

R E S U L T S

OF THE

MAGNETICAL AND METEOROLOGICAL

OBSERVATIONS

MADE AT

THE ROYAL OBSERVATORY, GREENWICH,

1854.

(EXTRACTED FROM THE GREENWICH OBSERVATIONS, 1854.)

ROYAL OBSERVATORY, GREENWICH.

R E S U L T S

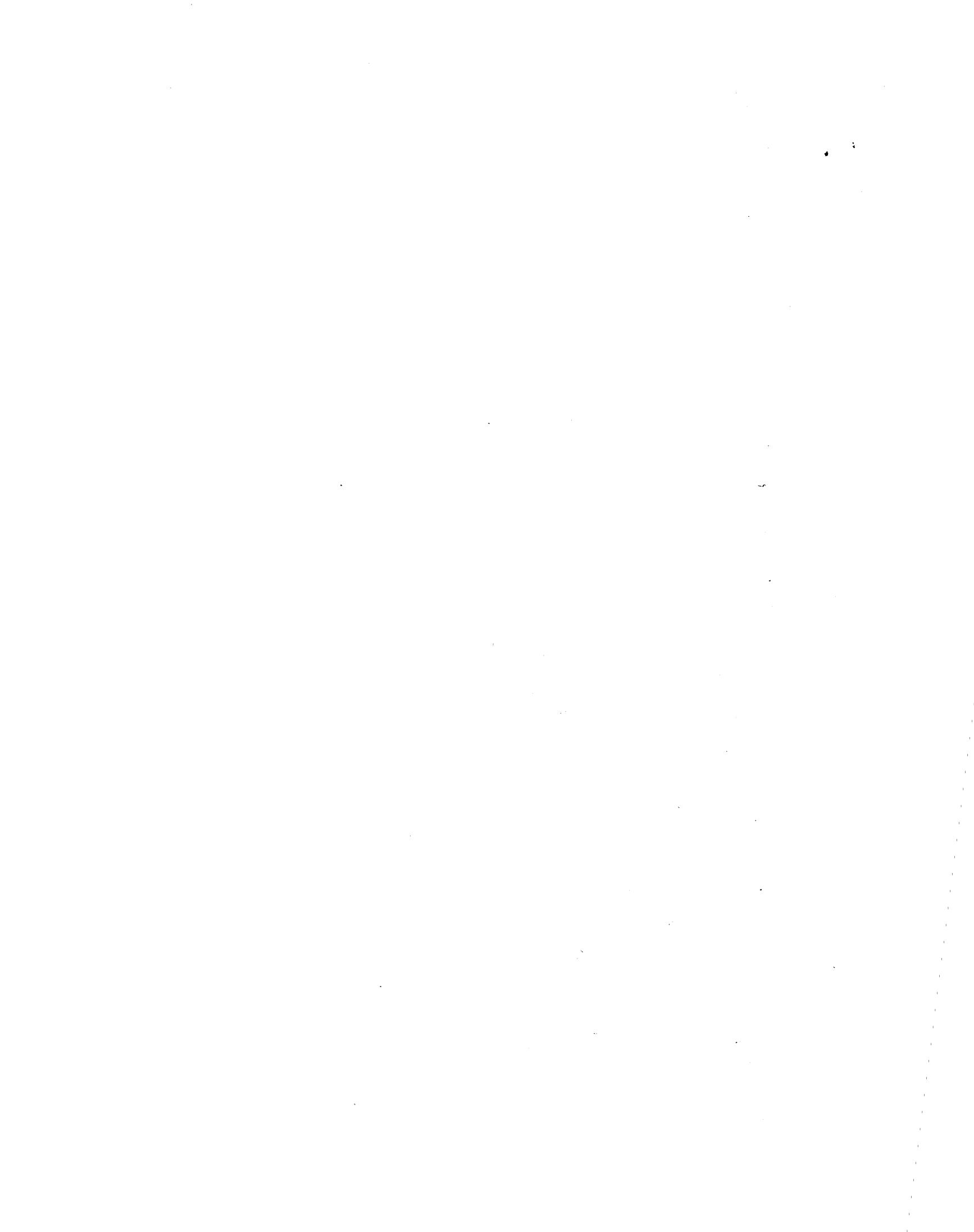
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INDICATIONS

OF

M A G N E T O M E T E R S.

1854.

The establishment of Assistants in the Magnetical and Meteorological Department of the Royal Observatory consisted during the year 1854, of Mr. Glaisher, the Superintendant, and Mr. Downs ; with two or 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 1854, Telescope-Observations of the Magnetometers have usually been made four times every day, except on Sundays, on which days two 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 14, 21, February 4, 24, March 4, 25, April 5, 6, 29, May 5, 12, June 24, July 21, 22, September 11, 15, 22, 29, November 1, 6, 25, December 5, 11 and 26.

Observations were made of the Collimation of the Declination Magnetometer ; of the Collimation of the Theodolite-Teslescope ; and of the Torsion-force of the Suspension skein, on January 2 and 3.

Observations of the Angle of Torsion of the HORIZONTAL FORCE MAGNETOMETER, were made on January 5 and 6. The angle determined was $43^\circ.15'$. 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 nearly identical and had nearly the usual value when the reading of the torsion-circle was $143^\circ.30'$ (marked end West) ; and $230^\circ.11'$ (marked end East). The reading adopted for the adjustment of the torsion-circle throughout the year (marked end West) is $143^\circ.30'$.

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 0.0020417 .

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 is *not* applied to any of the results of observation.

Observations of the times of vibration of the VERTICAL FORCE MAGNETOMETER in a vertical plane have usually been made three or four times a week. The adopted time of vibration till February 4, was $22^\circ.9$; from February 5 to April 5, $24^\circ.5$; from April 6 to May 25, $26^\circ.6$; from May 26 to June 28, $28^\circ.5$; from June 29 to October 31, $18^\circ.5$; and from November to the end of the year, $17^\circ.3$. Observations for the time of vibration in a horizontal plane were made in 1853, on January 3 and 4, and the time was found to be $25^\circ.0033$ from 10000 vibrations.

The values of the disturbing force, in terms of the whole vertical force, for one division of the scale, are inferred to be 0.000739 till February 4; 0.000646 from February 5 to April 5 ; 0.000548 from April 6 to May 25 ; 0.000477 from May 26 to June 28; 0.001132 from June 29 to October 31; and 0.001295 from November 1 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 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.

It is proper, however, to mention that, in measuring the ordinates of the Vertical Force Curves, the same difficulty that is mentioned in the five 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, but, at times, by a considerable quantity. 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 reproduce 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

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 7, the adjustments of the Declination and Horizontal Force Magnetometers were under examination.

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters. Of H. F. Magnet. Of V. F. Magnet.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters. Of H. F. Magnet. Of V. F. Magnet.							
Jan. 8 h m s 0. 40	o. / o ***	Jan. 8 h m s 2. 38	.1030 *** 2. 53	Jan. 8 h m s .01005 {.01133	h m s	o	o	Jan. 10 h m s 0. 13	22. o 7. 35	Jan. 10 h m s 0. 10	.1020 ***	Jan. 10 h m s 0. 7	.01624 46° 7' 48° 8'	Jan. 10 h m s 1. 40	46° 7' 48° 8'							
1. 20	10. o	3. 37	.1000 1018	5. 52 7. o	.01100 .01105	2. 20	2. 46:	***	8. 30	3. 52	.1024 5. 15	1. 46	.01590 9. 40	3. 40	48° 0' 50° 5'							
2. 38	9. 50	4. 10	.1018	8. 30:	.01073	3. 30	4. 3:	.1010	4. 20	9. 53	.1019 5. 16:	5. 15	.01530 10. 40	50° 5' 51° 5'								
3. 13	14. 15	5. 4	.1018	10. 37	.01140	11. 3	.01088	12. 45	7. 45	12. 32	.1019 5. 16:	5. 17	.01358 21. 40	44° 0' 47° 5'								
3. 30	14. 20	5. 14	.1013	10. 37	.01140	11. 3	.01100	16. 2	5. o	16. 21	.1040	7. 17	.01045 1. 40	46° 7' 48° 8'								
3. 52	7. 40	5. 26	.1020	11. 3	.01088	21. 5	18. 30	21. 59	2. 10	18. 30	.1041	1. 17	.01100 1. 40	48° 0' 50° 5'								
4. 42	7. 30	5. 52	.0986	12. 8	.01100	5. o	20. 15	23. 59	5. o	20. 15	.1044	9. 13:	.01054 1. 40	48° 0' 50° 5'								
5. 2	22. 5. 15	6. 1	.0986	13. 19:	.01225	23. 15	.01017	23. 59	23. 59	23. 59	.1013	11. 37	.01100 1. 40	48° 0' 50° 5'								
5. 30	21. 58. 30	***	***	14. 37	.01278	18. 50	15. 8:	23. 59	18. 50	18. 50	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
5. 38	59. 10	6. 45	.1029	18. 15	.01533	23. 59	15. 8:	23. 59	15. 8:	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
6. 7	45. o	7. 7	.1026	19. 51:	.01615	23. 59	18. 50	23. 59	18. 50	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
6. 12	45. 45	7. 18	.1012	21. 36	.01635	23. 59	15. 8:	23. 59	15. 8:	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
6. 28:	21. 42. o	8. o	.1031	21. 46	.01555	23. 59	.01515	23. 59	.01515	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
7. 17	22. 1. 25	2. 27	1. o	10. 15	.1030	23. 59	.01515	23. 59	.01515	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
7. 38	3. o	10. 53	.1099	10. 15	.1030	23. 59	.01515	23. 59	.01515	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
9. 44	22. 2. 30	11. 3	.1077	11. 17	.1085	23. 59	.01515	23. 59	.01515	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
10. 7	21. 59. 25	11. 17	.1085	11. 45	.1049	23. 59	.01515	23. 59	.01515	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
10. 19	59. 20	11. 45	.1049	11. 50	.1050	23. 59	.01515	23. 59	.01515	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
10. 42	50. 25	11. 50	.1050	12. 17	.1020	23. 59	.01515	23. 59	.01515	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
10. 58	59. 50	12. 17	.1020	12. 17	***	23. 59	.01515	23. 59	.01515	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
11. 6	21. 54. 30	22. 38	2. 27	14. 4	.1034	23. 59	.01515	23. 59	.01515	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
11. 38	22. 7. 30	14. 4	.1034	14. 30	.1026	23. 59	.01515	23. 59	.01515	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
11. 50	7. 10	14. 30	.1026	14. 30	.1035	23. 59	.01515	23. 59	.01515	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
12. 4	9. 30	14. 54	.1035	16. 15	.1041	23. 59	.01515	23. 59	.01515	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
12. 38	1. 25	16. 15	.1041	1. 25	***	23. 59	.01515	23. 59	.01515	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
13. 13	3. o	18. 45	.1044	21. 40	.1027	23. 59	.01515	23. 59	.01515	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
13. 33	2. 15	21. 40	.1027	21. 40	***	23. 59	.01515	23. 59	.01515	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
14. 23	8. 25	23. 59	.1020	23. 59	.1020	23. 59	.01515	23. 59	.01515	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
14. 50	5. 30	23. 59	.1020	23. 59	.1020	23. 59	.01515	23. 59	.01515	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
15. 8	8. 25	23. 59	.1020	23. 59	.1020	23. 59	.01515	23. 59	.01515	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
16. 22	4. o	23. 59	***	23. 59	.1020	23. 59	.01515	23. 59	.01515	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
18. 43	3. o	23. 59	***	23. 59	.1020	23. 59	.01515	23. 59	.01515	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
21. 43	5. 15	23. 59	***	23. 59	.1020	23. 59	.01515	23. 59	.01515	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
23. 59	5. 30	23. 59	***	23. 59	.1018	23. 59	.01515	23. 59	.01515	23. 59	.01225 20. 40	.01478 20. 40	.01573 23. 0	.01783 23. 59	.01753 23. 59							
Jan. 9	o. 15	22. 6. o	o. 40	1018	o. 7	01507	1. 40	47° 48° 5°	Jan. 9	2. 25	1. 40	01412	3. 40	49° 5° 51° 0°	Jan. 11	o. 50	22. 6. 30	1. 34	1010	o. 55	01738 1. 40	47° 0° 50° 0°
1. 12	7. 30	2. 25	1022	1022	4. 36	{.01085	9. 40	49° 3° 51° 5°	Jan. 9	4. 36	{.01156	21. 40	44° 0° 48° 0°	Jan. 11	1. 22	9. 0	2. 0	1018	3. 37:	01577 3. 40	49° 0° 50° 0°	
3. 55	3. o	4. 36	1022	1022	4. 36	{.01156	21. 40	44° 0° 48° 0°	Jan. 9	4. 36	{.01156	21. 40	44° 0° 48° 0°	Jan. 11	1. 22	9. 0	2. 0	1018	3. 37:	01577 3. 40	49° 0° 50° 0°	
6. 26	4. 30	4. 15:	1010	1010	7. 52:	.01028	14. 13	.01183	Jan. 9	4. 36	{.01156	21. 40	44° 0° 48° 0°	Jan. 11	1. 22	9. 0	2. 0	1018	3. 37:	01577 3. 40	49° 0° 50° 0°	
6. 59:	o. 35	6. 33	1019	1019	14. 13	.01183	18. 58	.01475	Jan. 9	4. 36	{.01156	21. 40	44° 0° 48° 0°	Jan. 11	1. 22	9. 0	2. 0	1018	3. 37:	01577 3. 40	49° 0° 50° 0°	
7. 33	4. o	6. 40	1014	1014	18. 58	.01475	20. 53	.01543	Jan. 9	4. 36	{.01156	21. 40	44° 0° 48° 0°	Jan. 11	1. 22	9. 0	2. 0	1018	3. 37:	01577 3. 40	49° 0° 50° 0°	
8. 50	3. 20	7. 56	1025	1025	22. 18	.01614	23. 59	.01628	Jan. 9	4. 36	{.01156	21. 40	44° 0° 48° 0°	Jan. 11	1. 22	9. 0	2. 0	1018	3. 37:	01577 3. 40	49° 0° 50° 0°	
16. 3	4. 35	10. 38	1033	1033	22. 18	.01614	23. 59	.01628	Jan. 9	4. 36	{.01156	21. 40	44° 0° 48° 0°	Jan. 11	1. 22	9. 0	2. 0	1018	3. 37:	01577 3. 40	49° 0° 50° 0°	
20. 47	3. 30	14. 35	1035	1035	23. 59	.01628	23. 59	.01628	Jan. 9	4. 36	{.01156	21. 40	44° 0° 48° 0°	Jan. 11	1.							

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Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.				
							Of H. F. Magnet.	Of V. F. Magnet.						Of H. F. Magnet.	Of V. F. Magnet.		
Jan. 15 4. 36	22. 4. 55 ***	Jan. 15 4. 45	•1023 ***	Jan. 15 12. 58 15. 38	•01694 •01685	h h	o o	o	Jan. 16 15. 20	21. 52. 30 22. 1. 30	Jan. 16 12. 9 12. 25	•1033 •1019	h h	o o	o		
5. 20	1. 20 ***	5. 53 6. 32	•1027 •1024	19. 13 22. 4	•01735 •01745				16. 3	21. 58. 0	13. 35	•1014					
6. 20	5. 0	7. 57	•1025	22. 23	•01700				16. 39	22. 2. 35	13. 53	•1033					
7. 0	3. 30	8. 5	•1021	23. 59	•01655				17. 28	3. 0	14. 7	•1026					
7. 23	22. 5. 0	8. 35	•1028						17. 53	1. 0	14. 27	•1042					
8. 17	21. 58. 45	8. 58	•1026						18. 15	3. 0	15. 18	•1012					
8. 42	22. 0. 10	9. 50	•1033						19. 23	8. 30	15. 38	•1023					
9. 7	21. 58. 30	10. 10	•1023						20. 0	16. 14		•1010					
9. 33	22. 0. 30	10. 45	•1042						21. 13	4. 30	16. 55	•1022					
9. 47	21. 57. 0	11. 26	•1032						21. 30	6. 20	18. 10	•1026					
9. 53	58. 30	13. 30	•1032						21. 48	5. 30	18. 33	•1037					
10. 8	58. 30		***						22. 8	7. 15	18. 53	•1032					
10. 23	52. 30	17. 30	•1044						22. 32	4. 50	19. 14	•1037					
10. 45	51. 0	17. 50	•1040						23. 18	7. 0		***					
10. 56	21. 55. 0	18. 29	•1047						23. 36	11. 35	20. 25	•1017					
11. 57	22. 4. 0	19. 35	•1047						23. 59	10. 30	21. 55	•1014					
15. 41	6. 30	22. 30	•1020							22. 13		•1019	***				
	***	23. 59	•1017							23. 30		•1014					
19. 6	4. 5									23. 59		•1003					
21. 28	6. 40																
22. 48	5. 30																
23. 39	7. 30																
23. 59	6. 35																
Jan. 16		Jan. 16		Jan. 16					Jan. 17 0. 26	22. 9. 10	0. 9	•1000	0. 15	•01183	1. 40	51. 5 53. 0	
0. 58	22. 8. 25	0. 5	•1017	0. 12	•01640	1. 40	48. 4	50. 5		1. 23	15. 30	1. 25	•1004	1. 43	•01170	3. 40 54. 5 54. 8	
1. 42	9. 0	1. 8	•1021	1. 30	•01543	3. 40	50. 5	52. 5		2. 40	6. 5	2. 0	•1007	7. 47	•01080	9. 40 53. 8 54. 5	
2. 0	6. 35	1. 35	•1025	2. 34	•01444	9. 40	51. 0	52. 6		3. 30	5. 0	3. 0	•1015	10. 8	•01072	21. 40 51. 3 53. 5	
2. 30	6. 10	2. 15	•1021	3. 6	•01345	21. 40	49. 5	52. 3		5. 34	5. 30		***	11. 9	•01083		
2. 38	8. 35	2. 53	•1030	4. 18	•01180					5. 53	7. 30	5. 38	•1012	12. 3	•01070		
3. 14	8. 20	3. 20	•1013	5. 31	{ •01077 •01105 }					8. 35	22. 5. 35	6. 15	•1019	12. 27	•01092		
3. 22	11. 15		***							8. 50	21. 51. 0	6. 40	•1014	12. 56	•01046		
	***	3. 45	•1014	7. 5	•01052					9. 2	48. 0	7. 14	•1023	16. 28	•01138		
4. 3	8. 40	4. 0	•1005	9. 4	•01035					9. 10	48. 20		***	17. 51	•01158		
	***		***	9. 53	•01021					9. 17	46. 0	8. 4	•1021	19. 21	•01218		
4. 40	4. 0	4. 2	•1008	12. 5	•01050					9. 38	53. 0	8. 40	•1012	20. 45	•01250		
5. 18	7. 0	4. 50	•1024	14. 14	•01020					9. 43	52. 30	9. 21	•1039	22. 28	•01332		
	***	5. 20	•1027	15. 1	•00949					10. 2	57. 30	9. 45	•1019	23. 59	•01374		
8. 2	2. 25	5. 30	•1021	15. 32	•01095					10. 23	59. 10	10. 1	•1023				
	***	6. 50	•1025	16. 36	•01024					10. 37	58. 15		***				
9. 0	3. 30	6. 55	•1040	18. 54	•01135					10. 53	21. 58. 50	10. 50	•1004				
9. 18	22. 2. 15	7. 12	•1023	20. 30	•01162					11. 17	22. 3. 15	11. 5	•1013				
9. 36	21. 51. 35		***	21. 23	•01203					11. 28	2. 50		***				
10. 0	22. 2. 10	7. 55	•1025	23. 35	•01212					11. 39	4. 30	11. 35	•1015				
	***	8. 20	•1017	23. 59	•01197					11. 56	22. 2. 15	12. 8	•1003				
10. 40	21. 53. 10	8. 35	•1020							12. 20	21. 51. 20	12. 30	•1045				
	***	9. 20	•1013							12. 30	55. 30	13. 29	•1013				
11. 31	21. 58. 0	9. 36	•1041							12. 54	56. 35	14. 13	•1018				
11. 47	22. 2. 30	9. 45	•1041							13. 7	55. 25	15. 53	•1013				
11. 57	1. 35	10. 5	•1021							13. 26	58. 0	16. 23	•1024				
12. 20	3. 30	10. 20	•1027							13. 47	21. 57. 15	16. 35	•1020				
12. 46	0. 10	10. 30	•1025							14. 14	22. 1. 40	17. 45	•1032				
13. 30	0. 30	10. 44	•1034							14. 42	0. 40	18. 15	•1027				
13. 55	7. 30	11. 30	•1015							16. 17	3. 0	19. 23	•1029				
14. 5	7. 40	11. 37	•1017								23. 59	•1010	***				
14. 16	22. 12. 25	11. 50	•1013														

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	
						Of H. F. Magnet.							Of V. F. Magnet.	
Jan. 17														
16. 26	22. 5. 35	h m		h m										
16. 47	2. 55													
17. 13	4. 0													
18. 2	2. 50													
18. 31	5. 10													

20. 22	4. 50													

21. 40	5. 45													
23. 43	5. 15													
23. 56	6. 30													
Jan. 18		Jan. 18		Jan. 18										
0. 15	22. 6. 10	0. 15	.1006	0. 22	.01377	1. 40	53. 55. 5							
0. 48	8. 30	0. 45	.1001	1. 40	.01340	3. 40	54. 57. 0							
1. 27	6. 30	1. 10	.0999	4. 51	{ .01134	9. 40	54. 04. 5							
1. 44	6. 45	1. 30	.0994		{ .01175	21. 40	47. 51. 8							
2. 31	6. 0	3. 0	.1013	5. 43	.01175									
3. 4	7. 40	3. 55	.1001	7. 38	.01088									
4. 23	4. 25	4. 15	.1006	8. 24	.01086									
	***	4. 33	.1003	10. 34	.01135									
5. 12	4. 30	5. 25	.1006	12. 0	.01190									
5. 25	2. 35	5. 40	.1016	16. 26	.01462									
5. 47	4. 40	6. 13	.1008	18. 25	.01623									
6. 13	3. 5		***	20. 18	.01820									
6. 47	22. 5. 35	7. 0	.1012	21. 30	{ .01965									
7. 3	21. 54. 20	7. 13	.1048		{ .01925									
7. 15	22. 1. 30	7. 24	.1042	23. 2	.01897									
7. 21	1. 0	7. 35	.1025	23. 59	.01922									
7. 25	22. 3. 0	7. 46	.1035											
7. 38	21. 57. 10	8. 34	.1015											
7. 52	22. 2. 10		***											
8. 18	3. 50	10. 35	.1021											
8. 44	2. 30	10. 52	.1039											
9. 16	5. 30	11. 5	.1026											
10. 22	5. 0	11. 29	.1023											
10. 46	3. 0	13. 45	.1028											
10. 58	6. 30	16. 45	.1028											
11. 12	4. 50	17. 11	.1025											
15. 58	4. 0	19. 15	.1036											
16. 43	5. 35	22. 30	.1023											
17. 0	9. 50	23. 20	.1024											
17. 37	6. 25	23. 59	.1014											
18. 45	4. 15													
23. 36	7. 25													
23. 59	8. 0													
Jan. 19		Jan. 19		Jan. 19										
0. 9	22. 8. 30	0. 5	.1013	0. 18	.01945	1. 40	49. 053. 0							
0. 32	7. 45	0. 25	.1005	2. 36	.01914	3. 40	50. 054. 0							
0. 54	9. 30	2. 5	.1021	3. 50	.01837	9. 40	49. 052. 5							
1. 50	9. 20	2. 45	.1001	5. 9	.01785	21. 40	45. 048. 0							
2. 31	6. 15	3. 30	.1025	5. 46	.01812									
4. 2	5. 40	3. 45	.1020	7. 17	.01670									
4. 14	7. 50	4. 20	.1025	9. 29	.01692									
4. 26	6. 25	5. 15	.0981	11. 25	.01814									
5. 2	22. 10. 35	5. 45	.1008	11. 43	.01848									
5. 23	21. 57. 35	6. 5	.1007	11. 55	.01824									
Jan. 20		Jan. 20		Jan. 20										
0. 8	22. 9. 0	0. 30												
0. 33		12. 0												
0. 55		8. 0												
1. 10		10. 35												
1. 22		7. 0												
Jan. 20		Jan. 20		Jan. 20										
0. 8	22. 9. 0	0. 30												
0. 33		12. 0												
0. 55		8. 0												
1. 10		10. 35												
1. 22		7. 0												
Jan. 20		Jan. 20		Jan. 20										
0. 8	22. 9. 0	0. 30												
0. 33		12. 0												
0. 55		8. 0												
1. 10		10. 35												
1. 22		7. 0												

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Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.		Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.					
							Of H. F. Magnet.	Of V. F. Magnet.						Of H. F. Magnet.	Of V. F. Magnet.				
Jan. 20				Jan. 20		Jan. 20						Jan. 21							
h m	o	' "	h m	h m	o	h m	o	o	h m	o	h m	h m	o	h m	o	o	o		
2. 0	22.	9. 0	3. 20	.0991	4. 30	.01170			2. 13	22.	6. 50	2. 45	.1015	3. 37	.01215	23. 29	45° 0'	48° 5'	
2. 16		8. 0		***	5. 58	.01158			2. 34		8. 0	3. 3	.1012	{ 4. 13	{ .01165				
2. 35	10. 0	4. 13	.0998	6. 10	.01190				2. 49		6. 10	3. 22	.0990						
2. 40	8. 30	4. 38	.1023	6. 27	.01138						7. 50	3. 45	.0992	7. 30	.01100				
2. 51	11. 30	4. 50	.1012	6. 57	.01120						***		9. 12	.01100					
3. 3	10. 35	5. 4	.1016	(†)									3. 10	6. 45	4. 30	.1003	11. 7	.01170	
3. 8	12. 25	5. 15	.1012	9. 53	.01070								3. 14	7. 40	4. 53	.0996	11. 26	.01163	
	***	5. 27	.1015	12. 0	.01050								3. 50	0. 30		***	16. 8:	.01442	
3. 35	22. 5. 30	5. 35	.1003	12. 42	.01007													.01948	
4. 14	21. 56. 15	6. 5	.1002	14. 13	.01005								4. 21	2. 0	6. 13	.1001	21. 16	.01915	
5. 0	22. 4. 10	6. 15	.1034	20. 37	.01350								5. 10	6. 0	6. 23	.1013	22. 48:	.01865	
5. 22		5. 30	6. 25	.1027	22. 36	.01470							6. 2	5. 30	6. 30	.1004	23. 5	.01878	
5. 33		8. 40	6. 36	.1033	23. 37	.01438							6. 19	0. 50	7. 2	.1015			
5. 47	22. 7. 0	6. 52	.1018	23. 59	.01432								6. 25	1. 30	7. 25	.1008			
6. 7	21. 40. 0	7. 2	.1022										6. 32	0. 30	7. 55	.1022			
6. 13		42. 0	7. 54	.0991									6. 46	3. 15	8. 43	.1018			
6. 27		35. 15	8. 10	.1006									7. 18	22. 3. 35	9. 5	.1023			
6. 53		50. 30		***									7. 40	21. 59. 30	9. 30	.1022			
7. 23		58. 0	8. 46	.1009									8. 9	22. 4. 0	9. 39	.1027			
7. 45		57. 0	9. 2	.1004									8. 34	3. 30	10. 16	.1019			
8. 4		50. 30	9. 31	.1022									8. 58	0. 30	10. 27	.1024			
8. 18	21. 52. 20	10. 5	.1008										9. 18	3. 2	10. 44	.1017			
	***	10. 16	.1014										9. 33	1. 30	11. 6	.1033			
8. 53	22. 2. 40	10. 34	.1013											***	11. 40	.1021	***		
9. 13	21. 58. 20	10. 54	.1025										10. 30	4. 30					
9. 34	22. 0. 35	11. 25	.1011										10. 44	3. 25	12. 58	.1014			
	***	12. 8	.1026										11. 10	8. 35	13. 11	.1024			
10. 43		0. 50		***									11. 45	1. 35	19. 30	.1034			
10. 57		4. 0	12. 56	.1025									12. 25	0. 10	21. 23	.1038			
11. 7		3. 25	13. 34	.1014									13. 26	3. 50	23. 59	.1029			
11. 17		8. 35	14. 0	.1025									14. 32	4. 25					
12. 0		6. 30	15. 15	.1018									14. 52	3. 0					
12. 15		11. 30		***									15. 18	4. 45					
13. 8		2. 30	18. 1	.1028									16. 19	4. 45					
13. 25		7. 10	18. 45	.1038									16. 32	4. 10					
13. 32		8. 0	18. 55	.1033									17. 17	4. 50					
13. 53		5. 35	20. 5	.1033									17. 38	3. 0					
14. 0		6. 30	22. 20	.1006									18. 15	5. 0					
14. 32		2. 0	23. 19	.1012									18. 44	4. 0					
14. 48		3. 15	23. 59	.1004									20. 52	4. 10					
15. 7		1. 35											23. 35	7. 15					
15. 35		5. 0		***															
16. 32		3. 15											Jan. 22						
17. 38		4. 30											Jan. 22	o. 25	.01895	11. 17	49° 0'	52. 5'	
17. 58		7. 0											o. 0	22.	7. 0	.1029	21. 40	47° 0'	50. 0
18. 55		9. 0											1. 41	7. 50	2. 4	.1031	2.	0	.01930
19. 15		6. 5											4. 5	3. 30	2. 45	.1027	3. 17:	.01883	
21. 3		4. 30											7. 43	4. 20	3. 26	.1037	5. 36	.01650	
22. 4		6. 0											11. 45	1. 35	5. 40	.1028	8. 23:	.01405	
22. 36		5. 30											13. 5	3. 0	7. 20	.1031	12. 24	.01392	
23. 45		8. 0											14. 30	1. 30	7. 38	.1026	16. 56:	.01415	
23. 59		7. 30											14. 46	3. 35	8. 20	.1030	21. 15	.01675	
													15. 9	1. 0	11. 15	.1026	22. 13	.01712	
													15. 24	2. 30	13. 11	.1027	23. 59	.01830	
													15. 58	1. 30	14. 44	.1033			
													16. 53	3. 0	16. 18	.1034			
														***	19. 15	.1040			
															20. 3	.1034			
															23. 59	.1034			
Ja. 21																			
o. 20	22.	6. 30	Jan. 21	o. 20	.1004	o. 15	.01430	1. 40	51. 8	53. 5									
I. 1		7. 0		0. 45	.1010	I. 23	.01430	3. 40	54. 0	56. 0	20. 15		3. 0	20. 3	.1034				
I. 21		8. 50	2. 30		.1010	2. 46	.01342	9. 40	53. 0	55. 0	23. 59		5. 30	23. 59	.1034				

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

Jan. 20. The Vertical Force time-piece was stopped between 7^h and 9^h. 40^m.

INDICATIONS OF THE MAGNETOMETERS

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Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	
							Of H.F. Magnet	Of V.F. Magnet							Of H.F. Magnet	Of V.F. Magnet
Jan. 27 9. 4	o 22. 2. 15 ***	Jan. 27 5. o	.1022 .1027	Jan. 27 5. 10 6. o	.01422 .01380	Jan. 27 21. 40	50° 53°	Jan. 29 o. 17	22. 6. o ***	Jan. 29 o. 40 1. 45	.1037 .1031	Jan. 29 o. 27 2. 42	.01282 .01100	Jan. 29 21. 40	53° 56°	
15.52	4. 30	20. 30	.1036	7. 12	.01295			o. 46	9. 30	2. 53	.1037	3. 26	.01098			
20. 11	1. 40	20. 50	.1031	9. 15	.01238			2. 4	6. 30	2. 53	.1037	4. 18	.01046			
23.56	4. 35	23. o	.1022 ***	13. 53 18. 25	.01190 .01204			2. 44	6. 45	***	.1017	4. 28	.01097			
			23. 59	.1020 21. 3:	.01248 21. 52			2. 57	10. 25	4. 33	.1003	4. 22	.01092			
					.01215 22. 43						***	5. 53	.01138			
					.01212 23. 59						4. 14	22. 11. 50	.01110			
								5. o	21. 59. o	5. 15	.1033	8. 7	.01132			
								5. 37	22. 10. 45	6. 10	.1018	8. 46	.01132			
											6. 37	5. 25	6. 45	.1022	9. 26	
											6. 50	7. o	7. o	.1017	10. o	
											7. 14	2. o	7. 20	.1023	12. 17	
											7. 39	22. 6. 30	***	13. 13	.01110	
											8. 2	21. 59. o	7. 54	.1013	13. 30	
											8. 20	40. 25	8. 10	.0993	14. 7	
											8. 30	43. o	8. 33	.1044	14. 33	
											8. 45	40. 20	8. 45	.1041	15. 31	
												***	8. 53	.1048	19. 43	
													***	21. 18	.01095	
											9. 20	57. o	9. 30	.0996	21. 38	
											9. 27	21. 55. 30	9. 30	***	21. 38	
											9. 37	22. 1. o	9. 36	.1005	23. 38	
											9. 52	21. 54. 35	9. 46	.0993	23. 59	
											10. 7	59. 35	10. o	.1013		
											10. 23	56. 30	10. 15	.1009		
											10. 45	58. 40	10. 35	.1020		
											11. 6	21. 56. 45	10. 56	.1013		
											11. 44	22. 2. 30	11. 17	.1029		
											12. o	21. 58. o	11. 36	.1026		
											12. 7	58. 25	11. 50	.1013		
											12. 38	21. 45. 40	11. 59	.1016		
											13. 14	22. 3. o	12. 17	.0998		
											13. 42	21. 49. 30	12. 44	.1025		
											14. 20	22. 3. 25	13. 5	.1005		
											14. 47	21. 58. 30	13. 17	.1021		
											15. 32	22. 6. o	13. 29	.1018		
											15. 46	4. 25	14. 32	.1009		
												***	15. o	.1014		
											16. 2	5. 25	15. 16	.1010		
											16. 23	4. o	15. 40	.1013	***	
											16. 47	5. 30	17. o	.1018	***	
											17. 30	2. 50	17. 35	.1024		
											17. 52	5. o	18. 24	.1027	***	
											18. 23	3. 10	20. o	.1024		
											19. 23	6. 35	21. 15	.1010		
											20. 4	4. 45	22. 30	.1001		
											20. 25	6. 10	23. 5:	.0991	***	
												***	23. 59	.0997		
Jan. 29 o. 2	22. 8. 10	Jan. 29 o. 10	.1033	Jan. 29 o. 16	.01278	Jan. 29 6. 40	50° 54° 5									

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters. Of H. F. Magnet. Of V. F. Magnet.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters. Of H. F. Magnet. Of V. F. Magnet.								
Jan. 29 20. 58	22. 0. ***	22. 3.35 ***	h m	h m	h m	h m	o o	Jan. 30 23. 59	22. 0. ***	22. 8.15 ***	h m	h m	h m	o o	Jan. 31 0. 8	22. 9. 0 ***	Jan. 31 0. 17	1.003 1.008	0.13 1.34	01746 01750	1.40 3.40	55.0 57.0	56.0 57.5
21. 16	7. 10 ***	6. 30 ***						0. 37	6. 35	0. 57	1.013	2. 2	01724	9. 40	57.0	57.7							
22. 0	10. 0 ***	8. 30 ***						1. 19	9. 30	1. 32	1.007	2. 14	01730	21. 40	53.0	53.5							
22. 18	8. 30 ***	5. 30						1. 34	8. 30	2. 3	0991	3. 9	01683										
23. 25	8. 30 ***							1. 42	10. 0	3. 0	1.013	6. 6	01414										
23. 57	5. 30							2. 10	6. 35		***	6. 43	01347										
Jan. 30	22. 6. 0	22. 8.55	Jan. 30 0. 8	0. 0	0.0997	Jan. 30 1. 23	0. 17	Jan. 30 2. 26	1. 40	56.4	58.0	Jan. 30 2. 29	5. 8	1.010	7. 9	01330							
2. 3	6. 0	1. 0	Jan. 30 2. 3	1. 002	1.002	Jan. 30 2. 46	2. 26	Jan. 30 3. 40	57.0	59.0	2. 41	7. 0	1.001	7. 50	01275								
2. 46	9. 0	1. 28	Jan. 30 3. 17	0.998	6. 50	Jan. 30 3. 17	7. 25	Jan. 30 4. 0	57.5	58.0	2. 41	7. 0	6. 18	8. 47	01257								
3. 17	6. 30	2. 37	Jan. 30 4. 9	1.011	7. 25	Jan. 30 5. 24	0.148	Jan. 30 5. 45	21. 40	53.5	56.0	5. 20	5. 30	1.006	10. 25	01260							
4. 9	5. 15	3. 8	Jan. 30 5. 53	1.005	9. 18	Jan. 30 5. 24	10. 18	Jan. 30 5. 45	53.5	56.0	5. 47	0. 30	***	12. 37	01234								
5. 24	7. 15	3. 45	Jan. 30 5. 53	1.008	12. 10	Jan. 30 5. 53	12. 10	Jan. 30 6. 23	22. 4. 35	7. 10	1.018	14. 12	01392										
5. 45	4. 5	4. 7	Jan. 30 6. 23	1.004	12. 46	Jan. 30 6. 23	12. 46	Jan. 30 6. 52	21. 59. 30	7. 18	1.013	18. 50	01695										
5. 53	22. 4. 25	4. 50	Jan. 30 6. 23	1.009	13. 2	Jan. 30 7. 12	13. 2	Jan. 30 6. 52	21. 59. 30	7. 43	1.018	21. 0	01807										
6. 23	21. 41. 30	5. 39	Jan. 30 7. 17	0.994	14. 13	Jan. 30 7. 12	14. 13	Jan. 30 7. 12	22. 4. 0	8. 0	1.022	23. 59:	01922										
7. 17	22. 0. 30	5. 55	Jan. 30 7. 31	1.004	15. 5	Jan. 30 7. 31	15. 5	Jan. 30 7. 31	22. 3. 50	8. 33	1.012	***											
7. 31	21. 57. 30	6. 8	Jan. 30 8. 47	0.984	18. 34	Jan. 30 8. 47	18. 34	Jan. 30 8. 47	7. 35	22. 3. 50	7. 35	1.012	***										
8. 47	22. 5. 0	6. 45	Jan. 30 9. 2	1.023	20. 8	Jan. 30 9. 2	20. 8	Jan. 30 9. 2	21. 56. 10	11. 5	1.012												
9. 2	21. 55. 40	7. 25	Jan. 30 9. 3	0.988	21. 52	Jan. 30 9. 3	21. 52	Jan. 30 9. 3	22. 3. 30	11. 25	1.025												
9. 8	57. 50	7. 40	Jan. 30 9. 30	0.993	23. 58	Jan. 30 9. 30	23. 58	Jan. 30 9. 30	22. 3. 30	11. 40	1.019												
9. 30	50. 0	8. 10	Jan. 30 9. 52	0.989		Jan. 30 10. 5	8. 10	Jan. 30 10. 5	22. 3. 50	11. 55	1.027												
9. 52	57. 0	8. 45	Jan. 30 10. 5	1.013		Jan. 30 10. 14	8. 45	Jan. 30 10. 14	22. 2. 45	12. 20	1.015												
10. 5	55. 10	8. 54	Jan. 30 10. 37	0.991		Jan. 30 10. 37	9. 44	Jan. 30 10. 37	21. 59. 30	13. 26	1.015												
10. 14	57. 30	9. 44	Jan. 30 11. 27	1.010		Jan. 30 11. 27	9. 55	Jan. 30 11. 27	21. 59. 30	13. 36	1.019												
10. 37	21. 55. 10	9. 55	Jan. 30 11. 27	0.999		Jan. 30 11. 27	10. 55	Jan. 30 11. 27	21. 59. 30	13. 53	1.015												
11. 27	22. 1. 40	10. 9	Jan. 30 11. 53	1.005		Jan. 30 11. 53	10. 33	Jan. 30 11. 53	22. 2. 45	14. 0	1.019												
11. 53	21. 59. 0		Jan. 30 12. 27	0.994		Jan. 30 12. 27	11. 35	Jan. 30 12. 27	21. 59. 30	14. 23	1.015												
12. 27	22. 3. 35		Jan. 30 12. 32	1.010		Jan. 30 12. 32	12. 30	Jan. 30 12. 32	21. 59. 30	14. 23	1.015												
12. 32	2. 15		Jan. 30 13. 3	1.021		Jan. 30 13. 3	12. 54	Jan. 30 13. 3	21. 59. 30	14. 23	1.015												
13. 3	6. 25		Jan. 30 13. 39	1.031		Jan. 30 13. 39	13. 14	Jan. 30 13. 39	21. 59. 30	14. 23	1.015												
13. 39	3. 10		Jan. 30 13. 53	1.013		Jan. 30 13. 53	13. 40	Jan. 30 13. 53	21. 59. 30	14. 23	1.015												
13. 53	4. 0		Jan. 30 14. 23	1.023		Jan. 30 14. 23	0.30	Jan. 30 14. 23	21. 59. 30	14. 23	1.015												
14. 23	0. 30		Jan. 30 14. 50	1.010		Jan. 30 14. 50	15. 6	Jan. 30 14. 50	21. 59. 30	14. 23	1.015												
14. 50	3. 0		Jan. 30 15. 39	1.010		Jan. 30 15. 39	16. 28	Jan. 30 15. 39	21. 59. 30	14. 23	1.015												
15. 39	4. 30		Jan. 30 15. 51	1.019		Jan. 30 15. 51	1. 0	Jan. 30 15. 51	21. 59. 30	14. 23	1.015												
15. 51	1. 0		Jan. 30 16. 30	1.014		Jan. 30 16. 30	18. 14	Jan. 30 16. 30	21. 59. 30	14. 23	1.015												
16. 30	5. 0		Jan. 30 17. 17	1.019		Jan. 30 17. 17	18. 53	Jan. 30 17. 17	21. 59. 30	14. 23	1.015												
17. 17	5. 0		Jan. 30 17. 29	1.016		Jan. 30 17. 29	19. 53	Jan. 30 17. 29	21. 59. 30	14. 23	1.015												
17. 29	3. 30		Jan. 30 17. 47	1.016		Jan. 30 17. 47	22. 20	Jan. 30 17. 47	21. 59. 30	14. 23	1.015												
17. 47	5. 0		Jan. 30 21. 52	1.015		Jan. 30 21. 52	23. 59	Jan. 30 21. 52	21. 59. 30	14. 23	1.015												
21. 52	3. 30		Jan. 30 22. 10	1.002		Jan. 30 22. 10		Jan. 30 22. 10	21. 59. 30	14. 23	1.015												
22. 10	6. 30		Jan. 30 23. 43	1.002		Jan. 30 23. 43	5. 30	Jan. 30 23. 43	21. 59. 30	14. 23	1.015												
23. 43	5. 30			***																			

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

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.				
Feb. 1		Feb. 1		Feb. 1		Feb. 1		Feb. 3		Feb. 3		Feb. 4		Feb. 4		Feb. 4			
4. 20	22. 5. 55	4. 18	.1006	8. 9	.01273	h m	o o	14. 29	22. 1. 30	12. 40	.1024	h m	h m	h m	o o	45. 3. 47. 0			
4. 52	4. 0	6. 10	.1007	8. 51	{ .01260			15. 1	2. 0	12. 57	.1050					3. 40	47. 5. 50. 5		
5. 43	6. 50	7. 55	.1014	{ .01410				15. 10	0. 35	13. 43	.1020					9. 40	49. 5. 52. 5		
	***	8. 17	.1028	10. 31	{ .01410					**	14. 38	.1034							
7. 40	22. 4. 0	8. 45	.1026	13. 0	{ .01470			16. 22	4. 30	15. 8	.1030								
8. 10	21. 59. 0	9. 14	.1013	16. 27	{ .01683			16. 38	3. 25		***								
8. 27	22. 1. 45	9. 29	.1016	19. 52	{ .01200			17. 10	3. 30	17. 4	.1041								
8. 38	21. 58. 50	10. 30	.1015	19. 55	{ .01963			17. 38	1. 45	18. 15	.1037								
8. 55	22. 3. 0	11. 15	.1025	21. 37	{ .01963			18. 36	9. 0	19. 13	.1052								
9. 22	2. 15	11. 50	.1016	{ .01920				18. 51	6. 35	19. 35	.1051								
10. 6	3. 10	12. 6	.1024	22. 51	{ .01862			19. 23	7. 30	20. 10	.1060								
10. 47	2. 5	13. 20	.1021	23. 59	{ .01900					***									
11. 7	3. 10	20. 10	.1031					21. 27	2. 0	22. 10	.1045								
11. 43	22. 1. 0	22. 9	.1026					21. 43	3. 30		***								
11. 58	21. 58. 10	23. 15	.1018					21. 52	2. 40	23. 50	.1018								
12. 32	21. 59. 15	23. 59	.1018						22. 22	4. 25	***								
12. 51	22. 2. 0								23. 14	5. 0									
15. 15	3. 15								23. 20	8. 0									
15. 41	6. 0								23. 40	5. 15	***								
16. 23	4. 20								23. 52	5. 30									
21. 57	3. 50																		
23. 59	6. 30																		
Feb. 2		Feb. 2		Feb. 2		Feb. 2		Feb. 4		Feb. 4		Feb. 4		Feb. 4		Feb. 4			
0. 6	22. 6. 30	0. 15	.1019	1. 40	.01977*	1. 40	51. 0. 52. 5	0. 12	22. 6. 0	0. 40	.1020	0. 24	.01567	1. 47	45. 3. 47. 0				
4. 2	6. 15	4. 5	.1016	(†)	3. 40	53. 5. 54. 5		0. 31	10. 25	1. 16	.1030	0. 46	.01531	3. 40	47. 5. 50. 5				
4. 39	2. 45	4. 27	.1004	3. 40	.01792*	9. 40	53. 0. 54. 5	0. 47	6. 0	1. 55	.0995	1. 14	.01530	9. 40	49. 5. 52. 5				
7. 55	22. 3. 50	5. 27	.1012	4. 32	.01652	(†)	21. 40	43. 0. 45. 0	1. 10	8. 30	2. 36	.0996	1. 57	.01464	22. 48	47. 0. 50. 0			
8. 20	21. 56. 35	6. 38	.1020	5. 38	.01505			1. 19	12. 50	3. 23	.1012	2. 8	.01460						
8. 52	22. 1. 0	7. 36	.1022	8. 25	.01298			1. 34	9. 30	3. 45	.1008	2. 52	.01368						
9. 26	3. 10	8. 13	.1019	11. 26	.01472			2. 7	8. 25	4. 44	.1008	6. 26	.00965						
9. 58	2. 10	8. 31	.1034	13. 4	.01646			2. 38	4. 0	6. 18	.1018	4. 38	.00975						
12. 38	3. 10	8. 57	.1023	14. 43	.01872			4. 7	4. 30	6. 45	.1012	10. 24	.00928						
13. 13	2. 25	9. 28	.1021	17. 2	.01837			5. 51	3. 30	7. 10	.1020	19. 17	.00945						
13. 26	3. 0	14. 23	.1030	22. 58	.01778			6. 19	5. 0	7. 53	.1014								
14. 0	2. 30	15. 0	.1040					6. 33	3. 35	8. 3	.1021	20. 47	.00962						
14. 26	5. 0	15. 53	.1027					6. 44	4. 0	8. 40	.1016	21. 39	.00965						
15. 15	0. 0	18. 45	.1042					7. 32	22. 2. 50	8. 54	.1021								
16. 5	4. 45	22. 45	.1025					7. 58	21. 55. 30	9. 25	.1012	23. 59	.00975						
20. 53	3. 15	23. 0	.1024					8. 11	59. 0	9. 35	.1016								
22. 58	4. 50							8. 29	56. 15	10. 0	.1014								
Feb. 3		Feb. 3		Feb. 3		Feb. 3		8. 38	57. 15	10. 35	.1021								
1. 46	22. 6. 0	2. 0	.1027	2. 23	.01727	1. 40	44. 5. 46. 8	8. 47	55. 25	10. 55	.1037								
3. 10	4. 0	2. 53	.1025	3. 6	.01674	3. 40	47. 5. 50. 0	9. 8	59. 35	11. 15	.1033								
9. 31	22. 2. 45	5. 40	.1028	4. 40	.01365	9. 40	48. 0. 49. 8	9. 27	21. 57. 30	11. 28	.1034								
10. 6	21. 59. 30	6. 1	.1025	6. 46	.01055	21. 40	41. 0. 44. 5	10. 2	22. 0. 35	11. 34	.1028								
10. 17	22. 0. 30	9. 15	.1034	8. 43	.00915			10. 23	22. 0. 30	11. 57	.1033								
10. 28	21. 58. 30	9. 52	.1031	11. 2	.00930			11. 10	21. 56. 30	12. 50	.1028								
11. 7	22. 1. 30	10. 9	.1038		***			11. 27	58. 30	13. 33	.1044								
11. 30	21. 58. 20	10. 17	.1035	13. 40	.01105			11. 44	21. 56. 0	14. 0	.1030								
12. 8	22. 1. 25	10. 29	.1041	21. 8	.01730			12. 15	22. 1. 25	14. 8	.1037								
12. 23	21. 59. 0	11. 25	.1023	21. 15	.01713			12. 36	0. 30		***								
12. 46	41. 35	11. 44	.1029	23. 42	{ .01700														
13. 8	43. 0	12. 14	.1016	23. 42	{ .01568														
13. 52	21. 56. 50	12. 34	.1032	23. 59	.01570														

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

INDICATIONS OF THE MAGNETOMETERS

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AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1854.

(xvii)

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	
Feb. 10.		Feb. 10		Feb. 10			Feb. 11		Feb. 11		Feb. 11		Feb. 11	
3.43	22. 10. 30	6.37	.0994	9.15	.01073		4.32	22. 11. 30	6.14	.0996	15.37	.01515		
3.58	22. 14. 30	6.52	.1023	9.31	.01098		4.37	12. 50	6.30	.0977		***		
4.31	21. 58. 30	7. 4	.1006	10.29	.01085			***	6.39	.0983				
4.55	22. 8. 15		***	11. 3	.01110		5.20	13. 15	6.51	.0977	19. 29	{ .01840		
5.13	4. 30	7.20	.1016	11.45	.01085			***	7.13	.0986	22. 13	{ .01804		
5.58	22. 7. 30	7.30	.1008	15.23	.01236		5.45	10. 0	7.23	.0977	23. 16	{ .01820		
6.56	21. 52. 45	7.52	.1022	21. 10	.01582		5.52	8. 0	7.50	.1003	23. 59	{ .01808		
7. 7	58. 0	8.23	.1002	21.44	.01568		5.58	9. 0	8. 0	.1001		.01823		
7.14	54. 20	8.53	.1032	23.44	.01695		6. 8	7.30	9. 7	.1013				
7.20	57. 0	9.30	.0972				6.17	11. 50	9.18	.1008				
7.24	21. 56. 45	9.38	.0982				6.31	7. 0	11.24	.1014				
7.32	22. 3. 30	9.45	.0975				6.43	8. 0	12. 0	.1029				
7.48	22. 3. 0	10.21	.1000				7.13	22. 4. 0	12.16	.1021				
8.10	21. 58. 30	10.38	.0984				7.28	21. 53. 0	12.27	.1039				
8.15	59. 30	11. 7	.0998				7.54	22. 1. 0	12.45	.1026				
8.28	54. 30	11.20	.1021					***	12. 50	.1027				
8.33	55. 0	11.45	.1007				8.43	0. 50	13.10	.1019				
8.48	45. 0	12. 0	.1017				9. 9	2.45	13.43	.1032				
9. 0	21. 56. 30	12.33	.1007				9.23	1. 15	13.56	.1021				
9.12	22. 1. 30	19.30	.1030				10.23	1. 30		***				
9.31	21. 53. 15	20.50	.0990				11.10	0. 0	15.35	.1023				
9.38	57. 0	21.29	.1010				11.43	22. 0. 36	15.45	.1031				
9.47	43. 0		***				11.57	21. 58. 30	16. 0	.1022				
9.54	48. 30	22.23	.0992				12.15	22. 0. 0	16.20	.1022				
10. 4	45. 0	23. 6	.0988				12.27	6.30	17. 0:	.1015				
10.27	58. 0	23.47	.0986				12.50	2.30	17.44	.1027				
10.37	54. 25							***	20. 13	.1030				
10.56	58. 0						14. 4	1. 0	21.57	.1015				
11. 6	57. 30						14.55	4. 0	23.20	.1018				
11.14	59. 30							***	23. 50	.1014				
11.40	21. 52. 30						15.33	1. 35						
12.20	22. 0. 25						15.42	22. 3. 30						
13.14	3. 20						15.50	21. 59. 30						
15.31	4. 0						16.32	22. 2. 45						
19.12	1. 30						16.40	2. 25						
20. 0	3. 0						16.58	7.45						
21.14	20. 0						17.13	8. 0						
21.47	10. 45						17.38	3.45						
22.36	10. 20						18.27	2.15						
23.14	13. 30						20.42	2. 0						
23.38	12. 30						21.31	2.20						
Feb. 11.		Feb. 11		Feb. 11			22.36	5.40						
0.35	22. 16. 30	1. 0	.0980	0. 0	.01718	Feb. 11	23. 7	6.30						
0.46	14. 40		***				23.28	8.25						
1.13	15. 40	2.48	.0992	1.35	.01798	Feb. 11								
1.23	18. 0	2.55	.0998	2.37	.01740	Feb. 11								
1.53	14. 45	3. 0	.0987	3.22	.01670	Feb. 11								
2.54	11. 30	3.20	.1009	3.57	.01555	Feb. 11								
2.58	8. 30	3.54	.0983	4.14	.01530	Feb. 11								
3.21	14. 0		***	5.17	.01370	Feb. 11								
3.25	13. 10	4.23	.0997	6. 7	.01343	Feb. 11								
3.34	15. 25	4.47	.0988	7.47	.01320	Feb. 11								
3.52	12. 50	4.54	.0998	9.32	.01267	Feb. 11								
4. 0	14. 25	5. 5	.0988	12. 17	.01288	Feb. 11								
4. 8	12. 25	5.19	.0995	12.24	.01357	Feb. 11								
4.13	13. 15		***	12.40	.01341	Feb. 11								
4.18	11. 30	6. 5	.0991		***	Feb. 11								

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Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	
							Of H. F. Magn.								Of H. F. Magn.	
							Of V. F. Magn.								Of V. F. Magn.	
Feb. 12		Feb. 12		Feb. 12						Feb. 13						
3. 47	o. 7. 45	5. o	.1032	20. 27	.01798	4. h m	o	o		17. 12	22. 1. 15	22. o	.1028	h m		
4. 8	22. 9. 30	5. 23:	.1016	21. 52:	.01852					17. 17	3. o	22. 8	.1034			
4. 33	21. 58. o	5. 50	.1026	22. 55	.01838					17. 31	0. 45	22. 40	.1027			
4. 49	21. 58. 20	6. 8	.1020	23. 59	.01830					17. 39	2. 45	23. 27	.1036			
5. 2	22. 2. 10	7. 1	.1021							18. 40	0. 20	23. 50	.1032			
5. 22	o. o	7. 12	.1023							19. 7	1. 50					
	***	7. 55	.1018							19. 28	22. 0. 30					
7. 27	3. o		***							21. 35	21. 59. 35					
8. 17	o. 40	9. 25	.1026							21. 52	22. 0. o					
9. 14	22. 1. o	9. 55	.1014							22. 12	5. o					
9. 51	21. 48. 30	10. 17	.1022							22. 27	1. 25					
10. 50	52. 30	11. 30	.1016							22. 47	1. o					
11. 16	57. 10	12. 5	.1019							23. 46	3. 45					
11. 36	21. 56. 50	12. 30	.1041													
12. 17	22. 2. 30	13. o	.1028													
12. 31	5. 35	14. 25	.1025													
13. 7	1. o	16. 43	.1028													
14. 45	4. 10	17. 8	.1034													
15. 40	2. 35	20. 7	.1042													
17. 8	4. 35	22. o	.1021													
20. 33	o. 35	23. 30	.1017													
21. 32	1. 35	23. 59	.1013													
22. 53	2. 30															
23. 56	5. 30															
Feb. 13		Feb. 13		Feb. 13		Feb. 13				Feb. 14		Feb. 14		Feb. 14		Feb. 14
0. 13	22. 6. o	o. 15	.1016	o. 20	.01804	1. 40	44. 5 47. o	3. 18	14. 10	2. 45	.1025	9. 55	.01073			
1. 3	7. o	2. 48	.1004	2. 15:	.01702	3. 40	48. 0 50. 5	3. 30	12. 40	3. 14	.1037	10. 40	.01023			
1. 32	5. 50		***	4. 3	.01435	9. 40	48. 0 48. 5	3. 33	14. 20	3. 16	.1028	11. 37	.01030			
2. 15	7. o	5. 8	.1010	6. 2:	.01135	21. 40	37. 5 41. o	3. 58	10. 40		***	12. 37	.01025			
	***	6. 14	.1017	10. 17	{ .01085			4. 2	13. o	3. 40	.0999	13. 11	.00985			
3. 29	4. 25	6. 52	.1003	7. 58	{ .01173				3. 12	11. 10	2. 29	.1020				
4. 1	6. 10	7. 10	.1013	8. 42	.01185				3. 12	11. 10	2. 45	.1025	9. 55	.01073		
	***	7. 35	.1007	12. 15	.01400				3. 12	11. 10		***	10. 40	.01023		
5. 54	3. 30	7. 56	.1008	14. 9	.01550				3. 12	11. 10		***	10. 40	.01023		
6. 53	22. 4. 50	8. 17	.1015	14. 35	.01552				3. 12	11. 10		***	10. 40	.01023		
7. 15	21. 58. 45	8. 59	.1007	16. 24	{ .01767				3. 12	11. 10		***	10. 40	.01023		
7. 47	22. 1. 50	9. 56	.1014	17. 85	{ .01785				3. 12	11. 10		***	10. 40	.01023		
9. o	1. 30	10. 14	.1004	18. 31	.01752				3. 12	11. 10		***	10. 40	.01023		
9. 34	22. o. o	10. 26	.1013	21. 40	.01768				3. 12	11. 10		***	10. 40	.01023		
9. 50	21. 57. 10	10. 44	.0997	22. 42	.01742				3. 12	11. 10		***	10. 40	.01023		
10. 5	22. o. o	11. 15	.1020	23. 59	.01760				3. 12	11. 10		***	10. 40	.01023		
10. 18	21. 57. 20	11. 30	.1017						3. 12	11. 10		***	10. 40	.01023		
10. 36	22. 3. 15	11. 53	.1027						3. 12	11. 10		***	10. 40	.01023		
11. 4	21. 54. 30	12. 8	.1024						3. 12	11. 10		***	10. 40	.01023		
11. 19	57. 45	13. 60	.1022						3. 12	11. 10		***	10. 40	.01023		
11. 43	56. o	14. 12	.1049						3. 12	11. 10		***	10. 40	.01023		
11. 55	58. 20	14. 59	.1023						3. 12	11. 10		***	10. 40	.01023		
12. 9	21. 57. 40	17. 27	.1032						3. 12	11. 10		***	10. 40	.01023		
12. 52	22. 2. 35	17. 46	.1048						3. 12	11. 10		***	10. 40	.01023		
	***	18. 30:	.1040						3. 12	11. 10		***	10. 40	.01023		
13. 38	o. 25	19. 44	.1050						3. 12	11. 10		***	10. 40	.01023		
14. 8	4. 30	19. 55	.1046						3. 12	11. 10		***	10. 40	.01023		
14. 33	o. 30		***						3. 12	11. 10		***	10. 40	.01023		
14. 46	1. 45	20. 50	.1053						3. 12	11. 10		***	10. 40	.01023		
15. 3	o. 10	21. 1	.1046						3. 12	11. 10		***	10. 40	.01023		
15. 25	22. 1. o	21. 8	.1051						3. 12	11. 10		***	10. 40	.01023		
16. 13	21. 59. 35	21. 39	.1033						3. 12	11. 10		***	10. 40	.01023		

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	
						Of H. F. Magnet.									Of H. F. Magnet.
						Of V. F. Magnet.									Of V. F. Magnet.
Feb. 14		Feb. 14													
11. 50	21. 55. 20	9. 33	.0992	h m											
12. 12	54. 45	10. 6	.0999												
12. 21	50. 30	10. 47	.0999	***											
12. 40	52. 30														
12. 55	48. 10	11. 8	.1001												
13. 6	52. 30	11. 22	.0996												
13. 14	50. 0	11. 40	.1008												
13. 28	50. 0		***												
13. 37	47. 50	12. 14	.1005												
13. 52	51. 30	12. 33	.1032												
14. 8	21. 48. 35	12. 40	.1025												
14. 45	22. 0. 0	12. 52	.1041												
15. 1	21. 2. 0		***												
15. 14	1. 10	13. 5	.1046												
15. 28	3. 40	13. 16	.1021												
15. 55	0. 0	13. 46	.1032												
16. 23	0. 0	14. 9	.1015												
16. 45	22. 2. 50	14. 23	.1017												
16. 55	21. 59. 45	14. 35	.1006												
17. 18	21. 59. 30	15. 3	.1021												
17. 42	22. 1. 0	15. 15	.1018												
18. 5	c. 25	15. 46	.1023												
	***	16. 53	.1017												
18. 45	22. 1. 40	17. 35	.1031												
	***	18. 6	.1021												
19. 22	21. 58. 25	18. 53	.1024												
	***		***												
19. 25	22. 0. 30	19. 9	.1021												
	***	19. 30:	.1028												
19. 51	22. 1. 0		***												
20. 17	21. 59. 20	20. 30	.1015												
20. 48	22. 2. 45	21. 0:	.1015												
21. 17	2. 30	21. 36	.0999												
21. 31	7. 0	21. 45	.0998												
21. 46	5. 30	22. 5	.1019												
21. 59	8. 25	22. 20	.0999												
22. 22	2. 35	22. 35	.0996												
22. 47	5. 30		***												
22. 57	3. 30	23. 59	.1000												
23. 2	4. 30														
23. 15	2. 30		***												
23. 59	3. 50														
Feb. 15		Feb. 15													
0. 28	22. 9. 0	0. 0	.1001	0. 34	.01160	1. 40	48	0. 51	0						
1. 10	10. 0	0. 35	.1008	1. 11	.01112	3. 40	50	0. 52	0						
1. 16	7. 45		***	2. 25	.01106	9. 40	58	0. 50	0						
1. 23	9. 0	1. 19	.0987	4. 13	.01160	21. 40	41	0. 43	0						
1. 42	4. 35	1. 32	.0987												
2. 2	7. 10	2. 0	.1001	4. 50	.01308										
2. 15	6. 0	2. 13	.0998												
	***	2. 25	.1008	5. 20	.01292										
3. 2	10. 0	2. 39	.1003	5. 50	.01368										
	***		***	6. 33	.01360										
3. 38	10. 30	3. 0	.1010	6. 47	.01400										
3. 48	9. 0	3. 10	.1004	7. 11	.01328										

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

INDICATIONS OF THE MAGNETOMETERS

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.

