



A P P E N D I X.

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ROYAL OBSERVATORY, GREENWICH.

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R E S U L T S

OF

MAGNETICAL AND METEOROLOGICAL

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

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1851.



ROYAL OBSERVATORY, GREENWICH.

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INDICATIONS

OF

MAGNETOMETERS.

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1851.

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 1851, 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 9, February 6, 17, April 5, 9, May 8, June 2, July 10, 15, August 18, 21, 29, October 16, November 12, 20, and December 4.

Observations of the angle of torsion of the HORIZONTAL FORCE MAGNETOMETER were made on 1850, December 26, and 1851, January 8. The angle determined was  $42^{\circ}.58'$ . Observations were made for the times of vibration and readings of the scale for different readings of the torsion-circle on 1850, December 26, and 1851, January 8; 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  $144^{\circ}.30'$  (marked end West); and  $229^{\circ}.48'$  (marked end East). The reading adopted for the adjustment of the torsion-circle throughout the year (marked end West) is  $144^{\circ}.30'$ .

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  $0.002056$ .

The correction for temperature is  $0.0000809(t-32) + 0.00000762(t-32)^2$ , 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 two, three, or four times a week. The adopted time of vibration till February 28 was  $21^s.78$ ; from March 1 to April 14,  $21^s.39$ ; from April 15 to October 9,  $21^s.52$ ; and from October 10 to December 31,  $20^s.71$ .

Observations for the time of vibration in a horizontal plane were made in 1848, July, and the time was found to be  $24^s.0164$  from 7000 vibrations. The values of the disturbing force, in terms of the whole vertical force, for one division of the scale, are inferred to be  $0.000747$  till February 28;  $0.000775$  from March 1 to April 14;  $0.000766$  from April 15 to October 9; and  $0.000827$  from October 10 to the end of the year; and these numbers are used in their respective periods.

The correction for temperature is  $0.00013845 \times (t-32) + 0.000004054 \times (t-32)^2$ . This is *not* applied to any of the results of observation.

The methods adopted in the use of the Photographic Apparatus, in the determinations 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 two preceding volumes has still occasionally been felt, though perhaps less frequently. Occasionally, without any apparent 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

this displacement is accompanied with 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 of 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. To combine these dislocated parts, a small machine has been prepared, by means of which a piece of tracing-paper can be slid, parallel to itself, in the direction of the ordinates; and the various portions of the curve are traced on this paper in such a manner that their ends are properly joined. This traced curve is then used for the measure of the ordinates. I conceive that these measures, for a single sheet, are perfectly and accurately comparable: although it is evident that the results on one sheet cannot always be compared with those on another.

In order, however, to enable the reader precisely to see the nature and amount of these dislocations, and if necessary to use the Photographic readings in their uncorrected state, a Table is placed at the end of the "Indications," shewing the time when each dislocation occurred, and the quantity which must be applied algebraically to the printed numbers following the dislocation, in order to produce the numbers as they would be read at once from the Photographic Sheets. And, as the same general system of retracing had been used in the years 1848, 1849, 1850, similar tables are given for these years.

It is worthy of remark that nearly all the dislocations in the morning hours are in one direction, and those in the afternoon hours are in the opposite direction.

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.

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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.	Göttingen Mean Solar Time.	Readings of Thermometers.		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.	Göttingen Mean Solar Time.	Readings of Thermometers.																																															
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.																																														
Jan. 1 1. 2 4. 52 5. 38 6. 40 7. 48 10. 5 11. 0 23. 55	22. 25. 30 25. 0 15. 0 25. 15 20. 0 18. 45 21. 0 21. 0	Jan. 1 1. 0 2. 45 3. 21 4. 41 5. 0 5. 35 5. 57 6. 13 6. 50 7. 5 7. 28 7. 49 10. 45 12. 29 12. 45 21. 27 22. 55 23. 57	*0975 *0967 *0972 *0967 *0972 *0956 *0957 *0966 *0962 *0956 *0962 *0953 *0980 *0973 *0977 *0980 *0969 *0968	Jan. 1 1. 0 3. 28 5. 12 11. 20 11. 50 17. 15 23. 28	*01640 *01534 *01419 *01543 *01708 *01874 *01853	h m s 1. 40 56 0 3. 40 58 0 9. 40 57 0 21. 50 53 0	o 58 0 59 0 58 5 54 0	Jan. 6 0. 30 4. 20 21. 45	22. 25. 40 20. 20 20. 10	Jan. 6 0. 37 4. 10 5. 8 18. 43 23. 27	*0980 *0985 *0979 *0991 *0982	Jan. 6 1. 0 5. 30 10. 15 21. 14	*01619 *01133 *01075 *01282	h m s 1. 40 45 5 3. 40 48 5 9. 40 50 0 21. 40 49 0	o 49 9 50 5 52 5 51 0	Jan. 7 0. 15 1. 40 4. 40 21. 45 23. 25	22. 22. 30 24. 20 20. 50 19. 40 21. 50	Jan. 7 3. 58 16. 0 19. 32 22. 9	*1064 *1066 *1075 *1060	Jan. 7 0. 0 2. 42 5. 30 11. 0 18. 30 23. 25	*01280 *01138 *01204 *01150 *01269 *01659	h m s 1. 40 3. 40 9. 40 21. 40	o 51 5 53 0 54 0 49 0	Jan. 8 0. 0 0. 22 0. 37 0. 41 0. 47 0. 54 5. 0 12. 0 23. 55	22. 25. 0 26. 0 24. 30 26. 40 24. 40 26. 40 21. 10 20. 20 25. 10	Jan. 8 1. 48 18. 3 21. 35 23. 55	*1057 *1085 *1081 *1061	Jan. 8 1. 30 5. 15 8. 15 12. 45 22. 40	*01705 *01242 *01189 *01475 *01330	h m s 1. 40 3. 40 9. 40 21. 40	o 52 0 57 0 54 0 45 0	Jan. 9 0. 15 5. 20 12. 26 13. 45 16. 20 23. 55	22. 24. 40 21. 10 19. 0 15. 10 21. 0 24. 0	Jan. 9 0. 26 5. 15 11. 55 12. 22 12. 39 13. 19 23. 54	*1059 *1055 *1067 *1073 *1068 *1075 *1064	Jan. 9 0. 30 3. 30 4. 55 7. 12 12. 30 22. 40	*01675 *01430 *01189 *01164 *01498 *01475	h m s 1. 40 3. 40 9. 40 21. 40	o 51 0 53 4 49 8 45 0	Jan. 10 0. 0 2. 5 5. 0 22. 30 23. 20	22. 23. 0 24. 40 21. 0 20. 0 22. 0	Jan. 10 0. 14 2. 49 3. 20 3. 58 23. 49	*1065 *** *1061 *1066 *1061 *1052	Jan. 10 0. 15 4. 25 6. 15 21. 0	*01568 *01130 *01178 *01190	h m s 1. 40 3. 40 9. 40 21. 40	o 48 0 51 0 54 4 53 0	Jan. 11 0. 25 11. 25 23. 15	22. 23. 0 18. 10 20. 10	Jan. 11 0. 25 8. 53 10. 22 23. 58	*1056 *** *1050 *1056 *1048	Jan. 11 0. 30 3. 30 6. 0 8. 0 18. 0 23. 20	*01183 *01240 *01250 *01235 *01453 *01573	h m s 1. 40 3. 40 9. 40 23. 15	o 54 0 57 0 56 0 52 5	Jan. 12 0. 0	22. 21. 10	Jan. 12 0. 0	*1046	Jan. 12 0. 0	*01585	h m s 11. 15	o 52 0 54 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 to several times near that which is recorded.

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.	Göttingen Mean Solar Time.	Readings of Thermometers.		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.	Göttingen Mean Solar Time.	Readings of Thermometers.																					
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.																				
Jan. 12 2. 45 12. 22 13. 3 14. 45 15. 30 22. 0 23. 45	22. 23. 10 21. 0 19. 0 22. 10 20. 10 19. 0 23. 0	Jan. 12 12. 0 12. 31 13. 22 15. 3 22. 38 23. 18	.1059 .1063 .1058 .1063 .1052 .1045	Jan. 12 3. 25 11. 30 15. 0 22. 30	.01593 .01445 .01475 .01598	21. 40 50. 0 52. 0			Jan. 16 3. 28 3. 53 4. 10 4. 20 6. 34 6. 47 7. 22 7. 40 7. 45 7. 55 8. 15 8. 25 8. 30 8. 57 9. 8 9. 15 9. 34 9. 45 9. 50 10. 3 10. 27 10. 50 10. 58 11. 28 11. 40 11. 45 11. 54 12. 15 12. 25 13. 33 13. 45 14. 4 14. 28 14. 55 15. 50 17. 10 17. 15 17. 40 17. 57 18. 17 23. 55	22. 30. 0 22. 50 25. 30 22. 40 23. 50 28. 10 19. 10 22. 10 17. 10 31. 20 26. 0 29. 20 21. 0 29. 0 19. 10 22. 40 11. 30 6. 10 19. 50 10. 10 17. 0 10. 10 12. 30 6. 10 22. 14. 30 21. 45. 0 21. 43. 0 22. 19. 0 10. 0 16. 30 9. 10 18. 0 3. 20 19. 10 15. 0 22. 0 14. 10 21. 20 23. 23	Jan. 16 2. 57 3. 13 3. 28 3. 39 4. 25 4. 58 5. 36 5. 42 6. 28 6. 47 7. 0 8. 44 9. 48 10. 0 10. 10 11. 14 11. 46 11. 57 12. 4 12. 43 13. 29 13. 36 13. 48 14. 12 14. 35 14. 57 15. 20 16. 0 17. 12 17. 18 17. 29 17. 43 17. 48 18. 14 18. 40 23. 55	.1075 .1062 .1075 .1048 .1078 .1061 .1069 .1064 .1068 .1099 .1075 .1031 .1040 .1024 .1043 .1014 .1061 .1029 .1069 .0990 .1025 .1006 .1028 .1005 .1018 .1003 .1035 .1017 .1029 .1014 .1026 .1026 .1013 .1054 .1035 .1039	Jan. 16 15. 40 23. 30	.01129 .01232	Jan. 16 15. 40 23. 30		Jan. 17 0. 43 6. 0 23. 10 23. 55	22. 23. 20 21. 0 20. 50 24. 40	Jan. 17 0. 30 3. 30 4. 44 6. 10 7. 22	.1036 *** .1038 .1050 .1030	Jan. 17 0. 40 3. 30 4. 44 6. 10 15. 0	.01471 .01259 .01398 .01348 .01545	Jan. 17 1. 40 3. 40 9. 40 21. 40	.052. 0 .053. 0 .054. 0 .052. 0 .051. 5 .053. 0 .055. 0 .051. 0 .045. 8 .050. 4 .055. 0 .052. 5 .052. 0													
Jan. 13 1. 5 2. 15 5. 0 13. 43 14. 0 15. 28 22. 10 23. 55	22. 25. 20 25. 50 21. 20 19. 50 18. 0 19. 30 18. 40 23. 0	Jan. 13 1. 12 5. 27 6. 58 8. 2 23. 45	.1047 .1062 .1057 .1067 .1054	Jan. 13 1. 0 5. 0 7. 30 18. 0 23. 0	.01555 .01354 .01288 .01480 .01618	1. 40 3. 40 9. 40 21. 40	53. 0 54. 0 52. 5 49. 0	54. 0 55. 0 54. 0 49. 8	Jan. 14 0. 24 5. 25 6. 0 6. 29 9. 27 10. 27 10. 42 11. 0 11. 30 12. 5 23. 55	22. 23. 40 21. 50 24. 10 23. 10 22. 0 19. 50 18. 50 20. 30 18. 0 20. 0 23. 00	Jan. 14 0. 25 4. 30 5. 5 5. 54 6. 13 10. 28 10. 56 11. 18 20. 48 23. 57	.1048 .1055 .1048 .1054 .1049 .1055 .1067 .1062 .1069 .1056	Jan. 14 0. 30 3. 25 7. 0 12. 0 15. 30 23. 0	.01575 .01463 .01262 .01455 .01509 .01470	1. 40 3. 40 9. 40 21. 40	52. 0 53. 0 50. 0 48. 0 45. 8	53. 0 54. 0 52. 0 51. 5	Jan. 15 0. 15 5. 30 6. 0 10. 55 11. 40 12. 17 12. 50 13. 23 14. 11 17. 55 22. 30 23. 55	22. 23. 20 20. 30 19. 10 19. 50 17. 0 18. 50 17. 30 19. 30 16. 20 19. 20 20. 30 24. 30	Jan. 15 0. 30 7. 19 7. 43 8. 50 12. 50 13. 39 14. 3 14. 24 15. 30 16. 0 21. 23 23. 30	.1056 .1068 .1064 .1069 .1058 .1074 .1057 .1070 .1064 .1071 .1073 .1058	Jan. 15 0. 30 5. 0 8. 45 14. 0 19. 0 23. 30	.01719 .01328 .01178 .01255 .01435 .01718	1. 40 3. 40 9. 40 21. 40	52. 0 54. 0 50. 0 45. 8	53. 0 55. 0 51. 0 45. 8	Jan. 16 0. 20 1. 40 1. 43 1. 58 2. 58 3. 10	22. 26. 20 22. 40 25. 20 15. 30 30. 50 27. 30	Jan. 16 0. 30 1. 37 1. 44 1. 57	.1054 .1050 .1075 *** .1042 ***	Jan. 16 0. 35 4. 0 7. 0 7. 45 11. 30 11. 55	.01708 .01427 .01165 .01310 .01190 .01319	1. 40 3. 40 9. 40 21. 40	49. 0 54. 0 52. 0 49. 5	50. 4 55. 0 52. 5 52. 0	Jan. 17 1. 40 3. 40 9. 40 21. 40	.052. 0 .053. 0 .054. 0 .052. 0

For the Horizontal and Vertical Forces, increasing readings denote increasing forces.  
 January 7. The times throughout this day are somewhat doubtful.



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							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.																						
		Jan. 17 7.26	*1049 ***	Jan. 17 17.40 23.0	*01779 *01695				Jan. 19 15.30 16.30	22.20.30 23.40 ***	Jan. 19 15.39 16.57 17.8	*1037 *1053 *1066																											
		14.15 19.30 21.52 23.20	*1048 *1054 *1050 *1030						17.30 17.45 18.13 18.35 18.45 19.8 19.40 20.0 20.28 21.3 21.18	26.30 35.10 47.20 23.30 27.40 20.0 28.30 34.30 17.30 25.0 ***	17.45 18.12 *1055 *1062 *1051 *1091 *1045 *1065 *1024 *1028 *0985 *1009 *0991 *1010 *0935 *0987 *0980 *1012																												
Jan. 18		Jan. 18		Jan. 18					21.55 22.13 22.50 23.20 23.30 23.45 23.53 23.58	22.0 28.40 *** 21.30 40.30 35.20 41.40 30.0 41.30	19.0 19.48 20.32 21.35 22.35 22.40 22.58 23.0 23.15 23.16 23.31 23.47 23.50 23.59	*1033 *** *1034 *1026 *1036 *1054 *** *1064 *1062 *1034 *1045 *1036 *1042 *1036 *** *1036 *1034	1.0 3.50 5.53 9.32 15.30 23.30	*01725 *01527 *01205 *01132 *01354 *01635	1.40 3.40 9.40 22.40	48.0 53.0 49.5 46.5	48.8 54.0 51.5 49.0	Jan. 18	0.32 0.48 1.3 1.13 1.53 3.0 4.50 5.18 5.53 21.30 22.14 23.28	22.23.0 24.10 23.40 26.40 *** 25.0 27.40 20.10 19.10 22.20 19.0 20.10 *** 20.0 22.29 22.32 22.39 22.41 22.43 23.20 23.29																			
		Jan. 18		Jan. 19					Jan. 20	22.34.30 40.30 *** 29.20 39.20 33.30 39.0 2.12 2.18 2.50 3.0 3.17 3.32 4.3 4.13 4.23 4.38 4.45 5.3 5.30 7.33 8.0 9.0 10.18 10.54 11.30	0.18 1.4 2.3 2.38 2.57 3.4 3.27 3.40 4.11 *** 5.13 *** 9.22 10.32 10.52 11.36 11.57 20.27 21.56 23.30 19.0 17.20 18.30 19.30 11.0 18.50	Jan. 20	0.0 1.0 1.27 1.40 1.55 2.10 2.38 3.35 5.0 7.0 11.30 17.0 23.55	*1024 *0971 *1047 *1017 *1039 *1019 *1037 *1016 *1028 *** *1018 *** *1037 *1036 *1064 *1035 *1040 *1040 *1032 *1014	1.40 3.40 9.40 21.40	47.0 51.0 51.0 51.8	48.0 52.0 51.0	Jan. 19	0.0 3.13 3.55 4.30 5.13 6.30 7.23 7.52 9.40 10.18 10.45 11.2 11.38 12.10 13.6 13.24 13.54 14.15 14.43 15.0	22.22.40 *** 25.10 19.30 20.30 18.30 22.30 17.10 20.10 17.10 14.10 20.30 17.50 31.0 10.30 15.10 13.0 17.20 16.10 18.0 14.30	Jan. 19	0.0 1.37 2.30 3.25 4.30 5.5 9.6 9.30 10.2 10.12 10.42 11.15 11.21 11.48 12.30 13.16	*1046 *1043 *1048 *1041 *1055 *1047 *1055 *1078 *1056 *1068 *1058 *1071 *1059 *1089 *1022 *1063 *** *1047 *** *1056 ***	0.0 2.30 6.0 9.15 11.15 11.45 12.30 16.30 18.25 23.10	*01650 *01669 *01425 *01274 *01295 *01185 *01275 *01500 *01448 *01620	9.40 21.40	48.0 44.0	49.5 46.0	Jan. 19	0.0 3.13 3.55 4.30 5.13 6.30 7.23 7.52 9.40 10.18 10.45 11.2 11.38 12.10 13.6 13.24 13.54 14.15 14.43 15.0	22.22.40 *** 25.10 19.30 20.30 18.30 22.30 17.10 20.10 17.10 14.10 20.30 17.50 31.0 10.30 15.10 13.0 17.20 16.10 18.0 14.30	Jan. 19	0.0 1.37 2.30 3.25 4.30 5.5 9.6 9.30 10.2 10.12 10.42 11.15 11.21 11.48 12.30 13.16	*1046 *1043 *1048 *1041 *1055 *1047 *1055 *1078 *1056 *1068 *1058 *1071 *1059 *1089 *1022 *1063 *** *1047 *** *1056 ***	0.0 2.30 6.0 9.15 11.15 11.45 12.30 16.30 18.25 23.10	*01650 *01669 *01425 *01274 *01295 *01185 *01275 *01500 *01448 *01620	9.40 21.40	48.0 44.0	49.5 46.0

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol \*\*\* denotes that the magnet has been generally in a state of agitation. The Symbol † denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally to several times near that which is recorded.

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							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
Jan. 20 11. 47 12. 43 23. 55	22. 15. 40 20. 20 23. 20																
Jan. 21 0. 15 6. 43 7. 18 7. 54 8. 15 9. 46 10. 5 10. 12 10. 16 10. 43 11. 20 12. 20 13. 25 14. 30 15. 15 16. 7 23. 52	22. 24. 20 16. 0 24. 30 16. 30 18. 20 21. 19. 0 21. 59 30 22. 9. 20 6. 20 14. 30 0. 20 19. 30 9. 30 21. 40 12. 50 18. 20 26. 0	Jan. 21 0. 30 3. 30 4. 10 4. 30 5. 3 6. 37 6. 52 7. 52 9. 13 9. 57 10. 12 10. 19 10. 28 10. 58 12. 25 13. 14 13. 57 14. 15 15. 3 17. 58 21. 20 21. 42 21. 49 23. 53	*1016 *** *1017 *1023 *1013 *1022 *** *1009 *1023 *** *1010 *** *1018 *1000 *1054 *1036 *1045 *1014 *** *1003 *1036 *** *1035 *1025 *** *1046 *1059 *1058 *1053 *1061 *1048	Jan. 21 1. 0 6. 20 8. 57 10. 4 10. 45 15. 45 22. 10 23. 55	*01250 *01380 *01613 *01650 *** *01550 *01590 *01525 *01570		1. 40 55 057 0 3. 40 56 057 0 9. 40 53 556 5 21. 40 46 549 5										
Jan. 22 0. 0 4. 40 5. 30 6. 0 7. 5 7. 43 7. 50 8. 43 10. 23 12. 28 12. 43 12. 55 13. 48 16. 13	22. 25. 20 21. 40 25. 0 24. 10 27. 0 23. 0 25. 0 20. 10 12. 0 16. 30 19. 30 15. 40 12. 0 17. 30	Jan. 22 1. 0 1. 53 4. 42 *** 7. 40 7. 49 8. 12 9. 12 9. 57 10. 28 11. 0 12. 50	*1028 *1035 *1015 *** *1018 *1030 *** *1019 *1024 *1042 *** *1038 *1028 *1032	Jan. 22 1. 0 5. 8 8. 0 13. 10 14. 35 22. 10 23. 50	*01750 *01278 *01280 *01480 *01545 *01452 *** *01500		1. 40 49 051 0 3. 40 54 055 0 9. 40 50 050 8 21. 40 43 047 0										
Jan. 22 11. 47 12. 43 23. 55	22. 15. 40 20. 20 23. 20																
Jan. 22 16. 50 18. 48 23. 45	22. 19. 30 18. 40 22. 40																
Jan. 22 13. 16 13. 30 13. 41 14. 27 16. 39 17. 33 18. 55 21. 47 22. 8 23. 50			*1053 *1056 *1047 *1035 *1054 *1048 *1056 *1050 *1060 *1039														
Jan. 23 1. 0 2. 11 3. 0 5. 0 5. 48 6. 25 7. 58 8. 10 10. 25 10. 45 10. 53 11. 5 11. 13 11. 35 12. 10 13. 5 15. 27 16. 35 23. 55	22. 24. 40 27. 30 21. 40 22. 30 18. 50 17. 0 20. 30 17. 20 16. 0 16. 50 14. 30 16. 30 11. 30 21. 50 16. 30 14. 30 21. 0 19. 20 22. 30	Jan. 23 1. 10 2. 8 4. 0 6. 7 9. 0 9. 45 11. 25 11. 45 10. 21 10. 34 10. 39 10. 58 11. 7 11. 21 11. 42 13. 13 16. 20 20. 0 23. 40	*1028 *1015 *1026 *** *1008 *** *1043 *1036 *1035 *1043 *1040 *1053 *1047 *1082 *1052 *1034 *1050 *1057 *1043	Jan. 23 1. 15 3. 35 6. 20 9. 0 9. 45 11. 25 11. 45 15. 35 18. 30 22. 55	*01620 *01258 *01275 *** *01205 *01370 *01430 *01419 *01772 *01715 *01637		1. 40 49 049 0 3. 40 55 055 0 9. 40 51 554 0 21. 40 40 040 0										
Jan. 24 1. 0 3. 30 4. 0 4. 30 4. 45 9. 47 10. 47	22. 23. 50 20. 30 22. 30 20. 40 21. 10 17. 0 19. 30	Jan. 24 1. 0 3. 30 11. 50 12. 30 17. 36 20. 35 22. 37 22. 48 23. 40	*1030 *1024 *1045 *1041 *1057 *1059 *1055 *1043 *1037	Jan. 24 1. 15 3. 0 5. 25 6. 10 10. 0 16. 0 18. 45 22. 30	*01642 *01508 *01125 *01128 *01050 *01378 *01648 *01621		1. 40 45 046 0 3. 40 50 050 0 9. 40 48 049 0 21. 40 40 040 0										
Jan. 25 0. 0 1. 45 6. 30 9. 35 9. 55 10. 10 10. 55	22. 21. 30 26. 10 20. 0 19. 30 17. 30 12. 30 19. 10	Jan. 25 1. 0 8. 10 9. 12 9. 58 10. 23 10. 50 12. 54	*1026 *1048 *1042 *1044 *1058 *1048 *1047	Jan. 25 0. 0 2. 0 4. 35 6. 0 11. 15 13. 0 13. 30	*01639 *01545 *01090 *01110 *01045 *01085 *01071		1. 40 45 046 0 3. 40 50 051 0 9. 40 49 049 0 23. 6 40 041 0										

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 Thermometers.		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 Thermometers.			
						Of H. F. Magnet.	Of V. F. Magnet.							Of H. F. Magnet.	Of V. F. Magnet.		
Jan. 25 12. 47 13. 0 13. 37 13. 50 14. 40 15. 0 15. 47 16. 10 16. 37 23. 4	22. 18. 0 20. 50 12. 30 11. 30 17. 30 15. 0 18. 0 17. 30 19. 20 20. 0	Jan. 25 13. 12 13. 33 14. 27 15. 10 20. 20 20. 44 23. 20	*1060 *1048 *1037 *1050 *1063 *1052 *1055	Jan. 25 22. 30	*01584			Jan. 28 13. 17 14. 0 21. 0 23. 59	22. 21. 10 20. 10 23. 50 21. 0	Jan. 28 10. 20 19. 32 20. 27 21. 10 23. 50	*1030 *1048 *1033 *1038 *1010						
Jan. 26 0. 0 2. 0 7. 48 7. 58 8. 47 10. 22 10. 46 11. 7 13. 7 16. 5 16. 39 21. 56 23. 59	22. 21. 40 23. 20 20. 0 12. 40 21. 30 17. 55 20. 50 18. 40 20. 10 18. 10 22. 10 20. 0 24. 0	Jan. 26 0. 0 6. 24 7. 0 7. 38 8. 0 8. 52 9. 20 10. 0 10. 23 19. 0 23. 55	*1055 *1060 *1056 *1058 *1050 *1058 *1052 *1062 *1056 *1063 *1044	Jan. 26 0. 0 2. 20 5. 40 7. 45 9. 15 22. 0	*01638 *01728 *01545 *01390 *01342 *01282	12. 0 21. 40	44. 0 43. 0	44. 8 44. 0	Jan. 29 0. 15 4. 15 7. 30 8. 15 8. 43 9. 0 9. 15 9. 53 10. 30 11. 0 12. 30 12. 50 13. 15 23. 55	22. 22. 30 20. 50 19. 20 13. 10 17. 0 12. 30 14. 30 9. 20 16. 30 14. 30 18. 50 18. 0 20. 0 23. 0	Jan. 29 1. 0 2. 30 4. 10 6. 5 7. 20 7. 28 7. 30 7. 34 7. 50 8. 42 9. 0 9. 20 9. 50 10. 40 11. 5 19. 0 23. 30	*1012 *1018 *1009 *1025 *1023 *1028 *1024 *1027 *1019 *1024 *1033 *1022 *1029 *1018 *1015 *1039 *1024	Jan. 29 0. 5 4. 55 6. 0 7. 45 19. 26 22. 15	*01933 *01412 *01460 *01362 *01970 *01904	1. 40 3. 40 9. 40 21. 40	55. 0 57. 0 54. 0 47. 0	56. 0 58. 0 59. 0 48. 0
Jan. 27 1. 20 4. 50 6. 0 11. 13 11. 43 12. 30 14. 37 15. 0 16. 0 17. 0 23. 59	22. 24. 40 22. 30 20. 10 18. 30 20. 20 18. 0 19. 20 25. 30 19. 20 17. 50 24. 30	Jan. 27 1. 20 1. 43 3. 49 7. 20 8. 0 11. 20 11. 46 12. 45 13. 26 14. 32 14. 46 15. 29 19. 22 23. 30	*1040 *1031 *1015 *1032 *1026 *1044 *1040 *1047 *1042 *1044 *1039 *1048 *1053 *1034	Jan. 27 1. 30 4. 45 5. 35 13. 0 16. 0 20. 30 22. 0 23. 15	*01228 *01393 *01370 *01848 *01770 *01819 *01770 *01810	1. 40 3. 40 9. 40 21. 40	49. 0 55. 0 52. 0 52. 5	49. 9 55. 0 57. 0 52. 5	Jan. 30 0. 25 6. 30 23. 55	22. 24. 40 19. 10 20. 10	Jan. 30 1. 0 12. 0 18. 30 23. 30	*1020 *1041 *1051 *1028	Jan. 30 1. 0 5. 20 7. 30 15. 0 18. 30 20. 45 23. 0	*01948 *01440 *01370 *01700 *01630 *01689 *01648	1. 40 3. 40 9. 40 21. 40	50. 0 56. 0 50. 0 44. 0	51. 0 56. 0 50. 8 51. 0
Jan. 28 0. 15 4. 0 6. 30 7. 10 8. 15 8. 27 8. 45 9. 30 12. 44	22. 23. 20 20. 50 19. 0 23. 10 15. 50 18. 30 11. 30 17. 40 18. 30	Jan. 28 0. 10 5. 40 6. 27 7. 10 7. 58 8. 29 8. 41 8. 52 9. 21	*1024 *1024 *1016 *1024 *1017 *1032 *1018 *1027 *1020	Jan. 28 0. 30 3. 38 5. 10 16. 0 23. 0	*01853 *01370 *01312 *01823 *01841	1. 40 3. 40 9. 40 21. 47	52. 0 56. 0 53. 0 51. 0	53. 0 57. 0 54. 0 51. 0	Feb. 1 0. 35 4. 0 6. 30 6. 40 7. 26 8. 28	22. 23. 20 *** 21. 40 21. 30 19. 40 27. 50 12. 20	Feb. 1 0. 58 2. 30 3. 14 5. 48 6. 32 6. 43 7. 2	*1031 *1036 *1015 *1038 *1020 *1031 *1014	Feb. 1 0. 30 4. 15 6. 10 17. 15 21. 0	*01674 *01292 *01371 *01892 *01900	1. 40 3. 40 9. 40 23. 10	50. 0 54. 0 50. 0 44. 0	51. 0 55. 0 52. 0 51. 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 to several times near that which is recorded.

