	23. 16	.00817			
5. 50	25. 40	3. 31	.0924	22. 2	.00869				15. 48	22. 15	7. 19	.0882		.00772			
7. 54	25. 30	3. 42	.0944	23. 59	.00744				18. 4	17. 25	7. 55	.0890	23. 59	.00774			
	***	4. 13	.0888						18. 47	16. 50	9. 24	.0884					
8. 30	22. 25	4. 40	.0895						19. 0	17. 50	13. 38	.0895					
9. 47	24. 30	5. 0	.0887						19. 13	16. 0	14. 18	.0894					
10. 2	26. 10	5. 34	.0907						21. 0	18. 25	14. 40	.0898					
10. 27	25. 25	5. 46	.0903						22. 37	28. 45	15. 0	.0896					
10. 44	20. 40	5. 53	.0915						23. 59	34. 20	16. 52	.0899					
10. 53	21. 0	6. 30	.0902								17. 45	.0893					
11. 10	17. 45	7. 1	.0907								18. 43	.0891					
11. 45	29. 45	7. 11	.0912								22. 11	.0875					
											22. 50	.0878					

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 30 23. 18 23. 59	.0889 .0887															
May 31 0. 0 2. 53 5. 15 6. 30 14. 27 14. 50 15. 17 15. 38 17. 56 20. 25 21. 41 23. 42 23. 59	21. 34. 20 29. 30 23. 25 21. 30 23. 50 25. 5 23. 10 24. 5 *** 17. 10 17. 35 23. 0 33. 55 33. 30	May 31 0. 0 0. 41 1. 8 3. 51 4. 16 4. 48 5. 33 5. 58 9. 0 10. 14 16. 12 17. 53 20. 45 21. 43 23. 59	.0887 .0890 .0897 .0889 .0894 .0892 .0897 .0902 .0898 .0901 .0915 .0910 .0890 .0886 .0885	May 31 1. 0 3. 0 9. 0 21. 0	.00683* .00464* .00000* .00581*	May 31 1. 0 3. 0 9. 0 21. 0	67.0 68.0 70.0 71.0 70.5 72.2 62.0 63.0											
June 1 0. 0 2. 3 5. 56 15. 47 16. 18 18. 9 19. 30 21. 2 23. 59	21. 33. 30 32. 45 22. 50 24. 0 25. 20 18. 15 16. 5 20. 0 30. 25	June 1 0. 0 0. 51 1. 16 2. 28 3. 5 3. 20 3. 37 3. 52 4. 51 5. 25 5. 51 6. 21 6. 50 7. 40 8. 22 11. 33 12. 12 17. 40 19. 0 21. 50 22. 6 22. 45 23. 59	.0885 .0891 .0888 .0892 .0901 .0898 .0899 .0892 .0890 .0894 .0884 .0892 .0886 .0891 .0888 .0898 .0904 *** .0915 .0910 *** .0891 .0893 .0887 .0887	June 1 1. 0 3. 0 4. 2 7. 43 11. 14 18. 0 22. 4 23. 59	(†) .00078* .00130* .00321 .00903 .01017 .01709 .01157 .01084	June 1 1. 0 3. 0 9. 0 21. 0	66.0 67.0 69.0 71.0 64.0 65.0											
June 2 0. 0 0. 47 3. 41 5. 13 7. 48 10. 20 11. 23 11. 56	21. 30. 25 32. 10 29. 5 23. 30 *** 20. 15 *** 24. 30 24. 35 21. 50	June 2 0. 0 0. 30 1. 56 2. 54 3. 28 4. 0 4. 57 5. 21 5. 30 5. 44 ***	.0887 .0881 .0891 .0901 .0890 .0895 .0903 .0913 .0909 .0914 ***	June 2 0. 0 3. 59 8. 28 19. 8 21. 40 23. 45	.01084 .00908 .00556 .01193 .01002 .00930 (†)	June 2 1. 0 3. 0 9. 0 21. 0	68.0 69.0 68.0 68.5 65.0 66.0											
		June 2 15. 40 18. 0 20. 10 21. 5 23. 22 23. 59	21. 21. 25 16. 0 15. 10 17. 35 28. 50 29. 35	June 2 7. 17 7. 37 8. 0 8. 21 11. 21 11. 58 12. 33 14. 54 17. 15 19. 4 20. 55 23. 40 23. 59	.0906 .0915 .0914 .0905 .0909 .0913 .0908 .0908 .0911 .0906 .0890 .0881 .0883													
		June 3 0. 0 2. 9 4. 53 6. 57 8. 26 13. 8 13. 43 13. 57 14. 26 14. 44 14. 55 17. 0 17. 6 17. 12 17. 18 17. 25 17. 43 18. 11 18. 42 19. 4 21. 29 22. 13 22. 40 22. 56 23. 12	21. 29. 35 30. 10 *** 24. 20 23. 5 24. 20 22. 25 19. 10 18. 40 17. 5 17. 30 16. 15 *** 15. 30 17. 0 12. 10 14. 50 11. 15 16. 25 *** 13. 11 15. 20 *** 14. 0 17. 20 16. 20 *** 20. 45 28. 20 32. 45 34. 20 33. 30 (†)	June 3 0. 0 0. 50 2. 19 3. 0 4. 29 4. 41 5. 59 6. 12 6. 50 7. 11 7. 25 7. 43 8. 30 9. 24 10. 15 10. 51 11. 6 11. 15 12. 39 13. 11 13. 45 14. 0 14. 30 16. 53 17. 4 19. 49 21. 43 22. 0 22. 17 22. 27 22. 40 22. 54 (†)	.0883 .0889 .0889 .0899 .0903 .0909 .0913 .0919 .0903 .0905 .0898 .0905 .0898 .0899 .0895 .0896 .0905 .0902 .0903 .0913 .0910 .0911 .0903 *** .0907 .0911 *** .0892 .0859 .0865 .0861 .0865 .0858 .0861 (†)													
		June 3 0. 0 2. 9 4. 53 6. 57 8. 26 13. 8 13. 43 13. 57 14. 26 14. 44 14. 55 17. 0 17. 6 17. 12 17. 18 17. 25 17. 43 18. 11 18. 42 19. 4 21. 29 22. 13 22. 40 22. 56 23. 12	21. 29. 35 30. 10 *** 24. 20 23. 5 24. 20 22. 25 19. 10 18. 40 17. 5 17. 30 16. 15 *** 15. 30 17. 0 12. 10 14. 50 11. 15 16. 25 *** 13. 11 15. 20 *** 14. 0 17. 20 16. 20 *** 20. 45 28. 20 32. 45 34. 20 33. 30 (†)	June 3 0. 0 0. 50 2. 19 3. 0 4. 29 4. 41 5. 59 6. 12 6. 50 7. 11 7. 25 7. 43 8. 30 9. 24 10. 15 10. 51 11. 6 11. 15 12. 39 13. 11 13. 45 14. 0 14. 30 16. 53 17. 4 19. 49 21. 43 22. 0 22. 17 22. 27 22. 40 22. 54 (†)	.0883 .0889 .0889 .0899 .0903 .0909 .0913 .0919 .0903 .0905 .0898 .0905 .0898 .0899 .0895 .0896 .0905 .0902 .0903 .0913 .0910 .0911 .0903 *** .0907 .0911 *** .0892 .0859 .0865 .0861 .0865 .0858 .0861 (†)													
		June 4 0. 0 0. 47 3. 41 5. 13 7. 48 10. 20 11. 23 11. 56	21. 30. 25 32. 10 29. 5 23. 30 *** 20. 15 *** 24. 30 24. 35 21. 50	June 4 0. 0 0. 30 1. 56 2. 54 3. 28 4. 0 4. 57 5. 21 5. 30 5. 44 ***	.0887 .0881 .0891 .0901 .0890 .0895 .0903 .0913 .0909 .0914 ***	June 4 1. 0 3. 0 9. 0 21. 0	68.0 69.0 68.5 65.0 66.0											
		June 4 1. 0 3. 0 6. 3 8. 30 9. 4	21. 35. 22* 32. 15* 25. 10 22. 30 20. 10	June 4 1. 0 3. 0 6. 2 6. 39 6. 47	.0870* .0896* .0895 .0896 .0908													
		June 4 1. 0 3. 0 6. 5 8. 32 14. 26	(†) .00192* .00031* .00781 .01070 .01409	June 4 1. 0 3. 0 6. 5 8. 32 14. 26	(†) .00192* .00031* .00781 .01070 .01409													
		June 4 1. 0 3. 0 6. 5 8. 32 14. 26	(†) .00192* .00031* .00781 .01070 .01409	June 4 1. 0 3. 0 6. 5 8. 32 14. 26	(†) .00192* .00031* .00781 .01070 .01409													

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

May 31. The Photographic Trace of the Vertical Force Magnet 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.
June 9 15. 22 17. 43 18. 15 21. 33 23. 59	21. 20. 45 20. 40 18. 50 *** 20. 10 30. 10	June 9 8. 15 8. 28 9. 5 11. 11 15. 10 16. 48 17. 42 20. 20 23. 14 23. 59	.0883 *** .0891 *** .0883 *** .0882 *** .0892 *** .0885 *** .0891 *** .0876 *** .0871 .0876														
June 10 0. 0 1. 56 6. 20 7. 47 11. 43 18. 21 18. 39 18. 58 19. 15 19. 30 19. 42 20. 42 21. 45 23. 59	21. 30. 10 29. 30 21. 55 25. 20 24. 45 *** 17. 30 19. 10 18. 0 19. 50 16. 30 19. 25 *** 19. 25 21. 25 30. 30	June 10 0. 0 1. 45 3. 0 4. 11 5. 40 6. 51 11. 45 13. 15 14. 38 16. 27 20. 30 23. 16 23. 30 23. 59	.0876 .0882 .0893 .0887 .0889 .0895 *** .0900 .0905 .0901 .0904 .0883 *** .0888 .0895 .0890	June 10 0. 0 1. 45 9. 24 21. 9 23. 59	.00907 .00832 .00183 .00882 .00840 .00741	June 10 1. 0 3. 0 9. 0 21. 8	65.0 66.0 68.0 69.0 70.0 64.0 65.0										
June 11 0. 0 1. 40 2. 27 3. 7 5. 3 13. 26 14. 40 18. 45 20. 17 22. 13 23. 59	21. 30. 30 31. 40 29. 25 29. 30 24. 35 *** 23. 40 27. 15 15. 20 *** 20. 5 22. 10 27. 50	June 11 0. 0 1. 40 10. 15 20. 6 23. 59 4. 40 9. 28 10. 27 14. 30 14. 57 15. 42 17. 15 19. 37 21. 0 21. 54 23. 15 23. 59	.0890 .0889 .0895 .0878 *** .0897 *** .0896 .0890 .0893 .0898 .0895 .0899 .0882 .0881 .0875 .0877 .0887	June 11 0. 0 1. 40 20. 6 23. 59	.00741 .00730 .00068 .00609 .00641	June 11 1. 0 3. 0 9. 0 22. 15	66.0 67.0 68.0 68.8 70.0 71.2 66.0 67.0										
June 12 0. 0 1. 6 5. 4 7. 42 12. 23 13. 45 14. 30 14. 45 19. 4 20. 45 23. 59	21. 27. 50 29. 30 23. 15 21. 50 25. 45 24. 50 26. 0 24. 5 17. 30 20. 25 32. 10	June 12 0. 0 4. 35 6. 30 11. 36 14. 36 18. 17 20. 54 23. 59 4. 13 4. 58 6. 11 6. 33 9. 40 12. 40 13. 27 14. 14 14. 25 14. 36 16. 57 18. 51 21. 43 23. 59	.0887 .0893 .0888 .0897 .0895 .0897 .0888 .0890 .0900 .0895 .0903 .0898 .0905 .0904 .0908 .0903 .0908 .0906 .0909 .0914 .0911 .0909 .0897 .0887 .0885	June 12 0. 0 21. 0 21. 0 21. 0	.00641 .00572 .00621 .00637 .00774 .00520 .00701 .00743 .00643	June 12 9. 31 21. 0	67.0 68.0 64.0 65.0										
June 13 0. 0 1. 50 6. 30 14. 53 18. 51 20. 15 23. 12 23. 59	21. 32. 10 31. 35 23. 20 22. 45 17. 20 17. 15 28. 30 29. 40	June 13 0. 0 2. 7 4. 45 6. 6 9. 18 14. 8 20. 10 23. 13 23. 59 19. 7 22. 45 23. 59	.0885 .0883 .0889 .0882 .0887 .0884 .0887 .0883 .0895 .0895 .0878 .0882	June 13 0. 0 3. 0 9. 0 21. 0	.00643 .00541 .00212 .00039 .00420 .00700 .01485 .01124 .01092	June 13 1. 0 3. 0 9. 0 21. 0	67.0 69.0 73.0 61.0 67.8 70.0 73.0 62.0										
June 14 0. 0 2. 50 5. 56 11. 45 13. 12 17. 8 18. 29 19. 22 21. 26 23. 2 23. 59	21. 29. 40 30. 5 23. 10 22. 30 24. 0 20. 25 17. 45 17. 10 21. 35 *** 29. 20 31. 10	June 14 0. 0 1. 30 8. 20 21. 4 23. 59 5. 7 6. 41 8. 10 9. 33 10. 54 12. 22 15. 11 18. 3 22. 24 23. 24 23. 37 23. 59	.0882 .0888 .0897 *** .0893 .0891 .0892 .0896 *** .0907 .0908 .0911 .0918 .0896 .0902 .0896 .0893	June 14 1. 0 3. 0 9. 0 21. 0	.01092 .01024 .00204 .01182 .00958	June 14 1. 0 3. 0 9. 0 21. 0	63.5 66.0 67.0 61.8 64.5 67.0 68.2 62.0										

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.
June 15 h m 0. 0	21. 31. 10	June 15 h m 0. 0	·0893	June 15 h m 0. 0	·00958	June 15 h m 1. 0	66. 0	67. 0	June 15 h m 23. 23		June 15 h m 23. 23	·0906					
0. 48	32. 50 ***	1. 13	·0885	4. 57	·00201	3. 0	68. 0	69. 0	23. 42		23. 42	·0903					
4. 40	32. 50	1. 45	·0895	8. 45	·01120	9. 0	71. 0	72. 0	23. 47		23. 47	·0907					
6. 26	27. 45	2. 0	·0894	11. 43	·01183	21. 0	63. 0	63. 8	23. 59		23. 59	·0877					
6. 47	25. 50	2. 16	·0907	13. 24	·01351				June 16 h m 0. 0	21. 30. 5	June 16 h m 0. 0	·0877	June 16 h m 0. 0	·01850	June 16 h m 1. 0	66. 0	66. 0
7. 28	26. 20	2. 54	·0886	14. 15	·01320				0. 17	31. 30	0. 11	·0867	1. 13	·01842	3. 0	68. 0	68. 0
8. 11	22. 45	3. 6	·0886	19. 22	·02009				0. 32	31. 30	0. 44	·0907	6. 1	·01310	9. 0	68. 0	69. 0
8. 40	24. 35	3. 30	·0904	23. 59	·01850				0. 43	35. 0	0. 52	·0887	11. 25	·01141	21. 0	61. 0	61. 2
9. 37	21. 10	3. 41	·0898						0. 54	32. 15	1. 15	·0927	18. 15	·01939			
10. 15	23. 15	3. 47	·0902						1. 12	38. 10	1. 45	·0893	20. 6	·01725			
10. 32	20. 10	4. 2	·0899						1. 26	34. 30	2. 11	·0909	23. 59	·01500			
10. 56	23. 0	4. 22	·0905						1. 40	36. 5	2. 16	·0910					
11. 43	19. 45	4. 37	·0895						1. 51	34. 45	2. 28	·0893					
12. 3	20. 5	5. 2	·0892						2. 8	37. 0	***	***					
12. 29	22. 0	5. 16	·0894						3. 2	33. 10	2. 58	·0907					
12. 57	17. 15	5. 42	·0889						3. 20	34. 20	3. 5	·0905					
13. 5	19. 10	5. 46	·0917						3. 53	29. 45	3. 13	·0915					
13. 13	16. 20	6. 40	·0909						4. 12	30. 0	3. 32	·0913					
13. 32	24. 10	7. 13	·0912						4. 25	27. 25	3. 42	·0902					
13. 47	27. 5	7. 41	·0898						5. 18	28. 35	***	***					
15. 13	8. 0	8. 0	·0905						7. 12	22. 10	4. 13	·0905					
16. 11	17. 50	8. 41	·0905						7. 45	24. 5	4. 26	·0897					
16. 37	17. 50	8. 41	·0905						8. 36	22. 10	5. 19	·0896					
16. 52	12. 15	9. 15	·0891						9. 3	25. 15	***	***					
17. 26	16. 5	9. 42	·0900						9. 25	23. 20	5. 44	·0904					
17. 37	16. 35	10. 21	·0889						9. 47	23. 35	5. 56	·0900					
17. 40	14. 20	10. 43	·0902						10. 13	18. 25	6. 30	·0913					
17. 45	17. 20	11. 11	·0895						10. 32	28. 50	6. 53	·0909					
17. 54	17. 0	***	***						10. 51	26. 0	***	***					
17. 57	17. 5	10. 43	·0902						11. 11	17. 10	8. 0	·0909					
18. 11	16. 10	11. 11	·0895						11. 20	18. 10	8. 26	·0905					
18. 26	7. 20	12. 5	·0899						11. 36	13. 15	8. 42	·0914					
18. 32	12. 15	12. 24	·0906						12. 20	19. 5	9. 0	·0905					
18. 40	8. 25	12. 52	·0892						12. 45	17. 20	9. 14	·0906					
18. 51	14. 50	13. 3	·0896						14. 13	21. 15	9. 24	·0910					
19. 20	16. 20	13. 14	·0887						15. 0	25. 55	9. 40	·0903					
19. 26	11. 30	13. 32	·0910						15. 20	23. 10	9. 56	·0900					
19. 35	19. 50	14. 13	·0895						16. 7	24. 20	10. 18	·0909					
20. 0	13. 10	14. 24	·0896						17. 12	19. 30	10. 43	·0893					
20. 26	20. 45	15. 22	·0884						17. 27	18. 15	11. 4	·0897					
20. 37	17. 20	16. 11	·0897						19. 27	18. 15	11. 30	·0897					
20. 48	21. 10	16. 30	·0895						20. 10	22. 5	11. 43	·0901					
22. 27	26. 5	16. 46	·0902						20. 39	20. 50	11. 51	·0897					
23. 36	32. 0	17. 15	·0892						20. 56	24. 5	13. 13	·0895					
23. 45	34. 10	17. 24	·0896						22. 3	24. 20	13. 45	·0897					
23. 59	30. 5	18. 1	·0892						23. 59	27. 55	14. 53	·0895					
		18. 17	·0881								16. 0	·0909					
		18. 28	·0885								***	***					
		18. 39	·0881								19. 17	·0903					
		19. 18	·0888								19. 55	·0885					
		19. 55	·0878								20. 44	·0887					
		21. 0	·0879								21. 42	·0882					
		22. 45	·0891								22. 6	·0884					
		22. 56	·0900														
		23. 16	·0895														

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

Table with 14 columns: Greenwich Mean Solar Time, Western Declination, Greenwich Mean Solar Time, Horizontal Force in parts of the whole H. F. uncorrected for Temperature, Greenwich Mean Solar Time, Vertical Force in parts of the whole V. F. uncorrected for Temperature, Greenwich Mean Solar Time, Readings of Thermometers (Of H. F. Magnet, Of V. F. Magnet), Greenwich Mean Solar Time, Western Declination, Greenwich Mean Solar Time, Horizontal Force in parts of the whole H. F. uncorrected for Temperature, Greenwich Mean Solar Time, Vertical Force in parts of the whole V. F. uncorrected for Temperature, Greenwich Mean Solar Time, Readings of Thermometers (Of H. F. Magnet, Of V. F. Magnet). Rows are organized by date from June 21 to June 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.

VERTICAL FORCE.—June 22^d. 1^h. The adjustments were altered so that the scale-reading was increased by 17'.71, or by 0.02594 parts of the whole Vertical Force.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for 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 1 18. 22 19. 11 22. 40 22. 49 23. 40 23. 59	.0936 .0931 .0919 .0921 .0921 .0919															
July 2 0. 0 1. 51 5. 48 11. 38 16. 39 19. 37 20. 58 22. 40 23. 59	21. 29. 35 33. 25 24. 40 25. 15 20. 30 14. 20 16. 5 23. 0 29. 35	July 2 0. 0 0. 52 2. 0 2. 43 3. 13 4. 13 5. 12 11. 11 15. 3 17. 43 19. 14 21. 15 23. 0 23. 59	.0919 .0924 .0938 .0934 .0937 .0930 .0925 .0922 .0926 .0934 .0928 .0902 .0891 .0899	July 2 0. 0 2. 15 9. 40 21. 7 23. 59	.02563 .02509 .01842 .02536 .02413	July 2 1. 0 3. 0 9. 0 22. 40	67.0 70.0 72.8 69.0	68.0 71.0 73.5 70.0										
July 3 0. 0 1. 43 7. 7 11. 42 12. 48 13. 43 14. 36 15. 43 18. 6 18. 47 20. 13 21. 20 23. 25 23. 59	21. 29. 35 33. 50 22. 55 23. 30 22. 0 23. 25 22. 50 25. 35 22. 0 17. 40 16. 5 18. 10 27. 30 28. 40	July 3 0. 0 0. 21 0. 57 1. 29 2. 26 2. 53 3. 51 5. 17 5. 30 6. 14 7. 55 8. 15 8. 58 9. 54 10. 21 10. 54 11. 20 14. 12 14. 43 15. 5 18. 44 20. 54 21. 24 21. 45 22. 13 22. 25 22. 45 22. 58 23. 36 23. 59	.0899 .0896 .0908 .0897 .0907 .0905 .0913 .0908 .0919 .0912 .0919 .0923 .0913 .0917 .0921 .0917 .0919 .0913 .0915 .0911 .0919 .0911 .0912 .0907 .0909 .0903 .0904 .0897 .0905 .0902	July 3 0. 0 3. 26 7. 46 9. 35 13. 22 23. 3 23. 59	.02413 .02169 .01541 .01680 .01813 .02614 .02532	July 3 9. 0 21. 0	78.0 70.5	79.0 71.7										
July 4 0. 0 0. 47	21. 28. 40 31. 35	July 4 (†) 0. 47	.0895	July 4 0. 0 2. 20	.02532 .02502	July 4 1. 0 3. 0	71.4 73.0	72.7 74.2										
		July 4 1. 0 2. 3 2. 20 4. 37 6. 6 7. 47 10. 20 10. 36 10. 47 11. 28 12. 2 12. 50 14. 30 15. 21 15. 42 15. 56 16. 13 16. 40 17. 39 17. 50 18. 36 20. 0 22. 16 22. 33 23. 23 23. 59	21. 28. 45 28. 25 29. 50 27. 50 24. 0 21. 40 22. 30 20. 55 21. 25 18. 40 23. 35 18. 30 29. 40 20. 5 20. 50 18. 55 20. 25 18. 30 29. 10 17. 25 18. 20 17. 5 23. 10 22. 50 24. 30 24. 0	July 4 1. 21 1. 45 1. 53 2. 13 2. 29 2. 41 2. 46 3. 8 3. 45 4. 25 4. 49 5. 10 5. 52 6. 15 7. 0 7. 15 7. 46 8. 9 9. 10 9. 50 10. 6 10. 21 10. 40 11. 15 11. 23 12. 13 12. 26 12. 47 13. 28 13. 59 14. 26 15. 7 15. 32 18. 30 19. 10 20. 0 23. 3 23. 17	.0889 .0900 .0897 .0912 .0894 .0895 .0887 .0895 .0891 .0897 .0895 .0898 .0896 .0901 .0897 .0903 .0905 .0902 .0907 .0902 .0911 .0901 .0910 .0897 .0899 .0898 .0902 .0894 .0895 .0903 .0898 .0909 .0901 .0906 .0895 .0895 .0876 .0876 (†)	July 4 10. 4 17. 56 21. 10 23. 59	.01853 .02603 .02310 .02092 .01993	July 4 9. 10 21. 0	76.3 68.3	77.2 68.2								
		July 5 0. 0 0. 28 1. 40 4. 52 6. 14 10. 53 11. 48 12. 29 12. 53 13. 36 14. 10 14. 27 14. 36 14. 42 14. 47 15. 0 15. 25	21. 24. 0 23. 50 27. 0 25. 0 22. 15 21. 45 25. 30 24. 5 33. 10 21. 35 18. 55 21. 20 19. 15 21. 20 19. 25 22. 0 21. 30	July 5 (†) 0. 0 1. 36 4. 7 6. 45 13. 28 17. 3 19. 3 23. 59	.0889* .0884 .0877 .0879 .0896 .0894 .0896 .0898 .0901 .0900 .0903 .0918 .0909 .0914 .0919 .0911	July 5 0. 0 3. 0 9. 0 21. 0	71.0 73.4 75.0 69.8	71.5 74.0 76.2 70.0										
July 4 0. 0 0. 47	21. 28. 40 31. 35	July 4 (†) 0. 47	.0895	July 4 0. 0 2. 20	.02532 .02502	July 4 1. 0 3. 0	71.4 73.0	72.7 74.2										

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

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in 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 5 16. 4 16. 40 18. 6 20. 7 20. 13 20. 37 20. 46 23. 59	21. 30. 0 *** 23. 25 *** 15. 35 *** 15. 20 12. 30 12. 45 16. 5 *** 17. 56 19. 55 20. 40 21. 54 22. 43 23. 45 23. 59	July 5 12. 55 13. 13 13. 55 14. 11 14. 22 14. 47 16. 15 17. 20 17. 40 17. 56 19. 55 20. 40 21. 54 22. 43 23. 45 23. 59	0919 0914 *** 0911 0915 0910 0917 0913 0917 0915 0915 0897 0886 0888 0877 0891 0887	h m b m		h m b m				h m b m					h m b m				
July 6 0. 0 0. 28 2. 26 6. 30 10. 8 12. 50 13. 7 14. 9 18. 29 19. 41 21. 25 21. 27 21. 30 21. 34 21. 45 21. 48 21. 52 21. 56 23. 59	21. 25. 40 25. 5 26. 45 22. 35 22. 30 24. 25 26. 30 22. 35 15. 45 *** 18. 20 18. 40 22. 0 15. 10 22. 10 16. 5 21. 50 16. 15 20. 5 26. 55	July 6 0. 0 1. 29 2. 39 3. 48 4. 10 4. 52 5. 12 5. 16 5. 29 5. 40 6. 13 6. 37 6. 51 7. 15 8. 40 8. 55 12. 43 13. 22 13. 54 14. 45 18. 6 18. 28 21. 54 22. 12 (†)	0887 0885 0900 0906 0903 0908 0904 0907 0905 0909 0907 0909 0913 0914 0908 0913 0920 0915 0913 0922 0917 0903 0894 (†)	h m b m	02629 01813 02120 02357 03259 03022 02823	July 6 1. 0 3. 0 9. 0 21. 4	74. 2 77. 0 78. 0 72. 5	74. 7 77. 2 78. 5 71. 0		h m b m				h m b m					
July 7 0. 0 1. 52 6. 36 7. 5 7. 40 9. 3 11. 50 12. 15 12. 33 17. 29 17. 45 18. 17	21. 26. 55 30. 25 20. 40 16. 35 20. 25 23. 15 22. 40 21. 20 22. 30 19. 0 17. 20 18. 25	July 7 0. 0 0. 27 0. 53 1. 44 1. 52 2. 0 2. 26 2. 30 2. 44 3. 20 3. 44 3. 52	0890 0892 0883 0892 0903 0898 0896 0902 0899 0917 0892 0898	h m b m	02823 01978 02200 02371 02548 03438 03097	July 7 1. 0 3. 0 9. 5 21. 8	76. 2 78. 0 80. 0 72. 4	75. 5 78. 0 80. 3 72. 0		h m b m				h m b m					
July 7 18. 33 19. 45 20. 0 20. 40 22. 0 23. 59	21. 17. 20 18. 0 19. 10 17. 50 23. 5 *** 25. 0	July 7 4. 15 4. 30 5. 28 6. 17 6. 29 6. 41 6. 52 7. 3 7. 11 7. 21 7. 41 8. 7 8. 31 8. 43 10. 19 10. 30 11. 12 12. 28 13. 18	0910 0913 0909 0914 0911 0919 0907 0915 0913 0915 0906 0909 0904 0909 0904 0910 0907 0909 ***			July 7 16. 43 18. 28 19. 7 19. 30 19. 54 20. 28 20. 44 22. 11 22. 17 22. 48 23. 59		0927 0922 0911 0909 0911 0905 0907 0896 0899 0884 0899		h m b m				h m b m					
July 8 0. 0 1. 45 3. 16 5. 32 6. 40 8. 40 12. 52 13. 9 13. 36 13. 55 14. 20 14. 47	21. 25. 0 26. 35 26. 50 23. 0 23. 30 22. 5 23. 20 24. 30 22. 30 22. 30 26. 0 23. 30 *** 14. 13	July 8 0. 0 9. 26 18. 42 23. 59	0899 0900 0906 0907 0911 0909 0920 0919 0927 *** 0921 0927 0923 0926 0927 0913 0908 0908 0911			July 8 0. 0 9. 26 18. 42 23. 59		03097 03167 03150 02600		h m b m				h m b m		75. 0 76. 4 78. 0 71. 0	75. 4 77. 0 78. 9 71. 0		
July 9 0. 0 1. 4 3. 30	21. 27. 50 31. 0 28. 50	July 9 0. 0 2. 55 6. 22	0911 0904 0916			July 9 1. 0 3. 0 9. 0	74. 8 77. 0 78. 0	75. 0 77. 3 78. 1		h m b m				h m b m					

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 9 5. 45 9. 12 13. 45 14. 22 14. 47 16. 45 18. 52 19. 10 19. 40 21. 30 23. 59	21. 24. 30 23. 0 23. 25 22. 30 22. 55 20. 30 16. 0 17. 0 16. 10 18. 5 26. 35	July 9 3. 0 3. 13 3. 48 4. 12 4. 30 5. 13 7. 12 7. 45 11. 5 11. 22 11. 33 15. 28 18. 26 18. 44 20. 51 22. 48	0906 0910 0905 0909 0907 0911 0927 0923 0919 0925 0921 0920 0923 0919 0909 (†) 0898*	July 9 11. 25 14. 30 17. 50 20. 19 21. 7 23. 59	01976 02360 02863 02560 02500 02518 02362	July 9 22. 48	73. 2 72. 8	July 10 22. 22 22. 30 23. 59	21. 29. 0 27. 10 *** 30. 45	July 10 14. 45 14. 58 15. 52 16. 30 17. 8 17. 29 17. 45 17. 58 18. 5 18. 57 19. 14 19. 55 20. 26 20. 44 20. 55 21. 2 21. 20 21. 45 21. 52 22. 0 22. 5 22. 15 22. 25 22. 31 22. 45 22. 54 23. 2 23. 17 23. 43 23. 59	0921 0918 0921 0903 0902 0896 0901 0894 0898 0893 0895 0879 0878 0855 0879 0876 0892 0888 0893 0885 0897 0887 0895 0882 0886 0883 0887 0886 0889 0879	July 10 0. 0 1. 57 3. 9 3. 30 4. 15 4. 40 7. 40 7. 56 8. 15 8. 32 9. 32 10. 25 12. 24 13. 15 13. 40 14. 15 15. 27 15. 50 16. 6 17. 15 17. 34 17. 51 18. 35 19. 15 20. 8 20. 24 20. 40 20. 43 20. 50 21. 15 21. 27 21. 32 21. 37 21. 46 21. 51 21. 55 22. 14	21. 26. 35 29. 30 27. 15 28. 0 26. 5 27. 10 23. 0 24. 10 23. 5 26. 5 19. 40 23. 50 22. 35 27. 10 19. 5 21. 10 21. 30 20. 50 18. 0 *** 23. 15 28. 10 23. 10 33. 35 33. 30 *** 22. 10 29. 15 28. 50 32. 0 12. 10 31. 5 27. 15 32. 45 29. 10 31. 50 24. 15 30. 50 26. 5	July 10 0. 0 1. 40 2. 17 2. 41 2. 58 3. 18 4. 15 4. 37 5. 4 5. 37 6. 30 7. 15 8. 20 8. 27 8. 30 8. 36 8. 43 8. 48 9. 7 9. 22 9. 47 10. 18 10. 29 10. 58 11. 5 11. 20 11. 30 11. 38 11. 45 11. 54 12. 0 12. 20 12. 40 12. 52 13. 9 13. 15 13. 42 *** 14. 40	0892 0896 0906 0901 0900 0906 0897 0905 0904 0911 0904 0912 0909 0933 0925 0931 0915 0913 0927 0914 0907 0920 0917 0923 0919 0920 0913 0919 0913 0919 0913 0916 0915 0917 0921 0932 0911 *** 0914	July 10 0. 0 5. 37 7. 50 12. 20 17. 42 21. 2 23. 59	02362 01513 01717 01963 02739 02371 02198	July 10 9. 6 21. 0	78. 7 79. 3 71. 0 71. 8	July 11 0. 0 1. 6 1. 45 1. 56 2. 7 2. 21 3. 8 3. 26 3. 47 4. 6 4. 11 4. 16 4. 25 4. 33 4. 41 4. 47 4. 53 5. 0 5. 13 5. 32 5. 40 5. 51 6. 0 6. 6	21. 30. 45 *** 33. 0 31. 5 33. 10 30. 10 33. 30 31. 25 27. 30 33. 50 27. 5 29. 0 26. 10 31. 20 27. 15 31. 30 28. 10 30. 25 28. 15 27. 40 23. 20 28. 5 19. 10 25. 50 15. 5	July 11 0. 0 0. 14 0. 36 0. 52 1. 11 1. 51 2. 0 2. 29 2. 56 3. 15 3. 43 3. 45 3. 49 4. 7 4. 30 4. 51 5. 0 5. 14 5. 22 5. 30 5. 33 5. 37 5. 46 5. 55 6. 1	0879 0882 0875 0879 0873 0888 0863 0925 0933 0909 0947 0946 0956 0937 0915 0939 0928 0947 0930 0939 0935 0941 0922 0943 0921	July 11 0. 0 3. 27 4. 50 5. 13 5. 35 5. 47 5. 56 6. 3 6. 7 6. 15 7. 20 7. 37 8. 15 10. 50 12. 17 13. 8 13. 30 18. 36 23. 59	02198 02142 *** 01793 01695 01671 01742 01683 01760 01720 01743 01678 01809 *** 01810 *** 01982 02020 01989 02782 02250	July 11 1. 0 3. 0 9. 0 21. 0	76. 4 77. 0 79. 4 80. 0 81. 0 81. 2 75. 0 73. 5

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 13 12. 7 15. 54 16. 45 17. 4 18. 18 21. 28 23. 59	21. 21. 30 23. 25 21. 15 22. 35 17. 30 20. 5 31. 25	July 13 9. 45 10. 34 10. 50 11. 6 11. 52 12. 12 13. 16 14. 28 15. 45 17. 54 20. 28 22. 21 23. 16 23. 59	.0866 .0861 .0865 .0860 .0862 .0859 .0872 .0873 .0883 .0883 .0864 .0862 .0867 .0869																
July 14 0. 0 1. 33 5. 55 6. 42 10. 9 12. 30 13. 4 16. 15 17. 47 18. 15 19. 18 20. 57 23. 59	21. 31. 25 31. 40 22. 20 21. 35 24. 25 23. 10 24. 40 22. 50 18. 35 20. 10 17. 45 18. 30 30. 15	July 14 0. 0 0. 11 0. 30 0. 51 1. 17 1. 56 3. 11 3. 22 3. 29 3. 42 3. 54 4. 12 5. 6 5. 26 5. 31 6. 19 6. 40 9. 24 9. 34 9. 49 10. 0 10. 31 11. 7 12. 10 12. 59 13. 30 16. 24 18. 38 21. 35 23. 12 23. 51 23. 59	.0869 .0869 .0876 .0876 .0882 .0883 .0892 .0887 .0891 .0886 .0894 .0889 .0895 .0894 .0897 .0893 .0892 .0898 .0895 .0897 .0892 .0898 .0893 .0905 .0903 .0911 .0907 .0884 .0885 .0873 .0878	July 14 0. 0 8. 47 16. 30 23. 59	.01738 .00959 .01872 .01388	July 14 1. 0 3. 0 9. 0 21. 0	74. 3 76. 2 77. 2 69. 3	74. 1 76. 4 77. 6 69. 0											
July 15 0. 0 1. 57 3. 45 4. 0 4. 36 5. 3 5. 40 5. 54	21. 30. 15 31. 10 27. 20 27. 35 26. 5 26. 10 22. 5 22. 40	July 15 0. 0 0. 17 2. 43 3. 11 3. 41 3. 56 4. 30	.0878 .0874 *** .0877 .0881 .0873 .0877 .0874	July 15 0. 0 4. 18 8. 33 12. 3 16. 8 20. 5 23. 59	.01388 .00512 .00960 .01080 .01459 .01928 .01664	July 15 1. 0 3. 0 9. 0 21. 0	74. 0 76. 4 78. 0 73. 2	74. 0 76. 8 78. 8 73. 0											
July 15 6. 45 11. 7 11. 40 12. 3 12. 45 13. 9 13. 37 14. 4 14. 53 16. 0 17. 59 18. 56 21. 5 22. 25 22. 52 23. 59	21. 22. 20 23. 45 25. 30 24. 0 23. 20 25. 20 23. 45 25. 30 22. 35 24. 25 18. 0 17. 15 21. 50 28. 20 29. 10 35. 30	July 15 5. 6 5. 30 6. 5 6. 51 10. 15 10. 43 11. 0 11. 24 12. 44 13. 13 13. 44 15. 15 16. 30 19. 22 20. 28 22. 36 22. 59 23. 36 23. 54	.0880 .0875 .0879 .0874 *** .0876 .0881 .0879 .0884 .0883 .0887 .0884 .0885 .0892 .0882 .0861 .0854 .0860 .0862 .0875																
July 16 0. 0 1. 32 4. 17 6. 2 11. 33 14. 13 14. 40 14. 53 15. 17 16. 3 17. 4 17. 54 18. 53 19. 47 20. 40 22. 45 23. 59	21. 35. 30 36. 20 26. 5 23. 15 24. 35 23. 20 24. 35 29. 0 23. 50 24. 25 *** 16. 30 *** 15. 0 18. 20 15. 5 17. 30 26. 45 33. 25	July 16 (†) 0. 10 1. 42 1. 55 3. 43 7. 30 8. 20 9. 43 12. 15 12. 40 12. 55 14. 14 15. 37 16. 10 18. 14 18. 51 19. 0 21. 43	.0864 .0880 .0875 .0885 *** .0874 .0874 .0886 .0889 .0895 .0891 .0893 .0903 .0918 .0899 .0896 .0897 .0869 (†)																
July 17 0. 0 0. 27 2. 7 5. 30 7. 13 9. 27 9. 58 11. 30 12. 45 13. 24 14. 37 15. 40 16. 17	21. 33. 25 34. 30 33. 10 23. 30 24. 5 28. 20 25. 15 25. 10 23. 30 25. 5 22. 45 22. 35 21. 30	July 17 0. 0 1. 20 4. 50 7. 6 9. 47 14. 46 17. 57 21. 9 23. 59	.0847 .0846 .0850 .0845 *** .0867 .0876 .0870 .0884 .0878 .0880 .0875 .0874 .0881																
July 17 0. 0 0. 27 2. 7 5. 30 7. 13 9. 27 9. 58 11. 30 12. 45 13. 24 14. 37 15. 40 16. 17	21. 33. 25 34. 30 33. 10 23. 30 24. 5 28. 20 25. 15 25. 10 23. 30 25. 5 22. 45 22. 35 21. 30	July 17 8. 20 21. 0 73. 0 72. 0	.01032 .00903 .00320 .00577 .00738 .01691 .01243 .01100 .01103 .00777																
July 17 0. 0 0. 27 2. 7 5. 30 7. 13 9. 27 9. 58 11. 30 12. 45 13. 24 14. 37 15. 40 16. 17	21. 33. 25 34. 30 33. 10 23. 30 24. 5 28. 20 25. 15 25. 10 23. 30 25. 5 22. 45 22. 35 21. 30	July 17 81. 0 73. 0 72. 0	.0847 .0846 .0850 .0845 *** .0867 .0876 .0870 .0884 .0878 .0880 .0875 .0874 .0881																

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 17 16. 47	21. 21. 35 ***	July 17 7. 53	.0878	h h		h h	o	o	July 18 10. 10	21. 23. 50			h h	h h	o	o	
17. 26	19. 35	9. 21	.0886						10. 20	29. 35							
18. 4	21. 30	9. 34	.0884						10. 45	15. 10							
18. 45	18. 30	9. 50	.0888						11. 3	29. 30							
19. 48	26. 30	10. 43	.0882						11. 12	26. 20							
21. 3	29. 0 (†)	11. 29	.0890						11. 17	29. 0							
		12. 42	.0885						11. 50	23. 5							
		14. 40	.0896						12. 2	25. 50							
		15. 0	.0901						12. 27	23. 35							
		15. 16	.0899						12. 40	25. 5							
		16. 0	.0904						13. 7	23. 10							
		16. 20	.0901						13. 30	24. 30							
		17. 12	.0905						13. 45	39. 5							
		18. 40	.0888						14. 52	25. 0							
		19. 25	.0873						15. 15	25. 10							
		20. 0	.0871						15. 30	22. 0							
		20. 15	.0863						16. 18	29. 5							
		20. 28	.0865						16. 58	27. 45							
		20. 47	.0851						17. 26	31. 0							
		20. 59	.0854						18. 29	25. 10							
		21. 40	.0846						18. 47	25. 30							
		22. 4	.0827 (†)						19. 5	23. 15							
July 18 0. 27	(†) 21. 38. 30	July 18 1. 0	.0844*	0. 0	.00777	July 18 1. 0	79. 0	79. 0	20. 41	27. 10							
0. 47	37. 35 ***	3. 0	.0867*	2. 45	.00432	3. 0	83. 0	82. 0	21. 30	26. 0							
1. 12	40. 30	9. 0	.0857*	4. 0	.00628	9. 0	84. 0	84. 0	21. 50	27. 30							
1. 50	41. 20	21. 0	.0830*	8. 40	.00849	21. 0	77. 0	76. 0	22. 16	27. 30							
2. 2	42. 30			10. 15	.00852				22. 37	29. 25							
2. 15	39. 10			10. 36	.00803				23. 59	31. 45							
2. 20	41. 10			13. 46	.01190				July 19 0. 0	21. 31. 45	July 19 0. 14	(†) .0836	July 19 0. 0	July 19 1. 0	79. 0	79. 0	
2. 40	35. 50			14. 10	.01143				0. 50	30. 20	0. 39	.0831	9. 13	3. 0	81. 0	80. 0	
2. 47	40. 0			17. 50	.01788				1. 43	33. 0	1. 12	.0832	16. 26	9. 0	82. 0	82. 0	
3. 0	40. 0			21. 15	.01421				3. 47	32. 5	2. 29	.0861	17. 15	21. 0	72. 0	73. 0	
3. 6	43. 5			23. 59	.01337				4. 32	30. 10	3. 12	.0872	{ .01400 .01280 .01305 .01128 .01241				
3. 40	30. 20								5. 20	22. 35	3. 42	.0884					
4. 0	28. 10								6. 28	24. 40	4. 44	.0883	23. 59				
4. 15	31. 5 ***								6. 52	25. 5	5. 13	.0897					
4. 40	30. 0								7. 24	24. 10	6. 21	.0889					
5. 2	32. 10								8. 4	25. 40	6. 45	.0895					
5. 37	26. 10								8. 37	22. 10	7. 4	.0888					
5. 55	29. 25								8. 51	22. 30	7. 40	.0885					
7. 0	26. 35								8. 57	27. 40	7. 45	.0890					
7. 15	28. 0								9. 20	21. 30	8. 52	.0882					
7. 43	25. 30									***	9. 13	.0886					
7. 54	27. 10								11. 11	27. 0	9. 39	.0880					
8. 10	26. 30								11. 50	25. 30	10. 40	.0881					
8. 15	27. 10								12. 30	27. 0	10. 52	.0878					
8. 32	23. 20								13. 32	24. 0	11. 4	.0884					
8. 45	31. 5								14. 30	26. 50	12. 48	.0885					
9. 15	16. 30								15. 27	25. 5	13. 20	.0881					
9. 37	26. 5								15. 50	28. 0	14. 21	.0889					
9. 46	24. 10								16. 20	23. 10	14. 51	.0888					
9. 54	25. 20								16. 56	21. 10	15. 53	.0900					
									17. 25	25. 5	16. 10	.0896					

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.

July 18. There was no Photographic Trace for the Horizontal Force, owing to a failure in the paper.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Readings of Thermometers.		Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Greenwich Mean Solar Time.	Vertical Force in 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 18. 25 18. 38 18. 57 21. 36 23. 59	21. 20. 45 21. 20 19. 0 20. 5 28. 0	July 19 16. 58 17. 40 18. 11 18. 54 19. 10 21. 55 23. 11	.0892 .0898 .0888 .0888 .0891 .0890 .0881 (†)														
July 20 0. 0 1. 4 1. 20 1. 57 2. 26 3. 2 6. 38 8. 57 9. 28 11. 50 12. 42 14. 50 16. 22 16. 51 19. 38 21. 32 22. 15 23. 59	21. 28. 0 28. 30 30. 0 29. 30 31. 10 29. 25 23. 35 24. 10 26. 0 *** 23. 30 24. 0 22. 0 21. 45 20. 30 *** 18. 0 22. 20 25. 40 29. 0	July 20 1. 0 1. 54 2. 19 2. 43 3. 24 4. 54 5. 57 6. 11 6. 15 6. 31 6. 58 8. 56 9. 22 9. 32 11. 12 11. 22 17. 30 17. 43 22. 36 23. 2 23. 51 23. 59	(†) .0870* .0881 .0889 .0882 .0892 .0896 .0879 .0888 .0884 .0888 .0883 .0886 .0893 .0889 .0886 .0889 .0898 .0895 .0885 .0881 .0887 .0886	July 20 0. 0 2. 28 9. 40 17. 42 18. 15 21. 30 23. 59	.01241 .01142 .00530 .01193 {.01205 .01050 .01154 .01068	July 20 1. 0 3. 0 9. 0 21. 0	72.0 73.0 75.0 76.0 77.0 79.0 70.5 72.0										
July 21 0. 0 2. 22 6. 51 8. 11 8. 32 8. 55 9. 20 9. 45 15. 0 15. 49 16. 52 17. 22 17. 52 19. 5 20. 8 20. 40 20. 56 21. 15 21. 30 23. 45 23. 59	21. 29. 0 28. 20 23. 35 23. 30 20. 50 23. 0 23. 25 23. 50 25. 0 20. 30 20. 45 19. 10 20. 30 21. 20 23. 25 23. 10 24. 10 23. 30 24. 35 28. 45 27. 30	July 21 0. 0 4. 40 6. 46 7. 23 7. 36 7. 45 8. 21 *** 10. 48 12. 40 15. 15 15. 43 18. 4 18. 40 19. 43 20. 57 23. 59	.0886 .0883 .0878 .0885 .0883 .0886 .0881 *** .0888 .0887 .0899 .0897 .0897 .0885 .0885 .0871 .0859	July 21 0. 0 1. 40 3. 39 7. 48 13. 13 18. 50 20. 10 21. 28 22. 33	.01068 .00866 .00570 .00970 .01243 .01902 .01990 .01893 .01867 (†)	July 21 1. 0 3. 0 9. 0 21. 0	72.0 73.5 75.0 76.0 71.0 71.0										
July 22 0. 0 0. 33 1. 22 2. 30 4. 13 6. 15 7. 32 8. 13 9. 5 9. 12 9. 20 9. 40 11. 28 15. 37 16. 15 17. 27 19. 10 20. 12 21. 3 21. 50 23. 6 23. 59	21. 27. 30 27. 20 28. 0 26. 30 27. 30 25. 45 21. 30 23. 50 25. 0 22. 10 24. 30 24. 0 26. 35 24. 40 25. 45 23. 10 *** 21. 50 22. 0 26. 0 26. 0 29. 0 33. 20	July 22 0. 0 0. 52 2. 14 2. 44 3. 30 3. 45 4. 3 4. 16 4. 40 5. 36 6. 5 6. 27 8. 15 8. 43 12. 12 15. 21 17. 31 18. 19 20. 33 21. 31 22. 30 23. 30	.0859 .0868 .0864 .0871 .0874 .0871 .0876 .0864 .0862 .0881 .0883 .0872 *** .0886 .0883 .0881 .0890 .0903 .0900 .0880 .0889 .0881 .0888 (†)	July 22 0. 18 6. 52 10. 39 15. 43 17. 58 20. 47 23. 2	(†) .01048 .00585 {.00732 .00667 .01097 {.01200 .01057 .01165 .01120 (†)	July 22 1. 0 3. 0 9. 0 21. 0	74.0 74.0 77.0 77.0 78.0 79.5 70.0										
July 23 0. 0 0. 50 2. 30 3. 33 3. 45 4. 10 5. 45 6. 23 7. 45 8. 35 8. 55 9. 15 9. 40 10. 16 11. 28 11. 50 12. 20 12. 57 13. 46 14. 9 14. 52 15. 20 15. 40 16. 20 16. 45	21. 33. 20 *** 32. 0 35. 25 27. 30 29. 10 26. 5 *** 26. 30 23. 50 *** 24. 30 *** 23. 30 21. 10 21. 35 17. 30 23. 40 26. 10 25. 0 25. 30 24. 10 *** 19. 10 22. 30 20. 40 22. 35 20. 0 21. 45 19. 15 ***	July 23 0. 8 0. 21 0. 37 1. 11 1. 54 2. 5 2. 17 2. 41 2. 58 3. 13 4. 28 4. 45 4. 55 5. 47 6. 17 6. 37 6. 45 6. 59 7. 12 7. 48 8. 7 8. 16 8. 28 8. 44 9. 28 9. 46 10. 42 11. 51 12. 21 12. 45	.0884 .0880 .0882 .0865 .0888 .0882 .0893 .0879 .0883 .0892 *** .0873 .0887 .0882 .0916 .0885 .0896 .0894 .0897 .0893 .0894 .0899 .0894 .0896 .0891 .0894 .0904 .0889 .0893 .0899 .0894	July 23 1. 0 2. 47 4. 26 9. 36 13. 56 14. 25 19. 4 23. 59	(†) .01804* .01923 .01942 .01877 .01980 {.01992 .01850 .02123 .02041	July 23 1. 0 3. 0 9. 0 21. 45	69.0 70.0 69.8 71.0 67.0 67.0										

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 23 18. 32	21. 16. 35	July 23 13. 26	.0897	h h							July 25 17. 44	.0896					
	***	14. 0	.0887								18. 18	.0879					
21. 25	20. 30	16. 12	.0899								18. 54	.0885					
22. 40	24. 30 (†)	16. 55	.0894								19. 10	.0880					
		17. 36	.0896								20. 20	.0881					
		20. 9	.0871								21. 55	.0856					
		***									22. 12	.0861					
		23. 59	.0864								22. 15	.0858					
											22. 50	.0865					
											23. 45	.0836					
											23. 59	.0846					
July 24 9. 5	(†) 21. 21. 49*	July 24 0. 0	.0864	0. 0	.02041	July 24 9. 5	73. 0	73. 0			July 26 0. 0	.0846	0. 0	.01761	July 26 1. 0	74. 5	74. 7
10. 53	25. 20	1. 48	.0870	1. 9	.01937	21. 0	64. 0	65. 0			0. 40	.0854	3. 15	.01241	3. 0	77. 0	77. 0
15. 12	23. 45	2. 21	.0877	8. 37	.01800						1. 46	.0869	7. 10	.01779	9. 0	78. 5	79. 0
15. 25	23. 45	2. 37	.0876	13. 10	.01084						5. 15	.0864	11. 18	.01938	21. 0	71. 0	72. 0
15. 47	22. 10	3. 43	.0883	20. 47	.01296						7. 10	.0868	20. 33	.02906			
16. 13	22. 10	5. 11	.0879	23. 59	.02141						9. 25	.0858	22. 37	.02789 (†)			
16. 30	25. 20	7. 29	.0878		.01939						10. 33	.0861					
17. 2	21. 30	15. 1	.0889								14. 15	.0859					
17. 2	24. 0 ***	15. 12	.0895								15. 13	.0865					
18. 33	23. 10 ***	15. 30	.0894								15. 40	.0853					
19. 52	20. 0 ***	17. 40	.0901								16. 17	.0858					
20. 53	20. 5 ***	19. 15	.0898								16. 30	.0855					
22. 30	26. 25 (†)	20. 40	.0887								17. 50	.0862					
		21. 0	.0889								18. 45	.0861					
		23. 12	.0875								19. 7	.0868					
		23. 59	.0877								19. 42	.0865					
July 25 0. 28	(†) 21. 30. 30	July 25 0. 0	.0877	0. 0	.01939	July 25 1. 0	68. 0	69. 0			20. 18	.0866	20. 33	.02906			
2. 36	30. 10 ***	1. 13	.0881	1. 21	.01822	3. 0	70. 0	71. 0			21. 35	.0875	23. 6	.02789 (†)			
5. 23	24. 20 ***	1. 21	.0879	6. 15	.01094	9. 0	72. 8	73. 5			23. 6	.0876	25. 10	.02541	1. 0	75. 0	76. 0
7. 10	26. 35 ***	1. 46	.0884	9. 20	.01282	21. 0	70. 0	69. 0			17. 15	.0892			3. 0	78. 0	78. 0
10. 50	24. 10	2. 7	.0882	15. 15	.01642						18. 0	.0885			9. 0	79. 5	80. 0
11. 29	25. 30	2. 28	.0889	20. 32	.01964						18. 52	.0883			21. 0	74. 0	74. 0
12. 5	23. 0	3. 4	.0882	23. 59	.01761						20. 30	.0864					
12. 28	25. 20	3. 30	.0888								21. 56	.0860					
13. 5	20. 30	3. 40	.0885								22. 25	.0864					
13. 33	25. 0	4. 14	.0896								22. 52	.0853					
14. 0	20. 30	5. 5	.0882								23. 47	.0873					
14. 25	25. 10	5. 28	.0881								23. 59	.0873					
14. 56	20. 45 ***	5. 45	.0897														
17. 52	20. 30	6. 14	.0889														
18. 29	28. 10 ***	6. 41	.0893														
20. 10	19. 0 ***	8. 13	.0887														
21. 47	25. 30	9. 21	.0892														
22. 25	26. 45	11. 45	.0885														
22. 54	29. 30 (†)	11. 57	.0882														
		12. 40	.0890														
		13. 15	.0883														
		13. 44	.0895														
		14. 15	.0891														
		14. 36	.0900														
		15. 13	.0896														

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 27 15. 37 16. 13 18. 42 22. 10 23. 59	21. 22. 10 22. 0 *** 16. 45 *** 23. 20 29. 5	July 27 15. 41 17. 45 18. 28 21. 0 22. 14 23. 12	.0886 .0882 .0873 .0863 .0872 (†)														
July 28 0. 0 1. 30 3. 29 6. 14 9. 6 10. 6 10. 24 11. 9 12. 45 13. 46 14. 17 14. 28 14. 53 15. 20 15. 37 15. 57 16. 10 16. 40 17. 9 17. 15 17. 32 19. 5 19. 37 20. 3 20. 27 20. 57 23. 59	21. 29. 5 31. 20 29. 30 28. 35 25. 0 25. 30 23. 25 24. 30 23. 30 *** 23. 20 *** 20. 15 22. 10 18. 5 *** 18. 10 21. 35 15. 20 23. 45 18. 20 23. 10 21. 35 24. 10 *** 16. 30 20. 35 20. 30 24. 10 22. 30 32. 30	July 28 0. 30 2. 50 3. 9 3. 37 3. 52 4. 13 4. 28 4. 45 6. 28 10. 3 10. 13 11. 48 12. 11 14. 12 14. 22 14. 34 15. 30 16. 40 16. 51 17. 9 17. 45 20. 9 21. 28 22. 6	(†) .0865 .0865 .0869 .0867 .0873 .0870 .0872 .0867 .0877 .0879 .0882 .0881 .0890 .0893 .0902 .0897 .0894 .0880 .0883 .0881 .0897 .0868 .0873 .0866 (†) .0856 .0865 .0860	0. 0 0. 31 1. 30 6. 26 12. 26 20. 25 22. 13 23. 59	.02683 .02670 .02583 .02531 .01867 .02229 .02897 .02790 .02781	July 28 1. 0 3. 0 9. 0 21. 0	77. 0 78. 0 79. 0 73. 7	77. 5 78. 0 80. 0 74. 2									
July 29 0. 0 2. 5 4. 29 7. 15 7. 50 8. 55 9. 34 10. 36 10. 53 11. 15 14. 23 15. 12 16. 10 16. 40 17. 7	21. 32. 30 30. 25 25. 20 25. 5 23. 20 25. 30 22. 0 25. 35 24. 20 25. 50 *** 24. 20 25. 30 23. 35 25. 0 23. 0	July 29 0. 0 0. 23 0. 32 2. 12 2. 22 3. 15 3. 27 6. 11 7. 9 7. 30 8. 29 9. 0 10. 11 11. 45 14. 11 14. 57	.0860 .0861 .0856 .0870 .0867 .0864 .0868 .0861 .0872 .0868 .0869 .0881 .0873 .0872 .0883 .0876	0. 0 2. 40 7. 37 15. 3 23. 59	.02781 .02673 .02362 .02849 .02798 .02113	July 29 1. 0 3. 0 9. 0 21. 0	75. 0 76. 0 75. 7 69. 8	76. 0 77. 0 77. 0 71. 2									
July 29 17. 45 19. 57 21. 58 23. 59	21. 29. 0 19. 5 29. 40 32. 35	July 29 16. 19 17. 15 17. 39 17. 52 20. 11 20. 51 22. 18 23. 14 23. 59	.0891 .0870 .0872 .0872 .0876 .0862 .0861 .0866 .0857														
July 30 0. 0 1. 37 3. 12 6. 28 15. 47 18. 20 19. 40 22. 27 23. 59	21. 32. 35 *** 33. 20 27. 10 22. 5 *** 22. 0 *** 18. 15 *** 18. 25 25. 30 33. 30	July 30 0. 0 0. 11 1. 2 1. 42 1. 51 3. 0 3. 39 3. 57 4. 21 4. 55 5. 52 6. 7 6. 27 8. 14 9. 17 10. 59	.0857 .0855 .0857 .0867 .0862 .0877 .0866 .0871 .0869 .0877 .0878 .0873 .0880 .0873 .0873 .0875 *** .0883 .0862 .0865 .0863														
July 31 0. 0 1. 45 5. 43 7. 18 11. 6 14. 50 18. 43 20. 25 23. 59	21. 33. 30 33. 20 23. 10 20. 35 24. 30 24. 25 19. 40 20. 20 35. 15	July 31 0. 0 0. 39 1. 39 1. 58 2. 37 2. 57 3. 25 3. 46 8. 57 9. 33 16. 51 18. 13 21. 26 23. 59	.0863 .0859 .0865 .0861 .0872 .0867 .0873 .0873 (†) .0873 .0870 .0889 .0886 .0860 .0858														
Aug. 1 0. 0 1. 45 4. 45 9. 27 13. 22	21. 35. 15 33. 30 23. 10 *** 21. 30 24. 0 ***	Aug. 1 0. 0 2. 10 6. 28 *** 12. 55 19. 14 19. 28	.0858 .0880 .0873 *** .0886 .0894 .0889														
July 30 0. 0 1. 37 3. 12 6. 28 15. 47 18. 20 19. 40 22. 27 23. 59	21. 32. 35 *** 33. 20 27. 10 22. 5 *** 22. 0 *** 18. 15 *** 18. 25 25. 30 33. 30	July 30 0. 0 0. 11 1. 2 1. 42 1. 51 3. 0 3. 39 3. 57 4. 21 4. 55 5. 52 6. 7 6. 27 8. 14 9. 17 10. 59	.0857 .0855 .0857 .0867 .0862 .0877 .0866 .0871 .0869 .0877 .0878 .0873 .0880 .0873 .0873 .0875 *** .0883 .0862 .0865 .0863														
July 31 0. 0 1. 45 5. 43 7. 18 11. 6 14. 50 18. 43 20. 25 23. 59	21. 33. 30 33. 20 23. 10 20. 35 24. 30 24. 25 19. 40 20. 20 35. 15	July 31 0. 0 0. 39 1. 39 1. 58 2. 37 2. 57 3. 25 3. 46 8. 57 9. 33 16. 51 18. 13 21. 26 23. 59	.0863 .0859 .0865 .0861 .0872 .0867 .0873 .0873 (†) .0873 .0870 .0889 .0886 .0860 .0858														
Aug. 1 0. 0 1. 45 4. 45 9. 27 13. 22	21. 35. 15 33. 30 23. 10 *** 21. 30 24. 0 ***	Aug. 1 0. 0 2. 10 6. 28 *** 12. 55 19. 14 19. 28	.0858 .0880 .0873 *** .0886 .0894 .0889														
July 31 0. 0 1. 45 5. 43 7. 18 11. 6 14. 50 18. 43 20. 25 23. 59	21. 33. 30 33. 20 23. 10 20. 35 24. 30 24. 25 19. 40 20. 20 35. 15	July 31 0. 0 0. 39 1. 39 1. 58 2. 37 2. 57 3. 25 3. 46 8. 57 9. 33 16. 51 18. 13 21. 26 23. 59	.0863 .0859 .0865 .0861 .0872 .0867 .0873 .0873 (†) .0873 .0870 .0889 .0886 .0860 .0858														
Aug. 1 0. 0 1. 45 4. 45 9. 27 13. 22	21. 35. 15 33. 30 23. 10 *** 21. 30 24. 0 ***	Aug. 1 0. 0 2. 10 6. 28 *** 12. 55 19. 14 19. 28	.0858 .0880 .0873 *** .0886 .0894 .0889														
July 31 0. 0 1. 45 5. 43 7. 18 11. 6 14. 50 18. 43 20. 25 23. 59	21. 33. 30 33. 20 23. 10 20. 35 24. 30 24. 25 19. 40 20. 20 35. 15	July 31 0. 0 0. 39 1. 39 1. 58 2. 37 2. 57 3. 25 3. 46 8. 57 9. 33 16. 51 18. 13 21. 26 23. 59	.0863 .0859 .0865 .0861 .0872 .0867 .0873 .0873 (†) .0873 .0870 .0889 .0886 .0860 .0858														
Aug. 1 0. 0 1. 45 4. 45 9. 27 13. 22	21. 35. 15 33. 30 23. 10 *** 21. 30 24. 0 ***	Aug. 1 0. 0 2. 10 6. 28 *** 12. 55 19. 14 19. 28	.0858 .0880 .0873 *** .0886 .0894 .0889														

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. 1 20. 7 21. 54 23. 59	21. 17. 10 21. 30 30. 45	Aug. 1 22. 27 23. 59	.0893 .0882	h m		h m	o	o	Aug. 5 8. 58 13. 42	21. 23. 20 23. 10 ***	Aug. 5 4. 10 5. 7 5. 54 7. 52 15. 37 17. 42 19. 30 20. 51 21. 43 22. 51 23. 19 23. 59	.0896 .0904 .0900 .0911 .0911 .0914 .0910 .0900 .0895 .0895 .0899 .0897	h m		h m	o	o
Aug. 2 0. 0 1. 20 2. 15 3. 45 6. 0 9. 10 11. 5 12. 27 12. 46 16. 36 19. 50 21. 7 23. 59	21. 30. 45 33. 30 33. 20 30. 30 23. 45 22. 30 24. 0 23. 0 24. 10 *** 23. 5 20. 10 22. 10 33. 10	Aug. 2 0. 0 2. 25 5. 11 6. 52 7. 40 12. 15 15. 37 17. 37 18. 30 18. 52 22. 30 23. 59	.0882 .0894 .0889 .0889 .0892 .0891 .0905 .0905 .0894 .0896 .0861 .0870	h m	.01749 .01163 .01997 .01869 .01900 {.01809 {.01640 .01362	Aug. 2 1. 0 3. 0 9. 0 21. 0	71.0 72.7 72.4 67.0	72.0 72.8 72.7 67.0	Aug. 5 20. 20 22. 34 23. 59	19. 25 21. 30 27. 10	17. 42 19. 30 20. 51 21. 43 22. 51 23. 19 23. 59						
Aug. 3 0. 0 1. 15 2. 13 3. 40 5. 15 7. 15 15. 50 17. 20 20. 21 21. 53 23. 59	21. 33. 10 34. 35 34. 10 30. 0 24. 10 22. 30 21. 45 20. 50 *** 16. 20 17. 35 26. 40	Aug. 3 0. 0 4. 52 5. 54 12. 45 16. 30 16. 58 19. 19 23. 28 23. 59	.0870 .0881 .0878 .0884 .0895 .0899 .0897 .0870 .0873	h m	.01362 .00843 .01330 .01603 .01971 .01858	Aug. 3 1. 0 3. 0 9. 0 21. 0	71.0 73.8 74.8 71.0	70.7 73.0 75.0 72.0	Aug. 6 0. 0 2. 33 6. 0 10. 51 19. 32 23. 59	21. 27. 10 28. 5 23. 10 22. 35 16. 30 27. 45	Aug. 6 0. 0 2. 11 3. 7 5. 55 6. 51 12. 30 15. 34 18. 46 19. 6 21. 10 21. 50 23. 43 23. 59	Aug. 6 0. 0 8. 56 18. 15 23. 59	.01649 .01122 .01420 .01278	Aug. 6 1. 0 3. 0 9. 0 21. 45	67.0 68.2 69.0 68.0	67.2 68.6 70.0 69.5	
Aug. 4 0. 0 1. 38 5. 53 11. 53 17. 39 20. 6 22. 42 23. 59	21. 26. 40 30. 10 22. 30 *** 25. 20 *** 22. 0 20. 30 *** 26. 5 31. 25	Aug. 4 0. 0 0. 52 3. 55 4. 9 7. 28 7. 46 11. 40 *** 17. 41 18. 27 18. 41 20. 12 23. 59	.0873 .0872 *** .0878 .0896 *** .0904 .0900 *** .0915 *** .0921 .0913 .0915 .0925 *** .0898	h m	.01858 {.01460 {.01536 .01747 .02600 .02040 .01895 .01702	Aug. 4 1. 0 3. 0 9. 0 21. 0	73.0 74.0 72.5 64.0	73.0 74.3 73.0 65.0	Aug. 7 0. 0 1. 52 5. 6 11. 10 11. 40	21. 27. 45 28. 10 22. 15 23. 35 20. 30 *** 16. 35 22. 0 26. 10	Aug. 7 0. 0 2. 15 5. 4 9. 0 14. 23 23. 28 23. 59	Aug. 7 0. 0 2. 15 5. 4 9. 0 14. 23 23. 28 23. 59	.01278 .01140 .00750 .01057 .01222 .01609 .01577	Aug. 7 8. 45 21. 0	75.5 71.3	76.3 72.4	
Aug. 5 0. 0 1. 30 3. 20 6. 40	21. 31. 25 33. 0 31. 20 22. 10	Aug. 5 0. 0 1. 25 3. 12 3. 16	.0898 .0895 .0895 .0903	h m	.01702 .01035 .01927 .01649	Aug. 5 1. 0 3. 0 9. 0 21. 10	68.2 71.0 69.0 64.0	68.4 71.0 70.3 64.0	Aug. 5 20. 7 22. 53 23. 59	16. 35 22. 0 26. 10	5. 47 6. 28 6. 34 7. 51 8. 22 9. 51 10. 10 10. 45 11. 2 11. 15 12. 10 14. 11 14. 19 15. 39 17. 10 17. 43 20. 28 23. 33 23. 45 23. 52 23. 59	.0885 .0890 .0887 .0895 .0887 .0895 .0890 .0895 .0890 .0895 .0888 .0893 .0890 .0893 .0891 .0893 .0882 .0881 .0899 .0896 .0899					

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. 8 0. 0 0. 50 2. 53 3. 27 3. 50 3. 58 5. 0 7. 36 8. 0 19. 36 20. 20 23. 59	21. 26. 10 31. 10 26. 0 26. 30 25. 25 27. 0 23. 25 22. 40 23. 20 *** 18. 30 21. 20 29. 10	Aug. 8 0. 0 0. 37 0. 44 1. 10 1. 16 1. 40 1. 57 2. 10 2. 40 3. 24 3. 41 3. 54 4. 18 4. 36 4. 57 5. 28 5. 40 6. 10 6. 25 6. 44 6. 51 7. 23 7. 44 8. 10 16. 43 20. 24 23. 54 23. 59	0.899 0.891 0.897 0.879 0.884 0.865 0.873 0.871 0.877 0.895 0.887 0.896 0.875 0.881 0.863 0.878 0.876 0.890 0.882 0.887 0.884 0.888 0.894 0.890 0.891 0.880 0.898 0.894	Aug. 8 0. 0 9. 3 21. 33 22. 17 22. 45 23. 30 23. 59	0.1577 0.1149 0.1980 0.1902 0.1930 0.1910 0.1742 0.1753	Aug. 8 1. 0 3. 0 9. 0 21. 0	73.2 74.4 75.0 76.0 76.4 68.0 69.0		Aug. 9 21. 50 23. 59	21. 20. 25 *** 31. 30	Aug. 9 16. 54 21. 28 21. 50 22. 40 23. 0 23. 26 23. 59	0.919 *** 0.904 0.907 0.897 0.906 0.894 0.892			Aug. 10 0. 0 1. 20 2. 0 2. 20 3. 50 4. 17 5. 50 6. 52 7. 15 7. 37 7. 47 10. 40 12. 34 16. 15 16. 56 17. 17 17. 40 18. 2 18. 12 20. 17 23. 59	21. 31. 30 *** 33. 0 31. 20 32. 25 *** 27. 10 *** 28. 35 *** 21. 30 *** 20. 30 22. 15 20. 30 24. 30 *** 19. 10 *** 21. 30 *** 17. 35 17. 30 15. 45 17. 30 16. 0 17. 45 *** 16. 40 *** 25. 10	Aug. 10 0. 32 0. 56 1. 29 2. 12 2. 28 0.919 *** 3. 45 3. 51 4. 22 4. 54 5. 27 6. 7 6. 12 6. 17 6. 44 6. 55 7. 37 7. 47 7. 56 9. 0 10. 44 12. 15 16. 52 22. 9 22. 45 23. 5 23. 30 23. 59	(+) 0.908 0.903 0.922 0.918 0.929 0.919 *** 0.916 0.906 0.946 0.916 0.915 0.896 0.899 0.896 0.929 0.920 0.910 0.928 0.920 *** 0.911 *** 0.921 0.909 *** 0.905 *** 0.885 0.872 0.874 0.869 0.872	Aug. 10 10. 15 18. 45 22. 3 23. 59	0.2096 0.1878 0.2070 0.2077 0.1993	Aug. 10 1. 0 3. 0 9. 0 21. 0	63.4 64.0 65.0 63.5 64.8 66.0 66.5 64.8
Aug. 9 0. 0 1. 15 3. 0 4. 57 8. 17 13. 32 14. 25 15. 20 15. 44 16. 15 17. 45 18. 22 18. 33 19. 13 19. 13 19. 22 19. 40 19. 55 20. 15	21. 29. 10 *** 31. 30 *** 28. 25 *** 22. 35 *** 21. 30 *** 22. 25 20. 30 21. 30 20. 35 23. 0 *** 18. 5 *** 17. 30 19. 10 19. 5 16. 10 19. 30 17. 10 19. 0 ***	Aug. 9 0. 0 0. 44 1. 10 1. 57 2. 55 3. 2 3. 37 3. 41 4. 16 4. 36 5. 5 5. 54 6. 58 7. 2 7. 24 10. 40 13. 19 14. 55	0.894 0.890 0.904 0.887 0.908 0.902 0.904 0.897 0.911 0.898 0.890 0.908 0.915 0.908 0.913 0.912 0.918 0.915 0.915	Aug. 9 0. 0 9. 13 15. 45 21. 37 23. 59	0.1753 0.1939 0.1818 0.2061 0.2138 0.2096	Aug. 9 1. 0 3. 0 9. 0 21. 5	66.7 68.2 67.0 68.6 65.0 66.0 63.0		Aug. 11 0. 0 2. 25 5. 20 8. 45 9. 25 9. 47 10. 18 11. 40 13. 29 14. 0 15. 0	21. 25. 10 *** 27. 30 21. 25 21. 25 21. 20 18. 10 20. 0 20. 0 12. 15 15. 10 15. 0	Aug. 11 0. 0 2. 45 8. 15 15. 56 21. 50 23. 59	0.872 0.881 0.877 0.882 0.880 0.893 0.891 0.896 0.895 0.895 0.899 0.892	Aug. 11 0. 0 2. 45 8. 15 15. 56 21. 50 23. 59	0.1993 0.1770 0.1693 0.1206 0.1484 0.1900 0.1761	Aug. 11 1. 0 3. 0 9. 0 21. 0	67.0 68.8 70.4 65.5 68.0 69.0 71.2 66.0						

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.	
Aug. 11 16. 25 17. 30 18. 35 19. 18 19. 40 20. 26 23. 59	21. 19. 10 17. 30 *** 19. 50 14. 10 16. 20 *** 15. 0 *** 29. 0	Aug. 11 15. 15 16. 12 16. 52 17. 30 18. 26 19. 36 20. 13 20. 40 21. 28 23. 15 23. 29 23. 59	.0892 .0895 .0903 .0893 .0895 .0881 .0879 .0881 .0872 .0873 .0869 .0867	h m		h m												
Aug. 12 0. 0 1. 54 5. 3 5. 26 5. 58 10. 40 11. 52 13. 15 15. 8 17. 56 18. 30 20. 21 21. 45 23. 40 23. 59	21. 29. 0 31. 5 22. 5 22. 10 21. 20 21. 25 *** 4. 13 23. 5 20. 0 20. 30 *** 17. 45 19. 35 18. 35 22. 30 28. 30 28. 25	Aug. 12 0. 0 0. 30 1. 12 1. 43 2. 13 2. 15 *** 4. 13 4. 27 4. 52 5. 14 5. 39 5. 52 8. 39 12. 30 16. 40 19. 41 22. 20 23. 59	.0867 .0864 .0864 .0869 .0864 *** .0876 .0871 .0873 .0881 .0880 .0871 *** .0875 *** .0888 *** .0911 *** .0902 .0863 .0867	h m	.01761 .01228 .01742 .01984 .02963 .02649 .02641 .02539	Aug. 12 1. 0 3. 0 9. 0 21. 0	70.0 70.0 73.0 65.8 66.0 66.0 67.0											
Aug. 13 0. 0 2. 40 5. 30 6. 23 6. 57 10. 40 14. 45 15. 38 19. 0 19. 33 19. 53 20. 22 23. 59	21. 28. 25 28. 0 21. 35 21. 35 20. 45 *** 22. 0 *** 20. 30 25. 10 15. 10 15. 30 17. 30 17. 20 *** 28. 30	Aug. 13 0. 0 0. 36 1. 0 4. 17 6. 15 7. 17 7. 45 8. 12 8. 42 9. 0 15. 16 16. 50 19. 2 21. 10 22. 52 23. 59	.0867 .0873 .0868 .0871 .0880 .0876 .0878 .0883 .0876 .0882 .0888 .0895 .0891 .0872 .0863 .0869	h m	.02539 .02241 .01730 .01993 .02260 .02549 .02559	Aug. 13 1. 0 3. 0 9. 0 22. 14	71.0 74.0 75.0 68.0 69.0											
Aug. 14 0. 0 1. 32	21. 28. 30 31. 30	Aug. 14 0. 0 1. 45	.0869 .0880	h m	.02559 .02583	Aug. 14 8. 42 21. 0	70.8 65.0 71.0 66.0											
Aug. 14 2. 45 5. 6 8. 3 12. 26 13. 3 19. 6 19. 33 20. 5 20. 45 22. 10 23. 59	21. 29. 35 21. 30 19. 35 21. 30 23. 50 *** 16. 0 13. 20 14. 0 12. 30 18. 30 31. 30	Aug. 14 2. 11 3. 12 4. 58 7. 29 8. 0 8. 30 9. 10 16. 52 18. 9 21. 50 22. 0 22. 33 22. 50 23. 18 23. 59	.0877 .0880 .0872 .0875 .0882 .0880 .0894 *** .0911 .0910 .0890 .0880 .0873 .0881 .0875 .0883	h m		Aug. 14 21. 0 21. 0 21. 0 21. 0 21. 0 21. 0 21. 0 21. 0 21. 0 21. 0 21. 0 21. 0 21. 0 21. 0 21. 0 21. 0	70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0											
Aug. 15 0. 0 1. 53 6. 30 8. 22 14. 2 14. 47 15. 40 15. 57 17. 3 17. 17 17. 38 17. 50 18. 40 19. 17 19. 26 19. 35 19. 40 19. 46 19. 55 20. 7 20. 35 20. 40 20. 43 20. 50 21. 10 21. 33 21. 40 22. 3 22. 15 22. 58 23. 10 23. 59	21. 31. 30 35. 10 23. 30 21. 25 *** 23. 50 *** 21. 45 22. 10 26. 20 11. 30 9. 40 11. 45 10. 0 *** 16. 30 9. 0 14. 0 11. 10 13. 50 11. 15 14. 35 10. 0 *** 13. 10 16. 5 13. 0 17. 0 15. 0 25. 5 20. 20 *** 26. 5 25. 0 30. 30 29. 45 *** 31. 30	Aug. 15 0. 0 2. 4 9. 9 16. 5 21. 30 23. 59	.0883 *** .0897 .0897 .0900 .0896 .0897 .0892 .0900 .0910 .0911 .0921 .0916 .0920 .0916 .0921 .0908 .0912 .0905 .0907 .0900 .0905 .0864 *** .0868 .0859 .0885	h m		Aug. 15 1. 0 3. 0 9. 0 21. 0	66.0 67.5 67.0 60.0 67.0 68.0 69.0 61.0											

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.
Aug. 16		Aug. 16		Aug. 16		Aug. 16			Aug. 17		Aug. 17						
0. 0	21. 31. 30	0. 0	.0885	0. 0	.02336	1. 0	63. 7	63. 0	5. 36	21. 23. 30	4. 27	.0913					
1. 18	32. 0	0. 35	.0874	1. 3	.02277	3. 0	66. 0	67. 0	6. 18	21. 10	4. 50	.0908					
1. 37	32. 50	1. 0	.0879	6. 44	.01527	9. 0	68. 0	69. 8	6. 30	21. 35	5. 12	.0914					
1. 56	32. 10	1. 14	.0872	8. 33	.01658	21. 0	63. 0	64. 0	7. 8	18. 0	5. 30	.0911					
2. 15	32. 30	1. 32	.0877	14. 20	.01857				7. 56	21. 20	5. 50	.0920					
2. 42	29. 50	1. 49	.0871	21. 15	.02344				8. 20	19. 30	6. 24	.0915					
3. 7	31. 35	2. 0	.0877	23. 59	.02390				8. 33	21. 10	6. 40	.0920					
3. 42	28. 10	2. 30	.0868						9. 38	20. 45	7. 5	.0906					
	***	3. 5	.0885						9. 50	21. 50	7. 30	.0917					
7. 40	21. 0	3. 30	.0862						10. 22	15. 0	7. 55	.0913					
	***	3. 58	.0863						10. 36	19. 0	8. 7	.0917					
10. 57	23. 20	4. 17	.0873						10. 45	18. 0	8. 28	.0909					
11. 15	22. 5	4. 45	.0873						10. 51	19. 20	8. 40	.0912					
	***	5. 2	.0881						11. 6	16. 35	9. 13	.0905					
13. 0	22. 0		***						11. 10	17. 35	10. 7	.0912					
13. 22	23. 35	6. 27	.0887						11. 26	15. 0	10. 12	.0919					
13. 40	22. 10	6. 41	.0882						11. 45	16. 50	10. 30	.0897					
14. 2	28. 0	6. 58	.0890						12. 0	16. 30	10. 42	.0905					
14. 46	23. 20	7. 21	.0885						12. 47	19. 0	10. 48	.0900					
16. 37	22. 30	7. 37	.0887						13. 3	17. 30	10. 53	.0903					
17. 15	31. 30	8. 21	.0883						13. 30	29. 30	11. 5	.0895					
18. 15	20. 45	8. 34	.0886						14. 6	14. 45	11. 15	.0907					
18. 42	23. 40	9. 22	.0885							***	11. 28	.0903					
19. 10	23. 30	12. 44	.0895						14. 50	16. 30	12. 30	.0906					
19. 40	18. 15	12. 53	.0892						15. 10	12. 5	12. 50	.0915					
20. 26	21. 20	13. 27	.0899						15. 20	14. 5	13. 11	.0909					
20. 47	25. 10	13. 42	.0894						15. 30	13. 10	13. 41	.0927					
21. 28	21. 30	13. 58	.0898						16. 16	18. 20	13. 57	.0904					
23. 10	28. 0	15. 22	.0898						16. 40	16. 30	14. 14	.0901					
23. 36	27. 10	16. 21	.0907							***	14. 35	.0903					
23. 59	30. 0	16. 54	.0898						17. 27	17. 35	15. 20	.0917					
		17. 37	.0912						17. 40	16. 20		***					
		17. 52	.0908						18. 0	20. 30	16. 0	.0914					
		18. 3	.0910							***	16. 13	.0918					
		18. 27	.0904						19. 5	16. 45	16. 51	.0906					
		19. 0	.0904						19. 18	20. 35	17. 42	.0909					
		19. 16	.0894						19. 42	16. 15	17. 55	.0915					
		20. 30	.0880						20. 22	22. 40	18. 15	.0905					
		20. 44	.0888						20. 37	21. 0	18. 46	.0902					
		21. 15	.0889							***	19. 15	.0908					
		21. 36	.0897						21. 43	28. 35	19. 42	.0903					
		21. 46	.0891							***	20. 34	.0873					
		22. 51	.0882						22. 20	25. 40	21. 6	.0878					
		23. 10	.0894						22. 36	27. 0	22. 3	.0870					
		23. 28	.0887						23. 4	25. 0	22. 28	.0876					
		23. 59	.0887							***	23. 59	.0874					
									23. 59	28. 25							
Aug. 17		Aug. 17		Aug. 17		Aug. 17			Aug. 18		Aug. 18		Aug. 18		Aug. 18		
0. 0	21. 30. 0	0. 0	.0887	0. 0	.02390	1. 0	65. 0	66. 0	0. 0	21. 28. 25	0. 0	.0874	0. 0	.01973	1. 0	70. 0	71. 0
	***	0. 14	.0899	2. 42	.02391	3. 0	66. 0	67. 7		***	0. 22	.0881	1. 27	.01957	3. 0	72. 0	73. 0
0. 40	32. 20	0. 51	.0897	11. 46	.01917	9. 0	69. 0	70. 0	1. 50	28. 10	0. 38	.0878	4. 50	.01740	9. 0	74. 0	74. 8
0. 57	31. 30	1. 5	.0905	13. 37	.01900	21. 0	68. 0	69. 0	2. 13	25. 35	0. 47	.0883	7. 37	.01928	21. 0	68. 0	69. 0
1. 10	34. 0	1. 50	.0888	14. 7	.01821				3. 15	25. 0	1. 7	.0882	10. 6	.01984			
1. 43	30. 25	2. 14	.0901	14. 40	.01868				3. 40	22. 30	1. 42	.0894	12. 32	.01969			
	***	2. 29	.0905	22. 37	.02002					***	2. 7	.0879	17. 21	.02293			
3. 17	30. 20	3. 0	.0893	23. 59	.01973				4. 40	22. 20	2. 22	.0890	21. 26	.02582			
4. 40	24. 10	3. 22	.0910							***	2. 33	.0887	23. 59	.02556			
5. 26	23. 0	4. 10	.0905														

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.
Aug. 18		Aug. 18								Aug. 19							
5. 7	21. 19. 25	2. 52	.0898							8. 8	21. 18. 20	3. 35	.0879				
5. 36	21. 30	3. 0	.0895							8. 15	16. 45	3. 51	.0868				
6. 13	17. 30	3. 14	.0899							8. 52	21. 35	4. 21	.0873				
7. 22	22. 0	3. 55	.0885								***	4. 43	.0864				
7. 57	21. 30	4. 10	.0890							11. 7	20. 30	4. 57	.0861				
8. 15	22. 40	4. 27	.0884							11. 33	24. 25	5. 15	.0872				
9. 20	21. 10	4. 40	.0897							11. 48	21. 30	5. 40	.0873				
9. 43	23. 0	4. 45	.0892							12. 10	25. 0	5. 51	.0882				
10. 13	17. 0	5. 4	.0905							13. 15	19. 30	6. 13	.0871				
10. 53	5. 0	5. 16	.0899							13. 50	20. 20	6. 52	.0891				
11. 34	14. 50	5. 44	.0889								***	7. 15	.0873				
11. 50	10. 0	6. 5	.0900							14. 40	22. 35	7. 50	.0903				
12. 53	16. 45	6. 21	.0905							14. 56	22. 10	8. 13	.0886				
13. 23	20. 40	7. 36	.0886							15. 48	27. 30	8. 27	.0888				
14. 40	22. 35	8. 7	.0896							16. 57	20. 0	9. 8	.0878				
15. 0	26. 10	8. 15	.0885							17. 7	21. 30	9. 18	.0883				
15. 56	21. 30	8. 36	.0897							17. 32	19. 0	***					
	***	8. 55	.0891							17. 50	19. 0	10. 14	.0881				
16. 38	20. 35	9. 21	.0903							18. 6	22. 0	11. 28	.0893				
17. 0	22. 30	10. 6	.0891								***	11. 42	.0890				
17. 26	22. 30	***								18. 52	20. 30	12. 42	.0896				
18. 24	17. 45	11. 5	.0918							19. 17	17. 20	13. 7	.0892				
18. 55	20. 20	11. 44	.0873							19. 30	19. 10	13. 18	.0895				
	***	12. 0	.0882							19. 45	16. 30	14. 7	.0889				
19. 47	18. 25	12. 12	.0878								***	14. 15	.0891				
19. 53	17. 0	12. 37	.0877							20. 36	15. 30	14. 37	.0884				
20. 15	17. 10	13. 13	.0888							21. 53	22. 25	15. 10	.0889				
20. 47	21. 50	13. 45	.0891							23. 59	27. 45	15. 36	.0883				
21. 6	21. 35	14. 6	.0886									16. 40	.0896				
	***	14. 44	.0897									16. 50	.0895				
21. 53	26. 0	14. 54	.0896									17. 0	.0900				
22. 10	24. 10	15. 40	.0905									17. 43	.0895				
22. 40	28. 0	15. 45	.0902									18. 0	.0887				
23. 59	29. 30	16. 0	.0906									19. 16	.0882				
		16. 30	.0898									19. 31	.0886				
		16. 40	.0901									20. 36	.0869				
		17. 10	.0891									21. 0	.0877				
		17. 52	.0902									22. 15	.0864				
		18. 18	.0897									23. 33	.0856				
		18. 28	.0900									23. 59	.0859				

		21. 6	.0864							Aug. 20							
		***								0. 0	21. 27. 45	0. 0	.0859	0. 0	.03243	1. 0	72.573.0
		23. 16	.0850							1. 10	31. 10	0. 21	.0864	4. 17	.02384	3. 0	76.077.0
		23. 28	.0855							2. 23	31. 10	1. 44	.0848	7. 30	.03057	9. 0	78.079.0
		23. 43	.0849								***	2. 14	.0858	12. 20	.03254	22. 15	69.070.0
		23. 59	.0862							4. 26	24. 0	2. 37	.0852	17. 20	.03609		
										5. 45	18. 0	2. 50	.0856	21. 46	.04059		
										6. 53	18. 5	3. 40	.0854	22. 33	.04076		
Aug. 19	21. 29. 30	0. 0	.0862	0. 0	.02556	1. 0	72.573.8			11. 34	21. 10	3. 54	.0865	23. 59	.03957		
0. 20	30. 5	0. 14	.0865	2. 10	.02342	3. 0	74.075.5			12. 2	20. 0	4. 9	.0861				
0. 53	28. 10	0. 50	.0865		{.01983	9. 0	77.077.8			12. 12	21. 20	4. 21	.0870				
1. 20	29. 35	1. 12	.0873	4. 25	{.02039	21. 0	67.869.0			12. 37	20. 30	4. 46	.0860				
	***	1. 52	.0846	7. 51	.02451					13. 6	21. 25	***					
4. 9	26. 30	2. 18	.0856	13. 29	.02670					13. 18	21. 10	6. 15	.0878				
	***	2. 30	.0855	20. 46	.03506					16. 0	22. 10	6. 50	.0871				
6. 54	21. 35	2. 56	.0868	23. 59	.03243						***	14. 13	.0886				
7. 33	9. 30	3. 6	.0866							20. 0	16. 10	15. 7	.0883				