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.		
						Of H. F. Magnet.							Of V. F. Magnet.		
Feb. 19		Feb. 19					Feb. 21		Feb. 21						
11. 38	22. 1. 0	9. 45	.1059	h m		o o	21. 29	22. 2. 0	14. 50	.1048	h m				
12. 23	21. 54. 10	11. 0	.1057				22. 43	2. 30	15. 45:	.1043					
12. 45:	58. 20	11. 10	.1054				23. 29	4. 30	17. 30:	.1054					
13. 8	21. 58. 20	11. 35	.1061						19. 20	.1059					
13. 40	22. 1. 0	12. 0	.1050						20. 10	.1057					
14. 20	21. 58. 25		***						21. 38	.1061					
15. 6	22. 3. 25	12. 50	.1046						23. 0	.1054					
16. 45	2. 45	15. 8:	.1062						23. 28	.1058					
17. 46		15. 50:	.1058												
18. 12	0. 35	17. 45	.1064												
21. 8	3. 0	19. 5	.1070												
22. 4	3. 0	19. 36	.1062												
23. 59	5. 45	20. 8	.1062												
		20. 40	.1066												
		22. 0	.1059												
		22. 8	.1066												
		22. 20	.1058												
		23. 0	.1060												
		23. 59	.1048												
Feb. 20		Feb. 20		Feb. 20			Feb. 22		Feb. 22			Feb. 22			
0. 17	22. 5. 30	0. 0	.1048	0. 7	.01482	1. 40	0. 7	22. 5. 0	0. 15	.1056	0. 0	.01880	1. 40	49. 0	
1. 0	6. 30	0. 20	.1044	2. 20:	.01365	3. 40	47. 0	2. 0	2. 4	.1052	1. 2	.01875	3. 40	49. 0	
1. 38	5. 0	0. 40	.1048	4. 8	.01072	9. 40	53. 5	53. 5	3. 18	.1054	3. 14	.01768	9. 40	50. 5	
3. 15	5. 15	1. 0	.0050	5. 47:	.01150	21. 40	47. 0	4. 30	(†)	11. 45	6. 17:	.01682	21. 40	45. 0	
5. 30	2. 30	2. 50	.1047	9. 40:	.01125			2. 29	8. 35	14. 30	10. 51	.01468			
13. 15	2. 0	4. 0:	.1038	10. 43	.01152			2. 37	***	14. 39	10. 51	.01448			
13. 37	3. 30	5. 45	.1044	11. 28	.01140				3. 56	4. 45	14. 39	10. 56	.01378		
14. 4	1. 15	7. 45	.1046	13. 59	.01192				4. 53	5. 15	15. 20	12. 53:	.01394		
14. 38	2. 40	10. 27	.1042	18. 25:	.01405				5. 48	3. 15	10. 39	16. 13:	.01381		
15. 22	2. 0	13. 8	.1043	23. 46	.02008				10. 1	22. 1. 0	15. 30	10. 46	.01516		
15. 40	3. 15	13. 36	.1051	23. 59	.02010				10. 46	21. 59. 0	9. 40:	21. 43:	.01590		
16. 38	1. 40	14. 23	.1044						11. 50	22. 2. 30	15. 47	10. 44	23. 18	.01700	
17. 52	3. 0	16. 27	.1051						17. 48	2. 30	16. 38	10. 52	23. 28	.01645	
18. 32	3. 30	17. 50:	.1050						22. 25	1. 30	17. 25	10. 49	23. 59	.01659	
19. 5	1. 40	19. 10:	.1057												
23. 3	0. 30	21. 0	.1057												
23. 59	2. 35	22. 24	.1049												
		23. 30:	.1036												
		23. 59	.1036												
Feb. 21		Feb. 21		Feb. 21			Feb. 23		Feb. 23			Feb. 23			
0. 16	22. 3. 35	0. 0	.1037	0. 15	.02013	1. 40	48. 8	51. 0	0. 3	22. 5. 30	0. 0	.1046	0. 17	48. 0	
1. 44	6. 30	1. 0	.1036	2. 10:	.01925	3. 40	54. 0	55. 0	0. 36	5. 30	1. 10	10. 28	4. 39	51. 5	
4. 53	2. 30		***	5. 53	.01215	9. 40	55. 0	56. 0	4. 34	1. 40	2. 15	10. 36	5. 46	53. 0	
11. 13	2. 10	3. 25	.1037	5. 54	.01230	21. 40	45. 8	48. 5	5. 52	1. 45	5. 35	10. 38	6. 30	53. 0	
12. 7	1. 0	5. 35	.1041	6. 10	.01235			7. 7	2. 15	6. 40	10. 43	7. 2	.01100		
12. 29	2. 0	6. 0	.1037	6. 14	.01245			7. 52	0. 35	8. 40	10. 36	8. 57	.01077		
13. 25	1. 0	7. 40	.1038	9. 29:	.01465			8. 24	22. 2. 10	8. 5:	10. 58	10. 58	.01173		
13. 46	2. 0	7. 58	.1033	12. 38	.01688			9. 7	21. 56. 30	8. 19	10. 40	14. 18	.01453		
14. 1	0. 10	9. 14	.1036	13. 48:	.01800			9. 49	22. 2. 0		***	17. 38	.01848		
14. 39	22. 1. 15	9. 45	.1041	15. 2	.02000			10. 44	21. 59. 0	8. 47	10. 36	17. 43	.01862		
15. 8	21. 59. 25	11. 9	.1043	16. 13	.02000			11. 1	21. 55. 30	9. 0:	10. 28	20. 13	.01864		
15. 58	21. 59. 45		***	17. 58	.01957			12. 26	22. 1. 30	9. 17	10. 26	21. 13	.01894		
17. 8	22. 2. 40	11. 55	.1036	20. 13	.01958			13. 47	2. 35	9. 45	10. 38	23. 12	.01788		
18. 7	1. 0	13. 4	.1044	21. 6:	.01975			18. 40	2. 30	10. 15	10. 31	23. 50	.01735		
19. 47	22. 2. 15		***	22. 58	.01998			20. 52	2. 30	11. 5	10. 40				
20. 16	21. 59. 30	14. 23	.1043	23. 33	.01895			22. 2	1. 35	11. 25	10. 38				
								23. 59	5. 0	15. 50	10. 51				
										17. 50	10. 61				
										19. 33	10. 63				
										20. 0	10. 69				
										20. 40:	10. 65				
										21. 22	10. 68				
										22. 17	10. 60				
										22. 35	10. 62	***			

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	
n m	o t "	Feb. 23	h m	h m	h m	o	o	Feb. 24	o t "	Feb. 24	h m	h m	o	o
		23.40	1051					17.47	2.30	15.30	1010			
		23.55	1052						***	15.45	1001			
Feb. 24	0. 5	22. 5.20	0. 40	1051	0. 15	01652	1. 40	46	0 47 5	16.15	1020			
	1. 47	7. 0	1. 14	1050	2. 52	01580	3. 40	49	0 52 0	16.28	1017	***		
	2. 2	6. 0	2. 0	1042	4. 32	01273	9. 58	50	8 53 0	17.40	1023			
	4. 4	7. 30	2. 56	1049	***	21.40	49	55	51 0	17.47	1028			
	4. 24	9. 30	***	4. 0	1042	4. 58	01255			18. 0	1027			
	4. 59	8. 30	4. 16	1052	5. 26	01175				18. 5	1034	***		
	5. 7	13. 0	4. 30	1037		***				19. 10	1031	***		
	5. 19	10. 45	***	4. 56	1060	6. 43	01374			19. 22	1038			
	5. 38	9. 15	5. 4	1049	6. 52	01330				19. 26	1030			
	5. 48	22. 13. 30	5. 10	1036	6. 57	01338				19. 30	1038	***		
	6. 50	21. 45. 30	***		7. 15	01295				20. 0	1035			
	6. 57	57. 10	5. 25	1035		***				20. 4	1040			
	7. 0	21. 55. 30	5. 34	1049	8. 52	01335				20. 6	1030			
	7. 19	22. 7. 30	5. 44	1033	9. 15	01308				20. 12	1039			
	7. 35	21. 58. 10	5. 51	1043	9. 36	01338				20. 43	1033	***		
	7. 55	22. 17. 30	6. 16	0999	10. 7	01164				21. 25	1032			
	8. 19	25. 30		***	10. 22	01178				21. 32	1025			
	8. 36	22. 3. 0	6. 46	1033	12. 2	01105				21. 38	1034			
	8. 53	21. 58. 0	6. 52	1015	12. 23	01134				21. 50	1022			
	9. 7	58. 30		***	13. 15	01048				22. 0	1027	***		
	9. 23	57. 0	7. 7	1018		***				22. 32	1025	***		
	9. 28	59. 0	7. 20	0990	13. 48	01095				22. 30	0978	***		
	9. 45	28. 30	7. 50	1043		***				23. 30	0994	***		
	9. 59	55. 30	8. 10	1030	15. 38	00975				23. 59				
	10. 12	43. 15	8. 29	0990	16. 36	01043								
	10. 26	53. 0	8. 59	1017	18. 32	01091								
		***	9. 21	1006		***								
	10. 52	59. 25	9. 35	1014	20. 16	01138								
		***	9. 45	1057	22. 7:	01162								
	11. 12	57. 30	10. 9	0992	23. 23	01225								
		***	10. 23	1018	23. 59	01255								
	11. 45	59. 30		***										
	12. 17	53. 30	10. 38	1014										
	12. 24	54. 50	10. 45	1020										
	12. 38	51. 20		***										
	12. 46	52. 0	11. 8	1022										
	12. 58	46. 0	11. 16	1018										
	13. 7	47. 15	11. 30	1023										
	13. 22	39. 45		***										
	13. 47	43. 0	12. 8	1015										
	14. 0	53. 15	12. 32	1040										
		***		***										
	14. 33	55. 35	12. 55	1032										
	14. 38	59. 15	13. 18	1000										
		***	13. 37	1022										
	15. 24	21. 53. 0	13. 44	1020										
	16. 1	22. 0. 35	13. 54	1028										
	16. 6	21. 59. 30	14. 0	1026										
	16. 21	22. 4. 0	14. 20	1035										
	17. 7	3. 30	14. 36	1038										
	17. 16	0. 30		***										
	17. 32	4. 25	15. 15	1012										

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							Of H. F. Magnet.								Of H. F. Magnet.		
Feb. 25		Feb. 25		Feb. 25						Feb. 25							
5.38	o	"	5. 8	•1005	h m	•01602		h	o	Feb. 25							
5.38	22.	0.30	5.15	•1014	13.30	•01598		h	m	22. 20	•1049						
6.10	22.	6.10	***	***	13.53	***				22. 34	•1032						
6.43	21.	40. o									***						
6.55		56.45	5.30	•1004	15.44	•01746					23.29	•1030					
7. 5	21.	43.15	5.36	•1013	17.10	•01960					23.59	•1034					
7.27	22.	3.30	***														
7.38	21.	54.35	5.53	•0999	17.18	•01968											
7.57		58.30	6. 5	•1021	17.49	•01894											
8. 8		52.20	***			***											
8.20		59.20	6.28	•0996	21. 5	•01942											
8.28		58.30	6.47	•1089	23.14	•01924											
8.32		59.20	7. 0	•1037	23.59	•01950											
8.47		56.35	7.10:	•1057													
9. 1		59.20	7.24	•1010													
9.23		57. o	7.45	•1060													
9.42		58.30	8. 0	•1028													
9.57	21.	56.30	8. 9	•1048													
		***	8.22	•1026													
10.23	22.	4. o	8.29	•1031													
10.38		o.35	8.37	•1024													
11.48	22.	0.35	8.52	•1033													
11.54	21.	58.30	9.10	•1024													
12. 8	22.	0.15	***														
12.50	21.	57.50	10.22	•1046													
13.35	22.	12.40	10.26	•1041													
14.44	21.	59.20	10.44:	•1045													
		***	11.16	•1031													
15.32	22.	4.35	11.29	•1036													
		***	11.50	•1035													
16.29		o. o	11.59	•1049													
17. 9		6. o	12.40:	•1043													
17.40		2.45	13.15	•1025													
		***	13.50	•1049													
18.18		3.25	14.15	•1049													
		***	14.40	•1035													
18.35	1.	o	15.30	•1047													
19.45		3.30	15.45:	•1037													
		***	16. 8	•1034													
20.20		9. o	16.45	•1015													
20.40		4.10	17.25	•1032													
20.48		6.30	17.45	•1027													
21. 0		3.30	18.16	•1041													
21.17		5. o	18.55	•1043													
21.26		3.30	***														
21.34	4.50	19.35	•1035														
22. 0	3. o	19.44	•1038														
22.15	7. o	20.10	•1029														
22.35	4. o	20.15	•1034														
23. 7	7.30	***															
23.28	4.30	20.35	•1034														
23.59	5.30	20.47	•1041														
		20.55	•1036														
		21. 4	•1049														

		21.55	•1037														
		22. 9	•1047														
		22.15	•1042														

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

INDICATIONS OF THE MAGNETOMETERS

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Göttingen Mean Solar Time.		Western Declina- tion.		Göttingen Mean Solar Time.		Horizontal Force in parts of the whole H. F. uncorrected for Temperature.		Göttingen Mean Solar Time.		Vertical Force in parts of the whole V. F. uncorrected for Temperature.		Readings of Thermo- meters.		Göttingen Mean Solar Time.		Western Declina- tion.		Göttingen Mean Solar Time.		Horizontal Force in parts of the whole H. F. uncorrected for Temperature.		Göttingen Mean Solar Time.		Vertical Force in parts of the whole V. F. uncorrected for Temperature.		Readings of Thermo- meters.								
h	m	o	i	h	m	h	m	h	m	h	m	Of H. F. Magnet	Of V. F. Magnet	h	m	o	i	h	m	h	m	h	m	o	i	h	m	h	m	Of H. F. Magnet	Of V. F. Magnet			
Feb. 29				21. 15:	'1052	h	m			h	m			Mar. 2		o	'	"	h	m	Mar. 2		h	m	19. 27	'01900								
21. 41				'1045		h	m			h	m			12. 33	21. 57.	o	9. 45		10. 33		h	m	19. 27	'01900										
22. 15				'1050		h	m			h	m			13. 31	22. 0.	o	10. 10		10. 38		21. 22		o	1942										
22. 40				'1041		h	m			h	m			13. 47	22. 2.	35			***		22. 33:		o	1863										
23. 30				'1037		h	m			h	m			14. 8	21. 58.	20	10. 33		10. 33		23. 59		o	1837										
23. 59				'1040		h	m			h	m			14. 29	21. 59.	o	11. 32		10. 40		h	m	19. 27	'01900										
Mar. 1				Mar. 1		h	m			h	m			15. 8	22. 5.	50	11. 32		10. 40		h	m	19. 27	'01900										
0. 17	22.	5. 20	o. o	'1040	o. 8	h	m			h	m			15. 45	2.	o	11. 44		10. 53		h	m	19. 27	'01900										
1. 47		6. 35	o. 15	'1041	1. 53:	h	m			h	m			16. 38	2.	15	11. 53		10. 46		h	m	19. 27	'01900										
3. 24		5. 35	o. 30	'1034	3. 26	h	m			h	m			17. 8	5.	35	12. 10		10. 58		h	m	19. 27	'01900										
4. 8		3. 30	***		5. 2	h	m			h	m			18. 15	3.	o	12. 35		10. 55		h	m	19. 27	'01900										
7. 15	22.	0. 25	1. 50	'1034	5. 23:	h	m			h	m			20. 59	4.	15	12. 50		10. 49		h	m	19. 27	'01900										
7. 33	21.	57. o	2. 6	'1032	5. 58:	h	m			h	m			22. 23	2.	30	12. 53		10. 54		h	m	19. 27	'01900										
8. 9	21.	56. 35		***	7. 10	h	m			h	m			22. 32	4.	o	13. 4		10. 46		h	m	19. 27	'01900										
8. 57	22.	1. 40	3. 10	'1032	8. 47	h	m			h	m			23. 1	3.	15	13. 10		10. 52		h	m	19. 27	'01900										
9. 34		1. 35	3. 47	'1020	11. 3	h	m			h	m			23. 13	6.	30	13. 20		10. 51		h	m	19. 27	'01900										
9. 54		0. 30	***	14. 38:	'01532	h	m			h	m			23. 20	5.	o	13. 30		10. 41		h	m	19. 27	'01900										
10. 30	22.	1. 30	4. 33	'1032	17. 50	h	m			h	m			23. 50	4.	30	13. 48		10. 48		h	m	19. 27	'01900										
10. 55	21.	58. 35	5. 10	'1026	17. 55	h	m			h	m			23. 59	5.	35	14. 8		10. 40		h	m	19. 27	'01900										
12. 15	22.	0. o	***	19. 42	'01952	h	m			h	m			15. 0			10. 52		10. 52		h	m	19. 27	'01900										
13. 20	21.	59. 30	6. 38	'1033	21. o:	h	m			h	m			15. 45			10. 45		10. 45		h	m	19. 27	'01900										
14. 6	22.	2. o	***	22. 16	'01948	h	m			h	m			16. 0			10. 49		10. 49		h	m	19. 27	'01900										
14. 47		1. o	7. 30	'1023	23. 59	h	m			h	m			16. 56			10. 44		10. 44		h	m	19. 27	'01900										
15. 10		2. o	***			h	m			h	m			17. 8			10. 53		10. 53		h	m	19. 27	'01900										
20. 11		1. 35	8. 21	'1030		h	m			h	m			17. 20			10. 51		10. 51		h	m	19. 27	'01900										
21. 28		0. 30	8. 37	'1025		h	m			h	m			17. 48			10. 59		10. 59		h	m	19. 27	'01900										
23. 59		4. 25	8. 47	'1027		h	m			h	m			19. 25			10. 58		10. 58		h	m	19. 27	'01900										
			9. 14:	'1025		h	m			h	m			19. 35			10. 65		10. 65		h	m	19. 27	'01900										
			***			h	m			h	m			19. 40			10. 58		10. 58		h	m	19. 27	'01900										
			10. o	'1034		h	m			h	m			19. 55			10. 64		10. 64		h	m	19. 27	'01900										
			10. 35	'1030		h	m			h	m			21. 9			10. 59		10. 59		h	m	19. 27	'01900										
			11. o	'1036		h	m			h	m			21. 25			10. 52		10. 52		h	m	19. 27	'01900										
			11. 47	'1029		h	m			h	m			22. 23			10. 48		10. 48		h	m	19. 27	'01900										
			12. o	'1032		h	m			h	m			22. 30			10. 52		10. 52		h	m	19. 27	'01900										
			12. 30:	'1029		h	m			h	m			23. 5			10. 46		10. 46		h	m	19. 27	'01900										
			12. 50:	'1033		h	m			h	m			23. 14			10. 58		10. 58		h	m	19. 27	'01900										
			13. 30	'1031		h	m			h	m			23. 24			10. 46		10. 46		h	m	19. 27	'01900										
			13. 53	'1040		h	m			h	m			23. 45			10. 47		10. 47		h	m	19. 27	'01900										
			16. 50	'1043		h	m			h	m																							
			19. 39	'1050		h	m			h	m																							
			23. 46	'1036		h	m			h	m																							
			23. 59	'1056		h	m			h	m																							
Mar. 2		22.	5. 30	o. o	'1037	o. 42	h	m			h	m			Mar. 3		o. 42	22.	6. 30	o. 45	'1048	1. 27												

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters. Of H. F. Magnet. Of V. F. Magnet.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters. Of H. F. Magnet. Of V. F. Magnet.	
Mar. 3		Mar. 3		Mar. 3						Mar. 3						
8. 37	22. 0. 10	4. 20	.1034	17. 29	.01960	h m	o	o		23. 45	.1039					
9. 31	22. 0. 0	4. 30	.1025	17. 34	.01932					23. 59	.1021					
9. 57	21. 57. 0	4. 55	.1036	19. 13	.01950											
10. 10	57. 45	5. 15	.1022	21. 7	.01943	***										
10. 22	56. 0															
10. 43	57. 0	5. 25	.1024	22. 26	.01885											
11. 17	43. 25	5. 30	.1017	23. 59	.01860											
11. 44	45. 30															
12. 8	52. 30	5. 43	.1025													
12. 26	54. 0	5. 53	.1046													
12. 49	21. 59. 0	6. 5	.1034													
13. 33	22. 4. 0	6. 20	.1032													
14. 8	5. 10	6. 35	.1038													
14. 59	2. 0	6. 53	.1030													
	***	7. 5	.1038													
17. 23	22. 1. 0	7. 40	.1030													
17. 31	21. 59. 15	8. 0	.1037													
18. 17	22. 4. 30	9. 0	.1026													
18. 54	4. 35	9. 32	.1030													
19. 7	6. 35	9. 45	.1040													
19. 27	4. 0	9. 53	.1033													
	***	10. 10	.1038													
20. 46	2. 25	10. 21	.1035													

22. 26	2. 10	10. 44	.1040													
22. 37	3. 35	11. 8	.1074													
22. 52	2. 30	11. 23	.1067													
23. 19	4. 30	11. 44	.1036													
23. 59	5. 0	11. 55	.1044													
		12. 4	.1039													
		12. 13	.1042													
		12. 23	.1032													
		12. 45	.1037													

		13. 39	.1035													
		13. 55	.1038													
		14. 5	.1037													
		14. 28	.1047													
		15. 0:	.1044													

		17. 15	.1061													
		18. 8	.1051													
		18. 30	.1060													
		18. 45	.1057													
		19. 35	.1070													
		20. 0	.1062													
		20. 15	.1068													
		20. 35	.1069													
		21. 35	.1060													
		22. 0	.1054													
		22. 40	.1056													
		23. 5	.1048													
		23. 15	.1053													

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.

Göttingen Mean Solar Time.		Western Declina- tion.		Göttingen Mean Solar Time.		Horizontal Force in parts of the whole H. F. uncorrected for Temperature.		Göttingen Mean Solar Time.		Vertical Force in parts of the whole V. F. uncorrected for Temperature.		Readings of Thermo- meters.		Göttingen Mean Solar Time.		Western Declina- tion.		Göttingen Mean Solar Time.		Horizontal Force in parts of the whole H. F. uncorrected for Temperature.		Göttingen Mean Solar Time.		Vertical Force in parts of the whole V. F. uncorrected or Temperature.		Readings of Thermo- meters.				
h m	o ' "	Mar. 4	h m	h m	h m	h m	o o	h m	o o	h m	o o	h m	o o	h m	o o	h m	o o	h m	o o	h m	o o	h m	o o	h m	o o	h m	o o			
23. 35	23. 59	'1052						21. 40	20. 5	21. 40	20. 5	18. 12	{	18. 12	{	18. 12	17. 50	17. 50	17. 50	17. 50	17. 50	17. 50	17. 50	17. 50	17. 50	17. 50	17. 50	17. 50	17. 50	
23. 35	23. 59	'1053						21. 40	20. 5	21. 40	20. 5	18. 12	{	18. 12	{	18. 12	17. 50	17. 50	17. 50	17. 50	17. 50	17. 50	17. 50	17. 50	17. 50	17. 50	17. 50	17. 50	17. 50	
Mar. 5	Mar. 5	Mar. 5	h m	h m	h m	h m	o o	h m	o o	h m	o o	h m	o o	h m	o o	h m	o o	h m	o o	h m	o o	h m	o o	h m	o o	h m	o o			
0. 16	22. 4. 10	0. 15	'1051	0. 4	'01550	9. 45	49. 5	52. 7	11. 19	22. 1. 30	7. 15	'1043		Mar. 6	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		
1. 47	8. 0	1. 23	'1053	0. 43	'01548	21. 40	40. 5	44. 5	11. 32	22. 1. 30	7. 24	'1045		Mar. 6	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		
3. 4	7. 0	2. 40	'1050	3. 15	'01538				11. 54	7. 0	7. 32	'1028		Mar. 6	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		
5. 23	22. 2. 35	4. 0	'1052	5. 52	'01248				12. 7	1. 50	7. 45	'1035		Mar. 6	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		
6. 27	21. 57. 25	4. 15	'1051	8. 14	'01040				12. 15	22. 2. 35	8. 25	'1013		Mar. 6	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		
7. 37	22. 3. 30	4. 31	'1056	10. 33	'01032				12. 40	21. 59. 0	9. 17	'1038		Mar. 6	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		
12. 17	1. 30		***	14. 2	'01362				13. 12	21. 57. 30	9. 45	'1034		Mar. 6	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		
13. 29	22. 1. 0	6. 9	'1047	14. 21	'01373				13. 37	22. 0. 30	10. 40	'1047		Mar. 6	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		
13. 45	21. 59. 25	6. 19	'1040	17. 47	'01858				14. 0	22. 1. 30	11. 50	'1070		Mar. 6	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		
14. 10	22. 9. 0	6. 40	'1046	17. 50	'01843				15. 18	2. 0	12. 20	'1056		Mar. 6	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		
14. 34	22. 3. 30	8. 15	'1052	18. 12	{'01765				15. 38	3. 30	12. 39	'1043		Mar. 6	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		
15. 25	21. 59. 10	8. 50	'1058	18. 43	'01790				15. 48	2. 20	13. 8	'1051		Mar. 6	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		
16. 2	22. 1. 0	10. 10	'1055	19. 47	'01790				19. 45	3. 0	13. 45	'1043		Mar. 6	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		
	***	13. 55	'1058	21. 5	'01820				21. 40	2. 0	20. 0	'1067		Mar. 6	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		
18. 27	1. 28	14. 5	'1067	22. 18	'01755				22. 8	5. 0	'1067	***		Mar. 6	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		
	***	14. 23:	'1065	23. 59	'01710				22. 22	4. 10	21. 0	'1058		Mar. 6	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		
19. 23	4. 50	14. 50	'1069	23. 59	'01710				23. 26	7. 30	22. 3	'1057		Mar. 6	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		
19. 52	3. 25		***						23. 45	4. 30	22. 46	'1050		Mar. 6	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		
20. 7	6. 0	15. 15	'1064		***				23. 59	6. 30	22. 55	'1038		Mar. 6	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		
20. 45	1. 50		***											Mar. 6	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		
21. 9	2. 35	17. 12	'1068											Mar. 6	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		
21. 37	0. 45		***											Mar. 6	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		
	17. 57	'1076												Mar. 6	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		
23. 34	3. 0	18. 15	'1076											Mar. 6	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		
23. 47	5. 35	18. 45:	'1069		***									Mar. 6	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		
23. 59	4. 30		20. 0	'1080										Mar. 6	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		
			20. 40	'1072										Mar. 7	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		
			21. 37	'1070										Mar. 7	o o	22. 5. 30	o 21	'1044	o 38	'01770	1. 40	45. 0	47. 0							
			22. 0	'1069										Mar. 7	o 24	9. 30	o 44	'1038	2. 47	'01760	3. 40	48. 0	50. 0							
				***										Mar. 7	o 57	6. 30	1. 0	'1044	4. 0	'01562	9. 40	52. 0	53. 0							
				22. 23	'1054									Mar. 7	1. 25	10. 35	1. 35	'1041	4. 47	'01410	21. 40	50. 0	52. 0							
				23. 8	'1055									Mar. 7	1. 51	12. 0	1. 45	'1046	7. 2	'01118										
				23. 43	'1036									Mar. 7	2. 7	9. 0	2. 3	'1024	7. 26	'01130										
				23. 59:	'1043									Mar. 7	2. 12	10. 20	2. 40	'1020	8. 36	'01100										
														Mar. 7	2. 22	7. 30	2. 40	'1040	9. 13	'01014										
Mar. 6	Mar. 6	Mar. 6	Mar. 6	Mar. 6	Mar. 6	Mar. 6	Mar. 6	Mar. 6	Mar. 6	Mar. 6	Mar. 6	Mar. 6	Mar. 6	Mar. 7	3. 16	7. 35	2. 57	'1045	10. 37	'01063										
0. 7	22. 4. 20	o. 0	'1044	o. 8	'01706	1. 40	43. 8	47. 0	3. 40	48. 0	51. 0	2. 40	51. 0	Mar. 7	o. 21	'1044	o. 38	'01770	1. 40	45. 0	47. 0									
1. 16	7. 0		***	1. 4	'01677	3. 40	48. 0	51. 0	9. 40	51. 0	53. 0	2. 40	53. 0	Mar. 7	o. 44	'1038	2. 47	'01760	3. 40	48. 0	50. 0									
1. 26	12. 0	1. 8	'1043	1. 55	'01650	9. 40	51. 0	53. 0	21. 40	43. 0	45. 0	3. 40	50. 0	Mar. 7	o. 44	'1044	2. 47	'01760	3. 40	48. 0	50. 0									
2. 27	4. 30	1. 50	'1028	5. 5	'01115	21. 40	43. 0	45. 0				3. 42	5. 35	Mar. 7	3. 23	'1034	17. 22	'01118												
4. 53	5. 0	2. 30	'1038	5. 50	'01153	6. 13	'01120					4. 40	22. 7. 0	Mar. 7	4. 20	'1046	22. 34	'01060												
5. 36	22. 4. 0	2. 58	'1040	6. 32	'01106	7. 0	'01135					5. 40	59. 0	Mar. 7	5. 20	'1046	22. 34	'01060												
6. 7	21. 58. 30	3. 30	'1042	7. 0	'01135	8. 22	'01118					6. 13	54. 35	Mar. 7	6. 13	'1046	22. 34	'01060												
6. 17	59. 15	4. 5	'1042	8. 22	'01118	10. 2	'01140					6. 32	58. 15	Mar. 7	6. 32	'1046	22. 34	'01060												
6. 59	38. 0	4. 12	'1047	11. 22	'01186	11. 52	'01115					6. 58	21. 59. 30	Mar. 7	7. 23	'1046	22. 34	'01060												
7. 20	42. 30	4. 45	'1044	11. 52	'01186	12. 0	'01182					7. 43	22. 1. 25	Mar. 7	7. 43	'1046	22. 34	'01060												
7. 40	42. 30	4. 45	'1044	11. 52	'01186	12. 0	'01182					7. 52	21. 56. 0	Mar. 7	7. 52	'1046	22. 34	'01060												
8. 22	57. 25		***	19. 13	'01882	19. 22	'01863					8. 21	59. 30	Mar. 7	8. 21	'1046	22. 34	'01060												
8. 30	21. 57. 0	5. 23	'1048	19. 22	'01863	20. 15	'01865			</																				

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

INDICATIONS OF THE MAGNETOMETERS

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Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.		
							Of H. F. Magnet	Of V. F. Magnet								Of H. F. Magnet	Of V. F. Magnet
Mar. 10		Mar. 10		Mar. 10		Mar. 10		Mar. 10		Mar. 12		Mar. 12		Mar. 12		Mar. 12	
14.45	o. 22.	3. o 3. 40	h m 3. 40	1028	9. 8:	01833		h m	o	10. 3	o. 21.	59. 45	8. 30	1034	9. 1	01213	
15.30		3. 40	4. 5	1033	11. 31:	01945				10. 19	58. o	8. 46	1035	9. 13	01240		
15.58		2. o	***							10. 33	57. 40	8. 59	1034	10. 52	01316		
16.24		3. 20	5. o	1032	13. 15	{ 02160				10. 50	21. 54. o	9. 4	1026	11. 11	01320		
16.53		2. o	8. 39	1041	19. 55	02028				11. 45	22. 0. 30	9. 15	1035	11. 42	01365		
17.10		2. 30	10. 14	1039	20. 13	02005				13. 35	2. o	10. 40	1042	15. 8	01546		
17.42		1. 30	11. 30	1042	21. 25:	02005				14. 8	1. 30	11. 17	1041	17. 4	01733		
18.24		5. 15	12. o	1041	22. 48	01858				14. 32	5. o	11. 50	1032	18. 28:	01900		
	***	15. o	1043	23. 59	01745					15. 41	0. 35	12. 30	1038	19. 21	02040		
20.13		2. 15	15. 45	1046						16. 9	22. 3. o	12. 34	1040	20. 24:	02040		
	***	16. 15:	1042							16. 49	21. 58. o	13. o	1031	21. 15	01835		
22.40		3. o	17. 35	1048						17. 21	22. 0. o	13. 38	1037	21. 43	02042		
	***	18. 16:	1043							18. 8	22. 0. o	14. 31	1037	22. 44	02015		
23.59		6. 35	19. 20	1056						18. 25	21. 58. 25	15. o	1042	23. 59	02005		
			22. 2	1033	***					20. 30	22. 3. o	15. 40	1034				
				23. 30	1032					21. 16	o. 30	16. 16	1047				
				23. 59	1030					22. o	o. 30	16. 25	1044	***			
Mar. 11		Mar. 11		Mar. 11		Mar. 11		Mar. 11		23. 53	4. 20	17. 20	1046	***			
o. 8	22. 7. 35	o. 10	1027	0. 14	01725	1. 45	54. o	56. o				17. 38	1040	***			
o. 52	9. 30	***	2. 34	3. 40	01645	3. 40	58. o	58. 5									
1. 31	10. o	1. o	1032	4. 40	01110	9. 45	59. o	61. 5									
3. 58	7. 10	1. 43	1032	6. 3	01120	23. 20	49. o	51. o									
6. 52	1. 35	2. 15:	1027	7. 20	01163												
14. 5	3. 25	3. o	1031	8. 46	01198												
15. 12	1. 45	3. 15	1028	11. 47	01383												
16. 12	3. o	4. 7	1035	12. 37	01468												
20. 4	2. 10	2. 10	***	14. 50:	01688												
20. 27	3. o	5. 6	1035	17. 13	{ 02025												
21. 22	1. o	***	17. 13	01977													
23. 18	4. 30	7. 46	1030	18. 44	01973												
23. 32	7. o	8. 8	1034	20. 14	02018												
23. 41	5. 30	10. 2	1035	21. 15	02006												
23. 59	6. o	10. 20	1039	22. 47	01952												
			11. 49	1041	***												
			14. 25:	1047	23. 59	01845											
			15. 45	1041													
			19. 15	1050	***												
			19. 46	1043													
			20. 23	1046													
			21. 30	1044													
			22. 23	1034													
			22. 50	1038													
			23. 14	1032													
			23. 30	1040													
			23. 43	1031													
			23. 59	1032													
Mar. 12		Mar. 12		Mar. 12		Mar. 12		Mar. 12		8. 35	54. 25	6. 47	1015	13. 13:	01840		
o. 3	22. 6. 30	o. 8	1033	o. 18	01805	11. 32	58. 5	59. o		8. 52	59. 30	6. 55	1018	13. 52:	01890		
1. o	9. o	3. 35	1031	2. 20:	01664	21. 40	51. o	55. o		9. 9	21. 58. 30					***	
6. 3	1. o	6. 30	1034	3. 50	01420					9. 22	22. 1. 35	7. 16	1013	14. 48	{ 02065		
7. 16	2. 25	6. 55	1031	4. 56	01200					9. 43	21. 58. 15	7. 25	1016	16. 50:	02050		
8. 53	22. 1. 45	7. 25	1031	5. 51	01085					10. 41	21. 57. 15	7. 38	1012	18. 7	02070		
9. 31	21. 58. o	8. 1	1038	7. 15	01118					11. 30	22. 2. o	8. 30	1021	19. 4	02100		
					01175									20. 31	02170		

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	
						Of H. F. Magnet. Or V. F. Magnet.							Of H. F. Magnet. Or V. F. Magnet.
Mar. 13		Mar. 13		Mar. 13					Mar. 14				
h m °	°	h m °	°	h m °	°	°	h m °	°	h m °	°	h m °	°	°
12. 2	22.	1. 0	8. 43	1017	21. 40:	.02068	23. 22	1032	Mar. 15		Mar. 15		Mar. 15
12. 31	22.	3. 15	9. 6	1012	22. 53:	.02072	23. 59	1035					
13. 5	21.	55. 30	9. 16	1021	23. 58	.02025							
13. 42		57. 30	9. 30	1015									
14. 8	21.	54. 35	10. 12:	1020									
14. 38	22.	6. 0	10. 40	1015									
15. 18	o. o	11. 2	1016										
15. 40	22.	1. 0	11. 6	1025									
16. 21	21.	57. 15	11. 12	1018									
17. 7		59. 15	11. 23	1027									
	***	11. 50	1022										
19. 1		59. 30	12. 15	1035									
	***	***	***										
21. 20	21.	57. o	12. 32	1034									
	***	12. 48	1027										
22. 28	22.	3. 30	13. 20:	1046									
	***	14. 4:	1025										
23. 15		4. 45	14. 22	1030									
23. 30		3. o	14. 40	1021									
23. 59		6. 30	15. 20:	1042									
		15. 50	1036										
		16. 15	1041										
		17. o:	1036										
		17. 53	1042										
		19. 53	1044										
		***	***										
		21. 6	1032										
		21. 40	1014										
		22. 8	1010										
		22. 50	1021										
		23. 10	1020										
		23. 59	1029										
Mar. 14		Mar. 14		Mar. 14									
0. 17	22.	9. 35	o. o	1029	0. 37	.01965	1. 40	54. 5 56. 5	Mar. 14				
1. 8		8. 30	o. 15	1034	1. 10	.01937	3. 40	56. 5 58. o					
2. 20		10. 25	o. 40	1032	3. 25	.01852	9. 40	57. 5 58. o					
3. 13		7. 35	1. o	1033	6. 22	.01560	21. 40	49. 0 50. o					
	***	1. 50	1040	7. 40		.01442							
6. 2		2. o	3. o	1030	9. 8:	.01405							
7. 9		2. 30		***	10. 33	.01427							
8. 2		1. 30	6. 45	1034	15. 26	.01692							
13. 22		1. o	10. 53	1042	17. 7:	.01865							
13. 51		3. 35		***	18. 17	.02045							
14. 22		0. 45	13. 44	1043	18. 58	.02007							
15. 0	22.	2. 40	14. 8:	1048	19. 30	.02018							
15. 44	21.	59. 30	14. 36	1046	19. 50	.01960							
17. 18	21.	58. 30	14. 53	1058	20. 27	.02014							
18. 27	22.	3. 30	15. 40	1050	21. 20	.02012							
19. 21	21.	59. o	16. 15	1052	22. 5	.01963							
19. 47	22.	0. 15	17. 55	1045	23. 59	.01763							
	***	18. 25:	1048										
21. 32	21.	59. 10	19. o:	1056									
23. 20	22.	2. 45	19. 20	1053									
23. 59		5. 30	20. 30	1054									
		21. o	1045										
		22. 3	1044										

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

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	
Mar. 15		Mar. 15		h m					h m					
19. 1	o. 19	22. 4. o	17. 25	.1016					h m					
19. 5	6. o	17. 35	.1024						h m					
19. 40	***	17. 47	.1017						h m					
20. 25	o. 30	18. 8:	.1027						h m					
20. 50	2. 35	19. 15	.1022						h m					
21. 21	o. 30	19. 32	.1027						h m					
21. 35	***	19. 40	.1038						h m					
22. 23	2. 30	20. 30	.1022						h m					
23. 12	5. o	20. 44	.1028						h m					
23. 52	4. 50	21. 25	.1017						h m					
23. 59	6. 30	21. 44	.1006						h m					
		22. 8	.1021						h m					
		22. 55	.1028						h m					
		23. 26	.1025						h m					
		23. 59	.1028						h m					
Mar. 16		Mar. 16		h m					h m					
o. 19	22. 9. 30	o. o	.1027	o. 15	.01568	1. 40	56. o	58. o	h m					
o. 53	12. o	***		1. 50	.01520	3. 40	56. o	58. 5	h m					
1. 1	11. 20	o. 38	.1036	2. 32	.01548	9. 40	59. o	60. 5	h m					
1. 37	17. o	o. 45	.1017	3. 40	.01410	21. 40	49. o	50. 5	h m					
1. 57	9. 30	o. 55	.1017	5. 17	.01264				h m					
2. 23	5. o	1. 15	.1004	5. 51	.01195				h m					
2. 47	7. 50	1. 25	.0998	6. 39	.01150				h m					
3. 3	6. 15	1. 35	.1002	7. 22	.01228				h m					
3. 37	7. 35	***		7. 52	.01152				h m					
4. 1	11. 30	2. 6	.0981	7. 55	.01195				h m					
4. 12	10. 45	2. 32	.1016	8. 45	.01192				h m					
4. 26	13. 15	2. 55	.1013	9. 30	.01100				h m					
5. 1	3. 45	4. 4	.1038	10. 15	.01113				h m					
5. 28	5. o	4. 15	.1021	10. 28	.01055				h m					
5. 36	4. 25	4. 40	.0998	10. 37	.01120				h m					
6. 3	3. 30	5. 10	.1023	11. 32	.01166				h m					
6. 18	5. 15	***		11. 32	.01166				h m					
6. 25	22. 4. 25	5. 38	.1017	11. 32	.01166				h m					
6. 48	21. 30. 35	***		11. 32	.01166				h m					
7. 15	22. 4. 30	6. 30	.1030	12. 18	.01225				h m					
8. 1	21. 48. 35	6. 46	.0995	12. 38	.01260				h m					
8. 7	49. 45	7. 8	.1044	13. 25	.01245				h m					
8. 15	49. o	7. 15	.1030	13. 38	.01285				h m					
8. 25	52. 50	7. 24	.1049	13. 54	.01268				h m					
8. 30	52. 30	7. 39	.1019	14. 1	.01280				h m					
8. 51	21. 59. 10	7. 50	.1017	14. 18	.01260				h m					
9. 24	22. 1. 30	8. 8	.1029	14. 18	.01260				h m					
9. 36	21. 43. 30	8. 14	.1025	14. 18	.01260				h m					
Mar. 17		Mar. 17		h m					h m					
o. 18	22. 6. o	o. o	.1027	o. 13	.01885				h m					
o. 29	7. 15	o. 16	.1019	1. 38	.01846				h m					
o. 37	6. 30	o. 30	.1027	2. 50	.01718				h m					

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	
							Of H. F. Magnet.									Of H. F. Magnet.	
Mar. 17		Mar. 17		Mar. 17		Mar. 17		Mar. 18		Mar. 18		Mar. 18		Mar. 19		Mar. 19	
h m	o.	h m	o. 43	h m	3. 35	h m	45° 8' 49" 7'	h m	o.	h m	8. 53	h m	o. 25	h m	o. 25	h m	Mar. 19
0. 50	22. 7. 30	0. 43	1.022	3. 35	.01600	21. 40	45° 8' 49" 7'	12. 55	22. 2. o	8. 53	.1059	h m	o. 25	9. 44	47° 0' 52" 5'	21. 40	44° 0' 46" 0'
1. 2	5. 45	1. 10	.1036	3. 56	.01506			13. 49	1. 40	9. 30	.1081						
1. 47	9. 15	1. 51	.1037	6. 40	.01117			14. 38	4. 35	9. 43	.1079						
1. 53	6. 25	2. 8:	.1042	7. 50:	.01143			15. 21	3. o	10. 8	.1079						
2. 52	7. o		***	9. 9	.01144			15. 35	3. 35	10. 25	.1070						
2. 58	4. 35	2. 52	.1042	9. 59	.01170			16. 20	2. 20	10. 47	.1078						
3. 53	4. o	2. 55	.1036	10. 50	.01153			19. 8	2. 30	11. 35	.1062						
4. 31	4. 35		***	12. 56	.01315			21. 8:	o. o	12. 1	.1065						
5. 18	22. 3. o	4. o:	.1043	{ 16. 40	{ .01932			23. 59	6. o	14. 8	.1063						
5. 39	21. 59. 10		***		{ .01918					18. 30	.1078						
6. 35	22. 2. 20	5. 30	.1028	18. 25	.01920					19. 44	.1076						
7. 10	o. o	6. o	.1049	19. 47	.01965					23. 59	.1061						
7. 40	1. 30	7. 8:	.1037	20. 25	.01925												
7. 56	o. 30		***	20. 37	.01940												
8. 21	2. 15	9. 13	.1043	21. 24:	.01913												
9. 16	1. o	9. 26	.1052	22. 20	.01848												
10. 9	3. 35	9. 38	.1048	23. 59	.01757												
10. 22	22. 7. o	9. 53	.1050														
11. 10	21. 59. o	10. 20	.1065														
11. 28	22. 1. 45	10. 55	.1045														
11. 46	o. 30		***														
12. 13	4. 25	11. 20	.1053														
13. 2	22. 2. 30	12. o	.1050														
13. 32	21. 58. 45	12. 20	.1042														
14. 17	59. 30	12. 40	.1059														
14. 37	21. 58. 30	13. 23	.1050														
15. 40:	22. 2. o	13. 35	.1012														
16. 48	1. 20	13. 57	.1047														
17. 53	4. 55	15. 40	.1052														
20. 28	2. o	17. o:	.1061														
21. 5	2. 35	18. o	.1053														
21. 32	1. o	19. 40:	.1c68														
23. 48	5. 15	21. 6	.1059														
		22. 35	.1059														
		23. 15	.1050														

			23. 59	.1059													
Mar. 18		Mar. 18		Mar. 18		Mar. 18		Mar. 18		Mar. 18		Mar. 18		Mar. 19		Mar. 19	
o. o	22. 6. 15	o. o	.1058	o. 11	.01748	1. 40	49° 2' 53" o	Mar. 18		o. o	.1054	o. 15	.01525	1. 40	45° 8' 47" 5'	21. 40	49° 0' 50" 0'
1. 6	8. 20	o. 10	.1060	0. 23	.01713	3. 40	53° 5' 55" o		7. o	o. 36	.1054	3. 24:	.01448	3. 40	49° 0' 50" 0'		
4. 17	6. 30		***	3. 8	.01494	9. 40	54° 0' 55" o		1. o	o. 55	6. 28	.01142	9. 40	49° 5' 51" 0'			
4. 48	4. o	1. 14	.1058	5. 45	.01105	23. 26	48° 0' 51" 5		3. 40	8. o	1. 43	.1054	7. 15	.01108	21. 40	45° 2' 47" 0'	
7. 15	1. 30		***	7. 2:	.00996				4. 25	5. 45	2. 17	.1058	8. 30	.01025			
7. 56	22. 2. 50	2. 20	.1056	7. 35	.00980				8. 20	0. 40		***	8. 58	.01015			
8. 20	21. 59. 10	4. 15	.1058	9. 58	.00922				9. 32	22. 2. 30	4. 3	.1048	13. 9	.00986			
8. 36	22. 0. 30	4. 44	.1050	11. 22	.00933						5. 31	.1066	14. 53	.01042			
9. 5	21. 54. o		***	15. 15	.01182						13. 30	.1066	17. 46	.01203			
9. 35	58. 25	5. 11	.1063	19. 22:	.01514							17. 46	***	18. 32:	.01258		
11. 2	57. 15	6. 4	.1060	21. 14	.01604								18. 32:	.01336			
11. 15	58. 45	7. 13	.1063	21. 26	.01565								20. 50				
11. 45	21. 57. 45	7. 19	.1067	23. 40	.01505								23. 8	.01370			
12. 13	22. 0. 15	8. 9	.1060	23. 59	.01507								23. 59	.01362			
12. 26	21. 59. o	8. 28	.1066														

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Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	
							Of H. F. Magnet.									Of V. F. Magnet.
Mar. 21		Mar. 21		Mar. 21		Mar. 21		Mar. 23		Mar. 23		Mar. 23		Mar. 23		Mar. 23
0. 56	22. ° 8. 45	0. 14	.1058	1. 21	.01360	3. 40	53° 53' 5	3. 33	22. 5. 30	1. 15	.1064	4. 5	.01450	21. 40	45° 8	
1. 23	7. 25	0. 45	.1061	1. 39	.01360	9. 40	55° 56' 5	4. 5	3. 30	3. 45	.1062	5. 14	.01258			
1. 48	8. 30	0. 58	.1063	2. 52	.01295	21. 40	45° 48' 0	6. 52	22. 0. 30	4. 8:	.1056	6. 18	.01081			
2. 19	7. 35	1. 25	.1057	3. 54:	.01150			7. 18	21. 57. 30		***	7. 38	.01121			
2. 52	8. 30	1. 34	.1061	{ .01018				8. 2	21. 56. 0	6. 30	.1057	8. 45	.01076			
3. 25	7. 0		***	4. 40	{ .01057			9. 23	22. 1. 0	7. 0	.1048	9. 1	.01109			
5. 17	6. 30	5. 30	.1055	6. 26	.01063			11. 18	1. 10	8. 0	.1058	10. 45	.01197			
7. 15	3. 25		***	6. 36	.01095			11. 39	3. 0		***	11. 55	.01275			
8. 51	22. 3. 0	6. 40	.1066	7. 1	.01129			12. 19	2. 10	9. 0	.1055	12. 26	.01365			
9. 19	21. 59. 45		***	7. 45	.01159			12. 49	6. 50	9. 26	.1062	13. 15	.01398			
9. 51	22. 1. 30	8. 15	.1070	8. 46	.01174			13. 35	1. 15	9. 51	.1056	16. 51	.01899			
10. 13	0. 0		***	10. 8	.01230			19. 38	0. 45	10. 23	.1062	17. 20	.01892			
	***	9. 17	.1059	11. 38	.01271			23. 59	4. 55		***	18. 38	.01879			
13. 19	0. 0	10. 2	.1059	12. 45	.01339					11. 45	.1065	21. 21	.01894			
13. 43	22. 7. 30		***	13. 17	.01374					12. 20	.1063	22. 15	.01885			
15. 5	21. 57. 20	10. 30	.1071	14. 27	.01459					12. 55:	.1077	22. 58	.01866			
16. 26	22. 0. 30		***	15. 51	.01649					14. 0	.1067	23. 16	.01847			
16. 37	21. 59. 0	11. 10	.1069	17. 27	.01889					14. 52	.1073	23. 59	.01809			
	***		***	18. 21	.01864					15. 15	.1070					
21. 7	22. 0. 0	12. 16	.1074	21. 32	{ .01869					18. 29	.1076					
23. 59	4. 0	12. 30	.1070		{ .01789					19. 40	.1076					
		12. 45	.1074	23. 7	.01690					20. 8	.1072	***				
		13. 23	.1072	23. 59	.01652											
			14. 58		.0180					22. 0	.1069					
			15. 45		.0175					22. 31	.1074	***				
			17. 15:		.0186					23. 17	.1068					
			18. 0		.0183					23. 59	.1069					
			19. 30		.0182											
			20. 4		.0186											

			21. 30		.0176											
			23. 59		.0170											
Mar. 22		Mar. 22		Mar. 22		Mar. 22		Mar. 24		Mar. 24		Mar. 24		Mar. 24		Mar. 24
0. 25	22. 3. 30	0. 0	.1070	0. 30	.01634	1. 40	48° 50' 0	0. 15	22. 5. 10	0. 0	.1069	0. 30	.01715	1. 40	48° 0	
1. 50	5. 0	3. 13	.1063	1. 43	.01586	3. 40	52° 53' 5	0. 47	5. 35	0. 55	.1070	3. 7	.01680	3. 40	51° 0	
4. 21	4. 0		***	2. 30	.01532	9. 40	54° 55' 5	6. 38	2. 15	2. 55	.1067	4. 5	.01589	9. 40	54° 3	
6. 4	4. 15	4. 39	.1069	3. 23	.01451	21. 40	49° 2' 52' 7	8. 28	1. 30	3. 8	.1069	4. 42	.01487	21. 40	45° 8	
7. 0	3. 30	5. 8	.1060	5. 23	.01065			9. 23	22. 3. 0	3. 38	.1066	5. 15	.01382			
7. 23	5. 0	7. 30	.1059	6. 13	.01017			9. 47	21. 59. 40		***	5. 48	.01371			
	***	9. 0	.1066	7. 30	.01059			10. 8	22. 2. 10	6. 8	.1073	6. 56	.01248			
8. 32	1. 30	9. 22	.1055	9. 14	.01042			10. 40	21. 55. 40	7. 39	.1055	7. 42	.01204			
	***	10. 3	.1070	10. 13	.01034			11. 24	55. 15		***	8. 30	.01142			
9. 1	22. 1. 50	10. 45	.1060	11. 58	.01043			11. 41	58. 0	8. 45	.1063	9. 15	.01119			
9. 33	21. 56. 0	14. 3	.1066	12. 15	.01032			12. 5	21. 55. 15	9. 5	.1060	9. 47	.01116			
10. 2	59. 25	16. 55	.1073	14. 45	.01092			13. 20	22. 1. 20	10. 8	.1074	10. 38	.01074			
10. 17	21. 59. 0	(†)	16. 28	.01194				14. 23	0. 0	10. 47	.1067	12. 30	.01123			
11. 16	22. 2. 25	23. 15	.1070	18. 21	.01329			16. 33	22. 1. 20	11. 15	.1056	13. 58	.01189			
13. 2	0. 50	23. 59	.1066	20. 1	.01448					11. 50	.1068	14. 13	.01190			
21. 7	0. 30			21. 12	.01481					12. 50	.1064	15. 43	.01335			
23. 55	5. 30			22. 34	.01485					21. 38	21. 59. 0	13. 10	.1068	17. 23	.01554	
				23. 59	.01540					23. 59	22. 7. 0	14. 25	.1068	19. 36	.01864	
												15. 14	.1076	20. 19	.01844	
												19. 18	.1083	21. 15	.01847	
												19. 46	.1078	21. 44	.01830	
Mar. 23		Mar. 23		Mar. 23		Mar. 23						20. 35	.1079	22. 48	.01809	
0. 23	22. 6. 15	0. 0	.1066	0. 26	.01549	1. 40	51° 53' 0					21. 32	.1072	23. 18	.01759	
2. 7	7. 30	0. 45	.1067	1. 42	.01571	3. 40	53° 55' 0					21. 53:	.1076	23. 45	.01725	
2. 44	6. 0	1. 0	.1067	3. 4	.01568	9. 40	55° 58' 0					22. 17	.1069	23. 59	.01714	

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	
h m	o / "	Mar. 24		h m			h m	o / "	Mar. 25		h m		h m	o / "
22. 34	.1072			22. 34	.1066		22. 34	.1066		21. 6	.1058		22. 35	.1038
22. 44	.1066			23. 0	.1069		22. 44	.1043		21. 40	.1041		22. 45	.1045
23. 0	.1069			23. 45	.1065		23. 0	.1039		21. 46	.1043		23. 59	.1060
23. 45	.1065			23. 59	.1067		23. 45	.1055		22. 10	.1045			
										22. 35	.1038			
										22. 55	.1048			
										23. 4	.1046			
										23. 23	.1051			
										23. 35	.1056			
										23. 53	.1055			
										23. 59	.1060			
Mar. 25	22. 8.25	Mar. 25		Mar. 25			Mar. 25	22. 12.25	Mar. 26	22. 12.25		Mar. 26	22. 12.25	
0.22	22. 8.25	0. o	.1067	0.26	.01692	1. 40	47.5	50.5	0.22	0. o	.1061	0.22	9. 13	53.0
	***	0.49	.1080	0.46	.01674	3. 40	50.5	53.0	0.28	10.30	.1059	0.28	21. 40	48.3
1.35	12. 0	1.15	.1070	1. 3	.01651	9. 40	53.0	55.0						56.2
1.48	9. 35	1.27	.1074	1. 17	.01645	23. 15	49.5	52.0						52.5
2.10	12. 15	1.41	.1064	1. 45	.01632									
2.39	11. 0	***	1.53	.01640										
2.53	11. 35	2.10	.1069	2. 15	.01642									
3.40	8. 0	2.40	.1054	2. 45	.01639									
4. 0	11. 15	***	3.27	.01604										
6.50	5. 25	3.30	.1063	3. 58	.01541									
	***	4. 0	.1072	5. 16	.01331									
7.55	22. 3.35	4.29	.1060	6. 19	.01219									
8.57	21. 51. 0	***	7. 10	.01164										
9.35	22. 1.30	5.20	.1063	8. 30	.01101									
10. 2	22. 3. 0	5.35	.1071	9. 21	.01079									
10.44	21. 59. 25	6.15	.1058	10. 38	.01019									
11. 8	22. 1.35	***	11. 15	.01014										
11. 22	0. 30	6.45	.1076	11. 47	.01005									
11. 44	22. 2.30	7. 8	.1063	12. 16	.01006									
12. 31	21. 48. 0	7. 22	.1064	12. 21	.01012									
12. 45	55. 30	***	12. 32	.01051										
13. 4	59. 40	8.10	.1056	13. 12	.00971									
13. 20	54. 30	***	13. 51	.00988										
13. 36	58. 45	9. 21	.1061	14. 47	.01014									
13. 55	56. 35	9. 45	.1067	15. 45	.01049									
	***	10. 50:	.1068	16. 16	.01052									
14. 54	58. 40	11. 19	.1060	17. 7	.01081									
	***	11. 40:	.1067	18. 23	.01164									
15. 30	55. 45	11. 55	.1059	20. 43	.01297									
15. 42	59. 0	12. 5	.1070	22. 42	.01324									
	***	23. 0	.01348											
16. 13	55. 0	12. 35	.1053	23. 27	.01325									
	***	12. 42	1116											
16. 44	58. 0	13. 15	.1069											
16. 58	21. 57. 0	13. 28	.1072											
	***	13. 46	.1060											
18. 39	22. 3. 10	14. 8	.1068											
	***	14. 16	.1064											
20. 28	21. 56. 15	14. 33	.1070											
	***	14. 47	.1068											
21. 33	22. 6. 0	15. 23	.1076											
21. 53	5. 45	***												
22. 38	11. 40	16. 15	.1066	***										
23. 17	13. 0	***												
23. 52	10. 35	16. 45	.1069											
	***	17. 9	.1052											
		17. 43	.1065											
		18. 15:	.1055											
		19. 0	.1067	***										

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.

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.		
							Of H. F. Magnet	Of V. F. Magnet							Of H. F. Magnet	Of V. F. Magnet	
Mar. 26		Mar. 26							Mar. 27		Mar. 27						
18. 3	22. 0	1. 15	15. 28	·1062	h m			o	23. 1	0. 10. 35	15. 0	·1007	h m				
18. 26		3. 20	17. 0	·1063				***			15. 24	·1000					
		***	18. 0	·1068					23. 8	13. 30	15. 51	·1005					
20. 31		0. 45	19. 30	·1056					23. 21	9. 30	17. 23	·1008					
21. 30		1. 0	21. 0	·1062					23. 37	13. 35	18. 8	·1010					
		***	23. 24	·1051					23. 46	12. 0	18. 30	·1006					
23. 48		8. 30	23. 45	·1044						19. 9	·1016						
			23. 50	·1048					23. 59	14. 30	19. 45	·0993					
			23. 59	·1044						***	20. 40	·0952					
Mar. 27		Mar. 27		Mar. 27		Mar. 27					20. 50	·0974					
0. 8	22. 6. 15	0. 6	·1043	1. 30	·01465	1. 40	52. 5	54. 5			21. 40	·0952					
1. 0	10. 30	0. 55	·1056	1. 53	·01443	3. 40	53. 7	55. 5			21. 55	·0956					
1. 10	9. 50		***	2. 22	·01416	9. 40	56. 3	58. 0			22. 14	·0940					
1. 52	13. 25	1. 24	·1046	2. 28	·01413	21. 40	49. 0	53. 0			22. 21	·0954					
2. 3	11. 35		***	2. 59	·01354						22. 27	·0947					
2. 42	14. 0		***	3. 30	·01369						22. 33	·0950					
2. 57	11. 0	2. 35	·1030	4. 28	{ ·01138						22. 45	·0940					
3. 10	14. 0	3. 15	·1002	5. 38	·01165						23. 15	·0941					
3. 40	4. 30	3. 29	·0994	6. 40	·01106						23. 56	·0982					
4. 20	6. 35		***	7. 28	·01148						23. 59	·0980					
6. 8	4. 0	3. 45	·1003	8. 23	·01140												
11. 52	22. 1. 45	4. 4	·0998	9. 45	·01163												
12. 9	21. 58. 30	4. 23	·1014	10. 11	·01172												
12. 22	59. 0	4. 53	·1010	11. 52	·01271												
12. 37	55. 0	5. 23	·1016	12. 35	·01376												
	***	5. 30	·1012	13. 45	·01406												
13. 33	52. 50	5. 39	·1020	14. 27	·01466												
13. 47	55. 25	5. 53	·1018	15. 48	·01624												
14. 8	51. 35	6. 10	·1024	16. 12	·01635												
	***	6. 21	·1017	17. 20	·01698												
14. 39	52. 40		***	17. 52	·01759												
15. 14	49. 30	7. 15	·1012	18. 6	·01804												
	***	7. 25	·1021	18. 57	·01873												
15. 55	57. 0		***	19. 20	·01906												
16. 14	52. 10	8. 0	·1015	20. 14	·01865												
16. 44	58. 40		***	20. 53	·01887												
17. 11	53. 0	9. 19	·1015	21. 51	·01875												
	***	9. 24	·1021	22. 27	·01866												
18. 2	21. 58. 50	9. 37	·1013														
18. 13	22. 1. 35	10. 5	·1021	23. 18	·01912												
	***	10. 10	·1012	23. 59	·01907												
19. 10	22. 1. 30	11. 23	·1014														
	***	11. 35	·1007														
19. 45	21. 56. 30	11. 46	·1013														
20. 44	21. 58. 0	12. 3	·1006														
	***	12. 30	·1012														
21. 0	22. 6. 0	12. 50	·1000	.													
	***		***														
21. 26	12. 30	13. 23	·0992														
	***	13. 41	·1001														
22. 8	8. 30	13. 50	·0995														
	***	14. 0	·0998														
22. 48	14. 0	14. 15	·1003														
	***	14. 25	·0995														

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.						
						Of H. F. Magnet.																Of V. F. Magnet.				
Mar. 28		Mar. 28		Mar. 28					Mar. 29								Mar. 29					Mar. 29				
6. 45	21. 59. "	4. 56	.0992	10. 36	.01175	"	"	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o			
6. 53	22. 0. 15	5. 1	.1005	10. 45	.01212																					
7. 25	21. 31. 30	5. 5	.1002	10. 52	.01207																					
7. 45	58. o	5. 14	.0986	11. 10	.01224																					
8. 2	21. 44. 30	5. 20	.0990	11. 29	.01213																					
8. 7	22. 0. o	5. 29	.0980	12. 18	.01234																					
8. 21	21. 54. 3	5. 31	.1010	13. o	.01253																					
8. 27	56. o	5. 35	.1004	13. 29	.01261																					
8. 30	55. 10	5. 45	.1018	13. 55	.01278																					
8. 39	59. 45	5. 55	.0992	14. 35	.01329																					
8. 47	21. 58. 20	6. 9	.0983	15. 17	.01421																					
9. 0	22. 2. 25	***	15. 48	.01463																						
9. 18	22. 1. 45	6. 34	.0991	17. 13	.01705																					
9. 36	21. 55. 35	***	18. 21	.01916																						
9. 48	22. 3. o	6. 46	.0979	18. 49	.02050																					
10. 8	21. 47. 20	6. 53	.0983	19. 5	.02054																					
10. 23	22. 0. o	6. 56	.0989	21. 7	.02044																					
10. 37	21. 52. 30	7. 2	.0963	22. 48	.01973																					
10. 49	22. 0. o	7. 13	.0966	23. 30	.01938																					
11. 0	21. 54. 30	7. 15	.0962	23. 59	.01914																					
11. 16	59. 30	7. 32	.1019																							
11. 37	52. o	7. 53	.0956																							
12. 1	47. 50	8. 5	.0986																							
12. 37	50. o	8. 15	.0953																							
13. 1	55. 10	8. 20	.0948																							
13. 32	50. 45	***																								
14. 0	21. 51. 30	8. 36	.0958																							
14. 53	22. 3. 25	8. 45	.0953																							
15. 6	3. 40	9. 13	.0970																							
15. 24	11. o	9. 30	.0970																							
15. 59	4. o	9. 47	.1018																							
16. 28	22. 0. 30	10. 6	.0976																							
17. 32	21. 58. 40	10. 24	.1000																							
18. 42	22. 0. 35	10. 36	.0969																							
19. 24	21. 58. o	10. 45	.0986																							
22. 24	22. 2. 35	10. 57	.0965																							
23. 59	8. 20	11. 4	.0972	***																						
		11. 55	.0970																							
		12. 7	.0978																							
		13. 0	.0967																							
		13. 24	.0985																							
		13. 45	.0987																							
		14. 30	.0972																							
		14. 55:	.0986																							
		15. 30:	.0982																							
		16. 19	.0999																							
		17. 53	.1004	***																						
		18. 53	.0992	***																						
		20. 16	.0998																							
		22. 28	.0987																							
		22. 50	.0990																							
		23. 10	.0988																							
		23. 23	.0992																							
		23. 50	.0987																							
		23. 59	.0989																							
		Mar. 30		22. 8. 15		o. o	.0993	***	o. 13	.01909	1. 40	54. 0	56. 5				Mar. 30		22. 8. 15		o. 13	.01909	1. 40	54. 0	56. 5	
				1. 40		10. 20		2. 38		2. 2		55. 5	57. 8						2. 2		o. 1863		9. 40		58. 5	60. 0
				3. 5		10. 15		4. 34		4. 34		2. 33						1. o		o. 1835		21. 40		49. 2	53. 0	
						5. 7		5. 30		5. 30		3. 5						1. o		o. 1827		4. 30		o. 1635		

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Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.		
h m	o	h m	o	h m	o	h m	o	h m	o	h m	o	h m	o	h m	o	h m	
Mar. 30		Mar. 30		Mar. 30		h m	o	h m	o	h m	o	h m	o	h m	o	h m	
7. 12	° 22. 2. 30	7. 25	° 1008	6. 17	° 01434												
7. 35	21. 48. 40		***	7. 7	° 01376												
8. 21	53. 20	4. 9	° 1017	7. 25	° 01358												
8. 34	57. 0		***	8. 40	° 01213												
8. 49	21. 55. 0	4. 29	° 1002	9. 38	° 01157												
9. 38	22. 1. 30	4. 45	° 1008	10. 52	° 01129												
11. 2	21. 57. 30	4. 52	° 1003	11. 47	° 01143												
12. 0	22. 3. 25	4. 58	° 1006	12. 30	° 01139												
12. 37	21. 58. 35	5. 5	° 1003	12. 57	° 01187												
13. 5	22. 2. 0	5. 30	° 1014	16. 12	° 01414												
13. 38	21. 57. 0	6. 5	° 1012	16. 52	° 01494												
14. 5	58. 30		***	18. 42	° 01692												
	***	6. 30	° 1014	19. 32	° 01852												
15. 24	55. 0	7. 9	° 1006	19. 48	° 01887												
	***	7. 24	° 0994	20. 5	° 01927												
15. 50	56. 45	7. 43	° 1021	20. 14	° 01937												
	***	8. 25	° 1005	20. 23	° 01935												
16. 18	21. 54. 0	8. 45	° 0989	20. 40	° 01977												
	***	9. 45	° 0996	20. 54	° 02015												
16. 50	22. 0. 45	10. 15	° 1006	21. 15	° 02050												
	***	11. 0	° 0995	21. 52	° 02036												
17. 32	21. 59. 0	11. 53	° 1002	22. 10	° 02039												
	***	12. 20	° 1004	22. 39	° 02028												
18. 21	22. 4. 0	12. 45	° 1002	22. 56	° 02019												
	***	12. 55	° 1020	23. 12	° 02018												
19. 15	1. 30	13. 9	° 1012	23. 59	° 02085												
	***	13. 20	° 1016														
19. 46	22. 3. 0	13. 39	° 1004														
19. 55	21. 58. 0	14. 0	° 1013														
20. 4	22. 4. 35	14. 10	° 1012														
	***	14. 30	° 1021														
20. 22	21. 59. 10	14. 45	° 1020														
20. 30	22. 4. 35	15. 0	° 1026														
20. 46	1. 0		***														
	***	16. 40	° 1018														
21. 21	7. 0	16. 50	° 1026														
	***	17. 0	° 1024														
22. 7	8. 30	17. 15	° 1030		***												
	***	6. 0	17. 33	° 1026													
22. 36		***	17. 45	° 1020													
23. 23	6. 0	18. 15	° 1028														
23. 30	9. 30	18. 36:	° 1024		***												
	***	12. 0	19. 23	° 1033	***												
	19. 45		° 1027														
	19. 53		° 1021														
	20. 0		° 1028														
	20. 18		° 1022														
	20. 21		° 1014														
	20. 30		° 1021														
	20. 51		° 0992														
	21. 15		° 1009		***												
	22. 11		° 1001														
	23. 0		° 1000														
	23. 23		° 0996														
	April 1																
	April 1																
	April 1																

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters. Of H. F. Magnet. Or V. F. Magnet.	Göttingen Mean Solar Time.	Western Declina- tion.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters. Of H. F. Magnet. Or V. F. Magnet.	
April 1		April 1		April 1				April 2		April 2					
10. 6	° 1. " 21. 57. 10	4. 46	.1049	7. 0	.01300	" "	° 1. 0	14. 56	22. 2. 25	6. 53	.1040	***	" "	° 1. 0	
10. 28	59. 15	5. 40	.1050	7. 16	.01319			15. 30	1. 0						
11. 18	21. 58. 0		***	8. 6	.01335			16. 15	2. 40	7. 19	.1032	***			
11. 45	22. 1. 35	6. 15	.1043	9. 24	.01330			19. 22	22. 0. 30	8. 45	.1038				
12. 2	22. 0. 0	6. 45:	.1045	9. 45	.01355			19. 35	21. 58. 0	8. 59	.1042	***			
13. 4	21. 58. 0	7. 0	.1040	10. 9	.01335			20. 17	21. 59. 10	9. 9	.1037	***			
13. 23	21. 59. 35	7. 20	.1049	10. 42	.01374			20. 26	22. 4. 10	9. 55	.1041	***			
13. 33	21. 58. 50	7. 44	.1040	11. 44	.01405			20. 48	5. 0	10. 35	.1037				
13. 58	22. 4. 30		***	12. 35	.01446			20. 57	7. 30	11. 30	.1038				
14. 37	21. 59. 0	8. 13	.1044	13. 30	.01493			21. 23	5. 30	12. 10	.1036	***			
15. 7	22. 2. 0	8. 26	.1040	13. 58	.01536			21. 44	2. 35	14. 45	.1043				
15. 15	0. 45	9. 45	.1041	14. 50	.01574			22. 25	1. 30	15. 0	.1051				
15. 51	22. 4. 10	10. 15	.1051	15. 52	.01692			23. 59	6. 0	15. 6	.1046	***			
20. 51	21. 58. 35	10. 55	.1059	18. 16	.02026					17. 34	.1052	***			
21. 47	21. 59. 0		***	(†)						19. 45	.1060				
22. 54	22. 1. 40	12. 0	.1040	19. 57	.02139					20. 9	.1044				
23. 40		5. 40	.1043	23. 51	.02098					20. 46	.1032				
			***							21. 32	.1052				
			13. 47	.1038						23. 25	.1040				
			***							23. 59	.1039				
			14. 15	.1052											
			14. 45	.1041											
			16. 0	.1040											
			16. 20	.1047											
			17. 0	.1049											
			18. 0	.1056											
			18. 32	.1054											
			19. 6	.1058											
			20. 30	.1059											
			20. 45	.1054											
			21. 8	.1055											
			21. 25	.1049											
			23. 6	.1038											
			23. 45	.1038											
			23. 53	.1033											
April 2		April 2		April 2				April 3		April 3				April 3	
0. 9	22. 6. 0	0. 15	.1024	0. 0	.02076			0. 7	22. 6. 15	0. 36	.02048	1. 40	57. 5	59. 5	
0. 17		8. 30	***		***			1. 6	7. 10	0. 15	.01959	3. 40	60. 0	62. 0	
0. 25	6. 0	1. 40	.1024	2. 15	.01978			1. 35	9. 30	0. 30	.01930	9. 40	61. 0	63. 0	
2. 13	II. 0	2. 14	.1034	3. 33	.01788			2. 4	8. 45	1. 30	.0128	4. 10	.01683	21. 40	
4. 53	4. 35	2. 40	.1027	6. 47	.01241			2. 49	10. 35	.0130	4. 35				
5. 21	0. 25		***	7. 9	.01242			3. 21	9. 15	2. 29	.0126	5. 50	.01444		
6. 13	2. 30	4. 2	.1038	8. 12	.01285			3. 35	10. 30	2. 50	.0138	7. 15	.01515		
9. 18	22. 1. 0	4. 30	.1032	11. 30	.01342			9. 10	0. 50	4. 25	.0122	8. 38	.01549		
9. 37	21. 59. 0	4. 38	.1038	12. 50	.01406			9. 28	0. 0	4. 25	.0112				
9. 52	21. 55. 10	4. 46	.1034	14. 59	.01649			10. 21	22. 2. 40	4. 38	.0122				
10. 20	22. 0. 30	5. 5	.1034	18. 0	.02134			11. 5	21. 59. 30	4. 40	.0118	***			
11. 33	I. 0	5. 27	.1024	(†)				11. 55	22. 2. 0	5. 18	.0136	***			
13. 7	3. 0	6. 8	.1042	21. 5	.02126			12. 13	1. 0	5. 18	***				
13. 50	I. 25	6. 40	.1038	23. 53	.02055			13. 34	2. 15	5. 40	.1032	***			
	***							14. 8	5. 45	6. 30	.1041				
								16. 6	1. 0	6. 50	.1036				

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.

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1854.

(xli)

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declination.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declination.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	
April 7	° 22. 7. 30	April 7	° 1046	April 7	° 01830	April 7	° 1035	April 9	° 1035	April 9	° 1035	April 9	° 1035	April 9
0. 50	° 22. 7. 30	° 0. 55	° 1046	1. 5	° 01830	1. 40	° 57. 0	° 3. 55	8. 32:	° 10470	8. 32:	° 10470	8. 32:	° 10470
1. 55	8. 0	1. 8	° 1042	3. 0:	° 01660	3. 40	° 59. 0	° 63. 0	13. 0	22. 1. 40	5. 45	° 1032	9. 10	° 10482
5. 27	2. 15	2. 26	° 1044	4. 4	° 01342	9. 40	° 64. 0	° 65. 0	13. 20	21. 57. 15	6. 30	° 1042	11. 32	° 10580
12. 23	3. 0	***	° 1044	5. 45:	° 01252	21. 40	° 55. 5	° 58. 0	13. 35	22. 5. 0	10. 10	° 1038	11. 55	° 10600
12. 52	4. 15	3. 25	° 1049	6. 47	° 01248				15. 25	21. 59. 40	11. 46	° 1042	12. 48	° 10710
13. 17	2. 35	12. 36	° 1047	10. 0:	° 01260				15. 36	22. 0. 30	12. 4	° 1052	13. 34:	° 10790
	***	***	° 1047	12. 50	° 01400				16. 7	21. 57. 30	12. 14	° 1060	14. 10	° 10900
16. 20	2. 25	15. 43	° 1052	15. 3:	° 01580				16. 53	21. 59. 0	12. 20	° 1044	15. 40	{ ° 02122
16. 55:	8. 20	16. 20:	° 1049	17. 13	° 01818				18. 4	22. 3. 45	12. 30	° 1047	15. 40	{ ° 02105
17. 36	2. 20	16. 45:	° 1044	19. 36	° 01989				19. 3	0. 15	13. 29	° 1042	18. 58	° 02071
18. 45	4. 15	17. 19	° 1063	21. 25	° 01975				21. 45	0. 0	14. 15	° 1049	19. 5	° 02075
	***	17. 40	° 1062	23. 59	° 01348				23. 44	6. 30	16. 15:	° 1054	20. 42:	° 02020
20. 24	1. 30	18. 10:	° 1056						23. 59	8. 30	17. 15	° 1058	22. 0	° 02020
	***	18. 55	° 1060								19. 35	° 1051	23. 8	° 01970
21. 22	1. 0	19. 17	° 1056								22. 32	° 1041	23. 59	° 01917
23. 12	5. 30	19. 46	° 1059								23. 38	° 1054		
23. 50	5. 45		***								23. 53	° 1034		
23. 59	6. 30	21. 5	° 1044								23. 59	° 1042		
	21. 40	° 1043									19. 38	° 1038		
	22. 14	° 1036												
	22. 23	° 1037												
	23. 16	° 1026												
	23. 59	° 1028												
April 8	22. 7. 30	April 8	° 1028	0. 27	° 01860	1. 40	° 59. 0	° 62. 0	Apr. 10	° 1037	1. 23	° 10382	1. 40	54. 5
0. 52	9. 25	° 0. 10	° 1031	3. 52	° 01480	3. 40	° 63. 0	° 65. 5	Apr. 10	11. 0	0. 50	° 1047	2. 46:	55. 5
6. 17	1. 0	0. 55	° 1035		° 01307	9. 40	° 66. 0	° 68. 0	1. 29	11. 0	1. 8	° 1044	3. 48	58. 0
12. 6	2. 50	1. 9	° 1026	4. 47	° 01333	22. 58	° 56. 0	° 58. 4	2. 39	9. 30	1. 15	° 1046	5. 23:	59. 0
12. 35	1. 0	1. 35	° 1025	6. 28:	° 01300				3. 45	6. 0	1. 30	° 1046	7. 10	62. 3
12. 55	1. 35	2. 15	° 1035	8. 0	° 01342				6. 57	1. 0	1. 30	° 1046	7. 10	63. 0
13. 18	0. 30	***	° 1031	9. 32	° 01390				8. 35	4. 10	1. 37	° 1051	8. 3	63. 0
13. 38	2. 0	3. 39	° 1031	10. 10	° 01420				11. 50	3. 0	2. 8	° 1044	8. 52	63. 0
14. 0	1. 20	5. 15	° 1040	11. 58	° 01557				11. 52	5. 30	2. 22	° 1048	11. 36	63. 0
14. 43	4. 45	6. 8	° 1040	14. 35:	° 01782				12. 44	0. 0	2. 31	° 1054	11. 38	64. 5
15. 17	2. 0	8. 20	° 1034	16. 48	° 02120				13. 5	22. 21. 0	2. 55	° 1047	11. 47	64. 5
18. 17	22. 2. 30	8. 55	° 1039	(†)					13. 47	21. 40. 0	3. 30	° 1047	11. 47	64. 5
20. 53	21. 58. 0	12. 5	° 1035	22. 58	° 02146				13. 49	41. 50	3. 45	° 1046	12. 27	64. 5
23. 1	22. 1. 0	12. 30	° 1041						13. 54	37. 0	4. 30	° 1054	12. 45	64. 5
23. 55	6. 0	12. 36	° 1039								**	13. 30	° 1238	
	13. 25	° 1047							14. 12	42. 0	5. 2	° 1045	13. 35	
	14. 17	° 1040							14. 31	38. 35	5. 23	° 1047	13. 50	
	14. 40	° 1048							14. 37	39. 30	5. 37	° 1053	13. 53	
	15. 45	° 1045							14. 44	33. 35	6. 8	° 1044	13. 59	
	17. 50	° 1055							15. 29	59. 40	6. 30	° 1048	14. 28	
	20. 10	° 1055							15. 41	55. 30	6. 43	° 1047	14. 37	
	23. 10	° 1030							15. 47	56. 0	7. 0	° 1054	14. 43	
	23. 45	° 1030							16. 12	44. 35	7. 27	° 1043	14. 52	
	23. 59	° 1032							16. 18	43. 0	7. 32	° 1048	14. 57	
April 9	22. 7. 15	April 9	° 1032	0. 0	° 02055	10. 50	° 64. 0	° 65. 5	16. 28	46. 30	7. 45	° 1044	15. 8:	55. 5
0. 35	9. 30	° 0. 30	° 1031	1. 50:	° 02000	21. 40	° 52. 5	° 54. 8	16. 37	48. 30	8. 40	° 1055	15. 36	56. 5
2. 17	11. 30	0. 46	° 1028	3. 20	° 01880				16. 46	45. 0	8. 55	° 1046	15. 59	57. 0
4. 8	5. 40	1. 40	° 1033	4. 30:	° 01639				16. 53	44. 0	9. 30	° 1057	16. 5	57. 0
5. 35	3. 0	1. 55	° 1030	6. 5	° 01417				17. 17	29. 30	9. 35	° 1053	16. 15	58. 0
10. 5	3. 0	2. 14	° 1034	6. 52:	° 01386				17. 47	21. 44. 15	9. 53	° 1057	16. 23	59. 0
12. 20	1. 0	3. 0	° 1027	7. 46	° 01430				18. 17	22. 16. 35	10. 1	° 1054	16. 40	60. 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.

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	
							Of H. F. Magnet.								Of V. F. Magnet.	
Apr. 10		Apr. 10		Apr. 10		Apr. 10				Apr. 10						
18. 26	° 12. 30	10. 40	.1056	16. 46	.01369	h m	o o			23. 12	.0924					
18. 30	18. 30	10. 50	.1065	16. 50	.01334			23. 25	.0916	***						
18. 49	48. 30	11. 10	.1062	17. 5	.01375			23. 59	.0985							
18. 56	52. 15	11. 16	.1066	17. 12	.01355											
19. 42	48. 0	11. 30	.1062	17. 33	.01462											
19. 50	53. 0	11. 34	.1066	17. 47	.01358											
	***	11. 40	.1058	17. 52	.01330											
20. 37	57. 0	11. 53	.1094	17. 56	.01370											
20. 43	21. 53. 0	12. 0	.1078	18. 3	.01365											
20. 51	22. 3. 25	12. 8	.1083	18. 7	.01378											
21. 0	21. 59. 10	12. 15	.1077	18. 12	.01361											
21. 8	22. 2. 30	12. 32	.1082	18. 20	.01387											
21. 15	1. 0	12. 44	.1066	18. 38	.01330											
	***		***	18. 42	.01400											
21. 48	10. 0	12. 53	.1066	19. 0	.01347											
	***	13. 6	.1078	19. 22	.01522											
22. 14	9. 0	13. 32	.1000	19. 45	.01650											
	***	13. 45	.1028	20. 12	.01710											
22. 28	19. 0	13. 50	.1006	20. 22	.01735											
	***	13. 54	.1016	20. 33	.01705											
22. 45	14. 0	13. 59	.1009		***											
	***		***	20. 55	.01752											
22. 57	21. 0	14. 36	.1056		***											
	***		***	22. 10	.01737											
23. 4	17. 0	15. 16	.1014		***											
	***	15. 35	.1066	22. 40	.01732											
23. 13	21. 0	15. 46	.1060		***											
	***	15. 55	.1042	22. 53	.01765											
23. 21	18. 0	16. 10	.1038		***											
	***	16. 17	.1048	23. 59	.01850											
23. 25	21. 0	17. 0	.0950													
	***	17. 25	.1048													
23. 40	13. 30	17. 42	.0990		***											

23. 59	17. 10	18. 5	.1033													
	***	18. 9	.1024													
		18. 15	.1033													
		18. 39	.0987													
		18. 44	.1008													
		18. 59	.0978													
		19. 8	.0998													
		19. 15	.0982													
		19. 18	.0986		***											
		19. 27	.0974		***											
		19. 53	.0998													
		20. 5	.0992													
		20. 21	.1000													
		20. 31	.0978													
		20. 42	.1018													
		20. 49	.1012													
		20. 59	.1019													
		21. 5	.1010													
		21. 15	.1026		***											
		22. 27	.0916	(†)												

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

April 11. Vertical Force Magnet. The spot of light was off the sheet from 16^h. 7^m. to 20^h. 52^m, and no eye observation was made between those times.