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.	Göttingen Mean Solar Time.	Readings of Thermometers.		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.	Göttingen Mean Solar Time.	Readings of Thermometers.	
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
Feb. 1 9. 5 9. 50 10. 25 10. 35 11. 17 11. 55 14. 28 16. 0 16. 36 23. 28	22. 24. 50 19. 40 21. 20 24. 10 14. 0 17. 50 20. 50 16. 0 19. 30 21. 0	Feb. 1 7. 12 7. 35 7. 49 8. 9 8. 18 8. 33 8. 47 9. 1 9. 38 10. 28 10. 50 11. 22 *** 14. 50 15. 20 16. 10 19. 0 23. 30	*1023 *1023 *1013 *1022 *1011 *1025 *1018 *1027 *1015 *1034 *1020 *1033 *** *1036 *1050 *1042 *1050 *1042	Feb. 1													
Feb. 2 0. 0 1. 45 3. 30 20. 30 23. 59	22. 22. 0 23. 40 21. 50 19. 50 *** 23. 30	Feb. 2 0. 0 1. 30 *** 2. 0 *** 7. 0 17. 0 19. 0 *** 21. 45 21. 53 22. 32 23. 50	*1041 *1050 *** *1052 *** *1054 *** *1064 *1065 *** *1060 *1074 *1058 *1040	Feb. 2 0. 0 3. 30 8. 30 13. 20 18. 0 20. 30 22. 30	*01835 *01888 *01770 *01842 *01762 *01800 *01670	9. 30 21. 40	44. 5 40. 0	51. 0 52. 0	Feb. 2 0. 43 4. 30 14. 5 15. 14 23. 59	22. 26. 0 19. 20 17. 20 21. 30 21. 20	Feb. 2 0. 45 2. 57 3. 7 7. 30 11. 38 13. 0 13. 8 14. 0 14. 27 18. 0 20. 0 23. 30	*1007 *1014 *1009 *1034 *1064 *1039 *1047 *1046 *1039 *1052 *1050 *1029	Feb. 2 0. 30 3. 49 5. 30 6. 25 8. 0 14. 35 18. 30 22. 10	*01720 *01395 *01348 *01372 *01320 *01890 *01841 *01810	1. 40 3. 40 9. 40 21. 40	52. 0 56. 0 52. 0 43. 0	53. 0 57. 0 56. 0 48. 0
Feb. 3 1. 5 1. 30 2. 0 3. 45 23. 55	22. 27. 0 28. 20 26. 50 21. 20 23. 0	Feb. 3 1. 0 3. 45 4. 0 17. 50 21. 40 21. 44 23. 55	*1030 *1037 *1031 *1058 *1051 *1056 *1042	Feb. 3 1. 15 2. 50 6. 15 10. 0 22. 50	*01483 *01210 *01330 *01230 *01842	1. 40 3. 40 9. 40 21. 40	49. 0 53. 0 50. 0 45. 0	50. 0 54. 0 51. 0 46. 0	Feb. 3 7. 28 8. 0 23. 55	22. 22. 50 20. 0 19. 30 15. 0 19. 20 23. 0	Feb. 3 1. 0 6. 30 6. 45 7. 0 7. 20 7. 30 8. 15 14. 0 19. 0 23. 30	*1019 *1046 *1041 *1044 *1038 *1045 *1048 *** *1049 *1046 *1027	Feb. 3 0. 35 4. 50 6. 20 8. 30 20. 30	*01800 *01250 *01331 *01260 *01320	1. 40 3. 40 9. 40 21. 45	47. 0 53. 0 52. 0 52. 0	48. 0 54. 0 54. 0 53. 0
Feb. 4 0. 50 3. 15 23. 55	22. 23. 40 19. 30 21. 10	Feb. 4 1. 0 3. 45 4. 0 16. 45 20. 50 23. 30	*1043 *1038 *1030 *1054 *1054 *1032	Feb. 4 1. 0 5. 30 6. 25 8. 0 15. 25 21. 15	*01840 *01273 *01348 *01267 *01855 *01900	1. 40 3. 40 9. 40 21. 40	49. 0 54. 0 50. 0 45. 0	50. 0 55. 0 56. 0 46. 0	Feb. 4 0. 53 6. 0 23. 15	22. 24. 20 19. 50 20. 0	Feb. 4 1. 0 3. 57 8. 5 8. 28 8. 30 13. 30 13. 40	*1012 *1038 *1027 *1020 *1040 *1044 *1049	Feb. 4 1. 0 12. 30 18. 35 20. 25 22. 15	*01370 *01858 *01818 *01828 *01740	1. 40 3. 40 9. 40 23. 0	55. 0 59. 0 52. 0 44. 0	57. 0 59. 0 58. 5 49. 8

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.	Göttingen Mean Solar Time.	Readings of Thermometers.		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.	Göttingen Mean Solar Time.	Readings of Thermometers.		
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.	
		Feb. 8 18.45 21.30 23.30	.1058 .1050 .1036															
Feb. 9 0.0 0.20 0.47 1.52 4.0 4.40 5.18 6.0 8.25 8.45 9.25 10.30 10.48 12.52 14.10 14.40 15.23 15.55 16.15 23.55	22.23.50 *** 26.40 24.0 27.30 *** 27.20 25.0 27.50 23.40 22.30 11.0 17.0 18.20 14.20 *** 9.30 18.10 12.40 11.30 14.0 12.0 21.40	Feb. 9 0.0 0.28 0.46 3.50 5.0 5.42 7.50 8.14 8.27 8.45 9.0 11.30 12.6 12.50 14.45 21.59 23.30	.1035 .1038 .1030 .1052 .1050 .1039 .1034 .1041 .1044 .1020 .1038 *** .1038 .1052 .1029 .1044 .1052 .1040	Feb. 9 0.0 1.30 8.15 20.30	.01874 .01922 .01630 .01825		9.45 21.40	48.0 46.0	.048.0 .049.0									
Feb. 10 0.40 1.12 6.35 7.25 7.55 8.15 8.43 9.58 10.14 10.20 10.45 11.12 11.43 12.20 12.35 12.53 13.20 13.40 14.0 14.47 15.10 15.45	22.27.40 24.30 25.30 20.50 20.30 17.20 20.20 10.30 14.40 13.20 16.30 7.40 5.10 20.10 15.20 20.30 8.20 13.30 9.30 14.40 14.0 17.40	Feb. 10 1.6 3.11 4.30 5.25 6.0 6.23 6.52 7.35 8.1 9.40 10.56 11.29 11.38 12.0 12.28 12.47 13.8 13.31 14.0 15.30 15.59 16.29	.1040 .1033 .1026 .1032 .1030 .1035 .1028 .1039 .1030 .1048 .1016 .1040 .1021 .1052 .1019 .1046 .1032 .1049 .1024 .1029 .1055 .1060	Feb. 10 0.30 4.10 6.15 8.0 11.25 13.5 17.10 21.50	.01690 .01290 .01365 .01300 .01430 .01437 .01845 .01820		1.40 3.40 9.40 21.40	50.0 55.0 51.5 44.0	.055.0 .057.0 .056.5 .048.0									
		Feb. 10 16.35 17.12 17.37 23.55	.1037 .1046 .1050 .1018															
Feb. 11 0.7 0.37 7.30 7.52 8.13 10.0 23.59	22.27.30 23.40 21.40 19.30 23.40 20.0 25.30	Feb. 11 1.0 0.30 7.0 7.40 8.5 10.0 9.29 9.50 10.30 20.50 23.50	.1018 .1027 .1034 .1024 .1036 .1028 .1036 .1028 .1036 .1055 .1039															
Feb. 12 0.5 4.5 4.40 5.12 5.40 12.58 13.10 13.30 23.50	22.25.0 23.30 13.20 14.40 22.50 18.20 20.40 14.40 20.20	Feb. 12 0.28 1.28 1.43 3.2 4.0 4.32 5.26 5.50 7.55 8.20 8.48 9.6 11.27 12.50 13.42 14.30 20.20 23.45	.1026 .1023 .1034 .1024 .1026 .1009 .1031 .1024 .1030 .1018 .1034 .1027 .1039 .1031 .1044 .1032 .1042 .1032															
Feb. 13 0.0 21.30 22.0 22.28 11.15 23.55	22.21.40 20.10 19.20 21.20 19.40 21.0	Feb. 13 0.0 4.32 5.28 8.30 19.30 23.0	.1032 .1033 .1024 .1027 .1018 .1041 8.8 8.54 9.48 10.18 14.0 14.28															
		Feb. 10 17.4 17.26 21.40 23.40	.1037 .1046 .1050 .1018															
Feb. 11 0.30 1.50 3.50 5.30 6.28 8.30 9.29 9.50 10.30 20.50 23.50	0.30 .01145 .01115 .01200 .01195 6.28 8.30 9.29 9.50 10.30 20.50 23.50	Feb. 11 0.30 1.50 3.50 5.30 6.28 8.30 9.29 9.50 10.30 20.50 23.50	.01145 .01115 .01200 .01195 .01273 .01183 .01689 .01730															
Feb. 12 0.15 4.35 5.0 5.45 6.30 10.0 23.0	.01728 .01263 .01300 .01280 .01320 .01214 .01620	Feb. 12 0.15 4.35 5.0 5.45 6.30 10.0 23.0	.01728 .01263 .01300 .01280 .01320 .01214 .01620															
Feb. 13 0.0 21.30 22.0 22.28 11.15 23.55	.01595 .01280 .01315 .01248 .01839 .01870	Feb. 13 0.0 4.32 5.28 8.30 19.30 23.0	.01595 .01280 .01315 .01248 .01839 .01870															

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol \*\*\* denotes that the magnet 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 to several times near that which is recorded.

Göttingen Mean Solar Time. h m	Western Declination. ° ' "	Göttingen Mean Solar Time. h m	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time. h m	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time. h m	Readings of Thermometers.		Göttingen Mean Solar Time. h m	Western Declination. ° ' "	Göttingen Mean Solar Time. h m	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time. h m	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time. h m	Readings of Thermometers.	
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
		Feb. 13 15. 48 21. 25 23. 55	·1043 ·1045 ·1024														
Feb. 14 0. 0 10. 18 11. 0 11. 25 23. 55	22. 20. 50 20 10 17. 0 18. 10 16. 50 23. 30	Feb. 14 0. 0 0. 50 2. 12 5. 23 6. 51 8. 3 8. 38 9. 34 11. 12 12. 3 13. 8 21. 2 23. 58	·1025 ·1037 ·1029 ·1035 ·1033 ·1043 ·1033 ·1046 ·1036 ·1044 ·1043 ·1063 ·1036	Feb. 14 0. 0 5. 10 6. 27 9 0 15. 33 20. 0 23. 30	·01832 ·01297 ·01368 ·01280 ·01620 ·01528 ·01547	1. 40 3. 40 6. 40 21. 40	52. 0 55. 0 54. 0 45. 0	54. 0 57. 0 58. 5 47. 5									
Feb. 15 0. 30 5. 30 5. 55 6. 30 7. 30 7. 55 9. 10 9. 40 10. 12 10. 43 11. 0 11. 43 12. 5 13. 0 13. 53 14. 40 15. 0 16. 25 17. 43 23. 0	22. 24. 10 20. 30 19. 30 22. 10 20. 0 22. 30 19. 10 23. 30 18. 30 20. 40 18. 30 17. 0 20. 30 10. 0 17. 20 16. 0 18. 30 12. 30 19. 0 23. 20	Feb. 15 0. 32 5. 24 6. 27 7. 25 7. 49 8. 12 8. 30 8. 41 9. 17 9. 59 10. 30 10. 59 12. 4 12. 43 13. 6 14. 59 15. 45 16. 8 21. 21 21. 49 22. 28 22. 30 22. 40 23. 58	·1032 ·1027 ·1032 ·1025 ·1034 ·1029 ·1034 ·1030 ·1037 ·1020 ·1032 ·1024 ·1030 ·1018 ·1032 ·1039 ·1058 ·1050 ·1057 ·1052 ·1056 ·1049 ·1061 ·1057	Feb. 15 0. 30 4. 38 6. 45 9. 55 15. 57 23. 25	·01790 ·01280 ·01393 ·01273 ·01807 ·01615	1. 40 3. 40 9. 40 23. 10	48. 0 55. 0 53. 0 40. 5	51. 0 58. 0 55. 0 46. 5									
Feb. 16 0. 12 3. 50 4. 30 10. 15 10. 27 10. 55	22. 24. 40 24. 0 20. 0 19. 10 14. 40 19. 0	Feb. 16 0. 11 2. 47 3. 1 3. 47 4. 26 5. 48	·1060 ·1054 ·1046 ·1052 ·1045 ·1048	Feb. 16 0. 30 2. 0 7. 10 10. 30 18. 5 21. 30	·01590 ·01645 ·01219 ·01113 ·01662 ·01603	9. 40 21. 40	45. 5 37. 0	52. 0 46. 0									
		Feb. 16 11. 10 11. 37 12. 5 12. 30 23. 55	·1056 ·1044 ·1058 (+) ·1052 ·1051 ·1059 ·1050 ·1068 ·1051 ·1057 ·1070 (+) ·1074 ·1072 ·1045														
		Feb. 17 0. 7 4. 0 23. 55	·1045 ·1043 ·1046 ·1043 ·1047 ·1039 *** 1. 56 *** ·1040 ·1046 ·1039 ·1030 ·1045 ·1057 ·1048 ·1055 ·1029														
		Feb. 17 0. 10 1. 30 3. 15 6. 45 8. 55 19. 30 23. 55	·01525 ·01400 ·01193 ·01319 ·01197 ·01458 ·01362														
		Feb. 17 0. 44 0. 52 0. 59 1. 3 1. 12 1. 31 2. 38 3. 10 3. 36 5. 30 9. 0 19. 0 21. 45 23. 32 23. 55	·1045 ·1043 ·1046 ·1043 ·1047 ·1039 *** ·1040 ·1046 ·1039 ·1030 ·1045 ·1057 ·1048 ·1055 ·1029														
		Feb. 18 0. 50 3. 15 3. 47 4. 37 5. 33 6. 0 6. 30 8. 50 9. 28 12. 30 12. 45 12. 50 13. 15 13. 37	·1030 ·1029 ·1051 *** ·1046 *** ·1054 *** ·1028 ·1051 ·1035 *** ·1040 ***														
		Feb. 18 0. 30 4. 45 5. 40 5. 43 6. 35 7. 30 11. 30 14. 20 14. 48 15. 20 15. 36 16. 0 16. 10 16. 33	·01300 ·01414 ·01379 ·01465 ·01535 ·01510 ·01630 ·01495 ·01570 ·01443 ·01500 ·01558 ·01520 ·01590														

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



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.	Göttingen Mean Solar Time.	Readings of Thermometers.		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.	Göttingen Mean Solar Time.	Readings of Thermometers.		
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.	
Feb. 23 9. 30 10. 15 10. 37 10. 58 11. 20 11. 37 12. 28 23. 50	22. 16. 0 13. 20 16. 40 14. 20 16. 50 14. 20 21. 20 23. 20	Feb. 23 5. 58 6. 30 7. 2 9. 20 10. 32 11. 13 11. 28 11. 42 12. 0 12. 26 16. 26 16. 45 18. 15 20. 5 20. 28 20. 57 21. 50 23. 13 23. 49	.1059 .1054 .1062 .1055 .1032 .1045 .1038 .1043 .1038 .1055 .1038 .1043 .1037 .1048 .1032 .1052 .1048 .1022 .1025															
Feb. 24 1. 5 2. 12 3. 12 7. 25 8. 20 10. 5 11. 5 11. 24 13. 40 14. 17 15. 5 21. 13 21. 40 23. 55	22. 24. 10 28. 10 19. 50 25. 0 15. 10 12. 10 19. 40 17. 10 18. 20 23. 10 18. 0 21. 0 16. 30 25. 0	Feb. 24 1. 4 2. 10 2. 49 3. 36 4. 2 4. 31 8. 32 9. 50 10. 50 11. 10 11. 42 13. 4 14. 3 14. 38 16. 28 18. 30 19. 2 20. 13 22. 55 23. 12 23. 25 23. 40 23. 51	.1034 .1042 .1019 .1034 .1028 .1035 .1039 *** .1036 .1038 .1055 .1038 .1038 .1045 .1036 .1051 .1043 .1054 .1047 .1046 *** .1028 .1033 .1026 .1025 .1030	Feb. 24 1. 0 4. 20 9. 36 19. 50 23. 30	.01560 .01260 .01210 .01744 .01750	1. 40 3. 40 9. 40 21. 40	.50 .53 .53 .48	.52 .56 .56 .51										
Feb. 25 0. 20 4. 5 4. 40	22. 25. 50 24. 0 20. 50	Feb. 25 0. 18 0. 47 (+)	.1035 .1017 (+)	Feb. 25 0. 0 6. 30 7. 0	.01750 .01283 .01300	1. 40 3. 40 9. 40	.51 .54 .53	.52 .55 .55										
Feb. 25 8. 30 9. 0 9. 15 9. 30 10. 0 10. 35 10. 50 11. 12 14. 0 14. 20 14. 50 23. 55	22. 19. 40 16. 0 18. 0 16. 0 14. 10 22. 40 10. 40 19. 40 20. 30 17. 40 20. 20 23. 20	Feb. 25 1. 45 2. 14 3. 10 4. 5 4. 30 4. 47 5. 20 5. 44 6. 31 6. 51 7. 10 7. 32 8. 21 8. 31 8. 56 9. 29 9. 54 10. 20 10. 38 10. 53 10. 59 11. 36 12. 52 *** 17. 0 20. 14 23. 30	1025 1029 1017 1032 1023 1026 1021 1032 1002 1027 1023 1032 1029 1026 1013 1019 1006 1026 1010 1040 1034 1047 1029 *** 1039 1040 1027															
Feb. 26 0. 28 6. 0 18. 25 21. 35 23. 55	22. 24. 30 19. 0 21. 0 15. 20 24. 40	Feb. 26 0. 30 2. 31 5. 26 6. 30 8. 30 9. 39 13. 56 23. 0	1028 1032 *** 1029 *** 1020 1029 1023 1043 1057 1056 1046 1029 1025															
Feb. 27 1. 44 3. 40 9. 40 21. 40	22. 24. 37* 21. 10* 18. 39* 17. 35*	Feb. 27 1. 0 2. 25 4. 15 9. 33 18. 30 21. 52	1026 1044 1039 1051 1058 1051															
Feb. 25 12. 0 21. 0 21. 44 23. 38	.01220 .01750 .01735 .01737	Feb. 25 21. 40 48. 0 50. 0																
Feb. 26 0. 30 2. 31 5. 26 6. 30 8. 30 9. 39 13. 56 23. 0	.01730 .01600 .01231 .01210 .01220 .01273 .01700 .01573	1. 40 3. 40 9. 40 21. 40	.53 .49 .52 .42	.55 .52 .53 .45														
Feb. 27 0. 30 2. 25 4. 15 9. 33 18. 30 21. 52	.01221 .01073 .01184 .01120 .01667 .01600	1. 44 3. 40 9. 40 21. 40	.50 .53 .50 .43	.53 .55 .52 .46														

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



INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time. h m	Western Declination. o ' "	Göttingen Mean Solar Time. h m	Horizontal Force in parts of the whole H. F. uncorrected for Temperature. H. F.	Göttingen Mean Solar Time. h m	Vertical Force in parts of the whole V. F. uncorrected for Temperature. V. F.	Göttingen Mean Solar Time.		Readings of Thermometers.		Göttingen Mean Solar Time. h m	Western Declination. o ' "	Göttingen Mean Solar Time. h m	Horizontal Force in parts of the whole H. F. uncorrected for Temperature. H. F.	Göttingen Mean Solar Time. h m	Vertical Force in parts of the whole V. F. uncorrected for Temperature. V. F.	Göttingen Mean Solar Time.		Readings of Thermometers.																			
						h m	o ' "	Of H. F. Magnet.	Of V. F. Magnet.							h m	o ' "	Of H. F. Magnet.	Of V. F. Magnet.																		
Feb. 27 21. 45 22. 30 22. 48 23. 30		Feb. 27 21. 45 22. 30 22. 48 23. 30	·1044 ·1036 ·1033 ·1018	Feb. 27 23. 45	·01630	h m	o ' "			Mar. 1 11. 29 11. 47 12. 23 12. 30 12. 57 13. 14 13. 23 13. 46 20. 0 23. 18		h m																									
Feb. 28 0. 30 5. 30 6. 37 7. 17 9. 0 10. 30 10. 43 11. 0 11. 55 12. 37 13. 7 13. 40 14. 12 15. 5 16. 25 17. 15 17. 35 17. 50 23. 50	22. 25. 20 17. 40 18. 40 14. 30 16. 50 10. 30 13. 0 11. 30 20. 10 15. 0 19. 20 18. 0 23. 20 17. 20 29. 0 15. 50 20. 0 17. 30 24. 40	Feb. 28 0. 30 1. 56 2. 50 3. 26 4. 49 5. 1 5. 24 5. 50 6. 34 6. 54 7. 59 9. 55 10. 36 11. 0 11. 40 12. 20 12. 57 13. 24 15. 36 16. 15 17. 20 18. 3 18. 54 19. 28 22. 20 23. 30	·1020 *** ·1022 ·1029 ·1028 ·1019 ·1027 ·1023 ·1032 ·1027 ·1044 ·1038 ·1055 ·1040 ·1040 ·1054 ·1033 ·1052 *** ·1050 *** ·1063 ·1065 ·1033 ·1050 ·1042 *** ·1035 ·1024	Feb. 28 0. 30 1. 56 3. 55 4. 30 8. 30 10. 38 10. 50 17. 25 18. 0 22. 30	·01595 ·01442 ·01149 ·01163 ·01105 ·01150 ·01145 ·01519 ·01477 ·01570	1. 40 3. 40 9. 40 21. 45	50 53 49 42	·054 ·055 ·051 ·045	Mar. 2 0. 0 7. 15 7. 50 8. 35 9. 39 11. 50 13. 25 13. 50 14. 37 15. 25 15. 50 16. 12 23. 50	22. 20. 30 19. 30 10. 30 19. 40 12. 0 19. 0 14. 20 18. 50 14. 20 16. 30 15. 40 18. 10 24. 20	Mar. 2 0. 30	·1044 *** ·1048 ·1036 ·1048 ·1036 ·1048 ·1038 ·1047 ·1041 ·1042 ·1038 ·1041 ·1038 ·1048 ·1031 ·1046 ·1024 ·1039 ·1035 ·1051 ·1037 ·1046 ·1034 ·1021 ·1045 ·1049 ·1056 ·1041 ·1064 ·1046 ·1032 ·1050 ·1040	Mar. 2 0. 0 3. 15 9. 0 11. 0 17. 30 23. 0	·01555 ·01493 ·01021 ·00985 ·01318 ·01520	9. 40 21. 44	47 41	·048 ·044	·5 ·0	Mar. 3 0. 0 5. 25 6. 10 7. 52	22. 23. 40 21. 0 0. 0 18. 40	Mar. 3 0. 50 2. 17	·1019 ·1039 *** ·1040	Mar. 3 1. 0 2. 31 2. 55 3. 15	·01510 ·01400 ·01367 ·01345	1. 40 3. 40 9. 40 21. 40	45 48 50 44	·048 ·049 ·053 ·046	·0 ·0 ·0 ·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 to several times near that which is recorded.

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.	Göttingen Mean Solar Time.		Readings of Thermometers.		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.	Göttingen Mean Solar Time.		Readings of Thermometers.								
						h	m	Of H. F. Magnet.	Of V. F. Magnet.							h	m	Of H. F. Magnet.	Of V. F. Magnet.	h	m	Of H. F. Magnet.	Of V. F. Magnet.			
Mar. 3 9.30 10.5 11.20 23.45	22.15.30 20.40 17.40 25.20	Mar. 3 5.9 6.15 6.29 6.50 7.2 7.12 8.50 9.11 10.0 10.45 11.7 23.30	•1017 •1033 •1016 •1016 •1037 •1031 *** •1031 •1038 •1032 •1048 •1040 •1036	Mar. 3 5.33 6.20 6.28 7.10 10.45 22.30	•01050 •01074 •01067 •01093 •01000 •01420	h	m	o	o	Mar. 7 11.43 13.43 14.25 16.37 17.25 18.10 19.25 20.5 20.25 23.55	22.17.40 18.30 15.30 21.30 19.20 27.20 18.40 16.50 17.30 23.20	Mar. 7 3.40 3.52 *** 6.15 9.0 13.22 13.48 15.0 16.29 17.5 17.42 18.29 20.48 21.10 22.12 23.30	•1038 •1035 *** •1040 •1048 •1050 •1063 •1052 •1054 •1067 •1046 •1068 •1050 •1060 •1038 •1032	h	m	o	o	Mar. 8 0.45 6.45 22.55	22.26.30 19.30 20.0	Mar. 8 1.30 7.33 7.45 8.30 9.12 9.59 10.12 10.33 20.15 23.12	•1009 •1036 •1031 •1039 •1034 •1033 •1039 •1032 •1066 •1055	Mar. 8 1.30 3.15 4.10 6.33 9.32 13.50 19.0 23.55	•01440 •01205 •01250 •01178 •01283 •01582 •01480 •01345	1.40 3.40 9.40 23.10	55 56 54 45	•057 •059 •056 •048
Mar. 4 0.35 5.30 23.55	22.25.20 20.0 21.10	Mar. 4 0.40 5.0 10.30 18.0 23.20	•1034 •1019 •1033 •1040 •1039	Mar. 4 1.0 2.10 3.0 4.45 8.30 17.0 20.35 23.55	•01380 •01263 •01155 •01212 •01170 •01510 •01765 •01735	1.40 3.40 9.40 21.40	48 50 53 48	51 53 54 50	o 5 0 0	Mar. 8 0.45 6.45 22.55	22.26.30 19.30 20.0	Mar. 8 1.30 7.33 7.45 8.30 9.12 9.59 10.12 10.33 20.15 23.12	•1009 •1036 •1031 •1039 •1034 •1033 •1039 •1032 •1066 •1055	Mar. 8 1.30 3.15 4.10 6.33 9.32 13.50 19.0 23.55	•01440 •01205 •01250 •01178 •01283 •01582 •01480 •01345	1.40 3.40 9.40 23.10	55 56 54 45	•057 •059 •056 •048								
Mar. 5 0.35 6.30 19.7 21.40 23.55	22.22.40 19.30 20.30 16.20 21.50	Mar. 5 0.30 4.0 6.0 9.31 20.15 23.13 23.15 23.52	•1030 •1036 •1029 •1038 •1053 •1033 •1018 •1029	Mar. 5 0.25 2.53 9.31 14.0 19.10 22.8 23.55	•01712 •01573 •01145 •01266 •01716 •01634 •01678	1.44 3.40 9.40 21.40	51 54 54 44	53 55 56 47	o 0 0 0	Mar. 9 0.0 9.30 10.35 11.15 12.45 13.15 13.45 23.55	22.20.50 21.0 14.0 18.10 18.30 20.50 23.10	Mar. 9 1.0 4.28 5.3 6.44 7.42 8.35 9.59 10.29 19.0 20.30 22.30 23.30	•1049 •1048 •1058 •1039 •1042 •1034 •1050 •1046 •1056 •1055 •1042	Mar. 9 0.0 2.0 7.0 13.40 18.0 23.0	•01540 •01567 •01369 •01210 •01310 •01418	11.58 21.40	46 44	•049 •046								
Mar. 6 0.12 5.45 23.55	22.22.20 19.40 25.30	Mar. 6 0.30 4.0 *** 7.0 9.0 17.40 17.45 20.0 20.50 21.15 23.30	•1032 •1032 *** •1034 •1042 •1052 •1056 •1055 •1044 •1050 •1030	Mar. 6 0.5 2.30 7.0 7.25 9.24 15.0 21.10 23.30	•01671 •01595 •01110 •01113 •01073 •01272 •01642 •01632	1.40 3.40 9.48 21.40	48 51 50 45	50 54 51 48	o 0 0 0	Mar. 10 0.33 6.0 7.0 7.50 8.25 9.0 12.15	22.25.20 22.20 25.30 15.0 25.30 16.40 19.0	Mar. 10 0.32 1.18 1.22 4.3 4.50 5.30 5.47	•1031 •1030 •1042 •1031 •1042 •1028 •1038	Mar. 10 1.0 2.36 3.45 5.25 6.25 7.35 9.38	•01304 •01225 •01120 •01082 •01067 •01110 •01162	1.40 3.40 9.40 21.40	48 52 48 44	•051 •054 •051 •047								
Mar. 7 0.25 6.15 10.0 11.0	22.27.0 19.30 17.30 15.10	Mar. 7 1.0 1.30 1.47 3.29	•1029 •1032 •1025 •1030	Mar. 7 1.40 3.40 9.40 21.44	•01474* •01223* •01093* •01667*	1.40 3.40 9.40 21.44	50 52 52 46	54 54 54 49	o 0 0 0	Mar. 10 0.33 6.0 7.0 7.50 8.25 9.0 12.15	22.25.20 22.20 25.30 15.0 25.30 16.40 19.0	Mar. 10 0.32 1.18 1.22 4.3 4.50 5.30 5.47	•1031 •1030 •1042 •1031 •1042 •1028 •1038	Mar. 10 1.0 2.36 3.45 5.25 6.25 7.35 9.38	•01304 •01225 •01120 •01082 •01067 •01110 •01162	1.40 3.40 9.40 21.40	48 52 48 44	•051 •054 •051 •047								