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. 20 20. 59 23. 59	21. 17. 20 32. 25	Aug. 20 18. 43 21. 35 22. 8 23. 15 23. 40 23. 59	.0882 .0871 .0874 .0859 .0865 .0866	h m		h m			h m		h m		h m		h m					
Aug. 21 0. 0 1. 32 5. 44 6. 30 7. 50 9. 22 9. 45 10. 27 10. 42 10. 57 12. 40 12. 57 13. 40 13. 58 14. 40 15. 11 15. 36 15. 50 15. 56 16. 6 17. 7 17. 26 18. 0 18. 15 19. 0 19. 40 20. 3 20. 35 20. 50 23. 15 23. 59	21. 32. 25 *** 32. 20 *** 21. 30 13. 30 19. 50 21. 10 12. 30 20. 0 18. 30 20. 5 *** 18. 0 20. 30 18. 10 20. 20 15. 45 15. 0 18. 30 18. 50 21. 45 20. 20 *** 21. 30 24. 45 20. 30 21. 25 16. 30 20. 20 18. 30 19. 0 19. 0 31. 45 32. 20	Aug. 21 0. 0 2. 25 3. 11 3. 28 4. 19 4. 44 4. 54 5. 10 5. 15 5. 54 6. 12 6. 37 6. 43 6. 55 7. 18 7. 33 8. 16 8. 54 9. 10 9. 15 9. 34 9. 45 10. 25 11. 15 11. 33 12. 11 12. 45 13. 12 13. 26 13. 42 14. 0 14. 16 14. 33 14. 57 15. 15 15. 50 16. 30 18. 11 19. 30 22. 6 22. 45 23. 59	.0866 .0871 .0879 .0891 .0881 .0883 .0891 .0885 .0896 .0894 .0884 .0906 .0894 .0894 .0883 .0889 .0892 .0899 .0897 .0900 .0887 .0897 .0890 .0898 .0890 .0891 .0900 .0903 .0898 .0904 .0902 .0895 .0893 .0904 .0899 .0911 .0903 .0868 .0864 .0877	Aug. 21 0. 0 2. 7 9. 28 16. 22 19. 10 21. 15 23. 59	.03957 .03900 .03421 .03982 .03530 .03316 .03176	Aug. 21 9. 55 21. 0	71. 8 62. 8	73. 0 64. 3	Aug. 22 4. 30 5. 15 5. 26 5. 47 6. 30 7. 15 7. 36 7. 53 8. 12 8. 40 9. 0 9. 4 9. 13 9. 42 10. 9 11. 12 11. 22 11. 38 12. 2 12. 23 12. 27 12. 45 14. 0 14. 52 18. 36 18. 50 20. 53 22. 26 22. 42 23. 25 23. 40 23. 52 23. 59	21. 22. 20 20. 20 17. 0 16. 0 20. 50 18. 30 19. 10 18. 30 20. 0 18. 5 20. 0 23. 50 19. 45 20. 10 23. 15 *** 17. 50 18. 40 16. 0 21. 20 18. 0 19. 10 17. 30 *** 23. 50 19. 30 *** 17. 10 15. 30 *** 17. 35 22. 0 24. 0 24. 35 26. 0 25. 10 26. 10	Aug. 22 3. 6 3. 37 4. 0 4. 15 4. 42 4. 58 5. 34 5. 43 6. 0 6. 12 6. 34 7. 17 7. 41 7. 54 8. 14 8. 21 8. 37 9. 5 9. 40 9. 57 10. 45 10. 55 11. 37 11. 55 12. 10 12. 41 12. 54 13. 53 14. 24 14. 51 19. 13 22. 58 23. 30 23. 44 23. 59	.0894 .0877 .0883 .0878 .0890 .0884 .0898 .0896 .0904 .0895 .0889 .0892 .0883 .0891 .0881 .0887 .0883 .0893 .0885 .0895 .0893 .0900 .0897 .0888 .0893 .0894 .0891 .0898 .0907 .0902 *** .0906 .0886 .0895 .0887 .0896	Aug. 22 21. 14 23. 59	.03703 .03598 .03482	Aug. 23 0. 0 1. 8 4. 20 5. 0 6. 13 6. 42 8. 52 11. 32 15. 21 19. 30 21. 42 23. 59	Aug. 23 0. 0 1. 8 4. 20 5. 0 6. 13 6. 42 8. 52 11. 32 15. 21 19. 30 21. 42 23. 59	.03482 .03360 .02657 .02878 .02857 .03143 .03310 .03380 .03649 .04141 .03794 .03620	Aug. 23 1. 0 3. 0 9. 0 21. 0	69. 5 72. 3 74. 3 67. 0	71. 0 73. 8 75. 3 68. 0
Aug. 22 0. 0 1. 17 1. 40 2. 45 3. 10 4. 7	21. 32. 20 31. 30 32. 10 27. 20 28. 40 26. 30	Aug. 22 0. 0 0. 38 1. 21 1. 37 1. 50 2. 41	.0878 .0893 .0888 .0883 .0890 .0863	Aug. 22 0. 0 3. 7 5. 30 9. 13 12. 0 20. 47	.03176 .02841 .02358 .02860 .02941 .03782	Aug. 22 1. 0 3. 0 9. 0 21. 0	67. 0 69. 8 73. 5 66. 0	68. 0 71. 0 74. 5 67. 0	Aug. 22 13. 7 13. 17 13. 40 13. 55 14. 20 15. 9 15. 32	21. 20 22. 10 21. 0 24. 10 16. 0 20. 10 ***	Aug. 22 12. 51 13. 9 13. 25 14. 5 14. 24 15. 13 15. 40	.0895 .0890 .0899 .0898 .0917 .0894 .0896								

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. 23 16. 28 18. 20 19. 2 19. 13 19. 50 22. 0 23. 30 23. 59	21. 15. 30 16. 40 13. 25 16. 40 15. 0 23. 20 32. 10 30. 25	Aug. 23 15. 59 16. 45 17. 6 17. 43 18. 10 21. 45 23. 28 23. 44 23. 59	.0903 .0905 .0899 .0897 .0902 .0882 .0883 .0871 .0871	h m		h m	o	o	Aug. 25 20. 33 22. 12 22. 37 23. 0 23. 45 23. 59	21. 18. 0 28. 45 29. 30 32. 20 36. 15 35. 10	Aug. 25 9. 30 9. 51 10. 13 10. 28 11. 0 11. 13 12. 40 13. 28 14. 44 16. 42 21. 30 21. 59 22. 30 22. 45 23. 45 23. 59	.0882 .0886 .0874 .0873 .0885 .0882 .0883 .0902 .0900 .0905 .0878 .0867 .0870 .0867 .0885 .0876	Aug. 25 23. 59	.02780	h m	o	o
Aug. 24 0. 0 0. 57 2. 30 4. 4 6. 7 8. 17 8. 45 9. 20 10. 20 16. 8 17. 58 18. 26 18. 50 19. 48 22. 26 23. 59	21. 30. 25 32. 10 30. 30 23. 30 19. 30 20. 35 17. 30 20. 45 21. 30 21. 20 18. 20 17. 10 15. 30 15. 10 25. 25 28. 30	Aug. 24 0. 0 0. 19 0. 28 0. 47 1. 15 2. 13 2. 22 3. 21 3. 44 4. 5 5. 15 5. 42 6. 28 7. 43 10. 9 12. 51 15. 2 17. 36 17. 58 18. 26 18. 52 19. 54 20. 21 22. 30 23. 50 23. 59	.0871 .0880 .0878 .0885 .0879 .0881 .0889 .0868 .0867 .0871 .0872 .0877 .0877 .0886 .0887 .0897 .0899 .0897 .0900 .0893 .0896 .0889 .0891 .0866 .0872 .0869	h m	.03620 .02871 .03562 .03807 .04313 (†) .04317 .04069 (†)	Aug. 24 1. 0 3. 0 9. 0 21. 0	73.0 76.0 77.0 69.0	74.0 76.8 77.0 70.0	Aug. 26 0. 0 0. 37 1. 46 2. 8 2. 40 3. 7 4. 10 4. 50 7. 20 7. 30 7. 52 8. 50 9. 4 9. 36 10. 35 11. 6 11. 34 12. 5	21. 35. 5 *** 33. 20 *** 40. 0 35. 50 36. 0 30. 30 *** 29. 10 23. 30 *** 21. 5 19. 10 20. 15 16. 15 17. 35 15. 30 *** 18. 35 15. 5 21. 30 17. 25 *** 17. 30 16. 20 13. 59 17. 15 16. 0 20. 10 23. 35 20. 50 20. 30 13. 30 *** 17. 45 12. 10 11. 5 12. 10 11. 35 *** 28. 30	Aug. 26 0. 0 1. 28 9. 26 14. 41 23. 59	.02780 .02758 .02520 .02522 .02803 .02361	Aug. 26 1. 0 3. 0 9. 0 21. 0	74.0 74.5 73.0 67.0	74.8 75.0 74.0 68.0		
Aug. 25 0. 0 0. 47 4. 20 5. 30 9. 3 9. 18 9. 53 11. 0 12. 40 12. 58 13. 27 18. 26 18. 42 18. 52 19. 5	21. 28. 30 31. 0 25. 10 21. 30 20. 10 22. 0 19. 10 21. 25 19. 25 23. 10 20. 30 18. 45 17. 10 18. 15 17. 10 ***	Aug. 25 0. 0 0. 22 0. 33 0. 42 1. 42 2. 45 3. 15 3. 40 4. 30 5. 0 5. 39 6. 37 6. 54 7. 27 7. 41 8. 13 8. 51	.0869 .0879 .0873 .0875 .0863 .0866 .0880 .0872 .0883 .0869 .0870 .0879 .0875 .0878 .0861 .0884 .0886	Aug. 25 1. 0 2. 10 2. 44 4. 50 6. 6 10. 4 13. 29 15. 42 21. 20 22. 13 23. 49	(†) .02335* .02420 .02533 .02890 .03382 *** .03517 .03580 .03924 .04238 {.03649 .03458 .03420 .03357 .03346 .02777	Aug. 25 1. 0 3. 0 9. 0 21. 0	75.0 78.0 80.0 72.0	76.0 79.0 80.0 73.0	Aug. 25 13. 26 13. 40 13. 59 14. 15 14. 36 15. 26 15. 56 16. 26 17. 45 19. 9 19. 26 19. 45 20. 22 23. 25	17. 30 16. 20 17. 15 16. 0 20. 10 23. 35 20. 50 20. 30 13. 30 *** 12. 10 11. 5 12. 10 11. 35 *** 28. 30	Aug. 25 12. 15 13. 14 13. 43 14. 15 14. 36 14. 54 15. 12 16. 11 16. 30 17. 45 19. 9 21. 48 22. 42 22. 58 23. 6 23. 11	.0902 .0889 .0902 .0909 .0900 .0898 .0903 .0901 .0909 .0903 .0907 .0907 .0894 .0875 .0877 .0890 .0886 .0894					

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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. 26 23. 40 23. 59	21. 27. 10 28. 30	Aug. 26 23. 18 23. 51 23. 59	•0881 •0891 •0886																					
Aug. 27 0. 0 0. 35 0. 50 1. 7 2. 40 3. 9 8. 40 8. 50 9. 50 10. 45 11. 58 12. 20 13. 30 14. 38 15. 3 15. 45 17. 10 17. 40 18. 10 19. 20 19. 30 19. 36 19. 42 19. 50 20. 17 20. 38 20. 40 20. 45 20. 51 20. 58 21. 10 21. 22 21. 33 21. 40 21. 45 22. 0 23. 59	21. 28. 30 *** 31. 40 *** 0. 46 0. 56 31. 30 *** 30. 0 26. 40 *** 2. 57 20. 10 23. 10 *** 19. 0 *** 21. 10 *** 19. 15 21. 20 18. 30 9. 24 17. 10 10. 24 18. 0 10. 40 18. 0 11. 11 11. 39 18. 15 *** 12. 27 14. 30 13. 13 16. 0 13. 45 15. 10 14. 15 15. 7 17. 6 19. 30 19. 45 12. 10 16. 20 20. 52 9. 0 11. 20 21. 15 7. 10 17. 25 21. 59 11. 10 22. 12 15. 35 8. 10 22. 58 18. 0 23. 13 *** 23. 24 23. 59 31. 30	Aug. 27 0. 0 2. 20 8. 50 19. 57 21. 3 23. 59	•0886 *** •0896 •0891 •0895 •0887 •0892 •0889 •0894 •0885 •0884 •0894 •0890 •0898 •0886 •0895 •0896 •0903 •0895 •0898 •0887 •0897 •0891 •0900 •0891 •0895 •0891 •0895 •0887 •0863 *** •0878 *** •0863 *** •0914 •0891 *** •0909 •0897 •0921 •0897	Aug. 27 0. 0 2. 20 8. 50 19. 57 21. 3 23. 59	•02361 •02296 •01617 •02470 •02291 •02143	Aug. 27 1. 0 3. 0 9. 0 22. 30	69. 0 70. 0 71. 0 72. 0 73. 8 74. 0 64. 0 65. 6		Aug. 28 2. 30 2. 50 4. 23 5. 10 5. 23 5. 45 5. 57 6. 23 7. 4 7. 7 7. 20 7. 40 7. 56 8. 4 8. 15 8. 26 8. 30 8. 42 8. 53 9. 3 11. 10 11. 15 11. 20 11. 30 11. 33 11. 38 11. 58 12. 10 12. 16 12. 20 12. 32 12. 34 12. 37 12. 40 12. 42 12. 46 12. 50 12. 55 12. 57 13. 12 13. 20 13. 28 13. 31 13. 37 13. 41 13. 43 13. 50 13. 54 14. 0 14. 4 14. 7 14. 13 14. 17 14. 20 14. 25 14. 27	21. 29. 0 26. 50 26. 30 *** 13. 30 12. 30 15. 30 13. 25 20. 0 19. 10 21. 20 17. 30 19. 20 16. 0 23. 10 17. 15 20. 10 18. 0 21. 20 33. 10 24. 0 (†) 33. 10 21. 52. 10 20. 57. 30 21. 2. 0 20. 58. 45 21. 52. 10 21. 28. 0 20. 54. 10 56. 30 20. 48. 30 21. 2. 0 20. 53. 25 57. 0 52. 35 56. 5 47. 10 56. 15 20. 50. 5 21. 43. 10 20. 54. 50 21. 48. 20 31. 10 35. 30 16. 15 35. 30 25. 35 42. 5 27. 20 41. 10 53. 5 41. 15 31. 0 35. 0 27. 10 30. 0 22. 10	Aug. 28 2. 15 2. 47 3. 30 4. 28 5. 0 5. 13 5. 25 5. 50 6. 45 7. 0 7. 9 7. 45 7. 58 8. 19 8. 28 8. 42 9. 15 9. 29 9. 39 9. 42 9. 51 21. 0 16. 10 16. 49 17. 20 18. 10 19. 13 21. 12 21. 40 22. 6 22. 12 22. 43 23. 59	•0953 *** •0948 •0890 *** •0898 •0926 •0924 •0935 •0905 *** •0933 •0922 •0925 •0904 •0926 •0897 •0903 •0899 •0916 •0909 •0921 •0917 •0929 (†) •0832* •01900 •02263 •01153 *** •00840 *** •01540 *** •01909 *** •02154 *** •02251 •02240 •02120 *** •02143												
Aug. 28 0. 0 1. 20 1. 58 2. 15 2. 24	21. 31. 30 30. 20 28. 20 29. 30 27. 10	Aug. 28 0. 0 0. 22 0. 48 1. 48 2. 7	•0897 •0948 •0894 •0907 •0947	Aug. 28 0. 0 2. 17 3. 15 6. 40 9. 4	•02143 •02120 •02170 •01969 •01880	Aug. 28 8. 25 21. 0	67. 0 68. 6 63. 0 64. 0																	

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INDICATIONS OF THE MAGNETOMETERS

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							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
Aug. 28																	
14. 32	21. 33. 0	h m		h m		h m	o	o	Aug. 28								
14. 34	18. 10								20. 2	21. 50. 30	h m		h m				
14. 37	29. 25								20. 10	37. 30							
14. 40	19. 0								20. 17	31. 30							
14. 43	28. 0								20. 28	37. 20							
14. 45	16. 50								20. 32	35. 20							
14. 50	35. 40								20. 38	37. 10							
14. 56	22. 10								20. 45	34. 30							
15. 2	53. 20								20. 52	36. 0							
15. 13	37. 20								21. 15	4. 10							
15. 20	50. 20								21. 25	37. 40							
15. 26	34. 10								21. 39	12. 20							
15. 33	51. 0								21. 40	36. 30							
15. 40	39. 10								21. 52	21. 10							
15. 42	49. 0								21. 56	33. 30							
15. 46	30. 10								22. 18	7. 20							
15. 52	52. 20								22. 22	36. 0							
15. 56	21. 45. 10								22. 25	30. 10							
16. 5	22. 1. 50								23. 0	32. 10							
16. 15	21. 16. 10									***							
16. 20	37. 0								23. 42	37. 20							
16. 40	12. 10								23. 50	33. 20							
16. 45	32. 5								23. 52	40. 0							
16. 55	38. 0								23. 59	34. 10							
17. 5	12. 10																
17. 9	16. 0								Aug. 29		Aug. 29		Aug. 29		Aug. 29		
17. 11	3. 0								0. 0	21. 34. 10	0. 0	0845	0. 0	02143	1. 0	68. 0	68. 2
17. 15	16. 30								0. 4	39. 20		***		***	3. 0	69. 5	70. 0
17. 26	18. 5								0. 8	37. 0	0. 34	0869	2. 30	01989	9. 0	67. 5	69. 0
17. 37	3. 40									***		***	2. 51	02061	21. 0	60. 0	61. 0
17. 39	6. 0								0. 22	37. 10	1. 32	0832		***			
17. 40	9. 0								0. 26	38. 0	1. 56	0859	5. 10	01556			
17. 45	6. 10								0. 30	33. 10		***		***			
17. 52	7. 30								0. 36	38. 20	2. 28	0850	5. 26	01580			
17. 56	2. 45								0. 43	32. 10	2. 42	0842		***			
18. 2	8. 0								0. 45	36. 45	3. 13	0933	5. 51	01384			
18. 5	7. 20								0. 55	38. 10		***		***			
18. 9	23. 30								1. 0	34. 0	3. 39	0935	7. 22	01352			
18. 12	15. 0									***	3. 44	0920	7. 30	01390			
18. 16	18. 10								1. 18	35. 10	3. 50	0958	7. 46	01356			
18. 18	12. 10								1. 23	37. 10	4. 9	0809	12. 28	01464			
18. 22	19. 0									***	4. 19	0845	14. 58	01654			
18. 27	13. 0								1. 47	31. 40		***	19. 20	02229			
	***									***	5. 19	0835	23. 59	01882			
18. 40	14. 30								2. 15	36. 10	5. 30	0895					
18. 42	7. 0								2. 25	32. 10	5. 43	0872					
18. 44	19. 15								2. 37	33. 0	5. 52	0836					
18. 50	12. 10								2. 39	27. 10	6. 14	0836					
18. 53	16. 30								2. 42	34. 50	6. 32	0856					
18. 55	5. 30								2. 57	25. 0	6. 49	0849					
19. 6	55. 40								3. 24	18. 30	6. 57	0837					
19. 15	35. 0								3. 36	23. 10	7. 16	0835					
19. 24	33. 30								3. 37	19. 15	7. 27	0864					
19. 30	26. 30								3. 42	24. 10	7. 44	0836					
19. 36	52. 20								3. 50	10. 20	8. 0	0835					
19. 49	49. 0								4. 4	26. 0	8. 13	0844					
19. 57	35. 10								4. 10	16. 5		***					
19. 59	44. 0									***	12. 40	0857					

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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. 29 4. 42 4. 50 4. 56 5. 7 5. 13 5. 28 5. 32 5. 50 6. 23 6. 50 7. 20 7. 43 8. 15 8. 30 9. 12 9. 54 10. 27 13. 15 14. 26 15. 37 16. 7 18. 26 19. 20 19. 46 20. 0 23. 25 23. 45 23. 59	21. 24. 0 19. 0 22. 5 18. 20 21. 10 7. 10 12. 30 *** 24. 20 *** 20. 0 *** 24. 10 *** 16. 30 26. 20 21. 20 24. 10 *** 23. 20 *** 24. 0 *** 23. 0 *** 24. 10 *** 28. 0 *** 23. 20 27. 10 *** 16. 30 *** 17. 20 *** 12. 0 *** 15. 10 *** 26. 0 29. 30 28. 20	Aug. 29 12. 58 13. 21 14. 9 14. 30 15. 10 15. 15 15. 40 16. 8 16. 30 17. 3 18. 27 19. 39 19. 45 21. 56 21. 10 23. 26 23. 43 23. 59	.0854 .0860 .0849 .0850 .0861 .0857 .0863 .0855 .0862 .0852 .0865 .0832 .0846 .0844 .0850 .0863 .0861	h h		h h	o o		Aug. 30 12. 52 13. 45 14. 45 17. 28 18. 13 19. 3 20. 26 21. 37 23. 45 23. 59	21. 27. 50 *** 24. 20 26. 0 *** 19. 30 *** 19. 5 *** 15. 0 *** 17. 10 *** 20. 30 *** 31. 0 46. 10	Aug. 30 10. 10 10. 30 10. 55 11. 43 12. 22 12. 45 13. 13 13. 39 14. 14 15. 22 16. 32 18. 32 19. 10 21. 45 23. 32 23. 59	.0895 .0888 .0886 .0893 .0889 .0883 .0890 .0884 .0893 .0885 .0891 *** .0874 .0875 .0854 *** .0859 .0866	h h		h h	o o		Aug. 31 0. 0 0. 38 0. 54 1. 43 3. 57 5. 20 6. 20 7. 6 7. 59 8. 50 9. 22 9. 58 10. 13 10. 40 11. 42 11. 48 12. 42 13. 27 13. 57 14. 10 15. 20 15. 32 16. 0 16. 17 16. 36 16. 39 16. 45 19. 45 19. 50 19. 58 20. 4	21. 46. 10 34. 25 33. 30 *** 35. 20 34. 45 23. 0 21. 35 18. 40 19. 0 23. 0 9. 30 19. 50 18. 20 22. 30 *** 19. 25 21. 30 *** 19. 10 23. 30 17. 45 23. 40 *** 9. 30 12. 0 *** 21. 10. 5 22. 5. 20 (†) 22. 5. 20 21. 59. 50 22. 3. 10 (†) 20. 57. 45 53. 10 56. 5 38. 15	Aug. 31 0. 0 0. 18 0. 55 3. 39 3. 58 4. 36 5. 15 5. 50 6. 15 6. 30 7. 13 7. 18 8. 0 8. 21 8. 46 9. 13 9. 20 9. 37 9. 44 10. 0 10. 15 12. 45 13. 40 13. 51 14. 4 14. 21 14. 36 14. 52 15. 14 15. 21 15. 43 15. 53 15. 59 16. 6 (†) 18. 47	.0867 .0880 .0869 *** .0885 .0895 .0885 .0881 .0885 .0896 .0892 .0895 .0900 .0893 .0896 .0908 .0899 .0909 .0903 .0906 .0891 .0896 *** .0883 .0900 .0897 .0906 .0887 .0885 .0887 .0900 .0895 .0894 .0930 .0883 .0921 (†) .0839	Aug. 31 0. 0 1. 4 5. 15 7. 3 12. 4 16. 40 17. 10 17. 30 17. 33 17. 37 17. 39 17. 45 17. 56 18. 6 18. 8 18. 15 18. 17 18. 20 18. 30 18. 33 18. 36 18. 41 18. 50 18. 57 19. 6 19. 15 20. 15 20. 33 21. 37 22. 4 22. 25 23. 20 23. 59	.01481 .01457 .00950 .01110 .01229 .01563 .01144 .00301 .00600 .00358 .00480 .04158 .02297 .04037 .02308 .04260 .03180 .04261 .02722 .03443 .02907 .04139 .03990 .04052 .02228 .02817 *** .02031 *** .02166 *** .02097 *** .02136 *** .02007 .01730 .01719	Aug. 31 1. 0 3. 0 9. 0 21. 0	59.6 61.0 62.0 58.8 60.5 62.0 63.0 58.8
Aug. 30 0. 0 0. 45 2. 7 5. 20 9. 20 10. 6 11. 33 12. 15	21. 28. 20 *** 32. 5 *** 32. 10 20. 25 *** 22. 25 *** 20. 30 *** 25. 20 *** 23. 0 ***	Aug. 30 0. 0 0. 13 0. 52 1. 2 1. 44 2. 13 2. 39 5. 56 7. 45 8. 14 8. 33 9. 26 9. 45	.0861 .0859 .0879 .0875 .0884 .0880 .0886 *** .0873 .0880 .0887 .0885 .0894 .0890	Aug. 30 0. 0 9. 18 18. 47 23. 15 23. 59	.01882 .01349 {.01963 .01922 .01730 .01481	Aug. 30 1. 0 3. 0 9. 0 21. 0	63.0 63.5 64.0 65.0 65.5 59.0	Aug. 30 15. 20 15. 32 16. 0 16. 17 16. 36 16. 39 16. 45 19. 45 19. 50 19. 58 20. 4	9. 30 12. 0 *** 21. 10. 5 22. 5. 20 (†) 22. 5. 20 21. 59. 50 22. 3. 10 (†) 20. 57. 45 53. 10 56. 5 38. 15	13. 40 13. 51 14. 4 14. 21 14. 36 14. 52 15. 14 15. 21 15. 43 15. 53 15. 59 16. 6 (†) 18. 47	.0900 .0897 .0906 .0887 .0885 .0887 .0900 .0895 .0894 .0930 .0883 .0921 (†) .0839	19. 6 19. 15 20. 15 20. 33 21. 37 22. 4 22. 25 23. 20 23. 59	.02228 .02817 *** .02031 *** .02166 *** .02097 *** .02136 *** .02007 .01730 .01719												

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. 31		Aug. 31								Sept. 1							
20. 6	20. 52. 50	19. 0	.0782							18. 7	21. 19. 30	9. 42	.0895				
20. 12	20. 31. 10	19. 4	.0847							18. 53	16. 30	10. 42	.0891				
20. 14	21. 7. 10	19. 7	.0829							19. 40	15. 25	12. 51	.0899				
20. 16	20. 55. 10	19. 9	.0926							20. 0	12. 30	13. 0	.0905				
20. 18	21. 22. 20	19. 17	.0803							20. 50	20. 5	13. 51	.0899				
20. 24	20. 56. 25	19. 30	.1027							22. 25	25. 25	14. 22	.0904				
20. 27	21. 24. 10	19. 37	.1008							23. 30	32. 10	17. 14	.0903				
20. 30	9. 5	19. 45	.1020							23. 40	30. 30	20. 55	.0873				
20. 36	24. 10	20. 0	.0834							23. 42	35. 40	22. 40	.0869				
20. 38	10. 0	20. 5	.0868							23. 50	22. 10	23. 57	.0878				
20. 43	22. 0	20. 10	.0763							23. 54	8. 45	23. 59	.0930				
20. 46	9. 30	20. 15	.0940							23. 56	22. 45						
20. 50	20. 20	20. 21	.0894							23. 59	18. 10						
21. 3	12. 0	20. 27	.0899														
21. 7	25. 10	20. 32	.0849							Sept. 2							
21. 26	7. 20	20. 41	.0841							0. 0	21. 18. 0	0. 0	.0940	0. 0	.01978	1. 0	62.0
21. 30	18. 20	20. 50	.0938							0. 4	11. 10		(†)		***	3. 0	64.0
21. 36	4. 0	20. 53	.0843							0. 7	21. 20	1. 33	.1069	1. 3	.01972	9. 0	65.5
21. 38	14. 30	20. 59	.0817							0. 12	11. 10	1. 39	.0817	1. 10	.02039	21. 0	64.0
21. 40	1. 30	21. 3	.0890							0. 16	4. 10	1. 45	.0900	1. 22	.02556		67.0
21. 50	8. 30	21. 8	.0833							0. 20	19. 20	1. 49	.0822	1. 26	.02240		66.0
	***	21. 12	.0889							0. 26	11. 10	1. 59	.1065	1. 36	.01963		
22. 10	26. 10	21. 15	.0794							0. 35	38. 0	2. 10	.0926	1. 39	.02300		
22. 17	21. 20	21. 17	.0828							0. 53	15. 10	2. 19	.1000	1. 50	.02044		
22. 22	26. 5	21. 19	.0787							0. 55	49. 0	2. 27	.0778	1. 53	.02437		
22. 26	17. 50	21. 29	.0891							1. 0	45. 10	2. 31	.1095		***		
22. 32	23. 30	21. 35	.0844							1. 4	53. 10	2. 43	.0997	2. 17	.02197		
22. 34	11. 30	21. 44	.0947							1. 13	11. 5	2. 52	.1120		***		
22. 40	21. 10	21. 47	.0909							1. 18	52. 15	3. 3	.1013	2. 48	.02769		
22. 42	10. 0	21. 53	.0938							1. 22	26. 20	3. 11	.1059	3. 13	.02203		
23. 0	48. 40	22. 15	.0777							1. 30	40. 15	3. 23	.1003	3. 30	.02400		
23. 17	31. 30	22. 22	.0868							1. 40	21. 10	3. 37	.1078		***		
	***	22. 29	.0799							1. 45	51. 5	3. 42	.1024	4. 51	.02066		
23. 53	34. 45	22. 40	.0834							1. 52	38. 10	3. 45	.1050	5. 47	.01988		
23. 59	33. 40	22. 43	.0814							1. 54	58. 50		***	6. 3	.02142		
		23. 10	.0888							2. 3	26. 15	4. 14	.0991		***		
		23. 59	.0885							2. 7	53. 10		***	6. 48	.01839		
										2. 13	11. 15	4. 50	.0948	8. 37	.01602		
										2. 17	37. 0		***	9. 5	.01670		
Sept. 1		Sept. 1	.0885	Sept. 1	.01719	1. 0	61.0	62.0		2. 26	33. 30	5. 43	.0930	10. 26	.01337		
0. 0	21. 33. 35	0. 0	.0877	8. 33:	.01051	3. 0	63.0	64.0		2. 30	51. 40		***	10. 47	.01200		
0. 17	32. 10	0. 19	***	21. 0	.01658	9. 0	64.0	65.0		2. 43	13. 10	6. 30	.0964	11. 17	.01329		
1. 40	33. 30	1. 26	.0882	23. 30	.01563	21. 0	59.0	60.2		3. 0	35. 40	6. 50	.0904	11. 32	.01063		
1. 56	42. 35	1. 57	.0906	23. 43	.01438					3. 5	16. 20	6. 56	.0919	11. 38	.01165		
2. 30	31. 20	2. 11	.0898	23. 56	.02043					3. 13	44. 0	7. 33	.0885	11. 45	.01080		
3. 8	27. 10		***	23. 59	.01990					3. 20	37. 10	7. 40	.0903	12. 25	.01237		
										3. 24	25. 0	8. 2	.0881	12. 37	.01293		
5. 36	21. 20	2. 51	.0887							3. 40	51. 25	8. 12	.0895	12. 56	.01142		
7. 25	21. 20	3. 7	.0890							3. 50	35. 0	8. 40	.0850	13. 28	.01284		
8. 20	15. 0	3. 19	.0886							3. 43	40. 25	9. 7	.0928	13. 43	.01200		
8. 45	16. 30	3. 51	.0891							3. 45	32. 30		***	14. 6	.01273		
9. 10	15. 10	4. 28	.0885							3. 57	23. 10	9. 25	.0937	14. 40	.01290		
	***	4. 51	.0885							4. 3	31. 0	9. 51	.0883	14. 57	.01221		
10. 15	21. 10	5. 10	.0894							4. 10	23. 10	9. 58	.0891		***		
	***	6. 38	.0891							4. 15	30. 5	10. 5	.0882	15. 37	.01230		
13. 7	24. 10	7. 52	.0899							4. 20	24. 30	10. 11	.0889	15. 50	.01320		
13. 40	22. 20	8. 13	.0897							4. 32	33. 0	10. 20	.0866	16. 6	.01281		
14. 10	25. 35	8. 30	.0902							4. 34	26. 0	10. 36	.0887	18. 48	.01556		
15. 33	21. 10	9. 21	.0900												***		

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. 2 h m		Sept. 2 h m		Sept. 2 h m					Sept. 2 h m		Sept. 2 h m				Sept. 2 h m		
4. 37	21. 31. 45	10. 51	·0827	23. 59	·01739				20. 15	21. 15. 30 ***							
4. 40	26. 20	11. 14	·0863						21. 30	17. 0 ***							
4. 52	36. 10	11. 29	·0802						23. 20	29. 0							
4. 56	28. 20	11. 41	·0840 ***						23. 30	33. 10							
5. 10	34. 0								23. 34	30. 0							
5. 22	30. 40	11. 54	·0812						23. 40	33. 45							
5. 32	34. 20	12. 19	·0837						23. 45	23. 35							
5. 40	31. 30	12. 43	·0945						23. 52	30. 0							
5. 50	40. 0	12. 54	·0816						23. 59	39. 50							
6. 0	7. 30	13. 11	·0867														
6. 15	0. 30	13. 15	·0857														
6. 24	8. 10	13. 30	·0880														
6. 42	23. 35	13. 47	·0834														
6. 50	18. 0	14. 7	·0856														
7. 0	24. 10	14. 26	·0854														
7. 9	21. 30	14. 48	·0884 ***														
7. 15	24. 0																
7. 27	19. 30 ***	15. 44 15. 54	·0817 ·0853														
7. 53	24. 10	16. 13	·0816 ***														
8. 4	21. 10																
8. 16	21. 26. 5	16. 48	·0841 ***														
8. 51	20. 53. 0																
9. 15	21. 17. 10	18. 25	·0848 ***														
9. 40	32. 0																
9. 50	25. 30	21. 35	·0812 ***														
10. 12	30. 30																
10. 25	24. 30	23. 12	·0833 ***														
10. 40	32. 0																
11. 4	6. 25	23. 43	·0860														
11. 26	41. 30	23. 46	·0836														
11. 36	30. 10	23. 53	·0886														
11. 43	42. 20	23. 59	·0889														
12. 30	20. 30																
12. 34	39. 0																
12. 53	15. 10																
13. 6	20. 0																
13. 10	15. 30																
13. 20	24. 10																
13. 26	28. 0																
13. 50	8. 30 ***																
14. 15	5. 30																
14. 28	20. 10 ***																
14. 47	15. 0 ***																
15. 28	18. 20																
15. 43	9. 0																
15. 52	27. 20																
15. 56	23. 10																
16. 15	26. 10																
16. 22	23. 20																
16. 26	26. 30 ***																
17. 25	20. 15																
17. 38	25. 35																
17. 52	21. 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.
Sept. 3		Sept. 3							Sept. 3								
6. 2	21. 6. 30	7. 54	.0854						20. 20	21. 17. 0							
6. 9	21. 23. 20	8. 5	.0835						20. 45	17. 0							
6. 12	20. 50. 5	8. 15	.0855						20. 52	21. 25							
6. 20	21. 19. 30	8. 27	.0836						21. 6	13. 0							
6. 30	11. 45	8. 45	.0864						21. 12	22. 10							
6. 37	25. 0		***						21. 28	17. 20							
6. 45	16. 30	9. 36	.0845						21. 40	24. 0							
6. 53	28. 15	9. 54	.0857						21. 50	17. 10							
7. 0	22. 20	10. 14	.0849						21. 54	25. 30							
7. 12	19. 30	10. 44	.0891							***							
7. 30	0. 30	11. 0	.0869						22. 26	25. 0							
7. 58	28. 30	11. 16	.0877							***							
8. 15	11. 30	11. 28	.0855						23. 59	33. 0							
8. 26	22. 55	11. 51	.0888														
8. 45	14. 30	12. 11	.0816														
8. 50	28. 0	12. 21	.0837														
9. 4	20. 0	12. 39	.0811						Sept. 4	21. 33. 0	Sept. 4	.0830	Sept. 4	0. 0	.01809	Sept. 4	7. 15
9. 15	24. 50	13. 9	.0813						0. 0	***	0. 32	.0835	0. 0	***	***	21. 0	65.5
9. 26	21. 0	13. 22	.0831						0. 20	30. 30	0. 50	.0873	2. 4	.01763		60.0	66.7
	***	13. 45	.0850						0. 54	38. 0	1. 11	.0870	2. 36	.01846			
10. 15	21. 45	14. 0	.0830						1. 8	36. 10	1. 21	.0895	3. 37	.01682			
10. 26	18. 30	14. 39	.0846						1. 20	41. 45	1. 37	.0866	3. 56	.01701			
10. 36	10. 25		***						1. 33	37. 30	1. 46	.0884	***	***			
11. 2	33. 20	15. 15	.0822						1. 40	40. 0	1. 52	.0872	5. 51	.01423			
11. 40	18. 20		***						1. 57	35. 10	2. 15	.0936	9. 57	.01112			
11. 50	36. 0	15. 51	.0844						2. 5	38. 50	2. 20	.0846	12. 4	.01169			
11. 53	23. 20		***						2. 15	34. 30	2. 28	.0869	12. 32	.01103			
11. 56	30. 0	17. 15	.0826						2. 37	22. 30	2. 37	.0885	13. 10	.01105			
12. 5	18. 10		***							***	2. 45	.0861	13. 36	.01179			
12. 20	32. 25	17. 41	.0845						3. 30	30. 20	2. 58	.0855	14. 4	.01102			
12. 45	19. 30		***							***	3. 10	.0870	15. 6	.01282			
12. 50	23. 0	19. 4	.0837						3: 42	23. 10	3. 22	.0845	21. 53	.01732			
13. 8	15. 10	19. 21	.0861							***	3. 43	.0867	***	***			
13. 22	18. 15	19. 40	.0848						4. 15	30. 15	3. 52	.0912	23. 59	.01739			
13. 42	17. 0		***						4. 26	24. 0	4. 0	.0902					
13. 50	21. 5	20. 36	.0856						4. 42	27. 35	4. 11	.0905					
	***		***							***	4. 22	.0880					
14. 30	16. 30	22. 22	.0823						5. 34	22. 30	4. 28	.0896					
	***		***							***	4. 33	.0880					
15. 7	21. 25	23. 28	.0808						9. 10	25. 30	4. 41	.0896					
15. 20	18. 10		***						9. 24	30. 0	4. 55	.0870					
15. 37	23. 5	23. 50	.0832						9. 37	26. 30	5. 13	.0866					
	***	23. 59	.0830						9. 43	29. 50	5. 19	.0837					
16. 7	25. 0		***						9. 58	20. 30	5. 46	.0864					
	***								10. 5	22. 10	5. 55	.0857					
17. 6	19. 0		***						10. 17	17. 30		***					
	***								10. 20	19. 0	6. 50	.0857					
17. 52	24. 0		***							***	7. 13	.0877					
	***								10. 54	12. 10		***					
18. 20	21. 50		***						11. 13	17. 10	8. 22	.0870					
	***								11. 22	15. 0	8. 54	.0897					
18. 57	29. 5		***							***	9. 28	.0876					
19. 6	23. 10		***						11. 41	15. 30	9. 38	.0882					
19. 17	35. 5		***						12. 4	30. 30	9. 45	.0869					
19. 22	21. 20		***						13. 9	13. 25	9. 52	.0876					
	***								13. 45	30. 0	10. 7	.0865					
19. 43	18. 45		***							***	10. 14	.0872					
	***								14. 42	16. 35		***					

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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. 4 15. 32	21. 21. 30 ***	Sept. 4 10. 45	0847	P H		P H	°	°	Sept. 5 4. 20	21. 32. 20	Sept. 5 5. 0	0838	P H		P H	°	°
16. 10	16. 45	11. 13	0852						4. 38	27. 0	5. 9	0827					
16. 15	18. 30	11. 40	0863						5. 15	13. 20	5. 30	0862					
16. 38	12. 30	12. 11	0853						5. 37	16. 30	5. 54	0847					
16. 57	17. 0	12. 27	0865						6. 7	17. 20	6. 43	0861					
17. 33	9. 10	12. 45	0861						6. 50	26. 30	7. 10	0846					
17. 40	17. 0	12. 55	0867						7. 42	22. 20	8. 21	0858					
17. 46	9. 10	12. 55	0877						8. 6	24. 0	8. 45	0854					
18. 5	16. 45	13. 13	0867						8. 45	15. 30	9. 22	0924					
18. 10	11. 0	13. 29	0870						9. 4	34. 0	9. 30	0850					
18. 13	21. 50	13. 54	0827						9. 30	6. 10	9. 45	0869					
18. 22	14. 45	14. 21	0860						9. 40	29. 0	9. 57	0860					
18. 28	19. 0	14. 30	0856						9. 57	17. 45	10. 11	0875					
18. 40	15. 30	14. 47	0867						10. 6	23. 0	10. 37	0861					
18. 52	18. 45	19. 32	0883						10. 20	19. 0	11. 14	0868					
19. 18	13. 10	19. 32	0883						10. 28	21. 10	12. 18	0855					
19. 23	3. 30	20. 56	0867						10. 40	19. 30	12. 54	0869					
19. 28	13. 5	21. 45	0878						11. 3	22. 5	13. 45	0859					
20. 0	17. 0	21. 55	0862						11. 30	19. 30	14. 26	0871					
20. 7	12. 10	22. 13	0866						12. 20	18. 25	14. 45	0864					
20. 15	18. 5	22. 43	0806						12. 29	20. 30	14. 58	0872					
22. 24	27. 0	22. 48	0809						12. 36	18. 45	15. 13	0865					
22. 40	24. 30	22. 51	0803						13. 15	25. 30	16. 56	0869					
22. 46	30. 0	23. 0	0817						13. 40	23. 30	18. 10	0866					
22. 56	27. 25	23. 12	0790						13. 54	25. 25	19. 11	0894					
23. 15	37. 10	23. 39	0826						14. 26	21. 20	19. 24	0885					
23. 30	29. 30	23. 55	0813						14. 40	24. 0	21. 17	0855					
23. 45	31. 30	23. 59	0820						14. 26	21. 20	19. 24	0857					
23. 59	30. 15								14. 40	24. 0	21. 17	0806					
Sept. 5 0. 0	21. 30. 15	Sept. 5 0. 0	0822	Sept. 5 0. 0	01739	Sept. 5 1. 0	64. 0	65. 0	15. 0	20. 45	21. 35	0819					
0. 13	34. 25	0. 15	0849	0. 0	01690	3. 0	66. 0	68. 0	15. 38	26. 30	21. 55	0798					
0. 40	31. 0	0. 37	0837	3. 4	01369	9. 10	67. 0	68. 0	16. 30	20. 40	22. 26	0814					
0. 43	32. 10	0. 49	0849	4. 50	01296	21. 0	63. 0	64. 0	17. 8	23. 30	22. 33	0804					
0. 56	31. 15	1. 27	0838	5. 33	01329				17. 8	23. 30	22. 43	0815					
1. 24	33. 50	1. 40	0856	7. 13	01300				19. 4	21. 40	23. 0	0806					
1. 44	28. 30	2. 0	0828	8. 46	01348				19. 13	24. 0	23. 8	0820					
1. 58	33. 10	2. 12	0849	9. 13	01250				19. 20	23. 5	23. 24	0816					
2. 2	30. 0	2. 25	0842	10. 10	01252				19. 28	25. 5	23. 59	0816					
2. 18	30. 15	2. 40	0843	19. 27	01813				19. 42	23. 10							
2. 24	27. 10	3. 0	0877	23. 59	01922				19. 57	23. 30							
2. 40	35. 30	3. 14	0847						20. 2	26. 0							
2. 58	33. 0	3. 17	0863						20. 2	***							
3. 8	37. 0	3. 43	0855						20. 37	23. 30							
3. 15	35. 10	3. 52	0869						20. 40	20. 20							
3. 26	37. 45	3. 57	0876						20. 45	24. 0							
3. 30	35. 5	4. 0	0867						21. 22	***							
3. 36	37. 10	4. 14	0869						21. 42	29. 15							
4. 10	28. 30	4. 26	0856						22. 0	23. 30							
		4. 51	0868						22. 17	31. 20							
			0832						22. 27	33. 10							
									22. 33	35. 45							
									22. 40	30. 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.
Sept. 5 23. 6	21. 38. 20 ***								Sept. 7 0. 40 1. 52	21. 30: 0 29. 30 ***	Sept. 7 0. 52 1. 42	.0865 .0875 ***	Sept. 7 6. 40 7. 33	.01030 { .01079 .01267	Sept. 7 9. 0 21. 0	65.8 62.3	66.8 63.5
23. 59	33. 40								4. 22	25. 0 ***	Sept. 7 3. 29 3. 45	.0875 .0882	13. 36	.01349			
Sept. 6 0. 0	21. 33. 35	Sept. 6 0. 0	.0817	Sept. 6 0. 0	.01922	Sept. 6 1. 0	65.0 66.0	66.0	7. 23	23. 5	4. 52	.0881	23. 59	.01600			
0. 10	31. 0	0. 21	.0839	5. 47	.01847	3. 0	66.0 67.0	67.0	8. 40	23. 30	5. 55	.0892					
0. 26	34. 30	0. 28	.0836	9. 37. 7	.01649	9. 0	66.0 66.8	66.8	8. 58	20. 45	6. 21	.0886					
0. 40	33. 25	0. 59	.0870	17. 7	.02141	21. 0	59.0 60.5	60.5	9. 7	22. 30	6. 51	.0883					
1. 6	37. 50 ***	1. 15	.0865	21. 57	.01813				10. 2	15. 25	7. 14	.0891					
2. 4	30. 10 ***	1. 30	.0853	23. 59	.01740				10. 29	18. 30 ***	8. 12	.0888					
3. 25	35. 30	2. 9	.0875						11. 26	17. 50	8. 28	.0895					
3. 32	33. 35	2. 17	.0881						11. 44	19. 45	9. 23	.0885					
3. 50	34. 0	2. 43	.0868						12. 33	19. 20	9. 36	.0890					
4. 0	32. 10	3. 7	.0900						12. 53	17. 0	10. 5	.0896					
4. 23	32. 10 ***	3. 13	.0897						13. 25	16. 20	10. 26	.0884					
5. 34	22. 50	3. 18	.0901						13. 34	15. 10	10. 41	.0891					
5. 50	23. 30	3. 37	.0889						13. 53	16. 5	11. 7	.0882					
6. 20	14. 0	3. 45	.0897						14. 20	16. 0	13. 13	.0888					
6. 37	19. 30	4. 0	.0884						15. 15	18. 30	14. 0	.0884					
6. 52	17. 20	4. 18	.0892						15. 25	17. 45	15. 12	.0895					
7. 17	22. 20 ***	4. 30	.0885						16. 15	20. 10	15. 52	.0891					
8. 4	23. 30	4. 43	.0890						16. 26	19. 5 ***	16. 13	.0896					
8. 15	17. 10	4. 50	.0886						19. 37	17. 0	21. 37 21. 48	.0867 .0860					
8. 33	18. 50	5. 5	.0893						21. 57	22. 5	22. 6	.0867					
8. 50	15. 30 ***	5. 16	.0889						23. 7	29. 30	23. 0	.0863					
9. 26	21. 35 ***	5. 39	.0897						23. 59	31. 45	23. 59	.0866					
10. 4	22. 20 ***	5. 45	.0926						Sept. 8 0. 0	21. 31. 45	0. 0	.0866	Sept. 8 0. 0	.01600	Sept. 8 1. 0	65.8	67.0
10. 42	21. 20	6. 20	.0906						0. 35	33. 30	1. 51	.0879	1. 56	.01468	3. 0	68.0	68.5
11. 6	24. 30	6. 31	.0895						0. 56	31. 40 ***	2. 22	.0871	5. 10	.01200	9. 0	68.5	69.0
11. 25	21. 20	6. 52	.0899						2. 45	31. 5 ***	2. 53	.0877	7. 47	.01351	21. 0	67.0	67.8
11. 48	24. 10	7. 15	.0888						4. 4	24. 35	3. 21	.0870	10. 22	.01403			
12. 13	23. 20	8. 2	.0883						4. 27	25. 30 ***	4. 0	.0873	11. 20	.01371			
12. 34	19. 30	8. 20	.0895						5. 50	17. 30	4. 40	.0888	15. 50	.01513			
13. 6	18. 30 ***	8. 42	.0873						6. 20	20. 25 ***	5. 12	.0879	23. 59	.01668			
16. 20	21. 20 ***	9. 7	.0888						9. 15	20. 20	6. 5	.0897					
17. 7	19. 35 ***	9. 8	.0873						9. 40	24. 0	6. 45	.0891					
18. 2	20. 25 ***	10. 42	.0877						10. 7	17. 20	7. 26	.0897					
19. 56	16. 10 ***	10. 52	.0889						10. 26	25. 0	7. 51	.0891					
21. 40	20. 30 ***	10. 8	.0873						10. 50	17. 30	9. 5	.0891					
23. 59	29. 30	10. 42	.0877						11. 36	16. 0	9. 21	.0901					
Sept. 7 0. 0	21. 29. 30	10. 52	.0889						12. 47	19. 30	9. 40	.0893					
0. 15	30. 40	11. 7	.0879						13. 18	19. 10	9. 45	.0898					
Sept. 7 0. 0	30. 40	11. 7	.0879						13. 40	20. 15	9. 54	.0895					
0. 15	30. 40	12. 18	.0886						14. 27	19. 5	10. 13	.0910					
Sept. 7 0. 0	30. 40	12. 40	.0893						14. 57	21. 35	10. 37	.0898					
0. 15	30. 40	13. 15	.0885						15. 10	21. 20	10. 45	.0906					
Sept. 7 1. 47	.01609	13. 15	.0885						15. 27	23. 30	11. 15	.0890					
1. 47	.01609	17. 7	.0892						16. 10	20. 5 ***	11. 40	.0894					
Sept. 7 1. 0	63.0 64.0	17. 7	.0892								12. 26	.0886					
3. 0	64.8 66.0	18. 2	.0851								13. 26	.0891					
Sept. 7 1. 0	63.0 64.0	20. 25 ***	.0851								14. 27	.0896					
3. 0	64.8 66.0	23. 40	.0864								15. 59	.0885					
Sept. 7 3. 0	64.8 66.0	23. 59	.0861														
3. 0	64.8 66.0		.0868														

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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. 12		Sept. 12							Sept. 13		Sept. 13						
18. 3	21. 22. 5	20. 52	·0866						15. 53	21. 24. 10	17. 14	·0904					
18. 20	22. 5	21. 40	·0873						16. 15	22. 0	17. 40	·0909					
18. 42	30. 0	22. 0	·0864							***	18. 37	·0877					
18. 53	27. 10	22. 14	·0874						17. 17	19. 30	18. 56	·0884					
19. 7	30. 5	22. 29	·0867							***	19. 13	·0883					
19. 36	21. 10		***						18. 15	24. 25	20. 7	·0891					
19. 40	26. 10	23. 43	·0861						18. 42	22. 40	21. 32	·0886					
19. 50	21. 50	23. 51	·0870						19. 10	25. 45	22. 0	·0888					
	***	23. 59	·0865						19. 40	25. 0	22. 22	·0874					
20. 20	21. 0								19. 45	26. 20	23. 15	·0875					
	***								19. 58	25. 25	23. 35	·0885					
20. 54	29. 50								20. 3	26. 35	23. 59	·0880					
	***								20. 37	23. 10							
22. 6	22. 25								21. 43	25. 0							
22. 27	28. 30								22. 8	27. 20							
	***									***							
23. 30	31. 10								22. 47	26. 30							
23. 59	33. 35									***							
Sept. 13		Sept. 13		Sept. 13		Sept. 13			23. 18	28. 20							
0. 0	21. 33. 35	0. 0	·0864	0. 0	·01857	1. 0	62. 0	63. 0	23. 47	32. 30							
0. 10	33. 0	0. 8	·0859	1. 4	·01872	3. 0	62. 7	63. 8	23. 59	31. 50							
0. 25	36. 0	0. 18	·0868	5. 10	·01709	9. 0	60. 8	62. 0									
0. 50	35. 10	0. 28	·0860	5. 43	·01730	21. 0	55. 0	57. 0	Sept. 14		Sept. 14		Sept. 14		Sept. 14		
1. 7	36. 30	0. 45	·0861	6. 47	·01669				0. 0	21. 31. 50	0. 0	·0880	0. 0	·01890	1. 0	57. 0	58. 0
2. 4	33. 30	1. 40	·0873	11. 9	·01832				0. 53	***	0. 42	·0889	2. 20	{ ·01827	3. 0	58. 0	59. 6
2. 30	30. 20	1. 45	·0868	14. 13	·02017					33. 30	1. 5	·0887	9. 33	{ ·01703	9. 0	59. 4	61. 0
	***		***	16. 40	·02246				1. 47	***	1. 43	·0899	10. 47	{ ·01349	21. 0	56. 0	57. 0
3. 40	32. 25	2. 51	·0869	22. 20	·01918				3. 0	33. 20	2. 5	·0886	11. 54	{ ·01262			
4. 0	29. 30	3. 13	·0879	23. 59	·01890				6. 42	27. 35	2. 30	·0895	12. 26	{ ·01217			
	***	3. 39	·0881						7. 23	20. 35	2. 51	·0903	12. 43	{ ·01280			
4. 26	29. 40	3. 52	·0874						7. 40	21. 20	3. 13	·0897	20. 28	{ ·01749			
4. 47	26. 30		***						7. 54	13. 30	4. 0	·0898	23. 59	{ ·01742			
5. 7	28. 10	4. 45	·0881						8. 20	15. 30	4. 18	·0903					
5. 45	10. 30	5. 10	·0857						8. 45	13. 10	4. 40	·0900					
6. 2	20. 0	5. 15	·0859						8. 10	16. 30	5. 16	·0903					
6. 22	14. 45	5. 19	·0853						9. 10	19. 0	5. 52	·0895					
7. 5	21. 20	5. 44	·0891						9. 43	15. 30	6. 36	·0900					
7. 26	18. 30	6. 0	·0871						9. 52	17. 20	7. 5	·0894					
7. 45	20. 20	6. 14	·0883						10. 6	16. 0	7. 27	·0897					
8. 10	19. 0	6. 40	·0878						10. 20	18. 30	7. 50	·0913					
8. 21	20. 40	6. 57	·0887						10. 40	18. 0	8. 6	·0908					
8. 50	15. 30	7. 13	·0881						11. 10	5. 45	8. 28	·0915					
9. 4	19. 5	7. 21	·0887						11. 30	5. 30	8. 43	·0909					
9. 10	17. 45	7. 58	·0882						12. 4	20. 25	8. 54	·0914					
9. 20	20. 35	9. 0	·0890							***	9. 59	·0902					
9. 47	18. 0	9. 28	·0898						12. 53	24. 30	10. 12	·0908					
10. 15	21. 0	9. 43	·0895						13. 7	21. 20	10. 40	·0900					
	***	9. 58	·0899						13. 32	20. 45	10. 45	·0918					
10. 47	17. 30	11. 22	·0893						13. 40	23. 20	11. 14	·0913					
	***	12. 13	·0899						13. 47	23. 0	11. 50	·0872					
12. 17	22. 5	12. 52	·0897						14. 10	27. 30	12. 11	·0889					
13. 2	21. 30	13. 11	·0890						14. 37	22. 30	12. 36	·0871					
13. 42	30. 0	13. 40	·0906							***	12. 51	·0891					
	***	14. 7	·0904						15. 21	19. 10	13. 1	·0887					
14. 22	23. 40	14. 36	·0911						16. 10	18. 20	13. 40	·0901					
14. 43	23. 0	15. 26	·0892						17. 8	26. 5	13. 51	·0897					
14. 54	21. 30	15. 57	·0900						17. 20	24. 30	15. 29	·0909					
	***									***	15. 50	·0918					

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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. 14 18. 16 18. 36 18. 56 19. 33 20. 21 20. 50 22. 20 22. 42 22. 50 23. 3 23. 59	21. 30. 0 27. 20 28. 10 20. 0 *** 28. 20 *** 25. 25 *** 30. 0 34. 30 33. 20 36. 30 35. 30	Sept. 14 16. 0 17. 15 17. 52 18. 30 18. 54 19. 18 19. 48 20. 3 20. 31 20. 54 22. 15 22. 37 23. 3 23. 59	.0915 .0924 .0897 .0885 .0904 .0888 .0877 .0877 .0884 .0880 .0884 .0860 .0867 .0860 .0877															
Sept. 15 0. 0 0. 15 1. 25 2. 26 2. 42 5. 10 5. 47 6. 36 8. 26 17. 25 19. 47 21. 6 21. 40 22. 26 23. 50 23. 59	21. 35. 30 36. 30 34. 20 28. 30 30. 20 21. 20 21. 30 17. 50 21. 30 18. 35 *** 15. 30 17. 30 20. 20 21. 30 31. 25 30. 0	Sept. 15 0. 0 0. 20 0. 33 0. 50 1. 12 1. 37 2. 15 2. 22 2. 36 3. 11 3. 39 5. 43 6. 15 6. 33 13. 28 14. 26 17. 23 18. 30 21. 52 22. 40 23. 15 23. 43 23. 59	.0877 .0876 .0882 .0878 .0881 .0873 .0888 .0883 .0891 .0875 .0885 .0896 .0885 .0895 .0905 .0904 .0910 .0907 .0878 .0880 .0873 .0875 .0863		.01742 .01643 .01196 .01688 .01712 .01763 .01754	Sept. 15 1. 0 3. 0 9. 0 21. 0	59.0 61.2 61.7 57.0	60.0 62.3 62.8 58.0										
Sept. 16 0. 0 0. 10 0. 52 1. 18 2. 6 4. 15 4. 40 5. 3 5. 38 6. 0 6. 10 6. 22 6. 58	21. 29. 55 28. 30 31. 30 30. 25 *** 32. 10 *** 29. 20 25. 30 27. 0 22. 35 22. 40 21. 20 24. 10 21. 0	Sept. 16 0. 0 1. 4 6. 47 13. 41 19. 57 23. 59	.0863 .0873 .0870 *** .0879 .0895 .0886 .0895 .0881 .0880 .0871 .0885 .0877 .0892		.01754 .01726 .01071 .01182 .01523 .01566	Sept. 16 1. 0 3. 0 9. 0 21. 0	61.0 63.5 64.0 60.0	62.0 64.8 65.3 61.0										
Sept. 16 7. 10 7. 46 8. 15 8. 36 9. 37 10. 28 11. 4 11. 32 12. 4 12. 27 13. 15 13. 47 14. 6 14. 37 15. 26 15. 50 17. 28 17. 51 18. 7 18. 29 18. 45 19. 10 19. 50 20. 13 20. 47 21. 3 21. 20 21. 40 22. 6 23. 15 23. 59	21. 22. 5 21. 50 16. 30 21. 20 23. 20 29. 45 19. 20 29. 30 24. 10 23. 25 16. 45 20. 20 19. 20 23. 20 18. 25 22. 10 *** 17. 39 19. 10 20. 20 19. 30 20. 25 20. 15 22. 30 22. 20 26. 25 24. 5 24. 45 24. 0 25. 10 24. 25 29. 40 30. 45	Sept. 16 7. 5 7. 33 7. 43 7. 52 8. 16 8. 39 9. 37 10. 9 10. 37 10. 57 11. 15 12. 42 12. 17 13. 44 14. 14 17. 39 18. 38 19. 0 20. 26 21. 21 22. 45 23. 59	.0887 .0891 .0901 .0891 .0909 .0895 .0903 .0900 .0906 .0900 .0911 .0898 .0901 .0895 .0898 .0887 .0904 .0891 .0895 .0877 .0885 .0867 .0870															
Sept. 17 0. 0 1. 7 2. 20 3. 57 4. 25 6. 47 7. 20 7. 54 8. 15 8. 28 9. 37 10. 6 11. 32 11. 57 12. 32 12. 45 13. 8 14. 7 15. 0 15. 13 15. 27 15. 56	21. 30. 45 31. 35 30. 0 24. 5 20. 30 18. 30 5. 0 18. 30 18. 30 19. 45 *** 20. 25 17. 0 *** 16. 10 35. 0 16. 30 17. 30 14. 25 12. 30 15. 25 14. 30 17. 15 25. 30 ***	Sept. 17 0. 0 2. 45 4. 54 7. 33 11. 45 12. 6 20. 3 22. 57 23. 59	.0870 .0866 .0873 .0870 .0871 .0877 .0881 .0875 .0907 .0886 .0883 .0887 .0879 .0884 .0885 .0881 .0911 .0886 .0896 .0884 .0899 .0903 .0897 .0900															
Sept. 17 0. 0 1. 7 2. 20 3. 57 4. 25 6. 47 7. 20 7. 54 8. 15 8. 28 9. 37 10. 6 11. 32 11. 57 12. 32 12. 45 13. 8 14. 7 15. 0 15. 13 15. 27 15. 56	21. 30. 45 31. 35 30. 0 24. 5 20. 30 18. 30 5. 0 18. 30 18. 30 19. 45 *** 20. 25 17. 0 *** 16. 10 35. 0 16. 30 17. 30 14. 25 12. 30 15. 25 14. 30 17. 15 25. 30 ***	Sept. 17 1. 0 3. 0 9. 0 22. 40	.01566 .01356 .01120 .01167 .01300 .01438 .01357 .02185 .02002 .01960 .01952															
Sept. 17 0. 0 1. 7 2. 20 3. 57 4. 25 6. 47 7. 20 7. 54 8. 15 8. 28 9. 37 10. 6 11. 32 11. 57 12. 32 12. 45 13. 8 14. 7 15. 0 15. 13 15. 27 15. 56	21. 30. 45 31. 35 30. 0 24. 5 20. 30 18. 30 5. 0 18. 30 18. 30 19. 45 *** 20. 25 17. 0 *** 16. 10 35. 0 16. 30 17. 30 14. 25 12. 30 15. 25 14. 30 17. 15 25. 30 ***	Sept. 17 1. 0 3. 0 9. 0 22. 40	.63.0 .64.5 .62.8 .56.0															

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.
Sept. 17 18. 4	21. 18. 30 ***	Sept. 17 15. 57 16. 29	.0896 .0907	h h		h h	o o		Sept. 20 11. 28	21. 21. 20	Sept. 20 4. 13	.0896	h h	h h	o o		
19. 10	17. 20	17. 12	.0911						11. 40	19. 0	4. 50	.0903					
19. 26	14. 30	17. 40	.0902						12. 6	17. 25	5. 40	.0899					
19. 36	17. 30	19. 24	.0897						13. 0	20. 10	6. 0	.0902					
20. 39	17. 0 ***	19. 36	.0900						13. 33	18. 0	8. 12	.0903					
22. 23	28. 25	20. 0	.0892						14. 5	22. 5	11. 45	.0913					
23. 17	25. 0	20. 40	.0891						14. 40	20. 5	12. 32	.0911					
23. 59	27. 35	21. 48	.0863						15. 26	21. 35	13. 6	.0913					
		22. 7	.0858						19. 50	17. 0	13. 37	.0907					
		22. 18	.0865						20. 15	15. 15	15. 22	.0912					
		22. 45	.0865						20. 34	16. 50	16. 12	.0921					
		23. 59	.0880						20. 46	16. 10	17. 25	.0926					
									23. 22	24. 30	18. 18	.0925					
									23. 59	29. 0	21. 21	.0909					
											22. 13	.0897					
											22. 54	.0882					
											23. 45	.0892					
											23. 59	.0885					
Sept. 18 0. 0	21. 27. 35	Sept. 18 0. 0	.0880	0. 0	.01952	Sept. 18 6. 52	62. 63	.0		Sept. 21 0. 0	21. 28. 55	Sept. 21 0. 0	.0885	Sept. 21 0. 0	Sept. 21 1. 0	61. 62	.0
0. 30	33. 45	0. 30	.0883	4. 40	.01601	21. 0	59. 8	.61		0. 15	28. 30	0. 18	.0883	1. 10	3. 0	62. 5	.64
1. 10	30. 0 ***	1. 13	.0867	10. 4	.01230					1. 24	31. 25	0. 49	.0889	8. 30	9. 0	59. 0	61. 0
3. 24	27. 10	2. 1	.0880	12. 47	.01271					3. 48	***	1. 6	.0897	18. 26	21. 0	55. 0	56. 0
4. 7	23. 30	3. 15	.0891	13. 15	.01232					4. 27	27. 0	2. 42	.0903	{ .02390 .02356 .02057			
5. 23	22. 25	4. 5	.0883	19. 53	.01551				4. 56	23. 35	2. 46	.0907					
6. 24	18. 0	6. 39	.0891	(†)					9. 20	20. 5	3. 15	.0899					
6. 37	18. 40	6. 55	.0904						13. 50	21. 45	3. 45	.0903					
6. 56	15. 30	7. 36	.0891						14. 18	21. 30	7. 0	.0908					
7. 17	21. 30	7. 40	.0887						15. 15	24. 25	8. 30	.0906					
7. 50	19. 35 ***	9. 22	.0906						18. 27	20. 15	13. 13	.0920					
8. 34	21. 20	10. 21	.0883						19. 40	***	14. 6	.0918					
9. 26	15. 30	10. 43	.0889						20. 45	20. 20	14. 45	.0926					
9. 50	19. 35	11. 37	.0895						21. 37	16. 0	15. 21	.0925					
10. 0	18. 25	12. 30	.0896						20. 45	17. 50	17. 5	.0931					
10. 17	21. 20	13. 0	.0912						21. 37	21. 35	18. 42	.0927					
10. 50	17. 5 ***	13. 43	.0908						22. 3	22. 0	22. 40	.0888					
12. 5	19. 30	14. 51	.0899						23. 59	28. 20	23. 59	.0888					
12. 57	28. 0	17. 52	.0911														
14. 2	18. 30 ***	19. 45	.0899														
17. 6	20. 45 ***	21. 40	.0871														
20. 26	17. 25	22. 24	.0865														
22. 24	25. 20	23. 6	.0867		(†)												
23. 3	26. 35 (†)																
Sept. 19 1. 0	21. 27. 59*	Sept. 19 1. 0	.0867*	1. 0	.01356*	Sept. 19 1. 0	63. 64	.0		Sept. 22 0. 0	21. 28. 20	Sept. 22 0. 0	.0888	Sept. 22 0. 0	Sept. 22 1. 0	59. 60	.0
3. 0	26. 26*	3. 0	.0879*	3. 0	.01107*	3. 0	65. 66	.0		1. 20	32. 5	1. 20	.0895	8. 4	3. 0	61. 62	.0
9. 0	16. 36*	9. 0	.0887*	9. 0	.01503*	9. 0	64. 65	.8		5. 10	23. 5	2. 6	.0889	20. 7	9. 0	61. 62	.0
21. 0	17. 46*	21. 0	.0887*	21. 0	.00990*	21. 0	56. 57	.0		12. 57	20. 20 ***	2. 50	.0891	22. 46	21. 0	57. 58	.0
										14. 7	20. 0 ***	3. 45	.0903	23. 59			
										15. 5	7. 17	4. 30	.0902				
										16. 20	18. 50	7. 17	.0913				
										17. 20	17. 55	8. 43	.0913				
											***	9. 53	.0920				
											20. 0	11. 40	.0917				
											***	12. 19	.0922				
											20. 0	12. 45	.0920				
											20. 43	14. 0	.0922				
											23. 21	16. 35	.0928				
											23. 59	14. 14	.0925				
												27. 15	.0925				
												18. 11	.0931				
												19. 15	.0930				
												21. 55	.0910				

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.

September 19. The Photographic Traces of the Declination, Horizontal Force, and Vertical Force Magnets were 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.
		Sept. 22 22. 45 23. 49 23. 59	.0910 .0900 .0901								Sept. 24 12. 43 13. 10 13. 32 14. 15						
		Sept. 23 0. 0 1. 36 4. 43 9. 52 18. 0 19. 57 21. 4 22. 6 22. 13 22. 26 23. 59	21. 28. 5 27. 10 20. 40 20. 30 17. 25 14. 10 16. 20 19. 40 22. 10 21. 5 22. 43 23. 45 23. 59	Sept. 23 0. 0 1. 15 2. 15 4. 25 8. 49 15. 19 16. 20 18. 36 21. 40 22. 13 22. 43 23. 45 23. 59	.0901 .0909 .0902 .0903 *** .0921 .0925 .0920 *** .0920 *** .0881 .0885 .0875 .0869 .0880	Sept. 23 0. 0 1. 20 5. 21 7. 36 10. 37 21. 57 23. 59	.01800 .01641 .01213 .01421 .01542 .01687 .01618	Sept. 23 1. 0 3. 0 9. 0 21. 0	62.5 63.5 65.3 65.5 67.0 67.5	Sept. 24 12. 43 13. 10 13. 32 14. 15 14. 44 14. 50 15. 4 15. 10 15. 36 15. 50 16. 7 16. 24 16. 40 17. 4 19. 13 20. 26 22. 10 23. 9 23. 54 23. 59	21. 6. 30 21. 9. 20 20. 58. 0 21. 17. 35 17. 0 19. 0 17. 10 18. 10 17. 30 13. 35 17. 40 16. 10 17. 40 16. 20 17. 50 16. 10 19. 20 24. 30 26. 40 26. 50	Sept. 24 14. 14 15. 44 18. 5 21. 14 22. 15 22. 49 22. 56 23. 22 23. 36 23. 59	.0879 *** .0895 *** .0897 *** .0875 .0855 .0871 .0856 .0867 .0861 .0869				
		Sept. 24 0. 0 0. 33 0. 47 1. 33 2. 8 3. 0 3. 10 3. 24 3. 36 3. 58 5. 15 5. 50 6. 24 6. 40 6. 50 7. 7 7. 20 7. 40 8. 5 8. 39 9. 0 9. 18 9. 27 9. 53 10. 2 10. 15 11. 40 12. 6 12. 13 12. 32	21. 28. 20 28. 30 35. 35 33. 0 34. 10 28. 30 30. 0 28. 20 29. 30 27. 40 26. 40 35. 35 26. 30 26. 15 27. 10 24. 30 25. 10 22. 35 26. 10 18. 30 20. 10 15. 30 21. 18. 40 20. 54. 50 21. 5. 0 3. 10 17. 5 12. 25 15. 40 3. 5	Sept. 24 0. 0 0. 10 0. 27 0. 43 1. 30 1. 59 2. 28 2. 58 3. 45 3. 58 4. 19 4. 55 5. 28 5. 43 5. 46 6. 12 6. 45 7. 25 7. 44 8. 12 8. 42 9. 6 9. 28 9. 51 10. 4 10. 12 10. 37 11. 44 12. 15 12. 45 13. 15 13. 43	.0880 .0879 .0885 .0907 .0884 .0883 .0873 .0871 .0891 .0888 .0892 .0886 .0900 .0887 .0892 .0864 .0876 *** .0867 .0873 .0862 .0872 .0868 .0831 .0880 .0861 *** .0880 *** .0866 .0901 .0842 .0887	Sept. 24 0. 0 1. 9 7. 36 9. 20 9. 33 9. 48 10. 3 12. 46 13. 10 13. 38 20. 38 23. 59	.01618 .01583 .02500 .02557 .02462 .02537 .02471 .02521 .02460 .02577 .03057 .03057	Sept. 24 1. 0 3. 0 9. 0 22. 0	70.0 70.2 72.3 72.5 73.0 73.6 67.0 68.0	Sept. 25 0. 0 0. 7 0. 18 0. 32 0. 50 1. 21 2. 10 3. 11 3. 26 4. 13 4. 40 6. 42 7. 15 7. 53 8. 34 9. 30 10. 28 10. 45 11. 13	21. 26. 50 26. 30 29. 5 29. 5 33. 10 28. 0 28. 25 25. 30 26. 30 26. 20 26. 20 22. 20 19. 30 22. 30 18. 35 22. 30 17. 20 20. 0 21. 5	Sept. 25 0. 0 1. 56 7. 18 17. 4 21. 33 23. 59	.0869 .0867 .0874 .0882 .0868 .0881 .0874 .0874 .0879 .0880 .0887 .0873 .0881 .0890 .0895 .0904 .0905 .0894 .0906 .0903 .0907 .0898 .0906 .0900 .0909 .0904 .0922 .0900	Sept. 25 6. 40 21. 0	68.2 63.0 69.3 64.0		

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.
Sept. 25 12. 15 12. 53 13. 40 14. 17 14. 46 14. 50 15. 9 15. 37 15. 56 16. 43 17. 3 17. 50 18. 52 19. 0 19. 5 19. 23 19. 40 20. 50 22. 26 23. 59	21. 17. 30 18. 20 16. 30 19. 30 18. 0 19. 20 19. 20 18. 5 20. 25 18. 10 21. 25 18. 0 21. 5 19. 30 17. 10 20. 0 16. 50 18. 45 18. 20 22. 10 28. 20	Sept. 25 12. 30 13. 0 18. 0 20. 15 22. 52 23. 59	.0907 *** .0904 .0895 .0871 .0868														
Sept. 26 0. 0 0. 25 0. 28 0. 36 3. 40 4. 10 4. 20 4. 37 5. 20 5. 45 8. 26 8. 57 9. 11 9. 30 10. 2 10. 10 10. 33 11. 6 11. 15 11. 47 12. 15 13. 17 14. 40 15. 37 16. 41 16. 57 20. 26 20. 42 21. 10	21. 28. 20 26. 35 25. 50 28. 0 24. 0 21. 50 22. 30 21. 20 21. 10 22. 0 21. 30 20. 0 20. 10 16. 15 15. 20 16. 5 13. 0 17. 0 16. 30 18. 0 15. 10 20. 0 17. 40 19. 5 18. 30 20. 10 19. 30 18. 10 18. 35	Sept. 26 0. 0 3. 7 3. 47 4. 25 7. 21 8. 7 8. 54 9. 30 10. 7 10. 30 11. 7 11. 24 11. 48 12. 11 12. 15 16. 5 13. 33 17. 51 19. 13 19. 44 21. 51 22. 5 22. 38 23. 59	.0868 *** .0885 .0891 .0901 .0913 .0909 .0919 .0908 .0921 .0912 .0904 .0909 .0906 .0909 .0907 .0915 .0905 .0906 .0895 .0895 .0864 .0869 .0860 .0883	Sept. 26 0. 0 7. 26 16. 4 18. 50 21. 59 23. 59	.03392 .03241 .03383 {.03501 .03463 .03354 .03220 .02693	Sept. 26 1. 0 3. 0 9. 0 21. 0	65.0 65.3 66.0 63.2										
Sept. 26 22. 6 22. 30 23. 33 23. 59 Sept. 27 0. 0 1. 4 2. 0 5. 20 6. 22 7. 21 7. 56 8. 23 8. 43 8. 58 9. 36 9. 54 10. 7 10. 38 10. 52 11. 12 11. 40 11. 48 11. 57 12. 6 12. 48 13. 9 13. 26 13. 53 14. 20 14. 37 15. 7 15. 36 16. 4 16. 38 16. 58 18. 6 18. 46 19. 57 20. 32 21. 11 21. 36 22. 52 23. 30 23. 45 23. 54 23. 59 Sept. 28 0. 0 0. 40 1. 37	21. 28. 25 28. 10 24. 0 27. 10 21. 27. 10 28. 30 28. 35 20. 0 20. 5 11. 40 15. 35 14. 15 15. 30 14. 0 16. 20 14. 5 15. 35 11. 50 16. 30 15. 0 17. 0 15. 30 17. 30 16. 0 19. 20 15. 20 17. 20 14. 28 15. 0 16. 45 15. 50 8. 50 13. 40 15. 40 21. 45 24. 0 17. 40 18. 35 17. 20 18. 25 22. 35 22. 20 28. 25 29. 25 31. 40 29. 50 31. 30 21. 31. 35 32. 25 30. 20	Sept. 27 0. 0 1. 3 1. 49 2. 57 7. 0 7. 21 8. 15 9. 43 9. 50 10. 0 10. 29 10. 52 11. 12 11. 45 12. 12 12. 44 13. 21 13. 37 13. 57 14. 11 14. 28 14. 54 15. 10 15. 36 16. 50 17. 14 17. 35 18. 54 19. 11 20. 45 21. 28 22. 51 23. 0 23. 59	.0883 .0887 .0882 .0882 *** .0900 .0907 .0898 *** .0906 .0900 .0909 .0888 .0911 .0897 *** .0892 .0911 .0903 .0907 .0902 .0912 .0908 .0912 .0902 .0904 .0898 .0897 .0904 .0899 .0894 .0897 .0892 .0872 .0879 .0872 .0872	Sept. 27 0. 0 9. 15 21. 3 23. 16 23. 59	.02693 .02384 .02769 .02738 .02683	Sept. 27 1. 0 3. 0 9. 0 21. 0	63.0 64.0 64.5 62.5										
Sept. 28 0. 0 0. 40 1. 37	21. 31. 35 32. 25 30. 20	Sept. 28 0. 0 7. 50 14. 3 19. 4	.0872 .0881 .0865 ***	Sept. 28 0. 0 7. 50 14. 3 19. 4	.02683 .02241 .02286 .02460	Sept. 28 1. 0 3. 0 9. 0 21. 0	64.0 65.8 66.4 61.3										

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.

Greenwich Mean Solar Time.	Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for 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. 28		Sept. 28		Sept. 28					Sept. 30		Sept. 30		Sept. 30		Sept. 30		
2. 15	21. 32. 30 ***	2. 19	.0876	21. 58	.02663				0. 0	21. 27. 0	(†)	0. 0	.03029	1. 0	61. 0	61. 8	
2. 56	31. 30	2. 50	.0869	23. 59	.02658				2. 10	30. 10	.0900*	4. 15	.02961	3. 0	62. 0	63. 0	
3. 22	28. 35	3. 15	.0872						3. 37	24. 45	.0909	11. 10	.02700	9. 0	63. 0	64. 0	
3. 30	29. 30	3. 29	.0882						5. 20	21. 30	.0909	20. 50	.02796	21. 0	62. 0	63. 5	
3. 59	27. 5	4. 11	.0870						5. 40	18. 25	.0916		.02540				
4. 20	27. 20	4. 44	.0877						6. 15	20. 40	.0911	23. 59	.02566				
4. 50	23. 30	4. 57	.0871						9. 20	19. 0	.0918						
5. 10	20. 40	5. 14	.0885						9. 48	19. 30	.0921						
5. 29	22. 20	5. 36	.0882						10. 0	15. 0	.0942						
6. 9	21. 25	6. 40	.0885						10. 22	17. 5	.0938						
6. 50	14. 20	6. 55	.0896						10. 43	20. 40	.0913						
7. 15	16. 30	7. 15	.0921						11. 15	19. 0	.0919						
7. 30	23. 0	7. 33	.0887						11. 49	15. 55	.0917						
7. 48	12. 10	7. 55	.0902						12. 30	18. 0	.0922						
8. 26	15. 45	8. 22	.0887						13. 0	17. 5	.0912						
8. 40	16. 20	8. 40	.0885						15. 33	19. 35	.0909						
8. 54	13. 30	8. 49	.0891						16. 3	19. 30	.0911						
9. 47	14. 25	9. 42	.0883						16. 13	20. 40	.0917						
10. 3	6. 40	10. 10	.0912						16. 33	18. 5	.0916						
10. 20	9. 0	10. 50	.0876						16. 56	17. 35	.0902						
10. 28	7. 30	11. 16	.0888						17. 15	18. 10	.0919						
10. 47	10. 0	11. 54	.0885						18. 22	16. 35	.0895						
11. 6	9. 20	13. 22	.0889						18. 56	18. 30	.0880						
11. 45	14. 0	13. 45	.0885						19. 6	17. 10	.0887						
13. 38	10. 45	18. 58	.0895						19. 22	20. 45	.0890						
14. 37	17. 0	21. 40	.0871						19. 29	19. 5							
17. 15	19. 20	23. 0	.0865						19. 33	20. 30							
19. 10	16. 45	23. 59	.0869						19. 40	17. 20							
19. 52	15. 10								19. 47	20. 0							
21. 3	16. 30								20. 0	17. 20							
21. 28	17. 35								20. 17	14. 30							
21. 50	17. 30								20. 33	16. 45							
22. 39	22. 0								21. 14	16. 0							
23. 59	23. 45								22. 43	22. 35							
									23. 7	21. 50							
									23. 59	25. 45							
Sept. 29		Sept. 29		Sept. 29		Sept. 29			Oct. 1		Oct. 1		Oct. 1		Oct. 1		
0. 0	21. 23. 45	0. 0	.0869	0. 0	.02658	1. 0	62. 8	63. 6	0. 0	21. 25. 45	.0890	0. 0	.02566	1. 0	64. 8	66. 0	
0. 53	27. 40	1. 39	.0881	2. 17	.02526	3. 0	64. 0	65. 0	0. 36	27. 15	.0891	1. 5	.02537	3. 0	66. 5	67. 8	
1. 56	28. 5	3. 50	.0880	5. 6	.02260	9. 0	62. 5	63. 8	0. 54	29. 30	.0898	1. 50	.02606	9. 0	65. 7	67. 0	
7. 0	20. 0	5. 21	.0885	7. 6	.02308	21. 0	59. 0	60. 0	1. 47	29. 45	.0898	2. 25	.02639	22. 30	60. 5	63. 0	
7. 20	18. 5	5. 52	.0893	12. 28	.02404				1. 57	31. 50	.0906	3. 46	.02742				
7. 47	18. 30	6. 59	.0897	22. 14	.02551				2. 0	29. 35	.0895	6. 53	.02836				
8. 37	15. 45	7. 12	.0889	23. 59	.03043				2. 13	29. 10	***	7. 30	.02823				
9. 7	18. 40	7. 21	.0893		.03029				2. 27	30. 0	.0900	7. 49	.03520				
10. 6	16. 10	8. 30	.0886						3. 46	26. 40	.0916	8. 36	.03561				
10. 40	22. 20	9. 39	.0901						4. 4	29. 30	.0910	9. 4	.03653				
11. 20	17. 0	10. 14	.0898						4. 16	27. 35	***	11. 8	.03539				
11. 43	16. 10	10. 22	.0904						5. 30	27. 10	.0909	11. 45	.03580				
13. 10	19. 25	10. 30	.0902						5. 51	29. 20	.0897	12. 0	.03702				
13. 40	18. 30	10. 39	.0909						6. 15	27. 50	.0913		***				
17. 52	18. 40	12. 44	.0903						6. 32	29. 30	.0897						
20. 20	13. 20	18. 52	.0913						6. 57	26. 0	.0907						
21. 26	15. 10	21. 32	.0890						7. 7	30. 0	.0902						
23. 59	27. 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. 1		Oct. 1		Oct. 1					Oct. 2		Oct. 2						
7. 37	21. 29. 40	8. 4	·0907	12. 13	·03590				6. 3	21. 30. 30	6. 12	·0869					
7. 56	18. 0	8. 13	·0884	21. 3	·03918				6. 24	23. 20	6. 22	·0875					
8. 10	27. 40	8. 28	·0908	23. 59	·03918					***	6. 34	·0869					
8. 22	16. 10	8. 44	·0887						6. 53	20. 10	6. 46	·0876					
8. 40	23. 0	9. 20	·0867						7. 30	12. 20	7. 10	·0869					
8. 51	20. 0	9. 30	·0885						7. 40	14. 0	7. 20	·0873					
9. 19	17. 0	9. 40	·0871						8. 9	6. 0	7. 28	·0866					
9. 30	11. 10	10. 0	·0877						8. 37	16. 50	7. 39	·0874					
9. 40	17. 0	10. 15	·0868							***	7. 49	·0851					
9. 46	12. 30	10. 20	·0878						9. 10	11. 30	8. 22	·0874					
10. 2	21. 14. 30	10. 43	·0859						9. 32	18. 50	8. 44	·0856					
10. 50	20. 56. 45	11. 10	·0854						10. 4	7. 45	9. 10	·0897					
11. 6	21. 2. 0	11. 21	·0840						10. 15	3. 0	9. 40	·0854					
11. 22	20. 56. 35	11. 28	·0847						10. 37	9. 50	10. 4	·0877					
11. 43	21. 4. 35	11. 42	·0847						10. 43	6. 45	10. 10	·0874					
	(†)	11. 50	·0857						10. 52	10. 30	10. 28	·0885					
12. 47	12. 0	11. 54	·0845						11. 5	9. 25	10. 37	·0867					
12. 52	16. 5	12. 12	·0918						11. 20	11. 30	10. 47	·0878					
13. 6	12. 25	12. 25	·0896						11. 51	3. 25	10. 54	·0876					
13. 27	19. 10	12. 40	·0900						12. 9	4. 10	11. 11	·0888					
	***	12. 54	·0872						12. 15	8. 35	11. 39	·0887					
14. 9	20. 35	13. 11	·0881						12. 23	8. 50	11. 50	·0874					
14. 20	19. 10	14. 13	·0881						12. 26	11. 20	11. 56	·0878					
14. 26	21. 50	14. 22	·0887						12. 40	10. 30	12. 0	·0873					
14. 43	19. 25	14. 43	·0883						13. 0	22. 0	12. 9	·0877					
15. 4	20. 30	15. 27	·0891							***	12. 27	·0867					
15. 30	19. 35	18. 0	·0888						13. 18	18. 5	12. 43	·0878					
	***	19. 13	·0894						13. 30	19. 0	12. 54	·0876					
21. 11	17. 50	21. 45	·0871						13. 42	16. 30	13. 13	·0887					
	***	21. 59	·0873							***	14. 30	·0884					
22. 6	19. 50	22. 15	·0867						14. 33	19. 20	15. 24	·0895					
22. 21	18. 25	22. 28	·0870							***	15. 38	·0889					
22. 40	21. 20	22. 41	·0866						14. 50	17. 0	15. 49	·0895					
22. 57	21. 20	23. 9	·0869							***	16. 40	·0882					
23. 20	24. 20	23. 20	·0865						15. 10	18. 35	19. 12	·0892					
23. 59	25. 10	23. 30	·0866						15. 20	16. 20	22. 18	·0873					
		23. 45	·0859							***	22. 29	·0881					
		23. 59	·0867						15. 52	20. 35	22. 43	·0872					
									16. 10	19. 30	23. 59	·0853					
									16. 23	21. 30							
									16. 28	18. 15							
									16. 33	21. 30							

									18. 57	18. 10							
									19. 10	16. 10							
									19. 20	18. 0							

									20. 53	17. 5							
									21. 37	20. 25							
									21. 54	20. 10							
									22. 9	21. 50							
									22. 26	20. 40							
									22. 37	23. 30							
									22. 48	22. 25							

									23. 47	29. 0							
									23. 59	28. 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.									
Oct. 3 0. 0 0. 10 0. 28 1. 17 1. 50 2. 4 2. 29 2. 54 3. 18 6. 27 6. 47 7. 9 7. 13 7. 42 7. 56 8. 30 8. 49 8. 57 9. 15 9. 49 10. 21 10. 52 11. 50 12. 33 13. 8 14. 50 15. 37 16. 50 17. 53 19. 47 20. 18 20. 56 22. 0 23. 15 23. 37 23. 59	21. 28. 20 28. 25 30. 0 28. 25 27. 0 23. 20 26. 20 24. 40 25. 0 19. 15 10. 30 15. 25 13. 40 19. 30 18. 30 9. 40 11. 15 14. 25 13. 30 18. 0 19. 20 17. 0 18. 15 21. 25 19. 45 19. 50 22. 10 20. 0 21. 20 18. 30 18. 50 23. 5 20. 30 25. 10 23. 45 25. 25	Oct. 3 0. 0 0. 50 1. 55 2. 22 2. 45 6. 20 7. 9 7. 21 7. 39 7. 51 8. 21 9. 3 10. 7 10. 36 11. 30 12. 19 15. 30 16. 15 17. 6 17. 33 18. 10 20. 0 20. 14 23. 33 23. 46 (†)	0.853 0.865 0.861 0.885 0.877 0.881 0.914 0.899 0.900 0.885 0.887 0.901 0.896 0.898 0.895 0.899 0.897 0.905 0.903 0.897 0.905 0.895 0.896 0.851 0.854 (†)	Oct. 3 0. 0 1. 40 8. 50 14. 42 18. 43 23. 59	0.3911 0.3846 0.1903 0.1862 0.2069 0.2318 0.2263	Oct. 3 1. 0 3. 0 9. 0 21. 0	67.0 69.0 66.0 64.0	68.0 70.0 67.0 66.0	Oct. 4 0. 0 0. 30 2. 20 2. 45 3. 37 3. 58 4. 18 4. 40 4. 54 5. 20 5. 45 6. 0 6. 15 6. 34 6. 44 7. 10 7. 56 8. 15 9. 54	21. 25. 25 27. 30 *** 25. 25 28. 20 28. 5 25. 40 5. 0 13. 30 13. 20 18. 20 20. 0 18. 0 8. 10 19. 20 14. 30 21. 25 16. 30 17. 45 17. 50	Oct. 4 0. 49 1. 10 2. 7 3. 26 4. 4 4. 26 5. 28 5. 38 6. 0 6. 22 6. 40 6. 49 7. 0 7. 17 7. 42 9. 30 9. 51	(†) 0.859 0.865 0.845 0.854 0.836 0.897 0.871 0.874 0.865 0.867 0.853 0.899 0.871 0.882 0.871 0.864 0.860 0.876 0.882	Oct. 4 1. 32 3. 0 4. 26 7. 31 10. 32 10. 57 18. 15 23. 59	0.2263 0.2197 0.1843 0.1930 0.1841 0.1877 0.1836 0.2396 0.2360	Oct. 4 1. 0 3. 0 9. 0 21. 0	69.0 72.5 72.3 64.0	70.2 73.8 73.3 66.0	Oct. 4 0. 0 0. 30 2. 20 2. 45 3. 37 3. 58 4. 18 4. 40 4. 54 5. 20 5. 45 6. 0 6. 15 6. 34 6. 44 7. 10 7. 56 8. 15 9. 54	21. 24. 30 25. 30 29. 25 ***	Oct. 6 0. 0 0. 40 1. 20	0.877 0.876 0.881	Oct. 6 0. 0 1. 15 4. 26	0.2122 0.2130 0.1771	Oct. 6 1. 0 3. 0 9. 0	66.5 68.0 68.0	68.0 69.8 69.0

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

VERTICAL FORCE.—October 3^d. 1^h. Mr. Glaisher altered the adjustments, so that the scale-reading was diminished by 16^{div}.65, or by 0.02437 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.
Oct. 6 2. 9	21. 26. 35 ***	Oct. 6 1. 54	.0872	Oct. 6 5. 34	{ .01782	Oct. 6 21. 0	66. 0	67. 8	Oct. 7 23. 45		Oct. 7 23. 59	.0888					
3. 6	27. 10	3. 19	.0879	6. 21	.01877				Oct. 8 0. 0	21. 25. 35	Oct. 8 0. 0	.0895	Oct. 8 0. 0	.02396	Oct. 8 1. 0	65. 0	66. 0
3. 20	25. 30	3. 42	.0886	11. 36	.01793				0. 30	27. 25	2. 5	.0893	2. 43	.02400	3. 0	66. 0	67. 5
3. 54	25. 5	4. 40	.0883	16. 3	.01856				3. 18	26. 35	3. 21	.0903	9. 7	.02018	9. 0	66. 5	67. 8
4. 47	21. 20	5. 3	.0888	22. 0	.02010				5. 30	22. 40	3. 45	.0901	16. 46	.02461	22. 38	60. 4	61. 8
5. 13	21. 30	6. 19	.0889	23. 59	.02124				7. 42	22. 10	5. 21	.0906	23. 59	.02410			
6. 15	18. 30	6. 38	.0894		.02120				8. 37	19. 20	6. 8	.0910					
6. 40	20. 25	6. 58	.0887						9. 18	21. 30	7. 40	.0908					
8. 52	15. 10	7. 39	.0894						18. 30	18. 45	8. 2	.0905					
9. 20	17. 5	8. 28	.0891						20. 26	17. 25	8. 30	.0909					
9. 51	14. 10	9. 19	.0911						22. 2	20. 0	13. 52	.0914					
10. 20	13. 0	9. 51	.0897						23. 59	29. 15	18. 10	.0920					
10. 45	19. 0	10. 14	.0901								21. 12	.0900					
11. 33	6. 25	10. 22	.0899								23. 27	.0898					
12. 51	14. 20	10. 45	.0905								23. 59	.0897					
14. 57	18. 10	11. 11	.0897						Oct. 9 0. 0	21. 29. 15	Oct. 9 0. 0	.0897	Oct. 9 0. 0	.02410	Oct. 9 8. 27	64. 8	66. 2
15. 8	17. 30	12. 7	.0893						0. 57	29. 30	4. 9	.0903	1. 46	.02390	21. 0	62. 5	64. 0
15. 57	19. 30	13. 39	.0903						4. 50	22. 10	5. 43	.0911	4. 18	.02109			
16. 20	17. 35	14. 39	.0897						18. 45	17. 40	8. 42	.0915	7. 10	.01823			
16. 50	19. 30	14. 51	.0900						19. 10	14. 25	9. 10	.0919	13. 22	.01688			
18. 24	18. 10	15. 13	.0897						19. 20	16. 0	10. 15	.0911	18. 0	.01760			
18. 37	16. 10	15. 39	.0902						20. 9	15. 30	13. 43	.0913	21. 50	.01903			
18. 45	17. 20	15. 51	.0899						22. 28	18. 30	17. 50	.0919	23. 59	.01932			
19. 10	14. 25	16. 17	.0904						22. 50	20. 40	22. 43	.0887					
19. 20	16. 0	16. 55	.0902						23. 47	22. 25	23. 59	.0891					
20. 9	15. 30	18. 43	.0904						23. 59	23. 50	21. 45	.0885					
22. 28	18. 30	19. 51	.0893								23. 30	.0881					
22. 50	20. 40	20. 13	.0895								23. 59	.0885					
23. 47	22. 25	20. 51	.0882														
23. 59	23. 50	21. 45	.0885														
		23. 30	.0881														
		23. 59	.0885						Oct. 10 0. 0	21. 26. 30	Oct. 10 0. 0	.0891	Oct. 10 0. 0	.01932	Oct. 10 1. 0	63. 0	64. 0
									1. 15	26. 20	2. 28	.0905	3. 15	.01883	3. 0	63. 5	65. 0
									4. 45	21. 25	4. 45	.0903	9. 36	.01721	9. 0	63. 0	64. 5
									16. 37	19. 25	8. 10	.0916	20. 13	.02096	21. 0	60. 0	61. 4
									16. 58	20. 30	11. 52	.0919	23. 59	.02159			
										***	12. 16	.0921					
									20. 20	15. 5	14. 58	.0921					
										***	17. 45	.0927					
									21. 26	17. 15	21. 0	.0905					
									23. 59	29. 10	23. 7	.0897					
											23. 20	.0895					
											23. 59	.0894					
									Oct. 11 0. 0	21. 29. 10	Oct. 11 0. 0	.0894	Oct. 11 0. 0	.02159	Oct. 11 1. 0	61. 0	62. 0
									1. 34	28. 20	0. 53	.0899	3. 10	.02118	3. 0	61. 3	62. 0
									1. 45	30. 20	1. 26	.0894		(†)	9. 0	60. 7	61. 0
										***	1. 42	.0900	8. 45	.02100	21. 0	58. 0	59. 5
									4. 40	26. 30	2. 6	.0900	10. 15	.02221			
										(†)	2. 42	.0909	13. 47	.02262			
									8. 45	16. 0	3. 7	.0905	14. 17	.02183			
									9. 20	18. 0	4. 43	.0924	16. 56	.02269			
									9. 54	17. 20	5. 7	.0921	20. 33	.02441			
									10. 57	19. 25	(†)		23. 59	.02430			
									13. 6	17. 0	8. 45	.0925					
									13. 15	19. 50	8. 55	.0931					