INDICATIONS OF THE MAGNETOMETERS

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 (t) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally well to a considerable range of time near that which is recorded. A brace denotes that at this time the curve of the Vertical Force was dislocated, and the difference of the numbers included by the brace shows the amount of the displacement.

April 13. Vertical Force Magnet. The spot of light was off the sheet from $15^{\text{h}}: 3^{\text{m}}$. to $19^{\text{h}}: 35^{\text{m}}$.

13. Vertical Force Magnet. The spot of light was off the sheet from 1^h. 3^m. to April 14. There was no register of vertical force between 16^h. 20^m. and 21^h. 0^m.

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.		
						Of H. F. Magnet.								Of V. F. Magnet.	
Apr. 14 h m s	o 58.45	Apr. 14 h m s	1052	h m s					Apr. 16 h m s	o 1058	4.52	o 1568		Apr. 16 h m s	o
19.50	21. 56.40	12.24	1052					22. 1. o	2. o	5.37	1051	5.34	o 1487		
21. 5	56.40	13.10	1028					2. o	7.17	1060	6.47	o 1425			
21. 32	59.50	14. o	1032					3.45	8.6	1056	7.20	o 1401			
21. 50	21.59.30	14.16	1025					0.30	12. o	1053	8.30	o 1445			
23.59	22. 8.30		***						13.30	1057	10.38	o 1433			
		19.53	1049						14.23	1066	12.23	o 1461			
		21. 2	1042						15. o	1063	14.27	o 1608			
		21. 11	1046						18. o	1072	16.32	o 1875			
		21. 14	1038						19. 27	1067	18.21	o 2000			
		22. 10	1038						20.45	1071	19.28	o 2060			
		23. o	1027						21.23	1060	20.55	o 2033			
		23.59	1027						22.20	1056	22.30	o 2021			
									23.10	1042	23.59	o 1922			
									23.59	1048					
Apr. 15	22. 9.50	Apr. 15	1028	0.52	02048	1.40	56.5	58.5							
0.12	13.30	o. o	1032	1.27	02025	3.40	61.0	66.0							
1.10	12. o	1.30	1034	1.53	01945	9.40	66.0	68.0							
2.25	13.10	***	1034	3.5:	01758	23.32	54.0	56.5							
3. 2	2. 4	1028	3.57		01480										
4. 5	9.30	2.50:	1049		***										
	3.14	1038	5.34:		01540										
4.58	11. o	***	1038	7.15	01523										
	4. o	1038	8.12		01569										
5.53	5. o	4.10	1045	9.22:	01572										
6.32	5. o	4.18	1043	11.13	01650										
6.55	1.30	4.30	1052	12.8	01700										
7. 5	22. 2. o	5. 7	1014	14.50	02120										
7.31	21.54.15	5.30:	1022	(†)											
8. 8	22. o. o	5.53	1023	19.50	02100										
10. 0	21.59.20	6.15:	1034	21. 7	02073										
10.39	22. 1.15	6.47	1033	22.20:	02042										
11. 8	21.59.10	7. o	1043	23.38	02033										
11.14	58.40	7.17	1031	23.59	02010										
11.36	53.15	7.34	1048												
12. o	56.40	8. 4	1038												
	***	***	***												
12.44	21.56.15	8.53	1037												
	***	9. 8	1041												
14. 8	22. 2. o	9.44	1038												
	***	10.23	1045												
21.17	21.59.15	10.50	1041												
23.59	22. 5.50	11.14	1049												
	11.25	1044													
	11.36	1047													
	12. 8	1039													
	12.24	1054													
	12.42	1049													
		13. 5	1052												
		13.25	1050												
		19.15	1067												
		21. o	1064												
		23.23	1051												
		23.59	1052												
Apr. 16	22. 6. o	Apr. 16	1052	0.37	01980	9.40	64.5	67.4	Apr. 16	1057	1.30	01675	1.40	58.5	60.0
0.50	6.25	1.10	1058	3.3:	01855	21.40	55.5	58.0	22. 1.30	1066	3.37	01260	3.40	63.0	65.3
I.40									3.10	1057	4.2	01285	9.40	66.5	68.5
									5.10	1052	5.5	01288	21.40	57.0	59.0

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

April 15. Vertical Force Magnet. The spot of light was off the sheet from 14^h. 50^m. to 19^h. 50^m.

INDICATIONS OF THE MAGNETOMETERS

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

April 20. Vertical Force Magnet. The spot of light was off the sheet from 17^h. 10^m. to 21^h. 22^m; and on April 21. from 16^h. 40^m. to 19^h. 29^m.

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.			
Apr. 21	o 42	21. 59. 20	1. 35	1010	3. o	01763	Apr. 21	21. 40	60° 2' 63° 0'	Apr. 22	10. o	21. 56. o	7. 45	Apr. 22	23. 59	01845		
h m	21. 59. 20	1. 35	1008	6. 20:	01685	***	h m	21. 40	60° 2' 63° 0'	h m	10. 21	56. 20	8. 9	h m	23. 59	o		
6. 13	57. 40	3. 47	1005	8. 46	01700	53. 50	7. 49	10. 40	01672	6. 13	58. 30	8. 40	7. 49	10. 40	o	o		
6. 38	53. 50	5. 30	1018	9. 52	01708	49. 0	8. 24	11. 42	01792	6. 38	58. 30	8. 53	8. 24	11. 42	o	o		
7. 49	49. 0	6. 25	1004	10. 40	01672	57. 30	9. 2	12. 0	01810	7. 49	52. 10	9. 0	9. 2	12. 0	o	o		
8. 24	57. 30	6. 52	1020	11. 42	01792	59. 30	9. 41	12. 0	01865	8. 24	52. 10	10. 15	9. 41	12. 0	o	o		
9. 2	59. 30	6. 52	1005	12. 0	01810	10. 5	10. 5	13. 12	01865	9. 2	53. 25	10. 29	10. 5	13. 12	o	o		
9. 41	21. 56. 25	8. 30	1011	13. 12	01865	22. 3. 40	10. 5	13. 12	01938	9. 41	51. 45	10. 44	22. 3. 40	10. 5	o	o		
10. 5	22. 3. 40	9. 15	1011	14. 0	01938	56. 30	10. 21	14. 0	01919	10. 5	5. 30	11. 6	10. 21	56. 30	o	o		
10. 21	21. 56. 30	9. 38	1006	14. 34	01919	10. 40	11. 1	15. 23	02045	10. 21	55. 45	11. 30	11. 1	21. 56. 30	o	o		
10. 40	59. 40	10. 0	1022	15. 23	02045	11. 1	11. 18	{ 02050	02050	10. 40	5. 0	11. 45	11. 22	22. 4. 0	o	o		
11. 1	56. 0	10. 15	1010	{ 02050	02065	11. 18	11. 18	16. 0	02065	11. 1	5. 0	10. 15	12. 0	21. 50. 45	o	o		
11. 18	55. 0	10. 28	1036	16. 0	02065	12. 0	11. 29	16. 40	02120	11. 18	5. 0	10. 13	12. 0	21. 50. 45	o	o		
11. 43	56. 15	10. 55	1011	16. 40	02120	12. 28	12. 0	(†)	02120	11. 43	5. 0	10. 14	12. 0	21. 50. 45	o	o		
12. 28	54. 0	11. 14	1006	19. 29	02120	12. 46	12. 0	19. 29	02120	12. 28	5. 0	10. 25	12. 0	21. 50. 45	o	o		
12. 46	56. 30	11. 45	1016	22. 8:	02000	13. 0	13. 0	12. 4	02120	12. 46	5. 0	10. 04	13. 0	21. 50. 45	o	o		
13. 0	57. 0	12. 4	1014	23. 59	01950	13. 17	13. 17	12. 29	01950	13. 0	5. 0	10. 04	13. 17	21. 50. 45	o	o		
13. 17	53. 15	12. 29	1008	23. 59	01950	13. 28	13. 28	13. 5	01950	13. 17	5. 0	10. 04	13. 28	21. 50. 45	o	o		
13. 28	53. 30	13. 5	1031	23. 59	01950	13. 47	13. 47	13. 15	01950	13. 28	5. 0	10. 04	13. 47	21. 50. 45	o	o		
13. 47	55. 30	13. 23	1031	23. 59	01950	14. 0	14. 0	13. 23	01950	13. 47	5. 0	10. 04	14. 0	21. 50. 45	o	o		
14. 0	55. 30	13. 38	1023	23. 59	01950	14. 31	14. 31	13. 38	01950	14. 0	5. 0	10. 04	14. 31	21. 50. 45	o	o		
14. 31	44. 10	13. 38	1023	23. 59	01950	15. 9	15. 9	14. 0	01927	14. 31	5. 0	10. 04	15. 9	21. 50. 45	o	o		
15. 9	58. 30	14. 0	1027	23. 59	01950	15. 32	15. 32	14. 16	01922	15. 9	5. 0	10. 04	15. 32	21. 50. 45	o	o		
15. 32	59. 45	14. 16	1022	23. 59	01950	16. 7	16. 7	14. 25	01903	15. 32	5. 0	10. 04	16. 7	21. 50. 45	o	o		
16. 7	56. 40	14. 25	1003	23. 59	01950	16. 21	16. 21	14. 51	00992	16. 7	5. 0	10. 04	16. 21	21. 50. 45	o	o		
16. 21	56. 40	14. 51	1016	23. 59	01950	17. 7	17. 7	15. 50	01928	16. 21	5. 0	10. 04	17. 7	21. 50. 45	o	o		
17. 7	57. 30	15. 50	1028	23. 59	01950	17. 20	17. 20	16. 45	01914	17. 7	5. 0	10. 04	17. 20	21. 50. 45	o	o		
17. 20	55. 40	16. 45	1014	23. 59	01950	17. 50	17. 50	17. 45	01920	17. 20	5. 0	10. 04	17. 50	21. 50. 45	o	o		
17. 50	55. 15	23. 14	1014	23. 59	01950	18. 23	18. 23	23. 30	01917	17. 50	5. 0	10. 04	18. 23	21. 50. 45	o	o		
18. 23	56. 50	23. 44	1015	23. 59	01950	20. 17	20. 17	23. 53	01923	18. 23	5. 0	10. 04	20. 17	21. 50. 45	o	o		
20. 17	56. 0	23. 59	1020	23. 59	01950	21. 43	21. 43	23. 59	01950	20. 17	5. 0	10. 04	21. 43	21. 50. 45	o	o		
21. 43	21. 58. 0	23. 59	01950	23. 59	01950	23. 59	22. 5. 30	23. 59	01950	21. 43	5. 0	10. 04	23. 59	21. 50. 45	o	o		
23. 59	22. 5. 30	23. 59	01950	23. 59	01950	Apr. 22	Apr. 22	Apr. 22	Apr. 22	23. 59	5. 0	10. 04	Apr. 22	Apr. 22	Apr. 22	Apr. 22		
Apr. 22	22. 9. 10	o. o	1020	0. 45	01940	0. 37	0. 37	1. 16	2. 0	4. 36	9. 30	o. o	o. 15	o. 15	o. 15	o. 15		
0. 37	22. 9. 10	o. o	1020	2. 0	01940	1. 16	1. 16	7. 40	3. 22	5. 18	7. 20	1. 15	10. 42	10. 42	10. 42	10. 42		
1. 16	7. 40	o. 16	1020	3. 22	01940	2. 5	2. 5	13. 0	9. 40	3. 40	61. 0	63. 0	10. 38	3. 47	10. 38	10. 38	10. 38	
2. 5	13. 0	o. 24	1024	4. 7	01945	2. 59	2. 59	1. 13	01845	2. 59	58. 5	62. 3	10. 38	3. 47	10. 38	10. 38	10. 38	
2. 59	6. 15	2. 0	1028	6. 59:	01880	3. 48	3. 48	2. 30	02005	3. 48	8. 31	02005	7. 0	10. 38	10. 38	10. 38	10. 38	
3. 48	9. 0	2. 44	1018	9. 30	01940	4. 7	4. 7	10. 31	01939	3. 48	9. 30	01940	7. 0	10. 38	10. 38	10. 38	10. 38	
4. 7	8. 0	2. 53	1014	10. 31	01939	4. 17	4. 17	9. 15	1034	4. 7	10. 31	01939	7. 0	10. 38	10. 38	10. 38	10. 38	
4. 17	9. 15	3. 20	1034	11. 1	01905	4. 23	4. 23	7. 45	3. 45	11. 1	10. 31	01939	7. 0	10. 38	10. 38	10. 38	10. 38	
4. 23	7. 45	3. 45	1018	12. 7	01950	6. 16	6. 16	5. 30	4. 8	12. 57	10. 31	01939	7. 0	10. 38	10. 38	10. 38	10. 38	
6. 16	5. 30	4. 8	1016	12. 57	01950	7. 53	7. 53	2. 0	4. 21	13. 20	10. 31	01939	7. 0	10. 38	10. 38	10. 38	10. 38	
7. 53	22. 2. 0	4. 21	1032	13. 20	01873	8. 19	8. 19	21. 52. 15	4. 35	13. 51	01834	13. 20	01873	7. 0	10. 38	10. 38	10. 38	10. 38
8. 19	21. 52. 15	4. 35	1018	13. 51	01834	8. 32	8. 32	5. 0	***	15. 4	01898	13. 20	01834	7. 0	10. 38	10. 38	10. 38	10. 38
8. 32	22. 5. 0	5. 40	1030	18. 0	01914	8. 47	8. 47	21. 57. 0	5. 40	20. 10	01892	21. 12:	01868	7. 0	10. 38	10. 38	10. 38	10. 38
8. 47	21. 57. 0	5. 40	1030	20. 10	01892	8. 58	8. 58	47. 0	6. 0	21. 12:	01868	21. 12:	01868	7. 0	10. 38	10. 38	10. 38	10. 38
8. 58	47. 0	6. 0	1028	21. 12:	01868	9. 5	9. 5	47. 0	6. 28	01868	23. 22	01855	7. 0	10. 38	10. 38	10. 38	10. 38	
9. 16	44. 10	7. 15	1040	23. 22	01855	9												

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.		Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.			
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.		
Apr. 23		Apr. 23		Apr. 23					Apr. 24		Apr. 24		Apr. 24						
13. 55	21. 54. 40	10. 13	1052	20. 12	·01773				4. 22	22. 9. 30	3. 51	1052	7. 39	·01340					
14. 5	53. 0	10. 25	1102	22. 24	·01810				4. 43	15. 10	3. 55	1034	8. 5	·01370					
14. 35	57. 30	10. 53	1043	23. 59	·01806				5. 20	22. 11. 0	4. 3	1050	8. 28	·01344					
14. 47	55. 15	11. 5	1056						5. 26	21. 57. 0	4. 8	1028	9. 20	·01290					
15. 8	59. 25	11. 27	1040						5. 33	22. 4. 0	4. 23	1048	10. 4	·01319					
15. 20	57. 35	11. 57	1041						5. 43	2. 0	4. 29	1038	10. 50:	·01325					
	***	12. 4	1048						6. 28	7. 10	4. 45	1058	11. 28	·01369					
15. 54	21. 58. 25								6. 44	3. 0		***	12. 20	·01390					
16. 35	22. 3. 0	12. 26	1038						7. 0	22. 4. 15	5. 8	1020	12. 32	·01362					
16. 45	3. 0	12. 34	1054						7. 17	21. 57. 45	5. 15	1034	12. 38	·01329					
16. 57	6. 25	13. 9	1038						7. 22	58. 15	5. 44	0986	12. 50	·01338					
17. 16	1. 25		***						7. 25	57. 15	5. 53	1016	13. 0	·01280					
17. 50	6. 0	13. 39	1065						7. 32	59. 30	6. 1	1006	13. 30	·01325					
18. 15	4. 0	13. 45	1060						7. 40	58. 30	6. 23	1024	14. 46	·01575					
18. 47	5. 0	13. 53	1065						7. 47	59. 0	6. 40	1006	16. 7	·01755					
18. 59	7. 30	14. 7	1042						7. 55	47. 30	6. 59	1015	18. 3	·01882					
19. 25	1. 0	15. 0	1036						8. 10	52. 30	7. 13	1000	18. 6	·01870					
20. 46	2. 30	15. 30	1025						8. 30	43. 15	7. 16	1010	18. 50:	·01870					
	***	15. 46	1021						9. 0	59. 10		***	19. 40	·01835					
21. 33	10. 20	16. 15:	1036						9. 16	54. 0	7. 41	1008	20. 10	·01830					
	***	16. 48	1022						9. 28	47. 0	7. 56	0990		***					
22. 52	9. 0		1028						9. 40	53. 30	8. 10	1016	22. 30	·01725					
	***	17. 45							9. 45	53. 0	8. 30	1002		***					
23. 44	13. 0	18. 27	1049						10. 5	57. 0	8. 45	1017	23. 59	·01755					
23. 58	16. 0	19. 38	1021		***					10. 17	52. 35	9. 2	1017						
			20. 0		1032					11. 9	48. 35	9. 30	0990						
			20. 29		1026					11. 32	55. 0	9. 45	1014						
			20. 40		1016					12. 13	21. 55. 45	10. 3	1001						
			21. 23		1014					12. 17	22. 1. 30	10. 15	1004						
			21. 35		1018					12. 27	21. 52. 15	10. 25	1001						
			22. 30		1012					12. 43	54. 45	10. 38	1008						
			23. 0		1014					13. 12	42. 20	11. 13	1004						
			23. 16		1020					13. 20	44. 15	11. 45	1014						
			23. 59		1000					13. 44	21. 58. 0	12. 5	1012						
Apr. 24		Apr. 24		Apr. 24						14. 30	22. 2. 20	12. 27	1034						
o. 8	22. 16. 30	o. o	1000	o. 45	·01806	1. 40	50	·030		14. 45	1. 40	12. 45	1034						
	***	o. 15	1002	1. 10	·01795	3. 40	53	·055		15. 15	o. 15	13. 11	1025						
1. 35	14. 45	0. 40	1022	1. 45	·01750	9. 40	56	·057		16. 45	1. 40	13. 18	1013						
2. 45	14. 0	0. 45	1019						17. 8	2. 0	13. 36	1015							
3. 12	19. 40	1. 13	1035	3. 15	·01655					17. 25	3. 0	13. 53	1009						
	***	1. 22	1028							20. 30	o. o	15. 17	1026						
3. 15	16. 10	1. 25	1034	3. 50	·01760					22. 30	2. 0		***						
3. 28	23. 0	1. 39	1020	4. 0	·01760					23. 15	3. 30	18. 5	1028						
3. 32	16. 40	2. 9	1030	4. 7	·01662					23. 59	5. 55	18. 45	1022						
3. 35	21. 0	2. 18	1042		***						19. 17	·1024							
3. 40	14. 30				4. 48	·01675					19. 42	·1016							
3. 46	20. 0	2. 34	1030	4. 53	·01640						20. 40	·1022							
3. 50	12. 30	2. 50	1046	5. 5	·01592						23. 59	·1020							
	***	3. 7	1028	5. 10	·01600														
3. 58	15. 0	3. 15	1028	5. 24	·01505														
4. 2	10. 0	3. 24	1052	5. 38	·01530														
4. 12	13. 0	3. 34	1043	6. 5	·01440														
4. 14	10. 30	3. 40	1059	6. 30	·01385														
4. 16	14. 0	3. 45	1040	7. 12	·01385														

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.

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1854.

(xlix)

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

(1)

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.			
						Of H. F. Magnet.							Of V. F. Magnet.			
Apr. 28		Apr. 28							Apr. 29							
18. o	o. / "	18. 59. 40	18. 30	1024	h m			h m	o. / "	22. 8	1008	h m				
18. 51	22. 2. 15	19. o	1016	***						23. 5	1017					
19. 18	21. 59. o									23. 47	1013					
19. 50	22. 3. o	21. 35	1022							23. 59	1014					
20. 17	o. 15	22. 33	1010													
	***	23. 59	1010													
21. 20	1. o															
21. 46	3. 25															
22. 36	2. 30															
23. 59	7. 20															
Apr. 29		Apr. 29							Apr. 30							
o. 34	22. 9. o	o. o	1010	0.45	01355	1. 40	54.355.8		Apr. 30	o. o	1014	o. 15	01555			
	***	1. 14	1009	1.34	01362	3. 40	56.058.0			o. 47	8. 45	0.46	01565	10. 45		
5. 30	3. o	2. 33	1016	2.42	01282	9. 40	58.061.0			o. 53	10. 30	0.50	***	54. 055.8		
5. 47	22. 4. 25	2. 34	1025	4. 15	01040	23. 24	50.053.0			1. 29	12. o	1. 14	1018	2. 58		
6. 28	21. 58. o	3. o	1016	5. 7	00995					1. 47	10. 45	1. 26	1025	3. 13		
7. 3	22. 0. 35	5. 15	1022	5. 10	00980						***	1.47	1016	3. 38		
8. 15	21. 59. 50	6. o	1013	5. 16	01000					2. 4	12. o	2. 5	1025	3. 52		
8. 25	58. o	7. o	1026		***						***	2. 13	1020	4. 6		
8. 30	59. o	7. 20	1018	6. 37	01045					2. 36	9. 15	2. 23	1032	4. 17		
8. 36	57. 40	8. 10	1020	8. 12	01032						***	***	1050	***		
8. 45	59. o	8. 23	1016	8. 52	00992					2. 44	10. 10	3. 6	1016	6. 27		
8. 58	21. 55. 30	8. 29	1023	9. 5	01015					3. 5	8. 30	3. 25	1040	7. 28		
9. 8	22. 7. 45	8. 35	1019	9. 30	00920						***	3.54	1008	8. 30		
9. 58	21. 53. 15	8. 40	1022	10. 6	00954					3. 29	22. 10. 20	4. 5	1036	9. 32		
10. 17	55. 30	8. 53	1007	10. 34	00945						4. 55	22. 9. o	4. 55	1034	12. 28	
10. 38	52. 30	9. 6	1038	11. 7	00930						5. 55	22. 4. 30	5. 15	1025	13. 31	
11. o	59. 30	9. 30	1004	11. 23	00950						6. 12	21. 59. 30	5. 25	1030	14. 34	
11. 21	21. 57. o		1004	11. 52	00960						6. 50	22. 1. 15	5. 25	1030	15. 45	
11. 42	22. 2. o	10. 15	1014	15. 9	01285						7. 15	21. 59. o	6. 6	1014	16. 18	
12. 13	21. 57. 10	10. 30	1008	17. 40	01720						7. 23	22. 0. 35	6. 45	1048	16. 18	
12. 32	21. 57. o		***	19. o	01875						7. 34	0. 15	7. 44	1021	17. 12	
	***	11. 2	1014	21. 1	01730						8. 42	3. o	7. 44	***	18. 12	
13. o	22. o. o	11. 20	1006	22. 15	01631						9. 20	o. o	8. 36	1027	19. 55	
	***	11. 30	1018	23. 59	01565						9. 40	22. 5. 30	9. 10	1020	20. 55	
14. 5	21. 57. 30	11. 55	1008								10. 3	21. 58. 30	9. 33	1022	21. 7	
15. 4	22. o. 30		***	12. 55	1015						10. 28	22. 11. 30	9. 44	1040	22. 7	
	***				***						11. 16	22. 1. 10	10. 14	1004	23. 59	
17. 1	21. 59. 30				***						12. 11	21. 58. 30	10. 30	1042		
17. 52	22. 4. o	14. 16	1012		1017						12. 28	59. 20	11. 18	1013		
	***	15. 10									12. 40	21. 57. 30	11. 30	1021		
18. 45	o. 30	15. 58	1028								13. 2	22. 2. o		***		
18. 55	3. 30	16. 8	1025								13. 50	4. 25	11. 55	1024		
	***	16. 23	1034								14. 38	o. o	13. 7	1012		
20. 38	2. 50	16. 36	1016									***	14. o	1021		
	***				***						15. 47	22. 2. 30	14. 50	1008		
21. 27	5. o	17. 20	1024								20. 1	21. 58. 30	15. 30	1016		
22. 8	4. o	17. 32	1015								20. 20	22. o. o		***		
23. 28	6. 15		***								20. 43	21. 59. 15	16. 34	1012		
											21. 5	22. 1. 15	17. o	1018		
											21. 47	1. o	21. 30	1006		
											23. 6	2. 30	21. 40	1010		
											23. 23	5. o	23. 1	1007		
											23. 38	4. 30	23. 23	1016		
											23. 59	5. 30	23. 53	1003		
												23. 59	23. 59	1004		
											May 1					
											o. 19	22. 6. 15	1005	May 1		
											1. 17	9. 15	***	o. 20		
													1. 16	o. 0880		
														3. 40	1. 40	
														58. 059. 5		

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

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1854.

(ii)

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected or Temperature.	Readings of Thermo- meters.	
May 1		May 1		May 1			May 2		May 2			May 3		May 3
1. 58	22. 7. 0	0. 55	.1016	1. 38	.00860	58° 5' 56"	22. 43	o. 5. 30	9. 23	.1022	h. m.	h. m.	o. o.	58° 5' 60° 5
2. 47	9. 0	***	***	1. 48	.00875	54° 0' 56"	23. 59	6. 0	11. 30	.1022				60° 3' 61° 0
4. 35	6. 0	1. 25	.1012	2. 47	.00945				11. 54	.1021				62° 0' 63° 0
5. 37	5. 45	1. 51	.1007	3. 38	.00924				12. 5	.1024				64° 5' 65° 0
5. 54	2. 15	2. 45	.1029	4. 0	.00928				12. 27	.1022				66° 0' 67° 0
6. 18	22. 4. 0	3. 0	.1022	5. 48	.01060				17. 26	.1032				68° 0' 69° 0
6. 25	21. 59. 30		***	7. 45	.01030				19. 0	.1020				70° 0' 71° 0
6. 48	22. 1. 0	4. 23	.1021	10. 0	.01020				19. 30	.1026				72° 0' 73° 0
7. 8	0. 0	4. 30	.1026	11. 7	.01060				20. 35	.1018				74° 0' 75° 0
8. 17	3. 0	5. 0	.1021	12. 36	.01108				21. 23	.1022				76° 0' 77° 0
8. 38	1. 0	5. 45	.1036	14. 7	.01206				23. 5	.1002				78° 0' 79° 0
9. 24	3. 20		***	17. 8	.01495				23. 59	.1003				80° 0' 81° 0
10. 28	22. 3. 0	6. 23	.1031	17. 18	.01475									
11. 6	21. 54. 30	6. 33	.1036	18. 8	.01508									
11. 39	22. 1. 45	7. 8	.1030	22. 16	.01460									
12. 15	21. 57. 0		***	23. 59	.01415									
12. 35	59. 0	8. 5	.1032											
14. 7	21. 57. 30	10. 50	.1032											
14. 43	22. 1. 25	12. 0	.1032											
15. 33	22. 2. 30	12. 40	.1021											
16. 1	21. 59. 45	13. 0	.1026											
16. 56	22. 4. 45		***											
17. 43	22. 1. 30	13. 36	.1020											
20. 47	21. 58. 0	14. 43	.1021											
23. 59	22. 7. 0	15. 50	.1026											
		16. 15	.1017											
		17. 8	.1027											
		18. 38	.1032											
		19. 20	.1027											
		19. 53	.1029											
		23. 5	.1014											
		23. 59	.1017											
May 2		May 2		May 2										
o. 6	22. 7. 0	o. 0	.1017	o. 30	.01392	1. 40	56° 5' 58° 0			21. 0	.1021			
0. 34	8. 30	0. 23	.1016	1. 2	.01364	3. 40	58° 6' 60° 5			22. 53	.1007			
1. 3	8. 0	0. 27	.1022	1. 35	.01350	9. 40	60° 0' 62° 3			23. 2	.1014			
2. 10	10. 0	0. 47	.1018	2. 12	.01335	21. 40	55° 5' 58° 0			23. 11	.1012			
2. 54	9. 35		***	2. 50	.01282					23. 39	.1013			
4. 35	4. 30	2. 30	.1026		{.01033									
10. 15	2. 30	2. 49	.1016	4. 31	{.01050									
16. 56	2. 20		***	5. 40	.01052									
16. 28	0. 40	3. 4	.1018	7. 22	.01035									
18. 45	4. 35	3. 58	.1006	9. 42	.01055									
19. 35	2. 15	4. 50	.1023	12. 25	.01087									
19. 46	4. 0	6. 13	.1034	16. 22	.01358									
20. 50	0. 50	7. 50	.1021	23. 59	.01630									

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	
May 4		May 4		May 4					May 5					
12. 8	22. 0. 0	4. 40	.1001	10. 13	.01170				8. 8	21. 59. 10	6. 36	.1000	12. 5	.01315
12. 33	2. 35	5. 10	.1009	11. 22	.01210				8. 43	55. 45	6. 46	.1004	14. 20	.01570
12. 44	0. 0	5. 50	.1002	12. 12	.01245				9. 0	57. 30	7. 0	.0996	16. 25	.01960
13. 2	22. 5. 25	6. 0	.1014	12. 47	.01270				9. 23	55. 40	7. 8	.1002	16. 33	.01945
13. 22	21. 58. 35	6. 25	.1012	13. 0	.01292				10. 5	21. 59. 50	7. 30	.0993	17. 30	.01956
14. 3	50. 30	6. 45	.1017	14. 8	.01352				11. 2	22. 0. 0	7. 45	.1014	20. 18	.01945
14. 14	53. 30		***	14. 30	.01410				11. 13	21. 58. 0	8. 21	.0996	21. 42	.01925
14. 56	56. 0	7. 7	.1004	15. 53	.01572				11. 36	22. 2. 45	8. 48	.1001		***
15. 47	50. 30	7. 23	.1004	17. 47	.01924				12. 2	0. 25	9. 30	.0989	23. 59	.01930
16. 4	51. 30	7. 27	.1016	18. 11	.01892				13. 26	22. 2. 0	10. 5	.1001		
	***	7. 31	.1003	19. 8	.01890				19. 35	21. 57. 30	10. 15	.1001		
16. 47	49. 30	7. 38	.1017	21. 5:	.01854				23. 46	22. 4. 30	10. 30	.0998		
17. 37	56. 20		***	23. 30	.01880						10. 54	.1004		
	***	8. 10	.1001	23. 59	.01889						11. 14	.1034		
18. 53	53. 0		***								11. 50	.1004		
	***	10. 30	.1016								14. 45	.1012		
19. 43	21. 57. 15	11. 0	.1011								16. 6	.1012		
20. 38	22. 6. 0	11. 22	.1017								18. 25	.1018		
	***	11. 36	.0999								20. 30	.1017		
21. 58	6. 15	11. 47	.1009								22. 0	.1010		
23. 14	10. 30	12. 3	.1010								23. 10	.1008		
23. 59	11. 0	12. 8	.1001								23. 42	.1011		
		12. 25	.1007								23. 59	.1016		
		12. 43	.1020											
		12. 47	.1012											
		13. 0	.1025											
		13. 45	.1008											
		15. 53	.1021											
		17. 25	.1010											
		18. 25	.1012											
		18. 30	.1002											
		19. 0	.1014											
		20. 0	.0990											
		21. 5	.0998											
		22. 3	.0992											
		23. 0	.0996											
		23. 20	.0996											
		23. 59	.1003											
May 5		May 5		May 5					May 6					
0. 15	22. 11. 0	0. 0	.1003	0. 5	.01888	1. 40	57. 5	60. 0						
1. 45	11. 30	0. 23	.1002	1. 5	.01880	3. 40	61. 0	64. 0						
	***	1. 30	.1009	1. 10	.01848	9. 40	64. 0	65. 5						
3. 31	6. 50	2. 17	.0992	2. 45	.01650	21. 40	54. 0	56. 0						
	***	2. 56	.0998	4. 8	.01280									
4. 17	1. 30	3. 25	.1016	4. 25	.01295									
4. 46	5. 10	3. 37	.1004	5. 47	.01248									
6. 13	3. 30	3. 57	.1016	6. 57	.01228									
6. 43	4. 0	4. 13	.1004	7. 10	.01235									
6. 57	1. 30	4. 35	.1014	7. 31	.01230									
7. 3	22. 1. 30	5. 15	.0997	7. 43	.01240									
7. 31	21. 50. 35	5. 55	.1004	9. 37	.01220									
7. 53	50. 45		***	10. 24	.01228									

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AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1854.

(iii)

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.		Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.		Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.		Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.		Göttingen Mean Solar Time.	Readings of Thermo- meters.				
			Of H. F. Magnet.	Of V. F. Magnet.				Of H. F. Magnet.	Of V. F. Magnet.				Of H. F. Magnet.	Of V. F. Magnet.		Of H. F. Magnet.	Of V. F. Magnet.		Of H. F. Magnet.	Of V. F. Magnet.			
h m	o "	May 7	May 7	May 7	May 7	May 7	May 7	h m	o	h m	h m	May 9	May 9	May 9	May 9	May 9	May 9	May 9	May 9	May 9	May 9		
7. 50	10.45	.1020	15.34:	.01342	10.21	17.22	.01535	10.18	18.30	.01670	10.23	20.12	.01840	10.01	21.0	.01878	10.03	21.45	.01845	22.45	.01825	23.59	.01812
11. 0	12.20	.1018	18.30	.01670	10.20	20.12	.01840	10.20	21.0	.01878	10.25	21.0	***	10.25	21.0	***	10.25	21.0	***	10.25	21.0	***	
12. 20	18.30	.1023	20.12	.01840	10.20	21.0	***	10.20	21.0	.01878	10.25	21.0	***	10.25	21.0	***	10.25	21.0	***	10.25	21.0	***	
18. 30	20.35	.1020	21.0	.01878	10.20	21.0	***	10.01	21.45	.01845	10.03	21.45	22.45	10.03	21.59	.01812	10.03	21.45	22.45	23.59	.01812	23.59	.01812
23. 25	23.45	.1001	21.45	.01845	10.03	21.45	***	10.03	21.45	.01845	10.03	21.45	22.45	10.03	21.59	.01812	10.03	21.45	22.45	23.59	.01812	23.59	.01812
May 8	22. 6.30	May 8	May 8	May 8	May 8	May 8	May 8	h m	o	h m	h m	May 9	May 9	May 9	May 9	May 9	May 9	May 9	May 9	May 9	May 9	May 9	May 9
0.10	2.13	5.33	7.45	8.40	10.10	12.30	14.45	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
2.13	5.33	7.45	9.49	10.3	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
5.33	7.45	9.49	10.3	10.40	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
7.45	9.49	10.3	10.40	10.45	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
8.40	10.50	11.18	11.31	11.37	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
10.50	11.18	11.31	11.37	11.43	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
11.18	11.31	11.37	11.43	11.49	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
11.31	11.37	11.43	11.49	11.52	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
11.37	11.43	11.49	11.52	11.55	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
11.43	11.49	11.52	11.55	11.59	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
11.52	11.59	11.65	11.72	11.75	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
11.59	11.65	11.72	11.75	11.82	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
11.82	11.88	11.95	12.02	12.08	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
12.02	12.08	12.15	12.22	12.28	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
12.22	12.28	12.35	12.42	12.48	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
12.42	12.48	12.55	12.62	12.68	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
12.62	12.68	12.75	12.82	12.88	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
12.82	12.88	12.95	13.02	13.08	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
13.02	13.08	13.15	13.22	13.28	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
13.22	13.28	13.35	13.42	13.48	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
13.42	13.48	13.55	13.62	13.68	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
13.62	13.68	13.75	13.82	13.88	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
13.82	13.88	13.95	14.02	14.08	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
14.02	14.08	14.15	14.22	14.28	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
14.22	14.28	14.35	14.42	14.48	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
14.42	14.48	14.55	14.62	14.68	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
14.62	14.68	14.75	14.82	14.88	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
14.82	14.88	14.95	15.02	15.08	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
15.02	15.08	15.15	15.22	15.28	10.03	12.15	14.19	16.13	18.16	20.26	22.40	2.17	4.19	6.15	8.15	10.15	12.15	14.19	16.15	18.15	20.25	22.40	23.55
15.22	15.28	15.35	15.42	15.48	10.03																		

INDICATIONS OF THE MAGNETOMETERS

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.

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1854.

(iv)

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	
May 13		May 13		May 13						May 15		May 15		May 15		May 15
20. 52	° 21. 58. 30	" 24. 48	.0998	9. 5	.01201	"	"	° 0. 21	22. 12. 30	° 2. 12. 30	0. 0	.0993	0. 30	.01784	64. 56. 67. °	
22. 4	22. 1. 0	3. 16:	.0992	10. 45:	.01182			***	12. 15	12. 15	0. 15	.0977	2. 30	.01515	68. 3. 69. °	
23. 59	8. 0	3. 50	.0999	11. 58	.01210			1. 44	10. 35	10. 35	0. 46	.0968	3. 7	.01420	68. 0. 69. 8. °	
		4. 7	.0994	13. 50	.01310			1. 54	12. 15	12. 15	1. 0	.0990		***	59. 0. 61. °	
		7. 6	.1010	15. 20:	.01400			3. 23	13. 40	13. 40	1. 7	.0978	3. 55	.01320		
		9. 10	.1004	17. 19	.01642			3. 35	19. 45	19. 45	1. 23	.1004	4. 10	.01312		
		10. 10	.1007	18. 15:	.01755			4. 1	13. 0	13. 0	1. 40	.0987	4. 22	.01335		
		14. 0	.1007	19. 30	.01913			4. 17	5. 10	5. 10	1. 58	.1010	4. 48	.01325		
		14. 30	.1010	19. 37	.01945			4. 28	10. 45	10. 45	2. 8	.1002	4. 58	.01310		
		19. 50	.1010	20. 16	.01945			4. 47	8. 30	8. 30	3. 23	.1007	5. 17	.01305		
		23. 0	.0992	21. 5	.01937			5. 18	10. 30	10. 30	2. 45	.1002	5. 21	.01290		
		23. 24	.0993	22. 0	.01940			5. 26	5. 45	5. 45	3. 25	.1021	5. 30	.01292		
		23. 59	.0990	23. 7	{ .01950			5. 51	6. 20	6. 20	3. 38	.1026	5. 50	.01280		
					{ .01870			5. 58	4. 10	4. 10	3. 45	.1019	6. 22	.01290		
					{ .01832			6. 32	7. 10	7. 10	4. 14	.0969	6. 35	.01313		
May 14		May 14		May 14				6. 52	4. 53	4. 53	5. 18	.1010	6. 50	.01310		
0. 37	22. 9. 30	0. 0	.0990	1. 0	.01685	9. 40	66. 0	7. 8	22. 2. 15	21. 54. 10	5. 0	.1001	7. 43	.01350		
1. 31	10. 30	1. 34	.0993	1. 33	.01580	21. 40	61. 5	63. 0	8. 25	56. 50	56. 50	5. 18	.1010	8. 8	.01335	
2. 40	9. 40	2. 8	.0988	2. 20	.01430			8. 31	55. 0	55. 0	5. 29	.1001	9. 5	.01315		
6. 15	22. 2. 0	2. 32	.0988	3. 15	.01245			8. 38	45. 15	45. 15	5. 31	.1008	9. 30	.01248		
7. 7	21. 59. 0	2. 56	.0996	4. 4	.01306			8. 51	54. 45	54. 45	5. 51	.0983	10. 6	.01300		
7. 47	21. 59. 40	3. 20	.0987	5. 7	.01290			9. 7	50. 30	50. 30	6. 14	.1004	10. 36	.01300		
10. 0	22. 0. 0	4. 5	.0988	5. 48	.01282			9. 22	50. 50	50. 50	6. 23	.0996	11. 37	.01398		
10. 32	21. 57. 0	4. 18	.0993	6. 45	.01278			9. 47	49. 0	49. 0	6. 38	.1008	11. 50	.01351		
11. 33	21. 59. 30	4. 40	.0988	7. 57:	.01249			10. 22	53. 30	53. 30	6. 53	.0994	12. 4	.01395		
16. 38	22. 0. 0	5. 10	.0990	9. 0	.01265			10. 43	55. 0	55. 0	7. 4	.0998	12. 43	.01475		
17. 0	21. 58. 30	5. 22	.0994	10. 37:	.01305			10. 55	55. 0	55. 0	7. 19	.0990	13. 57	.01550		
17. 32	58. 45	5. 38	.0985	11. 32	.01379			11. 9	52. 40	52. 40	7. 29	.0992	14. 18	.01638		
18. 22	55. 0	***	12. 15	.01435				11. 33	54. 0	54. 0	7. 34	.0987	14. 23	.01635		
19. 6	57. 10	6. 40	.0991	13. 13	.01515			11. 46	59. 45	59. 45	7. 55	.0990	14. 50	.01708		
20. 29	57. 10	7. 0	.1000	14. 4	.01618			12. 2	52. 0	52. 0	8. 9	.0984	16. 0	.01980		
20. 37	55. 15	7. 29	.1002	15. 8	.01755			12. 8	52. 20	52. 20	8. 20	.0992	16. 57	.02000		
21. 2	58. 30	8. 7	.0996	17. 0	.02005			12. 22	50. 30	50. 30	8. 27	.0986	18. 0	.02000		
21. 15	56. 30	9. 6	.0998	17. 15	.01988			12. 53	55. 0	55. 0	8. 32	.0990	19. 6	.01987		
22. 1	21. 56. 40	9. 18	.0996	17. 57	.01985			13. 17	55. 0	55. 0	8. 45	.0975	***			
22. 32	22. 1. 30	9. 50	.0998	18. 45	.01985			13. 32	51. 30	51. 30	9. 10	.1000	20. 15	.01990		
22. 41	21. 58. 30	10. 35	.1006	20. 35	.01968			13. 42	53. 0	53. 0	9. 45	.0956	21. 37	.01973		
22. 47	22. 4. 30	11. 5	.1000	21. 58	.01960			13. 58	50. 10	50. 10	10. 16	.0978	22. 50	.01980		
23. 59	9. 0	16. 32	.1012	22. 40	.01955			14. 17	56. 20	56. 20	10. 43	.0968	23. 31	.01965		
		16. 40	.1018	22. 47	.01930			14. 42	53. 25	53. 25	10. 47	.0974	23. 59	.01953		
		18. 20	.1021	22. 55	.01940			15. 40	58. 0	58. 0	11. 5	.0976				
		19. 45:	.1012	23. 45	.01875			17. 12	56. 0	56. 0	11. 45	.0975				
		20. 34	.1011	23. 59	.01832			17. 29	58. 0	58. 0	11. 54	.0986				
		21. 43	.1007					19. 31	56. 40	56. 40	12. 10	.1004				
		22. 10	.1012					21. 9	21. 59. 0	21. 59. 0	12. 52	.1015				
		22. 43	.0987					22. 38	22. 0. 0	22. 0. 0	13. 25	.1012				
		22. 46	.0987					23. 59	4. 30	13. 50	.0982					
		22. 55	.0996						14. 24:	14. 24:	14. 49	.1002				
		23. 2	.0988						14. 24:	14. 24:	15. 23	.1010				
		23. 20	.0993						14. 24:	14. 24:	15. 23	.0997	***			
		23. 45	.0987													
		23. 50	.0998													
		23. 59	.0994													

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.		
h m	o . "	May 15		h m		h m	o o	May 16	o . "	May 16		h m		h m	o o	May 17	
17. 0		17. 0	.1005					17. 54	21. 57. 0	11. 30	.0995					19. 10	22. 0. 35
17. 44		17. 44	.1001						***	11. 45	.1008						21. 59. 25
18. 3		18. 3	.1004							12. 0	.1004						22. 7. 0
19. 39		19. 39	.1002								***						7. 0
20. 21		20. 21	.1008														13. 16
20. 32		20. 32	.1001														13. 29
21. 30		21. 30	.1001														13. 53:
22. 0		22. 0	.1006														14. 10
23. 5		23. 5	.1003														15. 13:
23. 14		23. 14	.1008														15. 57
23. 27		23. 27	.1002														16. 45
23. 34		23. 34	.1006														16. 51
23. 45		23. 45	.1001														17. 5
23. 59		23. 59	.1004														1024

May 16		May 16		May 16		May 16											
o. 30	22. 5. 20	o. 30	.1003	1. 0	.01920	1. 40	60. 8	63. 0									
2. 16		6. 0	.050	.1006	1. 59	.01870	3. 40	63. 0	66. 5								19. 2
***		1. 5	.1015	2. 40	.01792	9. 40	64. 0	67. 5								20. 23:	
3. 37		8. 25	1. 33	.1014	2. 57	.01780	21. 40	54. 0	57. 0							21. 46	
3. 52		7. 30	2. 0	.1018	3. 23	.01700										22. 17	
4. 23		9. 30	2. 15	.1016	5. 37	.01545										22. 57	
4. 38		6. 35	2. 30	.1024	7. 7	.01345										23. 59	
4. 44		7. 10	2. 44	.1019	7. 22	.01335											
4. 51		3. 35	3. 0	.1037	7. 52	.01305											
5. 6		3. 35	***	8. 58	.01262												
5. 17		6. 0	3. 15	.1028	10. 28	.01210											
5. 26		4. 0	3. 46	.1044	10. 32	.01220											
5. 37		4. 45	4. 14	.1026	11. 3	.01128											
5. 44		2. 30	4. 30	.1034	11. 23	.01200											
6. 18		2. 30	4. 50	.1020	11. 50	.01260											
6. 55		5. 0	***	13. 31	.01470												
7. 10		3. 10	5. 6	.1022	14. 13	.01545											
7. 40	22. 3. 0	5. 14	.1017	14. 37	.01625												
8. 29	21. 58. 25	5. 30	.1028	15. 7	.01680												
8. 40	54. 0		***	{ 16. 0	{ .01870												
8. 43	54. 40	6. 17	.1001	{ 16. 0	{ .01853												
8. 55	52. 0		***	{ 17. 53	{ .01897												
9. 12	56. 25	7. 0	.1024	18. 1	.01870												
9. 29	52. 40	7. 7	.1021	18. 22	.01905												
9. 38	57. 0	7. 15	.1030	21. 23	{ .01890												
9. 52	53. 30	7. 42	.1010	{ .01905	{ .01905												
10. 4	55. 40	7. 59	.1021	22. 33	.01875												
10. 17	21. 54. 30	8. 5	.1016	23. 28:	.01880												
10. 45	22. 10. 30		***	23. 59	.01860												
11. 2	21. 53. 40	8. 23	.1021														
11. 20	57. 10	8. 32	.1012														
11. 28	55. 35	8. 40	.1021														
11. 38	57. 30	8. 54	.1006														
12. 40	58. 0	9. 6	.1010														
13. 21	21. 56. 50	9. 29	.0996														
14. 5	22. 5. 30	9. 38	.1000														
14. 19	4. 35	9. 45	.0994														
14. 35	9. 0	10. 2	.0995														
15. 0	22. 3. 0	10. 20	.0984														
15. 54	21. 57. 15	10. 37	.1021														
16. 7	59. 30	11. 0	.0970														
	***	11. 16	.1000														

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.

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1854.

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Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	
h m	o i "	May 17		h m		h m		h m	o i "	May 19		h m		h m	o i "	May 19		h m	o i "	
		13.45	.0987 ***							19.14	.1020						23.59	.01750		
		15.30	.1002							19.46	.1007									
		17.30	.1000							20.6	.1012									
		19.0	.1002							20.23	.1004									
		20.30	.0998							21.27	.1010									
		23.35	.1000							23.15	.1000									
										23.59	.1000									
May 18		May 18		May 18		May 18		May 18		May 20		May 20		May 20		May 20		May 20		May 20
0.18	22. 7.40	1. 0	.1006	1. 30	.01990	1. 40	59.5 62.0	0.13	22. 7. 0	0. 14	.1004	0. 15	.01735	1. 40	60.8 64.0					
2.10	8.15	1.38	.1013	2. 50	.02015	3. 40	59.0 62.6	0.55	8. 0	0. 27	.0998	1. 47	.01460	3. 40	64.0 67.5					
3.9	7.20	***	3.17	.02010	9. 50	60.0 62.7	1.32	7. 0	0. 47	.1001	3. 3	.01123	9. 40	68.0 68.0						
4.30	3.20	2.24	.1010	4. 15	.02020	21.40	53.5 55.0	1.46	8. 20	1. 19	.0992	3. 50	.01172	23. 7	59.0 61.0					
8.17	22. 1.30	3. 0	.1018	5. 27	.02010			2.11	6. 0	1. 44	.1000	4. 38	.01188							
9.46	21. 59.10	3.36	.1005	6. 22	.02010			5.53	1. 0	2. 5	.0993	7. 12	.01142							
12.27	22. 0.10	***	7.32	.02024				6.45	22. 0.30	2. 53	.1000	9. 15	.01179							
12.54	2.45	4.55	.1022	8. 47	.02050			7.25	21. 53.40	52.30	3. 6	.0998	10. 22	.01152						
13.10	2. 0	5.52	.1016	11. 12	.02055			9. 3	56.40			***	10. 33	.01162						
13.23	3.40	8. 6	.1026	12. 52	.02027			9.43	59. 0	4. 34	.1001	11. 7	.01100							
14.43	0. 0	12.15	.1019	13. 0	.01990			10.30	52.20	4. 55	.0996	13. 33	.01342							
17.33	22. 1. 0	12.31	.1016	13. 22	.02000			10.42	21. 59.30	5. 7	.1003	15. 13	.01545							
19.50	21. 58.40	14.38	.01940					11. 2	22. 1. 0	5. 33	.1000	17. 23	.01970							
21.37	22. 0.15	13.50	.1026	15. 46	.01927			11.26	21. 51.30	6. 16	.1010	17. 35	.01952							
23.5	4.35	14.45	.1022	16. 36	.01920			12. 2	58.20	6. 34	.1010	18. 30	.01960							
23.59	7. 0	19. 6	.1033	17. 28	.01921			12.28	55.25	7. 8	.1000	20. 4	.01924							
		23.59	.0998	18. 30	.01891			13.32	58. 0		***	21. 30	.01918							
				20. 20	.01865			13.57	21. 57. 0	7. 51	.1006	22. 15	.01922							
				21. 4	.01845			14.30	22. 2. 0	8. 5	.1014	23.59	.01942							
				22. 45	.01890			15. 1	22. 1. 50	8. 23	.1003									
				23. 13	.01873			15.28	21. 56.20	9. 6	.1001									
				23. 32	.01825			17. 16	55. 0	9. 30	.1002									
				23. 59	.01770			19.58	21. 54.25	10. 4	.1010									
May 19		May 19		May 19		May 19		May 19		May 21		May 21		May 21		May 21		May 21		May 21
0.39	22. 7.30	0. 0	.0998	0. 48	.01625	1. 40	57.5 61.0	0.16	22. 7.30	10. 25	.1004	10. 37	.1032							
2.15	6.30	2. 0	.0998	1. 45	.01365	3. 40	62.0 64.0	0.16		11. 0	.1018									
5.19	22. 0. 0	2. 6	.0996	2. 46	.01020	9. 40	65.8 67.0	0.16		11.19	.0992									
7.16	21. 59.25	2.26	.1002	3. 38	.01085	21. 40	56.5 57.5	0.16		11.50	.1007									
		***	3. 5	.0998	4. 40	.01100			12.14	.1000	***									
8.10	22. 1. 0	4. 7	.0997	5. 45	.01130					13.38	.1010									
10.7	21. 57.45	4.25	.1003	6. 17	.01130					13.54	.1004									
10.53	59.20	4.59	.1003	6. 58	.01118					14.30	.1005									
11.54	59. 0	***	7.53	.01105						15.15	.1015									
12.46	55. 0	6.23	.1018	8. 20	.01087					16.15	.1008									
13.12	57.30	7.46	.1007	8. 53	.01100					17.36	.1015									
14.7	53. 0	8.30	.1013	10. 52	.01107					22.34	.1000									
15.20	56.45	9.55	.0994	13.18	.01240					23.59	.1001									
16.22	54.40	10.29	.0998	14. 2	.01300															
16.45	57. 0	12. 5	.0998	15. 3	.01470															
17.47	53.30	12.20	.1004	16. 7	.01680															
18.47	52.30	12.55	.1000	17. 16	.01921															
		***	13.45	.1014	17. 20	.01900														
21.21	59. 0	14.30	.1007	18. 22	.01878															
22.10	21. 59.30	15.30	.1007	19. 50	.01855															
22.47	22. 3. 0	16. 2	.1016	21. 45	.01905															
23.32	4. 0	16. 29	.1015	22. 20	.01015															
23.58	6. 0	17. 5	.1022	22. 50	.01880															
		18.21	.1015	23. 10	.01842															

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	
						Of H. F. Magnet.								Of V. F. Magnet.
May 21		May 21	May 21	May 21			May 23		May 23	May 23	May 23		May 23	
8. 42	21. 58. 15	8. 42	21. 58. 15	8. 42	21. 58. 15		8. 42	21. 58. 15	8. 42	21. 58. 15	8. 42	21. 58. 15	8. 42	21. 58. 15
9. 8	59. 45	9. 8	59. 45	9. 8	59. 45		9. 8	59. 45	9. 8	59. 45	9. 8	59. 45	9. 8	59. 45
9. 29	21. 58. 10	9. 29	21. 58. 10	9. 29	21. 58. 10		9. 29	21. 58. 10	9. 29	21. 58. 10	9. 29	21. 58. 10	9. 29	21. 58. 10
9. 45	22. 0. 35	9. 45	22. 0. 35	9. 45	22. 0. 35		9. 45	22. 0. 35	9. 45	22. 0. 35	9. 45	22. 0. 35	9. 45	22. 0. 35
10. 8	21. 59. 0	10. 8	21. 59. 0	10. 8	21. 59. 0		10. 8	21. 59. 0	10. 8	21. 59. 0	10. 8	21. 59. 0	10. 8	21. 59. 0
10. 21	22. 0. 50	10. 21	22. 0. 50	10. 21	22. 0. 50		10. 21	22. 0. 50	10. 21	22. 0. 50	10. 21	22. 0. 50	10. 21	22. 0. 50
10. 37	21. 59. 30	10. 37	21. 59. 30	10. 37	21. 59. 30		10. 37	21. 59. 30	10. 37	21. 59. 30	10. 37	21. 59. 30	10. 37	21. 59. 30
11. 2	22. 2. 30	11. 2	22. 2. 30	11. 2	22. 2. 30		11. 2	22. 2. 30	11. 2	22. 2. 30	11. 2	22. 2. 30	11. 2	22. 2. 30
11. 38	21. 53. 25	11. 38	21. 53. 25	11. 38	21. 53. 25		11. 38	21. 53. 25	11. 38	21. 53. 25	11. 38	21. 53. 25	11. 38	21. 53. 25
12. 29	56. 30	12. 29	56. 30	12. 29	56. 30		12. 29	56. 30	12. 29	56. 30	12. 29	56. 30	12. 29	56. 30
12. 57	57. 0	12. 57	57. 0	12. 57	57. 0		12. 57	57. 0	12. 57	57. 0	12. 57	57. 0	12. 57	57. 0
13. 18	21. 55. 0	13. 18	21. 55. 0	13. 18	21. 55. 0		13. 18	21. 55. 0	13. 18	21. 55. 0	13. 18	21. 55. 0	13. 18	21. 55. 0
14. 0	22. 0. 35	14. 0	22. 0. 35	14. 0	22. 0. 35		14. 0	22. 0. 35	14. 0	22. 0. 35	14. 0	22. 0. 35	14. 0	22. 0. 35
14. 15	21. 59. 30	14. 15	21. 59. 30	14. 15	21. 59. 30		14. 15	21. 59. 30	14. 15	21. 59. 30	14. 15	21. 59. 30	14. 15	21. 59. 30
14. 57	22. 5. 25	14. 57	22. 5. 25	14. 57	22. 5. 25		14. 57	22. 5. 25	14. 57	22. 5. 25	14. 57	22. 5. 25	14. 57	22. 5. 25
15. 47	21. 55. 30	15. 47	21. 55. 30	15. 47	21. 55. 30		15. 47	21. 55. 30	15. 47	21. 55. 30	15. 47	21. 55. 30	15. 47	21. 55. 30
16. 6	21. 55. 35	16. 6	21. 55. 35	16. 6	21. 55. 35		16. 6	21. 55. 35	16. 6	21. 55. 35	16. 6	21. 55. 35	16. 6	21. 55. 35
16. 40	22. 1. 30	16. 40	22. 1. 30	16. 40	22. 1. 30		16. 40	22. 1. 30	16. 40	22. 1. 30	16. 40	22. 1. 30	16. 40	22. 1. 30
18. 2	21. 57. 10	18. 2	21. 57. 10	18. 2	21. 57. 10		18. 2	21. 57. 10	18. 2	21. 57. 10	18. 2	21. 57. 10	18. 2	21. 57. 10
19. 16	21. 59. 0	19. 16	21. 59. 0	19. 16	21. 59. 0		19. 16	21. 59. 0	19. 16	21. 59. 0	19. 16	21. 59. 0	19. 16	21. 59. 0
20. 8	22. 1. 50	20. 8	22. 1. 50	20. 8	22. 1. 50		20. 8	22. 1. 50	20. 8	22. 1. 50	20. 8	22. 1. 50	20. 8	22. 1. 50
21. 34	1. 0	21. 34	1. 0	21. 34	1. 0		21. 34	1. 0	21. 34	1. 0	21. 34	1. 0	21. 34	1. 0
23. 58	8. 0	23. 58	8. 0	23. 58	8. 0		23. 58	8. 0	23. 58	8. 0	23. 58	8. 0	23. 58	8. 0
May 22		May 22	May 22	May 22	May 22		May 24		May 24	May 24	May 24	May 24	May 24	
o. 25	22. 8. 30	o. 25	22. 8. 30	o. 25	22. 8. 30		o. 26	22. 6. 35	o. 26	22. 6. 35	o. 26	22. 6. 35	o. 26	22. 6. 35
1. 44	9. 15	1. 44	9. 15	1. 44	9. 15		1. 44	9. 15	1. 44	9. 15	1. 44	9. 15	1. 44	9. 15
1. 55	8. 30	1. 55	8. 30	1. 55	8. 30		1. 55	8. 30	1. 55	8. 30	1. 55	8. 30	1. 55	8. 30
3. 2	8. 35	3. 2	8. 35	3. 2	8. 35		3. 2	8. 35	3. 2	8. 35	3. 2	8. 35	3. 2	8. 35
5. 54	4. 20	5. 54	4. 20	5. 54	4. 20		5. 54	4. 20	5. 54	4. 20	5. 54	4. 20	5. 54	4. 20
8. 16	2. 0	8. 16	2. 0	8. 16	2. 0		8. 16	2. 0	8. 16	2. 0	8. 16	2. 0	8. 16	2. 0
10. 16	3. 0	10. 16	3. 0	10. 16	3. 0		10. 16	3. 0	10. 16	3. 0	10. 16	3. 0	10. 16	3. 0
10. 32	2. 0	10. 32	2. 0	10. 32	2. 0		10. 32	2. 0	10. 32	2. 0	10. 32	2. 0	10. 32	2. 0
11. 23	3. 20	11. 23	3. 20	11. 23	3. 20		11. 23	3. 20	11. 23	3. 20	11. 23	3. 20	11. 23	3. 20
12. 19	2. 0	12. 19	2. 0	12. 19	2. 0		12. 19	2. 0	12. 19	2. 0	12. 19	2. 0	12. 19	2. 0
14. 13	3. 30	14. 13	3. 30	14. 13	3. 30		14. 13	3. 30	14. 13	3. 30	14. 13	3. 30	14. 13	3. 30
14. 45	2. 30	14. 45	2. 30	14. 45	2. 30		14. 45	2. 30	14. 45	2. 30	14. 45	2. 30	14. 45	2. 30
15. 30	2. 35	15. 30	2. 35	15. 30	2. 35		15. 30	2. 35	15. 30	2. 35	15. 30	2. 35	15. 30	2. 35
16. 25	22. 0. 0	16. 25	22. 0. 0	16. 25	22. 0. 0		16. 25	22. 0. 0	16. 25	22. 0. 0	16. 25	22. 0. 0	16. 25	22. 0. 0
18. 45	21. 58. 0	18. 45	21. 58. 0	18. 45	21. 58. 0		18. 45	21. 58. 0	18. 45	21. 58. 0	18. 45	21. 58. 0	18. 45	21. 58. 0
22. 13	22. 3. 0	22. 13	22. 3. 0	22. 13	22. 3. 0		22. 13	22. 3. 0	22. 13	22. 3. 0	22. 13	22. 3. 0	22. 13	22. 3. 0
23. 45	7. 0	23. 45	7. 0	23. 45	7. 0		23. 45	7. 0	23. 45	7. 0	23. 45	7. 0	23. 45	7. 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.

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1854.

(lix)

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	
May 25		May 25		May 25					May 26					
5. 58	o 22.	i. 30	3. 8	.1016	h m	***	h m	o	May 26	h m	1. 8	.1016	1. 54	.01280
6. 30	8. 30	3. 15	.1010	6. 40	.01020		h m	o	2. 17	22.	8. 30	1. 27	.0997	.01220
6. 54	o. 20	3. 20	.1016	6. 47	.01030		h m	o	2. 52	6. 30	1. 52	.1004		***
7. 7	22. 2. 30	3. 28	.1007	6. 50	.01020		h m	o	2. 59	4. o	2. 11	.1000	4. 18	.01265
7. 40	21. 44. 45	3. 39	.1017	7. 14	.01088		h m	o	3. 17	3. 20	2. 36	.1009	5. 25	.01210
8. 8	21. 59. 30	3. 50	.1009	7. 20	.01097		h m	o	3. 32	5. o	3. 3	.1030	6. 10	.01208
8. 45	22. 1. 0	4. 6	.1024	7. 47	.01182		h m	o	3. 53	1. o	3. 20	.1006	6. 58	.01193
10. 30	22. 2. 30	4. 15	.1018	8. 30	.01032		h m	o	4. 17	4. 30	3. 30	.1020	8. 16	.01173
11. 45	21. 58. o	4. 27	.1023	8. 55	.01100		h m	o	8. 37	o. 35	3. 47	.1022	9. 20	.01228
13. 2	21. 58. o	4. 36	.1017	9. 42	.01085		h m	o	10. 14	1. o	3. 55	.1013	9. 38	.01205
13. 14	22. 1. 30	4. 48	.1024	10. 21	.01060		h m	o	10. 26	22. 2. o	***	11. 10		.01210
13. 25	o. o	5. o	.1004	10. 52	.01049		h m	o	10. 47	21. 59. 30	4. 23	.1020	12. 30	.01332
13. 43	22. 2. 0	5. 35	.1022	12. o	.01115		h m	o	11. 8	22. 0. 40	4. 45	.1007	13. 32	.01440
14. 6	21. 57. o	5. 53	.1026	13. 10	.01227		h m	o	11. 36	21. 58. o	5. 14	.1018	14. 55	.01605
14. 20	57. 50	6. 23	.1064	13. 47	.01262		h m	o	12. 17	22. 0. o	5. 20	.1016	15. 55	.01752
14. 53	55. 15	6. 59	.1018	14. 40	.01356		h m	o	12. 47	21. 58. 10	5. 43	.1028	16. 58	.01895
***	7. 6	.1024	15. 50	.01538			h m	o			***	17. 7		.01882
15. 48	59. 20	7. 27	.0993	16. 12	.01565		h m	o	14. 32	22. 2. o	6. 35	.1015	17. 45	.01886
16. 6	21. 55. 30	7. 50	.1038	17. 30	.01755		h m	o			***	6. 57	.1023	18. 15
16. 52	22. 0. 45	8. 20	.1014	18. 38	.01882		h m	o	14. 55	o. 30	7. 15	.1018	19. 10	.01910
***			***	19. 5	.01865		h m	o	15. 22	3. 40	7. 30	.1020	19. 13	.01902
18. 8	21. 57. o	9. o	.1010	19. 15	.01885		h m	o	15. 49	1. 25		***	19. 30	.01910
18. 24	22. 1. 30	9. 30	.1018	19. 15	.01885		h m	o	16. 29	22. 4. o	8. 15	.1015	20. 55	.01896
18. 47	21. 58. 30	9. 45	.1016	19. 40	.01882		h m	o			***	8. 23	.1021	21. 25
19. 0	22. 0. 30	10. 14	.1022	19. 46	.01862		h m	o	19. 14	21. 55. 30	***	21. 46		.01905
19. 5	21. 55. o	10. 14	***	20. 1	.01895		h m	o			***	22. 35	.01850	
19. 15	59. 50	12. 28	.1016	20. 18	.01878		h m	o	20. 9	58. 20	***	23. 40		.01855
19. 45	21. 56. 50	14. o	.1030	21. 40	.01920		h m	o	21. 22	57. 25				
20. 2	22. 3. 45		***		.01910		h m	o	22. 50	21. 59. 45	11. o	.1026		
20. 17	21. 58. o	14. 45	.1020	21. 46	{ .01340		h m	o	23. 50	22. 2. 35	11. 35	.1017		
20. 45	22. 4. o	15. 14	.1022	23. 45	.01295		h m	o				13. 4	.1020	***
21. 45	21. 59. 30	16. o	.1032	23. 59	.01285		h m	o				13. 30	.1014	***
22. 57	22. 3. 30	16. 36	.1017				h m	o				15. 15	.1018	
23. 15	3. o	17. 10	.1026				h m	o				15. 47	.1023	
23. 38	5. o	17. 36	.1021				h m	o				16. 30	.1002	
		18. o	.1026				h m	o				18. 14	.1030	
		18. 9	.1020				h m	o				20. 39	.1010	
		18. 25	.1032				h m	o				21. 1	.1016	
		19. o	.1026				h m	o				22. 15	.1008	
		19. 6	.1015				h m	o				22. 30	.1000	
		19. 25	.1028				h m	o				23. 13	.1018	
		19. 46	.1013				h m	o				23. 50	.1012	
		20. o	.1016				h m	o						
		20. 20	.0998				h m	o						
		20. 58	.1014				h m	o						
		21. 34	.1016				h m	o						
		21. 45	.1008				h m	o						
		22. 21	.1014				h m	o						
		23. 40	.1004				h m	o						
		23. 59	.1002				h m	o						
May 26		May 26		May 26					May 27					
o. o	22. 6. o	o. o	.1003	o. 15	.01372		h m	o	o. 8	22. 3. o	1. 40	60. o	62. 5	May 27
o. 33	8. o	o. 42	.1014	o. 47	.01337		h m	o	o. 39	5. 30	o. 20	.1017	1. 30	57. o
1. 12	9. 30	o. 55	.1002	1. 5	.01335		h m	o	2. 44	8. 10	o. 39	.1024	2. 5	58. o

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters. Of H. F. Magnet. Of V. F. Magnet.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters. Of H. F. Magnet. Of V. F. Magnet.	
May 27		May 27		May 27						May 28			May 28			
10. 50	22. 1. 15	2. 0	'1013	6. 59	'01305	h m	o o			7. 10	'1020	14. 57	'01470			
11. 17	21. 59. 20	2. 20	'1020	7. 39	'01252					7. 20	'1028	15. 30	'01550			
11. 57	22. 1. 30	2. 34	'1019	8. 25	'01205					7. 36	'1020	16. 15	'01662			
15. 8	2. 30	2. 46	'1030	9. 20	'01170					7. 57	'1022	17. 0	'01780			
15. 44	7. 30	3. 13	'1016	10. 0	'01143					8. 25	'1019	17. 55	'01912			
16. 45	9. 35	3. 25	'1021	10. 59:	'01131					15. 0	'1028	18. 10	'01900			
18. 19	22. 0. 0	3. 47:	'1020	11. 57	'01183					17. 30	'1024	18. 45	'01900			
21. 27	21. 58. 0	4. 14	'1026	12. 56	'01285					18. 38	'1026	19. 28	'01895			
23. 59	22. 5. 45	4. 44	'1016	13. 25	'01325					19. 37	'1018	20. 0	'01908			
		4. 51	'1024	13. 55	'01360					22. 30	'1006	20. 30	'01907			
		***		14. 45	'01440					23. 25	'1006	21. 0	'01900			
		5. 4	'1018	15. 40	'01550					23. 59	'1010	21. 30	'01898			
		***		16. 10	'01594							21. 40:	'01880			
		5. 21	'1030	17. 33	'01780							23. 59	'01820			
		5. 45	'1021	17. 41	'01772											
		6. 0	'1022	18. 47	'01840											
		6. 11	'1016	19. 1	'01830											
		6. 15	'1024	19. 40	'01843											
		6. 42	'1026		***											
		7. 29	'1018	21. 0	'01830											
		***			***											
		8. 10	'1025	21. 41	'01840											
		8. 25	'1018	22. 13	'01832											
		8. 50	'1018	22. 30	'01822											
		9. 20	'1024	23. 0	'01790											
		9. 25	'1022	23. 15	'01765											
		9. 40	'1026													
		10. 6	'1021													
		11. 32	'1027		***											
		14. 39	'1025													
		14. 59	'1020													
		15. 20	'1024													
		15. 40	'1020													
		16. 15:	'1028													
		16. 34	'1024													
		18. 45	'1032													
		19. 45	'1021													
		22. 45	'1013													
		23. 5	'1016													
		23. 15	'1014													
		23. 59	'1010													
May 28		May 28		May 28												
0. 17	22. 5. 30	0. 0	'1010	0. 0	'01690	9. 51	63. 5	65. 5			18. 30	'1025				
2. 27	9. 0	0. 15	'1008	0. 45	'01610	21. 40	58. 0	58. 5			20. 15	'1021				
3. 12	6. 30	0. 36	'1016	2. 0	'01450						21. 45	'1007				
5. 44	4. 30	1. 35	'1004	2. 30	'01373						22. 53	'1006				
6. 5	0. 35	2. 8:	'1017	3. 15	'01280						23. 59	'1008				
7. 20	3. 20	2. 31	'1015	3. 58	'01180											
12. 0	0. 45	3. 7:	'1002	4. 30	'01220											
13. 37	2. 30	3. 35	'1020	6. 30	'01200											
15. 43	1. 20	4. 9	'1026	6. 45	'01188											
16. 39	22. 2. 0	***	10. 8	'01182												
20. 20	21. 59. 20	5. 15	'1022	11. 11:	'01175											
23. 59	22. 7. 0	6. 6	'1012	12. 9	'01218											
		6. 23	'1028	13. 25	'01310											
		6. 40	'1028	14. 0	'01360											
May 29		May 29		May 29												
0. 13	22. 4. 0	0. 0	'1008	1. 0	'01592	1. 40	60. 0	62. 0								
2. 51		9. 35	'008	2. 3	'01500	3. 40	61. 0	63. 5								
7. 2		4. 25	2. 54	2. 28	'01460	9. 10	54. 0	56. 5								
10. 22		2. 25	3. 21	3. 10	'01360	21. 40	58. 5	60. 0								
10. 53		1. 0	4. 16	1. 11	'01390											
11. 32		2. 25	4. 34	3. 45	'01290											
16. 35	22. 1. 20	4. 55	5. 10	4. 7	'01210											
		***			'01235											
May 30		May 30		May 30												
0. 13	22. 4. 0	0. 0	'1008	1. 0	'01592	1. 40	60. 0	62. 0								
2. 51		9. 35	'008	2. 3	'01500	3. 40	61. 0	63. 5								
7. 2		4. 25	2. 54	2. 28	'01460	9. 10	54. 0	56. 5								
10. 22		2. 25	3. 21	3. 10	'01360	21. 40	58. 5	60. 0								
10. 53		1. 0	4. 16	1. 11	'01390											
11. 32		2. 25	4. 34	3. 45	'01290											
16. 35	22. 1. 20	4. 55	5. 10	4. 7	'01210											
		***			'01235											

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters. Of H. F. Magnet. Of V. F. Magnet.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters. Of H. F. Magnet. Of V. F. Magnet.	
h m	o "	h m	h m	June 2		h m	o o	June 4		h m	June 4	h m	June 4		h m	
6. 10	22. 2. 0	6. 8	1025	6. 15	(†) 1. 40	59. 0	62. 0	2. 55	22. 6. 50	0. 30	1011	2. 0	1020	6. 39	10123	
7. 23	o. 35	6. 51	1020	7. 3	10175	9. 40	63. 0	8. 35	21. 59. 50	1. 45	1013	3. 32	1025	8. 55	10122	
8. 17	22. 1. 10	7. 28	1021	7. 37	10155	23. 6	58. 0	9. 25	59. 0	3. 25	1015	5. 14	1014	9. 39	10133	
9. 35	21. 58. 30	9. 4	1026	8. 28	10140			9. 44	21. 57. 30	3. 33	1020	6. 8	1016	10. 57	10161	
12. 10	22. 1. 25	9. 13	1022	9. 3	10158			11. 2	22. 0. 20	3. 53	1017	6. 33	1010	10. 57	10125	
13. 25	21. 59. 20	9. 38	1024	9. 32	10152			11. 29	21. 58. 30	4. 36	1020	7. 24	1018	11. 43	10132	
14. 26	22. 2. 0	***	11. 7:	10170				11. 51	59. 30	5. 2	1016	8. 2	1014	12. 30	10125	
15. 26	21. 55. 25	10. 53	1024	15. 5	101228			14. 38	57. 45	5. 32	1021	9. 0	1013	13. 20	10153	
16. 35	22. 1. 30	11. 45	1028	15. 8:	101406			15. 43	58. 45	5. 45	1008	9. 45	1012	14. 49	10149	
18. 40	21. 55. 35	12. 0	1024	16. 35	101660			19. 25	55. 25	6. 34	1024	10. 13	1011	15. 30	10130	
21. 6	21. 55. 30	12. 8	1028	17. 40	101862			21. 8	55. 30	6. 55	1018	10. 42	1010	16. 15	10115	
23. 20	22. 2. 15	***	17. 55	101825				21. 38	21. 57. 45	7. 35:	1023	11. 22	1009	17. 20	10120	
23. 59	3. 0	12. 39	1022	18. 38	101801				22. 53	22. 0. 0	8. 14	1016	12. 0	1014	18. 43	10143
		13. 35:	1029	19. 15	101800				23. 59	3. 15	8. 34	1016	12. 30	1016	19. 62	10162
		14. 2	1023	19. 30	101805					8. 55	1027	14. 46:	1012	16. 46	10135	
		15. 8	1036	20. 30	101800					9. 34	1012	16. 46	1016	17. 42	10163	
		***	22. 0	101825						10. 15	1016	17. 42	1017	18. 38	10180	
		15. 40	1026	22. 27	101822					11. 0	1016	18. 38	1018	19. 48	101877	
		16. 57	1020	22. 37	101828					11. 40	1009	18. 48	1018	19. 48	101879	
		17. 50	1032	23. 25	101826					13. 38	1010	19. 48	1018	21. 41	101845	
		20. 23	1016	23. 59	101819					14. 37	1018	21. 41	1015	23. 59	101860	
		21. 23	1015							16. 4	1015	23. 59	1016			
		22. 2	1009							19. 23	1002		1005			
		22. 15	1012							22. 53	1002		1006			
		23. 5	1002							23. 10	1005					
		23. 59	1003							23. 59	1006					
June 4	22. 3. 30	June 4	1003	o. 15	101809	9. 50	65. 5	68. 5	o. 16	22. 3. 30	o. 0	1006	o. 15	101862	1. 40	
o. 7	22. 3. 30	o. 0	1004	1. 55:	101690	21. 40	58. 0	59. 0	1. 30	6. 25	1. 5	1011	1. 48	101808	3. 40	
1. 20	7. 0	0. 50	1004	1. 55:	101305	4. 13			7. 1	22. 1. 30	1. 50	1006	3. 24	101565	9. 40	
5. 14	2. 30	3. 23	1021	4. 13	101152				12. 1	21. 59. 30	2. 50	1016	6. 13:	101195	21. 40	
6. 21	0. 20	4. 13	1020	4. 52	101065				12. 35	22. 0. 35	3. 44	1018	8. 57	101190	57. 0	
7. 16	22. 1. 15	4. 27	1024	5. 17					16. 22	21. 59. 30	4. 45	1017	9. 59	101215	58. 5	
									19. 36	55. 30	5. 15	1021	10. 42	101225		

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.