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





INDICATIONS OF THE MAGNETOMETERS

Göttingen Mean Solar Time. h m	Western Declination. o / "	Göttingen Mean Solar Time. h m	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time. h m	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time. h m	Readings of Thermometers.		Göttingen Mean Solar Time. h m	Western Declination. o / "	Göttingen Mean Solar Time. h m	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time. h m	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time. h m	Readings of Thermometers.		
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.	
		Mar. 20 12. 17 12. 29 12. 44 16. 56 20. 25 21. 34 22. 1 23. 55	.1023 .1031 .1024 .1036 .1035 .1026 .1026 .1005															
Mar. 21 0. 25 6. 0 19. 0 21. 5 23. 55	22. 23. 20 19. 30 16. 30 12. 50 22. 20	Mar. 21 0. 30 2. 3 2. 20 2. 38 2. 53 3. 2 3. 9 4. 47 5. 9 5. 38 7. 17 7. 22 7. 34 7. 42 7. 50 9. 37 18. 8 20. 12 21. 0 23. 30	.1008 .1022 .1015 .1022 .1014 .1019 .1009 *** .1016 .1024 .1019 *** .1020 .1033 .1023 .1036 .1030 *** .1039 *** .1051 *** .1048 .1038 *** .1022	Mar. 21 0. 30 4. 10 5. 25 8. 0 15. 5 16. 0 19. 50 22. 6 23. 50	.01703 .01278 .01299 .01238 .01649 .01609 .01590 .01542 .01555	1. 40 3. 40 9. 40 21. 40	54. 0 54. 0 58. 0 49. 0	.0560 .0620 .0590 .0500	Mar. 21 0. 0 1. 0 6. 25 8. 0 9. 20 23. 55	22. 24. 10 27. 10 19. 0 17. 10 15. 30 24. 40	Mar. 23 0. 30 2. 27 4. 20 4. 41 5. 4 5. 32 6. 27 9. 47 18. 8 20. 11 21. 58 23. 30	.1026 .1027 *** .1027 .1015 .1014 .1026 .1032 .1036 .1042 .1036 .1020 .1009	Mar. 23 0. 0 6. 0 11. 0 17. 0 22. 35 23. 55	.01710 .01522 .01335 .01429 .01579 01524	12. 0 21. 40	50. 0 50. 0	.0540 .0520	
Mar. 22 0. 33 4. 5 4. 17 6. 40 11. 0 18. 30 19. 43 21. 20 23. 25	22. 24. 40 25. 40 22. 0 19. 30 15. 50 19. 0 18. 40 15. 30 22. 10	Mar. 22 1. 0 3. 12 3. 41 *** 4. 3 4. 11 5. 39 *** 7. 24 *** 8. 49 9. 11 9. 41 10. 56	.1020 .1020 .1027 *** .1022 .1026 .1019 *** .1030 *** .1030 .1040 .1048 .1024	Mar. 22 0. 33 6. 30 7. 45 9. 0 15. 27 21. 25 23. 30	.01735 .01429 .01442 .01418 .01765 .01748 .01722	1. 40 3. 40 9. 40 23. 10	54. 0 55. 0 53. 0 50. 0	.0560 .0570 .0540 .0530	Mar. 22 0. 20 2. 28 7. 25 9. 25 21. 44 23. 55	22. 25. 0 28. 0 20. 0 16. 40 13. 40 22. 20	Mar. 25 0. 30 5. 30 5. 50 *** 10. 28 10. 54 11. 20 11. 49 12. 20 12. 35 19. 35 20. 38 21. 18 23. 12 ***	.1030 .1030 .1034 *** .1042 .1039 .1045 .1040 .1040 .1046 *** .1048 .1026 .1029 .1000 ***	Mar. 25 0. 30 4. 25 5. 0 9. 0 17. 0 22. 45 23. 55	.01662 .01245 .01248 .01182 .01370 .01524 01480	1. 40 3. 40 9. 40 21. 40	54. 0 57. 0 57. 0 54. 0	.0560 .0590 .0570 .0560	
		Mar. 20 11. 10 11. 28 17. 42 19. 7 21. 42 23. 55	.1030 .1026 *** .1046 .1043 .1040 .1025															
		Mar. 23 0. 0 1. 0 6. 25 8. 0 9. 20 23. 55	.1026 .1027 *** .1027 .1015 .1014 .1026 .1032 .1036 .1042 .1036 .1020 .1009															
		Mar. 24 1. 0 7. 7 8. 15 8. 40 9. 55 10. 25 11. 10 14. 25 16. 20 23. 55	.1016 .1026 .1042 .1044 .1050 .1052 .1034 .1028															
		Mar. 25 0. 20 2. 28 7. 25 9. 25 21. 44 23. 55	.1030 .1030 .1034 *** .1042 .1039 .1045 .1040 .1040 .1046 *** .1048 .1026 .1029 .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 to several times near that which is recorded.

Göttingen Mean Solar Time. h m	Western Declination. ° ' "	Göttingen Mean Solar Time. h m	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time. h m	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermometers.		Göttingen Mean Solar Time. h m	Western Declination. ° ' "	Göttingen Mean Solar Time. h m	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time. h m	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermometers.		
						Of H. F. Magnet.	Of V. F. Magnet.							Of H. F. Magnet.	Of V. F. Magnet.	
		Mar. 25 23.45	.0998							Mar. 31 9.30 21.40	22.18.54* 14.51*	Mar. 31 9.30 21.40	.1032* 7.30 10.00 18.25 21.30 23.55	.10190 .01161 .01746 .01700 .01630	9.30 21.40	54.57 51.0
Mar. 26 0.30 7.30 19.30 21.25 23.50	22.24.50 20.10 17.10 13.30 24.30	Mar. 26 1.40 3.40 9.40 21.40	.1016* .1022* .1037* .1037*	Mar. 26 0.30 2.25 4.00 6.35 9.38 13.40 21.35	.01429 .01268 .01282 .01335 .01810 .01692	1.40 3.40 9.40 21.40	57.057.8 59.059.0 55.057.0 46.048.0	Apr. 1 1.40 3.40 9.40 21.40	22.30.12* 29.18* 18.49* 15.13*	Apr. 1 1.40 3.40 9.40 21.40	.1018* .1018* .1028* .1016*	0.30 3.5 7.30 8.45 16.50 21.51 23.25	.01585 .01272 .01303 .01278 .01838 .01763 .01797	1.40 3.40 9.40 21.40	54.56 60.62 58.561 50.53	
Mar. 27 0.17 7.40 13.37 14.45 18.30 22.30 23.55	22.26.10 21.20 18.0 17.0 17.30 21.0 28.20	Mar. 27 1.40 3.40 9.40 21.40	.1028* .1026* .1038* .1020*	Mar. 27 0.30 2.7 7.30 11.30 17.0 23.0 23.55	.01268 .01092 .01248 .01190 .01320 .01518 .01469	1.40 3.40 9.40 21.40	52.053.0 56.058.0 58.059.0 54.056.0	Apr. 2 1.40 3.40 9.40 21.40	22.26.59* 24.6* 14.58* 13.30*	Apr. 2 1.40 3.40 9.40 21.40	.1022* .1030* .1035* .1026*	0.30 6.0 8.0 9.39 16.0 22.3 23.55	.01750 .01223 .01236 .01205 .01478 .01740 .01698	1.40 3.40 9.40 21.40	55.57 60.60 57.59 53.54.5	
Mar. 28 1.40 3.40 9.40 21.40	22.30.14* 29.46* 20.57* 17.44*	Mar. 28 1.40 3.40 9.40 21.40	.0997* .1004* .1026* .1012*	Mar. 28 0.40 2.10 5.30 6.25 9.35 12.0 15.35 23.0 23.55	.01380 .01250 .01350 .01345 .01640 .01935 .01838 .01848 .01800	1.40 3.40 9.40 21.40	57.058.0 60.062.0 59.062.0 53.056.5	Apr. 3 1.40 3.40 9.40 21.40	22.26.26* 26.35* 18.10* 17.7*	Apr. 3 1.40 3.40 9.40 21.40	.1024* .1033* .1040* .1032*	0.30 4.50 9.39 18.5 21.54 23.15	.01657 .01272 .01240 .01823 .01738 .01765	1.40 3.40 9.40 21.40	55.58 58.59 57.59 49.50	
Mar. 29 1.40 3.40 9.40 23.20	22.27.27* 27.32* 3.37* 24.8*	Mar. 29 1.40 3.40 9.40 23.20	.1024* .1025* .1032* .1011*	Mar. 29 0.30 4.45 7.45 9.30 14.20 15.0 23.30	.01740 .01270 .01300 .01270 .01680 .01632 .01540	1.40 3.40 9.40 23.20	59.060.0 60.063.0 58.060.0 49.052.0	Apr. 4 0.15 3.25 15.25 21.25 23.55	22.25.50 27.40 17.40 11.0 28.0	Apr. 4 0.30 3.47 3.56 4.20 4.30 5.20 6.38 8.0 12.30 14.20 19.21 23.55	.1018 .1021 .1026 .1024 .1022 .1033 .1026 .1036 .1040 .1043 .1055 .1010	1.0 4.35 5.30 9.22 16.12 21.53 23.35	.01727 .01270 .01298 .01250 .01815 .01680 .01693	1.40 3.40 9.40 21.40	55.58 59.61 58.59 48.49	
Mar. 30 9.40 21.40	22.19.48* 15.7*	Mar. 30 9.40 21.40	.1035* .1027*	Mar. 30 0.0 4.30 9.0 16.0 19.25 22.45	.01720 .01559 .01290 .01500 .01729 .01634	9.40 21.40	51.054.0 51.054.0	Apr. 5 0.30 3.15 6.37 11.40 23.20	22.28.0 31.0 21.0 16.40 20.40	Apr. 5 0.30 0.52 2.16 2.49 4.18	.0998 .1000 .1012 .1027 .1006	0.30 2.29 4.12 7.30 9.39	.01660 .01507 .01205 .01274 .01210	1.40 3.40 9.40 22.55	53.55 58.60 56.57.5 45.47	
Mar. 31 1.40 3.40	22.28.23* 27.43*	Mar. 31 1.40 3.40	.1018* .1022*	Mar. 31 1.30 2.25	.01223 .01150	1.40 3.40	53.055.0 56.058.0									

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

March 28 to April 3. The Photographic time-piece for the movement of the Declination and Horizontal Force cylinder was away for repair.

## 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.
h B o /	''	Apr. 5 h B 4. 44: 5. 30 6. 0: 6. 33: 7. 0 7. 15 8. 2: 8. 21 *** 15. 46 18. 38 23. 25	*1040 *1018 *1026 *1011 *1023 *1020 *1027 *1022 *** *1042 *1045 *1026	Apr. 5 h B 16. 50 23. 30	*01770 *01652	h B o /	o /	o /	h B o /	''	Apr. 7 h B 8. 25 8. 44 8. 52 9. 10 10. 22 10. 46 11. 7 11. 29 11. 57 12. 40 17. 30 18. 5 19. 22 20. 45 22. 55 23. 55	*1038 *1030 *1038 *1030 *1040 *1029 *1034 *1029 *1053 *1031 *1037 *1046 *1048 *1038 *1006 *1006	h B h B o /	o /	h B h B o /	o /	o /
Apr. 6 o. 0 3. 0 7. 10 7. 35 7. 50 8. 12 9. 5 11. 35 12. 35: 13. 20 15. 50: 16. 50 20. 47 23. 55	22. 22. 0 28. 30 18. 20 17. 0 10. 30 7. 10 16. 0 17. 10 24. 50 15. 10 13. 10 18. 10 12. 30 22. 0	Apr. 6 h B o. 0 0. 22 1. 21 1. 40 2. 34 5. 35 5. 54 7. 23 7. 40 8. 5 8. 17 8. 46 10. 9 10. 21 11. 38 12. 31 13. 19 13. 42 14. 34 15. 25 18. 0 19. 0 23. 55	*1022 *1009 *1027 *1017 *1030 *** *1040 *1029 *** *1040 *1056 *1044 *1047 *1038 *1036 *1042 *1039 *1055 *1039 *1044 *1038 *1046 *** *1050 *1055 *1018	Apr. 6 h B o. 0 5. 30 11. 0 11. 58 12. 55 18. 2 23. 30	*01641 *01520 *01210 *01184 *01160 *01622 *01570	h B 11. 40 21. 40	49. 0 43. 5	50. 0 46. 5	Apr. 8 o. 37 2. 0: 6. 10: 10. 45 11. 0 23. 55	22. 25. 20 28. 30 17. 10 17. 50 14. 20 19. 40	Apr. 8 h B o. 38 4. 0 4. 23 5. 44 6. 2: 6. 30: 7. 0 10. 44 11. 3 11. 30 14. 15: 19. 28 22. 28 23. 50	*1007 *1022 *1016 *1025 *1019 *1029 *1024 *1033 *1046 *1037 *1034 *1042 (†) *1031 *1017	Apr. 8 h B o. 30 2. 28 3. 45 7. 0 9. 28 17. 40 22. 30 23. 55	*01400 *01180 *01220 *01175 *01170 *01745 *01660 *01685	h B 1. 40 3. 40 9. 40 21. 40	54. 0 58. 0 55. 0 48. 5	56. 0 60. 0 57. 0 51. 0
Apr. 9 o. 20 9. 0 15. 20 23. 55	22. 22. 0 22. 30 18. 30 21. 30	Apr. 9 h B o. 18 1. 23: 5. 4 8. 2 9. 17 13. 23 13. 56: 14. 28 16. 10 16. 30 17. 42 19. 15 23. 0 23. 55	*1023 *1013 *1034 *1033 *1039 *1036 *1034 *1038 *1035 *1040 *1040 *1047 *1016 *1018	Apr. 9 h B o. 18 1. 23: 5. 4 8. 2 9. 17 13. 23 13. 56: 14. 28 16. 10 16. 30 17. 42 19. 15 23. 0 23. 55	*1023 *1013 *1034 *1033 *1039 *1036 *1034 *1038 *1035 *1040 *1040 *1047 *1016 *1018	h B 21. 40	48. 5	51. 5	Apr. 9 o. 20 9. 0 15. 20 23. 55	22. 22. 0 22. 30 18. 30 21. 30	Apr. 9 h B o. 30 5. 0 9. 54 15. 0 18. 38 21. 0 22. 55 23. 55	*01715 *01398 *01190 *01414 *01718 *01690 *01713 *01672	h B 1. 40 3. 40 9. 40 21. 40	49. 0 55. 0 52. 0 48. 0	50. 0 57. 0 54. 5 49. 5		
Apr. 7 o. 27 6. 55 8. 20: 9. 0: 11. 40 12. 10 18. 30 21. 15: 23. 55	22. 25. 40 19. 20 15. 30 20. 30 11. 50 16. 10 18. 50 11. 0 22. 20	Apr. 7 h B 1. 0 2. 5 2. 45 3. 30 3. 50 4. 15 6. 42 6. 58 7. 44	*1018 *1023 *1020 *1030 *1021 *1032 *** *1030 *1037 *1034	Apr. 7 h B 1. 15 3. 15 5. 30 9. 37 18. 0 23. 0 23. 55	*01212 *01029 *01130 *01072 *01355 *01535 *01488	h B 1. 40 3. 40 9. 40 21. 40	47. 0 50. 0 52. 0 48. 5	51. 0 52. 5 53. 5 51. 5	Apr. 10 o. 55	22. 23. 30	Apr. 10 h B 1. 0 1. 30	*1016 *01470	h B 1. 47	53. 0 55. 0			

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol \*\*\* denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol : attached to a time denotes that the reading will apply equally to several times near that which is recorded.

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.	Göttingen Mean Solar Time.	Readings of Thermometers.		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.	Göttingen Mean Solar Time.	Readings of Thermometers.	
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
Apr. 10 6.35 7.10 8.5 16.10 19.30 10.20 23.55	22.22.10 16.30 20.30 21.0 20.30 14.10 20.0	Apr. 10 2.5 5.55 6.50 7.17 7.30 8.20 19.45 23.55	.1012 *** .1029 .1020 .1029 .1025 .1020 .1043 .1009	Apr. 10 3.40 4.45 6.30 7.30 9.31 17.0 20.15 21.58 23.15 23.55	.01192 .01220 .01205 .01230 .01182 .01550 .01770 .01730 .01755 .01725	3.40 9.40 21.40	56.0 55.0 49.5	58.0 57.0 52.0	Apr. 14 8.29 9.0 19.0 23.55	Apr. 14 18.0 22.45 23.55	.1025 .1030 .1044 .1021	Apr. 14 18.0 22.45 23.55	.01485 .01733 .01688	h m o			
Apr. 11 0.10 3.40 12.35 13.12 14.40 20.55	22.21.0 24.40 21.40 17.30 21.50 16.40	Apr. 11 0.30 6.10 7.35 12.35 12.51 13.20 16.21 17.35 20.40	.1008 .1029 .1024 *** .1037 .1045 .1037 .1038 .1050 .1040 (+)	Apr. 11 0.30 2.13 4.43 5.30 9.15 16.0 18.25 21.0 22.45 23.55	.01642 .01463 .01210 .01221 .01205 .01550 .01770 .01735 .01755 .01720	1.40 3.40 9.40 21.40	54.0 58.0 55.0 49.5	56.0 60.0 57.5 52.0	Apr. 15 0.20 2.28 7.10 19.10 21.45 23.55	22.24.10 30.0 19.40 18.50 11.40 20.50	Apr. 15 0.45 2.13 2.25 3.0 7.40 11.0 13.0 18.15 20.30 23.0 23.55	.1018 .1014 .1018 .1010 .1030 .1035 .1036 .1046 .1037 .1011 .1010	Apr. 15 0.30 2.25 4.5 5.30 9.38 16.0 19.15 21.56 23.0 23.55	.01635 .01448 .01240 .01272 .01235 .01550 .01820 .01769 .01783 .01758	1.40 3.40 9.40 21.40	55.0 59.0 57.5 50.0	57.0 61.0 59.0 51.0
Apr. 12 0.20 7.40 22.12	22.27.0 19.30 19.30	Apr. 12 0.25 10.50 16.45 17.10 17.58 20.0 22.11 23.55	.1014 *** .1031 .1036 .1032 .1042 .1042 .1034 .1030	Apr. 12 0.30 3.16 6.30 7.33 9.0 15.12 22.11	.01657 .01363 .01235 .01250 .01227 .01570 .01465	1.40 3.40 9.40 22.40	53.0 59.0 57.0 48.0	55.0 61.0 59.0 50.0	Apr. 16 0.40 12.20 14.30 15.15 16.20 17.15 20.18 21.20 23.59	22.24.30 19.30 9.40 14.10 13.50 17.30 16.50 11.30 16.0	Apr. 16 0.36 3.43 5.30 7.30 8.42 *** 11.26 *** 12.52 13.46 14.17 15.2 15.43 15.49 16.10 *** 19.2 22.15 23.59	.1013 .1022 .1031 .1029 .1036 *** .1027 *** .1050 .1022 .1036 .1021 .1035 .1024 .1034 *** .1043 .1013 *** .1016	Apr. 16 1.30 3.17 5.5 5.30 6.45 8.10 9.23 16.35 22.8 23.45	.01665 .01602 .01292 .01307 .01292 .01303 .01248 .01671 .01684 .01550	1.40 3.40 9.40 21.45	54.0 59.0 59.0 55.0	56.0 61.0 60.0 58.0
Apr. 13 0.0 2.0 7.35 19.30 21.50 23.55	22.23.0 25.30 20.40 19.30 16.30 21.0	Apr. 13 0.0 4.0 4.15 4.45 9.15 19.45 23.0 23.55	.1029 .1028 .1026 .1030 .1036 .1048 .1022 .1020	Apr. 13 0.30 8.23 11.0 18.48 22.5	.01695 .01155 .01083 .01692 .01655	8.33 21.40	53.0 46.0	55.0 48.5	Apr. 17 0.12 2.13 4.0 7.30 9.5 10.35 12.4 12.32 13.28 14.12 14.30	22.27.0 33.40 30.40 21.20 22.30 10.20 17.40 15.20 22.30 21.20 24.40	Apr. 17 0.13 0.58 1.35 1.50 *** 2.56 *** 3.48 4.4 5.2 5.15	.1003 .1015 .1005 .1017 *** .1004 *** .1022 .1043 .1015 .1032	Apr. 17 0.30 2.28 3.40 4.15 7.25 7.28 8.15 8.45 16.25 23.5	.01657 .01451 .01318 .01361 .01415 .01542 .01502 .01549 .01940 .01890	1.40 3.40 9.40 22.56	59.0 60.0 62.0 56.0	61.0 63.0 63.0 58.0
Apr. 14 0.15 7.35 19.35 21.10 23.55	22.24.40 21.40 19.40 12.30 22.0	Apr. 14 0.15 4.0 4.52 5.16 6.30 8.4	.1022 .1018 .1029 .1024 .1030 .1030	Apr. 14 0.30 3.25 4.50 6.30 7.45 10.40	.01410 .01110 .01169 .01150 .01170 .01128	1.40 3.40 9.45 21.45	52.0 55.0 54.0 49.0	52.8 58.0 56.0 52.0									

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.	Göttingen Mean Solar Time.	Readings of Thermometers.		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.	Göttingen Mean Solar Time.	Readings of Thermometers.		
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.	
Apr. 17 19. 30 23. 10	22. 18. 30 21. 40	Apr. 17 5. 55 6. 28 7. 14 7. 47 8. 6 9. 40 10. 7 10. 45 10. 58 11. 12 12. 30 17. 2 20. 0 23. 12	.1019 .1030 *** .1014 .1022 .1018 .1028 .1019 .1029 .1024 .1029 .1006 *** .1033 .1026 .1005															
Apr. 18 0. 0 2. 15 7. 28 18. 35 21. 40 22. 15	22. 24. 50 31. 30 22. 30 21. 40 14. 0 17. 30	Apr. 18 0. 0 5. 28 5. 43 6. 9 9. 47 10. 22 11. 0 11. 16 12. 19 12. 52 18. 3 18. 32 19. 45 21. 30 22. 15	.1004 .1020 .1026 .1018 .1032 .1024 .1032 .1026 .1034 .1036 .1038 .1034 .1039 .1028 .1008	Apr. 18 0. 30 5. 15 7. 35 8. 18 8. 45 9. 50 12. 19 16. 20 21. 56 23. 55	.01890 .01395 .01439 .01390 .01409 .01378 .01488 .01845 .01750 .01738	12. 5 21. 40	63. 0 54. 0	65. 0 56. 0										
Apr. 19 0. 30 7. 30 10. 58 11. 20 11. 37 12. 0 12. 15 16. 35 23. 35	22. 29. 0 19. 10 26. 10 11. 40 14. 50 12. 30 14. 30 21. 40 *** 21. 30	Apr. 19 0. 30 1. 33 3. 51 5. 17 5. 45 7. 30 10. 32 11. 13 11. 34 11. 58 12. 40 13. 26 16. 30 18. 32 21. 5	.0996 .0988 .1000 .1004 .1012 .1004 .1023 .1006 .1036 .1013 .1003 .1022 .1027 *** .1040 *** .1014	Apr. 19 0. 32 3. 25 6. 20 8. 15 9. 30 11. 3 11. 25 14. 12 23. 45	.01832 .01392 .01453 .01622 .01602 .01690 .01670 .01998 *** .01863	1. 40 3. 40 9. 40 23. 20	60. 0 64. 0 64. 0 55. 0	63. 0 66. 0 67. 0 58. 0										
Apr. 19 19. 30 23. 10	22. 18. 30 21. 40	Apr. 19 22. 0 22. 15 22. 35 22. 50 23. 19 23. 40	.1000 .0997 .0998 .1000 .1006 .1000															
Apr. 20 0. 0 7. 0 8. 20 9. 0 16. 20 18. 55 20. 12 21. 15 23. 55	22. 23. 20 21. 20 21. 30 20. 0 23. 30 19. 0 24. 30 20. 20 21. 30	Apr. 20 0. 0 0. 14 8. 20 9. 0 16. 20 18. 55 20. 12 21. 15 23. 55	.0998 .0993 *** .1014 .1010 .1028 .1022 .1030 .1029 8. 0 8. 30 14. 40 15. 30 16. 30 17. 10 18. 0 19. 50 20. 22 21. 30 22. 12 23. 20 23. 55															
Apr. 21 1. 10 2. 15 2. 30 2. 40 4. 10 5. 25 9. 0 9. 35 20. 35 21. 15 22. 0 23. 55	22. 24. 30 26. 20 23. 20 25. 30 20. 20 25. 20 22. 30 14. 0 18. 30 15. 0 18. 40 22. 10	Apr. 21 1. 10 2. 15 2. 30 2. 40 4. 10 5. 25 9. 0 9. 35 20. 35 21. 15 22. 0 23. 55	.0977 .0976 .1003 .1001 .0985 .1017 .0993 .1005 .1005 .1011 .1000 .1016 .1008 .1016 .1012 .1026 .1011 .1024 .1016 .1020															
Apr. 19 19. 30 23. 10	22. 18. 30 21. 40	Apr. 19 22. 0 22. 15 22. 35 22. 50 23. 19 23. 40	.1000 .0997 .0998 .1000 .1006 .1000															
Apr. 20 0. 0 7. 0 8. 20 9. 0 16. 20 18. 55 20. 12 21. 15 23. 55	22. 23. 20 21. 20 21. 30 20. 0 23. 30 19. 0 24. 30 20. 20 21. 30	Apr. 20 0. 0 0. 14 8. 20 9. 0 16. 20 18. 55 20. 12 21. 15 23. 55	.0998 .0993 *** .1014 .1010 .1028 .1022 .1030 .1029 8. 0 8. 30 14. 40 15. 30 16. 30 17. 10 18. 0 19. 50 20. 22 21. 30 22. 12 23. 20 23. 55															
Apr. 21 1. 10 2. 15 2. 30 2. 40 4. 10 5. 25 9. 0 9. 35 20. 35 21. 15 22. 0 23. 55	22. 24. 30 26. 20 23. 20 25. 30 20. 20 25. 20 22. 30 14. 0 18. 30 15. 0 18. 40 22. 10	Apr. 21 1. 10 2. 15 2. 30 2. 40 4. 10 5. 25 9. 0 9. 35 20. 35 21. 15 22. 0 23. 55	.0977 .0976 .1003 .1001 .0985 .1017 .0993 .1005 .1005 .1011 .1000 .1016 .1008 .1016 .1012 .1026 .1011 .1024 .1016 .1020															