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. 11 13. 37	21. 16. 20	Oct. 11 9. 16	·0919						Oct. 12 2. 46	21. 48. 15	Oct. 12 20. 39	·0855	4. 51	·01462			
13. 50	25. 35	9. 33	·0925 ***						2. 56	56. 45	20. 54	·0849	5. 2	·01783			
14. 34	5. 30								3. 0	30. 5	23. 14	·0839	5. 6	·01140			
14. 56	15. 35 ***	10. 52	·0929						3. 7	39. 10	23. 30	·0841 (†)	5. 10	·01502			
15. 13	17. 30 ***	11. 22	·0924						3. 10	22. 15			5. 15	·00985			
15. 50	15. 30	12. 17	·0928						3. 21	50. 50			5. 18	·01909			
16. 4	11. 0	12. 34	·0921						3. 30	25. 10			5. 26	·01210			
16. 38	17. 45	13. 0	·0923						3. 33	43. 0			5. 32	·01563			
16. 50	16. 10	13. 15	·0917						3. 36	18. 20			5. 34	·01324			
17. 7	19. 20 ***	13. 32	·0921						3. 40	41. 50			5. 50	·02376			
17. 26	19. 30	13. 58	·0913						3. 47	24. 10			5. 57	·00543			
17. 32	18. 0 ***	14. 42	·0942						3. 56	51. 0			6. 20	·01896			
17. 58	21. 30	14. 42	·0897						4. 6	12. 15			6. 26	·01780			
18. 4	19. 50	15. 40	·0935						4. 9	54. 30			6. 40	·02058			
18. 10	22. 0 ***	15. 51	·0920						4. 18	9. 35 (†)			6. 43	·01980			
18. 34	18. 30	15. 58	·0929						6. 15	37. 30			7. 0	·02145			
18. 40	21. 0	16. 10	·0921						6. 26	18. 20			7. 6	·02063			
18. 50	17. 5	16. 12	·0923						6. 34	27. 40			7. 33	·02140			
18. 54	20. 0	16. 15	·0919						6. 50	19. 20			7. 51	·02163			
19. 3	19. 10 ***	16. 26	·0925 ***						7. 4	22. 30			8. 4	·01824			
20. 0	18. 25	17. 21	·0915 ***						7. 10	11. 30			8. 6	·01977			
20. 8	20. 50	17. 59	·0925						7. 18	22. 20			8. 20	·01442			
20. 16	17. 10	18. 4	·0918						7. 24	8. 25			8. 37	·01850 ***			
20. 45	23. 10 ***	18. 11	·0925						7. 28	26. 10			9. 30	·01903 ***			
21. 30	21. 30	18. 11	·0925						7. 37	33. 45			9. 40	·01820			
21. 57	26. 30	18. 15	·0916						7. 50	14. 10			9. 44	·01663			
22. 5	30. 10 ***	18. 18	·0923						8. 20	24. 0			9. 58	·01844 ***			
22. 50	34. 0	18. 39	·0919						8. 26	20. 30			10. 40	·01749			
23. 17	31. 50	18. 42	·0922						8. 40	26. 0			10. 56	·01820			
23. 45	34. 25	18. 45	·0911						8. 53	7. 30			14. 0	·01876			
23. 56	38. 30	18. 51	·0916						9. 4	26. 0			18. 36	·02165			
23. 59	38. 0	19. 11	·0906						9. 10	0. 30			21. 28	·02342			
		19. 52	·0901						9. 32	21. 20			23. 59	·02400			
		20. 36	·0907						10. 4	6. 40							
		21. 52	·0878						10. 23	12. 30 ***							
		22. 55	·0879						11. 20	22. 20 ***							
		23. 16	·0871						12. 47	20. 10 ***							
		23. 47	·0873 (†)						14. 58	23. 20 ***							
Oct. 12 0. 0	21. 37. 55	Oct. 12 0. 0	(†)	Oct. 12 0. 0	·02430	Oct. 12 1. 0	61. 0	62. 0	17. 56	21. 25 ***							
0. 8	36. 35	1. 0	·0892*	1. 26	·02341	3. 0	63. 0	64. 0	19. 48	16. 30 ***							
0. 20	39. 50	3. 0	·0980*	2. 50	·02363	9. 0	63. 3	64. 4	21. 8	19. 10 ***							
0. 29	36. 40	10. 12	·0798	3. 10	·02607	21. 0	58. 5	60. 0	22. 42	26. 30 (†)							
0. 43	33. 10	10. 22	·0787	3. 25	·02342												
1. 0	41. 50	10. 37	·0806	3. 33	·02680												
1. 10	38. 0	10. 42	·0790	3. 40	·02400												
1. 17	41. 10	11. 0	·0819	3. 45	·02720												
1. 28	37. 15	11. 11	·0811	3. 48	·02329												
1. 40	44. 30	12. 7	·0837	3. 50	·02937												
1. 50	41. 50	12. 50	·0831	4. 4	·02003												
1. 57	44. 30		***	4. 7	·02695				Oct. 13 0. 26	(†) 21. 26. 20 ***	Oct. 13 0. 15	(†) ·0849	Oct. 13 0. 0	·02400	Oct. 13 1. 0	60. 0	
2. 13	21. 39. 30	15. 37	·0841	4. 16	·01820						0. 33	·0846	3. 4	·02268	3. 0	61. 8	
2. 20	22. 5. 5	16. 11	·0850	4. 21	·02302						1. 51	·0848	8. 26	·01760	9. 0	60. 4	
2. 24	21. 47. 5	17. 43	·0841	4. 38	·01520						2. 27	·0862	15. 15	·02041 (†)	21. 0	57. 7	
2. 44	22. 1. 50		***	4. 47	·02063											58. c	

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.
Oct. 13		Oct. 13		Oct. 13					Oct. 15		Oct. 15		Oct. 15		Oct. 15		
2. 13	21. 25. 30	2. 57	.0869	21. 0	.02316				0. 46	21. 30. 10	0. 6	.0877	0. 0	.02230	1. 0	62. 0	63. 0
	***	3. 11	.0867	22. 52	.02448				1. 40	32. 30	0. 25	.0879	5. 30	.01921	3. 0	63. 0	64. 0
		3. 30	.0872	23. 59	.02397				2. 9	31. 40	0. 37	.0883	7. 8	.01928	9. 0	63. 5	65. 0
		3. 42	.0867						2. 40	27. 0	0. 40	.0881	7. 36	.01870	22. 20	62. 5	63. 0
		3. 58	.0868						2. 50	28. 0	1. 11	.0887	11. 15	.01885			
		4. 7	.0877						3. 4	26. 20	1. 37	.0882	17. 45	.01894			
		4. 15	.0872						3. 20	26. 0	2. 10	.0883	21. 45	.01971			
		4. 40	.0877						3. 27	27. 20	2. 36	.0901	23. 59	.01971			
		4. 52	.0873						3. 50	23. 0	2. 54	.0884					
		5. 6	.0876						4. 10	16. 20	3. 0	.0887					
		5. 21	.0874						4. 26	18. 30	3. 7	.0882					
		6. 0	.0874						5. 2	23. 40	3. 17	.0896					
		7. 30	.0890						5. 26	22. 10	3. 28	.0893					
		8. 15	.0887						5. 40	23. 0	3. 42	.0897					
		8. 36	.0891						5. 56	21. 20	4. 11	.0882					
		8. 57	.0891						6. 12	23. 25	4. 16	.0883					
		10. 0	.0899						6. 26	21. 45	4. 22	.0881					
		10. 25	.0912						6. 38	22. 0	4. 30	.0885					
		10. 52	.0903						6. 54	16. 0	4. 50	.0879					
		11. 37	.0905						7. 20	29. 0	5. 10	.0886					
		12. 0	.0899						7. 37	13. 50	5. 20	.0880					
		16. 0	.0904						7. 53	16. 10	5. 43	.0883					
		(†)							8. 20	13. 0	6. 11	.0920					
		21. 0	.0882						8. 40	16. 30	6. 22	.0878					
		22. 30	.0864						9. 15	15. 0	6. 43	.0901					
		22. 50	.0867						9. 24	12. 30	7. 11	.0886					
		23. 21	.0865						9. 36	13. 0	7. 21	.0889					
		23. 59	.0873						9. 50	11. 20	7. 40	.0882					
	(†)	20. 30							10. 47	14. 0	9. 7	.0882					
		28. 25							11. 20	10. 50	9. 43	.0893					
		30. 45							12. 9	16. 40	10. 22	.0889					
		30. 25							14. 15	18. 0	12. 11	.0896					
									15. 10	16. 30	12. 23	.0894					
									15. 27	17. 30	13. 17	.0897					
									15. 52	16. 50	13. 44	.0895					
									16. 12	19. 0	15. 1	.0907					
									16. 37	15. 0	15. 53	.0898					
									17. 20	13. 30	18. 30	.0896					
									18. 10	16. 20	19. 10	.0885					
									19. 12	15. 0	(†)						
									19. 26	13. 5	23. 15	.0871					
									19. 37	14. 0	23. 59	.0870					
									19. 56	13. 30							
									20. 8	12. 5							
									20. 26	14. 0							
									20. 40	12. 40							
									21. 3	15. 0							
									21. 27	14. 10							
									22. 30	21. 35							
									23. 59	26. 30							
									Oct. 16		Oct. 16		Oct. 16		Oct. 16		
									0. 0	21. 26. 30	0. 0	.0870	0. 0	.01971	7. 15	63. 0	64. 0
									1. 57	28. 0	0. 27	.0873	1. 50	.01954	21. 0	59. 4	59. 8
									3. 34	24. 0	0. 58	.0869	3. 13	.01890			
									4. 36	20. 0	1. 28	.0877	4. 7	.01906			
										***	2. 10	.0878		.02025			

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. 16		Oct. 16		Oct. 16						Oct. 17		Oct. 17		Oct. 17			
6. 8 21. 19. 30		2. 26	•0874	9. 4	•01962					2. 0 21. 29. 45	6. 0	•0904	10. 55	•01780			
6. 21	21. 10	4. 30	•0889	12. 40	•02107					2. 37	26. 20	7. 58	•0907	11. 20	•01932		
6. 37	19. 30	6. 3	•0884	19. 4	•02504					3. 10	26. 0	8. 23	•0891	11. 45	•01870		
6. 43	20. 20	6. 51	•0886	23. 59	•02520					3. 26	23. 30	8. 37	•0896	14. 37	•02009		
7. 23	16. 30	8. 6	•0902							3. 47	23. 25	8. 44	•0891	15. 4	•01885		
7. 50	16. 35	8. 17	•0901							4. 8	21. 0	9. 9	•0924	15. 33	•02007		
8. 33	8. 10	8. 29	•0904							5. 30	19. 40	9. 47	•0880	18. 40	•02264 ***		
8. 52	8. 15	8. 37	•0901							6. 26	20. 30	10. 30	•0845				
9. 36	14. 35	8. 44	•0907							7. 21	18. 30	10. 42	•0860	23. 59	•02803		
10. 28	16. 30	8. 58	•0900							8. 0	21. 20. 0	10. 46	•0849				
11. 4	15. 5	9. 17	•0897							8. 57	20. 47. 50	11. 24	•0902				
12. 21	16. 5	10. 36	•0908							9. 48	21. 7. 30	11. 41	•0886				
12. 50	13. 50	11. 12	•0906							10. 6	21. 5. 35	11. 43	•0890				
13. 9	10. 30	11. 29	•0911							10. 37	20. 55. 25	11. 51	•0881				
13. 40	18. 0	11. 51	•0907							11. 9	21. 15. 25	12. 12	•0909				
14. 32	13. 25	12. 15	•0918							11. 26	14. 30	12. 39	•0897				
14. 51	15. 10	12. 59	•0917							11. 33	18. 50	12. 41	•0919				
15. 48	27. 20	13. 26	•0901							11. 42	15. 0	13. 41	•0884				
16. 45	15. 20	13. 52	•0906							11. 50	17. 40	14. 2	•0886				
17. 26	19. 35	14. 7	•0903							12. 10	13. 0	14. 14	•0873				
18. 33	17. 10	14. 28	•0906							12. 26	13. 5	14. 27	•0915				
18. 40	18. 15	14. 40	•0901							12. 33	16. 5	14. 36	•0917				
18. 56	16. 20	15. 7	•0905							13. 3	13. 0	14. 45	•0907				
19. 9	17. 0	15. 21	•0901							13. 47	13. 50	15. 7	•0921				
19. 15	16. 0	16. 0	•0921							14. 3	39. 50	15. 17	•0917				
19. 24	16. 50	17. 2	•0901							14. 37	11. 35	15. 39	•0926				
19. 32	15. 20	17. 22	•0896							14. 50	14. 30	15. 52	•0919				
19. 40	19. 5	17. 52	•0908							15. 21	9. 10	16. 2	•0922				
19. 52	16. 10	18. 0	•0905							15. 42	7. 40	16. 21	•0919				
20. 9	13. 30	18. 32	•0909							16. 13	19. 30	16. 42	•0886				
20. 37	15. 45		***							16. 26	22. 10	16. 46	•0887				
20. 50	14. 30	19. 18	•0903							16. 33	26. 20	16. 58	•0882				
21. 17	17. 40	19. 30	•0907							16. 51	22. 10	17. 14	•0902				
21. 40	16. 30	19. 43	•0901							16. 56	26. 5	17. 39	•0882				
21. 50	23. 0	20. 2	•0900							17. 15	19. 20	17. 51	•0884				
	***	20. 12	•0904							17. 24	22. 10	17. 58	•0905				
22. 3	19. 30	21. 25	•0883							17. 47	41. 10	18. 4	•0903				
22. 9	20. 20	21. 45	•0893							18. 11	33. 30	18. 12	•0907				
22. 13	19. 10	21. 54	•0877							18. 20	35. 0	19. 0	•0853				
22. 17	21. 0	22. 27	•0875							18. 22	33. 0	19. 29	•0840				
22. 22	20. 0	22. 32	•0882							18. 29	35. 5	19. 46	•0855				
22. 26	21. 10	22. 45	•0875							18. 50	30. 0	19. 51	•0845				
22. 30	19. 0	23. 3	•0879							19. 15	23. 30	20. 2	•0867				
22. 43	22. 25		(†)							19. 33	28. 40	20. 21	•0849				
22. 47	21. 0									19. 47	22. 5	21. 15	•0811				
23. 8	25. 35									19. 54	29. 20		***				
23. 22	23. 30									20. 13	23. 50	21. 37	•0815				
23. 40	27. 30									20. 17	26. 0	21. 43	•0808				
23. 50	26. 50									20. 23	24. 0	21. 51	•0813				
23. 59	28. 0									20. 38	27. 35	21. 55	•0807				
											***	22. 5	•0813				
Oct. 17		Oct. 17		Oct. 17		Oct. 17				20. 54	24. 0	22. 17	•0801				
0. 0	21. 28. 0		(†)	0. 0	•02520	1. 0	62. 0 63. 0			21. 27	33. 0	22. 30	•0809				
0. 13	29. 25	1. 0	•0870*	1. 48	•02390	3. 0	63. 0 65. 0			21. 40	29. 45		(†)				
0. 22	28. 30	2. 10	•0874	6. 45	•01872	9. 0	63. 0 64. 0				***						
0. 30	30. 40	3. 54	•0877	9. 58	•01926	21. 0	57. 0 58. 7			21. 51	29. 10						
0. 56	27. 20	5. 27	•0887	10. 36	•01832					21. 56	32. 5						
1. 40	28. 0	5. 45	•0919	10. 47	•01870						***						

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. 17 h m 22. 10	° ' "	h m 21. 29. 5		h m		h m	°	°	h m	° ' "	h m		h m		h m	°	°
22. 15		31. 0								9. 13	21. 15. 20	15. 40	°869				
22. 20		30. 0 ***								9. 22	28. 50	15. 52	°871				
22. 37		33. 35								9. 33	7. 10	16. 14	°867				
22. 45		31. 30								9. 40	20. 15	16. 37	°873				
22. 48		32. 35 (†)								9. 53	11. 30	16. 45	°869				
										10. 2	13. 0	17. 17	°876				
										10. 7	10. 25	18. 10	°864				
										10. 15	13. 0	18. 28	°866				
										10. 21	5. 5	18. 42	°861				
										10. 40	10. 0	19. 13	°867				
										10. 53	5. 10	19. 20	°860				
										11. 20	7. 30	19. 51	°866				
										11. 51	7. 45	21. 51	°849				
										12. 0	6. 30	22. 10	°849				
										12. 28	24. 30	22. 19	°842				
										12. 43	25. 20	22. 50	°847				
										13. 30	4. 45	23. 7	°833				
										13. 48	10. 0	23. 22	°834				
										14. 0	8. 30	23. 59	°843				
										14. 8	9. 25						
										14. 10	8. 50						
										14. 27	11. 30						
										14. 52	10. 30						
										15. 33	17. 20						
										15. 40	17. 30						
										15. 50	15. 35						
										16. 10	16. 45						
										16. 22	15. 0						
										16. 40	17. 50						
										17. 4	17. 0						
										17. 43	21. 10						
										17. 58	21. 30						
										18. 26	20. 0						
										18. 37	21. 20						
										18. 56	19. 0						
										19. 13	19. 50						
										19. 20	21. 30						
										19. 33	19. 20						
										19. 45	21. 0						
										19. 51	17. 10						
										19. 53	20. 35						

										20. 24	17. 30						
										20. 56	18. 0						
										21. 37	16. 50						
										21. 52	17. 0						
										22. 10	20. 30						
										22. 27	20. 25						
										22. 50	25. 0						
										23. 0	24. 5						
										23. 15	26. 0						
										23. 30	28. 0						

										23. 59	26. 30						
										Oct. 19							
										0. 0	21. 26. 30	0. 0	°843	0. 0	°2433	1. 0	60. 0
											***	1. 5	°847	3. 6	°2347	3. 0	61. 0
										0. 50	27. 30	1. 52	°862	3. 28	°2384	9. 0	61. 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.
Oct. 19 h m s 1. 10	21. 26. 25	2. 55	.0863	7. 30	.01942	21. 0	54. 7	56. 0	Oct. 20 h m s 1. 54	21. 29. 30	1. 46	.0896	21. 52	.02810			
1. 52	29. 5	3. 21	.0896	9. 0	.01887				2. 10	35. 0	2. 2	.0909	23. 59	.02821			
2. 20	27. 5	3. 40	.0874		.02064				2. 30	26. 30	2. 25	.0873					
2. 50	29. 0	4. 10	.0873	15. 2	.02066				2. 56	32. 25	3. 0	.0887					
3. 15	16. 30	4. 41	.0881	21. 45	.02721				3. 6	30. 10	3. 12	.0878					
3. 40	20. 30	4. 58	.0879	23. 59	.02809					***	3. 49	.0855					
5. 0	19. 30	6. 12	.0884						3. 28	31. 20	4. 15	.0870					
5. 40	12. 30	6. 21	.0881						3. 47	25. 30	4. 36	.0881					
5. 51	13. 0	6. 35	.0886						4. 10	27. 20	4. 51	.0871					
6. 4	11. 50	7. 22	.0881							***	5. 9	.0866					
6. 20	14. 0	7. 50	.0892						4. 50	25. 5	5. 21	.0873					
6. 26	13. 10	7. 54	.0885						5. 6	19. 30	5. 47	.0869					
7. 0	17. 15	8. 9	.0896						5. 28	19. 40	6. 17	.0880					
7. 15	16. 30	8. 32	.0876						5. 56	16. 30	7. 12	.0869					
7. 43	16. 50	9. 10	.0890						6. 38	19. 0	7. 28	.0875					
7. 56	14. 0	9. 24	.0885						6. 56	16. 35	7. 42	.0869					
8. 8	10. 15	10. 56	.0887						7. 28	19. 0	7. 49	.0871					
8. 30	18. 0	11. 23	.0883						7. 40	17. 30	8. 0	.0864					
8. 45	14. 5	11. 23	.0887						7. 47	19. 5	8. 22	.0871					
9. 20	15. 40	12. 0	.0885						8. 7	16. 30	8. 46	.0871					
10. 8	14. 10	12. 36	.0893						8. 36	17. 30	9. 14	.0891					
10. 45	11. 35	13. 36	.0887						9. 2	11. 0	9. 29	.0880					
	***	13. 46	.0894						9. 15	16. 35	9. 51	.0942					
12. 15	13. 30	13. 57	.0894						9. 33	9. 30	10. 0	.0902					
12. 37	12. 35	14. 40	.0897						9. 47	30. 20	10. 11	.0904					
12. 50	14. 30	14. 52	.0893						10. 52	7. 30	10. 18	.0891					
13. 0	13. 20	15. 22	.0898						11. 8	11. 35	10. 24	.0895					
13. 20	14. 0	15. 45	.0897						11. 40	9. 0	10. 44	.0861					
13. 45	15. 30	16. 55	.0901						11. 52	11. 20	10. 59	.0881					
14. 0	15. 30	17. 15	.0901						12. 3	16. 30	11. 13	.0868					
14. 20	17. 45	17. 45	.0896						12. 20	19. 0	11. 54	.0867					
14. 52	17. 50	17. 54	.0899						12. 38	12. 30	12. 21	.0889					
15. 3	19. 10	19. 6	.0896						13. 6	15. 10	12. 28	.0884					
	***	19. 30	.0899						13. 24	17. 0	12. 45	.0890					
15. 37	18. 30	20. 7	.0873						13. 51	9. 20	13. 7	.0888					
16. 0	19. 50	22. 12	.0871						14. 10	13. 30	13. 15	.0891					
16. 40	23. 23	22. 43	.0882						14. 32	11. 0	13. 42	.0877					
	***	23. 23	.0878						15. 8	17. 30	14. 6	.0902					
18. 30	19. 20	23. 30	.0885							***	14. 42	.0887					
19. 10	23. 47	23. 40	.0880						15. 37	16. 35	15. 30	.0874					
	***	23. 51	.0883						16. 4	20. 25	15. 54	.0878					
20. 20	19. 50	23. 54	.0880						16. 7	18. 10	16. 1	.0875					
	***	23. 59	.0887						16. 20	21. 5	16. 12	.0881					
21. 40	22. 50								16. 43	17. 30	16. 29	.0881					
23. 0	30. 30								17. 9	20. 45	16. 40	.0890					
	***								17. 30	18. 25	17. 14	.0882					
23. 59	30. 0									***	17. 43	.0891					
									18. 3	21. 40	17. 51	.0886					
									18. 9	24. 15	18. 7	.0887					
									18. 14	22. 10	18. 18	.0878					
									18. 20	22. 35		***					
Oct. 20 h m s 0. 0	21. 30. 0	0. 0	.0888	0. 0	.02809	1. 0	57. 5	58. 0	18. 20	18. 20	19. 24	.0875					
0. 28	30. 20	0. 10	.0892	2. 0	.02850	3. 0	59. 7	61. 0	18. 36	18. 20	20. 2	.0884					
0. 40	28. 0	0. 30	.0900	5. 56	.02122	9. 0	59. 6	60. 4		***	21. 0	.0864					
0. 56	34. 5	0. 39	.0895	9. 40	.01960	21. 0	50. 0	52. 0	19. 43	23. 30	21. 0	.0861					
1. 7	33. 10	0. 51	.0905	12. 10	.02558				19. 56	19. 25	21. 30	.0868					
1. 30	34. 30	1. 11	.0891	12. 40	.02521				20. 50	16. 40	21. 43	.0861					
1. 37	37. 50	1. 28	.0892	14. 15	.02460				21. 22	19. 35	23. 36	.0867					
		1. 42	.0899		.02609					***	23. 45	.0850					

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. 20 h m 23. 15	21. 21. 10	Oct. 20 h m 23. 52	·0866	h m		h m			Oct. 21 p m 12. 45	21. 14. 25	Oct. 21 h m 14. 21	·0897	h m		h m		
23. 32	24. 15	23. 59	·0849						12. 57	18. 5	14. 43	·0889					
23. 43	22. 0								13. 51	13. 30	15. 46	·0895					
23. 48	24. 5								14. 16	17. 20	16. 8	·0908					
23. 59	18. 10								14. 45	13. 45	16. 24	·0903					
									15. 15	17. 40	16. 40	·0906					
Oct. 21 o. 0	21. 18. 10	Oct. 21 o. 0	·0849	Oct. 21 o. 0	·02821	Oct. 21 h. o	52. 0	53. 0	16. 12	16. 30	17. 43	·0895					
o. 17	24. 30	o. 30	·0881	1. 57	·03032	3. 0	53. 0	54. 0	16. 26	15. 5	19. 13	·0905					
o. 38	24. 25	o. 51	·0851	2. 20	·02930	9. 0	50. 0	52. 0	16. 47	17. 0	20. 13	·0898					
o. 50	28. 35	1. 0	·0864	3. 22	·02991	21. 0	42. 0	45. 0	16. 55	16. 5	20. 45	·0898					
	***	1. 5	·0860	4. 50	·02690				17. 23	17. 40	21. 53	·0882					
1. 5	28. 35	1. 11	·0868	5. 36	·02691				17. 51	21. 35	22. 51	·0886					
1. 13	31. 0	1. 13	·0863	5. 51	·02803				18. 38	18. 20	23. 59	·0891					
1. 25	38. 20	1. 40	·0905	6. 15	·02640				18. 45	18. 30							
1. 44	38. 50	1. 44	·0901	9. 7	·02553				18. 51	17. 5							
1. 53	31. 35	1. 57	·0918	11. 40	·02603				18. 59	19. 0							
2. 2	34. 20	2. 11	·0894	17. 18	·02849				19. 3	17. 15							
2. 9	27. 25	2. 22	·0913	23. 59	·02887				19. 12	18. 40							
2. 26	33. 50	2. 44	·0865						19. 20	17. 10							
2. 35	29. 15	2. 52	·0884							***							
2. 47	43. 30	3. 10	·0858						20. 0	19. 25							
3. 4	27. 25	3. 29	·0887						20. 6	17. 40							
3. 20	35. 5	3. 35	·0884						20. 27	18. 35							
3. 26	28. 15	3. 40	·0891						20. 35	17. 30							
3. 41	34. 0	3. 56	·0858						21. 3	19. 25							
3. 57	27. 40	4. 6	·0866						21. 20	19. 0							
4. 6	28. 35	4. 24	·0844						22. 11	24. 15							
4. 20	26. 30	4. 44	·0859						23. 5	26. 30							
5. 3	23. 15	4. 51	·0851						23. 59	26. 25							
5. 8	24. 5	5. 17	·0879														
5. 20	21. 30	5. 45	·0905						Oct. 22 o. 0	21. 26. 25	Oct. 22 o. 0	·0891	Oct. 22 o. 0	·02887	Oct. 22 h. o	47. 0	48. 0
5. 27	24. 20	5. 51	·0885						o. 47	25. 35	o. 14	·0895	2. 26	·02738	3. 0	49. 8	51. 0
5. 34	21. 10	5. 59	·0906						1. 16	33. 50	o. 34	·0892	7. 10	·01950	9. 0	52. 0	53. 0
5. 48	5. 20	6. 15	·0870						2. 5	26. 20	1. 12	·0901	11. 36	·01991	21. 20	44. 0	46. 4
6. 10	25. 45	6. 22	·0882						2. 20	28. 0	1. 44	·0890	16. 9	·02132			
6. 18	15. 15	***							2. 36	26. 45	2. 3	·0889	23. 59	·02657			
6. 29	21. 10	6. 45	·0877						2. 43	28. 30	2. 34	·0901					
6. 47	24. 5	6. 51	·0867						3. 25	26. 0	2. 50	·0897					
6. 51	20. 15	6. 59	·0895						3. 47	25. 55	4. 24	·0898					
7. 2	22. 10	7. 10	·0886						3. 51	28. 5	4. 54	·0906					
7. 20	19. 20	7. 29	·0887						4. 38	27. 50	9. 36	·0913					
7. 37	16. 35	7. 45	·0903						4. 50	25. 20	9. 52	·0923					
7. 46	20. 20	7. 52	·0897						5. 9	24. 0	10. 12	·0919					
8. 25	19. 30	8. 39	·0910						5. 30	19. 25	10. 29	·0925					
8. 52	22. 0	9. 3	·0897						7. 0	16. 30	10. 41	·0921					
9. 19	10. 5	9. 17	·0917						8. 40	16. 10	10. 53	·0925					
9. 37	22. 0	9. 33	·0893						9. 36	18. 5	11. 14	·0911					
9. 45	16. 5	10. 42	·0901						9. 50	16. 50	11. 30	·0916					
9. 53	13. 25	11. 26	·0885						10. 8	18. 0	12. 15	·0910					
10. 15	17. 50	12. 10	·0904						10. 21	15. 35	12. 44	·0915					
	***	12. 15	·0898						10. 40	15. 45	13. 13	·0913					
10. 39	16. 30	12. 25	·0904						10. 52	12. 10	19. 5	·0928					
10. 48	18. 25	12. 36	·0892						11. 13	17. 5	22. 0	·0907					
11. 5	15. 40	12. 46	·0901						11. 37	12. 30	23. 59	·0903					
	***	13. 11	·0892						12. 5	13. 15							
12. 30	18. 0	13. 19	·0897						13. 6	17. 20							
12. 36	20. 10	13. 52	·0878														

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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. 22 15. 10 15. 45 16. 15 16. 50 20. 58 23. 59	21. 16. 20 16. 25 16. 20 17. 0 13. 10 25. 5																																																											
Oct. 23 0. 0 2. 2 2. 21 2. 36 2. 53 5. 27 6. 20 6. 44 7. 15 7. 53 8. 22 8. 43 9. 9 11. 20 18. 43 20. 46 23. 59	21. 25. 5 27. 35 26. 30 27. 35 24. 20 17. 15 17. 40 16. 45 17. 35 16. 0 17. 20 16. 20 17. 30 19. 35 16. 25 12. 35 22. 30	Oct. 23 0. 0 2. 6 2. 44 4. 40 5. 52 6. 12 6. 31 7. 11 8. 14 8. 54 10. 30 18. 5 22. 30 22. 56 23. 59	0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0	Oct. 23 0. 0 3. 47 11. 48 19. 0 23. 59	0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0	Oct. 23 6. 32 21. 0	44. 7 39. 5	47. 0 42. 8	Oct. 24 0. 0 1. 37 4. 36 7. 43 9. 45 10. 13 11. 46 18. 39 21. 5 23. 13 23. 59	21. 22. 30 23. 5 19. 10 17. 35 18. 0 17. 20 18. 5 16. 20 13. 0 22. 25 23. 25	Oct. 24 0. 0 0. 28 0. 54 3. 40 9. 22 11. 2 16. 10 18. 13 23. 0 23. 59	0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0	Oct. 24 0. 0 13. 15 23. 59	0. 0 0. 0 0. 0	0. 0 0. 0 0. 0	Oct. 24 1. 0 3. 0 9. 0 21. 0	42. 0 43. 3 44. 5 39. 0	44. 0 46. 0 47. 5 42. 5	Oct. 25 0. 0 4. 7 4. 45 10. 27 11. 8 12. 6 12. 27 13. 15 16. 8 20. 15 21. 27 23. 59	21. 23. 25 18. 30 19. 25 17. 30 15. 35 17. 40 15. 30 17. 30 18. 5 13. 35 15. 25 28. 10	Oct. 25 0. 0 2. 7 4. 9 4. 29 4. 53 5. 30 6. 21 10. 30 11. 55 12. 17 12. 52 18. 39 20. 10 22. 18 23. 59	0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0	Oct. 25 0. 0 1. 54 6. 47 10. 43 23. 59	0. 0 0. 0 0. 0 0. 0	0. 0 0. 0 0. 0 0. 0	Oct. 25 3. 0 9. 0 21. 0	43. 0 46. 0 50. 0 50. 0	44. 8 47. 5 51. 0 50. 8	Oct. 26 0. 0 0. 58 3. 13 6. 15 18. 40 21. 11 23. 59	21. 28. 10 27. 35 21. 5 17. 30 16. 25 14. 10 22. 50	Oct. 26 0. 0 0. 28 1. 39 6. 15 10. 51 18. 51 22. 13 23. 59	0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0	Oct. 26 0. 0 1. 37 5. 13	0. 0 0. 0 0. 0	0. 0 0. 0 0. 0	Oct. 26 0. 0 11. 15 23. 59	0. 0 0. 0 0. 0	0. 0 0. 0 0. 0	Oct. 26 1. 0 3. 0 9. 0 21. 0	51. 0 51. 8 50. 5 43. 3	51. 0 52. 0 51. 2 46. 0	Oct. 27 0. 0 1. 37 4. 4 6. 57 7. 9 7. 40 8. 0 8. 21 9. 10 11. 11 11. 54 12. 20 12. 32 19. 15 20. 58 22. 50 23. 59	21. 22. 50 22. 45 19. 30 19. 40 15. 10 17. 30 16. 15 18. 25 15. 30 17. 0 20. 45 18. 30 19. 25 16. 20 14. 10 18. 40 23. 30	Oct. 27 0. 0 0. 48 2. 5 2. 40 3. 13 3. 56 4. 28 4. 52 5. 52 6. 26 8. 24 12. 30 13. 41 15. 28 18. 52 21. 0 22. 52 23. 38 23. 59	0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0	Oct. 27 0. 0 3. 4 8. 22 13. 20 23. 6 23. 59	0. 0 0. 0 0. 0 0. 0 0. 0	0. 0 0. 0 0. 0 0. 0	Oct. 27 1. 0 3. 0 9. 0 21. 0	44. 5 46. 0 47. 3 44. 0	46. 6 47. 5 48. 0 46. 0	Oct. 28 0. 0 0. 55 6. 26 9. 10 10. 20 11. 56 12. 29 13. 22 15. 3 15. 37 16. 2 16. 28 17. 4 17. 56 18. 42 20. 3 20. 15 20. 30 20. 45 21. 9 21. 55	21. 23. 30 23. 30 18. 20 17. 10 11. 45 15. 30 14. 30 17. 10 17. 20 19. 30 20. 25 16. 5 16. 10 19. 30 14. 35 16. 35 14. 25 17. 30 16. 0 18. 35	Oct. 28 0. 0 0. 34 1. 0 3. 0 4. 36 9. 17 12. 30 17. 36 23. 59	0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0	Oct. 28 0. 0 0. 34 1. 0 3. 0 4. 36 9. 17 12. 30 17. 36 23. 59	0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0 0. 0	Oct. 28 1. 0 3. 0 9. 0 21. 0	48. 0 51. 0 54. 0 50. 5	49. 0 52. 0 54. 0 52. 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. 28 22. 20 23. 59	21. 18. 0 ***																
Oct. 29 0. 0 0. 15 0. 29 0. 43 0. 52 1. 53 2. 10 2. 42 2. 52 3. 10 3. 37 4. 10 5. 6 5. 37 5. 54 6. 40 7. 6 7. 22 7. 40 7. 52 8. 10 8. 26 8. 40 9. 20 9. 45 10. 3 10. 40 10. 57 11. 33 12. 27 13. 23 15. 2 15. 45 16. 40 17. 3 19. 20 19. 58 20. 9 20. 20 20. 50 21. 0 21. 56 22. 45 23. 0 23. 26 23. 42 23. 59	21. 28. 5 29. 0 27. 10 30. 50 26. 30 29. 0 28. 5 23. 10 21. 25 23. 0 23. 10 21. 50 19. 0 18. 5 19. 35 14. 25 16. 30 15. 25 15. 30 11. 20 14. 30 14. 50 11. 30 9. 25 12. 5 11. 45 15. 0 11. 35 9. 0 15. 30 19. 40 17. 35 18. 0 16. 30 17. 30 16. 20 14. 30 13. 0 14. 10 *** 13. 10 15. 10 *** 17. 25 21. 30 21. 0 22. 50 21. 45 23. 40	Oct. 29 0. 0 0. 19 0. 29 1. 52 2. 12 2. 47 3. 21 3. 55 4. 12 4. 25 5. 20 5. 51 6. 11 6. 30 6. 45 6. 57 7. 45 8. 10 8. 30 8. 43 9. 10 9. 40 10. 24 10. 49 11. 5 11. 29 12. 7 12. 30 13. 20 16. 7 17. 39 18. 21 18. 50 21. 5 22. 10 23. 59	Oct. 29 0. 0 2. 37 5. 22 8. 58 12. 47 23. 59	Oct. 29 0. 0 0. 2369 0. 2361 0. 2122 0. 2443 0. 2290 0. 2400 0. 3007	Oct. 29 1. 0 3. 0 9. 0 22. 25	52. 0 53. 5 52. 2 46. 0	53. 0 54. 0 53. 2 47. 5	Oct. 30 0. 25 0. 37 0. 40 1. 0 1. 40 1. 50 2. 4 2. 40 3. 4 5. 8 5. 50 6. 20 7. 4 8. 50 9. 20 9. 40 9. 53 10. 30 10. 45 11. 53 12. 30 13. 4 13. 37 14. 28 15. 3 15. 18 15. 52 17. 3 19. 4 19. 43 21. 40 22. 20 22. 27 23. 20 23. 40 23. 59	21. 26. 0 24. 45 25. 30 24. 0 23. 5 24. 30 23. 0 23. 15 20. 30 18. 20 18. 35 13. 20 18. 40 17. 20 15. 45 17. 50 16. 30 17. 0 15. 50 15. 25 17. 10 16. 20 17. 25 16. 0 18. 5 17. 30 20. 25 17. 0 16. 40 15. 0 *** 15. 30 19. 0 18. 5 21. 40 21. 30 25. 30	Oct. 30 3. 7 3. 54 4. 10 4. 43 5. 11 5. 36 5. 51 6. 7 6. 43 7. 55 8. 54 9. 10 9. 17 9. 37 9. 48 9. 48 10. 0 10. 42 15. 40 17. 10 19. 55 20. 54 22. 7 22. 55 23. 51 (†)	Oct. 30 15. 8 23. 59	Oct. 30 0. 0 0. 2726 0. 2710	Oct. 30 1. 0 3. 0 9. 0 21. 0	52. 0 54. 0 55. 0 53. 5	52. 7 54. 8 55. 0 54. 0		
Oct. 30 0. 0 0. 15	21. 23. 40 23. 20	Oct. 30 0. 0 2. 45	Oct. 30 0. 0 0. 915 0. 929	Oct. 30 0. 0 2. 53	Oct. 30 0. 0 0. 3007 0. 3009	Oct. 30 8. 30 21. 0	49. 5 49. 0	51. 0 51. 0	Oct. 30 10. 30	21. 25. 30 27. 35 24. 10 24. 35 24. 0 25. 30 *** 22. 0 23. 0 16. 30 *** 19. 30 17. 10 *** 14. 30 17. 25 15. 50 11. 0 14. 5	Oct. 31 1. 0 1. 34 2. 12 2. 22 2. 30 3. 0 3. 40 4. 7 4. 40 5. 5 6. 44 6. 57 7. 10 7. 30 8. 10 9. 15 9. 30 9. 43	Oct. 31 0. 0 3. 26 6. 57 7. 5 9. 13 10. 56 16. 10 23. 59	Oct. 31 0. 0 0. 2710 0. 2442 0. 2113 0. 2150 0. 2372 0. 2363 0. 2397 0. 2256 0. 2160	Oct. 31 1. 0 3. 0 9. 0 21. 0	52. 0 54. 0 55. 0 53. 5	52. 7 54. 8 55. 0 54. 0	

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							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
Nov. 6 0. 0 0. 15 0. 39 0. 54 1. 0 1. 11 1. 44 2. 12 2. 21 3. 30 3. 42 3. 56 5. 12 5. 39 6. 21 6. 40 7. 17 7. 43 8. 19 9. 40 10. 13 12. 21 12. 32 13. 12 13. 40 14. 6 14. 45 15. 8 15. 40 16. 52 17. 7 17. 43 17. 58 18. 37 19. 11 19. 40 20. 13 21. 39 22. 45 23. 11 23. 53	21. 25. 5 28. 0 24. 25 28. 50 27. 0 28. 55 22. 20 23. 30 25. 0 19. 30 20. 30 19. 0 18. 15 21. 0 17. 45 19. 30 20. 30 19. 0 18. 30 14. 15 16. 50 18. 30 17. 15 18. 35 23. 45 18. 45 15. 50 16. 50 14. 15 15. 15 16. 30 16. 5 18. 20 18. 30 16. 0 17. 40 14. 35 16. 40 21. 50 27. 0 28. 15 (†)	Nov. 6 0. 0 0. 23 0. 42 1. 16 1. 44 2. 21 3. 29 3. 43 4. 17 5. 21 5. 45 7. 0 7. 30 8. 17 8. 48 9. 9 9. 23 9. 45 10. 21 13. 20 13. 57 14. 26 14. 55 16. 58 18. 7 19. 1 19. 51 20. 29 21. 28 22. 30 22. 56 23. 16 23. 59	0. 0 0. 0904 0. 0912 0. 0905 0. 0916 0. 0907 0. 0915 0. 0911 0. 0916 0. 0917 0. 0931 0. 0912 0. 0923 0. 0914 0. 0920 0. 0917 0. 0924 0. 0922 0. 0927 0. 0923 0. 0928 0. 0941 0. 0931 0. 0926 0. 0934 0. 0927 0. 0933 0. 0925 0. 0924 0. 0905 0. 0898 0. 0905 0. 0899 0. 0906	Nov. 6 0. 0 1. 17 5. 48 7. 50 18. 0 20. 52 23. 59	0. 0 0. 02290 0. 02297 0. 02100 0. 02101 0. 02297 0. 02322 0. 02268	Nov. 6 8. 22 21. 0	58. 0 58. 2 56. 3 57. 5	Nov. 7 3. 0 3. 40 4. 20 5. 4 5. 58 8. 3 10. 29 11. 39 11. 50 12. 10 12. 39 12. 58 13. 26 15. 10 15. 20 17. 15 17. 56 18. 28 20. 15 20. 47 21. 9 21. 30 21. 54 22. 0 22. 3 22. 7 22. 34 22. 37 22. 45 22. 50 22. 54 23. 0 23. 4 23. 10 23. 22 23. 52 23. 59	21. 24. 30 27. 10 23. 5 22. 0 18. 55 20. 5 17. 10 17. 0 18. 5 18. 15 22. 0 22. 30 19. 5 19. 30 18. 0 21. 40 19. 30 22. 25 18. 30 15. 30 17. 10 16. 0 22. 50 20. 0 23. 5 21. 0 23. 35 27. 0 25. 20 28. 50 24. 10 27. 50 25. 50 28. 0 27. 30 26. 30 27. 35	Nov. 7 5. 29 6. 13 8. 26 8. 45 9. 27 10. 10 10. 28 10. 40 10. 54 11. 22 12. 9 12. 19 12. 52 13. 24 14. 28 16. 28 17. 43 18. 28 19. 5 21. 36 21. 52 22. 15 23. 11 23. 19 23. 28 23. 40 23. 45 23. 59 23. 11 23. 19 23. 28 23. 40 23. 45 23. 59 23. 35 27. 0 25. 20 28. 50 24. 10 27. 50 25. 50 28. 0 27. 30 26. 30 27. 35	Nov. 7 0. 0 0. 13 0. 22 0. 36 1. 48 2. 21 2. 39 2. 49 3. 11 3. 30 4. 10 4. 21 4. 40 5. 37 5. 55	0. 0913 0. 0921 0. 0925 0. 0923 0. 0932 0. 0926 0. 0931 0. 0929 0. 0933 0. 0927 0. 0930 0. 0934 0. 0931 0. 0945 0. 0936 0. 0937 0. 0944 0. 0942 0. 0947 0. 0915 0. 0915 0. 0905 0. 0903 0. 0905 0. 0901 0. 0905 0. 0896 0. 0903 0. 0904 0. 0907 0. 0896 0. 0905 0. 0900 0. 0891 0. 0900 0. 0904 0. 0905 0. 0919 0. 0907 0. 0902 0. 0912 0. 0918 0. 0909	Nov. 8 0. 0 1. 12 4. 30 8. 18 14. 4 22. 30 23. 59	0. 0 0. 02690 0. 02676 0. 02350 0. 02409 0. 02308 0. 02437 0. 02981 0. 02998	Nov. 8 1. 0 3. 0 9. 0 21. 0	54. 0 55. 0 54. 0 55. 0 46. 0 49. 5	
Nov. 7 0. 30 0. 45 0. 52 1. 0 1. 7 1. 50 2. 2 2. 36	21. 28. 0 29. 0 28. 10 30. 30 28. 50 30. 25 28. 0 26. 50	Nov. 7 0. 0 0. 25 0. 37 1. 22 2. 47 3. 1 3. 23 3. 45 4. 24 4. 56	0. 0906 0. 0900 0. 0888 0. 0898 0. 0888 0. 0912 0. 0913 0. 0900 0. 0915 0. 0918	Nov. 7 0. 0 1. 46 3. 48 5. 48 9. 53 12. 7 14. 18 23. 4 23. 59	0. 02268 0. 02246 0. 02078 0. 02080 0. 02257 0. 02227 0. 02261 0. 02264 0. 02687 0. 02690	Nov. 7 1. 0 3. 0 9. 0 21. 0	58. 0 58. 0 59. 0 58. 0 51. 4 53. 2	Nov. 8 0. 0 0. 37 0. 50 1. 4 1. 20 1. 42 2. 33 3. 4 3. 26 3. 53 4. 17 4. 28	21. 27. 35 29. 30 27. 5 26. 10 29. 0 29. 0 21. 5 26. 30 25. 20 26. 30 24. 0 19. 25	Nov. 8 0. 0 1. 12 4. 30 8. 18 14. 4 22. 30 23. 59	0. 0904 0. 0907 0. 0896 0. 0905 0. 0900 0. 0891 0. 0900 0. 0904 0. 0905 0. 0919 0. 0907 0. 0902 0. 0912 0. 0918 0. 0909	Nov. 8 1. 0 3. 0 9. 0 21. 0	54. 0 55. 0 54. 0 55. 0 46. 0 49. 5				

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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. 8		Nov. 8							Nov. 9		Nov. 9						
5. 37	21. 22. 30	6. 26	.0944						10. 36	21. 19. 30	10. 54	.0939					
5. 50	22. 0	6. 52	.0921						11. 15	19. 0	11. 52	.0949					
6. 10	16. 0	6. 58	.0925						11. 40	20. 15	12. 15	.0947					
6. 23	10. 30	7. 15	.0919						12. 0	17. 0	13. 6	.0946					
6. 33	15. 5	7. 42	.0931						12. 37	20. 30	13. 30	.0951					
6. 40	14. 25	8. 0	.0921						13. 28	22. 35	15. 32	.0952					
7. 15	15. 40	8. 21	.0927						14. 15	21. 20	18. 15	.0961					
7. 32	14. 30	9. 14	.0927						17. 8	21. 20	20. 22	.0954					
7. 58	18. 30	9. 22	.0931						19. 37	18. 50	20. 45	.0945					
8. 13	17. 25	9. 50	.0932						19. 50	17. 30	22. 0	.0933					
8. 56	18. 50	10. 10	.0944						21. 14	15. 30	23. 44	.0924					
9. 30	17. 0	10. 42	.0937						23. 6	23. 5	23. 59	.0925					
9. 53	18. 30	11. 11	.0947						23. 20	26. 10							
10. 20	17. 10	11. 51	.0949						23. 30	25. 0							
11. 15	20. 5	12. 19	.0933						23. 59	26. 15							
11. 50	19. 15	13. 13	.0952						Nov. 10		Nov. 10		Nov. 10		Nov. 10		
12. 20	21. 15	13. 45	.0943						0. 0	21. 26. 15	0. 0	.0925	0. 0	.02914	1. 0	44. 0	46. 0
12. 37	19. 0	14. 13	.0949						1. 54	29. 50	0. 44	.0929	2. 40	.02857	3. 0	47. 0	49. 0
13. 15	23. 30	15. 50	.0942						2. 35	28. 35	1. 47	.0926	7. 46	.02301	9. 0	48. 0	50. 0
14. 15	19. 30	16. 52	.0947						2. 43	29. 45	2. 7	.0911	12. 4	.02040	21. 0	43. 8	46. 5
14. 45	21. 20	17. 15	.0942						2. 52	27. 45	2. 48	.0910	17. 20	.02142			
15. 15	19. 35	17. 30	.0944						3. 5	28. 0	3. 14	.0925	20. 58	.02336			
15. 40	21. 40	18. 18	.0940						3. 10	27. 30	3. 21	.0920	23. 59	.02537			
	***	19. 15	.0942						3. 20	29. 0	3. 30	.0924					
20. 0	19. 10	21. 30	.0922						3. 26	27. 30	3. 44	.0907					
	***	21. 51	.0924						3. 37	29. 30	3. 52	.0910					
21. 3	15. 30	22. 51	.0917						4. 26	17. 30	4. 4	.0901					
21. 42	17. 20	23. 30	.0925						4. 50	23. 0	4. 37	.0931					
	***	23. 59	.0923						5. 7	25. 20	5. 22	.0910					
23. 50	28. 30								5. 40	21. 0	5. 44	.0924					
23. 59	26. 50								6. 0	22. 30	6. 5	.0925					
									6. 29	13. 30	6. 25	.0911					
Nov. 9		Nov. 9		Nov. 9		Nov. 9			6. 42	19. 0	6. 36	.0921					
0. 0	21. 26. 50	0. 0	.0923	0. 0	.02998	1. 0	48. 8	50. 3	6. 46	17. 35	6. 42	.0914					
0. 11	28. 35	0. 27	.0920	2. 10	.02951	3. 0	50. 8	52. 0	6. 57	22. 30	6. 49	.0920					
	***	1. 19	.0913	9. 5	.02578	9. 0	46. 0	48. 0	7. 20	15. 20	7. 7	.0900					
0. 37	26. 10	1. 52	.0914	17. 10	.02970	21. 0	41. 0	44. 0	7. 50	19. 30	7. 29	.0918					
	***	2. 10	.0908	23. 59	.02914				8. 24	17. 15	7. 40	.0917					
1. 40	27. 35	2. 43	.0915						8. 50	18. 0	8. 30	.0927					
1. 53	26. 20	2. 52	.0913						9. 20	15. 10	8. 43	.0920					
2. 8	27. 5	3. 15	.0920						9. 28	18. 30	9. 18	.0933					
2. 27	24. 15	3. 51	.0920						9. 40	17. 20	9. 43	.0932					
2. 50	24. 25	4. 52	.0928						9. 48	17. 35	9. 54	.0935					
3. 15	22. 50	5. 21	.0925						10. 0	15. 50	10. 16	.0924					
3. 37	23. 0	5. 36	.0927						10. 15	16. 50	10. 28	.0922					
3. 58	21. 30	5. 57	.0923						10. 50	13. 50	10. 55	.0925					
5. 20	20. 25	6. 18	.0925						10. 54	14. 10	11. 7	.0918					
5. 36	19. 30	6. 51	.0920						11. 20	7. 5	11. 29	.0953					
5. 52	20. 10	7. 7	.0923						11. 40	15. 10	12. 11	.0908					
6. 10	19. 30	7. 22	.0920						11. 58	7. 30	12. 48	.0932					
6. 42	22. 30	8. 4	.0930						12. 11	8. 5	***						
7. 4	20. 35	8. 11	.0938						13. 0	18. 0	14. 27	.0933					
7. 23	22. 15	8. 21	.0939						13. 15	17. 35	16. 13	.0947					
7. 42	19. 45	8. 38	.0931						15. 15	25. 0	16. 22	.0946					
7. 58	19. 15	9. 30	.0931						16. 0	20. 0	17. 0	.0959					
8. 55	13. 30	9. 54	.0937						16. 37	26. 10	17. 32	.0945					
9. 29	14. 30	10. 18	.0935						17. 9	21. 35	17. 39	.0947					
9. 57	18. 20	10. 40	.0941														

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. 10 h m		Nov. 10 h m							Nov. 11 h m										
17. 37	21. 21. 40	17. 44	.0941						22. 10	21. 23. 10									
17. 51	19. 35	18. 11	.0951						22. 26	22. 20									
18. 20	22. 30	18. 44	.0937						23. 5	24. 50									
18. 37	22. 0	19. 22	.0961						23. 15	24. 0									
19. 0	34. 10	19. 51	.0944						23. 30	27. 30									
19. 27	27. 50	20. 30	.0947						23. 59	26. 30									
19. 56	22. 30	21. 55	.0925																
	***	22. 6	.0928																
21. 50	15. 30	22. 37	.0920						Nov. 12	21. 26. 30	Nov. 12	.0903	Nov. 12	0. 0	.02642	Nov. 12	1. 0	47. 0	48. 0
22. 7	19. 45	23. 17	.0917						0. 27	24. 50	0. 27	.0903	1. 37	.02605	3. 0	51. 0	51. 7		
22. 56	24. 0	23. 29	.0921						0. 48	28. 5	0. 51	.0911	5. 18	.02010	9. 0	50. 0	51. 0		
23. 30	25. 5	23. 59	.0916						1. 20	25. 35	1. 15	.0904	5. 50	.02052	22. 15	42. 0	45. 0		
23. 40	24. 10								1. 39	29. 30	1. 33	.0914		.02029					
23. 52	25. 5								1. 57	27. 0	2. 20	.0895		.02638					
23. 59	24. 25								2. 8	24. 5	2. 40	.0900	12. 25	.02588					
									2. 20	26. 10	3. 0	.0888	13. 7	.02510					
									2. 26	25. 5	3. 25	.0895	17. 20	.02740					
									2. 53	28. 50	3. 57	.0896	18. 20	.02846					
									3. 9	25. 10	4. 11	.0887	19. 58	.02925					
									3. 20	26. 20	4. 51	.0911	23. 59	.02959					
									3. 22	25. 10	5. 13	.0898							
									3. 27	26. 35	5. 22	.0895							
									3. 40	25. 0	5. 30	.0910							
									3. 47	26. 30	5. 40	.0914							
									4. 4	26. 0	5. 45	.0910							
									4. 22	23. 15	6. 20	.0904							
									4. 53	22. 5	6. 44	.0907							
									5. 22	6. 20	6. 54	.0903							
									5. 48	13. 30	7. 21	.0901							
									6. 20	19. 20	7. 55	.0906							
									6. 30	18. 30	8. 21	.0892							
									7. 15	19. 40	9. 7	.0919							
									7. 56	16. 5	9. 17	.0911							
									8. 15	17. 50	10. 12	.0897							
									8. 38	15. 30	10. 30	.0910							
									8. 57	16. 20	10. 50	.0899							
									9. 10	10. 15	11. 26	.0901							
									9. 20	14. 30	11. 45	.0893							
									9. 45	9. 35	12. 15	.0903							
									10. 0	10. 50	12. 44	.0889							
									10. 15	8. 35	12. 55	.0904							
									10. 28	7. 20	13. 0	.0897							
									11. 0	12. 0	13. 15	.0915							
									11. 20	9. 5	13. 30	.0907							
									11. 50	13. 0	13. 52	.0908							
									12. 7	10. 5	14. 10	.0915							
									14. 29	16. 5	14. 16	.0911							
									14. 47	16. 0	14. 43	.0915							
									15. 8	18. 5	15. 2	.0910							
									15. 25	22. 30	15. 13	.0915							
									15. 45	20. 20	15. 33	.0910							
									16. 15	20. 50	16. 0	.0915							
									16. 26	22. 35	16. 13	.0911							
									16. 33	21. 40	16. 30	.0915							
									16. 55	27. 0	16. 49	.0914							
									17. 20	20. 50	17. 16	.0934							
									18. 20	29. 50	17. 32	.0927							
									18. 36	28. 35	17. 51	.0924							

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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. 12 h m 18. 50	21. 32. 5	Nov. 12 h m 18. 0	·0927	h m		h m	o	o	Nov. 13 h m 23. 13	21. 21. 20	Nov. 13 h m 14. 9	·0929	h m		h m	o	o
18. 57	33. 10	18. 35	·0901						23. 47	24. 25	14. 49	·0931					
19. 26	28. 30	19. 12	·0918						23. 59	26. 0	15. 3	·0929					
19. 37	27. 20	19. 42	·0904								15. 51	·0941					
19. 50	30. 5	20. 4	·0899								16. 9	·0931					
20. 57	20. 30	20. 22	·0905								16. 39	·0937					
21. 20	19. 25	20. 45	·0900								17. 0	·0931					
21. 56	28. 5	21. 0	·0903								17. 12	·0935					
22. 43	30. 5	21. 20	·0891								17. 22	·0931					
23. 4	27. 30	22. 10	·0884								18. 17	·0929					
23. 59	30. 20	22. 42	·0889								18. 48	·0939					
		23. 0	·0881								19. 11	·0935					
		23. 30	·0895 (†)								19. 40	·0942 ***					
											22. 19	·0914					
											22. 44	·0916					
											22. 52	·0909					
											23. 0	·0911					
											23. 18	·0910					
											23. 35	·0915					
											23. 52	·0914					
											23. 59	·0912					
Nov. 13 o. 0	21. 30. 20	Nov. 13 (†)	·02959	Nov. 13 o. 0	·02959	Nov. 13 6. 30	45. 7	47. 5	Nov. 14 o. 0	21. 26. 0	Nov. 14 o. 0	·0912	Nov. 14 o. 0	·02862	Nov. 14 1. 0	42. 0	44. 0
0. 40	29. 45	0. 13	·0884	3. 4	·03118	21. 0	38. 0	41. 0	0. 58	26. 0	1. 0	·0902	1. 14	·02846	3. 0	45. 0	47. 0
0. 53	26. 0	0. 42	·0893	9. 24	·02710				1. 20	24. 40	3. 28	·0916	10. 46	·01937	9. 0	46. 8	48. 0
1. 25	31. 35	0. 52	·0889	12. 14	·02658				2. 26	25. 45	3. 36	·0920	23. 12	·02698	21. 0	39. 0	41. 0
1. 52	28. 0	1. 21	·0903	13. 15	·02681				5. 10	20. 35	4. 52	·0920	23. 59	·02729			
2. 10	30. 15	1. 37	·0897	13. 40	·02629				5. 50	20. 30	5. 21	·0926					
2. 27	29. 5	2. 25	·0917	17. 20	·02900				6. 20	17. 0	5. 55	·0911					
2. 40	30. 5	2. 39	·0916	23. 59	·02862				7. 7	18. 35	6. 13	·0909					
3. 4	23. 30	2. 48	·0910						7. 26	21. 5	7. 35	·0921					
3. 15	24. 0	3. 10	·0922						7. 57	21. 0	7. 51	·0919					
4. 25	21. 20	3. 36	·0917						9. 30	17. 30	8. 10	·0925					
4. 50	21. 20	4. 0	·0923						9. 53	20. 50	8. 30	·0922					
5. 20	31. 50	4. 13	·0922						10. 13	19. 0	9. 22	·0935					
6. 7	18. 5	4. 54	·0935						10. 30	22. 35	9. 45	·0927					
6. 50	15. 0	5. 5	·0930						10. 53	17. 50	10. 0	·0936					
7. 15	20. 50	5. 21	·0931						11. 20	18. 0	10. 22	·0930					
7. 37	18. 5	5. 33	·0922						11. 37	14. 10	10. 38	·0937					
8. 53	18. 50	5. 45	·0926						12. 7	14. 0	11. 11	·0926					
9. 20	14. 45	6. 42	·0897						12. 56	18. 35	12. 40	·0935					
10. 0	11. 20	6. 50	·0908						13. 22	17. 30	13. 0	·0931					
10. 17	14. 0	7. 5	·0911						14. 30	22. 0	13. 13	·0936					
10. 45	13. 25	7. 21	·0902						14. 50	21. 5	13. 33	·0933					
11. 22	7. 10	7. 56	·0919						17. 15	21. 20	14. 7	·0942					
11. 51	12. 0	8. 12	·0916						17. 26	20. 20	15. 21	·0941					
12. 30	8. 30	8. 51	·0918						17. 33	21. 25	17. 0	·0948					
13. 2	15. 30	8. 56	·0916						17. 46	20. 25	17. 12	·0953					
13. 20	14. 50	9. 25	·0927						18. 0	21. 20	17. 17	·0949					
13. 26	17. 0	9. 45	·0920						21. 6	18. 10	18. 9	·0950					
13. 37	16. 15	9. 51	·0923						21. 37	16. 35	18. 45	·0956					
14. 50	22. 5	10. 21	·0905						22. 20	18. 30	19. 52	·0956					
15. 15	18. 5	10. 45	·0911						23. 15	21. 30	22. 27	·0929					
15. 45	22. 30	11. 11	·0903						23. 59	23. 25	23. 11	·0916					
16. 3	19. 20	11. 43	·0900								23. 59	·0917					
17. 2	20. 5	11. 54	·0908														
17. 40	24. 20	12. 15	·0905														
19. 5	22. 30	12. 37	·0908														
21. 4	16. 50	13. 0	·0900														
22. 20	18. 30	13. 20	·0921														
22. 39	20. 35	13. 25	·0918														
22. 42	19. 30	13. 44	·0926														
22. 56	20. 55	13. 51	·0924														

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 h m s 0. 0 21. 23. 25 0. 28 25. 0 0. 56 26. 35 1. 10 25. 20 2. 37 24. 30 3. 15 21. 50 7. 26 18. 50 13. 10 20. 25 13. 55 19. 30 14. 25 20. 35 14. 47 18. 30 15. 17 21. 5 *** 15. 53 21. 5 16. 30 18. 5 18. 32 20. 30 19. 30 20. 5 19. 40 18. 10 19. 42 19. 50 19. 50 17. 50 19. 56 19. 20 *** 21. 27 17. 0 *** 22. 5 19. 40 22. 24 19. 0 23. 37 24. 25 23. 59 24. 30	Nov. 15 h m s 0. 0 1. 33 2. 16 2. 36 5. 22 7. 0 7. 51 8. 6 9. 14 9. 36 11. 11 12. 13 12. 17 12. 38 13. 0 13. 19 13. 44 13. 56 14. 41 14. 51 15. 11 15. 18 15. 27 15. 33 15. 42 15. 54 16. 0 16. 24 16. 36 17. 0 18. 30 18. 59 19. 11 19. 21 19. 55 21. 11 22. 0 23. 2 23. 36 23. 59	Nov. 15 h m s 0. 0 2. 18 12. 30 23. 59	Nov. 15 h m s 0. 0 1. 0 3. 0 9. 0 21. 0	Nov. 15 h m s 0. 0 1. 0 3. 0 9. 0 21. 0	Nov. 15 h m s 0. 0 1. 0 3. 0 9. 0 21. 0	Nov. 15 h m s 41. 7 44. 0 47. 0 42. 0	Nov. 15 h m s 42. 5 45. 0 47. 7 44. 0	Nov. 16 h m s 8. 50 9. 1 9. 9 10. 10 11. 3 12. 4 12. 26 12. 40 13. 20 13. 47 14. 6 16. 21 16. 29 16. 41 17. 3 17. 15 20. 10 21. 4 21. 54 22. 47 23. 59	Nov. 16 h m s 21. 14. 5 18. 35 17. 20 18. 20 18. 30 16. 35 17. 40 16. 55 19. 0 17. 50 20. 5 19. 25 18. 5 19. 30 18. 0 18. 40 *** 18. 5 16. 30 17. 30 21. 40 24. 0	Nov. 16 h m s 7. 52 8. 7 8. 14 8. 35 8. 43 8. 52 9. 13 11. 44 12. 11 12. 30 12. 42 13. 9 13. 19 13. 36 13. 52 14. 12 14. 52 16. 22 16. 31 16. 45 16. 54 17. 12 17. 50 17. 55 19. 43 19. 52 20. 39 22. 2 22. 52 23. 59	Nov. 16 h m s 0. 0 3. 10 5. 4 14. 50 21. 20 23. 59	Nov. 16 h m s 1. 0 3. 0 9. 0 21. 0	Nov. 16 h m s 48. 0 51. 0 50. 7 51. 0 45. 0				
Nov. 16 h m s 0. 0 0. 30 0. 59 1. 6 2. 10 3. 20 4. 45 5. 6 5. 20 5. 45 6. 21 6. 50 7. 20 7. 45 8. 6 8. 19	Nov. 16 h m s 0. 0 0. 11 0. 28 2. 58 4. 21 4. 43 4. 52 5. 27 5. 45 6. 7 6. 16 6. 42 6. 54 7. 11 7. 30	Nov. 16 h m s 0. 0 12. 15 23. 59	Nov. 16 h m s 0. 0 6. 4 12. 15 23. 59	Nov. 16 h m s 1. 0 3. 0 9. 0 21. 0	Nov. 16 h m s 1. 0 3. 0 9. 0 21. 0	Nov. 16 h m s 46. 0 49. 0 50. 0 45. 0	Nov. 16 h m s 46. 7 49. 0 50. 7 47. 0	Nov. 17 h m s 0. 0 0. 26 5. 47 7. 50 8. 43 9. 36 10. 4 10. 36 20. 3 20. 50 21. 5 22. 20 22. 56 23. 59	Nov. 17 h m s 21. 24. 0 22. 30 18. 20 19. 30 18. 0 16. 30 19. 0 18. 0 20. 0 19. 10 17. 30 18. 30 22. 25 23. 40	Nov. 17 h m s 0. 0 3. 10 5. 4 14. 50 21. 20 23. 59	Nov. 17 h m s 0. 0 3. 10 5. 4 14. 50 21. 20 23. 59	Nov. 17 h m s 1. 0 3. 0 9. 0 21. 0	Nov. 17 h m s 48. 0 51. 0 51. 0 45. 0				
Nov. 16 h m s 0. 0 0. 30 0. 59 1. 6 2. 10 3. 20 4. 45 5. 6 5. 20 5. 45 6. 21 6. 50 7. 20 7. 45 8. 6 8. 19	Nov. 16 h m s 0. 0 0. 11 0. 28 2. 58 4. 21 4. 43 4. 52 5. 27 5. 45 6. 7 6. 16 6. 42 6. 54 7. 11 7. 30	Nov. 16 h m s 0. 0 12. 15 23. 59	Nov. 16 h m s 0. 0 6. 4 12. 15 23. 59	Nov. 16 h m s 1. 0 3. 0 9. 0 21. 0	Nov. 16 h m s 1. 0 3. 0 9. 0 21. 0	Nov. 16 h m s 46. 0 49. 0 50. 0 45. 0	Nov. 16 h m s 46. 7 49. 0 50. 7 47. 0	Nov. 17 h m s 0. 0 0. 26 5. 47 7. 50 8. 43 9. 36 10. 4 10. 36 20. 3 20. 50 21. 5 22. 20 22. 56 23. 59	Nov. 17 h m s 21. 24. 0 22. 30 18. 20 19. 30 18. 0 16. 30 19. 0 18. 0 20. 0 19. 10 17. 30 18. 30 22. 25 23. 40	Nov. 17 h m s 0. 0 3. 10 5. 4 14. 50 21. 20 23. 59	Nov. 17 h m s 0. 0 3. 10 5. 4 14. 50 21. 20 23. 59	Nov. 17 h m s 1. 0 3. 0 9. 0 21. 0	Nov. 17 h m s 48. 0 51. 0 51. 0 45. 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. 17															
		23. 11	.0913														
		23. 59	.0915														
Nov. 18		Nov. 18		Nov. 18		Nov. 18											
0. 0	21. 23. 40	0. 0	.0915	0. 0	.02617	1. 0	46.0	47.0									
0. 46	25. 30	0. 45	.0921	2. 15	.02581	3. 0	48.0	49.0									
0. 50	23. 35	1. 7	.0912	6. 40	.02100	9. 0	49.5	49.5									
1. 7	24. 30	2. 14	.0913	10. 46	.01993	21. 0	46.0	47.0									
1. 20	23. 20	2. 31	.0909	21. 40	.02157												
2. 0	23. 35	4. 15	.0915	23. 59	.02219												
2. 26	21. 30	4. 51	.0922														
2. 40	22. 0	5. 22	.0918														
	***	6. 45	.0928														
6. 0	19. 20	7. 46	.0908														
7. 22	21. 30	8. 10	.0921														
7. 36	20. 50	9. 26	.0918														
7. 42	21. 30	9. 43	.0923														
8. 0	16. 25	10. 17	.0927														
8. 26	18. 40	11. 6	.0926														
9. 2	19. 30	11. 38	.0929														
12. 4	18. 0	12. 11	.0921														
12. 26	18. 30	13. 15	.0921														
12. 37	17. 0	14. 7	.0929														
12. 50	18. 30	15. 11	.0927														
13. 27	14. 40	17. 14	.0933														
14. 0	17. 0		***														
14. 17	16. 5	20. 10	.0931														
16. 10	18. 45	22. 18	.0905														
18. 33	18. 20	23. 1	.0907														
20. 20	18. 50	23. 28	.0903														
21. 28	17. 30	23. 54	.0909														
22. 2	20. 35	23. 59	.0908														
22. 15	18. 40		***														
22. 55	23. 30																
23. 40	24. 10																
23. 47	27. 50																
23. 59	24. 30																
Nov. 19		Nov. 19		Nov. 19		Nov. 19											
0. 0	21. 24. 30	0. 0	.0908	0. 0	.02219	1. 0	49.0	49.5									
0. 27	22. 25	2. 52	.0899	2. 13	.02091	3. 0	53.0	52.7									
0. 45	27. 30	3. 37	.0905	3. 34	.01937	9. 0	51.7	52.0									
1. 37	22. 50	3. 56	.0902	3. 57	{ .01942	22. 30	42.0	42.5									
1. 52	24. 35	4. 45	.0903	3. 57	{ .02281												
2. 21	22. 10	5. 11	.0907	9. 51	.02120												
2. 40	23. 15	5. 49	.0901	16. 22	.02446												
3. 22	21. 0	6. 21	.0907	22. 56	.02951												
5. 6	21. 0	6. 44	.0902	23. 59	.02930												
5. 54	22. 35	7. 37	.0912														
6. 10	21. 40	8. 7	.0910														
6. 30	22. 30	8. 21	.0913														
7. 15	20. 0	8. 29	.0911														
8. 47	21. 20	8. 56	.0923														
9. 10	21. 25	9. 12	.0913														
9. 37	17. 30	9. 30	.0923														
10. 10	19. 0	9. 58	.0919														
11. 10	18. 20	11. 22	.0917														

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 22. 3 23. 59	21. 15. 25 22. 30	Nov. 21 23. 11 23. 59	.0915 .0909						Nov. 24 23. 18 23. 59	21. 22. 30 22. 35	Nov. 24 21. 39 21. 52 22. 30 23. 59	.0910 .0913 .0907 .0911					
Nov. 22 0. 0 0. 37 1. 6 2. 15 2. 43 3. 42 6. 58 7. 45 8. 7 8. 36 10. 43 20. 3 20. 47 21. 4 23. 26 23. 59	21. 22. 30 20. 0 22. 0 22. 10 20. 50 20. 50 17. 50 13. 45 16. 5 15. 0 16. 35 18. 15 17. 0 15. 30 20. 25 22. 30	Nov. 22 0. 0 0. 17 0. 48 2. 10 2. 37 3. 0 3. 17 5. 44 6. 10 7. 8 7. 42 9. 12 12. 22 18. 43 20. 53 23. 10 23. 59	.0909 .0907 .0911 .0910 .0907 .0912 .0909 .0912 .0916 .0911 .0919 .0912 .0907 .0920 .0911 .0895 .0902	Nov. 22 0. 0 1. 20 3. 6 5. 15 6. 40 9. 38 20. 47 23. 59	.02370 .02358 .02224 .01910 .01926 .02037 .01930 .01979 .02091	Nov. 22 1. 0 3. 0 9. 0 21. 0	48.0 50.0 54.4 52.7	49.6 52.0 56.0 54.8	Nov. 25 0. 0 0. 32 0. 50 1. 4 4. 40 5. 0 6. 8 6. 23 8. 4 20. 13 20. 43 23. 59	21. 22. 35 22. 35 24. 10 22. 40 21. 30 20. 35 22. 15 21. 0 21. 35 18. 20 18. 20 17. 15 20. 30	Nov. 25 0. 0 2. 6 2. 26 3. 30 4. 50 5. 13 5. 52 6. 40 7. 11 9. 10 13. 44 19. 28 22. 31 23. 27	.0911 .0908 .0911 .0908 .0908 .0917 .0910 .0917 .0914 .0925 .0931 .0927 .0905 .0905 (†)	Nov. 25 0. 0 8. 37 20. 46	.02886 .02726 .02968 (†)	Nov. 25 1. 0 3. 0 9. 0 21. 0	51.5 53.0 53.8 53.0 48.0 51.0	
Nov. 23 0. 0 0. 51 1. 37 2. 38 3. 15 3. 50 6. 28 9. 26 14. 58 20. 28 21. 20 23. 33 23. 59	21. 22. 30 22. 0 24. 15 22. 50 19. 20 20. 25 16. 40 16. 35 20. 25 17. 35 16. 30 23. 25 24. 20	Nov. 23 0. 0 1. 54 2. 27 2. 49 3. 42 4. 15 4. 44 6. 21 8. 13 9. 20 10. 21 12. 6 18. 14 20. 0 22. 44 23. 59	.0902 .0899 .0901 .0893 .0899 .0898 .0903 .0904 .0911 .0908 .0913 .0911 .0925 .0921 .0904	Nov. 23 0. 0 2. 58 4. 3 5. 52 6. 23 9. 0 21. 0	.02091 .02049 .01940 .01982 .02284 .02237 (†) .02091* .02475*	Nov. 23 1. 0 3. 0 9. 0 21. 0	54.5 55.8 57.0 51.0	55.5 57.7 60.0 55.0	Nov. 26 0. 0 1. 56 10. 20 21. 26 22. 0 23. 59	21. 20. 30 21. 35 17. 10 18. 30 17. 25 20. 5	Nov. 26 0. 0 0. 50 1. 57 2. 44 3. 12 3. 40 7. 58 11. 42 14. 58 17. 28 20. 40 23. 59	.0906 .0905 .0908 .0905 .0907 .0911 .0918 .0915 .0918 .0925 .0918 .0909	Nov. 26 0. 17 2. 41 6. 50 15. 36 21. 47 23. 59	(†) .02924 .02842 .02552 .02518 .02710 .02850	Nov. 26 1. 0 3. 0 9. 0 22. 40	52.0 53.0 55.0 53.5 52.0	
Nov. 24 0. 0 1. 26 7. 26 9. 8 9. 37 10. 22 10. 58 11. 15 11. 37 12. 3 12. 45 13. 20 16. 26 16. 54 20. 17 20. 56	21. 24. 20 21. 10 18. 45 18. 40 16. 40 18. 5 18. 20 19. 0 17. 40 20. 0 23. 20 20. 0 18. 20 19. 30 17. 45 16. 30 ***	Nov. 24 0. 0 0. 50 1. 42 2. 43 3. 13 3. 37 5. 0 10. 10 11. 39 12. 0 12. 37 12. 57 13. 45 17. 7 17. 20 18. 45 20. 15	.0904 .0910 .0903 .0900 .0905 .0901 .0899 .0909 .0919 .0914 .0917 .0930 .0920 .0930 .0934 .0934 .0929	Nov. 24 0. 36 2. 30 7. 4 9. 48 22. 37 23. 59	(†) .02551 .02496 .02091 .02100 .02891 .02886	Nov. 24 1. 0 3. 0 9. 10 21. 0	54.0 56.0 55.0 49.7	56.7 57.7 57.0 52.0	Nov. 27 0. 0 0. 30 5. 33 9. 9 16. 45 21. 26 23. 59	21. 20. 5 20. 30 *** 21. 20 18. 30 18. 50 17. 0 21. 40	Nov. 27 0. 0 2. 18 3. 7 4. 9 7. 7 10. 0 10. 13 17. 22 20. 6 22. 59 23. 59	.0909 .0913 .0910 .0915 .0910 .0921 .0924 .0922 .0932 .0925 .0904 .0902	Nov. 27 0. 0 1. 56 23. 59	.02850 .02940 .02766	Nov. 27 7. 0 21. 0	52.0 52.0 49.0 50.7	
Nov. 24 0. 0 1. 26 7. 26 9. 8 9. 37 10. 22 10. 58 11. 15 11. 37 12. 3 12. 45 13. 20 16. 26 16. 54 20. 17 20. 56	21. 24. 20 21. 10 18. 45 18. 40 16. 40 18. 5 18. 20 19. 0 17. 40 20. 0 23. 20 20. 0 18. 20 19. 30 17. 45 16. 30 ***	Nov. 24 0. 0 0. 50 1. 42 2. 43 3. 13 3. 37 5. 0 10. 10 11. 39 12. 0 12. 37 12. 57 13. 45 17. 7 17. 20 18. 45 20. 15	.0904 .0910 .0903 .0900 .0905 .0901 .0899 .0909 .0919 .0914 .0917 .0930 .0920 .0930 .0934 .0934 .0929	Nov. 24 0. 36 2. 30 7. 4 9. 48 22. 37 23. 59	(†) .02551 .02496 .02091 .02100 .02891 .02886	Nov. 24 1. 0 3. 0 9. 10 21. 0	54.0 56.0 55.0 49.7	56.7 57.7 57.0 52.0	Nov. 28 0. 0 0. 57 1. 56 4. 18 6. 3 6. 36 8. 48	21. 21. 40 22. 15 23. 0 19. 20 20. 0 22. 0 19. 50	Nov. 28 0. 0 1. 30 2. 52 3. 14 3. 48 5. 22 5. 52	.0902 .0906 .0902 .0905 .0907 .0914 .0913	Nov. 28 0. 0 3. 15 8. 20 18. 36 23. 59	.02766 .02642 .02300 .02839 .02791	Nov. 28 1. 0 3. 0 9. 0 21. 0	51.7 53.0 51.7 46.0 47.0	

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.

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. 3 1. 0 3. 0 9. 0 22. 34	21. 20. 41* 20. 16* 19. 38* 13. 9*	Dec. 3 1. 0 3. 0 9. 0 22. 34	*0930* *0926* *0927* *0936*	Dec. 3 0. 0 2. 4 12. 20: 23. 59	*02742 *02667 *02150 *02709	Dec. 3 1. 0 3. 0 9. 0 22. 34	41. 0 43. 0 45. 0 38. 0	42. 5 44. 0 46. 7 41. 0	Dec. 10 2. 25 3. 40 5. 10 5. 48 6. 8 6. 35 6. 40 6. 53 7. 2 7. 11 7. 25 7. 36 7. 52 8. 8 8. 15 8. 36 8. 40 9. 15 9. 21 9. 38 9. 45 9. 58 10. 10 10. 45 11. 0 11. 10 11. 50 12. 10 12. 30 13. 35 14. 4 14. 11 14. 19 16. 7 16. 22 16. 29 16. 44 17. 7	21. 23. 30 21. 0 20. 15 *** 21. 20 24. 0 20. 10 21. 5 20. 0 24. 35 21. 5 27. 0 23. 0 26. 50 20. 5 22. 15 15. 10 16. 0 11. 0 12. 0 7. 0 14. 30 14. 40 11. 35 18. 0 18. 0 16. 30 *** 17. 0 19. 0 16. 25 18. 50 15. 0 16. 5 15. 10 *** 27. 30 21. 40 23. 0 19. 40 21. 30 20. 30 20. 40 *** 22. 15 22. 27 22. 36 23. 59	Dec. 10 3. 30 5. 26 5. 40 6. 7 6. 44 6. 58 7. 10 7. 15 7. 29 7. 43 7. 54 8. 11 8. 17 8. 27 8. 40 9. 24 9. 32 9. 51 10. 10 10. 21 10. 44 11. 21 11. 33 12. 6 12. 22 12. 30 12. 48 13. 34 13. 51 14. 18 14. 26 15. 0 15. 19 16. 28 16. 52 17. 28 19. 55 21. 0 22. 30 22. 30 22. 47 22. 55 23. 7 (†)	Dec. 10 8. 57 9. 30 9. 50 18. 18 23. 59	*02158 *02063 *02123 *02318 *02751	Dec. 10 22. 10 41. 0 43. 0			
Dec. 4 6. 33 21. 0	21. 21. 47* 18. 17*	Dec. 4 6. 33 21. 0	*0936* *0933*	Dec. 4 0. 0 6. 30 16. 40 23. 59	*02709 *02680 *02379 *01949	Dec. 4 6. 33 21. 0	40. 3 43. 7 48. 5 51. 0		Dec. 11 0. 0 0. 30:	21. 26. 55 27. 30	Dec. 11 6. 55 21. 0	*0922* *0929*	Dec. 11 0. 0 3. 50	*02751 *02958	Dec. 11 6. 55 21. 0	41. 0 38. 0 43. 0 40. 0	
Dec. 5 1. 0 3. 0 9. 0 21. 0	21. 22. 38* 16. 51* 20. 4* 17. 19*	Dec. 5 1. 0 3. 0 9. 0 21. 0	*0892* *0890* *0906* *0922*	Dec. 5 0. 0 2. 43 7. 4 12. 9 12. 37 13. 9 16. 50 22. 47 23. 59	*01949 *01680 *01803 *01784 *01840 *01803 *02230 *02671 *02690	Dec. 5 1. 0 3. 0 9. 0 21. 0	53. 3 55. 7 55. 8 46. 7	54. 8 57. 0 56. 0 47. 5	Dec. 11 0. 0 0. 30:	21. 26. 55 27. 30	Dec. 11 6. 55 21. 0	*0922* *0929*	Dec. 11 0. 0 3. 50	*02751 *02958	Dec. 11 6. 55 21. 0	41. 0 38. 0 43. 0 40. 0	
Dec. 6 1. 0 3. 0 9. 0 21. 0	21. 23. 35* 24. 15* 15. 14* 17. 23*	Dec. 6 1. 0 3. 0 9. 0 21. 0	*0917* *0912* *0925* *0923*	Dec. 6 0. 0 1. 37 6. 7 11. 47 15. 0 15. 40 23. 59	*02690 *02640 *02331 *02158 *02253 *02183 *02666	Dec. 6 1. 0 3. 0 9. 0 21. 0	49. 0 51. 7 51. 5 46. 8	50. 0 51. 5 52. 0 47. 2	Dec. 11 0. 0 0. 30:	21. 26. 55 27. 30	Dec. 11 6. 55 21. 0	*0922* *0929*	Dec. 11 0. 0 3. 50	*02751 *02958	Dec. 11 6. 55 21. 0	41. 0 38. 0 43. 0 40. 0	
Dec. 7 1. 0 3. 0 9. 0 21. 0	21. 24. 19* 24. 18* 15. 45* 19. 3*	Dec. 7 1. 0 3. 0 9. 0 21. 0	*0898* *0901* *0901* *0919*	Dec. 7 0. 0 1. 46 6. 28 8. 17 11. 20 11. 47 23. 6 23. 59	*02666 *02583 *01970 *01907 *01950 *01891 *02450 *02437	Dec. 7 1. 0 3. 0 9. 0 21. 0	49. 3 53. 0 51. 4 46. 3	50. 3 53. 0 52. 0 48. 5	Dec. 11 0. 0 0. 30:	21. 26. 55 27. 30	Dec. 11 6. 55 21. 0	*0922* *0929*	Dec. 11 0. 0 3. 50	*02751 *02958	Dec. 11 6. 55 21. 0	41. 0 38. 0 43. 0 40. 0	
Dec. 8 1. 0 3. 0 9. 0 21. 0	21. 21. 52* 20. 54* 19. 0* 15. 26*	Dec. 8 1. 0 3. 0 9. 0 21. 0	*0900* *0900* *0919* *0925*	Dec. 8 0. 0 0. 47 3. 50 8. 10: 23. 59	*02437 *02437 *02208 *01820 *02688	Dec. 8 1. 0 3. 0 9. 0 21. 0	50. 0 52. 0 51. 0 43. 0	51. 0 53. 0 52. 5 46. 0	Dec. 11 0. 0 0. 30:	21. 26. 55 27. 30	Dec. 11 6. 55 21. 0	*0922* *0929*	Dec. 11 0. 0 3. 50	*02751 *02958	Dec. 11 6. 55 21. 0	41. 0 38. 0 43. 0 40. 0	
Dec. 9 1. 0 3. 0 9. 0 21. 0	21. 23. 25* 23. 2* 16. 11* 22. 2*	Dec. 9 1. 0 3. 0 9. 0 21. 0	*0904* *0896* *0924* *0931*	Dec. 9 0. 0 2. 10 9. 52: 23. 15 23. 59	*02688 *02724 *02243 *02718 *02763	Dec. 9 1. 0 3. 0 9. 0 21. 0	46. 0 48. 0 48. 0 43. 0	47. 0 49. 8 49. 5 46. 0	Dec. 11 0. 0 0. 30:	21. 26. 55 27. 30	Dec. 11 6. 55 21. 0	*0922* *0929*	Dec. 11 0. 0 3. 50	*02751 *02958	Dec. 11 6. 55 21. 0	41. 0 38. 0 43. 0 40. 0	
Dec. 10 0. 50 1. 18	21. 21. 15 23. 30 ***	Dec. 10 1. 0 2. 15	(†) *0915* *0911	Dec. 10 0. 0 1. 54 6. 33	*02763 *02670 *02067	Dec. 10 1. 0 3. 0 9. 0	46. 0 49. 0 48. 0	48. 0 50. 0 49. 0	Dec. 11 0. 0 0. 30:	21. 26. 55 27. 30	Dec. 11 6. 55 21. 0	*0922* *0929*	Dec. 11 0. 0 3. 50	*02751 *02958	Dec. 11 6. 55 21. 0	41. 0 38. 0 43. 0 40. 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.