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1854.

(lxiii)

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.		
h m	o / "	June 10		June 10		h m	o o	h m	o / "	June 11		h m	o o	h m	o o	h m	
		18. 30	.1018	16. 17	.01838					21. 35	.1004						
		21. 30	.1002	16. 23	.01825					22. 8	.0996						
		23. 10	.1008	17. 17	.01810					22. 23	.1002						
		23. 59	.1013	18. 45	.01810					22. 35	.0997						
				19. 43	.01812					23. 6	.1002						
				20. 40	.01810					23. 15	.0998						
				22. 23	.01830					23. 45	.1004						
				23. 20	.01810					23. 53	.1000						
				23. 59	.01780					23. 59	.1002						
June 11		June 11		June 11		June 11		June 11		June 12		June 12		June 12		June 12	
o. o	22. 3. 30	o. o	.1013	o. 30	.01752	9. 57	65. 567. 5	o. 10	22. 6. 50	o. o	.1003	1. o	.01515	1. 40	64. o	65. o	
1. 18:	6. 20	1. 40	.1014	1. 55:	.01660	21. 40	62. 063. 0	1. 45	11. 30	o. 10	.1006	1. 57	.01490	3. 40	65. o	67. o	
3. 7	2. 35	4. 15	.1020	3. 22	.01440			4. 47	8. 35	o. 45	.1000	2. 43	.01452	9. 40	67. o	68. 5	
6. 31	22. 3. 25	5. o	.1034	4. 23	.01220			5. 48	4. 10	o. 54	.1010	4. o	.01330	21. 40	60. 5	61. 2	
7. 19	21. 59. o	5. 23	.1032	5. 42	.00955			6. 47	1. o	1. 6	.1004	4. 6	.01310				
8. 5	22. 1. 30	5. 34	.1026	6. 35	.00980			7. 35	2. 25	1. 17	.1017	5. 33	.01102				
12. 26	22. 0. 15	6. o	.1034	6. 39	.00978			8. 34	22. 0. 15	1. 36	.1006	5. 45	.01122				
12. 52	21. 57. 35	6. 14	.1026	6. 57	.00970			8. 46	21. 58. o	1. 48	.1012	5. 55	.01120				
13. 22	21. 58. 20	6. 35	.1034	7. 23	.00990			9. 38	22. 1. 30	2. o	.1000	6. 20	.01145				
13. 46	22. 2. 50	6. 59	.1014	8. 10	.01000			10. 5	21. 59. 35	2. 11	.1006	6. 52	.01170				
14. 12	21. 57. 45	7. 25	.1026	8. 47	.01008			10. 46	22. 1. 30	2. 30	.0997	7. 12	.01175				
14. 40	22. 3. o	7. 53	.1028	9. 10	.01012			11. 0	21. 59. 30	3. o	.1013	8. 7	.01165				
15. 22	21. 57. 45	9. 16	.1021	9. 42	.01010			11. 32	22. 1. o	4. 2	.1020	8. 14	.01154				
16. 17	53. o	9. 37	.1028	10. 37	.00990			11. 43	22. 5. 50	4. 13	.1013	8. 28	.01162				
16. 52	50. 20	9. 43	.1023	10. 43	.00978			12. 3	21. 55. 30	4. 21	.1018	8. 38	.01160				
17. 2	52. 40	---	***	10. 55	.00990			12. 29	49. 50	4. 38	.1013	8. 50	.01168				
17. 17	50. o	10. 25	.1033	11. 10	.00984			12. 53	56. o	5. 14	.1022	9. 40	.01168				
17. 27	52. o	10. 30	.1020	11. 35	.00980			14. 0	57. 35	5. 31	.1017	10. 46	.01140				
17. 35	49. 25	10. 41	.1033	12. 20	.01005			14. 18	54. 40	5. 49	.1024	11. 45	.01140				
18. 5:	55. o	10. 50	.1030	13. 40	.01088			14. 32	55. 30	6. o	.1019	11. 59:	.01120				
18. 32	52. 35	---	***	13. 52	.01080			14. 53	53. 30	6. 15	.1020	12. 16	.01152				
19. o	54. 30	11. 15	.1034	14. o	.01085			15. 13	21. 55. 45	6. 25	.1013	14. 8	.01420				
19. 16	59. o	11. 30	.1024	14. 5	.01080			15. 23	22. 4. o	6. 50	.1024	14. 45	.01500				
19. 53	56. 50	11. 45	.1028	14. 14	.01090			15. 59	21. 58. 30	7. o	.1021	15. 25	.01625				
	---	12. o	.1022	14. 33	.01090			16. 25	22. 6. 30	7. 17	.1026	16. 23	.01802				
20. 22	59. o	12. 20	.1032	14. 45	.01080			16. 55	21. 57. 25	8. o	.1021	16. 42	.01775				
20. 47	56. o	13. 8	.1018	15. 13	.01080			17. 40	57. o	8. 37	.1001	17. 5	.01755				
21. 12	56. 35	13. 37	.1037	15. 30	.01092			18. 15	55. 25	8. 53	.1010	18. o	.01788				
21. 22	21. 53. o	13. 45	.1032	15. 45	.01025			18. 57	21. 59. 30	9. 33	.1001	20. 26	.01830				
21. 48	22. o. o	---	***	16. o	.01030			19. 45	22. 1. o	10. 4	.1001	20. 30	.01828				
22. 13	21. 59. 35	14. 10	.1056	16. 20	.01052			20. 2	4. 50	11. 15	.1008	20. 47	.01827				
22. 42	22. 4. 30	---	***	16. 45	.01180			20. 34	7. 20	11. 37	.1002	22. 25	.01820				
23. 59	8. o	14. 46	.1032	17. 3	.01250			21. 12	3. o	11. 50	.1013	23. 45	.01718				
		15. o	.1033	17. 27	.01285			23. 36	5. o	11. 57	.1013	23. 59	.01703				
		---	***	17. 30	.01300			23. 50	6. o	12. 13	.1021						
				15. 38	.1018	17. 45	.01330			12. 30	.1019						
				15. 55	.1027	18. 29	.01370			12. 55	.1000						
				16. 6	.1023	19. 55	.01508			14. o	.1016						
				16. 19	.1027	20. 47	.01572			14. 37	.1004						
				16. 52	.0992	20. 58	.01582			15. o	.1014	***					
				17. 46	.1004	21. 23	.01562										
				18. 30	.0992	21. 45	.01578										
				19. 15	.1001	22. 31	.01592										
				19. 46	.0994	22. 52	.01597										
				20. 15	.1004	23. 59	.01551										

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AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1854.

(1xv)

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.
h m	° ′ ″	June 15 h m 23.59	° 0990	h m	h m	° 0	Of H. F. Magnet.	June 17 h m 5.21	° 1.30	June 17 h m 3.19	° 0992 1.30	h m	° 0	June 17 h m 5.20	° 01180 ***
June 16		June 16		June 16		June 16		June 17		June 17		June 17		June 17	
0. 17	22. 6.35	0. 0	° 0992	0. 30	° 01804	1. 40	64. 0	5. 21	22. 4.35	3. 0	° 0992	5. 20	° 01180	***	
3. 19	10. 35	0. 20	° 1000		***	3. 40	65. 0	67. 0	6. 34	22. 1.30	3. 19	° 1006			
4. 4	8. 30	1. 7	° 1003	3. 0	° 01635	9. 40	66. 0	68. 0	6. 53	22. 2.35		***	7. 3	° 01176	
4. 24	3. 35	1. 17	° 1010		***	21. 40	63. 5	65. 0	8. 0	21. 59. 20	3. 45	° 0998	7. 56	° 01173	
5. 36	22. 5. 0	2. 0	° 0998	4. 5	° 01554			8. 12	22. 2.35	4. 0	° 1008	8. 5	° 01185		
8. 40	0. 20	2. 8	° 1006	4. 44	° 01525			8. 36	21. 59. 30	4. 17	° 0998	8. 27	° 01150		
9. 4	22. 0. 0		***	6. 0	° 01408			8. 52	22. 1.50	4. 37	° 1008	9. 30	° 01163		
9. 15	21. 58. 30	2. 44	° 1000	6. 55	° 01345			9. 8	22. 1.50		***	10. 44	° 01198		
9. 52	21. 58. 0	3. 26	° 1022		***			9. 28	21. 59. 45	5. 9	° 1000	10. 57	° 01200		
11. 17	22. 1. 0		***	8. 37	° 01230			9. 55	22. 1. 0		***	11. 10	° 01212		
11. 47	21. 57. 35	4. 8	° 1002	8. 53	° 01224			10. 08	21. 57. 25	6. 45	° 1016	11. 37	° 01260		
12. 9	59. 0		***	9. 8	° 01203			10. 47	22. 1.30	7. 50	° 1014	12. 30	° 01370		
12. 24	58. 0	5. 35	° 1017	9. 24	° 01202			11. 20	21. 57. 35	8. 8	° 1033	13. 22	° 01480		
12. 40	59. 30	6. 10	° 1026	9. 38	° 01186			12. 13	22. 1. 0	8. 27	° 1015	13. 27	° 01492		
13. 4	59. 25	7. 0	° 1022	10. 45	° 01130			13. 3	21. 59. 0	8. 35	° 1018	14. 22	° 01640		
13. 25	21. 55. 30	7. 38	° 1031	11. 45	° 01105			13. 38	22. 2.25	9. 0	° 1008	15. 20	° 01840		
13. 53	21. 54. 0	8. 0	° 1020	13. 0	° 01070			14. 36	21. 58. 0	10. 0	° 1000	15. 24	° 01828		
14. 43	22. 1. 25	8. 17	° 1048	13. 24	° 01072			15. 47	59. 35	10. 15	° 1001	16. 28	° 01820		
14. 55	22. 0. 0	8. 38	° 1031	13. 50	° 01105			16. 26	57. 30	10. 36	° 1014	17. 32	° 01838		
15. 38	21. 59. 35	8. 45	° 1034	14. 22	° 01178			17. 8	57. 50	11. 14	° 1002	18. 45	° 01842		
16. 17	21. 57. 30	9. 7	° 1016	14. 53	° 01218			19. 16	55. 35	11. 40	° 1010	19. 0	° 01836		
16. 24	22. 0. 0	9. 25	° 1023	15. 0	° 01222			20. 55	21. 56. 0	11. 58	° 1004	20. 55	° 01842		
16. 34	21. 59. 25	10. 0	° 1016	15. 34	° 01272			23. 59	22. 3.50	13. 4	° 1013	22. 5	° 01864		
17. 20	22. 2. 30		***	16. 15	° 01330					13. 30	° 1002	22. 35	° 01835		
18. 32	21. 59. 0	11. 0	° 1016	16. 35	° 01389					14. 13	° 1013	23. 18	° 01780		
19. 33	22. 3. 0	11. 22	° 1022	18. 38	° 01572					14. 40	° 1010	23. 59	° 01700		
20. 8	21. 59. 20	12. 0	° 1018	18. 47	° 01576					16. 10	° 1015				
20. 20	55. 35	12. 26	° 1026		***					16. 36	° 1012				
20. 33	58. 35	12. 45	° 1020	20. 52	° 01648					17. 36	° 1016				
20. 45	21. 57. 0	13. 0	° 1024	21. 43	° 01658					17. 55	° 1013				
21. 12	22. 2. 50	13. 48	° 0998	22. 23	° 01656					18. 45	° 1017				
21. 31	1. 30		***	23. 22	° 01635					19. 34	° 1007				
23. 25	0. 50	14. 30	° 1015	23. 59	° 01590					21. 23	° 1006				
23. 59	2. 25		***	16. 15	° 1004					22. 23	° 0998				
			17. 35	° 1017	***					23. 59	° 1000				
			19. 10	° 1007											
			20. 3	° 0988											
			21. 0	° 0994											
			21. 19	° 1002											
			22. 0	° 1000											
			22. 35	° 0986											
			23. 34	° 1001	***										
			23. 59	° 0998											
June 17		June 17		June 17		June 17		June 18		June 18		June 18		June 18	
0. 11	22. 2. 0	0. 0	° 0998	0. 30	° 01536	1. 40	65. 0	68. 0	0. 6	22. 3.45	0. 0	° 1000	0. 30	° 01630	10. 3
1. 21	4. 45	0. 15	° 1000	1. 20	° 01423	3. 40	66. 0	69. 0	1. 47	22. 6.30	0. 24	° 1004	1. 22	° 01490	21. 40
1. 33	4. 30	1. 17	° 0998	2. 50	° 01203	9. 40	67. 0	56. 8	7. 28	21. 59. 0		***	1. 43	° 01425	61. 0
3. 43	2. 30	1. 39	° 0989	3. 18	{ ° 01146	23. 20	60. 0	63. 0	8. 31	22. 1. 0	0. 45	° 1004	2. 8	° 01330	63. 0
4. 25	4. 35	2. 25	° 1002		{ ° 01170				11. 28	21. 59. 30	1. 15	° 0996	2. 35	° 01196	
5. 8	3. 35	2. 47	° 1002		***				12. 7	22. 1. 0	2. 14	° 1002	2. 58	° 01085	

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Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.			
																Of H. F. Magnet.	Of V. F. Magnet.	
h m	o i "	June 18	h m	June 18	h m	June 18	h m	June 18	h m	June 18	h m	June 18	h m	June 18	h m	h m	h m	
19. 37	.1004	16.35	.01867	19. 15	.01865	20. 45	.01864	22. 46	.01876	23. 59	.01825	21. 40	56. 0	57. 0	23. 50	.01595	o	o
21. 46	.0994	19. 15	.01865	20. 45	.01864	22. 46	.01876	23. 59	.01825	21. 40	56. 0	57. 0	23. 50	.01595	o	o		
23. 59	.0998	20. 45	.01864	22. 46	.01876	23. 59	.01825	21. 40	56. 0	57. 0	.01825	21. 40	56. 0	57. 0	.01595	o	o	
June 19	June 19	June 19	June 19	June 19	June 19	June 19	June 19	June 19	June 19	June 19	June 19	June 19	June 19	June 19	June 19	June 19	June 19	
0. 10	22. 5.50	o. o	.0998	1. o	.01725	1. 40	65. o	66. o	2. 30	o. o	.1010	o. o	.1010	o. o	.1010	1. 40	62. o	64. o
1. 28	6.30	1. 6	.0996	2. 7	.01590	3. 40	66. o	68. o	3. 30	1. o	.1015	1. 39:	.1015	1. 39:	.1015	3. 40	63. o	64. o
3. 49	4.10	1. 35	.1002	3. 5	.01424	9. 40	66. 2	68. 5	5. 16	2. 30	3. 7	.1001	3. 5	.1001	3. 5	.00977	9. 40	64. 4
5. 7	1. 30	2. o	.0998	3. 55	.01268	21. 40	56. 0	57. 0	9. 3	2. o	5. 15	.1005	4. 30	.1005	4. 30	.01070	21. 40	62. o
8. 8	22. 1. o	5.30	.1010	4. 42	.01117	21. 40	56. 0	57. 0	9. 21	o. 30	6. 45	.1016	6. 58	.1016	6. 58	.01075	21. 40	63. o
8. 40	21. 59. o	6.10	.1006	5. 35	.01151	21. 40	56. 0	57. 0	11. 5	3. 15	6. 57	.1022	8. o	.1022	8. o	.01054	21. 40	63. o
10. 30	22. 1. o	6.40	.1012	7. 2	.01143	21. 40	56. 0	57. 0	12. 36	1. 30	8. 38	.1020	8. 57	.1020	8. 57	.01075	21. 40	63. o
12. 5	22. 0.50	6.55	.1008	7. 30	.01142	21. 40	56. 0	57. 0	13. 26	2. 35	9. o	.1024	10. 47	.1024	10. 47	.01075	21. 40	63. o
12. 26	21. 59. o	8. 5	.1020	8. 20	.01135	21. 40	56. 0	57. 0	16. 20	22. 0.35	10. 37	.1024	11. 17	.1024	11. 17	.01078	21. 40	63. o
13. 45	21. 58. o	9. o	.1016	10. 52:	.01175	21. 40	56. 0	57. 0	17. 13	21. 58. o	11. o	.1030	12. 13	.1030	12. 13	.01122	21. 40	63. o
14. 47	22. 0. o	10. 50	.1016	12. 50	.01370	21. 40	56. 0	57. 0	21. 15	21. 59. 10	13. o	.1025	14. 3	.1025	14. 3	.01230	21. 40	63. o
15. 39	21. 58. 35	11. 6	.1013	13. 20	.01460	21. 40	56. 0	57. 0	23. 8	22. 5. o	16. 35	.1030	17. 28:	.1030	17. 28:	.01495	21. 40	63. o
16. 17	59. 30	11. 19	.1018	14. o	.01573	21. 40	56. 0	57. 0	23. 59	6. o	19. 30	.1024	20. o	.1024	20. o	.01580	21. 40	63. o
17. 17	58. o	12. 16	.1020	14. 46	.01725	21. 40	56. 0	57. 0	23. 59	20. 30	.1026	21. 43	.1026	21. 43	.1026	.01605	21. 40	63. o
20. 2	56. 10	14. 30	.1015	15. 16	.01833	21. 40	56. 0	57. 0	23. 59	23. 59	.1008	22. 53:	.1008	22. 53:	.1008	.01588	21. 40	63. o
20. 46	59. 15	14. 51	.1020	15. 20	.01817	21. 40	56. 0	57. 0	23. 59	23. 59	.10765	23. 59	23. 59	23. 59	23. 59	23. 59	23. 59	23. 59
21. 22	21. 59. 30	15. 20	.1016	16. 13	.01818	21. 40	56. 0	57. 0	June 22	o. 7	22. 6. o	.1007	1. 30	.1007	1. 30	.01185	1. 40	64. 5
23. 56	22. 5. o	17. o	.1023	17. 50	.01840	21. 40	56. 0	57. 0	2. 21	5. 45	2. 25	.1006	1. 50	.1006	1. 50	.01122	3. 40	68. o
		19. 25	.1024	19. 14	.01838	21. 40	56. 0	57. 0	4. 55	7. 20	1. 23	.1004	2. 25	.1004	2. 25	.01140	9. 40	70. o
		21. 7	.1014	20. 33	.01832	21. 40	56. 0	57. 0	6. 35	2. 30	2. 8	.1002	2. 50	.1002	2. 50	.01220	21. 40	66. o
		23. 35	.1015	21. o	.01826	21. 40	56. 0	57. 0	9. 34	1. 15	3. o	.1008	3. 55	.1008	3. 55	.01250	21. 40	68. o
				22. 30	.01815	21. 40	56. 0	57. 0	10. 25	o. 30	4. 5	.1002	4. 57	.1002	4. 57	.01272	21. 40	68. o
				23. 22	.01782	21. 40	56. 0	57. 0	11. 19	2. 30	6. 45	.1010	6. 1	.1010	6. 1	.01275	21. 40	68. o
				23. 59	.01765	21. 40	56. 0	57. 0	11. 35	22. 6. 30	6. 45	.1010	7. 7	.1010	7. 7	.01263	21. 40	68. o
						June 20	h m	June 20	12. 17	21. 56. o	7. 30	.1021	8. 12	.1021	8. 12	.01245	21. 40	68. o
							h m	June 20	13. 31	22. 1. o	8. 15	.1018	9. 25	.1018	9. 25	.01236	21. 40	68. o
							h m	June 20	13. 52	21. 59. 30	8. 15	.1025	10. 20	.1025	10. 20	.01232	21. 40	68. o
							h m	June 20	14. 20	22. 0.35	8. 55	.1022	11. 25	.1022	11. 25	.01306	21. 40	68. o
							h m	June 20	14. 47	o. o	9. 15	.1024	11. 59	.1024	11. 59	.01312	21. 40	68. o
							h m	June 20	15. 12	3. 25	9. 24	.1027	12. 29	.1027	12. 29	.01453	21. 40	68. o
							h m	June 20	15. 37	1. 30	9. 34	.1024	13. 15	.1024	13. 15	.01525	21. 40	68. o
							h m	June 20	16. 5	22. 4. 30	10. 5	.1040	13. 55	.1040	13. 55	.01644	21. 40	68. o
							h m	June 20	17. 17	21. 58. 50	10. 38	.1032	15. o	.1032	15. o	.01753	21. 40	68. o
							h m	June 20	17. 38	59. 30	11. o	.1038	16. o	.1038	16. o	.01900	21. 40	68. o
							h m	June 20	18. 2	58. o	11. 10	.1033	17. 29	.1033	17. 29	.01872	21. 40	68. o
							h m	June 20	18. 20	59. 20	11. 25	.1045	18. 16	.1045	18. 16	.01875	21. 40	68. o
							h m	June 20	19. 52	21. 57. 25	11. 51	.1026	20. 8	.1026	20. 8	.01883	21. 40	68. o
							h m	June 20	21. 53	22. 0. o	12. 30	.1021	21. 53:	.1021	21. 53:	.01900	21. 40	68. o
							h m	June 20	23. 32	5. 50	12. 36	.1025	23. 59	.1025	23. 59	.01812	21. 40	68. o
							h m	June 20	23. 59	6. o	13. 44	.1032	23. 59	.1032	23. 59	.01812	21. 40	68. o
							h m	June 20	24. 0	14. 20:	14. 27	.1027	24. 0	.1027	24. 0	.01812	21. 40	68. o
							h m	June 20	24. 0	14. 34	14. 40	.1034	24. 0	.1034	24. 0	.01812	21. 40	68. o
							h m	June 20	24. 0	14. 55	14. 57	.1026	24. 0	.1026	24. 0	.01812	21. 40	68. o
							h m	June 20	24. 0	15. 14	15. 25	.1032	24. 0	.1032	24. 0	.01812	21. 40	68. o
							h m	June 20	24. 0	15. 25	15. 57	.1027	24. 0	.1027	24. 0	.01812	21. 40	68. o
							h m</td											

INDICATIONS OF THE MAGNETOMETERS

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.

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

June 27. Vertical Force Magnet. The spot of light was off the sheet from $4^{\text{h}}. 13^{\text{m}}.$ to $12^{\text{h}}. 33^{\text{m}}.$

June 2nd. Vertical Force Magnet. The spot of light was off the sheet from 4^h. to 12^h.

June 28. Vertical Force Magnet. The spot or light was off the sheet from 4 to 11.

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	
							Of H. F. Magnet								Of V. F. Magnet	
July 1		July 1	July 1	July 1	July 1	July 1	o o	July 3		July 3	July 3	July 3	July 3	July 3	o o	
12. 8	22. 1. 50	7. 8	•1036	4. 2	•01290	h h		9. 25	o 1. 58. 0	8. 57	•1022	18. 55	{ 01399	h h	o o	
16. 43	21. 57. 45	8. 26	•1036	6. 30	•01190			10. 1	22. 1. 0	9. 30	•1016	18. 55	{ 01360			
17. 44	55. 0	9. 15	•1032	7. 13	•01160			12. 12	o 0. 40	12. 25	•1014	19. 23	•01380			
20. 40	21. 54. 40	13. 55	•1040	8. 3	•01130			12. 31	3. 30	12. 36	•1020	20. 19	•01370			
22. 13	22. 1. 30	15. 48	•1034	9. 23	•01110			12. 58	22. 0. 15	13. 30	•1013	22. 35	•01390			
22. 28	o. 30	17. 45	•1035	11. 15	•01070			14. 16	21. 59. 0	14. 15	•1010	23. 24	•01390			
22. 52	3. 30	18. 55	•1033	11. 43	•01080			14. 40	22. 2. 0	14. 59	•1022					
23. 59	5. 20	19. 45	•1018	14. 37	•01150			15. 28	21. 57. 30	15. 30	•1012					
		20. 45	•1020	18. 45	{ •01300			16. 6	22. 1. 45	17. 45	•1018					
		***			{ •01270			16. 26	22. 0. 35	18. 35	•1010					
		23. 0	•1000	20. 43	•01290			16. 42	21. 58. 0	21. 7	•1008					
		23. 59	•1001	23. 18	•01170			17. 30	59. 45	22. 23	•0995					
								18. 38	53. 50	22. 55	•0996					
July 2		July 2	July 2	July 2	July 2	July 2		21. 22	21. 57. 30	23. 44	•0984					
0. 10	22. 5. 35	o. 0	•1000	0. 38	•01130	9. 50	67. 0	23. 40	22. 7. 0	23. 59	•0988					
3. 12	8. 35	0. 30	•0998	2. 48	•00810	21. 40	64. 0	23. 59	7. 0							
5. 24	5. 30	2. 20	•1006	3. 53	{ •00610											
7. 8	22. 3. 0	2. 45	•0999	3. 53	{ •00640											
8. 23	21. 57. 0	3. 22	•1018	6. 22	•00630											
9. 45	22. 1. 20	4. 2	•1008	11. 35	•01150											
11. 4	22. 1. 40	4. 12	•1012	13. 29	•00690											
11. 26	21. 58. 15	4. 45	•1003	14. 56	•00740											
12. 31	59. 45	5. 18	•1014	16. 25	•00890											
13. 15	54. 30	5. 33	•1008	19. 14	•01180											
14. 12	56. 0	6. 28	•1017	21. 24	{ •01320											
14. 40	55. 40	7. 0	•1036	21. 24	{ •01300											
14. 55	54. 0	7. 15	•1026	23. 35	•01310											
15. 14	55. 35	7. 40	•1028	23. 57	•01310											
15. 25	54. 40	8. 35:	•1018													
17. 21	56. 30	9. 15	•1017													
17. 36	55. 25	***														
18. 7	58. 50	12. 4	•1022													
18. 25	57. 30	12. 15	•1017													
18. 59	58. 30	12. 53	•1018													
19. 3	57. 10	13. 30	•1040													
	***	14. 42	•1022													
20. 7	55. 30	16. 15	•1018													
20. 14	21. 58. 0	17. 34	•1020													
21. 16	22. 1. 10	18. 0	•1014													
23. 53	3. 15	18. 50	•1024													
		21. 22	•1006													
		22. 9	•0990													
		23. 45	•1006													
July 3		July 3	July 3	July 3	July 3	July 3										
0. 8	22. 5. 10	o. 15	•1008	0. 14	•01310	1. 40	65. 0									
1. 10	7. 25	0. 52	•0996	1. 50	•01270	3. 40	71. 0									
1. 43	6. 30	1. 46	•1000	5. 25	{ •00680	9. 40	70. 5	72. 3								
3. 29	8. 50	3. 30	•1022		{ •00710	21. 40	62. 0	63. 5								
4. 24	5. 20	4. 21	•1004	5. 42	•00690											
5. 6	7. 25	5. 21	•1027	5. 55	•00710											
5. 39	4. 25	5. 43	•1008	9. 36	•00690											
6. 48	3. 40	6. 16	•1022	10. 27	•00650											
7. 0	2. 0	6. 55:	•1000	11. 56	•00660											
7. 39	1. 0	7. 30	•1018	12. 30	•00690											
8. 0	2. 20	7. 45	•1018	13. 50	•00770											
8. 20	22. 0. 50	8. 2	•1028	14. 34	•00850											
8. 49	21. 57. 0	8. 25	•1014	16. 8	•01010											

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Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.		
h m	o' f" "	h m	July 5 23. 59	h m	o	o	h m	o' f" "	h m	o' f" "	h m	o	o	h m	o' f" "	h m	
July 6		July 6	July 6	July 6			July 6		July 6		July 6			July 6		July 6	
o. 13	22. 3. 25	o. o	•1007	o. 44	•01150	1. 40	63. 0	65. 0	o. 14	22. 12. 0	o. 23	•1022	0. 51	•01330	3. 40	65. 0	66. 5
1. 56	6. 50	4. o	•1018	1. 45	•01050	3. 40	66. 0	68. 0	1. 18	8. 50	0. 44	•1030	1. 21	•01290	9. 40	69. 0	69. 5
3. 34	5. o	5. 30	•1010	2. 46	•00930	9. 40	65. 5	67. 5	1. 51	11. 0	1. 8	•1025	1. 47	•01250	23. 40	64. 8	66. 5
5. 10	1. 40	10. 20	•1021	3. 50	•00770	21. 40	59. 0	60. 0	2. 48	8. 20	1. 44	•1046	2. 42	•01110			
15. 5	22. 0. 0	12. 30	•1018	5. 19	•00610				3. 32	9. 25	2. 29	•1021	3. 13	•01030			
17. 28	21. 57. 30	18. 15	•1033	5. 53	{ 00540				4. 8	7. 40	2. 55	•1028	4. 12	•00770			
18. 39	54. 30	20. 50	•1022	7. 20	•00540				4. 42	8. 30	3. 8	•1025	4. 54	{ 00630			
19. 58	54. o	22. 44	•1021	9. 10	•00560				5. 37	5. 30	3. 30	•1034	5. 25	{ 00670			
20. 13	56. 30	23. 36	•1012	10. 15	•00550				6. 16	6. 0	4. 7	•1023	6. 25	•00660			
20. 29	55. 45	23. 59	•1013	11. 33	•00590				6. 27	4. 15	4. 45	•1035	6. 10	•00650			
22. 35	21. 59. 10			11. 44	•00610				7. 28	22. 5. 0	5. 17	•0998	6. 36	•00630			
23. 59	22. 3. o			13. 5	•00770				7. 55	21. 53. 0		***	7. 34	•00660			
				14. 9	•00930				8. 12	50. 30	5. 55	•1018	7. 57	•00700			
				16. 10	{ 00320				8. 40	56. o	6. 13	•1034	8. 15	•00670			
				17. 54	•01280				8. 55	54. o	6. 30	•1018	8. 55	•00660			
				19. 38	{ 01270				9. 17	55. 15	6. 52	•1035	9. 23	{ 00670			
				20. 51	•01210				9. 26	54. 30	7. 1	•1032	10. 25	•00740			
				21. 49	•01290				9. 43	58. 30		***	10. 56	•00670			
				22. 50	•01280				9. 52	21. 56. 30	7. 21	•1044	11. 56	•00650			
				23. 35	•01240				10. 6	22. 0. o	7. 40	•1006	12. 10	•00650			
July 7		July 7	July 7	July 7			July 7		July 7		July 7			July 7		July 7	
o. 40	22. 3. 30	o. o	•1013	0. 50	•01120	1. 40	61. 0	62. 5	14. 53	55. 30	11. 38	•1018	17. 31	•01030			
1. 46	6. 40	0. 45	•1024	1. 44	•01060	3. 40	62. 0	63. 5	15. 55	21. 55. 30	11. 48	•1022	18. 50	•01240			
2. 14	7. o	1. 44	•1029	3. 10	•00890	9. 40	66. 0	67. 5	16. 25	22. 1. 30	12. 16	•1020	19. 43	•01360			
2. 47	8. 10	2. 18:	•1021	5. 20	{ 00530	21. 40	62. 0	63. 0	16. 52	21. 58. 25	12. 34	•1043	19. 48	•01350			
6. 28	0. 25	2. 49	•1028	•00550					17. 11	22. 2. 10	12. 53	•1044	19. 51	•01360			
8. 29	o. o	***	6. 14	•00580					17. 26	21. 59. 20	13. 34	•1000	21. 3	•01340			
9. 15	22. 0. 50	3. 40	•1021	9. 23	•00570				18. 34	54. 40	13. 50	•1014	21. 35	•01350			
9. 37	21. 58. o	6. 4	•1029	10. 57	•00540				21. 26	54. 30	14. 25	•1018	22. 8	•01370			
10. 28	22. o. 35	7. o	•1024	11. 50	•00550				21. 43	58. 35	16. 34	•1014	23. 10	•01380			
13. 55	22. o. o	7. 45	•1033	12. 45	•00690				21. 56	56. 25	16. 46	•1006	23. 56	•01330			
14. 35	21. 59. o	8. 16	•1028	14. 5	•00680				22. 7	21. 59. 30	17. 36	•1022					
14. 57	22. o. o	9. 30	•1032	16. 36	•00930				23. 15	22. 1. o	19. 45	•1020					
15. 57	21. 58. 40	10. o	•1026	18. 54	•01150				23. 50	4. o	22. 11	•1000					
16. 20	56. o	14. 40	•1032	21. 21	{ 01320						23. 34	•1015					
17. 7	56. o	18. o	•1043	•01280							23. 59	•1002					
18. 4	54. o	18. 55	•1033	22. 48	•01290												
18. 50	54. 30	19. 30	•1042	23. 10	•01310												
19. 8	52. o	21. 25	•1018	23. 57	•01320												
19. 31	55. o	22. 44	•1005														
19. 47	52. 50	23. o	•1019														
20. 7	54. 30	23. 15	•1022														
20. 42	21. 53. 15	23. 59	•1026														
21. 56	22. o. o	***															
22. 46	21. 59. 30																
23. 17	21. 56. 30																
23. 45	22. 7. 45																
July 8		July 8	July 8	July 8			July 8		July 8		July 8			July 8		July 8	
o. 3	22. 9. 30	o. o	•1024	o. o	•01340	1. 40	63. 0	64. 5	7. 56	22. 0. 50	4. 55	•1008	14. 23	•00870			

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

INDICATIONS OF THE MAGNETOMETERS

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Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in Parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in Parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in Parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in Parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.				
h m	o	h m	o	h m	o	h m	o	h m	o	h m	o	h m	o	h m	o	h m	o		
July 12																			
h m	o	h m	o	h m	o	h m	o	h m	o	h m	o	h m	o	h m	o	h m	o		
2.54	22.	7.20	1.40	1.015	2.45	0.01290	9.40	63° 56' 45"		July 14	13.52	1.023	15.5	.00890					
7.5	2.35	3.4	1.034	4.14	0.01210	21.40	58° 05' 55"			15.8	1.028	17.35	.01030						
8.53	2.0	4.13	1.026	5.6	0.01160					17.15	1.028	19.35	.01170						
9.10	0.0		***	6.5	0.01100					18.45	1.032	21.5	.01250						
9.20	22.	0.15	7.15	1.038	7.35	0.01060				22.30	1.004	23.25	.01220						
9.38	21.	56.45	9.37	1.032	9.5	0.01050				23.59	1.010	23.59	.01200						
10.25		58.30	10.5	1.042	10.38	0.01020													
11.2	21.	58.25	15.10	1.030	11.53	0.01030													
11.53	22.	0.30	16.0	1.036	12.30	0.01050													
13.10	22.	1.0	19.15	1.038	13.55	0.01100													
14.25	21.	59.0	20.16	1.026	16.23	0.01260													
15.50	22.	2.30	20.39	1.026	17.27	{ 0.01370													
16.55	21.	57.30	21.13	1.016		{ 0.01340													
			***	22.0	1.018	18.28	0.01340												
19.45		52.30	23.0	1.008	18.35	0.01300													
21.20		58.30	23.15	1.007	19.50	0.01300													
21.48	21.	58.0	23.59	1.008	21.41	0.01310													
23.59	22.	3.20			22.33	0.01320													
					23.5	0.01290													
					23.59	0.01250													
July 13																			
0.26	22.	4.0	0.0	1.008	0.30	0.01200	1.40	63° 36' 45"		July 13	15.24	4.20	8.2	.1027					
1.44	6.0	1.0	1.006	2.47	3.40	0.00990	64° 56' 55"			16.9	22.0	0.0	8.15	.1041					
4.2	5.50	3.53	1.023	{ 0.00590	9.40	68° 06' 55"	21.16	21.58.35		17.16	21.020	8.46		.1020					
5.20	3.0	4.55	1.018	{ 0.00610	21.40	61° 06' 20"	20.17	21.57.0		20.17	21.025	9.13		.1025					
7.47	0.30	5.7	1.022	6.5	0.00640					23.22	22.1.30	10.8		.1023					
10.48	0.0	5.23	1.017	9.29	0.00660							10.34		.1030					
11.7	22.	2.20	5.32	1.022	11.36	0.00590						10.45		.1025					
11.40	21.	58.0	5.46	1.017	12.40	0.00570						11.1		.1030					
12.18		59.25	6.23	1.021	14.50	0.00670						14.0		.1023					
13.5		57.30	7.25	1.015	16.31	0.00820						15.47		.1032					
13.51		59.20	10.59	1.020	17.16	0.00930						16.30		.1027					
14.32	21.	58.0	12.15	1.030	21.22	{ 0.01410						17.13		.1030					
15.7	22.	0.0	13.30	1.020	21.22	{ 0.01370						18.23		.1024					
			***	15.0	1.018	22.50	0.01410					20.22		.1026					
16.52	21.	58.0	16.30	1.021	23.59	0.01380						23.13		.1004					
17.16		59.40	18.16	1.017								23.36		.1012					
18.24		58.0	19.0	1.023								23.59		.1004					
20.1	21.	55.20	20.39	1.020															
22.47	22.	5.0	22.23	.0992															
23.5		7.20	23.25	1.000															
23.59		6.0	23.59	1.004															
July 14																			
0.7	22.	6.0	July 14	1.005	0.55	0.01310	1.40	65° 06' 00"		July 14	8.45	21.57.0	2.38	.1007	7.37	.00720			
0.42	5.0	0.23		1.013			3.40	66° 06' 55"			9.39	58.30	3.0	.1001	8.55	.00670			
4.10	6.30	1.8		1.014	1.46	0.01250	9.40	66° 06' 55"		11.1	54.0	3.30	.1001	9.49	.00700				
7.55	22.	2.0		***	2.36	0.01190	21.40	62° 06' 40"		11.38	55.25	5.15	.1010	12.15	.00830				
13.54	21.	59.40	2.16	1.022	3.10	0.01140				11.57	58.25	5.15	.1004	13.5	.00890				
14.38	22.	0.45	2.58	1.030	4.25	0.01060				12.45	57.45	5.34	.1010	14.20	.01020				
15.2		3.30	5.36	1.023	6.20	0.00890				13.2	21.56.0	6.10	.1010	14.50	.01230				
15.42	22.	0.30	5.46	1.016	7.50	0.00790				13.34	22.6.30	6.38	.1008	15.50	.01490				
18.0	21.	56.35	6.14	1.023	8.58	0.00770				14.30	21.57.0	7.14	.1015	17.21	.01440				
20.47	21.	57.0	9.35	1.021	10.5	0.00750				15.10	59.30	7.30	.1010	17.21	.01440				
23.59	22.	4.0	10.40	1.027	11.10	0.00730				15.55	56.20	7.42	.1014	18.43	.01450				
			12.15	1.023	12.21	0.00760				21.20	55.25	7.58	.1006	20.13	.01423				
			13.27	1.028	13.21	0.00810				22.51	21.57.30	8.8	.1012	21.38	.01440				

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

July 15. At 6^h. 44^m the Vertical Force time-piece stopped.

INDICATIONS OF THE MAGNETOMETERS

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Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	
July 21		July 21		July 21		July 21		July 23		July 23		July 23		July 23		July 23
h m	°	h m	°	h m	°	h m	°	h m	°	h m	°	h m	°	h m	°	h m
11. 48	21. 58. 15	2. 30	.0998	4. 45	.00790			19. 1	22. 3. 30	8. 55	.01120					
13. 6	59. 30	4. 10	.0990	5. 27	.00810			19. 38	21. 58. 45	9. 51	.01200					
13. 46	57. 30	4. 36	.0992	5. 31	.00850			19. 47	59. 30	10. 36	.01230					
14. 44	59. 0	4. 45	.0986	5. 46	.00820			20. 19	57. 20	11. 25	.01280					
15. 2	21. 57. 50	5. 31	.0986	***				21. 18	21. 56. 40	13. 21	.01530					
16. 8	22. 1. 20	***	7. 20	.1002	9. 25	.00790		22. 47	22. 1. 0	14. 55	{ .01770					
19. 20	21. 54. 30			***	10. 47	.00810		23. 17	1. 0	18. 20	.01700					
20. 59	21. 56. 35	7. 30	.0998	11. 45	.00890			23. 53	5. 0	20. 21	.01680					
23. 0	22. 2. 0		***	12. 31	.01000					21. 50	.01670					
23. 59	3. 0	9. 20	.1004	13. 44	.01200					22. 55	.01610					
		18. 45	.1030	{ .01500						23. 28	.01540					
		19. 23	.1020	15. 20	{ .01460											
		20. 23	.1017	17. 6	.01440											
		21. 45	.1002	18. 2	.01430											
		23. 59	.0997	19. 16	.01430											
				21. 9	.01440											
				22. 42	.01390											
				23. 0	.01360											
				23. 39	.01270											
July 24		July 24		July 24		July 24		July 24		July 24		July 24		July 24		July 24
o. 46	22. 5. 0	o. 8	.0983	1. 5	.01330	1. 40	75. 3	76. 0								
1. 22	6. 35	0. 50	.1000	2. 41	.00960	3. 40	78. 5	79. 0								
1. 36	4. 30	0. 59	.0994	2. 47	.00980	9. 40	79. 0	80. 0								
1. 47	6. 15	1. 15	.1013	3. 40	.00990	21. 40	73. 0	73. 0								
2. 2	4. 30	2. 0	.0975	4. 29	.01000	***										
2. 38	10. 0	2. 29	.1000													
2. 57	5. 30															
3. 32	4. 30	3. 17	.0998	7. 59	.00990											
3. 32	4. 30	3. 35	.1006	8. 29	.00950											
5. 12	5. 30															
7. 5	22. 1. 30	4. 33	.0996	10. 40	.01050											
7. 26	21. 52. 0	4. 50	.1018	11. 43	.01170											
8. 0	22. 0. 30	(†)	12. 34	.01310												
8. 50	21. 56. 40	9. 40	.0994*	14. 35	.01730											
9. 8	58. 20	21. 40	.0990*	14. 55	.01710											
9. 30	57. 0															
9. 58	51. 15															
10. 12	51. 30															
10. 33	21. 56. 0															
11. 21	22. 0. 30															
11. 37	21. 59. 0															
12. 0	22. 1. 0															
12. 38	21. 54. 35															
13. 8	57. 30															

15. 44	21. 59. 20															
16. 19	22. 0. 30															

18. 43	21. 55. 30															
21. 46	22. 2. 35															
22. 3	2. 0															
23. 1	3. 0															
23. 53	5. 40															
July 25		July 25		July 25		July 25		July 25		July 25		July 25		July 25		July 25
o. 3	22. 3. 0	1. 40	.0985*	1. 0	.01010	1. 40	78. 5	79. 5								
0. 52	5. 0	3. 40	.0988*	1. 22	.01040	3. 40	80. 0	82. 0								
2. 2	4. 0	9. 40	.0986*	2. 8	.01070	9. 40	83. 3	83. 5								
2. 25	22. 4. 35	21. 40	.0988*	2. 45	.01100	21. 40	70. 2	73. 0								
5. 20	21. 59. 15	8. 19	57. 35	3. 20	.01070	6. 50:	00810									
8. 51	54. 30	8. 42	57. 40	10. 6	.01080	10. 6	.01080									
9. 42	57. 40	11. 17	21. 57. 30	11. 39	.01360	11. 39	.01360									
				12. 45	.01480	12. 45	.01480									

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.		
							Of H. F. Magnet.	Of V. F. Magnet.						Of H. F. Magnet.	Of V. F. Magnet.
July 25				July 25					July 27						
11. 37	22. 0. 0	h m		20. 30	.01470	h m	o o	12. 52	21. 59. 25	7. 10	.1008	h m	h m	o o	
12. 8	21. 57. 30			22. 50	.01460			13. 13	22. 2. 15	7. 32	.1024				
12. 32	22. 3. 0							13. 55	21. 58. 50	7. 49	.1000				
12. 58	21. 59. 15							14. 25	22. 2. 20	8. 20	.1001				
14. 10	57. 35							14. 50	22. 1. 35	8. 20	.1001				
17. 2	59. 40							15. 46	21. 57. 0	9. 4	.0997				
20. 32	21. 57. 15							16. 18	58. 45	9. 35	.1006				
23. 59	22. 3. 0							21. 42	21. 57. 0	9. 49	.0992				
July 26		July 26		July 26		July 26		23. 30	22. 2. 30	10. 25	.1001				
0. 12	22. 3. 30	o o	.0987	0. 0	.01460	1. 40	73. 0 74. 0			11. 13	.0988				
2. 23	4. 35	1. 36	.0998	1. 49	.01350	3. 40	74. 5 75. 5			11. 40	.0998				
4. 45	22. 1. 25	1. 52	.0996	2. 40	.01280	9. 40	75. 0 76. 0			12. 30	.1000				
9. 13	21. 58. 30	2. 25	.1000	4. 34	.01020	21. 40	67. 0 68. 0			13. 35	.1014				
13. 27	22. 0. 15	2. 45	.0996	6. 14	.00840					13. 47	.1007				
14. 13	22. 3. 0	5. 15	.1000	7. 24	.00750					15. 5	.1020				
14. 53	21. 58. 0	5. 27	.0994	9. 4	.00750					16. 15	.1016				
17. 5	56. 40	6. 17	.1000	10. 14	.00800					(†)					
21. 35	21. 58. 45	6. 50	.0998	11. 42	.01060					21. 50	.1014				
23. 59	22. 7. 0	7. 15	.1004	12. 30	.01240					23. 30	.1005				
			7. 55	1000	12. 55										
			8. 25	1003	13. 55	{									
			9. 0	1001	13. 55	{									
			9. 15	1004	15. 13	{									
			9. 41	1002	16. 36	{									
			9. 55	1007	16. 36	{									
			10. 20	1000	17. 14	{									
			14. 34	1021	17. 42	{									
			15. 15	1015	19. 40	{									
			19. 30	1020	21. 36	{									
			21. 40	1008	23. 45	{									
			23. 51	1004											
			23. 59	1000											
July 27		July 27		July 27		July 27									
0. 15	22. 7. 15	o o	.0999	0. 27	.01420	1. 40	68. 0 69. 0								
2. 1	12. 30	0. 51	.0999	2. 55	.01300	3. 40	69. 0 70. 0								
2. 40	13. 0	1. 11	.1009	3. 36	.01240	9. 40	70. 5 71. 3								
3. 30	10. 30	1. 31	.1004	4. 35	.01160	21. 40	63. 0 64. 0								
3. 43	5. 15	1. 59	.1014												
	***	2. 15	.1004	7. 35	.00810										
4. 31	5. 30	2. 26	.1007	7. 53	.00760										
	***		***	9. 15	.00730										
4. 58	8. 30	2. 57	.1002	9. 44	.00710										
	***	3. 15	.1004	10. 47	.00720										
5. 40	5. 15	3. 33	.1027	11. 48	.00810										
7. 3	22. 4. 0	3. 45	.1011	12. 32	.00980										
7. 20	21. 57. 30		***	14. 30	.01140										
7. 39	22. 5. 30	4. 27	.1020	16. 20	.01410										
7. 55	22. 1. 50	4. 38	.1018												
8. 40	21. 57. 0	4. 45	.1026	21. 45	.01360										
9. 13	56. 20	5. 0	.1022	22. 13	.01350										
9. 32	47. 30		***	22. 45	.01380										
9. 48	54. 40	5. 34	.0973	23. 6	.01390										
10. 32	21. 56. 10	6. 9	.1003	23. 30	.01380										
10. 54	22. 0. 35	6. 30	.1001												
11. 13	21. 58. 0	6. 45	.1013												

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AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1854.

(lxxvii)

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.							
							Of H. F. Magnet.									Of V. F. Magnet.						
Aug. 3	6. 7	22. 9. 30	h m	Aug. 3	h m	***		Aug. 4	15. 37	22. 1. 0	12. 8:	'1041	h m									
6. 16	22. 10. 15			14. 45	'01340			16. 26	21. 57. 0	12. 54	'1058											
7. 45	21. 56. 35			18. 9	'01530			19. 30	21. 57. 0	13. 23	'1044											
8. 58	22. 3. 15			19. 35	'01590			21. 32	22. 3. 0	14. 45	'1026											
9. 25	2. 30			22. 15	'01560			22. 9	2. 40	15. 0	'1042											
10. 2	4. 0			23. 35	'01510			22. 45	5. 30	16. 19	'1048											
10. 10	22. 2. 20							22. 53	5. 30	18. 5	'1042											
11. 2	21. 59. 30									19. 0	'1030											
11. 21	22. 0. 35									20. 6	'1034											
11. 40	21. 58. 30									21. 40	'1024											
12. 6	22. 5. 50									22. 38	'1027											
12. 27	22. 0. 0									23. 0	'1022											
13. 35	21. 45. 10									23. 59	'1018											
13. 56	45. 30																					
14. 18	52. 30																					
14. 36	59. 35																					
14. 52	53. 0																					
15. 23	57. 0																					
15. 37	56. 20																					
16. 17	58. 45																					
16. 49	58. 0																					
17. 10	58. 30																					
17. 22	21. 56. 0																					
18. 19	22. 3. 0																					
19. 42	21. 56. 30																					
21. 43	21. 59. 20																					
23. 59	22. 6. 50																					
Aug. 4	0. 17	22. 8. 0	Aug. 4	0. 30	'1022	Aug. 4	0. 17	'01300	1. 40	60. 0	61. 5	Aug. 5	0. 7	22. 5. 0	0. 10	'1018	0. 45	.01070	1. 40	59. 0	60. 0	
2. 17	9. 30	1. 25		'1041	0. 54			'01210	3. 40	60. 0	62. 0		0. 45	7. 0	0. 30	'1030	1. 53	.01050	3. 40	61. 0	62. 0	
4. 0	7. 20	1. 43		'1035	1. 15			'01180	9. 40	61. 0	63. 0		2. 10	6. 30		'1034	3. 14	.00990	9. 40	61. 0	62. 0	
4. 18	8. 30	1. 52		'1046	1. 47			'01210	21. 40	59. 0	60. 0		2. 33	8. 50	0. 55	'1023	4. 43	.00870	23. 2	58. 0	59. 5	
5. 14	1. 30	2. 30		'1038	2. 34			'01170					2. 35	8. 35		'1023	5. 55	.00790				
6. 7	3. 0	3. 55		'1056	3. 6			'01200					4. 8	7. 0	2. 38	'1041	7. 44	.00630				
6. 25	0. 50	4. 15		'1038	4. 44			'01250					4. 52	2. 0		'1041	9. 7	.00600				
7. 8	4. 30			***	7. 23			'01270					5. 7	2. 50	4. 20	'1020	10. 35	.00510				
7. 43	2. 20	4. 46		'1054	8. 24			'01210					6. 9	3. 0		'1020	11. 48	.00520				
8. 1	3. 0	5. 0		'1037	9. 21			'01100					6. 21	4. 10	5. 50	'1036	12. 50	.00540				
8. 12	1. 50	5. 10		'1048	10. 22			'01080					8. 20	3. 50	6. 5	'1028	14. 40	.00550				
8. 32	3. 50	5. 17		'1038	11. 36			'01060					8. 59	0. 30	7. 45	'1042	15. 38	.00560				
8. 53	22. 3. 50	5. 35		'1050	11. 45			'01240					9. 11	1. 15	8. 29	'1034	17. 42	.00680				
9. 7	21. 59. 45	5. 45		'1042	12. 47			'01220					(†)		8. 45	'1040	19. 32	.00790				
9. 17	22. 3. 0	6. 20		'1044	13. 14			'01190					16. 50	22. 1. 10		'1024	21. 43	.00870				
9. 36	2. 20	6. 50		'1053	13. 47			'01220					18. 18	21. 59. 0	17. 15	'1024	23. 16	.00880				
9. 58	4. 0			***	14. 36			'01170					19. 50	22. 0. 30	18. 40	'1026						
10. 48	22. 1. 50	8. 0		'1038	16. 55			'01260					20. 58	21. 59. 0	19. 55	'1020						
11. 8	21. 54. 0	8. 34		'1052	19. 51			'01250					21. 47	22. 0. 0	21. 15	'1027						
11. 35	22. 5. 30	8. 55		'1041	20. 47			'01150					22. 20	3. 0	23. 15	'1024						
11. 54	3. 15	9. 14		'1059	21. 40			'01090					23. 18	5. 0								
12. 4	22. 4. 0	9. 35		'1041	23. 37			'01050					23. 59	7. 0								
12. 25	21. 59. 30	10. 0		'1050																		
13. 1	22. 3. 45	10. 15		'1043																		
13. 45	21. 55. 30	10. 45		'1048																		
13. 52	56. 30	10. 54		'1062																		
14. 6	55. 10	11. 6		'1051																		
14. 22	59. 30	11. 19		'1059																		
15. 12	21. 59. 45	11. 35		'1060		***																

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Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected or Temperature.	Readings of Thermo- meters.	
Aug. 7		Aug. 7	Aug. 7	Aug. 7	Aug. 7	Of H. F. Magnet.	Aug. 7	Aug. 10	Aug. 10	Aug. 10	Aug. 10	Aug. 10	Aug. 10	
1. 40	22. 9. 3*	1. 40	1021*	0. 40	.00700	1. 40	61° 0' 62° 0'	0. 1	22. 5. 35	0. 0	1018	0. 0	.01480	
3. 40	5. 15*	3. 40	1025*	1. 58	.00950	3. 40	64° 0' 65° 0'	1. 23	8. 30	2. 10	1023	1. 19	.01420	
9. 40	0. 32*	9. 40	1022*	3. 25	.00740	9. 40	68° 5' 69° 0'	2. 8	8. 25	2. 26	1018	2. 6	.01320	
21. 40	0. 8*	21. 40	1009*	4. 8	{ .00620	21. 40	62° 0' 66° 0'	3. 31	3. 35	3. 0	1018	2. 16	.01290	
					{ .00670			5. 33	1. 30	3. 25	1019	2. 36	.01250	
					6. 22	.00710		9. 40	22. 1. 0	4. 0	1012	4. 23	.00980	
					7. 48	.00680		9. 53	21. 59. 40	4. 48	1012	5. 19	{ .00800	
					10. 53	.00650		11. 4	22. 0. 35	5. 15	1006		{ .00830	
					11. 51	.00670		11. 25	21. 59. 35	6. 15	1014	6. 35	.00820	
					13. 15	.00740		12. 52	22. 0. 50		1006	7. 17	.00810	
					15. 50	.00990		13. 22	21. 57. 30	7. 0	1010	7. 20	.00870	
					17. 49	.01250		14. 20	21. 56. 30	9. 30	1018	8. 39	.00790	
					19. 46	{ .01470		16. 7	22. 0. 35	10. 35	1014	9. 25	.00790	
						{ .01450		18. 6	21. 57. 30	10. 40	1003	10. 42	.00780	
						21. 24		20. 4	56. 45	11. 3	1017	11. 32	.00810	
						23. 30		20. 54	21. 58. 30	11. 16	1010	12. 37	.00890	
								21. 25	22. 2. 30			**	14. 25	
								22. 38	4. 0	12. 45	1014	17. 10	.01510	
								23. 17	7. 35	13. 15	1022	18. 15	.01480	
								23. 59	8. 0	14. 30	1018	20. 15	.01460	
										18. 25	1028	21. 20	.01470	
										22. 32	1002	22. 38	.01460	
										23. 50	1002	23. 20	.01440	
										23. 59	1006	23. 59	.01390	
Aug. 8		Aug. 8	Aug. 8	Aug. 8	Aug. 8	Aug. 8		Aug. 11	Aug. 11	Aug. 11	Aug. 11	Aug. 11	Aug. 11	
1. 40	22. 8. 12*	1. 40	1023*	0. 0	.01380	1. 40	65° 0' 66° 0'	0. 16	22. 7. 30	0. 0	1006	0. 6	.01380	
3. 40	22. 4. 3*	3. 40	1019*	0. 51	.01280	3. 40	68° 5' 69° 5'	1. 10	5. 30	1. 0	1002	1. 38	.01150	
9. 40	21. 59. 3*	9. 40	1014*	1. 54	.01050	9. 40	71° 5' 71° 5'	2. 25	6. 0	1. 30	1013	2. 38	.00890	
21. 40	59. 44*	21. 40	1007*	2. 39	.00860	21. 40	65° 5' 67° 0'	2. 43	22. 4. 40	2. 30	1010	3. 15	.00880	
					3. 8	{ .00730		5. 17	21. 59. 0	2. 45	1004	4. 40	{ .00860	
						{ .00770		8. 24	59. 30	3. 16	1011	4. 40	{ .00930	
						4. 58		8. 47	58. 15		***	5. 4	.00850	
						7. 51	.00740	9. 16	59. 30	4. 50	1007	7. 24	.00810	
						8. 54	.00750		12. 1	59. 20		***	10. 38	.00820
						10. 39	.00730		12. 47	58. 0	7. 0	1016	11. 23	.00850
						11. 25	.00750		13. 35	21. 59. 50		***	12. 17	.00930
						12. 54	.00840		14. 47	22. 0. 0	8. 32	1007	14. 20	.01140
						13. 51	.00910		15. 12	21. 58. 0	9. 15	1013	15. 8	.01250
						16. 58	.01240		16. 6	22. 0. 30	12. 0	1017	16. 56	.01550
						18. 6	.01370		17. 37	21. 57. 0	12. 25	1021	21. 21	.01500
						19. 40	.01510		20. 15	21. 57. 0	13. 0	1016	23. 20	.01510
						19. 42	.01480		22. 28	22. 2. 30	15. 0	1026		
						20. 35	.01470		23. 9	2. 10	20. 0	1027		
						22. 47	.01480		23. 59	5. 30	21. 45	1012		
						23. 59	.01400				23. 59	1014		
Aug. 9		Aug. 9	Aug. 9	Aug. 9	Aug. 9	Aug. 9		Aug. 12	Aug. 12	Aug. 12	Aug. 12	Aug. 12	Aug. 12	
0. 53	22. 9. 0	1. 0	1014	1. 3	.01260	1. 40	68° 0' 69° 5'	0. 13	22. 6. 0	0. 0	1016	0. 0	.01510	
1. 58	9. 20	4. 2	1020	2. 46	.00970	3. 40	70° 0' 71° 0'	1. 25	8. 0	2. 39	1016	1. 39	.01430	
4. 32	22. 2. 0	5. 30	1013	3. 41	{ .00780	9. 40	70° 3' 71° 5'	5. 7	1. 15	3. 38	1022	3. 22	.01260	
6. 36	21. 59. 50	6. 49	1012		{ .00880	21. 40	66° 5' 68° 0'	10. 17	22. 1. 30	14. 30	1038	5. 20	.01040	
8. 8	22. 0. 50	9. 0	1022	5. 15	.00810			12. 50	21. 58. 40	15. 15	1034	7. 16	.00780	
9. 31	21. 57. 0	9. 20	1016	7. 19	.00800			14. 2	22. 0. 0	18. 45	1040	10. 17	.00780	
10. 2	59. 20	9. 45	1021	7. 23	.00820			14. 50	21. 58. 30	20. 30	1033	12. 18	.00930	
10. 21	58. 30	11. 20	1013	8. 22	.00790			15. 33	22. 2. 30	23. 59	1032	13. 21	.01060	
	***	12. 0	1020	10. 7	.00800			16. 44	22. 0. 30	15. 50	1032	14. 38	.01210	
								20. 36	21. 58. 50			16. 47	.01510	

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Göttingen Mean Solar Time.	Readings of Thermo- meters.			
							Of H. F. Magnet	Of V. F. Magnet							Of H. F. Magnet	Of V. F. Magnet	
Aug. 12 h m o / " " 22. 44 22. 3. 30		h m		Aug. 12 h m 16. 49 .01480 19. 24 .01490 21. 38 .01510 22. 39 .01470 22. 49 .01460		h m	o o			h m		Aug. 15 h m 12. 40 .01120 14. 5 .01310 15. 3 .01450 16. 40 .01410 16. 40 .01420 18. 9 .01420 18. 9 .01330 18. 57 .01410 20. 19 .01410 21. 34 .01390 23. 4 .01400 23. 39 .01400		h m	o o		
Aug. 13 o. 5 22. 3. 10 2. 25. 7. 15 4. o 22. 4. o 8. 32 21. 59. o 16. 23 22. o. o 20. 2 21. 57. 30 21. 15 21. 58. 30 22. 58 22. 5. o 23. 59 5. 35	Aug. 13 o. 20 .1030 o. o .1010 .1004 .1012 .1022 .1019 .1006 .1013 10. 45 11. 36 12. 34 14. 23 16. 25 17. 51 18. 48 20. 20 21. 34 22. 51 23. 30	Aug. 13 o. o .10330 1. 38 .01070 2. 51 .00820 4. 5 .00900 6. 8 .00880 9. 45 .00850 9. 52 .00860 .00860 10. 45 11. 36 12. 34 14. 23 16. 25 17. 51 18. 48 20. 20 21. 34 22. 51 23. 30	Aug. 13 9. 57 .01330 76. 077. 5 21. 40 .01400 69. 072. 0														
Aug. 14 o. 7 22. 6. o o. 36 6. 30 o. 45 8. o 1. 52 22. 8. 30 6. 14 21. 59. 30 12. 15 22. o. 20 13. 20 21. 58. 30 17. 7 58. 30 17. 29 59. 35 18. 28 21. 57. 50 20. 9 22. o. o 22. 55 6. 30 23. 59 6. 35	Aug. 14 o. o .1013 *** 2. 8 5. 45 .1010 3. 44 .00950 7. 21 .1016 4. 30 { .00810 { .00850 5. 26 { .00830 6. 47 { .00940 16. 45 { .0134 6. 47 { .00940 9. 4 .1014 5. 26 { .00840 17. 18 .1030 18. o .1036 20. o .1035 11. 24 .01210 12. 19 .01370 13. 10 { .01540 14. 58 .01490 17. 21 .01460 20. 29 .01440 22. 41 .01480 23. 13 .01460	Aug. 14 o. o .1010 2. 8 .01280 3. 40 .00950 9. 40 .00950 73. 074. 0 74. 575. 0 21. 40 .01400 63. 065. 0 1. 40 .01400 3. 40 .01400 5. 40 .01400 7. 40 .01400 9. 40 .01400 11. 40 .01400 13. 40 .01400 15. 40 .01400 17. 40 .01400 19. 40 .01400 21. 40 .01400 23. 40 .01400 25. 40 .01400 27. 40 .01400 29. 40 .01400 31. 40 .01400 33. 40 .01400 35. 40 .01400 37. 40 .01400 39. 40 .01400 41. 40 .01400 43. 40 .01400 45. 40 .01400 47. 40 .01400 49. 40 .01400 51. 40 .01400 53. 40 .01400 55. 40 .01400 57. 40 .01400 59. 40 .01400 61. 40 .01400 63. 40 .01400 65. 40 .01400 67. 40 .01400 69. 40 .01400 71. 40 .01400 73. 40 .01400 75. 40 .01400 77. 40 .01400 79. 40 .01400 81. 40 .01400 83. 40 .01400 85. 40 .01400 87. 40 .01400 89. 40 .01400 91. 40 .01400 93. 40 .01400 95. 40 .01400 97. 40 .01400 99. 40 .01400 101. 40 .01400 103. 40 .01400 105. 40 .01400 107. 40 .01400 109. 40 .01400 111. 40 .01400 113. 40 .01400 115. 40 .01400 117. 40 .01400 119. 40 .01400 121. 40 .01400 123. 40 .01400 125. 40 .01400 127. 40 .01400 129. 40 .01400 131. 40 .01400 133. 40 .01400 135. 40 .01400 137. 40 .01400 139. 40 .01400 141. 40 .01400 143. 40 .01400 145. 40 .01400 147. 40 .01400 149. 40 .01400 151. 40 .01400 153. 40 .01400 155. 40 .01400 157. 40 .01400 159. 40 .01400 161. 40 .01400 163. 40 .01400 165. 40 .01400 167. 40 .01400 169. 40 .01400 171. 40 .01400 173. 40 .01400 175. 40 .01400 177. 40 .01400 179. 40 .01400 181. 40 .01400 183. 40 .01400 185. 40 .01400 187. 40 .01400 189. 40 .01400 191. 40 .01400 193. 40 .01400 195. 40 .01400 197. 40 .01400 199. 40 .01400 201. 40 .01400 203. 40 .01400 205. 40 .01400 207. 40 .01400 209. 40 .01400 211. 40 .01400 213. 40 .01400 215. 40 .01400 217. 40 .01400 219. 40 .01400 221. 40 .01400 223. 40 .01400 225. 40 .01400 227. 40 .01400 229. 40 .01400 231. 40 .01400 233. 40 .01400 235. 40 .01400 237. 40 .01400 239. 40 .01400 241. 40 .01400 243. 40 .01400 245. 40 .01400 247. 40 .01400 249. 40 .01400 251. 40 .01400 253. 40 .01400 255. 40 .01400 257. 40 .01400 259. 40 .01400 261. 40 .01400 263. 40 .01400 265. 40 .01400 267. 40 .01400 269. 40 .01400 271. 40 .01400 273. 40 .01400 275. 40 .01400 277. 40 .01400 279. 40 .01400 281. 40 .01400 283. 40 .01400 285. 40 .01400 287. 40 .01400 289. 40 .01400 291. 40 .01400 293. 40 .01400 295. 40 .01400 297. 40 .01400 299. 40 .01400 301. 40 .01400 303. 40 .01400 305. 40 .01400 307. 40 .01400 309. 40 .01400 311. 40 .01400 313. 40 .01400 315. 40 .01400 317. 40 .01400 319. 40 .01400 321. 40 .01400 323. 40 .01400 325. 40 .01400 327. 40 .01400 329. 40 .01400 331. 40 .01400 333. 40 .01400 335. 40 .01400 337. 40 .01400 339. 40 .01400 341. 40 .01400 343. 40 .01400 345. 40 .01400 347. 40 .01400 349. 40 .01400 351. 40 .01400 353. 40 .01400 355. 40 .01400 357. 40 .01400 359. 40 .01400 361. 40 .01400 363. 40 .01400 365. 40 .01400 367. 40 .01400 369. 40 .01400 371. 40 .01400 373. 40 .01400 375. 40 .01400 377. 40 .01400 379. 40 .01400 381. 40 .01400 383. 40 .01400 385. 40 .01400 387. 40 .01400 389. 40 .01400 391. 40 .01400 393. 40 .01400 395. 40 .01400 397. 40 .01400 399. 40 .01400 401. 40 .01400 403. 40 .01400 405. 40 .01400 407. 40 .01400 409. 40 .01400 411. 40 .01400 413. 40 .01400 415. 40 .01400 417. 40 .01400 419. 40 .01400 421. 40 .01400 423. 40 .01400 425. 40 .01400 427. 40 .01400 429. 40 .01400 431. 40 .01400 433. 40 .01400 435. 40 .01400 437. 40 .01400 439. 40 .01400 441. 40 .01400 443. 40 .01400 445. 40 .01400 447. 40 .01400 449. 40 .01400 451. 40 .01400 453. 40 .01400 455. 40 .01400 457. 40 .01400 459. 40 .01400 461. 40 .01400 463. 40 .01400 465. 40 .01400 467. 40 .01400 469. 40 .01400 471. 40 .01400 473. 40 .01400 475. 40 .01400 477. 40 .01400 479. 40 .01400 481. 40 .01400 483. 40 .01400 485. 40 .01400 487. 40 .01400 489. 40 .01400 491. 40 .01400 493. 40 .01400 495. 40 .01400 497. 40 .01400 499. 40 .01400 501. 40 .01400 503. 40 .01400 505. 40 .01400 507. 40 .01400 509. 40 .01400 511. 40 .01400 513. 40 .01400 515. 40 .01400 517. 40 .01400 519. 40 .01400 521. 40 .01400 523. 40 .01400 525. 40 .01400 527. 40 .01400 529. 40 .01400 531. 40 .01400 533. 40 .01400 535. 40 .01400 537. 40 .01400 539. 40 .01400 541. 40 .01400 543. 40 .01400 545. 40 .01400 547. 40 .01400 549. 40 .01400 551. 40 .01400 553. 40 .01400 555. 40 .01400 557. 40 .01400 559. 40 .01400 561. 40 .01400 563. 40 .01400 565. 40 .01400 567. 40 .01400 569. 40 .01400 571. 40 .01400 573. 40 .01400 575. 40 .01400 577. 40 .01400 579. 40 .01400 581. 40 .01400 583. 40 .01400 585. 40 .01400 587. 40 .01400 589. 40 .01400 591. 40 .01400 593. 40 .01400 595. 40 .01400 597. 40 .01400 599. 40 .01400 601. 40 .01400 603. 40 .01400 605. 40 .01400 607. 40 .01400 609. 40 .01400 611. 40 .01400 613. 40 .01400 615. 40 .01400 617. 40 .01400 619. 40 .01400 621. 40 .01400 623. 40 .01400 625. 40 .01400 627. 40 .01400 629. 40 .01400 631. 40 .01400 633. 40 .01400 635. 40 .01400 637. 40 .01400 639. 40 .01400 641. 40 .01400 643. 40 .01400 645. 40 .01400 647. 40 .01400 649. 40 .01400 651. 40 .01400 653. 40 .01400 655. 40 .01400 657. 40 .01400 659. 40 .01400 661. 40 .01400 663. 40 .01400 665. 40 .01400 667. 40 .01400 669. 40 .01400 671. 40 .01400 673. 40 .01400 675. 40 .01400 677. 40 .01400 679. 40 .01400 681. 40 .01400 683. 40 .01400 685. 40 .01400 687. 40 .01400 689. 40 .01400 691. 40 .01400 693. 40 .01400 695. 40 .01400 697. 40 .01400 699. 40 .01400 701. 40 .01400 703. 40 .01400 705. 40 .01400 707. 40 .01400 709. 40 .01400 711. 40 .01400 713. 40 .01400 715. 40 .01400 717. 40 .01400 719. 40 .01400 721. 40 .01400 723. 40 .01400 725. 40 .01400 727. 40 .01400 729. 40 .01400 731. 40 .01400 733. 40 .01400 735. 40 .01400 737. 40 .01400 739. 40 .01400 741. 40 .01400 743. 40 .01400 745. 40 .01400 747. 40 .01400 749. 40 .01400 751. 40 .01400 753. 40 .01400 755. 40 .01400 757. 40 .01400 759. 40 .01400 761. 40 .01400 763. 40 .01400 765. 40 .01400 767. 40 .01400 769. 40 .01400 771. 40 .01400 773. 40 .01400 775. 40 .01400 777. 40 .01400 779. 40 .01400 781. 40 .01400 783. 40 .01400 785. 40 .01400 787. 40 .01400 789. 40 .01400 791. 40 .01400 793. 40 .01400 795. 40 .01400 797. 40 .01400 799. 40 .01400 801. 40 .01400 803. 40 .01400 805. 40 .01400 807. 40 .01400 809. 40 .01400 811. 40 .01400 813. 40 .01400 815. 40 .01400 817. 40 .01400 819. 40 .01400 821. 40 .01400 823. 40 .01400 825. 40 .01400 827. 40 .01400 829. 40 .01400 831. 40 .01400 833. 40 .01400 835. 40 .01400 837. 40 .01400 839. 40 .01400 841. 40 .01400 843. 40 .01400 845. 40 .01400 847. 40 .01400 849. 40 .01400 851. 40 .01400 853. 40 .01400 855. 40 .01400 857. 40 .01400 859. 40 .01400 861. 40 .01400 863. 40 .01400 865. 40 .01400 867. 40 .01400 869. 40 .01400 871. 40 .01400 873. 40 .01400 875. 40 .01400 877. 40 .01400 879. 40 .01400 881. 40 .01400 883. 40 .01400 885. 40 .01400 887. 40 .01400 889. 40 .01400 891. 40 .01400 893. 40 .01400 895. 40 .01400 897. 40 .01400 899. 40 .01400 901. 40 .01400 903. 40 .01400 905. 40 .01400 907. 40 .01400 909. 40 .01400 911. 40 .01400 913. 40 .01400 915. 40 .01400 917. 40 .01400 919. 40 .01400 921. 40 .01400 923. 40 .01400 925. 40 .01400 927. 40 .01400 929. 40 .01400 931. 40 .01400 933. 40 .01400 935. 40 .01400 937. 40 .01400 939. 40 .01400 941. 40 .01400 943. 40 .01400 945. 40 .01400 947. 40 .01400 949. 40 .01400 951. 40 .01400 953. 40 .01400 955. 40 .01400 957. 40 .01400 959. 40 .01400 961. 40 .01400 963. 40 .01400 965. 40 .01400 967. 40 .01400 969. 40 .01400 971. 40 .01400 973. 40 .01400 975. 40 .01400 977. 40 .01400 979. 40 .01400 981. 40 .01400 983. 40 .01400 985. 40															

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1854.