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							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
		Apr. 21 18.30 20.0 21.0 22.30 23.5	.1027 .1025 .1019 .1000 .0997 .0998														
		Apr. 22 1.3 9.0 9.45 11.20 11.47 12.30 13.35 13.50 23.50	22.26.50 19.30 22.20 21.20 18.40 23.0 19.30 22.0 23.0	Apr. 22 0.12 0.30 1.3 1.33 3.37 3.47 4.15 6.29 6.34 7.0 7.45 8.47 9.2 9.23 11.20 11.35 11.55 12.10 12.46 13.13 13.17 13.22 13.33 13.38 13.40 13.52 14.28 14.35 19.0 20.30 22.0 22.50 22.55 23.3 23.25 23.30	.1003 .0998 .1012 .1005 .1011 .1004 .1018 .1018 .1026 .1021 .1027 .1018 .1030 .1024 .1028 .1038 .1034 .1039 .1027 .1045 .1040 .1048 .1039 .1043 .1037 .1056 .1020 .1029 .1040 .1032 .1016 .1015 .1008 .1015 .1004 .1014	Apr. 22 1.10 6.15 7.40 10.4 13.40 14.3 19.0 22.11 23.55	.01742 .01550 .01577 .01552 .01769 .01755 .01960 .01815 .01592	1.40 3.40 9.40 21.45	62.0 63.0 60.0 54.0	63.0 65.0 63.0 56.0							
		Apr. 23 0.37 7.30 8.20 8.43 9.5 12.25 13.5 13.25 15.45 16.50 23.55	22.25.20 20.30 12.40 15.0 10.30 20.30 20.0 23.30 18.20 21.0 25.0	Apr. 23 0.33 1.21 4.0 5.20 5.30 6.10 6.31 7.29 7.38 8.12 8.29 8.58 9.11 9.58 10.9 10.28 10.53 11.19 13.13 13.43 13.53 15.45 16.30 16.40 19.11 21.12 21.29 23.30	.1004 .1016 *** .1006 .1012 .1006 .1008 .1017 *** .1011 .1018 .1014 .1032 .1022 .1042 .1015 .1019 .1009 .1017 .1011 *** .1032 .1023 .1028 *** .1034 .1026 .1030 *** .1034 .1010 .1014 .1000	Apr. 23 0.33 1.28 4.15 6.0 8.30 14.10 21.53 23.55	.01371 .01242 .01343 .01319 .01547 .01925 .01852 .01612	1.40 3.40 9.40 21.40	60.0 65.0 60.5 53.0	63.0 67.0 64.0 55.0							
		Apr. 24 0.15 3.10 6.25 6.55 9.45 23.55	22.26.10 23.50 16.30 20.30 19.40 19.10	Apr. 24 0.0 0.48 1.20 1.47 2.9 2.50 3.10 4.30 5.2 5.44 6.13 6.39 7.3	.1003 .1007 .1002 .1006 .1003 .1016 .1001 .1019 .1014 .1023 .1013 .1038 .1029	Apr. 24 0.30 1.55 8.50 9.55 15.33 22.3 23.55	.01514 .01260 .01500 .01480 .02000 .01910 .01941	1.40 3.40 9.40 21.40	60.0 63.0 65.0 56.0	64.0 65.0 68.0 59.0							

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							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.																																																																																										
Apr. 24 h m 7.13 7.39 9.2 9.15 10.27 10.43 11.2 11.29 12.30 18.0 23.51	o' / ' "	Apr. 24 p m 7.13 7.39 9.2 9.15 10.27 10.43 11.2 11.29 12.30 18.0 23.51	·1034 ·1024 ·1023 ·1034 ·1021 ·1023 ·1021 ·1033 ·1026 ·1037 ·1021	h m 7.13 7.39 9.2 9.15 10.27 10.43 11.2 11.29 12.30 18.0 23.51		h m 7.13 7.39 9.2 9.15 10.27 10.43 11.2 11.29 12.30 18.0 23.51	o	o								58.0	60.0																																																																																										
																		Apr. 25 o. 25 7.35 9.40 21.40 23.55	22. 22. 10 18. 10 20. 10 14. 0 20. 20	Apr. 25 p m 0.30 1.5 1.51 3.7 3.57 5.53 6.3 6.17 6.41 6.50 7.22 7.39 8.0 9.53 10.38 10.47 11.11 11.46 22.18 23.17 23.55	·1022 ·1026 ·1021 ·1032 ·1027 ·1039 ·1035 ·1042 ·1044 ·1040 ·1040 ·1054 ·1042 ·1031 ·1029 ·1048 ·1038 *** ·1019 ·1036 ·1023 ·1022	Apr. 25 h m 0.30 6.0 9.53 16.12 19.30 20.35 23.55		Apr. 25 p m 0.30 6.0 9.53 16.12 19.30 20.35 23.55	1.55	58.0	60.0	21.40	53.0	55.0				53.0	60.0																																																																								
																																				Apr. 27 h m 0.0 5.37 8.5 11.15 12.55 14.0 15.20 16.40 17.20 18.30 21.20 23.55	22. 22. 20 20. 50 17. 0 15. 0 19. 0 20. 20 19. 20 22. 20 18. 30 23. 20 13. 20 21. 20	Apr. 27 p m 0.0 5.36 5.44 6.40 8.10 9.15 9.56 10.7 10.10 10.23 10.40 11.0 11.20 11.45 12.28 13.10 13.27 13.54 16.10 16.40 18.5 18.55 20.15 22.23 23.55	·1038 ·1046 ·1068 ·1052 *** ·1062 ·1044 ·1076 ·1072 ·1078 ·1062 ·1070 ·1042 ·1051 ·1042 ·1056 ·1046 ·1054 ·1048 ·1052 ·1064 ·1040 ·1060 ·1065 ·1035 ·1032	Apr. 27 h m 0.0 4.0 6.55 8.5 10.30 11.0 13.30 18.33 22.40		Apr. 27 p m 0.0 4.0 6.55 8.5 10.30 11.0 13.30 18.33 22.40	7.40	55.0	58.0	21.40	47.5	52.0				55.0	60.0																																																						
																																																						Apr. 28 h m 1.10 9.40 15.10 15.40 16.25 20.45 21.10 23.55	22. 23. 50 18. 10 20. 30 19. 30 22. 10 19. 10 14. 10 20. 30	Apr. 28 p m 1.0 4.0 5.40 6.15 7.0 7.50 9.4 14.25 14.40 14.50 15.0 15.10 15.40 18.8 18.55 20.50 22.26 23.5 23.33 23.55	·1030 ·1030 ·1045 ·1039 ·1046 ·1046 ·1030 ·1049 ·1048 ·1052 ·1048 ·1054 ·1049 ·1057 ·1065 ·1050 ·1031 ·1029 ·1034 ·1027	Apr. 28 h m 1.0 3.10 9.24 14.55 19.0 23.55		Apr. 28 p m 1.0 3.10 9.24 14.55 19.0 23.55	1.40	53.0	55.0	21.40	48.0	51.0				55.0	60.0																																				
																																																																								Apr. 26 h m 0.17 2.30 9.25 23.20	22. 21. 0 26. 20 19. 30 19. 30	Apr. 26 p m 0.30 1.10 1.45 2.10 2.59 3.55 4.30 5.8 6.12 6.45 7.17 8.18 17.45 21.0 23.25	·1024 ·1028 ·1021 ·1028 ·1023 ·1032 ·1024 ·1025 ·1040 ·1034 ·1039 ·1037 ·1053 ·1048 ·1034	Apr. 26 h m 0.30 2.59 3.50 5.12 8.15 9.42 15.55 23.30		Apr. 26 p m 0.30 2.59 3.50 5.12 8.15 9.42 15.55 23.30	1.40	56.0	59.0	22.45	48.5	52.5				56.0	60.0																		
																																																																																										Apr. 29 h m 0.20 1.20	22. 21. 30 25. 20	Apr. 29 p m 0.20 0.45	·1028 ·1036	Apr. 29 h m 0.20 0.45		Apr. 29 p m 0.20 0.45	1.40	53.0	56.0	3.40	58.0	60.0				58.0	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 to a considerable time before and after that which is recorded.

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.	Göttingen Mean Solar Time.	Readings of Thermometers.		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.	Göttingen Mean Solar Time.	Readings of Thermometers.	
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
Apr. 29 6. 0 19. 55 21. 32 23. 47	22. 21. 30 19. 30 13. 0 20. 20	Apr. 29 3. 58 6. 55 12. 50 13. 15 18. 45 18. 50 18. 54 19. 3 21. 49 23. 30	*1030 *1045 *1044 *1048 *1057 *1052 *1062 *1046 *1028 *1016	Apr. 29 4. 30 6. 30 7. 55 9. 15 15. 50 20. 30 21. 49 23. 30	*01217 *01197 *01224 *01212 *01773 *01678 *01700 *01504	9. 40 21. 45	57. 0 50. 0	60. 0 52. 0	h m	o / "	May 1 15. 45 16. 34 17. 46 18. 0 18. 30 19. 9 20. 8 20. 11 20. 16 20. 20 21. 30 22. 6 22. 50 23. 30	*1043 *** *1074 *** *1029 *1028 *1043 *1016 *** *1018 *1028 *1008 *1021 *** *1004 *1004 *0986 *** *0996	May 1 23. 55	*01642	h m	o	o
Apr. 30 0. 28 5. 20 19. 40 21. 25 23. 58	22. 22. 30 20. 20 19. 30 12. 40 21. 40	Apr. 30 0. 45 2. 24 4. 28 5. 28 7. 25 11. 0 14. 0 18. 0 18. 30 18. 45 18. 52 18. 55 19. 12 19. 30 20. 50 23. 30	*1012 *1026 *1025 *1040 *1032 *1041 *1044 *1052 *1050 *1048 *1044 *1048 *1038 *1040 *1031 *1021	Apr. 30 0. 30 2. 20 8. 25 9. 33 16. 27 20. 30 21. 51 23. 55	*01372 *01143 *01310 *01282 *01833 *01747 *01760 *01644	1. 40 3. 40 9. 40 21. 40	57. 0 59. 0 58. 5 52. 0	59. 0 61. 0 62. 0 54. 0	h m	o /	May 2 0. 5 1. 42 2. 28 3. 17 6. 13 10. 12 10. 32 11. 23 12. 35 13. 45 19. 45 21. 35 23. 55	*1003 *0994 *1008 *0996 *** *0973 *1007 *** *1021 *1039 *1027 *1044 *1037 *1069 *1057 *1034 *1043 *** *1022 *** *1024 *** *1011 *** *1006	May 2 0. 3 2. 33 9. 30 14. 25 21. 28	*01620 *** *01350 *** *01510 *01891 *01750	1. 40 3. 40 9. 40 21. 40	59. 0 64. 0 60. 0 52. 5	61. 0 66. 0 62. 0 56. 0
May 1 0. 25 2. 7 5. 30 8. 50 10. 15 11. 15 11. 25 11. 55 12. 42 13. 25 14. 17 14. 40 15. 20 16. 12 16. 40 17. 5 18. 50 20. 30 23. 58	22. 23. 20 27. 20 23. 30 18. 10 6. 30 11. 40 10. 0 16. 40 4. 50 15. 10 15. 10 8. 0 14. 40 10. 20 14. 20 11. 20 26. 20 *** 14. 30 *** 29. 0	May 1 0. 24 4. 13 4. 45 5. 5 6. 50 7. 8 7. 28 8. 6 8. 42 9. 56 10. 15 11. 4 11. 40 12. 5 13. 50 13. 50 14. 11 14. 25 14. 42 15. 25	*1020 *1032 *1029 *1038 *** *1040 *1030 *1040 *1037 *1047 *1026 *1033 *1014 *1051 *1017 *1030 *1022 *1048 *1030 *1043 *1038 *1063	May 1 0. 30 3. 58 5. 20 6. 25 7. 0 8. 0 8. 30 9. 6 11. 35 12. 0 13. 25 14. 10 14. 24 14. 28 15. 12 15. 25 16. 10 19. 0 21. 56	*01570 *01197 *01250 *01265 *01278 *01319 *01370 *01364 *01498 *01463 *01585 *01604 *01625 *01612 *01700 *01697 *01762 *** *01693 *** *01760 ***	1. 40 3. 40 9. 40 21. 45	55. 0 59. 0 59. 0 50. 0	58. 0 61. 0 61. 8 53. 0	h m	o /	May 3 0. 35 2. 35 5. 44 7. 50	*1005 *1002 *1007 *1003	May 3 1. 0 2. 59 5. 30 8. 0	*01650 *01555 *01350 *01325	1. 40 3. 40 9. 40 23. 11	55. 0 59. 0 56. 0 49. 0	58. 8 60. 0 61. 0 51. 0

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







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 Thermometers.		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 Thermometers.			
						Of H. F. Magnet.	Of V. F. Magnet.							Of H. F. Magnet.	Of V. F. Magnet.		
May 18 0.0 2.17 5.25 17.25 18.20 20.35 23.55	22. 23. 30 29. 0 21. 30 19. 30 19. 30 13. 20 24. 30	May 18 0.0 2.12 2.15 2.40 3.52 4. 2 9.22 11. 8 17.30 19.15 21. 0 23.20	·1006 ·1011 ·1017 ·1011 ·1014 ·1021 ·1027 ·1032 ·1026 ·1030 ·1042 ·1036 ·1014	May 18 0.0 5.0 8.25 10.0 16.3 21.53 23.30	·01025 ·01149 ·01210 ·01170 ·01678 ·01565 ·01520	11. 5 21.45	60.0 54.0	63.0 56.0	May 22 6.30 18.30 23.55	22. 19. 50 15. 30 22. 20	May 22 3.47 4 6 4.31 5.30 10.0 17.0 18.50 19.50 20.30 23.55	·1023 *** ·1017 *** ·1027 *** ·1020 ·1030 ·1040 ·1041 ·1038 ·1023 ·1035	1.0 4.40 6.30 9.0 10.45 15.0 17.15 21.48 23.55	·01120 ·01261 ·01210 ·01275 ·01265 ·01500 ·01771 ·01668 ·01620	3.40 9.45 21.40	68.0 67.5 59.0	70.5 72.0 60.0
May 19 0.45 6.45 11.45 12.20 12.55 23.55	22. 26. 10 19. 0 21. 0 23.30 20.20 27.30	May 19 0.55 1.45 4.14 4.46 9.38 18.0 22.0 23.0 23.55	·1000 ·1014 ·1022 ·1032 (+) ·1032 ·1039 ·1018 ·1017 ·1019	May 19 1.0 3.18 6.45 8.5 10.15 15.55 17.55 18.3 21.51 23.55	·01469 ·01331 ·01182 ·01230 ·01192 ·01649 ·01612 ·01572 ·01478 ·01370	1.40 3.40 9.40 21.40	55.0 58.0 57.0 53.0	58.0 60.0 61.0 53.0	May 23 0.5 2.50 8.55 10.0 11.43 13.0 14.0 19.40 20.20 23.55	22. 19. 10 23. 10 15. 10 11.40 16.0 11.0 13.30 10.30 7.0 24.40	May 23 0.0 0.43 3.0 4.5 4.46 5.12 7.45 8.38 8.49 9.18 12.5 14.26 16.14 20.17 23.58	·1033 ·1026 ·1044 ·1023 ·1036 ·1026 ·1040 ·1027 ·1034 ·1026 ·1041 ·1029 ·1041 ·1044 ·1009	0.33 4.0 9.21 10.30 15.15 17.30 18.45 21.40 23.55	·01605 ·01669 ·01410 ·01348 ·01670 ·01655 ·01710 ·01683 ·01600	1.40 3.40 9.40 21.40	60.0 63.0 63.0 55.0	66.0 67.0 65.8 59.0
May 20 0.12 7.35 19.35 23.55	22. 28. 0 19. 10 16.50 23.30	May 20 0.30 2.52 5.0 5.20 5.50 6.15 7.45 8.15 23.55	·1026 ·1032 ·1025 ·1029 ·1016 ·1026 ·1035 ·1040 ·1036	May 20 0.30 3.45 4.45 6.30 9.12 14.0 18.45 23.55	·01338 ·01045 ·01099 ·01000 ·01120 ·01190 ·01470 ·01238	1.40 3.40 9.58 21.40	54.0 58.0 58.0 57.0	56.0 60.0 63.5 59.0	May 24 0.50 8.14 8.45 9.50 11.30 11.55 12.40 13.35 14.15 16.17 23.30	22. 27. 30 13.20 8.0 15.20 10.30 15.40 11.0 14.10 5.30 12.20 19.40	May 24 0.52 1.33 2.12 3.33 4.2 4.38 6.10 6.30 7.40 7.55 8.35 8.58 11.56 12.8 12.28 13.20 13.40 14.13 16.22	·1010 ·0998 ·1016 ·1011 ·1019 ·1010 ·1026 ·1015 ·1030 ·1047 ·0994 ·1023 *** ·1028 ·1020 ·1034 ·1023 ·1036 ·1011 ·1029	1.0 2.12 3.25	·01457 ·01297 ·01100 *** ·01309 ·01545 ·01525 ·01699 ·01678 ·01612	1.40 3.40 9.40 23.10	60.0 65.0 63.0 58.5	64.4 68.0 66.0 62.0
May 21 0.14 6.48 18.48 23.50	22. 23. 40 20.30 14.0 23.10	May 21 1.0 3.0 4.20 18.30 23.55	·1040 ·1040 ·1040 ·1048 ·1022	May 21 0.30 2.0 4.25 8.25 11.0 16.0 18.38 19.50 21.0 21.25 23.55	·01319 ·01221 ·01142 ·01183 ·01134 ·01382 ·01685 ·01670 ·01710 ·01609 ·01238	1.40 3.40 9.43 21.45	59.0 60.0 65.0 59.0	61.0 61.0 61.0	May 22 0.0 22. 23. 30	May 22 1.0 ***	·1023 ***	May 22 0.0	·01233	1.40	65.0	67.0	

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.	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.	Göttingen Mean Solar Time.	Readings of Thermo-meters.	
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
h m	o / "	h m	h m	h m	h m	h m	o	o	h m	o / "	h m	h m	h m	h m	h m	o	o
May 24 23.39		May 24 23.39	*0989						May 28 23.55		May 28 23.55	*01550					
May 25 0.0 4.17 4.55 5.45 19.0 10.0 10.30 17.50 23.55	22.22.30 26.0 17.20 20.40 18.10 15.10 10.0 20.0	May 25 0.0 0.42 1.21 1.45 3.52 4.19 4.45 5.13 6.35 6.50 9.0 9.25 11.25 12.50 17.20 22.59 23.50	*0990 *0982 *0991 *0985 *** *0992 *1024 *0989 *1035 *1016 *1025 *1009 *1020 *1003 *1002 *1022 *0990 *0994	May 25 0.0 2.58 5.12 8.45 10.10 14.0 16.25 21.55 23.30	*01560 *01210 *** *01330 *01330 *01299 *01530 *01819 *01720 *01700	9.40 21.40	67.5 58.0	72.0 62.0	May 29 0.42 19.10 23.58	22.25.40 8.50 23.20	May 29 0.40 5.10 7.2 8.39 18.0 23.53	*0990 *1003 *** *1018 *** *1018 *1033 *0997	0.35 2.33 5.30 6.45 9.56 12.45 18.0 22.14 23.55	*01462 *01165 *01293 *01285 *01440 *01832 *01720 *01600 *01432	1.40 3.40 9.46 21.40	63.0 66.0 67.0 58.0	67.0 68.5 72.0 62.0
May 26 0.53 6.45 16.40 17.15 18.45 23.40	22.22.30 17.0 18.50 22.40 14.20 23.0	May 26 0.54 2.58 3.41 5.8 5.32 6.42 16.25 17.10 17.54 23.42	*0995 *1003 *1017 *1011 *1021 *1013 *1037 *1019 *1037 *1004	May 26 1.30 7.0 9.51 11.45 15.35 18.15 20.51 23.45	*01727 *01610 *01660 *01755 *01770 *01685 *01703 *01647	1.40 3.40 9.40 21.45	60.0 61.0 59.5 57.0	63.0 63.0 63.0 57.0	May 30 0.30 1.55 16.30 20.33 23.55	22.21.20 17.0 16.0 7.0 22.20	May 30 0.32 3.50 4.55 5.25 8.12 9.58 19.5 23.56	*1000 *1018 *1010 *1014 *1018 *1009 *1023 *0988	0.35 2.15 3.40 5.30 6.45 7.30 8.45 15.45 19.0 23.55	*01355 *01149 *01210 *01259 *01263 *01282 *01282 *01821 *01740 *01653	1.40 3.40 9.40 21.40	64.0 68.0 69.0 62.5	66.0 70.0 72.5 64.0
May 26 0.53 6.45 16.40 17.15 18.45 23.40	22.22.30 17.0 18.50 22.40 14.20 23.0	May 26 0.54 2.58 3.41 5.8 5.32 6.42 16.25 17.10 17.54 23.42	*0995 *1003 *1017 *1011 *1021 *1013 *1037 *1019 *1037 *1004	May 26 1.30 7.0 9.51 11.45 15.35 18.15 20.51 23.45	*01727 *01610 *01660 *01755 *01770 *01685 *01703 *01647	1.40 3.40 9.40 21.45	60.0 61.0 59.5 57.0	63.0 63.0 63.0 57.0	May 31 0.57 8.0 20.0 20.17 22.45	22.24.10 13.30 3.30 7.20 15.40	May 31 1.2 8.36 18.35 22.50	*0988 *** *1019 *1037 *1002	1.0 3.55 6.0 8.0 9.52 13.10 18.0 22.50	*01555 *01162 *01178 *01260 *01380 *01776 *01660 *01540	1.40 3.40 9.40 22.40	66.0 68.0 64.0 59.0	68.0 69.0 67.0 61.0
May 27 0.5 1.20 7.30 16.25 20.0 23.55	22.24.0 26.20 14.50 17.0 10.30 22.10	May 27 0.0 7.16 18.45 23.54	*1007 *1028 *1028 *0985	May 27 0.0 1.59 6.15 8.45 10.30 17.0 21.47 23.30	*01565 *01375 *01028 *01102 *01058 *01280 *01530 *01450	1.40 3.40 9.40 21.40	59.0 60.5 60.0 59.0	61.0 62.0 64.0 62.0	June 1 0.0 1.30 7.0 19.0 20.50 23.55	22.23.30 24.40 13.40 9.10 9.0 24.0	June 1 0.0 9.45 17.25 23.50	*0978 *** *1009 *1019 *1019	0.0 2.20 6.0 9.22 13.0 15.15 19.0 20.10 22.30	*01432 *01114 *01242 *01400 *01623 *01812 *01755 *01742 *01765	9.35 21.40	69.0 61.0	72.0 63.5
May 27 0.5 1.20 7.30 16.25 20.0 23.55	22.24.0 26.20 14.50 17.0 10.30 22.10	May 27 0.0 7.16 18.45 23.54	*1007 *1028 *1028 *0985	May 27 0.0 1.59 6.15 8.45 10.30 17.0 21.47 23.30	*01565 *01375 *01028 *01102 *01058 *01280 *01530 *01450	1.40 3.40 9.40 21.40	59.0 60.5 60.0 59.0	61.0 62.0 64.0 62.0	June 2 1.10 7.12 19.12 23.55	22.25.20 14.10 9.20 20.20	June 2 1.8 3.55 *** 8.40 8.45	*0986 *1002 *** *1012 *0990	1.25 3.7 3.45 9.31 13.0	*01541 *01238 *01218 *01418 *01603	1.40 3.40 9.40 21.40	65.0 67.0 68.0 63.0	68.0 68.5 73.0 66.0
May 28 0.25 8.0 11.0 20.0 23.55	22.23.0 14.20 17.10 9.40 24.10	May 28 0.27 0.48 1.30 7.10 18.20 23.56	*1013 *0992 *0985 *1015 *1025 *0982	May 28 0.30 2.37 4.25 4.27 9.31 14.57 21.50	*01345 *01100 *01163 *01193 *01320 *01770 *01670	1.40 3.40 9.40 21.40	63.0 64.5 64.5 59.0	65.0 67.0 66.5 61.0	June 2 1.10 7.12 19.12 23.55	22.25.20 14.10 9.20 20.20	June 2 1.8 3.55 *** 8.40 8.45	*0986 *1002 *** *1012 *0990	1.25 3.7 3.45 9.31 13.0	*01541 *01238 *01218 *01418 *01603	1.40 3.40 9.40 21.40	65.0 67.0 68.0 63.0	68.0 68.5 73.0 66.0

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 to a considerable time before and after that which is recorded.

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.	Göttingen Mean Solar Time.	Readings of Thermometers.		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.	Göttingen Mean Solar Time.	Readings of Thermometers.																										
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.																									
		June 2 h m 18. 17 20. 50 23. 55	·1021 ·1000 ·1020	June 2 h m 15. 35 19. 0 22. 8 23. 55	·01832 ·01783 ·01718 ·01582				June 5 h m 14. 47 15. 9 15. 50 16. 3 16. 14 17. 17 17. 51 20. 15 23. 39	° 22. 8. 0 2. 30 17. 50 10. 5 13. 0 8. 40 16. 50 10. 0 15. 40	June 5 h m 5. 40 6. 40 6. 49 7. 9 7. 46 8. 2 8. 59 9. 18 10. 2 10. 20 11. 0 11. 27 11. 40 12. 13 12. 30 12. 47 12. 53 13. 45 14. 40 14. 58 15. 23 15. 47 16. 0 16. 15 17. 0 17. 30 18. 20 22. 16 22. 21 22. 25 23. 30	·1008 *** ·1042 ·1030 ·1040 ·1014 ·1025 *** ·1006 ·1041 ·0982 ·0991 ·0982 ·0996 ·0988 ·0988 ·0981 ·1006 ·0996 ·1010 ·0971 ·0979 ·0968 ·0981 ·0968 ·0976 *** ·0983 ·0966 ·0982 *** ·0954 *** ·0945 *** ·0955 *** ·0950	June 5 h m 16. 10 17. 45 20. 44 23. 42	·01275 ·01145 ·01470 ·01600																												
June 3 0. 35 6. 40 18. 40 23. 55	22. 22. 10 15. 20 10. 50 18. 0	June 3 h m 0. 40 4. 18 4. 50 5. 55 6. 34 7. 58 9. 48 10. 10 10. 32 18. 51 23. 56	·0974 ·0996 ·1021 ·0990 ·0981 ·0997 ·0983 ·0990 ·0985 ·1010 ·0976	June 3 h m 0. 40 2. 59 7. 0 9. 54 13. 55 18. 0 21. 52 23. 45	·01473 ·01220 ·01410 ·01530 ·01842 ·01690 ·01610 ·01595		1. 40 3. 40 9. 40 21. 40	69. 0 71. 0 69. 0 54. 0	·074. 0 ·075. 0 ·072. 5 ·056. 0		June 4 0. 42 6. 7 18. 7 23. 55	22. 19. 30 16. 0 12. 30 17. 30	June 4 h m 0. 38 2. 20 2. 48 3. 9 4. 0 4. 9 4. 16 4. 47 6. 3 6. 54 8. 28 9. 31 13. 50 14. 28 18. 55 21. 15 23. 30	·0977 ·0990 ·1016 ·1004 ·0987 ·1000 ·0982 ·1000 ·0995 ·1006 ·0998 ·0996 ·1008 ·1006 ·1024 ·1011 ·0978	June 4 h m 0. 45 2. 20 6. 45 8. 0 10. 30 14. 25 19. 0 20. 49 23. 55	·01621 ·01525 ·01268 ·01272 ·01195 ·01617 ·01550 ·01530 ·01330		1. 40 3. 40 9. 40 21. 40	59. 0 61. 0 60. 0 54. 0	·062. 0 ·064. 0 ·064. 0 ·056. 0		June 5 0. 40 4. 45 8. 42 9. 12 9. 33 10. 32 10. 46 11. 22 11. 30 11. 48 12. 18 12. 32 11. 48 13. 44	22. 16. 0 21. 20 15. 20 5. 30 16. 0 3. 30 7. 0 8. 20 10. 40 8. 0 10. 30 8. 10 22. 16. 0 21. 52. 50	June 5 h m 0. 21 2. 55 4. 25 5. 34 5. 38 5. 42 8. 50 9. 7 10. 25 12. 43 13. 0 14. 50 15. 36 15. 52	·0985 ·0993 ·0988 ·0996 ·0993 ·0979 ·0995 *** ·0988 ·0996 ·0990 ·1011 ·1006 ·1022	June 5 h m 0. 21 2. 55 4. 25 5. 34 5. 38 5. 42 8. 50 9. 7 10. 25 12. 43 13. 0 14. 50 15. 36 15. 52	·01310 ·00980 ·01032 ·01020 ·01020 ·01031 ·01105 ·01130 ·01025 ·01105 ·01045 ·01095 ·01185 ·01175		1. 40 3. 40 9. 40 21. 40	58. 0 59. 0 60. 0 59. 0	·061. 0 ·062. 0 ·061. 5 ·061. 0		June 6 0. 0 3. 30 4. 20 5. 10 5. 50 6. 30 9. 37 10. 30 11. 15 11. 45 12. 10 15. 7	22. 16. 0 19. 30 17. 0 17. 40 13. 10 16. 20 10. 30 15. 0 11. 0 13. 30 9. 50 14. 40	June 6 h m 1. 0 2. 45 3. 32 4. 0 4. 29 5. 1 5. 30 5. 53 6. 52 7. 10 7. 58	·0962 *** ·0984 ·0986 ·0973 ·0993 ·1000 ·0990 ·1011 ·0990 ·1000 ·0993	June 6 h m 0. 0 2. 42 9. 7 10. 57 17. 12 21. 56 23. 55	·01340 *** ·01160 *** ·01250 ·01200 ·01775 ·01775 ·01340		1. 40 3. 40 9. 40 21. 40	58. 0 65. 0 67. 0 60. 0	·060. 0 ·068. 0 ·070. 0 ·063. 0