December 11. The Photographic Trace of the Horizontal Force Magnet 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.
Dec. 11				Dec. 11													
1. 10	21. 27. 0			6. 16	.02877				Dec. 12								
1. 23	30. 0			8. 22	.02921				23. 44	21. 28. 30							
1. 41	25. 45			9. 5	.02840				23. 51	34. 0							
2. 8	26. 0			9. 33	.02894				23. 59	30. 0							
2. 18	27. 0				***				Dec. 13		Dec. 13		Dec. 13		Dec. 13		Dec. 13
2. 35	26. 35			14. 4	.02817				0. 0	21. 30. 0	(†)	0. 0	.01861	1. 0	47. 0	48. 0	
2. 58	24. 0			23. 59	.02796				0. 10	34. 30	.0920*	1. 37	***	3. 0	48. 3	48. 5	
3. 15	22. 0								(†)	(†)	.0861*		.02083	9. 0	46. 7	47. 2	
9. 0	9. 5								1. 0	36. 50	.0836		***	21. 0	37. 3	40. 2	
10. 0	14. 0								1. 19	47. 45	.0856						
10. 45	11. 50								1. 44	30. 0	.0859						
11. 14	17. 0								1. 52	37. 0	.0867						
11. 46	9. 15								2. 0	33. 30	.0864						
12. 0	14. 55								2. 21	35. 40	.0868						
12. 15	12. 0								2. 26	29. 15	(†)						
12. 34	17. 25								2. 31	33. 10	.0884*						
	***								2. 52	23. 15	.0880						
13. 15	20. 0								3. 0	22. 20	.0896						
13. 52	14. 0								3. 12	24. 0	.0889						
14. 54	20. 10								3. 51	19. 30	.0912						
	***								4. 52	17. 0	.0899						
16. 45	21. 40								5. 0	17. 35	.0902						
17. 17	19. 0								5. 10	15. 50	.0897						
18. 25	19. 0								5. 21	18. 0	.0899						
20. 40	17. 0								5. 42	17. 50	.0911						
21. 36	18. 40								5. 49	15. 0	.0906						
21. 58	18. 0								5. 54	16. 30	.0910						
22. 13	21. 0								5. 59	14. 20	.0920						
	***								6. 21	33. 40	.0913						
23. 59	20. 20								6. 28	32. 35	.0924						
									6. 39	43. 45	.0926						
									6. 40	42. 50	.0901						
									6. 45	45. 45	.0896						
									7. 11	10. 20	.0901						
									7. 24	8. 20	(†)						
									7. 30	8. 40							
									7. 42	4. 20							
									7. 54	8. 30							
									8. 10	8. 30							
									8. 37	19. 0							
									8. 52	24. 45							
									9. 6	21. 25							
									9. 35	12. 20							
									9. 42	13. 30							
									9. 54	3. 30							
									10. 2	10. 50							
									10. 12	6. 40							
									10. 30	15. 40							
									10. 51	12. 0							
									11. 15	16. 0							
									11. 36	12. 5							
									11. 47	14. 20							
									12. 10	19. 30							
									12. 12	18. 40							
									12. 17	20. 30							
									12. 30	18. 30							
									14. 21	21. 0							
									14. 28	22. 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.
		Dec. 15															
		20. 7	·0943														
		20. 24	·0943														
		21. 4	·0931														
		21. 31	·0943														
		22. 52	·0915														
		23. 12	·0925														
		23. 16	·0921														
		23. 27	·0922 (†)														
Dec. 16	(†)	Dec. 16	(†)	Dec. 16		Dec. 16											
1. 0	21. 22. 35*	0. 17	·0918	0. 0	·02651	1. 0	38. 0	39. 0									
1. 21	23. 0	0. 54	·0922	2. 4	·02618	3. 0	41. 0	41. 3									
1. 35	19. 5	1. 30	·0920	12. 47.	·01783	9. 0	44. 2	44. 5									
1. 42	20. 50	1. 45	·0911	23. 10	·02450	21. 0	35. 0	37. 0									
	***	2. 12	·0913	23. 59	·02462												
2. 36	21. 45	2. 52	·0911														
2. 49	19. 30	3. 37	·0919														
2. 58	20. 30	3. 45	·0914														
3. 7	19. 35	3. 59	·0919														
	***	4. 58	·0891														
3. 43	20. 35	5. 37	·0911														
3. 58	19. 30	6. 20	·0911														
4. 45	21. 40	6. 31	·0917														
5. 0	18. 45	6. 51	·0915														
5. 10	19. 30	7. 0	·0927														
5. 26	18. 15	7. 37	·0915														
6. 7	19. 5		***														
6. 58	16. 30	10. 48	·0917														
9. 21	14. 50	10. 54	·0922														
12. 44	17. 40	11. 13	·0920														
20. 25	18. 30	11. 15	·0925														
20. 40	17. 30	12. 4	·0919														
21. 42	15. 10	14. 7	·0931														
22. 52	16. 30	14. 20	·0927														
	(†)	19. 21	·0949														
		21. 3	·0951														
		23. 4	·0928 (†)														
Dec. 17		Dec. 17	(†)	Dec. 17		Dec. 17											
0. 0	21. 16. 5	0. 42	·0924	0. 0	·02462	1. 0	38. 0	38. 0									
1. 25	20. 0	1. 53	·0917	1. 43	·02417	3. 0	41. 0	41. 0									
2. 56	21. 30	3. 36	·0917	10. 47.	·01837	9. 0	42. 0	42. 0									
4. 25	19. 30	4. 20	·0923	23. 59	·02358	22. 40	33. 5	38. 5									
4. 50	16. 25	4. 43	·0916														
5. 50	14. 20	4. 52	·0918														
6. 45	16. 45	5. 9	·0916														
8. 9	17. 0	5. 22	·0920														
8. 50	7. 5	6. 5	·0917														
9. 10	12. 50	6. 37	·0920														
9. 37	8. 20	7. 30	·0923														
10. 3	14. 0	7. 42	·0919														
10. 13	12. 50	8. 6	·0923														
10. 26	13. 45	8. 21	·0919														
10. 40	12. 5																
11. 40	14. 50																

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 2. 44 3. 38 4. 37 5. 6 5. 40 6. 28 6. 57 7. 20 7. 40 8. 47 9. 40 10. 15 11. 45 13. 25 13. 44 14. 0 14. 33 14. 47 19. 32 22. 7 23. 43 23. 59	21. 24. 0 22. 5 23. 50 21. 5 17. 30 20. 30 23. 50 23. 45 21. 5 20. 25 13. 0 13. 20 12. 5 13. 55 18. 5 17. 50 18. 30 17. 30 18. 20 15. 50 18. 0 21. 15 21. 10	Dec. 20 h m s 0. 0 1. 13 1. 25 2. 9 2. 49 3. 21 4. 21 4. 30 4. 49 5. 15 6. 9 6. 30 6. 39 7. 12 7. 38 7. 52 8. 7 8. 50 9. 14 9. 51 11. 26 11. 40 11. 52 12. 51 14. 36 16. 45 20. 42 21. 40 23. 59	*0936 *0943 *0937 *0937 *0932 *0931 *0923 *0925 *0922 *0934 *0936 *0923 *0927 *0914 *0917 *0912 *0920 *0921 *0933 *0914 *0921 *0923 *0931 *0933 *0943 *0938 *0930 *0919	Dec. 20 h m s 0. 0 1. 56 3. 22 7. 6 10. 13 21. 0	*02500 *02481 *02372 *01928 *01806 (†) *01928*	Dec. 20 h m s 1. 0 3. 0 9. 7 21. 0	33° 37° 41° 41°	35° 38° 40° 43°	Dec. 21 h m s 16. 40 16. 53 17. 47 18. 56 20. 10 20. 30 20. 56 23. 59	21. 15. 35 16. 30 15. 25 17. 30 17. 35 16. 15 18. 20 20. 0	Dec. 21 h m s 0. 0 0. 45 1. 15 1. 26 1. 57 2. 48 2. 57 3. 10 3. 27 4. 52 5. 53 8. 0 10. 50 11. 10 11. 33 12. 17 12. 56 13. 50 15. 36 15. 56 16. 17 16. 45 17. 6 17. 45 18. 45 20. 36 22. 10 22. 50 23. 59	0. 0 24. 10 21. 10 21. 55 19. 30 22. 0 21. 15 23. 10 21. 45 22. 30 19. 0 17. 25 16. 5 16. 35 15. 15 17. 30 13. 0 18. 0 15. 30 16. 5 15. 0 16. 5 16. 5 18. 10 17. 0 17. 5 19. 10 23. 20 19. 35	Dec. 22 h m s 0. 0 0. 40 1. 25 1. 56 2. 14 2. 38 2. 52 3. 10 3. 52 4. 27 5. 39 6. 51 8. 13 10. 44 12. 57 13. 15 13. 40 14. 28 17. 28 17. 46 19. 0 19. 28 20. 29 22. 13 22. 52 23. 15 23. 30 23. 53 23. 59	0. 0 3. 20 13. 26 23. 59	*0928 *0935 *0923 *0918 *0934 *0921 *0920 *0933 *0907 *0915 *0913 *0927 *0929 *0921 *0931 *0941 *0930 *0930 *0945 *0941 *0944 *0947 *0943 *0925 *0923 *0927 *0925 *0933 *0931	Dec. 22 h m s 0. 0 3. 0 9. 0 21. 0	*02738 *02624 *02110 *02417	Dec. 22 h m s 1. 0 3. 0 9. 0 21. 0	44° 46° 47° 43°	45° 47° 47° 45°	Dec. 21 h m s 0. 0 1. 13 2. 40 2. 57 3. 33 4. 33 5. 10 5. 47 6. 57 7. 6 7. 40 7. 58 8. 20 9. 0 9. 17 10. 15 10. 53 12. 0 12. 30 12. 46 13. 15 14. 3 14. 56 15. 27 15. 40 15. 58 16. 20	21. 21. 10 23. 0 19. 40 20. 40 19. 20 21. 20 21. 0 18. 30 22. 5 19. 10 22. 0 19. 30 15. 35 17. 0 15. 25 17. 10 15. 5 14. 30 16. 0 15. 5 17. 30 16. 25 18. 45 16. 30 17. 50 16. 30 17. 35	Dec. 21 h m s 0. 0 0. 29 0. 52 1. 44 2. 36 2. 51 3. 7 4. 36 4. 52 5. 30 6. 0 6. 40 7. 21 7. 56 8. 21 10. 17 10. 40 11. 0 12. 54 17. 52 20. 22 20. 52 23. 30 23. 45 23. 59	*0919 *0917 *0925 *0914 *0914 *0919 *0913 *0913 *0915 *0909 *0912 *0903 *0907 *0898 *0905 *0915 *0913 *0919 *0915 *0945 *0935 *0944 *0919 *0924 *0928	Dec. 21 h m s 0. 38 4. 20 11. 56 23. 59	(†) *01927 *02064 *02160 *02738	Dec. 21 h m s 1. 0 3. 0 9. 0 21. 0	46° 49° 49° 42°	47° 49° 48° 43°	Dec. 21 h m s 16. 17 16. 45 17. 6 17. 45 18. 45 20. 36 22. 10 22. 50 23. 59	21. 19. 35 20. 30 20. 10 21. 5 20. 15 21. 0 20. 5 20. 0 18. 20 18. 30 19. 45 19. 20 16. 35 19. 20 16. 30 18. 35	Dec. 23 h m s 0. 0 1. 0 1. 22 1. 33 1. 53 2. 6 2. 30 3. 6 3. 25 3. 57 4. 20 4. 42 5. 25 5. 54 6. 20 6. 28	0. 0 0. 21 0. 53 1. 10 1. 56 3. 14 3. 39 5. 36 6. 5 6. 13 6. 43 7. 6 7. 17 7. 25 7. 36 7. 49	Dec. 23 h m s 0. 0 3. 30 6. 8 12. 20 12. 56 18. 30 23. 59	*02417 *02336 *02167 *02162 *02110 *02450 *02421	Dec. 23 h m s 1. 0 3. 0 9. 0 21. 0	44° 46° 46° 45°	46° 47° 47° 47°
Dec. 21 h m s 0. 0 1. 13 2. 40 2. 57 3. 33 4. 33 5. 10 5. 47 6. 57 7. 6 7. 40 7. 58 8. 20 9. 0 9. 17 10. 15 10. 53 12. 0 12. 30 12. 46 13. 15 14. 3 14. 56 15. 27 15. 40 15. 58 16. 20	21. 21. 10 23. 0 19. 40 20. 40 19. 20 21. 20 21. 0 18. 30 22. 5 19. 10 22. 0 19. 30 15. 35 17. 0 15. 25 17. 10 15. 5 14. 30 16. 0 15. 5 17. 30 16. 25 18. 45 16. 30 17. 50 16. 30 17. 35	Dec. 21 h m s 0. 0 0. 29 0. 52 1. 44 2. 36 2. 51 3. 7 4. 36 4. 52 5. 30 6. 0 6. 40 7. 21 7. 56 8. 21 10. 17 10. 40 11. 0 12. 54 17. 52 20. 22 20. 52 23. 30 23. 45 23. 59	*0919 *0917 *0925 *0914 *0914 *0919 *0913 *0913 *0915 *0909 *0912 *0903 *0907 *0898 *0905 *0915 *0913 *0919 *0915 *0945 *0935 *0944 *0919 *0924 *0928	Dec. 21 h m s 0. 38 4. 20 11. 56 23. 59	(†) *01927 *02064 *02160 *02738	Dec. 21 h m s 1. 0 3. 0 9. 0 21. 0	46° 49° 49° 42°	47° 49° 48° 43°	Dec. 21 h m s 16. 17 16. 45 17. 6 17. 45 18. 45 20. 36 22. 10 22. 50 23. 59	21. 19. 35 20. 30 20. 10 21. 5 20. 15 21. 0 20. 5 20. 0 18. 20 18. 30 19. 45 19. 20 16. 35 19. 20 16. 30 18. 35	Dec. 23 h m s 0. 0 1. 0 1. 22 1. 33 1. 53 2. 6 2. 30 3. 6 3. 25 3. 57 4. 20 4. 42 5. 25 5. 54 6. 20 6. 28	0. 0 0. 21 0. 53 1. 10 1. 56 3. 14 3. 39 5. 36 6. 5 6. 13 6. 43 7. 6 7. 17 7. 25 7. 36 7. 49	Dec. 23 h m s 0. 0 3. 30 6. 8 12. 20 12. 56 18. 30 23. 59	*02417 *02336 *02167 *02162 *02110 *02450 *02421	Dec. 23 h m s 1. 0 3. 0 9. 0 21. 0	44° 46° 46° 45°	46° 47° 47° 47°																					

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. 23 6.56 7.15 7.28 7.40 9.3 9.52 10.47 12.9 12.26 12.43 13.26 13.55 14.40 14.51 15.0 18.58 20.57 23.59	21. 9. 0 14. 40 14. 0 15. 0 *** 16. 5 14. 0 12. 35 20. 30 17. 40 29. 50 19. 0 14. 0 17. 10 16. 50 18. 0 *** 16. 35 15. 10 20. 0	Dec. 23 8.10 8.36 8.43 9.15 12.0 12.19 12.40 13.6 13.21 13.30 13.54 14.30 17.55 19.37 23.7 23.59 16.35 15.10 20.0	'0913 '0922 '0941 '0927 '0927 '0943 '0933 '0925 '0931 '0930 '0937 '0931 '0942 '0937 '0911 '0904	h h		h h	o o	o o	Dec. 25 12.50 13.40 14.10 16.45 17.4 17.37 20.26 21.15 22.0 22.40 23.59	21. 17. 35 15. 50 18. 0 17. 50 16. 40 17. 20 16. 25 15. 0 16. 30 16. 20 20. 5	Dec. 25 9.19 9.51 10.37 11.12 12.34 13.41 16.40 20.30 21.54 23.59	'0927 '0923 '0928 '0921 '0929 '0927 '0936 '0937 '0923 '0915	h m		h m	o o	o o
Dec. 24 0.0 0.33 1.4 1.17 1.53 2.5 2.21 2.33 2.45 2.53 3.10 6.57 7.15 11.20 12.0 12.47 13.20 14.20 17.43 18.20 18.42 21.26 23.10 23.32 23.59	21. 20. 0 19. 10 20. 40 20. 0 21. 10 20. 35 20. 0 20. 35 19. 25 20. 0 19. 5 18. 40 18. 0 17. 20 16. 45 17. 40 15. 30 17. 50 18. 30 17. 15 18. 25 16. 5 *** 19. 20 19. 0 19. 35	Dec. 24 0.0 0.45 1.0 2.22 3.6 3.55 4.51 6.10 11.37 11.52 12.12 17.15 17.45 18.19 19.50 21.44 23.59	'0904 '0907 '0911 '0908 '0910 '0918 '0918 '0922 '0923 '0925 '0922 '0925 '0931 '0929 '0933 '0916 '0905	Dec. 24 0.0 3.50 6.25 7.17 14.8 23.59	'02421 '02109 '02121 '02202 '02243 '02286 '02297 '02621	Dec. 24 1.0 3.0 9.0 22.53	49.0 52.0 51.0 47.5	50.0 52.0 51.6 48.5	Dec. 26 0.0 1.20 2.27 3.40 4.50 6.57 9.0 9.30 10.4 12.27 14.28 14.43 15.26 16.0 16.40 17.38 17.49 18.3 18.10 18.19 18.22 18.30 18.57 21.40 23.59	21. 20. 5 20. 0 21. 15 19. 30 23. 5 19. 30 18. 0 15. 30 18. 40 17. 25 20. 0 18. 0 21. 20 17. 30 *** 18. 15 19. 0 17. 30 18. 5 16. 50 18. 10 17. 35 19. 20 17. 30 20. 5	Dec. 26 0.0 5.47 21.48 23.0 23.59	'0915 '0927 '0924 '0927 '0921 '0921 '0926 '0921 '0932 '0933 '0939 '0935 '0941 '0941 '0944 '0941 '0938 '0916 '0915 '0918	Dec. 26 0.0 5.47 21.48 23.0 23.59	'02642 '02430 '03100 '03170 '03178	Dec. 26 7.6 21.0	49.8 43.3 44.8	50.2 44.8
Dec. 25 0.0 2.7 2.42 5.10 10.22 11.45 12.28	21. 19. 35 *** 19. 35 17. 30 17. 30 16. 35 13. 20 16. 20	Dec. 25 0.0 0.43 1.36 2.37 3.25 4.13 6.56 7.43	'0905 '0903 '0908 '0902 '0912 '0911 '0924 '0922	Dec. 25 0.0 1.52 7.15 18.36 23.59	'02621 '02556 '02310 '02582 '02642	Dec. 25 8.55 21.13	50.0 47.5	51.0 48.4	Dec. 27 0.0 0.36 1.6 1.30 1.42 2.26 2.37 2.53 9.38 10.20 11.10 11.40 14.3 14.20 14.27 14.36 14.50	21. 20. 5 19. 30 22. 20 20. 30 21. 25 20. 10 20. 50 19. 30 17. 5 13. 30 14. 0 12. 30 15. 35 15. 20 16. 5 15. 20 16. 25	Dec. 27 0.0 0.13 1.0 2.18 11.36 19.38 23.59	'0918 '0921 '0916 '0919 '0917 '0920 '0925 '0918 '0925 '0920 '0926 '0923 '0925 '0911 '0913 '0911 '0918	Dec. 27 0.0 0.13 1.0 2.18 11.36 19.38 23.59	'03178 '03177* (†) '03161 '03010 '02421 '02837 '02841	Dec. 27 1.0 3.0 9.3 21.0	47.0 49.0 51.0 47.3	48.0 50.0 51.7 48.7

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.
Dec. 27		Dec. 27															
15. 0	21. 15. 40	12. 52	.0917									Dec. 29	12. 54	.0923			
15. 20	17. 10	13. 17	.0921									13. 40	.0918				
16. 10	16. 20	13. 36	.0916									15. 0	.0922				
17. 10	17. 45	14. 22	.0925									15. 30	.0919				
17. 26	16. 0	14. 36	.0938									19. 44	.0922				
17. 54	16. 10	14. 49	.0931									20. 43	.0920				
18. 22	18. 0	15. 7	.0928									21. 21	.0909				
	***	17. 9	.0931									21. 30	.0911				
21. 15	16. 45	17. 17	.0933									21. 45	.0908				
22. 38	18. 25	18. 20	.0931									22. 10	.0913				
	(†)	20. 36	.0931									23. 7	.0903				
		21. 21	.0919									23. 42	.0911				
		22. 7	.0915									23. 59	.0910				
		23. 15	.0915														
		23. 30	.0909														
		23. 59	.0909														
		Dec. 28		Dec. 28		Dec. 28						Dec. 30		Dec. 30		Dec. 30	
		0. 0	.0909	0. 0	.02841	1. 0	50.0	51.0				0. 0	.0910	0. 0	.02390	1. 0	53.0
		0. 37	.0910	2. 20	.02683	3. 0	51.0	51.7				0. 56	.0915	3. 42	.02370	3. 0	53.5
		0. 57	.0917	3. 42	.02670	9. 0	50.7	50.8				1. 29	.0906	7. 50	.02206	9. 0	55.0
		1. 13	.0913	8. 10	.02396	21. 0	48.0	49.0				2. 11	.0915	10. 4	.02240	21. 0	53.0
		2. 6	.0916	13. 15	.02578							2. 43	.0903	17. 22	.02237		
		2. 36	.0909	23. 59	.02863							3. 10	.0894	22. 30	.02410		
		3. 54	.0913									4. 27	.0910	23. 59	.02408		
		5. 13	.0909									5. 55	.0915				
		5. 43	.0916									7. 11	.0906				
		7. 15	.0919									7. 30	.0909				
		8. 9	.0915									8. 31	.0900				
		8. 44	.0919									9. 36	.0897				
		9. 57	.0907									10. 0	.0914				
		10. 15	.0914									10. 39	.0885				
		10. 30	.0907									10. 55	.0899				
		10. 59	.0913									11. 13	.0896				
		12. 37	.0914									11. 27	.0897				
		12. 51	.0911									11. 52	.0894				
		15. 44	.0925									12. 13	.0899				
		19. 44	.0929									12. 26	.0896				
		21. 50	.0914									13. 14	.0901				
		22. 5	.0917									13. 22	.0898				
		22. 20	.0913									13. 59	.0901				
		23. 13	.0915									14. 15	.0897				
		23. 24	.0913									16. 28	.0911				
		23. 59	.0917									17. 40	.0909				
		Dec. 29		Dec. 29		Dec. 29						19. 21	.0913				
		0. 0	.0917	0. 0	.02863	1. 0	49.0	50.0				20. 55	.0909				
		1. 16	.0923	4. 10	.02830	3. 0	50.0	51.0				21. 7	.0905				
		1. 42	.0921	9. 40	.02338	9. 0	54.0	55.0				22. 20	.0893				
		2. 0	.0925	13. 43	.02180	21. 0	52.0	53.0				23. 21	.0897				
		2. 22	.0921	23. 59	.02390							23. 59	.0895				
		2. 59	.0928									Dec. 31		Dec. 31		Dec. 31	
		3. 17	.0921									0. 0	.0895	0. 0	.02408	1. 0	55.0
		6. 13	.0916									0. 30	.0903	1. 7	.02380	3. 0	57.5
		8. 0	.0921									1. 2	.0901	11. 48	.02241	9. 0	59.0
		11. 0	.0918									1. 39	.0904	16. 43	.02236	22. 20	56.3
		11. 52	.0921									2. 13	.0897	23. 24	.02463		
		12. 30	.0917									2. 33	.0901	(†)			
												4. 50	.0905				
												5. 21	.0909				
												5. 45	.0907				

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

December 28. From this date the Declination Magnet was under adjustment.

Greenwich Mean Solar Time.		Western Declination.	Greenwich Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for 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.	
h	m							Of H. F. Magnet.	Of V. F. Magnet.								h	m	Of H. F. Magnet.	Of V. F. Magnet.
			Dec. 31															
	6. 40			'0911								13. 09						
	6. 55			'0908								14. 45						
	7. 14			'0911								14. 57						
	7. 44			'0907								15. 14						
	8. 10			'0911								17. 19						
	8. 28			'0911														
	8. 43			'0907														
	10. 0			'0904								19. 22						
	10. 11			'0908								20. 22						
	10. 27			'0896								21. 10						
	10. 46			'0909								22. 44						
	11. 0			'0905								22. 55						
	11. 13			'0905								23. 15						
	11. 26			'0901														

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

ROYAL OBSERVATORY, GREENWICH.

RESULTS

OF

OBSERVATIONS

OF THE

MAGNETIC DIP.

1859.

During the year 1859, the observations of the Magnetic Dip were made with the instrument by Robinson used in preceding years, and described in the volume of *Greenwich Magnetical and Meteorological Observations* for 1847, and in preceding volumes. With this instrument are used four nine-inch needles, two of which, marked A and A 2, were made by Barrow, and two, marked A 1 and A 3, were made by Dent. In the tabular statement of the values of the Magnetic Dip these needles are called Barrow A and Barrow A 2, and Dent A 1 and Dent A 3.

MAGNETIC DIP, observed at the ROYAL OBSERVATORY, GREENWICH, in the Year 1859.

Day and Approximate Hour, 1859.	Needle.	Magnetic Dip.	Observer.	Day and Approximate Hour, 1859.	Needle.	Magnetic Dip.	Observer.
January 5. 21 ^{d h}	Barrow A 2	68. 23 '25	H C	July 13. 0	Dent A 3	68. 26 '25	T D
25. 21	Dent A 1	68. 17 '25	H C	15. 0	,, A 1	68. 20 '25	T D
February 2. 21	Dent A 3	68. 26 '25	H C	19. 0	Barrow A 2	68. 30 '25	T D
3. 21	Barrow A	68. 31 '00	H C	20. 22	Dent A 3	68. 25 '25	T D
16. 22	Dent A 1	68. 15 '75	H C	25. 21	,, A 1	68. 24 '00	T D
23. 22	,, A 3	68. 26 '75	T D	27. 23	Barrow A 2	68. 32 '75	T D
March 0. 23	Barrow A 2	68. 24 '50	T D	30. 1	Dent A 3	68. 25 '50	T D
7. 22	Dent A 1	68. 16 '00	T D	August 4. 0	Dent A 1	68. 18 '25	T D
8. 23	Barrow A	68. 39 '00	H C	8. 22	Barrow A	68. 30 '25	T D
15. 22	Dent A 3	68. 27 '75	T D	10. 22	,, A 2	68. 28 '50	T D
17. 23	Barrow A 2	68. 27 '25	T D	15. 21	Dent A 3	68. 26 '25	T D
21. 21	Dent A 1	68. 16 '00	T D	18. 0	Barrow A	68. 32 '00	T D
24. 0	Barrow A	68. 31 '00	T D	22. 23	Dent A 1	68. 20 '75	T D
29. 0	Dent A 3	68. 27 '00	T D	25. 21	Barrow A 2	68. 30 '50	T D
April 1. 0	Barrow A 2	68. 31 '25	H C	31. 0	Dent A 3	68. 26 '75	T D
4. 21	Dent A 1	68. 16 '75	H C	September 2. 22	Barrow A 2	68. 21 '75	H C
5. 23	,, A 3	68. 34 '25	H C	6. 0	,, A	68. 29 '00	T D
6. 22	Barrow A 2	68. 31 '25	T D	8. 22	Dent A 1	68. 22 '00	T D
10. 22	,, A	68. 58 '00	H C	12. 22	,, A 3	68. 25 '00	T D
10. 23	,, A 2	68. 27 '50	H C	14. 22	Barrow A 2	68. 28 '00	T D
11. 1	,, A 2	68. 25 '00	H C	20. 1	Dent A 1	68. 22 '75	T D
12. 22	Dent A 1	68. 15 '25	T D	23. 22	Barrow A	68. 53 '50	H C
18. 23	Barrow A	68. 31 '50	H C	25. 21	,, A	68. 41 '00	H C
22. 0	Dent A 3	68. 27 '25	T D	27. 23	Dent A 1	68. 24 '50	T D
25. 23	,, A 1	68. 16 '25	H C	29. 22	Barrow A 2	68. 27 '50	T D
27. 22	,, A 3	68. 27 '75	T D	October 2. 22	Dent A 1	68. 22 '50	H C
May 5. 23	Barrow A 2	68. 30 '50	T D	3. 22	,, A 3	68. 26 '25	T D
9. 23	Dent A 1	68. 14 '75	T D	5. 21	Barrow A 2	68. 29 '00	T D
12. 22	Barrow A 2	68. 31 '00	T D	6. 21	,, A	68. 22 '00	H C
16. 22	Dent A 3	68. 27 '50	T D	21. 2	Dent A 3	68. 32 '75	H C
23. 22	,, A 1	68. 18 '25	T D	31. 21	,, A 1	68. 28 '75	H C
25. 23	Barrow A 2	68. 31 '25	T D	November 2. 0	Barrow A 2	68. 35 '25	H C
June 1. 0	Dent A 3	68. 28 '25	T D	2. 22	Dent A 3	68. 26 '75	T D
8. 22	,, A 1	68. 19 '00	T D	8. 0	Barrow A	68. 25 '50	H C
13. 22	Barrow A 2	68. 31 '00	T D	8. 21	Dent A 1	68. 21 '50	T D
14. 23	Dent A 3	68. 28 '50	T D	10. 23	Barrow A 2	68. 32 '75	T D
16. 23	,, A 1	68. 19 '50	T D	11. 22	Dent A 3	68. 29 '25	H C
20. 22	Barrow A 2	68. 30 '50	T D	16. 22	,, A 1	68. 22 '50	H C
29. 0	Dent A 3	68. 24 '00	T D	28. 21	Barrow A 2	68. 32 '75	T D
July 5. 0	Dent A 1	68. 20 '50	T D	December 5. 22	Barrow A	68. 38 '00	H C
7. 0	Barrow A 2	68. 28 '00	T D	9. 22	Dent A 1	68. 16 '25	H C

The initials T D and H C are those of Mr. Downs and Mr. Henry Criswick.

OBSERVATIONS OF THE MAGNETIC DIPS.

MONTHLY MEANS of MAGNETIC DIPS, at the ROYAL OBSERVATORY, GREENWICH, in the Year 1859.

Month, 1859.	Barrow, A.	Number of Observations.	Dent, A 1.	Number of Observations.	Barrow, A 2.	Number of Observations.	Dent, A 3.	Number of Observations.
January	° ....	..	° 68. 17 '25	1	° 68. 23 '25	1	° ....	..
February	68. 31 '00	1	68. 15 '75	1	....	..	68. 26 '50	2
March	68. 35 '00	2	68. 16 '00	2	68. 25 '88	2	68. 27 '38	2
April	68. 44 '75	2	68. 16 '08	3	68. 28 '75	4	68. 29 '75	3
May	....	..	68. 16 '50	2	68. 30 '92	3	68. 27 '50	1
June	....	..	68. 19 '25	2	68. 30 '75	2	68. 26 '92	3
July	....	..	68. 21 '58	3	68. 30 '33	3	68. 25 '67	3
August	68. 31 '13	2	68. 19 '50	2	68. 29 '50	2	68. 26 '50	2
September	68. 41 '17	3	68. 23 '08	3	68. 25 '75	3	68. 25 '00	1
October	68. 22 '00	1	68. 22 '50	1	68. 29 '00	1	68. 29 '50	2
November	68. 25 '50	1	68. 24 '25	3	68. 33 '58	3	68. 28 '00	2
December	68. 38 '00	1	68. 16 '25	1	....	..	....	..
Mean	68. 35 '52	13	68. 19 '55	24	68. 29 '22	24	68. 27 '39	21

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^h and at 3^h.

ROYAL OBSERVATORY, GREENWICH.

OBSERVATIONS

OF

DEFLEXION OF A MAGNET

FOR

ABSOLUTE MEASURE

OF

HORIZONTAL FORCE.

1859.

The Apparatus used for observation of the Deflexion of a Magnet is described, and the method of computing the results is explained, in the *Greenwich Magnetical and Meteorological Observations*, 1847, Introduction, page xlv, and in the preceding Volume for 1846. The Magnet marked $\frac{D}{XX}$ (the same which was used from September 1845), has been employed to produce the deflexion of another magnet, marked $\frac{H}{23}$ (of nearly the same dimensions): and the vibrations then observed are those of $\frac{D}{XX}$.

The weight of $\frac{D}{XX}$ is 507.302 grains, or 32.873 grammes.

The length of $\frac{D}{XX}$ is 0.3025 foot, or 92.198 millimètres.

The diameter of $\frac{D}{XX}$ is 0.025 foot, or 7.620 millimètres.

Its moment of inertia, therefore, (using the English grain and foot as the units of weight and measure,) is 3.88826.

The weight of the embracing frame and mirror is 108.242 grains, or 7.014 grammes; and, on examining the distribution of this weight, it was thought probable that its moment of inertia would be nearly the same as if it were uniformly distributed over the mirror, whose horizontal length is 0.0658 foot; its moment of inertia is therefore 0.03905.

The weight of the suspending stalk with a pulley is 39.377 grains, or 2.552 grammes, and its moment of inertia (estimated as probably the same as if it had been condensed on the pulley whose diameter is 0.0233 foot), is 0.00135.

The following is the explanation of the notation used:—

m = the magnetic moment of the deflecting magnet $\frac{D}{XX}$.

X = the absolute measure of horizontal magnetic force.

K = the moment of inertia of $\frac{D}{XX}$ with its stirrup and pulley as suspended for vibration = 3.92866, using the English foot and grain as the unit of length and weight.

π the circumference of circle to diameter 1.

T the time of vibration in seconds of mean solar time.

Then when the natural sine of the observed deflexion (the Deflecting Magnet being in the Lateral Position) is expressed by the formula

$$\frac{a}{(\text{distance})^3} + \frac{b}{(\text{distance})^4}$$

we have for the formulæ of computation

$$\frac{m}{X} = \frac{1}{2} a$$

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

from which m and X are found.

The computation of the values of m and X has, to the year 1857, been made in reference to English measure only, using the foot and the grain as the units of length and weight; but, for comparison with foreign observations of the Absolute Intensity of Magnetism, it is desirable that X should be expressed also in reference to French measure, in terms of the millimètre and milligramme. If an English foot be supposed equal to α times the millimètre, and a grain be equal to β times the milligramme, then it is plain that, for the reduction of $\frac{m}{X}$ and mX to French measure, these must be multiplied by α^3 and $\alpha^2\beta$ respectively. Hence, X^2 must be multiplied by $\frac{\beta}{\alpha}$, and X by $\sqrt{\frac{\beta}{\alpha}}$. Assuming that the mètre is equal to 39.37079 inches, and the gramme equal to 15.432349 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.

The natural sine of the observed deflexion, when the Deflecting Magnet is in the Axial Position, is treated in the same manner as the former, for expressing it by the formula

$$\frac{a^1}{(\text{distance})^3} + \frac{b^1}{(\text{distance})^4}$$

but no further use is made of these deflexions.

For the determination of the Absolute Measure of Horizontal Force on those days on which vibrations, unaccompanied by Deflexions, were observed, it is assumed that the quantity m (which is peculiar to the magnet) changes at a uniform rate from one observation of deflexion to the next; and the comparison of its interpolated value with the value of mX given by the vibration determines the value of X .

ABSTRACT of the OBSERVATIONS of DEFLEXION of a MAGNET for ABSOLUTE MEASURE of HORIZONTAL FORCE.								
Month and Day, 1859.	Position of Deflecting Magnet with regard to Suspended Magnet.	Distances of Centers of Magnets.	Temperature.	Observed Deflexion.	Mean of the Times of Vibration of Deflecting Magnet.	Number of Vibrations.	Temperature.	Observer.
January 13	Lateral	ft. in. 1. 0	43° 0	8. 9. 21·62	5·952	100	43° 0	H C
	Axial	1. 6		4. 26. 7·11 2. 31. 26·20 1. 17. 24·96				
February 14	Lateral	1. 0	43° 9	8. 12. 14·17	5·958	100	48° 8	H C
	Axial	1. 6		4. 25. 16·13 2. 30. 23·11 1. 19. 1·26				
March 2	Lateral	1. 0	52° 3	8. 12. 38·92	5·932	100	49° 0	H C
	Axial	1. 6		4. 26. 8·41 2. 30. 52·16 1. 17. 41·75				
April 4	Lateral	1. 0	65° 9	8. 9. 35·46	5·987	100	62° 5	H C
	Axial	1. 6		4. 25. 49·00 2. 29. 35·50 1. 17. 14·42				
May 6	Lateral	1. 0	62° 7	8. 11. 18·81	5·952	100	56° 2	H C
	Axial	1. 6		4. 26. 57·77 2. 31. 18·45 1. 16. 57·59				
June 8	Lateral	1. 0	76° 1	8. 9. 27·21	5·949	100	74° 0	H C
	Axial	1. 6		4. 19. 34·21 2. 30. 36·93 1. 15. 3·68				
July 6	Lateral	1. 0	78° 1	8. 6. 34·29	5·948	100	79° 0	H C
	Axial	1. 6		4. 22. 55·51 2. 29. 33·19 1. 16. 22·94				
August 12	Lateral	1. 0	76° 5	8. 9. 42·95	5·909	100	73° 0	H C
	Axial	1. 6		4. 25. 44·65 2. 28. 42·57 1. 16. 30·57				
Sept. 12	Lateral	1. 0	69° 8	8. 6. 32·74	5·957	100	68° 2	N
	Axial	1. 6		4. 20. 53·97 2. 26. 51·40 1. 14. 40·30				
October 5	Lateral	1. 0	70° 2	8. 5. 58·66	5·963	100	68° 0	N
	Axial	1. 6		4. 25. 26·69 2. 27. 53·90 1. 16. 24·96				
November 3	Lateral	1. 0	52° 4	8. 27. 57·80	5·952	100	49° 5	H C
	Axial	1. 6		4. 29. 35·13 2. 33. 0·89 1. 18. 58·19				
December 9	Lateral	1. 0	42° 0	8. 34. 23·04	5·943	100	38° 3	N
	Axial	1. 6		4. 30. 8·06 2. 29. 41·32 1. 16. 2·49				

The lengths of 1 foot and 1 foot 6 inches answer to 304·8 and 457·2 millimètres respectively.
The initials H C and N are those of Mr. Henry Criswick and Mr. Nash.

COMPUTATION of the VALUES of ABSOLUTE MEASURE of HORIZONTAL FORCE.

Month and Day, 1859.	In English Measure.										Value of X in French Measure.
	Apparent Value of a.	Apparent Value of b.	Apparent Value of a'.	Apparent Value of b'.	Adopted Value of a, assuming the Value of b (-0.00716) as applicable to all.	Log. $\frac{1}{2} a$ = Log. $\frac{m}{X}$	Adopted Time of Vibration of Deflecting Magnet.	Log m X.	Value of X.	Value of m.	
January 13	+0.15403	-0.01216	0.07493	0.00240	+0.14342	8.87410	5.965	0.03732	3.816	0.2856	1.759
February 14	+0.14546	-0.00276	0.07796	-0.00087	+0.14305	8.87304	5.951	0.03936	3.829	0.2859	1.766
March 2	+0.15226	-0.00944	0.07541	0.00193	+0.14401	8.87584	5.943	0.04053	3.822	0.2872	1.762
April 4	+0.15072	-0.00878	0.07469	0.00256	+0.14305	8.87304	5.973	0.03616	3.815	0.2848	1.759
May 6	+0.15335	-0.01092	0.07393	0.00365	+0.14382	8.87526	5.946	0.04009	3.823	0.2869	1.763
June 8	+0.14649	-0.00459	0.07229	0.00314	+0.14248	8.87138	5.950	0.03951	3.838	0.2854	1.769
July 6	+0.15135	-0.01029	0.07384	0.00257	+0.14237	8.87104	5.958	0.03834	3.834	0.2849	1.768
August 12	+0.14913	-0.00716	0.07341	0.00382	+0.14288	8.87253	5.938	0.04126	3.840	0.2863	1.771
September 12	+0.14659	-0.00553	0.07129	0.00453	+0.14177	8.86928	5.947	0.03994	3.849	0.2849	1.775
October 5	+0.14857	-0.00768	0.07332	0.00382	+0.14187	8.86960	5.961	0.03790	3.838	0.2843	1.770
November 3	+0.15253	-0.00531	0.07686	0.00148	+0.14790	8.88691	5.946	0.04009	3.772	0.2907	1.739
December 9	+0.15041	-0.00134	0.07157	0.00693	+0.14925	8.89069	5.947	0.03994	3.755	0.2920	1.731
Mean	-	-0.00716									

VALUES of ABSOLUTE MEASURE of HORIZONTAL FORCE, from OBSERVATIONS of VIBRATION of the DEFLECTING MAGNET $\frac{D}{XX}$,
unaccompanied by DEFLEXION.

Month and Day, 1859.	Adopted Time of Vibration.	Temperature.	Log. m X in English Measure.	Value of m interpolated from the Deflexion Observations. In English Measure.	Inferred Value of X in English Measure.	Value of X in French Measure.	Observer.
January 11	5.932	45.5	0.04214	0.2856	3.858	1.779	N
January 28	5.937	46.8	0.04141	0.2858	3.849	1.775	N
February 23	5.944	47.0	0.04038	0.2866	3.829	1.766	N
March 1	5.945	49.5	0.04024	0.2871	3.821	1.762	N
March 10	5.944	47.8	0.04038	0.2866	3.829	1.766	N
March 24	5.944	53.0	0.04038	0.2856	3.843	1.772	N
March 31	5.942	40.0	0.04067	0.2851	3.852	1.776	N
April 26	5.955	55.5	0.03878	0.2862	3.820	1.762	N
May 5	5.945	54.0	0.04024	0.2868	3.825	1.764	N
May 26	5.943	67.3	0.04053	0.2859	3.840	1.771	N
June 23	5.945	64.5	0.04024	0.2851	3.848	1.774	H C
July 16	5.985	79.0	0.03441	0.2853	3.794	1.749	N
July 26	5.977	79.0	0.03557	0.2856	3.800	1.752	N
August 19	5.962	79.5	0.03776	0.2860	3.814	1.759	N
September 20	5.955	55.5	0.03878	0.2847	3.841	1.771	N
October 3	5.980	70.7	0.03514	0.2843	3.814	1.759	H
October 29	5.960	46.0	0.03805	0.2896	3.769	1.738	H
November 17	5.947	40.5	0.03994	0.2912	3.765	1.736	H
December 7	5.957	42.0	0.03848	0.2919	3.743	1.726	H
December 22	5.931	36.0	0.04228	0.2925	3.768	1.738	H
December 27	5.951	45.7	0.03936	0.2927	3.741	1.725	H

The number of vibrations employed in each determination was 100.

The initials H C, N, and H are those of Mr. Henry Criswick, Mr. Nash, and Mr. Howe.

It will be remarked that, as no correction has been applied for temperature, the result is affected with a slight error, unless the temperature in these vibration-observations coincide with the temperature interpolated between the deflexion-observations.

ROYAL OBSERVATORY, GREENWICH.

R E S U L T S

OF

METEOROLOGICAL OBSERVATIONS.

1859.

The day in the first column of the following tables is to be understood, generally, as defined in civil reckoning.

The barometer is described in the *Greenwich Magnetical and Meteorological Observations*, 1847, Introduction, page xlvi, and in the corresponding parts of several preceding volumes. The barometer has been read at 21^h, 0^h, 3^h, 9^h (Astronomical), on every day, excepting on Sundays, and on Good Friday and Christmas Day, on which days fewer observations have been taken. Every reading has been reduced to the reading which would have been obtained at the temperature 32° of the mercury and scale, by application of the correction given in table II. (pages 82 to 87) of the Report of the Committee of Physics of the Royal Society. The mean of the reduced readings has then been taken for each civil day, and finally converted into mean daily reading, by application of the correction inferred from Mr. Glaisher's paper in the *Philosophical Transactions*, 1848, part I.

The positions of all the thermometers are described in the Introduction, 1847, page lxix.

The thermometers used for determining the highest temperature of the air, and the highest state of the wet-bulb thermometer, are mercurial thermometers invented by Messrs. Negretti and Zambra, and described in the *Results of Meteorological Observations*, 1851, Introduction, page (xcvi); and those for the lowest are of Rutherford's construction, described in the Introduction, 1847, page lxvii: they are self-registering. The readings given are corrected for index-errors.

The dry-bulb and wet-bulb thermometers are described in the Introduction, 1847, page xlix; their scales have been verified from time to time, in the manner there described.

A mean daily reading of the dry thermometer is inferred from the mean of observations taken at the same hours as the observations of the barometer, corrected by a quantity given in the *Phil. Trans.*, 1848, part I. Another mean daily reading is inferred from the mean of the maximum and minimum thermometers, also corrected by a small quantity given in the same paper. The mean daily value given in the tables is found by combining these two corrected means giving them weights proportional to the number of observations from which they are respectively derived.

The dew-point has been inferred exclusively from simultaneous observations of the dry-bulb and wet-bulb thermometers. In order to find the difference between the dry-bulb reading and the dew-point, the difference between the dry-bulb and the wet-bulb readings has been multiplied by a factor taken from the following table (deduced by Mr. Glaisher from the comparison of all the simultaneous readings of the dry-bulb, wet-bulb, and dew-point thermometers, from the year 1840 to the end of the year 1854).

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 the Dry-bulb Thermometer.	Factor.	Reading of the Dry-bulb Thermometer.	Factor.	Reading of the Dry-bulb Thermometer.	Factor.	Reading of the Dry-bulb Thermometer.	Factor.	Reading of the Dry-bulb Thermometer.	Factor.	Reading of the Dry-bulb Thermometer.	Factor.
20	8.1	32	3.3	44	2.2	56	2.0	68	1.8	80	1.7
21	7.9	33	3.0	45	2.2	57	1.9	69	1.8	81	1.7
22	7.6	34	2.8	46	2.1	58	1.9	70	1.8	82	1.7
23	7.3	35	2.6	47	2.1	59	1.9	71	1.8	83	1.7
24	6.9	36	2.5	48	2.1	60	1.9	72	1.8	84	1.7
25	6.5	37	2.4	49	2.1	61	1.9	73	1.8	85	1.7
26	6.1	38	2.4	50	2.1	62	1.9	74	1.7	86	1.7
27	5.6	39	2.3	51	2.0	63	1.9	75	1.7	87	1.6
28	5.1	40	2.3	52	2.0	64	1.9	76	1.7	88	1.6
29	4.6	41	2.3	53	2.0	65	1.8	77	1.7	89	1.6
30	4.2	42	2.2	54	2.0	66	1.8	78	1.7	90	1.6
31	3.7	43	2.2	55	2.0	67	1.8	79	1.7		

The dew-point being thus found for each individual observation, the mean is taken for each day (as defined from midnight to midnight), and this mean is corrected by application of the elements in the *Phil. Trans.*, 1848, part I.

The thermometers exhibiting the lowest temperature on the grass, and the highest and lowest temperatures of the water of the Thames, are described in the Introduction, 1847, pages lxix and lxxi. They are occasionally verified. They are read at 21^h (9^h A.M.) every day; their readings are placed opposite to the day preceding the civil day on which the scales are actually read. The thermometer for the highest temperature in the sunshine is a mercurial thermometer with blackened bulb, of Negretti and Zambra's construction: it is read at 9^h P.M. every evening.

The thermometer for the minimum temperature on the grass was out of order on January 22, 23; March 21; April 2, 7, 9, 12, 27, 30; May 3, 5, 7; July 13, 14, 18; September 27; October 10; November 8.

The thermometer for the maximum temperature in the sun was out of order on June 12.

The thermometer for the maximum temperature in the water of the Thames was out of order from February 6 to 12; on April 10; May 22 to 28; October 23 to November 5; that for the minimum temperature was out of order on the same days.

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

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

Osler's Anemometer is described in the Introduction, 1847, page lxxi. Little explanation of the results deduced from it appears to be necessary. It may be understood generally that the greatest pressure occurred in gusts of short duration.

Whewell's Anemometer is described in the Introduction, 1847, page lxxii. The amount of movement of air here exhibited is to be understood as from 22^h to 22^h (10^h A.M. to 10^h A.M.), the numbers being placed opposite to the day preceding the civil day on which the instrument is read.

Robinson's Anemometer (used in the latter part of the year) is a self-registering Anemometer, constructed on the principles described in the Transactions of the Royal Irish Academy, vol. xxii. It is furnished with four hemispherical cups (each being 3.75 inches in diameter), attached to the extremities of two arms at right angles to each other, and revolving in a horizontal plane by the excess of pressure of the wind on their concave over that on their convex surfaces. The distance between the centres of opposite cups is 13.45 inches, and their centres describe 42.24 inches in each revolution, indicating 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 has been verified by experiments made in 1860. 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 1000 miles. The instrument is read off every day at 22^h.

The register of rain is read at 9^h P.M. from Crosley's Rain-gauge, described in page lxxv of the Introduction, 1847. If, however, there appears to be any doubt as to the correctness of the results, reference is made to the Rain-gauge No. 2, described in the same place.

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 Electrical Apparatus is described in page lxxvii of the Introduction, 1847. The following is the explanation of the notation employed, 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>	N denotes <i>negative</i>	s denotes <i>strong</i>	v denotes <i>variable</i>
m .. <i>moderate</i>	P .. <i>positive</i>	sp .. <i>sparks</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>	hl denotes <i>hail</i>	shs-r denotes <i>showers of rain</i>	h-sqs denotes <i>heavy squalls</i>
ci .. <i>cirrus</i>	so-ha .. <i>solar halo</i>	c-r .. <i>continued rain</i>	fr-h-sqs .. <i>frequent heavy squalls</i>
ci-cu .. <i>cirro-cumulus</i>	l .. <i>lightning</i>	c-h-r .. <i>continued heavy rain</i>	sc .. <i>scud</i>
ci-s .. <i>cirro-stratus</i>	li-cl .. <i>light clouds</i>	m-r .. <i>misty rain</i>	li-sc .. <i>light scud</i>
cu .. <i>cumulus</i>	lu-co .. <i>lunar corona</i>	fr-m-r .. <i>frequent misty rain</i>	sl .. <i>sleet</i>
cu-s .. <i>cumulo-stratus</i>	lu-ha .. <i>lunar halo</i>	sl-r .. <i>slight rain</i>	sn .. <i>snow</i>
d .. <i>dew</i>	m .. <i>meteor</i>	h-shs .. <i>heavy showers</i>	sl-sn .. <i>slight snow</i>
h-d .. <i>heavy dew</i>	ms .. <i>meteors</i>	fr-shs .. <i>frequent showers</i>	s .. <i>stratus</i>
f .. <i>fog</i>	n .. <i>nimbus</i>	fr-h-shs .. <i>frequent heavy showers</i>	t .. <i>thunder</i>
th-f .. <i>thick-fog</i>	r .. <i>rain</i>	li-shs .. <i>light showers</i>	t-s .. <i>thunder storm</i>
fr .. <i>frost</i>	th-r .. <i>thin rain</i>	oc-shs .. <i>occasional showers</i>	v .. <i>variable</i>
gt-glm .. <i>great gloom</i>	oc-r .. <i>occasional rain</i>	sq .. <i>squall</i>	w .. <i>wind</i>
h-fr .. <i>hoar frost</i>	fr-r .. <i>frozen rain</i>	sqs .. <i>squalls</i>	st-w .. <i>strong wind</i>
h .. <i>haze</i>	h-r .. <i>heavy rain</i>	fr-sqs .. <i>frequent squalls</i>	

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

RESULTS OF ORDINARY METEOROLOGICAL OBSERVATIONS

Table with columns: MONTH and DAY, 1859; Phases of the Moon; Mean Daily Reading of the Barometer; READINGS OF THERMOMETERS (Dry, Dew Point, Water of the Thames); Difference between the Dew Point Temperature and Air Temperature; WIND AS DEDUCED FROM ANEMOMETERS (OSLER'S, General Direction, Pressure); WHEWELL'S; Rain in Inches read at 9 P.M.

BAROMETER READINGS.

The first maximum in the month was 30.519 on the 2nd; the first minimum in the month was 30.247 on the 6th. The absolute maximum ,, was 30.640 on the 9th; the second minimum ,, was 30.291 on the 12th. The third maximum ,, was 30.379 on the 13th; the third minimum ,, was 29.619 on the 18th. The fourth maximum ,, was 30.081 on the 20th; the absolute minimum ,, was 29.141 on the 23rd. The fifth maximum ,, was 29.860 on the 25th; the fifth minimum ,, was 29.611 on the 25th. The sixth maximum ,, was 29.748 on the 29th; the sixth minimum ,, was 29.316 on the 30th. The range in the month was 1.499. The mean for the month was 30.037, being 0.290 higher than the average of the preceding 18 years.

TEMPERATURE OF THE AIR.

The highest in the month was 53.0 on the 18th; the lowest was 28.5 on the 9th; and the range in the month was 24.5. The mean ,, of all the highest daily readings was 45.5, being 2.5 higher than the average of the preceding 18 years. The mean ,, of all the lowest daily readings was 35.5, being 2.0 higher than the average of the preceding 18 years. The mean daily range was 10.0, being 0.5 higher than the average of the preceding 18 years. The mean for the month was 40.4, being 2.3 higher than the average of the preceding 18 years.

MONTH and DAY, 1859.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Jan. 1	o	o	10, m.-r	10, m.-r
2	o	o	10, th.-f	2, ci, f : th.-f
3	o	o : w	10, th.-f	10, th.-f
4	o	o	10, th.-f	10 : f
5	o	o	10, th.-f	10, th.-f, r : 7, ci.-cu, ci
6	o	o : w	10	10
7	o	o	3, ci, h	3, ci.-cu, ci : o
8	m	m	8, ci.-cu, ci, sl	8, ci.-cu, ci : 10, ci.-s
9	o	o	o, h.-f	o : 7, ci.-cu, ci : o
10	o	m : o	3, ci	10, ci.-s : 5, ci.-s : lu.-ha
11	o	o	7, cu, cu-s, ci.-s	10, ci.-cu, ci : 10, ci.-s
12	o : w	o	10	10, ci.-cu, ci : lu.-cor
13	o	o : w	10, ci.-cu, cu.-s	10 : 9, ci.-cu, ci
14	o	o : m	10, ci.-s, h	3, ci.-cu, ci : o : 8, cu.-s, ci.-s
15	o	m	3, ci.-cu, ci	3, ci, h : 10, ci. cu, ci.-s
16	w	w	3, ci	7, ci.-cu, ci : lu.-ha
17	o		10, ci.-s, r	10, th.-r
18	o		10	10, th.-r : 10, r
19	o		9, ci.-cu, cu.-s, ci.-s	9, ci.-cu, ci : o
20	s		7, ci.-cu, ci, h.-f	7, cu, ci.-cu, ci
21	o	o	10	10
22	o	o	10, r	10, oc.-r : o
23	N, w	o	10, h.-r	10, ci.-s, sc, h.-r : 10
24	o	o	o, h.-f	10 : 10, ci.-cu, ci
25	o	o	10, ci.-cu, cu.-s, ci.-s	10, ci.-cu, cu.-s, ci.-s : h.-r
26	o	o	3, ci, h	5, ci.-cu, ci
27	o	o	7, ci, sc	7, cu, ci.-cu, ci : o : 10, r
28	w	o	10, ci.-cu, ci	5, ci.-cu, ci : 10
29	w	o	7, ci.-cu, ci	10
30	o	o	10, h.-r	10, cu.-s, ci.-s, hl, r : o
31	o : w		10	7, cu, ci.-cu, ci : o

HUMIDITY OF THE AIR.

Temperature of the Dew Point.

The highest in the month was 48°·9 on the 18th; and the lowest was 27°·1 on the 16th.

The mean ,, was 37°·1, being 1°·8 higher than the average of the preceding 18 years.

Elastic Force of Vapour.—The mean for the month was 0ⁱⁿ·220, being 0ⁱⁿ·016 greater than the average of the preceding 18 years.

Weight of Vapour in a Cubic Foot of Air.—The mean for the month was 2^{gr}·6, being 0^{gr}·2 greater than the average of the preceding 18 years.

Degree of Humidity.—The mean for the month was 88 (that of Saturation being represented by 100), being 1 less than the average of the preceding 18 years.

Weight of a Cubic Foot of Air.—The mean for the month was 557 grains, being 3 grains greater than the average of the preceding 18 years.

CLOUDS.

The mean amount for the month, a clear sky being represented by 0 and a cloudy sky by 10, was 7·5.

WIND.

The proportions were of N. 6, S. 10, W. 14, and E. 1. The greatest pressure in the month was 18^{lb}·0 on the square foot on the 23rd.

RAIN.

Fell on 11 days in the month, amounting to 0ⁱⁿ·8, as measured in the simple cylinder gauge partly sunk below the ground; being 1ⁱⁿ·0 less than the average fall of the preceding 44 years.

RESULTS OF ORDINARY METEOROLOGICAL OBSERVATIONS

Table with columns: MONTH and DAY, 1859; Phases of the Moon; Mean Daily Reading of the Barometer; READINGS OF THERMOMETERS (Dry, Dew Point, Water of the Thames); Difference between the Dew Point and Air Temperature; WIND AS DEDUCED FROM ANEMOMETERS (OSLER'S, General Direction, Pressure); and Rain in Inches read at 9 P.M.

BAROMETER READINGS.

The first maximum in the month was 29.816 on the 1st; the first minimum in the month was 29.259 on the 2nd. The second maximum ,, was 30.082 on the 3rd; the absolute minimum ,, was 29.149 on the 6th. The third maximum ,, was 29.442 on the 8th; the third minimum ,, was 29.235 on the 9th. The fourth maximum ,, was 30.086 on the 17th; the fourth minimum ,, was 29.910 on the 17th. The absolute maximum ,, was 30.503 on the 23rd; the fifth minimum ,, was 29.570 on the 26th. The range in the month was 1.354. The mean for the month was 29.823, being 0.042 higher than the average of the preceding 18 years.

TEMPERATURE OF THE AIR.

The highest in the month was 59.0 on the 16th; the lowest was 30.5 on the 5th; and the range in the month was 28.5. The mean ,, of all the highest daily readings was 50.4, being 6.0 higher than the average of the preceding 18 years. The mean ,, of all the lowest daily readings was 36.3, being 3.1 higher than the average of the preceding 18 years. The mean daily range was 14.1, being 3.0 higher than the average of the preceding 18 years. The mean for the month was 43.1, being 4.8 higher than the average of the preceding 18 years.

MONTH and DAY, 1859.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Feb. 1	o	o : m	7, ci.-cu, ci, h	7, ci.-cu, ci : 10, r
2	o	o	o, h	7, cu, ci.-cu, ci : 10, r
3	o	o : w	2, ci, h	2, ci
4	o	o	7, ci.-cu, cu.-s, ci.-s : 10, r	10 : h.-r
5	o	o	7, ci.-cu, ci	7, cu, ci.-cu, ci : 10, r
6	o	o	10, ci.-cu, ci	10, ci.-cu, ci, r : 3, ci.-s
7	w	s P, s N : o	9, ci.-cu, ci, h.-f	9, cu, ci.-cu, ci : 10, hl, r : o
8	w	N : w	10, ci.-cu, ci.-s	10 : th.-r
9	w : s, N	w	10, ci.-s, sc	10, h.-r : th.-r
10	o	N, w : o	10, ci.-s : h.-shs.-r : 9, ci.-cu, ci	10, ci.-cu, cu.-s, ci.-s : fr.-shs.-r, lu.-co
11	o	o	2, ci.-cu, ci	10, ci.-cu, ci : h.-r : 4, ci.-s, sc
12	o	o	10 : th.-r	10, r : 9, ci.-cu, ci.-s : lu.-co
13	o	o	7, ci.-cu, ci	7, cu, ci.-cu : o
14	o : s, N	w	10, ci.-cu, cu.-s	10, th.-r : 5, lu.-co : o
15	o	o	10, ci.-s : th.-r	10 : 9, ci.-cu, cu.-s
16	o	o	10	9, ci.-cu, cu.-s, ci.-s
17	o	w : o	o, h : 10, ci.-cu, cu.-s, ci.-s	10, ci.-cu, cu.-s, ci.-s, h.-sh.-r : th.-r
18	o	w : o	o, h	7, cu, ci.-cu, ci : 10
19	w	N, w : o	7, ci.-s, th.-f, h.-f	6, cu, ci.-cu, ci : 10, th.-r : 10
20	o : w	o	10, f	10, f
21	o	o : w	o, h	7, cu, ci.-cu, ci : 10
22	w	s	10, th.-r	10 : o
23	m	m	2, ci	2, ci, h
24	s	s	7, ci.-cu, cu.-s : o, h	o
25	s	s	2, h	2, ci.-cu, ci
26	v	s N, sps, g cur : o	o : 10	10 : 5, ci.-cu, ci : oc.-r
27	o	o	10, ci.-cu, ci.-s	10, cu, ci.-cu, ci.-s : o
28	v	v	o, h.-f	o, h

HUMIDITY OF THE AIR.

Temperature of the Dew Point.

The highest in the month was 48°·5 on the 16th ; and the lowest was 22°·4 on the 3rd.

The mean , , was 37°·7, being 3°·3 higher than the average of the preceding 18 years.

Elastic Force of Vapour.—The mean for the month was 0ⁱⁿ·225, being 0ⁱⁿ·024 greater than the average of the preceding 18 years.

Weight of Vapour in a Cubic Foot of Air.—The mean for the month was 2^{gr}·6, being 0^{gr}·3 greater than the average of the preceding 18 years.

Degree of Humidity.—The mean for the month was 81 (that of Saturation being represented by 100), being 5 less than the average of the preceding 18 years.

Weight of a Cubic Foot of Air.—The mean for the month was 550 grains, being 4 grains less than the average of the preceding 18 years.

CLOUDS.

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

WIND.

The proportions were of N. 3, S. 11, W. 14, and E. o. The greatest pressure in the month was 16^{lbs}·o on the square foot on the 2nd.

RAIN.

Fell on 12 days in the month, amounting to 0ⁱⁿ·9, as measured in the simple cylinder gauge partly sunk below the ground ; being 0ⁱⁿ·7 less than the average fall of the preceding 44 years.

RESULTS OF ORDINARY METEOROLOGICAL OBSERVATIONS

Table with columns: MONTH and DAY, 1859; Phases of the Moon; Mean Daily Reading of the Barometer; READINGS OF THERMOMETERS (Dry, Dew Point, Water of the Thames); Difference between the Dew Point and Air Temperature; WIND AS DEDUCED FROM ANEMOMETERS (OSLER'S, General Direction, Pressure); and Rain in Inches read at 9 P.M.

BAROMETER READINGS.

The first maximum in the month was 30.186 on the 1st; the first minimum in the month was 30.018 on the 2nd. The second maximum ,, was 30.197 on the 5th; the second minimum ,, was 29.549 on the 8th. The absolute maximum ,, was 30.347 on the 9th; the third minimum ,, was 29.089 on the 15th. The fourth maximum ,, was 29.821 on the 16th; the fourth minimum ,, was 29.432 on the 17th. The fifth maximum ,, was 30.212 on the 19th; the fifth minimum ,, was 29.746 on the 21st. The sixth maximum ,, was 30.162 on the 22nd; the absolute minimum ,, was 29.035 on the 29th. The range in the month was 1.312. The mean for the month was 29.806, being 0.006 higher than the average of the preceding 18 years.

TEMPERATURE OF THE AIR.

The highest in the month was 63.5 on the 5th; the lowest was 28.9 on the 31st; and the range in the month was 34.6. The mean ,, of all the highest daily readings was 54.2, being 4.4 higher than the average of the preceding 18 years. The mean ,, of all the lowest daily readings was 40.5, being 5.5 higher than the average of the preceding 18 years. The mean daily range was 13.7, being 1.1 lower than the average of the preceding 18 years. The mean for the month was 46.4, being 4.8 higher than the average of the preceding 18 years.

MONTH and DAY, 1859.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Mar. 1	w	w : s	o	o, h : 10, ci.-cu, ci
2	v	v	10	8, s, ci.-s : 10
3	s	s	8, ci.-cu, ci.-s	8, cu, ci.-cu, ci.-s
4	w	w	10	7, ci.-cu, ci.-s : 10, ci.-s
5	w	w : s	7	o, h : o
6	v	v	7, ci.-s	5, ci.-s : 10 : o
7	o	o : w	10	7, cu, ci.-cu, ci : 10, r
8	ss, sps, g cur	ss, sps, g cur	10, r	2, cu, ci.-cu : shs.-hl.-r : 9
9	o	o	5, ci, h	8, ci.-cu, cu.-s, ci.-s : o, f
10	o	o : m	o, h	3, ci.-cu, ci : o
11	w	o	10, ci.-s	10, ci.-cu, cu.-s, ci.-s
12	o	o	10	10
13	o	o	10, r	10
14	o : s	s : o	10, r	10, r : r
15	o : s N	s	10, cu, ci.-cu, ci, oc.-r	10, h.-shs.-hl.-r : 7, ci.-cu, cu.-s
16	o	o	10, ci.-s	10, ci.-cu, cu.-s, ci.-s : lu.-ha
17	o	o : w	9, th.-r	9 : 10, h.-r
18	o	o	7, ci.-s	7, cu, ci.-cu, ci : o, f
19	o	o : w	2, ci.-cu, ci	2, cu, ci.-cu, ci : 5, ci.-s, h
20	o	o : w	10, ci.-s	10, ci.-cu, ci.-s : r
21	o	w	10, r	10, ci.-cu, ci : 10
22	o : w	o	o, h	3, ci.-s : 10, ci.-cu, cu.-s, ci.-s : f
23	o	o : m	10, ci.-s	10 : o, f
24	o	o	10	10
25	o : w	o	10	10, cu, ci.-cu, ci.-s : 7, ci.-cu, ci
26	w	w N : w	9, ci.-cu, ci.-s	9 : 10
27	s	s	9	10, ci.-cu, ci.-s
28	w	s N : w	10	10, r : 5, ci.-s.
29	o	o : w	7, cu, ci.-cu	7 : r : 10
30	s P, s N, sps, g cur	P, s N, sps, g cur	10, ci, h	10, shs.-r.-sl : sn : 5, ci.-s
31	o : w N	o	7, ci.-cu, ci.-s : o	1, ci : 8, ci.-cu, ci : o

HUMIDITY OF THE AIR.

Temperature of the Dew Point.

The highest in the month was 53°·5 on the 4th; and the lowest was 23°·5 on the 9th.

The mean ,, was 40°·1, being 3°·9 higher than the average of the preceding 18 years.

Elastic Force of Vapour.—The mean for the month was 0ⁱⁿ·247, being 0ⁱⁿ·032 greater than the average of the preceding 18 years.

Weight of Vapour in a Cubic Foot of Air.—The mean for the month was 28^{gr}·8, being 08^{gr}·3 greater than the average of the preceding 18 years.

Degree of Humidity.—The mean for the month was 79 (that of Saturation being represented by 100), being 3 less than the average of the preceding 18 years.

Weight of a Cubic Foot of Air.—The mean for the month was 546 grains, being 5 grains less than the average of the preceding 18 years.

CLOUDS.

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

WIND.

The proportions were of N. 5, S. 11, W. 15, and E. o. The greatest pressure in the month was 15^{lbs}·o on the square foot on the 17th.

RAIN.

Fell on 10 days in the month, amounting to 1ⁱⁿ·4 as measured in the simple cylinder gauge partly sunk below the ground; being 0ⁱⁿ·1 less than the average fall of the preceding 44 years.

RESULTS OF ORDINARY METEOROLOGICAL OBSERVATIONS

Table with columns: MONTH and DAY, 1859; 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); WHEWELL'S (Amount of Horizontal Movement of the Air, Rain in Inches).

BAROMETER READINGS.

The absolute maximum in the month was 30.157 on the 1st; the first minimum in the month was 29.800 on the 2nd. The second maximum ,, was 30.035 on the 6th; the second minimum ,, was 29.094 on the 11th. The third maximum ,, was 29.567 on the 12th; the third minimum ,, was 29.204 on the 13th. The fourth maximum ,, was 29.344 on the 14th; the absolute minimum ,, was 28.859 on the 14th. The fifth maximum ,, was 29.764 on the 17th; the fifth minimum ,, was 29.346 on the 20th. The sixth maximum ,, was 29.716 on the 23rd; the sixth minimum ,, was 29.531 on the 24th. The seventh maximum ,, was 30.005 on the 26th; the seventh minimum ,, was 29.416 on the 28th. The range in the month was 1.298. The mean for the month was 29.614, being 0.125 lower than the average of the preceding 18 years.

TEMPERATURE OF THE AIR.

The highest in the month was 79.0 on the 6th; the lowest was 25.3 on the 1st; and the range in the month was 53.7. The mean ,, of all the highest daily readings was 56.9, being 0.1 lower than the average of the preceding 18 years. The mean ,, of all the lowest daily readings was 39.1, being 0.3 higher than the average of the preceding 18 years. The mean daily range was 17.8, being 0.4 lower than the average of the preceding 18 years. The mean for the month was 46.6, being 0.1 higher than the average of the preceding 18 years.

MONTH and DAY, 1859.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
April 1	o	w : o	o, h	3, cu, ci.-cu, ci : 10, ci.-cu, ci.-s, r
2	o	o	10, r	10, th-r
3	o : w	w : o	7, ci-s	7, cu, ci.-cu, ci
4	o	o : m	3, ci	3, ci : o
5	o	o : w	10, ci.-s, h	10, ci, h : o
6	w	o	10, ci.-s, h : o	o
7	o	m	o	o : 7, ci.-s, ci
8	o	o	7, cu, ci.-cu, ci : 10 : r	10, r
9	o	o : w	10, th-r	7, ci.-cu, ci.-s
10	o	o	10, r	10, ci.-cu, ci.-s : o
11	s	s N : o	3, cu, ci.-cu : h.-sh.-r	10, fr.-shs.-r, t : 3
12	o	m : s N	o, h : 10, cu.-s, ci.-s	10 : r : h.-r
13	o	m	10, r	10, cu, ci.-cu, ci : o
14	m	s N	7, cu, ci.-cu : 10	10, cu, cu.-s, ci.-s, r
15	o	s N, sps, g cur	8, cu, ci.-cu, ci : shs.-sn.-r	7, shs.-sl.-r : f
16	s P, s N, sps, g cur	s P, s N, sps, g cur	9, cu, ci.-cu, ci : shs.-sn.-sl.-hl	9, cu, ci.-cu : sn
17	o	o	5, cu, ci.-cu, ci	5, cu, ci.-cu, ci : o
18	o : m	o	10, ci.-s	10 : o : 5, ci
19	o	o : s	8, ci.-s	8, s, ci.-s : o
20	o : s	m	5, ci.-cu	5, ci.-cu : 10
21	o	o	o, h	7, cu, cu.-s, ci.-s : o : a
22	o	m : o	2, ci.-cu, ci	2, cu : o
23	o : N w	w	3, ci.-cu, ci	3, ci.-cu, ci : 10, r : h.-r
24			10, h.-shs.-r	10, shs.-r : th-r
25			10, h.-r	10, fr.-shs.-r : 5
26	o	w : o	10	7, cu, cu.-s, ci.-s : 10
27	o	o : w	10, ci.-s	10, ci.-s
28	o	w : o	10	10, r : fr.-shs.-r
29	o	w	7, cu, ci.-cu, ci	7, cu, ci.-cu, ci : 10
30	s	s N	10 : h.-r	10, h.-r

HUMIDITY OF THE AIR.

Temperature of the Dew Point.

The highest in the month was 51°·9 on the 8th; and the lowest was 28°·1 on the 17th.
The mean ,, was 39°·8, being 0°·3 lower than the average of the preceding 18 years.

Elastic Force of Vapour.—The mean for the month was 0ⁱⁿ·237, being 0ⁱⁿ·012 less than the average of the preceding 18 years.

Weight of Vapour in a Cubic Foot of Air.—The mean for the month was 28^{gr}·8, being 0^{gr}·1 less than the average of the preceding 18 years.

Degree of Humidity.—The mean for the month was 78 (that of Saturation being represented by 100), being 1 less than the average of the preceding 18 years.

Weight of a Cubic Foot of Air.—The mean for the month was 542 grains, being 2 grains less than the average of the preceding 18 years.

CLOUDS.

The mean amount for the month, a clear sky being represented by 0 and a cloudy sky by 10, was 6·9.

WIND.

The proportions were of N. 6, S. 10, W. 10, and E. 4. The greatest pressure in the month was 13^{lb}·0 on the square foot on the 15th.

RAIN.

Fell on 13 days in the month, amounting to 2ⁱⁿ·2, as measured in the simple cylinder gauge partly sunk below the ground; being 0ⁱⁿ·4 greater than the average fall of the preceding 44 years.

ELECTRICITY.

April 24 and 25. The insulating lamp was not burning.

(cl)

RESULTS OF ORDINARY METEOROLOGICAL OBSERVATIONS

MONTH and DAY, 1859.	Phases of the Moon.	Mean Daily Reading of the Barometer (corrected and re- duced to 32° Fahrenheit).	READINGS OF THERMOMETERS.										Difference between the Dew Point Temperature and Air Temperature.			Difference between the Mean Tem- perature of the Day and the Mean Temperature of the same Day on an Average of 43 Years.	WIND AS DEDUCED FROM ANEMOMETERS.					
			Dry.			Dew Point.	Highest in the Sun, as shown by a Self-Registering Ther- mometer read at 9 ^a P. M.	Lowest on the Grass, as shown by a Self-Registering Thermometer read at 9 ^a A. M. next morning.	In the Water of the Thames, at Greenwich, by Self-Regis- tering Ther- mometers, read at 9 ^a A. M. next morning.		Mean Daily Value.	Greatest.	Least.	OSLER'S.			Pressure in lbs. on the square foot.		WEE WELL'S Amount of Horizontal Movement of the Air on each Day.	Rain in Inches read at 9 ^a P. M.		
			Highest.	Lowest.	Mean Daily Value.	Mean Daily Value.			Highest.	Lowest.				General Direction.	General Direction.		Greatest.	Least.			Mean of 24 Obs.	
May 1	..	29.688	53.8	41.1	45.3	37.3	68.5	41.0	50.3	49.5	8.0	16.4	3.9	-	4.7	NE	NE	4.0	0.0	0.5	115	0.00
2	New	29.786	56.0	40.5	46.7	35.8	73.0	38.8	50.3	49.5	10.9	17.8	4.4	-	3.8	NE	NE	7.0	0.0	1.8	140	0.00
3	..	29.741	57.8	40.5	47.4	37.1	74.0	..	50.6	49.9	10.3	17.6	4.8	-	3.5	NE	NE	3.2	0.0	1.0	125	0.00
4	..	29.622	62.5	40.2	48.8	40.6	82.8	34.0	51.0	50.0	8.2	16.9	4.1	-	2.5	NE	NE	3.5	0.0	1.0	110	0.00
5	Greatest Declination N.	29.799	60.1	36.5	47.1	38.5	84.0	..	51.0	50.0	8.6	15.6	2.2	-	4.5	NE	E; SE	2.0	0.0	0.0	25	0.00
6	..	29.932	62.5	33.1	47.8	41.4	86.2	26.0	51.3	50.4	6.4	16.0	2.1	-	5.7	SE	E	1.0	0.0	0.0	40	0.00
7	Perigee	29.857	72.0	39.5	56.4	47.9	88.0	..	51.9	50.8	8.5	18.4	2.6	+	4.5	SE	SW	2.0	0.0	0.2	75	0.00
8	..	30.035	66.5	46.0	52.4	45.1	86.0	48.0	51.8	50.8	7.3	18.4	3.4	+	0.6	Calm	NE; Calm	2.0	0.0	0.0	40	0.30
9	First Qr.	30.060	63.0	38.0	50.3	43.1	82.8	30.0	52.8	51.7	7.2	17.2	2.9	-	1.3	Calm; NE	E	3.0	0.0	0.5	80	0.00
10	..	29.975	56.0	42.7	47.4	41.1	62.0	40.0	54.7	53.2	6.3	10.8	2.3	-	4.0	NE	E	0.0	0.0	0.0	25	0.00
11	..	30.099	67.5	43.0	52.5	46.8	91.0	38.2	54.7	53.2	5.7	13.0	3.8	+	1.2	NE	NE	1.0	0.0	0.0	50	0.00
12	In Equator	30.057	62.0	40.8	51.0	44.6	83.0	36.0	55.2	53.7	6.4	13.3	0.9	-	0.3	NE	NE	1.5	0.0	0.0	70	0.00
13	..	29.989	64.0	38.8	52.0	40.6	84.0	34.0	55.7	54.2	11.4	20.9	0.9	+	0.6	NE	NE	4.5	0.0	1.0	140	0.00
14	..	29.950	66.5	39.7	52.7	44.5	87.3	34.0	56.4	55.2	8.2	15.7	0.7	+	0.9	NE	NE	3.5	0.0	0.8	115	0.00
15	..	29.790	64.0	39.7	52.6	42.9	75.0	34.2	56.4	54.8	9.7	17.9	0.8	+	0.4	NE	NE	3.5	0.0	0.8	140	0.00
16	Full	29.742	66.0	45.5	52.8	46.7	85.0	40.0	56.7	55.2	6.1	13.3	2.3	+	0.2	NE	NE	3.0	0.0	0.5	150	0.00
17	..	29.633	52.5	48.5	50.3	48.7	52.5	45.0	56.7	55.2	1.6	2.6	0.8	-	2.5	NE	NE	2.0	0.0	0.2	110	0.32
18	..	29.577	57.0	48.5	51.6	50.6	57.0	44.6	56.2	54.8	1.0	2.2	0.0	-	1.5	NE	NE	1.0	0.0	0.0	100	0.07
19	Greatest Declination S.	29.563	67.9	49.5	54.9	50.0	75.5	47.0	56.7	55.2	4.9	12.4	1.6	+	1.6	NE	NE	2.0	0.0	0.2	85	0.40
20	..	29.593	61.2	49.5	54.0	51.2	74.4	47.6	56.7	55.2	2.8	6.8	0.2	+	0.4	NE	NE	1.0	0.0	0.0	70	0.74
21	..	29.775	58.3	48.7	52.3	47.0	64.5	44.0	56.7	55.2	5.3	8.4	0.6	-	1.5	NE	NE	2.5	0.0	0.5	85	0.00
22	Apogee	29.946	62.0	43.7	49.8	42.8	79.6	41.0	..	..	7.0	13.1	4.0	-	4.3	NE	NE	2.0	0.0	0.0	65	0.00
23	..	29.885	70.3	40.5	52.2	46.5	82.7	37.0	..	..	5.7	14.8	1.6	-	2.1	NE	NE	2.5	0.0	0.2	80	0.00
24	Last Qr.	29.794	73.0	41.5	55.9	49.6	96.5	36.0	..	..	6.3	14.4	0.9	+	1.5	NE	SE	1.5	0.0	0.0	45	0.00
25	..	29.748	72.0	43.0	58.3	49.0	86.0	39.0	..	..	9.3	20.2	1.3	+	3.7	Calm	N	0.0	0.0	0.0	40	0.00
26	In Equator	29.799	72.0	47.5	59.6	49.4	96.8	41.0	..	..	10.2	20.7	2.0	+	4.9	NNE	E	1.0	0.0	0.0	40	0.00
27	..	29.766	73.8	43.8	59.0	46.4	99.0	38.0	..	..	12.6	24.7	0.9	+	4.1	NE	NE	1.5	0.0	0.3	65	0.00
28	..	29.602	70.0	47.5	58.0	56.1	79.6	41.5	..	..	1.9	10.3	0.0	+	2.8	NNE	SE	0.0	0.0	0.0	10	0.13
29	..	29.548	70.0	55.4	60.2	56.8	82.0	50.5	56.7	54.2	3.4	8.5	0.4	+	4.8	Calm	SE	0.0	0.0	0.0	25	0.24
30	..	29.517	77.0	54.7	64.3	56.0	101.0	50.0	60.7	58.2	8.3	17.9	1.0	+	8.6	Calm	NE	0.0	0.0	0.0	25	0.05
31	..	29.600	74.0	53.5	61.4	56.2	96.0	50.2	61.7	59.2	5.2	12.2	0.0	+	5.3	NE	E; S	3.0	0.0	0.0	50	0.10
Means	..	29.789	64.9	43.9	53.1	46.1	81.2	40.2	54.7	53.3	6.9	14.5	1.8	+	0.1	...	...	..	..	..	Sum 2335	Sum 2.35

BAROMETER READINGS.

The first maximum in the month was 29ⁱⁿ.815 on the 2nd; the first minimum in the month was 29ⁱⁿ.592 on the 4th.
The absolute maximum ,, was 30ⁱⁿ.126 on the 11th; the second minimum ,, was 29ⁱⁿ.551 on the 19th.
The third maximum ,, was 29ⁱⁿ.954 on the 22nd; the absolute minimum ,, was 29ⁱⁿ.491 on the 30th.
The range in the month was 0ⁱⁿ.635.
The mean for the month was 29ⁱⁿ.789, being 0ⁱⁿ.028 higher than the average of the preceding 18 years.

TEMPERATURE OF THE AIR.

The highest in the month was 77° 0 on the 30th; the lowest was 33° 1 on the 6th; and the range in the month was 43° 9.
The mean ,, of all the highest daily readings was 64° 9, being 0° 6 higher than the average of the preceding 18 years.
The mean ,, of all the lowest daily readings was 43° 9, being 0° 2 lower than the average of the preceding 18 years.
The mean daily range was 21° 0, being 0° 8 higher than the average of the preceding 18 years.
The mean for the month was 53° 1, being 0° 3 higher than the average of the preceding 18 years.

MONTH and DAY, 1859.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
May 1	o	m	10, ci.-s	10, ci.-cu, ci.-s
2	o	o	9, cu, ci.-cu, ci	9, cu, ci.-cu, ci : 10
3	o	w	3, ci	3, ci.-cu, ci
4	o	o : w	10	3, ci.-cu, ci : o
5	o	m	3, ci.-cu, ci	3, ci.-cu : o
6	o	w	o	o
7	w	w : s	3, ci.-cu, ci.-s	7, cu, ci.-cu : 10, ci.-s, r
8	o	o	10, r	o : 5, ci.-cu, ci
9	o	w : s	o	7, ci : 10, s, ci.-s. lu.-co
10	o	w : s	10	10 : o : 10
11	o	o : m	7, ci.-cu, ci.-s	7, ci.-cu, ci.-s : o
12	o	o : s	10	o
13	o	s N, s P : w	o	o
14	o	w	8, cu, ci.-cu, ci	2, ci.-cu, ci : o
15	o	o	3, ci.-cu, ci : 10	10, oc.-r
16	o	o : s	10, oc.-r : 9, ci.-cu, ci.-s	10 : o : 9, ci.-s, r
17	o	o	10, h.-r : th.-r	10 : 10, m.-r
18	o	o	10, h.-shs.-r	10
19	s N, s P, sps, g cur	s N, s P, sps, g cur	10 : h.-r	10, ci.-cu, ci.-s : t.-s
20	o	s N, s P, sps, g cur : o	10, h.-r	10, h.-r : o
21	o	o	10, ci.-s	8, li.-cl : 10, ci.-s, h.-r
22	o	m	10,	8, cu.-s, ci.-s : o
23	o	o : s	10	7, cu, ci.-cu : o
24	w	w : s	8, cu, ci.-cu, ci	8, cu, ci.-cu, ci
25	w	w : s	o	o
26	o	o : s	o	o : 3, ci.-cu, ci
27	v	v	7, ci.-s	5, ci, ci.-s : 10, r
28	o	w : o	10,	10 : th.-f
29	o	o	10, h	10, ci.-s, r : 7 : 10, shs.-r
30	o	s N, s P : o	7, ci.-cu, ci.-s	7, cu, ci.-cu, ci.-s : o
31	o	m : o	10 : 8, cu, ci.-cu, ci	5, ci.-s : 10, h.-r : 10

HUMIDITY OF THE AIR.

Temperature of the Dew Point.

The highest in the month was 60°.4 on the 28th; and the lowest was 34°.3 on the 2nd.

The mean ,, was 46°.1, being 0°.7 higher than the average of the preceding 18 years.

Elastic Force of Vapour.—The mean for the month was 0ⁱⁿ.312, being 0ⁱⁿ.013 greater than the average of the preceding 18 years.

Weight of Vapour in a Cubic Foot of Air.—The mean for the month was 3^{gr}.6, being 0^{gr}.2 greater than the average of the preceding 18 years.

Degree of Humidity.—The mean for the month was 77 (that of Saturation being represented by 100), being 1 greater than the average of the preceding 18 years.

Weight of a Cubic Foot of Air.—The mean for the month was 538 grains, being the same as the average of the preceding 18 years.

CLOUDS.

The mean amount for the month, a clear sky being represented by o and a cloudy sky by 10, was 6.1.

WIND.

The proportions were of N. 15, S. 2, W. 0, and E. 14. The greatest pressure in the month was 7^{lbs}.0 on the square foot on the 2nd.

RAIN.

Fell on 9 days in the month, amounting to 2ⁱⁿ.3, as measured in the simple cylinder gauge partly sunk below the ground; being 0ⁱⁿ.2 greater than the average fall of the preceding 44 years.

RESULTS OF ORDINARY METEOROLOGICAL OBSERVATIONS

Table with columns: MONTH and DAY, 1859; Phases of the Moon; Mean Daily Reading of the Barometer; READINGS OF THERMOMETERS (Dry, Dew Point, Water); Difference between Dew Point and Air Temperature; WIND AS DEDUCED FROM ANEMOMETERS (OSLER'S, General Direction, Pressure); WHF. WELL'S; Rain in Inches read at 9 P.M.

BAROMETER READINGS.

The first maximum in the month was 29.714 on the 1st; the absolute minimum in the month was 29.432 on the 2nd. The second maximum ,, was 29.921 on the 6th; the second minimum ,, was 29.450 on the 10th. The third maximum ,, was 29.858 on the 14th; the third minimum ,, was 29.706 on the 15th. The absolute maximum ,, was 30.008 on the 17th; the fourth minimum ,, was 29.678 on the 20th. The fifth maximum ,, was 29.974 on the 24th; the fifth minimum ,, was 29.732 on the 26th. The sixth maximum ,, was 29.995 on the 27th; the sixth minimum ,, was 29.735 on the 28th. The range in the month was 0.576. The mean for the month was 29.766, being 0.039 lower than the average of the preceding 18 years.

TEMPERATURE OF THE AIR.

The highest in the month was 81.3 on the 26th; the lowest was 43.5 on the 25th. The range ,, was 37.8. The mean ,, of all the highest daily readings was 73.9, being 2.5 higher than the average of the preceding 18 years. The mean ,, of all the lowest daily readings was 53.0, being 2.9 higher than the average of the preceding 18 years. The mean daily range was 20.9, being 0.4 lower than the average of the preceding 18 years. The mean for the month was 61.4, being 2.3 higher than the average of the preceding 18 years.

MONTH and DAY, 1859.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
June 1	o	o : m	5, ci.-s	5, cu, ci.-cu, ci : 2, ci : 8, ci-s, r
2	o : s	s : m	10, h-r : 8, ci.-s : 10, th-r	10, ci.-s : r
3	o	m : o	10 : 9, ci.-s, ci	10 : oc-r
4	o	s N, sps	7, ci.-s	7, cu, ci.-cu, ci : 10, oc-r
5	o	ss P, ss N	10, f	10 : t.-s : o
6	o	ss, sps	10	10, cu, ci.-cu : 7 : th.-f
7	o	o : ss	10, ci.-s	10, ci.-s : 3, cu, ci.-cu, l
8	v	v	3, ci	3, ci.-cu, ci
9	o	o : w	10	7, cu, ci.-cu, ci
10	o	o	10 : 9, ci.-s, ci	10 : th-r : 10
11	o	o : w	10	8, cu, ci.-cu, ci : 10 : 5, ci.-cu, ci.-s
12	ss N, sps, g cur	ss, sps, g cur	10 : h.-r, t	10, ci.-s, h-r, l, t : 7, ci.-s
13	o	o	10, ci.-s, h	9, ci.-cu, ci : 8, cu, ci.-cu, ci
14	o	o : w	10 : 7, cu, ci.-cu	3, ci.-cu, ci
15	o	o : w	7, cu, ci.-cu, ci.	5, cu, ci.-cu, ci : 7, ci.-s
16	o	o : w	9, ci.-cu, ci.-s	9, cu, ci.-cu, ci
17	o	o : w	7, ci.-cu, ci, h	7, ci.-cu, ci, h
18	o	o	10, h	10, h : ci.-s
19	o	o	10, h	10, gt.-glm : ci.-s
20	o	o	10	10, th.-r
21	o	o	7, cu, ci.-cu, ci	10 : th.-r
22	o	o	10, cu, ci.-cu, ci	10, cu, ci.-cu, ci.-s : th.-r
23	o	o	8, ci.-cu, ci.-s	8, ci.-cu, ci.-s
24	o	o : w	7, ci.-s	8, cu, ci.-cu, ci : o
25	o	o : w	o	o
26	w	w : o	10, t, r	5, cu.-s
27	w : o	o : w	2, ci.-s	9, ci.-s : ci : 10, r
28	o : w	o	10	10, th.-r
29	o	w : o	10, ci.-s	10, s, ci.-s
30	o	w : o	3, ci	3, ci.-cu, ci

HUMIDITY OF THE AIR.

Temperature of the Dew Point.

The highest in the month was 64°·4 on the 28th; and the lowest was 44°·4 on the 21st and 24th.

The mean ,, was 53°·8, being 3°·0 higher than the average of the preceding 18 years.

Elastic Force of Vapour.—The mean for the month was 0ⁱⁿ·415, being 0ⁱⁿ·043 greater than the average of the preceding 18 years.

Weight of Vapour in a Cubic Foot of Air.—The mean for the month was 48^{gr}·6, being 0^{gr}·5 greater than the average of the preceding 18 years.

Degree of Humidity.—The mean for the month was 77 (that of Saturation being represented by 100), being 4 greater than the average of the preceding 18 years.

Weight of a Cubic Foot of Air.—The mean for the month was 528 grains, being 3 grains less than the average of the preceding 18 years.

CLOUDS.

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

WIND.

The proportions were of N. 12, S. 6, W. 6, and E. 6. The greatest pressure in the month was 4^{lbs}·5 on the square foot on the 26th.

RAIN.

Fell on 7 days in the month, amounting to 1ⁱⁿ·4, as measured in the simple cylinder gauge partly sunk below the ground; being 0ⁱⁿ·5 less than the average fall of the preceding 44 years.

RESULTS OF ORDINARY METEOROLOGICAL OBSERVATIONS

Table with columns: MONTH and DAY, 1859; 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 Rain in Inches read at 9 P.M.

BAROMETER READINGS.

The absolute maximum in the month was 30.198 on the 5th; the first minimum in the month was 29.972 on the 12th. The second maximum ,, was 30.143 on the 14th; the second minimum ,, was 29.602 on the 18th. The third maximum ,, was 29.874 on the 20th; the third minimum ,, was 29.685 on the 22nd. The fourth maximum ,, was 30.007 on the 25th; the absolute minimum ,, was 29.511 on the 31st. The range in the month was 0.687. The mean for the month was 29.937, being 0.142 higher than the average of the preceding 18 years.

TEMPERATURE OF THE AIR.

The highest in the month was 93.0 on the 18th; the lowest was 46.5 on the 25th; and the range in the month was 46.5. The mean ,, of all the highest daily readings was 81.08, being 8.2 higher than the average of the preceding 18 years. The mean ,, of all the lowest daily readings was 57.1, being 4.0 higher than the average of the preceding 18 years. The mean daily range was 24.7, being 4.2 higher than the average of the preceding 18 years. The mean for the month was 68.1, being 6.5 higher than the average of the preceding 18 years.

MONTH and DAY, 1859.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
July 1	v	v	10, ci-s	10, cu-s, ci-s : 5
2	o	m : s, sps	10, ci-s	2, ci : 10 : 1, t, h-r
3	o	o : w	10	10 : 1, t, h-r
4	o	o	10, f	7, cu, ci-cu : o
5	m	o	2, ci, h	2, ci-cu, ci
6	w	w	3, cu, ci-cu, ci	5, ci-cu, ci : o, h
7	o	o : w	o	7, ci-cu, ci-s
8	w : N, w	w	7, cu, ci-cu	7, ci-cu, ci-s : o, m
9	o	o : w	3, ci	3, ci-cu, ci
10	o	o	2, ci-cu	8, cu, ci-cu, ci : o
11	o	w : o	3, ci	5, ci : o
12	w	w	o	o
13	o	w : o	o	o
14	w	o	o : 5, cu	10, cu-s, ci-s : 5, ci
15	o	o : w	o : 8, cu, ci-cu	10, ci-s : o
16	o	w : o	o	3, ci-cu : o
17	o	o	o	o
18	o	v	o	7, cu, ci-cu : 10, t-s
19	o	o : w	7, cu, ci-cu	7, ci-cu, ci : o
20	ss N, ss P, sps, g cur : w	w	10, t-s : 10, h-r : 5, cu, ci-cu	3, ci-cu, ci : t : o
21	o	o	10, ci-s, r	8, cu, cu-s : o : 10, l, t
22	m	m	3, ci	3, ci-cu, ci : 5, cu-s
23	o	o	10, th-r	10, oc-r : 10
24	v	v	3, cu, ci-cu : 9, ci-s	9, ci-s : o
25	o	o : w	8, ci-s, h	2, ci : 9, s
26	w	o	2, cu, ci	5, cu, ci-cu, cu-s
27	o	o : w	7, ci-cu, ci-s	3, cu, ci-cu : 10, ci-s
28	w	w : s	10, ci-s	10, ci-s : 5, cu, ci-cu
29	w	o	10, oc-r	10, ci-s : r
30	o	o : w	10, ci-cu, ci-s	7, cu-s, ci-s
31	o	w	10, oc-r : 9, ci-s : 5, cu-s	5, cu-s-ci-s : o

HUMIDITY OF THE AIR.

Temperature of the Dew Point.

The highest in the month was 66°.7 on the 21st; and the lowest was 48°.0 on the 25th.
The mean ,, was 58°.3, being 4°.6 higher than the average of the preceding 18 years.

Elastic Force of Vapour.—The mean for the month was 0.487, being 0.073 greater than the average of the preceding 18 years.

Weight of Vapour in a Cubic Foot of Air.—The mean for the month was 5.4, being 0.8 greater than the average of the preceding 18 years.

Degree of Humidity.—The mean for the month was 70 (that of Saturation being represented by 100), being 6 less than the average of the preceding 18 years.

Weight of a Cubic Foot of Air.—The mean for the month was 524 grains, being 3 grains less than the average of the preceding 18 years.

CLOUDS.

The mean amount for the month, a clear sky being represented by 0 and a cloudy sky by 10, was 5.1.

WIND.

The proportions were of N. 5, S. 10, W. 11, and E. 5. The greatest pressure in the month was 8 lbs. 0 on the square foot on the 31st.

RAIN.

Fell on 7 days in the month, amounting to 3.3, as measured in the simple cylinder gauge partly sunk below the ground; being 0.6 greater than the average fall of the preceding 44 years.

RESULTS OF ORDINARY METEOROLOGICAL OBSERVATIONS

Table with columns: MONTH and DAY, 1859; 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); WHEWELL'S (Amount of Horizontal Movement of the Air, Rain in Inches).

BAROMETER READINGS.

The first maximum in the month was 29.948 on the 2nd; the first minimum in the month was 29.720 on the 4th. The second maximum ,, was 29.959 on the 6th; the second minimum ,, was 29.640 on the 8th. The third maximum ,, was 29.899 on the 11th; the third minimum ,, was 29.518 on the 15th. The absolute maximum ,, was 30.184 on the 22nd; the fourth minimum ,, was 29.604 on the 26th. The fifth maximum ,, was 29.850 on the 28th; the absolute minimum ,, was 29.427 on the 30th. The range in the month was 0.757. The mean for the month was 29.818, being 0.019 higher than the average of the preceding 18 years.

TEMPERATURE OF THE AIR.