(lxxxii)

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

INDICATIONS OF THE MAGNETOMETERS

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.

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1854.

(lxxxiii)

Göttingen Mean Solar Time.		Western Declina- tion.		Göttingen Mean Solar Time.		Horizontal Force in parts of the whole H. F. uncorrected for Temperature.		Göttingen Mean Solar Time.		Vertical Force in parts of the whole V. F. uncorrected for Temperature.		Readings of Thermo- meters.		Göttingen Mean Solar Time.		Western Declina- tion.		Horizontal Force in parts of the whole H. F. uncorrected for Temperature.		Göttingen Mean Solar Time.		Vertical Force in parts of the whole V. F. uncorrected for Temperature.		Readings of Thermo- meters.						
h	m	o	/	h	m	Aug. 26	h	m	Aug. 26	h	m	Of H. F. Magnet.	Of V. F. Magnet.	Aug. 29	h	m	Aug. 29	h	m	Aug. 29	h	m	Aug. 29	h	m	Aug. 29	h	m	Aug. 29	
Aug. 27	o. 8	22.	5. 15	Aug. 27	o. o	1015	o. o	01320	Aug. 27	10. 24	75. 0	77. 0			Aug. 29	o. 8	22.	5. 30	15. 58	15. 58	Aug. 29	o. 8	22.	6. 30	15. 58	15. 58	Aug. 29			
1. 18	22.	7. 15	1. 55		1014	1. 36	01190	21. 40		75. 0	77. 0				18. 1	21.	35	58. 30	16. 7	1021	15. 58	15. 58	15. 58	15. 58	15. 58	15. 58				
6. 33	21.	58. 30	2. 30		1006	3. 31	{. 00830			10. 24	75. 0	77. 0			21. 35	21.	35	58. 30	16. 7	1021	15. 58	15. 58	15. 58	15. 58	15. 58	15. 58				
10. 45	58. 30	8. 21	1009		3. 31	{. 00880			21. 40	68. 0	69. 5			22. 30	22.	3. 0	18. 7	17. 6	1022	15. 58	15. 58	15. 58	15. 58	15. 58	15. 58					
11. 21	52. 40	10. 46	1017		4. 50	{. 00860								23. 59	5. 40	18. 49	18. 49	18. 49	1023	15. 58	15. 58	15. 58	15. 58	15. 58	15. 58					
11. 55	54. 30	11. 0	1028		5. 32	{. 00860														17. 14	17. 14	17. 14	17. 14	17. 14	17. 14					
12. 44	51. 55	11. 15	1025		6. 15	{. 00850														19. 36	19. 36	19. 36	19. 36	19. 36	19. 36					
13. 42	57. 30	11. 51	1027		6. 43	{. 00850														21. 40	21. 40	21. 40	21. 40	21. 40	21. 40					
15. 53	56. 25	13. 25	1008		8. 38	{. 00830														22. 36	22. 36	22. 36	22. 36	22. 36	22. 36					
16. 57	57. 30	18. 5	1020		8. 38	{. 00830														23. 38	23. 38	23. 38	23. 38	23. 38	23. 38					
18. 6	54. 20	20. 46	1010	10. 18	8. 38	{. 00820																								
21. 15	21. 59. o	22. o	0996	11. 9	8. 38	{. 00830																								
23. 15	22. 4. o	23. 50	0998	12. 53	8. 38	{. 00860																								
					14. 14	{. 00950																								
					16. 44	{. 01130																								
					18. 55	{. 01330																								
					20. 22	{. 01470																								
					21. 38	{. 01560																								
					22. 33	{. 01590																								
					23. 13	{. 01590																								
Aug. 28	o. 3	22.	6. 20	Aug. 28	o. 15	0994	o. 30	01520	Aug. 28	1. 40	73. 0	74. 0			13. 56	56. 35	5. 9	1010	12. 36	1. 40	73. 0	74. 0								
1. 0	8. 35	1. 55	0999	1. 16	o. 30	01500	3. 40	75. 0	77. 0	14. 12	54. 20	5. 15	1000	14. 10	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0							
1. 55	9. o	2. 30	0994	1. 53	o. 30	01480	9. 40	77. 5	80. 0	14. 31	57. 0	5. 54	0998	15. 18	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0							
4. o	22.	1. 30	7. 46	1001	3. 32	01090	21. 40	67. 0	69. 0	15. 13	56. 0	5. 54	0998	15. 18	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0							
5. 4	21. 59. 15	9. 45	1008	4. 16	{. 00900				15. 37	21. 51. o	5. 54	0998	15. 18	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0								
6. 43	58. 20	10. 15	1006	4. 16	{. 00950									16. 57	22. 2. 30	7. 13	1012	19. 8	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0			
7. 47	58. 30	20. 45	1019	5. 42	{. 00900									18. 17	21. 54. 25	8. 14	1013	20. 24	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0			
12. 20	57. 35	22. o	1020	6. 30	{. 00860									19. 13	55. 30	9. 10	1001	22. 21	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0			
20. 35	21. 58. o	23. 59	1013	6. 33	{. 00920									19. 40	56. 20	9. 16	1016	23. 35	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0			
22. 17	22. o. o	5. o	1013	8. 32	{. 00950									20. 22	52. 25	12. 14	1016	23. 35	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0			
23. 59				9. 32	{. 00980									20. 44	57. 30	12. 25	1025	23. 35	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0			
				10. 37	{. 01020									21. 20	22. 5. 30	12. 55	1016	23. 35	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0			
				11. 47	{. 01100									21. 34	1. o	1022	1016	23. 35	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0			
				12. 39	{. 01210									22. o	3. o	1018	1016	23. 35	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0			
				13. 39	{. 01360									22. 52	o. 50	1036	1036	23. 35	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0			
				14. 50	{. 01570									23. 43	3. 30	1036	1036	23. 35	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0	1. 40	73. 0	74. 0			
				16. 52	{. 01520															15. 33	1021	1021	1021	1021	1021	1021				
				19. 35	{. 01500															16. 34	1020	1020	1020	1020	1020	1020				
				21. 39	{. 01490															17. 31	1042	1042	1042	1042	1042	1042				
				22. 36	{. 01490															18. 28	1032	1032	1032	1032	1032	1032				
				23. 44	{. 01450															19. 0	1042	1042	1042	1042	1042	1042				
																				19. 25	1027	1027	1027	1027	1027	1027				
Aug. 29	o. 5	22.	5. 15	o. o	1013	o. o	01460	1. 40	71. 0	73. 0	18. 28	1032	1032	1032							20. 53	1011	1011	1011	1011	1011	1011			
o. 56	4. 30	o. 15	1006	o. 57	01400	3. 40	74. 0	75. 5	19. 0	1042	1042	1042	1042							21. 14	1022	1022	1022	1022	1022	1022				
1. 20	7. o	1. o	1004	2. 34	01180	9. 40	76. 0	78. 0	19. 25	1027	1027	1027	1027							21. 31	1012	1012	1012	1012	1012	1012				
1. 38	5. 30	1. 25	1013	3. 42	00970	21. 40	69. 5	70. 0	19. 28	1032	1032	1032	1032							22. o	1023	1023	1023	1023	1023	1023				
3. 35	3. o	1. 51	1000	4. 24	00810	(†)			19. 36	1036	1036	1036	1036							20. 53	1011	1011	1011	1011	1011	1011				
4. 40	22.	2. o	(†)	3. 38	1000	9. 36	00690	(†)	10. 49	00810	(†)									21. 14	1022	1022	1022	1022	1022	1022				
9. 29	21.	59. 30	(†)	3. 38	1000	9. 36	00690	(†)	10. 49	00810	(†)									21. 31	1042	1042	1042	1042	1042	1042				
16. 6	21.	59. o	9. 30	1016	11. 37	00860			11. 37	00860										21. 31	1012	1012	1012	1012	1012	1012				
16. 13	22.	1. 30	10. 45	1011	12. 22	00910			12. 22	00910										22. o	1023	1023	1023	1023	1023	1023				
17. 15	21.	56. 25	12. 20	1012	13. 50	01070			13. 50	01070										23. 43	1036	1036	1036	1036	1036	1036				

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

INDICATIONS OF THE MAGNETOMETERS

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.

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	
							Of H. F. Magnet	Of V. F. Magnet							Of H. F. Magnet	Of V. F. Magnet
Sept. 3		Sept. 3		Sept. 3		Sept. 3		Sept. 3		Sept. 5		Sept. 5		Sept. 5		
0. 14	22. ° 5.30	0. ° 0	.1006	0. ° 0	.01320	9. 52	71 ° 73 °	71 ° 60 °	23. 59	22. ° 8. 0	h m	14. 54	.01450	h m	o	o
1. 43	5.30	1. 18	.1006	0. 49	.01200	21. 40						17. 9	.01430			
3. 52	22. o. o	5.46	.0992	1. 35	.01010							18. 55	{ .01420			
6. 42	21. 58. 25	7. 44	.0991	2. 27	{ .00760							19. 16	.01410			
10. 56	57. 30	10. 30	.1004		{ .00790							21. 20	.01410			
15. 37	58. 30	16. 15	.1020	4. 32	.00870							22. 53	.01360			
18. 28	59. 30	21. 30	.1021	6. 35	.00810							23. 44	.01310			
20. 2	21. 57. 15	23. 59	.1008	8. 8	.00760											
22. 39	22. 3. 10			9. 39	.00760											
23. 59	6. 30			10. 35	.00790											
				11. 1	.00830											
				11. 46	.00920											
				13. 38	.01260											
				14. 40	{ .01500											
				16. 25	.01450											
				18. 11	.01410											
				20. 23	.01400											
				21. 43	.01410											
				22. 32	.01410											
				23. 5	.01360											
				23. 45	.01280											
Sept. 4		Sept. 4		Sept. 4		Sept. 4		Sept. 4		Sept. 6		Sept. 6		Sept. 6		Sept. 6
0. 13	22. 6. 50	o. o	.1007	o. o	.01260	1. 40	64 ° 65 °	64 ° 65 °		o. 23	22. 8. o	o. o	.1004	o. 15	.01250	1. 40
1. 16	22. 7. 35	o. 30	.1006	1. 32	.00970	3. 40	70 ° 72 °	70 ° 72 °		1. 46	22. 7. 35	***	1. 34	3. 40	67 ° 68 °	
4. 2	21. 59. 45	5. 30	.0972	2. 15	{ .00760	9. 40	71 ° 73 °	71 ° 73 °		4. 2	21. 59. 45	1. o	.1010	2. 38	{ .00720	9. 40
6. 10	56. 30	7. 2	.0983		{ .00780	21. 40	60 ° 62 °	60 ° 62 °		6. 15	57. o	***			{ .00760	21. 40
7. 43	56. o	7. 50	.0978	3. 24	.00840					10. 35	57. 30	4. 53	.0992	3. 36	.00800	
8. o	54. 30	8. 34	.0987	5. 23	.00940					11. 18	55. o	7. 37	.0986	5. 35	.00800	
8. 40	56. 25	18. 53	.1016	7. 54	.00760					12. 55	58. 35	9. 36	.0992	7. 36	.00760	
9. 13	55. 30	22. 7	.1014	9. 18	.00800					20. 8	57. 10	10. 45	.0991	9. 27	.00740	
9. 52	57. o	23. 40	.1002	10. 57	.00910					21. 23	21. 59. 45	11. o	.1000	10. 31	.00830	
12. 48	58. 25	23. 59	.1006	11. 33	.00980					23. o	22. 5. 40	12. 50	.1000	11. 20	.00910	
19. 2	56. 30			12. 20	.01080					23. 45	6. 25	18. 30	.1016	11. 50	.00980	
21. 23	21. 59. o			14. 2	.01320					23. 30	10. 14	12. 22	.01040	13. 36	.01250	
23. 59	22. 7. 15			15. 5	{ .01510					23. 59	10. 10					
				17. 49	.01450											
				19. 55	.01420											
				21. 35	.01430											
				22. 33	.01400											
				23. 10	.01350											
				23. 32	.01310											
Sept. 5		Sept. 5		Sept. 5		Sept. 5		Sept. 5		Sept. 7		Sept. 7		Sept. 7		Sept. 7
0. 28	22. 7. 30	o. o	.1006	o. 45	.01190	1. 40	65 ° 68 °	65 ° 68 °		o. o	22. 6. 35	o. o	.1010	o. o	.01280	1. 40
1. 5	8. 30	2. 23	.1020	2. 23	.00850	3. 40	69 ° 70 °	69 ° 70 °		2. 15	22. 4. 30	3. 50	.1003	1. 12	3. 40	70 ° 71 °
3. 10	4. 20	5. 22	.1004	3. 4	{ .00710	9. 40	69 ° 70 °	69 ° 70 °		5. 43	21. 58. 25	6. 35	.0995	2. 9	.00880	9. 40
3. 53	1. 30	18. 15	.1025		{ .00730	21. 40	58 ° 59 °	58 ° 59 °		7. 32	21. 59. 30	11. o	.1006	2. 34	.00740	21. 40
5. 18	22. o. 15	23. 30	.1007	5. 44	.00750					21. 17	22. o. o	18. 30	.1014	2. 36	.00760	
8. 56	21. 58. o	23. 59	.1004	7. 38	.00730					23. 8	4. 50	20. 30	.1005	4. 27	.00800	
9. 53	59. 45			9. 5	.00720					23. 32	4. 10	22. o	.0996	6. 40	.00790	
12. 15	21. 59. 45			10. 21	.00780					23. 55	5. o	23. 30	.0996	8. 50	.00750	
18. 37	22. o. o			11. 47	.00950											
20. 6	21. 57. 25			12. 15	.01040											
21. 35	21. 59. 45			13. 30	.01230											
23. 32	22. 7. o			14. 40	.01470											

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	
							Of H. F. Magnet.								Of V. F. Magnet.	
Sept. 8		Sept. 8		Sept. 8		Sept. 8		Sept. 10		Sept. 10		Sept. 10		Sept. 10		
3.35	21. 58. 0	5.55	.0995 ***	4.10	.00870	21.40	60° 0' 62° 0'	10.15	1023	13.30	.00980	11. m	o	o	o	o
4.40	56. 30	8.23	.1003	4.45	{ .00760			11. 0	1018	14.25	.01090					
6.16	58. 30	8.27	.1018	5.24	{ .00830			14.46	1028		***					
9.55	59. 30	8.27	.1018	5.33	{ .00740			15. 4	1010	16.29	.01410					
13.32	54. 25	9.31	.1018	5.43	{ .00760			15.50	1040	16.32	.01390					
13.58	57. 30	10. 0	.1010	6.50	{ .00730			16. 5	1030	16.55	.01360					
	***	11.32	.1008	8.22	{ .00720			17.44		17.44	.01350					
14.41	56. 30	12. 5	.1018	8.28	{ .00730			18.59	12.30	18.25	.01310					
20.10	21. 58. 30	12.25	.1007	9.38	{ .00780			18.35	1. 0	18.59	.01300					
23.56	22. 6. 25		***	10.37	{ .00920			18.45	22. 2. 30	19.2	.01270					
		14.50	.1013	11.18	{ .01040			19. 1	21. 56. 30	19.5	.01290					
		15.15	.1022	12.55	{ .01320			19.55	22. 0. 30	21.36	.01330					
		17.55	.1020	13.50	{ .01490			20.53	21. 58. 0	21.45	.01320					
		19.23	.1006	13.50	{ .01450			22. 1	22. 2. 0	22.28	.01270					
		19.52	.1013	16.35	{ .01430			22.44	7. 0	22.35	.0135					
		21. 0	.1001	18.40	{ .01430			22.53	5.45		***					
		22. 0	.1001	21.13	{ .01420			23. 3	8.30	23.31	.0997					
		23.18	.0994	22.55	{ .01420			23. 7	6.30							
		23.59	.0995	23.53	{ .01390			23.59	9. 0							
Sept. 9		Sept. 9		Sept. 9		Sept. 9										
0. 0	22. 5. 15	0. 0	.0995	0.15	{ .01370	1. 40	64° 0' 66° 0'									
1.44	8.20		***	1. 5	{ .01320	3. 40	66° 0' 68° 0'	0.17	22. 10. 30	0. 3	.1004	0. 0	.01250	1. 40	60° 0' 62° 0'	
3. 0	3. 30	1. 0	.1003	2.14	{ .01150	9. 40	66° 0' 68° 5		***	(†)			***	3. 40	66° 0' 67° 0'	
3.40	22. 2. 45		***	3.51	{ .00800	22. 6	57° 0' 59° 0'	1. 30	8. 0	2.55	.0988	1. 33	.01100	9. 40	65° 5' 67° 0'	
4.29	21. 59. 45	3. 0	.0095	4.15	{ .00710			1.43	13. 30	3.16	.1015	2. 3	.00980	21. 40	56° 0' 58° 0'	
5.40	57. 35	3.54	.1004	4.25	{ .00740			2. 9	7.35	3.31	.0992		***			
8.22	59. 50	4.25	.0998	6.21	{ .00710			2.12	9. 0	3.37	.1002	2.23	.00930			
8.56	53. 25		***	7.23	{ .00670			2.29	4.15	3.52	.0970	2.32	.00920			
9.13	55. 25	5. 0	.1002	8.39	{ .00670			2.42	8.30	4.14	.1000	2.39	.00870			
9.45	55. 45	5.46	.1000	9.41	{ .00730			2.47	3.35	4.29	.0992	2.51	.00860			
10.12	59. 0	8.10	.1010	11.20	{ .00880			3. 2	11. 0	4.36	.0998	3. 5	.00810			
17.32	58. 35	8.30	.1005	11.54	{ .00960			3.20	15. 0	4.46	.0990	3. 8	.00830			
19.55	21. 57. 0	18.40	.1026	12.36	{ .01060			3.30	20. 0	5.23	.1028		***			
22.48	22. 3. 30	22.23	.1004	14. 9	{ .01310			3.45	10. 0	5.43	.0999	3.24	.00860			
		22.46	.1004	(†)	{ .01450			4.10	12.35	5.50	.1002	3.35	.00850			
				14.56	{ .01420			5. 2	11. 0	6. 0	.0983	3.50	.00890			
				16.57	{ .01400			5.28	22. 12. 30	6. 7	.0994	4.14	.00870			
				18.39	{ .01400			5.55	21. 56. 30	6.23	.1000		***			
				20.53	{ .01380			6. 5	22. 0. 30	6.33	.0988	5.28	.00920			
				21.58	{ .01370			6.14	21. 52. 30	6.44	.0998	5.39	.01000			
				22.58	{ .01350			6.16	54. 0	7. 1	.0971	5.50	.00990			
Sept. 10		Sept. 10		Sept. 10		Sept. 10										
1.46	22. 7. 25	2. 0	.1014	0. 0	{ .01350	11. 39	62° 0' 64° 0'	6.47	50. 35	7.34	.0968	6.37	.01000			
5.53	21. 59. 15	2.39	.1012	1.24	{ .01320	21. 40	55° 0' 57° 0'	6.57	46. 45	7.40	.0978	6.51	.00980			
6.32	22. 2. 10	3. 7	.1022	2.22	{ .01220			7. 19	56. 25	7.56	.0974	7. 9	.00940			
9. 1	21. 59. 25		***	3.44	{ .00990			7.29	52. 30	8. 8	.0984	7.45	.00890			
9.41	57. 10	4.53	.1016	4.43	{ .00760			7.42	56. 20	8.30	.0965	8. 8	.00870			
10.10	57. 30	5.15	.1023	5.12	{ .00650			8. 6	52. 25	8.55	.0998	8.15	.00850			
10.47	55. 30	6. 0	.1008	5.15	{ .00670			8.37	32. 30	9.17	.0968	8.40	.00850			
11.32	58. 30	6.16	.1017		***			9. 5	50. 10	10. 10	.0970	8.51	.00830			
12.18	57. 45	6.30	.1006	7. 5	{ .00670			9.54	54. 0	11. 14	.0992	9. 5	.00810			
14.10	59. 30	6.45	.1016	8.52	{ .00950			10.23	50. 30	11. 40	.1014	9. 50	.00800			
14.48	21. 56. 30	7. 0	.1006	9.42	{ .00640			11. 9	21. 55. 30	12. 0	.1010	10. 9	.00770			
15.12	22. 3. 0	8. 2	.1018	10.45	{ .00670			11.43	22. 3. 30	12.19	.1009	10.40	.00820			
15.46	22. 2. 30	8.19	.1013	12.39	{ .00750			12.34	21. 58. 25	15. 0	.1009	11.19	.00870			
			***					13.32	22. 2. 40			11.50	.00880			

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.

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	
							Of H. F. Magnet. Of V. F. Magnet.									Of H. F. Magnet. Of V. F. Magnet.
Sept. 11		Sept. 11		Sept. 11					Sept. 13		Sept. 13					
14. 2	o 0.35	19.30	•1018	12.53	•00990	b m	o o	15. 13	21. 55. 30	15.55	•1021	16.49	•01340	b m	o o	
14. 25	22. 2. 0	21.30	•1018	13.54	•01110			15. 18	55. 10	17.30	•1022	17.31	•01410			
15. 10	21.59. 30	23. 5	•1002	14.42	•01230			15. 33	52. 15	***	18.15:	•1030	18.13	•01460		
20. 23	21.58. 25	23. 30	•1002	15.51	•01430			17. 58	57. 20	19.40	•1010	19.22	•01530			
23. 23	22. 3. 30			16.16	•01490			18. 17	55. 15	20.55	•1014	19.32	•01520			
				16.19	•01470			18. 45	57. 30	22.30	•1006	20. 8	•01520			
				18.23	•01450			19. 36	55. o	23. o	•1000	21.54	•01540			
				20.17	•01440						•1004	23.32	•01550			
				21. 5	•01430											
				22. 21	•01440											
				23. 30	•01400											
Sept. 12		Sept. 12		Sept. 12					Sept. 14		Sept. 14		Sept. 14		Sept. 14	
0. 10	22. 3. 35	o. 5	•1003	o. o	•01360	1.40	65. 066. o	Sept. 12			o. o	22. 4. 30	o. o	•01540	1. 40	69. o 71. o
1. 13	4. 30	***		1. 5	•01200	3.40	69. 571. 5		0. 36	5. 10	0.28	•1000	2.23	•01450	3. 40	69. o 71. o
2. 55	1. o	3. o	•1000	2.19	•00800	9.40	74. o 74. 5		2. 17	22. 4. o	2. o	•1014	5.35:	•01230	9.48	66. o 68. o
3. 5	5. o	3. 7	•1023	2.34	•00830	21.40	67. 068. o		4. 37	21. 58. 35	4.23	•1017	8.18	•01400	21. 40	62. o 63. o
3. 17	22. 2. o	3. 25	•1000	3.15	•00850				10. 49	21. 57. 45	4.32	•1024	9.53	•01530		
7. 40	21.58. o	6.30	•0999	3.17	•00880				11. 2	22. 1. 30	4.45	•1015	10.28	•01540		
7. 51	59. 15	6.55	•1006	3.23	•00860				11. 21	21. 57. 30	4.45	•1027	11.35	•01520		
8. 7	54. 15	7.58	•0990	4.12	•00860				11. 39	59. 35	10.24	•1027	12.10	•01520		
8. 32	58. 35	8.31	•0998	5.55	•00850				12. 4	56. 30	11.47	•1020	12.45	•01480		
8. 52	53. 35	8.45	•0990	6.48	•00850				13. 6	54. o	12.44	•1030	13.13	•01510		
9. 32	58. 30	9.33	•0996				***		13. 26	56. 25	13.27	•1023	15.54	•01490		
9. 37	57. 30	9.55	•1017	8. 3	•00830				13. 40	55. 30	10. o:	•1033	22.31	•01480		
9. 55	59. o	11.15	•1000	8.30	•00840				14. o	57. o	18. 9	•1034	19.44	•01480		
10. 17	54. 30		***	8.38	•00830				15. 38	53. 35	19.23	•1028	22.31	•01480		
11. 17	57. o	14. o	•1006	9.54	•00800				16. 25	56. 35	20. o:	•1033	23.35	•01430		
11. 58	55. 35	14.45	•1003	10. 8	•00790				17. 2	56. 15	21.25	•1016	23.59	•01420		
14. o	58. 20	15.57	•1016	11.25	•00780				17. 52	58. o	21.40	•1020				
14. 46	53. o	18.15	•1020	12.20	•00820				20. 20	21. 57. 25	23.10	•0995				
15. 16	59. 30	18.26	•1014	14.21	•00980				21. 27	22. 2. o	23.59	•1003				
16. 16	56. 15	22. 8	•1005	15.40	•01090				22. 53	4. 30						
20. 52	21.58. 30	23.59	•1010	16.55	•01230				23. 47	8. 25						
23. 59	22. 5. o			18.24	•01380											
				19.54	•01470											
				21.27	•01540											
				22.35	•01530											
				23.30	•01520											
				23.59	•01510											
Sept. 13		Sept. 13		Sept. 13					Sept. 15		Sept. 15		Sept. 15		Sept. 15	
0. 16	22. 3. 30	o. o	•1010	o. 54	•01380	1.40	69. 070. o	Sept. 13	o. 2	22. 7. 30	o. o	•1004	o. 15	•01410	1. 40	65. o 67. o
1. 32	4. o	3. 30	•1020	2.27	•01410	3.40	71. 072. 5		o. 38	6. o	3.13	•1006	1.36	•01280	3. 40	68. o 69. 5
4. 36	o. o	3.55	•1013	4.50	•01270	9.40	71. 072. 5		1. 5	5. 10	3.27	•1016	3.10	•01000	9.40	69. o 70. o
5. 30	22. 0. 25	5. 7	•1016	6.53	•01180	21.40	68. 070. o		3. 12	2. o	3.37	•1005	3.53	•00840	21. 40	68. o 69. o
6. 26	21.59. 25	5.32	•1024	7.53	•01150				3. 23	3. o	4.25	•1007	4.25	•00730		
7. 5	22. 0. 40	6.23	•1002	9. 8	•01120				3. 39	o. o	4.50	•1018	4.27	•00760		
10. 42	21.59. o	7. o	•1016	10.24	•01140				6. 2	22. o. o		***	7. 4	•00750		
11. 8	56. 45	10.55	•1021	11.16	•01170	***			6. 37	21. 59. 30	5.26	•1002	7. 9	•00770		
12. 25	54. 25	12. 1	•1024	11.54	•01200				7. 4	56. o	6.40	•1010	11.51	•00730		
12. 42	56. 45		***	12. o	•01220				7. 29	58. o	6.55	•1001	12.45	•00720		
13. 12	56. o	12.45	•1016	14. 5	•01250				7. 45	56. 30	7. 4	•00730				
13. 34	21.53. o	13.15	•1020	14.15	•01230				9. 3	58. 45	7.15	•1013	14.40	•00660		
14. 7	22. 3. 15	13.57	•1002	14.53	•01220				9. 55	57. 15	8.50	***	19.26	•00860		
14. 22	21.56. 30	14.46	•1040	15.31	•01240				10. 14	57. 40	9.42	•1021	20.51	•00920		
14. 45	52. 35	15.33	•1013	15.52	•01280				11. 7	57. 25	11.17	•1012	23.55	•00970		
									11. 57	58. o	10.14	•1024				
									12. 17	56. 15	11.17	•1018				

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	
						Of H. F. Magnet. Of V. F. Magnet.								Of H. F. Magnet. Of V. F. Magnet.
Sept. 15		Sept. 15					Sept. 18		Sept. 18					
13. 9	21. 58. 30	13. 37	.1028	h m	h m	o o	9. 25	21. 52. 30	3. 40	.1004	h m	o o	o o	
13. 25	21. 57. 10	14. 6	.1019				10. 25	54. o	(†)	***				
13. 32	22. 5. o		***				19. 0	59. 30	6. o	.1003				
15. 20	21. 53. 30	14. 31	.1034				21. 6	55. 30	8. 16	.1020				
16. 10	55. o		***				22. 5	21. 57. 30		***				
17. 3	53. 30	15. 43	.1022				23. 43	22. 2. 50	9. 15	.1011				
18. 6	57. o	16. 53:	.1033						9. 33	.1019				
20. 55	21. 56. 30	20. o	.1006							***				
23. 59	22. 2. 30	23. 59	.1004											
Sept. 16		Sept. 16		Sept. 16			Sept. 19		Sept. 19		Sept. 19		Sept. 19	
0. 17	22. 2. 45	o. o	.1004	o. 45	.00910	1. 40	0. o	22. 3. 30	o. o	.1021	o. o	.01080	1. 40	
0. 50	5. o	4. 15	.1010		{ .00770	3. 40	70. 0	71. 0		2. 36	4. 40	.00950	3. 40	
1. 54	22. 4. 35		(†)	3. 25	{ .00830	9. 40	71. 0	72. 0		2. 36	4. 40	.00710	9. 55	
4. 28	21. 59. 25	7. 35	.1016	10. 25	{ .00800	22. 23	69. 0	73. 0		5. 31	21. 59. o	.00760	21. 40	
7. 30	59. 15	12. 17	.1014	14. 53	{ .00890					8. 58	57. o	.00720		
11. 2	57. 30	17. o	.1018	17. 27	{ .01010					9. 20	52. o	.00720		
13. 42	58. 30	19. 15	.1028	23. 12	{ .01280					9. 42	56. o	.00750		
16. 45	21. 59. 20	21. 7	.1016							10. 28	58. 30	.01050		
17. 11	22. 3. o	23. 8	.0994							13. 50	57. 25			
18. o	21. 59. 30	23. 59	.0992							14. 23	58. 30			
18. 19	22. 0. 25									20. 17	21. 56. 20			
19. 25	21. 56. 20									23. 58	22. 1. 30			
21. 30	22. 1. o									16. o	1026			
22. 10	21. 59. 45									19. 40	1032			
23. 59	22. 6. 30									23. o	1017			
Sept. 17		Sept. 17		Sept. 17			Sept. 20		Sept. 20		Sept. 20		Sept. 20	
0. 14	22. 6. 20	o. o	.0992	o. o	{ .01270	10. 2	72. 0	73. 0		o. 6	22. 2. o	.01270	1. 40	
1. 28	8. o	0. 45	.0994	o. 45	{ .01240	21. 40	61. 0	62. 0		1. 16	22. 3. 25	3. 26	.00870	
1. 52	5. o	1. o	.1002		{ .00830					5. 12	21. 58. 50	4. 30	.00720	
2. 46	22. 0. o	2. 10	.0986	4. 20	{ .00870					7. 17	21. 58. 25	7. 15	.00750	
6. 28	21. 58. o	2. 49	.1000	8. 42	{ .00800					10. 25	22. 0. o	11. 37	.00730	
7. 32	22. 0. o	7. 23	.0996	10. 38	{ .00910					11. 52	21. 57. 20	12. 13	.00820	
9. 45	21. 55. 40	9. 8	.1003	12. 37	{ .01110					12. 6	55. o	12. 44	.01050	
10. 25	21. 57. o	10. 37	.1003	15. 2	{ .01540					13. o	58. o	12. 53	.01100	
10. 43	22. 0. 45	11. o	.1027	15. 5	{ .01520					13. 28	57. 30	13. 49	.01140	
10. 52	21. 57. o	11. 30	.1010	21. 35	{ .01470					13. 44	59. o	15. 21:	.01460	
11. 15	56. 35	12. 10	.1016	23. 6	{ .01460					14. 6	21. 58. 15	19. 23	.01440	
11. 38	59. 30	13. o	.1006	23. 59	{ .01470					14. 34	22. 0. 25	23. 30	.01420	
12. 8	56. 30	18. 20	.1022							15. 2	21. 56. 50	23. 57	.01410	
13. 32	57. 15	18. 45	.1030							16. 11	55. o			
14. 17	56. 30	19. 8	.1022							17. 52	57. 30			
15. 5	58. 30	20. 45:	.1026							20. o	55. 35			
16. 6	55. 35	23. 54	.1002							21. 37	21. 58. 30			
16. 47	57. 30	23. 59	.1004							23. 48	22. 3. 35			
21. 20	21. 59. 15													
23. 46	22. 4. 30													
23. 59	4. 30													
Sept. 18		Sept. 18		Sept. 18			Sept. 21		Sept. 21		Sept. 21		Sept. 21	
o. 30	22. 2. 30	o. o	.1004	1. 17	{ .01385	1. 40	65. 0	67. 0		o. 10	22. 3. o	o. 15	.01390	
1. 12	4. 15	0. 33	.0993	5. 50	{ .00690	3. 40	67. 0	68. 0		o. 35	5. 35	o. 37	.01200	
1. 50	2. 50	0. 52	.1004	6. 7	{ .00680	9. 40	67. 0	68. 0						
2. 40	3. o	1. 44	.1004	11. 37	{ .00720	21. 40	64. 0	66. 0						
5. 12	4. 35		***	13. 53	{ .00780									
8. 23	22. 6. 45	2. 33	.1010	20. 56	{ .01100									
9. 2	21. 55. 30		***	23. 37	{ .01080									

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.

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	
Sept. 21		Sept. 21		Sept. 21			Sept. 24			Sept. 24			
1. 0	22. 4. 0	0. 51	.1023	3. 32	.01040	9. 40	21. 5. 30	2. 50	.1027	3. 35	.00770		
3. 32	4. 0	3. 5	.1027	6. 5	.00640	21. 40	55. 0. 57	2. 2	***	10. 36	.00730		
4. 4	2. 30		***	6. 24	.00620				10. 18	11. 25	.00730		
4. 13	3. 30	5. 10	.1015	10. 46	.00690				13. 54	.00840			
5. 8	1. 0	5. 34	.1022	11. 15	.00700				15. 53	.01090			
5. 54	1. 0	6. 9	.1016	11. 39	.00740				16. 34	18. 19	.01480		
6. 25	22. 2. 10	9. 40	.1032	13. 54	.01000				18. 21	.01450			
9. 0	21. 59. 0		***	16. 39	.01350				20. 36	21. 57. 0	.01430		
9. 26	59. 0	10. 41	.1026	16. 40	.01330				22. 15	4. 0	.01440		
10. 4	53. 0	10. 57	.1046	21. 36	.01370				23. 59	7. 40			
10. 51	57. 0	11. 46	.1034	23. 32	.01380								
11. 23	49. 25	12. 29	.1043										
11. 48	58. 25	13. 14	.1034										
12. 52	54. 30	14. 36	.1042										
13. 52	56. 15	15. 14	.1030										
14. 9	58. 0	16. 25	.1049										
14. 31	56. 0		***										
15. 13	59. 35	18. 15	.1038										
16. 47	54. 0	19. 53	.1040										
17. 46	55. 30	23. 30	.1016										
18. 5	57. 45	23. 59	.1023										
20. 31	57. 0												
22. 2	21. 58. 25												
22. 56	22. 2. 35												
23. 59	3. 35												
Sept. 22		Sept. 22		Sept. 22			Sept. 25			Sept. 25		Sept. 25	
0. 4	22. 3. 30	0. 0	.1024	0. 40	.01390	1. 40	58. 0. 62	0. 0	.1014	0. 0	.01430		
0. 31	7. 35	0. 28	.1036	0. 54	.01340	3. 40	59. 5. 62	0. 0	2. 20	9. 30	3. 40		
1. 0	5. 0	1. 0	.1026	2. 41	.01110	9. 40	61. 0. 60	5	20. 17	1. 5	60. 0. 61		
5. 13	22. 2. 30	3. 0	.1036	5. 21	.00590	21. 40	57. 0. 59	0	3. 18	7. 0	9. 40		
(†)	3. 20		.1026	5. 28	.00610				3. 53	4. 0	64. 0. 65		
9. 40	21. 56. 46*	3. 26	.1030	8. 23	.00610				6. 8	22. 0. 50	21. 40		
(†)	4. 36		.1020	10. 50	.00590				6. 31	21. 58. 30	55. 0. 57		
21. 40	58. 8. 8*	4. 55	.1026	11. 45	.00590				8. 3	58. 0	55. 0. 57		
(†)	5. 16		.1021	13. 35	.00620				8. 29	55. 25	8. 5		
			(†)	20. 30	.01000				8. 47	57. 40	9. 18		
				22. 10	.01020				9. 6	56. 25	9. 5		
				23. 59	.00980				9. 16	45. 0	10. 9		
Sept. 23		Sept. 23		Sept. 23			Sept. 26			Sept. 26		Sept. 26	
0. 13	22. 3. 25	0. 10	.1037	0. 25	.00960	1. 40	59. 0. 60	0. 0	.1026	0. 30	.01360		
1. 30	22. 4. 0	2. 57	.1034	2. 5	.00850	3. 40	61. 5. 63	5	1. 50	4. 40	2. 21		
5. 25	21. 58. 30	3. 17	.1038	3. 45	{ .00620	9. 40	63. 5. 65	0	2. 23	22. 0. 0	2. 21		
6. 40	22. 0. 15	3. 50	.1030		{ .00650	21. 59	59. 0. 61	0	5. 25	21. 59. 30	4. 2		
8. 14	21. 58. 30	4. 55	.1036	6. 13	.00670				8. 8	22. 1. 0	5. 18		
14. 29	58. 25	5. 13	.1028	11. 46	.00630				8. 43	21. 58. 0	7. 43		
16. 55	57. 20	10. 8	.1042	12. 36	.00640				9. 30	21. 56. 35	8. 34		
17. 57	59. 30	16. 40	.1043	15. 43	.00710				9. 59	22. 0. 0	11. 35		
20. 17	21. 56. 20	17. 45:	.1041	20. 42	.00880				10. 43	21. 56. 20	12. 54		
23. 59	22. 2. 25	19. 0	.1045	22. 44	.00880				11. 8	57. 25	6. 50		
				22. 10	.1018				12. 8	48. 0	7. 37		
				23. 59	.1020				12. 55	57. 50	8. 30		
Sept. 24		Sept. 24		Sept. 24			Sept. 26			13. 15	56. 30	9. 21	
0. 16	22. 3. 0	0. 0	.1020	0. 0	.00820	11. 26	67. 0. 68	0	13. 36	57. 35	10. 46		
2. 31	22. 2. 30		***	1. 36	{ .00660	21. 40	57. 0. 58	0	13. 45	21. 54. 20	10. 55		
4. 25	21. 57. 30	1. 15	.1019		{ .00720				14. 25	22. 21. 0	11. 14		

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.			
Sept. 26		Sept. 26		Sept. 26						Sept. 27								
15. 14	° 49. 10	12. 10	•1038	18. 24	•01410	h m	o o	23. 59	22. 2. 35	h m		h m		h m	o o	Sept. 28		
15. 17	50. 0		***	18. 35	•01330					Sept. 28	o. 16	22. 5. 30	o. 4	•1020	o. 45	•01360	1. 40	61 ° 62 °
15. 26	45. 30	13. 53	•1040	18. 39	•01420					Sept. 28	o. 32	3. 15	0. 54	•1026	2. 36	•01230	3. 40	66 ° 67 °
15. 37	44. 20	14. 22	•1004	21. 39	•01380					Sept. 28	1. 20	3. 35	1. 33	•1014	3. 24	•01020	9. 40	65 ° 67 °
16. 13	54. 30	14. 40	•1021	23. 59	•01410					Sept. 28	1. 58	2. 30	2. 40	•1025	3. 25	•00810	21. 40	53 ° 55 °
16. 35	56. 30	14. 46	•1016							Sept. 28	2. 18	4. 0		***	3. 45	•00830		
18. 22	57. 0	15. 1	•1045							Sept. 28	3. 45	22. 2. 0	4. 54	•1006	5. 54	•00830		
19. 25	58. 50	15. 8	•1036							Sept. 28	4. 17	21. 59. 25	6. 45	•1020	5. 57	•00880		
19. 51	21. 57. 30	15. 17	•1041							Sept. 28	4. 29	22. 0. 30	10. 10	•1023	6. 16	•00830		
20. 1	22. 3. 0	15. 36	•1021							Sept. 28	6. 10	21. 57. 25	10. 44	•1020	6. 18	•00840		
20. 22	21. 59. 40	15. 41	•1028							Sept. 28	9. 7	58. 0	11. 50	•1034	7. 51	•00790		
20. 40	22. 1. 0	16. 0	•1020							Sept. 28	9. 22	57. 0		***	9. 19:	•00780		
21. 32	21. 58. 30		***							Sept. 28	10. 56	57. 0	15. 18	•1028	11. 5	•00900		
21. 42	22. 1. 30	19. 0	•1043							Sept. 28	11. 10	58. 50	17. 53	•1042	11. 45	•00960		
22. 0	0. 25		***							Sept. 28	11. 33	56. 0	23. 59	•1032	12. 46	•01030		
22. 37	3. 0	20. 20	•1022							Sept. 28	11. 52	59. 30			15. 8	•01450		
22. 42	6. 40	21. 15	•1027							Sept. 28	12. 1	21. 59. 0			15. 9	•01430		
23. 6	4. 20		***							Sept. 28	12. 15	22. 0. 40			23. 59	•01370		
23. 27	7. 30	22. 32	•1018							Sept. 28	13. 57	21. 55. 0						
23. 59	7. 0	22. 55	•1026							Sept. 28	15. 4	55. 35						
		23. 13	•1008							Sept. 28	15. 24	57. 45						
		23. 30	•1026							Sept. 28	16. 38	56. 20						
		23. 50	•1007							Sept. 28	18. 1	57. 30						
		23. 59	•1008							Sept. 29								
Sept. 27		Sept. 27		Sept. 27		Sept. 27		Sept. 27		Sept. 29			Sept. 29		Sept. 29		Sept. 29	
o. 16	22. 6. 30	o. 0	•1008	o. 45	•01370	1. 40	61 ° 63 °	21. 29	21. 56. 25	o. 8	22. 2. 25	o. o	•1033	0. 45	•01340	1. 40	55 ° 57 °	
o. 40	6. 0	0. 40	•1014	0. 59	•01330	3. 40	65 ° 66 °	23. 59	22. 2. 30	2. 2	22. 3. 10		***	2. 0	•01290	3. 40	62 ° 63 °	
o. 53	11. 0	0. 55	•1033	1. 9	•01320	9. 40	65 ° 67 °			4. 51	21. 58. 30	3. 36	•1025	2. 58:	•01170	9. 40	65 ° 67. 5	
1. 15	5. 50	1. 34	•1010	1. 18	•01330	21. 40	56 ° 57 °			6. 32	58. 15	8. 16	•1034	3. 46	•00920	21. 40	56 ° 57 °	
1. 22	8. 30	2. 2	•1023	1. 50	•01230					8. 41	56. 30	9. 20	•1027	4. 24	•00730			
1. 42	4. 25	3. 14	•1012	3. 37	•00800					10. 46	57. 30	12. 40	•1038	4. 26	•00750			
2. 1	3. 15		***	7. 24	•00810					12. 57	57. 0	13. 23	•1038	7. 10	•00780			
3. 34	22. 2. 20	3. 45	•1025	7. 30	•00820					12. 26	58. 0	13. 55:	•1046	12. 21	•00720			
4. 22	21. 57. 30	4. 8	•1007	7. 50	•00810					15. 21	55. 0	14. 38	•1038	13. 0	•00740			
5. 32	58. 50	5. 40	•1024	9. 39	•00760					16. 15	58. 0	16. 4	•1037	14. 35	•00840			
7. 22	59. 0		***	11. 47	•00770					19. 7	56. 50	19. 21	•1046	16. 50	•01110			
7. 50	58. 0	8. 10	•1021	13. 9	•00850					20. 41	56. 0	21. 30	•1041	19. 1	•01460			
8. 13	55. 15	8. 40	•1030	15. 36	•01120					21. 49	21. 57. 15	22. 9	•1024	19. 5	•01430			
8. 38	57. 40	8. 55	•1022	17. 49	•01450					22. 26	22. 1. 25	22. 21	•1027	22. 30	•01390			
8. 47	56. 35	10. 5	•1028	17. 54	•01440					23. 47	5. 45	23. 15:	•1020	23. 59	•01410			
9. 36	58. 0	10. 30	•1044		***					23. 59	4. 50	23. 59	•1023					
9. 47	56. 45	10. 46	•1032	21. 48	•01430					Sept. 30			Sept. 30		Sept. 30		Sept. 30	
10. 23	21. 57. 30	10. 55	•1040	23. 36	•01440					1. 40	22. 0. 21*	1. 40	•1035*	1. 0	•01420	1. 40	59 ° 60 °	
11. 3	22. 3. 15	11. 14	•1034	23. 59	•01430					3. 40	22. 0. 20*	3. 40	•1027*	2. 39	•01370	3. 40	63 ° 65 °	
11. 15	0. 50		***							9. 40	21. 55. 51*	9. 40	•1036*	3. 5	•01310	9. 40	66 ° 68 °	
11. 42	22. 0. 30	12. 23	•1043							22. 42	58. 5*	22. 42	•1035*	4. 50	•00780	22. 42	56 ° 57 °	
12. 10	21. 57. 30	13. 41	•1031											4. 51	•00810			
13. 0	55. 50	13. 51	•1036											7. 9	•00820			
13. 13	57. 30	14. 14	•1030											10. 16	•00750			
13. 36	21. 57. 0	15. 0	•1040											11. 54	•00760			
14. 17	22. 1. 20	16. 9	•1037											13. 15	•00830			
16. 30	21. 56. 10	17. 45	•1046											15. 22	•01040			
		19. 32	•1044															
21. 40	22. 0. 35	20. 32	•1031															
22. 6	21. 59. 30	21. 15	•1030															
23. 3	22. 1. 30	23. 46	•1031															
23. 44	5. 0	23. 59	•1024															

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 30 to October 6. The Declination and Horizontal Force time-piece was away for repair.

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1854.

(xci)

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.		
							Of H. F. Magnet.								Of V. F. Magnet.		
Oct. 7	"	Oct. 7	"	"	"	"		"	"	Oct. 8	"	"	"	"			
17. 32	o 6. 40	19. 8	•1065	h m				o	o	Oct. 8	o 39. 25	h m	•1034	h m			
18. 4	5. 10	20. 5	•1068							13. 20	21. 39. 25	23. 59					
18. 53	9. 10	20. 34	•1054							13. 56	48. 30						
20. 44	4. 30	23. 7	•1020							14. 12	21. 49. o						
21. 8	5. 35	23. 59	•1030							14. 41	22. 6. 35						
22. 1	4. 30									15. 1	21. 55. 30						
22. 47	6. 30									15. 32	50. 25						
23. 46	7. o									16. 17	56. 30						
23. 59	9. o									16. 38	56. o						
Oct. 8		Oct. 8								17. 3	58. 25						
o. 15	22. 12. o	o. o	•1030	Oct. 8	o. o	•01410	Oct. 8	o	o	19. 51	57. 25						
o. 55	11. 30		***	o. o	1. 34:	9. 55	62. 563. o			20. 52	22. 1. 25						
1. 37	7. 25	1. 15	•1028	21. 40	•01400	21. 40	60. 061. o			21. 26	21. 59. o						
1. 47	8. o		***	3. 5	•01230	3. 5				23. 23	22. o. o	23. 59	3. 10				
2. 6	6. o	2. 35	•1041	3. 59	•01130					Oct. 9				Oct. 9		Oct. 9	
2. 34	8. o		***	4. 31	•01060					o. 8	22. 2. 35	o. o	•1034	1. 15	•00920	Oct. 9	
3. 5	6. o	3. 30	•1025	4. 39	•01070					o. 43	5. o	5. 21	•1024	2. 15	•00890	1. 40	63. o
3. 20	8. 25		***	4. 44	•01110					1. 35	2. o		***	3. 5	•00790	3. 40	65. o
3. 26	7. o	3. 47	•1030	4. 48	•01090					3. 47	22. 0. 35	7. 45	•1030	3. 21	•00820	9. 40	65. o
3. 38	8. 30	3. 58	•1047	4. 51	•01100					5. 18	21. 57. 35	8. 15	•1024	4. 22	•00870	21. 40	58. 5
3. 45	6. 15	4. 15	•1034		***					6. 11	59. 10	12. o	•1038	5. 38	•00880	59. o	
3. 59	10. 30	4. 36	•1002	5. 37	•00930					6. 49	57. 25	18. 35	•1046	7. 45	•00840		
4. 14	22. 8. 40	4. 46	•1020	5. 43	•00950					7. 8	59. o	19. 10	•1041	12. 46	•00790		
4. 30	21. 59. o	5. o	•1015	5. 45	•00920					8. 36	55. o	20. o	•1048	14. 10	•00810		
4. 34	22. 4. 35		***	5. 50	•00970					11. 31	57. 10	23. 59	•1034	16. 51	•00920		
4. 49	21. 56. o	5. 30	•1022	5. 54	•00920					14. 40	58. o			18. 9	•01010		
4. 55	58. 50	5. 48	•1000	6. 30	•00830					14. 45	59. 30			20. 20	•01230		
5. 6	54. o	5. 54	•1030	6. 54	•00820					16. 42	57. 35			22. 15	•01480		
5. 49	56. o	6. o	•1014	7. 50	•00820					17. 17	56. 30			22. 36	•01520		
6. o	40. o	6. 6	•1029	8. 2	•00840					18. 52	58. 15			22. 40	•01510		
6. 6	41. o	6. 42	•0985	8. 21	•00830					20. 44	54. 30			23. 59	•01520		
6. 12	36. 25	7. 5	•0994	8. 28	•00800					22. 12	55. 10						
6. 20	45. o	7. 15	•0982	8. 45	•00780					23. 45	58. 30						
6. 32	45. 35	7. 21	•0992		***					Oct. 10							
6. 43	53. o		***	9. 54	•00700					Oct. 10							
6. 53	53. o	7. 49	•0984	10. 46	•00650					o. 6	21. 59. 25	o. o	•1033	o. 30	•01530	1. 40	62. o
7. 1	52. o	8. 14	•0999	11. 15	•00630					1. 34	22. 0. 50	2. 44	•1021	1. 36	•01540	3. 40	65. 5
7. 6	51. 50	8. 33	•0970	11. 31	•00600					4. 43	22. o. o	3. 32	•1030	2. 47	•01440	9. 40	66. o
7. 15	55. o	9. 12	•0990	11. 55	•00610					5. 57	21. 57. 50		***	4. 45	•01150	21. 40	61. o
7. 25	50. 15	9. 30	•0982	12. 9	•00620					7. 45	56. 40	7. 35	•1032	6. 15	•00940		
7. 45	56. o	9. 47	•0987	12. 18	•00660					7. 58	55. o	7. 50	•1026	7. 39	•00820		
8. 10	48. 35	9. 59	•0982	12. 45	•00580					9. 50	56. 30	10. 36:	•1048	10. 3	•00760		
8. 26	56. 25	10. 20	•0985	13. 5	•00610					10. 28:	51. 20	10. 54	•1041	11. 51	•00810		
8. 55	44. 15	11. 5	•0974	13. 47	•00650					11. 6	55. 30	11. 43	•1048	13. 55	•00900		
9. 15	47. 30	11. 25	•0997	14. 10	•00640					13. 32	58. 25	18. 5	•1054	18. o	•01090		
9. 34	42. 25	11. 36	•0976	14. 26	•00650					17. 47	57. 20	20. 10	•1051	19. 9	•01120		
9. 46	44. 15	11. 56	•0981	14. 55	•00620					21. 25	55. o	23. 44	•1030	21. 54	•01140		
9. 58	42. o	12. 14	•1006	16. 13	•00710					23. 59	58. o	23. 59	•1032	23. 59	•01210		
10. 32	46. o	12. 38	•1000	18. 33	•00830					Oct. 11							
10. 44	44. 35	13. o	•1015	22. 51	•00970					o. 16	21. 59. 30	o. o	•1033	o. 30	•01210	1. 40	61. o
10. 58	55. 10	13. 17	•1002							2. o	22. 2. 20	2. 16	•1026	1. 24	•01250	3. 40	63. o
11. 20	37. o	13. 45	•1014							4. 55	21. 59. 25		***	2. 41	•01250	9. 40	61. o
11. 24	37. o	14. 25	•1004							8. 17	56. 30	11. 5	•1054	5. 31	•01160	21. 40	50. o
11. 34	31. 30	15. 9	•1040							8. 50	57. 20	19. 45	•1066	8. 3	•01190		51. o
11. 47	32. o	16. 40	•1028							10. 35	57. o	22. 45	•1060	9. 35	•01280		
12. 24	52. o	17. 40	•1040							10. 58	55. 10	23. 59	•1043	11. 30	{ •01480		
12. 51	41. 50	21. o	•1023											{ •01450			

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Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	
							Of H. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
Oct. 11 h m 13. 1 21. 57. 50		h m		Oct. 11 h m 12. 6 .01450		h m	o o		Oct. 12 h m 19. 8 22. 2. 30		h m		h m		o o	
18. 8 58. 40				12. 45 .01440					20. 25 21. 59. 30							
21. 50 55. 0				21. 40 .01340					20. 52 22. 1. 0							
22. 45 21. 58. 35				22. 10 { .01350					21. 43 21. 56. 45							
23. 47 22. 0. 30				{ .01270					22. 43 55. 45							
				23. 40 .01380					23. 59 58. 30							
Oct. 12 o. o 22. 3. 40	Oct. 12 o. o	Oct. 12 o. o	.1042	Oct. 12 o. o	.01380	Oct. 12 1. 40	55 .056 .0	Oct. 13 o. 7 21. 59. 15	Oct. 13 o. o	.1056	Oct. 13 o. o	.01410	Oct. 13 1. 40 51. 0	.52 .5		
0. 23 5. 20			***		1. 15	.01350	3. 40 58 .560 .0	1. 6 22. 0. 45	2. 30	.1048	1. 40	.01420	3. 40 52. 0	.54 .9		
1. 15 2. 0		0. 46	.1033	2. 10	.01250	9. 40	60 .562 .5	5. 53 21. 57. 15	7. 45	.1062	0. 28	.01400	9. 40 53. 0	.55 .0		
2. 2 1. 30		3. 10	.1040	3. 24	.00970	21. 58	48 .554 .0	8. 2 58. 0	13. 19	.1060	0. 43	.01390	21. 40 51. 0	.53 .0		
2. 26 3. 25		3. 26	.1032		***			12. 34 57. 30	19. 30	.1073	2. 40	.01290				
2. 47 2. 30		3. 46	.1048	4. 25	.00740			12. 50 58. 30	23. 0	.1080	4. 21	.01060				
3. 10 3. 30			***	4. 35	.00710			13. 53 57. 0	23. 59	.1048	7. 3	.00760				
3. 23 1. 30		4. 45	.1022	4. 38	.00730			14. 35 58. 50			9. 13	.00690				
3. 46 4. 30		4. 53	.1030	4. 54	.00750			20. 46 54. 35			10. 31	.00720				
3. 55 3. 15		5. 5	.1016	5. 5	.00740			22. 32 21. 56. 30			13. 0	.00850				
4. 15 6. 10		5. 15	.1032	5. 7	.00760			23. 56 22. 0. 35			18. 24	.01210				
4. 45 4. 30		5. 28	.1016	5. 17	.00790						19. 30	.01250				
4. 56 22. 6. 30		5. 42	.1034		***						22. 35	.01210				
5. 5 21. 57. 10		6. 10:	.1018	6. 40	.00780						23. 59	.01110				
5. 15 58. 50			***	6. 58	.00770											
5. 20 55. 30		6. 46	.1024	7. 18	.00790											
5. 29 21. 54. 30		7. 0	.1015	7. 59	.00760											
5. 47 22. 3. 40		7. 13	.1018	8. 57	.00710											
5. 52 3. 20		7. 21	.1012	10. 22	.00670											
6. 2 4. 30		7. 30	.1018	11. 36	.00680											
6. 8 3. 35		7. 48	.1017	12. 15	.00720											
6. 13 4. 15		8. 4	.1001	13. 32	.00840											
6. 18 3. 0		8. 15	.1021	13. 44	.00830											
6. 27 22. 4. 45		9. 30	.1044	15. 22	.01030											
7. 7 21. 56. 30		10. 5	.1038	16. 8	.01120											
7. 17 59. 0		10. 37	.1045	{ .01350												
7. 25 55. 25		10. 50	.1032	17. 9 { .01310												
7. 34 58. 30		11. 14	.1056	19. 18	.01310											
7. 45 56. 0		11. 35	.1042	19. 35	.01330											
7. 56 56. 30		12. 45	.1040	{ .01380												
8. 8 51. 30		13. 24	.1044	22. 15 { .01330												
8. 22 54. 0		13. 40	.1062	22. 45 { .01370												
8. 52 53. 50		14. 45	.1053													
9. 12 55. 45		15. 30	.1024													
9. 32 55. 40		16. 10	.1058													
9. 51 51. 30		16. 39	.1052													
10. 9 53. 10		17. 27	.1062													
10. 33 40. 15		19. 6	.1070													
10. 46 42. 30		22. 8	.1056													
11. 5 36. 30		23. 59	.1057													
11. 22 44. 45																
11. 35 45. 0																
12. 13 50. 0																
13. 10 54. 0																
13. 30 57. 20																
14. 50 21. 44. 0																
15. 33 22. 5. 0																
15. 47 22. 6. 0																
16. 36 21. 55. 20																
17. 43 21. 56. 0																

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

INDICATIONS OF THE MAGNETOMETERS

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.

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.		
						Of H. F. Magnet.				Of H. F. Magnet.			Of V. F. Magnet.		
Oct. 21		Oct. 21		Oct. 21				Oct. 23		Oct. 23		Oct. 23			
6.38	° 21. 55. "	6.38	° 21. 55. 0	7.13	.00820	h m	° 16. 58	° 21. 50. 0	21. 57	.1064	14.36	.01400	h m	° 0	
7.18	58. 30	8.32	° 1050	8.40	.00790		17.32	56. 35	22. 7	.1074	15. 7	.01390			
7.35	57. 15	10. 3	° 1056	10. 36	.00770		17.55	55. 25		***	15. 55	.01350			
7.55	58. 0	10. 20	° 1062	10. 51	.00760		19. 2	59. 30	23. 22	.1053	16. 23	.01340			
10. 10	55. 35	11. 7	° 1054	11. 33	.00770		19. 10	58. 0		***	16. 29	.01360			
10. 47	58. 20	19. 6	° 1060	12. 30	.00800		20. 18	58. 0	23. 59	.1044	16. 41	.01340			
11. 13	54. 0	20. 52	° 1064	15. 16	.00910		21. 42	54. 40			21. 25	.01380			
12. 13	57. 10	23. 59	° 1036	17. 51	.01070		22. 20	21. 59. 0			23. 0	{ .01410			
12. 45	56. 30			19. 45	.01130		23. 59	22. 0. 30			23. 38	{ .01370			
13. 46	58. 15			20. 54	.01150							.01410			
15. 7	57. 15			22. 52	.01120										
16. 50	58. 10														
18. 18	54. 0														
19. 25	57. 0														
19. 54	58. 0														
20. 30	55. 35														
21. 58	21. 57. 30														
23. 59	22. 4. 45														
Oct. 22		Oct. 22		Oct. 22				Oct. 24		Oct. 24		Oct. 24			
o. 8	22. 5. 30	o. o	° 1036	o. o	.01070	11. 40	56. 2	Oct. 24		Oct. 24		Oct. 24			
o. 29	6. 45		***	3. 13	.00950	21. 40	53. 0	54. 8	o. o	o. o	.01420	1. 40	51. 0	53. 5	
1. 3	6. 0	2. 34	° 1038	5. 25	{ .00800		3. 17	7. 30	3. 4	.1065	o. 35	.01410	3. 40	51. 0	53. 5
1. 15	7. 10	3. 7	° 1046		{ .00850		4. 24	6. 30	4. 10	.1032	1. 26	.01360	9. 40	56. 0	57. 0
2. 25	3. 15	3. 34	° 1041	8. 58	.00790		5. 31	22. 0. 0	4. 49	.1044	2. 0	.01290	21. 40	52. 5	53. 5
2. 56	4. 35	12. 40	° 1063	9. 50	.00800		5. 44	21. 58. 20		***	11. 45	.00690			
3. 35	22. 1. 35	13. 8	° 1057	10. 15	.00850		6. 24	59. 0	5. 55	.1052	12. 30	.00710			
5. 23	21. 58. 30	14. 15	° 1056	12. 30	.00990		7. 35	57. 0	6. 18	.1040	14. 43	.00760			
9. 32	56. 10	20. 15	° 1066	16. 10	.01320		10. 16	55. 30		***	17. 5	.00890			
9. 50	52. 45	23. 22	° 1050	18. 9	.01480		10. 42	52. 0	7. 32	.1051	20. 55	.01150			
10. 14	56. 0	23. 59	° 1048	18. 16	.01460		11. 22	55. 20	9. 41	.1051	22. 6	.01210			
11. 18	56. 30			22. 36	.01440		11. 54	54. 50	10. 10	.1066	23. 15	.01250			
11. 36	59. 20			23. 59	.01460		12. 6	56. 30	10. 27	.1070	23. 59	.01260			
12. 19	54. 30						13. 5	55. 30	10. 41	.1062					
14. 28	57. 45						14. 7	57. 25	11. 10	.1071					
16. 35	57. 35						15. 8	21. 55. 35	11. 47	.1056					
17. 8	59. 0						15. 34	22. 0. 0	12. 4	.1062					
21. 28	56. 40						16. 2	21. 57. 35	12. 30	.1054					
22. 40	21. 57. 40						16. 40	21. 57. 25	15. 36	.1054					
23. 36	22. 1. 30						17. 28	22. 0. 0	18. 0	.1071					
23. 59	o. 50						17. 44	21. 58. 25	18. 44	.1060					
Oct. 23		Oct. 23		Oct. 23			18. 25	22. 0. 30	19. 15	.1073					
o. 17	22. 0. 40	o. o	° 1047	1. 30	.01350	1. 40	55. 0	57. 0	19. 53	.1077					
o. 43	2. 10	0. 40	° 1044	2. 26	.01240	3. 40	56. 5	55. 5	21. 57. 0	***					
i. 0	1. 25	1. 4	° 1048	4. 35	.00790	9. 40	56. 5	57. 5	20. 7	22. 1. 10	22. 23	.1040			
2. 2	22. 0. 35	1. 15	° 1046	4. 37	.00810	21. 40	48. 0	51. 0	20. 53	21. 57. 45	23. 4	.1047			
4. 58	21. 57. 0	4. 53	° 1050		{ .00770		21. 28	56. 0	23. 59	.1047					
9. 17	56. 10	13. 44	° 1066	7. 16	{ .00850		21. 58	59. 0							
11. 28	57. 0	13. 50	° 1080	7. 49	.00840		22. 30	21. 56. 45							
12. 39	55. 20	13. 56	° 1075	9. 5	.00860		23. 6	22. 1. 35							
13. 50	57. 30	14. 53	° 1068	10. 51	.00980		23. 26	2. 15							
14. 56	53. 35	15. 37	° 1083	12. 36	.01170		23. 34	0. 40							
15. 23	56. 30	16. 22	° 1050	13. 30	.01270		23. 56	0. 45							
16. 1	52. 0	16. 48	° 1086	13. 53	.01330										
16. 16	52. 15	18. 0	° 1069	13. 58	.01350										
16. 25	57. 0	20. 40	° 1080	14. 3	.01350										
16. 42	50. 0	21. 6	° 1070	14. 34	.01420										

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.		
						Of H. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
Oct. 25	" "	Oct. 25		Oct. 25		Oct. 25	" "	Oct. 26	" "	Oct. 26		Oct. 26	" "	Oct. 27	
1. 46	22. 2. 35	2. 4	.1040	2. 20	.01230	21. 40	46° 0' 49° 0'	9. 43	21. 54. 30	9. 40	.1050	22. 28	.01390	2. 15	49° 0' 52° 0'
2. 9	3. 25	2. 15	.1044	3. 21	.01160			10. 42	58. 0	10. 0	.1059	23. 5	.01410	3. 40	51° 0' 54° 0'
2. 20	8. 0	2. 30	.1023		***			11. 2	56. 50	10. 20	.1054			11. 18	.1066
2. 33	22. 2. 0	3. 23	.1055	4. 0	.01060			11. 13	59. 30	10. 45	.1060			11. 19	.1046
3. 2	21. 57. 35		***	5. 30	.00900			11. 46	56. 0	11. 18	.1066			12. 15	.1056
3. 57	22. 1. 0	4. 14	.1050	7. 20	.00770			12. 8	57. 30	11. 54	.1056			12. 15	.1066
5. 43	21. 59. 0		***	8. 46	.00780			12. 30	56. 30	16. 5	.1066			13. 8	.1079
6. 13	54. 50	4. 44	.1060	9. 56	.00840			12. 46	58. 30	19. 0	.1079			13. 43	.1074
6. 38	57. 10		***	10. 11	.00860			13. 31	57. 30					15. 31	.1054
7. 20	56. 0	5. 30	.1042	11. 9	.00850			16. 50	58. 50					22. 28	.1054
7. 37	54. 15		***	12. 15	.00970			23. 7	59. 45						
7. 48	57. 20	5. 55	.1040	12. 45	.01010										
8. 30	53. 45		***	{ .10430											
8. 47	55. 20	6. 30	.1056	16. 22	{ .01390										
9. 5	46. 10	7. 5	.1042	18. 51	.01410										
9. 20	52. 20	7. 15	.1052	{ .01390											
9. 47	36. 20	7. 37	.1036	22. 5	{ .01340										
9. 58	35. 30	8. 4	.1054												
10. 17	43. 0	8. 20	.1040												
10. 29	41. 50	9. 2	.1052												
10. 58	43. 0	9. 14	.1068												
11. 16	48. 0	9. 36	.1044												
11. 46	47. 10	10. 37	.1104												
12. 20	53. 10	11. 10	.1054												
13. 28	21. 56. 0	11. 32	.1066												
13. 52	22. 0. 0	12. 7	.1046												
14. 25	22. 0. 30	13. 16	.1045												
15. 5	21. 59. 20	13. 36	.1058												
15. 58	22. 1. 0	13. 54	.1054												
16. 46	21. 56. 30	17. 0	.1069												
18. 30	22. 3. 0	18. 0	.1054												
18. 43	0. 0		***												
19. 13	22. 0. 40	19. 0	.1068												
19. 37	21. 58. 0	20. 13	.1066												
20. 13	22. 0. 10	'	***												
20. 50	21. 56. 35	20. 44	.1056												
21. 19	59. 0	21. 3	.1063												
21. 57	56. 30	22. 0	.1056												
22. 18	58. 30	23. 59	.1054												
23. 59	59. 30														
Oct. 26		Oct. 26		Oct. 26		Oct. 26		Oct. 28		Oct. 28		Oct. 28		Oct. 28	
o. 13	21. 59. 45	o. 0	.1053	o. 0	.01390	1. 40	49° 0' 52° 0'	o. 5	22. 2. 35	o. 0	.1050	o. 15	.00960	1. 40	54° 5' 56° 0'
3. 32	22. 1. 0	1. 30	.1059	1. 16	.01320	3. 40	52° 0' 55° 0'	3. 14	21. 58. 0	2. 40	.1040	1. 41	{ .00780	3. 40	56° 0' 58° 0'
4. 3	21. 56. 0	2. 44	.1052	2. 50	.01110	9. 40	54° 0' 55° 5'	6. 5	57. 0	10. 55	.1059	1. 41	{ .00820	9. 40	55° 5' 57° 0'
4. 37	55. 45	3. 18	.1056	4. 16	.00760	21. 40	46° 0' 48° 5'	7. 10	57. 0	11. 24	.1053	3. 53	.00850	22. 30	48° 0' 51° 0'
4. 56	51. 40	4. 2	.1038	7. 19	.00720			7. 41	54. 20	12. 4	.1057	7. 44	.00820		
5. 43	57. 0	4. 14	.1046	7. 34	.00730			7. 56	56. 10	19. 35	.1073	7. 51	.00850		
7. 7	57. 30	5. 2	.1042	7. 46	.00710			8. 13	55. 0	22. 15	.1072	10. 1	.00890		
7. 28	44. 15	5. 39	.1054	8. 9	.00700			8. 32	56. 45		(†)	11. 45	.00950		
7. 42	51. 45	6. 50	.1057	10. 15	.00710			10. 1	57. 15			12. 15	.00980		
7. 53	47. 30	7. 24	.1048	11. 5	.00690			10. 38	54. 45			14. 25	.01150		
8. 2	51. 0	7. 40	.1090	11. 19	.00700			11. 8	56. 30			17. 51	.01520		
8. 10	50. 0	7. 51	.1078	11. 34	.00690			11. 37	55. 30			17. 55	.01510		
8. 29	55. 0	7. 57	.1086	13. 55	.00800			11. 55	56. 30			21. 24	.01480		
8. 42	54. 10	8. 10	.1074	15. 23	.00930			12. 25	55. 20			22. 30	.01460		
9. 14	54. 50	8. 17	.1076	18. 59	.01430			13. 25	57. 35						
9. 27	56. 0	8. 44	.1049	19. 1	.01410	***		20. 34	59. 0						
								23. 59	58. 35						

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

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1854.