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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.	Göttingen Mean Solar Time.	Readings of Thermometers.		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.	Göttingen Mean Solar Time.	Readings of Thermometers.	
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
June 6 h m s 17. 17 0 23. 55	22. 11. 0 15. 10	June 6 h m s 8. 22 8. 37 8. 52 9. 3 9. 26 9. 42 10. 8 *** 11. 4 *** 11. 45 12. 0 12. 20 14. 40 15. 10 16. 28 22. 5 23. 55	*1003 *0990 *0996 *0985 *0981 *0990 *0982 *** *0989 *** *0988 *0978 *0984 *0986 *0982 *0994 *0967 *0964														
June 7 h m s 6. 37 13. 53 19. 10 23. 20	22. 13. 40 15. 20 7. 50 14. 30	June 7 h m s 6. 30 9. 22 10. 2 11. 19 13. 30 13. 58 17. 30 18. 0 23. 20	(†) *0998 *0992 *1002 *0985 *0988 *0995 *0984 *0988 *0964	June 7 h m s 7. 10 9. 11 10. 34 13. 44 14. 8 21. 18 23. 23	*01240 *01255 *01200 *01355 *01364 *01844 *01765		1. 40 63. 0 67. 0 3. 40 66. 0 68. 0 9. 40 69. 0 70. 0 23. 16 64. 0 66. 0										
June 8 h m s 0. 0 3. 0 6. 15 11. 0 23. 55	22. 15. 30 18. 10 11. 50 16. 40 17. 30	June 8 h m s 0. 0 1. 15 1. 30 1. 53 2. 39 3. 50 *** 6. 41 9. 35 10. 55 11. 52 12. 28 13. 30 16. 30 19. 30 22. 45 23. 30	*0964 *0957 *0960 *0953 *0964 *0960 *** *0988 *0976 *0982 *0989 *0976 *0976 *0984 *0978 *0986 *0984	June 8 h m s 0. 0 3. 58 4. 56 5. 35 10. 30 16. 50 23. 53	*01728 *01270 *01256 *01153 *01118 *01540 *01515												
June 9 h m s 0. 39 7. 20	22. 18. 0 17. 0	June 9 h m s 0. 35 1. 40	*0986 *0990	June 9 h m s 0. 12 2. 37	*01758 *01800	1. 40 60. 0 62. 0 3. 40 60. 0 63. 0											
June 9 h m s 8. 0 9. 27 9. 40 9. 28 11. 10 20. 12 23. 55	22. 18. 0 0. 10 15. 0 3. 30 14. 10 9. 0 15. 40	June 9 h m s 1. 53 2. 12 3. 15 3. 42 4. 2 4. 33 5. 1 5. 12 6. 5 *** 6. 50 7. 10 7. 44 8. 5 8. 23 8. 28 8. 32 9. 2 9. 36 9. 53 10. 22 10. 50 11. 8 12. 45 13. 0 13. 23 13. 35 13. 42 14. 12 15. 35 (†) 22. 30 23. 45	*0985 *1000 *0996 *1011 *1012 *1002 *1005 *1000 *1027 *** *1019 *1038 *1037 *1019 *1032 *1018 *1027 *1004 *1050 *0984 *1010 *0992 *1000 *0992 *0982 *1011 *0996 *1002 *1000 *0994 (†) *0980 *0993														
June 10 h m s 0. 15 5. 30 6. 50 9. 0 19. 23 23. 55	22. 16. 30 15. 0 9. 20 13. 30 12. 20 16. 40	June 10 h m s 0. 15 0. 25 0. 30 1. 5 1. 28 1. 40 1. 59 2. 15 2. 47 *** 4. 13 4. 24 4. 33 5. 4 5. 24 6. 20 6. 40	*0995 *0994 *0989 *1002 *0996 *0998 *0990 *1000 *0981 *** *1000 *0994 *1000 *1003 *0990 *1023 *1013														
		June 10 h m s 0. 34 1. 12 3. 32 4. 5 4. 38 (†) 9. 22 12. 5 14. 22 20. 50 23. 54	*01720 *01740 *01648 *01635 *01675 (†) *01700 *01725 *01700 *01725 *01632														
		June 10 h m s 1. 40 3. 40 9. 40 21. 40	1. 40 59. 0 60. 0 3. 40 60. 0 63. 0 9. 40 59. 0 60. 0 21. 40 56. 0 58. 0														

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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.	Göttingen Mean Solar Time.	Readings of Thermometers.		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.	Göttingen Mean Solar Time.	Readings of Thermometers.	
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
		June 10 h m 7. 3 7. 29 19. 0 19. 15 21. 58 23. 55	.1019 .1006 .1004 .1000 .0980 .0981														
June 11 0. 15 7. 0 19. 0 23. 55	22. 17. 10 14. 20 8. 30 18. 40	June 11 h m 1. 0 *** 2. 53 4. 10 6. 20 6. 50 8. 35 9. 30 10. 0 10. 30 10. 55 18. 30 22. 0 23. 55	.0980 *** .0987 .0981 .1000 .0991 .1000 .0996 .0998 .0996 .1000 .1004 .0993 .0997	June 11 h m 0. 18 0. 52 2. 9 4. 17 9. 5 10. 44 17. 7 23. 55	.01620 .01600 .01483 .01140 .01185 .01185 .01788 .01650		59. 60 64. 66 65. 67 59. 62										
June 12 0. 50 7. 0 19. 0 23. 55	22. 19. 30 12. 50 7. 30 15. 10	June 12 h m 1. 30 4. 30 5. 0 5. 45 6. 0 6. 30 7. 30 9. 38 16. 0 19. 15 23. 15	.1000 .1016 .1010 .1010 .1014 .1011 .1015 .1014 .1010 .1000 .0986	June 12 h m 1. 3 7. 50 9. 26 11. 29 20. 17 23. 55	.01622 .01200 .01245 .01203 .01475 .01305		60. 65 63. 66 64. 68 61. 64										
June 13 0. 28 6. 45 12. 0 16. 15 17. 0 20. 0 21. 37 23. 55	22. 16. 30 13. 10 13. 40 13. 30 9. 30 14. 50 9. 50 18. 0	June 13 h m 0. 30 1. 33 2. 15 3. 45 4. 24 6. 29 9. 33 10. 33 12. 20 13. 18 16. 18 17. 0 17. 30 19. 40	.1000 .1006 .0993 .1000 .0994 .0997 .1008 .1003 .1017 .1000 .1018 .1005 .0992 .0978	June 13 h m 1. 35 3. 45 4. 47 6. 42 9. 22 10. 30 17. 20 23. 55	.01180 .01222 .01292 .01268 .01295 .01272 .01840 .01782		65. 68 68. 70 68. 70 63. 66										
		June 10 h m 20. 10 21. 20 23. 20 23. 55	.0982 .0983 .0957 .0972														
		June 14 h m 0. 26 6. 30 18. 30 22. 58	.0975 .0985 .0971 2. 35 2. 45 3. 8 3. 22 3. 35 4. 2 4. 51 5. 40 6. 58 13. 48 15. 18 16. 11 17. 1 17. 55 19. 12 20. 26 22. 50 23. 55	June 14 h m 0. 34 7. 0 10. 3 16. 47 19. 49 20. 4 22. 54	.01188 .01252 .01242 .01848 .01775 .01673 .01690		65. 66 67. 68 66. 68 60. 63 65. 63										
June 15 0. 0 2. 0 4. 25 5. 28 6. 20 23. 55	22. 16. 0 12. 20 17. 10 9. 30 6. 40 19. 30	June 15 h m 0. 0 6. 58 9. 38 10. 30 14. 47 15. 6 15. 53 15. 57 21. 32 23. 55	.0996 .0992 1. 0 3. 12 3. 33 3. 57 *** 5. 20 5. 40 6. 8 8. 10 9. 38 16. 34 19. 33 23. 30 23. 47	June 15 h m 0. 0 6. 58 9. 38 10. 30 14. 47 15. 6 15. 53 15. 57 21. 32 23. 55	.01626 .01252 .01265 .01272 .01498 .01482 .01505 .01505 .01566 .01400		63. 67 63. 63										
June 16 1. 0 7. 20 19. 20 23. 55	22. 21. 10 14. 30 9. 30 18. 10	June 16 h m 1. 50 8. 5 9. 30 10. 50	.0978 .0983 *** .1008	June 16 h m 1. 0 2. 30 *** 4. 0	.01160 .01382 .01380 .01343		65. 67 69. 69 69. 74 59. 61										

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.	Göttingen Mean Solar Time.	Readings of Thermometers.		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.	Göttingen Mean Solar Time.	Readings of Thermometers.																																													
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.																																												
		June 16 h m 5. 20: 7. 2: 7. 52 8. 10: 10. 7 12. 0: 12. 30 13. 10 14. 0 14. 50 17. 0 18. 30 19. 0 19. 30 22. 30 23. 55	•0993 •1006 •1003 •1009 •0993 •1000 •0995 •1000 •1009 •1004 •1010 •1007 •1000 •0987 •0970 •0972	June 16 h m 14. 38 23. 55	•01860 •01740																																																								
June 17 o. o 7. 20 13. o 13. 27: 14. o: 15. 30: 16. 15: 17. 53: 23. 55	22. 18. 40 13. 40 14. 20 11. 20 11. 50 8. 20 10. 30 8. o 17. 23	June 17 o. 10 2. 48 2. 57 4. 23 5. 30 7. 15 8. 35 10. o 12. 20 13. 40 15. 30 16. 45 19. o 19. 5 19. 30 21. 41 22. 9 23. 55	•0971 •0994 •0989 •1000 •0996 •1004 •1004 •0994 •0993 •0993 •1008 •1003 •1008 •1005 •1000 •0993 •0974 •0962 •0975	June 17 o. 30 6. 22 9. 28 11. 11 16. 42 16. 50 19. 13 22. 32 23. 55	•01740 •01230 •01270 •01230 •01800 •01730 •01740 •01765 •01650	1. 40 3. 40 9. 40 21. 40	63 65 65 58	•066 •067 •068 •061	June 17 o. 30 11. o 14. 30: 16. 7: 18. 20: 23. 55	22. 20. 30 15. 30 9. o 13. 30 8. o 20. 30	June 18 o. 17 2. 42: 11. 30 12. 12: 20. o 23. 55	22. 17. 50 21. 10 15. o 15. 30 10. 20 20. 20	June 18 o. 30 2. 21 2. 53 4. 24 6. 10 8. o 11. 45 12. 5 15. 30 17. o	•0980 •0987 •0990 •0991 •1004 •1008 •1004 •1010 *** •1002 •1006	June 18 o. 30 2. 43 7. 30 9. 33 11. o 12. o 15. o 21. 30: 23. o 23. 55	•01580 •01160 •01260 •01320 •01250 •01250 •01335 •01700 •01640 •01490	1. 40 3. 40 9. 40 21. 46	64 65 65 65	•067 •068 •067 •068	June 18 o. 30 5. 15 6. o 11. 20 11. 50: 12. 17: 12. 47	22. 12. 30 19. o 15. o 15. o 13. 10 14. 40 11. 40	June 19 o. 32 7. 15 19. 15 23. 55	22. 21. 10 15. 30 9. 30 19. 30	June 19 o. 30 0. 30 6. 55 7. 30 18. o 19. 20 22. o 23. 55	•0974 *** •0997 •0986 •1003 •1000 •0981 •0975	June 19 o. 30 0. 55 3. 30 7. 30 11. 30 14. 41 20. 30 21. 38 23. 55	•01380 •01300 •01420 •01430 •01550 •01951 •01880 •01890 •01775	1. 40 3. 40 9. 40 21. 40	69 74 73 67	•073 •077 •077 •070	June 19 o. 30 11. o 16. 7: 18. 20: 23. 55	22. 20. 30 15. 30 9. o 13. 30 8. o 20. 30	June 20 o. 30 11. o 14. 30: 16. 7: 18. 20: 23. 55	22. 20. 30 15. 30 9. o 13. 30 8. o 20. 30	June 20 o. 30 12. 25 12. 35 13. o 15. 52 16. 50 17. 15: 18. 20 19. 10 20. 45 23. o 23. 55	•0974 •0994 •1005 •1000 •1010 •1012 •1008 •0990 •0987 •0961 •0961	June 20 o. 35 2. 28 3. 30 5. 55 7. o 9. o 14. 15 14. 18 17. o 20. 48 22. 28 23. 55	•01685 •01359 •01450 •01462 •01450 •01920 •01900 •01828 •01825 •01700 •01460	1. 40 3. 40 9. 40 21. 40	70 74 75 67	•074 •077 •078 •070	June 20 o. 30 5. 15 6. o 11. 20 11. 50: 12. 17: 12. 47	22. 12. 30 19. o 15. o 15. o 13. 10 14. 40 11. 40	June 21 o. o 6. 40 18. 40 22. 15	22. 21. 30 14. 30 8. 40 10. 40	June 21 o. 23 0. 47 1. 11 2. o 2. 56 5. 25 6. 25 7. 23 9. 56 19. 28: 23. 4	•0963 •0954 •0902 •0945 •0957 *** •0966 •0959 •0976 •0973 •0997 *** •0977	June 21 o. 45 2. 55 6. o: 13. 5 23. 17	•01325 •01415 •01325 •01875 •01675	1. 40 3. 40 9. 40 23. 3	75 81 77 67	•077 •083 •079 •070	June 22 o. o 5. 15 6. o 11. 20 11. 50: 12. 17: 12. 47	22. 12. 30 19. o 15. o 15. o 13. 10 14. 40 11. 40	June 22 o. 15 1. 35 1. 48 2. 1 2. 25 2. 50 3. 12	•0973 •0980 •0976 •0982 •0971 •0984 •0968 ***	June 22 o. 5 5. 6 8. 13 12. 6 15. 17 15. 57 23. 55	•01660 •01757 •01685 •01710 •01620 •01438 •01433	9. 40 21. 40	65 58	•067 •060

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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	Of H. F. Magnet.	Of V. F. Magnet.							h	m	Of H. F. Magnet.	Of V. F. Magnet.	h	m
June 22 23. 55	22. 15. 0	June 22 5. 15 5. 39 7. 25: *** 9. 50 11. 19: 11. 25 11. 50 12. 10 13. 10 18. 0: 20. 0 23. 45	.1008 .0976 .1000 *** .0991 .1006 .0990 .0996 .1013 .0985 .1000 .0982 .0967							June 26 18. 46: 20. 4: 23. 55	22. 11. 0 8. 30 20. 20	June 26 6. 42 7. 22 10. 11 10. 16 10. 42 11. 8 12. 13 *** 15. 57 16. 41 18. 50 19. 15 23. 50	.0953 .0970 .0964 .0977 .0966 .0988 .0966 *** .0986 .0981 .0988 .0988 .0951	June 26 16. 5 21. 33 23. 55	.01682 .01662 .01265						
June 23 0. 20 7. 58 19. 58 23. 55	22. 16. 30 14. 20 8. 10 17. 20	June 23 0. 30 1. 0 3. 15 5. 58 18. 30: 20. 0 22. 30 23. 55	.0970 .0970 .0961 .0986 .0996 .0994 .0978 .0982	June 23 1. 10 4. 30 9. 20 10. 45 15. 54 20. 57 23. 55	.01430 .00980 .01040 .01025 .01060 .01550 .01380					June 27 0. 0 8. 2 10. 45 12. 50 13. 30: 15. 45: 16. 30: 23. 55	22. 20. 0 13. 30 12. 20 12. 40 6. 10 13. 30 6. 50 20. 30	June 27 0. 42 1. 18 1. 30 1. 56 2. 32 2. 58: 3. 32: 4. 39: 5. 3: 5. 25: 6. 28: 7. 55: 8. 53: *** 13. 33 13. 58 14. 48: 15. 28: 16. 20: 17. 3 22. 27 23. 6 23. 55	.0952 .0953 .0960 .0953 .0958 .0949 .0963 .0939 .0950 .0941 .0962 .0947 .0962 *** .0964 .0971 .0962 .0976 .0961 .0979 .0934 .0926 .0932	June 27 0. 13 4. 3 6. 53: 10. 30 12. 10 17. 10 21. 2 23. 5:	.01168 .01380 .01210 .01322 .01264 .01463 .01450 .01358	June 27 1. 40 3. 40 9. 40 21. 40	75. 0 80. 0 78. 0 70. 0	78. 0 83. 0 80. 0 72. 0			
June 24 0. 35 17. 0 19. 0 23. 55	22. 18. 0 16. 20 12. 0 19. 10	June 24 1. 0 3. 15 7. 25 9. 49 19. 30 22. 30 23. 35	.0981 .0971 .0977 .0974 .0990 .0972 .0973	June 24 0. 42 2. 38 9. 42 11. 6 16. 14 21. 0 23. 50	.01408 .01105 .01162 .01105 .01692 .01665 .01418					June 28 0. 53 7. 25 12. 25 13. 50: 14. 44 18. 30 22. 58	22. 20. 30 13. 10 18. 30 11. 20 13. 40 8. 10 17. 50	June 28 1. 0 *** 3. 3 5. 22 6. 0 9. 38 12. 14 19. 15 22. 13	.0941 *** .0949 .0917 .0917 .0946 .0954 .0941 .0954	June 28 1. 47 2. 49 7. 54 10. 22: 12. 15 19. 50 23. 2	.00933 .00982 .00995 .01170 .01550 .01390 .01085						
June 25 0. 15 15. 45 20. 30: 23. 45	22. 19. 20 14. 10 7. 40 17. 50	June 25 1. 0 3. 0 5. 0 6. 15 7. 0 12. 15 18. 30 20. 45 23. 55	.0969 .0967 .0959 .0964 .0970 .0975 .0990 .0975 .0958	June 25 0. 17 1. 30 9. 31 11. 0 15. 13 21. 51 23. 58	.01383 .01140 .01260 .01240 .01775 .01702 .01525					June 29 0. 0	22. 21. 0	June 29 0. 0	.0926 ***	June 29 0. 22	.00812	10. 10	73. 0	74. 0			
June 26 0. 0 10. 30 11. 40: 12. 40 15. 0 17. 12:	22. 18. 30 15. 20 8. 20 12. 30 14. 10 8. 0	June 26 0. 30 0. 57 *** 3. 28 5. 15 6. 30	.0962 .0957 *** .0956 .0964 .0962	June 26 0. 3 1. 42 3. 38 6. 42 10. 53 13. 4	.01505 .01190 .01295 .01265 .01370 .01805					June 29 0. 0	22. 21. 0	June 29 0. 0	.0926 ***	June 29 0. 22	.00812	10. 10	73. 0	74. 0			

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

Göttingen Mean Solar Time. <small>h m</small>	Western Declina- tion.	Göttingen Mean Solar Time. <small>h m</small>	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time. <small>h m</small>	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Readings of Thermo- meters.		Göttingen Mean Solar Time. <small>h m</small>	Western Declina- tion.	Göttingen Mean Solar Time. <small>h m</small>	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time. <small>h m</small>	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.	
June 29 1. 30: 6. 40 18. 7	22. 23. 0 13. 30 10. 20	June 29 3. 28 4. 30: 5. 15 6. 30 7. 14 8. 30 9. 0 14. 30 19. 30 21. 53	.0960 *** .0931 *** .0935 *** .0941 *** .0928 *** .0937 .0933 .0959 .0946 .0955	June 29 3. 22 6. 0 8. 52 13. 10 19. 52 23. 54	.00995 .00965 .00920 .01522 .01405 .01030	h m	o	o	o	o	o	o	o	o	o	o
June 30 0. 4 6. 10 18. 10 23. 55	22. 22. 0 14. 20 9. 10 15. 40	June 30 0. 0 3. 21 4. 20 7. 35 9. 56 13. 0 19. 20 22. 20	.0930 .0932 .0922 *** .0943 .0947 .0945 .0932 .0934	June 30 0. 54 2. 3 5. 25 9. 46 14. 25 20. 38 23. 52	.00805 .00885 .00895 .00873 .01512 .01442 .01228	h m	o	o	o	o	o	o	o	o	o	o
July 1 0. 47 7. 3 19. 0 23. 55	22. 15. 40 12. 10 6. 10 15. 30	July 1 0. 39 8. 24 18. 40 23. 50	.1012 .1015 .1040 .0998	July 1 0. 47 3. 35 6. 45: 10. 37 15. 52 21. 49 23. 52	.01182 .00993 .00995 .00960 .01575 .01525 .01342	h m	o	o	o	o	o	o	o	o	o	o
July 2 0. 50 6. 23 18. 20 23. 55	22. 18. 0 13. 0 8. 40 15. 30	July 2 0. 48 1. 48 5. 2 6. 15 7. 55 8. 40: 8. 59: 9. 15: 10. 18 21. 4 22. 57 23. 5 23. 31 23. 48	.0993 .0982 .1012 .1014 .1029 .1016 .1024 .1019 .1028 .1052 .1039 .1044 .1030 .1028	July 2 0. 53 1. 58 5. 7 9. 14: 12. 56 23. 55	.01120 .00935 .01065 .01042 .01578 .01340	h m	o	o	o	o	o	o	o	o	o	o
July 3 0. 10 2. 17 8. 0 9. 35 10. 7 10. 30 10. 50: 12. 10 13. 17 15. 50 23. 55	22. 16. 40 22. 30 22. 14. 20 21. 52. 30 22. 7. 30 5. 0 22. 7. 10 21. 58. 20 22. 12. 30 9. 50 19. 30	July 3 0. 11 0. 30 0. 57 7. 11 8. 41 9. 3 9. 15 9. 47 10. 31 16. 13 17. 30 19. 0 22. 0 23. 55	.1036 *** .1045 .1020 *** .1052 .1004 .1030 .1022 .1034 .1022 3. 36 .1050 4. 20 6. 15 7. 38 8. 20: 9. 25 9. 45 10. 33 10. 50 11. 10: 11. 40: 12. 30 13. 37 21. 47 22. 10 22. 33: 22. 48 23. 2 23. 55	July 3 0. 15 2. 0 7. 11 8. 41 9. 3 9. 15 9. 47 10. 31 16. 13 17. 30 19. 0 22. 0 23. 55	.01045 *** .01340 *** .00812 .00755 .00782 .00755 .00815 .00770 .01385 .01350 .01370 .01330 .01355	h m	o	o	o	o	o	o	o	o	o	o
July 4 0. 0 6. 50 7. 28: 8. 0 9. 23 12. 25 12. 45 13. 45 23. 25	22. 19. 40 17. 30 14. 20 17. 40 18. 20 *** 10. 50 8. 50 14. 10 20. 0	July 4 0. 0 5. 51 7. 32 11. 0 16. 5 21. 47 23. 28	.1005 .1014 .1004 .1017 .1018 3. 20 .1004 .1018 3. 54: 4. 32 5. 16: 6. 29: 7. 12: 7. 30: 9. 9 13. 5 19. 1 23. 26	July 4 0. 3 5. 11 7. 32 11. 0 16. 5 21. 47 23. 28	.01355 .00762 .01815 .00735 .01375 .01340 .01245	h m	o	o	o	o	o	o	o	o	o	o

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							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
July 5 0. 0 2. 33 10. 40 10. 56 11. 20 11. 40 13. 2 15. 15 15. 52 23. 0	22. 20. 40 24. 30 15. 0 17. 30 11. 10 15. 0 9. 30 16. 30 13. 10 17. 30	July 5 0. 0 2. 6 14. 55 15. 32 16. 15 23. 3	*1010 *1006 *** *1017 *1032 *1024 *1014	July 5 0. 0 2. 58 5. 10 9. 33 11. 0 13. 0 18. 0 20. 0 23. 2	*01188 *00730 *00838 *00885 *00820 *00860 *01460 *01435 *01455	1. 40 3. 40 9. 40 22. 40	63. 0 65. 0 69. 0 63. 0	064. 0 067. 0 070. 0 064. 5	July 9 1. 30 9. 11 10. 4 11. 0 15. 45 16. 35 17. 45 23. 55	22. 22. 20 15. 10 12. 40 14. 50 15. 50 17. 30 9. 20 27. 30	July 9 0. 30 3. 30 5. 30 8. 0 16. 2 17. 30 22. 30 23. 15 23. 54	*1037 *1040 *1021 *1039 *1040 *1053 *1045 *1047 *1039	0. 30 7. 0 8. 30 9. 16 16. 47 21. 50 23. 55	*01080 *00730 *00760 *00730 *01355 *01304 *01150	1. 40 3. 40 9. 40 21. 40	60. 0 64. 0 63. 0 58. 0	063. 0 067. 0 066. 0 062. 0
July 6 0. 0 3. 0 10. 56 11. 23 12. 0 19. 0 20. 20 23. 55	22. 19. 30 *** 24. 0 *** 16. 0 17. 20 14. 30 14. 20 10. 0 *** 21. 20	July 6 0. 0 3. 28 4. 32 11. 24 11. 49 13. 1 23. 55	*1015 *1022 *1010 *1025 *1029 *1020 *1016	July 6 0. 0 2. 30 5. 17 8. 28 12. 12 15. 10 19. 25 22. 42 23. 55	*01410 *01255 *01005 *00810 *00830 *00940 *01310 *01475 *01345	11. 0 21. 44	68. 0 64. 0	068. 0 067. 0	July 10 0. 17 7. 40 8. 20 8. 48 9. 35 16. 45 17. 27 18. 35 19. 45 23. 55	22. 27. 30 16. 30 15. 20 17. 0 14. 0 15. 30 13. 0 17. 50 13. 30 21. 10	July 10 0. 30 1. 45 2. 10 2. 31 2. 53 5. 10 *** 6. 20 6. 56 8. 49 9. 25 17. 15 18. 0 19. 3 23. 40	*1037 *1028 *1034 *1030 *1035 *1032 *** *1046 *1038 *** *1056 *1039 *1050 *1042 *1049 *** *1027	0. 30 4. 22 7. 30 13. 52 19. 30 21. 50 23. 55	*01115 *00660 *00700 *01330 *01280 *01165 *00965	1. 40 3. 40 9. 40 21. 40	60. 0 64. 0 62. 5 54. 0	063. 0 065. 0 063. 0 056. 0
July 7 1. 7 6. 37 18. 37 23. 55	22. 23. 40 17. 50 10. 20 22. 40	July 7 1. 13 1. 54 6. 58 8. 57 9. 35 10. 5 10. 49 11. 54 20. 49 23. 55	*1008 *1005 *1030 *1026 *1032 *1024 *** *1030 *** *1024 *** *1030 *1012	July 7 1. 40 4. 39 11. 25 16. 21 23. 55	*01345 *00890 *00945 *01510 *01850	1. 40 3. 40 9. 40 21. 40	67. 0 70. 0 69. 0 63. 5	069. 0 073. 0 071. 0 566. 0	July 11 0. 13 6. 32 18. 32 21. 20 23. 55	22. 21. 30 16. 50 10. 40 11. 40 23. 50	July 11 0. 40 *** 4. 21 4. 33 5. 5 5. 39 8. 38 9. 31 11. 8 18. 15 19. 58 21. 39 23. 40	*1027 *** *1027 *1022 *1036 *1029 *1037 *1030 *1043 *1039 *1022 *1023 *1010	0. 30 2. 2 5. 3 9. 31 12. 30 20. 30 23. 30	*00890 *00690 *00810 *00833 *00770 *01005 *00830	1. 40 3. 40 9. 40 21. 40	59. 0 64. 0 66. 0 64. 0	060. 0 064. 0 064. 5 067. 0
July 8 0. 25 8. 4 20. 0 23. 55	22. 23. 30 17. 50 12. 0 20. 10	July 8 0. 29 1. 45 2. 3 3. 54 5. 58 6. 46 7. 26 18. 33 23. 55	*1012 *1022 (+) *1013 *** *1029 *** *1026 *1045 *1027 *1046 *1033	July 8 0. 30 5. 0 7. 30 10. 0 14. 18 21. 38 22. 15 23. 0 23. 55	*01253 *01078 *00883 *00919 *01437 *01350 *01180 *01120 *01100	1. 40 3. 40 9. 40 21. 45	65. 0 67. 0 67. 0 59. 0	068. 0 069. 5 068. 0 061. 0	July 12 0. 42 7. 5 19. 5 23. 18	22. 23. 20 14. 40 14. 50 22. 20	July 12 1. 35 4. 40 5. 15 10. 11 16. 40 19. 10 19. 24	*1023 *1008 *1018 *1020 *1040 *1044 *1039	1. 0 3. 26 7. 0 10. 0 11. 30 14. 48 23. 15	*00856 *00960 *01005 *00994 *10500 *01580 *01430	1. 40 3. 40 9. 40 2. 39	68. 0 72. 0 73. 0 65. 0	069. 0 072. 0 075. 0 067. 0

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.	Göttingen Mean Solar Time.	Readings of Thermometers.		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.	Göttingen Mean Solar Time.	Readings of Thermometers.																			
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.																		
h m	o / //	July 21 h m 22.40 23.45	.1000 .0987	h m		h m	o	o	h	o / //	July 25 h m 13.21 14.20 18.0 19.30 23.30	.1023 .1021 .1027 .1020 .1017	h m		h m	o	o																		
July 22 0.25 5.50 17.50	22.23.30 17.30 15.30 (+)	July 22 0.30 3.55 5.0 11.50 12.50 16.30 23.30	.0990 .1010 *** .1009 *** .1010 .1006 .1018 .1013	July 22 0.25 1.49 4.35 8.38 15.0 23.54	.01136 .00840 .00945 .00898 .01515 .01445	1.40 3.40 9.40 21.50	68.0 69.0 68.0 63.0	68.0 71.0 70.0 66.5	July 26 0.11 1.50 4.40 5.10 5.43 6.35 11.20 11.50 12.25 13.12 13.25 13.40 14.0 14.40 16.30 19.16 23.15	22.24.40 27.0 *** 25.40 19.50 22.0 18.30 19.30 16.30 22.10 9.30 10.30 6.30 11.30 7.20 17.40 23.0	July 26 0.30 0.50 1.20 1.41 2.12 2.55 3.29 3.46 3.55 4.16 4.56 5.38 6.12 6.56 7.50 8.21 8.39 8.55 9.32 11.41 12.10 12.46 13.40 13.54 14.7 14.29 15.0 18.45 20.25 22.0 23.15 23.55	.1016 .1025 .1013 .1017 .0998 .1016 .1003 .1018 .1014 .1036 .0996 .1027 .1016 .1031 .1022 *** .1030 .1024 .1031 .1018 *** .1033 .1010 .1032 .1010 .1019 .1014 .1021 .1009 .1016 *** .1000 .0994 .0993 .1004	July 26 1.0 4.51 5.30 12.30 17.14 22.0 23.20	.01322 *** .00855 .00895 .00773 .01388 .01345 .01268	1.40 3.40 9.40 23.86	61.0 64.0 65.0 61.0	61.0 66.0 67.0 61.0																		
July 23 0.3 1.30 7.20 8.3 8.50 20.55 23.55	22.23.10 26.30 19.20 16.20 19.10 15.30 25.30	July 23 0.15 0.45 4.30 7.15 7.30 8.47 18.30 23.30	.1038 .1036 .1027 .1048 .1037 .1015 .1026 .1026	July 23 0.0 2.30 7.30 11.0 14.18 17.30 20.30 23.2 23.55	.01450 .01470 .01050 .00955 .01070 .01260 .01330 .01372 .01575	1.40 3.40 9.40 21.40	63.5 64.0 67.0 63.0	67.0 68.0 69.0 66.0	July 24 0.50 10.20 11.0 14.12 15.13 23.55	22.28.20 21.20 18.0 18.50 14.20 26.30	July 24 2.30 2.40 3.0 4.0 5.30 8.30 10.30 13.30 14.40 20.15 22.30 23.30	.1032 .1034 .1025 .1032 .1030 .1045 .1044 .1028 .1038 .1021 .1028 .1022	July 24 1.1 4.30 10.54 17.30 23.55	.01335 .01233 .01138 .01245 .01135	1.40 3.40 9.40 21.40	62.5 63.0 63.0 59.0	65.0 65.0 65.0 59.0	July 25 0.0 6.0 18.0 23.55	22.27.0 19.10 13.30 23.30	July 25 0.17 2.53 5.0 6.49 7.55 10.24 11.15 *** 12.16	.1017 .1021 *** .1008 *** .1021 .1012 .1022 *** .1012 *** .1034	July 25 0.0 2.39 5.0 10.30 16.54 23.55	.01117 .01782 .00880 .00885 .01445 .01360	1.40 3.40 9.40 21.40	63.0 65.0 66.8 59.0	64.0 66.0 68.5 62.0	July 27 0.0 1.30 10.26 13.50 14.10 19.12 23.55	22.24.30 26.30 13.40 16.20 21.0 13.0 19.50	July 27 0.2 *** .0998 *** 1.49 2.33 2.58	.1000 *** .0998 *** .0988 .1004 .0989 ***	July 27 0.0 2.22 5.30 10.0 19.47 23.55	.01185 .00825 .00945 .00918 .01328 .01282	11.43 21.40	67.0 65.0	69.0 66.0

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 to a considerable time before and after that which is recorded.