The highest in the month was 91.3 on the 25th; the lowest was 46.5 on the 31st. The range ,, was 44.8. The mean ,, of all the highest daily readings was 76.1, being 3.2 higher than the average of the preceding 18 years. The mean ,, of all the lowest daily readings was 54.3, being 0.9 higher than the average of the preceding 18 years. The mean daily range was 21.8, being 2.3 higher than the average of the preceding 18 years. The mean for the month was 63.5, being 2.1 higher than the average of the preceding 18 years.

MONTH and DAY, 1859.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Aug. 1	o	w : o	5, cu, ci.-cu, ci	5, ci.-cu : 5, ci.-s
2	w	o : w	7, ci.-cu, ci.-s	10, ci.-s : o
3	w	w	o	5, ci.-cu, ci
4	o	o : m	10, ci.-s, h.-r	o
5	m	ss N, ss P, sps, g cur : m	3, ci.-cu, ci	10, h.-r : o
6	m	o : m	9, ci.-cu, ci.-s	10, ci.-s, r
7	w	w	10, ci.-s	10, ci.-s
8	o	w : o	10, h.-shs.-r	10, ci.-s : oc.-r
9	o	o : m	10, oc.-r	10, oc.-r
10	o	o	10, oc.-r	10, oc.-r
11	o	s : w	10, ci.-s	7, cu, ci.-cu
12	o	w : o	3, cu, ci.-cu, ci	3, cu, ci.-cu : o
13	m	o : m	2, ci	7, cu, ci.-cu : 2, ci
14	m	m	10, r, h	5, ci, li.-cl
15	o	o	10, r	10 : o, h
16	w	o : w	7, ci, h	8, cu, ci.-cu, ci : 5, ci.-s : f
17	o	o	10, r	10, r : o : f
18	o	o	10, f	10, cu.-s, ci.-s
19	o	o	8, ci.-s	8, ci.-cu, ci.-s : o
20	s	s	o	o
21	o : m	m : o	10, ci.-cu, ci.-s	10, ci.-cu, ci.-s : o
22	s	o : s	8, ci, h	5 : h
23	w	N, w : w	7, ci, h	7, ci.-s, h : o
24	o	w	o	o
25	o	w : ss N, sps, g cur	10, ci.-s	7, ci.-s, ci : 1, t, h.-r
26	o	o : w	10	10, r : o
27	m	m : ss N, ss P, sps, g cur	10	5, cu, ci.-cu, h : 10, l, t : o
28	s	w	7, cu, ci.-cu	7, cu, ci.-cu : o
29	w	o : N, w	7, ci.-cu, ci.-s	7, cu, ci.-cu : 10, h.-r : 10
30	w	ss N, ss P, sps, g cur : o	7, ci.-cu, ci.-s	10, cu.-s, ci.-s, t : 10, t, hl, r : 10
31	o	o : s	10, ci.-s	10 : 5, ci.-cu, ci.-s : o

HUMIDITY OF THE AIR.

Temperature of the Dew Point.

The highest in the month was 65°·0 on the 26th; and the lowest was 42°·8 on the 31st.

The mean ,, was 54°·2, being 0°·1 higher than the average of the preceding 18 years.

Elastic Force of Vapour.—The mean for the month was 0^m·421, being 0^m·002 less than the average of the preceding 18 years.

Weight of Vapour in a Cubic Foot of Air.—The mean for the month was 4^{gr}·7, being the same as the average of the preceding 18 years.

Degree of Humidity.—The mean for the month was 72 (that of Saturation being represented by 100), being 5 less than the average of the preceding 18 years.

Weight of a Cubic Foot of Air.—The mean for the month was 527 grains, being 1 grain less than the average of the preceding 18 years.

CLOUDS.

The mean amount for the month, a clear sky being represented by o and a cloudy sky by 10, was 6·5.

WIND.

The proportions were of N. 6, S. 11, W. 11, and E. 3. The greatest pressure in the month was 7^{lbs}·0 on the square foot on the 15th.

RAIN.

Fell on 11 days in the month, amounting to 1ⁱⁿ·1, as measured in the simple cylinder gauge partly sunk below the ground; being 1ⁱⁿ·3 less than the average fall of the preceding 44 years.

RESULTS OF ORDINARY METEOROLOGICAL OBSERVATIONS

Table with columns: MONTH and DAY, 1859; Phases of the Moon; Mean Daily Reading of the Barometer; READINGS OF THERMOMETERS (Dry, Dew Point, Water of the Thames); Difference between the Dew Point Temperature and Air Temperature; WIND AS DEDUCED FROM ANEMOMETERS (OSLEE'S, General Direction, Pressure); and Rain in Inches read at 9 P.M.

BAROMETER READINGS.

The first maximum in the month was 29.686 on the 2nd; the first minimum in the month was 29.494 on the 2nd. The second maximum ,, was 30.029 on the 5th; the second minimum ,, was 29.597 on the 6th. The third maximum ,, was 29.873 on the 8th; the third minimum ,, was 29.676 on the 9th. The absolute maximum ,, was 30.183 on the 11th; the fourth minimum ,, was 29.316 on the 16th. The fifth maximum ,, was 29.911 on the 18th; the absolute minimum ,, was 29.247 on the 21st. The sixth maximum ,, was 29.920 on the 27th; the sixth minimum ,, was 29.544 on the 28th. The range in the month was 0.936. The mean for the month was 29.709, being 0.130 lower than the average of the preceding 18 years.

TEMPERATURE OF THE AIR.

The highest in the month was 76.0 on the 24th; the lowest was 41.5 on the 12th and 20th. The range ,, was 34.5. The mean ,, of all the highest daily readings was 67.1, being 0.6 lower than the average of the preceding 18 years. The mean ,, of all the lowest daily readings was 49.0, being 0.1 lower than the average of the preceding 18 years. The mean daily range was 18.1, being 0.5 lower than the average of the preceding 18 years. The mean for the month was 56.7, being 0.4 lower than the average of the preceding 18 years.

MONTH and DAY, 1859.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Sept. 1	m	m : s	o	10 : o, f
2	w	o	10	10, th-r : 7, cu, ci.-cu, ci
3	o	o	10, f	10, th-r : 10, th-r
4	w	o	7, ci.-cu	10, cu, ci.-cu, ci : 5, cu, ci.-cu : o, h
5	o	o	o	7, ci.-h : 5, ci.-cu, ci
6	s	s N, s P, sps, g cur : o	10, h.-r	o : 3, ci.-s
7	w	o : w	7, ci.-cu, ci.-s	5, ci.-s, sc, t, oc.-r
8	w	o	10, ci.-s	7, cu, ci.-cu, ci
9	o	o : m	10, ci.-s, sc	5 : 10, oc.-r
10	w	w : s	o	2, ci.-cu, ci
11	s	o : s	7, cu.-s, ci.-s, h	7, ci.-cu, ci : 10
12	s	s : w	3, ci.-cu, ci	7, cu, cu.-s, ci.-s : o
13	o	o : s	10, ci.-s, r	3, ci.-cu, ci : 10, ci.-cu, ci.-s
14	o	o : w	10, h.-r	7, cu, ci.-cu, ci : 2, ci, r : 10, r
15	o	s N, sps, g cur	10, ci.-s, r	10, h.-shs.-r : 7, ci.-cu, ci.-s
16	o	s N, s P, sps, g cur : o	10	7, cu, ci.-cu, ci : 10, h.-r : 7, ci.-s, f
17	o	o : s, g cur	7, ci.-s, oc.-r	7, cu, ci.-cu, ci : 5
18	o	o : w	7, cu, ci.-cu, ci, h	7, cu, cu.-s : o
19	o	o	3, ci	7, cu, ci.-cu, ci : 10, ci.-s : r
20	o	o : w	9, ci.-cu, ci.-s.	3, ci.-cu, ci : o, f
21	o	o	10, h.-r	3, cu, ci.-cu, ci : o
22	w	o	3, ci.-s, sc	10, oc.-r : o
23	o	o	10, oc.-r	10, ci.-s : r
24	o	o : w	3, ci	10 : 7, s, ci.-s
25	o	o : w	10, ci.-s	o : 8, ci.-s : o, a
26	w	o	10, ci.-cu, ci.-s	10, ci.-s : 9, ci.-s
27	o	o	10, ci.-s	10, r : h.-r
28	o	o : w	8, ci.-cu, ci.-s	10, ci.-s : 7 : r
29	w	o : w	3, ci.-cu, ci	8, ci.-cu, ci.-s : oc.-r : l
30	o	o	10, oc.-r	5, ci.-cu, ci : o
				10, oc.-r : o

HUMIDITY OF THE AIR.

Temperature of the Dew Point.

The highest in the month was 61°·3 on the 23rd and 25th; and the lowest was 42°·6 on the 1st.

The mean " " was 49°·9, being 1°·3 lower than the average of the preceding 18 years.

Elastic Force of Vapour.—The mean for the month was 0ⁱⁿ·361, being 0ⁱⁿ·023 less than the average of the preceding 18 years.

Weight of Vapour in a Cubic Foot of Air.—The mean for the month was 3^{gr}·9, being 0^{gr}·3 less than the average of the preceding 18 years.

Degree of Humidity.—The mean for the month was 75 (that of Saturation being represented by 100), being 6 less than the average of the preceding 18 years.

Weight of a Cubic Foot of Air.—The mean for the month was 532 grains, being 2 grains less than the average of the preceding 18 years.

CLOUDS.

The mean amount for the month, a clear sky being represented by 0 and a cloudy sky by 10, was 6·9.

WIND.

The proportions were of N. 8, S. 9, W. 12, and E. 1. The greatest pressure in the month was 8^{lb}·0 on the square foot on the 6th and 17th.

RAIN.

Fell on 17 days in the month, amounting to 3ⁱⁿ·8, as measured in the simple cylinder gauge partly sunk below the ground; being 1ⁱⁿ·4 greater than the average fall of the preceding 44 years.

RESULTS OF ORDINARY METEOROLOGICAL OBSERVATIONS

Table with columns: MONTH and DAY, 1859; Phases of the Moon; Mean Daily Reading of the Barometer; READINGS OF THERMOMETERS (Dry, Dew Point, Water of the Thames); Difference between the Dew Point Temperature and Air Temperature; WIND AS DEDUCED FROM ANEMOMETERS (OSLER'S, WHEWELL'S AND ROBINSON'S); Rain in Inches read at 9 P.M.

BAROMETER READINGS.

The absolute maximum in the month was 30.082 on the 2nd; the first minimum in the month was 29.702 on the 4th. The second maximum was 29.892 on the 5th; the second minimum was 29.320 on the 10th. The third maximum was 29.638 on the 13th; the third minimum was 29.356 on the 15th. The fourth maximum was 29.861 on the 18th; the fourth minimum was 29.160 on the 21st. The fifth maximum was 29.440 on the 22nd; the fifth minimum was 29.245 on the 23rd. The sixth maximum was 29.389 on the 25th; the sixth minimum was 28.931 on the 25th. The seventh maximum was 29.785 on the 27th; the absolute minimum was 28.915 on the 30th. The eighth maximum was 29.195 on the 31st. The range in the month was 1.167. The mean for the month was 29.523, being 0.168 lower than the average of the preceding 18 years.

TEMPERATURE OF THE AIR.

The highest in the month was 81.0 on the 4th; the lowest was 26.5 on the 24th; and the range in the month was 54.5. The mean of all the highest daily readings was 59.0, being 0.7 higher than the average of the preceding 18 years. The mean of all the lowest daily readings was 45.0, being 1.4 higher than the average of the preceding 18 years. The mean daily range was 14.0, being 0.7 lower than the average of the preceding 18 years. The mean for the month was 50.9, being 1.3 higher than the average of the preceding 18 years.

WHEWELL'S ANEMOMETER was in the hands of Mr. Simms for repair from October 24 to December 1.

MONTH and DAY, 1859.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Oct. 1	o	o	10, r	10, cu.-s, ci.-s : o, a
2	o	o : w	10, cu.-s, ci.-s	5, ci.-cu, ci.-s : 10
3	o	o : w	7, ci.-cu, ci. s	o
4	o	o	o	o
5	o	o	o, f	7, cu.-s, ci.-s : o
6	o	m : o	7, ci.-cu, ci.-s	o
7	o	o	10	10, oc.-r
8	o	o : w	10, r	8, ci.-s : o
9	w	w	7, cu, ci.-cu, ci	7, cu, ci.-cu, ci : 10
10	o	o	10, r	5, ci.-s, n
11	o	o	10, r	10, ci.-cu, cu.-s, ci.-s
12	o	o : w	10, r	10, t.-s : f, a
13	o	s : w	10, ci.-s	10, ci.-s : lu.-ha
14	s	s : w	5, ci.-cu, ci.-s	5, ci.-cu, ci.-s : 10
15	o	o	10, ci.-s	10 : oc.-r
16	o	o : w	10, ci.-s, sc, oc.-r	7, cu.-s, ci.-s : 10, h.-r : 1
17	m	m	10, ci.-cu, ci.-s, r	10, cu.-s, ci.-s : o : a
18	w	o	10, th.-f	10
19	o	o : w	10	10, r : o, f, a
20	v	v : N, w	10	7, cu.-s, ci.-s : 10 : r
21	o	o	o	10, ci.-cu, ci.-s : o : 10
22	w	v : ss	o, h.-f	5, cu, ci.-cu : o, l
23	m	m	10, ci, h, h.-f	10 : o, f
24	o	o : s	7, ci.-s, f, h.-f	10, sn : 5, ci : th.-f
25	o	o : s, N	10, f, h.-f	10 : 10, r
26	o	o	10, ci.-s, sc	10 : o
27	o	o	10, ci.-s, f	10, f, oc.-r : o
28	o	o : N, w	10	8, ci.-cu, ci.-s
29	o	o : w	10, ci.-s	10, ci.-s : o
30			7, ci	10, th.-r
31			10 : 5, ci.-cu, ci	10 : th.-r

HUMIDITY OF THE AIR.

Temperature of the Dew Point.

The highest in the month was 61°·7 on the 4th and 7th; and the lowest was 25°·6 on the 21st.

The mean „ „ was 47°·8, being 2°·0 higher than the average of the preceding 18 years.

Elastic Force of Vapour.—The mean for the month was 0ⁱⁿ·334, being 0ⁱⁿ·024 greater than the average of the preceding 18 years.

Weight of Vapour in a Cubic Foot of Air.—The mean for the month was 35^{gr}·7, being 0^{gr}·2 greater than the average of the preceding 18 years.

Degree of Humidity.—The mean for the month was 89 (that of Saturation being represented by 100), being greater than the average of the preceding 18 years.

Weight of a Cubic Foot of Air.—The mean for the month was 535 grains, being 4 grains less than the average of the preceding 18 years.

CLOUDS.

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

WIND.

The proportions were of N. 4, S. 15, W. 6, and E. 6. The greatest pressure in the month was 13^{lb}·0 on the square foot on the 26th.

RAIN.

Fell on 18 days in the month, amounting to 3ⁱⁿ·6, as measured in the simple cylinder gauge partly sunk below the ground; being 0ⁱⁿ·8 greater than the average fall of the preceding 44 years.

ELECTRICITY.—October 30. The insulating lamp was not burning till November 3.

RESULTS OF ORDINARY METEOROLOGICAL OBSERVATIONS

Table with columns: MONTH and DAY, 1859; 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, ROBINSON'S); Pressure in lbs. on the square foot; Rain in Inches read at 9^a P.M.

BAROMETER READINGS.

The absolute minimum in the month was 28ⁱⁿ.635 on the 1st. The first maximum in the month was 29ⁱⁿ.676 on the 2nd; the second minimum ,, was 28ⁱⁿ.936 on the 4th. The absolute maximum ,, was 30ⁱⁿ.583 on the 10th; the third minimum ,, was 30ⁱⁿ.056 on the 17th. The third maximum ,, was 30ⁱⁿ.244 on the 18th; the fourth minimum ,, was 29ⁱⁿ.641 on the 21st. The fourth maximum ,, was 29ⁱⁿ.927 on the 23rd; the fifth minimum ,, was 29ⁱⁿ.519 on the 26th. The fifth maximum ,, was 29ⁱⁿ.969 on the 27th; the sixth minimum ,, was 29ⁱⁿ.369 on the 30th. The range in the month was 1ⁱⁿ.948. The mean for the month was 29ⁱⁿ.824, being 0ⁱⁿ.068 higher than the average of the preceding 18 years.

TEMPERATURE OF THE AIR.

The highest in the month was 60° 4 on the 6th; the lowest was 25° 5 on the 14th; and the range in the month was 34° 9. The mean ,, of all the highest daily readings was 49° 4, being the same as the average of the preceding 18 years. The mean ,, of all the lowest daily readings was 35° 5, being 2° 5 lower than the average of the preceding 18 years. The mean daily range was 13° 9, being 2° 4 higher than the average of the preceding 18 years. The mean for the month was 41° 9, being 1° 7 lower than the average of the preceding 18 years.

TEMPERATURE OF THE THAMES.

During a part of this month, there was a slight inconsistency in the readings of the two thermometers, which could not be explained. The mean of the two readings is inserted in both columns.

MONTH and DAY, 1859.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Nov. 1			9	9, cu.-s, ci.-s, oc.-r
2			10, ci.-s	5, ci.-cu, ci
3	o	o	o	3, cu, ci.-cu
4	o	o	o, r	10, r
5	o	o	o	9
6	ss, sps, g cur	ss, sps, g cur	5, ci.-cu, ci.-s, fr.-sq.-w.-r	9, ci.-s, h.-sha-r
7	o	o	7, cu.-s, ci.-s, r	3, ci.-cu, ci
8	o	sN, sP, sps, g cur : o	3, ci.-cu, ci	10, ci.-s
9	o	o : w	o	7, ci.-cu, ci
10	o	o : w	5, ci.-s, f	5, ci.-s
11	o	o	9, ci.-cu, ci.-s, f, h.-f	2, ci.-cu, ci.-s
12	o	o	8, ci.-s	8 ci.-s.
13	o	o	10, ci.-s	3
14	o	o : w	2, ci, f	10, f
15	o	o	10, th.-f	10, f
16	o	o	7, cu.-s, ci.-s	o
17	o	o : w	10, cu.-s, ci.-s	5, ci.-cu, ci
18	o	o	7, th.-f	7, ci.-cu, ci.-s
19	o	o	5, cu, ci.-cu, ci	5
20	ss	ss	o, h	o
21	v	v	7, h	o
22	s	s	o, f, h.-f	10, cu.-s, ci.-s
23	s	s	10, f	o
24	s	s	o	o
25	s	s	10, ci.-s	10, ci.-s, r
26	v	v	10, cu.-s, ci.-s, h	10, s, ci.-s
27	s	s : o	10, oc.-r	10, ci.-cu, ci.-s
28	o	o : w	10, th.-r	5, ci.-s
29	-m	m : s, N	10, ci.-cu, ci.-s	10, s, ci.-s
30	w	w : s	10, ci.-s, th.-r	10, cu.-s, ci.-s

HUMIDITY OF THE AIR.

Temperature of the Dew Point.

The highest in the month was 52°·7 on the 5th ; and the lowest was 28°·1 on the 10th.

The mean ,, was 38°·2, being 2°·1 lower than the average of the preceding 18 years.

Elastic Force of Vapour.—The mean for the month was 0ⁱⁿ·231, being 0ⁱⁿ·026 less than the average of the preceding 18 years.

Weight of Vapour in a Cubic Foot of Air.—The mean for the month was 28^{gr}·6, being 08^{gr}·3 less than the average of the preceding 18 years.

Degree of Humidity.—The mean for the month was 87 (that of Saturation being represented by 100), being 2 less than the average of the preceding 18 years.

Weight of a Cubic Foot of Air.—The mean for the month was 551 grains, being 4 grains greater than the average of the preceding 18 years.

CLOUDS.

The mean amount for the month, a clear sky being represented by 0 and a cloudy sky by 10, was 5·9.

WIND.

The proportions were of N. 6, S. 9, W. 8, and E. 7. The greatest pressure in the month was 20^{lb}·0 on the square foot on the 1st.

RAIN.

Fell on 13 days in the month, amounting to 2ⁱⁿ·9 as measured in the simple cylinder gauge partly sunk below the ground ; being 0ⁱⁿ·5 greater than the average fall of the preceding 44 years.

RESULTS OF ORDINARY METEOROLOGICAL OBSERVATIONS

Table with columns: MONTH and DAY, 1859; Phases of the Moon; Mean Daily Reading of the Barometer; READINGS OF THERMOMETERS (Dry, Dew Point, Water in the Thames); Difference between the Dew Point Temperature and Air Temperature; WIND AS DEDUCED FROM ANEMOMETERS (OSLER'S, WHEWELL'S, ROBINSON'S); Rain in Inches read at 9 A.M.

BAROMETER READINGS.

The first maximum in the month was 30.066 on the 3rd; the first minimum in the month was 29.239 on the 5th. The absolute maximum ,, was 30.590 on the 10th; the second minimum ,, was 29.542 on the 16th. The third maximum ,, was 29.710 on the 20th; the third minimum ,, was 29.110 on the 21st. The fourth maximum ,, was 29.448 on the 22nd; the absolute minimum ,, was 28.509 on the 26th. The fifth maximum ,, was 29.251 on the 27th; the fifth minimum ,, was 29.032 on the 28th. The sixth maximum ,, was 29.262 on the 29th; the sixth minimum ,, was 29.067 on the 29th. The seventh maximum ,, was 29.670 on the 31st. The range in the month was 2.081. The mean for the month was 29.623, being 0.209 lower than the average of the preceding 18 years.

TEMPERATURE OF THE AIR.

The highest in the month was 56.5 on the 31st; the lowest was 14.0 on the 10th; and the range in the month was 42.5. The mean ,, of all the highest daily readings was 41.5, being 3.9 lower than the average of the preceding 18 years. The mean ,, of all the lowest daily readings was 31.8, being 4.1 lower than the average of the preceding 18 years. The mean daily range was 9.7, being 0.2 higher than the average of the preceding 18 years. The mean for the month was 36.8, being 3.7 lower than the average of the preceding 18 years.

TEMPERATURE OF THE THAMES.

During a part of this month, there was a slight inconsistency in the readings of the two thermometers, which could not be explained. The mean of the readings is inserted in both columns.

MONTH and DAY, 1859.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Dec. 1	s P, s N	s P, s N	10	10, th.-r : o
2	ss	ss	10	10 : 9, ci.-cu, ci.-s, sn
3	s	s : ss, sps	10, ci.-cu, cu.-s, h	7, ci.-cu, ci.-s : 10
4	N, ss, sps	o	10, th.-r	10, th.-r
5	o	o	10, r	10, r : 2, ci
6	o	o	10	10 : h.-r : lu.-ha
7	o	o : s	10	10, h.-r : o : ci.-s, lu.-ha
8	s	s	7, cu.-s, ci.-s	o
9	s	s	8, ci.-s, h.-f	8, ci.-s : 10
10	s	s	o	o : 10, s
11	s	s	10, f, h.-f	10, f : th.-f
12	v	v	10, th.-r	10, th.-f
13	o : w	w : o	10	7, ci.-s : o
14			o	9, cu.-s, ci.-s : sn
15			o	7, ci.-s : o, h
16			10, h.-f	10, ci.-s, sn
17			7, ci.-s	7, ci.-s : 10
18			o	o
19			10, cu.-s, ci.-s	10, ci.-s, sn : o
20			9, ci.-s	9, ci.-s : sn
21			10, cu.-s, ci.-s, r : o	o
22			3, ci	3, ci : 10, r
23			10, th.-f : 5, ci.-cu : 8, ci.-s	10
24			1, ci : 9, ci.-cu, ci.-s	7, ci.-cu, ci.-s : 10 : r
25	s	s : N, ss	10	10 : r
26	o : w	w : o	10, f	10, m.-r : 8
27	o	o	2, ci.-cu, ci	7, ci.-cu, ci : 10, r : o
28	s	o	10, r	10, r : o, l
29	o	o	10, r	10, r : 4, ci
30	o	v	7, ci.-s : 10	10, s, ci.-s, oc.-r
31	o	o	10	10 : shs.-r : 10

HUMIDITY OF THE AIR.

Temperature of the Dew Point.

The highest in the month was 52°·4 on the 31st; and the lowest was 11°·7 on the 18th.

The mean , , was 33°·4, being 3°·9 lower than the average of the preceding 18 years.

Elastic Force of Vapour.—The mean for the month was 0ⁱⁿ·191, being 0ⁱⁿ·038 less than the average of the preceding 18 years.

Weight of Vapour in a Cubic Foot of Air.—The mean for the month was 2^{gr}·2, being 0^{gr}·4 less than the average of the preceding 18 years.

Degree of Humidity.—The mean for the month was 88 (that of Saturation being represented by 100), being 1 less than the average of the preceding 18 years.

Weight of a Cubic Foot of Air.—The mean for the month was 553 grains, being 1 grain greater than the average of the preceding 18 years.

CLOUDS.

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

WIND.

The proportions were of N. 8, S. 10, W. 7, and E. 6. The greatest pressure in the month was 12^{lbs}·0 on the square foot on the 4th.

RAIN.

Fell on 17 days in the month, amounting to 2ⁱⁿ·2, as measured in the simple cylinder gauge partly sunk below the ground; being 0ⁱⁿ·3 greater than the average fall of the preceding 44 years.

ELECTRICITY.—The insulating lamp was not burning from December 14 to December 24.

MONTHLY MEANS OF RESULTS for METEOROLOGICAL ELEMENTS at the ROYAL OBSERVATORY, GREENWICH, in the Year 1859.

1859, MONTH.	Mean Reading of the Barometer.	TEMPERATURE OF THE AIR.							Mean Temperature of Dew Point.
		Highest.	Lowest.	Range in the Month.	Mean of all the Highest.	Mean of all the Lowest.	Mean Daily Range.	Mean Temperature.	
January	in. 30·037	53·0	28·5	24·5	45·5	35·5	10·0	40·4	37·1
February.....	29·823	59·0	30·5	28·5	50·4	36·3	14·1	43·1	37·7
March	29·806	63·5	28·9	34·6	54·2	40·5	13·7	46·4	40·1
April.....	29·614	70·0	25·3	53·7	56·9	39·1	17·8	46·6	39·8
May.....	29·789	77·0	33·1	43·9	64·9	43·9	21·0	53·1	46·1
June	29·766	81·3	43·5	37·8	73·9	53·0	20·9	61·4	53·8
July.....	29·937	93·0	46·5	46·5	81·8	57·1	24·7	68·1	58·3
August	29·818	91·3	46·5	44·8	76·1	54·3	21·8	63·5	54·2
September.....	29·709	76·0	41·5	34·5	67·1	49·0	18·1	56·7	49·9
October	29·523	81·0	26·5	54·5	59·0	45·0	14·0	50·9	47·8
November	29·824	60·4	25·5	34·9	49·4	35·5	13·9	41·9	38·2
December	29·623	56·5	14·0	42·5	41·5	31·8	9·7	36·8	33·4
Means	29·772	72·6	32·5	40·1	60·1	43·4	16·7	50·7	44·7

1859, MONTH.	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.	Mean Degree of Humidity. (Sat. = 100.)	Mean Weight of a Cubic Foot of Air.	WIND.				Mean Amount of Cloud, 0-10	RAIN.	
						As deduced from Anemometers.					Number of Rainy Days.	Amount collected on the Ground.
						Osler's.		Whe- well's.	Robin- son's.			
						Prevailing Direction.	Mean Daily Pressure in lbs. on Square Foot.	Mean Daily Horizontal Movement in Miles.				
January....	in. 0·220	gr. 2·6	gr. 0·4	88	gr. 557	SW	1·24	105	..	7·5	11	in. 0·8
February...	0·225	2·6	0·6	81	550	SW	0·91	151	..	6·3	12	0·9
March	0·247	2·8	0·8	79	546	SW	1·73	149	..	7·2	10	1·4
April.....	0·237	2·8	0·8	78	542	SW	1·10	134	..	6·9	13	2·2
May.....	0·312	3·6	0·9	77	538	NE	0·31	76	..	6·1	9	2·3
June.....	0·415	4·6	1·5	77	528	N	0·16	56	..	7·4	7	1·4
July.....	0·487	5·4	2·1	70	524	SW	0·17	57	..	5·1	7	3·3
August	0·421	4·7	1·8	72	527	SW	0·38	86	..	6·5	11	1·1
September..	0·361	3·9	1·2	75	532	NW and S	0·89	97	..	6·9	17	3·8
October....	0·334	3·7	0·4	89	535	S	0·53	55	..	7·2	18	3·6
November..	0·231	2·6	0·5	87	551	Variable	1·12	..	209	5·9	13	2·9
December ..	0·191	2·2	0·4	88	553	N and S W	1·25	108	152	7·2	17	2·2
Means	0·307	3·5	0·9	80	540	..	..	..	..	6·7	Sum 145	Sum 25·9

During the month of November Whewell's Anemometer was in the maker's hands for repair.

During 6 days of January, 8 days of February, 11 days of March, 8 days of October, and 13 days of December, Whewell's Anemometer was not at work.
The mean horizontal movement for these months has been formed from the remaining days.

READINGS OF THERMOMETERS SUNK IN THE GROUND

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 December 26.

Day of the Month, 1859.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
a	o	o	o	o	o	o	o	o	o	o	o	o
1	52·00	51·35	50·65	49·95	S	49·37	49·52	50·18	51·20	52·18	52·83	52·93
2	S	51·29	50·64	49·95	49·52	49·37	49·55	50·25	51·25	S	52·85	52·90
3	51·97	51·28	50·62	S	49·52	49·36	S	50·23	51·28	52·25	52·86	52·88
4	51·97	51·27	50·62	49·94	49·48	49·38	49·54	50·27	S	52·30	52·83	S
5	51·95	51·25	50·58	49·92	49·50	S	49·56	50·30	51·35	52·29	52·87	52·88
6	51·90	S	S	49·92	49·45	49·37	49·58	50·30	51·40	52·32	S	52·90
7	51·88	51·19	50·52	49·90	49·52	49·37	49·62	S	51·42	52·34	52·95	52·87
8	51·86	51·15	50·45	49·87	S	49·37	49·63	50·36	51·47	52·35	52·98	52·87
9	S	51·15	50·43	49·84	49·48	49·37	49·65	50·38	51·49	S	52·92	52·91
10	51·82	51·13	50·43	S	49·45	49·37	S	50·45	51·46	52·38	52·95	52·87
11	51·83	51·10	50·42	49·80	49·46	49·32	49·68	50·50	S	52·40	52·97	S
12	51·82	51·08	50·40	49·72	49·46	S	49·73	50·55	51·60	52·44	52·97	52·83
13	51·78	S	S	49·68	49·45	49·37	49·73	50·58	51·60	52·45	S	52·82
14	51·75	51·02	50·35	49·68	49·45	49·37	49·74	S	51·62	52·50	52·97	52·80
15	51·72	51·00	50·30	49·65	S	49·40	49·74	50·62	51·68	52·50	52·98	52·78
16	S	51·00	50·32	49·70	49·42	49·38	49·80	50·67	51·72	S	52·99	52·75
17	51·70	50·98	50·28	S	49·40	49·38	S	50·70	51·76	52·60	52·97	52·74
18	51·70	50·92	50·25	49·60	49·40	49·40	49·88	50·74	S	52·60	53·00	S
19	51·66	50·90	50·24	49·60	49·40	S	49·90	50·78	51·82	52·58	52·96	52·70
20	51·65	S	S	49·60	49·40	49·40	49·85	50·85	51·85	52·60	S	52·72
21	51·62	50·86	50·17	49·58	49·39	49·40	49·93	S	51·88	52·63	53·00	52·73
22	51·60	50·82	50·15	Good Friday.	S	49·45	49·96	50·88	51·92	52·60	52·97	52·70
23	S	50·80	50·14	49·62	49·38	49·43	49·95	50·95	51·96	S	52·97	52·57
24	51·54	50·77	50·12	S	49·40	49·43	S	50·98	52·02	52·60	53·00	52·68
25	51·55	50·75	50·10	49·60	49·40	49·47	50·02	51·03	S	52·65	53·00	S
26	51·50	50·72	50·07	49·55	49·40	S	50·06	51·03	52·05	52·68	52·98	General Holiday. 52·61
27	51·48	S	S	49·52	49·38	49·50	50·10	51·05	52·04	52·68	S	52·61
28	51·45	50·68	50·04	49·50	49·38	49·50	50·12	S	52·07	52·74	52·93	52·60
29	51·42		50·02	49·57	S	49·50	50·15	51·13	52·10	52·75	52·93	52·60
30	S		49·80	49·50	49·38	49·52	50·15	51·13	52·14	S	52·93	52·57
31	51·35		49·95	49·38	49·38		S	51·16		52·78		52·57
Means	51·71	51·02	50·29	49·71	49·43	49·41	49·82	50·71	51·70	52·51	52·94	52·76

(II).—Reading of a Thermometer whose bulb is sunk to the depth of 12·8 feet (12 French feet) below the surface of the soil, at the same times.

Day of the Month, 1859.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
a	o	o	o	o	o	o	o	o	o	o	o	o
1	50·10	48·32	47·50	47·50	S	49·30	52·20	55·33	56·90	56·82	56·10	53·03
2	S	48·14	47·50	47·54	47·95	49·35	52·30	55·50	57·00	S	56·00	52·90
3	50·05	48·25	47·50	S	47·95	49·40	S	55·58	57·10	56·80	55·90	52·77
4	50·00	48·22	47·50	47·60	47·87	49·50	52·48	55·62	S	56·82	55·80	S
5	49·96	48·20	47·47	47·60	48·00	S	52·54	55·70	57·10	56·75	55·72	52·67
6	49·90	S	S	47·60	47·90	49·70	52·64	55·77	57·12	56·70	S	52·53
7	49·82	48·10	47·45	47·65	48·17	49·75	52·78	S	57·18	56·70	55·50	52·40
8	49·75	48·05	47·37	47·60	S	49·80	52·86	55·96	57·18	56·65	55·38	52·30
9	S	48·05	47·30	47·62	48·10	49·95	52·95	55·96	57·25	S	55·20	52·17
10	49·65	48·00	47·38	S	48·10	50·05	S	56·08	57·10	56·60	55·10	52·08
11	49·60	47·95	47·30	47·60	48·14	50·05	53·17	56·20	S	56·56	55·08	S
12	49·55	47·95	47·38	47·48	48·17	S	53·30	56·30	57·20	56·60	55·00	51·85

(II.)—Reading of a Thermometer whose bulb is sunk to the depth of 12 French feet—concluded.

Day of the Month, 1859.	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
13	49·49	S	S	47·48	48·22	50·40	53·36	56·40	57·20	56·57	S	51·78
14	49·38	47·85	47·38	47·48	48·25	50·48	53·41	S	57·15	56·60	54·75	51·62
15	49·30	47·80	47·38	47·48	S	50·62	53·52	56·40	57·18	56·60	54·65	51·55
16	S	47·80	47·39	47·70	48·30	50·70	53·63	56·50	57·22	S	54·63	51·45
17	49·20	47·75	47·40	S	48·35	50·80	S	56·51	57·24	56·57	54·45	51·35
18	49·18	47·10	47·40	47·64	48·42	50·95	53·95	56·60	S	56·53	54·46	S
19	49·10	47·65	47·40	47·68	48·48	S	54·00	56·70	57·25	56·55	54·38	51·17
20	49·00	S	S	47·72	48·50	51·15	54·03	56·75	57·10	56·52	S	51·10
21	48·95	47·65	47·42	47·75	48·58	51·25	54·20	S	57·00	56·44	54·18	51·07
22	48·88	47·60	47·42	Good Friday.	S	51·40	54·35	56·76	57·00	56·42	54·05	50·93
23	S	47·57	47·45	47·94	48·70	51·48	54·40	56·80	57·00	S	53·95	50·85
24	48·72	47·56	47·45	S	48·80	51·57	S	56·85	57·00	56·30	53·88	50·75
25	48·70	47·58	47·48	47·95	48·85	51·72	54·65	56·85	S	56·35	53·70	S
26	48·60	47·54	47·46	47·80	48·92	S	54·83	56·86	56·80	56·35	53·65	General Holiday.
27	48·60	S	S	47·78	49·00	51·90	54·90	56·90	56·88	56·30	S	50·40
28	48·55	47·52	47·50	47·75	49·00	51·96	55·05	S	56·90	56·32	53·38	50·28
29	48·50		47·50	47·98	S	52·05	55·12	56·85	56·90	56·23	53·28	50·16
30	S		47·45	47·72	49·20	52·17	55·20	56·85	56·82	S	53·12	50·03
31	48·38		47·50		49·20		S	56·88		56·12		49·30
Means.	49·27	47·87	47·43	47·67	48·43	50·67	53·69	56·35	57·07	56·51	54·66	51·48

(III.)—Reading of a Thermometer whose bulb is sunk to the depth of 6·4 feet (6 French feet) below the surface of the soil, at the same times.

Day of the Month, 1859.	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	47·26	46·10	46·10	47·60	S	52·95	57·95	62·67	62·12	58·93	54·60	49·67
2	S	45·90	46·08	47·58	48·60	53·20	58·10	62·60	62·02	S	54·35	49·50
3	47·30	46·02	46·00	S	48·70	53·45	S	62·80	61·88	58·88	54·10	49·33
4	47·25	45·98	46·04	47·40	48·61	53·75	58·34	62·75	S	58·90	53·95	S
5	47·15	45·92	46·10	47·40	48·84	S	58·46	62·76	61·60	58·80	53·80	49·04
6	47·05	S	S	47·45	48·80	54·20	58·63	62·80	61·43	58·80	S	48·80
7	46·98	45·80	46·38	47·52	49·10	54·50	58·80	S	61·28	58·82	53·20	48·63
8	46·90	45·72	46·48	47·62	S	54·80	58·94	62·66	61·20	58·85	53·23	48·55
9	S	45·68	46·60	47·80	49·30	55·00	59·12	62·40	61·00	S	53·31	48·50
10	46·72	45·63	46·79	S	49·50	55·20	S	62·60	60·84	58·90	53·40	48·47
11	46·60	45·60	46·82	48·42	49·70	55·36	59·52	62·65	S	58·88	53·38	S
12	46·40	45·60	46·82	48·35	49·90	S	59·77	62·63	60·72	58·88	53·25	48·33
13	46·30	S	S	48·50	50·02	55·90	59·75	62·60	60·50	58·92	S	48·24
14	46·20	45·62	46·80	48·60	50·20	56·00	60·15	S	60·38	58·90	52·80	48·05
15	46·20	45·73	46·80	48·60	S	56·20	60·40	62·10	60·30	58·80	52·53	47·95
16	S	45·82	46·95	48·78	50·50	56·30	60·67	62·15	60·20	S	52·30	47·75
17	46·08	45·82	46·98	S	50·67	56·40	S	62·12	60·03	58·60	52·00	47·60
18	46·00	45·90	47·12	48·50	50·80	56·50	61·20	62·15	S	58·49	51·70	S
19	45·88	45·98	47·20	48·40	50·97	S	61·30	62·12	59·77	58·40	51·50	47·12
20	45·80	S	S	48·28	51·02	56·72	61·41	62·10	59·60	58·30	S	46·90
21	45·90	46·10	47·28	48·12	51·12	56·80	61·70	S	59·43	58·15	51·03	46·70
22	45·90	46·12	47·28	Good Friday.	S	56·96	61·90	62·00	59·33	58·03	50·80	46·53
23	S	46·15	47·30	48·10	51·30	56·95	61·90	62·10	59·22	S	50·60	46·20
24	45·96	46·18	47·29	S	51·42	57·00	S	62·15	59·20	57·57	50·40	45·97
25	46·10	46·20	47·25	48·00	51·50	57·10	62·10	62·20	S	57·30	50·23	S
26	46·05	46·20	47·25	47·90	51·60	S	62·20	62·10	58·90	56·67	50·18	General Holiday.

(III.)—Reading of a Thermometer whose bulb is sunk to the depth of 6 French feet—concluded

Day of the Month, 1859.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
27	46·00	<i>S</i>	<i>S</i>	47·95	51·75	57·35	62·20	62·15	58·80	56·20	<i>S</i>	45·30
28	46·04	46·10	47·32	48·05	51·90	57·40	62·20	<i>S</i>	58·90	55·90	50·00	45·20
29	46·10		47·40	48·30	<i>S</i>	57·60	62·20	62·48	58·92	55·49	49·90	45·18
30	<i>S</i>		47·40	48·21	52·47	57·83	62·30	62·20	58·95	<i>S</i>	49·80	45·10
31	46·08		47·50		52·70		<i>S</i>	62·18		54·80		45·18
Means.	46·39	45·91	46·86	48·06	50·42	55·82	60·43	62·38	60·25	58·04	52·17	47·49

(IV.)—Reading of a Thermometer whose bulb is sunk to the depth of 3·2 feet (3 French feet) below the surface of the soil, at the same times.

Day of the Month, 1859.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	°	°	°	°	°	°	°	°	°	°	°	°
1	43·33	43·20	43·40	45·80	<i>S</i>	57·08	62·20	67·10	63·50	58·97	50·00	45·08
2	<i>S</i>	42·70	43·70	45·18	48·40	57·50	62·30	66·90	62·90	<i>S</i>	50·23	44·65
3	43·60	42·78	43·80	<i>S</i>	48·50	57·80	<i>S</i>	66·67	62·50	59·10	50·40	44·23
4	43·50	42·50	44·20	45·68	48·51	58·20	62·73	66·40	<i>S</i>	59·40	50·40	<i>S</i>
5	43·15	42·25	44·95	46·35	48·90	<i>S</i>	63·05	66·44	62·10	59·50	50·35	43·52
6	43·20	<i>S</i>	<i>S</i>	47·00	49·11	59·20	63·21	66·19	61·82	59·68	<i>S</i>	43·97
7	43·10	42·50	45·92	47·70	49·66	59·40	63·21	<i>S</i>	61·70	59·80	50·80	44·27
8	42·87	42·37	46·20	48·50	<i>S</i>	59·72	64·03	65·70	61·52	59·96	51·10	44·35
9	<i>S</i>	42·20	46·05	49·10	50·73	60·00	64·40	64·64	61·40	<i>S</i>	50·70	44·30
10	42·10	42·38	45·50	<i>S</i>	50·92	60·30	<i>S</i>	65·50	61·40	59·78	50·20	44·12
11	41·70	42·78	45·00	49·45	51·10	60·23	64·96	65·08	<i>S</i>	59·60	49·42	<i>S</i>
12	41·70	43·00	44·80	48·95	51·20	<i>S</i>	65·48	64·82	60·87	59·30	48·80	43·50
13	42·05	<i>S</i>	<i>S</i>	48·62	51·48	60·28	66·06	64·80	60·50	58·90	<i>S</i>	43·10
14	42·28	43·60	45·82	48·22	51·80	60·20	66·60	<i>S</i>	60·30	58·70	47·70	42·90
15	42·20	43·68	46·25	47·70	<i>S</i>	60·25	66·88	65·10	60·00	58·44	47·03	42·46
16	<i>S</i>	43·60	46·34	47·60	52·38	60·30	66·88	65·03	59·60	<i>S</i>	46·50	41·90
17	41·68	43·90	46·18	<i>S</i>	52·40	60·35	<i>S</i>	64·53	59·35	58·30	46·10	41·40
18	41·68	44·35	46·25	46·42	52·40	60·40	67·50	64·30	<i>S</i>	58·10	46·00	<i>S</i>
19	42·30	44·37	46·22	45·98	52·30	<i>S</i>	67·70	64·40	58·92	57·80	45·83	40·60
20	42·78	<i>S</i>	<i>S</i>	45·70	52·40	60·50	67·74	64·60	58·87	57·60	<i>S</i>	40·07
21	42·88	44·00	45·88	45·71	52·60	60·32	67·80	<i>S</i>	58·62	57·20	45·43	39·80
22	42·95	44·15	45·90	Good Friday.	<i>S</i>	60·10	67·50	65·10	58·52	56·40	45·18	39·50
23	<i>S</i>	44·30	45·60	46·20	52·60	60·12	67·20	65·10	58·28	<i>S</i>	45·07	39·40
24	43·20	44·15	45·60	<i>S</i>	52·90	60·40	<i>S</i>	65·13	58·38	53·95	45·35	39·30
25	42·80	43·90	45·72	46·60	53·15	60·70	66·70	65·30	<i>S</i>	52·80	45·50	<i>S</i>
26	43·15	43·70	46·00	46·90	53·70	<i>S</i>	66·40	65·40	59·25	51·30	45·60	General Holiday.
27	43·35	<i>S</i>	<i>S</i>	47·35	54·42	61·50	66·42	65·55	59·30	51·10	<i>S</i>	40·50
28	43·30	43·60	46·45	47·65	55·10	62·08	66·80	<i>S</i>	59·30	50·77	45·96	40·70
29	43·44		46·70	48·00	<i>S</i>	62·40	67·13	65·20	59·29	50·35	45·90	41·00
30	<i>S</i>		46·80	48·11	56·10	62·40	67·35	64·70	59·12	<i>S</i>	45·62	41·50
31	43·44		46·54		56·50		<i>S</i>	64·10		50·00		42·15
Means.	42·76	43·53	45·69	47·22	51·89	60·07	65·72	65·32	60·28	56·80	47·74	42·24

(V.)—Reading of a Thermometer whose bulb is sunk to the depth of 1 inch below the surface of the soil, within the case which covers the tops of the deep-sunk Thermometers, at the same times.

Day of the Month, 1859.	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	40·8	45·5	40·5	S	63·0	65·0	68·4	60·0	61·8	51·0	39·7
2	S	42·2	46·8	46·0	50·0	64·5	65·0	68·5	60·8	S	49·5	38·7
3	34·0	39·0	48·0	S	50·5	64·5	S	68·7	61·7	63·0	48·5	37·0
4	41·7	40·8	52·7	52·0	51·4	66·0	68·0	68·8	S	64·7	49·5	S
5	42·3	43·4	52·0	53·0	52·0	S	67·0	67·0	60·8	62·0	49·7	48·8
6	39·0	S	S	56·0	52·0	65·0	69·7	65·8	63·8	62·5	S	44·0
7	38·0	41·0	50·6	59·0	56·0	65·0	71·0	S	61·2	63·0	53·0	44·0
8	37·0	40·0	45·0	56·0	S	66·5	71·0	69·5	64·0	62·0	49·5	43·7
9	S	44·0	43·1	53·5	55·0	66·0	70·5	65·2	64·0	S	44·5	41·0
10	38·0	45·0	42·7	S	52·6	63·0	S	63·0	58·8	59·7	41·5	40·0
11	49·0	45·0	46·0	52·0	53·0	63·6	73·0	65·0	S	57·7	43·0	S
12	48·0	47·0	51·0	47·5	54·5	S	75·0	67·0	59·0	57·0	42·7	37·0
13	43·0	S	S	45·5	57·0	64·0	76·2	68·7	58·0	57·0	S	39·0
14	38·0	46·0	51·8	46·5	56·0	62·0	72·4	S	56·0	58·0	38·7	35·0
15	38·0	43·5	47·8	49·5	S	63·0	71·8	65·0	58·0	58·0	38·0	33·8
16	S	48·0	48·0	42·8	55·0	63·7	73·0	63·5	58·0	S	40·0	32·0
17	43·0	48·0	48·5	S	54·0	62·0	S	63·8	58·7	58·5	42·0	31·0
18	47·8	44·6	46·5	43·0	54·0	63·0	75·4	67·0	S	56·0	41·7	S
19	46·0	42·0	45·4	43·5	55·7	S	73·0	69·0	58·5	56·0	43·0	31·0
20	43·0	S	S	45·5	55·0	64·2	69·8	69·0	56·5	54·8	S	32·0
21	44·0	46·0	46·5	47·0	55·0	60·0	70·0	S	57·5	48·0	40·0	38·0
22	46·5	46·2	43·0	Good Friday.	S	65·5	70·0	66·0	56·0	44·5	40·0	36·0
23	S	43·0	46·0	47·0	54·0	63·7	68·0	68·0	59·0	S	43·0	36·0
24	40·5	42·0	48·0	S	58·0	62·7	S	70·0	64·3	40·8	45·0	41·0
25	46·0	42·0	49·0	51·0	59·8	65·0	66·0	72·0	S	42·0	43·7	S
26	43·0	43·0	48·8	52·8	61·2	S	70·5	70·3	61·8	47·0	45·7	General Holiday.
27	45·0	S	S	49·5	61·0	71·0	71·5	67·3	59·0	43·0	S	40·0
28	44·0	42·5	50·0	49·8	61·0	68·0	73·0	S	60·1	45·0	45·0	44·0
29	43·5	S	50·0	54·8	S	64·5	72·5	65·0	59·0	46·3	43·0	44·8
30	S	45·0	45·0	49·5	64·0	65·5	70·3	61·5	58·8	S	41·5	46·0
31	40·5	40·0	40·0	63·0	63·0	65·5	S	59·0	47·0	47·0	41·5	47·0
Means.	42·4	43·5	47·3	49·3	55·8	64·4	70·7	66·7	59·7	54·4	44·3	39·3

(VI.)—Reading of a Thermometer within the case covering the deep-sunk Thermometers, whose bulb is placed on a level with their scales, at the same times.

Day of the Month, 1859.	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	43·7	43·0	52·0	44·8	S	71·0	67·2	72·8	63·0	66·0	55·5	38·8
2	S	45·1	53·0	50·5	52·4	70·0	69·0	73·0	64·7	S	52·0	36·0
3	34·5	39·2	56·2	S	55·8	70·0	S	76·9	63·0	69·8	53·7	35·0
4	42·2	45·0	60·8	63·0	60·4	74·0	73·0	71·8	S	76·0	51·0	S
5	42·8	48·0	59·8	64·0	59·0	S	79·4	71·7	68·0	69·0	53·5	53·7
6	36·7	S	S	72·5	61·8	71·0	79·5	68·8	68·0	68·0	S	47·5
7	37·8	44·0	54·0	74·8	69·0	69·0	81·3	S	65·0	66·3	53·7	47·0
8	36·0	43·0	43·8	57·5	S	76·0	79·2	74·0	70·0	63·0	51·0	44·0
9	S	46·5	45·0	56·0	63·7	72·0	80·0	63·0	64·8	S	44·5	41·0
10	37·6	47·5	49·9	S	52·8	66·5	S	62·0	62·0	59·0	40·0	40·5
11	48·0	48·8	54·7	55·0	60·0	67·8	83·2	71·2	S	56·0	47·5	S
12	47·7	49·8	55·0	49·8	61·7	S	88·7	76·0	68·5	60·5	47·0	33·8
13	43·8	S	S	43·8	63·0	70·0	88·0	77·7	60·6	58·3	S	37·0
14	36·0	49·0	53·0	53·0	64·0	66·5	80·0	S	56·0	63·7	39·5	30·3
15	43·5	46·0	48·0	41·8	S	70·8	80·8	63·0	63·0	60·0	35·5	31·0

(clxxii) READINGS OF THERMOMETERS SUNK IN THE GROUND, AND WEEKLY MEANS OF READINGS OF THERMOMETERS,

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

Day of the Month, 1859.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
a	o	o	o	o	o	o	o	o	o	o	o	o
16	S	53.0	53.8	40.3	60.0	68.0	81.0	69.0	64.0	S	43.5	27.0
17	47.5	52.2	51.8	S	53.2	66.0	S	66.2	62.0	61.0	42.5	25.0
18	52.0	45.0	50.0	42.8	55.0	71.0	88.0	73.0	S	55.0	46.0	S
19	48.0	43.0	51.9	51.0	60.0	S	77.0	77.5	63.7	57.0	47.7	27.0
20	48.5	S	S	53.0	56.5	67.4	72.0	80.5	63.0	56.0	S	33.6
21	45.5	53.0	46.5	51.8	57.2	65.0	74.0	S	59.0	45.0	47.0	43.0
22	48.0	60.0	45.2	Good Friday.	S	75.2	77.2	73.8	62.0	46.0	43.0	38.0
23	S	47.0	49.0	52.5	62.5	67.0	67.0	78.0	65.0	S	44.0	37.0
24	43.0	48.0	51.5	S	69.0	67.0	S	82.0	74.0	38.0	50.7	45.0
25	51.0	49.0	54.8	53.0	69.5	74.5	71.0	87.5	S	43.7	42.0	S
26	44.0	47.5	51.0	63.0	72.0	S	79.3	74.0	65.0	46.3	51.0	General Holiday.
27	48.5	S	S	50.0	71.0	79.0	77.7	72.5	58.8	41.0	S	44.7
28	47.0	50.7	52.0	52.0	67.0	70.5	80.0	S	63.6	50.0	43.6	45.0
29	47.0		53.5	61.7	S	69.0	76.0	71.0	65.0	46.5	43.7	49.0
30	S		40.0	48.8	73.0	73.0	74.0	62.0	60.2	S	39.0	51.0
31	41.0		40.2		72.0		S	60.7		48.0		52.8
Means.	43.9	47.2	51.0	53.9	62.4	70.3	77.6	74.2	63.9	56.5	46.5	39.8

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.	
1859. 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	51.95	49.97	47.17	43.31	39.8	39.6
	8 to 14	51.81	49.57	46.52	42.12	42.2	41.5
	15 to 21	51.68	49.12	45.98	42.25	43.6	47.5
	22 to 28	51.52	48.68	46.01	43.13	44.2	46.9
	29 to February 4	51.33	48.30	46.03	43.01	41.1	43.4
February	5 to 11	51.16	48.06	45.73	42.41	43.1	46.3
	12 to 18	51.00	47.81	45.75	43.69	46.2	49.2
	19 to 25	50.82	47.60	46.12	44.15	43.5	48.3
	26 to March 4	50.66	47.51	46.09	43.73	46.4	53.4
March	5 to 11	50.47	47.38	46.53	45.60	46.6	51.2
	12 to 18	50.32	47.39	46.91	45.94	48.9	51.9
	19 to 25	50.15	47.44	47.27	45.82	46.3	49.8
	26 to April 1	49.97	47.49	47.41	46.38	45.7	46.9
April	2 to 8	49.92	47.60	47.50	46.74	53.7	63.7
	9 to 15	49.73	47.52	48.38	48.67	49.1	49.9
	16 to 22	49.62	47.70	48.42	46.28	44.4	47.8
	23 to 29	49.56	47.87	48.05	47.12	50.8	55.4
	30 to May 6	49.50	47.90	48.63	48.59	50.9	56.4
May	7 to 13	49.47	48.15	49.59	50.85	54.7	61.7
	14 to 20	49.41	48.38	50.69	52.28	55.0	58.1
	21 to 27	49.39	48.81	51.45	53.23	58.2	66.9
	28 to June 3	49.37	49.24	52.78	56.68	63.3	70.5
June	4 to 10	49.37	49.79	54.58	59.47	65.3	71.4
	11 to 17	49.37	50.51	56.03	60.27	63.1	68.2
	18 to 24	49.42	51.30	56.82	60.31	63.2	68.8
	25 to July 1	49.50	52.00	57.54	61.88	66.5	72.2
July	2 to 8	49.58	52.60	58.55	63.15	68.6	76.1
	9 to 15	49.71	53.29	59.79	65.73	73.2	83.3
	16 to 22	49.89	54.03	61.36	67.52	71.9	78.2
	23 to 29	50.07	54.83	62.13	66.78	70.3	75.2
	30 to August 5	50.23	55.49	62.65	66.81	68.6	73.4
August	6 to 12	50.42	56.05	62.62	65.32	65.9	69.2
	13 to 19	50.68	56.52	62.21	64.69	66.2	71.1
	20 to 26	50.95	56.81	62.11	65.11	69.2	79.3
	27 to September 2	51.15	56.90	62.19	64.33	62.3	65.7
September	3 to 9	51.40	57.16	61.40	61.84	62.6	66.5
	10 to 16	51.61	57.18	60.49	60.45	58.0	62.3
	17 to 23	51.87	57.10	59.56	58.76	57.7	62.5
	24 to 30	52.07	56.88	58.95	59.11	60.5	64.4
October	1 to 7	52.28	56.77	58.86	59.41	62.8	69.2
	8 to 14	52.42	56.60	58.89	59.37	58.6	60.1
	15 to 21	52.59	56.54	58.46	57.91	55.2	55.7
	22 to 28	52.66	56.34	56.95	52.72	43.7	44.2
	29 to November 4	52.82	56.03	54.55	50.23	48.6	51.1
November	5 to 11	52.94	55.33	53.40	50.43	46.9	48.4
	12 to 18	52.98	54.66	52.43	47.02	40.5	42.3
	19 to 25	52.98	54.02	50.76	45.39	42.5	45.7
	26 to December 2	52.93	53.23	49.84	45.47	42.3	42.0
December	3 to 9	52.88	52.47	48.81	44.11	43.1	44.7
	10 to 16	52.81	51.72	48.13	43.00	36.1	33.3
	17 to 23	52.71	51.08	46.84	40.13	34.0	33.9
	24 to 31	52.61	50.15	45.32	40.86	43.8	47.9

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.

1858. Dec. 31. 12. ^{d h} The direction of the wind was S.

1859. Jan. 31. 12. ,, ,, S.S.W., which implies a direct motion of $22\frac{1}{2}^{\circ}$.

On Jan. 8. 22, the trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
Therefore the whole excess of direct motion in the month of January was $382\frac{1}{2}^{\circ}$.

1859. Jan. 31. 12. ^{d h} The direction of the wind was S.S.W.

Feb. 28. 12. ,, ,, S.W., which implies a direct motion of $22\frac{1}{2}^{\circ}$.

Therefore the whole excess of direct motion in the month of February was $22\frac{1}{2}^{\circ}$.

1859. Feb. 28. 12. ^{d h} The direction of the wind was S.W.

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

On March 9. 22, the trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
Therefore the whole excess of direct motion in the month of March was 495° .

1859. March 31. 12. ^{d h} The direction of the wind was N.

April 30. 12. ,, ,, E.N.E., which implies a retrograde motion of $292\frac{1}{2}^{\circ}$.

On April 13. 22, 24^d. 22^h, 29^d. 22^h, the trace was shifted to the next set of lines downwards; on April 12^d. 22^h, the trace was
shifted to the next set of lines upwards, implying direct motion of 1080° , and retrograde motion of 360° .
Therefore the whole excess of direct motion in the month of April was $427\frac{1}{2}^{\circ}$.

1859. April 30. 12. ^{d h} The direction of the wind was E.N.E.

May 31. 12. ,, ,, S., which implies a direct motion of $472\frac{1}{2}^{\circ}$.

On May 5. 22, 13^d. 22^h, 19^d. 22^h, the trace was shifted to the next set of lines downwards; on May 4^d. 22^h, the trace was shifted
to the next set of lines upwards, implying direct motion of 1080° , and retrograde motion of 360° .
Therefore the whole excess of direct motion in the month of May was $1192\frac{1}{2}^{\circ}$.

1859. May 31. 12. ^{d h} The direction of the wind was S.

June 30. 12. ,, ,, N., which implies a retrograde motion of 180° .

On June 0. 22, 11^d. 22^h, 14^d. 22^h, 16^d. 22^h, 17^d. 22^h, 28^d. 22^h, the trace was shifted to the next set of lines downwards; on
June 8^d. 22^h, 12^d. 9^h, the trace was shifted to the next set of lines upwards, implying direct motion of
 2160° , and retrograde motion of 720° .

Therefore the whole excess of direct motion in the month of June was 1260° .

1859. June 30. 12. ^{d h} The direction of the wind was N.

July 31. 12. ,, ,, S.W., which implies a retrograde motion of 135° .

On July 10. 22, 14^d. 22^h, 21^d. 22^h, 30^d. 22^h, the trace was shifted to the next set of lines downwards, implying direct motion of 1440° .
Therefore the whole excess of direct motion in the month of July was 1305° .

1859. July 31. 12. ^{d h} The direction of the wind was S.W.

Aug. 31. 12. ,, ,, W.S.W., which implies a direct motion of $22\frac{1}{2}^{\circ}$.

On Aug. 11. 22, 28^d. 22^h, the trace was shifted to the second set of lines downwards; on Aug. 8^d. 22^h, 20^d. 22^h, 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 direct motion in the month of August was $22\frac{1}{2}^{\circ}$.

1859. Aug. 31^d. 12^h. The direction of the wind was W.S.W.

Sept. 30. 12. ,, ,, S., which implies a retrograde motion of $67\frac{1}{2}^{\circ}$.

On Sept. 5. 22, 27^d. 22^h, the trace was shifted to the next set of lines downwards; on Sept. 13^d. 22^h, the trace was shifted to the next set of lines upwards, implying direct motion of 720° , and retrograde motion of 360° .

Therefore the whole excess of direct motion in the month of September was $292\frac{1}{2}^{\circ}$.

1859. Sept. 30. 12. The direction of the wind was S.

Oct. 31. 12. ,, ,, W.S.W., which implies a direct motion of $67\frac{1}{2}^{\circ}$.

On Oct. 6. 22, 31^d. 2^h, the trace was shifted to the next set of lines downwards; on Oct. 9^d. 1^h, 23^d. 22^h, 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 direct motion in the month of October was $67\frac{1}{2}^{\circ}$.

1859. Oct. 31. 12. The direction of the wind was W.S.W.

Nov. 30. 12. ,, ,, N.N.W., which implies a direct motion of 90° .

On Nov. 14. 22, 17^d. 22^h, the trace was shifted to the next set of lines downwards; on Nov. 29^d. 22^h, the trace was shifted to the next set of lines upwards; implying direct motion of 720° , and retrograde motion of 360° .

Therefore the whole excess of direct motion in the month of November was 450° .

1859. Nov. 30. 12. The direction of the wind was N.N.W.

Dec. 31. 12. ,, ,, S.W., which implies a retrograde motion of $112\frac{1}{2}^{\circ}$.

On Dec. 11. 22, 14^d. 22^h, 24^d. 22^h, 25^d. 22^h, the trace was shifted to the next set of lines upwards; on Dec. 12^d. 22^h, 16^d. 22^h, the trace was shifted to the next set of lines downwards; implying retrograde motion of 1440° , and direct motion of 720° .

Therefore the whole excess of retrograde motion in the month of December was $832\frac{1}{2}^{\circ}$.

The whole excess of direct motion to the end of the year was 5085° .

The revolution-counter which is attached to the vertical spindle of the vane, whose readings increase with change of direction of the wind in the order N., E., S., W., &c., or in direct motion, and decrease with change of direction in the order N., W., S., E., &c., or in retrograde motion, gave the following readings:—

On 1859, January 1	..	..	..	..	..	..	..	..	..	..	reva.	27·8
December 31	..	..	..	..	..	..	..	..	..	..	..	41·9

Implying an excess of direct motion, during the year, of $14\cdot 1$ revolutions, or 5076° .

MONTHLY AMOUNT OF RAIN.

AMOUNT OF RAIN COLLECTED IN EACH MONTH OF THE YEAR 1859.

1859, MONTH.	Monthly Amount of Rain collected in each Gauge.			
	Osler's Anemometer Gauge.	On the Roof of the Library.	Crosley's.	Cylinder partly sunk in the Ground.
	in.	in.	in.	in.
January - -	0·2	0·6	0·8	0·8
February - -	0·4	0·5	0·8	0·9
March - -	0·5	1·1	1·4	1·4
April - -	1·4	1·7	2·0	2·2
May - -	2·0	2·5	2·1	2·3
June - -	1·1	1·3	1·4	1·4
July - -	2·6	3·0	3·1	3·3
August - -	0·7	0·8	1·1	1·1
September - -	2·8	2·9	3·7	3·8
October - -	2·9	3·0	3·1	3·6
November - -	1·7	—	2·5	2·9
December - -	1·0	—	1·8	2·2
Sums - -	17·3	—	23·8	25·9

The Gauge on the Library was away for repair during the months of November and December.

During the months of April and May, Crosley's Gauge failed to register correctly; the numbers which are inserted for those months have been inferred from the readings given by the Cylinder Gauge.

The heights of the receiving surfaces are as follows:

	Above the Mean Level of the Sea.		Above the Ground.	
	Ft.	In.	Ft.	In.
Osler's Anemometer Gauge	205	6	50	8
Gauge on the Roof of the Library.....	177	2	22	4
Crosley's Gauge	156	6	1	8
Cylinder Gauge	155	3	0	5

ROYAL OBSERVATORY, GREENWICH.

REDUCTION

WITH REFERENCE TO THE POSITIONS OF THE SUN AND MOON

OF

THE MAGNETIC OBSERVATIONS

FROM 1848 TO 1857

(EXCLUDING THE DAYS OF GREAT MAGNETIC DISTURBANCE).

REDUCTION

OF

THE MAGNETIC OBSERVATIONS

FROM 1848 TO 1857.

METHODS OF INTERPRETING THE PHOTOGRAPHIC REGISTERS.

The Magnetic Registers, upon which the following Reductions are founded, are entirely those given by photographic self-registration. For the description of the photographic self-registering apparatus, and the method of determining the zeros of measure and time, I refer to the Volume of Greenwich Magnetical and Meteorological Observations, 1847, Addendum to the Introduction.

The first necessary step was, to decide on the rejection of those photographic traces, made in times of great magnetic disturbance, which seem to defy ordinary treatment. The following is a list of the days rejected for this reason:—

For the Declination-Magnetometer.

1848.	1849.	1850.	1851.	1852.	1853.	1854.	1855.	1856.	1857.
Jan. 16 28	Oct. 30	Feb. 23	Jan. 16 19	Jan. 4 19	Jan. 10	Jan. 20	Mar. 12		Feb. 26
		June 13	Feb. 18	Feb. 14 15 17 18	Mar. 7 8	Feb. 16 24 25	April 4		Mar. 13
Feb. 20 21 24		Oct. 1 2	Sept. 3 4 6 7 29	19 20 21	May 2 3 24	Mar. 6 15 16 28			May 7 10
Mar. 17 20					June 22				Sept. 3
April 7			Oct. 2 28	April 20	July 12	April 10			Nov. 12 16 17
Oct. 18 23 29			Dec. 6 28 29	May 19 20	Sept. 1 2				Dec. 16 17
Nov. 17				June 11	Oct. 25				
Dec. 17				July 10	Nov. 9				
				Nov. 11 13	Dec. 6 21				

The following days, also, might probably have been rejected :

1848, Feb. 22, 23, May 18, July 11, Nov. 18 ; 1849, Nov. 27 ; 1850, Feb. 22, Mar. 31, June 13 ; 1852, June 16 ;
1854, Jan. 8, April 23, May 25 ; 1855, Oct. 18.

For the Horizontal-Force-Magnetometer.

1848.	1849.	1850.	1851.	1852.	1853.	1854.	1855.	1856.	1857.
Jan. 16 28	Nov. 27	Feb. 22 23	Jan. 16 19	Jan. 4 19	Jan. 10	Jan. 8	Mar. 12		Feb. 26
Feb. 20 21 22 23 24		Mar. 31	Feb. 18	Feb. 14 15 17 18 19 20 21	Mar. 7 8	Feb. 16 24 25	April 4 July 19		May 7 10
Mar. 17 20		May 7	Sept. 3 4 6 7		May 2 3	March 15 16 28	Oct. 18		Sept. 3
April 7		June 13	Oct. 1 2	Oct. 2 28	June 22	April 10 23			Nov. 12 17
May 18			Dec. 6	May 19 20	July 12	May 25			Dec. 16 17
July 11				June 11 16	Sept. 1 2				
Oct. 18 23 25				July 10	Oct. 25				
Nov. 17 18				Nov. 11	Nov. 9				
					Dec. 6 21				

The following days might probably have been rejected :

1848, Dec. 17 ; 1849, Oct. 30 ; 1851, Dec. 28, 29 ; 1852, Nov. 13 ; 1853, March 11, Aug. 21, Oct. 1, 2 ; 1854, Jan. 20, Mar. 6 ; 1857, Nov. 16.

Besides these, which are omitted merely on account of the evident magnetical disturbance, numerous days are omitted on account of defect of adjustment, loss of photographic trace, &c., on some of which there may have been magnetical disturbance.

For the Vertical Force, the traces of magnetical disturbance are rarely conspicuous ; the omission arises usually from instrumental or photographic imperfection.

The next process was, to draw by hand a curve passing, as well as could be judged, through the mean of proximate points of each photographic curve, without taking all its rapid inequalities. The general rule was, to suppress entirely all the irregularities whose period from maximum to minimum amounted to only a few minutes of time, but to respect entirely the curvatures whose period was as great as two or three hours ; the curvatures whose period had an intermediate value being treated with an intermediate degree of respect. The numerical measures which are subsequently used are in all cases the ordinates of the hand-curve thus traced.

Sheets, properly printed and ruled, were prepared for the entry of the measures of the ordinates. The days of the month, or days of the lunation (as the case might be), followed in vertical columns : the homonymous hours of each day, solar or lunar (as the case might be), being arranged on the same horizontal line. One computer, holding a scale graduated to minutes of arc, or to fractional parts of the horizontal or vertical force, read off the measures of the ordinates ; while another computer entered the measures in the sheets.

The means were then to be taken, with reference to days and with reference to hours ; and it became important to decide on the course to be adopted in instances where the record was imperfect. It was certain, however, that the change of Declination from hour to hour is greater than that from day to day, and it seemed likely that the same law would apply to Horizontal Force and Vertical Force. This consideration determined the rule ; that no mean should be taken for a day, unless the series of 24 readings were complete : but that the means of the successive hours should in all instances be taken.

This, which is common to all, being premised, I have now to explain the further processes adopted for each section of the work.

I. REDUCTIONS REFERRED TO THE SUN'S PLACE.

1. OBSERVATIONS OF MAGNETIC WESTERN DECLINATION, REFERRED TO THE SUN'S PLACE.

It will be seen, in the description of the Photographic Apparatus and Methods (Greenwich Magnetical and Meteorological Observations, 1847, Addendum to Introduction) that each photographic sheet is furnished with a scale of time, whose zeros have been determined by comparison of arbitrary interruptions of the beam of light with the clock-times of making the interruptions as recorded by the observer. The clock was adjusted to Göttingen mean solar time; and the time-scales therefore represent Göttingen mean solar time: and the measures of ordinates, made at every hour of the scale, therefore, give the magnetic declination for every hour of Göttingen mean solar time, or for an instant preceding every hour of Greenwich mean solar time by 40^m of time nearly.

The zeros of measure of declination were determined by comparing the measures of the photographic ordinates at certain times with the declinations observed by theodolite at the same times, and the photographic measures are therefore liable to the same errors as eye-observations. The following occurrences in the adjustment of the declination-magnet must therefore be taken into account, as affecting the photographic ordinates.

The magnet is suspended by a skein of silk, through the intermediation of an adjustable circle, called the "torsion-circle." The circle ought to be so adjusted that, in ordinary positions of the magnet, the tension of the suspending skein exerts no appreciable force disturbing the position of the magnet. This adjustment is ascertained by inserting, in the plane of the magnet, a brass bar, and remarking whether it takes spontaneously a position corresponding nearly with that of the magnet. If there is sensible discordance, it shows that the magnet has been subject to an angular strain, turning it from its proper position by a certain multiple of that discordance. The multiple has been found by experiment to be $\frac{1}{99}$ nearly.

The examination above described is made at the end of every year, and at other times when it appears necessary.

On 1848, March 5, the suspension-skein broke. A new skein was mounted, but it gave great trouble for a time. The trial of the brass bar was made at first every day; afterwards, less frequently. After the adjustments and trials at the end of the year 1848, the torsion-circle was left at the reading 252°.30'.

On 1849, February 4, 21^h, the trial of the brass bar showed that the torsion-circle ought to have been at the reading 271°.20'. The course of the declination-readings appears to show clearly that this error of 18°.50' had existed from the beginning of the observations in 1849, January. In consequence of this error of adjustment, every value of Western Declination, from 1849, January 1 to February 4, printed in the "Indications of Magnetometers," in the Greenwich Observations, 1849, is too small by 11' 3 nearly. (In Table I. below, the results of observations are printed without this correction; but in subsequent Tables the correction is applied.)

On 1849, August 22, it was found necessary to change the reading of torsion-circle to 256°.0'. It seems probable that the change in the suspension-skein had come on gradually. No alteration is made in the values of declination printed below.

During the year 1850, the reading was steady and near to 251°.

In 1851, the reading was about 256° to October 19, when the leather strap, to which the skein is attached, broke, without other injury to the skein. The reading then became 268°.

In 1852, although the strap broke on August 21, the reading was constantly near 270°; and this continued through 1853 and 1854.

In 1855 and 1856, the reading was constantly near 262°, although, by the breaking of a tooth of the locking-wheel of the strap, the magnet was dropped a little way on 1856, May 21.

Through 1857, the reading was steady at 266° nearly.

On 1849, October 1 and 2, it seems possible that the magnet was not perfectly free. In 1850, there is ground for suspecting the observations from September 4 to October 7; on October 7, at about 4^h, the declination diminished suddenly by 12', as if the magnet had been freed from some restraint. In the reductions which follow, no notice has been taken of this circumstance. In 1852, May 5 to 11, the declinations printed in the "Indications of Magnetometers," in the Greenwich Observations, 1852, ought to be increased by 10'; a clerical error of 10' having been committed in entering the value of the base-line on the photographic sheets.

I now proceed with the Printed Tables of this Section.

Table I. contains the Mean Westerly Declination of the Magnet, as derived from the mean of 24 hourly measures on each Astronomical Day. On many of the days omitted, the number of measures is not far deficient from 24; but it has been thought best to adhere rigorously to the simple rule stated above. The records from 1849, January 3 to February 3, which appear to require the correction + 11' 3, are printed in smaller type than the others.

Table II. gives the Mean Westerly Declination in each month, the numbers being the simple means, for each month, of the numbers in Table I. The continued secular diminution of Westerly Declination, from month to month, is shown generally in every year, but more clearly in the column of "Mean of Years."

On comparing the mean of the three first annual means with the mean of the three last, it appears that the annual diminution is $7'9$. The proportional parts of this, for the separate months, being applied with sign changed to the numbers of "Mean of Years," form the "Mean corrected for Secular Change." If the secular change were perfectly uniform, and the observations complete and free from error, these numbers would be equal. But besides small irregularities in January and December (arising from the loss of a few days at the beginning of January and the end of December), there is most clearly an increase of Westerly Declination in the summer months. This will be a subject of further remark.

Table III. gives the Monthly Means of the actual diurnal range of the magnet in the hourly measures, or the mean of the differences between the greatest and least measures on each day, at whatever hours they may occur. The actual ranges in observation would be greater than these, because they would be obtained from the salient points of the photographic curve.

Table IV. gives the Mean Monthly Determination of the Western Declination at every hour of the day, showing the diurnal course of declination.

By comparing, for each month, the number in Table II. (which is for the mean of hours) with the numbers in Table IV. for each hour of the day, a Monthly Table of Diurnal Inequality was formed. This table is not printed here; but from it the two following Tables are derived.

To form Table V., the corresponding numbers of the last-mentioned Table, for each month and each hour in the different years, were collected, and their means taken separately for each month. It exhibits the varying character of Diurnal Inequality through the months of the year. The hours refer to Göttingen Mean Solar Time.

To form Table VI., the corresponding numbers of the same table, for the different months of each year, were collected, and their means taken separately for each year. It exhibits the Mean Diurnal Inequality in each year, and the varying character of Diurnal Inequality from year to year. The Mean Diurnal Inequality for all the years is also exhibited. The double diurnal fluctuation is clearly shown. The hours are still those of Göttingen Mean Solar Time.

As a westerly deviation through the angle θ implies that a westerly force has been impressed on the North End of the magnet (and an equal easterly force on the South End) represented by Horizontal Force $\times \sin \theta$, the numerical value of "sine of deviation" is given in the last column as representing the westerly force in terms of Horizontal Force.

2. OBSERVATIONS OF MAGNETIC HORIZONTAL FORCE REFERRED TO THE SUN'S PLACE.

The time used in interpreting the measures of the photographic ordinates of the Bifilar Magnet Curve is Göttingen Mean Solar Time. The zeros of measure of horizontal force were determined by comparing the measures of the photographic ordinates at certain times with the results of eye-observation at the same times; and the zero tacitly adopted for the photographic ordinates is therefore the same as that for the eye-observation. Now the zero for eye-observations is arbitrary (depending on the length of scale, &c.); and the only circumstance which determines the real or natural zero is, that the evaluation of the divisions of the scale has been made by a process which implies that the fluctuations of horizontal force are fluctuations about the magnitude 1.0000 . It is therefore necessary to conceive such a constant to be added to the numbers derived from the photographic measures as will make their magnitude nearly $1.0000 \pm$ fluctuations.

The magnet is suspended by the two branches of a skein of silk, forming practically two suspending cords, through the intermediation of a torsion-circle. The state of this circle is examined at the end of every year, and thus the results of one year are absolutely divided (by reason of the change of adjustments) from the results of another year. But, as a general rule, the state of adjustments through each year is unaltered. On 1848, June 29, the strap, to which the suspending skein is attached, broke, and this is the only instance of interruption of adjustments in the course of a year.

On two occasions, however, in consequence of the spot of light passing beyond the limit of the sheet of photographic paper, the adjustments were so altered by hand that a record of the change made could be preserved. The first was on 1853, April 14, when the value of the reading was increased by 0.0085 ; and the second, on 1853, August 22, when the value was again increased by 0.0110 . To harmonize and to bring into one series all the results of the year, the correction $+0.0085$ has been applied to all results from the beginning of the year to April 13, and -0.0110 to all results from August 22 to the end of the year.

The next point to be arranged was the Correction for Temperature. The coefficients of thermometer-reading were investigated by a process described in the Greenwich Magnetical and Meteorological Observations for 1847, Introduction, page xxxiv; and their values are given in each of the volumes of "Greenwich Magnetical and Meteorological

Observations," and in each of the "Results of Magnetical and Meteorological Observations" following that year. It was only necessary therefore to determine the temperatures. Now the thermometers within the boxes of the magnets were read, in ordinary routine, at the hours 1, 3, 9, 21, of Greenwich Mean Solar Time; but on Sundays, or other days of irregularity, they were sometimes read at other hours. There were therefore sufficient means for estimating the temperature at any hour with considerable precision, provided that means of interpolating the temperature between these hours of observation, and especially through the long interval from 9^h to 21^h, could be supplied. The system of closing the rooms, of lighting the fires, and of personal attendance, has been so perfectly uniform during the whole period, that the experience of a single year would be ample for this purpose.

As soon as the necessity for this became evident, observations of the temperature were made at every hour of the day on one day in each week for many months. The observer, however, had a fire lighted in the anteroom during the night, and the temperatures of the magnets were thereby raised. The whole of these observations were therefore rejected.

At last it was remarked that during the year 1848 the magnet-thermometers were read at the hours 0, 3, 6, 12, 18, 21, with sufficient frequency to give good information on the slow changes of the thermometers during the longer intervals; and upon these was founded the following method of correction.

Each month was treated separately. Thus on the observations of January 1848 was founded the system of corrections for the month of January in each of the years 1848, 1849, 1850, &c. to 1857; and so for other months.

A graphical projection was prepared, in which the abscissæ represented hours of the day, and the ordinates represented the mean of readings for January 1848 at the hour 0, at the hour 3, at the hour 6, and so for 12, 18, 21. The same was done for February, for March, &c. Through or nearly through the summits of these ordinates for each month, a curve for that month was drawn by hand. These curves presented no doubt or difficulty whatever.

From each of these curves temperatures were read for every hour. The mean of these 24 readings of the January curve was used as the mean temperature of a mean day of January 1848 (confining ourselves, for clearness, to that month).

Then two different processes were used for correcting the mean of observations collected on the sheets; (1) for the mean of all the observations on one day in January of any year, (2) for the mean of all the observations at one hour through all the days of January in any year.

(1.) For any day of January, the mean of all the thermometer-readings at whatever hours on that day was taken. To find the correction proper to change this into the mean of the 24 readings at the 24 hours, the mean for the same hours in 1848 January, as taken from the curve, was subtracted from the mean temperature of the 1848 January mean day; the remainder was the correction to be used.

(2.) For any hour of the mean of days in January; the treatment was simpler for the standard year 1848 than for other years. For 1848, the temperatures read every hour from the curve, as is mentioned above, were adopted as the temperatures applicable to the mean of observations at those hours respectively through the month. But for the subsequent years from 1849 to 1857, a process of interpolation and further correction was thus framed. It was considered that the thermometer-readings at 1^h, 3^h, 9^h, 21^h, were abundantly sufficient in number to give the average character of the daily temperature-changes through the month; the means of interpolation between them being alone required. Therefore in 1848, the readings at 1^h, 3^h, 9^h, 21^h, were taken; and between these were interpolated, in simple arithmetical progression between the reading for 1^h and that for 3^h, between the reading for 3^h and that for 9^h, and so on, the fictitious readings for 2^h, for 4^h, 5^h, 6^h, 7^h, 8^h, for 10^h, 11^h, 12^h, 13^h, 14^h, 15^h, 16^h, 17^h, 18^h, 19^h, 20^h, and for 22^h, 23^h, 0^h. These fictitious interpolated readings were subtracted from the curve-readings for the same hours, and the remainders gave corrections applicable to interpolated readings in order to form curve-readings. It was then held that these same corrections would apply to interpolated readings for the same month in other years. Therefore, for other years, the mean readings for January at the hours 1, 3, 9, 21, for all the years were collected on one sheet; between the readings for 1^h and 3^h, between those for 3^h and 9^h, &c., in each year, thermometer-readings were interpolated in arithmetical progression; and to these were applied the corrections found in 1848. In this manner, temperatures were found for every hour, possessing all desirable accuracy.

The correction to mean horizontal-force-reading was then made with the tables in ordinary use.

I now proceed with the explanation of the Tables which follow.

Table VII. gives the mean Horizontal Force on every day in which the 24 hourly readings can be taken from the photographic sheet, corrected for temperature by the process (1) described above.

Table VIII. gives the mean for each month. It will be remembered that the annual change of adjustments separates the results of one year from those of another year; but that the results through each year ought to form a continuous series, with the exception of 1848, in which the accident at the end of June has produced an interruption.

Applying now the proportional parts of the annual increase 0.0022 to the separate months, the column "Mean corrected for Secular Variation" is formed. If the increase were uniform, and the observations perfect, the numbers of this column would be equal. There is, however, an evident diminution in the warmer months of the year, which might suggest the suspicion that the correction for temperature is insufficient. It is extremely difficult to answer for the accuracy of the temperature-correction, but I believe that here it is accurate; and I think that some light will be thrown on the origin of this apparent diminution by remarks to be made hereafter on the discussion of the hourly inequality.

In the mean for the nine years, the mean of the first three months is 0.1151, and the mean of the last three months is 0.1170, giving a secular increase of 0.0019 in nine months, or 0.0025 in one year. It will be interesting to compare this with the secular change of horizontal force found by the method of absolute measures.

The annual means of the determinations in the several yearly volumes of "Greenwich Observations, Results of Magnetical and Meteorological Observations," all made with the same instrument and in the same manner, are as follows:—

1848, omitting July 28	3.755
1849	3.759
1850	3.770
1851	3.783
1852	3.785
1853	3.791
1854, omitting January 26	3.794
1855	3.808
1856	3.815
1857	3.836

The mean of the three first is 3.760, that of the three last is 3.818, giving an increase of 0.058 in seven years, or of 0.0083 in one year. This, estimated in the same manner as the Horizontal Force in the tables under discussion, will be represented by $\frac{0.0083}{3.8}$, or 0.0022, for the secular increase in one year. That found above by the use of the Bifilar Magnet and the system of reductions which I have explained, is 0.0025. The agreement is highly satisfactory, and leads to the presumption that great confidence may be placed in the results of our discussions.

Table IX. gives, for every month, the mean of the Horizontal Forces at each hour through all the days of the month, corrected for temperature in the manner described above, process (2).

For each month separately, in Table IX., the mean for the month in Table VIII. was subtracted from every number in the same month in Table IX., and thus was formed the Mean Diurnal Inequality of Horizontal Force in each month. It has not been thought necessary to print this table, but the means for each year are taken to form the two next tables.

Table X. gives the Diurnal Inequality of Horizontal Force for each month; the quantities for the same month in different years being grouped, and the means taken.

Table XI. gives the Diurnal Inequality of Horizontal Force for each year, the quantities for different months in the same year being grouped, and the means taken. The law of Diurnal Inequality is seen most clearly in the column of Mean of Years. There is a well-marked diminution of force in the day, with an increase in the night. The Horizontal Force is smallest a little before 0^h Göttingen Mean Solar Time, or a little after 23^h Greenwich Mean Solar Time. This, it will be remarked, is not the hottest part of the day. The reading of the thermometers in the magnet-boxes is highest at 6^h or 7^h Göttingen time in the summer, and at 5^h in the winter. The diurnal inequality therefore is not produced by error of temperature-correction, and the general order of these numbers tends to give confidence in the correction.

3. REMARKS ON THE COMBINATOR OF THE DIURNAL INEQUALITIES OF DECLINATION AND OF HORIZONTAL FORCE.

It is evident that the two Diurnal Inequalities are related quantities, produced by different resolved parts of the same force. If we compare roughly their magnitudes in the different years from 1848 to 1857, by the rude process of adding without regard of sign the numbers in each of the columns of Table VI. and Table XI., we find in the different years—

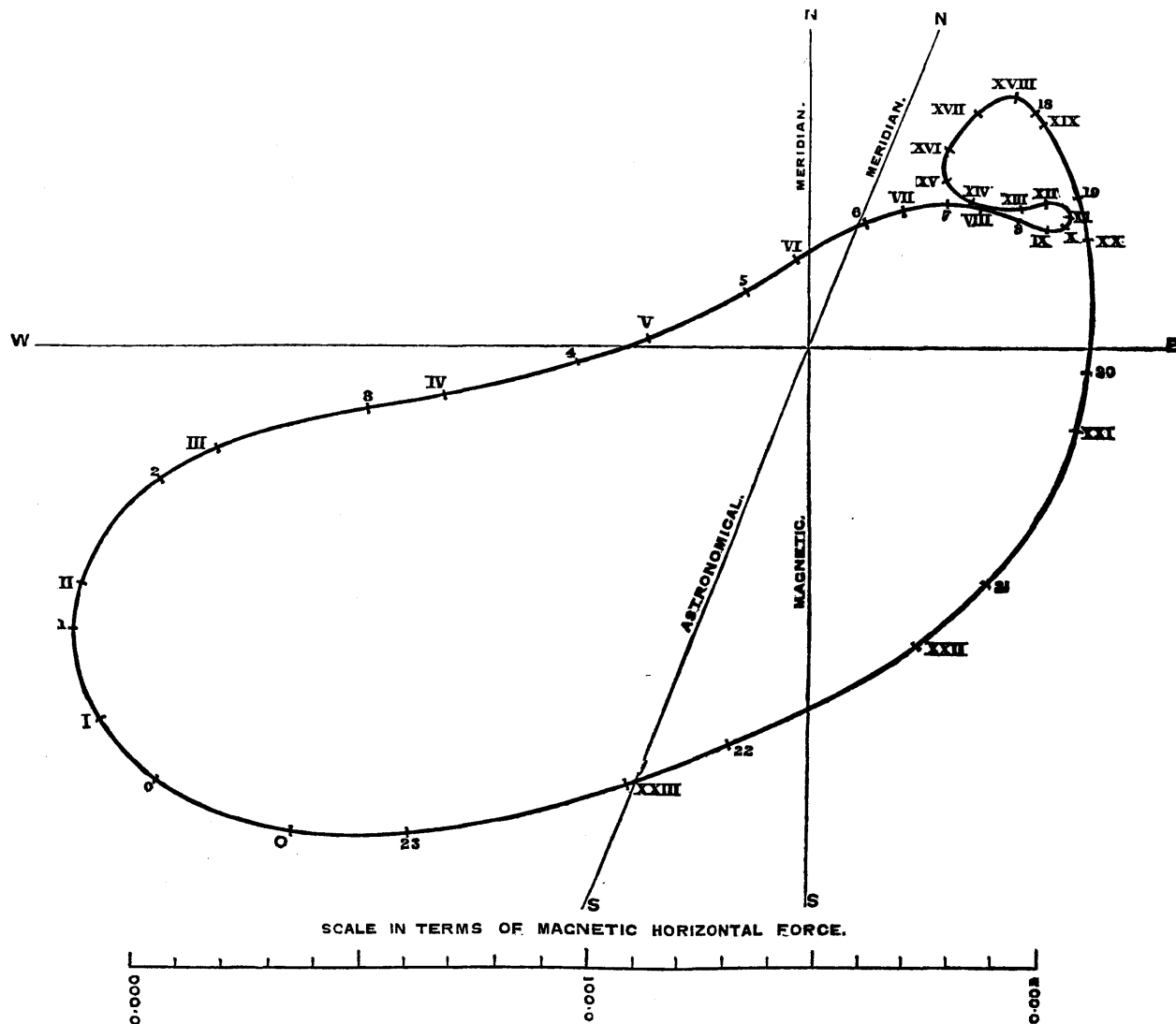
For Declination	70.1, 65.9, 64.5, 51.2, 46.5, 42.7, 45.3, 43.7, 35.6, 31.8;
For Horizontal Force	141, 124, 110, 101, 120, 96, 76, 75, 94, 106.

Although there is irregularity in the proportions of the corresponding numbers in these two lines, yet there is in both lines the broad fact of a very considerable diminution from 1848 to 1857; which, especially when the four last years are grouped together, is very nearly the same for both. I consider the irregularity therefore to be merely accidental. In like manner if we compare the inequalities in respect of their variation of magnitude through the different months, in Tables V. and X., we find a good general agreement. I therefore treat the two inequalities in combination.

Now if we trace a curve, whose ordinate in the west direction represents the numbers in the last column of Table VI., and whose ordinate in the north direction represents the numbers in the last column of Table XI., we have the following :—

DIAGRAM explanatory of the MAGNITUDE and DIRECTION of the FORCES acting on the NORTH END of the MAGNET at GREENWICH at different HOURS of the SOLAR DAY.

The Roman numerals refer to hours of Göttingen Time; the Arabic numerals to Greenwich Time. From 8 to 18 the Arabic numerals are omitted, to avoid confusion.



If the mean declination and horizontal force are the same thing as the undisturbed declination and horizontal force, the force of diurnal inequality at any time will be represented in magnitude and direction by a line drawn from the origin of co-ordinates to the point of the curve corresponding to that time. If the mean and the undisturbed are not the same, a different origin must be taken, in such a position that the preponderant measures to the curve will correspond to the preponderant forces.

Now, if we combine together these various considerations; (1) that the diurnal force is undoubtedly connected with the Sun; (2) that it is very different on different sides of the meridian, showing that the Sun does not produce it imme-

diately, but mediately, by his influence (probably) on different parts of the Earth; (3) that the great difference in the magnitudes of diurnal force in the summer and the winter (the proportion being nearly 2 : 1) seems to show that the mediately active part of the Earth must be limited to a contracted space whose distance from Greenwich changes in a very sensible proportion from summer to winter, and may well be supposed to be a limited space over which the Sun is nearly vertical; (4) that the action while the Sun passes over Africa is much less than that which follows it: we seem to be led to the following conclusions:—

The radiation of the Sun upon the sea produces a magnetic force which attracts the north end of the magnet at Greenwich.

The radiation of the sun upon the land produces an insensible force, or none at all.

The great cause of diurnal inequality at Greenwich is the radiation of the Sun upon the North Atlantic; the radiation upon other seas having a sensible but minor effect.

I am unable to explain the origin of the singular loop from VII^h to XV^h Göttingen time, but suppose it to arise from some peculiarity in the distribution of land in the great islands of the Pacific, Australia, &c.