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	
							Of H. F. Magnet.								Of V. F. Magnet.	
Nov. 2 h m o i "		h m		h m		h m	o o			Nov. 6 h m o 22. 3. 40		Nov. 6 h m o o	1057	Nov. 6 h m o 1. 40	01490	Nov. 6 h m 52. 5. 53. 5
23. 14 22. 1. 0								5. 5 21. 59. 15	2. 0	1052	2. 26	01360	3. 40	53. 5. 55. 0		
23. 35 21. 59. 45								6. 30 57. 30	3. 25	1046	3. 24	01170	9. 40	54. 0. 55. 0		
23. 46 22. 0. 30								7. 45 58. 0	7. 40	1056	4. 57	00820	21. 40	46. 0. 48. 0		
23. 59 o. 30								8. 8 57. 30	8. 53	1051	6. 27	00610				
Nov. 3 o. 12 22. 1. 30	Nov. 3 o. 5	Nov. 3 1048	Nov. 3 0. 30	Nov. 3 1. 40	Nov. 3 56. 0 57. 5	Nov. 3 h m	10. 45	Nov. 3 1058	6. 28	Nov. 3 h m	1057	6. 28	00660	Nov. 3 h m	52. 5. 53. 5	
o. 25 1. 0		o. 51	1050	1. 40	01550	3. 40	57. 0 58. 5	9. 23 56. 30	11. 15	1066	9. 36	00610				
o. 53 2. 30		3. 4	1043	2. 54	01530	9. 40	55. 0 57. 0	10. 20 56. 30	11. 35	1062	11. 37	00690				
1. 5 1. 30		4. 45	1050	4. 21	01410	21. 40	48. 0 50. 0	10. 55 57. 30	13. 10	1066	13. 15	00850				
1. 37 22. 1. 30		6. 30	1045	7. 15	01320			12. 16 54. 20	14. 8	1060	17. 4	01410				
2. 58 21. 58. 35		8. 0	1058	8. 26	01360			13. 5 57. 40	14. 50	1070	17. 7	01380				
5. 7 54. 40		18. 55	1079	{ 01510				13. 26 56. 40	19. 39	1081	19. 6	01380				
5. 55 55. 0		21. 0	1076	10. 17	{ 01470			14. 17 58. 0	20. 40	1070	21. 15	01410				
6. 31 56. 35		23. 55	1056	12. 15	01470			15. 10 57. 0	21. 30	1072	23. 59	01420				
10. 49 57. 0				13. 27	01460			16. 43 59. 10	23. 59	1059						
14. 22 58. 50				18. 54	01430											
18. 35 57. 50				23. 59	01440											
19. 43 59. 0																
21. 51 21. 57. 30																
23. 42 22. 1. 10																
Nov. 4 o. 7 22. 0. 35	Nov. 4 o. 36	Nov. 4 1054	Nov. 4 1. 0	Nov. 4 0. 1420	Nov. 4 49. 5 51. 5	Nov. 4 h m		Nov. 7 o. 37 22. 2. 30	o. 0	1058	1. 0	01310	1. 40	48. 0 52. 0	Nov. 7 h m	
o. 55 1. 0		1. 0	1060	2. 5	01380	3. 40	51. 0 53. 5	2. 30 22. 2. 20	0. 26	1056	1. 41	01250	3. 40	51. 0 53. 0		
5. 10 22. 0. 0		3. 15	1051	3. 0	01280	9. 40	54. 0 54. 0	5. 2 21. 58. 35	0. 40	1058	2. 50	01080	10. 10	52. 0 56. 0		
7. 48 21. 57. 15		6. 50	1065	3. 45	01170	22. 23	55. 2 56. 0	11. 4 57. 0	7. 45	1062	5. 9	00600	21. 40	49. 0 52. 0		
8. 25 49. 10		8. 6	1054	4. 54	00940			11. 15 58. 0		***	5. 15	00620				
9. 0 54. 10		8. 45	1069	7. 15	00580			11. 39 56. 45	14. 25	1059	6. 15	00640				
9. 50 55. 45		9. 8	1064	7. 18	00590			12. 5 57. 35	16. 34	1074	11. 45	00560				
10. 53 54. 35		14. 5	1063	8. 59	00600			12. 29 56. 10	17. 24	1069	12. 44	00560				
14. 6 21. 57. 30		14. 18	1071	10. 50	00580			12. 57 57. 35	19. 10	1078	16. 49	00600				
14. 22 22. 1. 35		17. 14	1066	13. 15	00580			13. 13 56. 30	22. 23	1046	19. 10	00720				
14. 47 21. 58. 35		17. 45	1070	14. 12	00580			13. 25 58. 30	23. 36	1040	21. 16	00900				
15. 22 59. 20		20. 30	1060	14. 21	00590			13. 48 57. 30		(†) 23. 27	23. 59	01080				
16. 37 57. 10		23. 59	1054	14. 43	00570			14. 5 59. 30				01120				
16. 58 58. 30				19. 40	00570			14. 43 21. 58. 0								
18. 7 56. 35				23. 59	00580			15. 4 22. 1. 0								
18. 40 57. 30								15. 37 21. 59. 0								
21. 43 21. 57. 0								16. 8 22. 1. 0								
23. 59 22. 2. 0								16. 42 21. 59. 0								
Nov. 5 o. 1 22. 2. 0	Nov. 5 o. 0	Nov. 5 1054	Nov. 5 o. 0	Nov. 5 0. 0590	Nov. 5 10. 58 55. 0 56. 5	Nov. 5 h m		Nov. 8 o. 45 22. 5. 10	o. 39	1040	0. 45	01120	1. 40	51. 0 53. 0	Nov. 8 h m	
1. 52 22. 3. 0		1. 51	1056	3. 15	00670	21. 40	50. 0 52. 5	1. 4 4. 30	1. 13	1040	2. 11	01100	3. 40	53. 0 54. 0		
5. 55 21. 57. 50		5. 45	1054	7. 21	00650			1. 19 5. 40	1. 35	1024	3. 0	01020	9. 40	54. 0 55. 0		
6. 36 57. 0		7. 35	1062	9. 5	00670			2. 0 5. 30	2. 10	1040	5. 17	{ 00660	21. 40	47. 0 51. 0		
7. 43 58. 40		9. 23	1060	10. 45	00730			2. 25 9. 30	2. 40	1030		{ 00730				
8. 12 57. 30		13. 55	1070	11. 53	00800			3. 10 3. 10	4. 0	1046	11. 6	00640				
9. 3 58. 30		14. 51	1062	14. 14	00980			4. 28 4. 40	4. 40	1040	12. 29	00620				
16. 46 21. 57. 45		18. 30	1076	{ 19. 8	{ 01510			4. 49 3. 0	6. 0	1041	13. 2	00610				
19. 58 22. 0. 30		22. 45	1063	19. 8	{ 01460											
22. 12 o. 0		23. 6	1056	23. 5	01450											
22. 43 1. 25		23. 59	1057	23. 59	01480											
23. 1 o. 10																
23. 43 3. 35																

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

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1854.

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Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.		
Nov. 8		Nov. 8		Nov. 8		Nov. 8		Nov. 11		Nov. 11		Nov. 11		Nov. 11		Nov. 11	
5. 26	o. 4. 25	6. 44	.1046	14. 22	.00650	h. m	o	5. 45	o. 56. 30	17. 45	.1074	9. 55	.01640	22. 30	49. o	50. o	
6. 3	22. 1. 20	7. 15	.1038	14. 40	.00660			16. 58	59. 10	20. 30	.1074	11. o	.01630				
8. 1	21. 57. 30	7. 51	.1049	14. 57	.00640			20. 8	58. 10	23. 59	.1062	13. 15	.00770				
9. 1	54. o	8. 15	.1044	19. 54	.01220			22. 7	57. o			14. 56	.00830				
10. 2	56. 30		***	21. 16	.01430			23. 59	58. 50			15. 22	{.00830				
10. 53	54. 35	9. 56	.1054	21. 18	.01390							16. 30	.00950				
11. 12	55. o	11. 20	.1048	23. 15	.01380							17. 36	.00860				
11. 30	52. 40	13. 6	.1060	23. 59	.01410							19. 34	.00870				
12. 25	53. 10	14. 8	.1058									21. 26	.00810				
13. 2	56. 30	14. 23	.1050									23. 59	.00830				
13. 52	55. 35	14. 53	.1077										.00910				
14. 12	21. 54. 45	15. 17	.1066														
14. 25	22. 2. o	16. o	.1066														
14. 35	22. 2. 30	17. 45	.1073														
15. 14	21. 49. 45	18. 31	.1062														
16. 14	58. 45	19. 15	.1078														
16. 26	57. 45	20. o	.1068														
17. 52	21. 59. 20	20. 30	.1074														
18. 47	22. 5. 50	23. 36	.1052														
20. 16	21. 59. o	23. 59	.1053														
21. 27	57. 30																
21. 40	55. 50																
22. 20	59. 15																
23. 59	59. 45																
Nov. 9		Nov. 9		Nov. 9		Nov. 9		Nov. 13		Nov. 13		Nov. 13		Nov. 13		Nov. 13	
o. 5	22. o. o	o. o	.1053	1. 30	.01430	1. 40	48. 5 51. 5	o. 8	22. o. 30	o. o	.1063	1. o	.01570	1. 40	46. o	47. o	
o. 51	o. o	0. 50	.1053	2. 15	.01370	3. 40	51. 0 52. 0	1. 26	22. 2. 30	1. o	.1059	2. 43	.01480	3. 40	50. o	51. o	
1. 58	2. o	1. 30	.1054	4. 32	.01060	9. 40	49. 0 50. 0	5. 50	21. 56. 30	3. 14	.1056	4. 5	.01250	9. 40	50. o	51. o	
2. 15	o. 30	2. 15	.1050	7. 40	.00840	21. 40	40. 0 44. 0	6. 17	54. 50	12. o	.1072	6. 21	.00800	21. 40	47. o	49. o	
4. 6	22. 1. 25	3. 30	.1055	10. 31	.00980			6. 53	57. o	19. 45	.1082	7. 29	.00670				
4. 43	21. 58. o	4. 15	.1044	12. 30	.01210			16. 52	59. 25	23. 59	.1054	7. 32	.00690				
5. 15	22. o. 50	5. 6	.1056	{ 13. 54	.01380			18. 23	57. 50			11. 55	.00670				
II. 13	21. 57. o							20. 15	57. 30			13. o	.00680				
II. 25	55. 45	11. 30	.1072	16. 8	.01340			22. I	21. 56. 30			14. 10	.00700				
12. 15	57. 30	19. 50	.1084	21. 28	.01460			23. 59	22. o. 15			19. 15	.00820				
12. 58	21. 58. 20	21. 33	.1082	23. 59	.01480							23. 13	.00910				
16. 43	22. o. 30	(†)										23. 59	.00930				
21. 56	21. 59. o																
Nov. 10		Nov. 10		Nov. 10		Nov. 10		Nov. 14		Nov. 14		Nov. 14		Nov. 14		Nov. 14	
o. 15	22. o. 15	o. 45	.1068	1. 15	.01520	1. 40	42. 5 45. 0	1. 15	22. o. 30	3. 40	.1054	1. 15	.00890	1. 40	48. o	50. o	
5. 31	21. 57. 30	5. 25	.1068	1. 49	.01460	3. 40	45. 0 48. 0	3. 48	21. 57. 40	5. 23	.1060	2. o	.00850	3. 40	50. o	51. 5	
9. 47	57. 15	8. 30	.1063	3. 5	.01270	9. 45	50. 0 52. 0	6. 32	57. 25	8. 6	.1059	{ 4. 9	.00680	9. 40	48. o	50. o	
II. 5	56. o	10. 40	.1068	4. 45	.00900	21. 40	51. 0 53. 0	7. o	53. 30	9. 33	.1070	6. 35	{ .00810	21. 40	46. o	47. 5	
16. 44	58. o	18. o	.1068	5. 40	.00710			10. 24	57. 10	22. 10	.1082	8. 9	.00720				
22. 17	21. 58. o	22. 8	.1066	5. 45	.00730			15. 53	59. 45	23. 8	.1076	10. 6	.00750				
23. 59	22. o. 30	23. 59	.1058	8. 26	.00730			18. 50	58. 25	23. 59	.1064	12. 42	.00910				
				11. 52	.00700			20. 55	21. 57. o		.1059	13. 15	.00930				
				15. 21	.00720			23. 59	22. o. o			16. o	.01170				
				19. 56	.00730							17. 49	.01340				
				21. 56	.00720							21. II	.01550				
				23. 59	.00690							23. 51	.01440				
Nov. 11		Nov. 11		Nov. 11		Nov. 11		Nov. 15		Nov. 15		Nov. 15		Nov. 15		Nov. 15	
o. 7	22. o. 30	o. o	.1057	1. o	.00970	1. 40	53. 5 55. o	o. 8	22. o. 30	o. o	.1059	o. 45	.01350	1. 40	49. o	51. o	
I. 32	22. o. 25	1. 30	.1054	3. 21	.01140	3. 40	57. 0 58. 5	1. 32	2. o	o. 45	.1058	2. 26	.01110	3. 40	53. o	54. o	
4. 23	21. 57. 25	5. 45	.1056	9. 41	.01650	9. 40	55. 0 55. 5										

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

(c)

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	
							Of H. F. Magnet.								Of V. F. Magnet.	
Nov. 15	h m o "	Nov. 15	h m	Nov. 15	h m	Nov. 15	{ .00810	9. 40	53° 54' 0	Nov. 18	h m	Nov. 18	h m	Nov. 18	h m	
1. 52	22. 0. 25	5. 0	.1059	3. 46	{ .00830	21. 40	49° 52' 3	9. 10	z1. 57. 0	9. 19	.01260	9. 19	.01260	9. 19	.01260	
2. 35	22. 0. 30	5. 51	.1052	5. 17	{ .00840	11. 18	57. 5	10. 45	10. 45	10. 45	.01290	10. 45	.01290	10. 45	.01290	
3. 30	21. 59. 25	9. 4	.1056	6. 46	{ .00820	13. 19	56. 30	12. 30	12. 30	12. 30	.01300	12. 30	.01300	12. 30	.01300	
3. 51	59. 30	***	***	6. 46	{ .00770	15. 9	59. 30	14. 31	14. 31	14. 31	.01420	16. 9	.01490	16. 9	.01490	
5. 2	58. 30	13. 25	.1060	10. 30	{ .00880	17. 30	59. 30	17. 42	17. 42	17. 42	{ .01560	21. 10	21. 57. 0	20. 50	.01510	
5. 43	59. 0	16. 16	.1070	12. 15	{ .00810	23. 59	22. 0. 0	23. 59	23. 59	23. 59	.01540	23. 6	.01530	23. 6	.01530	
9. 32	56. 0	18. 0	.1066	12. 45	{ .01120	Nov. 19	Nov. 19	Nov. 19	Nov. 19	Nov. 19	Nov. 19	Nov. 19	Nov. 19	Nov. 19	Nov. 19	
10. 12	51. 0	18. 45	.1070	18. 9	{ .01160	o. 15	22. 0. 30	o. 0	'1074	o. 10	.01540	8. 40	48. 0	50. 0	48. 0	50. 0
10. 56	52. 15	20. 23	.1062	19. 50	{ .01190	1. 14	22. 2. 0	6. 10	'1080	2. 9	.01560	21. 40	44. 0	44. 0	44. 0	46. 5
13. 5	58. 45	20. 55	.1070	23. 37	{ .01180	4. 0	21. 59. 0	7. 55	'1077	2. 45	.01550	4. 0	21. 59. 0	2. 45	.01550	
15. 45	58. 15	22. 41	.1053	23. 59	{ .01180	5. 10	58. 0	20. 30	'1088	5. 50	.01440	5. 10	21. 57. 0	5. 50	.01440	
16. 47	21. 57. 20	23. 59	.1054			8. 5	59. 0	23. 13	'1074	8. 17	.01360	8. 5	21. 57. 0	8. 17	.01360	
18. 32	22. 0. 0					9. 0	21. 57. 0	23. 30	'1074	10. 21	.01360	9. 0	21. 57. 0	10. 21	.01360	
19. 42	21. 56. 25					15. 15	22. 0. 0	23. 59	'1070	12. 7	.01360	15. 15	22. 0. 0	12. 7	.01360	
20. 45	21. 59. 45					16. 55	22. 0. 55			13. 0	.01330	16. 55	22. 0. 55	14. 45	.01430	
21. 25	21. 59. 15					21. 0	21. 57. 0					21. 0	21. 57. 0	14. 45	.01430	
23. 23	22. 2. 30					21. 20	58. 0					21. 20	58. 0	16. 55	{ .01520	
23. 59	2. 0					21. 46	57. 0					21. 46	57. 0	19. 28	.01490	
Nov. 16		Nov. 16		Nov. 16		22. 50	21. 58. 0	5				22. 50	21. 58. 0	22. 40	.01500	
o. 15	22. 1. 15	o. 0	.1054	1. 15	{ .01130	23. 55	22. 1. 0					23. 55	22. 1. 0	22. 55	.01460	
o. 40	2. 10	3. 6	.1052	2. 4	{ .01060	Nov. 20	Nov. 20	Nov. 20	Nov. 20	Nov. 20	Nov. 20	Nov. 20	Nov. 20	Nov. 20	Nov. 20	
1. 12	0. 40	17. 0	.1076	3. 8	{ .00930	o. 5	22. 2. 0	o. 0	'1070	1. 15	.01450	1. 40	47. 0	49. 0	47. 0	49. 0
1. 26	1. 40	17. 50	.1072	3. 40	{ .00840	1. 15	22. 2. 0			2. 12	.01380	3. 40	50. 0	51. 0	3. 40	51. 0
1. 45	22. 0. 35	20. 0	.1074	3. 40	{ .00910	3. 20	21. 59. 0	2. 0	'1062	2. 45	.01310	9. 40	58. 0	59. 0	9. 40	59. 0
5. 26	21. 57. 30	23. 25	.1058	7. 24	{ .00830	3. 55	22. 0. 0	5. 45	'1074	3. 21	.01320	21. 40	46. 0	46. 5	21. 40	46. 5
11. 13	21. 58. 0	23. 59	.1060	10. 30	{ .00820	4. 50	21. 57. 0	5. 29	'1064	4. 4	.01090	4. 4	21. 57. 0	4. 4	.01090	
14. 40	22. 0. 0			12. 44	{ .00920	5. 25	22. 2. 55	7. 29	'1064	6. 25	.00740	5. 25	22. 2. 55	7. 29	.00740	
16. 42	22. 0. 0			13. 30	{ .00970	5. 45	0. 30			6. 25	.00650	6. 25	0. 30	6. 25	.00650	
17. 28	21. 58. 35			16. 24	{ .01310	5. 55	1. 0	8. 23	'1076	9. 3	.00620	9. 3	1. 0	9. 3	.00620	
18. 18	59. 40			19. 13	{ .01640	6. 1	0. 0			12. 5	.00640	12. 5	0. 0	12. 5	.00640	
21. 56	21. 57. 35			19. 18	{ .01610	6. 14	22. 1. 0	12. 45	'1074	13. 15	.00660	13. 15	22. 1. 0	13. 15	.00660	
23. 59	22. 1. 20			20. 45	{ .01600	6. 50	21. 58. 0	16. 14	'1082	15. 9	.00730	15. 9	21. 58. 0	15. 9	.00730	
Nov. 17		Nov. 17		Nov. 17		7. 16	59. 0	17. 30	'1074	18. 8	.00850	18. 8	59. 0	18. 8	.00850	
o. 6	22. 1. 25	o. 0	.1060	0. 45	{ .01610	7. 30	56. 0			21. 24	.01010	21. 24	56. 0	21. 24	.01010	
1. 4	22. 1. 50	6. 0	.1068	2. 3	{ .01550	7. 52	54. 30	18. 36	'1083	22. 45	.00910	22. 45	54. 30	22. 45	.00910	
4. 2	21. 59. 0	8. 7	.1058	5. 8	{ .01210	8. 32	58. 0			23. 50	.00650	23. 50	58. 0	23. 50	.00650	
7. 58	58. 15	9. 25	.1059	7. 9	{ .01070	9. 0	59. 0	22. 15	'1076							
9. 53	57. 0	10. 20	.1070	9. 31	{ .01030	9. 21	57. 50	23. 5	'1068							
10. 55	53. 30	11. 15	.1066	12. 15	{ .01090	10. 27	57. 10	23. 59	'1070							
11. 27	56. 0	19. 0	.1078	12. 45	{ .01090	11. 16	58. 5									
12. 32	57. 35	23. 15	.1066	13. 47	{ .01150	12. 43	57. 30									
17. 8	59. 30	23. 59	.1066	16. 53	{ .01320	14. 10	59. 5									
19. 35	58. 30			20. 21	{ .01540	15. 20	58. 45									
20. 6	56. 30			23. 26	{ .01560	17. 15	58. 30									
21. 0	56. 30					18. 40	59. 35									
22. 0	21. 57. 0					19. 23	57. 0									
23. 28	22. 0. 0					20. 0	58. 50									
Nov. 18		Nov. 18		Nov. 18												
o. 0	22. 0. 0	o. 0	.1066	o. 0	{ .01560											
1. 5	21. 59. 15	5. 6	.1064	2. 21	{ .01570											
2. 16	22. 0. 30	9. 20	.1076	4. 22	{ .01440											
3. 55	21. 59. 0	20. 25	.1080	6. 32	{ .01290											
4. 53	22. 0. 0	23. 59	.1074	8. 0	{ .01260											

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.

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1854.

(ci)

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.		
							Of H. F. Magnet	Of V. F. Magnet								Of H. F. Magnet	Of V. F. Magnet
Nov. 20																	
21. 0	o 57. 15 ***	h m		h m		h m	o	o	Nov. 22	o 57. 15 ***	h m	Nov. 22	o 57. 15 ***	h m	Nov. 22	o 57. 15 ***	h m
21. 30	58. 45								o 22. 0 0	o 22. 0 0	o 0	Nov. 22	o 57. 15 ***	h m	Nov. 22	o 57. 15 ***	h m
21. 42	56. 0								22. 2. 55	22. 2. 55	7. 16	o 22. 0 0	o 57. 15 ***	h m	Nov. 22	o 57. 15 ***	h m
21. 53	58. 55 ***								21. 59. 55	21. 59. 55	7. 32	22. 0 0	o 57. 15 ***	h m	Nov. 22	o 57. 15 ***	h m
22. 55	21. 58. 10								21. 58. 0	21. 58. 0	8. 0	22. 0 0	o 57. 15 ***	h m	Nov. 22	o 57. 15 ***	h m
23. 30	22. 0. 30								21. 58. 0	21. 58. 0	8. 23	22. 0 0	o 57. 15 ***	h m	Nov. 22	o 57. 15 ***	h m
Nov. 21									21. 57. 5	21. 57. 5	9. 15	21. 57. 5	21. 57. 5	9. 15	Nov. 22	o 57. 15 ***	h m
o. 0	22. 1. 55	o. o	·1070	o. o	·01130	1. 40	47. 5	47. 5	21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
o. 10	0. 50	***							21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
o. 50	1. 5	2. 0	·1062	2. 15	·01140	9. 40	49. 0	50. 0	21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
1. 6	3. 0		***	3. 53	·01030	21. 40	45. 5	48. 0	21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
1. 10	1. 50	4. 36	·1056	6. 5	·00910				21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
1. 18	3. 55		***	8. 3	·00840				21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
1. 33	1. 50	6. 30	·1072	11. 45	·00680				21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
1. 40	2. 30		***	12. 0	·00670				21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
1. 53	1. 30	13. 55	·1072	13. 21	·00640				21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
2. 10	22. 2. 0		***	14. 28	·00610				21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
3. 46	21. 57. 15	16. 15	·1082	15. 36	·00600				21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
4. 25	58. 0	17. 48	·1076	19. 36	·00700				21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
4. 45	56. 5		***	23. 24	·00930				21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
6. 5	58. 0	21. 15	·1084						21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
6. 55	57. 30	22. 15	·1067						21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
7. 37	55. 55		***	23. 59	·1068				21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
8. 25	57. 20								21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
9. 6	56. 30								21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
10. 0	57. 15								21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
10. 40	56. 30								21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
11. 44	58. 0								21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
11. 55	57. 0								21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
12. 55	58. 0								21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
13. 27	56. 30								21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
13. 44	58. 0								21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
14. 4	57. 0								21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
14. 40	21. 57. 55								21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
15. 21	22. 1. 15		***						21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
16. 25	21. 57. 0								21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
16. 45	58. 15								21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
17. 35	57. 10								21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
17. 50	59. 30								21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
18. 0	58. 0								21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
19. 25	21. 59. 5								21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
19. 40	22. 3. 0		***						21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
21. 0	21. 58. 5								21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
21. 10	22. 1. 0								21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
21. 35	22. 1. 15		***						21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
22. 18	21. 58. 10								21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
22. 35	22. 0. 30								21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
22. 54	21. 58. 30								21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m
23. 30	22. 0. 55								21. 59. 0	21. 59. 0	14. 40	21. 59. 0	21. 59. 0	14. 40	Nov. 22	o 57. 15 ***	h m

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

(cii)

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.		Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.			
							Of H. F. Magnet.	Of V. F. Magnet.						Of H. F. Magnet.	Of V. F. Magnet.		
Nov. 23 23.59	° 22. I. 0	h m	h m	h m	h m	h m	o	o	Nov. 27 0. 20	° 22. I. 0	h m	Nov. 27 0. 15	.1068	Nov. 27 I. 2	{ .01300 .01200	Nov. 27 I. 40	45° 45°
Nov. 24 0. 37	22. 2. 0	Nov. 24 0. 40	.1062	Nov. 24 0. 0	.01350	Nov. 24 1. 40	43° 45°	Nov. 27 4. 0	21. 58. 25	2. 17	.1072	2. 38	.01150	Nov. 27 3. 40	45° 45°		
2. 42	22. 1. 0	1. 30	.1058	0. 59	.01360	3. 40	47° 48°	Nov. 27 7. 5	21. 59. 5	3. 21	.1065	6. 45	.00820	Nov. 27 21. 40	42° 44.5°		
2. 56	21. 58. 5	2. 31	.1064	2. 15	.01280	9. 40	47° 48°	Nov. 27 8. 8	22. I. 30	7. 30	.1076	8. 19	.00790				
3. 8	58. 20	3. 10	.1054	2. 36	.01240	21. 40	42° 43°	Nov. 27 9. 23	21. 56. 55	8. 37	.1078	12. 8	.00840				
3. 27	56. 25	4. 0	.1070	4. 54	{ .00870			Nov. 27 10. 45	57. 15	9. 10	.1068	13. 29	.00870				
4. 18	59. 5	6. 29	.1074	4. 54	{ .00760			Nov. 27 11. 21	58. 30	11. 10	.1074	20. 25	.01000				
6. 7	21. 58. 10		***	7. 45	.00680			Nov. 27 11. 34	58. 0	12. 0	.1087	21. 37	.00910				
7. 0	22. 0. 0	7. 25	.1050	9. 29	.00620			Nov. 27 11. 50	58. 40	14. 22	.1080	23. 59	.00810				
7. 39	21. 53. 0	7. 55	.1066	11. 41	.00650			Nov. 27 12. 10	57. 30	15. 15	.1081						
8. 3	58. 30	8. 5	.1062	12. 30	.00700			Nov. 27 12. 30	59. 0	15. 45	.1092						
11. 5	55. 40	9. 0	.1068	13. 50	.00790			Nov. 27 13. 5	21. 58. 30	17. 55	.1088						
11. 25	57. 30	10. 45	.1068	18. 0	.01180			Nov. 27 13. 34	22. 0. 0	18. 30	.1094						
12. 7	55. 0	11. 15	.1086	18. 54	.01230			Nov. 27 15. 6	21. 57. 50	20. 30	.1083						
13. 44	57. 45	15. 25	.1076	23. 17	.01400			Nov. 27 15. 39	22. 2. 45	23. 45	.1078						
14. 35	56. 55	20. 10	.1080	23. 50	.01400			Nov. 27 16. 12	21. 56. 35	23. 59	.1077						
16. 15	59. 0	23. 59	.1072					Nov. 27 16. 44	54. 30		***						
18. 50	59. 30							Nov. 27 17. 44	21. 59. 0		***						
19. 0	58. 5							Nov. 27 22. 11	22. I. 0								
20. 7	57. 30							Nov. 27 23. 5	21. 0. 0								
23. 0	57. 55							Nov. 27 23. 16	22. 0. 30								
23. 50	58. 45								23. 55	22. 4							
Nov. 25		Nov. 25		Nov. 25		Nov. 25											
o. 6	22. 0. 20	o. 0	.1072	o. 0	.01370	1. 40	43° 45°										
3. 0	21. 58. 55	3. 30	.1068	1. 52	.01330	3. 40	46° 47°										
8. 0	58. 0	15. 20	.1078	2. 33	.01260	9. 40	46° 47°										
14. 0	59. 55	15. 39	.1084	3. 57	.01110	22. 32	42° 43°										
21. 50	59. 55	16. 15	.1081	4. 32	.01020			Nov. 28 o. 7	22. 3. 30	o. 0	.1077	o. 15	.00780	Nov. 28 1. 40	45° 46°		
22. 20	21. 58. 0	23. 59	.1076	6. 33	.00720			Nov. 28 o. 50	3. 0	1. 0	.1059	0. 54	.00720	Nov. 28 3. 40	47. 5° 48°		
22. 55	22. 2. 0			8. 19	.00650			Nov. 28 1. 25	6. 0	2. 16	.1058	2. 34	.00680	Nov. 28 9. 40	48° 49. 5°		
23. 37	1. 15			9. 20	.00640			Nov. 28 1. 34	4. 20	2. 52	.1044	5. 42	.00780	Nov. 28 21. 40	48° 50. 5°		
				11. 51	.00660			Nov. 28 1. 47	22. 6. 5		.1054	6. 8	.00780				
				12. 45	.00690			Nov. 28 2. 23	21. 59. 30	3. 30	.1042	6. 39	.00790				
				14. 37	.00750			Nov. 28 2. 44	22. 0. 25	4. 7	.1052	8. 11	.00720				
				16. 4	.00800			Nov. 28 3. 0	4. 45	4. 15	.1044	11. 30	.00700				
				17. 53	.00900			Nov. 28 3. 23	6. 35	4. 35	.1052	11. 43	.00680				
				23. 0	.01300			Nov. 28 3. 40	4. 0	5. 0	.1042	12. 6	.00660				
Nov. 26		Nov. 26		Nov. 26		Nov. 26											
o. o	22. 0. 5	o. 0	.1076	o. 0	.01380	9. 30	43° 45°										
6. 0	21. 58. 25	7. 35	.1076	1. 2	.01420	21. 40	40° 43°										
***	10. 15	.1081	1. 54	.01420				Nov. 28 4. 6	4. 40	5. 37	.1048	12. 58	.00700				
8. 25	58. 0	11. 15	.1077	2. 58	.01410			Nov. 28 4. 11	6. 0	5. 49	.1056	17. 36	{ .00730				
10. 9	59. 0	17. 0	.1084	6. 6	.01270			Nov. 28 4. 23	3. 45	6. 23	.1036		{ .00820				
13. 35	21. 59. 30	22. 12	.1077	9. 4	.01150			Nov. 28 4. 34	4. 20	6. 45	.1064	19. 31	.00780				
16. 45	22. 1. 30	(†)	10. 42	.01140				Nov. 28 4. 47	7. 0	7. 21	.1052	23. 37	.00770				
17. 45	22. 0. 0		11. 30	.01140				Nov. 28 5. 17	2. 50	8. 45	.1060						
22. 0	21. 59. 0		14. 9	.01180				Nov. 28 5. 38	21. 59. 0	10. 25	.1063						
			15. 14	.01220				Nov. 28 5. 49	22. 1. 0	11. 2	.1086						
			19. 54	{ .01410				Nov. 28 6. 45	21. 59. 5	11. 19	.1067						
			22. 25	{ .01330				Nov. 28 9. 55	56. 20	11. 32	.1096						
			23. 59	{ .01340				Nov. 28 10. 34	56. 5	12. 35	.1042						
				{ .01200				Nov. 28 10. 44	53. 30	13. 15	.1062						
				.01270				Nov. 28 11. 0	48. 50	14. 0	.1056						
										18. 30	.1078						

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.

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	
Nov. 28	h m	Nov. 28	h m	h m	h m	o o	Nov. 30	h m	Nov. 30	h m	Nov. 30	h m	Nov. 30	h m
11. 24	o 55' "	21. 35	1066			o o	9. 9	o 54' "	10. 40	1066	21. 45	00800		o o
11. 29	54. o	21. 50	1058				9. 20	55. 55	11. 3	1062	23. 32	00870		o o
11. 45	54. 30	23. 59	1056				10. 7	51. 30	11. 30	1073				
12. 20	45. o						10. 34	52. 20	12. 22	1076				
12. 46	58. 55						10. 50	51. 20	12. 55	1068				
13. 13	52. 35						11. 34	55. 15	16. o	1072				
13. 31	52. 25						14. o	58. o	21. o	1080				
14. o	54. 5						14. 55	56. 35	22. 30	1081				
14. 15	54. o						15. 25	58. 5	23. 59	1074				
14. 46	56. 20						16. 1	57. 10						
15. 4	56. o						16. 36	57. 30						
16. 14	58. 10						16. 45	59. o						
16. 53	21. 57. 50						17. 35	58. o						
17. 30	22. 1. 30						19. o	57. 30						
18. o	22. 1. o						20. 14	59. 5						
18. 28	21. 46. o						20. 35	57. 35						
19. 12	57. 20						21. 19	58. 30						
19. 38	21. 56. 5						22. 2	57. 50						
21. 40	22. 2. o						23. 25	59. 55						
23. 39	1. 55													
Nov. 29		Nov. 29		Nov. 29										
o. o	22. 1. 50	o. o	1056	o. o	00770	1. 40	51. o	51. o	Dec. 1		Dec. 1		Dec. 1	
o. 36	1. 30	3. o	1046	2. 17	00850	3. 40	55. o	56. o	o. o	22. o. o	o. o	00890	1. 40	49. o
o. 50	22. 2. 10	6. 30	1054	5. 39	00850	9. 40	51. o	52. 5	0. 48	0. 40	2. 30	1. 21	3. 40	53. o
***	6. 44	1058	8. 13	00810	21. 40	45. o	46. 5	1. 10	2. o	3. 18	1038	2. 30	00880	9. 40
2. 17	21. 59. o	7. o	1055	11. 14	00950			1. 24	1. o	5. 30	1051	3. 11	{ 00830	21. 40
5. 53	56. 30	18. 15	1076	11. 45	00980			2. 32	0. 55		***		00870	45. o
6. o	55. o	21. o	1076	14. 13	01150			3. 1	3. o	5. 46	1042	4. 17	00860	
6. 19	55. 30	23. 59	1068	19. 17	01530			3. 15	6. 30	6. 4	1023	4. 28	00890	
6. 38	53. 35				01520			3. 21	5. o	6. 43	1057		***	
7. 35	57. 15				01490			3. 31	5. 30	6. 52	1048	7. o	00850	
8. o	56. 5				01510			3. 45	5. o	7. 15	1060	8. 1	00880	
8. 15	56. 40							4. 3	7. o	7. 51	1037	10. 15	00900	
8. 30	56. o							4. 14	6. 45	8. 50	1051	10. 38	00880	
9. 15	56. 55							4. 30	22. 8. 55	9. 15	1078	11. 3	00900	
9. 25	55. 15							5. 5	21. 55. 30	9. 35	1076	11. 46	00960	
10. 6	57. 15							5. 37	22. 0. 25	9. 45	1099	12. 41	01020	
15. 20	59. 30							6. 15	21. 48. 15	10. o	1093	13. 2	01000	
20. 36	58. o							6. 34	52. 20	10. 10	1069	13. 20	01030	
22. 12	21. 58. 20							6. 45	49. 15	11. 15	1040	14. 48	01220	
23. 59	22. o. 25							6. 57	57. 5	12. 35	1064	16. 57	01460	
Nov. 30		Nov. 30		Nov. 30				7. 4	49. 55	12. 52	1094	17. 5	01430	
o. o	22. o. 20	o. o	1068	o. 15	01490	1. 40	47. o	48. 5	7. 30	21. 54. 20	13. 15	1071	23. 30	01480
3. 30	21. 56. 20	3. 34	1069	2. 4:	01440	3. 40	49. o	50. o	7. 40	22. o. o	13. 25	1075	23. 51	01480
***	4. o	1063	3. 36	01200	9. 40	50. o	50. 5	7. 53	21. 59. 30	14. 21	1066			
4. 50	55. 50	4. 34	1069	5. 35	00830	21. 40	49. o	51. o	8. 8	56. 30	15. 8	1078		
5. 19	59. 15	4. 54	1064	5. 54	00790			8. 20	58. o	15. 40	1076			
6. 8	58. o	5. 9	1068	6. o	00810			9. o	55. 30	17. o	1089			
6. 24	56. o							9. 16	50. o	17. 46	1076			
6. 46	59. 45	6. 51	1054	8. 9	{ 00800			9. 38	49. 40	18. 22	1086			
7. 10	56. 20	7. 7	1045	10. 44	{ 00860			9. 54	45. 20	18. 46	1083			
7. 34	57. 15	7. 39	1060	12. 6	00830			10. 20	55. 30	19. 23	1060			
7. 53	53. 30	7. 55	1052	12. 45	00800			10. 36	49. o	20. 22	1078			
8. 8	54. o				***			10. 47	48. 30	20. 53	1080			
8. 30	52. o	9. 8	1059	12. 57	{ 00770			11. 15	42. o	23. o	1068			
8. 48:	52. 55	9. 30	1066	19. 15	{ 00790									

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

INDICATIONS OF THE MAGNETOMETERS

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Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.		
Dec. 4	o. 13	22. 2. 0	Dec. 4	o. 13	22. 2. 0	Dec. 4	o. 13	22. 2. 0	Dec. 5	o. 13	22. 2. 0	Dec. 5	o. 13	22. 2. 0	Dec. 5	o. 13	22. 2. 0	Dec. 6	o. 13	22. 2. 0	Dec. 6	o. 13
0. 13	22. 2. 0	o. 13	1074	1. 0	22. 2. 0	1074	1. 0	22. 2. 0	10850	1. 40	22. 2. 0	10850	1. 40	22. 2. 0	10850	1. 40	22. 2. 0	1082	1. 40	22. 2. 0	1082	1. 40
0. 31	22. 2. 0	o. 31	1073	2. 45	22. 2. 0	1073	2. 45	22. 2. 0	10800	3. 40	22. 2. 0	10800	3. 40	22. 2. 0	10800	3. 40	22. 2. 0	1082	3. 40	22. 2. 0	1082	3. 40
1. 16	21. 58. 20	1. 16	1062	3. 55	21. 58. 20	1062	3. 55	21. 58. 20	10850	9. 40	21. 58. 20	10850	9. 40	21. 58. 20	10850	9. 40	21. 58. 20	1082	9. 40	21. 58. 20	1082	9. 40
1. 33	59. 40	1. 33	***	9. 7	59. 40	1078	9. 7	59. 40	10900	21. 40	59. 40	10900	21. 40	59. 40	10900	21. 40	59. 40	1082	21. 40	59. 40	1082	21. 40
2. 36	57. 30	2. 36	***	4. 28	57. 30	1078	4. 28	57. 30	10930	10. 15	57. 30	1075	10. 15	57. 30	10880	10. 15	57. 30	1082	10. 15	57. 30	1082	10. 15
3. 40	58. 0	3. 40	1075	9. 40	58. 0	1075	9. 40	58. 0	10970	10. 15	58. 0	1082	10. 15	58. 0	10970	10. 15	58. 0	1082	10. 15	58. 0	1082	10. 15
3. 49	59. 0	3. 49	1082	10. 0	59. 0	1082	10. 0	59. 0	10970	10. 15	59. 0	1084	10. 15	59. 0	10970	10. 15	59. 0	1082	10. 15	59. 0	1082	10. 15
4. 50	21. 57. 15	4. 50	11. 36	1076	21. 57. 15	1076	11. 36	21. 57. 15	10990	10. 33	21. 57. 15	10990	10. 33	21. 57. 15	10990	10. 33	21. 57. 15	1082	10. 33	21. 57. 15	1082	10. 33
5. 39	22. 0. 0	5. 39	12. 20	1076	22. 0. 0	1076	12. 20	22. 0. 0	10990	10. 38	22. 0. 0	10990	10. 38	22. 0. 0	10990	10. 38	22. 0. 0	1082	10. 38	22. 0. 0	1082	10. 38
5. 56	21. 58. 0	5. 56	13. 12	1084	21. 58. 0	1084	13. 12	21. 58. 0	10990	10. 44	21. 58. 0	10990	10. 44	21. 58. 0	10990	10. 44	21. 58. 0	1082	10. 44	21. 58. 0	1082	10. 44
6. 14	59. 0	6. 14	13. 32	1080	59. 0	1080	13. 32	59. 0	10990	12. 39	59. 0	1080	12. 39	59. 0	10990	12. 39	59. 0	1082	12. 39	59. 0	1082	12. 39
6. 51	56. 5	6. 51	14. 0	1092	56. 5	1092	14. 0	56. 5	10990	13. 16	56. 5	1084	13. 16	56. 5	10990	13. 16	56. 5	1082	13. 16	56. 5	1082	13. 16
8. 5	56. 30	8. 5	14. 56	1084	56. 30	1084	14. 56	56. 30	10990	16. 6	56. 30	1084	16. 6	56. 30	10990	16. 6	56. 30	1082	16. 6	56. 30	1082	16. 6
8. 34	53. 55	8. 34	17. 15	1082	53. 55	1082	17. 15	53. 55	10990	18. 9	53. 55	1082	18. 9	53. 55	10990	18. 9	53. 55	1082	18. 9	53. 55	1082	18. 9
9. 7	55. 30	9. 7	20. 30	1087	55. 30	1087	20. 30	55. 30	10990	20. 38	55. 30	1087	20. 38	55. 30	10990	20. 38	55. 30	1082	20. 38	55. 30	1082	20. 38
10. 35	55. 35	10. 35	21. 37	1083	55. 35	1083	21. 37	55. 35	10990	23. 59	55. 35	1083	23. 59	55. 35	10990	23. 59	55. 35	1082	23. 59	55. 35	1082	23. 59
11. 0	54. 25	11. 0	21. 55	1074	54. 25	1074	21. 55	54. 25	10990	23. 59	54. 25	1074	23. 59	54. 25	10990	23. 59	54. 25	1082	23. 59	54. 25	1082	23. 59
12. 35	57. 10	12. 35	22. 37	1089	57. 10	1089	22. 37	57. 10	10990	22. 37	57. 10	1089	22. 37	57. 10	10990	22. 37	57. 10	1082	22. 37	57. 10	1082	22. 37
13. 3	55. 30	13. 3	22. 30	1074	55. 30	1074	22. 30	55. 30	10990	22. 30	55. 30	1074	22. 30	55. 30	10990	22. 30	55. 30	1082	22. 30	55. 30	1082	22. 30
13. 17	56. 35	13. 17	22. 37	1089	56. 35	1089	22. 37	56. 35	10990	22. 37	56. 35	1089	22. 37	56. 35	10990	22. 37	56. 35	1082	22. 37	56. 35	1082	22. 37
13. 34	56. 0	13. 34	22. 37	1089	56. 0	1089	22. 37	56. 0	10990	22. 37	56. 0	1089	22. 37	56. 0	10990	22. 37	56. 0	1082	22. 37	56. 0	1082	22. 37
14. 11	57. 45	14. 11	22. 51	1076	57. 45	1076	22. 51	57. 45	10990	22. 51	57. 45	1076	22. 51	57. 45	10990	22. 51	57. 45	1082	22. 51	57. 45	1082	22. 51
14. 44	56. 0	14. 44	23. 30	1076	56. 0	1076	23. 30	56. 0	10990	23. 30	56. 0	1076	23. 30	56. 0	10990	23. 30	56. 0	1082	23. 30	56. 0	1082	23. 30
15. 15	59. 15	15. 15	23. 59	1080	59. 15	1080	23. 59	59. 15	10990	23. 59	59. 15	1080	23. 59	59. 15	10990	23. 59	59. 15	1082	23. 59	59. 15	1082	23. 59
15. 37	58. 0	15. 37	23. 59	1080	58. 0	1080	23. 59	58. 0	10990	23. 59	58. 0	1080	23. 59	58. 0	10990	23. 59	58. 0	1082	23. 59	58. 0	1082	23. 59
15. 46	59. 5	15. 46	23. 59	1080	59. 5	1080	23. 59	59. 5	10990	23. 59	59. 5	1080	23. 59	59. 5	10990	23. 59	59. 5	1082	23. 59	59. 5	1082	23. 59
16. 15	57. 30	16. 15	23. 59	1080	57. 30	1080	23. 59	57. 30	10990	23. 59	57. 30	1080	23. 59	57. 30	10990	23. 59	57. 30	1082	23. 59	57. 30	1082	23. 59
16. 38	59. 5	16. 38	23. 59	1080	59. 5	1080	23. 59	59. 5	10990	23. 59	59. 5	1080	23. 59	59. 5	10990	23. 59	59. 5	1082	23. 59	59. 5	1082	23. 59
17. 0	57. 55	17. 0	23. 59	1080	57. 55	1080	23. 59	57. 55	10990	23. 59	57. 55	1080	23. 59	57. 55	10990	23. 59	57. 55	1082	23. 59	57. 55	1082	23. 59
21. 14	56. 30	21. 14	23. 59	1080	56. 30	1080	23. 59	56. 30	10990	23. 59	56. 30	1080	23. 59	56. 30	10990	23. 59	56. 30	1082	23. 59	56. 30	1082	23. 59
23. 45	57. 45	23. 45	23. 59	1080	57. 45	1080	23. 59	57. 45	10990	23. 59	57. 45	1080	23. 59	57. 45	10990	23. 59	57. 45	1082	23. 59	57. 45	1082	23. 59
23. 59	58. 30	23. 59	23. 59	1083	58. 30	1083	23. 59	58. 30	10990	23. 59	58. 30	1083	23. 59	58. 30	10990	23. 59	58. 30	1082	23. 59	58. 30	1082	23. 59
Dec. 5	o. o	21. 58. 35	Dec. 5	o. o	21. 58. 35	Dec. 5	o. o	21. 58. 35	Dec. 5	o. 45	21. 58. 35	Dec. 5	o. 45	21. 58. 35	Dec. 5	o. 45	21. 58. 35	Dec. 5	o. 45	21. 58. 35	Dec. 5	o. 45
5. 0	56. 50	5. 0	1. 19	1079	56. 50	1079	1. 19	56. 50	1079	2. 28	56. 50	1079	2. 28	56. 50	1079	2. 28	56. 50	1079	2. 28	56. 50	1079	2. 28
9. 10	56. 45	9. 10	1. 55	1066	56. 45	1066	1. 55	56. 45	1066	3. 42	56. 45	1066	3. 42	56. 45	1066	3. 42	56. 45	1066	3. 42			

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.		
							Of H. F. Magnet.								Of H. F. Magnet.		
							Of V. F. Magnet.								Of V. F. Magnet.		
Dec. 8																	
20. 10	° 21. 58. 0	° 21. 58. 0	h m	h m	h m	h m	•	•	•	•	•	•	•	•	•	•	•
20. 22	58. 5																
20. 30	59. 40																
21. 0	58. 30																
21. 40	59. 0																
22. 30	57. 35																
23. 0	21. 57. 50																
23. 59	22. 0. 30																
Dec. 9		Dec. 9		Dec. 9		Dec. 9		Dec. 9		Dec. 11		Dec. 11		Dec. 11		Dec. 11	
o. 10	22. 1. 0	o. o	•1080	1. 0	•01100	1. 40	51	•052	•0	o. 0	21. 59. 20	o. o	•1105	1. 30	•01350	1. 40	41 ° 43 ° 5
o. 45	22. 0. 30	2. o	•1085	3. 28	•01150	3. 40	51	•52	•5	3. 25	57. 15	4. o	•1102	3. 33	•01090	3. 40	43 ° 44 ° 5
4. 46	21. 57. 0	4. 53	•1080	7. 9	•01060	9. 40	49	•051	•0	6. 20	56. 25	7. 14	•1105	5. 37	•00720	9. 40	45 ° 46 ° 0
5. 30	58. 20	9. 34	•1089	10. 45	•01290	23. 30	42	•044	•0	9. 39	55. 45	10. 2	•1100	5. 43	•00740	21. 40	44 ° 45 ° 0
5. 59	57. 15	9. 59	•1084	11. 9	•01300					9. 54	53. 30	10. 23	•1107	9. 41	•00690		
6. 30	58. 30	10. 36	•1087	14. 7	•01520					10. 10	55. o	10. 50	•1100	9. 49	•00800		
9. 10	58. 0	10. 48	•1100	18. 30	•01480					10. 28	56. 30	12. 41	•1101	(†)	•00786*		
9. 45	52. 40	11. 12	•1092	23. 26	•01440					11. 19	56. o		(†)	21. 40	•00786*		
10. 13	56. 35	11. 31	•1098							13. 8	57. o	21. 36	•1113				
10. 44	57. 0	11. 45	•1091							21. 40	58. 10	22. 30	•1104				
10. 53	59. 5	19. 30	•1111							22. 10	58. o	23. 59	•1104				
11. 20	56. 30	23. 30	•1100							22. 18	56. 55						
11. 35	58. o									23. 59	59. 55						
11. 53	21. 57. o									Dec. 12							
13. 30	22. o. o									Dec. 12	21. 59. 50	o. o	•1104	o. o	•00920	1. 40	45 ° 47 ° 0
22. 2	21. 59. o									o. 47	56. 20	1. o	•1094	1. I	•00910	3. 40	48 ° 49 ° 0
22. 45	57. 15									11. 19	56. 35	4. 37	•1089	3. 45	{ •00820	9. 40	49 ° 49 ° 5
23. 25	21. 59. 5									12. 16	55. 10	4. 50	•1094	{ 0. 1200	21. 40	46 ° 48 ° 0	
Dec. 10		Dec. 10		Dec. 10		Dec. 10		Dec. 10		14. 45	56. 10	6. 30	•1090	5. 23	•00930		
1. o	22. o. o	1. o	•1104	1. o	•01450	10. 50	43	•345	•0	18. 45	56. o	9. o	•1096	7. 10	•00840		
4. 35	21. 57. o	1. 45	•1098	2. 48	•01440	21. 40	37	•040	•5	20. 47	58. 20	12. o	•1090	9. 11	•00840		
6. 15	22. 1. 30	4. 30	•1104	5. 22	•01230					22. 6	57. o	17. 45	•1103	11. 14	•00920		
7. 25	21. 57. 30	10. o	•1100	7. 53	•01030					23. 20	58. o	19. 58	•1098	12. 2	•00920		
8. o	56. o	14. 45	•1112	9. 57	•01020					21. 15	11. 24	•1102	13. 18	•00990			
8. 55	57. 10	16. 30	•1112	12. 30	•01070					23. 59	•1092	14. 30	•01020				
9. 18	56. o	17. 50	•1120	13. 15	•01080								19. 26	•00970			
9. 27	57. 30	21. o	•1116	15. 2	•01190								21. 13	•00970			
9. 45	56. o	21. 45	•1110	16. 30	•01320								23. 10	•01020			
10. 50	56. 55		•1105	17. 24	{ •01430												
13. 31	57. o		23. 1		•01380												
14. o	59. o		23. 45		•01480												
14. 12	57. 40	***	23. 59		•01480												
16. 2	21. 58. o	***															
18. 20	22. 1. o																
21. 5	21. 59. 25																
21. 37	57. 45	***															
23. o	21. 58. o																
23. 45	22. o. 25																
23. 59	21. 59. 30																

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

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1854

(cvii)

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Readings of Thermo- meters.		
Dec. 13																	
23. 45	o 22. 1. 22.	o 0. 35	h m			h m		h m		h m		h m		h m		h m	
23. 59	1. 25																
Dec. 14																	
0. o	22. 1. 20	o. o	.1082	o. o	.00960	1. 40	55° 0' 56° 0'			o. o	21. 58. o	o. o	.1100	4. 19	.01550	11. 16	47° 0' 47° 5'
3. 15	22. 2. o	4. 23	.1076	3. 38	{ .01000	3. 40	57° 0' 57° 0'			(†)	4. 14	.1109	8. 51	.01470	21. 40	46° 0' 47° 5'	
5. o	21. 59. 30	6. o	.1074	6. 8	{ .01110	21. 40	55° 0' 55° 5'			4. 30	57. o	4. 56	.1096	11. 45	.01500		
5. 30	22. 0. 30	6. 15	.1084	11. 30	.01050					8. 34	56. o	8. 53	.1102	12. 16	.01520		
6. 15	21. 59. 25	7. o	.1070	12. o	.01050					8. 46	55. 10	9. 32	.1091	14. 0	.01540		
6. 30	22. 0. 35	8. o	.1080	19. 23	.01160					8. 55	57. o	10. o	.1098	15. 23	{ .01580		
7. 15	21. 53. 35	8. 25	.1074	22. 45	.01250					9. 8	55. 20	10. 46	.1096	{ .01530			
7. 49	54. 30	10. 38	.1077	23. 59	.01290					10. o	56. o	11. 15	.1110	19. 6	.01550		
8. 18	57. 30	12. 30	.1073							10. 24	52. 25	11. 59	.1092	21. 37	.01500		
10. 33	56. o	17. o	.1080							10. 52	55. 15		***	23. 22	.01400		
	***	22. 8	.1080							11. 10	55. 10	12. 59	.1102	23. 59	.01340		
14. 57	21. 58. 20	23. 59	.1071							11. 45	50. 5	13. 35	.1089				
15. 14	22. 0. o									12. 36:	55. o	14. o	.1095				
16. 23	21. 57. 5									13. 10	51. 15	14. 8	.1089				
23. 10	56. 25									13. 34	51. 20	14. 30	.1097				
23. 59	57. 30									14. 35	59. o	15. 1	.1095				
Dec. 15										15. o	21. 56. 55	15. 30	.1087				
0. o	21. 57. 20	o. o	.1071	o. 30	.01290	1. 40	57° 0' 57° 0'			15. 45	22. 1. 30	16. 15	.1100				
4. 51	55. o	0. 45	.1078	2. 29	{ .01220	3. 40	57° 5' 59° 0'			***	17. o	.1096					
10. 23	55. 10	4. o	.1071	{ .01430	9. 40	57° 0' 58° 0'			16. 37	21. 55. o	21. 39	.1096					
13. 45	57. o	12. 10	.1077	3. 15	.01360	21. 40	55° 0' 55° 5'			***	22. 5	.1079					
14. 40	55. 25	12. 34	.1079	8. 28	.01400					17. 15	57. 25	22. 20	.1080				
15. 35	56. 50	12. 44	.1085	10. 24	.01420					18. 5	55. 20		***				
	***	13. 1	.1080	12. 13	.01480					18. 34	58. o	23. 30	.1097				
17. 46	55. 55	14. 23	.1080	13. o	.01490					18. 46	56. 30	23. 59	.1094				
18. 20	57. 25	18. 9	.1088	15. 53	.01580					21. 10	56. 20						
20. 5	55. o	18. 40	.1086	19. 52	.01720					21. 23	53. 40						
	***	20. 52	.1089	21. 21	.01740					22. 15	58. 30	***					
22. o	57. 30			21. 29	.01710					23. 59	58. o						
22. 6	56. 30	21. 16	.1099	23. 59	.01690					Dec. 18							
	***	22. 50	.1083							Dec. 18							
23. 59	58. 25	23. 16	.1090							o. o	21. 58. o	o. 23	.1099	1. 15	.01200	1. 40	49° 0' 49° 5'
		23. 34	.1082							o. 26	22. 1. 25	1. 35	.1104	2. 30	.01090	3. 40	48° 5' 49° 5'
		23. 59	.1085							***	2. o	.1093	5. 15	.00930	9. 40	47° 0' 47° 5'	
Dec. 16										1. 16	21. 59. 30	2. 33	.1097	7. 24	.00960	21. 40	40° 0' 43° 0'
o. o	21. 58. 20	o. o	.1084	1. o	.01700	1. 40	54° C 55° C			1. 25	22. 1. 25	2. 52	.1090	12. 45	.01450		
	***	2. o	.1082	3. 39	.01720	3. 40	55° C 55° C			1. 49	21. 58. 55		***	13. 15	.01510		
3. 5	56. o	2. 23	.1074	6. 37	.01670	9. 40	53° 5' 54° 3'			2. 15	22. 1. o	7. 41	.1088	13. 35	{ .01540		
5. 59	55. o			7. o	.01700	23. 40	41° 0' 42° 2'			2. 40	21. 59. o	8. o	.1079		.01490		
7. 7	56. o	4. 5	.1080	12. 15	.01670					***	8. 40	.1095	14. 53		.01470		
8. o	57. 25	5. 38	.1077	13. 16	.01650					5. 2	21. 58. o	9. 15	.1088	23. 27	.01500		
9. 16	55. 55	6. 30	.1084	18. 55	.01570					6. 10	22. 0. o	10. o	.1095				
14. o	58. 30			***	23. 59	.01570				7. 45	21. 58. o	10. 14	.1091				
16. 55	59. 5	8. 25	.1080							8. 8	52. 20	10. 35	.1096				
17. 35	57. o	14. 30	.1095							8. 30	56. o	11. 14	.1091				
18. 6	59. o	15. 8	.1094							8. 55	55. 20	11. 46	.1096				
18. 27	58. 10			***						9. 50	58. 30	13. 6	.1091				
20. 45	57. o	17. 30	.1102							10. 18	55. o		***				
22. 55	57. o	18. 40	.1097							11. 45	59. o	14. 10	.1100				
23. 59	58. o	22. 15	.1102							***	14. 35	.1108					

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

INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declina- tion.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	Göttingen Mean Solar Time.		
						Of H. F. Magnet.								Of H. F. Magnet.		
						Of V. F. Magnet.								Of V. F. Magnet.		
Dec. 18	14. 13	21. 59. 30	Dec. 18	23. 23	•1099	b m	•1h 30m	2. 0	21. 58. 0	Dec. 21	3. 35	•01340	Dec. 21	9. 40	49° 34' 50"	
14. 13	56. 35	23. 59			•1100			***	2. 25	1. 53	•1086	8. 28	•00760	21. 40	52° 05' 53" 0	
15. 0	58. 55							5. 5	58. 20	4. 42	•1093	8. 30	•00790			
15. 34	56. 30							5. 40	56. 25	5. 30	•1083	12. 15	•00810			
16. 10	56. 10							9. 24	55. 0	6. 3	•1093	13. 8	•00820			
21. 5	59. 0							9. 32	53. 25	6. 45	•1097	19. 49	•00850			
23. 23								10. 11	55. 30	8. 15	•1093	23. 6	•00860			
Dec. 19	0. 0	21. 59. 30	Dec. 19	Dec. 19	Dec. 19	Dec. 19	Dec. 19	10. 24	54. 25	11. 15	•1090	23. 59	•00880			
0. 0	***	0. 0	•1100	0. 0	•01490	1. 40	43° 0' 44" 0	10. 45	55. 25	11. 30	•1095					
1. 38	58. 35	4. 15	•1094	1. 15	•01480	3. 40	46° 0' 47" 0	14. 36	58. 0	11. 55	•1090					
2. 3	59. 30	7. 30	•1100	2. 30	•01390	9. 40	44° 5' 45" 5	16. 10	56. 30	19. 35	•1094					
2. 55	57. 35	8. 30	•1093	6. 2	•00970	21. 40	45° 0' 46" 0	17. 16	57. 35	23. 59	•1084					
4. 38	57. 0	9. 0	•1096	11. 6	•00900			17. 37	56. 20							
7. 30	56. 30	10. 0	•1095	11. 46	•00910			18. 0	57. 0							
7. 47	54. 30	10. 35	•1097	12. 41	•00950			22. 30	57. 0							
9. 54	57. 25	12. 14	•1094	14. 30	•00920			23. 59	58. 35							
10. 23	56. 0	12. 40	•1103	15. 50	•00880			Dec. 22	Dec. 22	Dec. 22	Dec. 22	Dec. 22				
11. 6	57. 0	13. 36	•1097	19. 36	•00680			0. 0	21. 58. 40	0. 0	•1084	1. 30	•00940	1. 40	54° 05' 54" 0	
11. 55	56. 0	15. 23	•1101	19. 41	•00690			0. 47	22. 0. 20	4. 5	•1081	4. 12	•00980	3. 40	55° 05' 56" 0	
12. 15	56. 30	18. 2	•1096	21. 55	•00700			1. 9	21. 58. 0	***	9. 40	•00920	9. 40	56° 05' 56" 0		
12. 27	55. 50	20. 0	•1103	23. 15	•00740			3. 24	57. 25	10. 30	•1082	12. 38	{ 00900	21. 40	52° 05' 52" 5	
12. 55	58. 0	22. 20	•1091	23. 59	•00750			9. 13	56. 30	11. 5	•1089		00930			
13. 22	56. 20	23. 59	•1090					9. 22	54. 40	11. 40	•1078	13. 16	•00930			
18. 40	56. 0							10. 16	55. 55	12. 55	•1072	16. 39	•00920			
22. 6	56. 0							10. 36	51. 0		***	18. 36	•00970			
23. 32	59. 40							12. 21	56. 15	16. 25	•1084	21. 30	•01160			
23. 59	59. 25							13. 41	54. 25	19. 20	•1088	23. 54	•01400			
Dec. 20	0. 0	21. 59. 30	Dec. 20	Dec. 20	Dec. 20	Dec. 20	Dec. 20	15. 4	57. 45	23. 59	•1083					
0. 0	***	0. 21	•1092	5. 6	•00840	1. 40	49° 0' 50" 0	16. 0	55. 0							
0. 50	22. 0. 25	3. 15	•1086	6. 31	•00800	3. 40	49° 0' 50" 0	17. 46	58. 0							
1. 36	21. 58. 0	3. 55	•1068	8. 45	•00770	9. 40	49° 0' 51" 0	21. 45	58. 0	***						
3. 39	22. 1. 0	4. 40	•1066	11. 50	•00870	21. 40	42° 0' 43" 5	23. 17	59. 30							
4. 13	21. 58. 15	10. 30	•1090	12. 12	•00890			23. 59	59. 30							
5. 49	22. 0. 30	10. 45	•1089	13. 16	•00950			Dec. 23	Dec. 23	Dec. 23	Dec. 23	Dec. 23				
6. 30	21. 58. 25	11. 30	•1101	17. 6	•01260			0. 0	21. 59. 30	0. 0	•1083	0. 16	•01430	1. 40	52° 05' 53" 0	
7. 15	59. 0	11. 52	•1091	19. 41	•01540			2. 0	59. 5		***	1. 57	•01530	3. 40	53° 05' 54" 0	
10. 55	55. 20	13. 0	•1099	19. 45	•01520			4. 45	56. 25	3. 0	•1086	3. 39	•01500	9. 40	52° 05' 52" 5	
11. 19	50. 30	13. 27	•1090	22. 45	•01480			8. 54	57. 15	5. 55	•1080	6. 20	•01340	23. 20	45° 04' 46" 0	
12. 6	58. 0	20. 44	•1104	23. 59	•01530			9. 35	57. 0	10. 8	•1084	7. 17	•01330			
12. 27	54. 0	22. 30	•1098					9. 51	55. 30	10. 35	•1080	11. 26	•01380			
12. 51	56. 0							10. 25	57. 20	11. 0	•1085	12. 56	•01420			
13. 45	56. 25							11. 6	57. 50	11. 16	•1082	14. 32	•01490			
14. 16	59. 0							11. 37	56. 5	11. 51	•1090	17. 41	•01680			
15. 7	56. 30							11. 55	57. 30		***	18. 44	•01640			
16. 3	59. 35							12. 15	56. 30	12. 45	•1083	23. 50	•01610			
21. 25	59. 0							12. 30	57. 20	14. 15	•1086					
21. 46	57. 10							12. 46	56. 45	18. 0	•1096					
23. 59	57. 45							13. 4	59. 30	20. 35	•1098					
Dec. 21	0. 0	21. 57. 50	Dec. 21	0. 15	•1095	0. 30	•01510	Dec. 21	1. 40	45° 5' 45" 5	13. 22	57. 50	22. 45	•1094		
1. 15	59. 35	1. 14	•1097	2. 3	•01460	3. 40	45° 0' 47" 0	21. 10	58. 30	23. 59	•1095					

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

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1854.

(cix)

Göttingen Mean Solar Time.		Western Declina- tion.		Göttingen Mean Solar Time.		Horizontal Force in parts of the whole H. F. uncorrected for Temperature.		Göttingen Mean Solar Time.		Vertical Force in parts of the whole V. F. uncorrected for Temperature.		Readings of Thermo- meters.		Göttingen Mean Solar Time.		Western Declina- tion.		Göttingen Mean Solar Time.		Horizontal Force in parts of the whole H. F. uncorrected for Temperature.		Göttingen Mean Solar Time.		Vertical Force in parts of the whole V. F. uncorrected for Temperature.		Readings of Thermo- meters.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Dec. 24	h m	o. o	21. 59. 55	Dec. 24	h m	o. o	1095	Dec. 24	h m	o. 30	.00880	10. 5	51°	52°	Dec. 27	h m	o. o	11. 30	12. 30	13. 0	13. 30	14. 0	16. 52	17. 30	18. 26	18. 40	18. 40	23. 0	Dec. 27	h m	o. o	01510																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
3. 25		56. 20	1. 0				1096			7. 37	.00900	23. 0	50°	51°																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
6. 13		57. 25	2. 23				1090			10. 17	.01120																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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8. 34		55. 30	14. 25				1090			12. 16	.01240																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
9. 38		56. 10	19. 50				1096			14. 15	.01370																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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0. 0	22. 1. o	o. o	1088	Dec. 25	1. 10	.01630	10. 5	50°	51°	5. 5	Dec. 25	1. 10	.01620	21. 40	46°	47°	0. o	1092	1090	1. 45	2. 30	3. 45	4. 50	5. 6	6. 49	7. 6	8. 49	9. 40	10. 45	11. 40	12. 40	13. 40	14. 40	15. 40	16. 40	17. 40	18. 40	19. 40	20. 40	21. 40	22. 40	23. 40	24. 40	25. 40	26. 40	27. 40	28. 40	29. 40	30. 40	31. 40	32. 40	33. 40	34. 40	35. 40	36. 40	37. 40	38. 40	39. 40	40. 40	41. 40	42. 40	43. 40	44. 40	45. 40	46. 40	47. 40	48. 40	49. 40	50. 40	51. 40	52. 40	53. 40	54. 40	55. 40	56. 40	57. 40	58. 40	59. 40	60. 40	61. 40	62. 40	63. 40	64. 40	65. 40	66. 40	67. 40	68. 40	69. 40	70. 40	71. 40	72. 40	73. 40	74. 40	75. 40	76. 40	77. 40	78. 40	79. 40	80. 40	81. 40	82. 40	83. 40	84. 40	85. 40	86. 40	87. 40	88. 40	89. 40	90. 40	91. 40	92. 40	93. 40	94. 40	95. 40	96. 40	97. 40	98. 40	99. 40	100. 40	101. 40	102. 40	103. 40	104. 40	105. 40	106. 40	107. 40	108. 40	109. 40	110. 40	111. 40	112. 40	113. 40	114. 40	115. 40	116. 40	117. 40	118. 40	119. 40	120. 40	121. 40	122. 40	123. 40	124. 40	125. 40	126. 40	127. 40	128. 40	129. 40	130. 40	131. 40	132. 40	133. 40	134. 40	135. 40	136. 40	137. 40	138. 40	139. 40	140. 40	141. 40	142. 40	143. 40	144. 40	145. 40	146. 40	147. 40	148. 40	149. 40	150. 40	151. 40	152. 40	153. 40	154. 40	155. 40	156. 40	157. 40	158. 40	159. 40	160. 40	161. 40	162. 40	163. 40	164. 40	165. 40	166. 40	167. 40	168. 40	169. 40	170. 40	171. 40	172. 40	173. 40	174. 40	175. 40	176. 40	177. 40	178. 40	179. 40	180. 40	181. 40	182. 40	183. 40	184. 40	185. 40	186. 40	187. 40	188. 40	189. 40	190. 40	191. 40	192. 40	193. 40	194. 40	195. 40	196. 40	197. 40	198. 40	199. 40	200. 40	201. 40	202. 40	203. 40	204. 40	205. 40	206. 40	207. 40	208. 40	209. 40	210. 40	211. 40	212. 40	213. 40	214. 40	215. 40	216. 40	217. 40	218. 40	219. 40	220. 40	221. 40	222. 40	223. 40	224. 40	225. 40	226. 40	227. 40	228. 40	229. 40	230. 40	231. 40	232. 40	233. 40	234. 40	235. 40	236. 40	237. 40	238. 40	239. 40	240. 40	241. 40	242. 40	243. 40	244. 40	245. 40	246. 40	247. 40	248. 40	249. 40	250. 40	251. 40	252. 40	253. 40	254. 40	255. 40	256. 40	257. 40	258. 40	259. 40	260. 40	261. 40	262. 40	263. 40	264. 40	265. 40	266. 40	267. 40	268. 40	269. 40	270. 40	271. 40	272. 40	273. 40	274. 40	275. 40	276. 40	277. 40	278. 40	279. 40	280. 40	281. 40	282. 40	283. 40	284. 40	285. 40	286. 40	287. 40	288. 40	289. 40	290. 40	291. 40	292. 40	293. 40	294. 40	295. 40	296. 40	297. 40	298. 40	299. 40	300. 40	301. 40	302. 40	303. 40	304. 40	305. 40	306. 40	307. 40	308. 40	309. 40	310. 40	311. 40	312. 40	313. 40	314. 40	315. 40	316. 40	317. 40	318. 40	319. 40	320. 40	321. 40	322. 40	323. 40	324. 40	325. 40	326. 40	327. 40	328. 40	329. 40	330. 40	331. 40	332. 40	333. 40	334. 40	335. 40	336. 40	337. 40	338. 40	339. 40	340. 40	341. 40	342. 40	343. 40	344. 40	345. 40	346. 40	347. 40	348. 40	349. 40	350. 40	351. 40	352. 40	353. 40	354. 40	355. 40	356. 40	357. 40	358. 40	359. 40	360. 40	361. 40	362. 40	363. 40	364. 40	365. 40	366. 40	367. 40	368. 40	369. 40	370. 40	371. 40	372. 40	373. 40	374. 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40	500. 40	501. 40	502. 40	503. 40	504. 40	505. 40	506. 40	507. 40	508. 40	509. 40	510. 40	511. 40	512. 40	513. 40	514. 40	515. 40	516. 40	517. 40	518. 40	519. 40	520. 40	521. 40	522. 40	523. 40	524. 40	525. 40	526. 40	527. 40	528. 40	529. 40	530. 40	531. 40	532. 40	533. 40	534. 40	535. 40	536. 40	537. 40	538. 40	539. 40	540. 40	541. 40	542. 40	543. 40	544. 40	545. 40	546. 40	547. 40	548. 40	549. 40	550. 40	551. 40	552. 40	553. 40	554. 40	555. 40	556. 40	557. 40	558. 40	559. 40	560. 40	561. 40	562. 40	563. 40	564. 40	565. 40	566. 40	567. 40	568. 40	569. 40	570. 40	571. 40	572. 40	573. 40	574. 40	575. 40	576. 40	577. 40	578. 40	579. 40	580. 40	581. 40	582. 40	583. 40	584. 40	585. 40	586. 40	587. 40	588. 40	589. 40	590. 40	591. 40	592. 40	593. 40	594. 40	595. 40	596. 40	597. 40	598. 40	599. 40	600. 40	601. 40	602. 40	603. 40	604. 40	605. 40	606. 40	607. 40	608. 40	609. 40	610. 40	611. 40	612. 40	613. 40	614. 40	615. 40	616. 40	617. 40	618. 40	619. 40	620. 40	621. 40	622. 40	623. 40	624. 40	625. 40	626. 40	627. 40	628. 40	629. 40	630. 40	631. 40	632. 40	633. 40	634. 40	635. 40	636. 40	637. 40	638. 40	639. 40	640. 40	641. 40	642. 40	643. 40	644. 40	645. 40	646. 40	647. 40	648. 40	649. 40	650. 40	651. 40	652. 40	653. 40	654. 40	655. 40	656. 40	657. 40	658. 40	659. 40	660. 40	661. 40	662. 40	663. 40	664. 40	665. 40	666. 40	667. 40	668. 40	669. 40	670. 40	671. 40	672. 40	673. 40	674. 40	675. 40	676. 40	677. 40	678. 40	679. 40	680. 40	681. 40	682. 40	683. 40	684. 40	685. 40	686. 40	687. 40	688. 40	689. 40	690. 40	691. 40	692. 40	693. 40	694. 40	695. 40	696. 40	697. 40	698. 40	699. 40	700. 40	701. 40

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

From December 26 to December 29, the adjustments of the Declination Magnet were under examination.

INDICATIONS OF THE MAGNETOMETERS.