INDICATIONS OF THE MAGNETOMETERS

Table with multiple columns: 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, Göttingen Mean Solar Time, Readings of Thermo-meters (Of H. F. Magnet, Of V. F. Magnet), 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, Göttingen Mean Solar Time, Readings of Thermo-meters (Of H. F. Magnet, Of V. F. Magnet).

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol \*\*\* denotes that the magnet 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 to a considerable time before and after that which is recorded.

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 Thermometers.		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 Thermometers.			
						Of H. F. Magnet.	Of V. F. Magnet.							Of H. F. Magnet.	Of V. F. Magnet.		
Aug. 6 22. 3 23. 55	22. 17. 10 23. 20	Aug. 6 17. 0 21. 46	•1011 •1003 (+)	h =				h =	o =	o =	Aug. 6 17. 0 21. 46	h =			h =	o =	o =
Aug. 7 0. 10 1. 0 7. 57 8. 37 9. 3 10. 26 10. 48: 11. 1 11. 22: 12. 13 12. 52 13. 10 13. 50 14. 40 16. 4: 16. 56 20. 20 23. 55	22. 24. 30 27. 20 15. 40 7. 0 15. 10 9. 0 5. 20 9. 20 6. 10 17. 20 16. 0 10. 10 18. 30 13. 30 15. 50 13. 10 15. 20 28. 20	Aug. 7 0. 28 0. 55 2. 17 2. 34 2. 58 3. 38 3. 48 5. 49 6. 19 6. 45 7. 4 8. 9 8. 42 8. 54 9. 12 9. 32 11. 32 12. 54 13. 15 13. 58 23. 58	•0976 •0972 •0992 •0987 •0996 •0988 •0999 •0977 •0985 •0979 •0991 *** •0968 •0971 •0983 •0970 •0976 *** •0963 •0976 •1002 •0973 •0976	Aug. 7 0. 0 3. 15 4. 0 8. 50 10. 42 15. 36 22. 4 23. 55	•01395 •00970 •01023 •01090 •01035 •01570 •01524 •01135	1. 40 3. 40 10. 27 21. 40	65. 0 71. 0 73. 0 568. 0	Aug. 7 0. 0 3. 15 4. 0 8. 50 10. 42 15. 36 22. 4 23. 55	22. 27. 40 17. 0 20. 0 17. 0 13. 40 27. 30	Aug. 7 0. 0 1. 20 1. 44 2. 4 4. 34 5. 18 7. 58 12. 5 12. 36 19. 24 23. 0 23. 57	•0958 •0963 •0957 •0960 •0955 •0942 •0960 •0960 •0969 •0960 •0933 •0939	Aug. 7 0. 0 3. 30 6. 7 8. 51 10. 30 14. 0 18. 37 22. 10 23. 55	•01460 •01260 •01895 •00920 •00882 •01050 •01532 •01500 •01363	12. 366 21. 4063	0. 67 0. 64		
Aug. 8 0. 25 6. 17 8. 43: 9. 50: 10. 46: 11. 10: 11. 45 12. 55: 13. 50 20. 30 23. 55	22. 27. 30 16. 50 11. 0 16. 20 14. 40 19. 0 18. 40 12. 20 17. 30 16. 20 26. 50	Aug. 8 0. 23 5. 11 5. 48 8. 42 10. 57: 11. 52 16. 25 23. 36	•0973 *** •0928 *** •0945 •0935 •0963 •0940 •0960 •0946	Aug. 8 0. 36 3. 0 9. 29 11. 24 23. 55	•01013 •01140 •01300 •01590 •01437	1. 40 3. 40 9. 40 21. 40	73. 0 80. 0 76. 5 567. 0	Aug. 8 0. 36 3. 0 9. 29 11. 24 23. 55	22. 26. 40 19. 20 16. 0 13. 30 17. 0 14. 30 18. 20 13. 0 24. 0 9. 48 15. 46 16. 30 17. 5 18. 42 23. 57	Aug. 8 1. 13 2. 37 5. 0 5. 6 5. 12 9. 16 14. 16 22. 0 23. 55	•1018 •1017 •1046 •1042 •1026 •1030 •1026 •1040 •1023 •1039 •1034 •1041 •1034 •1047 •1014	Aug. 8 1. 13 2. 37 5. 0 5. 6 5. 12 9. 16 14. 16 22. 0 23. 55	•01195 •00950 •01030 •01045 •01040 •01010 •01568 •01515 •01295	1. 40 3. 40 9. 40 21. 45	66. 0 73. 0 70. 0 67. 0		
Aug. 8 0. 25 6. 17 8. 43: 9. 50: 10. 46: 11. 10: 11. 45 12. 55: 13. 50 20. 30 23. 55	22. 27. 30 16. 50 11. 0 16. 20 14. 40 19. 0 18. 40 12. 20 17. 30 16. 20 26. 50	Aug. 8 0. 23 5. 11 5. 48 8. 42 10. 57: 11. 52 16. 25 23. 36	•0973 *** •0928 *** •0945 •0935 •0963 •0940 •0960 •0946	Aug. 8 0. 36 3. 0 9. 29 11. 24 23. 55	•01013 •01140 •01300 •01590 •01437	1. 40 3. 40 9. 40 21. 40	73. 0 80. 0 76. 5 567. 0	Aug. 8 0. 36 3. 0 9. 29 11. 24 23. 55	22. 24. 10 26. 20 14. 50 13. 20 21. 20	Aug. 8 0. 0 1. 54 19. 32 23. 58	•1015 •1005 •1025 •1012	Aug. 8 0. 8 1. 21 4. 30 10. 0 16. 38 22. 3 23. 55	•01240 •00970 •01136 •01090 •01665 •01630 •01545	1. 40 3. 40 9. 40 21. 40	72. 0 78. 0 75. 0 70. 0		
Aug. 9 0. 20 2. 20 6. 20 11. 3 11. 20: 13. 26: 14. 44 16. 5: 19. 55	22. 27. 20 27. 0 16. 30 16. 30 18. 0 11. 0 18. 10 14. 0 14. 0	Aug. 9 0. 24 2. 12 4. 21 5. 45 6. 22 7. 49 8. 28 10. 47 12. 40	•0957 •0967 •0954 •0956 •0951 •0963 •0957 •0965 •0963	Aug. 9 0. 10 4. 43 5. 30 9. 37 15. 8 19. 3 19. 7 19. 42 23. 22	•01480 •00965 •00990 •00948 •01535 •01485 •01435 •01480 •01445	1. 40 3. 40 9. 40 23. 66	68. 0 70. 0 72. 0 63. 5	Aug. 9 0. 10 4. 43 5. 30 9. 37 15. 8 19. 3 19. 7 19. 42 23. 22	22. 21. 50 16. 20 16. 20 12. 40 14. 40 27. 20	Aug. 9 0. 0 1. 30 6. 3 6. 23 7. 18 17. 30	•1017 •1026 •1016 •1020 •1015 •1036	Aug. 9 0. 20 2. 23 4. 23 6. 30 9. 47 14. 48	•01510 •01460 •01098 •01137 •01105 •01670	1. 40 3. 40 9. 40 21. 40	73. 0 77. 0 77. 5 67. 0		

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.	Göttingen Mean Solar Time.	Readings of Thermometers.		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.	Göttingen Mean Solar Time.	Readings of Thermometers.			
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.		
		Aug. 13 21. 48 23. 58	·1027 ·1015	Aug. 13 22. 0 23. 55	·01568 ·01495				Aug. 18 18. 30 20. 38 23. 55	22. 12. 30 9. 40 21. 40			Aug. 18 23. 55	·01415					
Aug. 14 0. 25 10. 0 11. 50 13. 0 23. 55	22. 29. 30 17. 10 12. 30 15. 0 24. 30	Aug. 14 0. 20 1. 33 3. 30 5. 0 5. 56 6. 17 7. 26 8. 0 8. 46 10. 13 10. 50 11. 56 17. 0 23. 55	·1010 ·1002 ·1028 ·1023 ·1029 ·1023 ·1032 ·1023 ·1027 ·1033 ·1026 ·1031 ·1039 ·1008	Aug. 14 0. 30 3. 55 9. 46 17. 47 22. 30 23. 55	·01435 ·00995 ·00985 ·01600 ·01535 ·01425				Aug. 19 0. 5 7. 55 9. 16 10. 18 23. 55	22. 24. 0 16. 20 16. 10 12. 30 22. 50			Aug. 19 0. 0 0. 45 1. 25 2. 50 18. 33 18. 45 23. 52	·1031 ·1025 ·1034 ·1025 ·1049 ·1053 ·1029	Aug. 19 0. 0 2. 28 7. 30 9. 52 15. 43 22. 0 23. 58	·01300 ·01835 ·00960 ·00905 ·01501 ·01450 ·01238	1. 40 3. 40 9. 40 21. 40	63. 0 68. 0 65. 0 62. 5	64. 0 69. 0 67. 0 63. 0
Aug. 15 0. 25 6. 42 12. 18 13. 40 14. 20 14. 45 20. 20 23. 55	22. 25. 0 14. 30 16. 30 12. 20 14. 30 13. 30 10. 50 21. 10	Aug. 15 0. 25 0. 59 3. 0 13. 0 23. 51	·1012 ·1014 ·1003 ·1043 ·1017	Aug. 15 0. 44 2. 35 5. 30 9. 23 13. 54 21. 57 23. 55	·01335 ·00965 ·01020 ·01028 ·01575 ·01490 ·01362				Aug. 20 0. 22 10. 25 11. 15 12. 30 15. 56 16. 22 17. 0 18. 0 19. 23 23. 55	22. 24. 30 17. 40 14. 40 16. 20 16. 0 17. 30 15. 40 20. 20 13. 30 26. 30			Aug. 20 0. 28 1. 35 4. 0 9. 16 14. 44 21. 54	·1029 ·1031 ·1023 ·1040 ·1054 ·1012	Aug. 20 0. 28 1. 35 4. 0 9. 16 14. 44 21. 54	·01170 ·00898 ·01056 ·01025 ·01580 ·01520	1. 40 3. 40 9. 40 21. 40	69. 0 75. 0 73. 0 65. 0	70. 0 75. 0 73. 5 67. 0
Aug. 16 0. 0 7. 30 19. 30 23. 15	22. 21. 10 12. 30 15. 20 22. 20	Aug. 16 0. 0 13. 28 18. 52 23. 17	·1022 ·1044 ·1039 ·1000	Aug. 16 0. 10 2. 7 4. 3 9. 16 22. 0 23. 22	·01315 ·00940 ·01010 ·00980 ·01550 ·01500				Aug. 21 0. 12 2. 0 7. 30 8. 10 9. 17 11. 30 23. 55	23. 26. 50 28. 0 15. 30 16. 0 8. 40 16. 40 24. 30			Aug. 21 0. 17 1. 20 1. 55 2. 30 6. 29 7. 22 7. 56 10. 6 14. 30 21. 30 23. 55	·1012 *** ·1004 ·1013 ·1000 ·1019 ·1019 ·1011 *** ·1022 ·1028 ·1020 ·1012	Aug. 21 0. 19 1. 52 4. 21 9. 52 14. 48 21. 53 23. 55	·01270 ·00955 ·01095 ·01105 ·01632 ·01585 ·01483	1. 40 3. 40 9. 49 21. 40	71. 0 75. 0 73. 0 68. 0	73. 0 77. 0 74. 0 69. 0
Aug. 17 0. 0 8. 30 20. 30 23. 55	22. 26. 40 11. 20 13. 20 20. 30	Aug. 17 0. 0 2. 23 4. 36 17. 10 23. 55	·1000 ·1010 *** ·1014 ·1030 ·1017	Aug. 17 0. 0 4. 2 8. 0 10. 0 16. 34 23. 55	·01450 ·01030 ·01060 ·01035 ·01625 ·01535				Aug. 22 0. 32 11. 45 11. 55 13. 30 23. 55	22. 23. 30 16. 40 11. 20 14. 20 21. 0			Aug. 22 0. 30 2. 0 2. 45 3. 16 7. 5 11. 10	·1016 *** ·1025 *** ·1020 *** ·1025 *** ·1020 *** ·1032 ***	Aug. 22 0. 47 2. 27 4. 30 8. 0 12. 57 18. 20 18. 24 19. 0 23. 55	·01380 ·01040 ·01125 ·01078 ·01675 ·01576 ·01530 ·01580 ·01487	1. 40 3. 40 9. 40 21. 40	73. 0 77. 0 74. 0 68. 0	75. 0 79. 0 76. 0 68. 5
Aug. 18 0. 48 6. 55 16. 20 16. 40 17. 0	22. 21. 40 16. 30 16. 50 18. 20 15. 20 ***	Aug. 18 0. 48 16. 36 23. 51	·1019 ·1044 ·1031	Aug. 18 1. 0 9. 0 11. 30 16. 8 17. 0 22. 30	·01555 ·01215 ·01535 ·01475 ·01540 ·01505														

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							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.		
																		h	m
Aug. 30 13. 32		Aug. 30 13. 32	·1037								Sep. 1 15. 40	22. 13. 10	Sep. 1 7. 22	·1016					
14. 3		14. 3	·1026								19. 45	10. 20	8. 10	·1020					
14. 32		14. 32	·1037								23. 55	23. 5	8. 32	·1017					
17. 36		17. 36	·1020										9. 10	·1033					
19. 5		19. 5	·1037										10. 4	·1021					
20. 6		20. 6	·1019										14. 29	·1026					
20. 15		20. 15	·1027										14. 47	·1021					
21. 30		21. 30	·0992										15. 11	·1027					
22. 15		22. 15	·1014 ***										19. 5	·1020					
23. 1		23. 1	·0997										19. 46	·1008					
23. 21		23. 21	·1007 ***										21. 45	·0992 ***					
23. 44		23. 44	·1007										22. 15	·1000					
													22. 30	·1008					
Aug. 31 0. 0	22. 23. 10	Aug. 31 0. 10	·1026 ***	Aug. 31 0. 0	·01490	11. 55	63. 0	64. 8			Sep. 2 0. 30	22. 22. 30	Sep. 2 0. 0	·1008	Sep. 2 0. 40	·01605	1. 40	69. 5	74. 0
1. 50	30. 40	0. 39	·1027	1. 40	·01410	21. 40	63. 0	65. 0			0. 55	18. 0	0. 32	·1014	2. 45	·01362	3. 40	71. 5	78. 0
2. 25	22. 20	1. 3	·1053	2. 0	·01410						5. 35	7. 30	0. 50	·1000	6. 0	·01405	9. 40	72. 0	78. 0
2. 45	24. 30	1. 25	·1021	5. 23	·00935						6. 30	12. 20	1. 6	·1017	6. 30	·01400	21. 40	67. 0	69. 0
3. 20	18. 40	1. 48	·1044	6. 22	·00965						8. 30	8. 30	2. 50	·1018	7. 53	·01445			
3. 40	21. 40	2. 19	·1018	8. 22	·01065						9. 40	12. 50	4. 5	·1002	10. 0	·01305			
4. 5	12. 50	3. 0	·1032	11. 55	·00970						10. 30	10. 0	5. 0	·1014	15. 7	·01780			
8. 27	14. 0	3. 38	·1061	15. 0	·00948						23. 55	20. 30	5. 0	·1014	23. 55	·01550			
10. 20	9. 30	4. 6	·1034	21. 49	·01140								5. 24	·1003					
11. 0	8. 40	4. 27	·1044	23. 49	·01110								5. 50	·1018					
11. 40	15. 0	8. 17	·1039 ***										6. 31	·1006					
12. 20	10. 40	9. 34	·1027										8. 30	·1013					
14. 0	16. 30	9. 52	·1033 ***										9. 27	·1034					
23. 55	21. 30	21. 29	·1012 ***										10. 25	·1009					
		22. 8	·0990 ***										17. 30	·1016					
		22. 30	·0994 ***										21. 21	·1012					
		22. 45	·1003 ***										22. 7	·1006					
		23. 55	·1007										22. 34	·1000					
													23. 17	·0992					
													23. 45	·1000					
Sep. 1 1. 5	22. 23. 0	Sep. 1 1. 30	·1008	Sep. 1 0. 41	·01045	1. 40	67. 0	68. 0			Sep. 3 1. 0	22. 20. 20	Sep. 3 0. 30	·1012	Sep. 3 0. 39	·01410	1. 40	69. 0	71. 0
6. 58	9. 30	2. 0	·1021	4. 30	·01180	3. 40	72. 0	73. 0			1. 30	22. 0	2. 0	·1002	2. 30	·01330	3. 40	71. 0	72. 0
8. 0	6. 0	3. 45	·1015	6. 0	·01167	9. 40	70. 5	74. 0			1. 55	20. 30	2. 45	·1009	4. 33	·01118	9. 40	68. 0	69. 8
8. 30	10. 0	4. 10	·1006 ***	8. 5	·01210	21. 40	67. 0	69. 5			2. 30	23. 10	3. 29	·1008	4. 45	·01100	21. 40	64. 0	67. 5
9. 4	3. 50	6. 0	·1016	9. 23	·01178						5. 22	10. 20	5. 29	(+) ·1012	5. 2	·01000			
9. 50	13. 0	15. 30	·01562	15. 30	·01562						6. 20	13. 30	6. 0	·1005	7. 3	·00975			
14. 28	15. 0	17. 30	·01710	17. 30	·01710						7. 12	8. 0	6. 40	·1010	11. 0	·01150			
14. 47	19. 20	23. 55	·01655	23. 55	·01655						8. 32	14. 30	7. 6	·0994	12. 15	·01400			
											12. 50	9. 50	7. 22	·1007	14. 44	·01300			
											14. 6	17. 20	10. 29	·1011	15. 33	·01310			
											15. 0	13. 10	10. 35	·1025	16. 15	·01260			
											15. 30	22. 20							

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.	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.	Göttingen Mean Solar Time.	Readings of Thermo-meters.	
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
Sep. 3 15.50	22. 20. 20	Sep. 3 11. 22	.1028	Sep. 3 16. 46	.01120				Sep. 4 6. 30	22. 22. 0	Sep. 4 2. 33	.0972	Sep. 4 5. 3	.01225			
16. 28:	37. 20	***	***	17. 12	.01092				6. 53	22. 5. 50	2. 39	.0998	5. 30	.01105			
16. 47	23. 0	15. 18	.1016	17. 19	.01075				7. 20	21. 55. 40	2. 58	.0978	5. 35	.01381			
	***	16. 35	.1043	17. 23	.01084				7. 25	22. 15. 0	***	***	5. 40	.01445			
17. 25	32. 0	***	***	17. 33	.01075					***	3. 7	.0991	5. 43	.01395			
17. 44	24. 40	17. 13	.1022	17. 50	.01090				7. 35	8. 30	3. 15	.0980	5. 48	.01560			
18. 0	46. 10	17. 25	.1032	18. 10	.00973				7. 40	22. 25. 40	3. 29	.1022	6. 6	.01160			
18. 14	22. 40. 0	17. 46	.1018	18. 20	.01012				7. 50	21. 51. 30	3. 30	.1014	6. 20	.01235			
18. 20	23. 1. 30	18. 21	.0926	18. 29	.00812				8. 0	22. 6. 30	***	***	6. 29	.01180			
18. 33	22. 13. 10	(+)	(+)	18. 43	.00917				8. 28	17. 20	3. 40	.1031	6. 38	.01172			
19. 15	14. 30	18. 55	.0927	18. 50	.00924				8. 40	10. 0	3. 54	.1005	6. 47	.01212			
19. 33	34. 50	***	***	18. 57	.00870				8. 50	17. 20	3. 56	.1024	7. 6	.01215			
	(+)	19. 14	.0928	19. 3	.00880				9. 32	9. 10	***	***	7. 19	.01355			
		(+)	(+)	19. 27	.01002				10. 14	8. 50	4. 8	.1003	7. 23	.01200			
		20. 21	.0928	19. 32	.00958				10. 25	13. 30	4. 14	.1031	7. 26	.01237			
		20. 25	.0935	19. 35	.00972				10. 55	9. 20	***	***	***	***			
		20. 31	.0924	19. 38	.00948				11. 5	13. 10	4. 30	.1002	7. 35	.01200			
		20. 36	.0929	19. 40	.00968				11. 22	5. 20	***	***	7. 40	.01082			
		(+)	(+)	19. 42	.00935				11. 40	19. 50	4. 43	.1012	7. 43	.01242			
		20. 59	.0929	19. 51	.01022				12. 8	11. 30	4. 50	.1006	7. 48	.01090			
		21. 17	.0934	19. 58	.01020				12. 30	16. 20	4. 58	.1036	7. 52	.01115			
		21. 47	.0965	20. 18	.01120				20. 5	8. 40	***	***	8. 6	.01067			
		22. 4	.0932	20. 29	.01078				20. 20	16. 10	5. 4	.1014	8. 23	.01065			
		***	***	***	***				23. 55	19. 30	***	***	8. 33	.01015			
		22. 20	.0933	20. 58	.01220						5. 31	.1123	9. 16	.01000			
		22. 25	.0956	21. 3	.01170						5. 38	.1078	10. 29	.01045			
		***	***	21. 5	.01195						5. 40	.1104	10. 48:	.01005			
		23. 42	.0950	21. 6	.01150						5. 42	.1087	11. 30	.01105			
		23. 47	.0980	21. 8	.01200						***	***	11. 50	.01075			
		23. 50	.0967	21. 10	.01150						5. 56	.1090	14. 30	.01400			
		23. 54	.0974	21. 11	.01220						6. 12	.1025	17. 30	.01370			
				21. 12	.01170						***	***	19. 12	.01400			
				21. 52	.01380						6. 25	.1046	19. 15	.01360			
				***	***						***	***	21. 10	.01320			
				23. 55	.01340						6. 42	.1019	23. 15	.01355			
											6. 52	.1050	23. 55	.01335			
											7. 0	.1032					
											7. 3	.1039					
											7. 12	.1023					
											***	***					
Sep. 4 0. 32	22. 25. 20	Sep. 4 0. 3	.0956	Sep. 4 0. 57	.01380	1. 40	65	.067	0								
0. 52	37. 30	***	***	1. 7	.01427	3. 40	69	.070	0				7. 22	.1058			
	***	0. 15	.0943	1. 12	.01420	9. 40	65	.067	0				***	***			
3. 50	41. 0	0. 17	.0978	1. 26	.01432	21. 40	60	.063	0				7. 41	.0996			
	***	0. 19	.0942	2. 24	.01295								7. 42	.1009			
4. 57	24. 30	***	***	2. 38	.01265								(+)	(+)			
	***	0. 27	.1010	3. 19	.01118								8. 2	.1000			
5. 27	40. 40	1. 44	.0946	3. 51	.01065								8. 6	.0979			
5. 35	15. 0	***	***	***	***								***	***			
5. 40	24. 0	1. 54	.0985		***								8. 26	.1041			
5. 50	8. 40	***	***	4. 17	.01110								8. 37	.1000			
6. 5	28. 20	2. 21	.0971	4. 24	.01100								8. 46	.1027			
6. 17	8. 40	2. 31	.0996	4. 57	.01232								8. 51	.0996			

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol \*\*\* denotes that the magnet 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 to a considerable time before and after that which is recorded.