Now as we know that the attractions of magnetic bodies diminish very rapidly with their distance, and therefore the effect of the seas illuminated from 7^h to 17^h is very small, it is evident that the origin of co-ordinates here, or mean position, does not coincide with the undisturbed position. The undisturbed position must be somewhere near to the small loop, and then we have due preponderance given to the intense disturbing force from 22^h to 4^h Greenwich time. The mean declination of the magnets therefore will contain in its numerical expression a westerly quantity, derived from that preponderance, and the mean horizontal force will contain in its numerical expression a diminution of force, similarly derived.

And, in those months of the year when the active space under the Sun comes nearest, this westerly quantity and this diminution of force will be exaggerated; and therefore the Mean Westerly Declination (after correction for secular change) will appear greatest, and the Horizontal Force will appear least, in the summer months.

This is verified in the last columns of Table II. and Table VIII.

I present this sketch of the foundations of a theory of Diurnal Inequality as one of which I have no doubt, as applying to Greenwich. I am unable yet to examine into the practicability of extending it to other stations.

4. OBSERVATIONS OF MAGNETIC VERTICAL FORCE, REFERRED TO THE SUN'S PLACE.

As in the instance of the Horizontal Force Magnet, the time used is Göttingen Mean Solar Time, and the zero to which the photographic measures of Vertical Force are referred requires such an addition that their magnitudes shall be nearly 10000 ± fluctuations.

The adjustments of a Vertical Force Magnet are much more liable to change than those of the other instruments. In consequence of this, the periods of continuity of adjustment have been too much broken up to permit any important comparisons of the results at different times. In May 1848 a new magnet was mounted, and so much interruption followed that I have thought it best to reject the observations of that year. In following years there are interruptions at places marked in the Tables.

For results of diurnal inequality, the numerical inferences are as accurate as the nature of the apparatus permits, and probably are in general extremely good. Yet, though the instrument was furnished and occasionally examined by the maker of highest repute, I was never perfectly satisfied with the delicacy of its movements. Subsequently to the period of these observations, the knife-edges have been ground by Mr. Simms, and their delicacy appears to be very much increased. I have now every confidence in the observations.

The correction for Temperature was treated in the same manner as that for the temperature of the Horizontal Force Magnet.

Table XII. gives the mean of the Vertical Force Readings on every day, corrected for temperature. The interruptions by a double line ===== denote that the adjustments have been changed, so that the readings above and below it are not comparable. The interruptions by a single line ----- denote that there has been merely a change in one of the constants of reduction (the time of vibration in the vertical plane), which produces a comparatively small change in the reading. In January 1853 the adjustments were in a state too little sensitive to give useful results. In November 1857 the clock-work was out of order.

Table XIII. contains the monthly means: the interrupting lines being placed at the divisions nearest to the exact days.

It will be remarked that there was no absolute change of adjustment in the course of the years 1850, 1851, 1855, 1856, 1857, and I have therefore grouped the observations of each month separately for all those years and have taken

the mean, as worthy of considerable credit. It appears to show that the Vertical Force is sensibly greatest in the summer months. In order to exhibit the amount of variation (which at present is given in terms of Vertical Force) in terms of Horizontal Force, these numbers are multiplied by the tangent of the Dip, or $\tan. 68^{\circ}. 45'$.

Table XIV gives, for every month, the mean of the Vertical Forces at each hour through all the days of the month, corrected for temperature.

For each month separately, in Table XIV., the mean for the month in Table XIII. was subtracted from every number in the same month in Table XIV., and thus was formed the Mean Diurnal Inequality of Vertical Force in each month. The Table so formed is not printed, but the means for each year are taken to form the two next Tables.

Table XV. gives the Diurnal Inequality of Vertical Force for each month; the quantities for the same month in different years being grouped, and the means taken. To express the Inequality in terms of Horizontal Force, the numbers are multiplied by $\tan. 68^{\circ}. 45'$.

Table XVI. gives the Diurnal Inequality of Vertical Force for each year, the quantities for different months in the same year being grouped, and the means taken. As in the last Table, these values are converted into expressions in terms of Horizontal Force by multiplying by $\tan. 68^{\circ}. 45'$.

5. REMARKS ON THE RELATION OF THE VERTICAL DISTURBING FORCE TO THE DISTURBING FORCES IN THE HORIZONTAL PLANE.

The comparison of the Vertical Force, as exhibited in Tables XIII., XV., XVI., with the Horizontal Western Force in Tables II., V., VI., and the Horizontal Northern Force in Tables VIII., X., XI., presents some difficulties.

(1.) In the progress of years from 1848 to 1857, the diurnal inequality in both the horizontal elements is greatly diminished; while that in the vertical direction increases greatly from 1849 to 1850, and is sensibly stationary from 1850 to 1857. (I know no reason on the face of the observations for distinguishing 1849 from the other years, except that there had been less experience in the use of a difficult instrument.) This seems to show that it is not the same quality of the Sun which produces the horizontal disturbances and the vertical disturbance. The magnitude of the vertical disturbance, it is to be remarked, is greater than that of the horizontal disturbances.

(2.) In noting the changes in the magnitude of diurnal inequality through the months of a year, it will be remarked that all are greatest in the hottest months, but the changes of vertical force apparently less than those of the other forces.

(3.) The inequalities have as leading features one maximum and one minimum in the day (that of western force having another subordinate fluctuation). But the epochs of maximum and minimum of vertical force seem to refer very distinctly to noon at Greenwich, while those of the horizontal forces refer to other hours.

(4.) The monthly changes of inequalities generally correspond; the westerly declination, the southerly horizontal force, and the downwards vertical force, increasing in the hotter months.

II. REDUCTIONS REFERRED TO THE MOON'S PLACE.

6. OBSERVATIONS OF MAGNETIC WESTERN DECLINATION REFERRED TO THE MOON'S PLACE.

The first step in the reductions was, to mark the Lunar Days and Lunar Hours in a satisfactory way upon the Photographic Sheets. The Greenwich Mean Solar Time of Moon's Transit on each day was increased by 40^m , to obtain Göttingen Time of Moon's Transit, and these times were marked in coloured chalk upon the time-scales of the sheets. The intervals from transit to transit were taken numerically, and by use of these numbers different graduated scales were prepared, exhibiting multiples of lunar hours (fitted for the photographic sheets) for different lengths of the lunar day. In this way every lunar hour was marked down on the photographic sheet with great precision. After this, the process was exactly the same as for solar hours. The readings of the curve-ordinates were collected upon sheets of the same kind as those used for the Solar observations; the lines containing lunar hours, the columns containing lunar days, and the sheets containing lunar months.

The character of the means for lunar days and lunar months necessarily agrees so closely with that of the means for solar days and calendar months, that it does not appear necessary to print them. The subsequent reference to divisions of the lunar month can be made nearly as well by use of the numbers for solar days as by those for lunar days. The really valuable results are limited to those for lunar diurnal inequalities.

Table XVII. was drawn up for the purpose of examining into the possibility of any inequality of Westerly Declination depending on the Moon's age. There is not the least trace of such an inequality. It appeared, when all

the numbers of the table had been collected, that a slightly erroneous value of Mean Declination had been used. This has produced the correction in the last column.

Table XVIII. contains the Lunar-Monthly Means of Magnetic Westerly Declination, at every Lunar Hour of the Lunar Day.

By comparing, for each lunation, the mean for the lunation with each of the numbers in Table XVIII., a Lunation-Table of Lunar-Diurnal Inequality was formed. This table is not printed here, but from it the following table is derived.

Table XIX. gives the Diurnal Inequality of Western Declination, as referred to the Lunar Hours of the Lunar Day. The existence of two maxima and two minima in each Lunar Day appears to be distinctly marked.

7. OBSERVATIONS OF MAGNETIC HORIZONTAL FORCE REFERRED TO THE MOON'S PLACE.

The values of Horizontal Force at the Lunar Hours were measured and entered into the sheets in the same way as those for Solar Hours. But no correction for temperature was introduced. It is evident that, while the commencement of the Lunar Day passes through all the Solar Hours, every Lunar Hour will in its turn pass through every circumstance of temperature: and thus in taking means, which for the first elements used here extend over a lunation, and in final results extend over one year or several years, the corrections for temperature on all the different days of lunation and at all the different lunar hours will be sensibly equal.

For the same reasons which apply to Declinations, it has appeared unnecessary to exhibit the mean Horizontal Force for every Lunar Day or every Lunation. These means, however, having been arranged so as to admit of the grouping of the corresponding days of different Lunations, and the yearly mean for each Lunation-Day being compared with all, the following table was formed.

Table XX. gives the mean Lunation-Inequality of Horizontal Force in each year, and in the Mean of Years. The correction for the proportional part of secular increase of Horizontal Force is applied. The numbers, in part, appear to follow some law, though accompanied with great irregularities. To diminish the latter, the means of adjacent numbers were taken four times, and the result is shown in the last column. The series of numbers (omitting cyphers) may be nearly represented by

$$11 \cos 2 \theta - \frac{5}{2} \cos \theta - \frac{5}{2} \cos 3 \theta;$$

the zero of θ being at 7^d nearly, and its period being a lunation; but, in the face of irregularities, such a law claims little credit.

Table XXI. gives for each Lunation the mean of the Horizontal Forces at the same Lunar Hour through all the Lunar Days of each Lunation. By the comparison of these numbers for each Lunation with the mean for that Lunation, a lunation-table of luno-diurnal inequality is prepared, which is not printed.

Table XXII. contains, for each year, the mean for each Lunar Hour of the numbers in the last table; exhibiting the Luno-Diurnal Inequality of Horizontal Force. There are in the Lunar Day two very well marked maxima and two minima. From year to year, the changes of magnitude of coefficient do not appear to follow any law; and there is no general increase or diminution.

8. REMARKS ON THE COMBINATION OF THE LUNO-DIURNAL INEQUALITIES IN DECLINATION AND IN HORIZONTAL FORCE.

On comparing the last column of Table XIX. with the last column of Table XXII., it is at once seen that the laws of the two inequalities (in Declination and in Horizontal Force) are similar; that their epochs of maxima sensibly correspond; that their signs are the same; but that their magnitudes are different in a proportion not very dissimilar from that of 78 : 113, that in the direction of North Horizontal Force being the greater.

It appears from this that the forces which are exhibited in these two inequalities are resolved parts of one force, which is alternately + and -; whose direction is westward of the magnetic north meridian by the angle $34^\circ. 40'$ nearly, or westward of the astronomical north meridian by the angle 57° nearly; and which goes through its changes twice in the lunar day.

This force cannot be explained, on the usual laws of magnetic action, by independent magnetism in the Moon, or by magnetism in the Moon induced by the Sun.

It may be explained on one of the following suppositions:—

(1.) The Earth is a great magnet with virtual poles in a definite position with respect to the Earth; and the Moon becomes magnetic by instantaneous induction.

Or (2.) The Moon produces in the terrestrial atmosphere a tide, by the ordinary mechanical laws of formation of tides, and the compression and expansion of the oxygen or other magnetic portion of the atmosphere produce these alternate magnetic effects ; no explanation, however, being yet suggested of the peculiar direction of the force.

9. OBSERVATIONS OF MAGNETIC VERTICAL FORCE REFERRED TO THE MOON'S PLACE.

For the same reasons which apply to Declination and to Horizontal Force, I have thought it unnecessary to print the table of Mean Luno-Diurnal values of the Vertical Force, or their Luration-Means. By comparing each of the Luno-Diurnal values with its Luration-Mean, and taking the yearly means of numbers corresponding to the same day of Luration, the following table is formed :

Table XXIII. shows the fluctuation in the mean Luno-Diurnal values of Vertical Force, in the course of a mean luration. It does not appear to follow distinctly any laws.

Table XXIV. gives the Luration-Means of Vertical Force at every Lunar Hour of the Lunar Day.

A Luration-Table of Luno-Diurnal Inequality of Vertical Force was formed, by comparing, for each luration, the mean for the luration with each of the numbers in Table XXIV. This table is not printed, but by taking the means of the numbers for each year the following table is formed :

Table XXV. gives the Diurnal Inequality of Vertical Force, as referred to the Lunar Hours of the Lunar Day. There appear to be a single maximum and a single minimum in the course of each Lunar Day, but the result is not free from irregularity.

10. SUGGESTION OF ANOTHER LAW TO GUIDE THE ORDER OF REDUCTIONS OF THE MAGNETIC OBSERVATIONS.

The reductions, as far as has been described, are based upon two systems of laws ; one, that of reference to the hour-angle of the Sun, with a wider reference, by subdivision into months, to the declination of the Sun ; the other, that of reference, for some examinations, to the angular distance of the Moon from the Sun ; and, for other examinations, to the hour-angle of the Moon.

With regard to the action of the Sun, I do not perceive that any extension can be made in the investigations.

With regard to the action of the Moon, it is conceivable that the Moon is, under the action of the Sun, a magnet whose axis is directed to the Sun. Suppose the Moon to perform its apparent daily revolutions in a plane parallel to the terrestrial equator and passing through Greenwich ; put l for the latitude of Greenwich ; let α be the excess of Moon's R.A. over Sun's R.A., and θ the hour-angle by which the Moon has passed the lower meridian. Also let $\tan \beta = \frac{1}{2} \tan \alpha$, and put v for the magnetic westerly declination.

Then the following expressions will be proportional to the forces in the several directions :—

Force towards magnetic north =

$$-\cos v \cdot \sin l \cdot \frac{\sin \alpha}{\sin \beta} \cdot \cos(\theta - \beta) + \sin v \cdot \frac{\sin \alpha}{\sin \beta} \cdot \sin(\theta - \beta);$$

Force towards magnetic west =

$$+\sin v \cdot \sin l \cdot \frac{\sin \alpha}{\sin \beta} \cdot \cos(\theta - \beta) + \cos v \cdot \frac{\sin \alpha}{\sin \beta} \cdot \sin(\theta - \beta);$$

Force vertically downwards =

$$-\cos l \cdot \frac{\sin \alpha}{\sin \beta} \cdot \cos(\theta - \beta).$$

If $\tan W = \frac{\tan v}{\sin l}$, and $\tan w = \tan v \cdot \sin l$, these expressions become,

$$\text{Force towards magnetic north} = -\frac{\sin v}{\sin W} \cdot \frac{\sin \alpha}{\sin \beta} \cdot \cos(\theta - \beta + W);$$

$$\text{Force towards magnetic west} = +\frac{\cos v}{\cos w} \cdot \frac{\sin \alpha}{\sin \beta} \cdot \sin(\theta - \beta + w);$$

$$\text{Force vertically downwards} = -\cos l \cdot \frac{\sin \alpha}{\sin \beta} \cdot \cos(\theta - \beta).$$

In these expressions, the coefficients never change sign, and β is always in the same quadrant with α . Hence the inequalities would all depend (roughly) on the angle $\theta - \alpha$; an angle which goes through its period in $25^{\text{h}}.45^{\text{m}}$ nearly of solar time ; and the observations must be arranged with reference to this period. I have not yet effected this arrangement.

Royal Observatory, Greenwich,
1861, April 20.

G. B. AIRY.

REDUCTIONS OF MAGNETIC OBSERVATIONS REFERRED TO THE SUN'S PLACE.

REDUCTIONS OF MAGNETIC DECLINATION REFERRED TO THE SUN'S PLACE.

TABLE I.—MEAN WESTERLY DECLINATION of the MAGNET on each ASTRONOMICAL DAY, as DEDUCED from the MEAN of TWENTY-FOUR HOURLY MEASURES of ORDINATES of the PHOTOGRAPHIC REGISTER on that DAY.

Table with columns for Days of the Month (1-31) and months (January-December) for the years 1848 and 1849. Values are in degrees, ranging from 22° to 56°.

REDUCTION OF THE MAGNETIC OBSERVATIONS

TABLE I.—MEAN WESTERLY DECLINATION of the MAGNET on each ASTRONOMICAL DAY, &c.—continued.

Table with columns for years (1854, 1855, 1856, 1857) and months (January-December). Rows represent days of the month (1-31). Values are in degrees and minutes.

TABLE II.—MEAN WESTERLY DECLINATION of the MAGNET in each MONTH, as deduced from the Mean of the MEAN DAILY DETERMINATIONS in each MONTH; and MEAN WESTERLY DECLINATION in each YEAR, as deduced from the Mean of the MEAN MONTHLY DETERMINATIONS: showing the MONTHLY and ANNUAL PROGRESS of SECULAR VARIATION.

Month.	1848.	1849.	1850.	1851.	1852.	1853.	1854.	1855.	1856.	1857.	Mean of Years.	Mean corrected for Secular Change 7'9 annually.
January....	22. 50'0	22. 45'7	22. 28'4	22. 20'3	22. 22'6	22. 12'5	22. 4'2	21. 50'0	21. 45'6	21. 36'5	22. 13'6	22. 13'6
February...	22. 49'3	22. 44'0	22. 27'5	22. 19'8	22. 21'8	22. 12'1	22. 2'8	21. 48'3	21. 46'0	21. 36'7	12'8	13'5
March.....	22. 52'9	22. 43'6	22. 26'3	22. 19'8	22. 21'3	22. 11'4	22. 2'4	21. 48'9	21. 45'5	21. 36'1	12'8	14'1
April.....	22. 52'1	22. 42'7	22. 26'0	22. 20'6	22. 22'3	22. 12'0	22. 2'3	21. 49'0	21. 44'1	21. 36'0	12'7	14'7
May.....	22. 52'6	22. 41'5	22. 24'4	22. 18'9	22. 21'8	22. 11'2	22. 1'7	21. 49'3	21. 43'5	21. 36'0	12'1	14'7
June.....	22. 53'7	22. 40'8	22. 24'0	22. 14'0	22. 18'0	22. 10'4	22. 1'1	21. 50'9	21. 43'7	21. 34'9	11'2	14'4
July.....	22. 53'7	22. 41'1	22. 22'8	22. 16'6	22. 18'9	22. 10'7	22. 0'4	21. 49'5	21. 44'7	21. 34'7	11'3	15'3
August....	22. 52'5	22. 37'3	22. 21'4	22. 17'0	22. 17'7	22. 10'2	22. 0'8	21. 48'9	21. 43'6	21. 35'2	10'5	15'1
September..	22. 51'3	22. 27'4	22. 25'4	22. 14'6	22. 14'3	22. 11'5	21. 59'4	21. 47'6	21. 42'9	21. 35'6	9'0	14'3
October....	22. 51'9	22. 29'8	22. 18'2	22. 17'3	22. 12'9	22. 7'3	21. 58'0	21. 46'7	21. 41'1	21. 36'9	8'0	13'9
November..	22. 50'4	22. 30'6	22. 18'8	22. 20'7	22. 11'5	22. 5'3	21. 58'5	11. 45'6	21. 40'8	21. 33'3	7'6	14'1
December...	22. 51'7	22. 28'8	22. 18'6	22. 20'2	22. 11'5	22. 6'4	21. 57'5	21. 46'2	21. 40'2	21. 32'9	7'4	14'6
Mean.....	22. 51'8	22. 37'8	22. 23'5	22. 18'3	22. 17'9	22. 10'1	22. 0'8	21. 48'4	21. 43'5	21. 35'4		

TABLE III.—MONTHLY MEANS of all the ACTUAL DIURNAL RANGES of the WESTERN DECLINATION, as deduced from the twenty-four hourly measures of each day (the hours of extreme readings not being in all cases the same): showing the MONTHLY and ANNUAL CHANGES of ACTUAL DIURNAL RANGE.

Month.	1848.	1849.	1850.	1851.	1852.	1853.	1854.	1855.	1856.	1857.	Mean for each Month through the whole Period of Years.
January....	14'1	12'3	8'5	8'2	9'6	9'4	12'2	8'6	5'9	6'2	9'5
February...	14'9	14'7	11'8	9'4	13'3	9'9	13'7	10'9	7'4	7'3	11'3
March.....	16'8	16'2	14'8	11'4	15'1	13'9	12'9	12'5	8'2	9'5	13'1
April.....	16'4	17'8	14'4	12'8	16'1	12'7	14'5	14'2	10'6	10'5	14'0
May.....	16'1	15'1	14'2	14'0	13'2	10'7	12'9	11'7	8'7	10'4	12'7
June.....	16'1	15'6	15'3	11'4	13'8	13'9	11'1	10'5	9'7	8'7	12'6
July.....	16'8	15'4	14'6	13'8	12'6	12'4	11'6	10'6	9'9	9'2	12'7
August....	16'4	12'8	14'8	14'2	13'0	11'0	12'4	10'9	11'5	8'8	12'6
September..	15'7	17'3	15'7	13'9	14'9	11'7	11'2	11'2	11'3	12'4	13'5
October....	16'2	14'7	14'3	12'2	13'5	12'3	10'1	11'0	7'8	10'1	12'2
November..	13'5	11'1	9'5	9'2	10'4	8'9	6'5	9'3	7'2	7'1	9'3
December...	10'5	8'1	7'5	9'3	10'2	9'2	7'0	5'7	6'0	8'0	8'2
Mean.....	15'3	14'3	12'9	11'6	13'0	11'3	11'3	10'6	8'7	9'0	11'8

REDUCTION OF THE MAGNETIC OBSERVATIONS

TABLE IV.—MEAN MONTHLY DETERMINATION of the WESTERN DECLINATION of the MAGNET at every HOUR of the DAY ; obtained by taking the MEAN of all the DETERMINATIONS at the same HOUR of the DAY through the MONTH.

Table with columns for Year (1848, 1849, 1850, 1851), Hour (0-23), and Month (January-December). Rows show mean monthly determination values for each hour across the four years.

TABLE IV.—MEAN MONTHLY DETERMINATION of the WESTERN DECLINATION of the MAGNET, &c.—concluded.

Table with 25 columns for months (January-December) and 25 rows for hours (0-23). It is divided into two sections for the years 1856 and 1857, showing solar time values for each hour-month combination.

TABLE V.—MEAN, through the RANGE of YEARS, of the MONTHLY MEAN DETERMINATIONS of the DIURNAL INEQUALITY of DECLINATION; exhibited separately for the different Months.

TABLE VI.—MEAN, through the RANGE of MONTHS, of the MONTHLY MEAN DETERMINATIONS of the DIURNAL INEQUALITY of DECLINATION; exhibited separately for the different Years.

Large table with 13 columns for months (January-December) and 25 rows for hours (0-23). It is divided into two sections: '1848 to 1857' and 'January to December'. The right side includes 'Mean of Years' and 'Equivalent in Terms of Horizontal Force'.

REDUCTIONS OF MAGNETIC HORIZONTAL FORCE REFERRED TO THE SUN'S PLACE.

TABLE VII.—MEAN HORIZONTAL MAGNETIC FORCE (diminished by a Constant of 0.8850 nearly) on each ASTRONOMICAL DAY, as deduced from the Mean of Twenty-four hourly Measures of Ordinates of the Photographic Register on that day, each corrected for Temperature.

1848.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	..	..	0.1140	0.1128	..	..	..	0.1056	0.1098	0.1095	0.1122	0.1124
2	..	0.1120	.1137	.1116	..	0.1209	0.1053	..	.1095	.1094	.1129	.1124
3	..	.1122	.1137	..	..	.1207	.1050	..	.1095	.1097	.1128	..
4	..	.1120	.1139	..	0.1189	.1208	.1052	.1060	..	.1100	..	..
5	..	..	..	.1122	.1181	.1202	.1047	.1054	..	.1097	.1138	.1125
6	..	..	.1138	..	..	.1206	..	.1047	..	.1098	..	.1119
7	..	..	.1139	..	.1191	.1192	.1048	..	.1094	.1096	..	.1123
8	..	.1118	.1134	..	..	.1211	.1050	..	..	..	..	.1115
9	..	.1115	.1136	.1138	.1192	.1213	.1059	.1044	..	.1094	..	.1119
10	..	.1117	..	..	..	..	.1056	..	..	.1100	.1118	.1118
11	..	.1124	.1146	..	.1189	.1214	..	.1050	..	..	.1115	.1122
12	..	.1123	..	.1141	.1190	.1218	.1022	.1048	.1091	.1096	.1123	.1116
13	..	.1121	.1148	.1148	..	.1226	.1037	..	.1092	..	.1124	..
14	..	.1127	..	.1142	.1206	.1209	..	..	.1094	..	..	..
15	..	..	..	..	.1211	.1203	.1040	..	.1091	.1096	.1126	.1123
16	..	.1131	..	..	.1205	.1208	.1038	..	.1097	..	.1125	.1125
17	0.1111	.1132	..	..	..	..	.1041	..	..	..	..	.1103
18	..	.1134	.1123	..	..	.1216	.1045	..	.1083	..	..	.1116
19	.1118	..	..	..	.1202	.1222	.1044	.1061	.1086	..	.1104	.1117
20	.1117	..	..	..	.1210	.1210	.1045	..	.1085	.1082	.1112	..
21	.1118	..	.1125	.1149	.1207	.1210	.1050	..	..	.1090	.1097	.1120
22	.1124	..	.1124	.1140	.1201	.1206	.1050	.1090	..	..	..	.1123
23	.1120	..	.1134	..	.1201	.1214	..	..	.1083	..	.1107	..
24	.1111	..	.1133	.1155	..	.1217	..	..	.1088	.1104	.1119	.1120
25	.1121	..	.1127	.1153	.1195	.1223	.1046	..	.1103	.1090	..	.1124
26	.1121	..	..	..	.1187	.1220	.1045	.1103	..	.1099	.1132	..
27	.1125	.1131	.1133	..	.1186	.1220	.1046	..	.1095	.1106	..	..
28	..	..	..	.1181	.1180	.1224	.1049	.1097	.1099	.1113	.1114	..
29	.1128	..	..	.1166	..	..	.1051	.1094	..	..	.1118	..
30	..	..	.1132	..	.1200	..	.1047	..	..	..	.1121	..
31	..	..	.1123	..	.1213	..	.1048	..	..	..	..	..
1849.												
1	..	..	0.1135	0.1140	0.1134	0.1136	..	0.1123	0.1138	0.1124	0.1125	..
2	..	0.1147	.1134	.1147	.1143	..	..	.1127	.1130	.1128	.1130	0.1120
3	..	..	.1139	.1148	..	..	..	.1127	.1126	.1129	.1129	.1126
4	0.1137	.1142	.1137	..	..	..	..	.1129	.1124	.1130	.1130	.1133
5	.1145	.1141	.1140	.1143	.1130	..	0.1136	.1128	.1130	.1136	.1135	.1134
6	.1146	.1141	.1141	.1146	..	.1137	.1131	..	.1133	.1137	.1136	.1133
7	.1140	..	..	..	..	..	.1137	.1131	.1134	.1129	.1134	..
8	..	.1145	.1146	.1154	.1130	..	..	.1139	.1130	.1129	.1131	.1130
9	.1139	.1145	.1146	..	.1135	..	.1136	.1130	.1136	.1133	.1132	.1132
10	.1139	.1140	.1145	.1154	.1140	..	.1133	..	.1136	.1132	.1138	.1130
11	.1141	..	.1147	.1161	..	..	.1140	.1129	.1134	.1124	.1124	.1131
12	..	.1149	.1149	.1156	..	..	..	.1132	.1131	.1130	.1132	.1128
13	.1139	.1143	.1149	..	.1131	.1124	..	.1135	..	.1118	.1120	.1133
14	.1128	.1137	.1151	.1152	..	..	.1136	.1122	.1115	.1121	.1127	.1131
15	.1130	.1141	.1147	..	..	.1129	.1136	.1128	.1127	.1123	..	.1132
16	.1138	.1132	.1150	..	..	.1137	.1140	.1131	.1119	.1124	.1135	.1137
17	.1131	.1141	.1148	.1161	.1134	.1139	.1148	.1129	.1126	.1126	.1137	.1136
18	.1134	.1130	.1141	.1161	..	..	.1146	..	.1114	.1124	.1138	..
19	.1136	.1125	.1141	.1161	.1131	.1137	.1140	..	.1122	.1127	.1126	.1136
20	.1138	.1129	.1141	.1168	.1143	.1132	.1132	.1123	.1133	.1127	.1128	..
21	.1150	.1130	.1145	.1165	.1133	..	.1136	..	.1133	.1128	.1132	.1129
22	.1145	.1127	.1143	..	.1140	.1130	.1121	..	.1134	.1108	.1132	.1128
23	.1137	.1131	.1146	..	.1136	.1130	.1130	..	.1131	.1115	.1135	.1136
24	..	.1139	.1150	..	..	.1136	.1128	..	.1122	.1119	..	..
25	..	.1143	.1155	.1151	.1135	.1136	.1130	.1123	.1125	.1120	.1133	.1152
26	.1134	.1144	..	.1148	.1131	.1140	.1134	.1129	.1129	.1124	.1136	..
27	.1137	.1125	..	..	..	.1146	.1128	.1136	.1126	..	..	..
28	.1143	.1136	..	.1142	..	.1143	.1126	.1133	.1123	.1120	..	..
29	.1149	..	.1145	..	.1139	.1141	.1131	.1139	.1128	.1127	.1105	..
30	.1137	..	.1142	.1136	..	..	..	.1138	..	.1120	.1098	..
31	..	..	.1143	..	..	..	..	.1136	..	.1120	..	..

TABLE VII.—MEAN HORIZONTAL MAGNETIC FORCE on each ASTRONOMICAL DAY, &c.—continued.

1850.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	..	0'1144	0'1136	0'1128	0'1130	..	0'1126	0'1132	0'1098	..	0'1123	0'1124
2	..	'1135	'1139	'1134	'1135	0'1134	'1112	'1132	'1091	..	'1124	'1119
3	..	'1142	'1140	'1135	'1125	..	'1120	'1120	'1107	0'1102	'1125	'1122
4	..	..	'1133	..	'1126	'1154	'1112	'1112	'1096	'1106	'1129	'1121
5	..	'1152	'1140	'1144	'1137	'1161	'1100	'1113	..	'1112	'1127	'1124
6	..	'1146	'1137	'1131	'1135	'1114	'1096	'1108	'1097	'1109	'1128	'1122
7	..	'1168	..	'1125	..	'1116	'1100	..	'1094	'1099	..	'1133
8	..	'1155	'1150	'1130	'1133	'1108	'1101	..	'1100	'1105	'1125	'1130
9	..	..	'1145	'1127	'1133	..	'1103	'1112	'1101	'1110	'1129	'1127
10	..	..	'1142	..	'1132	..	'1095	'1096	'1096	'1106	'1123	'1127
11	..	..	'1133	..	'1140	'1126	'1091	'1093	'1101	'1112	'1121	'1127
12	..	'1149	'1132	'1130	'1143	'1150	'1087	'1093	'1106	'1112	'1129	'1127
13	0'1159	'1152	'1135	'1131	'1130	'1123	'1078	..	'1111	'1120	'1123	'1129
14	'1171	'1146	'1138	'1128	'1139	'1135	'1087	'1130	'1101	'1114	'1127	'1129
15	'1171	'1146	'1142	'1138	'1141	'1130	'1096	'1128	'1103	'1108	'1128	'1132
16	'1166	'1152	'1140	'1140	'1137	'1129	'1102	'1104	'1104	'1105	'1125	'1127
17	'1170	'1152	'1144	'1131	'1149	'1128	..	'1108	..	'1106	'1132	'1117
18	'1162	'1157	'1140	'1139	'1147	'1118	'1108	'1093	'1111	'1106	'1133	'1125
19	'1152	'1153	'1147	'1138	'1125	'1119	'1109	'1094	'1110	'1111	'1134	'1135
20	'1150	'1154	'1140	'1144	'1130	'1115	'1107	'1189	'1113	..	'1136	'1135
21	'1166	'1153	'1144	'1140	'1128	'1117	'1102	'1196	..	..	'1131	'1135
22	'1166	..	'1138	'1129	'1139	'1126	'1097	..	'1108	'1124	'1129	'1137
23	'1163	..	'1142	'1127	'1145	'1119	..	..	'1110	'1130	'1124	'1133
24	'1167	'1141	'1139	'1135	'1157	'1122	..	'1091	'1105	'1129	'1123	'1134
25	..	'1146	'1127	'1132	'1148	'1132	..	'1086	'1108	'1116	'1120	..
26	'1155	'1147	'1132	'1132	'1159	'1134	'1112	..	'1109	'1120	'1112	..
27	'1151	'1145	'1127	'1142	'1159	'1132	..	'1089	'1110	'1120	'1119	..
28	'1144	'1145	'1134	'1138	'1157	'1138	'1110	'1091	..	'1128	'1123	..
29	'1148	..	'1138	'1130	'1147	'1119	'1115	'1094	'1110	'1119	'1124	..
30	'1153	..	'1137	'1123	'1150	'1126	'1123	'1093	'1111	'1122	'1113	..
31	'1150	..	..	..	'1141	..	'1123	'1090	..	'1122	..	..

1851.												
1	..	0'1150	0'1151	..	0'1151	0'1140	..	..	0'1156	0'1138	0'1160	0'1182
2	..	'1166	'1153	..	'1149	'1139	0'1171	0'1138	'1153	..	'1165	'1183
3	..	'1160	'1149	..	'1165	'1128	'1160	'1133	..	'1128	'1165	'1184
4	..	'1161	'1149	0'1157	..	'1128	'1153	'1134	..	'1142	'1166	'1181
5	..	'1158	'1158	'1148	..	'1117	'1152	'1128	'1142	'1140	'1161	'1187
6	..	'1155	'1157	'1152	'1156	'1114	'1159	..	..	'1149	'1158	..
7	..	'1158	'1164	'1147	'1143	..	'1160	..	..	'1151	'1160	'1165
8	..	'1158	'1161	..	'1132	..	'1165	'1097	'1146	'1156	'1163	..
9	0'1182	'1156	'1163	'1150	'1136	..	'1169	'1098	..	'1150	'1167	..
10	'1180	'1151	'1152	'1147	'1136	'1126	'1169	'1092	'1148	'1149	'1163	'1181
11	'1176	'1152	'1144	..	'1139	'1126	'1163	'1170	'1145	'1145	'1162	'1184
12	'1177	'1149	'1147	'1148	'1148	'1136	'1165	'1162	'1145	'1150	'1162	'1184
13	'1182	'1155	'1149	'1152	'1139	'1133	'1169	'1170	'1142	'1157	'1164	'1189
14	'1178	'1161	'1152	'1150	'1140	'1132	'1161	'1167	'1148	'1156	'1166	'1193
15	'1181	'1153	'1155	'1152	'1143	'1139	'1163	'1166	'1141	'1163	'1168	'1193
16	..	'1167	'1155	'1151	..	'1130	'1145	'1167	'1141	'1164	'1171	'1186
17	'1159	'1159	'1159	'1148	'1157	'1126	'1141	'1162	'1152	'1166	'1171	'1194
18	'1166	..	'1154	..	'1151	'1131	'1132	'1165	'1163	'1157	'1171	'1188
19	..	..	'1155	..	..	'1132	'1148	'1174	'1160	'1158	'1174	'1185
20	'1149	..	'1148	'1143	'1155	'1133	'1152	'1175	'1160	'1147	..	'1188
21	'1151	'1147	'1155	'1142	'1168	'1125	'1140	'1163	'1166	'1161	'1164	'1191
22	'1153	'1159	'1154	'1151	'1164	'1121	'1146	'1174	'1162	'1159	'1162	'1177
23	'1153	'1160	'1155	'1145	'1162	'1114	..	'1175	'1157	'1160	'1164	'1187
24	'1155	'1158	'1151	'1153	'1146	'1113	'1162	'1154	'1156	'1156	'1166	'1189
25	'1159	'1148	'1153	'1160	'1140	'1115	'1153	'1160	..	'1161	..	'1190
26	'1168	'1154	'1156	'1163	'1145	'1117	'1145	'1155	'1163	'1160	'1185	'1193
27	'1156	..	'1156	'1169	'1144	'1107	'1140	'1153	'1157	'1154	'1183	'1181
28	'1150	'1153	..	'1163	'1142	'1092	..	..	'1152	..	'1181	'1177
29	'1146	..	..	'1162	'1148	'1086	'1137	'1161	..	'1133	'1187	'1160
30	'1153	..	..	'1159	'1149	..	'1140	'1158	..	'1145	'1189	'1188
31	'1159	..	..	..	'1149	..	'1141	'1159	..	'1154	..	'1187

TABLE VII.—MEAN HORIZONTAL MAGNETIC FORCE in each ASTRONOMICAL DAY, &c.—*continued.*

1852.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	0'1189	..	0'1122	0'1121	0'1092	0'1126	0'1134	0'1122	0'1144	..	0'1143	0'1155
2	'1190	0'1126	'1122	'1120	'1087	'1136	'1133	'1131	'1143	0'1147	..	'1155
3	'1189	'1129	..	'1128	'1095	'1133	'1126	'1139	'1143	'1144	'1149	'1156
4	..	'1127	'1125	'1128	'1108	'1121	'1120	'1140	'1141	'1150	'1150	'1157
5	..	'1126	'1127	'1123	'1111	..	'1121	'1139	'1119	..	'1145	'1166
6	'1137	'1126	'1121	'1127	'1111	'1132	'1092	..	'1143	'1148	'1146	..
7	'1140	..	'1120	'1134	'1110	..	'1118	'1134	'1145	'1148	'1153	'1161
8	'1139	..	'1126	'1128	..	'1137	'1122	'1135	..	'1145	'1154	'1159
9	'1139	'1130	'1128	'1134	'1108	'1155	..	..	'1142	'1147	'1162	'1153
10	'1138	'1133	'1128	'1122	'1113	'1158	..	..	'1140	'1152	'1159	'1148
11	'1136	'1136	'1136	'1126	'1106	..	'1137	'1144	..	..	..	'1159
12	'1135	'1135	'1124	'1132	'1104	'1152	'1144	'1143	'1137	'1143	'1141	'1163
13	'1126	'1129	'1133	'1125	'1093	'1152	'1135	'1131	'1140	'1147	'1141	'1159
14	'1130	..	'1138	'1119	'1099	'1163	..	'1134	'1143	'1153	'1153	..
15	'1132	..	'1134	'1114	'1117	'1165	..	'1137	'1145	'1154	'1155	..
16	'1136	'1101	'1137	'1107	'1127	..	'1131	'1140	..	'1150	'1147	'1154
17	'1134	..	'1139	'1102	..	'1144	'1141	'1141	'1130	'1141	'1151	'1153
18	'1141	..	'1142	'1114	..	'1149	'1129	'1141	'1144	..	'1151	'1142
19	..	..	'1147	'1109	..	'1152	'1139	'1141	'1128	'1140	'1157	'1155
20	..	..	'1139	..	..	'1153	'1144	'1146	'1131	'1131	'1158	..
21	'1120	..	'1141	..	'1129	'1148	'1139	'1144	..	'1138	'1164	..
22	'1112	'1113	'1142	'1090	'1126	'1133	'1138	'1141	..	'1143	'1165	'1156
23	'1109	'1117	'1135	..	'1125	'1122	'1141	'1138	'1139	'1148	..	'1151
24	'1123	'1117	'1143	'1106	..	'1138	'1131	'1139	'1153	'1146	'1163	'1147
25	'1118	'1124	'1142	'1109	..	'1140	'1142	'1138	..	'1163	'1162	'1151
26	'1123	'1116	'1128	'1106	'1124	'1135	'1150	'1138	'1115	'1165	'1158	'1158
27	'1127	'1112	'1129	'1107	'1122	'1129	'1141	'1135	'1155	'1153	..	..
28	'1134	'1118	'1133	'1103	..	'1140	'1132	'1139	'1161	'1162	'1180	..
29	'1130	..	'1126	'1118	'1120	'1138	..	'1136	..	'1156	'1166	..
30	'1125	..	'1129	'1097	'1130	'1134	..	'1145	'1139	'1150	'1165	..
31	'1122	..	'1120	..	'1125	..	'1132	'1142	..	'1150	..	..
1853.												
1	..	0'1130	0'1113	..	0'1140	..	0'1175	0'1149	..	..	0'1165	0'1184
2	..	'1123	'1110	..	..	0'1185	'1172	'1158	..	..	'1172	'1181
3	..	'1129	'1108	..	..	..	'1172	'1156	..	..	'1186	'1183
4	..	'1129	'1105	..	'1147	..	'1174	'1155	0'1115	..	..	..
5	..	'1120	'1106	..	'1130	..	'1179	'1159	'1156	0'1171	'1183	..
6	..	'1122	'1107	..	..	'1182	'1180	'1163	'1145	'1171	'1186	..
7	..	'1121	..	..	'1142	'1171	'1180	'1154	'1152	'1167	'1182	..
8	..	'1125	..	..	'1144	'1188	'1180	'1157	'1155	'1168	'1171	..
9	..	..	'1113	..	'1143	..	'1177	'1152	'1160	'1174	..	..
10	..	'1124	'1113	0'1106	'1144	'1193	'1173	'1154	'1164	'1160	'1170	'1187
11	0'1125	'1124	'1105	..	'1145	'1189	'1171	'1160	'1159	'1164	'1179	'1196
12	'1129	'1123	..	..	'1159	'1189	..	..	'1160	'1167	'1178	'1190
13	'1126	'1130	'1109	'1108	'1160	'1194	'1155	'1172	'1165	'1166	'1183	..
14	..	'1101	..	..	'1155	'1185	'1169	'1162	'1157	'1153	'1186	'1187
15	..	'1112	'1109	'1198	'1163	'1175	'1172	'1165	'1165	'1162	'1187	'1188
16	..	'1106	..	..	'1160	'1177	'1170	'1177	'1164	'1170	'1184	..
17	..	..	'1117	'1217	'1159	'1180	'1170	'1159	'1164	'1169	'1176	..
18	..	..	'1112	'1200	..	'1187	'1167	'1209	'1155	'1168	'1174	..
19	..	'1118	'1120	'1196	'1180	'1181	'1167	..	..	'1171	'1179	..
20	'1132	'1121	..	'1197	..	'1183	'1165	..	'1155	'1171	'1188	'1188
21	'1131	..	'1122	'1199	'1178	'1182	'1118	..	'1158	'1175	..	..
22	'1135	'1104	'1118	'1199	'1183	..	'1115	..	'1159	'1166	..	'1184
23	'1142	'1107	'1119	..	'1194	'1173	..	'1159	'1143	'1161	'1136	'1184
24	'1134	'1107	'1115	'1134	..	'1171	'1108	'1149	..	'1163	..	..
25	'1133	..	'1119	'1143	'1173	'1179	..	'1156	'1157	..	..	'1194
26	'1132	'1113	..	'1142	'1180	'1186	..	'1158	..	'1163	'1185	'1190
27	..	'1118	..	'1140	'1191	'1176	'1160	..	..	'1166	'1191	..
28	'1127	..	..	'1143	..	'1174	..	'1151	..	'1166	..	..
29	'1128	..	'1119	'1143	'1196	'1174	..	..	..	'1169	'1183	..
30	'1131	..	..	'1141	'1192	'1175	..	..	'1138	..	'1178	'1203
31	'1182	..	..	..	'1198	..	'1153	'1132	..	..	..	..

REDUCTION OF THE MAGNETIC OBSERVATIONS

TABLE VII.—MEAN HORIZONTAL MAGNETIC FORCE on each ASTRONOMICAL DAY, &c.—continued.

1854.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	..	0 ^o 1142	0 ^o 1153	..	0 ^o 1146	0 ^o 1139	0 ^o 1157	0 ^o 1154	..	..	0 ^o 1175	0 ^o 1180
2	..	..	1158	0 ^o 1168	1147	..	1150	1159	0 ^o 1148	..	1177	1183
3	..	..	1159	1168	1142	..	1147	..	1143	..	1181	1192
4	..	1137	1167	1166	1134	1147	1144	1168	1133	..	1181	1194
5	..	1136	1171	1166	1134	1143	1145	..	1151	..	1183	1193
6	..	..	1159	1170	1141	1147	1152	..	1139	..	1180	1195
7	0 ^o 1152	..	1158	1173	1144	..	1159	..	1143	..	1179	1203
8	..	1138	1161	1168	1139	1145	1155	..	1143	0 ^o 1148	1170	1205
9	1138	..	1155	1170	1133	1148	1153	..	1143	1168	..	1205
10	1141	1124	1161	..	1134	1142	1145	1155	..	1173	1179	1244
11	1139	1122	1160	..	1135	1151	1146	1156	..	1177	1183	..
12	1135	1133	1159	1161	1134	1144	1157	1167	..	1167	1186	1210
13	1140	1131	1152	1170	1134	1140	1150	..	1158	1179	1183	1202
14	1138	1127	1162	1164	1134	1140	1157	1165	1159	1178	..	1201
15	1144	1131	..	1173	1131	1144	1157	1170	1153	..	1178	1203
16	1137	..	..	1187	1142	1145	1147	1167	..	1176	1183	1207
17	1136	..	1167	1191	1128	1139	1145	..	1144	1184	1183	1212
18	1140	1152	1183	1193	1147	1139	1148	..	..	1178	1188	1207
19	1137	1168	1182	1177	1128	..	1149	..	1162	1178	1191	1208
20	1135	1161	1177	..	1136	1149	1154	1156	1165	1180	1189	1204
21	1137	1161	1188	..	1141	1152	1150	1160	1159	1180	1185	1208
22	1147	..	..	1150	1147	1158	1148	1156	..	1178	1183	1205
23	1136	1163	1183	..	1152	1150	..	1161	1167	1183	1185	1205
24	1138	..	1187	1137	1149	1149	..	1157	1163	1175	1182	1209
25	1142	..	1182	1142	..	1150	..	..	1157	1174	1184	1204
26	1142	1151	1177	1149	1145	1153	1151	..	1162	1177	..	1207
27	1143	1151	1125	1141	1150	1149	..	..	1159	..	..	1210
28	1140	1156	..	1138	1149	1153	..	1152	1157	1177	1177	1208
29	1137	..	1119	1135	1146	..	..	..	1163	1182	1178	1207
30	1131	..	1130	1140	1144	1153	1152	1163	..	1179	1183	1198
31	1138	..	1125	..	1138	..	1152	1150	..	1183	..	1201

1855.												
1	..	0 ^o 1172	0 ^o 1128	0 ^o 1152	..	0 ^o 1154	..	0 ^o 1147	..	..	..	..
2	..	1181	..	1151	0 ^o 1126	..	..	..	..	0 ^o 1157	..	0 ^o 1126
3	0 ^o 1136	1171	..	..	1127	..	..	..	..	1140	..	1121
4	1137	1167	1131	..	1134	..	..	..	..	1141	0 ^o 1131	1115
5	1133	1170	..	1131	1134	..	..	1143	..	..	..	1124
6	1137	1173	1133	1141	1137	..	..	..	0 ^o 1156	1138	1136	1123
7	..	1174	1135	..	1137	..	..	..	..	1141	1129	1123
8	..	1164	1142	1152	1130	..	0 ^o 1146	1150	1132	1148	..	1130
9	1144	1163	1132	1153	1124	..	1153	1153	1143	1150	1128	..
10	1150	1169	1144	1151	..	1159	..	..	..	1148	1133	1130
11	1153	1170	1147	1157	..	1150	1178	..	..	1147	1132	1132
12	1152	1124	..	..	1130	..	..	..	1138	1151	1132	1122
13	1154	..	1128	..	1140	..	..	..	1149	..	..	1129
14	1163	..	1135	1149	..	1171	..	..	1148	..	..	1124
15	1163	..	1132	1143	1127	..	..	..	1145	..	1137	1125
16	1161	1170	1134	1141	1123	1163	..	..	1144	1144	1128	1126
17	1172	..	1149	1134	1120	1166	1164	..	1141	..	1124	1117
18	..	1151	1139	1128	..	..	1153	..	1135	..	1130	..
19	1170	1143	1138	1121	..	..	..	..	..	1142	1129	..
20	1173	1142	1136	1123	..	1166	..	..	..	..	1133	..
21	1174	1130	..	1133	..	1161	..	..	1136	1148	1125	..
22	1164	1126	..	1136	1130	..	1160	1154	1137	..	..	..
23	1170	1125	1138	1131	..	..	..	1160	1141	..	1125	..
24	1163	1122	..	..	..	..	1158	..	1146	1146	1132	1125
25	1162	1126	1143	1150	1156	..	1156	..	1154	1153	1136	1133
26	1159	1127	1138	1143	..	1171	..	1157	1160	1155	..	1130
27	1163	1131	1143	1139	1155	..	..	1159	..	1150	1126	..
28	1168	1123	1140	1149	..	1156	..	1151	1153	1135	..	..
29	1164	..	1139	..	..	..	..	..	1155	1155	..	1126
30	1165	..	1144	1141	..	..	..	..	1156	1161	1109	1117
31	1165	..	1148	..	1160	..	..	1146	..	1158	..	..

TABLE VII.—MEAN HORIZONTAL MAGNETIC FORCE on each ASTRONOMICAL DAY, &c.—concluded.

1856.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	..	0'1154	..	0'1125	..	0'1160	..	0'1168	..	..	..	0'1196
2	..	..	0'1145	'1133	0'1159	'1157	..	'1171	0'1167	..	..	'1120
3	..	..	'1149	'1147	'1161	..	..	..	..	..	..	'1176
4	..	'1156	'1151	'1142	'1160	..	..	'1168	..	..	..	'1193
5	..	'1156	'1151	..	..	..	..	'1170	'1161	..	0'1177	'1187
6	0'1129	'1152	'1142	..	..	'1212	..	'1168	'1158	..	..	'1200
7	'1123	'1147	..	..	..	..	..	'1163	'1163	..	..	'1195
8	'1125	'1149	'1146	'1165	..	..	0'1163	'1184	..	..	'1175	'1188
9	..	'1146	'1144	'1161	'1178	..	..	..	'1169	..	'1180	..
10	'1132	'1152	'1139	'1157	..	..	'1154	'1168	..	..	'1175	..
11	'1136	'1133	..	'1157	..	..	'1163	'1180	..	..	'1182	..
12	'1139	'1135	..	'1154	'1179	..	'1160	'1190	..	..	..	..
13	'1138	..	'1139	..	'1181	..	'1159	'1161	..	..	'1174	..
14	'1135	..	'1136	..	'1184	..	'1166	'1169	..	..	'1177	..
15	'1134	'1145	'1136	'1161	'1179	..	'1165	..	..	0'1223	..	..
16	'1134	'1145	'1141	'1162	'1192	..	'1166	'1179	..	'1225	'1196	'1202
17	'1135	'1150	'1140	'1164	..	..	'1166	..	..	..	'1198	'1191
18	'1134	'1151	..	'1161	..	..	'1176	'1179	..	'1226	'1209	'1193
19	'1135	'1156	..	'1156	..	..	'1166	'1180	..	'1229	'1207	'1192
20	'1133	'1143	..	'1154	1197	'1158	..	'1180	..	..	'1203	'1192
21	'1136	'1153	'1143	'1154	..	'1161	'1172	'1180	..	..	..	..
22	'1141	'1159	'1134	'1153	'1172	'1159	'1169	'1174	..	..	'1208	..
23	'1141	'1157	'1143	'1142	..	'1165	..	..	..	'1218	'1206	'1195
24	'1136	..	'1137	'1158	'1161	..	..	..	..	..	'1208	'1192
25	'1139	'1159	'1138	'1163	'1149	'1165	'1175	'1165	..	..	'1207	'1196
26	'1136	'1161	'1139	'1165	..	..	'1173	'1172	..	'1223	'1204	'1192
27	'1149	..	'1125	'1177	..	'1170	'1173	'1169	..	..	'1196	'1198
28	'1142	..	'1133	'1167	'1154	'1165	'1167	..	..	..	'1199	..
29	'1150	..	'1134	'1168	'1168	'1160	'1168	'1169	..	..	'1200	..
30	'1149	..	'1138	'1166	'1152	'1159	'1167	..	..	..	'1210	..
31	'1150	..	'1130	..	..	..	'1150	'1169	..	'1182	..	..

1857.												
1	..	0'1234	0'1233	..	..	..	0'1248	0'1226	0'1226	0'1233	0'1256	0'1285
2	..	..	'1231	0'1238	0'1198	0'1221	'1227	'1220	'1238	'1230	..	..
3	..	..	'1231	'1241	'1201	..	'1224	..	..	..	..	'1280
4	0'1193	..	'1260	'1243	'1199	..	'1226	'1223	..	..	'1268	'1278
5	'1185	..	'1243	'1236	'1207	..	..	'1230	'1218	..	'1270	..
6	'1195	'1228	'1239	'1235	'1211	..	'1222	'1222	'1224	..	..	'1278
7	'1188	..	'1234	'1232	..	..	'1218	'1229	'1218	'1249	'1280	'1276
8	..	'1225	'1237	'1236	..	..	..	..	'1225	..	'1287	..
9	..	'1227	'1245	'1239	..	..	'1218	..	'1221	'1244	..	'1276
10	'1195	'1226	..	'1236	..	'1222	'1227	..	..	..	..	..
11	'1189	'1232	'1240	'1224	..	'1220	..	'1229	'1217	..	..	..
12	'1179	'1234	'1242	'1228	..	'1219	..	..	'1218	..	..	..
13	'1185	'1234	'1240	'1236	..	..	..	..	..	..	..	'1278
14	..	'1238	..	..	..	'1208	'1228	'1228	..	..	'1271	'1270
15	'1191	..	..	'1241	..	..	'1213	'1231	'1215	..	'1268	'1278
16	..	..	..	'1240	..	..	'1215	'1218	'1210	'1217	'1248	..
17	'1182	..	'1214	..	..	'1215	..	..	'1218	'1241	..	..
18	'1193	'1230	..	..	..	'1224	'1215	'1228	..	..	'1250	'1247
19	'1189	'1227	'1225	'1207	..	..	'1206	'1229	'1231	'1260	'1261	..
20	'1192	'1233	'1225	..	..	'1224	'1210	'1230	'1250	'1242	'1263	..
21	..	'1231	'1231	'1206	..	'1219	'1227	'1232	..	..	..	..
22	..	'1230	'1234	'1213	..	'1221	'1228	'1224	'1233	..	'1269	'1266
23	'1196	'1233	'1230	'1210	..	..	..	..	'1235	..	..	'1253
24	'1196	'1236	'1227	'1206	..	'1204	..	'1221	..	'1243	'1260	..
25	'1192	..	'1231	'1206	..	..	'1212	'1216	..	'1242	'1262	..
26	'1191	..	'1234	'1216	..	'1214	'1222	'1226	'1236	'1235	..	..
27	'1204	..	'1233	'1198	..	..	'1228	'1223	'1242	'1243	'1268	'1260
28	..	..	'1234	'1205	..	'1217	'1226	'1230	..	'1264	'1270	..
29	..	..	'1233	'1194	..	..	..	'1237	..	..	'1272	..
30	'1220	..	'1226	'1195	..	'1240	'1224	'1218	..	..	..	..
31	..	..	'1233	..	..	..	..	..	..	..	..	..

TABLE VIII.—MEAN HORIZONTAL MAGNETIC FORCE (diminished by a constant 0.8850 nearly) in each Month, as deduced from the mean of the MEAN DAILY DETERMINATIONS in each Month; and MEAN HORIZONTAL MAGNETIC FORCE in each Year, as deduced from the mean of the MEAN MONTHLY DETERMINATIONS; all corrected for Temperature. Showing the apparent Monthly Change of Horizontal Force in each Year.

Month.	1848.	1849.	1850.	1851.	1852.	1853.
January	0.1119	0.1139	0.1159	0.1151	0.1137	0.1131
February.....	.1125	.1139	.1150	.1156	.1125	.1117
March .....	.1134	.1144	.1138	.1155	.1132	.1114
April .....	.1144	.1152	.1134	.1152	.1116	.1146
May.....	.1194	.1136	.1139	.1148	.1114	.1165
June	<u>.1211</u>	.1136	.1127	.1120	.1141	.1181
July.....	.1047	.1134	.1105	.1154	.1134	.1159
August .....	.1071	.1130	.1103	.1150	.1139	.1159
September.....	.1091	.1128	.1105	.1151	.1142	.1152
October .....	.1098	.1126	.1114	.1152	.1149	.1166
November.....	.1119	.1128	.1125	.1169	.1157	.1181
December.....	<u>.1121</u>	<u>.1130</u>	<u>.1125</u>	<u>.1184</u>	<u>.1155</u>	<u>.1187</u>
Mean		0.1135	0.1127	0.1154	0.1137	0.1154

Month.	1854.	1855.	1856.	1857.	Mean for the Nine Years 1849 to 1857.	Mean, corrected for Secular Variation, 0.0022 annually.
January.....	0.1140	0.1156	0.1135	0.1195	0.1151	0.1151
February.....	.1143	.1152	.1152	.1231	.1152	.1150
March .....	.1163	.1139	.1141	.1234	.1151	.1147
April.....	.1161	.1142	.1157	.1223	.1155	.1149
May.....	.1140	.1133	.1171	.1208	.1150	.1143
June .....	.1147	.1164	.1171	.1218	.1156	.1147
July.....	.1151	.1158	.1166	.1222	.1154	.1143
August .....	.1156	.1151	.1171	.1226	.1154	.1141
September.....	.1153	.1146	.1161	.1226	.1152	.1137
October .....	.1178	.1148	.1218	.1244	.1166	.1149
November.....	.1182	.1131	.1192	.1268	.1170	.1152
December.....	<u>.1202</u>	<u>.1124</u>	<u>.1195</u>	<u>.1271</u>	.1175	.1155
Mean	0.1160	0.1145	0.1169	0.1230		

TABLE IX.—MEAN MONTHLY DETERMINATION of the HORIZONTAL MAGNETIC FORCE (diminished by a constant 0.8850 nearly), corrected for Temperature, at every HOUR of the DAY; obtained by taking the MEAN of all the DETERMINATIONS at the same HOUR of the DAY through each MONTH.

1848.												
Hour, Greenwich Mean Solar Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
0	0.1109	0.1113	0.1117	0.1121	0.1176	0.1195	0.1021	0.1051	0.1072	0.1080	0.1109	0.1113
1	.1111	.1109	.1122	.1126	.1179	.1200	.1030	.1055	.1079	.1083	.1112	.1114
2	.1114	.1114	.1127	.1131	.1185	.1204	.1038	.1060	.1086	.1088	.1117	.1119
3	.1120	.1117	.1133	.1140	.1191	.1209	.1047	.1068	.1091	.1094	.1120	.1120
4	.1118	.1120	.1132	.1144	.1193	.1213	.1054	.1074	.1094	.1098	.1120	.1118
5	.1120	.1123	.1134	.1148	.1201	.1217	.1057	.1080	.1096	.1098	.1120	.1119
6	.1124	.1127	.1136	.1153	.1205	.1221	.1059	.1082	.1096	.1102	.1120	.1120
7	.1117	.1128	.1139	.1152	.1206	.1223	.1063	.1085	.1099	.1102	.1119	.1123
8	.1118	.1128	.1139	.1151	.1206	.1223	.1063	.1084	.1100	.1104	.1123	.1120
9	.1120	.1129	.1139	.1151	.1201	.1222	.1061	.1081	.1097	.1102	.1119	.1120
10	.1117	.1128	.1140	.1149	.1199	.1217	.1058	.1079	.1098	.1104	.1121	.1121
11	.1117	.1128	.1140	.1147	.1196	.1217	.1056	.1078	.1098	.1102	.1118	.1121
12	.1119	.1129	.1139	.1149	.1198	.1216	.1053	.1079	.1097	.1102	.1120	.1122
13	.1119	.1128	.1138	.1150	.1196	.1215	.1050	.1078	.1097	.1100	.1117	.1122
14	.1119	.1128	.1138	.1149	.1196	.1216	.1054	.1076	.1096	.1101	.1119	.1120
15	.1119	.1127	.1138	.1150	.1198	.1215	.1049	.1076	.1096	.1101	.1121	.1120
16	.1122	.1129	.1139	.1150	.1196	.1216	.1051	.1077	.1096	.1102	.1120	.1121
17	.1123	.1129	.1140	.1149	.1198	.1216	.1052	.1075	.1097	.1104	.1124	.1124
18	.1124	.1131	.1141	.1151	.1197	.1215	.1049	.1073	.1094	.1104	.1123	.1125
19	.1125	.1131	.1139	.1148	.1194	.1211	.1044	.1070	.1092	.1103	.1124	.1127
20	.1124	.1132	.1136	.1143	.1192	.1205	.1035	.1062	.1088	.1100	.1120	.1126
21	.1118	.1127	.1129	.1136	.1188	.1200	.1026	.1057	.1079	.1093	.1116	.1123
22	.1114	.1121	.1123	.1132	.1179	.1196	.1024	.1054	.1072	.1087	.1114	.1118
23	.1111	.1118	.1118	.1127	.1177	.1194	.1022	.1050	.1070	.1084	.1110	.1115

1849.												
0	0.1128	0.1125	0.1127	0.1132	0.1121	0.1121	0.1115	0.1117	0.1114	0.1113	0.1121	0.1123
1	.1131	.1127	.1131	.1134	.1123	.1121	.1125	.1123	.1119	.1116	.1123	.1128
2	.1136	.1132	.1137	.1142	.1127	.1138	.1129	.1127	.1126	.1121	.1124	.1129
3	.1138	.1139	.1141	.1150	.1133	.1136	.1136	.1132	.1130	.1125	.1126	.1131
4	.1138	.1141	.1144	.1154	.1139	.1141	.1140	.1133	.1129	.1127	.1128	.1130
5	.1139	.1142	.1147	.1157	.1143	.1146	.1146	.1134	.1131	.1128	.1129	.1131
6	.1142	.1144	.1150	.1162	.1150	.1146	.1145	.1137	.1131	.1129	.1132	.1132
7	.1141	.1144	.1150	.1161	.1152	.1149	.1145	.1136	.1130	.1129	.1132	.1132
8	.1141	.1140	.1150	.1163	.1149	.1147	.1145	.1136	.1130	.1131	.1131	.1131
9	.1140	.1138	.1149	.1158	.1144	.1145	.1142	.1137	.1130	.1127	.1131	.1130
10	.1140	.1138	.1149	.1158	.1142	.1143	.1142	.1136	.1131	.1130	.1130	.1131
11	.1140	.1138	.1149	.1158	.1141	.1141	.1141	.1135	.1135	.1128	.1128	.1130
12	.1139	.1139	.1147	.1157	.1139	.1140	.1140	.1134	.1134	.1130	.1127	.1130
13	.1139	.1138	.1148	.1156	.1140	.1139	.1137	.1134	.1133	.1130	.1125	.1131
14	.1140	.1140	.1147	.1158	.1140	.1139	.1137	.1132	.1133	.1128	.1128	.1130
15	.1142	.1140	.1148	.1157	.1140	.1139	.1137	.1133	.1132	.1127	.1130	.1131
16	.1142	.1142	.1149	.1157	.1138	.1139	.1136	.1132	.1134	.1130	.1130	.1131
17	.1143	.1142	.1150	.1159	.1139	.1140	.1136	.1133	.1131	.1128	.1131	.1133
18	.1144	.1146	.1150	.1159	.1138	.1137	.1134	.1131	.1131	.1130	.1132	.1134
19	.1145	.1146	.1149	.1157	.1134	.1134	.1131	.1128	.1127	.1130	.1133	.1135
20	.1144	.1144	.1147	.1147	.1127	.1127	.1123	.1124	.1124	.1127	.1130	.1133
21	.1139	.1139	.1138	.1141	.1124	.1122	.1117	.1116	.1120	.1119	.1126	.1131
22	.1133	.1134	.1131	.1134	.1120	.1119	.1115	.1118	.1120	.1114	.1121	.1128
23	.1130	.1131	.1126	.1127	.1118	.1118	.1113	.1116	.1124	.1113	.1119	.1126

TABLE IX.—MEAN MONTHLY DETERMINATION of the HORIZONTAL MAGNETIC FORCE, &c.—continued.

1850.

Hour. Göttingen Mean Solar Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
0	0°1151	0°1135	0°1126	0°1114	0°1125	0°1117	0°1092	0°1090	0°1086	0°1098	0°1113	0°1116
1	°1155	°1139	°1129	°1119	°1129	°1124	°1097	°1096	°1093	°1102	°1117	°1120
2	°1158	°1144	°1136	°1126	°1135	°1127	°1104	°1102	°1102	°1105	°1119	°1120
3	°1163	°1150	°1143	°1132	°1141	°1126	°1107	°1107	°1102	°1109	°1119	°1121
4	°1163	°1152	°1144	°1139	°1144	°1129	°1110	°1108	°1104	°1110	°1121	°1120
5	°1162	°1153	°1143	°1141	°1148	°1131	°1112	°1111	°1105	°1113	°1122	°1122
6	°1161	°1154	°1144	°1143	°1150	°1134	°1115	°1111	°1108	°1117	°1125	°1125
7	°1161	°1155	°1143	°1142	°1150	°1133	°1113	°1112	°1108	°1116	°1125	°1126
8	°1161	°1159	°1142	°1142	°1148	°1135	°1113	°1111	°1110	°1116	°1127	°1125
9	°1159	°1154	°1141	°1139	°1144	°1130	°1109	°1109	°1110	°1118	°1127	°1125
10	°1158	°1153	°1142	°1140	°1143	°1129	°1107	°1109	°1110	°1119	°1129	°1126
11	°1159	°1153	°1141	°1138	°1142	°1127	°1106	°1106	°1111	°1120	°1127	°1125
12	°1159	°1150	°1142	°1135	°1141	°1128	°1104	°1106	°1112	°1110	°1127	°1126
13	°1160	°1149	°1140	°1135	°1142	°1126	°1105	°1108	°1112	°1119	°1128	°1127
14	°1159	°1152	°1140	°1135	°1142	°1125	°1107	°1105	°1112	°1120	°1129	°1128
15	°1160	°1151	°1139	°1136	°1042	°1126	°1106	°1106	°1111	°1120	°1130	°1128
16	°1161	°1151	°1141	°1136	°1142	°1127	°1107	°1106	°1112	°1121	°1131	°1130
17	°1160	°1152	°1142	°1135	°1141	°1128	°1109	°1106	°1111	°1121	°1132	°1130
18	°1163	°1153	°1142	°1138	°1141	°1129	°1107	°1104	°1109	°1123	°1134	°1131
19	°1161	°1154	°1144	°1138	°1141	°1134	°1106	°1102	°1109	°1123	°1133	°1133
20	°1161	°1153	°1141	°1134	°1136	°1131	°1103	°1096	°1103	°1120	°1131	°1132
21	°1158	°1147	°1134	°1127	°1131	°1125	°1096	°1091	°1096	°1111	°1128	°1128
22	°1154	°1142	°1124	°1119	°1125	°1122	°1092	°1089	°1090	°1104	°1120	°1119
23	°1150	°1137	°1122	°1115	°1124	°1118	°1089	°1088	°1086	°1099	°1115	°1115

1851.

0	0°1142	0°1146	0°1143	0°1134	0°1130	0°1104	0°1140	0°1140	0°1143	0°1139	0°1163	0°1181
1	°1141	°1145	°1145	°1137	°1134	°1109	°1145	°1142	°1150	°1142	°1163	°1184
2	°1146	°1150	°1148	°1141	°1138	°1112	°1147	°1149	°1152	°1145	°1167	°1184
3	°1146	°1149	°1150	°1146	°1142	°1118	°1150	°1152	°1153	°1151	°1168	°1184
4	°1146	°1151	°1152	°1149	°1144	°1120	°1153	°1154	°1152	°1152	°1166	°1181
5	°1147	°1151	°1151	°1153	°1150	°1123	°1155	°1151	°1153	°1153	°1167	°1178
6	°1147	°1154	°1153	°1156	°1155	°1126	°1159	°1153	°1153	°1153	°1167	°1181
7	°1149	°1155	°1153	°1157	°1157	°1129	°1161	°1155	°1152	°1153	°1169	°1181
8	°1148	°1157	°1155	°1156	°1154	°1129	°1161	°1153	°1154	°1153	°1169	°1181
9	°1150	°1156	°1155	°1156	°1153	°1126	°1161	°1154	°1156	°1155	°1168	°1181
10	°1152	°1156	°1156	°1156	°1153	°1125	°1158	°1155	°1155	°1155	°1169	°1184
11	°1153	°1156	°1158	°1156	°1154	°1125	°1158	°1155	°1156	°1153	°1169	°1182
12	°1152	°1158	°1157	°1157	°1152	°1125	°1157	°1155	°1158	°1155	°1171	°1181
13	°1151	°1156	°1157	°1157	°1152	°1125	°1156	°1153	°1155	°1154	°1171	°1182
14	°1153	°1159	°1159	°1156	°1152	°1125	°1155	°1152	°1155	°1154	°1171	°1184
15	°1154	°1159	°1159	°1156	°1154	°1125	°1158	°1154	°1156	°1155	°1171	°1180
16	°1155	°1162	°1159	°1158	°1157	°1125	°1157	°1155	°1155	°1156	°1171	°1187
17	°1158	°1164	°1162	°1160	°1156	°1125	°1159	°1154	°1156	°1156	°1173	°1189
18	°1159	°1164	°1161	°1161	°1156	°1123	°1157	°1152	°1154	°1156	°1174	°1192
19	°1159	°1165	°1162	°1162	°1152	°1122	°1157	°1150	°1153	°1156	°1173	°1192
20	°1158	°1164	°1161	°1159	°1148	°1115	°1152	°1145	°1149	°1155	°1173	°1191
21	°1156	°1161	°1156	°1151	°1143	°1112	°1148	°1142	°1144	°1150	°1168	°1190
22	°1154	°1158	°1149	°1141	°1137	°1107	°1145	°1140	°1139	°1144	°1167	°1188
23	°1147	°1150	°1144	°1136	°1131	°1104	°1142	°1138	°1137	°1140	°1167	°1184

TABLE IX.—MEAN MONTHLY DETERMINATION of the HORIZONTAL MAGNETIC FORCE, &c.—*continued.*

1852.												
Hour. Got- tingen Mean Solar Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
0	0°1130	0°1113	0°1116	0°1096	0°1096	0°1125	0°1123	0°1125	0°1129	0°1134	0°1146	0°1148
1	1128	1115	1119	1104	1101	1127	1123	1128	1133	1139	1148	1147
2	1130	1116	1125	1111	1104	1125	1126	1128	1137	1142	1149	1147
3	1131	1119	1131	1116	1110	1139	1129	1136	1141	1144	1153	1151
4	1132	1120	1134	1118	1113	1140	1130	1136	1141	1144	1154	1149
5	1132	1122	1137	1121	1118	1142	1134	1138	1142	1146	1157	1155
6	1133	1124	1137	1124	1121	1146	1138	1140	1146	1148	1158	1153
7	1134	1125	1135	1123	1122	1149	1136	1144	1147	1149	1158	1155
8	1134	1128	1136	1123	1123	1149	1137	1145	1146	1150	1158	1154
9	1135	1129	1135	1121	1121	1146	1134	1144	1148	1153	1158	1154
10	1137	1125	1134	1119	1119	1145	1135	1144	1147	1154	1158	1156
11	1136	1125	1135	1121	1121	1147	1138	1145	1146	1153	1158	1156
12	1137	1127	1136	1123	1119	1147	1138	1143	1148	1155	1161	1155
13	1139	1124	1134	1121	1120	1146	1141	1144	1149	1153	1159	1156
14	1141	1127	1135	1121	1119	1156	1142	1144	1146	1154	1159	1158
15	1142	1127	1136	1118	1119	1146	1139	1143	1145	1153	1160	1156
16	1142	1127	1137	1120	1118	1147	1141	1145	1146	1156	1161	1158
17	1142	1129	1137	1120	1118	1146	1144	1144	1147	1157	1161	1160
18	1146	1132	1138	1122	1119	1148	1143	1142	1145	1157	1164	1162
19	1145	1133	1137	1120	1116	1144	1142	1141	1144	1155	1164	1162
20	1146	1133	1135	1116	1110	1139	1133	1136	1142	1150	1162	1161
21	1143	1130	1130	1108	1106	1133	1126	1130	1136	1144	1158	1160
22	1138	1120	1122	1100	1101	1128	1122	1127	1132	1138	1153	1156
23	1129	1116	1117	1097	1096	1125	1120	1126	1128	1134	1148	1151

1853.												
0	0°1124	0°1110	0°1102	0°1139	0°1150	0°1168	0°1149	0°1146	0°1145	0°1154	0°1173	0°1182
1	1122	1109	1104	1141	1153	1170	1155	1151	1149	1156	1173	1182
2	1124	1111	1106	1141	1156	1175	1154	1154	1152	1159	1175	1181
3	1125	1114	1108	1144	1162	1181	1160	1156	1154	1162	1175	1180
4	1125	1114	1112	1143	1166	1185	1164	1158	1156	1163	1176	1179
5	1127	1114	1114	1148	1171	1187	1165	1159	1155	1165	1178	1179
6	1129	1115	1114	1150	1172	1191	1169	1163	1156	1164	1179	1181
7	1129	1117	1115	1150	1174	1192	1172	1164	1159	1164	1179	1184
8	1129	1117	1116	1148	1172	1191	1171	1164	1157	1167	1179	1182
9	1130	1116	1117	1146	1167	1192	1167	1164	1158	1168	1178	1183
10	1132	1116	1119	1148	1171	1192	1165	1164	1156	1167	1177	1184
11	1130	1118	1116	1149	1170	1187	1162	1163	1157	1168	1180	1186
12	1132	1117	1117	1148	1170	1186	1162	1164	1155	1168	1181	1186
13	1130	1118	1116	1147	1169	1186	1161	1162	1154	1168	1181	1188
14	1133	1119	1117	1149	1169	1184	1160	1163	1155	1169	1182	1187
15	1134	1119	1117	1150	1169	1184	1159	1164	1154	1170	1184	1191
16	1135	1120	1119	1150	1168	1183	1161	1166	1156	1171	1185	1192
17	1137	1123	1120	1149	1169	1184	1160	1162	1155	1172	1186	1194
18	1138	1124	1122	1151	1167	1182	1159	1163	1153	1173	1189	1198
19	1138	1126	1120	1149	1165	1182	1157	1163	1153	1172	1189	1199
20	1139	1124	1117	1148	1162	1175	1152	1158	1150	1170	1189	1199
21	1137	1120	1113	1145	1159	1167	1147	1154	1143	1167	1188	1197
22	1134	1122	1110	1135	1157	1161	1145	1150	1140	1160	1180	1191
23	1129	1114	1105	1131	1152	1162	1146	1148	1139	1155	1176	1188

TABLE IX.—MEAN MONTHLY DETERMINATION of the HORIZONTAL MAGNETIC FORCE, &c.—*continued.*

1854.												
Hour. Got- tingen Mean Solar Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
0	0°1135	0°1136	0°1155	0°1151	0°1131	0°1137	0°1137	0°1148	0°1142	0°1171	0°1176	0°1199
1	1135	1135	1158	1155	1133	1141	1143	1151	1146	1172	1175	1201
2	1137	1137	1158	1157	1136	1142	1147	1153	1147	1172	1175	1201
3	1138	1134	1161	1156	1141	1146	1152	1155	1150	1174	1176	1200
4	1135	1137	1162	1160	1141	1148	1153	1155	1148	1174	1177	1198
5	1133	1139	1162	1164	1145	1151	1154	1154	1147	1172	1178	1197
6	1136	1141	1162	1164	1148	1152	1154	1155	1148	1174	1179	1198
7	1138	1143	1163	1166	1149	1154	1157	1156	1151	1174	1180	1199
8	1138	1143	1163	1162	1148	1155	1156	1155	1152	1176	1180	1199
9	1138	1143	1163	1161	1144	1152	1153	1155	1154	1175	1180	1202
10	1139	1142	1164	1160	1142	1151	1155	1156	1155	1177	1184	1202
11	1140	1144	1164	1161	1142	1151	1152	1157	1157	1178	1184	1202
12	1141	1145	1165	1162	1142	1149	1155	1158	1158	1178	1184	1201
13	1142	1147	1164	1162	1142	1149	1154	1157	1158	1178	1183	1202
14	1142	1148	1164	1162	1141	1150	1156	1160	1157	1181	1184	1203
15	1141	1147	1167	1163	1144	1150	1155	1160	1158	1181	1186	1205
16	1142	1146	1167	1165	1142	1148	1155	1160	1159	1184	1188	1205
17	1146	1149	1168	1165	1143	1148	1156	1162	1160	1184	1189	1207
18	1146	1149	1168	1166	1142	1147	1155	1162	1160	1185	1189	1208
19	1149	1153	1170	1167	1142	1145	1154	1161	1159	1185	1190	1209
20	1147	1150	1168	1164	1137	1145	1149	1158	1157	1186	1189	1208
21	1143	1150	1161	1160	1135	1138	1145	1155	1152	1181	1187	1207
22	1138	1145	1156	1156	1131	1136	1139	1151	1147	1177	1183	1203
23	1135	1139	1155	1151	1129	1135	1138	1149	1145	1176	1178	1197
1855.												
0	0°1151	0°1149	0°1128	0°1128	0°1121	0°1154	0°1149	0°1138	0°1141	0°1139	0°1123	0°1120
1	1153	1150	1133	1133	1125	1159	1149	1144	1145	1141	1124	1120
2	1152	1148	1136	1138	1128	1160	1152	1144	1146	1143	1124	1119
3	1156	1150	1136	1141	1129	1163	1155	1148	1149	1145	1124	1120
4	1152	1150	1138	1143	1133	1165	1156	1149	1146	1146	1126	1120
5	1152	1148	1139	1144	1137	1160	1156	1148	1146	1146	1127	1118
6	1153	1147	1138	1145	1137	1167	1158	1148	1146	1145	1128	1120
7	1152	1149	1139	1145	1140	1169	1159	1151	1146	1147	1129	1121
8	1153	1150	1140	1143	1139	1169	1161	1154	1147	1149	1130	1121
9	1153	1147	1139	1142	1136	1169	1159	1155	1148	1150	1130	1120
10	1153	1151	1141	1142	1135	1166	1158	1155	1149	1149	1133	1122
11	1156	1151	1140	1145	1136	1167	1159	1156	1150	1150	1130	1122
12	1157	1151	1141	1142	1136	1167	1161	1155	1150	1149	1131	1123
13	1156	1153	1142	1146	1137	1166	1163	1154	1151	1150	1132	1123
14	1158	1154	1142	1145	1138	1167	1162	1155	1149	1150	1134	1125
15	1159	1155	1141	1144	1138	1168	1161	1157	1147	1150	1132	1127
16	1160	1154	1142	1144	1138	1168	1162	1157	1149	1152	1135	1128
17	1161	1156	1144	1146	1136	1169	1162	1157	1148	1154	1135	1130
18	1163	1158	1144	1146	1136	1169	1164	1156	1148	1155	1137	1131
19	1163	1158	1144	1147	1135	1166	1162	1154	1147	1156	1138	1133
20	1163	1159	1144	1144	1132	1162	1158	1152	1143	1152	1138	1132
21	1161	1157	1140	1140	1131	1158	1157	1150	1139	1150	1134	1130
22	1157	1153	1135	1133	1126	1156	1154	1145	1136	1144	1132	1128
23	1155	1151	1131	1130	1122	1155	1152	1142	1136	1141	1127	1125

TABLE XI.—MEAN MONTHLY DETERMINATION of the HORIZONTAL MAGNETIC FORCE, &c.—concluded.

1856.

Hour. Göttingen Mean Solar Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
0	0'1130	0'1147	0'1132	0'1143	0'1160	0'1161	0'1155	0'1160	0'1147	0'1211	0'1189	0'1192
1	'1130	'1148	'1134	'1146	'1164	'1164	'1157	'1161	'1154	'1211	'1188	'1192
2	'1133	'1146	'1135	'1148	'1166	'1165	'1161	'1163	'1158	'1212	'1188	'1191
3	'1133	'1146	'1137	'1152	'1166	'1168	'1163	'1163	'1156	'1213	'1189	'1191
4	'1133	'1147	'1137	'1154	'1167	'1170	'1162	'1161	'1157	'1216	'1189	'1190
5	'1131	'1147	'1136	'1156	'1171	'1172	'1164	'1162	'1157	'1216	'1188	'1191
6	'1130	'1147	'1136	'1158	'1172	'1174	'1164	'1165	'1158	'1219	'1190	'1192
7	'1130	'1149	'1139	'1157	'1175	'1175	'1167	'1168	'1160	'1218	'1191	'1192
8	'1131	'1148	'1139	'1158	'1175	'1176	'1169	'1169	'1163	'1219	'1190	'1192
9	'1132	'1150	'1141	'1159	'1173	'1175	'1169	'1171	'1165	'1219	'1190	'1192
10	'1133	'1149	'1141	'1159	'1173	'1174	'1169	'1172	'1162	'1219	'1190	'1191
11	'1134	'1151	'1143	'1160	'1172	'1173	'1170	'1173	'1166	'1220	'1192	'1193
12	'1134	'1152	'1143	'1163	'1174	'1178	'1170	'1174	'1168	'1219	'1190	'1194
13	'1134	'1153	'1143	'1163	'1175	'1176	'1170	'1180	'1167	'1219	'1192	'1194
14	'1135	'1153	'1143	'1161	'1174	'1177	'1170	'1179	'1168	'1219	'1193	'1196
15	'1137	'1154	'1144	'1162	'1173	'1177	'1170	'1180	'1168	'1221	'1194	'1196
16	'1139	'1156	'1145	'1162	'1176	'1177	'1171	'1180	'1170	'1223	'1195	'1199
17	'1141	'1157	'1146	'1162	'1176	'1178	'1171	'1180	'1173	'1223	'1197	'1200
18	'1142	'1159	'1148	'1164	'1176	'1177	'1170	'1179	'1168	'1224	'1199	'1201
19	'1144	'1160	'1149	'1163	'1175	'1176	'1170	'1178	'1169	'1224	'1199	'1202
20	'1143	'1159	'1146	'1162	'1171	'1172	'1166	'1177	'1164	'1220	'1199	'1202
21	'1140	'1158	'1143	'1156	'1167	'1166	'1162	'1172	'1154	'1217	'1199	'1199
22	'1135	'1151	'1139	'1150	'1163	'1159	'1158	'1168	'1149	'1211	'1195	'1197
23	'1133	'1148	'1134	'1145	'1160	'1155	'1156	'1163	'1149	'1210	'1191	'1194

1857.

0	0'1188	0'1222	0'1224	0'1212	0'1196	0'1205	0'1209	0'1216	0'1218	0'1235	0'1258	0'1261
1	'1185	'1222	'1229	'1213	'1197	'1208	1212	'1219	'1218	'1234	'1257	'1263
2	'1189	'1224	'1231	'1216	'1203	'1208	1213	'1218	'1220	'1236	'1257	'1267
3	'1191	'1226	'1234	'1219	'1202	'1212	1214	'1219	'1221	'1236	'1259	'1267
4	'1193	'1230	'1236	'1221	'1207	'1212	1216	'1219	'1215	'1238	'1261	'1268
5	'1192	'1231	'1235	'1223	'1209	'1212	1217	'1219	'1218	'1239	'1263	'1268
6	'1194	'1232	'1233	'1225	'1212	'1215	1216	'1220	'1222	'1240	'1264	'1269
7	'1193	'1233	'1235	'1226	'1213	'1217	1221	'1225	'1225	'1242	'1265	'1269
8	'1193	'1231	'1235	'1226	'1211	'1218	1223	'1226	'1227	'1243	'1266	'1269
9	'1192	'1230	'1234	'1225	'1210	'1220	1224	'1228	'1227	'1243	'1270	'1270
10	'1193	'1230	'1235	'1226	'1208	'1219	1224	'1229	'1229	'1245	'1269	'1271
11	'1192	'1231	'1236	'1226	'1209	'1222	1224	'1230	'1232	'1246	'1272	'1271
12	'1193	'1231	'1236	'1226	'1210	'1223	1229	'1231	'1232	'1247	'1273	'1272
13	'1196	'1230	'1235	'1227	'1209	'1224	1227	'1232	'1231	'1248	'1272	'1274
14	'1196	'1232	'1235	'1225	'1211	'1226	1228	'1232	'1230	'1248	'1274	'1274
15	'1198	'1231	'1236	'1227	'1211	'1227	1229	'1233	'1232	'1249	'1274	'1274
16	'1198	'1232	'1236	'1227	'1212	'1228	1231	'1234	'1231	'1249	'1275	'1274
17	'1200	'1233	'1237	'1227	'1213	'1229	1232	'1233	'1233	'1251	'1274	'1276
18	'1202	'1236	'1238	'1227	'1212	'1229	1232	'1233	'1233	'1251	'1275	'1279
19	'1203	'1237	'1238	'1228	'1211	'1226	1230	'1232	'1233	'1251	'1276	'1280
20	'1203	'1237	'1237	'1227	'1209	'1219	1225	'1229	'1230	'1251	'1274	'1278
21	'1201	'1236	'1235	'1221	'1207	'1216	1220	'1226	'1226	'1249	'1272	'1275
22	'1197	'1230	'1230	'1216	'1206	'1212	1212	'1223	'1222	'1246	'1265	'1268
23	'1191	'1225	'1226	'1214	'1206	'1208	1209	'1214	'1219	'1240	'1260	'1263

TABLE X.—MEAN, through the Range of Years, of the MONTHLY MEAN DETERMINATIONS of the DIURNAL INEQUALITY of HORIZONTAL FORCE ; exhibited separately for the different Months.

1848 to 1857.

Hour. Got-tingen Mean Solar Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
0	-0'00074	-0'00094	-0'00124	-0'00157	-0'00142	-0'00129	-0'00140	-0'00125	-0'00118	-0'00119	-0'00081	-0'00059
1	71	91	90	119	110	93	94	86	69	97	72	43
2	43	68	55	76	70	60	59	58	29	70	57	36
3	21	46	20	31	31	20	17	20	8	40	43	29
4	27	28	3	2	1	7	8	9	13	25	34	41
5	27	20	4	28	45	31	30	0	5	17	23	38
6	13	5	9	53	74	56	47	18	9	2	10	21
7	18	8	17	52	90	76	64	40	22	1	5	12
8	16	11	21	45	87	76	69	41	31	13	1	20
9	13	2	20	31	45	61	49	42	38	17	1	17
10	8	2	27	30	37	45	41	43	37	26	7	6
11	5	5	28	34	36	41	36	42	53	21	6	6
12	1	9	29	35	33	43	39	43	57	30	13	4
13	4	6	23	37	34	36	34	46	52	23	8	5
14	14	22	26	34	34	39	41	42	46	31	21	9
15	24	20	31	36	40	41	33	50	44	34	30	14
16	34	29	40	42	39	42	42	56	53	51	39	31
17	49	44	52	45	41	47	51	50	56	57	50	49
18	65	62	58	58	36	40	40	39	40	65	64	67
19	70	73	58	52	17	24	23	23	31	62	67	78
20	66	65	38	17	24	26	34	19	5	38	53	68
21	34	35	15	42	57	79	86	63	66	12	24	56
22	8	14	75	111	103	120	124	91	108	70	22	2
23	52	61	116	154	133	142	143	122	122	101	61	36

TABLE XI.—MEAN, through the Range of Months, of the MONTHLY MEAN DETERMINATIONS of the DIURNAL INEQUALITY of HORIZONTAL FORCE ; exhibited separately for the different Years.

January to December.

Hour. Got-tingen Mean Solar Time.	1848.	1849.	1850.	1851.	1852.	1853.	1854.	1855.	1856.	1857.	Mean. 1848 to 1857.
0	-0'0017	-0'0014	-0'0013	-0'0011	-0'0014	-0'0009	-0'0008	-0'0008	-0'0007	-0'0009	-0'00110
1	13	10	9	8	11	7	6	5	6	9	84
2	8	4	4	5	9	5	5	4	4	6	54
3	2	0	0	2	4	2	3	2	3	5	23
4	0	2	2	1	3	0	3	1	3	4	11
5	3	4	3	0	0	1	2	2	2	3	2
6	6	7	5	2	2	3	1	1	1	2	18
7	7	7	5	3	3	4	1	1	0	0	31
8	7	6	5	3	3	4	1	1	1	1	32
9	6	4	3	3	3	3	0	1	2	1	26
10	5	4	3	3	2	4	1	1	1	2	27
11	4	4	3	3	3	3	1	2	3	2	28
12	4	3	2	4	4	3	2	2	4	4	33
13	3	3	2	3	4	3	2	3	4	4	31
14	3	3	3	3	4	3	2	3	4	4	32
15	3	3	3	3	3	4	3	3	4	5	36
16	4	3	3	4	5	5	3	4	6	6	44
17	5	4	4	6	5	5	5	5	7	7	53
18	4	4	4	6	6	6	5	6	8	7	56
19	2	2	5	6	5	5	5	5	8	8	51
20	1	2	1	3	2	4	3	3	5	5	23
21	7	7	4	1	3	0	1	1	1	2	19
22	12	11	10	6	9	5	5	3	3	3	67
23	15	13	14	10	13	8	8	6	6	7	100

REDUCTIONS OF MAGNETIC VERTICAL FORCE REFERRED TO THE SUN'S PLACE.

TABLE XII.—MEAN VERTICAL MAGNETIC FORCE (diminished by a Constant 0.0600 nearly), on each Astronomical Day, as deduced from the Mean of Twenty-four hourly Measures of Ordinates of the Photographic Register on that Day, each corrected for Temperature.