Göttingen Mean Solar Time.	Western Declination.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.		Readings of Thermo- meters.	Göttingen Mean Solar Time.	Western Declination.	Göttingen Mean Solar Time.	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time.	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.	
				h	m									
h m	o i u	Dec. 29	6.45 ·1083	h m	h m	Of H. F. Magnet.	Of V. F. Magnet.	h m	h m	h m	h m	h m	h m	h m
			7.12 ·1072											
			7.25 ·1081											
			7.53 ·1060											
			8. 7 ·1068											
			8.45 ·1068											
			9. 5 ·1082											
			9.31 ·1082											
			10. 8 ·1086											
			11.45 ·1089											
			13.35 ·1088											
			15.14 ·1100											
			16. 0 ·1092											
			16.25 ·1097											
			17. 2 ·1096											
			17.35 ·1088											
			19.42 ·1100											
			21. 6 ·1088											
			21.40 ·1090											
			22. 7 ·1085											
			23.59 ·1086											
Dec. 30	21. 51.50	Dec. 30	0. 0 ·1086	Dec. 30	0. 0 ·00740	Dec. 30	1. 40 ·42 ° 43 °	Dec. 30	0. 0 ·1093	Dec. 30	1. 30 ·01620	Dec. 30	9. 23 ·01610	Dec. 30
0. 24	54. 0		2. 41 ·1082		2. 7 ·00830		3. 40 ·51 ° 52 °		1. 7 ·1092		2. 27 ·01320		21. 0 ·01320	
2. 0	50. 30		3. 0 ·1073		3. 51 { ·00910	9. 50 ·51 ° 52 °	10. 21 ·1087		3. 29 ·1083		8. 0 ·01190			
5. 10	52. 20		3. 37 ·1080		{ ·01060	23. 20 ·47 ° 47 °	10. 58 ·1087		4. 50 ·1086		9. 11 ·01160			
5.53	47. 45		4. 10 ·1076		4. 35 ·01010		11. 15 ·01060		9. 15 ·1082		9. 16 ·01230			
6. 30	49. 15		5. 2 ·1080		8. 15 ·01030		11. 45 ·01060		9. 25 ·1084		12. 28 ·01230			
7. 0	49. 40		5. 43 ·1076		8. 46 ·00980		11. 45 ·01060		10. 5 ·1092		13. 30 ·01210			
7. 23	44. 40		6. 21 ·1063		11. 15 ·01060		11. 45 ·01060		11. 15 ·1087		17. 18 ·01320			
7. 45:	47. 0		6. 40 ·1070		11. 45 ·01060		11. 45 ·01060		11. 39 ·1087		19. 27 ·01350			
8. 6	41. 0		7. 15 ·1053		13. 23 ·01100		11. 45 ·01060		14. 0 ·1088		21. 38 ·01320			
8. 31	53. 0		7. 24 ·1062		22. 43 ·01640		11. 45 ·01060		14. 21 ·1089		23. 59 ·01210			
9. 2	40. 15		7. 46 ·1068		23. 59 ·01640		11. 45 ·01060		14. 43 ·1095					
9. 30	56. 20		7. 39 ·1058		23. 15 ·01640		11. 45 ·01060		15. 0 ·1091					
10. 30	47. 45		7. 57 ·1062		23. 59 ·01640		11. 45 ·01060		15. 30 ·1095					
11. 0	46. 0		8. 15 ·1088						16. 0 ·1090					
12. 10	49. 25								19. 50 ·1086					
									21. 34 ·1085					
									21. 47 ·1085					
									23. 49 ·1085					
									23. 59 ·1085					

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.

ROYAL OBSERVATORY, GREENWICH.

R E S U L T S

OF

O B S E R V A T I O N S

OF THE

M A G N E T I C D I P.

1854.

The Dipping Needle is described, and the mode of using it is explained, in the *Magnetical and Meteorological Observations*, 1847, Introduction, page xliii, and in the corresponding parts of several preceding Volumes.

The needle A 1 was used throughout the Year.

MAGNETIC DIP, observed at the ROYAL OBSERVATORY, GREENWICH, in the Year 1854.

Day and Approximate Hour, 1854.	Magnetic Dip.	Day and Approximate Hour, 1854.	Magnetic Dip.	Day and Approximate Hour, 1854.	Magnetic Dip.
January	8. 21	68. 48 .75	April	24. 9	68. 47 .50
	9. 3	68. 48 .75		30. 21	68. 50 .00
	9. 9	68. 50 .00			
	15. 21	68. 48 .75		1. 3	68. 48 .00
	16. 3	68. 49 .00		1. 9	68. 48 .00
	16. 9	68. 50 .00		7. 21	68. 46 .75
	22. 21	68. 48 .00		8. 3	68. 45 .50
	23. 3	68. 48 .75		8. 9	68. 46 .25
	23. 9	68. 48 .00		14. 21	68. 46 .50
	29. 21	68. 48 .00		15. 3	68. 43 .00
	30. 3	68. 48 .00		15. 9	68. 44 .25
	30. 9	68. 49 .25		21. 21	68. 46 .50
February	5. 21	68. 48 .75		22. 3	68. 45 .50
	6. 3	68. 49 .00		22. 9	68. 47 .00
	6. 9	68. 49 .50		28. 21	68. 46 .50
	12. 21	68. 47 .00		29. 3	68. 50 .00
	13. 3	68. 48 .25		29. 9	68. 46 .25
	13. 9	68. 44 .00	June	4. 21	68. 47 .50
	19. 21	68. 49 .75		5. 3	68. 46 .50
	20. 3	68. 48 .75		5. 9	68. 46 .25
	20. 9	68. 47 .50		11. 21	68. 50 .00
	26. 21	68. 45 .00		12. 3	68. 46 .25
	27. 3	68. 46 .25		12. 9	68. 49 .75
	27. 9	68. 46 .25		18. 21	68. 47 .50
March	5. 21	68. 48 .25		19. 3	68. 46 .25
	6. 3	68. 48 .00		19. 9	68. 47 .75
	6. 9	68. 46 .50		25. 21	68. 48 .00
	12. 21	68. 48 .75		26. 3	68. 48 .75
	13. 2	68. 47 .00		26. 9	68. 46 .75
	13. 9	68. 46 .75	July	2. 21	68. 49 .75
	19. 21	68. 50 .00		3. 3	68. 47 .50
	20. 3	68. 43 .75		3. 9	68. 49 .25
	20. 9	68. 46 .75		9. 21	68. 49 .25
	26. 21	68. 46 .25		10. 3	68. 47 .50
	27. 3	68. 46 .75		10. 9	68. 48 .00
	27. 9	68. 46 .50		16. 21	68. 43 .75
April	2. 21	68. 50 .50		23. 21	68. 48 .75
	3. 3	68. 48 .00		24. 3	68. 47 .50
	3. 9	68. 50 .50		24. 9	68. 47 .50
	9. 21	68. 50 .00		30. 21	68. 48 .75
	10. 3	68. 54 .00		31. 3	68. 48 .75
	10. 9	68. 52 .50		31. 9	68. 47 .50
	16. 21	68. 48 .00	August	6. 21	68. 48 .75
	17. 3	68. 48 .75		7. 3	68. 48 .75
	17. 9	68. 51 .75		7. 9	68. 49 .25
	23. 21	68. 48 .75		13. 21	68. 47 .75
	24. 3	68. 47 .75		14. 3	68. 50 .50
				14. 9	68. 50 .00
December	3. 21	68. 47 .50	November	5. 21	68. 46 .75
	4. 3	68. 47 .00		6. 3	68. 46 .75
	4. 9	68. 47 .25		6. 9	68. 46 .75
	10. 21	68. 44 .25		12. 21	68. 46 .75
				13. 3	68. 48 .00
				13. 9	68. 48 .00
				19. 21	68. 48 .75
				20. 3	68. 47 .50
				20. 9	68. 48 .00

On December 17^{d.} 21^{h.} the air was saturated with moisture, and on December 18^{d.} 9^{h.} the wind was blowing very strongly.

MONTHLY MEANS of MAGNETIC DIPS, at the ROYAL OBSERVATORY, GREENWICH, in the Year 1854.

1854, Month.	Monthly Means of Dips at 21 ^h .	Number of Observations.	Monthly Means of Dips at 3 ^h .	Number of Observations.	Monthly Means of Dips at 9 ^h .	Number of Observations.
January	68.48·39	4	68.48·62	4	68.49·31	4
February	68.47·63	4	68.48·06	4	68.46·81	4
March	68.48·31	4	68.46·37	4	68.46·62	4
April	68.49·45	5	68.49·62	4	68.50·56	4
May	68.46·56	4	68.46·40	5	68.46·35	5
June	68.48·25	4	68.46·94	4	68.47·63	4
July	68.48·05	5	68.47·81	4	68.48·06	4
August	68.47·75	3	68.49·50	4	68.49·06	4
September	68.46·87	4	68.48·44	4	68.48·56	4
October	68.47·94	4	68.47·63	4	68.47·00	3
November	68.47·41	3	68.47·41	3	68.47·58	3
December	68.44·81	4	68.46·00	3	68.45·08	3
Mean	68.47·62	48	68.47·73	47	68.47·72	46

Mean of all = 68.47·7

ROYAL OBSERVATORY, GREENWICH.

O B S E R V A T I O N S

OF

D E F L E X I O N O F A M A G N E T

FOR

A B S O L U T E M E A S U R E

OF

H O R I Z O N T A L F O R C E.

1854.

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 xlvi, and in preceding Volumes. The Magnet, marked $\frac{D}{XX}$ (the same which was used in preceding years), 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 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
 $= 3.92866$: the unit of length being the English foot, and the unit of weight being
the English grain.

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

$$\frac{a}{(\text{distance})^3} + \frac{b}{(\text{distance})^5}$$

we have for the formulæ of computation

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

$$m X = \frac{\pi^2 K}{T^2}$$

from which m and X are found.

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

$$\frac{a_1}{(\text{distance})^3} + \frac{b_1}{(\text{distance})^5}$$

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 $m X$ 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, 1854.	Position of Deflecting Magnet with regard to Suspended Magnet.	Distances of Centers of Magnets. ft. in. I. o	Temperature.	Observed Deflexion.	Mean of the Times of Vibrations of Deflecting Magnet.	Number of Vibrations.	Temperature.
January 10	Lateral	ft. in. I. o	38°0	° 1 " 10. 13. 2 '70	5·445	100	37·2
	Axial.....			5.32. 11 '80			
	Lateral	I. 6	38°0	3. 2. 4 '00	5·440	100	38·3
	Axial.....			1. 33. 28 '80			
February 14	Lateral	I. o	38°0	10. 10. 15 '60	5·430	100	36·5
	Axial.....			5. 28. 4 '15			
	Lateral	I. 6	38°0	3. 2. 51 '32			
	Axial.....			1. 33. 21 '30			
March 2	Lateral	I. o	53°0	10. 13. 42 '71	5·430	100	47·5
	Axial.....			5. 31. 34 '60			
	Lateral	I. 6	53°0	3. 2. 43 '59	5·441	100	47·5
	Axial.....			1. 34. 28 '23			
April 5	Lateral	I. o	60°9	10. 15. 32 '22	5·440	100	56·8
	Axial.....			5. 34. 53 '69			
	Lateral	I. 6	60°9	3. 2. 33 '18	5·452	100	63·8
	Axial.....			1. 32. 21 '75			
May 30	Lateral	I. o	63°4	10. 9. 4 '98	5·419	100	60·5
	Axial.....			5. 37. 34 '94			
	Lateral	I. 6	63°4	3. 4. 31 '36	5·439	100	65·5
	Axial.....			1. 34. 58 '66			
June 21	Lateral	I. o	67°2	10. 5. 11 '15	5·441	100	66·5
	Axial.....			5. 38. 23 '70			
	Lateral	I. 6	67°2	3. 3. 38 '31	5·450	100	67·5
	Axial.....			1. 33. 42 '80			
July 28	Lateral	I. o	73°9	10. 12. 46 '76	5·456	100	77·0
	Axial.....			5. 43. 57 '00			
	Lateral	I. 6	73°9	3. 3. 35 '67	5·408	100	71·0
	Axial.....			1. 35. 48 '91			
October 24	Lateral	I. o	52°4	10. 10. 2 '33	5·453	100	53·2
	Axial.....			5. 34. 55 '45			
	Lateral	I. 6	52°4	3. 2. 7 '13	5·452	100	51·0
	Axial.....			1. 33. 50 '49			
December 3	Lateral	I. o	48°8	10. 9. 6 '14	5·455	100	46·8
	Axial.....			5. 40. 58 '88			
	Lateral	I. 6	48°8	3. 1. 59 '75	5·452	100	50·2
	Axial.....			1. 33. 24 '89			

COMPUTATION of the VALUES of ABSOLUTE MEASURE of HORIZONTAL FORCE.

Month and Day, 1854.	Apparent Value of <i>a</i> .	Apparent Value of <i>b</i> .	Mean Value of <i>b</i> .	Apparent Value of <i>a</i> ¹ .	Apparent Value of <i>b</i> .	Adopted Value of <i>a</i> , assuming the Mean Value of <i>b</i> as applicable to all.	Log. $\frac{1}{2} a$ =	Adopted Time of Vibration of Deflecting Magnet.	Log. <i>m X</i> .	Value of <i>X</i> .	Value of <i>m</i> .
January 10	+0.17970	-0.00232		+0.08802	+0.00852	+0.181845	8.95867	5.443	0.11686	3.795	0.3450
February 14	+0.18173	-0.00514		+0.08872	+0.00657	+0.181388	8.95757	5.430	0.11894	3.808	0.3453
March 2	+0.18071	-0.00315		+0.08983	+0.00647	+0.182129	8.95349	5.436	0.11798	3.796	0.3457
April 5	+0.17920	-0.00110		+0.08542	+0.01184	+0.182505	8.96024	5.446	0.11638	3.785	0.3454
May 30	+0.18489	-0.00864	-0.00477	+0.08560	+0.01244	+0.181520	8.95789	5.429	0.11910	3.786	0.3455
June 21	+0.18447	-0.00934		+0.08698	+0.01130	+0.180497	8.95544	5.445	0.11654	3.807	0.3436
July 28	+0.18243	-0.00513		+0.08850	+0.01150	+0.182130	8.95935	5.432	0.11862	3.799	0.3459
October 24	+0.18045	-0.00393		+0.08804	+0.00923	+0.181195	8.95712	5.453	0.11527	3.794	0.3437
December 3	+0.18042	-0.00416		+0.08590	+0.01313	+0.180963	8.95656	5.453	0.11527	3.796	0.3435

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

	Month and Day, 1854.	Adopted Time of Vibration.	Temperature.	Log. <i>m X</i> .	Value of <i>m</i> interpolated from the Deflexion Observations.	Inferred Value of <i>X</i> .	
	January 26	5.328	40°5	0.13540	0.3449	3.960	
	February 24	5.459	46°5	0.11431	0.3455	3.766	
	March 14	5.456	53°5	0.11479	0.3456	3.769	
	April 29	5.419	50°5	0.12070	0.3454	3.823	
	June 19	5.441	57°0	0.11718	0.3437	3.811	
	November 13	5.447	47°6	0.11623	0.3436	3.803	
	December 26	5.457	41°7	0.11463	0.3435	3.791	

The number of vibrations employed in each determination was 100.

There is some error in the time of vibration on January 26; it is too small by about 0°.1.

ROYAL OBSERVATORY, GREENWICH.

R E S U L T S

OF

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

1854.

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 Magnetic and Meteorological Observations*, 1847, Introduction, page xlviii, 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 a smaller number of observations has 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 volume for 1851; 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 xlvi; 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, to the end of the year 1844).

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.										
20°	8·5	32°	3·1	44°	2·3	56°	1·9	68°	1·6	80°	1·5
21	8·5	33	2·8	45	2·3	57	1·9	69	1·5	81	1·5
22	8·5	34	2·6	46	2·3	58	1·9	70	1·5	82	1·5
23	8·5	35	2·6	47	2·2	59	1·8	71	1·5	83	1·5
24	7·3	36	2·6	48	2·2	60	1·8	72	1·5	84	1·5
25	6·4	37	2·5	49	2·2	61	1·8	73	1·5	85	1·5
26	6·1	38	2·5	50	2·1	62	1·7	74	1·5	86	1·5
27	6·1	39	2·5	51	2·1	63	1·7	75	1·5	87	1·5
28	5·7	40	2·4	52	2·0	64	1·7	76	1·5	88	1·5
29	5·0	41	2·4	53	2·0	65	1·6	77	1·5	89	1·5
30	4·6	42	2·4	54	2·0	66	1·6	78	1·5	90	1·5
31	3·7	43	2·4	55	2·0	67	1·6	79	1·5		

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 maximum temperature of the water of the Thames was out of order from December 17 to December 23. That for the minimum temperature was out of order from September 21 to September 24; October 1 to October 4; and December 17 to December 23.

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 thirty-eight years, is found by comparison with a table of results deduced by Mr. Glaisher from thirty-eight years' observations, made at the Royal Observatory, ending 1851.

Osler's Anemometer is described in the Introduction, 1847, page lxxi. Little explanation of the results deduced from it appears to be necessary. In the columns of direction, the letter C is occasionally used for Calm. 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.

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

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

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

a denotes aurora borealis	so-ha denotes solar halo	c-r denotes continued rain	h-sqs denotes heavy squalls
ci .. cirrus	l .. lightning	c-h-r .. continued heavy rain	fr-h-sqs .. frequent heavy squalls
ci-cu.. cirro-cumulus	li-cl .. light clouds	m-r .. misty rain	sc .. scud
ci-s .. cirro-stratus	lu-co .. lunar corona	fr-m-r .. frequent misty rain	li-sc .. light scud
cu .. cumulus	lu-ha .. lunar halo	sl-r .. slight rain	sl .. sleet
cu-s .. cumulo-stratus	m .. meteor	h-sh .. heavy showers	sn .. snow
d .. dew	ms .. meteors	fr-shs .. frequent showers	sl-sn .. slight snow
h-d .. heavy dew	n .. nimbus	fr-h-shs .. frequent heavy showers	s .. stratus
f .. fog	r .. rain	li-shs .. light showers	t .. thunder
th-f .. thick-fog	th-r .. thin rain	oc-shs .. occasional showers	t-s .. thunder storm
fr .. frost	oc-r .. occasional rain	sq .. squall	v .. variable
h-fr .. hoar frost	fr-r .. frozen rain	sqs .. squalls	w .. wind
h .. haze	h-r .. heavy rain	fr-sqs .. frequent squalls	st-w .. strong wind
hl .. hail	shs-r .. showers of rain		

RESULTS OF METEOROLOGICAL OBSERVATIONS

MONTH and DAY, 1854.	Phases of the Moon.	READINGS OF THERMOMETERS.												WIND AS DEDUCED FROM ANEMOMETERS.														
		Dry.						Dew Point.						Difference between the Dew Point Temperature and Air Temperature.						OSLER'S.						WHE- WELL'S Rain in Inches read at 9 ^h P.M.		
		Mean Daily Barometer (corrected and reduced to 32° Fahrenheit).	Highest.	Lowest.	Mean Daily Value.	Highest in the Sun, as shown by a Self-Registering Thermometer read at 9 ^h A.M. next morning.	Lowest on the Grass as shown by a Self-Registering Thermometer read at 9 ^h A.M. next morning.	Highest.	Lowest.	Mean Daily Value.	Greatest.	Least.	Difference between the Mean Temperature of the Day and the Mean Temperature of the same Day on an Average of 38 Years.	A. M.	P. M.	Greatest.	Least.	Mean of 24 Obs.	Amount of Horizontal Movement of the Air on each Day.									
Jan. 1	..	29.334	31.3	21.8	26.7	23.6	32.3	17.0	33.5	32.7	3.1	4.6	1.8	- 9.8	W	W	0.0	0.0	0.0	90	0.00							
2	..	29.181	29.8	16.0	24.8	22.9	31.3	14.3	33.4	32.2	1.9	3.7	1.7	- 11.5	Calm	NW	0.0	0.0	0.0	25	0.00							
3	..	29.152	32.5	13.5	23.7	22.2	32.8	11.0	33.0	32.1	1.5	6.1	1.1	- 12.3	Calm	NE	5.5	0.0	1.6	155	0.00							
4	..	28.856	33.5	28.8	31.4	30.7	35.0	30.0	33.0	32.7	0.7	1.6	0.6	- 4.3	ENE	Variable	6.1	0.0	2.0	70	0.00							
5	In Equator	28.846	34.8	30.7	32.4	31.2	35.3	31.5	33.5	32.7	1.2	2.2	0.6	- 3.1	SW	SW; ENE	0.0	0.0	0.0	20	0.60	Melted Snow.						
6	First Qr.	29.017	39.2	30.2	32.7	31.9	39.8	29.8	33.6	32.9	0.8	1.9	0.5	- 2.6	SE; SW	SW; SE	0.0	0.0	0.0	100	0.09	Rain.						
7	..	28.901	43.9	34.0	39.7	37.5	46.0	30.3	33.5	33.2	2.2	4.6	1.3	+ 4.6	NE; SE	SE	3.6	0.0	0.4	190	0.52							
8	..	28.994	47.9	36.6	41.8	38.2	49.1	32.8	34.6	33.9	3.6	9.0	1.8	+ 6.9	SE; S	S	1.8	0.0	0.3	105	0.04							
9	..	29.053	40.8	34.2	36.8	36.0	44.0	29.8	35.5	34.2	0.8	4.1	0.5	+ 1.8	SE	N	0.0	0.0	0.0	60	0.05							
10	..	29.416	41.0	34.3	36.8	35.3	41.5	33.6	35.6	35.6	1.5	6.7	1.3	+ 1.7	NNW	NNW	0.0	0.0	0.0	135	0.01							
11	Apogee	29.700	37.8	33.3	34.9	32.8	40.0	33.0	35.5	35.5	2.1	4.5	1.3	- 0.3	NNW	NW	1.0	0.0	0.2	80	0.00							
12	..	29.654	40.0	32.2	36.2	31.8	40.3	32.0	35.5	35.5	4.4	8.0	1.3	+ 0.9	Calm	SE	0.0	0.0	0.0	30	0.00							
13	Greatest Declination N.	29.551	43.3	34.4	38.4	32.2	48.3	30.5	36.0	35.8	6.2	7.9	0.5	+ 2.9	S	SE	1.8	0.0	0.2	145	0.03							
14	Full	29.616	45.8	33.2	37.8	34.8	50.5	28.0	36.0	36.0	3.0	8.7	1.3	+ 2.1	SE; S	Calm	0.0	0.0	0.0	10	0.03							
15	..	29.595	40.7	32.3	36.4	35.9	41.0	25.3	36.0	36.0	0.5	6.5	0.5	+ 0.6	NE	Calm	0.0	0.0	0.0	10	0.00							
16	..	29.757	47.6	37.0	42.2	40.8	48.0	33.8	37.2	36.8	1.4	3.5	0.3	+ 6.2	Calm	S	0.0	0.0	0.0	100	0.06							
17	..	29.925	49.0	45.0	46.5	44.3	50.0	38.5	39.0	37.7	2.2	3.9	1.1	+ 10.3	SSW	S	0.0	0.0	0.0	125	0.01							
18	..	30.039	49.3	41.0	45.0	42.2	51.0	44.2	40.6	38.6	2.8	6.2	1.0	+ 8.6	S	S	0.0	0.0	0.0	30	0.00							
19	..	29.878	43.0	31.9	35.5	35.5	46.0	29.8	41.5	39.5	0.0	4.3	0.0	- 1.0	SE; E	ESE	0.0	0.0	0.0	45	0.00							
20	In Equator	29.864	52.3	33.2	44.4	40.3	55.0	24.8	43.5	40.8	4.1	10.6	0.6	+ 7.7	ESE	ESE	1.0	0.0	0.1	150	0.01							
21	..	30.112	51.7	41.3	45.3	42.3	56.5	35.0	43.5	41.6	3.0	6.2	1.4	+ 8.5	S	SE	0.0	0.0	0.0	75	0.00							
22	Last Qr.	29.917	51.5	34.7	43.1	41.2	57.0	28.4	43.5	42.0	1.9	3.7	0.5	+ 6.3	SE	SSE	0.0	0.0	0.0	75	0.01							
23	..	29.970	51.4	35.5	42.0	38.9	55.0	30.0	43.5	42.1	3.1	9.2	0.8	+ 5.1	S	SSE	0.0	0.0	0.0	150	0.02							
24	..	29.544	46.8	38.7	42.1	39.7	..	34.5	43.2	41.4	2.4	4.3	1.4	+ 5.1	SSE	S; SW	4.0	0.0	0.7	125	0.10							
25	..	29.992	46.8	38.1	39.5	34.2	..	25.2	43.5	42.1	5.3	9.7	1.6	+ 2.4	SW	S	5.0	0.0	1.5	215	0.00							
26	Greatest Declination S.	30.291	52.1	37.9	43.4	35.4	56.5	29.8	43.2	41.9	8.0	14.2	2.8	+ 6.2	SW	SW	3.0	0.0	0.3	155	0.00							
27	Perigee	30.252	48.5	35.4	42.3	40.1	50.0	26.5	43.2	41.9	2.2	4.8	0.2	+ 5.0	SSE	S	3.5	0.0	0.9	230	0.00							
28	New	29.982	49.5	37.6	43.3	40.8	53.0	39.5	43.2	42.3	2.5	6.0	0.2	+ 6.1	S	SW	1.0	0.0	0.2	135	0.00							
29	..	29.735	54.0	32.8	46.1	44.8	56.0	27.5	43.6	42.5	1.3	5.0	0.0	+ 5.8	SW	SW	6.0	0.0	1.8	165	0.09							
30	..	30.009	54.8	45.2	49.3	45.6	57.0	46.0	44.5	43.2	3.7	6.8	2.9	+ 11.8	SW	SW	2.0	0.6	1.9	210	0.00							
31	..	30.044	53.2	44.9	48.9	45.4	56.5	38.9	45.8	43.7	3.5	4.4	0.9	+ 11.3	SW	SW	3.0	0.5	2.0	240	0.00							
Feb. 1	..	29.818	50.5	41.0	45.6	42.5	53.0	43.5	46.5	44.2	3.1	5.7	0.7	+ 7.9	SSW	SSW; N	4.1	0.0	0.3	85	0.38							
2	In Equator	30.099	46.2	33.6	38.2	34.9	52.5	33.3	46.4	44.2	3.3	10.8	0.5	+ 0.4	N	N; Calm	0.0	0.0	0.0	65	0.00							
3	..	30.166	43.0	25.7	32.9	32.6	52.5	17.8	46.0	43.7	0.3	3.6	0.0	- 4.9	Calm	Calm	0.0	0.0	0.0	35	0.04							
4	First Qr.	29.835	45.5	28.2	36.0	32.1	52.0	19.8	45.5	42.5	3.9	10.4	2.8	- 1.9	NE	SE	4.6	0.0	0.5	115	0.05							
5	..	29.807	51.0	37.7	43.9	41.4	51.5	28.8	45.4	42.5	2.5	5.3	2.0	+ 5.9	SW	SW	4.3	0.0	1.5	200	0.13							
6	..	29.928	57.0	46.3	51.1	46.7	62.0	41.5	45.0	42.5	4.4	7.6	3.0	+ 13.0	SW	SW	8.4	1.0	3.4	315	0.00							
7	..	29.918	54.8	40.7	47.3	41.8	58.0	36.0	45.0	43.0	5.5	8.6	3.8	+ 9.1	SW	W	9.0	0.0	2.5	240	0.00							
8	Apogee	30.036	45.5	37.0	40.8	31.7	52.2	30.5	45.0	42.2	9.1	13.4	5.5	+ 2.5	SW	W	5.8	0.0	2.5	200	0.00							
9	Greatest Declination N.	29.944	46.0	34.4	38.4	34.9	49.0	31.8	44.0	42.5	3.5	6.5	1.8	+ 0.1	SW	NW	16.0	0.0	2.7	175	0.12							
1																												

MONTH and DAY, 1854.	ELECTRICITY.		CLOUDS AND WEATHER.		
	A.M.	P.M.	A.M.		P.M.
Jan. 1	w	w	10, s, ci.-s, sn		10, s, ci.-s
2	w	w	5, s, ci.-s	: 10	5, s, ci.-s
3	w	w	10, s		10, s, sn
4	w	w	10, sl		10, sl
5	w	w	10, sn		10, sn
6	w	w	10, ci.-s		10, ci.-s, sn, r
7	w	w	10		10
8	w	w	7, cu, ci.-cu, ci		7, cu, ci.-cu, ci
9	w	w	10, r		10
10	w	w	9	: 10	10
11	w	w	10	: 9	10
12	w	w	10		10
13	w	w	o		o
14	w	w	o		o
15	o	o	10		10
16	o	o	10, s, sc		10, s, sc
17	o	o	10, sqs, r		10
18	o	o	10		10
19	o	o	10, f		10, f
20	o	o	8, ci.-s		10, ci.-s
21	o	o	10, s, ci.-s, li.-cl		5, ci.-s, li.-cl
22	o	o	o		o
23	o	o	10, ci.-s		10, m.-r
24	o	o	10, m.-r		7, ci.-s, ci
25	o	o	o, h.-fr		2, li.-cl
26	o	o	o		10
27	o	o		: 10, ci.-s	10, ci.-s
28	o	o	10, r		v, ci.-cu
29	o	o	10, fr.-m.-r		10, fr.-m.-r
30	o	o	10		v
31	o	o	10		10, a
Feb. 1	o	o	10		10, r
2	o	o	10, ci.-s		o
3	o	o	10, th.-f, h.-fr		o
4	o	o	o		9, ci.-cu, ci.-s
5	o	o	10, r		10, sl.-r
6	o	o	10, ci.-s		10, ci.-s, sc
7	o	o	10, cu.-s, ci.-s, sc		10, cu.-s, ci.-s
8	o	o	10	: 9	10, cu.-s, ci.-s
9	o	o		: 10, cu.-s	10, v, lu.-co
10	o	o	10	: r	10, h.-sqrs.-r
11	o	o			10, ci.-cu, ci.-s, sc
12	o	o	10, th.-f		10, 5
13	o	o	10, cu, cu.-s, ci.-s		o
14	o	o	o		o
15	o	o	10, h.-r		10
16	o	o	9, cu, cu.-s, ci.-s		9, cu, cu.-s, ci.-s
17	o	o	10, ci.-s, sc		10, ci.-s, sn, r
18	o	o	9, cu, cu.-s, ci.-s, sn		9, cu, sc, sn
19	o	o	o		o
20	o	o	10, sl.-r		10, sl.-r
21	o	o	o, h.-fr		o
22	o	o	5, cu, ci.-cu		5
23	o	o	5		o
24	o	o	10, cu.-s, ci.-s, sc		10, cu.-s, ci.-s, sc
25	o	o	5, li.-cl, h		5, li.-cl, h
26	o	o	o		o
27	o	o	5, ci.-cu, li.-cl		5, ci.-cu, li.-cl
28	o	o	10, cu, cu.-s, ci.-s		o

RESULTS OF METEOROLOGICAL OBSERVATIONS

MONTH and DAY, 1854.	Phases of the Moon.	Mean Daily Reading of the Barometer (corrected and reduced to 32° Fahrenheit).	READINGS OF THERMOMETERS.												WIND AS DEDUCED FROM ANEMOMETERS.											
			Dry.				Dew Point.		In the Water of the Thames, at Greenwich, by Self-Registering Thermometers, read at 9 th A.M., next morning.				Difference between the Dew Point Temperature and Air Temperature.				OSLER'S.						WHE- WELL'S			
			Highest.	Lowest.	Mean Daily Value.	Mean Daily Value.	Highest.	Lowest.	Mean Daily Value.	Greatest.	Least.	Highest.	Lowest.	Mean Daily Value.	Greatest.	Least.	Difference between the Mean Temperature of the Day and the Mean Temperature of the same Day on an Average of 38 Years.	A.M.	P.M.	Pressure in lbs. on the square foot.	Rain in Inches read at 9 th P.M.					
Mar. 1	In Equator.	30°597	54°5	28°0	40°4	30°3	69°5	16°8	42°8	40°7	10°1	18°0	4°6	+ 0°4	Calm	Calm; SE	0°0	0°0	0°0	15	0°00					
2	..	30°547	56°7	30°6	43°2	31°1	70°0	17°3	43°0	41°2	12°1	23°8	2°3	+ 3°2	Calm	Calm	0°0	0°0	0°0	20	0°00					
3	..	30°511	57°0	24°6	38°8	27°0	72°0	14°8	43°2	41°7	11°8	24°4	6°7	- 1°2	Calm	Calm	0°0	0°0	0°0	5	0°00					
4	..	30°645	49°8	27°4	37°7	33°2	55°0	15°0	43°0	41°7	4°5	11°9	0°0	- 2°2	Calm; NE	NE	0°0	0°0	0°0	55	0°00					
5	..	30°539	48°5	28°3	35°4	33°6	55°0	34°2	43°2	41°9	1°8	10°6	0°0	- 4°4	NE	Calm	0°0	0°0	0°0	5	0°00					
6	First Qr.	30°381	47°0	25°5	34°0	32°6	55°0	15°1	43°0	41°9	1°4	10°8	0°0	- 5°7	Calm	Calm	0°0	0°0	0°0	5	0°00					
7	Apogee	30°306	50°0	27°4	36°7	35°2	51°8	20°7	43°0	41°7	1°5	7°4	0°0	- 3°0	Calm; SW	S	0°0	0°0	0°0	135	0°00					
8	Greatest Declination N.	30°224	58°0	42°8	49°3	45°1	66°0	35°0	43°8	42°5	4°2	10°5	2°6	+ 9°4	SSW	SW	3°8	0°0	1°8	210	0°00					
9	..	30°148	63°0	48°0	54°5	48°2	78°0	43°0	46°0	43°4	6°3	14°5	2°9	+ 14°3	SW	SW	3°6	0°0	2°0	195	0°00					
10	..	29°962	56°7	43°3	47°3	39°2	66°5	45°0	47°2	43°9	8°1	12°7	3°8	+ 6°9	SW	SW	4°8	0°0	2°4	195	0°03					
11	..	30°044	62°8	42°2	49°2	43°3	75°5	32°0	48°8	45°0	5°9	15°8	1°2	+ 8°5	Calm	S	0°0	0°0	0°0	60	0°00					
12	..	29°893	64°0	34°9	49°3	37°0	78°5	24°8	49°0	45°5	12°3	18°1	2°3	+ 8°4	Calm	S	2°4	0°0	0°5	200	0°00					
13	..	29°850	64°2	39°7	52°1	38°1	79°2	27°0	49°4	46°1	14°0	21°1	4°2	+ 10°9	Calm	SW; Calm	0°0	0°0	0°0	55	0°00					
14	Full	29°867	54°4	45°3	49°0	43°5	59°0	32°2	49°2	45°9	5°5	9°2	2°4	+ 7°6	SW	SW	1°2	0°0	0°3	100	0°00					
15	In Equator	30°082	59°5	37°6	47°9	44°8	63°0	26°5	49°5	46°5	3°1	8°0	1°5	+ 6°4	N	N	2°4	0°0	0°2	65	0°00					
16	..	30°035	58°6	43°8	48°6	42°0	60°0	39°2	49°6	46°7	6°6	13°7	4°2	+ 6°9	N; NW	W; NW	0°0	0°0	0°0	95	0°00					
17	..	30°288	54°8	33°2	42°4	34°0	72°8	20°2	49°6	46°9	8°4	16°8	0°8	+ 0°6	Calm	SW; NW	0°0	0°0	0°0	45	0°13					
18	..	29°964	53°2	31°3	41°0	37°2	58°0	17°5	49°0	46°9	3°8	13°3	0°0	- 0°8	NE	NE	3°6	0°0	0°9	100	0°14					
19	..	29°955	53°5	36°1	40°5	36°2	55°0	30°2	48°8	46°1	4°3	11°0	1°0	- 1°4	NE	NE; N	3°0	0°0	0°8	70	0°00					
20	..	30°227	43°8	32°5	36°7	31°7	49°0	24°2	48°5	45°7	5°0	12°9	2°1	- 5°3	N; NW	N	3°4	0°0	0°6	85	0°02					
21	Last Qr.	30°231	51°7	35°5	40°6	36°3	60°0	27°0	48°0	44°4	4°3	15°4	1°8	- 1°5	NW	NW	2°0	0°0	0°4	125	0°01					
22	Perigee Greatest Dec. S.	30°351	51°2	30°5	40°6	34°1	65°0	19°7	47°5	44°1	6°5	15°1	2°8	- 1°6	NW	NW	2°6	0°0	1°4	80	0°00					
23	..	30°275	52°5	37°9	42°3	37°0	58°0	38°2	47°4	43°9	5°3	12°0	2°0	0°0	S; NW	W	1°8	0°0	0°1	105	0°00					
24	..	30°175	49°0	32°6	40°3	35°0	55°0	19°2	46°8	43°7	5°3	11°4	2°6	- 2°1	WSW	WSW	2°8	0°0	0°4	55	0°03					
25	..	29°909	47°8	31°3	39°7	34°9	49°5	21°2	46°5	43°7	4°8	9°5	2°7	- 2°8	Calm	Calm	0°0	0°0	0°0	5	0°00					
26	..	29°821	54°8	40°4	46°0	39°6	60°5	27°3	46°5	43°7	6°4	13°6	2°8	+ 2°0	WSW	NNW	0°0	0°0	0°0	40	0°00					
27	..	30°094	64°8	37°3	42°9	37°9	65°0	33°0	46°5	43°7	5°0	13°6	2°3	+ 0°1	W	W	1°4	0°0	0°2	135	0°00					
28	New In Equator	30°216	58°7	38°6	48°2	40°9	65°5	27°2	46°0	44°1	7°3	12°8	5°3	+ 5°2	SW	WSW	3°6	0°0	0°6	105	0°00					
29	..	30°225	62°2	35°5	48°0	40°1	79°5	24°0	47°5	44°9	7°9	14°9	0°0	+ 4°8	SW	WSW	0°0	0°0	0°0	70	0°00					
30	..	30°121	60°5	40°3	47°1	41°4	72°8	28°7	48°5	45°3	5°7	13°5	4°0	+ 3°8	SW	W	0°0	0°0	0°0	120	0°00					
31	..	30°264	61°5	35°0	47°4	37°5	63°8	23°2	49°0	45°7	9°9	18°9	4°7	+ 4°0	W	SW	0°0	0°0	0°0	120	0°00					
April 1	..	30°129	71°0	34°9	51°4	38°4	83°5	25°5	50°0	46°5	13°0	24°3	2°3	+ 7°8	SSW	SW	1°6	0°0	0°2	75	0°00					
2	..	30°285	64°5	39°3	49°0	44°4	84°0	28°8	51°0	47°3	4°6	14°9	0°3	+ 5°3	NE; Calm	N	0°0	0°0	0°0	25	0°00					
3	..	30°388	60°2	39°9	48°0	39°6	77°0	24°3	51°8	48°3	8°4	15°7	4°1	+ 4°1	NE	W	0°0	0°0	0°0	55	0°00					
4	Greatest Dec. N.	30°350	61°2	33°9	46°2	37°2	75°8	20°0	52°5	49°2	9°0	18°0	5°0	+ 2°2	NW; W	W	0°0	0°0	0°0	65	0°00					
5	First Qr.	30°252	65°8	39°6	50°7	44°6	78°8	25°5	52°6	49°4	6°1	18°9	4°0	+ 6°5	W	Calm	0°0	0°0	0°0	30	0°00					
6	..	30°225	66°5	36°5	50°5	42°5	84°5	24°0	53°4	49°6	8°0	18°2	3°0	+ 6°1	SW	NE	0°0	0°0	0°0	80	0°00					
7	..	30°232	66°0	37°2	51°0	44°1	78°0	26°0	54°0	50°0	6°9	16°0	1°8	+ 6°6	Calm	NE	0°0	0°0	0°0	10	0°00					
8	..	30°040	68°2	40°9	53°9	44°1	89°5	29°5	55°0	50°4	9°8	18°0	1°7	+ 9°2	Calm	SW; Calm	0°0	0°0	0°0	40	0°00					
9	..	30°047	66°0	40°1	50°8	43°7	86°5	26°5	55°0	50°4	7°1	15°2	1°0	+ 6°0	Calm	NNE; ESE	0°0	0°0	0°0	5	0°00					
10	..	30°059	56°5	35°1	43°3	40°9	75°0	22°5	55°2	50°9	2°4	12°7	1°7	- 1°7	Calm	E	0°0	0°0	0°0	60	0°00					
11	..	30°033	65°0	34°1	47°2	41°0	84°8	24°0	55°0	50°9	6°2	16°0	2°1	+ 2°1	Calm	ENE	3°0	0°0	0°3	75	0°00					
12	In Equator	30°219	62°0	38°3	48°0	39°4	81°0	26°5	55°0	51°3	8°6															

MONTH and DAY, 1854	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Mar. 1	o	o	o, f, h.-fr	o
2	o	o	o, f, h.-fr	o
3	o	o	o	o : f
4	o	o	o : 10	10
5	o	o	10 : o	o : 10, th.-f
6	o	o	10, th.-f, h.-fr : o	o : 10, f
7	m	m	10, th.-f	10
8	o	o	10, ci.-s	10 ci.-s
9	o	o	v, cu, ci.-s, sc	v, cu, ci.-s, sc
10	o	o	10, ci.-s, li.-cl	10, r : v
11	o	o	v, ci.-s, li.-cl	v : lu.-ha, lu.-eo
12	o	o	o	o
13	o	o	o	o
14	o	o	10, ci.-s	10, ci.-s : lu.-ha
15	o	o	o : 10	10, cu, cu.-s, sc
16	o	o	7, ci.-s, r	7, ci.-s
17	o	o	o	o
18	o	o	10, cu.-s, ci.-s, sc	10, cu.-s, ci.-s : v, r
19			10, r	10
20			10, cu.-s, ci.-s	8, cu.-s, ci.-s : 10
21			10, cu, cu.-s, ci.-s, r	7, cu, cu.-s, ci.-s : o
22			v, cu, cu.-s, ci.-s	v : 10
23			10, cu, sc	10, cu, sc : o
24			10	10 : v
25			10	10
26			10, cu.-s, ci.-s, r	10, cu.-s, ci.-s, r
27			10, ci.-s	10, ci.-s : o
28			10	10, cu.-s, ci.-s, h
29			2, ci.-s	o
30			10, ci.-cu, ci.-s	v
31			o, f	o
April 1			o	o
2		5, ci.-cu, li.-cl	: o	o : 5, ci.-s
3		o	o	7, cu, cu.-s, ci.-s : o
4		o	o	o
5		o	o	o
6		o	o	o
7		o	o	5, cu, cu.-s : o
8		o	o	3, cu, cu.-s, li.-cl : o
9		o	o	o
10		10, ci.-s	o	o
11		5, ci.-s	: o	o
12		5, cu.-s, ci.-s	o	o : 10
13		10, ci.-s, r	: o	o
14		o	o	o : a
15		7, cu.-s, ci.-s, li.-cl	7, cu.-s, ci.-s, li.-cl	7, cu.-s, ci.-s, li.-cl
16		o	o	o : 10
17		10, cu, cu.-s, ci.-s	10, cu, cu.-s	10, cu, cu.-s : o
18		o	o	o
19		o	o	o
20		o	: 5	10, ci.-s, li.-cl, r
21		10, cu, cu.-s, r	: 7	7, cu, cu.-s, r
22		10, sl.-r	10, sl.-r	10, sl.-r
23		10	o	o
24		7, cu, cu.-s, ci.-s	5, cu, cu.-s	5, cu, cu.-s : o
25		10, cu, cu.-s, ci.-s	10, cu, cu.-s, ci.-s	10, cu, cu.-s, ci.-s
26		10, ci.-s	10, ci.-s	10, ci.-s
27		10, ci.-s, r	5	5 : 10, h.-r
28		10	10	10
29		10, r	10	10

The Electrical Apparatus was not in use from March 19 to May 9.

RESULTS OF METEOROLOGICAL OBSERVATIONS

MONTH and DAY, 1854	Phases of the Moon.	READINGS OF THERMOMETERS.												WIND AS DEDUCED FROM ANEMOMETERS.						WHE- WELL'S Rain in Inches read at 9 ^h P.M.		
		Dry.				Dew Point.		Highest in the Sun, as shown by a Self-Registering Ther- mometer read at 9 ^h P.M.				In the Water of the Thames, at Greenwich, by Self-Registr- ing Thermometers, read at 9 ^h A.M. next morning.				Difference between the Dew Point Temperature and Air Temperature.			OSLER's.			
		Mean Daily Barometer (corrected and re- duced to 32° Fahrenheit).	Highest.	Lowest.	Mean Daily Value.	Mean Daily Value.	Highest.	Lowest.	Mean Daily Value.	Greatest.	Least.	Difference between the Mean Temperature of the Day and the Mean Temperature of the same Day on an Average of 38 Years.	A.M.	P.M.	Greatest.	Least.	Mean of 24 Obs.					
Apr. 30	..	in. 29.275	51° 6	35° 6	45° 4	43° 6	52° 2	28° 1	50° 0	48° 3	1° 8	4° 8	1° 0	—	4° 9	SSW	SW	4° 8 0° 0 1° 3	205 0° 04			
May 1	..	29.047	56° 0	46° 3	49° 2	48° 5	50° 0	31° 0	50° 6	48° 5	0° 7	4° 2	0° 0	—	1° 6	SW	SW	4° 2 0° 0 0° 9	110 0° 21			
2	Greatest Dec. N Apogee	29.137	60° 0	44° 0	49° 3	44° 9	71° 3	42° 0	51° 0	48° 7	4° 4	13° 1	1° 8	—	1° 8	S	SW	6° 0 0° 0 1° 3	175 0° 09			
3	..	29.350	61° 0	46° 0	50° 9	46° 1	73° 3	40° 2	51° 8	49° 0	4° 8	14° 4	1° 3	—	0° 6	SW	W	1° 5 0° 0 0° 2	85 0° 04			
4	..	29.492	64° 6	40° 3	51° 4	42° 6	88° 3	32° 0	53° 0	49° 7	8° 8	17° 0	2° 6	—	0° 4	SW; W	W	0° 0 0° 0 0° 0	.. 0° 00			
5	First Qr.	29.545	65° 5	37° 2	48° 2	44° 0	91° 3	28° 2	53° 5	50° 4	4° 2	15° 2	0° 5	—	3° 8	W	W; SW	3° 7 0° 0 0° 1	.. 0° 01			
6	..	29.453	56° 9	40° 6	47° 9	43° 9	65° 2	31° 3	54° 0	50° 5	4° 0	10° 3	2° 2	—	4° 3	SSW	SW	2° 0 0° 0 0° 1	.. 0° 01			
7	..	29.440	63° 6	43° 3	52° 4	43° 8	83° 2	37° 5	54° 6	50° 9	8° 6	16° 2	6° 3	+	0° 2	SSW	SW	8° 5 0° 0 3° 9	.. 0° 03			
8	..	29.384	59° 3	44° 3	47° 8	43° 8	76° 0	43° 0	54° 6	51° 2	4° 0	13° 1	1° 2	—	4° 3	SW	SW; Calm	8° 0 0° 0 1° 7	.. 0° 76			
9	In Equator	29.624	56° 6	39° 9	45° 0	44° 5	74° 0	32° 0	54° 0	50° 9	0° 5	7° 8	0° 0	—	7° 0	Calm	Calm; NE	0° 0 0° 0 0° 0	.. 0° 52			
10	..	29.910	62° 5	37° 1	47° 6	44° 7	87° 0	30° 0	54° 2	51° 3	2° 9	14° 1	1° 5	—	4° 3	NNE	SW	0° 0 0° 0 0° 0	.. 0° 00			
11	..	29.871	58° 5	42° 9	49° 0	43° 1	68° 2	36° 2	54° 5	51° 6	5° 9	12° 4	2° 3	—	2° 8	S; SW	W	0° 0 0° 0 0° 0	.. 30 0° 00			
12	Full	30.042	67° 8	38° 9	52° 0	46° 2	91° 5	32° 0	55° 0	52° 1	5° 8	14° 1	2° 0	+	0° 3	Calm	W	0° 0 0° 0 0° 0	.. 70 0° 00			
13	..	29.964	65° 3	47° 3	54° 2	50° 6	78° 0	37° 5	55° 5	52° 2	3° 6	12° 0	2° 7	+	2° 5	SW	Calm	0° 0 0° 0 0° 0	.. 35 0° 00			
14	Perigee	29.959	67° 8	42° 2	54° 7	46° 3	93° 8	32° 8	56° 8	52° 7	8° 4	18° 6	2° 6	+	2° 8	NE; SE	NE	0° 0 0° 0 0° 0	45 0° 00			
15	Greatest Declination S.	29.914	67° 5	46° 3	55° 5	45° 3	94° 8	34° 0	57° 4	53° 2	10° 2	15° 5	1° 2	+	3° 2	Calm	NNE; ESE	1° 5 0° 0 0° 2	135 0° 00			
16	..	30.021	61° 8	43° 4	50° 7	44° 8	82° 3	40° 2	57° 5	53° 7	5° 9	11° 9	3° 6	—	1° 8	NE	NE	3° 6 0° 0 1° 4	105 0° 00			
17	..	29.991	70° 5	35° 4	52° 0	45° 0	94° 5	25° 5	58° 2	54° 3	7° 0	16° 5	1° 8	—	0° 8	NE	N; Calm	0° 0 0° 0 0° 0	50 0° 00			
18	..	29.964	56° 1	43° 2	47° 3	45° 3	64° 2	36° 5	58° 5	54° 7	2° 0	7° 6	1° 0	—	5° 9	Calm; N	NE	0° 0 0° 0 0° 0	100 0° 00			
19	Last Qr.	30.100	64° 0	34° 8	49° 0	40° 4	91° 0	23° 5	58° 2	54° 7	8° 6	17° 9	3° 4	—	4° 4	Calm	NE; SE	0° 0 0° 0 0° 0	.. 5 0° 00			
20	..	29.975	69° 7	38° 0	54° 1	45° 1	97° 5	28° 2	58° 8	55° 2	9° 0	17° 6	2° 5	+	0° 3	Calm; SW	W	0° 0 0° 0 0° 0	.. 30 0° 00			
21	..	29.679	66° 0	46° 0	54° 2	49° 8	88° 0	42° 0	59° 0	55° 7	4° 4	7° 7	2° 9	+	0° 2	SW	SW	2° 0 0° 0 0° 2	205 0° 03			
22	In Equator	29.429	62° 5	47° 8	53° 6	50° 0	73° 2	44° 0	59° 2	55° 9	3° 6	9° 4	1° 1	—	0° 7	SSW	SSW	6° 0 0° 0 1° 3	155 0° 14			
23	..	29.464	64° 0	45° 7	51° 3	47° 1	86° 2	41° 0	59° 5	55° 9	4° 2	10° 4	1° 1	—	3° 2	SSW; SSW	SSW	3° 6 0° 0 0° 4	135 0° 28			
24	..	29.597	64° 8	42° 6	51° 0	44° 7	75° 0	35° 5	59° 5	56° 2	6° 3	13° 1	1° 4	—	3° 8	S; SW	SW	3° 4 0° 0 0° 5	130 0° 00			
25	..	29.666	61° 3	40° 7	50° 2	43° 1	84° 5	32° 0	59° 8	56° 2	7° 1	13° 7	3° 3	—	4° 8	S; SW	SW	1° 2 0° 0 0° 3	125 0° 00			
26	New	29.500	66° 0	42° 9	51° 3	45° 8	89° 0	37° 4	59° 5	56° 2	5° 5	10° 4	2° 1	—	4° 0	SW; S	SW	2° 4 0° 0 0° 3	110 0° 05			
27	..	29.551	59° 0	44° 1	49° 0	47° 7	74° 2	38° 3	59° 0	55° 7	1° 3	5° 8	0° 0	—	6° 5	SW	SW	4° 0 0° 0 0° 8	240 0° 37			
28	..	29.590	63° 5	44° 0	52° 5	46° 9	83° 5	38° 7	59° 0	56° 2	5° 6	12° 8	1° 3	—	3° 3	W; SW	SW	3° 0 0° 0 0° 4	45 0° 19			
29	Greatest Dec. N.	29.506	60° 0	40° 8	48° 6	46° 8	71° 5	37° 5	59° 0	55° 9	1° 8	9° 0	0° 7	—	7° 3	W	SW	4° 8 0° 0 0° 8	130 0° 50			
30	..	29.685	63° 8	44° 8	52° 8	49° 0	79° 5	39° 0	58° 8	56° 1	3° 8	11° 6	2° 1	—	3° 4	W	WSW	0° 0 0° 0 0° 0	100 0° 04			
31	..	29.833	68° 3	44° 2	54° 6	52° 4	91° 5	36° 8	59° 4	56° 5	2° 2	16° 0	1° 6	—	1° 8	SW	S; E	0° 0 0° 0 0° 0	55 0° 00			
June 1	..	29.735	70° 3	41° 4	55° 1	48° 5	98° 2	33° 2	59° 5	56° 2	6° 6	14° 6	2° 2	—	1° 4	ENE	NE	2° 0 0° 0 0° 6	150 0° 00			
2	..	29.577	57° 3	49° 0	51° 5	50° 3	64° 0	45° 2	60° 0	56° 2	1° 2	4° 0	1° 0	—	5° 3	NNE	NE	4° 8 0° 0 1° 8	195 0° 18			
3	..	29.683	63° 0	45° 2	51° 0	45° 1	70° 0	43° 0	59° 4	55° 9	5° 9	14° 8	3° 9	—	6° 0	NNE	NE	4° 5 0° 0 1° 8	200 0° 00			
4	First Qr.	29.959	65° 0	43° 2	51° 5	44° 5	85° 5	38° 2	59° 2	55° 9	7° 0	15° 2	2° 9	—	5° 6	NE	NNE	1° 0 0° 0 0° 0	65 0° 00			
5	..	29.973	64° 8	43° 2	51° 3	46° 7	85° 0	36° 2	58° 6	55° 7	4° 6	12° 0	2° 4	—	6° 0	NE	NNE	0° 0 0° 0 0° 0	145 0° 00			
6	In Equator	29.910	57° 5	46° 6	50° 2	45° 4	67° 5	43° 0	57° 8	54° 7	4° 8	8° 5	2° 3	—	7° 3	NE	N	2° 0 0° 0 0° 8	180 0° 00			
7	..	29.968	58° 0	47° 0	50° 7	45° 2	68° 5	43° 0	57° 6	54° 7	5° 5	11° 4	3° 8	—	7° 1	N	N; Calm	0° 0 0° 0 0° 0	125 0° 00			
8	..	29.914	63° 0	47° 4	52° 7	46° 3	72° 4	46° 0	57° 2	54° 5	6° 4	12° 1	3° 8	—	5° 2	S; N	NW; SW	0° 0 0° 0 0° 0	65 0° 00			
9	..	29.928	64° 0	47° 4	53° 6	47° 2	74° 0	42° 8	57° 0	54° 5	6° 4	12° 8	1° 5	—	4° 5	SW	NW; Calm	0° 0 0° 0 0° 0	95 0° 00			
10	Full	29.790	68° 4	49° 4	55° 8	45° 5	91° 5	41° 8	57° 5	54° 7	10° 3	19° 8	3° 7	—	2° 5	SW	SW	0° 0 0° 0 0° 0	150 0° 00			
11	Perigee	29																				

MONTH and DAY, 1854.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Apr. 30			10, r	10, r
May 1			10, r	10, r
2			10 cu.-s, ci.-s, li.-cl	7, cu.-s, ci.-s : o
3			9, cu.-s, ci.-s, sc	10, cu.-s, ci.-s, r
4			7, cu, cu.-s, ci.-s	7, cu, cu.-s, ci.-s : o
5			v, cu, ci.-cu, ci.-s	v, r : o
6			10, th.-r	10, ci.-s : v, ci.-s, sc
7			v, cu, cu.-s, li.-cl, shs.-r	v, : 10, cu, cu.-s, ci.-s
8			10, cu.-s, ci.-s, r	10, cu, cu.-s, ci.-s, hl, r
9	s, sps	s, sps	10, cu, cu.-s, ci.-s, h.-r, t.-s	7, cu, cu.-s, h.-r, t.-s : 10
10	o	o	7, cu, cu.-s, ci.-s	7, cu, cu.-s, ci.-s : o
11	o	o	10, cu.-s, ci.-s, r	10, cu.-s, ci.-s : v
12	o	o	10, cu.-s, ci.-s	v, li.-cl
13	o	o	10	10 : o
14	v	v	o	o : 10
15	v	v	o	7, cu.-s, ci.-s : o
16	v	v	7, cu, cu.-s, sc	7, cu, cu.-s : o
17	v	v	o	o : 2, ci.-s
18	v	v	10, r	10 : o
19	v	v	o	5, cu, cu.-s, li.-cl : o
20	v	v	o	7, cu, cu.-s, ci.-s : 10
21	P, N, sps	m	10, cu, cu.-s, ci.-s, r	10, cu, cu.-s, ci.-s
22	P, N, sps	P, N, sps	9, cu, cu.-s,	10, shs.-r
23	P, N, sps	m	10, cu, cu.-s, sc, r	5, cu, cu.-s, sc
24	m	m	7, cu, cu.-s, shs.-r	7, cu, cu.-s, ci.-s
25	m	m	7, cu, cu.-s	7, cu, cu.-s
26	m	P, N, sps	v, cu.-s, ci.-s	v, n, shs.-r
27	P, N, sps	P, N, sps	7, cu, cu.-s, n, hl, r	7, cu, cu.-s, n, hl, r : o
28	P, N, sps, g cur	s	10, cu.-s, ci.-s, h.-r, t.-s	10, cu.-s, ci.-s
29	P, N, sps, g cur	P, N, sps, g cur	9, cu, cu.-s, n	9, cu.-s, ci.-s, shs.-r
30	P, N, sps, g cur	P, N, sps, g cur	v, cu, cu.-s, n, hl, r	v, cu, cu.-s, n, hl, r
31	s	s	7, cu, cu.-s	7, cu, cu.-s : o
June 1	m	P, N, sps, g cur	5, cu, ci.-cu, ci.-s	5, cu, ci.-cu, s : 10
2	P, N, sps	m	10, r	10, r
3	m	m	10, cu, ci.-cu, ci.-s, r	10, cu, ci.-cu : o
4	w	w	7, cu, ci.-cu, ci.-s	7, cu, ci.-cu, ci.-s
5	w	w	10, ci.-cu, ci.-s	10, ci.-cu, ci.-s, th.-r
6	w	w	10 ci.-s	10, ci.-s
7	w	w	10, ci.-s	10, ci.-s
8	w	w	10, ci.-s	10, ci.-s : 9
9	w	w	10, ci.-s	10, ci.-s
10	w	w	10, cu.-s, ci.-s, li.-cl	v, cu.-s, ci.-s, li.-cl
11	o	o	10	10
12	o	v	10, cu, ci.-cu, th.-r	7, cu, ci.-cu : o
13	P, N, sps	P, N, sps	10, ci.-s, n, shs.-r	10, ci.-s shs.-r : o
14	s	s	10, ci.-s, sc	10, cu, ci.-cu, ci.-s
15	v	v	10, ci.-s, c.-r	10, ci.-s, c.-r
16	m	m	10, ci.-s, c.-r	10, ci.-s, c.-r
17	m	m	7, ci.-cu, ci.-s, li.-cl	v, ci.-cu, ci.-s, li.-cl
18	s	s	7, cu, ci.-s, li.-cl	o
19	m	m	7, cu, cu.-s, ci.-s, li.-cl	7, cu, cu.-s, ci.-s : o
20	s	o	10, ci.-cu, s, h	10, ci.-cu, s
21	o	o	10	10 : 8, m.-r
22	v	v	10, ci.-cu, ci.-s, s	10, ci.-cu, ci.-s, s : o
23	v	v	3, ci.-cu, ci	o
24	s	s	10, ci. cu, s	v
25	m	m	7, s, ci	7, cu.-s, ci.-s
26	w	w	7, ci.-cu, ci.-s, shs.-r	7, cu, cu.-s, ci.-s
27	N, sps, g cur	w	10, cu, cu.-s, ci.-s, shs.-r	7, cu, cu.-s, ci.-s : 3

The Electrical Apparatus was not in use from March 19 to May 9.

RESULTS OF METEOROLOGICAL OBSERVATIONS

MONTH and DAY, 1854.	Phases of the Moon.	READINGS OF THERMOMETERS.												WIND AS DEDUCED FROM ANEMOMETERS.											
		Dry.				Dew Point.		Highest in the Sun, as shown by a Self-Registering Ther- mometer read at 9 A.M.				In the Water of the Thames, at Greenwich, by Self-Regis- tering Ther- mometers, read at 9 A.M. next morning.				Difference between the Dew Point Temperature and Air Temperature.			OSLER'S.						
		Mean Daily Value.	Highest.	Lowest.	Mean Daily Value.	Mean Daily Value.	Greatest.	Least.	Mean Daily Value.	Highest.	Lowest.	Mean Daily Value.	Greatest.	Least.	A.M.	P.M.	Pressure in lbs. on the square foot.	Greatest.	Least.	Mean of 24 Obs.	Horizontal Movement of the Air on each Day.	WHE- WELL'S			
June 28	..	29.500	68.5	49.5	56.7	50.6	87.5	46.5	65.6	61.3	6.1	14.3	5.0	- 4.6	S	S; Calm	lbs.	lbs.	lbs.	miles.	in.	0.20	0.20		
29	..	29.473	71.0	48.6	56.2	50.7	91.6	43.0	64.8	61.2	5.5	16.5	0.9	- 5.3	Calm	W: SW	0.0	0.0	0.0	10	0.10	0.10	0.10		
30	..	29.600	72.3	45.5	57.0	52.4	93.2	41.0	64.6	61.2	4.6	16.1	0.0	- 4.7	Calm	NW; W	0.0	0.0	0.0	35	0.02	0.02	0.02		
July 1	..	29.778	61.6	51.3	53.8	52.6	65.6	51.0	64.2	61.5	1.2	7.3	0.6	- 8.0	Calm	S	0.0	0.0	0.0	15	0.16	0.16	0.16		
2	..	29.815	69.8	50.2	57.8	53.0	85.0	45.2	64.0	61.2	4.8	13.2	1.7	- 4.2	S	Calm	0.0	0.0	0.0	40	0.00	0.00	0.00		
3 First Quarter In Equator	29.611	70.5	54.2	60.0	54.6	92.7	53.0	64.2	61.7	5.4	10.1	2.2	- 2.1	Calm	SW	1.0	0.0	0.0	95	0.02	0.02	0.02			
4	..	29.458	72.5	55.4	59.5	54.6	97.2	50.5	63.0	62.2	4.9	11.7	1.4	- 2.7	SW	W	0.0	0.0	0.0	85	0.01	0.01	0.01		
5	..	29.570	66.5	48.5	54.4	48.8	88.2	43.0	64.5	61.9	5.6	11.6	4.4	- 6.5	W	S	0.0	0.0	0.0	145	0.05	0.05	0.05		
6	..	29.594	67.3	49.5	55.1	47.7	91.8	43.5	64.0	61.7	7.4	15.0	3.0	- 7.1	SSW	SW	1.0	0.0	0.0	45	0.12	0.12	0.12		
7	..	29.630	65.0	46.6	54.5	51.0	75.0	42.0	64.0	61.3	3.5	10.4	2.6	- 7.6	SE	SE	0.0	0.0	0.0	..	0.10	0.10	0.10		
8 Greatest Declination S.	29.638	68.0	51.5	56.3	51.2	91.6	48.2	63.8	61.3	5.1	13.6	1.4	- 5.7	Calm	Calm	0.0	0.0	0.0	..	0.23	0.23	0.23			
9 Perigee Full	29.767	66.4	49.7	56.5	53.1	80.0	46.2	63.6	61.2	3.4	8.6	2.3	- 5.3	Calm	Calm	0.0	0.0	0.0	45	0.07	0.07	0.07			
10	..	29.761	66.2	50.3	55.5	48.8	88.2	48.0	63.6	60.9	6.7	13.6	3.8	- 6.3	NE	N; Calm	0.0	0.0	0.0	60	0.34	0.34	0.34		
11	..	29.701	57.0	50.5	52.0	51.0	58.3	48.0	63.8	60.7	1.0	3.8	0.0	- 9.9	W	NNW	0.0	0.0	0.0	70	0.41	0.41	0.41		
12	..	29.702	70.0	48.6	56.9	51.0	85.0	44.2	63.5	60.7	5.9	13.2	1.8	- 5.1	Calm	W	0.0	0.0	0.0	80	0.00	0.00	0.00		
13	..	29.620	67.5	48.8	56.1	54.1	87.0	45.0	63.6	60.7	2.0	8.0	1.3	- 6.0	SW	SW	0.0	0.0	0.0	135	0.00	0.00	0.00		
14 In Equator	29.728	71.2	53.8	59.7	53.9	89.0	49.4	63.4	60.7	5.8	14.9	1.5	- 2.4	SW	NW; SW	0.0	0.0	0.0	90	0.01	0.01	0.01			
15	..	29.965	76.0	51.4	62.3	56.7	98.8	44.2	64.0	60.9	5.6	16.5	1.6	+ 0.2	Calm	W	0.0	0.0	0.0	90	0.00	0.00	0.00		
16 Last Qr.	29.907	71.5	53.6	60.8	51.8	82.7	50.0	64.2	61.2	9.0	15.4	2.6	- 1.3	Calm; S	SW	0.0	0.0	0.0	60	0.00	0.00	0.00			
17	..	29.852	75.6	51.6	61.8	50.2	105.5	48.0	66.0	62.1	11.6	18.9	2.4	- 0.2	Calm; W	SW	0.0	0.0	0.0	105	0.00	0.00	0.00		
18	..	29.864	73.1	50.7	61.0	51.6	94.7	43.0	66.0	61.9	9.4	15.9	2.1	- 0.9	S	NNE; Calm	0.0	0.0	0.0	95	0.00	0.00	0.00		
19	..	29.959	77.0	52.0	63.3	54.1	97.5	44.8	66.2	62.9	9.2	16.5	4.0	+ 1.4	Cal	WSW	0.0	0.0	0.0	35	0.00	0.00	0.00		
20	..	30.066	81.0	51.6	65.0	52.8	105.0	48.8	66.4	63.9	12.2	22.2	0.0	+ 3.2	Calm	Calm	0.0	0.0	0.0	35	0.00	0.00	0.00		
21	..	30.065	84.0	53.1	68.5	56.5	114.5	45.2	68.5	64.7	12.0	23.9	0.6	+ 6.7	SW	SW	0.0	0.0	0.0	65	0.00	0.00	0.00		
22 Greatest Dec N Apogee	30.014	87.9	50.8	68.3	52.8	115.0	44.2	69.5	65.7	15.5	28.2	1.2	+ 6.5	Calm	SW	0.0	0.0	0.0	35	0.00	0.00	0.00			
23	..	29.968	84.8	54.6	69.2	58.5	107.0	48.0	70.5	66.9	10.7	22.2	0.4	+ 7.3	E	ENE	0.0	0.0	0.0	80	0.00	0.00	0.00		
24 New	29.931	88.7	58.3	73.0	59.2	117.6	53.0	71.5	67.7	13.8	22.1	2.7	+ 11.1	ENE	ENE; E	0.0	0.0	0.0	82	0.00	0.00	0.00			
25	..	29.952	75.5	50.6	62.2	54.9	99.5	49.2	71.0	67.3	7.3	12.8	1.7	+ 0.2	NE	ENE	2.0	0.0	0.0	25	0.00	0.00	0.00		
26	..	29.969	73.6	55.5	61.2	54.4	106.0	53.5	70.5	66.5	6.8	15.9	1.0	- 0.9	NE	ENE	0.0	0.0	0.0	95	0.03	0.03	0.03		
27	..	30.079	73.5	50.6	60.4	50.0	91.7	43.0	69.5	66.2	10.4	17.0	4.4	- 1.8	NE	NE; E	0.0	0.0	0.0	85	0.01	0.01	0.01		
28	..	30.019	76.5	44.0	60.1	51.8	103.5	34.5	69.0	66.2	8.3	19.5	3.9	- 2.1	E	SE	0.0	0.0	0.0	50	0.00	0.00	0.00		
29 In Equator	29.799	80.5	55.2	63.4	60.3	98.8	48.8	68.8	66.2	3.1	16.5	1.4	+ 1.2	SSW	SSW	0.0	0.0	0.0	120	0.00	0.00	0.00			
30	..	29.607	75.8	57.0	63.7	60.6	95.0	48.0	68.5	65.9	3.1	12.8	0.2	+ 1.7	SW	SW; SSW	0.0	0.0	0.0	150	0.06	0.06	0.06		
Aug. 1 First Qr.	29.550	71.0	56.5	61.2	54.0	93.0	55.0	69.0	65.7	7.2	13.3	1.0	- 1.0	S; WSW	SW	0.0	0.0	0.0	60	0.66	0.66	0.66			
2	..	29.582	72.8	48.7	60.8	53.8	82.0	40.2	68.2	65.5	7.0	12.0	0.0	- 1.4	W	WNW; N	0.0	0.0	0.0	110	0.10	0.10	0.10		
3	..	29.716	63.0	54.7	55.5	53.8	63.0	50.0	67.6	63.9	1.7	4.4	0.4	- 6.6	Calm	NNE	0.0	0.0	0.0	80	1.40	1.40	1.40		
4	..	29.792	57.5	49.4	51.3	51.3	57.6	43.0	67.4	63.3	0.0	3.2	0.0	- 10.8	N	: NW	0.0	0.0	0.0	165	0.33	0.33	0.33		
5	..	29.864	58.0	51.4	53.4	51.6	60.0	50.0	65.2	61.7	1.8	4.8	1.5	- 8.7	N	NNW	0.0	0.0	0.0	100	0.17	0.17	0.17		
6 Greatest Declination S.	29.948	71.0	52.4	56.7	55.2	90.7	51.0	64.2	61.2	1.5	10.2	0.0	- 5.3	NNW	N; Calm	0.0	0.0	0.0	75	0.00	0.00	0.00			
7 Perigee	29.937	66.8	50.5	56.1	51.9	78.0	44.8	64.2	60.7	4.2	10.5	1.4	- 5.9	Calm	N; Calm	0.0	0.0	0.0	10	0.00	0.00	0.00			
8 Full	29.893	72.5	49.7	59.9	52.1	95.5	40.3	64.2	61.2	7.8	15.1	3.2	- 2.0	Calm	NE	0.0	0.0	0.0	50	0.00	0.00	0.00			
9	..	29.800	73.3	52.9																					

MONTH and DAY, 1854.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.		P.M.	
June 28	N, s : P, m	P, m : N, s	10, cu, cu.-s, r	10, cu, cu.-s, ci.-s, s, r
29	m	m	10, cu, cu.-s, s, ci, r	8, s, ci : o
30	v	v	10, cu, cu.-s, ci.-s	10, cu, cu.-s, ci.-s, t, h.-r
July 1	w	w	10, r	10, r
2	m	m	10, cu.-s, ci.-s, s	10, cu, ci.-cu, li.-el
3	v	v	10, s, ci.-s, r	10, cu, cu.-s, li.-el, shs.-r
4	P, N, sps, g cur	P, N, sps, g cur	10, m.-r	7, cu, cu.-s, ci.-s, shs.-r : 10, shs.-r
5	P, N, sps, g cur	P, N, sps, g cur	10, cu.-s, ci.-s	9, cu, cu.-s, ci.-s, s, h.-r : cu, ci.-cu, ci, shs.-r
6	P, N, sps, g cur	P, N, sps, g cur	9, cu.-s, ci.-s	9, cu, ci.-s, h. r : 10, s, ci.-s
7	P, N, sps, g cur	P, N, sps, g cur	10 : h.-r	7, cu, ci.-cu, ci.-s
8	v, sps	v, sps	10, h.-shs.-r	10, ci.-cu, ci.-s, l, t, shs.-r
9	m	m	10, cu, ci.-cu, li.-cl	10, r
10	P, N, s	P, N, s	10, r	10, shs.-r
11	m	m	10, r : 9, ci.-cu, ci.-s, li.-cl	10, h.-r : v
12	P, N, s	P, N, s	10, h.-r	7, cu.-s, ci.-s, li.-cl : 10, m.-r
13	m	m	10, s, ci.-s	10, cu, ci.-cu, ci.-s, s : r
14	s	s	10	7, cu, cu.-s, ci.-s
15	P, N, sps	P, N, sps	10, cu, cu.-s, ci.-s, s	5, cu.-s, ci.-s, s
16	m	m	5, ci.-cu, ci.-s, li.-cl	5, cu.-s, ci.-s, s
17	m	m	10, s, ci.-s, l-shs.-r	v, cu, ci.-cu, ci.-s
18	m	m	o : v, cu, cu.-s	7, cu, cu.-s, ci.-s, li.-cl : o
19	m	m	7, cu, ci.-cu, ci.-s, li.-cl	10, cu, cu.-s : v
20	m	m	10, ci.-cu, ci.-s, li.-cl	o, h
21	m	m	o	o
22	m	m	o	o
23	m	m	o	2, cu, cu.-s, s
24	m	m	o	o
25	o	o	10, cu, cu.-s, s, ci.-s	10, cu, cu.-s, s, ci.-s
26	o	o	10	7, cu, cu.-s, li.-cl
27	o	o	7, cu, cu.-s	7, ci.-cu, ci.-s, li.-cl
28	o	o	7, cu, cu.-s	10, ci.-cu, ci.-s, li.-cl
29	o	o	7, cu, cu.-s, ci.-s	10, cu, cu.-s, t
30	o	P, N, s	10, cu, cu.-s, ci.-s	3, ci.-s, li.-cl
31	P, N, s	P, N, s	10, sl.-r : h.-sh.-r	7, cu, cu.-s ci.-s
Aug. 1	P, N, s	P, N, s	10, cu, cu.-s, ci.-s, r	10, ci.-cu, ci.-s, h.-r
2	o	o : P, N, s	5, cu, cu.-s, ci.-s : 10, ci.-cu, ci.-s	7, ci.-cu, ci.-s, h.-r : o
3	P, N, s, sps	P, N, s	10, h.-r	10, ci.-cu, ci.-s, li.-cl : h.-r : t.-s, h.-r
4	P, N, s	P, N, s	10, r	10, r
5	P, N, s	P, N, s	10, r	10
6			10	10, cu, cu.-s, ci.-s
7			10	7, ci.-cu, s, ci.-s
8			3, ci.-cu, ci.-s, li.-cl	10, ci.-cu, ci.-s
9			10, ci.-cu, ci.-s : v	3, cu, cu.-s, ci.-s
10			10, sl.-r	7, s, ci.-s lu.-ha
11			o	v : 10, cu, ci.-s
12			10 : 10	9, ci.-cu, ci
13			8, cu, ci.-cu, ci	10, ci.-cu, ci, se
14			10, cu, ci.-cu, ci	10 : o
15			7, cu, ci.-cu, sc : sl.-r	8, cu, ci.-cu, ci
16			10, ci.-cu, ci.-s	10, ci.-cu, ci, li.-cl
17			o, h	10, ci.-cu, ci.-s, r
18			10, cu, ci.-cu, ci	10 : o
19			8, ci.-cu, ci	10, h.-sh.-r
20			v, cu, ci.-cu, sl.-r	8, cu, cu.-s
21			10 : sl.-r	v, cu, ci.-cu, ci
22			5, cu, ci.-cu, sc	10, r
23			o : 10	5, cu, ci.-cu, sc
24			5, cu, ci.-cu, sc	10 : o
25			7, cu, cu.-s, li.-cl	7, cu, cu.-s, ci.-s, ci

August 6 to August 30. The electrical apparatus was under repair.