Göttingen Mean Solar Time. h m	Western Declination. o / "	Göttingen Mean Solar Time. h m	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time. h m	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time. h m	Readings of Thermometers.		Göttingen Mean Solar Time. h m	Western Declination. o / "	Göttingen Mean Solar Time. h m	Horizontal Force in parts of the whole H. F. uncorrected for Temperature.	Göttingen Mean Solar Time. h m	Vertical Force in parts of the whole V. F. uncorrected for Temperature.	Göttingen Mean Solar Time. h m	Readings of Thermometers.	
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
Sep. 4 8.53		Sep. 4 8.53	.1007								Sep. 5 3.12	.1012					
8.58		8.58	.0997								4.0	.1003					
9.6		9.6	.1019								5.33	.1010					
9.27		9.27	.0997								5.51	.1002					
10.30		10.30	.1018								5.58	.1016					
10.51		10.51	.0978								6.4	.1008					
11.7		11.7	.1008								6.50	.1022					
11.12		11.12	.0998								7.1	.1018					
11.27		11.27	.1054								7.15	.1023					
11.49		11.49	.0984								7.46	.1000					
12.7		12.7	.1000								22.58	.0995					
13.38		13.38	.1014								23.55	.1005					
13.45		13.45	.1004								Sep. 6 0.0	.1002	Sep. 6 0.30	.01190	1.40	64.0	64.8
17.20		17.20	.1013								12.58	***	3.11	.00810	3.40	64.5	67.0
19.7		19.7	.1008								13.3	.1009	4.30	.00833	9.45	62.3	65.6
19.38		19.38	.0994								13.50	***	7.2	.00812	22.40	59.5	63.0
20.18		20.18	.1014								14.22	.1017	8.0	.00840			
20.43		20.43	.1002								15.0	***	9.0	.00840			
21.9		21.9	.1010								15.15	.1005	13.0	.01250			
23.55		23.55	.0995								15.25	***	13.2	.01302			
Sep. 5 0.15	22.20.30	Sep. 5 0.21	.0988	Sep. 5 0.30	.01275	1.40	65.0	67.0			16.30	.1007	13.30	.01195			
6.22	9.50	0.48	.1006	2.56	.01875	3.40	69.0	70.0			16.38	***	13.30	***			
20.10	10.20	0.57	.0994	5.0	.01893	9.40	65.0	67.0			16.55	.1017	4.6:	.1017	14.17	.01110	
23.55	17.20	0.57	.0994	6.30	.00865	21.40	60.0	63.0			17.49	.1011	5.5:	.1011	14.23	.01130	
		1.12	.1000	7.53	.00915						19.0	.1024	6.54:	.1024	14.28	.01118	
		1.12	***	9.42	.00860						19.45	***	7.36	.1017	14.44	.01155	
		2.12:	.0996	16.15	.01335						19.50	***	8.49	.1028	14.59	.01140	
		2.32	.1010	19.30	.01300						20.5	***	13.1	.1023	15.15	.01168	
		2.48	.0987	22.30	.01330						20.42	***	13.7	.1063	15.23	.01163	
		2.55	.1011	23.55	.01285						20.55	***	13.20	.1027	15.38	.01212	
		2.59	.1000								21.15	***	13.25	.1042	16.5	.01168	
			***								21.15	***		***	16.22	.01168	
											22.15	***		***	16.59	.00775	
											22.42	***		***	17.12	.00915	
											23.59	***		***	17.23	.00965	
														***	17.28	.00955	
														***	17.33	.00975	
														***	17.43	.00935	

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

INDICATIONS OF THE MAGNETOMETERS

Table with 16 columns: 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, Göttingen Mean Solar Time, Readings of Thermometers (Of H. F. Magnet, Of V. F. Magnet), 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, Göttingen Mean Solar Time, Readings of Thermometers (Of H. F. Magnet, Of V. F. Magnet). Data spans from Sep. 6 to Sep. 7.

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol \*\*\* denotes that the magnet has been generally in a state of agitation. The Symbol (+) denotes that the register has failed between the preceding and following readings. The Symbol: attached to a time denotes that the reading will apply equally to a considerable time before and after that which is recorded.

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 Thermometers.		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 Thermometers.	
						Of H. F. Magnet.	Of V. F. Magnet.							Of H. F. Magnet.	Of V. F. Magnet.
Sep. 7 7. 32	22. 12. 0	Sep. 7 6. 37	'1110	Sep. 7 7. 10	'00975			Sep. 7 17. 40		Sep. 7 17. 40	'0978				
7. 54	21. 29. 0	6. 39	'1092	7. 26	'01367			18. 4		18. 4	'1012				
8. 18	58. 0	6. 41	'1107	7. 27	'00739			18. 30		18. 30	'0994				
8. 27	47. 50	6. 47	'0997	7. 30	'00985			18. 36		18. 36	'1004				
8. 33	58. 0	6. 53	'1008	7. 33	'00725			19. 3		19. 3	'0974				
8. 58	21. 55. 30	7. 5	'0989	7. 34	'00765			19. 22		19. 22	'0984				
9. 11	22. 25. 10	7. 11	'1012	7. 36	'00578			19. 46		19. 46	'0973				
9. 12	16. 50	7. 20	'0978	7. 41	'01140			19. 57		19. 57	'0977				
9. 18	29. 20	7. 31	'1138	7. 49	'00923			21. 18		21. 18	'0953				
9. 49	11. 10	7. 35	'0996	7. 53	'00980			22. 11		22. 11	'0982				
9. 56	18. 50	7. 41	'1042	8. 8	'00895			23. 37		23. 37	'0986				
9. 57	11. 0	7. 50	'0918	8. 12	'00905			23. 59		23. 59	'0992				
10. 14	26. 5	8. 6	'0990	8. 18	'00866			Sep. 8 1. 13	22. 21. 30	Sep. 8 0. 8	'0988	Sep. 8 1. 30	'01323	1. 40	63. 367. 5
10. 28	7. 0	8. 11	'0973	8. 23	'00928			3. 47	16. 40	0. 44	'1016	3. 4	'01200	3. 40	64. 066. 0
10. 34	10. 0	8. 17	'0991	8. 26	'00869			4. 47	10. 0	2. 15	'1002	6. 21	'00900	9. 40	62. 566. 0
10. 35	6. 0	8. 28	'0963	8. 40	'00818			5. 30	13. 40	2. 50	'1014	7. 39	'00920	21. 40	58. 059. 0
10. 40	10. 20	8. 37	'0980	9. 10	'00818			6. 25	5. 0	3. 55	'1002	9. 0	'00880		
10. 46	5. 0	8. 52	'0953	9. 12	'0964			6. 50	9. 0	4. 50	'1030	12. 19	'01320		
10. 50	22. 7. 0	9. 3	'0968	9. 41	'00672			11. 30	14. 10	5. 22	'1019	13. 27	'01340		
11. 0	21. 59. 0	9. 5	'0957	9. 44	'00690			11. 50	9. 30	6. 16	'1018	14. 0	'01305		
11. 15	22. 6. 5	9. 12	'0964	10. 11	'00494			12. 10	15. 20	6. 36	'1044	14. 30	'01305		
12. 2	3. 0	9. 38	'0941	10. 13	'00550			12. 10	13. 50	7. 23	'1021	15. 27	'01195		
12. 17	7. 0	9. 54	'0985	10. 15	'00565			13. 33	13. 50	9. 20	'1018	16. 9	'01275		
12. 33	4. 0	10. 5	'0942	10. 19	'00555			13. 50	9. 20	11. 35	'1018	16. 9	'01275		
13. 19	9. 10	10. 12	'0981	10. 23	'00512			15. 30	5. 30	12. 3	'1045	17. 30	'01226		
14. 35	4. 0	10. 28	'0896	10. 40	'00805			16. 25	13. 0	13. 19	'1013	22. 30	'01245		
15. 0	16. 0	10. 45	'1027	10. 48	'00768			17. 20	8. 50	13. 38	'1030	23. 55	'01110		
15. 26	22. 2. 50	11. 5	'0976	11. 45	'00898			18. 36	20. 50	14. 15	'1010				
15. 50	21. 59. 0	11. 19	'0996	12. 0	'00852			20. 20	12. 30	14. 58	'1024				
16. 34	22. 5. 0	11. 25	'0990	12. 25	'00955			23. 55	16. 20	15. 42	'0998				
16. 54	3. 10	11. 32	'0911	13. 25	'00955			16. 25	16. 25	16. 25	'1019				
17. 38	20. 40	11. 35	'0917	13. 47	'00925			16. 59	16. 59	16. 59	'1026				
18. 38	29. 5	11. 42	'0985	14. 47	'01030			18. 15	18. 15	18. 15	'0995				
19. 3	17. 5	11. 50	'0985	15. 22	'00990			19. 40	19. 40	19. 40	'1019				
19. 48	14. 0	12. 8	'0970	16. 0	'01135			22. 55	22. 55	22. 55	'1001				
23. 0	23. 40	12. 42	'0995	17. 0	'01210			23. 55	23. 55	23. 55	'1008				
		13. 47	'0963	18. 30	'01175										
		14. 30	'0978	19. 30	'01195										
		14. 55	'0962	21. 38	'01285										
		16. 0	'1002	23. 55	'01345										
		16. 52	'0998												
								Sep. 9 1. 45	22. 13. 11*	Sep. 9 2. 10	'1015	Sep. 9 1. 30	'00805	1. 45	63. 867. 0
								3. 40	7. 45*	***	'***	2. 58	'00888	3. 40	65. 066. 0
								9. 40	11. 31*	6. 40	'1003	6. 30	'00818	9. 40	59. 060. 0
								21. 40	13. 54*	18. 45	'***	9. 13	'01038	21. 40	52. 553. 0
										23. 55	'1025	10. 49	'01291		
											'***	15. 0	'01210		
											'1012	19. 0	'01178		
												19. 18	'01178		
												20. 0	'01145		
												22. 4	'01183		
												23. 0	'01152		
												23. 55	'01060		

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.	Göttingen Mean Solar Time.	Readings of Thermometers.		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.	Göttingen Mean Solar Time.	Readings of Thermometers.	
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
Sep. 10 0. 3 10. 32 11. 12 12. 7 23. 55	22. 15. 30 13. 30 9. 40 12. 0 20. 0	Sep. 10 0. 7 6. 54 11. 2 11. 20 12. 52 16. 40 23. 1 23. 20 23. 47 23. 59	.1010 *** .1006 *** .1018 *** .1028 *** .1018 *** .1025 .1017 .1022 .1018 .1025	Sep. 10 0. 25 4. 43 6. 37 7. 50 9. 28 13. 40 20. 0 21. 0 22. 47 23. 55	.00750 .00945 .00860 .00900 .00855 .01353 .01190 .01170 .01195 .01130	h m 1. 40 3. 40 21. 40	o 59 53	o 61 66 57	Sep. 12 22. 48 23. 53	o / // 22. 21. 0 10. 30 11. 20 15. 15 12. 0 13. 0 22. 40	Sep. 12 0. 31 1. 17 2. 15 2. 47 3. 15 4. 15 4. 46 5. 4 9. 36 12. 2 15. 38 22. 40 23. 50	.0997 .1004 .1008 .1014 .1009 .1015 .1007 .1009 .0995 .1005 .1010 *** .1012 .1022 .1002 .1007	h m 0. 30 2. 43 6. 43 7. 49 10. 0 14. 36 21. 30 23. 7 23. 55	.01235 .00860 .00940 .00990 .00912 .01420 .01265 .01298 .01283	h m o 1. 40 3. 40 9. 40 22. 50	o 62 65 65 58	o 63 67 66 62
Sep. 11 0. 15 7. 30 19. 44 23. 55	22. 19. 22 12. 40 *** 19. 0 23. 40	Sep. 11 0. 17 2. 4 3. 38 5. 2 6. 24 9. 50 15. 30 15. 49 17. 54 20. 17 21. 32 22. 49 23. 15 23. 55	.1024 .1028 .1014 *** .1015 .0992 *** .1018 .1020 .1026 .1028 .1003 .1012 .1004 .1008 .1004	Sep. 11 1. 54 6. 10 7. 0 7. 47 8. 59 15. 0 20. 10 21. 22	.00788 .00965 .00888 .00920 .00858 .01350 .01245 .01250	h m 1. 40 3. 40 9. 40 21. 40	o 60 63 54	o 61 67 64 55	Sep. 14 0. 25 8. 20 10. 26 12. 26 13. 44 16. 5 16. 25 16. 55 20. 18 22. 33 23. 55	22. 22. 30 11. 0 8. 55 *** 4. 45 *** 8. 40 7. 30 9. 30 7. 30 8. 0 11. 15 19. 30	Sep. 14 0. 26 2. 20 7. 3 8. 38 10. 30 18. 2 21. 50 23. 18 23. 40 23. 55	.1011 .1011 .1001 .1010 .1000 .1034 .1016 .1016 .1018 .1013	o. 40 2. 44 6. 32 7. 43 10. 30 14. 44 18. 0 19. 7 22. 1 23. 55	.01250 .00870 .00935 .01015 .00930 .01390 .01325 .01335 .01285 .01303	h m o 10. 55 21. 40	o 67 59	o 70 63
Sep. 12 0. 5 7. 28 9. 0 10. 43 11. 30 12. 0 12. 25 13. 40 23. 55	22. 22. 55 10. 50 14. 0 6. 10 11. 20 8. 40 14. 40 12. 30 21. 0	Sep. 12 0. 5 1. 20 3. 18 4. 44 5. 23 5. 38 6. 15 7. 12 8. 7 8. 25 10. 22 10. 48 11. 35 12. 32 14. 12 16. 6	.1006 .1021 .1023 *** .1006 .1020 .1011 .1019 .1009 .1017 .1007 .1010 .1029 .1009 .1026 .1014 .1021	Sep. 12 0. 9 2. 36 5. 24 6. 30 7. 41 10. 58 16. 14 22. 8 23. 0 23. 58	.01105 .00810 .00865 .00860 .00940 .00855 .01355 .01280 .01292 .01255	h m 1. 40 3. 40 9. 48 21. 50	o 61 64 65 57	o 63 65 68 59	Sep. 15 1. 17 2. 54 3. 50 5. 30 7. 26 8. 10 8. 20 8. 57 10. 12 12. 17 18. 8 18. 50 23. 55	22. 20. 40 19. 25 23. 10 22. 18. 15 21. 57. 40 22. 9. 10 22. 8. 50 21. 45. 30 22. 14. 0 12. 20 15. 10 19. 35	Sep. 15 1. 25 2. 44 (+) 3. 10 3. 23 3. 40 4. 2 4. 10 4. 35 5. 52 6. 40 7. 6 7. 22 7. 31 8. 11	.1011 .1013 (+) .1038 .1033 .1038 .1016 .1026 .1003 .1037 .0997 *** .1002 .0982 .0993 *** .0989	1. 22 4. 12 4. 23 4. 36 6. 54 7. 15 8. 8 9. 35 10. 7 10. 17 15. 6 22. 30 23. 55	.01230 .00825 .00843 .00828 .00954 .01070 .01055 .00905 .00938 .00925 .01395 .01322 .01242	h m o 1. 40 3. 40 9. 40 21. 40	o 61 65 64 59	o 62 66 64 61

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol \*\*\* denotes that the magnet 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 to a considerable time before and after that which is recorded.





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.	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.	Göttingen Mean Solar Time.	Readings of Thermo-meters.	
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
Sep. 20 12. 45	22. 15. 30 ***	Sep. 20 12. 55 13. 57	.1036 .1043	Sep. 20 10. 0 11. 0	.00875 .00970				Sep. 23 0. 30 4. 30	22. 21. 0 17. 0 12. 0	Sep. 23 0. 45 2. 48 3. 28	.1032 .1037 .1025	Sep. 23 2. 24 3. 27 6. 16	.01168 .00968 .00862	1. 40 3. 40 9. 40	59. 0 65. 0 67. 0	60. 0 67. 0 68. 0
15. 39	7. 40 ***	16. 0 17. 20	.1026 .1039	13. 55 22. 25	.01390 .01323				9. 30 11. 15	11. 0 4. 8	4. 8 7. 10	.1021 .1032	7. 13 9. 13	.00922 .00845	21. 44	63. 0	66. 0
16. 27	14. 30 ***	21. 53 23. 49	.1019 .1031	23. 25	.01345				11. 48 15. 0 20. 23	13. 0 15. 30 15. 45	8. 10 11. 30 12. 24	.1024 .1027 .1022	12. 0 19. 15 23. 55	.00837 .01428 .01410			
17. 15	10. 30 ***								20. 50 21. 30	11. 0 15. 20	17. 22 19. 30	.1026 .1020					
18. 0	12. 0 ***								22. 0 23. 0	15. 0 21. 40	17. 30 19. 55	.1020 .1022					
21. 10	13. 30 ***								23. 0 23. 26	21. 40 20. 30	21. 0 21. 59	.1020 .1005					
21. 52	19. 0 ***										22. 38 23. 3	.1013 .1008					
22. 53	16. 0 ***										23. 55	.1018					
23. 17	18. 0																
Sep. 21 0. 0	22. 19. 0	Sep. 21 0. 0	.1029	Sep. 21 0. 0	.01340	10. 11	64. 0	65. 0	Sep. 24 0. 50	22. 26. 0	Sep. 24 0. 50	.1026	Sep. 24 1. 0	.01395	1. 40	63. 0	64. 0
1. 32	20. 40	1. 12	.1032	2. 0	.01300	21. 45	60. 0	62. 0	3. 8	23. 0	1. 8	.1019	3. 0	.01235	3. 40	63. 0	65. 0
4. 30	15. 50	6. 11	.1033	4. 0	.01160				4. 0	18. 0	***	***	5. 28	.00910	9. 40	68. 0	70. 0
7. 40	14. 0	6. 42	.1040	6. 12	.00850				6. 43	15. 40	2. 20	.1029	7. 0	.00950	21. 40	61. 0	63. 0
8. 18	3. 10	7. 20	.1033	7. 0	.00790				7. 22	10. 0	***	***	9. 12	.00874			
9. 13	15. 0	8. 12	.1043	7. 39	.00845				8. 47	16. 0	3. 5	.1023	10. 0	.00872			
9. 30	13. 0	8. 37	.1032	11. 0	.00812				10. 0	13. 0	3. 22	.1012	17. 20	.01460			
10. 30	16. 0	9. 0	.1036	14. 0	.00790				11. 0	20. 10	3. 42	.1021	22. 15	.01410			
14. 21	14. 5	9. 17	.1030	16. 0	.00845				11. 13	17. 0	4. 19	.1021	23. 30	.01437			
14. 44	16. 0	14. 27	.1030	20. 0	.01175				11. 25	20. 0	4. 35	.1024	23. 55	.01430			
15. 51	10. 40	15. 12	.1040	23. 20	.01350				11. 48	15. 20	6. 8	.1016					
23. 40	22. 10	16. 30	.1034						12. 44	12. 50	7. 55	.1026					
		21. 35	.1028						21. 0	12. 50	***	***					
		22. 10	.1021						23. 55	21. 0	9. 38	.1028					
		23. 55	.1021								10. 22	.1024					
											12. 0	.1040					
											13. 0	.1028					
											18. 30	.1028					
											20. 30	.1024					
											22. 30	.1010					
											23. 55	.1012					
Sep. 22 0. 21	22. 23. 0	Sep. 22 0. 24	.1026	Sep. 22 1. 0	.01318	1. 40	64. 0	65. 0	Sep. 25 0. 40	22. 22. 50	Sep. 25 0. 30	.1016	Sep. 25 1. 0	.01378	1. 40	64. 0	66. 0
8. 0	15. 30	2. 34	.1030	2. 32	.01163	3. 40	66. 0	67. 0	9. 43	16. 10	5. 0	.1034	4. 0	.01200	3. 40	66. 0	67. 0
13. 22	16. 10	4. 3	.1023	4. 20	.00839	9. 40	66. 5	71. 0	10. 13	13. 0	6. 26	.1023	6. 0	.01158	9. 40	64. 0	67. 0
14. 33	13. 40 ***	14. 43 ***	.1035 ***	6. 30	.00850	21. 40	55. 0	56. 0	17. 0	14. 40	7. 3	.1032	7. 0	.01118	21. 40	54. 0	55. 0
15. 0	18. 0 ***	14. 58 ***	.1030 ***	9. 18	.00840				17. 30	17. 30	8. 56	.1037	8. 30	.01040			
16. 26	14. 0 ***	16. 10 ***	.1037 ***	11. 0	.00905				21. 30	17. 30	10. 19	.1044	10. 0	.01110			
21. 30	16. 0 (†)	23. 55	.1028	21. 0	.01320				23. 55	25. 30	10. 38	.1039	12. 42	.01430			
				22. 0	.01320						21. 54	.1033	15. 0	.01342			
				22. 45	.01332						23. 15	.1024	19. 0	.01300			
				23. 55	.01287						23. 55	.1028	22. 0	.01235			
													23. 55	.01248			

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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.										
Sep. 26 0. 18 5. 35 9. 56 10. 24. 16. 12 16. 55. 18. 10 20. 38 21. 50 23. 44	22. 25. 20 15. 0 9. 30 1. 40 15. 10 22. 0 14. 0 10. 35 *** 15. 20 24. 40	Sep. 26 0. 20 0. 32 2. 20 3. 45 3. 55 4. 20 4. 55 5. 9 6. 29 6. 48 8. 23 9. 24 10. 0 10. 40 11. 24 16. 6 16. 43 17. 23 18. 41 20. 42 21. 3 21. 52 22. 25 22. 43 23. 10 23. 17 23. 25 23. 55	*1028 *1039 *1032 *1036 *1031 *1040 *1032 *1038 *1036 *1026 *1042 *1046 *1045 *1055 *1043 *1046 *1038 *1042 *1055 *1045 *1039 *1039 *1024 *1026 *1000 *1002 *0998 *1021	Sep. 26 0. 57 2. 24 6. 0 7. 12 11. 0 19. 38 22. 30 23. 55	*01253 *01175 *00850 *00870 *00698 *01220 *01235 *01185	1. 40 3. 40 9. 40 21. 40	55. 0 59. 0 57. 5 52. 0	55. 0 60. 0 61. 5 53. 0	Sep. 27 0. 20 1. 13. 2. 37 3. 2 3. 13 3. 56 4. 29 5. 43 6. 43 8. 11 8. 16 10. 12 10. 59. 11. 25 11. 52 12. 14 13. 0 13. 50 14. 25	22. 22. 0 30. 15 22. 20 27. 0 21. 20 *** 23. 40 13. 0 20. 0 22. 17. 0 21. 56. 0 22. 12. 20 8. 40 22. 16. 0 21. 58. 10 22. 18. 10 11. 0 *** 10. 30 14. 0 12. 10 ***	Sep. 27 0. 30 0. 42 1. 12 1. 41 1. 53 2. 6 4. 29 5. 15 6. 6 6. 20 6. 52 7. 13 8. 16 9. 0 9. 11 9. 29 9. 55 10. 53 11. 13 11. 39 12. 4 12. 22	*1031 *1048 *1051 *1026 *1031 *1024 *1040 *1032 *1034 *1024 *1035 *1022 *1058 *1021 *1024 *1016 *1027 *1030 *1022 *1062 *1041 *1047	Sep. 27 0. 49 3. 10 4. 22 5. 55 7. 30 9. 43 10. 50 11. 9 11. 32 11. 58 19. 52 21. 52 23. 55	*01145 *00690 *00745 *00725 *00795 *00690 *00683 *00655 *00662 *00660 *01320 *01260 *01310	1. 40 3. 40 9. 40 21. 40	56. 0 60. 0 60. 0 53. 0	57. 0 63. 0 62. 0 57. 0	Sep. 27 22. 51 22. 19. 0	22. 25. 25 24. 30 28. 15 *** 14. 40 19. 30 14. 40 *** 22. 20. 45 *** 21. 58. 40 22. 16. 0 9. 30 12. 10 10. 15 13. 50 5. 20 9. 20 11. 5 11. 20 11. 48 12. 18 13. 0 13. 58 14. 28. 15. 0 19. 30 22. 2 23. 25 23. 58	Sep. 27 13. 1 13. 30 18. 48 20. 22 20. 59 21. 29 21. 45 22. 15 22. 55 23. 9 23. 22 23. 38 23. 55	*1029 *1028 *** *1045 *1027 *1010 *1016 *1010 *1002 *1007 *1012 *1032 *1014 *1022	Sep. 28 0. 0 2. 45 2. 55 3. 50 4. 0 4. 10 5. 3 8. 2 9. 12 9. 24 9. 38 9. 50 10. 10 10. 44 10. 52 11. 5 11. 20 11. 48 12. 18 13. 0 13. 58 14. 28. 15. 0 19. 30 22. 2 23. 25 23. 58	22. 25. 25 24. 30 28. 15 *** 14. 40 19. 30 14. 40 *** 22. 20. 45 *** 21. 58. 40 22. 16. 0 9. 30 12. 10 10. 15 13. 50 5. 20 9. 20 11. 5 11. 20 11. 48 12. 18 13. 0 13. 58 14. 28. 20. 15 14. 40 *** 15. 0 19. 40 *** 23. 30	Sep. 28 0. 0 0. 16 *** 1. 45 5. 33 6. 22 7. 26 9. 13 10. 2 11. 2 15. 14 23. 12	*1020 *1000 *** *1020 *1015 *1028 *1011 *1023 *** *1003 *1046 *** *1008 *1027 *1007 *1022 *1033 *1027 *1029 *1050 *1040 *1017 *1026 *1019 *1032 *1022 *1060 *1036 *1045 *1026 *1032 *1020 *1031 *1019 *1045 ***	Sep. 28 7. 30 21. 40	61. 0 53. 3 61. 5 57. 0

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.	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.	Göttingen Mean Solar Time.	Readings of Thermo-meters.	
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
		Sep. 28 h m 19. 20 20. 22 23. 7 23. 30 23. 48	.1036 .1022 .0998 .1013 .1006														
Sep. 29 h m 1. 12 3. 56 4. 20 5. 5 6. 5 6. 25 6. 33 6. 50 7. 5 7. 10 7. 38 7. 43 7. 49 8. 5 9. 50 10. 18 10. 33 10. 51 10. 59 11. 3 11. 8 11. 14 11. 25 11. 28 11. 29 11. 32 11. 47 11. 48 11. 55 12. 0 12. 8 12. 11 12. 12 12. 28 13. 0 13. 8 13. 22 13. 26 13. 27	22. 3. 30 20. 40 9. 35 17. 10 14. 10 22. 7. 30 21. 43. 0 50. 50 *** 50. 10 21. 42. 20 22. 15. 25 15. 45 11. 50 18. 30 *** 18. 20 22. 1. 0 21. 53. 50 22. 9. 40 3. 40 9. 0 3. 30 10. 2 *** 5. 0 0. 0 22. 8. 30 21. 58. 10 *** 22. 11. 0 21. 51. 0 22. 14. 30 21. 56. 40 10. 20 21. 58 22. 6 *** 46. 0 *** 56. 10 21. 22. 0 22. 0. 45 21. 57. 10 22. 6. 0	Sep. 29 h m 0. 3 0. 20 0. 58 1. 46 3. 10 3. 20 3. 44 4. 0 4. 34 5. 10 5. 40 5. 54 *** 6. 12 6. 14 6. 15 6. 17 6. 19 6. 21 6. 29 6. 38 6. 39 6. 41 6. 49 6. 54 6. 56 6. 58 6. 59 7. 3 7. 6 7. 10 7. 23 7. 30 7. 46 7. 56 8. 5 8. 12 8. 27 8. 49 *** 9. 36 9. 50 10. 23 10. 37	.1015 .1006 .1016 .1024 .1027 .1019 .1029 .1023 .1057 .1034 .1034 .1029 *** .1037 .1080 .1050 .1066 .1044 .1052 .1018 .1102 .1090 .1097 .1071 .1084 .1075 .1085 .1065 .1071 .1062 .1075 .1054 .1061 .1036 .1049 .1048 .1057 .1044 .1043 *** .1043 .1063 .1035 .1053	Sep. 29 h m 1. 30 3. 7 4. 43 6. 29 6. 44 7. 12 7. 23 7. 30 8. 27 9. 49 9. 57 10. 14 10. 23 10. 28 10. 37 10. 44 10. 48 11. 5 11. 7 11. 9 11. 14 11. 20 11. 23 11. 32 11. 34 11. 38 11. 41 11. 42 11. 44 11. 45 12. 22 12. 25 12. 29 12. 32 12. 34 12. 35 12. 36 12. 37 12. 41 12. 47 12. 49	.00991 .00672 *** .00785 .00745 .00785 *** .00790 .00810 .00810 *** .00718 .00685 .00668 .00665 .00685 .00666 .00690 .00663 .00702 .00555 .00585 .00532 .00553 .00480 .00502 .00390 .00420 .00393 .00415 .00360 .00400 .00150 (†) .00150 .00290 .00150 .00320 .00210 .00328 .00300 .00395 .00150 .00278 .00158		Sep. 29 h m 1. 40 3. 40 9. 40 21. 40	56. 0 60. 0 61. 5 58. 0	57. 0 61. 0 63. 5 61. 0	Sep. 29 h m 13. 28 13. 29 13. 43 13. 45 13. 47 13. 48 13. 50 13. 52 13. 54 14. 47 14. 55 15. 6 15. 13 16. 26 17. 5 17. 13 17. 14 17. 17 19. 0 20. 27 20. 28 20. 32 20. 56 21. 20 22. 25 22. 26 22. 40 23. 55	21. 50. 20 22. 6. 0 21. 34. 0 22. 4. 45 22. 8. 0 21. 43. 40 22. 17. 20 21. 48. 0 22. 13. 0 *** 21. 54. 0 28. 50 43. 0 26. 20 *** 21. 49. 50 *** 22. 29. 0 *** 25. 30 7. 50 27. 10 *** 14. 0 *** 22. 23. 20 21. 58. 0 22. 16. 30 *** 23. 30 *** 9. 0 *** 19. 0 28. 0 14. 10 *** 22. 0	Sep. 29 h m 10. 42 10. 48 10. 50 11. 5 11. 6 11. 8 11. 29 11. 33 11. 35 11. 37 11. 39 11. 42 11. 45 11. 49 11. 50 11. 51 11. 52 11. 55 12. 2 12. 28 12. 31 12. 32 12. 42 12. 49 12. 52 13. 7 13. 10 13. 15 13. 20 15. 53 15. 55 15. 59 16. 0 16. 1 16. 3 16. 5 16. 8 16. 10 16. 12 16. 14 16. 18 16. 42 16. 45 16. 58 17. 8 17. 9	.1028 .1053 .1047 *** .1070 .1098 .1072 *** .0947 .0994 .0975 .0986 .0960 .1044 .0946 .1045 .0974 .1057 .1008 .1036 .0896 (†) .0890 .0927 .0889 12. 32 .0924 .0889 (†) .0893 .0990 .0947 .0992 .1008 (†) .0930 .0949 .0932 .0950 .0934 .0967 .0940 .0963 .0944 .0957 .0934 .0950 *** .0945 .0920 .0986 .0944 .0978 ***	Sep. 29 h m 12. 57 13. 10 13. 17 13. 20 13. 22 13. 24 13. 28 13. 39 13. 48 13. 51 13. 58 14. 0 14. 3 14. 4 14. 6 15. 43 15. 46 15. 54 16. 1 16. 6 16. 10 16. 17 16. 19 16. 24 16. 26 16. 30 16. 32 16. 34 16. 39 16. 40 16. 41 16. 48 16. 50 16. 51 16. 53 17. 1 17. 10 17. 18 17. 22 17. 29 17. 34 17. 38 17. 40 17. 42 19. 10	.00615 .00300 .00635 .00470 .00580 .00440 .00390 .00510 .00290 .00521 .00290 .00350 .00158 .00308 .00160 (†) .00150 .00280 .00232 .00434 .00368 *** .00480 .00410 .00484 .00615 .00550 .00670 .00622 .00741 .00790 .00670 .00785 *** .00900 .00840 .00970 .00898 .01085 *** .00990 *** .01110 .00998 *** .01098 .01040 .01123 .01040 .01125 *** .01310 ***		