1849.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	..	..	..	0.0342	..	..	0.0454	0.0389	..	..	0.0426	..
2	..	..	..	0.0338	..	..	0.0474	0.0398	0.0435	0.0441	0.0435	..
3	..	0.0396	..	0.0337	0.0462	..	0.0434	..	0.0431	..	0.0429	..
4	0.0363	..	..	..	0.0478	0.0476	..	0.0381	0.0426	0.0452	0.0441	..
5	0.0371	0.0404	..	..	..	..	0.0436	0.0388	0.0430	..	0.0428	0.0399
6	..	0.0400	..	0.0364	..	0.0464	..	0.0412	0.0416	0.0426	0.0410	..
7	..	0.0394	0.0390	0.0354	..	0.0446	..	..	0.0395	0.0441	0.0416	..
8	0.0387	..	..	0.0343	..	0.0437	..	0.0456	0.0391	0.0460	0.0443	..
9	..	..	..	0.0334	0.0369	0.0418	0.0472	0.0420	0.0390	..	..	..
10	..	..	..	..	0.0352	0.0403	0.0456	0.0441	0.0399	0.0421	0.0440	..
11	0.0379	0.0380	..	0.0311	..	0.0385	..	0.0445	0.0395	0.0430	0.0433	0.0412
12	0.0362	0.0376	..	..	..	0.0373	0.0451	..	..	0.0437	0.0413	0.0422
13	..	0.0363	..	..	0.0418	0.0419	0.0451	..	..	0.0424	..	0.0388
14	0.0416	0.0389	0.0324	..	..	0.0425	0.0430	0.0387	0.0363	0.0437	0.0427	0.0415
15	0.0385	..	0.0342	..	..	..	0.0412	..	0.0382	0.0427	0.0406	..
16	..	0.0384	0.0356	..	..	0.0422	0.0427	..	0.0385	0.0428	0.0394	..
17	0.0426	0.0381	0.0356	..	..	0.0423	0.0417	..	0.0390	..	0.0393	..
18	..	0.0374	0.0329	..	..	..	0.0388	..	0.0355	..	0.0401	..
19	..	..	..	..	..	0.0409	0.0347	0.0398	0.0389	..	0.0423	0.0365
20	..	..	0.0335	..	0.0428	0.0432	0.0346	0.0415	0.0390	..	..	0.0348
21	..	0.0379	0.0332	..	0.0431	0.0447	0.0377	0.0423	0.0381	..	0.0428	0.0327
22	..	..	0.0322	..	..	0.0442	0.0397	0.0436	0.0395	..	..	0.0306
23	..	0.0397	0.0312	..	..	0.0491	0.0395	0.0418	0.0399	0.0465	0.0403	..
24	..	0.0384	..	..	0.0470	0.0460	0.0357	0.0416	0.0390	0.0475	0.0415	..
25	..	0.0375	0.0276	..	0.0476	0.0437	0.0377	0.0433	0.0388	0.0466	..	0.0340
26	..	..	..	..	0.0474	..	..	0.0437	0.0385	0.0479	..	..
27	..	0.0372	..	..	..	0.0470	..	0.0425	0.0404	..	0.0381	..
28	..	..	0.0312	..	0.0446	0.0450	0.0418	0.0409	..	..	0.0371	..
29	0.0368	..	..	..	..	0.0409	..	0.0423	0.0420	0.0457	0.0390	..
30	..	..	0.0328	..	0.0469	0.0407	..	0.0438	..	0.0440	..	0.0346
31	..	..	0.0351	..	0.0479	..	0.0388	0.0434	..	0.0442	..	0.0377
1850.												
1	0.0385	0.0389	0.0398	0.0397	0.0403	..	..	0.0466	0.0409	0.0386	0.0401	0.0353
2	0.0414	0.0414	0.0425	0.0417	0.0384	0.0422	0.0431	0.0430	0.0421	0.0370	0.0416	0.0351
3	..	..	0.0378	0.0411	0.0383	0.0438	0.0420	0.0456	0.0442	0.0388	0.0412	..
4	..	0.0369	0.0366	..	0.0400	0.0433	0.0436	0.0483	0.0425	0.0386	0.0407	0.0356
5	0.0390	0.0384	0.0361	0.0412	0.0394	0.0432	0.0421	0.0481	..	0.0406	0.0379	0.0398
6	0.0371	0.0395	0.0400	0.0400	0.0404	0.0444	0.0426	0.0458	0.0405	0.0374	0.0410	0.0378
7	0.0329	0.0389	0.0379	0.0425	0.0379	0.0399	0.0432	0.0454	0.0407	0.0401	..	0.0378
8	0.0310	0.0379	0.0371	0.0439	0.0395	0.0400	0.0422	0.0450	0.0398	0.0402	0.0401	0.0383
9	0.0317	0.0392	0.0387	0.0405	0.0389	0.0425	0.0416	0.0433	0.0413	0.0382	0.0365	0.0334
10	0.0343	0.0354	..	..	0.0395	0.0431	0.0414	0.0439	0.0407	0.0381	0.0372	0.0352
11	0.0372	0.0345	0.0391	..	0.0408	0.0451	0.0432	0.0466	0.0402	0.0369	0.0411	0.0338
12	0.0361	0.0349	0.0393	..	0.0409	0.0425	0.0457	0.0474	0.0410	0.0375	0.0408	..
13	0.0379	..	0.0395	0.0402	0.0391	0.0397	0.0472	0.0439	0.0406	0.0374	0.0379	0.0372
14	0.0347	0.0349	0.0388	0.0395	0.0378	0.0378	0.0472	0.0452	0.0406	0.0358	0.0368	0.0377
15	0.0356	0.0398	0.0379	0.0393	0.0380	0.0363	..	..	0.0397	0.0381	..	0.0378
16	0.0325	0.0419	0.0357	0.0393	0.0373	0.0394	0.0515	0.0459	0.0395	0.0389	0.0371	0.0378
17	..	0.0368	0.0340	0.0395	0.0390	..	..	0.0470	0.0405	0.0397	0.0401	0.0370
18	0.0383	0.0395	0.0365	0.0416	0.0402	0.0410	..	0.0467	0.0410	0.0406	0.0361	0.0336
19	0.0381	0.0405	0.0377	0.0408	0.0394	0.0415	..	0.0457	0.0398	0.0412	0.0399	0.0352
20	0.0385	..	0.0389	0.0402	0.0400	0.0433	..	0.0423	0.0409	0.0416	0.0375	0.0346
21	0.0331	0.0378	0.0394	0.0392	0.0439	0.0442	0.0449	0.0440	0.0428	0.0376	0.0384	0.0327
22	0.0339	0.0419	0.0369	0.0396	0.0423	0.0444	0.0488	..	0.0414	0.0364	0.0373	0.0333
23	0.0367	0.0399	0.0384	0.0381	..	0.0454	0.0483	..	0.0421	0.0345	0.0408	0.0347
24	0.0388	0.0407	0.0360	0.0390	0.0401	0.0444	0.0445	0.0439	0.0413	0.0361	0.0392	..
25	0.0365	..	0.0347	0.0388	0.0401	0.0433	..	0.0405	0.0422	0.0366	0.0381	..
26	0.0386	0.0405	0.0339	0.0396	0.0391	0.0416	0.0414	0.0423	0.0432	0.0369	0.0359	..
27	0.0373	0.0394	0.0370	0.0396	0.0400	0.0397	0.0411	0.0405	..	0.0350	0.0362	..
28	0.0348	0.0392	0.0359	0.0372	0.0406	..	0.0419	0.0443	0.0415	0.0365	0.0358	0.0389
29	0.0399	..	0.0344	0.0382	..	0.0402	0.0447	0.0404	0.0409	0.0367	0.0356	0.0373
30	0.0395	..	0.0367	0.0395	0.0424	0.0352	0.0442	0.0398	0.0401	0.0349	0.0337	0.0384
31	..	..	0.0391	..	0.0437	..	0.0440	0.0386	..	0.0378	..	0.0414

TABLE XII.—MEAN VERTICAL MAGNETIC FORCE, &c.—*continued.*

1851.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	0.0427	0.0386	0.0375	0.0417	0.0416	0.0455	0.0447	0.0450	0.0454	..	0.0340	0.0316
2	..	0.0423	0.0357	0.0409	..	0.0459	0.0458	0.0447	..	..	0.0332	0.0346
3	..	..	..	0.0408	0.0412	0.0461	0.0406	0.0463	0.0429	0.0382	0.0318	0.0343
4	..	0.0409	..	0.0413	0.0381	0.0418	0.0397	0.0463	0.0422	0.0393	0.0315	0.0331
5	0.0398	0.0386	0.0389	0.0399	0.0396	0.0392	0.0401	0.0439	0.0405	0.0375	0.0298	0.0348
6	..	0.0413	0.0377	0.0380	0.0412	0.0432	0.0413	0.0414	0.0390	0.0380	0.0332	0.0369
7	0.0367	0.0381	..	0.0366	0.0439	..	0.0430	0.0437	..	0.0374	0.0351	0.0394
8	..	..	..	0.0400	0.0457	..	0.0418	0.0471	0.0403	0.0379	0.0352	0.0377
9	..	0.0409	0.0369	0.0394	..	0.0448	0.0390	0.0430	0.0383	0.0353	0.0363	..
10	0.0364	0.0408	0.0373	0.0396	0.0468	..	0.0381	0.0417	0.0383	0.0400	0.0354	0.0381
11	0.0384	..	0.0383	0.0404	0.0450	0.0429	0.0372	0.0434	0.0384	0.0403	0.0357	0.0382
12	0.0400	0.0390	0.0372	..	0.0458	0.0429	0.0434	0.0461	0.0390	0.0419	0.0362	0.0349
13	0.0380	0.0401	0.0404	..	0.0438	0.0448	0.0428	0.0467	0.0400	0.0397	0.0338	0.0355
14	..	..	0.0384	0.0385	0.0412	0.0448	0.0430	0.0437	0.0417	0.0407	0.0354	0.0374
15	..	0.0403	0.0417	0.0408	0.0420	0.0436	0.0422	0.0439	0.0398	..	0.0325	0.0343
16	..	0.0378	..	..	0.0422	0.0452	0.0400	0.0431	0.0404	..	0.0293	0.0342
17	0.0395	0.0375	0.0366	0.0412	..	0.0441	0.0393	0.0439	0.0405	0.0338	0.0300	0.0370
18	0.0379	..	0.0391	0.0451	0.0405	0.0433	0.0394	0.0429	0.0402	0.0344	0.0309	0.0357
19	0.0380	..	0.0390	0.0453	0.0402	0.0492	0.0401	0.0409	0.0394	0.0370	0.0296	0.0355
20	0.0369	..	0.0422	0.0437	0.0405	0.0495	0.0418	0.0444	0.0401	0.0376	..	0.0377
21	..	0.0414	0.0422	0.0464	0.0413	0.0503	0.0427	0.0458	0.0390	0.0387	0.0342	0.0406
22	0.0403	..	0.0416	0.0447	0.0442	0.0452	0.0425	0.0470	0.0402	0.0402	0.0362	0.0363
23	0.0387	0.0355	0.0398	0.0442	..	..	0.0422	0.0441	0.0396	0.0372	..	0.0369
24	0.0364	0.0393	0.0398	0.0434	0.0434	0.0428	0.0405	..	0.0410	0.0380	0.0347	0.0364
25	0.0356	0.0394	0.0396	0.0425	0.0451	0.0458	0.0399	0.0406	0.0409	0.0362	0.0342	0.0370
26	0.0367	..	0.0403	0.0418	0.0441	0.0487	0.0393	..	0.0359	0.0366	0.0334	0.0344
27	0.0418	..	0.0387	0.0394	0.0403	0.0486	0.0412	0.0410	0.0361	0.0371	0.0339	0.0318
28	..	0.0393	0.0434	0.0403	0.0434	0.0454	0.0409	0.0408	0.0373	0.0356	..	0.0326
29	0.0417	..	0.0425	0.0405	0.0452	0.0431	0.0442	0.0393	..	0.0367	0.0334	..
30	..	..	0.0402	0.0415	0.0450	0.0433	0.0433	0.0390	0.0386	0.0344	0.0338	0.0347
31	0.0396	..	0.0391	..	0.0442	..	0.0410	0.0404	..	0.0339	..	0.0328

1852.												
1	0.0334	..	0.0342	0.0372	0.0423	0.0392	0.0436	0.0497	..	..	..	0.0348
2	0.0302	0.0411	0.0367	0.0372	0.0406	..	0.0441	0.0492	0.0471	..	..	0.0388
3	0.0327	..	..	0.0367	0.0393	0.0393	0.0451	0.0471	0.0488	..	..	0.0383
4	0.0337	0.0365	0.0350	0.0356	0.0391	0.0400	0.0471	0.0459	0.0484	..	..	0.0384
5	0.0320	..	0.0343	0.0388	0.0403	..	0.0479	0.0458	0.0478	..	..	0.0377
6	0.0336	0.0405	0.0353	0.0387	..	0.0431	0.0453	0.0445	0.0494	0.0420	..	..
7	0.0368	0.0370	0.0357	..	0.0420	0.0445	..	0.0465	0.0491	0.0401	0.0423	0.0382
8	0.0337	0.0382	0.0371	0.0384	0.0436	..	0.0427	0.0454	0.0463	0.0401	0.0437	0.0392
9	0.0342	0.0381	0.0384	0.0354	0.0438	0.0438	0.0424	..	0.0458	0.0403	..	0.0361
10	..	0.0357	0.0373	0.0381	0.0441	..	0.0408	..	..	0.0393	..	..
11	..	0.0365	0.0360	0.0376	..	..	0.0391	0.0450	..	..	..	0.0401
12	..	0.0358	0.0369	0.0379	..	..	..	0.0413	0.0440	..	..	0.0385
13	..	0.0350	0.0365	0.0393	0.0405	0.0409	0.0406	0.0435	0.0438	..	..	0.0373
14	..	..	0.0339	..	..	..	..	0.0454	0.0434	0.0436	0.0380	..
15	..	0.0353	0.0350	0.0397	..	..	0.0422	0.0457	..	0.0436	0.0395	..
16	0.0377	0.0369	0.0372	0.0376	0.0444	..	..	0.0438	0.0420	0.0429	0.0405	0.0358
17	0.0377	..	0.0378	..	..	..	0.0409	0.0459	0.0434	0.0417	..	..
18	0.0352	..	0.0366	0.0394	..	..	0.0362	0.0480	0.0422	..	0.0384	0.0401
19	0.0327	..	0.0363	0.0360	..	..	0.0387	0.0484	0.0440	..	..	..
20	0.0346	..	0.0381	..	..	..	0.0377	0.0497	0.0443	0.0434	0.0385	..
21	0.0346	0.0343	0.0388	0.0392	..	..	0.0379	0.0468	0.0415	0.0423	..	..
22	0.0359	0.0370	..	0.0402	..	..	0.0373	0.0486	..	0.0448	0.0401	0.0370
23	0.0354	..	0.0411	0.0423	0.0383	..	0.0385	0.0468	0.0442	..	0.0366	0.0389
24	0.0326	0.0355	0.0385	..	0.0396	..	0.0401	0.0484	0.0456	0.0448	..	0.0363
25	0.0333	..	0.0374	..	0.0399	..	0.0396	0.0458	0.0464	0.0435	0.0371	..
26	0.0349	0.0364	0.0364	0.0396	0.0392	..	0.0389	0.0489	..	0.0402	0.0384	0.0400
27	0.0349	0.0365	0.0346	0.0385	0.0376	0.0442	0.0393	..	..	..	..	0.0385
28	0.0354	0.0359	0.0345	0.0401	0.0387	0.0443	0.0393	0.0497	0.0454	0.0421	..	..
29	..	..	0.0385	..	0.0394	0.0437	..	0.0481	..	0.0398	0.0344	..
30	0.0368	..	0.0422	0.0426	0.0362	..	..	0.0473	0.0430	0.0423	0.0346	..
31	0.0333	..	..	..	..	..	0.0389	0.0453	..	..	..	..

TABLE XII.—MEAN VERTICAL MAGNETIC FORCE, &c.—continued.

1853.

Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	..	0.0362	0.0298	..	0.0428	0.0332	0.0419	0.0474	..	..	..	..
2	0.0267	0.0347	..	0.0346	0.0406	0.0471	0.0423	..	..	0.0346
3	0.0312	0.0406	..	0.0425	0.0472	0.0372	0.0339	0.0368	0.0325
4	..	0.0328	..	0.0321	0.0395	..	0.0456	0.0472	0.0392	0.0333	0.0382	0.0313
5	..	0.0330	0.0296	0.0354	0.0414	0.0391	0.0454	0.0443	..	0.0367	0.0373	..
6	..	0.0358	0.0328	0.0364	0.0388	0.0382	0.0467	0.0433	..	0.0374	..	..
7	..	0.0361	0.0324	0.0371	0.0382	0.0407	0.0482	0.0465	0.0387	0.0354	..	..
8	..	0.0383	0.0363	..	0.0353	0.0448	0.0492	0.0460	0.0386	0.0385	..	0.0380
9	0.0324	..	0.0336	0.0417	..	0.0452	0.0396	0.0397	0.0343	0.0363
10	..	0.0343	0.0334	0.0316	0.0369	0.0420	0.0442	0.0440	..	..	0.0334	..
11	0.0341	0.0394	0.0445	0.0420	0.0444	0.0415	..	0.0346	0.0366
12	..	0.0346	0.0360	0.0386	0.0407	0.0429	..	..	0.0417	0.0388	0.0333	0.0314
13	..	0.0351	0.0339	..	0.0396	0.0392	0.0439	..	0.0430	0.0384	0.0348	0.0315
14	..	0.0311	0.0374	0.0309	0.0421	0.0370	0.0455	0.0425	0.0388	..	0.0367	0.0368
15	..	0.0323	0.0317	0.0307	0.0407	0.0391	0.0405	..	0.0402	0.0400	0.0333	..
16	0.0437	0.0410	0.0387	0.0385	0.0400	0.0399	0.0325	0.0338
17	..	0.0337	..	..	..	0.0404	0.0406	0.0413	..	0.0334	0.0342	0.0288
18	0.0365	..	..	0.0406	..	0.0418	0.0352	0.0324	0.0319
19	0.0264	0.0370	..	0.0374	0.0417	0.0427	0.0410	..	..	0.0307
20	0.0305	..	0.0401	..	0.0434	0.0451	0.0409	..	0.0354	..
21	0.0292	..	0.0379	0.0391	0.0430	0.0423	0.0397	0.0344	..	0.0325
22	0.0405	0.0385	0.0432	0.0428	0.0382	0.0398	..	0.0336
23	0.0313	..	0.0411	0.0434	0.0446	0.0445	0.0381	0.0400	..	0.0325
24	..	0.0314	..	..	..	0.0472	0.0436	0.0399	0.0352	0.0393	0.0304	0.0350
25	..	0.0299	..	..	0.0417	0.0444	0.0440	..	0.0354	..	0.0303	0.0358
26	..	0.0300	0.0294	..	..	..	0.0417	0.0391	..	0.0392	0.0324	0.0294
27	..	0.0340	..	..	0.0426	0.0432	0.0429	..	..	0.0383	..	..
28	0.0307	0.0416	0.0414	0.0454	0.0445	0.0383	..	..	0.0331	..
29	0.0312	0.0415	0.0366	0.0443	..	0.0400	..	..	0.0329	..
30	0.0333	0.0411	..	0.0438	..	0.0410	0.0399	..	0.0332	..
31	0.0345	..	0.0390	..	0.0443	0.0411	..	..	..	..

1854.

1	0.0374	0.0422	0.0403	..	0.0384	0.0453	0.0407	0.0443	0.0408	..	..	0.0349
2	..	..	0.0389	..	0.0399	0.0467	0.0385	0.0407	0.0408	0.0387	0.0381	0.0338
3	..	..	0.0394	..	..	..	0.0406	0.0439	0.0412	0.0389	0.0399	0.0323
4	..	0.0346	0.0380	..	0.0427	0.0433	0.0398	0.0401	0.0415	..	0.0325	0.0358
5	0.0348	0.0360	0.0380	..	0.0436	0.0430	0.0385	0.0348	0.0408	..	0.0349	..
6	0.0378	..	0.0382	..	0.0427	0.0432	0.0384	..	0.0407	..	0.0355	..
7	0.0340	..	0.0363	0.0436	0.0417	..	0.0373	0.0386	0.0409	0.0381	0.0324	0.0351
8	0.0369	..	0.0393	..	0.0434	0.0420	0.0391	0.0409	0.0420	0.0371	0.0337	..
9	0.0365	..	..	..	0.0405	0.0415	0.0399	0.0424	0.0402	0.0381	..	0.0347
10	..	0.0374	..	..	0.0419	0.0430	..	0.0425	0.0383	0.0396	0.0320	..
11	..	0.0391	..	..	..	0.0421	0.0381	0.0429	0.0395	0.0400	0.0358	..
12	0.0398	0.0396	..	..	0.0442	0.0435	0.0400	0.0433	0.0418	..	0.0389	..
13	0.0373	0.0383	..	..	0.0442	0.0424	0.0387	0.0448	0.0448	..	0.0328	..
14	..	0.0349	..	..	0.0456	0.0440	0.0397	0.0446	0.0446	..	..	..
15	0.0409	0.0388	0.0396	..	0.0460	0.0442	..	0.0413	0.0391	..	0.0345	0.0411
16	0.0360	0.0375	0.0411	..	..	0.0437	0.0406	0.0395	0.0410	0.0370	0.0366	0.0407
17	0.0365	0.0384	0.0410	..	0.0437	0.0443	0.0412	0.0382	0.0423	0.0360	0.0373	..
18	0.0391	0.0392	0.0378	..	..	0.0449	0.0427	0.0375	0.0392	0.0369	0.0382	..
19	0.0421	0.0376	0.0389	..	..	0.0439	0.0410	..	0.0395	0.0339	..	0.0322
20	..	0.0373	0.0358	..	..	0.0418	0.0418	0.0443	0.0409	0.0360	..	0.0338
21	0.0388	..	..	..	0.0447	0.0413	0.0438	0.0435	0.0382	0.0362	0.0316	0.0333
22	0.0398	0.0394	0.0374	0.0462	0.0449	0.0454	..	0.0417	0.0357	0.0375	0.0331	0.0349
23	0.0393	0.0391	0.0403	0.0427	0.0438	0.0458	0.0477	0.0395	..	0.0373	0.0329	..
24	0.0388	..	0.0390	0.0409	0.0424	0.0449	0.0479	0.0423	0.0385	0.0345	0.0327	..
25	..	0.0402	0.0371	0.0381	..	0.0465	0.0483	..	0.0384	0.0363	0.0321	..
26	0.0395	0.0406	0.0375	0.0385	..	0.0464	0.0449	..	..	0.0348	0.0352	0.0351
27	0.0380	0.0383	0.0401	..	..	..	..	0.0438	0.0392	0.0351	0.0320	0.0360
28	0.0388	0.0408	..	0.0376	..	..	0.0410	0.0461	0.0394	..	0.0307	..
29	0.0367	..	..	0.0390	0.0441	0.0377	0.0405	..	..	..	0.0350	0.0313
30	0.0398	..	..	0.0389	..	..	0.0440	0.0455	..	..	0.0331	0.0348
31	0.0412	..	..	..	0.0451	..	0.0435	0.0436	..	..	..	0.0366

TABLE XII.—MEAN VERTICAL MAGNETIC FORCE, &c.—continued.

1855.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	..	0.0336	0.0376	0.0353	0.0367	0.0342	0.0438	0.0420	0.0406	..	..	0.0318
2	0.0350	0.0326	0.0370	0.0361	0.0388	..	..	0.0435	0.0382	..	0.0294	0.0322
3	0.0382	0.0301	..	0.0355	0.0389	0.0394	0.0458	0.0431	0.0384	0.0354	0.0303	0.0308
4	0.0399	..	..	0.0395	0.0381	0.0404	0.0460	0.0429	0.0404	..	0.0308	0.0309
5	0.0403	..	0.0360	0.0396	0.0374	0.0402	..	0.0435	..	0.0371	0.0299	..
6	0.0382	0.0365	0.0380	0.0415	0.0369	0.0459	..	..	..	0.0390	0.0327	..
7	..	0.0361	0.0362	0.0434	0.0382	..	..	0.0433	0.0393	0.0389	0.0353	..
8	..	0.0349	0.0363	0.0406	0.0400	..	0.0417	0.0420	0.0407	0.0383	0.0366	0.0303
9	0.0406	0.0361	0.0343	0.0363	0.0368	0.0405	0.0430	0.0419	0.0391	0.0358	0.0340	0.0328
10	0.0394	0.0321	..	0.0406	0.0389	0.0421	0.0442	0.0390	..	0.0362	0.0350	0.0388
11	..	0.0285	0.0347	..	..	0.0421	0.0449	0.0406	0.0403	..	0.0364	0.0298
12	0.0312	0.0330	..	0.0403	..	0.0419	0.0435	0.0424	0.0416	0.0352	0.0378	0.0305
13	0.0327	0.0352	0.0358	0.0412	0.0376	0.0419	..	0.0408	0.0403	0.0350	0.0382	0.0298
14	0.0374	0.0302	0.0380	0.0412	0.0349	0.0419	0.0453	0.0380	..	..	0.0352	0.0290
15	0.0317	..	0.0373	0.0402	0.0368	0.0386	0.0388	0.0405	..	..	0.0324	..
16	0.0320	0.0341	0.0404	0.0451	0.0364	0.0376	0.0423	0.0433	0.0385	0.0315	..	0.0378
17	0.0340	0.0312	0.0370	0.0408	..	0.0413	0.0392	0.0438	0.0426	0.0350	0.0310	0.0361
18	0.0310	0.0291	0.0324	0.0384	0.0406	..	0.0421	0.0446	0.0409	0.0373	0.0313	0.0343
19	..	0.0297	0.0355	0.0407	0.0399	0.0383	0.0431	0.0447	..	0.0358	0.0319	0.0307
20	0.0300	0.0344	..	0.0403	..	0.0376	..	..	..	0.0353	0.0317	0.0295
21	0.0334	0.0333	0.0391	0.0385	0.0395	0.0393	0.0424	0.0425	0.0434	0.0348	0.0334	0.0294
22	0.0294	0.0354	0.0368	0.0358	0.0390	0.0413	0.0450	..	0.0429	0.0361	0.0346	0.0292
23	0.0314	0.0328	..	0.0378	..	0.0447	0.0445	0.0449	..	0.0371	0.0323	0.0296
24	0.0314	..	..	0.0394	0.0399	0.0403	0.0439	..	0.0433	0.0361	0.0315	..
25	0.0327	0.0326	0.0335	..	0.0425	0.0401	0.0405	..	0.0389	0.0313	0.0347	0.0347
26	0.0344	0.0349	0.0338	0.0378	0.0446	..	0.0380	0.0410	0.0373	..	0.0303	0.0326
27	0.0354	0.0364	0.0353	0.0390	..	0.0451	0.0398	0.0404	0.0366	0.0327	..	0.0345
28	..	0.0359	0.0365	0.0385	..	0.0450	0.0412	0.0443	0.0400	0.0316	0.0350	0.0344
29	..	..	..	0.0374	0.0369	0.0454	0.0433	..	0.0412	0.0303	0.0334	..
30	0.0335	..	0.0370	0.0357	..	0.0459	0.0441	0.0416	0.0419	0.0310	0.0338	0.0373
31	0.0343	..	..	..	0.0336	..	0.0433	0.0427	..	..	..	..

1856.												
1	0.0322	0.0319	0.0390	..	0.0357	0.0360	..	..	0.0300	0.0272	0.0291	..
2	..	..	0.0410	0.0385	0.0352	0.0411	0.0336	0.0406	0.0287	0.0272	0.0298	0.0236
3	0.0362	0.0334	..	0.0348	0.0358	..	0.0329	0.0377	0.0278	..	..	0.0201
4	0.0386	..	0.0382	0.0386	0.0369	..	0.0331	0.0352	0.0291	0.0267	0.0230	..
5	0.0376	0.0361	0.0364	0.0375	0.0354	0.0411	0.0355	0.0348	0.0282	0.0275	0.0250	0.0231
6	0.0385	0.0360	0.0368	0.0386	..	0.0391	0.0347	0.0334	0.0289	..	0.0236	0.0258
7	..	0.0354	0.0380	..	..	..	0.0365	0.0346	0.0310	..	0.0235	0.0271
8	0.0378	..	0.0318	0.0396	0.0354	0.0420	0.0328	0.0319	0.0287	0.0286	..	..
9	0.0379	0.0367	0.0328	0.0365	0.0353	0.0430	..	0.0341	0.0291	..	..	0.0337
10	0.0349	0.0366	0.0328	0.0380	0.0397	0.0426	0.0319	0.0372	..	0.0265	..	0.0338
11	0.0316	0.0366	0.0380	0.0390	0.0421	0.0421	0.0349	0.0381	0.0287	0.0257	0.0255	0.0323
12	0.0321	..	0.0339	0.0402	0.0408	..	0.0356	0.0362	..	0.0272	0.0227	0.0281
13	0.0322	0.0376	0.0369	0.0414	0.0409	0.0419	0.0329	0.0365	..	..	0.0211	0.0292
14	0.0319	0.0378	0.0354	..	0.0384	0.0427	..	0.0352	0.0253	..	0.0231	..
15	0.0303	0.0399	0.0349	0.0388	0.0379	0.0391	0.0343	0.0336	0.0263	0.0306	0.0207	0.0283
16	0.0326	..	..	0.0383	0.0379	..	0.0369	0.0330	0.0283	0.0264	..	0.0265
17	0.0332	..	0.0322	..	..	..	0.0327	0.0353	0.0254	..	0.0215	..
18	0.0349	..	0.0337	..	0.0363	..	0.0324	0.0352	0.0282	..	0.0248	0.0230
19	0.0361	0.0323	0.0362	0.0410	0.0384	..	..	0.0322	0.0236	..	0.0263	0.0272
20	0.0363	0.0325	0.0408	..	0.0400	0.0394	..	..	..	..	0.0249	0.0238
21	0.0355	0.0344	0.0388	..	..	0.0376	0.0327	0.0254	..	..	0.0253	0.0245
22	0.0393	0.0336	0.0356	0.0385	0.0419	0.0388	0.0364	0.0259	..	0.0322	..	0.0256
23	0.0354	0.0344	0.0373	0.0394	..	..	0.0377	0.0256	0.0262	0.0335	..	..
24	0.0381	0.0383	..	0.0410	0.0376	0.0393	0.0397	..	0.0255	0.0331	0.0311	0.0241
25	0.0390	0.0367	0.0352	0.0413	..	0.0430	0.0337	..	0.0253	0.0295	0.0288	0.0257
26	0.0364	0.0358	0.0353	0.0403	..	..	0.0340	0.0308	0.0298	0.0267	0.0225	0.0198
27	0.0393	0.0398	0.0372	0.0407	0.0406	..	0.0328	0.0318	0.0238	..	0.0225	0.0204
28	0.0333	0.0440	0.0343	0.0363	0.0409	..	0.0345	0.0296	0.0291	..	0.0260	..
29	0.0341	..	0.0360	..	0.0393	0.0356	0.0369	0.0312	0.0259	0.0228	0.0232	0.0199
30	..	..	0.0343	0.0356	..	..	0.0385	0.0304	0.0270	0.0218	0.0224	0.0224
31	0.0317	..	0.0375	..	0.0351	..	0.0397	0.0322	..	0.0255	..	..

TABLE XII.—MEAN VERTICAL MAGNETIC FORCE, &c.—concluded.

1857.												
Days of the Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	..	..	0'0285	..	0'0298	..	0'0272	..	..	0'0269	..	..
2	..	..	0'0284	0'0299	0'0309	..	0'0247	0'0312	0'0278	..	..	..
3	0'0291	..	0'0336	0'0317	0'0314	0'0317	0'0245	0'0324	0'0213	0'0301	..	..
4	0'0289	..	0'0294	0'0317	0'0305	0'0349	0'0242	0'0337	0'0208	0'0305	..	..
5	..	..	0'0287	..	0'0307	0'0362	0'0249	0'0325	0'0232	0'0256	..	..
6	0'0267	0'0258	0'0294	0'0309	0'0311	..	..	0'0277	0'0254	..	..	0'0272
7	0'0250	0'0292	0'0293	0'0302	0'0285	0'0358	0'0244	0'0248	..	0'0255	..	..
8	0'0224	0'0311	0'0310	..	..	0'0317	0'0246	0'0251	0'0264	0'0237	..	0'0266
9	0'0211	0'0285	0'0268	0'0304	0'0333	..	0'0265	..	0'0229	0'0218	..	..
10	0'0258	0'0300	..	0'0297	0'0333	0'0298	0'0297	0'0263	..	0'0239	..	0'0254
11	..	0'0295	0'0290	0'0319	..	0'0299	..	..	..	0'0261	..	0'0263
12	0'0279	0'0316	0'0266	0'0301	0'0343	0'0294	0'0335	0'0314	..	0'0269	..	0'0224
13	0'0275	0'0268	0'0278	0'0250	0'0344	0'0295	..	0'0324	..	0'0282	..	0'0232
14	0'0245	0'0280	0'0255	0'0255	0'0352	..	..	..	0'0267	0'0253	..	0'0249
15	0'0222	0'0308	0'0324	0'0281	0'0373	0'0295	0'0336	0'0256	..	0'0247	..	..
16	0'0242	0'0323	0'0313	0'0271	..	0'0301	0'0307	0'0315	0'0299	..	..	0'0226
17	0'0240	0'0306	0'0294	0'0285	0'0374	0'0323	0'0287	..	..	0'0249	..	0'0260
18	0'0247	0'0306	0'0322	0'0350	0'0361	0'0324	..	0'0283	..	0'0292	..	..
19	0'0308	0'0331	0'0356	..	0'0328	0'0344	0'0316	0'0302	0'0239	0'0248	..	0'0264
20	0'0287	0'0297	0'0344	0'0343	..	0'0356	0'0323	0'0323	0'0258	0'0237	..	..
21	0'0368	0'0269	0'0291	0'0343	..	..	0'0289	0'0309	0'0239	0'0256	..	..
22	0'0234	0'0269	0'0268	0'0328	0'0263	..	0'0293	0'0339	0'0264	0'0263	..	0'0252
23	0'0235	0'0308	0'0260	0'0306	0'0280	0'0337	0'0314	..	0'0296	0'0213	..	..
24	0'0238	0'0301	0'0273	0'0277	0'0339	0'0337	0'0325	0'0368	0'0277	0'0219	..	..
25	0'0269	0'0282	0'0302	0'0291	0'0337	..	0'0307	0'0332	0'0292	0'0235	..	0'0275
26	0'0233	0'0276	0'0277	..	..	0'0354	0'0280	0'0302	0'0293	..	..	..
27	0'0243	0'0266	0'0278	0'0271	0'0306	..	..	0'0304	0'0279	0'0245	..	0'0233
28	0'0222	0'0293	0'0287	..	..	0'0342	0'0287	0'0276	..	0'0252	..	0'0209
29	0'0224	..	0'0305	0'0278	0'0331	..	..	0'0274	0'0265	0'0237	..	0'0223
30	0'0187	..	0'0320	0'0291	0'0318	0'0305	0'0295	0'0307	..	0'0224	..	0'0236
31	0'0222	..	0'0306	..	..	..	0'0321	..	..	0'0205	..	0'0228

TABLE XIII.—MEAN VERTICAL MAGNETIC FORCE (diminished by a Constant 0'9600 nearly) in each Month, as deduced from the Mean of the Mean Daily Determinations in each Month, corrected for Temperature; showing the apparent Monthly Change of Vertical Force.

Month.	1849.	1850.	1851.	1852.	1853.	1854.	1855.	1856.	1857.	Mean for Years 1850, 1851, 1855, 1856, 1857.	Mean in Terms of Horizontal Force.
January.....	0'0385	0'0368	0'0397	0'0345	..	0'0378	0'0346	0'0351	0'0252	0'0343	0'0885
February.....	0'0386	0'0388	0'0399	0'0371	0'0332	0'0392	0'0333	0'0362	0'0287	0'0354	0'0911
March.....	0'0329	0'0375	0'0393	0'0371	0'0318	0'0397	0'0363	0'0362	0'0295	0'0358	0'0922
April.....	0'0344	0'0399	0'0415	0'0390	0'0349	0'0428	0'0391	0'0389	0'0302	0'0379	0'0977
May.....	0'0436	0'0401	0'0430	0'0406	0'0401	0'0431	0'0386	0'0383	0'0324	0'0385	0'0991
June.....	0'0439	0'0417	0'0445	0'0415	0'0408	0'0433	0'0413	0'0406	0'0323	0'0401	0'1032
July.....	0'0417	0'0442	0'0412	0'0407	0'0436	0'0413	0'0429	0'0347	0'0292	0'0384	0'0989
August.....	0'0415	0'0440	0'0432	0'0466	0'0430	0'0418	0'0424	0'0330	0'0306	0'0386	0'0993
September.....	0'0396	0'0411	0'0400	0'0451	0'0399	0'0402	0'0402	0'0276	0'0265	0'0351	0'09c3
October.....	0'0448	0'0378	0'0374	0'0423	0'0377	0'0372	0'0352	0'0283	0'0253	0'0328	0'0843
November.....	0'0416	0'0382	0'0335	0'0396	0'0348	0'0346	0'0333	0'0249	..	0'0310	0'0798
December.....	0'0380	0'0369	0'0356	0'0383	0'0337	0'0350	0'0320	0'0254	0'0253	0'0310	0'0798

TABLE XIV.—MEAN MONTHLY DETERMINATION of the VERTICAL MAGNETIC FORCE (diminished by a Constant 0.9600 nearly), corrected for Temperature, at every Hour of the Day ; obtained by taking the Mean of all the Determinations at the same Hour of the Day through each Month.

1849.

Table with 13 columns (Hour, Göteborg Mean Solar Time, January, February, March, April, May, June, July, August, September, October, November, December) and 24 rows (0-23 hours).

1850.

Table with 13 columns (Hour, Göteborg Mean Solar Time, January, February, March, April, May, June, July, August, September, October, November, December) and 24 rows (0-23 hours).

TABLE XIV.—MEAN MONTHLY DETERMINATION OF THE VERTICAL MAGNETIC FORCE, &c.—*continued.*

1851.												
Hour. Got- tingen Mean Solar Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
0	0'0406	0'0410	0'0401	0'0422	0'0425	0'0441	0'0420	0'0438	0'0409	0'0390	0'0348	0'0370
1	0'0406	0'0409	0'0400	0'0420	0'0423	0'0437	0'0417	0'0436	0'0406	0'0387	0'0348	0'0368
2	0'0408	0'0408	0'0401	0'0417	0'0421	0'0439	0'0414	0'0433	0'0402	0'0384	0'0349	0'0367
3	0'0408	0'0406	0'0400	0'0416	0'0419	0'0440	0'0410	0'0431	0'0397	0'0378	0'0344	0'0361
4	0'0402	0'0400	0'0396	0'0413	0'0420	0'0441	0'0411	0'0430	0'0395	0'0373	0'0336	0'0357
5	0'0394	0'0393	0'0391	0'0413	0'0423	0'0442	0'0409	0'0429	0'0393	0'0367	0'0331	0'0355
6	0'0394	0'0393	0'0388	0'0412	0'0426	0'0441	0'0409	0'0426	0'0391	0'0369	0'0329	0'0350
7	0'0390	0'0392	0'0387	0'0409	0'0425	0'0439	0'0408	0'0423	0'0391	0'0367	0'0326	0'0348
8	0'0389	0'0386	0'0382	0'0406	0'0430	0'0440	0'0404	0'0421	0'0391	0'0364	0'0321	0'0346
9	0'0389	0'0384	0'0379	0'0401	0'0429	0'0442	0'0401	0'0419	0'0386	0'0361	0'0319	0'0346
10	0'0391	0'0386	0'0380	0'0400	0'0426	0'0441	0'0398	0'0417	0'0387	0'0361	0'0318	0'0342
11	0'0391	0'0386	0'0382	0'0400	0'0427	0'0440	0'0397	0'0420	0'0392	0'0362	0'0318	0'0342
12	0'0393	0'0389	0'0386	0'0400	0'0431	0'0444	0'0401	0'0427	0'0397	0'0365	0'0321	0'0342
13	0'0393	0'0391	0'0386	0'0407	0'0434	0'0449	0'0406	0'0430	0'0403	0'0368	0'0324	0'0345
14	0'0393	0'0393	0'0388	0'0411	0'0436	0'0454	0'0410	0'0435	0'0407	0'0368	0'0327	0'0348
15	0'0394	0'0400	0'0391	0'0417	0'0440	0'0452	0'0420	0'0438	0'0410	0'0371	0'0333	0'0352
16	0'0395	0'0403	0'0392	0'0422	0'0441	0'0452	0'0419	0'0440	0'0410	0'0374	0'0338	0'0356
17	0'0396	0'0404	0'0395	0'0424	0'0440	0'0452	0'0422	0'0441	0'0407	0'0378	0'0340	0'0359
18	0'0396	0'0406	0'0398	0'0424	0'0439	0'0450	0'0421	0'0440	0'0404	0'0378	0'0341	0'0362
19	0'0397	0'0408	0'0400	0'0423	0'0436	0'0449	0'0419	0'0438	0'0404	0'0380	0'0343	0'0364
20	0'0397	0'0410	0'0401	0'0423	0'0434	0'0448	0'0419	0'0437	0'0402	0'0380	0'0343	0'0366
21	0'0397	0'0407	0'0400	0'0421	0'0433	0'0449	0'0420	0'0436	0'0404	0'0380	0'0343	0'0366
22	0'0400	0'0406	0'0401	0'0423	0'0432	0'0446	0'0422	0'0438	0'0406	0'0383	0'0342	0'0367
23	0'0404	0'0410	0'0403	0'0421	0'0429	0'0445	0'0422	0'0440	0'0411	0'0387	0'0344	0'0366
1852.												
0	0'0357	0'0383	0'0379	0'0397	0'0414	0'0424	0'0404	0'0480	0'0469	0'0437	0'0397	0'0391
1	0'0360	0'0390	0'0381	0'0396	0'0413	0'0419	0'0402	0'0479	0'0467	0'0438	0'0402	0'0395
2	0'0361	0'0391	0'0380	0'0392	0'0405	0'0415	0'0400	0'0474	0'0463	0'0436	0'0405	0'0396
3	0'0356	0'0386	0'0374	0'0393	0'0401	0'0409	0'0404	0'0468	0'0456	0'0430	0'0408	0'0391
4	0'0349	0'0379	0'0371	0'0394	0'0403	0'0404	0'0408	0'0462	0'0449	0'0424	0'0406	0'0386
5	0'0344	0'0373	0'0368	0'0394	0'0404	0'0401	0'0412	0'0458	0'0443	0'0420	0'0401	0'0380
6	0'0341	0'0375	0'0366	0'0392	0'0403	0'0400	0'0414	0'0457	0'0438	0'0416	0'0392	0'0377
7	0'0337	0'0373	0'0367	0'0388	0'0400	0'0399	0'0412	0'0455	0'0435	0'0413	0'0394	0'0376
8	0'0336	0'0368	0'0363	0'0385	0'0398	0'0398	0'0409	0'0453	0'0434	0'0411	0'0392	0'0375
9	0'0336	0'0364	0'0359	0'0379	0'0397	0'0399	0'0405	0'0451	0'0432	0'0408	0'0392	0'0375
10	0'0337	0'0361	0'0357	0'0374	0'0394	0'0400	0'0404	0'0450	0'0431	0'0407	0'0392	0'0375
11	0'0337	0'0358	0'0358	0'0375	0'0394	0'0400	0'0405	0'0451	0'0433	0'0408	0'0393	0'0376
12	0'0339	0'0357	0'0360	0'0378	0'0398	0'0403	0'0411	0'0451	0'0435	0'0410	0'0391	0'0374
13	0'0336	0'0359	0'0363	0'0381	0'0400	0'0407	0'0415	0'0457	0'0439	0'0412	0'0391	0'0376
14	0'0339	0'0358	0'0367	0'0386	0'0405	0'0414	0'0417	0'0462	0'0443	0'0415	0'0391	0'0378
15	0'0342	0'0362	0'0374	0'0391	0'0411	0'0419	0'0416	0'0467	0'0450	0'0419	0'0391	0'0379
16	0'0345	0'0368	0'0377	0'0396	0'0416	0'0425	0'0412	0'0472	0'0456	0'0421	0'0393	0'0382
17	0'0346	0'0370	0'0378	0'0397	0'0418	0'0427	0'0408	0'0475	0'0460	0'0425	0'0395	0'0383
18	0'0347	0'0371	0'0377	0'0395	0'0417	0'0429	0'0404	0'0476	0'0462	0'0428	0'0396	0'0386
19	0'0348	0'0371	0'0377	0'0394	0'0416	0'0430	0'0405	0'0477	0'0463	0'0431	0'0398	0'0386
20	0'0349	0'0371	0'0377	0'0392	0'0414	0'0432	0'0399	0'0475	0'0464	0'0433	0'0396	0'0386
21	0'0348	0'0370	0'0375	0'0390	0'0414	0'0435	0'0399	0'0476	0'0466	0'0432	0'0395	0'0387
22	0'0351	0'0374	0'0377	0'0394	0'0414	0'0433	0'0404	0'0479	0'0466	0'0433	0'0398	0'0386
23	0'0353	0'0377	0'0378	0'0397	0'0412	0'0431	0'0406	0'0478	0'0466	0'0434	0'0399	0'0387

TABLE XIV.—MEAN MONTHLY DETERMINATION of the VERTICAL MAGNETIC FORCE, &c.—continued.

1853.

Hour. Göttingen Mean Solar Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
0	..	0'0357	0'0341	0'0363	0'0400	0'0412	0'0453	0'0443	0'0417	0'0395	0'0366	0'0347
1	..	0'0358	0'0343	0'0364	0'0400	0'0409	0'0449	0'0440	0'0415	0'0395	0'0367	0'0352
2	..	0'0356	0'0340	0'0358	0'0395	0'0405	0'0445	0'0433	0'0409	0'0392	0'0367	0'0354
3	..	0'0350	0'0332	0'0353	0'0397	0'0402	0'0440	0'0427	0'0406	0'0385	0'0363	0'0352
4	..	0'0342	0'0323	0'0344	0'0394	0'0402	0'0438	0'0418	0'0399	0'0377	0'0356	0'0344
5	..	0'0330	0'0311	0'0340	0'0395	0'0401	0'0436	0'0418	0'0393	0'0373	0'0349	0'0339
6	..	0'0328	0'0304	0'0338	0'0396	0'0401	0'0436	0'0416	0'0389	0'0369	0'0343	0'0334
7	..	0'0320	0'0301	0'0337	0'0394	0'0401	0'0433	0'0411	0'0386	0'0368	0'0340	0'0329
8	..	0'0313	0'0297	0'0335	0'0395	0'0400	0'0428	0'0414	0'0387	0'0364	0'0336	0'0327
9	..	0'0309	0'0294	0'0331	0'0394	0'0400	0'0424	0'0413	0'0385	0'0363	0'0334	0'0326
10	..	0'0310	0'0291	0'0329	0'0392	0'0398	0'0420	0'0413	0'0384	0'0361	0'0333	0'0325
11	..	0'0311	0'0291	0'0332	0'0392	0'0399	0'0417	0'0415	0'0385	0'0363	0'0332	0'0326
12	..	0'0313	0'0293	0'0334	0'0396	0'0397	0'0412	0'0419	0'0386	0'0363	0'0334	0'0327
13	..	0'0317	0'0296	0'0340	0'0400	0'0400	0'0415	0'0425	0'0390	0'0365	0'0334	0'0328
14	..	0'0317	0'0300	0'0342	0'0405	0'0406	0'0422	0'0430	0'0392	0'0366	0'0337	0'0329
15	..	0'0322	0'0307	0'0347	0'0406	0'0411	0'0425	0'0433	0'0396	0'0374	0'0339	0'0331
16	..	0'0327	0'0316	0'0352	0'0409	0'0416	0'0437	0'0438	0'0398	0'0374	0'0343	0'0333
17	..	0'0332	0'0323	0'0356	0'0411	0'0419	0'0442	0'0440	0'0397	0'0378	0'0346	0'0335
18	..	0'0337	0'0329	0'0358	0'0409	0'0419	0'0445	0'0442	0'0402	0'0381	0'0348	0'0342
19	..	0'0340	0'0335	0'0361	0'0409	0'0419	0'0447	0'0443	0'0404	0'0384	0'0353	0'0338
20	..	0'0343	0'0340	0'0364	0'0408	0'0420	0'0449	0'0443	0'0406	0'0385	0'0354	0'0340
21	..	0'0345	0'0341	0'0365	0'0406	0'0421	0'0450	0'0443	0'0409	0'0387	0'0357	0'0341
22	..	0'0348	0'0344	0'0364	0'0404	0'0420	0'0453	0'0444	0'0410	0'0388	0'0359	0'0343
23	..	0'0351	0'0346	0'0366	0'0402	0'0420	0'0453	0'0445	0'0415	0'0389	0'0361	0'0347

1854.

0	0'0388	0'0403	0'0409	0'0442	0'0447	0'0450	0'0432	0'0438	0'0417	0'0400	0'0363	0'0357
1	0'0389	0'0405	0'0414	0'0444	0'0445	0'0447	0'0428	0'0437	0'0414	0'0389	0'0368	0'0361
2	0'0388	0'0407	0'0416	0'0445	0'0441	0'0440	0'0419	0'0420	0'0407	0'0389	0'0369	0'0363
3	0'0387	0'0404	0'0413	0'0441	0'0432	0'0432	0'0412	0'0418	0'0401	0'0385	0'0365	0'0362
4	0'0380	0'0397	0'0404	0'0436	0'0425	0'0428	0'0408	0'0409	0'0395	0'0376	0'0355	0'0358
5	0'0376	0'0389	0'0393	0'0431	0'0421	0'0422	0'0404	0'0407	0'0390	0'0370	0'0345	0'0352
6	0'0373	0'0385	0'0386	0'0429	0'0420	0'0418	0'0402	0'0407	0'0389	0'0366	0'0337	0'0345
7	0'0367	0'0379	0'0383	0'0426	0'0416	0'0418	0'0401	0'0405	0'0387	0'0362	0'0331	0'0339
8	0'0364	0'0376	0'0382	0'0425	0'0413	0'0417	0'0397	0'0404	0'0386	0'0362	0'0329	0'0335
9	0'0364	0'0374	0'0379	0'0423	0'0411	0'0418	0'0392	0'0403	0'0386	0'0359	0'0327	0'0335
10	0'0364	0'0376	0'0377	0'0418	0'0408	0'0416	0'0389	0'0402	0'0385	0'0357	0'0326	0'0336
11	0'0367	0'0376	0'0377	0'0415	0'0406	0'0414	0'0389	0'0402	0'0388	0'0353	0'0326	0'0337
12	0'0366	0'0379	0'0378	0'0416	0'0409	0'0415	0'0394	0'0404	0'0390	0'0354	0'0329	0'0339
13	0'0368	0'0379	0'0379	0'0417	0'0413	0'0420	0'0399	0'0407	0'0396	0'0356	0'0331	0'0342
14	0'0370	0'0383	0'0383	0'0419	0'0417	0'0424	0'0405	0'0412	0'0403	0'0359	0'0335	0'0345
15	0'0370	0'0390	0'0389	0'0423	0'0425	0'0431	0'0412	0'0417	0'0406	0'0364	0'0338	0'0349
16	0'0376	0'0394	0'0397	0'0423	0'0435	0'0439	0'0418	0'0423	0'0411	0'0368	0'0341	0'0352
17	0'0378	0'0397	0'0402	0'0429	0'0444	0'0443	0'0424	0'0427	0'0412	0'0360	0'0348	0'0354
18	0'0382	0'0398	0'0410	0'0432	0'0449	0'0447	0'0427	0'0429	0'0412	0'0376	0'0350	0'0355
19	0'0385	0'0400	0'0412	0'0425	0'0450	0'0449	0'0427	0'0431	0'0411	0'0379	0'0353	0'0355
20	0'0388	0'0401	0'0413	0'0426	0'0451	0'0450	0'0429	0'0431	0'0411	0'0380	0'0355	0'0357
21	0'0391	0'0403	0'0414	0'0423	0'0451	0'0455	0'0430	0'0431	0'0412	0'0382	0'0358	0'0358
22	0'0392	0'0403	0'0410	0'0429	0'0452	0'0453	0'0433	0'0434	0'0415	0'0386	0'0361	0'0358
23	0'0391	0'0405	0'0407	0'0434	0'0451	0'0454	0'0435	0'0435	0'0418	0'0389	0'0360	0'0359

TABLE XIV.—MEAN MONTHLY DETERMINATIONS of the VERTICAL MAGNETIC FORCE, &c.—*continued.*

1855.												
Hour. Göttingen Mean Solar Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
0	0.0364	0.0349	0.0384	0.0395	0.0396	0.0422	0.0445	0.0439	0.0422	0.0373	0.0348	0.0340
1	0.0365	0.0349	0.0385	0.0400	0.0395	0.0418	0.0438	0.0434	0.0415	0.0373	0.0351	0.0339
2	0.0363	0.0347	0.0383	0.0396	0.0393	0.0413	0.0431	0.0426	0.0413	0.0370	0.0352	0.0339
3	0.0359	0.0341	0.0372	0.0390	0.0390	0.0408	0.0420	0.0415	0.0399	0.0363	0.0345	0.0333
4	0.0349	0.0333	0.0364	0.0386	0.0387	0.0404	0.0416	0.0411	0.0394	0.0354	0.0336	0.0325
5	0.0342	0.0326	0.0353	0.0383	0.0385	0.0400	0.0416	0.0411	0.0390	0.0347	0.0330	0.0316
6	0.0338	0.0321	0.0348	0.0384	0.0381	0.0397	0.0414	0.0410	0.0386	0.0344	0.0326	0.0311
7	0.0333	0.0316	0.0344	0.0380	0.0376	0.0395	0.0412	0.0408	0.0384	0.0340	0.0323	0.0307
8	0.0330	0.0313	0.0343	0.0382	0.0374	0.0395	0.0409	0.0405	0.0382	0.0338	0.0321	0.0306
9	0.0330	0.0311	0.0340	0.0381	0.0372	0.0394	0.0403	0.0402	0.0380	0.0336	0.0322	0.0304
10	0.0331	0.0313	0.0340	0.0380	0.0370	0.0393	0.0401	0.0402	0.0380	0.0335	0.0319	0.0304
11	0.0333	0.0314	0.0340	0.0380	0.0369	0.0394	0.0405	0.0406	0.0384	0.0334	0.0321	0.0304
12	0.0334	0.0317	0.0342	0.0381	0.0367	0.0400	0.0410	0.0411	0.0390	0.0337	0.0320	0.0304
13	0.0336	0.0323	0.0347	0.0384	0.0374	0.0405	0.0419	0.0418	0.0399	0.0338	0.0323	0.0307
14	0.0339	0.0328	0.0352	0.0388	0.0377	0.0410	0.0426	0.0425	0.0401	0.0343	0.0325	0.0310
15	0.0341	0.0332	0.0358	0.0393	0.0382	0.0417	0.0437	0.0431	0.0409	0.0346	0.0327	0.0314
16	0.0344	0.0337	0.0364	0.0397	0.0386	0.0425	0.0442	0.0437	0.0412	0.0350	0.0330	0.0318
17	0.0346	0.0340	0.0370	0.0399	0.0392	0.0428	0.0446	0.0438	0.0414	0.0353	0.0332	0.0321
18	0.0347	0.0343	0.0374	0.0401	0.0396	0.0430	0.0449	0.0439	0.0414	0.0357	0.0335	0.0325
19	0.0350	0.0345	0.0379	0.0402	0.0398	0.0430	0.0449	0.0439	0.0414	0.0360	0.0337	0.0328
20	0.0351	0.0346	0.0381	0.0402	0.0399	0.0431	0.0449	0.0440	0.0413	0.0361	0.0339	0.0331
21	0.0354	0.0347	0.0381	0.0401	0.0399	0.0434	0.0449	0.0441	0.0417	0.0365	0.0342	0.0331
22	0.0357	0.0348	0.0382	0.0402	0.0398	0.0433	0.0450	0.0443	0.0419	0.0366	0.0343	0.0333
23	0.0361	0.0350	0.0384	0.0402	0.0395	0.0430	0.0448	0.0445	0.0424	0.0368	0.0345	0.0334
1856.												
0	0.0369	0.0380	0.0377	0.0401	0.0399	0.0427	0.0362	0.0347	0.0306	0.0294	0.0263	0.0259
1	0.0368	0.0381	0.0379	0.0401	0.0399	0.0416	0.0355	0.0343	0.0305	0.0294	0.0264	0.0257
2	0.0366	0.0381	0.0380	0.0399	0.0393	0.0411	0.0346	0.0338	0.0301	0.0288	0.0263	0.0261
3	0.0360	0.0375	0.0374	0.0396	0.0386	0.0402	0.0341	0.0332	0.0287	0.0284	0.0264	0.0261
4	0.0351	0.0368	0.0367	0.0384	0.0382	0.0399	0.0341	0.0326	0.0273	0.0291	0.0254	0.0262
5	0.0345	0.0359	0.0360	0.0383	0.0375	0.0392	0.0340	0.0322	0.0261	0.0280	0.0248	0.0258
6	0.0340	0.0353	0.0353	0.0380	0.0372	0.0390	0.0340	0.0319	0.0255	0.0276	0.0243	0.0252
7	0.0338	0.0349	0.0349	0.0376	0.0366	0.0388	0.0338	0.0314	0.0251	0.0275	0.0241	0.0248
8	0.0339	0.0345	0.0346	0.0374	0.0361	0.0381	0.0335	0.0314	0.0247	0.0274	0.0239	0.0248
9	0.0338	0.0346	0.0344	0.0372	0.0359	0.0386	0.0331	0.0308	0.0248	0.0273	0.0236	0.0246
10	0.0339	0.0346	0.0344	0.0370	0.0359	0.0386	0.0329	0.0308	0.0247	0.0272	0.0238	0.0247
11	0.0339	0.0346	0.0344	0.0369	0.0360	0.0387	0.0330	0.0310	0.0248	0.0271	0.0237	0.0248
12	0.0342	0.0345	0.0346	0.0372	0.0368	0.0392	0.0333	0.0315	0.0252	0.0271	0.0238	0.0246
13	0.0341	0.0348	0.0349	0.0375	0.0367	0.0396	0.0339	0.0323	0.0258	0.0273	0.0245	0.0250
14	0.0342	0.0352	0.0351	0.0380	0.0376	0.0401	0.0345	0.0326	0.0264	0.0275	0.0242	0.0249
15	0.0346	0.0355	0.0356	0.0385	0.0380	0.0408	0.0348	0.0331	0.0271	0.0279	0.0246	0.0249
16	0.0348	0.0358	0.0359	0.0392	0.0389	0.0414	0.0353	0.0335	0.0277	0.0282	0.0247	0.0253
17	0.0351	0.0361	0.0364	0.0398	0.0394	0.0418	0.0355	0.0338	0.0286	0.0286	0.0248	0.0254
18	0.0353	0.0365	0.0368	0.0403	0.0398	0.0421	0.0359	0.0340	0.0289	0.0289	0.0251	0.0256
19	0.0355	0.0368	0.0372	0.0404	0.0400	0.0424	0.0358	0.0341	0.0297	0.0291	0.0252	0.0256
20	0.0358	0.0373	0.0375	0.0403	0.0403	0.0426	0.0360	0.0342	0.0296	0.0294	0.0253	0.0257
21	0.0360	0.0375	0.0376	0.0404	0.0404	0.0428	0.0363	0.0344	0.0299	0.0295	0.0255	0.0259
22	0.0364	0.0377	0.0375	0.0403	0.0403	0.0430	0.0365	0.0346	0.0301	0.0296	0.0257	0.0262
23	0.0368	0.0380	0.0375	0.0404	0.0402	0.0426	0.0365	0.0349	0.0306	0.0295	0.0259	0.0261

TABLE XIV.—MEAN MONTHLY DETERMINATION of the VERTICAL MAGNETIC FORCE, &c.—concluded.

1857.

Hour. Götingen Mean Solar Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
0	0'0268	0'0303	0'0307	0'0313	0'0330	0'0333	0'0308	0'0317	0'0280	0'0272	..	0'0253
1	0'0269	0'0304	0'0308	0'0313	0'0327	0'0326	0'0297	0'0311	0'0276	0'0271	..	0'0262
2	0'0264	0'0299	0'0308	0'0311	0'0324	0'0324	0'0289	0'0303	0'0266	0'0269	..	0'0261
3	0'0263	0'0298	0'0303	0'0307	0'0317	0'0312	0'0280	0'0297	0'0256	0'0263	..	0'0259
4	0'0258	0'0291	0'0299	0'0303	0'0313	0'0308	0'0273	0'0294	0'0258	0'0257	..	0'0255
5	0'0254	0'0284	0'0293	0'0299	0'0312	0'0304	0'0271	0'0293	0'0253	0'0250	..	0'0251
6	0'0250	0'0277	0'0287	0'0297	0'0313	0'0301	0'0271	0'0292	0'0251	0'0245	..	0'0246
7	0'0246	0'0271	0'0284	0'0291	0'0312	0'0299	0'0273	0'0289	0'0249	0'0242	..	0'0249
8	0'0245	0'0268	0'0281	0'0286	0'0312	0'0296	0'0270	0'0286	0'0249	0'0238	..	0'0249
9	0'0243	0'0267	0'0282	0'0285	0'0311	0'0297	0'0266	0'0284	0'0250	0'0234	..	0'0248
10	0'0241	0'0268	0'0282	0'0284	0'0311	0'0297	0'0265	0'0283	0'0251	0'0234	..	0'0248
11	0'0241	0'0268	0'0282	0'0284	0'0313	0'0303	0'0268	0'0288	0'0252	0'0234	..	0'0249
12	0'0244	0'0270	0'0283	0'0286	0'0316	0'0311	0'0274	0'0295	0'0255	0'0234	..	0'0249
13	0'0244	0'0272	0'0284	0'0288	0'0325	0'0321	0'0286	0'0303	0'0259	0'0237	..	0'0250
14	0'0245	0'0276	0'0287	0'0292	0'0328	0'0331	0'0296	0'0314	0'0266	0'0242	..	0'0252
15	0'0246	0'0281	0'0289	0'0296	0'0333	0'0336	0'0304	0'0319	0'0269	0'0248	..	0'0251
16	0'0247	0'0285	0'0293	0'0302	0'0338	0'0344	0'0309	0'0322	0'0272	0'0254	..	0'0253
17	0'0250	0'0290	0'0297	0'0306	0'0341	0'0344	0'0313	0'0324	0'0274	0'0257	..	0'0254
18	0'0252	0'0296	0'0300	0'0314	0'0340	0'0343	0'0314	0'0324	0'0276	0'0259	..	0'0254
19	0'0253	0'0298	0'0303	0'0317	0'0338	0'0343	0'0314	0'0325	0'0277	0'0264	..	0'0255
20	0'0255	0'0300	0'0306	0'0324	0'0336	0'0343	0'0313	0'0322	0'0276	0'0265	..	0'0255
21	0'0257	0'0303	0'0307	0'0321	0'0335	0'0342	0'0315	0'0322	0'0278	0'0265	..	0'0256
22	0'0260	0'0304	0'0307	0'0315	0'0332	0'0340	0'0316	0'0321	0'0276	0'0267	..	0'0255
23	0'0262	0'0306	0'0308	0'0315	0'0330	0'0339	0'0315	0'0321	0'0278	0'0270	..	0'0256

TABLE XV.—MEAN, through the RANGE of YEARS, of the MONTHLY MEAN DETERMINATIONS of the DIURNAL INEQUALITY of VERTICAL FORCE ; exhibited separately for the different Months.

1849 to 1857.

Hour. Götingen Mean Solar Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
0	+0'00116	+0'00130	+0'00114	+0'00093	+0'00056	+0'00076	+0'00100	+0'00131	+0'00174	+0'00171	+0'00121	+0'00083
1	+ 120	+ 148	+ 136	+ 100	+ 41	+ 34	+ 57	+ 108	+ 148	+ 154	+ 134	+ 107
2	+ 113	+ 144	+ 152	+ 76	+ 8	+ 3	+ 10	+ 48	+ 111	+ 128	+ 153	+ 112
3	+ 93	+ 117	+ 106	+ 51	- 21	- 46	- 17	+ 4	+ 36	+ 78	+ 125	+ 93
4	+ 30	+ 55	+ 52	+ 9	- 43	- 64	- 40	- 61	- 23	+ 28	+ 56	+ 51
5	- 19	- 17	- 19	- 16	- 52	- 91	- 46	- 83	- 84	- 31	- 6	+ 12
6	- 49	- 46	- 64	- 32	- 56	- 107	- 48	- 100	- 123	- 60	- 55	- 39
7	- 91	- 87	- 91	- 68	- 84	- 121	- 70	- 129	- 150	- 87	- 84	- 71
8	- 104	- 128	- 123	- 91	- 93	- 136	- 94	- 140	- 163	- 114	- 114	- 87
9	- 110	- 149	- 150	- 128	- 112	- 128	- 136	- 161	- 182	- 139	- 129	- 98
10	- 95	- 143	- 162	- 154	- 133	- 138	- 161	- 174	- 188	- 153	- 133	- 103
11	- 86	- 148	- 160	- 153	- 134	- 132	- 161	- 158	- 167	- 156	- 130	- 99
12	- 71	- 136	- 143	- 134	- 103	- 98	- 127	- 120	- 136	- 137	- 118	- 100
13	- 68	- 109	- 124	- 103	- 66	- 52	- 78	- 70	- 81	- 120	- 91	- 74
14	- 51	- 86	- 93	- 68	- 27	- 3	- 26	- 16	- 40	- 88	- 74	- 56
15	- 36	- 43	- 48	- 19	+ 20	+ 46	+ 29	+ 28	+ 9	+ 42	+ 45	+ 37
16	- 16	- 6	- 11	+ 28	+ 71	+ 96	+ 64	+ 70	+ 42	+ 11	+ 14	+ 8
17	0	+ 21	+ 32	+ 64	+ 108	+ 110	+ 93	+ 98	+ 68	+ 9	+ 11	+ 11
18	+ 14	+ 46	+ 63	+ 87	+ 118	+ 117	+ 102	+ 110	+ 83	+ 46	+ 29	+ 33
19	+ 25	+ 61	+ 91	+ 78	+ 116	+ 117	+ 100	+ 114	+ 100	+ 73	+ 46	+ 39
20	+ 40	+ 78	+ 111	+ 84	+ 111	+ 119	+ 96	+ 108	+ 100	+ 86	+ 54	+ 48
21	+ 56	+ 87	+ 110	+ 71	+ 104	+ 137	+ 103	+ 110	+ 123	+ 93	+ 71	+ 58
22	+ 79	+ 98	+ 113	+ 83	+ 89	+ 128	+ 124	+ 129	+ 137	+ 111	+ 83	+ 64
23	+ 99	+ 121	+ 116	+ 94	+ 71	+ 117	+ 128	+ 140	+ 172	+ 132	+ 94	+ 73

TABLE XVI.—MEAN, through the RANGE of MONTHS, of the MONTHLY MEAN DETERMINATIONS of the DIURNAL IRREGULARITY of VERTICAL FORCE exhibited separately for the different Years.

Hour. Göttingen Mean Solar Time.	January to December.										Mean 1849 to 1857.	Mean in Terms of Horizontal Force.
	1849.	1850.	1851.	1852.	1853.	1854.	1855.	1856.	1857.			
0	+ 0'0002	+ 0'0010	+ 0'0008	+ 0'0009	+ 0'0013	+ 0'0016	+ 0'0015	+ 0'0016	+ 0'0011	+ 0'00105	+ 0'00271	
1	+ 3	+ 11	+ 7	+ 10	+ 13	+ 15	+ 14	+ 14	+ 9	+ 96	+ 247	
2	+ 5	+ 10	+ 5	+ 8	+ 10	+ 12	+ 11	+ 11	+ 6	+ 78	+ 201	
3	+ 7	+ 8	+ 2	+ 4	+ 6	+ 8	+ 4	+ 6	+ 0	+ 45	+ 116	
4	+ 5	+ 3	- 1	+ 1	0	+ 1	- 3	+ 1	- 4	+ 3	+ 8	
5	+ 4	- 1	- 4	- 2	- 4	- 5	- 8	- 6	- 7	- 33	- 85	
6	+ 2	- 4	- 5	- 4	- 7	- 9	- 11	- 10	- 10	- 58	- 149	
7	0	- 8	- 7	- 6	- 9	- 12	- 14	- 13	- 12	- 81	- 208	
8	- 3	- 9	- 9	- 9	- 12	- 13	- 16	- 16	- 14	- 101	- 260	
9	- 5	- 13	- 11	- 11	- 14	- 16	- 18	- 17	- 15	- 120	- 309	
10	- 6	- 15	- 12	- 12	- 15	- 17	- 19	- 17	- 15	- 128	- 336	
11	- 6	- 16	- 11	- 11	- 14	- 18	- 17	- 17	- 14	- 110	- 283	
12	- 4	- 14	- 8	- 10	- 13	- 16	- 15	- 14	- 11	- 105	- 270	
13	- 4	- 10	- 4	- 7	- 10	- 13	- 10	- 11	- 7	- 76	- 196	
14	- 3	- 6	- 2	- 4	- 7	- 9	- 6	- 7	- 2	- 46	- 118	
15	- 1	- 2	+ 3	+ 0	+ 4	- 4	0	- 3	+ 2	- 9	- 23	
16	0	+ 2	+ 5	+ 3	+ 1	+ 2	+ 4	+ 1	+ 5	+ 23	+ 59	
17	+ 2	+ 5	+ 6	+ 5	+ 4	+ 5	+ 8	+ 5	+ 8	+ 48	+ 124	
18	+ 2	+ 7	+ 6	+ 5	+ 6	+ 9	+ 10	+ 8	+ 10	+ 63	+ 162	
19	+ 1	+ 7	+ 6	+ 5	+ 8	+ 10	+ 12	+ 10	+ 11	+ 71	+ 183	
20	+ 1	+ 7	+ 6	+ 5	+ 10	+ 11	+ 13	+ 12	+ 12	+ 77	+ 198	
21	+ 1	+ 8	+ 6	+ 5	+ 11	+ 12	+ 14	+ 14	+ 12	+ 83	+ 214	
22	+ 1	+ 9	+ 7	+ 7	+ 12	+ 14	+ 15	+ 16	+ 12	+ 93	+ 240	
23	+ 1	+ 11	+ 8	+ 8	+ 13	+ 15	+ 16	+ 17	+ 12	+ 101	+ 260	

REDUCTIONS OF MAGNETIC OBSERVATIONS REFERRED TO THE MOON'S PLACE.

REDUCTIONS OF MAGNETIC DECLINATION REFERRED TO THE MOON'S PLACE.

TABLE XVII.—MEAN LUNATION-INEQUALITY of the WESTERN DECLINATION of the MAGNET, exhibited separately for the different Years; with the Mean for all the Years, corrected for the Daily Proportion of Secular Change of Western Declination.

Day of the Lunation.	Mean Lunation-Inequality in each Year.										Mean 1848 to 1857.	Mean corrected by -0'17.
	1848.	1849.	1850.	1851.	1852.	1853.	1854.	1855.	1856.	1857.		
1	+ 1'2	+ 0'2	+ 1'2	- 0'6	- 0'3	+ 0'2	+ 0'5	- 1'6	+ 0'5	+ 0'9	+ 0'22	+ 0'05
2	+ 0'5	- 0'1	+ 0'2	- 0'7	0'0	+ 0'6	- 0'1	- 0'5	+ 0'1	- 0'4	- 0'04	- 0'21
3	+ 0'6	- 0'5	+ 0'9	- 1'3	+ 0'4	+ 1'1	+ 1'0	+ 0'1	+ 0'2	0'0	+ 0'25	+ 0'08
4	+ 0'1	+ 1'3	+ 0'1	- 0'4	- 0'5	+ 1'4	+ 0'7	+ 0'1	+ 0'9	+ 0'7	+ 0'44	+ 0'27
5	- 0'1	- 0'1	+ 0'4	0'0	- 0'9	+ 1'1	+ 0'5	- 1'1	+ 1'8	- 0'2	+ 0'14	- 0'03
6	- 0'3	- 0'2	+ 0'3	- 0'5	+ 0'8	+ 0'9	+ 2'0	+ 0'2	+ 0'8	- 0'6	+ 0'34	+ 0'17
7	+ 0'5	- 0'1	+ 0'1	+ 0'8	+ 0'5	+ 1'5	+ 0'8	+ 0'3	+ 0'4	- 0'5	+ 0'43	+ 0'26
8	- 0'2	+ 1'5	0'0	+ 0'2	+ 0'1	+ 0'4	+ 0'1	- 0'4	+ 0'4	- 0'8	+ 0'13	- 0'04
9	+ 0'2	+ 1'0	- 1'0	- 0'1	+ 0'5	- 0'1	+ 1'2	+ 0'3	+ 0'9	- 0'1	+ 0'28	+ 0'11
10	0'0	+ 0'2	- 0'4	- 0'5	+ 1'6	+ 0'5	+ 0'4	- 0'3	+ 0'6	- 0'8	+ 0'13	- 0'04
11	- 0'6	+ 2'3	- 0'5	- 0'1	- 0'1	+ 0'2	+ 1'7	+ 0'1	+ 2'0	- 1'0	+ 0'40	+ 0'23
12	- 1'0	- 0'3	- 0'5	0'0	- 0'7	+ 0'2	- 0'4	0'0	+ 1'1	- 0'3	- 0'19	- 0'36
13	- 0'2	+ 1'7	- 0'9	- 0'3	- 0'3	+ 0'4	+ 0'8	- 0'7	- 0'1	- 0'6	- 0'08	- 0'25
14	- 0'6	+ 3'0	- 0'7	- 0'2	- 0'2	+ 0'5	- 0'1	- 0'7	+ 1'5	- 0'9	+ 0'16	- 0'01
15	- 0'5	+ 2'5	- 0'1	- 0'3	- 0'2	- 0'9	- 0'2	- 0'5	+ 0'4	- 0'2	0'00	- 0'17
16	+ 0'2	+ 3'9	- 0'5	+ 0'3	+ 0'3	- 0'1	- 0'4	- 0'8	- 0'1	- 0'4	+ 0'24	+ 0'07
17	+ 0'4	+ 1'4	- 0'3	- 0'1	- 0'2	0'0	- 0'5	- 0'9	- 0'9	0'0	- 0'11	- 0'28
18	- 0'2	+ 1'5	+ 0'2	- 0'9	0'0	- 0'3	- 0'6	- 0'1	- 0'3	0'0	- 0'07	- 0'24
19	+ 0'7	+ 1'3	+ 0'3	- 0'4	- 0'3	+ 0'4	+ 0'5	+ 0'4	- 0'2	+ 1'2	+ 0'39	+ 0'22
20	+ 0'4	+ 2'0	0'0	+ 0'3	+ 1'5	+ 0'8	- 0'2	- 0'7	+ 0'6	+ 1'2	+ 0'59	+ 0'42
21	- 0'3	+ 0'1	- 0'1	+ 0'1	+ 1'9	+ 0'1	- 0'1	- 0'9	- 0'7	+ 1'1	+ 0'12	- 0'05
22	+ 0'3	- 1'9	- 1'5	- 0'3	+ 1'3	+ 0'3	- 0'8	- 0'1	- 0'4	+ 0'2	- 0'29	- 0'46
23	+ 0'2	- 1'2	- 0'5	+ 0'4	- 0'3	- 0'8	- 1'0	0'0	- 0'2	+ 2'4	- 0'10	- 0'27
24	- 0'1	- 0'2	- 0'3	+ 0'5	+ 0'2	- 0'6	- 0'8	- 0'4	+ 0'3	+ 1'7	+ 0'03	- 0'14
25	- 0'9	+ 1'3	+ 0'5	+ 0'6	+ 0'9	0'0	0'0	+ 0'7	- 0'1	+ 2'3	+ 0'39	+ 0'22
26	- 0'4	+ 1'0	+ 0'9	+ 0'1	+ 0'5	- 0'9	- 0'3	+ 0'3	0'0	+ 0'9	+ 0'21	+ 0'04
27	- 0'7	+ 0'8	+ 1'1	+ 0'1	+ 0'8	- 0'2	- 0'3	+ 0'8	+ 0'3	+ 0'6	+ 0'33	+ 0'16
28	+ 0'1	+ 1'4	+ 0'7	+ 0'7	- 0'3	- 0'2	+ 0'7	- 0'3	- 0'3	+ 1'0	+ 0'35	+ 0'18
29	+ 0'5	- 2'5	+ 1'3	+ 0'2	+ 0'8	+ 0'1	+ 1'3	- 0'1	- 0'2	+ 1'4	+ 0'28	+ 0'11

TABLE XVIII.—MEAN LUNATION-DETERMINATION of the WESTERN DECLINATION of the MAGNET at every LUNAR HOUR of the LUNAR DAY ; obtained by taking the Means of all the Determinations at the same Lunar Hour through the Lunation.

1848.

Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.

Table for 1848 showing lunar hour data (0-23) for months January to December. Columns include month, day, hour, and mean values. The table is organized with months as columns and lunar hours as rows.

1849.

Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.

Table for 1849 showing lunar hour data (0-23) for months January to December. Columns include month, day, hour, and mean values. The table is organized with months as columns and lunar hours as rows.

TABLE XVIII.—MEAN LUNATION-DETERMINATION of the WESTERN DECLINATION of the MAGNET, &c.—*continued.*

1850.

Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.

Lunar Hour.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Mean.
	<small>d h m</small> 13. o. 49	<small>d h m</small> 12. 1. 6	<small>d h m</small> 14. 1. 19	<small>d h m</small> 12. o. 46	<small>d h m</small> 12. 1. 11	<small>d h m</small> 10. o. 52	<small>d h m</small> 10. 1. 40	<small>d h m</small> 8. 1. 22	<small>d h m</small> 6. o. 57	<small>d h m</small> 6. 1. 20	<small>d h m</small> 4. o. 49	<small>d h m</small> 4. 1. 12	
	22°	22°	22°	22°	22°	22°	22°	22°	22°	22°	22°	22°	
0	28·4	27·5	26·2	26·3	24·1	24·1	22·0	21·1	25·5	18·5	19·8	18·9	23·5
1	29·1	27·1	26·7	26·1	24·5	24·4	21·9	21·1	25·1	18·4	19·5	18·6	22·5
2	28·7	27·5	26·8	26·2	24·7	24·7	21·9	21·4	25·4	18·0	19·0	18·6	23·5
3	28·4	27·7	26·1	25·9	24·8	24·8	22·0	21·4	24·7	17·5	19·0	18·7	23·4
4	28·5	27·8	26·2	26·1	25·3	24·7	21·9	20·8	24·3	17·4	18·6	18·8	23·4
5	27·9	27·7	26·1	26·1	25·0	24·4	21·3	21·4	23·6	17·1	18·7	18·2	23·1
6	28·7	27·7	26·0	25·8	24·8	24·3	21·5	21·0	23·5	17·0	19·1	18·4	23·2
7	28·7	27·2	25·5	25·7	24·4	24·4	21·4	22·2	24·2	16·6	18·8	18·6	23·2
8	28·7	27·5	26·0	25·5	24·2	24·3	21·2	22·1	24·1	16·1	18·4	18·7	23·1
9	28·6	27·1	26·5	25·1	23·9	24·8	21·9	22·6	24·9	16·9	18·3	19·3	23·3
10	28·8	27·3	26·4	25·6	24·0	25·3	22·0	22·5	25·0	17·7	18·1	19·1	23·5
11	28·8	26·7	27·0	25·6	24·4	25·3	22·4	22·2	25·8	17·6	18·7	19·2	23·6
12	28·9	26·1	26·9	25·4	24·5	25·2	22·6	22·2	25·9	17·9	19·1	19·3	23·7
13	28·5	26·1	26·8	25·6	24·7	25·2	23·3	22·2	26·4	17·8	19·4	19·2	23·8
14	28·7	26·1	26·4	25·8	24·3	25·1	22·7	22·5	26·2	17·4	19·4	19·2	23·6
15	28·6	26·0	25·8	25·3	23·8	24·9	22·2	22·4	26·1	17·7	19·4	19·2	23·5
16	28·9	25·8	25·3	24·8	24·1	25·1	22·6	22·3	26·0	18·1	19·6	19·0	23·5
17	29·1	26·4	25·2	25·0	23·7	24·4	22·5	22·2	26·2	18·1	19·6	19·1	23·5
18	28·4	26·1	25·5	25·0	23·7	24·0	22·8	22·8	26·3	17·7	19·4	19·1	23·4
19	29·0	26·4	25·8	24·7	23·4	23·4	22·2	23·0	25·9	17·8	19·1	18·4	23·3
20	29·0	26·7	25·6	24·8	23·7	23·2	22·3	22·6	26·2	18·2	19·2	18·9	23·4
21	28·6	26·9	25·8	25·2	23·7	23·5	22·6	22·0	26·5	18·1	18·7	18·7	23·4
22	28·5	27·1	25·7	25·3	24·0	23·4	22·1	21·8	27·0	18·4	19·8	18·5	23·5
23	28·3	26·8	25·2	26·3	23·8	23·5	21·9	21·7	26·7	18·4	19·9	18·6	23·4

1851.

Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.

Lunar Hour.	January.	February.	March.	April.	May.	May.	June.	July.	August.	September.	October.	November.	December.	Mean.
	<small>d h m</small> 2. o. 46	<small>d h m</small> 1. 1. 7	<small>d h m</small> 3. 1. 17	<small>d h m</small> 1. o. 40	<small>d h m</small> 1. o. 49	<small>d h m</small> 31. 1. 14	<small>d h m</small> 29. o. 57	<small>d h m</small> 28. o. 41	<small>d h m</small> 27. 1. 19	<small>d h m</small> 25. o. 53	<small>d h m</small> 25. 1. 18	<small>d h m</small> 23. o. 52	<small>d h m</small> 23. 1. 26	
	22°	22°	22°	22°	22°	22°	22°	22°	22°	22°	22°	22°	22°	
0	20·2	20·6	19·7	20·9	18·6	14·3	16·4	17·8	14·8	17·3	20·6	21·3	22·3	18·9
1	20·8	20·2	18·9	20·6	19·1	14·4	16·5	17·4	14·9	18·0	20·9	20·8	22·2	18·8
2	20·5	19·8	18·7	20·5	19·2	14·3	16·3	17·1	14·5	17·2	20·5	20·9	21·4	18·5
3	20·2	20·1	18·7	20·4	19·3	13·8	16·4	17·1	14·0	16·8	20·4	21·1	21·8	18·5
4	20·1	19·6	18·9	20·6	19·8	13·7	16·5	17·1	13·9	15·7	20·5	21·3	21·8	18·4
5	20·4	19·8	18·4	20·5	19·5	13·9	16·5	16·9	14·8	15·8	19·9	20·6	21·7	18·4
6	20·7	19·6	18·5	20·2	19·9	14·3	16·5	17·0	15·2	16·4	20·2	20·5	21·1	18·5
7	20·3	19·4	19·9	20·7	19·3	14·2	16·1	17·7	15·8	16·4	20·1	20·5	21·2	18·6
8	20·6	19·5	20·1	20·6	19·4	13·9	17·0	18·1	16·9	16·1	19·7	20·3	21·8	18·3
9	20·3	19·1	20·3	21·1	19·4	14·2	16·8	17·6	16·5	17·1	20·1	20·3	21·8	18·8
10	20·3	19·3	20·4	20·6	19·4	14·8	17·1	17·8	16·2	17·3	20·6	20·1	21·8	18·9
11	20·1	19·7	20·7	20·6	19·3	14·5	17·4	17·4	15·5	17·9	20·9	20·1	21·7	18·9
12	20·4	19·8	21·0	21·3	19·4	15·1	17·9	17·6	15·5	17·8	20·4	19·8	21·5	19·0
13	20·8	19·3	21·1	20·5	19·5	14·7	17·5	17·7	15·1	16·9	21·5	19·9	21·7	18·9
14	20·5	19·6	20·7	20·2	19·3	14·3	17·2	17·5	14·2	17·1	21·5	20·1	22·3	18·8
15	20·5	20·1	20·5	20·2	19·7	14·0	16·7	17·3	13·7	17·1	21·0	19·7	22·2	18·7
16	20·3	20·4	20·9	20·1	19·7	14·1	16·8	16·9	14·0	16·8	21·4	20·5	22·7	18·8
17	20·0	20·7	20·2	20·8	19·4	14·0	16·4	17·0	14·1	16·8	20·6	20·8	23·1	18·8
18	20·0	20·6	20·1	21·4	18·3	13·5	15·9	17·0	14·0	16·6	20·6	20·4	22·7	18·6
19	19·9	20·2	20·1	21·4	18·0	13·6	15·7	17·1	14·4	16·8	20·4	20·2	22·9	18·5
20	20·0	20·3	20·7	20·9	18·2	14·2	15·9	17·2	14·6	17·2	20·8	20·1	22·5	18·7
21	20·3	20·5	20·4	20·6	17·8	14·3	16·1	17·5	14·8	17·5	20·8	20·0	22·1	18·7
22	20·2	20·9	20·0	20·4	18·0	14·6	16·2	17·6	15·2	17·3	20·6	20·2	22·1	18·8
23	20·1	20·7	19·8	20·6	18·8	14·6	17·0	18·0	14·7	17·2	20·6	21·1	21·7	18·9

TABLE XVIII.—MEAN LUNATION-DETERMINATION of the WESTERN DECLINATION of the MAGNET, &c.—continued.

1852.

Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.

Lunar Hour.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Mean.
	<small>d h m</small> 21. 1. 3	<small>d h m</small> 20. 1. 21	<small>d h m</small> 20. 0. 44	<small>d h m</small> 19. 0. 46	<small>d h m</small> 19. 0. 56	<small>d h m</small> 18. 1. 24	<small>d h m</small> 17. 1. 6	<small>d h m</small> 15. 0. 45	<small>d h m</small> 14. 1. 13	<small>d h m</small> 13. 0. 44	<small>d h m</small> 12. 1. 15	<small>d h m</small> 11. 0. 56	
	22°	22°	22°	22°	22°	22°	22°	22°	22°	22°	22°	22°	22°
0	22.7	22.0	21.8	23.2	18.6	18.9	19.8	16.3	14.2	11.5	12.0	11.6	17.7
1	22.3	21.6	21.2	22.6	19.1	19.1	19.0	16.8	14.4	11.7	11.7	10.8	17.5
2	22.5	21.9	21.5	21.7	19.1	18.8	18.8	16.8	14.3	12.1	13.0	9.7	17.5
3	22.3	21.2	21.8	21.8	18.9	18.4	18.7	17.2	13.9	12.3	12.1	9.5	17.4
4	21.3	22.6	21.8	21.5	19.5	18.5	18.5	16.4	14.0	12.2	12.4	10.2	17.4
5	21.5	21.9	20.7	22.1	19.2	18.4	18.5	16.3	13.1	13.0	12.2	11.1	17.3
6	21.6	21.5	21.3	22.3	19.0	18.5	18.4	16.3	14.2	12.4	12.3	10.1	17.3
7	21.7	21.9	20.9	21.9	18.9	18.4	19.1	16.5	13.9	12.6	11.7	10.3	17.3
8	21.8	21.7	20.8	22.9	19.1	18.6	19.7	16.7	13.7	12.6	12.5	10.6	17.5
9	22.0	22.6	21.1	22.4	18.5	17.7	20.1	17.1	13.7	12.3	12.1	10.3	17.5
10	22.5	22.2	21.9	22.1	18.9	18.3	19.3	16.8	15.3	12.3	12.2	10.2	17.7
11	22.6	22.7	21.4	22.8	19.1	18.3	19.3	16.3	14.0	12.5	11.9	11.7	17.7
12	22.6	23.2	22.7	22.6	19.0	17.9	19.1	17.0	13.8	13.0	12.4	12.0	17.9
13	22.9	23.4	22.9	23.3	19.6	17.8	18.4	16.1	14.3	13.5	12.6	12.5	17.9
14	23.4	23.0	23.5	24.3	21.0	17.5	18.2	15.3	14.6	13.0	12.4	13.3	18.3
15	22.8	23.1	23.4	23.8	20.8	17.5	18.1	16.1	14.8	14.0	12.7	12.8	18.3
16	23.0	22.0	23.1	22.8	21.1	17.7	18.7	15.0	14.2	13.8	12.6	13.5	18.1
17	23.0	21.6	22.0	23.0	20.5	17.3	18.2	14.9	14.1	13.3	12.5	13.0	17.8
18	23.6	21.8	21.7	23.6	19.3	17.4	19.2	15.3	13.7	13.5	12.3	12.5	17.8
19	23.0	21.3	21.8	23.3	19.6	16.7	18.9	15.8	13.8	13.3	12.9	13.2	17.8
20	23.0	21.8	21.4	22.7	19.1	16.9	19.0	16.6	13.7	12.8	12.0	12.2	17.6
21	22.1	20.9	22.0	22.9	19.1	17.9	19.0	17.1	13.9	12.4	12.0	11.6	17.6
22	22.3	21.1	22.1	22.6	18.2	18.7	19.0	17.0	13.5	11.9	12.0	11.6	17.5
23	22.0	21.9	21.9	22.8	18.3	19.8	19.5	16.5	14.3	12.2	11.6	11.4	17.7

1853.

Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.

Lunar Hour.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Mean.	
	<small>d h m</small> 10. 1. 39	<small>d h m</small> 8. 1. 14	<small>d h m</small> 9. 0. 44	<small>d h m</small> 8. 0. 59	<small>d h m</small> 8. 0. 54	<small>d h m</small> 7. 1. 11	<small>d h m</small> 6. 0. 48	<small>d h m</small> 5. 1. 16	<small>d h m</small> 3. 0. 48	<small>d h m</small> 3. 1. 5	<small>d h m</small> 2. 1. 31	<small>d h m</small> 1. 1. 13		
	22°	22°	22°	22°	22°	22°	22°	22°	22°	22°	22°	22°	22°	
0	13.3	12.4	12.7	12.3	10.9	10.5	11.0	10.4	12.2	6.5	4.4	6.4	3.8	9.7
1	12.8	12.3	11.3	12.6	11.2	9.9	10.8	10.1	11.8	6.3	4.7	6.7	3.9	9.6
2	12.7	12.0	11.3	12.6	11.4	9.7	10.7	10.0	11.8	7.0	5.4	6.4	3.8	9.6
3	12.1	11.4	11.0	12.1	11.5	9.1	10.0	9.7	11.1	7.5	5.2	6.2	4.5	9.3
4	11.8	12.2	11.5	11.4	11.3	9.7	9.5	10.2	11.1	7.3	5.2	6.3	4.4	9.4
5	11.5	12.2	9.9	10.8	11.0	9.4	9.8	10.1	10.5	7.3	5.5	5.8	5.1	9.1
6	11.1	11.9	10.7	10.9	10.7	9.7	9.6	10.4	10.7	7.1	5.2	5.7	5.3	9.2
7	10.7	10.6	10.5	10.2	10.6	9.8	10.2	10.4	10.7	7.7	5.3	4.9	5.4	9.0
8	11.8	10.2	10.9	10.6	11.1	9.6	10.8	10.2	11.2	7.7	5.5	5.6	5.6	9.3
9	11.5	10.5	10.6	11.6	10.8	9.5	10.7	10.0	11.7	7.4	5.3	6.0	5.6	9.3
10	11.9	10.7	11.3	11.1	11.0	9.8	10.7	9.3	11.4	7.1	5.7	6.0	5.1	9.3
11	12.5	11.3	11.2	11.6	11.3	9.9	11.3	9.4	11.2	7.6	5.4	5.4	5.4	9.5
12	12.3	12.1	11.6	12.1	11.8	10.1	10.8	8.7	11.6	7.8	5.5	5.8	5.5	9.7
13	12.7	11.6	11.5	11.3	11.5	9.8	11.1	10.0	11.1	7.6	5.1	6.5	4.9	9.7
14	13.2	11.3	11.3	11.5	11.0	10.8	10.6	9.9	10.5	7.1	5.6	7.1	4.8	9.6
15	12.9	12.2	11.8	11.6	11.3	10.8	10.6	10.3	10.6	7.3	5.1	7.5	5.2	9.9
16	12.6	12.3	10.5	11.2	10.7	10.1	9.9	9.9	10.3	6.7	5.4	6.5	4.6	9.3
17	12.2	12.7	11.2	11.8	10.1	10.0	9.9	10.4	10.6	7.1	4.9	6.9	3.8	9.3
18	12.2	12.4	12.0	10.7	9.6	9.7	9.7	10.5	10.8	7.0	4.6	6.4	2.7	9.1
19	12.7	12.0	11.9	11.2	10.1	10.0	10.1	10.3	11.4	7.0	4.8	4.9	3.0	9.2
20	12.7	12.4	12.3	11.6	10.0	9.7	10.8	10.8	11.4	6.4	4.9	5.6	2.3	9.3
21	12.6	12.4	12.6	12.1	10.3	9.9	10.8	10.9	12.5	6.2	4.4	6.2	1.9	9.4
22	13.1	12.5	12.2	12.7	10.7	9.9	10.9	10.3	12.6	5.7	4.5	6.4	2.6	9.6
23	13.4	12.2	11.8	12.7	10.9	10.4	11.0	10.1	12.2	5.9	4.1	6.6	3.6	9.6

TABLE XVIII.—MEAN LUNATION-DETERMINATION of the WESTERN DECLINATION of the MAGNET, &c.—continued.

1854.

Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.