RESULTS OF METEOROLOGICAL OBSERVATIONS

MONTH and DAY, 1854.	Phases of the Moon.	READINGS OF THERMOMETERS.												WIND AS DEDUCED FROM ANEMOMETERS.											
		Dry.						Dew Point.	In the Water of the Thames, at Greenwich, by Self-Regis- tering Ther- mometers, read at 9 A.M. next morning.						Difference between the Dew Point Temperature and Air Temperature.	OSLER'S.						WHE- WELL'S			
		Mean Daily Barometer (Corrected and re- duced to 32° Fahrenheit).	Highest.	Lowest.	Mean Daily Value.	Mean Daily Value.	Highest in the Sun, as shown by a Self-Registering Ther- mometer read at 9 P.M.		Lowest on the Grass, as shown by a Self-Registering Thermometer read at 9 A.M. next morning.	Highest.	Lowest.	Mean Daily Value.	Greatest.	Least.	A.M.	P.M.	Pressure in lbs. on the square foot	Greatest.	Least.	Mean of 24 Obs.	Amount of Horizontal Movement of the Air on each Day.	Rain in Inches read at 9 A.M.			
Aug. 26	In Equator	30°223	75°0	44°7	59°9	50°7	94°7	36°3	64°0	60°3	9°2	17°3	2°8	+ 0°1	SW	N ; NW	lbs.	lbs.	lbs.	miles.	in.	0°0	0°0	60	0°00
27	..	30°285	80°2	54°8	67°2	59°0	108°0	45°8	63°7	60°6	8°2	17°7	5°0	+ 7°6	Calm	Calm ; N	0°0	0°0	0°0	0°0	0°00	0°0	0°0	25	0°00
28	..	30°323	85°2	62°1	70°7	60°6	110°5	57°8	64°7	61°5	10°1	21°3	1°9	+ 11°2	Calm	N ; Calm	0°0	0°0	0°0	0°0	0°00	0°0	0°0	40	0°00
29	..	30°287	82°7	55°1	67°4	58°3	100°7	47°0	66°2	62°2	9°1	19°5	3°0	+ 8°1	Calm	Calm ; N	0°0	0°0	0°0	0°0	0°00	0°0	0°0	10	0°00
30	..	30°080	84°8	54°9	69°3	56°8	111°0	46°5	67°3	64°2	12°5	23°6	1°2	+ 10°1	WSW	WSW	0°0	0°0	0°0	0°0	0°00	0°0	0°0	50	0°00
31	First Qr.	30°075	77°2	55°1	62°1	56°0	98°5	48°2	66°7	62°0	6°1	15°0	0°6	+ 3°1	SW	NE	0°0	0°0	0°0	0°0	0°00	0°0	0°0	35	0°00
Sept. 1	..	30°183	72°5	44°6	58°3	48°4	94°5	37°0	67°7	62°0	9°9	17°3	0°7	- 0°6	N ; Calm	Calm	0°0	0°0	0°0	0°0	0°00	0°0	0°0	40	0°00
2	Greatest Declination S.	30°252	75°8	44°5	60°4	48°9	98°3	35°5	65°7	61°0	11°5	19°2	1°8	+ 1°6	Calm ; SE	E	0°0	0°0	0°0	0°0	0°00	0°0	0°0	45	0°00
3	..	30°146	80°0	45°9	60°8	52°7	102°0	38°2	68°0	64°7	8°1	21°9	0°9	+ 2°3	NE	ESE	0°0	0°0	0°0	0°0	0°00	0°0	0°0	45	0°00
4	Perigee	30°216	81°2	43°1	62°2	51°1	105°3	36°5	68°0	62°2	11°1	26°7	0°2	+ 3°8	Calm	NE ; Calm	0°0	0°0	0°0	0°0	0°00	0°0	0°0	60	0°00
5	..	30°316	73°0	45°0	58°8	52°0	92°5	37°2	68°0	62°7	6°8	11°3	2°8	+ 0°5	NE	NE	0°0	0°0	0°0	0°0	0°00	0°0	0°0	35	0°00
6	Full	30°209	77°0	43°6	58°8	49°6	97°5	34°0	67°5	63°2	9°2	21°0	0°0	+ 0°8	NE	NE ; S	0°0	0°0	0°0	0°0	0°00	0°0	0°0	15	0°00
7	..	30°112	78°2	45°2	59°0	54°9	99°5	40°5	66°5	63°2	4°1	19°5	3°0	+ 1°1	Calm	NE	0°0	0°0	0°0	0°0	0°00	0°0	0°0	10	0°00
8	In Equator	30°095	72°0	45°9	57°2	45°0	97°0	37°0	68°0	62°7	12°2	19°8	6°7	- 0°6	NE	NE	0°0	0°0	0°0	0°0	0°00	0°0	0°0	25	0°00
9	..	30°067	71°5	47°6	57°3	45°7	95°7	38°4	65°5	62°4	11°6	18°8	4°4	- 0°2	Calm	NE ; Calm	0°0	0°0	0°0	0°0	0°00	0°0	0°0	5	0°00
10	..	30°092	69°2	41°9	55°0	46°8	93°5	35°2	65°0	61°7	8°2	15°6	0°0	- 2°4	Calm	Calm	0°0	0°0	0°0	0°0	0°00	0°0	0°0	5	0°00
11	..	30°056	72°5	39°4	55°6	46°9	95°3	34°2	65°0	61°7	8°7	16°2	0°5	- 1°7	NE	NE	0°0	0°0	0°0	0°0	0°00	0°0	0°0	15	0°00
12	..	29°866	80°5	40°4	62°3	49°2	99°0	33°0	65°0	61°7	13°1	25°1	2°2	+ 5°3	SE	SSW	2°0	0°0	0°2	140	0°09	0°0	0°0	0°00	
13	..	29°767	74°7	58°4	64°1	60°7	80°0	51°3	65°3	61°7	3°4	10°1	0°0	+ 7°3	SW	SW	1°5	0°0	0°3	150	0°03	0°0	0°0	0°00	
14	Last Qr.	29°655	72°0	55°6	69°8	57°0	85°0	56°2	65°0	62°2	3°8	11°8	0°2	+ 4°1	SW	W ; SW	5°0	0°0	0°3	130	0°30	0°0	0°0	0°00	
15	Greatest Declination N.	29°832	73°2	51°8	61°0	54°9	93°5	45°0	65°0	62°2	6°1	14°3	0°3	+ 4°5	SW	SW	2°5	0°0	0°4	155	0°02	0°0	0°0	0°00	
16	Apogee	29°726	73°6	59°6	65°8	60°8	83°0	58°4	65°0	62°2	5°0	8°5	3°7	+ 9°5	W	SW	2°5	0°0	0°1	160	0°01	0°0	0°0	0°00	
17	..	29°728	75°0	55°8	63°0	56°2	95°8	53°5	65°3	62°2	6°8	15°0	2°3	+ 6°9	WSW	SW	2°0	0°0	0°0	170	0°00	0°0	0°0	0°00	
18	..	29°980	69°7	49°7	58°9	49°9	88°5	43°0	65°0	62°2	9°0	13°9	3°2	+ 3°0	SW	SW	4°6	0°0	0°2	235	0°00	0°0	0°0	0°00	
19	..	29°917	68°8	56°8	61°8	60°4	74°5	49°0	65°5	62°5	1°4	5°7	0°5	+ 6°0	SW	SW	4°0	0°0	0°8	180	0°07	0°0	0°0	0°00	
20	..	29°840	73°5	52°2	57°6	55°7	79°0	51°4	65°5	62°7	1°9	11°9	0°0	+ 2°1	SW	N ; WSW	3°3	0°0	0°3	120	0°11	0°0	0°0	0°00	
21	..	30°023	64°5	44°8	53°2	44°2	83°4	30°0	65°2	..	9°0	13°9	0°7	- 2°2	W	W ; NW	0°0	0°0	0°0	125	0°04	0°0	0°0	0°00	
22	New	30°193	63°4	39°7	50°5	40°4	84°0	30°0	64°0	..	10°1	17°6	0°5	- 4°8	NW	NW ; WSW	1°3	0°0	0°0	120	0°00	0°0	0°0	0°00	
23	In Equator.	30°123	63°0	48°4	54°9	49°5	69°0	44°5	63°0	..	5°4	10°3	3°6	- 0°1	WSW	NW ; WSW	0°0	0°0	0°0	95	0°03	0°0	0°0	0°00	
24	..	29°869	71°0	53°3	59°5	51°6	84°8	49°8	62°2	..	7°9	15°0	2°0	+ 4°7	WSW	W	7°2	0°0	2°5	150	0°00	0°0	0°0	0°00	
25	..	30°196	65°0	42°8	52°6	43°4	84°3	34°0	61°0	55°7	9°2	15°6	3°3	- 2°1	NW	NNW	0°0	0°0	0°0	35	0°00	0°0	0°0	0°00	
26	..	30°241	68°8	39°5	53°0	45°4	88°0	35°0	60°5	57°9	7°6	16°0	0°0	- 1°4	Calm	Calm	0°0	0°0	0°0	10	0°00	0°0	0°0	0°00	
27	..	30°196	70°0	40°3	55°3	47°5	90°0	33°5	60°6	57°2	7°8	17°3	2°2	+ 1°0	Calm	SE ; E	0°0	0°0	0°0	35	0°00	0°0	0°0	0°00	
28	..	30°012	71°0	43°3	56°4	44°8	92°5	33°0	60°5	58°1	11°6	19°5	1°9	+ 2°4	Calm	Calm	0°0	0°0	0°0	10	0°00	0°0	0°0	0°00	
29	First Quarter. Greatest Dec. S.	29°988	74°0	37°9	55°0	48°0	92°5	31°0	60°4	58°5	7°0	17°3	1°8	+ 1°2	Calm	Calm	0°0	0°0	0°0	..	0°00	0°0	0°0	0°00	
30	..	30°033	72°0	38°7	54°9	49°5	88°0	32°0	60°0	59°2	5°4	15°0	0°0	+ 1°4	Calm	Calm	0°0	0°0	0°0	..	0°00	0°0	0°0	0°00	
Oct. 1	..	30°063	65°2	42°7	51°7	51°1	72°6	35°0	60°0	..	0°6	6°1	0°0	- 1°6	Calm	Calm	0°0	0°0	0°0	15	0°00	0°0	0°0	0°00	
2	Perigee	29°854	72°8	38°8	54°3	47°1	87°3	34°0	59°5	..	7°2	14°4	0°3	+ 1°2	Calm	Calm	0°0	0°0	0°0	50	0°01	0°0	0°0	0°00	
3	..	29°692	66°0	47°3	54°9	46°3	77°0	36°0	59°0	..	8°6	14°8	2°2												

MONTH and DAY, 1854.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Aug. 26			3, s, ci, h	3, cu, ci.-cu, li.-cl
27			10, ci.-cu, s, h	: 10
28			7, cu.-s, ci.-s, h	10, cu, cu.-s, ci.-s
29			o, h	7, cu, ci.-cu, ci. s, li.-cl
30			o	: o
31	v	v	o	o
				o
Sept. 1	v	v	o	o
2	v	v	o	o
3	m	m	o, th.-f	o
4	m	m	o	o
5	m	m	5, cu, cu.-s, h	10
6	m	m	o	o
7	m	m	o, f	10, cu, cu.-s
8	m	m	4, cu, cu.-s, ci.-s	4, cu, cu.-s, ci
9	m	m	7, ci.-cu, ci.-s, s	: v
10	m	m	v, cu.-s, ci.-s	o, f
11	m	m	o, th.-f	3, ci.-cu, li.-cl
12	w	w	o	o
13	o	o	10, r	10
14	o	o	10, r	o, ci.-s, m.-r
15	m	m	10, ci.-cu, ci.-s, li.-cl	10, ci.-cu, ci.-s, sc
16	m	m	10, s, ci.-s, li.-cl, m.-r	: o
17	v	v	7, cu, cu.-s, ci.-s, r	10, cu, cu.-s, ci.-s, sl.-r
18	m	o	o	10
19	o	o	10, r	10, m.-r
20	m	m	10, ci.-cu, ci.-s, li.-cl	10, h.-shs.-r
21	v	v	o	7, ci.-cu, ci.-s, li.-cl
22	m	o	o	v, ci.-cu
23	o	o	10, r	10
24	v	v	5, ci.-cu, ci.-s, sc	5, cu.-s, ci.-s, ci : 10, s, ci.-s : 5, r
25	m	o	o, h	3, cu, cu.-s, li.-cl
26	v	v	o, f	o
27	m	m	o, h	o
28	v	v	o	o
29	v	v	o, th.-f	o
30	P, s, sps	P, s, sps	o, f	o, h
Oct. 1	v	v	10, th.-f	o, f
2	s	s	o, f	o, f
3	v	v	o	3, ci.-cu, ci.-s, lu.-co
4	m	m	v, s, ci.-s	4, s, ci.-s, li.-cl
5	w	o	7, s, ci, li.-cl	v, s, ci
6	P, N, s	P, N, s	10, r	7, ci.-cu, ci
7	s	s	10, r	10, r
8	m	m	5, s, ci.-s, li.-cl	9, s, ci.-s, li.-cl
9	s	s	10, s, ci.-s, sc, r	o
10	s	s	v, f	8, cu, cu.-s, ci.-s
11	v, sps	v, sps	10, r	v, cu, cu.-s, ci.-s
12	s	s	o	7, cu, cu.-s, ci.-s
13	s	s	10, th.-f	o
14	s	s	10, f	10
15	s	s	10, sl.-r	10, sl.-r
16	s	s	10	10
17	s	N, s	10, r	10, s, ci.-s
18	s	s	10, r	10, sqs.-r
19	s	s	7, s, ci.-s, h	7, ci.-cu, ci.-s, li.-cl
20	s	s	10, h.-r	10, h.-sh.-r
21	s	s	8, ci.-eu, ci.-s, li.-cl	8, ci.-eu, ci.-s
22	o	o	10	o
23	o	o	7, eu, ci.-eu, sc	10, ci.-eu, ci.-s, t, h.-r
				: v, l, sl.-r

RESULTS OF METEOROLOGICAL OBSERVATIONS

MONTH and DAY, 1854.	Phases of the Moon.	READINGS OF THERMOMETERS.										Difference between the Dew Point Temperature and Air Temperature. Difference between the Mean Temperature of the Day and the Mean Temperature of the same Day on an Average of 38 Years.	WIND AS DEDUCED FROM ANEMOMETERS.						WHE- WELL'S Rain in Inches read at 9h P.M.			
		Dry.					Wet.						In the Water of the Thames, at Greenwich, by Self-Regis- tering Ther- mometers, read at 9h A.M. next morning.	General Direction.			OSLER'S.					
		Mean Barometer (corrected and reduced to 32° Fahrenheit).	Daily Mean Daily Value.	Highest.	Lowest.	Mean Daily Value.	Dew Point.	Highest in the Sun, as shown by a Self-Registering Thermometer read at 9h P.M.	Lowest on the Grass, as shown by a Self-Registering Thermometer read at 9h A.M. next morning.	Highest.	Lowest.	Mean Daily Value.	Greatest.	Least.	A.M.	P.M.	Pressure in lbs. on the square foot.	Mean of 24 Obs.	Amount of Horizontal Movement of the Air on each Day.			
Oct. 24	..	29.205	54.8	35.2	44.0	38.7	73.0	27.2	53.0	48.9	5.3	11.8	0.0	-	-	4.2	SW	SW; NE	0.0	0.0	40	0.18
25	..	28.955	48.0	38.5	42.4	42.4	57.0	32.5	52.2	48.8	0.0	0.0	0.0	-	-	5.5	NE	Calm	0.0	0.0	90	0.62
26	Perigee Greatest Dec. S.	29.578	55.0	35.3	42.6	35.4	74.0	26.8	52.0	48.3	7.2	11.6	0.3	-	-	5.1	Calm	Calm; SW	0.0	0.0	10	0.16
27	..	30.168	55.0	31.3	42.6	37.5	72.0	23.5	52.0	48.1	5.3	12.0	0.3	-	-	4.9	SW	SW; S	0.0	0.0	60	0.00
28	First Qr.	30.187	57.0	40.0	47.4	39.3	70.0	30.4	51.0	47.9	8.1	13.0	3.2	+	0.1	SSE	SE	3.0	0.0	55	0.01	
29	..	30.050	60.0	37.8	47.5	42.4	77.0	26.0	51.2	47.9	5.1	16.2	3.3	+	0.5	SE	SW; S	0.0	0.0	50	0.00	
30	..	30.038	65.0	43.5	54.2	46.0	79.8	35.0	50.5	48.2	8.2	16.2	0.5	+	7.4	SE	SSE	0.0	0.0	70	0.00	
31	..	29.976	68.6	49.3	57.0	51.9	83.5	39.0	50.0	47.9	5.1	11.7	0.7	+	10.5	SSE	SW	0.0	0.0	50	0.00	
Nov. 1	..	30.271	61.6	39.3	48.9	46.0	75.5	32.0	50.0	48.7	2.9	12.2	0.0	+	2.6	SW	S	0.0	0.0	15	0.00	
2	In Equator	30.183	60.0	40.2	51.4	49.7	75.4	40.0	50.5	49.0	1.7	5.0	0.8	+	5.3	SSE	Calm; S	0.0	0.0	105	0.00	
3	..	30.144	54.0	39.3	44.6	36.5	63.0	32.0	50.4	48.7	8.1	12.1	5.8	-	1.3	SW; NW	NW; W	2.5	0.0	0.1	115	0.00
4	Full	30.033	52.0	36.1	44.3	40.2	56.5	25.0	50.0	48.4	4.1	8.0	1.6	-	1.4	SW	WSW	0.0	0.0	0.0	140	0.00
5	..	29.954	56.5	43.0	48.3	45.7	59.0	41.2	49.6	49.1	2.6	5.1	1.9	+	2.9	NNW	W; WSW	0.0	0.0	0.0	75	0.00
6	..	30.286	52.5	36.6	42.9	35.7	68.0	28.0	49.4	47.5	7.2	11.6	1.6	-	3.0	W	N	0.0	0.0	0.0	60	0.00
7	..	30.364	50.5	33.9	42.1	40.4	68.0	23.3	49.0	47.3	1.7	5.7	0.0	-	2.8	Calm; SW	SW	0.0	0.0	0.0	90	0.00
8	..	30.071	50.5	35.7	43.6	40.8	56.5	26.0	48.5	47.3	2.8	6.6	0.5	-	1.2	SW	WSW	0.0	0.0	0.0	125	0.00
9	Greatest Declination N.	30.129	48.6	33.4	37.3	33.5	56.0	25.5	48.0	46.1	3.8	8.6	1.9	-	7.2	NW	N	3.0	0.0	0.2	105	0.00
10	..	30.008	46.0	27.9	37.7	33.7	54.0	14.0	47.8	45.7	4.0	9.2	2.6	-	6.6	SW	N	0.0	0.0	0.0	145	0.05
11	Apogee	29.986	49.2	40.8	44.2	40.1	54.0	30.0	47.5	46.0	4.1	6.6	0.7	+	0.2	SW; NW	N	0.0	0.0	0.0	80	0.03
12	Last Qr.	30.129	46.2	36.1	39.3	34.7	57.8	28.0	47.4	45.3	4.6	9.2	2.1	-	3.7	N	Calm; S	0.0	0.0	0.0	25	0.00
13	..	29.871	48.0	30.0	39.6	35.8	51.0	20.0	47.0	45.1	3.8	8.6	0.3	-	3.8	Calm; SE	S	2.0	0.0	0.1	150	0.00
14	..	29.449	45.0	34.7	37.1	34.8	47.0	35.0	47.0	44.8	2.3	9.2	1.0	-	6.1	SE	SE	0.0	0.0	0.0	95	0.02
15	..	28.993	52.0	31.9	43.1	39.7	59.5	29.0	47.0	44.4	3.4	6.6	1.1	+	0.2	SE	SW	2.0	0.0	0.1	65	0.20
16	In Equator	28.955	50.0	38.9	43.9	43.4	50.5	28.0	46.6	44.4	0.5	2.0	0.0	+	1.1	Calm	Calm	0.0	0.0	0.0	15	0.27
17	..	29.280	46.5	34.1	42.5	41.3	47.5	27.0	46.2	44.4	1.2	3.6	0.0	-	0.0	N	NE	0.0	0.0	0.0	125	0.13
18	..	29.591	45.0	38.8	40.4	33.2	48.5	37.0	45.6	43.9	7.2	10.6	5.3	-	2.0	NE	NE	3.5	0.0	1.8	165	0.00
19	..	29.947	43.2	37.2	39.6	34.1	45.8	35.0	46.0	43.5	5.5	7.7	2.8	-	2.6	NE	NNE	0.0	0.0	0.0	135	0.00
20	New	30.010	42.2	34.4	37.7	33.7	45.0	27.0	45.2	41.1	4.0	7.2	3.1	-	4.3	NE	NE	0.0	0.0	0.0	65	0.00
21	..	29.478	44.2	35.0	38.6	33.7	44.8	31.6	45.0	43.0	4.9	9.0	0.5	-	3.3	SW	SW	2.0	0.0	0.3	150	0.19
22	Perigee	28.846	44.0	31.9	35.7	34.7	46.0	28.0	44.5	42.5	1.0	4.0	0.0	-	6.1	SW	W	0.0	0.0	0.0	60	0.00
23	Greatest Declination S.	28.977	41.2	30.8	33.9	32.9	42.3	21.0	44.2	42.1	1.0	7.2	0.0	-	7.9	SW	NE	0.0	0.0	0.0	35	0.01
24	..	29.107	43.2	28.4	34.5	33.2	46.5	16.0	44.0	41.5	1.3	6.0	0.8	-	7.1	N	N	0.0	0.0	0.0	100	0.00
25	..	29.415	41.0	31.5	35.8	33.7	41.0	19.5	43.5	41.4	2.1	6.0	0.8	-	5.9	N	N	0.0	0.0	0.0	115	0.02
26	..	29.768	39.4	30.1	33.2	32.4	44.5	23.0	43.5	40.8	0.8	5.0	0.0	-	8.6	N	N	0.0	0.0	0.0	10	0.00
27	First Qr.	29.846	34.0	25.9	28.5	28.5	38.0	26.0	43.0	40.3	0.0	2.6	0.0	-	13.4	Calm; SW	SW	0.0	0.0	0.0	85	0.00
28	..	29.509	44.5	31.5	39.1	37.3	44.8	25.0	43.0	40.3	1.8	3.8	1.5	-	2.8	SW	SW	3.0	0.0	0.5	255	0.15
29	In Equator	29.931	50.5	40.5	44.4	36.1	54.2	33.5	42.5	40.7	8.3	11.5	0.0	+	2.5	SW	SW; W	12.0	0.0	1.5	135	0.17
30	..	29.307	49.0	34.6	40.8	37.5	55.0	26.5	42.5	40.8	3.3	8.1	1.3	-	1.0	SW	SW	3.0	0.0	0.2	155	0.17
Dec. 1	..	29.475	51.0	38.9	42.3	34.4	52.4	28.0	42.2	40.8	7.9	8.4	4.6	+	0.6	W	W	0.0	0.0	0.0	185	0.00
2	..	29.798	45.0	34.2	40.3	31.7	48.0	28.2	42.0	40.8	8.6	11.2	3.1	-	1.3	W	W	2.0	0.0	0.3	160	0.00
3	..	29.723	49.8	37.4	45.9	43.1	54.0	28.0	42.0	40.8	2.8	6.2	1.1	+	4.4	W	WSW	3.0	0.0	0.8	275	0.00
4	Full	29.910	50.2	42.3	45.2	36.2	56.6	28.5	42.0	40.8	9.0	11.7	3.8	+	3.8	W	W; SW	3.3	0.0	0.3	290	0.00
5	..	29.350	50.0	40.1	45.3	41.2	51.5	32.5	42.0	41.2	4.1	7.0	0.0	+	4.0	SW	SW	4.8	0.0	1.3	245	0.10
6	Greatest Declination N.	29.415	45.5	34.9	39.5	34.9	50.3	27.0	42.0	41.4	4.6	8.7	2.9	-	1.6	SW	W	0.0	0.0	0.0	165	0.00
7	..	30.019	42.0	31.0	35.8	32.2	49.0	25.														

MONTH and DAY, 1854.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Oct. 24	P, s	N, s	3, cu, ci.-cu : 10	10, ci.-s : r
25	N, s	N, s	10, sl.-r	10, r
26	o	N, s : m	o	10, r : o, f
27	v	v	o	o
28	o	s	4, ci.-cu, ci.-s	4, ci.-cu
29	s	s	o	o
30	m	m	o	o
31	s	s	o	3, s, ci : 7, r : o
Nov. 1	s	s	o, f	o
2	w	w	10, f	o : 10, th.-f
3	v	v	o	o : v, ci.-s, sc
4	s	s	10, f	3, ci, li.-cl
5	v	v	10, m.-r	10, f
6	m	m	o, f	o
7	s, sps	s, sps	10, f : 8	o : lu.-co
8	s, sps	s, sps	10	10, f : m.-r
9	v	N, s : v	o : v, cu	v, cu, cu.-s, ci.-s, sl.-r : 2, li.-cl
10	w	w	7, s, ci.-s	7, s : 10, r
11	o	o	10, sl.-r	10, s, ci.-s, sc : f
12	o	o	10, ci.-cu, ci.-s	o : 10
13	m	m	10, ci.-s	10
14	w	N, s, sps : s	10, oc.-r	10
15	N, s : m	N, s, sps : s	10, r	7, ci.-cu, ci.-s : o
16	s	N, s : s	10	10, ci.-cu, ci.-s : v, f
17	N, s	m	10, r, f	10
18	m	m	10	8, ci.-cu, ci.-s : 10
19	m	m	10	10
20	v	v	10, sl., r	10, shs.-r
21	m	m	10	10, shs.-r
22	s	s	10, s, ci.-s	10 : o, f
23	s, sps	s, sps	10	10, s, ci.-s, f : o, f
24	s	s	10, ci.-cu, ci.-s	7, ci.-cu, ci.-s : o
25	v	v	10	10 : sl.-r
26	s	s	o : 10	10
27	s	s	10, th.-f	10, th.-f : v, sn
28	s	s	10, f	10, m.-r
29	m	N, s, sps : m	v, cu, cu.-s : 10	10, ci : lu.-ha
30	o	o	o, h	10, ci.-s, sc : r
Dec. 1			2, ci.-cu, ci.-s, s	10, ci.-cu, ci.-s, sl.-r : lu.-co
2			10, ci.-cu, ci.-s, li.-cl	10, ci.-cu, ci.-s : v, lu.-ha
3	s	s	10, s, ci.-s	10, s, ci.-s : v, s, sc, lu.-co
4	s	s	o	o : v, ci.-cu, sc
5	s	s	10	10, r : v, lu.-ha
6	s	s	v	v : lu.-co
7	s	s	o	o, h
8	s	s	10 : m.-r	10
9	s	o	10	10 : v, r
10	s	s	o	o
11	s	s	2, ci	2, ci : 10
12	s	s	o, h	o
13	s	s : o	10, r	10 : m.-r
14	o	o	10, r	10, r : 5 : o
15	o	o	o	o
16	o	o	5	10 : o, h
17	m	m	o, h	10
18	m	m	10, r	v
19	m	m	o, f	10, ci.-s : m.-r
20	m	m	10, r	10, r
21	m	m	10 : r	10, r

December 1 and 2. The electrical apparatus was out of order.

RESULTS OF METEOROLOGICAL OBSERVATIONS

MONTH and DAY, 1854.	Phases of the Moon.	READINGS OF THERMOMETERS.												WIND AS DEDUCED FROM ANEMOMETERS.											
		Dry.						Dew Point.	In the Sun, as shown by a Self-Registering Thermometer read at 1 p.m.			In the Water of the Thames, at Greenwich, by Self-Registering Thermometers, read at 9 th A.M. next morning.			Difference between the Dew Point Temperature and Air Temperature.	OSLER'S.						WHE- WELL'S			
		Mean Daily Barometer (corrected and reduced to 32° Fahrenheit).	Highest.	Lowest.	Mean Daily Value.	Highest.	Lowest.		Mean Daily Value.	Greatest.	Least.	A.M.	P.M.	Greatest.	Least.	Mean of 24 Obs.									
Dec. 22	..	29.672	54.3	48.2	51.5	47.9	55.0	32.5	3.6	4.6	0.0	+ 13.0	W	WSW	8.0	0.0	1.5	250	0.05			
23	..	29.752	53.6	39.0	42.9	40.0	53.7	28.4	2.9	6.0	0.7	+ 4.5	NW	WSW; NW	0.0	0.0	0.0	80	0.02			
24	..	29.744	47.8	36.3	42.8	40.2	52.5	27.0	42.8	41.8	2.6	6.2	0.8	+ 4.6	W	W	0.0	0.0	0.0	230	0.00				
25	..	29.560	55.0	41.6	47.4	44.1	57.7	37.5	43.0	41.6	3.3	5.3	2.2	+ 9.6	SW; W	SW	4.8	0.0	0.8	220	0.13				
26	First Quarter in Equator	29.712	46.0	37.3	40.6	34.8	48.0	30.0	43.5	41.4	5.8	11.0	3.6	+ 2.8	SW	W	3.0	0.0	0.3	225	0.00				
27	..	29.757	41.8	33.8	36.3	31.6	45.0	28.8	43.4	41.4	4.7	8.5	2.5	- 1.3	W	W	2.0	0.0	0.1	80	0.01				
28	..	30.284	38.5	29.4	33.1	29.7	39.2	23.2	43.0	41.2	3.4	6.8	1.9	- 4.3	N	N; W	0.0	0.0	0.0	4.5	0.00				
29	..	30.362	41.5	29.3	36.1	33.5	41.5	22.2	43.0	41.0	2.6	3.5	1.9	- 1.2	WSW	W	0.0	0.0	0.0	105	0.00				
30	..	30.322	46.5	40.0	42.6	37.6	48.0	32.4	43.0	40.7	5.0	8.2	3.5	+ 5.6	W	WSW; W	0.0	0.0	0.0	85	0.00				
31	..	30.143	45.6	36.5	41.9	35.4	47.8	30.3	42.8	41.2	6.5	9.4	3.3	+ 5.2	W	W	0.0	0.0	0.0	300	0.00				

Rain in Inches read at 9th P.M.

MONTH and DAY, 1854	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Dec. 22	m	m	10, s, ci.-s	10
23	m	m	4, ci	10, s, ci.-s
24	m	m	10	: m.-r
25	m	m	10, m.-r	10
26	m	m	o	10, s, ci.-s, oc.-r
27	m	m	4, ci.-cu, s, ci.-s	3, s, ci
28	m	m	o	4, ci.-cu, ci.-s, sc
29	m	m	10	o, h : 10, sl.-r, sn
30	m	m	10	10
31	m	m	10, s : sl.-r	10 : v, lu-ha

MAXIMA AND MINIMA READINGS OF THE BAROMETER.

The following table contains the highest and lowest readings of the Barometer, reduced to 32° Fahrenheit, extracted from the observations taken by the eye. There is good reason to believe that these readings do not differ much from the true maxima and minima, although the times may be sometimes sensibly erroneous.

MAXIMA.			MINIMA.			MAXIMA.			MINIMA.		
	Approximate Mean Solar Time, 1854.	Reading.		Approximate Mean Solar Time, 1854.	Reading.		Approximate Mean Solar Time, 1854.	Reading.		Approximate Mean Solar Time, 1854.	Reading.
	d h m	in.		d h m	in.		d h m	in.		d h m	in.
January	11. 9. 0	29.777	January	7. 9. 0	28.809	August	6. 10. 20	29.968	July	31. 9. 0	29.527
	18. 0. 0	30.047		13. 9. 0	29.506		18. 9. 0	30.040	August	13. 21. 0	29.617
	20. 2. 10	30.158		19. 9. 0	29.821		22. 21. 0	30.019		21. 9. 0	29.635
	26. 9. 0	30.450		24. 3. 0	29.451		28. 21. 0	30.340		24. 3. 0	29.781
	30. 21. 0	30.091		28.22. 0	29.704	September	5. 0. 0	30.328		30. 9. 0	30.012
February	2. 21. 0	30.215	February	0. 21. 0	29.825		25. 21. 0	30.266	September	13. 21. 0	29.589
	10. 0. 0	30.147		4. 9. 0	29.730	October	7. 9. 0	29.963	October	5. 3. 0	29.394
	13. 21. 0	30.545		11. 22. 30	30.060		12. 21. 0	30.439		9. 3. 0	29.586
	23. 9. 0	30.466		17. 9. 0	29.302		19. 0. 0	29.667		17. 21. 0	29.107
March	4. 9. 0	30.669	March	10. 0. 0	29.929		27. 9. 0	30.231		25. 3. 0	28.872
	16. 21. 0	30.338		18. 9. 0	29.864	November	1. 9. 0	30.289		30. 21. 0	29.950
	21. 21. 0	30.406		25. 22. 30	29.783		7. 0. 0	30.415	November	4. 22. 30	29.888
April	3. 9. 0	30.428	April	15. 3. 0	29.872		12. 3. 30	30.135		10. 21. 0	29.904
	17. 0. 0	30.136		21. 9. 0	29.266		19. 21. 0	30.040		15. 21. 0	28.883
	24. 9. 0	30.317	May	1. 3. 0	29.037		27. 9. 0	29.935		22. 3. 0	28.813
May	11. 21. 0	30.069		22. 9. 0	29.394		29. 21. 0	29.409		29. 0. 0	28.869
June	4. 9. 0	30.000	June	12. 0. 0	29.436	December	4. 3. 0	29.940		30. 9. 0	29.075
	15. 21. 0	29.639		16. 21. 0	29.458		7. 9. 0	30.075	December	5. 9. 0	29.212
	23. 21. 0	30.044		29. 3. 0	29.472		12. 21. 0	30.097		8. 21. 0	29.325
July	1. 22. 40	29.839	July	4. 3. 0	29.445		20. 21. 0	30.014		17. 21. 0	28.864
	21. 21. 0	30.097					29. 9. 0	30.384		24. 23. 0	29.487

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1854.

(cxxxvii)

MONTHLY MEANS of RESULTS for METEOROLOGICAL ELEMENTS at the ROYAL OBSERVATORY, GREENWICH, in the Year 1854.

1854. MONTH.	Mean Reading of the Barome- ter.	TEMPERATURE OF THE AIR.								Mean Temp. of Dew Point.	Mean Elastic Force of Vapour.	Mean Weight of Vapour in a cubic foot of air.	Mean additional Weight required to saturate a cubic foot of air.	Mean Degree of Humidity (saturation = 1.)	WIND.			RAIN.					
		Highest	Low- est.	Range in the Month.	Mean of all the Highest	Mean of all the Lowest	Mean Daily Range.	Mean Temp.	Mean of a cubic foot of air.						Prevailing Direction.	Mean weight of a cubic foot of air.	Mean Daily pressure in lbs. on square foot.	Mean Daily Horizon- tal move- ment of the Air in Miles.	Mean Amount of Cloud.	Num- ber of Days on which it fell.	Amount col- lected on the Ground.		
January....	in.	29° 618	54° 8	13° 5	41° 3	44° 7	33° 9	10° 8	39° 0	36° 1	234	2° 7	0° 3	915	gr.	gr.	546	NE ; SW	0° 47	111	7° 8	15	in.
February....	30° 041	57° 0	23° 5	33° 5	47° 2	33° 6	13° 6	39° 2	33° 6	218	2° 6	0° 5	88	554	E ; NE	0° 21	123	6° 8	9	1° 2			
March....	30° 186	64° 2	25° 5	38° 7	54° 6	35° 4	19° 2	43° 5	37° 4	236	2° 8	0° 7	551	NE ; SE	0° 46	84	6° 0	6	0° 3				
April....	29° 985	77° 5	28° 3	49° 2	61° 9	38° 2	23° 7	48° 4	45° 0	274	3° 1	0° 9	552	NE	0° 46	78	4° 7	7	0° 6				
May....	29° 667	70° 5	34° 8	35° 7	63° 7	42° 4	21° 3	50° 9	48° 6	327	3° 7	0° 7	89	534	SW	0° 48	100	6° 9	17	3° 5			
June....	29° 735	78° 5	41° 4	37° 1	67° 5	48° 3	19° 2	55° 7	52° 7	371	4° 2	0° 9	825	529	SW	0° 31	104	8° 2	12	0° 9			
July....	29° 807	88° 7	44° 0	44° 7	73° 1	51° 5	21° 6	60° 3	53° 6	413	4° 6	1° 3	783	525	Var.	0° 02	76	7° 4	15	1° 8			
August....	29° 889	85° 2	43° 0	42° 2	73° 1	52° 4	20° 7	60° 0	53° 3	416	4° 7	1° 4	771	526	SW	0° 50	78	6° 8	12	2° 6			
September....	30° 031	81° 2	37° 0	43° 3	72° 2	46° 5	25° 7	58° 1	50° 4	375	4° 3	1° 3	770	532	SW ; NE	0° 20	75	4° 2	9	1° 0			
October....	29° 724	72° 8	31° 3	41° 5	59° 6	42° 1	17° 5	49° 4	44° 5	309	3° 6	0° 6	846	536	Var.	0° 30	87	6° 4	11	2° 4			
November....	29° 788	61° 6	25° 9	35° 7	47° 7	35° 0	12° 7	40° 5	37° 9	245	2° 9	0° 3	916	547	SW	0° 21	100	7° 2	13	1° 9			
December....	29° 768	55° 0	26° 5	28° 5	47° 1	36° 1	11° 0	41° 3	37° 0	239	2° 8	0° 4	872	546	SW	0° 50	186	5° 9	16	1° 4			
Means	29° 848	70° 6	31° 3	39° 3	59° 4	41° 3	18° 1	48° 9	44° 2	305	3° 5	0° 8	830	539	-	-	-	-	6° 5	Sum	Sum		
																				142	19° 0		

READINGS OF THERMOMETERS SUNK IN THE GROUND.

(L)—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 generally, except Sundays.

Days of the Month, 1854.	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	S	50° 66	49° 87	49° 00	48° 46	48° 40	48° 63	49° 18	49° 98	S	51° 49	51° 66
2	51° 43	50° 62	49° 74	S	48° 46	48° 40	S	49° 20	50° 03	50° 41	51° 50	51° 66
3	51° 38	50° 58	49° 70	48° 95	48° 47	48° 40	48° 65	49° 20	S	50° 84	51° 46	S
4	51° 38	50° 54	49° 68	48° 94	48° 45	S	48° 67	49° 24	50° 08	50° 85	51° 44	51° 65
5	51° 36	S	S	48° 82	48° 45	48° 36	48° 88	49° 25	50° 10	50° 91	S	51° 60
6	51° 34	50° 44	49° 60	48° 90	48° 44	48° 40	48° 70	S	50° 16	50° 90	51° 59	51° 65
7	51° 37	50° 47	49° 67	48° 88	S	48° 40	48° 62	49° 30	50° 10	50° 93	51° 60	51° 64
8	S	50° 38	49° 58	48° 86	48° 44	48° 43	48° 74	49° 35	50° 19	S	51° 61	51° 65
9	51° 30	50° 38	49° 62	S	48° 42	48° 43	S	49° 38	50° 25	51° 02	51° 63	51° 70
10	51° 26	50° 37	49° 53	48° 80	48° 43	48° 44	48° 76	49° 42	S	51° 03	S	
11	51° 24	50° 30	49° 52	48° 80	48° 42	S	48° 78	49° 46	50° 30	51° 10	51° 60	51° 63
12	51° 20	S	S	48° 77	48° 43	48° 40	48° 78	49° 48	50° 30	51° 05	S	51° 61
13	Not	50° 24	49° 51	48° 75	48° 43	48° 45	48° 80	S	50° 35	51° 09	51° 66	51° 61
14	51° 17	50° 20	49° 42	Good Friday.	S	48° 44	48° 86	49° 53	50° 34	Not	51° 60	51° 63
15	S	50° 20	49° 40	48° 74	48° 42	48° 46	48° 88	49° 56	50° 38	S	51° 68	51° 69
16	51° 12	50° 13	49° 38	S	48° 40	48° 46	S	49° 58	50° 42	51° 15	51° 60	51° 60
17	51° 11	50° 15	49° 35	48° 70	48° 40	48° 50	48° 90	49° 60	S	51° 10	51° 65	S
18	51° 08	50° 05	49° 32	48° 73	48° 40	S	48° 92	49° 62	50° 48	51° 30	51° 65	51° 55
19	51° 04	S	S	48° 68	48° 40	48° 50	48° 93	49° 67	50° 46	51° 26	S	51° 53
20	51° 03	50° 03	49° 25	48° 65	48° 40	48° 48	48° 95	S	50° 52	51° 25	51° 60	51° 59
21	51° 00	50° 00	49° 23	48° 64	S	48° 54	48° 96	49° 72	50° 55	51° 25	51° 63	51° 52
22	S	50° 00	49° 22	48° 60	48° 40	48° 54	49° 00	49° 74	50° 57	S	51° 65	51° 63
23	50° 88	49° 93	49° 19	S	48° 38	48° 60	S	49° 77	50° 56	51° 30	51° 63	51° 47
24	50° 90	49° 90	49° 15	48° 56	48° 40	48° 57	49° 05	49° 81	S	51° 39	51° 64	S
25	50° 86	49° 88	49° 13	48° 56	48° 40	S	49° 12	49° 78	50° 63	51° 34	51° 65	Christ. Day.
26	50° 80	S	S	48° 43	48° 43	48° 58	49° 07	49° 85	50° 70	51° 35	S	51° 43
27	50° 81	49° 83	49° 08	48° 54	48° 39	48° 58	49° 08	S	50° 75	51° 40	51° 64	51° 40
28	50° 77	49° 80	49° 08	48° 60	S	48° 60	49° 10	49° 93	50° 72	51° 44	51° 67	51° 38
29	S	49° 05	S	48° 50	48° 38	48° 62	49° 14	49° 94	50° 74	S	51° 69	51° 36
30	50° 77	49° 03	S	48° 40	48° 63	S	49° 95	50° 74	51° 49	51° 65	51° 37	S
31	50° 73	49° 00		48° 40	49° 18	49° 97	49° 97		51° 50			

The letter S denotes that the day was Sunday.

January 13, April 14 and 26, October 14, and November 10, the instrument was not read.

February 6, March 7, July 5, October 2, the readings seem to be too low.

October 17, the reading is too high by 0° 5.

From 1846, April, to 1847, December, this thermometer was read every two hours, night and day (excepting on Sundays and a few other days). During that interval of time, the monthly mean of the readings at noon was found in twelve instances to be greater by 0° 01 than the monthly mean of all the observations; in one instance the excess was 0° 02, and in another it amounted to 0° 03. In all the remaining cases, the means of the noon observations agreed precisely with the means of all the observations.

READINGS OF THERMOMETERS SUNK IN THE GROUND

(II.)—Reading of a Thermometer whose bulb is sunk to the depth of 12·8 feet (12 French feet) below the surface of the soil, at Noon on every Day generally, except Sundays.

Days of the Month, 1854.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	°	°	°	°	°	°	°	°	°	°	°	°
2	S	46·48	45·80	45·65	46·90	48·44	50·24	52·60	54·50	S	54·40	51·95
3	48·94	46·40	45·78	S	47·03	48·48	S	52·70	54·65	55·45	54·30	51·84
4	48·35	46·50	45·74	45·67	47·06	48·56	50·46	52·73	S	55·45	54·15	S
5	48·70	46·38	45·72	45·68	47·12	S	50·56	52·80	54·65	55·40	54·06	51·60
6	48·64	S	S	45·68	47·15	48·67	50·63	52·90	54·68	55·48	S	51·60
7	48·48	46·34	45·64	45·68	47·17	48·70	50·72	S	54·77	55·38	54·00	51·43
8	48·55	46·38	45·63	45·68	S	48·78	50·80	53·15	54·68	55·35	53·91	51·32
9	S	46·30	45·63	45·70	47·27	48·86	50·88	53·25	54·85	S	53·85	51·25
10	48·22	46·30	45·72	S	47·27	48·90	S	53·38	54·91	55·40	53·75	51·15
11	48·14	46·42	45·57	45·76	47·30	48·95	51·04	53·45	S	55·35	Not	S
12	47·97	46·28	45·54	45·78	47·33	S	51·14	53·57	55·02	55·31	53·65	50·96
13	47·88	S	S	45·80	47·38	49·08	51·16	53·62	55·06	55·24	S	50·85
14	Not.	46·28	45·62	45·87	47·44	49·14	51·25	S	55·01	55·25	53·40	50·79
15	47·65	46·23	45·47	Good Friday.	S	49·20	51·38	53·77	55·08	Not	53·40	50·75
16	S	46·37	45·46	45·95	47·48	49·26	51·47	53·78	55·15	S	53·35	50·68
17	47·47	46·20	45·47	S	47·54	49·26	S	53·81	55·20	55·15	53·21	50·55
18	47·38	46·33	45·47	46·08	47·56	49·40	51·55	53·85	S	55·12	53·20	S
19	47·30	46·18	45·40	46·22	47·58	S	51·64	53·92	55·28	55·06	53·10	50·32
20	47·18	S	S	46·18	47·66	49·53	51·70	54·02	55·25	55·03	S	50·25
21	46·98	46·18	45·47	46·25	47·70	49·54	51·75	S	55·32	55·05	52·85	50·17
22	47·05	46·15	45·47	46·30	S	49·64	51·83	54·07	55·33	54·94	52·81	50·10
23	S	46·25	45·48	46·35	47·76	49·67	51·90	54·10	55·35	S	52·75	50·10
24	46·87	46·06	45·55	S	47·80	49·86	S	54·15	55·34	54·92	52·60	49·90
25	46·78	46·03	45·54	46·42	47·82	49·84	52·03	54·22	S	54·85	52·55	S
26	46·70	45·97	45·57	46·54	47·92	S	52·18	54·20	55·40	54·75	52·46	Christ. Day.
27	46·68	S	S	Not.	48·12	49·92	52·12	54·28	55·48	54·71	S	49·66
28	46·66	45·90	45·50	46·66	48·10	49·97	52·15	S	55·34	54·67	52·28	49·56
29	46·60	45·87	45·57	46·83	S	50·07	52·25	54·43	55·47	54·65	52·25	49·50
30	S	45·66	45·77	46·78	48·15	50·15	52·35	54·42	55·45	S	52·19	49·44
31	46·64	45·77	S	45·60	48·27	50·20	S	54·47	55·44	54·59	52·05	49·42

The letter S denotes that the day was Sunday.

January 13, April 14 and 26, October 14, and November 10, the instrument was not read.

January 3. The reading seems to be too low by 0°.5

January 6. The reading seems to be too low.

February 3, 10, and 22. The readings seem to be a little too high.

From 1846, April, to 1847, December, this thermometer was read at every two hours, night and day (excepting Sundays and a few other days). During that interval of time, the monthly mean reading at noon was found to be of the same value in three cases as the monthly mean of all the readings; in five cases it was in excess by 0°.01; in seven cases the excess amounted to 0°.02; in four cases to 0°.03; and in one case to 0°.04.

(III.)—Reading of a Thermometer whose bulb is sunk to the depth of 6·4 feet (6 French feet) below the surface of the soil, at Noon on every Day generally, except Sundays.

Days of the Month, 1854.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	S	43·90	43·33	45·00	48·77	51·60	54·98	58·80	59·20	S	53·40	48·50
2	44·36	44·00	43·40	S	48·70	51·58	S	59·00	59·25	58·10	53·30	48·35
3	44·10	44·22	43·46	45·20	48·70	51·68	55·28	59·10	S	58·00	53·12	S
4	43·84	44·00	43·45	45·35	48·58	S	55·30	59·20	59·00	57·80	53·04	48·08
5	43·78	S	S	45·50	48·65	51·90	55·30	59·10	58·95	57·70	S	48·10
6	43·60	44·38	43·30	45·67	48·58	51·92	55·44	S	59·00	57·60	53·00	47·98
7	43·57	44·32	43·40	45·82	S	52·00	55·30	59·60	58·95	57·30	52·87	47·94

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

Days of the Month, 1854.	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
8	S	44°30	43°40	46°00	48°82	52°10	55°57	58°80	59°30	S	52°80	47°91
9	42°12	44°38	43°61	S	48°90	52°18	S	58°70	58°95	57°20	52°60	47°80
10	43°00	44°50	43°38	46°30	49°00	52°27	55°64	58°75	S	57°08	52°30	S
11	42°80	44°48	43°58	46°50	49°08	S	55°70	58°80	58°00	56°95	52°30	47°60
12	42°80	S	S	46°68	49°12	52°37	55°68	58°65	58°00	56°82	S	47°50
13	42°80	44°37	44°02	46°88	49°18	52°45	55°78	S	58°00	56°80	51°78	47°35
14	42°75	44°28	44°10	Good Friday.	S	52°58	55°84	58°80	57°90	S	51°63	47°25
15	S	44°25	44°28	47°10	49°37	52°66	55°88	58°83	57°90	S	51°50	47°15
16	42°70	44°03	44°40	S	49°48	52°66	S	58°85	57°80	56°30	51°20	47°00
17	42°77	44°02	44°58	47°50	49°64	52°90	55°80	58°87	S	56°20	51°10	S
18	42°77	43°80	44°70	47°78	49°80	S	55°98	58°87	58°00	56°10	50°92	47°08
19	42°80	S	S	47°90	50°00	53°10	56°00	58°92	58°00	55°81	S	47°10
20	42°92	43°62	44°90	48°05	50°28	53°18	56°12	S	58°00	55°95	50°53	47°10
21	43°10	43°50	44°87	48°20	S	53°38	56°30	58°85	58°20	55°50	50°46	47°00
22	S	43°60	44°98	48°32	50°52	53°50	56°35	58°80	59°23	S	50°31	46°90
23	43°31	43°37	44°90	S	50°70	53°70	S	58°80	59°20	55°09	50°67	46°65
24	43°42	43°30	44°90	48°70	50°88	53°72	56°90	58°83	S	54°97	49°95	S
25	43°49	43°37	44°88	48°88	51°00	S	57°25	58°80	59°10	54°75	49°75	Christ. Day
26	43°58	S	S	48°88	51°10	54°00	57°40	58°83	58°80	54°60	S	46°52
27	43°55	43°42	44°90	48°90	51°20	54°20	57°50	S	58°88	54°42	49°30	46°52
28	43°68	43°45	44°90	48°92	S	54°50	57°90	58°90	58°80	54°30	49°15	46°52
29	S	S	44°84	48°80	51°38	54°74	58°00	59°00	58°70	S	48°93	46°50
30	43°82	S	44°70	S	51°48	54°80	S	59°10	58°30	53°90	48°68	46°40
31	43°90	S	44°90	S	51°58	58°40	59°15	S	53°70	S		

The letter S denotes that the day was Sunday.

January 13, April 14 and 26, October 14, and November 10, the instrument was not read.

September 6, 12. The readings seem to be too high.

From 1846, April, to 1847, December, this thermometer was read at every two hours, night and day (excepting on Sundays and a few other days). During that interval of time, the monthly mean reading at noon was found to be higher than the monthly mean reading, as found from all the observations, by $0^{\circ}03$.

(IV.)—Reading of a Thermometer whose bulb is sunk to the depth of 3·2 feet (3 French feet) below the surface of the soil, at Noon on every Day generally, except Sundays.

Day of the Month, 1854.	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	S	42°60	40°70	44°38	48°28	53°22	58°45	63°40	63°20	S	50°91	43°85
2	38°00	42°97	40°60	S	48°30	53°40	S	63°40	63°10	57°33	51°10	43°91
3	37°88	42°97	40°60	45°30	48°48	53°70	58°30	62°80	S	57°28	51°10	S
4	37°67	42°32	40°56	45°70	48°70	S	58°40	62°40	62°90	57°00	51°00	43°80
5	37°45	S	S	45°80	49°00	53°70	58°50	61°70	62°80	56°88	S	44°15
6	37°38	41°68	40°45	46°00	49°27	53°80	58°60	S	62°65	56°82	50°60	44°25
7	37°52	42°18	40°48	46°40	S	53°90	58°48	60°60	62°50	56°88	50°20	44°12
8	S	42°70	40°60	46°78	49°60	53°80	58°30	60°50	62°20	S	49°70	43°80
9	37°40	42°65	41°32	S	49°60	53°80	S	60°50	62°20	56°55	49°40	43°55
10	37°55	42°45	42°00	47°50	49°50	53°95	58°40	60°59	S	56°53	S	S
11	37°65	41°84	42°85	47°80	49°47	S	58°42	60°87	61°90	56°70	48°39	43°30
12	37°77	S	S	47°88	49°68	54°38	58°28	60°92	61°68	56°60	S	42°73
13	41°08	43°63	48°10	49°90	S	54°70	58°22	S	61°01	56°18	47°88	42°60
14	38°12	40°70	43°76	Good Friday.	S	54°88	58°02	61°50	61°48	S	47°65	42°60
15	S	40°43	44°05	48°67	50°80	54°90	58°10	61°80	61°53	S	47°48	43°30
16	38°50	40°10	44°20	S	51°40	54°90	S	61°61	61°45	54°70	47°11	44°00
17	38°78	40°02	44°50	49°00	51°90	55°38	58°44	61°45	S	54°50	47°20	S
18	39°35	39°95	44°40	49°40	52°10	S	58°90	61°12	61°80	54°12	47°10	44°12
19	40°10	S	S	49°48	52°44	55°70	59°20	60°90	61°60	53°75	S	43°80
20	40°30	39°40	43°84	49°80	52°40	56°10	59°70	S	61°60	53°30	46°35	43°35
21	40°48	39°40	43°40	50°48	S	56°10	60°17	61°20	61°30	53°00	46°32	42°90
22	S	39°95	43°18	50°90	52°98	56°10	60°60	61°40	60°80	S	46°10	42°72
23	40°88	40°00	42°97	S	53°17	56°50	S	61°40	60°00	52°80	45°70	43°00
24	40°90	40°38	43°08	50°38	53°20	57°10	61°85	61°35	S	52°50	45°30	S

(exl)

READINGS OF THERMOMETERS SUNK IN THE GROUND, AND CHANGES OF THE WIND,

(IV.)—Reading of a Thermometer whose bulb is sunk to the depth of 3 French feet—*continued.*

Day of the Month, 1854.	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
25	40°88	40°47	42°97	49°70	53°20	S	62°72	61°28	59°34	<i>Not</i>	44°80	Christ Day.
26	40°88	S	S	<i>Not</i>	53°30	58°40	63°20	61°32	59°20	51°63	S	43°60
27	40°88	40°70	42°80	49°00	53°37	58°90	63°58	S	58°82	51°10	44°09	43°50
28	40°97	40°67	43°10	48°93	S	58°88	63°70	61°72	58°58	50°80	43°80	43°10
29	S	43°40	48°65	53°08	58°78	63°55	62°30	58°35	S	43°70	42°48	
30	41°68	43°08	S	52°97	58°60	S	62°80	58°12	50°49	43°90	42°00	
31	42°25	44°03		53°00	63°40	63°08			50°65	S		

The letter *S* denotes that the day was Sunday.

January 13, April 14 and 26, October 14, and November 10, the instrument was not read.

From 1846, April, to 1847, December, this thermometer was read at every two hours, night and day (excepting Sundays and a few other days). During that interval of time, the monthly mean reading at noon, in the months from April to September, was found to be 0°.08 higher than the mean of the same months from all the observations, and in the remaining months the excess was 0°.03.

(V.)—Reading of a Thermometer whose bulb is sunk to the depth of one inch below the surface of the soil, within the case which covers the tops of the deep-sunk Thermometers, at Noon on every Day generally, except Sundays.

Day of the Month, 1854.	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	S	47°8	40°8	49°8	51°0	59°8	58°0	66°0	65°2	S	52°0	42°0
2	33°5	43°5	41°8	S	51°0	56°0	S	65°0	64°8	56°0	53°0	42°5
3	29°0	37°5	39°8	51°0	54°0	55°5	63°0	62°2	S	58°5	50°0	S
4	35°0	38°8	40°0	48°8	53°0	S	63°0	58°2	65°5	55°0	47°0	46°0
5	35°5	S	S	31°0	53°0	56°0	61°5	58°5	66°0	61°0	S	47°0
6	34°5	48°0	38°0	51°5	51°0	53°8	62°5	S	63°5	58°0	47°5	45°0
7	37°4	48°8	38°3	51°5	S	55°0	60°7	61°0	66°0	54°8	45°0	42°0
8	S	43°3	48°0	54°8	53°0	56°0	59°8	63°5	63°2	S	46°0	42°0
9	39°0	43°5	51°8	S	49°5	56°5	S	64°8	63°0	57°0	43°0	44°0
10	38°0	39°6	49°8	50°5	50°5	58°0	63°0	64°2	S	58°0	<i>Not</i>	S
11	37°0	39°0	49°8	62°5	52°0	S	60°0	64°5	60°2	57°5	46°5	39°0
12	37°0	S	S	51°6	53°0	59°0	58°0	65°5	63°0	53°0	S	41°5
13	<i>Not</i>	38°0	50°0	53°8	53°0	58°5	59°0	S	65°0	48°0	42°4	43°0
14	39°7	36°0	50°0	Good Friday.	S	59°5	61°0	68°0	64°8	<i>Not</i>	43°5	48°5
15	S	40°3	48°8	53°0	59°0	59°0	61°5	64°8	63°0	S	45°0	49°0
16	41°0	38°0	49°8	S	57°0	59°0	S	61°4	66°5	51°0	48°0	47°0
17	44°5	42°5	46°0	53°8	53°0	61°0	63°8	62°5	S	50°0	45°0	S
18	46°5	38°0	45°8	53°0	55°0	S	65°8	60°5	62°5	50°0	44°0	42°5
19	40°8	S	S	58°0	53°0	60°0	65°5	70°8	63°0	47°0	S	38°0
20	43°0	39°8	40°5	60°0	58°0	58°0	65°5	S	64°8	52°0	43°0	41°5
21	43°0	41°0	43°0	61°0	S	60°7	66°5	66°0	58°0	50°0	41°0	38°0
22	S	41°8	43°0	54°0	57°0	63°5	68°8	63°8	56°0	S	42°0	48°0
23	43°5	41°8	44°5	S	55°0	68°0	S	63°0	58°0	50°0	39°0	43°0
24	43°6	41°5	45°0	48°0	57°0	65°4	73°0	65°5	S	49°0	38°5	S
25	49°7	44°0	43°4	48°0	57°5	S	75°0	63°0	57°0	<i>Not</i>	39°0	Christ Day
26	43°0	S	S	<i>Not</i>	56°5	66°6	70°7	61°7	56°5	47°0	S	43°0
27	43°5	43°0	44°8	31°0	55°0	63°0	67°5	S	58°5	45°0	35°0	40°8
28	46°0	44°0	47°0	48°2	S	62°8	67°8	72°5	58°0	52°0	40°0	38°0
29	S	47°8	48°0	48°0	53°0	63°0	66°5	69°5	55°8	S	45°0	39°0
30	48°8	48°2	S	54°8	60°0	S	69°0	55°0	54°0	42°0	43°0	
31	48°6	48°2	48°2	57°8		68°0	69°2			55°0	S	

The letter *S* denotes that the day was Sunday.

January 13, April 14 and 26, October 14, and November 10, the instrument was not read.

(VI.)—Reading of a Thermometer within the case covering the deep-sunk Thermometers, whose bulb is placed on a level with the scales of the deep-sunk Thermometers, at Noon on every Day generally, except Sundays.

Day of the Month, 1854.	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	S	49°8	50°0	62°5	54°0	68°5	56°0	67°8	71°3	S	55°0	44°2
2	33°0	43°0	50°8	S	54°5	55°0	S	70°5	73°0	63°5	53°0	42°0
3	27°5	33°5	48°5	57°5	58°0	58°0	66°5	59°4	S	63°0	51°5	S
4	32°0	41°7	47°5	56°0	60°5	S	67°5	54°8	76°8	58°5	46°8	48°0
5	34°0	S	S	60°5	58°0	61°5	60°0	56°0	73°5	69°5	S	50°0
6	32°0	54°5	40°5	61°0	54°4	57°0	65°2	S	72°7	59°5	49°5	42°5
7	37°8	53°0	38°0	63°0	S	56°8	63°0	63°8	73°5	56°0	46°0	40°5
8	S	44°8	53°5	65°0	57°8	59°8	63°0	69°0	70°5	S	46°0	47°2
9	38°5	44°0	58°5	S	51°0	59°0	S	71°6	69°0	61°5	42°5	42°0
10	39°2	42°2	53°0	53°0	56°8	63°0	65°5	65°8	S	63°8	S	S
11	36°5	39°5	56°5	63°0	56°0	S	65°0	72°5	69°0	58°0	47°0	37°5
12	36°0	S	S	59°0	60°8	61°0	56°5	68°5	77°2	56°5	S	41°0
13	S	35°5	61°5	59°0	60°0	62°0	62°0	S	69°0	53°0	43°5	44°0
14	43°0	39°5	51°8	Good Friday.	S	66°5	62°5	74°5	67°0	S	40°5	52°0
15	S	39°5	54°5	64°8	66°5	63°0	65°7	69°3	68°8	S	47°6	53°0
16	43°5	38°5	51°5	S	60°7	63°0	S	63°0	71°0	53°0	49°0	44°0
17	47°0	46°7	51°5	58°5	64°4	66°5	69°8	63°8	S	53°5	44°0	S
18	47°5	39°5	51°5	63°5	55°8	S	73°0	64°0	66°0	50°0	41°0	38°0
19	37°8	S	S	71°0	63°0	64°5	71°0	74°8	63°5	47°5	S	34°0
20	48°2	45°0	39°0	73°0	67°5	59°2	71°0	S	70°0	53°0	41°5	42°7
21	48°8	49°0	44°8	69°5	S	66°3	74°0	70°8	61°0	53°0	39°2	38°5
22	S	45°5	46°0	50°0	58°5	69°0	81°0	68°7	60°4	S	39°5	51°5
23	46°0	46°5	45°0	S	58°0	72°8	S	68°5	59°8	55°0	39°5	43°5
24	45°0	46°4	45°8	49°5	59°5	73°0	82°0	72°5	S	52°5	37°3	S
25	43°5	48°0	44°8	50°0	60°0	S	88°5	69°2	61°5	S	38°0	Christ. Day
26	48°5	S	S	S	60°0	67°0	74°5	68°8	65°0	50°5	S	43°8
27	45°8	50°8	47°0	54°8	54°2	64°5	68°5	S	67°0	51°5	30°0	39°0
28	47°5	49°2	53°5	49°8	S	64°8	71°5	79°8	68°2	50°5	41°0	36°8
29	S	S	57°0	51°5	52°0	65°5	73°0	78°5	63°0	S	46°5	37°5
30	51°7	S	51°5	S	66°6	65°0	S	81°2	60°7	62°0	43°0	44°5
31	51°3	S	56°0	S	63°0	73°0	79°0	S	66°0	S	S	S

The letter *S* denotes that the day was Sunday.

January 13, April 14 and 26, October 14, and November 10, the instrument was not read.

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.

- ^{d h}
 1853. Dec. 31. 12. The direction of the wind was W.S.W.
 1854. Jan. 31. 12. , , S.S.W., which implies apparent retrograde motion of 45°.
 Jan. 4. 22. The trace was shifted to the second set of lines downwards, which implies apparent direct motion of 720°.
 Jan. 11. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360°.
 Jan. 12. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360°.
 Jan. 14. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360°.
 Jan. 16. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360°.
 Jan. 18. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360°.
 Jan. 19. 22. The trace was shifted to the second set of lines downwards, which implies apparent direct motion of 720°.
 Jan. 21. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360°.
 Jan. 24. 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 1035°.

- ^{d h}
 1854. Jan. 31. 12. The direction of the wind was S.S.W.
 Feb. 28. 12. , , S.E., which implies apparent retrograde motion of 67½°.
 Feb. 11. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360°.
 Feb. 13. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360°.
 Feb. 21. 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 February was 292½°.

CHANGES IN THE DIRECTION OF THE WIND

CHANGES IN THE DIRECTION OF THE WIND—*continued.*

1854. Feb. ^{d h} 28. 12. The direction of the wind was S.E.
 March 31. 12. , , S.S.W., which implies apparent direct motion of $67\frac{1}{2}^\circ$.
 March 0. 22. The trace was shifted to the second set of lines downwards, which implies apparent direct motion of 720° .
 March 2. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360° .
 March 3. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 March 5. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 March 17. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 March 18. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 March 19. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360° .
 March 24. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 March 26. 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 $2227\frac{1}{2}^\circ$.

1854. March ^{d h} 31. 12. The direction of the wind was S.S.W.
 April 30. 12. , , S.W., which implies apparent direct motion of $22\frac{1}{2}^\circ$.
 April 2. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 April 3. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 April 4. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 April 7. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 April 10. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360° .
 April 13. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360° .
 April 16. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360° .
 April 20. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 April 22. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360° .
 April 26. 22. The trace was shifted to the next set of lines downwards which implies apparent direct motion of 360° .
 April 27. 22. The trace was shifted to the second set of lines upwards, which implies apparent retrograde motion of 720° .
 April 29. 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 April was $382\frac{1}{2}^\circ$.

1854. April ^{d h} 30. 12. The direction of the wind was S.W.
 May 31. 12. , , E.N.E., which implies apparent retrograde motion of $157\frac{1}{2}^\circ$.
 May 9. 22. The trace was shifted to the second set of lines upwards, which implies apparent retrograde motion of 720° .
 May 10. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 May 11. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360° .
 May 13. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 May 15. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360° .
 May 16. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360° .
 May 18. 22. The trace was shifted to the second set of lines upwards, which implies apparent retrograde motion of 720° .
 May 19. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 May 20. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360° .
 May 30. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .

Therefore the whole excess of retrograde motion in the month of May was $1597\frac{1}{2}^\circ$.

1854. May ^{d h} 31. 12. The direction of the wind was E.N.E.
 June 30. 12. , , S.W., which implies apparent direct motion of $157\frac{1}{2}^\circ$.
 June 0. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360° .
 June 4. 22. The trace was shifted to the second set of lines upwards, which implies apparent retrograde motion of 720° .
 June 8. 9 $\frac{1}{2}$. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 June 10. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 June 16. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 June 28. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360° .

Therefore the whole excess of retrograde motion in the month of June was $202\frac{1}{2}^\circ$.

CHANGES IN THE DIRECTION OF THE WIND—*concluded.*

1854. June ^{d h} 30. 12. The direction of the wind was S.W.
 July 31. 12. ,, S., which implies apparent retrograde motion of 45° .
 July 0. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 July 1. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 July 2. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 July 8. 22. The trace was shifted to the second set of lines downwards, which implies apparent direct motion of 720° .
 July 9. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360° .
 July 10. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360° .
 July 20. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 July 23. 22. The trace was shifted to the second set of lines upwards, which implies apparent retrograde motion of 720° .
 July 24. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 July 26. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 July 28. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 July 29. 22. The trace was shifted to the second set of lines downwards, which implies apparent direct motion of 720° .

Therefore the whole excess of direct motion in the month of July was 2475° .

1854. July ^{d h} 31. 12. The direction of the wind was S.
 August 31. 12. ,, E., which implies apparent direct motion of 270° .
 August 8. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 August 28. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 August 29. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 August 30. 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 August was 1710° .

1854. August ^{d h} 31. 12. The direction of the wind was E.
 Sept. 30. 12. ,, N., which implies apparent retrograde motion of 90° .
 Sept. 1. 22. The trace was shifted to the second set of lines upwards, which implies apparent retrograde motion of 720° .
 Sept. 3. 22. The trace was shifted to the second set of lines upwards, which implies apparent retrograde motion of 720° .
 Sept. 7. 22. The trace was shifted to the second set of lines upwards, which implies apparent retrograde motion of 720° .
 Sept. 9. 22. The trace was shifted to the second set of lines upwards, which implies apparent retrograde motion of 720° .
 Sept. 10. 22. The trace was shifted to the second set of lines upwards, which implies apparent retrograde motion of 720° .
 Sept. 11. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .
 Sept. 28. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .

Therefore the whole excess of retrograde motion in the month of September was 2970° .

1854. Sept. ^{d h} 30. 12. The direction of the wind was N.
 Oct. 31. 12. ,, S.W., which implies apparent retrograde motion of 225° .
 Oct. 6. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360° .
 Oct. 7. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360° .
 Oct. 8. 22. The trace was shifted to the second set of lines downwards, which implies apparent direct motion of 720° .
 Oct. 11. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360° .
 Oct. 17. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360° .
 Oct. 22. 22. The trace was shifted to the second set of lines downwards, which implies apparent direct motion of 720° .
 Oct. 25. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360° .

Therefore the whole excess of retrograde motion in the month of October was 585° .

1854. Oct. 31. 12. The direction of the wind was S.W.
 Nov. 30. 12. ,, W., which implies apparent direct motion of 45° .
 Nov. 13. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360° .
 Nov. 16. 23. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360° .
 Nov. 26. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360° .

Therefore the whole excess of retrograde motion in the month of November was 315° .

1854. Nov. ^{d h} 30. 12. The direction of the wind was W.
 Dec. 31. 12. ,, W., which implies no change.

Therefore the whole excess of direct motion to the end of the year was $2452\frac{1}{2}^\circ$.

AMOUNT OF RAIN COLLECTED IN EACH MONTH OF THE YEAR 1854.

AMOUNT OF RAIN COLLECTED IN EACH MONTH OF THE YEAR 1854.

1854. 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	0.9	1.7	1.3	1.4
February	0.3	1.1	0.9	1.2
March	0.3	0.4	0.4	0.3
April	0.3	0.5	0.6	0.6
May	2.5	3.2	3.0	3.5
June	0.3	0.9	0.7	0.9
July	0.9	1.5	1.3	1.8
August	1.9	2.9	2.7	2.6
September	0.3	0.7	...	1.0
October	1.4	1.7	...	2.4
November	0.8	1.3	...	1.9
December	0.6	1.0	1.2	1.4
Sums	10.6	16.9	...	19.0

Crosley's rain-gauge was out of order in the months of September, October, and November.