Lunar Hour.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Mean.
	d h m 28. O. 46	d h m 27. I. 17	d h m 28. O. 43	d h m 27. O. 51	d h m 27. I. 7	d h m 25. O. 43	d h m 25. I. 9	d h m 24. I. 23	d h m 22. O. 47	d h m 22. O. 57	d h m 21. I. 28	d h m 20. I. 16	
	22°	22°	22°	22°	22°	21°	21°	21°	21°	21°	21°	21°	21°
0	2.1	3.6	3.2	2.3	1.3	61.3	62.4	59.7	59.2	58.5	58.1	50.7	60.7
1	2.4	2.7	3.0	1.5	1.5	60.9	62.4	59.7	59.3	58.7	58.4	51.3	60.2
2	2.2	3.3	3.5	2.0	1.3	60.3	62.0	59.6	59.2	58.8	58.0	52.1	60.2
3	2.1	3.6	3.3	1.5	1.0	59.9	61.7	59.6	59.7	58.5	57.7	52.4	60.2
4	2.0	3.0	3.2	2.1	1.4	60.1	61.6	59.7	59.3	58.3	58.1	52.6	60.1
5	2.8	2.4	3.1	2.4	1.4	60.6	60.9	59.8	59.4	58.4	58.2	52.7	60.2
6	2.9	2.6	2.1	1.9	1.5	60.6	61.3	59.6	59.8	58.0	58.1	52.8	60.1
7	2.2	1.7	1.9	1.2	1.3	60.3	60.9	59.5	59.0	58.1	58.2	52.2	59.7
8	2.4	1.9	2.2	0.8	1.6	60.2	61.2	58.9	58.1	58.0	57.9	52.2	59.6
9	3.2	2.0	1.6	0.7	1.2	60.2	61.4	59.0	59.1	58.1	57.8	52.1	59.7
10	3.6	1.9	2.1	1.1	1.3	60.2	61.7	60.0	59.7	58.7	57.9	51.6	59.9
11	3.5	2.4	2.0	1.6	1.4	60.4	61.5	60.2	59.0	58.7	58.0	52.3	60.1
12	4.6	2.3	2.2	2.2	1.6	60.3	60.7	59.9	58.2	58.6	58.2	52.1	60.1
13	4.0	2.5	1.7	2.7	1.7	60.4	59.9	59.8	58.7	58.7	58.1	51.7	60.0
14	3.5	2.5	1.3	2.8	2.0	60.2	60.1	60.0	58.1	58.9	58.7	51.6	60.0
15	4.0	2.9	1.4	2.3	1.4	60.5	60.7	59.5	57.5	58.8	58.1	51.6	59.9
16	3.6	3.2	2.6	1.4	1.4	60.7	61.0	59.3	57.0	58.9	58.3	51.2	59.9
17	3.9	2.0	1.9	1.7	1.6	60.9	61.2	59.3	57.6	58.9	58.2	50.3	59.8
18	2.5	2.1	2.2	2.0	1.3	61.0	61.7	58.8	57.4	58.4	58.0	50.6	59.7
19	2.8	2.6	2.4	1.2	0.7	61.4	61.3	59.1	58.3	57.8	57.9	50.9	59.7
20	1.8	2.0	2.1	1.2	0.9	61.6	61.7	59.3	58.5	57.8	57.3	50.9	59.6
21	1.5	3.2	1.7	1.2	0.8	61.0	62.3	59.4	58.4	58.0	57.5	51.3	59.7
22	1.8	3.1	2.5	1.3	0.8	61.5	62.9	59.2	58.7	58.1	57.4	50.8	59.8
23	1.5	3.7	3.2	1.3	0.8	61.3	62.6	59.5	58.7	58.3	57.5	51.0	59.9

1855.

Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.

Lunar Hour.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Mean.
	d h m 18. I. 5	d h m 16. O. 46	d h m 18. I. 10	d h m 17. I. 25	d h m 16. O. 56	d h m 15. I. 27	d h m 14. I. 6	d h m 13. I. 23	d h m 11. O. 45	d h m 11. O. 44	d h m 10. O. 56	d h m 10. I. 35	
	21°	21°	21°	21°	21°	21°	21°	21°	21°	21°	21°	21°	21°
0	49.0	49.5	50.1	49.1	49.7	52.1	49.7	50.2	47.2	46.4	45.9	45.0	48.7
1	48.6	49.8	49.8	49.1	49.6	51.2	48.9	49.8	47.2	46.1	45.9	46.3	48.5
2	49.1	49.7	49.3	49.4	50.2	51.0	48.8	49.4	48.0	45.5	46.1	46.8	48.6
3	49.5	49.9	48.9	49.3	50.2	51.7	49.0	49.5	47.2	45.6	45.2	46.5	48.5
4	49.4	49.0	48.6	49.1	49.6	51.4	49.1	48.8	47.3	45.1	45.2	46.4	48.3
5	49.2	48.8	48.8	49.1	49.8	51.0	48.0	48.7	47.1	45.3	45.4	45.8	48.1
6	50.4	47.8	48.8	49.1	49.9	50.7	48.9	49.3	47.0	45.4	46.2	46.0	48.4
7	49.8	48.2	49.1	48.9	50.6	50.1	49.4	48.9	47.4	45.9	45.6	46.3	48.4
8	49.7	48.2	48.3	48.5	50.2	50.3	49.7	47.9	47.0	46.3	46.3	46.4	48.2
9	49.8	49.5	48.7	49.3	50.2	49.9	49.7	47.9	47.9	46.1	46.0	46.4	48.5
10	49.6	49.4	48.4	49.5	50.8	49.1	49.5	47.6	48.2	46.2	46.0	47.0	48.4
11	49.5	49.2	48.3	49.8	51.0	48.9	50.2	48.2	47.6	45.9	46.1	47.0	48.5
12	49.3	49.4	48.2	50.2	50.7	49.6	50.2	49.0	47.4	45.9	45.9	46.7	48.5
13	49.6	49.3	49.0	50.1	50.3	49.8	50.1	48.8	47.3	45.9	45.7	46.9	48.6
14	49.6	48.5	49.6	49.7	50.4	49.9	50.2	48.2	47.7	46.3	46.1	47.3	48.6
15	49.4	48.9	49.2	49.6	50.0	49.6	50.2	48.0	47.1	46.9	45.9	47.4	48.4
16	48.8	48.4	48.8	49.0	50.2	49.9	49.3	48.3	46.3	46.6	45.8	47.4	48.2
17	48.8	48.3	49.1	48.6	50.9	50.2	48.9	48.3	46.3	46.3	46.0	47.5	48.3
18	48.7	48.6	48.7	49.1	51.0	50.4	48.7	48.4	46.3	45.7	46.0	47.3	48.2
19	48.8	47.7	49.1	48.5	50.0	51.1	48.8	48.6	46.7	45.7	45.7	47.1	48.2
20	48.6	47.1	48.7	48.9	50.5	51.5	49.2	49.4	46.8	45.8	45.9	47.0	48.3
21	48.4	47.8	48.8	48.8	50.5	51.5	48.1	49.4	47.2	46.4	45.7	46.6	48.3
22	48.3	48.0	49.1	48.9	49.9	51.8	47.8	50.2	47.4	46.3	45.6	46.3	48.3
23	48.4	49.0	48.9	49.9	50.0	52.6	48.4	50.6	47.4	46.7	45.9	46.2	48.5

TABLE XVIII.—MEAN LUNATION-DETERMINATION of the WESTERN DECLINATION of the MAGNET, &c.—concluded.

1856.

Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.

Lunar Hour.	January.	February.	March.	April.	May.	June.	July.	August.	August.	September.	October.	November.	December.	Mean
	<small>d h m</small> 8. 1. 53	<small>d h m</small> 6. 1. 5	<small>d h m</small> 7. 1. 31	<small>d h m</small> 5. 0. 57	<small>d h m</small> 5. 1. 26	<small>d h m</small> 3. 1. 6	<small>d h m</small> 2. 0. 52	<small>d h m</small> 1. 1. 22	<small>d h m</small> 30. 0. 47	<small>d h m</small> 29. 0. 46	<small>d h m</small> 29. 0. 46	<small>d h m</small> 28. 1. 8	<small>d h m</small> 27. 0. 50	
	21°	21°	21°	21°	21°	21°	21°	21°	21°	21°	21°	21°	21°	
0	45.3	45.7	45.1	43.4	43.8	43.7	45.0	45.2	45.1	41.6	41.1	40.7	37.4	43.3
1	44.9	46.1	45.5	43.3	44.8	44.1	45.1	44.6	44.9	41.7	41.3	40.5	37.4	43.4
2	45.5	46.2	45.9	43.8	44.1	43.8	44.8	43.7	43.8	41.7	41.4	40.1	37.4	43.3
3	45.2	46.3	45.9	44.0	44.2	43.6	45.2	42.7	41.5	41.3	41.4	40.2	37.6	43.0
4	45.8	46.0	45.8	44.1	44.2	43.9	44.8	42.7	40.7	41.5	41.2	40.6	37.6	43.1
5	45.8	46.3	45.7	43.6	44.6	44.0	44.5	43.1	40.6	41.2	41.4	40.1	37.5	42.9
6	46.1	46.0	45.6	43.6	44.7	43.9	44.6	42.9	41.1	41.3	41.4	40.1	37.6	43.0
7	46.1	45.6	45.4	43.4	44.5	44.1	44.5	43.7	42.5	41.4	41.4	39.9	37.5	43.1
8	46.1	45.9	45.6	43.5	44.3	44.3	44.2	43.5	43.5	41.0	41.5	40.0	37.0	43.1
9	46.1	45.7	45.7	43.7	44.4	44.7	44.3	44.0	42.0	41.7	41.2	40.5	37.0	43.2
10	46.1	45.1	45.9	44.0	44.0	44.1	44.2	44.4	41.8	42.1	41.0	40.0	37.3	43.2
11	46.6	46.3	46.1	44.4	43.5	44.6	44.4	43.8	41.3	41.6	40.9	39.5	37.3	43.1
12	46.1	46.6	46.1	44.7	42.9	44.2	44.0	43.9	42.2	40.8	40.9	39.9	37.2	43.0
13	46.4	45.9	46.1	44.8	42.8	43.9	44.9	43.4	41.8	40.3	41.2	40.6	37.1	43.0
14	46.4	46.3	45.7	45.0	42.6	43.4	45.0	43.7	42.0	40.1	41.2	40.1	36.7	42.9
15	46.2	46.2	45.9	44.4	42.4	43.0	44.8	44.0	41.3	40.2	40.7	39.9	36.7	42.7
16	45.7	45.9	45.9	44.3	42.8	43.5	44.7	44.0	42.6	40.7	40.7	40.2	36.1	42.8
17	45.8	45.9	45.8	43.9	43.1	43.4	44.5	43.6	43.5	40.1	40.8	40.3	36.2	42.8
18	45.6	45.9	45.7	43.7	43.0	43.1	45.0	43.2	44.2	40.1	41.1	40.6	36.2	42.9
19	45.7	45.1	46.0	43.5	43.0	44.4	44.4	44.1	45.4	39.7	41.0	41.3	36.3	43.1
20	45.3	45.1	45.3	43.8	43.0	43.9	44.9	44.4	45.5	39.6	40.7	41.1	35.7	42.9
21	45.1	44.9	45.2	43.8	42.5	43.9	45.0	44.8	45.3	40.4	40.9	41.0	35.8	43.0
22	45.3	45.3	45.3	42.9	42.5	43.3	45.3	44.9	46.4	41.0	41.3	40.9	36.5	43.1
23	45.2	45.3	44.9	43.5	43.4	43.1	45.0	44.6	45.8	41.8	41.0	40.5	36.6	43.1

1857.

Göttingen Mean Solar Time of the beginning of each Solar Day of each Lunation.

Lunar Hour.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Mean.
	<small>d h m</small> 26. 1. 27	<small>d h m</small> 24. 0. 58	<small>d h m</small> 26. 1. 15	<small>d h m</small> 24. 0. 46	<small>d h m</small> 24. 1. 30	<small>d h m</small> 22. 1. 20	<small>d h m</small> 21. 1. 4	<small>d h m</small> 22. 1. 25	<small>d h m</small> 18. 0. 45	<small>d h m</small> 18. 0. 46	<small>d h m</small> 17. 1. 0	<small>d h m</small> 17. 1. 29	
	21°	21°	21°	21°	21°	21°	21°	21°	21°	21°	21°	21°	
0	36.3	36.8	35.8	37.2	34.4	36.1	34.7	35.8	36.9	35.0	32.9	33.0	35.4
1	36.7	37.0	35.6	36.9	34.2	35.8	34.6	35.5	36.4	35.0	32.7	31.4	35.2
2	36.5	37.1	35.5	36.8	33.8	35.5	34.5	34.9	36.0	35.1	32.4	30.4	34.9
3	36.6	36.8	35.5	36.0	33.6	34.7	34.4	35.0	36.2	35.2	32.5	29.8	34.7
4	36.6	36.2	35.7	35.3	33.7	34.5	34.5	35.1	35.9	35.0	32.2	29.9	34.5
5	36.3	36.0	35.8	35.2	33.6	34.3	34.1	35.2	36.4	35.0	32.3	30.0	34.5
6	36.2	36.1	36.1	35.8	33.5	34.6	34.5	35.2	36.5	35.0	32.5	29.7	34.6
7	36.0	36.3	36.1	36.6	34.2	34.4	35.0	34.8	36.9	34.6	33.0	29.9	34.8
8	36.5	36.5	35.7	36.6	35.1	34.5	34.7	35.3	36.9	35.1	32.7	30.5	35.0
9	36.4	36.5	35.9	36.7	34.9	34.5	34.5	35.5	37.0	35.4	32.5	30.6	35.0
10	36.5	36.2	36.3	35.8	34.3	34.6	34.9	35.4	37.1	35.3	32.6	31.1	35.0
11	36.8	36.5	36.3	35.8	34.7	34.7	35.1	35.8	37.1	35.1	32.9	31.9	35.2
12	37.0	36.9	36.6	36.1	35.1	35.4	34.7	35.6	36.9	35.7	32.9	32.5	35.5
13	37.0	36.7	36.8	36.4	35.3	36.0	34.9	35.4	37.1	35.8	33.3	32.6	35.6
14	37.1	36.6	36.6	36.8	35.0	35.9	35.5	35.4	37.5	35.7	33.7	32.9	35.7
15	36.7	36.1	36.5	37.0	35.1	36.1	35.5	35.5	37.1	35.8	33.9	32.8	35.7
16	36.4	36.0	36.2	37.0	35.4	36.5	35.6	35.8	37.0	36.1	33.6	34.1	35.8
17	36.2	35.9	36.0	36.7	35.8	35.5	35.3	35.5	37.1	35.2	33.4	34.6	35.6
18	36.0	36.1	35.5	36.1	35.4	35.2	35.4	35.7	36.9	35.4	33.1	34.8	35.5
19	36.0	36.1	35.7	35.8	34.8	35.5	34.9	35.8	37.1	35.5	32.9	34.6	35.4
20	36.3	36.2	35.5	35.7	34.7	35.4	35.2	36.3	37.4	35.4	32.8	34.5	35.5
21	36.4	36.2	35.7	36.0	34.8	35.5	35.1	36.1	37.9	35.2	32.4	34.0	35.4
22	36.2	36.4	35.8	36.0	34.9	35.5	35.0	36.2	38.0	35.1	32.4	33.5	35.4
23	36.2	36.5	35.8	36.5	34.7	35.3	35.1	35.8	38.2	34.7	32.4	33.0	35.4

TABLE XIX.—MEAN, through the RANGE of LUNATIONS, of the LUNATION-MEAN DETERMINATIONS of the LUNO-DIURNAL INEQUALITY of DECLINATION, exhibited separately for the different Years, with the MEAN for all the YEARS.

Lunar Hour.	Mean Luno-Diurnal Inequality in each Year.										Mean, 1848 to 1857.	Equivalent in terms of Horizontal Force.
	1848.	1849.	1850.	1851.	1852.	1853.	1854.	1855.	1856.	1857.		
0	+ 0.1	+ 0.5	+ 0.1	+ 0.2	0.0	+ 0.3	+ 0.8	+ 0.3	+ 0.2	+ 0.2	+ 0.27	+ 0.000079
1	- 0.2	+ 0.4	+ 0.1	+ 0.1	- 0.2	+ 0.2	+ 0.3	+ 0.1	+ 0.3	- 0.0	+ 0.11	+ 32
2	+ 0.2	+ 0.5	+ 0.1	- 0.2	- 0.2	+ 0.2	+ 0.3	+ 0.2	+ 0.2	- 0.3	+ 0.10	+ 29
3	+ 0.4	+ 0.3	0.0	- 0.2	- 0.3	- 0.1	+ 0.3	+ 0.1	+ 0.1	- 0.5	- 0.01	- 3
4	+ 0.2	- 0.1	0.0	- 0.3	- 0.3	0.0	+ 0.2	- 0.1	0.0	- 0.7	- 0.11	- 32
5	+ 0.1	- 0.6	- 0.3	- 0.3	- 0.4	- 0.3	+ 0.3	- 0.3	- 0.2	- 0.7	- 0.27	- 79
6	+ 0.3	- 0.6	- 0.2	- 0.2	- 0.4	- 0.2	+ 0.2	0.0	- 0.1	- 0.6	- 0.18	- 52
7	+ 0.3	- 0.8	- 0.3	- 0.1	- 0.4	- 0.4	- 0.2	0.0	0.0	- 0.4	- 0.23	- 67
8	+ 0.4	- 0.7	- 0.3	+ 0.1	- 0.2	- 0.1	- 0.3	- 0.2	0.0	- 0.2	- 0.15	- 44
9	+ 0.4	- 0.6	- 0.1	+ 0.1	- 0.2	- 0.1	- 0.2	+ 0.1	+ 0.1	- 0.2	- 0.07	- 20
10	+ 0.4	- 0.4	+ 0.1	+ 0.2	0.0	- 0.1	0.0	0.0	+ 0.1	- 0.2	+ 0.01	+ 3
11	+ 0.3	- 0.1	+ 0.2	+ 0.2	0.0	+ 0.1	+ 0.2	+ 0.1	0.0	0.0	+ 0.10	+ 29
12	+ 0.3	0.0	+ 0.3	+ 0.3	+ 0.2	+ 0.3	+ 0.2	+ 0.1	- 0.1	+ 0.3	+ 0.19	+ 55
13	+ 0.1	+ 0.2	+ 0.4	+ 0.2	+ 0.2	+ 0.3	+ 0.1	+ 0.2	- 0.1	+ 0.4	+ 0.20	+ 58
14	- 0.2	+ 0.2	+ 0.2	+ 0.1	+ 0.6	+ 0.2	+ 0.1	+ 0.2	- 0.2	+ 0.5	+ 0.17	+ 49
15	- 0.1	0.0	+ 0.1	0.0	+ 0.6	+ 0.5	0.0	0.0	- 0.4	+ 0.5	+ 0.12	+ 35
16	- 0.2	+ 0.1	+ 0.1	+ 0.1	+ 0.4	- 0.1	0.0	- 0.2	- 0.3	+ 0.6	+ 0.05	+ 15
17	- 0.3	+ 0.1	+ 0.1	+ 0.1	+ 0.1	- 0.1	- 0.1	- 0.1	- 0.3	+ 0.4	- 0.01	- 3
18	- 0.3	0.0	0.0	- 0.1	+ 0.1	- 0.3	- 0.2	- 0.2	- 0.2	+ 0.3	- 0.09	- 26
19	- 0.5	+ 0.1	- 0.1	- 0.2	+ 0.1	- 0.2	- 0.2	- 0.2	0.0	+ 0.2	- 0.10	- 29
20	- 0.7	+ 0.1	0.0	0.0	- 0.1	- 0.1	- 0.3	- 0.1	- 0.2	+ 0.3	- 0.11	- 32
21	- 0.7	- 0.2	0.0	0.0	- 0.1	0.0	- 0.2	- 0.1	- 0.1	+ 0.2	- 0.12	- 35
22	- 0.6	0.0	+ 0.1	+ 0.1	- 0.2	+ 0.2	- 0.1	- 0.1	0.0	+ 0.2	- 0.04	- 12
23	- 0.3	+ 0.2	0.0	+ 0.2	0.0	+ 0.2	0.0	+ 0.1	0.0	+ 0.2	+ 0.06	+ 17

REDUCTIONS OF MAGNETIC HORIZONTAL FORCE REFERRED TO THE MOON'S PLACE.

TABLE XX.—MEAN LUNATION-INEQUALITY of the MAGNETIC HORIZONTAL FORCE, exhibited separately for the different Years, with the MEAN for all the YEARS, corrected for the DAILY PROPORTION of SECULAR CHANGE of HORIZONTAL FORCE.

Day of the Lunation.	Mean Lunation-Inequality in each Year.										Mean, 1848 to 1857.	Mean corrected for Secular Change.	Fourth Mean of Successive Numbers.
	1848.	1849.	1850.	1851.	1852.	1853.	1854.	1855.	1856.	1857.			
1	- 0.0025	+ 0.0005	0.0000	- 0.0004	+ 0.0002	0.0000	- 0.0008	+ 0.0002	+ 0.0005	- 0.0012	- 0.00035	- 0.00027	- 0.00011
2	1 +	2 +	2 +	2 +	5 -	1 -	0 -	3 -	0 +	1 +	7 +	15 +	1 +
3	9 -	4 +	2 +	1 -	2 -	7 -	0 -	5 -	2 +	11 +	3 +	10 +	7 -
4	11 -	1 -	1 +	6 +	2 -	0 +	1 +	1 +	3 -	4 -	4 +	2 +	6 -
5	9 -	3 +	6 +	1 -	2 +	2 +	1 +	4 +	1 +	3 +	4 +	10 +	4 -
6	6 +	4 +	4 -	1 -	1 -	4 +	3 +	3 -	12 -	2 -	12 -	7 +	3 +
7	2 -	7 +	6 +	7 -	1 +	2 +	5 -	2 +	6 +	3 +	5 +	10 +	5 -
8	4 +	6 +	1 +	4 -	2 +	2 +	3 -	10 +	6 +	3 +	5 +	9 +	6 -
9	1 +	1 +	2 +	0 -	2 +	3 +	2 +	1 -	6 -	5 -	3 -	0 +	7 -
10	11 -	1 -	3 +	4 -	4 +	8 -	3 +	2 -	5 +	3 +	12 +	15 +	8 -
11	5 +	5 -	8 +	3 -	2 +	12 -	2 +	2 -	3 +	6 +	8 +	10 +	7 -
12	6 +	1 -	7 +	1 -	2 +	3 -	2 +	2 -	8 +	1 -	5 -	3 +	2 -
13	7 -	4 +	1 -	6 +	2 +	11 +	3 -	2 -	11 +	7 -	6 -	5 +	1 -
14	11 +	0 +	3 +	1 +	1 +	13 -	1 -	4 -	12 +	7 +	19 +	19 -	3 -
15	21 -	5 +	11 -	1 -	3 -	1 -	10 +	3 -	5 +	1 -	31 -	31 -	13 -
16	5 +	2 +	5 -	3 -	3 -	10 -	4 -	1 +	3 +	1 -	15 -	16 -	20 -
17	8 +	6 +	6 -	3 -	5 -	7 -	9 -	0 -	4 -	1 -	25 -	26 -	18 -
18	1 -	3 +	6 -	5 -	4 -	1 -	10 +	1 -	3 +	5 -	13 -	15 -	8 -
19	18 +	4 -	3 -	4 +	2 -	2 -	6 -	0 +	10 +	1 +	20 +	17 +	4 -
20	8 +	1 -	2 -	2 -	3 -	9 -	0 +	0 +	8 +	9 +	10 +	7 +	13 -
21	10 +	4 +	1 +	2 -	3 +	6 +	2 +	10 +	9 +	5 +	26 +	22 +	17 -
22	16 +	2 -	9 +	7 -	0 -	3 +	6 +	6 +	8 +	7 +	26 +	22 +	16 -
23	12 -	3 -	1 +	2 +	3 -	2 -	4 +	7 +	5 -	11 +	8 +	3 +	12 -
24	12 +	0 -	1 +	2 +	5 +	14 -	5 +	2 -	7 +	8 -	16 +	10 +	9 -
25	19 +	4 -	4 +	3 -	3 -	7 +	5 -	3 +	6 +	1 +	21 +	15 +	3 -
26	2 -	1 -	5 -	2 +	7 -	17 +	12 -	3 +	2 -	0 -	5 -	12 -	11 -
27	10 +	1 -	14 -	5 +	1 -	7 +	10 -	3 -	6 -	1 -	34 -	41 -	22 -
28	2 +	2 -	2 -	6 -	1 -	2 +	6 -	4 -	1 -	0 -	6 -	14 -	22 -
29	24 -	9 +	3 +	5 -	0 -	0 +	4 +	6 +	12 -	5 -	8 -	16 -	18 -

TABLE XXI.—MEAN LUNAR-MONTHLY DETERMINATION of the HORIZONTAL MAGNETIC FORCE, uncorrected for TEMPERATURE, at every LUNAR HOUR of the LUNAR DAY, obtained by taking the MEAN of all the DETERMINATIONS at the same LUNAR HOUR through each LUNATION.

1848.

Lunar Hour.	Gottingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.												
	January.	February.	March.	April.	May.	June.	July.	July.	August.	September.	October.	November.	December.
	d h m 6. o. 43	d h m 5. I. 14	d h m 5. o. 47	d h m 4. I. 16	d h m 3. o. 53	d h m 2. I. 34	d h m I. I. 15	d h m 30. o. 53	d h m 29. I. 12	d h m 28. I. 21	d h m 27. o. 45	d h m 26. o. 59	d h m 26. I. 20
0	0'1013	0'1013	0'1018	0'1029	0'1058	0'1078	0'0906	0'0930	0'0958	0'0966	0'1004	0'1006	0'1026
1	'1014	'1012	'1016	'1028	'1060	'1077	'0905	'0929	'0959	'0967	'1003	'1007	'1025
2	'1014	'1012	'1015	'1030	'1059	'1078	'0905	'0931	'0960	'0968	'1002	'1007	'1026
3	'1013	'1012	'1016	'1030	'1059	'1080	'0905	'0932	'0961	'0967	'1003	'1007	'1028
4	'1012	'1012	'1014	'1028	'1059	'1079	'0906	'0930	'0961	'0970	'1005	'1006	'1027
5	'1011	'1010	'1013	'1028	'1058	'1078	'0904	'0930	'0960	'0972	'1004	'1006	'1028
6	'1010	'1012	'1012	'1031	'1059	'1078	'0904	'0932	'0961	'0971	'1005	'1005	'1029
7	'1011	'1014	'1011	'1031	'1060	'1079	'0903	'0932	'0958	'0970	'1001	'1006	'1028
8	'1008	'1014	'1013	'1030	'1061	'1080	'0904	'0934	'0958	'0968	'1001	'1007	'1029
9	'1009	'1014	'1016	'1029	'1061	'1080	'0902	'0936	'0959	'0971	'1002	'1006	'1027
10	'1009	'1014	'1015	'1031	'1062	'1079	'0902	'0936	'0960	'0971	'1003	'1006	'1024
11	'1008	'1014	'1016	'1031	'1061	'1079	'0906	'0936	'0962	'0971	'1005	'1006	'1028
12	'1007	'1013	'1016	'1034	'1061	'1082	'0907	'0935	'0963	'0971	'1002	'1005	'1028
13	'1011	'1014	'1018	'1033	'1063	'1080	'0907	'0934	'0964	'0971	'1002	'1005	'1024
14	'1012	'1013	'1020	'1031	'1063	'1078	'0908	'0935	'0963	'0972	'1002	'1004	'1023
15	'1014	'1014	'1019	'1031	'1062	'1080	'0909	'0935	'0964	'0970	'1002	'1003	'1024
16	'1013	'1012	'1019	'1031	'1061	'1079	'0908	'0932	'0964	'0972	'1003	'1004	'1025
17	'1014	'1013	'1018	'1029	'1059	'1077	'0909	'0931	'0962	'0970	'1003	'1002	'1023
18	'1013	'1012	'1018	'1032	'1059	'1078	'0908	'0931	'0961	'0970	'1002	'1003	'1026
19	'1015	'1012	'1015	'1031	'1057	'1076	'0907	'0931	'0960	'0969	'1003	'1001	'1026
20	'1014	'1013	'1013	'1030	'1055	'1077	'0905	'0929	'0959	'0968	'1003	'1002	'1025
21	'1016	'1013	'1016	'1029	'1054	'1077	'0904	'0929	'0957	'0970	'1003	'1001	'1026
22	'1015	'1014	'1015	'1033	'1057	'1078	'0903	'0929	'0957	'0969	'1004	'1000	'1027
23	'1014	'1014	'1014	'1033	'1056	'1078	'0908	'0930	'0958	'0971	'1003	'1003	'1026

1849.

Lunar Hour.	Gottingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
	d h m 24. o. 54	d h m 23. I. 15	d h m 24. o. 45	d h m 23. I. 12	d h m 22. o. 52	d h m 21. I. 38	d h m 20. I. 20	d h m 18. o. 57	d h m 17. I. 18	d h m 16. o. 44	d h m 15. o. 58	d h m 15. I. 17	
0	0'1026	0'1025	0'1038	0'1013	0'0999	0'1001	0'0997	0'0993	0'1001	0'1001	0'1013	0'1014	
1	'1027	'1026	'1038	'1013	'0999	'0999	'0996	'0994	'1003	'1001	'1013	'1016	
2	'1029	'1028	'1039	'1015	'1001	'1000	'0997	'0996	'1004	'1002	'1015	'1016	
3	'1028	'1027	'1041	'1016	'1001	'1000	'0997	'0996	'1005	'1001	'1015	'1020	
4	'1029	'1028	'1041	'1018	'1000	'0999	'0996	'0994	'1003	'1001	'1016	'1018	
5	'1028	'1028	'1037	'1018	'1003	'0998	'0994	'0993	'1003	'0999	'1014	'1020	
6	'1028	'1027	'1034	'1017	'1002	'0998	'0994	'0991	'1001	'1001	'1014	'1022	
7	'1026	'1025	'1036	'1019	'1004	'0997	'0994	'0991	'1001	'1002	'1012	'1023	
8	'1027	'1025	'1035	'1017	'1005	'0999	'0993	'0990	'1002	'1003	'1011	'1023	
9	'1023	'1026	'1035	'1017	'1005	'1000	'0993	'0991	'1000	'1003	'1013	'1023	
10	'1022	'1027	'1033	'1018	'1003	'0998	'0993	'0991	'1002	'1002	'1013	'1025	
11	'1022	'1029	'1035	'1017	'1003	'0998	'0995	'0992	'1002	'1001	'1014	'1026	
12	'1024	'1028	'1036	'1018	'1002	'0999	'0994	'0993	'1002	'1001	'1014	'1026	
13	'1024	'1028	'1034	'1016	'1004	'1000	'0994	'0994	'1002	'1001	'1014	'1027	
14	'1025	'1028	'1032	'1014	'1004	'0998	'0994	'0993	'1002	'1001	'1013	'1027	
15	'1024	'1026	'1035	'1014	'1003	'0998	'0994	'0995	'1003	'1000	'1013	'1025	
16	'1024	'1026	'1036	'1014	'1005	'0999	'0991	'0995	'1003	'1000	'1013	'1021	
17	'1024	'1025	'1036	'1013	'1002	'0998	'0992	'0995	'1002	'1000	'1014	'1023	
18	'1024	'1024	'1039	'1014	'1000	'0998	'0993	'0994	'1000	'1000	'1012	'1022	
19	'1024	'1025	'1036	'1013	'0999	'0999	'0992	'0995	'0999	'1000	'1013	'1022	
20	'1024	'1024	'1034	'1012	'0996	'1000	'0992	'0994	'1001	'0999	'1012	'1021	
21	'1024	'1025	'1035	'1011	'0997	'0999	'0993	'0992	'1001	'1000	'1011	'1023	
22	'1024	'1025	'1037	'1011	'0998	'1001	'0995	'0993	'1002	'1000	'1012	'1023	
23	'1026	'1026	'1039	'1012	'0997	'1001	'0995	'0992	'1003	'1002	'1013	'1024	

TABLE XXI.—MEAN LUNAR-MONTHLY DETERMINATION of the HORIZONTAL MAGNETIC FORCE, &c.—*continued.*

1850.

Lunar Hour.	Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.											
	January. d h m 13. 0. 49	February. d h m 12. 1. 6	March. d h m 14. 1. 19	April. d h m 12. 0. 46	May. d h m 12. 1. 11	June. d h m 10. 0. 52	July. d h m 10. 1. 40	August. d h m 8. 1. 22	September. d h m 6. 0. 57	October. d h m 6. 1. 20	November. d h m 4. 0. 49	December. d h m 4. 1. 12
0	0°1043	0°1025	0°1015	0°1009	0°1011	0°0984	0°0971	0°0967	0°0978	0°0995	0°1005	0°1009
1	°1043	°1026	°1015	°1010	°1012	°0987	°0971	°0966	°0981	°0993	°1005	°1009
2	°1043	°1028	°1016	°1010	°1011	°0987	°0971	°0966	°0979	°0993	°1004	°1009
3	°1042	°1028	°1016	°1012	°1011	°0988	°0970	°0967	°0978	°0994	°1002	°1010
4	°1040	°1026	°1015	°1012	°1011	°0987	°0967	°0966	°0977	°0993	°1002	°1010
5	°1040	°1025	°1016	°1011	°1009	°0985	°0966	°0965	°0976	°0993	°1002	°1008
6	°1041	°1025	°1015	°1012	°1008	°0986	°0963	°0965	°0975	°0993	°1004	°1008
7	°1040	°1024	°1015	°1012	°1007	°0985	°0965	°0966	°0974	°0993	°1005	°1007
8	°1039	°1023	°1016	°1011	°1006	°0984	°0966	°0967	°0974	°0992	°1005	°1007
9	°1041	°1021	°1015	°1012	°1005	°0982	°0965	°0968	°0974	°0993	°1006	°1008
10	°1040	°1024	°1015	°1011	°1005	°0985	°0968	°0970	°0976	°0995	°1006	°1008
11	°1040	°1025	°1017	°1011	°1007	°0984	°0971	°0971	°0976	°0996	°1007	°1009
12	°1041	°1027	°1018	°1010	°1005	°0983	°0972	°0971	°0978	°0996	°1006	°1009
13	°1042	°1027	°1018	°1010	°1004	°0984	°0971	°0971	°0978	°0995	°1006	°1009
14	°1040	°1026	°1017	°1010	°1003	°0982	°0971	°0971	°0980	°0997	°1007	°1007
15	°1040	°1026	°1018	°1009	°1006	°0982	°0969	°0969	°0979	°0996	°1007	°1007
16	°1039	°1028	°1018	°1010	°1004	°0981	°0969	°0969	°0978	°0995	°1008	°1009
17	°1041	°1026	°1018	°1008	°1003	°0980	°0967	°0967	°0977	°0993	°1007	°1007
18	°1041	°1024	°1016	°1008	°1003	°0980	°0966	°0965	°0976	°0993	°1006	°1007
19	°1040	°1023	°1015	°1008	°1006	°0979	°0968	°0964	°0976	°0992	°1007	°1006
20	°1042	°1022	°1015	°1006	°1006	°0978	°0969	°0963	°0979	°0993	°1006	°1007
21	°1042	°1023	°1014	°1006	°1007	°0980	°0970	°0966	°0977	°0994	°1006	°1007
22	°1042	°1021	°1014	°1007	°1007	°0982	°0969	°0964	°0981	°0993	°1005	°1007
23	°1043	°1022	°1015	°1007	°1007	°0983	°0971	°0964	°0979	°0993	°1005	°1007

1851.

Lunar Hour.	Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.												
	January. d h m 2. 0. 46	February. d h m 1. 1. 7	March. d h m 3. 1. 17	April. d h m 1. 0. 40	May. d h m 1. 0. 49	May. d h m 31. 1. 14	June. d h m 29. 0. 57	July. d h m 28. 0. 41	August. d h m 27. 1. 19	September. d h m 25. 0. 53	October. d h m 25. 1. 18	November. d h m 23. 0. 52	December. d h m 23. 1. 26
0	0°1038	0°1037	0°1037	0°1029	0°1017	0°0994	0°1015	0°1008	0°1022	0°1023	0°1044	0°1064	0°1042
1	°1037	°1037	°1036	°1030	°1018	°0994	°1019	°1009	°1024	°1023	°1045	°1066	°1040
2	°1036	°1038	°1035	°1029	°1019	°0993	°1019	°1009	°1024	°1024	°1045	°1066	°1040
3	°1036	°1038	°1033	°1029	°1020	°0991	°1018	°1009	°1024	°1024	°1045	°1064	°1041
4	°1035	°1038	°1035	°1027	°1021	°0987	°1018	°1008	°1022	°1024	°1044	°1064	°1041
5	°1035	°1038	°1035	°1028	°1021	°0983	°1015	°1009	°1021	°1024	°1046	°1064	°1040
6	°1035	°1038	°1034	°1027	°1021	°0982	°1013	°1008	°1019	°1024	°1045	°1064	°1038
7	°1034	°1036	°1033	°1029	°1021	°0982	°1013	°1006	°1019	°1025	°1046	°1064	°1038
8	°1033	°1038	°1034	°1029	°1023	°0982	°1013	°1006	°1020	°1026	°1046	°1064	°1036
9	°1035	°1039	°1034	°1027	°1022	°0983	°1015	°1003	°1020	°1022	°1044	°1064	°1039
10	°1035	°1039	°1035	°1028	°1024	°0983	°1015	°1004	°1019	°1024	°1044	°1065	°1041
11	°1035	°1040	°1034	°1028	°1022	°0984	°1016	°1006	°1021	°1023	°1045	°1065	°1043
12	°1035	°1042	°1037	°1030	°1021	°0987	°1016	°1004	°1021	°1023	°1045	°1067	°1042
13	°1035	°1042	°1036	°1030	°1020	°0990	°1017	°1007	°1021	°1024	°1045	°1066	°1043
14	°1036	°1043	°1037	°1032	°1019	°0990	°1017	°1009	°1020	°1022	°1044	°1066	°1043
15	°1036	°1040	°1037	°1028	°1020	°0991	°1016	°1009	°1019	°1022	°1044	°1066	°1043
16	°1035	°1040	°1036	°1029	°1021	°0987	°1015	°1008	°1017	°1021	°1043	°1065	°1043
17	°1037	°1041	°1035	°1029	°1021	°0989	°1015	°1009	°1016	°1021	°1044	°1066	°1045
18	°1037	°1039	°1034	°1029	°1020	°0989	°1015	°1008	°1017	°1023	°1044	°1065	°1045
19	°1040	°1038	°1034	°1029	°1019	°0990	°1014	°1007	°1018	°1022	°1042	°1065	°1043
20	°1040	°1039	°1034	°1028	°1018	°0991	°1017	°1007	°1019	°1022	°1043	°1062	°1042
21	°1041	°1038	°1034	°1029	°1017	°0992	°1015	°1007	°1020	°1022	°1044	°1066	°1043
22	°1042	°1039	°1035	°1029	°1016	°0992	°1015	°1009	°1022	°1022	°1043	°1066	°1045
23	°1041	°1037	°1036	°1030	°1015	°0993	°1016	°1009	°1022	°1024	°1045	°1064	°1043

TABLE XXI.—MEAN LUNAR-MONTHLY DETERMINATION of the HORIZONTAL MAGNETIC FORCE, &c.—continued.

1852.

Lunar Hour.	Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.											
	January. d h m 21. 1. 3	February. d h m 20. 1. 21	March. d h m 20. 0. 44	April. d h m 19. 0. 46	May. d h m 19. 0. 56	June. d h m 18. 1. 24	July. d h m 17. 1. 6	August. d h m 15. 0. 45	September. d h m 14. 1. 13	October. d h m 13. 0. 44	November. d h m 12. 1. 15	December. d h m 11. 0. 56
0	0'1005	0'1008	0'1007	0'0980	0'1007	0'1000	0'0997	0'1003	0'1020	0'1025	0'1036	0'1027
1	'1008	'1010	'1007	'0982	'1007	'0999	'0998	'1001	'1023	'1023	'1037	'1025
2	'1008	'1010	'1009	'0982	'1006	'0997	'0998	'1002	'1018	'1023	'1035	'1028
3	'1010	'1009	'1007	'0980	'1005	'0995	'0998	'1005	'1019	'1025	'1037	'1031
4	'1006	'1009	'1003	'0975	'1005	'0996	'0997	'1002	'1016	'1023	'1037	'1031
5	'1006	'1011	'1005	'0974	'1007	'0993	'0996	'1006	'1016	'1024	'1037	'1030
6	'1005	'1010	'1004	'0975	'1008	'0992	'0997	'1004	'1015	'1024	'1037	'1032
7	'1005	'1010	'1001	'0975	'1007	'0993	'0997	'1005	'1017	'1024	'1035	'1033
8	'1007	'1008	'1002	'0976	'1006	'0994	'0997	'1003	'1017	'1024	'1034	'1035
9	'1007	'1009	'1002	'0975	'1004	'0992	'0998	'1002	'1017	'1025	'1036	'1037
10	'1008	'1008	'1005	'0977	'1005	'0992	'0999	'1002	'1018	'1024	'1036	'1037
11	'1010	'1011	'1004	'0977	'1005	'0993	'0998	'1001	'1019	'1025	'1034	'1037
12	'1012	'1012	'1005	'0975	'1005	'0993	'1000	'1002	'1019	'1024	'1036	'1036
13	'1012	'1012	'1005	'0975	'1004	'0992	'0998	'1003	'1021	'1024	'1034	'1035
14	'1010	'1015	'1005	'0977	'1005	'0992	'0999	'1002	'1020	'1023	'1035	'1035
15	'1009	'1014	'1004	'0978	'1005	'0991	'0999	'1001	'1020	'1024	'1035	'1034
16	'1010	'1014	'1005	'0979	'1007	'0990	'0998	'0999	'1020	'1024	'1035	'1033
17	'1007	'1012	'1008	'0980	'1006	'0989	'0998	'0998	'1020	'1026	'1036	'1031
18	'1006	'1010	'1008	'0981	'1007	'0989	'0995	'0999	'1018	'1024	'1035	'1031
19	'1006	'1011	'1005	'0982	'1007	'0992	'0996	'0999	'1019	'1025	'1035	'1026
20	'1008	'1012	'1007	'0979	'1007	'0993	'0995	'1001	'1020	'1027	'1033	'1026
21	'1010	'1011	'1005	'0980	'1008	'0993	'0996	'0999	'1020	'1026	'1034	'1027
22	'1011	'1010	'1005	'0981	'1009	'0995	'0995	'1002	'1022	'1024	'1036	'1025
23	'1009	'1008	'1005	'0982	'1008	'0996	'0997	'1003	'1020	'1025	'1036	'1028

1853.

Lunar Hour.	Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.												
	January. d h m 10. 1. 39	February. d h m 8. 1. 14	March. d h m 9. 0. 44	April. d h m 8. 0. 49	May. d h m 8. 0. 54	June. d h m 7. 1. 11	July. d h m 6. 0. 48	August. d h m 5. 1. 16	September. d h m 3. 0. 48	October. d h m 3. 1. 5	November. d h m 2. 1. 31	December. d h m 1. 1. 13	December. d h m 30. 1. 0
0	0'1012	0'1001	0'1000	0'1029	0'1033	0'1042	0'1020	0'1026	0'1024	0'1044	0'1065	0'1074	0'1027
1	'1012	'1002	'1001	'1031	'1038	'1041	'1020	'1027	'1025	'1044	'1066	'1075	'1028
2	'1013	'1003	'0998	'1028	'1038	'1039	'1019	'1026	'1027	'1043	'1066	'1075	'1030
3	'1011	'1002	'0997	'1029	'1038	'1040	'1019	'1025	'1027	'1043	'1066	'1074	'1029
4	'1012	'1002	'0999	'1027	'1039	'1040	'1017	'1026	'1025	'1042	'1067	'1075	'1029
5	'1011	'1001	'1001	'1026	'1039	'1040	'1016	'1026	'1025	'1042	'1066	'1075	'1027
6	'1012	'1003	'0998	'1024	'1042	'1041	'1014	'1025	'1024	'1040	'1066	'1075	'1026
7	'1012	'1003	'0999	'1023	'1044	'1043	'1016	'1025	'1025	'1040	'1064	'1075	'1026
8	'1010	'1002	'0997	'1024	'1046	'1043	'1016	'1026	'1026	'1039	'1064	'1075	'1025
9	'1011	'1001	'0995	'1023	'1046	'1044	'1018	'1025	'1026	'1038	'1064	'1075	'1023
10	'1012	'0999	'0999	'1024	'1048	'1045	'1018	'1026	'1027	'1039	'1063	'1076	'1021
11	'1011	'1000	'0996	'1025	'1046	'1044	'1014	'1024	'1028	'1040	'1064	'1075	'1023
12	'1012	'1001	'0992	'1025	'1046	'1045	'1016	'1028	'1026	'1039	'1063	'1074	'1021
13	'1012	'1001	'0904	'1027	'1046	'1045	'1016	'1026	'1027	'1039	'1063	'1076	'1021
14	'1013	'1002	'0996	'1029	'1046	'1045	'1016	'1027	'1028	'1041	'1063	'1075	'1021
15	'1014	'0999	'0996	'1026	'1045	'1044	'1018	'1028	'1027	'1041	'1064	'1076	'1022
16	'1011	'0999	'0995	'1025	'1042	'1042	'1017	'1024	'1024	'1041	'1064	'1075	'1023
17	'1012	'0999	'0994	'1026	'1041	'1042	'1017	'1025	'1021	'1041	'1064	'1075	'1021
18	'1012	'0999	'0992	'1025	'1041	'1042	'1017	'1025	'1022	'1041	'1064	'1077	'1022
19	'1011	'0999	'0996	'1027	'1038	'1042	'1018	'1026	'1021	'1041	'1064	'1078	'1023
20	'1011	'0998	'0994	'1026	'1037	'1042	'1017	'1026	'1019	'1040	'1066	'1078	'1024
21	'1010	'0998	'0995	'1026	'1039	'1040	'1017	'1028	'1020	'1040	'1066	'1076	'1026
22	'1009	'0999	'0999	'1026	'1038	'1040	'1015	'1024	'1020	'1042	'1068	'1075	'1028
23	'1010	'0999	'0999	'1028	'1037	'1041	'1016	'1025	'1023	'1042	'1068	'1077	'1028

TABLE XXI.—MEAN LUNAR-MONTHLY DETERMINATION of the HORIZONTAL MAGNETIC FORCE, &c.—*continued.*

1854.

Lunar Hour.	Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	d h m 28. o. 46	d h m 27. i. 17	d h m 28. o. 43	d h m 27. o. 51	d h m 27. i. 7	d h m 25. o. 43	d h m 25. i. 9	d h m 24. i. 23	d h m 22. o. 57	d h m 22. o. 57	d h m 21. i. 28	d h m 20. i. 16
0	0°1026	0°1046	0°1032	0°1012	0°1013	0°1017	0°1020	0°1011	0°1041	0°1061	0°1080	0°1057
1	1027	1049	1035	1012	1012	1020	1021	1014	1042	1062	1080	1056
2	1027	1047	1036	1012	1013	1017	1021	1014	1043	1061	1080	1056
3	1026	1048	1037	1014	1012	1015	1020	1012	1042	1062	1082	1055
4	1027	1047	1037	1013	1011	1014	1019	1014	1043	1061	1082	1056
5	1027	1049	1036	1013	1011	1013	1017	1012	1043	1061	1081	1056
6	1026	1047	1036	1014	1009	1010	1018	1012	1043	1061	1084	1056
7	1028	1048	1033	1015	1009	1010	1016	1013	1041	1061	1081	1057
8	1028	1050	1032	1013	1010	1014	1016	1015	1040	1062	1081	1057
9	1025	1048	1033	1012	1012	1013	1018	1015	1042	1061	1082	1058
10	1024	1048	1035	1013	1013	1014	1018	1015	1041	1060	1083	1058
11	1025	1049	1036	1013	1014	1015	1018	1017	1042	1061	1082	1057
12	1024	1050	1036	1013	1014	1015	1019	1017	1044	1061	1081	1057
13	1027	1049	1035	1011	1015	1015	1020	1017	1045	1062	1081	1059
14	1027	1051	1036	1011	1016	1015	1021	1015	1045	1062	1081	1058
15	1027	1050	1033	1010	1014	1016	1021	1012	1043	1062	1080	1056
16	1026	1051	1035	1010	1013	1016	1022	1012	1043	1062	1080	1056
17	1023	1051	1034	1010	1013	1015	1022	1010	1042	1062	1079	1056
18	1021	1049	1033	1010	1012	1016	1021	1010	1043	1062	1079	1056
19	1023	1046	1031	1010	1012	1016	1024	1011	1040	1061	1079	1056
20	1022	1045	1032	1011	1012	1016	1023	1011	1041	1061	1077	1055
21	1027	1043	1031	1012	1013	1017	1022	1011	1041	1060	1077	1055
22	1027	1043	1034	1011	1013	1016	1024	1010	1040	1061	1077	1056
23	1026	1043	1032	1012	1014	1016	1023	1012	1041	1060	1078	1058

1855.

Lunar Hour.	Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	d h m 18. i. 5	d h m 16. o. 46	d h m 18. i. 10	d h m 17. i. 25	d h m 16. o. 56	d h m 15. i. 27	d h m 14. i. 6	d h m 13. i. 23	d h m 11. o. 45	d h m 11. o. 44	d h m 10. o. 56	d h m 10. i. 35
0	0°1060	0°1019	0°1024	0°1011	0°1012	0°1027	0°1012	0°1012	0°1012	0°1020	0°1012	0°1008
1	1061	1022	1025	1009	1013	1025	1014	1012	1012	1018	1011	1010
2	1061	1021	1025	1008	1011	1026	1013	1015	1012	1017	1012	1011
3	1062	1022	1025	1011	1012	1028	1011	1014	1014	1019	1012	1013
4	1062	1023	1024	1011	1012	1030	1013	1016	1011	1018	1011	1013
5	1062	1023	1025	1011	1015	1028	1013	1018	1010	1017	1011	1014
6	1063	1021	1026	1011	1011	1028	1012	1014	1010	1020	1012	1013
7	1063	1020	1024	1011	1009	1029	1010	1011	1008	1018	1012	1014
8	1063	1020	1027	1012	1010	1028	1008	1012	1010	1017	1011	1013
9	1063	1019	1027	1011	1012	1025	1010	1010	1010	1017	1010	1014
10	1062	1023	1027	1012	1011	1026	1010	1009	1008	1018	1011	1012
11	1062	1022	1027	1012	1015	1029	1011	1010	1009	1020	1010	1012
12	1062	1023	1027	1012	1015	1027	1008	1009	1009	1019	1010	1012
13	1059	1021	1028	1012	1015	1025	1011	1009	1010	1019	1010	1012
14	1059	1023	1027	1014	1018	1026	1014	1011	1009	1020	1009	1013
15	1060	1021	1027	1013	1016	1024	1013	1010	1009	1018	1009	1011
16	1059	1022	1028	1014	1017	1024	1014	1010	1010	1020	1010	1012
17	1057	1021	1026	1013	1014	1023	1015	1009	1010	1019	1009	1011
18	1057	1020	1027	1011	1015	1024	1014	1010	1010	1021	1009	1010
19	1056	1019	1026	1010	1014	1022	1013	1011	1011	1020	1008	1009
20	1055	1019	1025	1009	1015	1026	1014	1008	1012	1020	1009	1009
21	1055	1019	1023	1008	1015	1026	1015	1007	1011	1020	1010	1008
22	1058	1020	1021	1008	1015	1025	1013	1008	1011	1020	1010	1009
23	1058	1019	1025	1011	1013	1025	1015	1011	1013	1020	1012	1008

TABLE XXI.—MEAN LUNAR-MONTHLY DETERMINATION of the HORIZONTAL MAGNETIC FORCE, &c.—concluded.

1856.

Lunar Hour.	Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.												
	January. d h m 8. 1. 53	February. d h m 6. 1. 5	March. d h m 7. 1. 31	April. d h m 5. 0. 57	May. d h m 5. 1. 26	June. d h m 3. 1. 6	July. d h m 2. 0. 52	August. d h m 1. 1. 22	August. d h m 30. 0. 47	September. d h m 29. 0. 46	October. d h m 29. 0. 46	November. d h m 28. 1. 8	December. d h m 27. 0. 50
0	0'1025	0'1028	0'1022	0'1038	0'1043	0'1037	0'1028	0'1025	0'1026	0'1099	0'1072	0'1083	0'1080
1	'1026	'1029	'1023	'1040	'1044	'1036	'1028	'1026	'1027	'1096	'1073	'1082	'1082
2	'1026	'1029	'1023	'1039	'1043	'1038	'1029	'1029	'1027	'1095	'1073	'1082	'1082
3	'1026	'1029	'1022	'1039	'1042	'1042	'1027	'1029	'1026	'1095	'1072	'1083	'1081
4	'1027	'1031	'1022	'1040	'1039	'1035	'1027	'1029	'1028	'1092	'1073	'1081	'1079
5	'1027	'1030	'1022	'1038	'1035	'1029	'1026	'1030	'1030	'1092	'1071	'1079	'1080
6	'1028	'1031	'1021	'1040	'1039	'1030	'1025	'1030	'1033	'1090	'1071	'1079	'1077
7	'1025	'1030	'1020	'1037	'1038	'1028	'1026	'1032	'1033	'1089	'1071	'1078	'1075
8	'1025	'1032	'1019	'1037	'1038	'1030	'1026	'1034	'1033	'1086	'1072	'1080	'1074
9	'1025	'1031	'1019	'1036	'1040	'1031	'1026	'1033	'1037	'1088	'1073	'1081	'1075
10	'1026	'1029	'1020	'1035	'1040	'1033	'1026	'1033	'1040	'1090	'1072	'1082	'1075
11	'1026	'1029	'1020	'1034	'1041	'1033	'1028	'1036	'1039	'1090	'1073	'1081	'1077
12	'1027	'1029	'1020	'1034	'1041	'1035	'1029	'1036	'1037	'1094	'1072	'1082	'1077
13	'1027	'1029	'1021	'1037	'1040	'1038	'1030	'1036	'1039	'1094	'1072	'1082	'1076
14	'1027	'1030	'1019	'1037	'1040	'1040	'1030	'1035	'1037	'1094	'1072	'1082	'1076
15	'1028	'1031	'1020	'1037	'1040	'1040	'1032	'1036	'1037	'1094	'1072	'1083	'1075
16	'1026	'1031	'1019	'1036	'1039	'1039	'1031	'1036	'1033	'1096	'1075	'1083	'1074
17	'1026	'1029	'1020	'1036	'1040	'1039	'1032	'1033	'1033	'1096	'1074	'1081	'1075
18	'1026	'1029	'1021	'1036	'1040	'1037	'1032	'1030	'1027	'1097	'1072	'1081	'1075
19	'1027	'1030	'1020	'1036	'1042	'1034	'1031	'1030	'1023	'1098	'1069	'1083	'1077
20	'1027	'1029	'1020	'1036	'1040	'1032	'1031	'1028	'1024	'1097	'1073	'1080	'1079
21	'1027	'1027	'1020	'1035	'1043	'1036	'1030	'1029	'1025	'1097	'1073	'1080	'1080
22	'1029	'1027	'1019	'1035	'1042	'1036	'1030	'1030	'1027	'1097	'1072	'1081	'1080
23	'1029	'1028	'1020	'1037	'1043	'1037	'1030	'1028	'1028	'1096	'1073	'1080	'1080

1857.

Lunar Hour.	Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.												
	January. d h m 26. 1. 27	February. d h m 24. 0. 58	March. d h m 26. 1. 15	April. d h m 24. 0. 46	May. d h m 24. 1. 30	June. d h m 22. 1. 20	July. d h m 21. 1. 4	August. d h m 20. 1. 25	September. d h m 18. 0. 45	October. d h m 18. 0. 46	November. d h m 17. 1. 0	December. d h m 17. 1. 29	
0	0'1113	0'1118	0'1112	0'1078	0'1088	0'1080	0'1078	0'1081	0'1109	0'1132	0'1149	0'1132	
1	'1114	'1119	'1113	'1080	'1087	'1081	'1079	'1082	'1108	'1132	'1147	'1135	
2	'1113	'1119	'1111	'1079	'1085	'1081	'1080	'1083	'1107	'1130	'1148	'1137	
3	'1113	'1118	'1113	'1080	'1083	'1081	'1079	'1082	'1106	'1130	'1149	'1135	
4	'1114	'1118	'1110	'1081	'1082	'1079	'1080	'1082	'1107	'1130	'1150	'1137	
5	'1113	'1118	'1108	'1082	'1078	'1078	'1079	'1083	'1106	'1130	'1150	'1138	
6	'1114	'1116	'1106	'1084	'1079	'1078	'1081	'1084	'1107	'1130	'1150	'1137	
7	'1111	'1116	'1106	'1080	'1077	'1078	'1081	'1086	'1106	'1131	'1149	'1139	
8	'1110	'1116	'1104	'1083	'1078	'1078	'1079	'1087	'1106	'1132	'1150	'1143	
9	'1110	'1116	'1104	'1080	'1078	'1078	'1081	'1086	'1106	'1134	'1150	'1142	
10	'1111	'1117	'1103	'1077	'1078	'1077	'1081	'1089	'1108	'1135	'1149	'1142	
11	'1111	'1117	'1104	'1078	'1077	'1080	'1082	'1089	'1109	'1137	'1152	'1142	
12	'1112	'1118	'1105	'1079	'1076	'1079	'1084	'1088	'1109	'1137	'1153	'1144	
13	'1112	'1118	'1106	'1080	'1077	'1079	'1084	'1085	'1109	'1137	'1152	'1143	
14	'1112	'1119	'1107	'1080	'1078	'1079	'1083	'1088	'1108	'1133	'1151	'1140	
15	'1112	'1119	'1107	'1079	'1078	'1080	'1084	'1088	'1107	'1133	'1151	'1140	
16	'1114	'1120	'1106	'1078	'1081	'1080	'1083	'1086	'1106	'1132	'1150	'1139	
17	'1115	'1121	'1106	'1079	'1082	'1081	'1082	'1085	'1106	'1132	'1151	'1137	
18	'1114	'1121	'1106	'1079	'1083	'1080	'1082	'1084	'1106	'1131	'1149	'1136	
19	'1113	'1120	'1107	'1079	'1084	'1081	'1082	'1084	'1107	'1131	'1148	'1132	
20	'1114	'1118	'1108	'1077	'1085	'1079	'1080	'1084	'1105	'1132	'1148	'1132	
21	'1115	'1118	'1108	'1078	'1086	'1080	'1079	'1081	'1106	'1131	'1147	'1128	
22	'1114	'1118	'1109	'1079	'1087	'1080	'1079	'1080	'1106	'1131	'1147	'1129	
23	'1113	'1118	'1111	'1080	'1087	'1081	'1081	'1081	'1109	'1134	'1148	'1131	

TABLE XXII.—MEAN, through the RANGE of LUNATIONS, of the LUNATION-MEAN DETERMINATIONS of the LUNO-DIURNAL INEQUALITY of HORIZONTAL FORCE ; exhibited separately for the different Years ; with the Mean for all the Years.

Lunar Hour.	Mean Luno-Diurnal Inequality in each Year.										Mean 1848 to 1857.
	1848.	1849.	1850.	1851.	1852.	1853.	1854.	1855.	1856.	1857.	
0	-0'00004	-0'00005	+0'00008	+0'00005	+0'00005	+0'00007	-0'00003	-0'00002	+0'00001	+0'00001	+0'000013
1	- 6	- 2	+ 13	+ 12	+ 9	+ 14	+ 8	+ 1	+ 5	+ 7	+ 62
2	- 2	+ 12	+ 13	+ 11	+ 6	+ 11	+ 6	+ 1	+ 8	+ 3	+ 69
3	+ 2	+ 17	+ 13	+ 7	+ 10	+ 8	+ 4	+ 10	+ 6	0	+ 77
4	- 1	+ 13	+ 3	+ 1	- 8	+ 5	+ 3	+ 11	+ 5	+ 1	+ 23
5	- 6	+ 7	- 5	- 3	- 3	+ 5	- 1	+ 13	- 12	- 5	+ 10
6	- 1	+ 2	- 6	- 12	- 5	- 2	- 3	+ 8	- 9	- 2	- 30
7	- 5	+ 3	- 8	- 13	- 6	- 1	- 7	- 2	- 18	- 7	- 64
8	- 2	+ 3	- 10	- 10	- 5	- 1	- 2	0	- 15	- 2	- 44
9	+ 2	+ 2	- 10	- 12	- 4	0	- 1	- 2	- 8	- 3	- 36
10	+ 2	+ 2	+ 1	- 5	+ 2	+ 2	- 2	- 2	- 3	- 2	0
11	+ 10	+ 6	+ 10	- 1	+ 4	- 2	+ 7	+ 7	+ 2	+ 8	+ 51
12	+ 11	+ 8	+ 12	+ 5	+ 8	- 4	+ 9	+ 2	+ 6	+ 12	+ 69
13	+ 12	+ 9	+ 11	+ 10	+ 5	- 1	+ 13	0	+ 12	+ 11	+ 82
14	+ 11	+ 3	+ 8	+ 12	+ 8	+ 7	+ 15	+ 10	+ 11	+ 8	+ 93
15	+ 13	+ 3	+ 5	+ 6	+ 4	+ 5	+ 3	0	+ 15	+ 8	+ 62
16	+ 10	0	+ 4	- 2	+ 4	- 4	- 9	+ 5	+ 8	+ 10	+ 35
17	0	- 3	- 7	+ 4	+ 2	- 12	- 2	- 3	+ 7	+ 7	7
18	+ 2	- 6	- 16	+ 2	- 5	- 10	- 7	- 2	- 2	+ 2	- 42
19	- 5	- 8	- 15	- 2	- 5	- 3	- 9	- 10	- 4	- 1	- 62
20	- 13	- 15	- 13	- 1	- 1	- 8	- 12	- 8	- 7	- 6	- 84
21	- 12	- 13	- 8	+ 3	+ 1	- 5	- 9	- 12	- 2	- 10	- 67
22	- 7	- 5	- 8	+ 9	+ 2	- 4	- 7	- 11	0	- 8	- 39
23	- 2	+ 3	- 5	+ 9	+ 7	+ 6	- 4	+ 1	+ 3	+ 4	+ 20

REDUCTIONS OF MAGNETIC VERTICAL FORCE REFERRED TO THE MOON'S PLACE.

TABLE XXIII.—MEAN LUNATION-INEQUALITY of the MAGNETIC VERTICAL FORCE, exhibited separately for the different Years, with the Mean for all the Years.

Day of the Lunation.	Mean Lunation-Inequality in each Year.									Mean 1849 to 1857.
	1849.	1850.	1851.	1852.	1853.	1854.	1855.	1856.	1857.	
1	-0'00002	+0'00001	+0'00004	+0'00005	0'00000	-0'00008	-0'00005	0'00000	+0'00002	-0'00003
2	- 20	0	+ 1	+ 1	- 4	- 7	- 9	- 24	- 5	- 74
3	+ 4	- 3	+ 1	+ 6	+ 6	- 2	+ 2	- 1	- 13	0
4	- 11	0	0	+ 4	+ 7	0	+ 7	- 6	- 7	7
5	- 5	+ 6	- 5	+ 4	+ 1	- 10	- 13	- 5	- 3	- 33
6	- 24	- 10	- 2	- 9	+ 5	- 2	- 7	+ 3	- 7	- 59
7	0	+ 5	- 6	0	0	- 6	+ 4	0	+ 5	2
8	0	0	+ 1	+ 3	+ 7	- 6	- 7	+ 0	+ 11	+ 14
9	- 5	- 2	- 4	- 5	+ 9	- 5	0	- 8	- 4	- 27
10	+ 8	- 5	- 6	+ 6	+ 10	- 7	- 5	- 6	- 10	- 17
11	+ 4	+ 1	+ 2	+ 1	- 13	- 3	- 10	+ 14	- 8	- 13
12	+ 13	- 3	- 5	+ 11	- 6	- 9	0	+ 1	- 4	- 2
13	- 2	+ 1	- 4	+ 14	+ 3	- 2	- 2	- 17	- 6	- 17
14	+ 5	+ 4	- 3	0	- 14	0	+ 1	+ 9	- 5	- 3
15	- 6	- 12	+ 5	- 1	+ 1	+ 1	+ 9	- 2	+ 15	+ 11
16	+ 7	- 3	+ 4	+ 2	+ 2	+ 2	0	+ 1	- 7	+ 9
17	+ 8	+ 3	+ 3	+ 1	- 3	- 6	- 4	+ 4	- 7	- 10
18	+ 8	- 6	+ 6	- 4	+ 14	- 3	+ 6	+ 12	0	+ 37
19	+ 10	0	+ 1	- 3	+ 7	+ 4	+ 4	+ 16	0	+ 43
20	- 1	+ 1	+ 10	- 10	+ 3	+ 9	+ 12	- 3	+ 2	+ 26
21	+ 3	- 1	+ 11	- 1	- 1	+ 18	+ 16	- 6	+ 19	+ 78
22	- 5	+ 4	- 4	- 5	- 15	- 3	+ 3	+ 10	- 7	- 24
23	- 3	0	+ 5	+ 2	- 1	+ 3	- 9	+ 13	+ 35	+ 17
24	- 5	+ 1	- 1	- 4	- 9	+ 7	- 16	- 8	+ 32	+ 3
25	0	+ 2	+ 1	- 2	- 18	+ 8	- 1	- 11	+ 1	- 22
26	+ 12	0	- 3	- 10	- 4	+ 8	+ 14	+ 2	- 1	+ 20
27	+ 5	+ 9	+ 4	- 20	- 1	+ 5	- 3	+ 5	- 4	+ 7
28	- 10	+ 5	- 2	- 13	+ 11	+ 1	+ 1	- 1	0	- 9
29	+ 7	- 3	0	+ 29	+ 16	- 1	+ 16	+ 4	+ 1	+ 68

TABLE XXIV.—MEAN LUNAR-MONTHLY DETERMINATION of the VERTICAL MAGNETIC FORCE, uncorrected for Temperature, at every Lunar Hour of the Lunar Day, obtained by taking the Mean of all the Determinations at the same Lunar Hour through each Lunation.

1849.

Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.

Table with 13 columns for months (January to December) and 13 rows for Lunar Hours (0 to 23). Each cell contains a value representing magnetic force, with subscripts for day, hour, and minute.

1850.

Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.

Table with 13 columns for months (January to December) and 13 rows for Lunar Hours (0 to 23). Each cell contains a value representing magnetic force, with subscripts for day, hour, and minute.

TABLE XXIV.—MEAN LUNAR-MONTHLY DETERMINATION of the VERTICAL MAGNETIC FORCE, &c.—*continued.*

1851.

Lunar Hour.	Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.												
	January. d h m 2. o. 46	February. d h m 1. 1. 7	March. d h m 3. 1. 17	April. d h m 1. o. 40	May. d h m 1. o. 49	May. d h m 31. 1. 14	June. d h m 29. o. 57	July. d h m 28. o. 41	August. d h m 27. 1. 19	September. d h m 25. o. 53	October. d h m 25. 1. 18	November. d h m 23. o. 52	December. d h m 23. 1. 26
0	0°0252	0°0253	0°0246	0°0254	0°0255	0°0245	0°0211	0°0228	0°0220	0°0198	0°0192	0°0200	0°0198
1	0°0250	0°0253	0°0245	0°0252	0°0253	0°0244	0°0213	0°0229	0°0220	0°0199	0°0188	0°0199	0°0198
2	0°0254	0°0253	0°0244	0°0250	0°0251	0°0243	0°0214	0°0229	0°0220	0°0201	0°0189	0°0200	0°0197
3	0°0252	0°0252	0°0243	0°0248	0°0249	0°0243	0°0214	0°0229	0°0220	0°0202	0°0189	0°0200	0°0196
4	0°0251	0°0252	0°0242	0°0247	0°0247	0°0244	0°0214	0°0229	0°0217	0°0203	0°0190	0°0200	0°0192
5	0°0250	0°0252	0°0242	0°0247	0°0245	0°0244	0°0213	0°0229	0°0216	0°0203	0°0190	0°0201	0°0192
6	0°0251	0°0251	0°0241	0°0246	0°0244	0°0244	0°0212	0°0228	0°0214	0°0202	0°0192	0°0202	0°0192
7	0°0251	0°0251	0°0242	0°0248	0°0244	0°0245	0°0213	0°0227	0°0212	0°0201	0°0193	0°0202	0°0192
8	0°0251	0°0250	0°0242	0°0248	0°0245	0°0245	0°0214	0°0226	0°0211	0°0200	0°0193	0°0203	0°0194
9	0°0250	0°0250	0°0243	0°0248	0°0245	0°0247	0°0215	0°0226	0°0208	0°0199	0°0193	0°0204	0°0193
10	0°0251	0°0249	0°0243	0°0249	0°0247	0°0248	0°0217	0°0225	0°0208	0°0200	0°0192	0°0205	0°0194
11	0°0251	0°0249	0°0242	0°0251	0°0248	0°0249	0°0217	0°0224	0°0207	0°0202	0°0190	0°0205	0°0195
12	0°0252	0°0248	0°0243	0°0252	0°0250	0°0250	0°0216	0°0223	0°0206	0°0202	0°0188	0°0207	0°0195
13	0°0252	0°0247	0°0243	0°0254	0°0251	0°0249	0°0213	0°0224	0°0207	0°0200	0°0188	0°0208	0°0196
14	0°0252	0°0249	0°0245	0°0255	0°0251	0°0249	0°0211	0°0223	0°0211	0°0198	0°0189	0°0208	0°0198
15	0°0251	0°0250	0°0246	0°0256	0°0253	0°0248	0°0212	0°0225	0°0214	0°0196	0°0190	0°0208	0°0199
16	0°0251	0°0250	0°0247	0°0257	0°0251	0°0248	0°0213	0°0227	0°0214	0°0193	0°0191	0°0207	0°0200
17	0°0252	0°0252	0°0246	0°0259	0°0251	0°0248	0°0214	0°0227	0°0216	0°0192	0°0190	0°0206	0°0200
18	0°0251	0°0253	0°0246	0°0259	0°0252	0°0248	0°0215	0°0226	0°0213	0°0192	0°0189	0°0206	0°0201
19	0°0252	0°0254	0°0246	0°0258	0°0252	0°0248	0°0214	0°0225	0°0214	0°0193	0°0189	0°0205	0°0202
20	0°0254	0°0256	0°0246	0°0258	0°0252	0°0248	0°0212	0°0224	0°0215	0°0194	0°0189	0°0204	0°0202
21	0°0254	0°0254	0°0247	0°0257	0°0252	0°0247	0°0212	0°0224	0°0216	0°0196	0°0189	0°0204	0°0200
22	0°0253	0°0255	0°0247	0°0257	0°0254	0°0247	0°0212	0°0225	0°0218	0°0196	0°0188	0°0204	0°0199
23	0°0253	0°0255	0°0247	0°0255	0°0255	0°0246	0°0213	0°0226	0°0220	0°0197	0°0188	0°0204	0°0198

1852.

Lunar Hour.	Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.											
	January. d h m 21. 1. 3	February. d h m 20. 1. 21	March. d h m 20. o. 44	April. d h m 19. o. 46	May. d h m 19. o. 56	June. d h m 18. 1. 24	July. d h m 17. 1. 6	August. d h m 15. o. 45	September. d h m 14. 1. 13	October. d h m 13. o. 44	November. d h m 12. 1. 15	December. d h m 11. o. 56
0	0°0213	0°0215	0°0214	0°0221	0°0216	0°0198	0°0172	0°0258	0°0248	0°0252	0°0217	0°0218
1	0°0213	0°0216	0°0213	0°0217	0°0220	0°0199	0°0173	0°0259	0°0248	0°0253	0°0217	0°0217
2	0°0213	0°0216	0°0212	0°0223	0°0221	0°0200	0°0172	0°0260	0°0247	0°0251	0°0220	0°0217
3	0°0213	0°0215	0°0213	0°0224	0°0222	0°0199	0°0171	0°0259	0°0246	0°0251	0°0221	0°0217
4	0°0214	0°0214	0°0213	0°0224	0°0222	0°0199	0°0171	0°0258	0°0247	0°0251	0°0222	0°0218
5	0°0213	0°0212	0°0213	0°0226	0°0220	0°0196	0°0171	0°0257	0°0247	0°0252	0°0223	0°0219
6	0°0213	0°0210	0°0213	0°0224	0°0221	0°0195	0°0174	0°0257	0°0248	0°0253	0°0223	0°0221
7	0°0213	0°0207	0°0213	0°0224	0°0221	0°0191	0°0175	0°0256	0°0248	0°0254	0°0223	0°0223
8	0°0213	0°0207	0°0213	0°0222	0°0222	0°0191	0°0174	0°0256	0°0251	0°0259	0°0222	0°0224
9	0°0212	0°0206	0°0214	0°0223	0°0223	0°0192	0°0173	0°0254	0°0253	0°0260	0°0221	0°0225
10	0°0213	0°0208	0°0215	0°0222	0°0222	0°0195	0°0173	0°0253	0°0254	0°0259	0°0220	0°0226
11	0°0214	0°0208	0°0216	0°0220	0°0221	0°0192	0°0172	0°0252	0°0254	0°0261	0°0220	0°0228
12	0°0213	0°0208	0°0217	0°0220	0°0220	0°0191	0°0171	0°0251	0°0256	0°0263	0°0219	0°0232
13	0°0213	0°0208	0°0219	0°0220	0°0216	0°0188	0°0171	0°0251	0°0257	0°0266	0°0219	0°0232
14	0°0212	0°0207	0°0219	0°0223	0°0213	0°0192	0°0170	0°0251	0°0258	0°0265	0°0219	0°0232
15	0°0212	0°0206	0°0218	0°0226	0°0214	0°0194	0°0169	0°0250	0°0258	0°0266	0°0218	0°0232
16	0°0210	0°0208	0°0218	0°0228	0°0209	0°0195	0°0169	0°0251	0°0255	0°0266	0°0218	0°0233
17	0°0208	0°0208	0°0218	0°0228	0°0206	0°0197	0°0170	0°0251	0°0255	0°0262	0°0218	0°0232
18	0°0209	0°0209	0°0217	0°0227	0°0206	0°0196	0°0170	0°0252	0°0255	0°0262	0°0217	0°0228
19	0°0209	0°0211	0°0216	0°0226	0°0208	0°0196	0°0169	0°0253	0°0256	0°0260	0°0217	0°0227
20	0°0210	0°0211	0°0217	0°0226	0°0209	0°0194	0°0170	0°0254	0°0256	0°0259	0°0216	0°0224
21	0°0212	0°0212	0°0218	0°0227	0°0209	0°0194	0°0171	0°0252	0°0256	0°0255	0°0215	0°0220
22	0°0212	0°0213	0°0219	0°0227	0°0213	0°0194	0°0173	0°0254	0°0254	0°0254	0°0216	0°0220
23	0°0212	0°0213	0°0215	0°0225	0°0216	0°0197	0°0174	0°0255	0°0250	0°0253	0°0218	0°0219

TABLE XXIV.—MEAN LUNAR-MONTHLY DETERMINATION of the VERTICAL MAGNETIC FORCE, &c.—continued.

1853.

Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.

Table for 1853 showing lunar hours (0-23) and months (January-December) with time values in d h m format.

1854.

Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.

Table for 1854 showing lunar hours (0-23) and months (January-December) with time values in d h m format.

TABLE XXIV.—MEAN LUNAR-MONTHLY DETERMINATION of the VERTICAL MAGNETIC FORCE, &c.—continued.

1855.

Lunar Hour.	Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.											
	January. d h m 18. 1. 5	February. d h m 16. 0. 46	March. d h m 18. 1. 10	April. d h m 17. 1. 25	May. d h m 16. 0. 56	June. d h m 15. 1. 27	July. d h m 14. 1. 6	August. d h m 13. 1. 23	September. d h m 11. 0. 45	October. d h m 11. 0. 44	November. d h m 10. 0. 56	December. d h m 10. 1. 35
0	0'0211	0'0217	0'0229	0'0217	0'0222	0'0216	0'0209	0'0207	0'0203	0'0171	0'0189	0'0198
1	0'0211	0'0217	0'0228	0'0218	0'0221	0'0217	0'0208	0'0207	0'0202	0'0173	0'0189	0'0199
2	0'0210	0'0218	0'0227	0'0219	0'0221	0'0216	0'0206	0'0207	0'0201	0'0173	0'0188	0'0199
3	0'0209	0'0219	0'0228	0'0223	0'0218	0'0214	0'0206	0'0206	0'0202	0'0173	0'0190	0'0199
4	0'0209	0'0220	0'0228	0'0225	0'0217	0'0214	0'0206	0'0205	0'0202	0'0171	0'0191	0'0202
5	0'0210	0'0221	0'0228	0'0227	0'0214	0'0214	0'0208	0'0203	0'0202	0'0170	0'0191	0'0202
6	0'0210	0'0221	0'0230	0'0227	0'0213	0'0214	0'0208	0'0206	0'0203	0'0170	0'0190	0'0203
7	0'0211	0'0222	0'0233	0'0231	0'0212	0'0214	0'0207	0'0207	0'0201	0'0173	0'0189	0'0201
8	0'0212	0'0224	0'0235	0'0233	0'0212	0'0218	0'0208	0'0206	0'0201	0'0173	0'0189	0'0200
9	0'0211	0'0223	0'0236	0'0234	0'0211	0'0216	0'0207	0'0203	0'0200	0'0173	0'0189	0'0201
10	0'0210	0'0226	0'0237	0'0235	0'0211	0'0216	0'0207	0'0200	0'0198	0'0173	0'0188	0'0201
11	0'0210	0'0225	0'0237	0'0233	0'0211	0'0217	0'0208	0'0198	0'0198	0'0173	0'0188	0'0201
12	0'0210	0'0223	0'0238	0'0229	0'0215	0'0216	0'0208	0'0199	0'0198	0'0174	0'0188	0'0201
13	0'0210	0'0220	0'0239	0'0228	0'0218	0'0211	0'0209	0'0202	0'0198	0'0175	0'0187	0'0202
14	0'0210	0'0218	0'0239	0'0227	0'0221	0'0211	0'0208	0'0205	0'0200	0'0174	0'0188	0'0204
15	0'0210	0'0218	0'0240	0'0227	0'0223	0'0212	0'0209	0'0206	0'0200	0'0174	0'0188	0'0204
16	0'0210	0'0217	0'0239	0'0226	0'0226	0'0215	0'0210	0'0209	0'0200	0'0174	0'0188	0'0205
17	0'0210	0'0217	0'0237	0'0225	0'0227	0'0215	0'0211	0'0210	0'0199	0'0177	0'0187	0'0204
18	0'0210	0'0217	0'0236	0'0224	0'0226	0'0214	0'0212	0'0209	0'0197	0'0171	0'0187	0'0203
19	0'0211	0'0218	0'0234	0'0222	0'0225	0'0215	0'0211	0'0207	0'0199	0'0169	0'0188	0'0200
20	0'0211	0'0218	0'0232	0'0220	0'0225	0'0214	0'0212	0'0210	0'0201	0'0170	0'0188	0'0200
21	0'0210	0'0218	0'0232	0'0221	0'0227	0'0216	0'0212	0'0210	0'0203	0'0173	0'0188	0'0200
22	0'0209	0'0217	0'0230	0'0220	0'0226	0'0216	0'0211	0'0209	0'0204	0'0173	0'0189	0'0200
23	0'0210	0'0216	0'0232	0'0219	0'0225	0'0215	0'0211	0'0207	0'0205	0'0174	0'0189	0'0201

1856.

Lunar Hour.	Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.												
	January. d h m 8. 1. 23	February. d h m 6. 1. 5	March. d h m 7. 1. 31	April. d h m 5. 0. 57	May. d h m 5. 1. 24	June. d h m 3. 1. 6	July. d h m 2. 0. 52	August. d h m 1. 1. 22	August. d h m 30. 0. 47	September. d h m 29. 0. 45	October. d h m 29. 0. 46	November. d h m 28. 1. 8	December. d h m 27. 0. 50
0	0'0212	0'0223	0'0214	0'0226	0'0217	0'0207	0'0144	0'0114	0'0091	0'0106	0'0100	0'0130	0'0125
1	0'0211	0'0223	0'0214	0'0227	0'0218	0'0204	0'0143	0'0117	0'0094	0'0101	0'0101	0'0130	0'0125
2	0'0211	0'0221	0'0214	0'0229	0'0219	0'0204	0'0141	0'0121	0'0094	0'0101	0'0101	0'0128	0'0128
3	0'0212	0'0220	0'0215	0'0231	0'0222	0'0204	0'0139	0'0123	0'0093	0'0101	0'0102	0'0129	0'0129
4	0'0213	0'0223	0'0216	0'0231	0'0222	0'0205	0'0137	0'0123	0'0095	0'0101	0'0103	0'0128	0'0130
5	0'0212	0'0225	0'0216	0'0231	0'0224	0'0202	0'0137	0'0123	0'0095	0'0101	0'0103	0'0128	0'0130
6	0'0212	0'0225	0'0216	0'0231	0'0222	0'0202	0'0137	0'0127	0'0095	0'0100	0'0103	0'0127	0'0130
7	0'0215	0'0225	0'0216	0'0230	0'0219	0'0200	0'0137	0'0126	0'0096	0'0098	0'0104	0'0125	0'0129
8	0'0214	0'0224	0'0216	0'0228	0'0218	0'0200	0'0140	0'0129	0'0096	0'0098	0'0106	0'0123	0'0129
9	0'0213	0'0224	0'0216	0'0228	0'0216	0'0201	0'0143	0'0134	0'0097	0'0099	0'0105	0'0119	0'0127
10	0'0212	0'0223	0'0215	0'0227	0'0216	0'0198	0'0147	0'0136	0'0099	0'0101	0'0105	0'0120	0'0126
11	0'0210	0'0222	0'0216	0'0227	0'0213	0'0202	0'0151	0'0136	0'0100	0'0100	0'0104	0'0120	0'0126
12	0'0208	0'0220	0'0217	0'0226	0'0213	0'0206	0'0153	0'0135	0'0100	0'0103	0'0103	0'0120	0'0125
13	0'0206	0'0218	0'0217	0'0225	0'0214	0'0208	0'0155	0'0135	0'0101	0'0108	0'0103	0'0121	0'0123
14	0'0205	0'0218	0'0217	0'0225	0'0211	0'0211	0'0156	0'0130	0'0100	0'0109	0'0103	0'0121	0'0123
15	0'0206	0'0218	0'0217	0'0224	0'0212	0'0211	0'0157	0'0128	0'0099	0'0114	0'0102	0'0121	0'0124
16	0'0207	0'0221	0'0216	0'0225	0'0213	0'0210	0'0159	0'0125	0'0097	0'0116	0'0102	0'0121	0'0125
17	0'0207	0'0223	0'0217	0'0223	0'0214	0'0209	0'0158	0'0123	0'0096	0'0117	0'0103	0'0121	0'0126
18	0'0209	0'0224	0'0218	0'0222	0'0214	0'0208	0'0158	0'0124	0'0094	0'0117	0'0105	0'0122	0'0127
19	0'0208	0'0223	0'0218	0'0222	0'0215	0'0205	0'0156	0'0117	0'0093	0'0117	0'0105	0'0122	0'0127
20	0'0210	0'0222	0'0219	0'0222	0'0216	0'0203	0'0152	0'0118	0'0093	0'0119	0'0103	0'0123	0'0128
21	0'0211	0'0222	0'0217	0'0222	0'0216	0'0204	0'0154	0'0114	0'0091	0'0116	0'0102	0'0123	0'0129
22	0'0211	0'0222	0'0214	0'0222	0'0217	0'0204	0'0148	0'0111	0'0088	0'0114	0'0103	0'0125	0'0127
23	0'0212	0'0222	0'0213	0'0224	0'0217	0'0205	0'0144	0'0113	0'0089	0'0113	0'0105	0'0127	0'0127

TABLE XXIV.—MEAN LUNAR-MONTHLY DETERMINATION OF THE VERTICAL MAGNETIC FORCE, &c.—concluded.

1857.

Lunar Hour.	Göttingen Mean Solar Time of the beginning of the First Lunar Day of each Lunation.											
	January. d h m 26. 1. 27	February. d h m 24. 2. 58	March. d h m 26. 3. 15	April. d h m 24. 4. 46	May. d h m 24. 5. 30	June. d h m 22. 6. 20	July. d h m 21. 7. 4	August. d h m 20. 8. 25	September. d h m 18. 9. 45	October. d h m 18. 10. 46	November. d h m 17. 11. 0	December. d h m 17. 12. 29
0	0'0148	0'0158	0'0152	0'0143	0'0127	0'0083	0'0075	0'0070	0'0071	0'0060	0'0112	0'0097
1	0'0149	0'0158	0'0147	0'0144	0'0128	0'0087	0'0074	0'0070	0'0071	0'0060	0'0111	0'0095
2	0'0148	0'0155	0'0150	0'0144	0'0128	0'0088	0'0073	0'0070	0'0073	0'0060	0'0110	0'0097
3	0'0148	0'0154	0'0149	0'0144	0'0129	0'0089	0'0072	0'0072	0'0076	0'0059	0'0109	0'0100
4	0'0148	0'0152	0'0152	0'0143	0'0129	0'0088	0'0072	0'0073	0'0076	0'0061	0'0105	0'0100
5	0'0147	0'0151	0'0151	0'0144	0'0129	0'0087	0'0073	0'0075	0'0078	0'0063	0'0103	0'0102
6	0'0145	0'0150	0'0151	0'0142	0'0128	0'0082	0'0075	0'0078	0'0078	0'0066	0'0097	0'0103
7	0'0143	0'0150	0'0149	0'0142	0'0127	0'0084	0'0075	0'0080	0'0079	0'0069	0'0093	0'0103
8	0'0141	0'0150	0'0148	0'0143	0'0124	0'0086	0'0076	0'0082	0'0079	0'0071	0'0090	0'0104
9	0'0139	0'0151	0'0149	0'0142	0'0123	0'0087	0'0077	0'0084	0'0079	0'0073	0'0090	0'0105
10	0'0138	0'0150	0'0149	0'0143	0'0125	0'0091	0'0079	0'0087	0'0078	0'0075	0'0088	0'0105
11	0'0137	0'0151	0'0149	0'0143	0'0125	0'0090	0'0081	0'0085	0'0074	0'0077	0'0088	0'0107
12	0'0135	0'0151	0'0149	0'0144	0'0124	0'0091	0'0086	0'0085	0'0073	0'0078	0'0087	0'0108
13	0'0134	0'0153	0'0149	0'0146	0'0124	0'0087	0'0088	0'0084	0'0073	0'0079	0'0088	0'0108
14	0'0133	0'0154	0'0149	0'0148	0'0121	0'0087	0'0089	0'0084	0'0071	0'0081	0'0088	0'0108
15	0'0133	0'0154	0'0148	0'0148	0'0121	0'0088	0'0088	0'0082	0'0070	0'0082	0'0091	0'0107
16	0'0135	0'0153	0'0147	0'0148	0'0120	0'0090	0'0083	0'0080	0'0069	0'0079	0'0093	0'0106
17	0'0137	0'0154	0'0146	0'0147	0'0120	0'0091	0'0082	0'0079	0'0070	0'0075	0'0094	0'0104
18	0'0139	0'0155	0'0146	0'0148	0'0122	0'0090	0'0079	0'0078	0'0073	0'0070	0'0098	0'0104
19	0'0141	0'0155	0'0144	0'0148	0'0122	0'0085	0'0077	0'0074	0'0071	0'0065	0'0100	0'0103
20	0'0144	0'0155	0'0143	0'0147	0'0123	0'0083	0'0076	0'0072	0'0072	0'0063	0'0102	0'0104
21	0'0148	0'0154	0'0143	0'0147	0'0124	0'0080	0'0078	0'0070	0'0073	0'0060	0'0104	0'0104
22	0'0149	0'0154	0'0143	0'0145	0'0124	0'0080	0'0078	0'0068	0'0071	0'0059	0'0105	0'0102
23	0'0151	0'0155	0'0143	0'0145	0'0125	0'0081	0'0077	0'0068	0'0073	0'0058	0'0108	0'0101

TABLE XXV.—MEAN, through the RANGE of LUNATIONS, of the LUNATION-MEAN DETERMINATIONS of the LUNO-DIURNAL INEQUALITY of VERTICAL FORCE; exhibited separately for the different Years; with the Mean for all the Years.

Lunar Hour.	Mean Luno-Diurnal Inequality in each Year.										Mean, 1849 to 1857.	Equivalent in Terms of Horizontal Force.
	1849.	1850.	1851.	1852.	1853.	1854.	1855.	1856.	1857.			
0	+0'00011	-0'00002	+0'00008	-0'00008	+0'00024	-0'00001	-0'00013	-0'00012	-0'00002	+0'00006	+0'00015	
1	+ 15	+ 3	+ 2	- 6	+ 14	+ 2	- 12	- 12	- 4	+ 2	+ 5	
2	+ 7	+ 1	+ 3	0	+ 14	- 3	- 16	- 8	- 3	- 6	15	
3	+ 12	- 3	- 3	- 1	- 3	- 5	- 14	- 3	+ 2	- 20	51	
4	+ 11	0	- 12	+ 1	- 6	- 3	- 12	+ 2	0	- 19	49	
5	+ 5	+ 3	- 13	- 3	- 10	- 14	- 12	+ 2	+ 3	- 43	111	
6	+ 16	+ 3	- 17	0	- 4	- 12	- 8	+ 2	- 3	- 26	67	
7	+ 15	- 2	- 15	- 3	- 7	- 18	- 3	- 3	- 4	- 44	113	
8	+ 15	+ 1	- 15	+ 2	- 7	- 14	+ 6	- 2	- 4	- 20	51	
9	+ 3	0	- 15	+ 3	- 4	- 11	0	- 2	0	- 29	75	
10	0	0	- 10	+ 7	- 9	- 6	- 2	+ 1	+ 7	- 13	33	
11	- 8	+ 3	- 8	+ 5	- 16	+ 1	- 4	+ 2	+ 7	- 20	51	
12	- 23	+ 7	- 7	+ 8	- 16	+ 3	- 4	+ 4	+ 10	- 20	51	
13	- 20	+ 3	- 7	+ 8	- 6	+ 3	- 4	+ 8	+ 12	- 3	8	
14	- 23	+ 6	- 2	+ 8	- 1	+ 8	+ 1	+ 4	+ 12	+ 14	36	
15	- 19	0	+ 5	+ 9	+ 4	+ 7	+ 6	+ 7	+ 11	+ 33	85	
16	- 12	0	+ 6	- 7	+ 8	+ 6	+ 13	+ 10	+ 3	+ 30	77	
17	- 9	- 3	+ 9	- 3	+ 14	+ 9	+ 13	+ 10	0	+ 44	113	
18	- 9	- 5	+ 8	- 3	+ 12	+ 12	+ 2	+ 14	+ 2	+ 37	95	
19	- 12	- 9	+ 8	- 3	+ 6	+ 16	- 6	+ 3	- 12	- 10	26	
20	- 3	- 8	+ 10	- 5	+ 2	+ 14	- 3	+ 3	- 12	- 2	5	
21	+ 6	- 7	+ 8	- 9	+ 4	+ 12	+ 5	- 2	+ 13	+ 3	8	
22	+ 10	- 3	+ 11	- 3	+ 12	+ 8	0	- 14	- 18	+ 3	8	
23	+ 19	+ 3	+ 12	- 4	+ 17	+ 9	0	- 10	+ 9	+ 41	105	