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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.	Göttingen Mean Solar Time.	Readings of Thermometers.		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.	Göttingen Mean Solar Time.	Readings of Thermometers.	
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
h m	o ' "	Sep. 29 h m		Sep. 29 h m		h m	o	o	Sep. 30 h m	o ' "	Sep. 30 h m		Sep. 30 h m		h m	o	o
		17. 21	·0943	20. 20	·01340				0. 30	22. 26. 0	1. 1	·0991	1. 0	·01230	1. 40	59	·563
		17. 30	·0998	22. 20	·01332				5. 0	19. 30	1. 31	·1013	3. 40	·00880	3. 40	63	·065
			***	22. 25	·01350					***	1. 35	·1000	3. 40	·00880	9. 40	63	·066
		17. 41	·0950	23. 0	·01350					***	1. 37	·1018	3. 53	·00830	21. 40	60	·061
			***	23. 55	·01325				12. 40	19. 30	1. 43	·0994	4. 0	·00852			
		17. 42	·0994							***	1. 46	·1009	5. 20	·00875			
		17. 48	·0971						12. 56	21. 10	2. 19	·0993	5. 30	·00848			
		17. 58	·0997						13. 27	18. 0	2. 25	·1011	7. 0	·00890			
			***						14. 45	15. 0	2. 29	·0993	9. 33	·00810			
		18. 7	·0964						15. 12	20. 0	***	***	11. 30	·00810			
		18. 12	·1004						15. 30	18. 30	2. 50	·1007	14. 0	·00842			
			***						15. 41	21. 10	2. 57	·0995	16. 15	·00940			
		18. 20	·0945						15. 50	17. 10	3. 1	·1012	20. 45	·01370			
			***						15. 57	19. 5	3. 3	·0997	22. 30	·01408			
		18. 30	·1003							***	3. 6	·1014	23. 55	·01350			
		18. 33	·0983						20. 30	11. 40	3. 12	·0993					
			***						23. 55	19. 0	***	***					
		18. 35	·1004								3. 40	·1007					
			***								3. 50	·0983					
		19. 12	·0955								3. 55	·0998					
		19. 17	·0996								4. 25	·0990					
		19. 19	·0981								5. 16	·1007					
			***								5. 36	·0998					
		20. 30	·0968									***					
		20. 34	·0988								11. 22	·1006					
		20. 36	·0941								12. 15	·0993					
		20. 38	·0986								13. 35	·1012					
		20. 42	·0950								15. 16	·1003					
		20. 47	·0989								18. 58	·1017					
		20. 52	·0954								23. 55	·0988					
		20. 53	·0980														
		21. 0	·0964						Oct. 1		Oct. 1		Oct. 1				
			***						0. 43	22. 21. 50	0. 42	·0996	1. 0	·01275	1. 40	62	·063
		22. 20	·0976						1. 33	23. 30	2. 1	·1005	3. 0	·01170	3. 40	64	·067
		22. 28	·1003						2. 54	20. 0	2. 23	·0990	4. 30	·01018	9. 40	63	·064
			***						7. 20	14. 0	3. 10	·1016	9. 18	·00830	21. 46	57	·061
		22. 41	·0962						8. 15	17. 20	8. 55	·0987	9. 50	·00796			
			***						8. 56	5. 30	9. 23	·1026	9. 58	·00820			
		23. 0	·0990						9. 14	7. 0	9. 48	·0993	10. 16	·00730			
		23. 5	·0978						9. 28	22. 16. 40	10. 2	·1060	10. 39	·00747			
		23. 8	·0984						9. 52	21. 57. 10	10. 17	·1001	11. 52	·00830			
		23. 10	·0965						10. 10	22. 24. 0	10. 31	·1019	12. 1	·00855			
		23. 12	·0978						10. 17	15. 10	10. 53	·0990	12. 19	·00840			
		23. 15	·0964						10. 30	17. 40	11. 10	·1003	14. 30	·00982			
			***						10. 55	5. 30	11. 47	·0990	17. 18	·01330			
		23. 42	·0988						11. 32	16. 50	12. 2	·1030	21. 53	·01290			
		23. 43	·0961						11. 52	9. 30	13. 50	·1009					
		23. 44	·0981						12. 0	13. 45	19. 36	·1022					
			***						12. 20	10. 30	22. 48	·0994					
		23. 50	·0948						17. 35	20. 50	22. 55	·0944					
		23. 55	·0988						20. 43	22. 10	22. 58	·0959					
										***	23. 4	·0924					

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.	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.	Göttingen Mean Solar Time.	Readings of Thermo-meters.		
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.	
Oct. 1 22. 40 22. 44 22. 52 23. 17 23. 25 23. 32 23. 55	22. 15. 30 8. 50 20. 0 *** 6. 35 22. 0 10. 10 19. 30	Oct. 1 23. 5 23. 8 23. 24 23. 27 23. 38 23. 39 23. 43 23. 47 23. 54	.0960 .0938 (+) .0941 .0978 .0942 .0977 .0957 .0982 .0970															
Oct. 2 0. 15 1. 17 1. 50 2. 15 4. 4 4. 15 4. 35 5. 26 5. 50 6. 20 6. 40 6. 58 7. 3 7. 15 7. 24 7. 31 8. 6 8. 17 8. 34 8. 55 9. 3 9. 13 9. 30 9. 38 9. 52 10. 16 10. 33 10. 48 11. 15 11. 33	22. 25. 30 *** 31. 0 *** 27. 10 *** 29. 20 *** 32. 50 *** 27. 10 34. 30 20. 0 *** 24. 0 *** 17. 45 *** 21. 50 18. 10 20. 0 14. 0 18. 20 15. 20 *** 16. 45 22. 10. 30 21. 58. 50 22. 24. 30 13. 40 40. 10 6. 30 22. 10 22. 15. 0 21. 44. 0 56. 15 21. 44. 0 22. 8. 45 *** 1. 30 ***	Oct. 2 0. 0 0. 28 0. 55 1. 8: 1. 26 1. 32 1. 40 2. 2 2. 57 3. 11: 3. 25: 3. 42: 3. 53 4. 1 4. 23 4. 52: 5. 24 5. 32 5. 39 5. 45 5. 48 5. 58 6. 12 6. 28 6. 40 *** 7. 12 7. 25 8. 14 8. 20 *** 8. 40 8. 59 9. 6 9. 18 9. 40 10. 3 10. 30	.1007 *** .0993 .0995 .1010 .1007 .1020 .1006 .1027 .1009 .1024 .1013 .1036 .1016 .1037 .1003 .1022 .0999 .1014 .1004 .1018 .1004 .1009 .0995 .1014 .1003 *** .1020 .1010 .1030 .1000 *** .1075 .0991 .1014 .0926 .0993 .0956 *** .1010	0. 13 2. 0 2. 10 2. 19 3. 5 3. 41 3. 58 4. 3 4. 25 5. 8 5. 49 6. 10 8. 12 8. 17 8. 22 8. 26 8. 58 9. 3 9. 12 9. 15 9. 18 9. 24 9. 35 9. 48 9. 54 10. 2 10. 19 10. 42 10. 52 10. 54 *** 15. 0 21. 30 23. 51	.00840 .00695 .00670 .00670 .00655 (+) .00662 .00655 .00680 *** .00682 *** .00815 .00835 .00805 .00790 .00755 .00787 .00762 .00470 .00490 .00290 .00325 .00310 .00720 .00525 .00460 .00530 .00438 .00715 .00315 .00430 .00390 *** .00910 .01230 .01030	1. 40 3. 40 9. 40 21. 40	59. 0 60. 0 59. 5 55. 0	63. 0 63. 5 63. 0 57. 5	Oct. 2 13. 40 13. 58 14. 26 15. 17 15. 58 16. 31 23. 58	22. 21. 0 *** 15. 0 *** 19. 30 *** 16. 10 21. 40 19. 20 *** 15. 0 15. 58 17. 49 20. 8 23. 58	Oct. 2 10. 43 11. 24 11. 27 11. 35 11. 48 11. 54 15. 0 15. 58	.0918 *** .1013 .0992 *** .1012 .0989 .1004 *** .1009 .0988 .1019 *** .1002 .0990						
Oct. 3 0. 49 17. 0 17. 32: 18. 0 20. 31 21. 33 23. 55	22. 20. 50 16. 35 14. 0 15. 45 13. 40 *** 12. 30 20. 20	Oct. 3 0. 40 1. 32 5. 4 6. 0 7. 0 9. 30 15. 0 18. 30 22. 9 22. 48: 23. 18:	.0993 *** .1007 *** .0998 *** .1001 *** .0979 .0986 .0978	0. 55 1. 32 5. 4 6. 0 7. 0 9. 30 15. 0 18. 30 21. 59 23. 55	.00840 .00742 .00805 .00808 .00855 .00765 .01080 .01350 .01365 .01290	1. 40 3. 40 9. 40 21. 48	62. 0 65. 0 61. 0 60. 0	63. 0 66. 0 63. 0 60. 0	Oct. 3 0. 49 17. 0 17. 32: 18. 0 20. 31 21. 33 23. 55	22. 20. 50 16. 35 14. 0 15. 45 13. 40 *** 12. 30 20. 20	Oct. 3 0. 40 1. 32 5. 4 6. 0 7. 0 9. 30 15. 0 18. 30 22. 9 22. 48: 23. 18:	.0993 *** .1007 *** .0998 *** .1001 *** .0979 .0986 .0978	0. 55 1. 32 5. 4 6. 0 7. 0 9. 30 15. 0 18. 30 21. 59 23. 55	.00840 .00742 .00805 .00808 .00855 .00765 .01080 .01350 .01365 .01290	1. 40 3. 40 9. 40 21. 48	62. 0 65. 0 61. 0 60. 0	63. 0 66. 0 63. 0 60. 0	
Oct. 4 0. 54 1. 16: 7. 48 9. 5: 9. 39: 10. 33: 10. 47: 11. 15: 11. 38: 12. 31 14. 53: 15. 18 15. 33 20. 17 23. 15	22. 24. 0 25. 20 17. 10 12. 20 17. 10 16. 30 22. 10 18. 30 19. 45 16. 20 13. 30 15. 0 14. 0 12. 20 22. 30	Oct. 4 0. 5 0. 12 4. 16 5. 10 9. 12 9. 33 10. 8 10. 30 10. 19 11. 5 11. 33 12. 30 15. 7 15. 31 17. 49 20. 12 22. 5	.0995 .0991 *** .1012 .1005 *** .1022 .1011 .1019 .1015 .1021 .1013 .1022 .1014 *** .1018 .1013 *** .1021 *** .1016 .1004	1. 11 2. 12 3. 37 4. 24 5. 22 7. 16 8. 30 10. 0 13. 47 15. 1 19. 30 21. 0 23. 0 23. 22	.01165 .01040 .00780 .00802 .00773 .00805 .00782 .00893 .01330 .01305 .01327 .01290 .01315 .01300	1. 40 3. 40 9. 40 23. 5	63. 0 63. 0 62. 5 59. 5	64. 0 64. 0 66. 0 60. 0	Oct. 4 0. 5 0. 12 4. 16 5. 10 9. 12 9. 33 10. 8 10. 30 10. 19 11. 5 11. 33 12. 30 15. 7 15. 31 17. 49 20. 12 22. 5	22. 24. 0 25. 20 17. 10 12. 20 17. 10 16. 30 22. 10 18. 30 19. 45 16. 20 13. 30 15. 0 14. 0 12. 20 22. 30	Oct. 4 0. 5 0. 12 4. 16 5. 10 9. 12 9. 33 10. 8 10. 30 10. 19 11. 5 11. 33 12. 30 15. 7 15. 31 17. 49 20. 12 22. 5	.0995 .0991 *** .1012 .1005 *** .1022 .1011 .1019 .1015 .1021 .1013 .1022 .1014 *** .1018 .1013 *** .1021 *** .1016 .1004	1. 11 2. 12 3. 37 4. 24 5. 22 7. 16 8. 30 10. 0 13. 47 15. 1 19. 30 21. 0 23. 0 23. 22	.01165 .01040 .00780 .00802 .00773 .00805 .00782 .00893 .01330 .01305 .01327 .01290 .01315 .01300	1. 40 3. 40 9. 40 23. 5	63. 0 63. 0 62. 5 59. 5	64. 0 64. 0 66. 0 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 to a considerable time before and after that which is recorded.

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.	Göttingen Mean Solar Time.	Readings of Thermometers.		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.	Göttingen Mean Solar Time.	Readings of Thermometers.		
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.	
h m	o "	h m		h m		h m	o	o	h m	o "	h m		h m		h m	o	o	
Oct. 4 23. 19 23. 49		Oct. 4 23. 19 23. 49	.1012 .1007						Oct. 7 23. 55	22. 19. 30	Oct. 7 18. 40: 20. 30 23. 22 23. 45	.1032 .1028 .1017 .1012						
Oct. 5 0. 0 0. 55 2. 0 2. 28 2. 45 4. 0 4. 42: 5. 2 6. 0 7. 22: 8. 10: 8. 33 8. 48: 11. 6 12. 48 13. 13: 14. 30 23. 0	22. 21. 20 24. 10 19. 20 20. 40 18. 30 17. 50 15. 40 17. 0 14. 40 15. 30 6. 40 11. 30 10. 30 15. 50 16. 40 20. 30 15. 10 23. 58	Oct. 5 0. 18 0. 51 1. 5 1. 20 1. 50 2. 11 3. 10 4. 30 4. 52 5. 57 5. 0 5. 36 6. 24 7. 47 7. 58 8. 11 8. 36 8. 28 13. 30 18. 0 23. 55	.1016 .1012 .1005 .1008 .0997 .1008 .1013 .1008 .1018 .1013 .1017 .1008 .1014 .1017 .1012 .1026 .1021 .1027 *** .1024 .1022 .1017	Oct. 5 0. 15 4. 7 5. 7 6. 0 7. 0 9. 26 13. 17 14. 30 16. 9 17. 30 22. 0 23. 55	.01245 .00755 .00755 .00723 .00792 .00732 .01010 .01085 .01270 .01247 .01273 .01262	9. 40 21. 40	60. 0 56. 0	63. 0 57. 0	Oct. 8 0. 30 4. 48 5. 33 6. 30 23. 55	22. 20. 10 16. 0 9. 20 14. 10 19. 10	Oct. 8 0. 30 0. 50 2. 30 2. 50 4. 50 5. 20: 5. 49 8. 45 15. 15 18. 45 22. 5 23. 55	.1012 .1018 .1014 .1019 .1019 .1007 .1019 .1019 .1035 .1046 .1028 .1022	Oct. 8 1. 0 3. 35 4. 30 5. 30 6. 43 8. 30 14. 27 18. 30 19. 59 22. 22 23. 30	.01183 .00775 .00810 .00795 .00800 .00740 .01275 .01185 .01197 .01165 .01190				
Oct. 6 0. 59 15. 54 16. 24: 17. 30 23. 50	22. 22. 10 15. 0 18. 0 13. 30 20. 10	Oct. 6 0. 5 4. 17 6. 0 9. 28 9. 45 16. 0 16. 45 18. 21 18. 45 20. 45 22. 40 23. 28 23. 50	.1017 .1019 .1012 .1023 .1020 .1027 .1036 .1028 .1029 .1026 .1009 .1015 .1008	Oct. 6 1. 50 2. 50 3. 30 6. 0 7. 0 8. 30 15. 30 17. 7 21. 30 23. 53	.00962 .00775 .00805 .00765 .00780 .00744 .01285 .01243 .01225 .01250	1. 40 3. 40 9. 40 21. 40	60. 0 65. 0 63. 0 55. 0	61. 0 67. 0 64. 0 56. 0	Oct. 9 0. 43 9. 0 9. 55 10. 30 16. 38 17. 30 18. 31 19. 14 21. 15 22. 30 23. 58	22. 21. 40 13. 30 11. 10 13. 10 14. 40 19. 20 18. 10 21. 15 15. 10 13. 30 19. 10	Oct. 9 0. 45 1. 35 5. 15 7. 0 12. 0 12. 10 12. 47 17. 40 19. 10 20. 30 21. 30 23. 55	.1021 .1016 .1027 .1021 .1023 .1030 .1025 .1030 .1019 .1007 .1006	Oct. 9 0. 0 2. 14 5. 0 7. 0 9. 4 13. 30 18. 30 22. 1 23. 55	.01180 .01020 .00640 .00738 .00705 .00775 .00702 .00728 .00772				
Oct. 7 0. 52 9. 0 9. 50: 10. 3: 10. 21: 10. 33: 11. 0: 11. 55: 12. 53	22. 22. 30 14. 25 9. 30 10. 20 9. 10 12. 0 10. 0 14. 30 11. 50	Oct. 7 0. 10 4. 35 5. 10 *** 8. 30 *** 11. 30 12. 10 12. 40	.1016 .1016 .1021 *** .1025 *** .1034 .1022 .1026	Oct. 7 0. 0 3. 38 5. 0 6. 30 9. 30 15. 0 18. 0 21. 30 23. 55	.01245 .00745 .00790 .00813 .00738 .00980 .01280 .01250 .01272	1. 40 3. 40 9. 40 21. 40	60. 0 64. 0 63. 0 55. 0	61. 0 65. 0 64. 0 56. 0	Oct. 10 0. 30 9. 28 10. 15 11. 55 12. 17 12. 45 13. 22: 13. 59: 14. 35: 15. 24 23. 43	22. 19. 50 15. 20 11. 0 10. 30 14. 0 13. 15 18. 10 13. 30 21. 40 13. 10 24. 0	Oct. 10 0. 30 2. 40 2. 50 3. 12 5. 30 7. 15 10. 0 10. 32 13. 10 14. 0 14. 55: 16. 30 18. 30 18. 45 20. 25 21. 56 23. 0 23. 25	.1007 .1010 .1005 .1012 .1004 .1013 .1015 .1006 .1019 .1010 .1029 .1019 .1026 .1017 .1023 .0996 .0992 .1000	Oct. 10 1. 0 2. 34 7. 0 9. 29 13. 30 13. 43 14. 30 15. 0 19. 25 21. 0 23. 42	.00713 .00786 .00795 .00765 .00845 .00835 .00865 .00870 .01355 .01315 .01365				

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 Thermometers.		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 Thermometers.	
						Of H. F. Magnet.	Of V. F. Magnet.							Of H. F. Magnet.	Of V. F. Magnet.
Oct. 11 0. 0 1. 43 2. 13 4. 45 5. 35 8. 0 10. 12 11. 23 12. 40 14. 20 15. 0 17. 43 21. 0 23. 17	22. 24. 30 25. 30 22. 50 21. 30 16. 10 16. 0 10. 40 14. 0 9. 40 17. 30 13. 0 19. 15 12. 50 21. 0	Oct. 11 0. 0 0. 30 1. 20 2. 15 3. 9 3. 25 4. 35 4. 58 5. 25 5. 45 6. 30 7. 55 8. 40 8. 48 9. 10 10. 16 10. 40 11. 55 13. 40 14. 30 16. 45 17. 29 18. 48 23. 15	•1000 •0998 •1006 •0990 •1003 •0996 •1004 •0998 •0999 •0992 •1004 •1012 •1009 •1015 •1004 •1014 •1007 •1022 •1011 •1023 •1019 •1006 •1018 •1008	Oct. 11 0. 0 1. 31 5. 50 6. 51 9. 0 14. 16 14. 39 19. 18 22. 0 23. 16	•01365 •01330 •00783 •00845 •00768 •00945 •00952 •01322 •01300 •01320			Oct. 13 16. 11 16. 50 22. 13 23. 58	22. 15. 10 13. 50 *** 15. 40 23. 10	Oct. 13 4. 7 5. 0 5. 53 6. 10 9. 50 10. 21 11. 19 *** 14. 30 15. 15 16. 0 *** 20. 0 22. 25 23. 10 23. 30	•1024 •1019 •1026 •1022 •1026 •1037 •1023 *** •1025 •1020 •1030 *** •1028 •1010 •1017 •1013	Oct. 13 19. 30 22. 16 23. 55	•01155 •01285 •01205		
Oct. 12 0. 0 2. 30 6. 0 9. 49 13. 0 14. 13 16. 36 17. 40 18. 30 19. 55 20. 50 21. 48 22. 2 22. 15 23. 28 23. 53	22. 21. 45 22. 40 15. 50 16. 0 13. 10 15. 50 13. 10 14. 35 13. 20 14. 50 *** 12. 30 11. 30 14. 0 12. 10 20. 30 18. 20	Oct. 12 0. 0 3. 30 9. 15 10. 45 11. 5 16. 15 16. 25 16. 32 13. 20 19. 45 *** 21. 58 22. 15 23. 2 23. 20 23. 42 23. 55	•1008 •1002 •1012 •1017 •1013 •1023 •1019 •1021 •1022 •1019 •1008 •1008 •1016 •1000 •0996	Oct. 12 0. 0 1. 11 3. 19 5. 57 6. 43 9. 0 17. 0 23. 54	•01302 •01190 •00830 •00835 •00855 •00790 •00735 •01323			Oct. 14 0. 50 1. 16 1. 42 2. 38 3. 30 4. 47 6. 20 11. 45 12. 57 14. 2 19. 55 21. 2 23. 58	22. 24. 10 27. 15 22. 25 26. 15 21. 50 9. 40 17. 10 15. 10 12. 40 15. 15 15. 0 12. 40 20. 5	Oct. 14 0. 45 1. 12 1. 30 2. 36 3. 16 3. 47 4. 5 5. 8 5. 45 7. 45 10. 35 10. 48 11. 0 12. 22 12. 44 13. 40 14. 50 18. 0 19. 45 22. 24 23. 55	•1004 •1023 •1009 •1025 •1013 •1025 •1006 •1022 •1010 •1029 •1029 •1033 •1030 •1034 •1043 •1033 •1029 •1033 •1028 •1013 •1012	Oct. 14 1. 36 3. 30 3. 54 4. 13 5. 0 8. 0 13. 0 14. 0 18. 30 20. 30 23. 55	•01152 •01062 •01064 •01045 •01040 •00935 •01318 •01285 •01284 •01313 •01200		
Oct. 13 0. 28 2. 0 9. 4 10. 12 11. 0 15. 36	22. 22. 0 23. 30 16. 30 12. 0 14. 10 12. 50	Oct. 13 0. 5 0. 17 1. 27 1. 33 3. 8 3. 35	•1002 •0996 •1017 •1014 •1020 •1016	Oct. 13 0. 17 5. 0 9. 27 13. 38 14. 14 16. 0	•01186 •00815 •00745 •00895 •00900 •00993			Oct. 15 0. 54 9. 0 11. 2 13. 48 15. 30 17. 5 19. 52 20. 45 23. 54	22. 21. 30 18. 20 17. 0 17. 50 16. 50 19. 10 16. 45 13. 50 19. 50	Oct. 15 0. 5 6. 25 11. 30 15. 50 18. 15 21. 0 23. 55	•1012 •1034 •1037 •1033 •1048 •1048 •1038	Oct. 15 0. 0 4. 30 6. 24 7. 30 12. 54 21. 55	•01190 •00825 •00878 •00885 •01285 •01295		

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol \*\*\* denotes that the magnet 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 to a considerable time before and after that which is recorded.

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.	Göttingen Mean Solar Time.	Readings of Thermometers.		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.	Göttingen Mean Solar Time.	Readings of Thermometers.		
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.	
Oct. 16 0. 43 1. 15  2. 26 9. 28 10. 30 12. 6 12. 42 13. 7 19. 35 21. 12 23. 55	22. 19. 55 22. 50 *** 20. 15 16. 50 13. 30 16. 0 14. 30 16. 0 15. 35 13. 30 18. 0	Oct. 16 0. 15 0. 45 1. 10 1. 35 5. 0 7. 4 7. 40 8. 7 8. 40 9. 0 10. 30 18. 0 20. 30 22. 10 23. 30	*1037 *1037 *1038 *1034 *1031 *1039 *1032 *1038 *1036 *1028 *1043 *1049 *1051 *1046 *1035	Oct. 16 0. 21 1. 53 3. 6 6. 47 9. 0 15. 7 20. 0 21. 0 23. 0 23. 55	*01085 *00902 *00522 *00990 *00538 *01126 *01045 *01020 *01080 *01065	1. 40 3. 40 9. 46 21. 40	56. 0 58. 0 61. 0 59. 0 50. 0	58. 0 62. 0 59. 0 50. 0	Oct. 18 12. 55 13. 17 13. 47 15. 57 16. 22 23. 15	22. 5. 15 9. 0 4. 35 17. 5 14. 30 17. 0	Oct. 18 8. 53 9. 9 9. 53 10. 19 12. 14 12. 49 13. 33 14. 20 16. 8 16. 18 19. 59 23. 12 23. 55	*1030 *1014 *1011 *1022 *** *1026 *1017 *1028 *1023 *1029 *1025 *1039 *** *1020 *1016						
Oct. 17 0. 5 11. 26 11. 43 12. 48 13. 28 14. 33 15. 22 16. 10 20. 35 23. 50	22. 19. 0 14. 40 9. 30 15. 0 12. 20 15. 40 16. 10 14. 45 12. 50 20. 10	Oct. 17 0. 15 0. 40 1. 15 4. 30 5. 4 5. 58 6. 35 6. 52 9. 47 10. 1 10. 30 11. 8 11. 25 12. 15 13. 8 13. 40 16. 30 19. 0 22. 20 22. 42 23. 55	*1030 *1039 *1037 *1037 *1044 *1040 *1045 *1038 *1043 *1046 *1040 *1038 *1058 *1037 *1046 *1042 *1046 *1054 *1046 *1042 *1035	Oct. 17 0. 20 2. 0 3. 58 6. 30 9. 35 10. 30 11. 24 11. 40 13. 30 17. 12 21. 0 23. 55	*01050 *00865 *00480 *00565 *00485 *00500 *00555 *00550 *00665 *01092 *01045 *01015	1. 40 3. 40 9. 40 21. 40	54. 0 57. 0 57. 0 50. 5	56. 0 59. 0 58. 5 55. 2		Oct. 19 0. 3 0. 26 0. 58 1. 31  3. 15 3. 41 4. 17  4. 32  4. 51 5. 3  6. 33 6. 57 7. 22 8. 47 9. 0 9. 12 9. 22 9. 43 9. 58 10. 10 11. 55  16. 42  19. 10 21. 52 23. 30 23. 40 23. 52	Oct. 19 0. 0 6. 35 6. 57 7. 14 10. 9 14. 0 20. 30 23. 55	*1014 *1026 *1012 *1019 *** *1029 *1024 *1035 *** *1026 *** *1030 *1014 *** *1052 *1006 *1022 *1021 *1044 *1032 *1052 *1032 *1036 *1022 *** *1030 *** *1018 *** *1029 *1019 *1008 *1006 *1002	9. 40 21. 40	64. 0 63. 0	65. 0 64. 0			
Oct. 18 0. 24 3. 57 6. 58 7. 20 8. 14 8. 39 8. 53 9. 2 9. 13 9. 50 10. 45 12. 12	22. 21. 50 26. 0 17. 40 19. 10 4. 0 17. 25 2. 20 7. 40 4. 15 9. 50 2. 25 7. 50	Oct. 18 0. 30 2. 6 2. 31 3. 19 5. 4 5. 28 6. 33 7. 5 7. 39 8. 0 8. 19 8. 42	*1039 *1043 *1038 *1043 *1031 *1035 *1027 *1033 *1021 *1032 *1065 *1008	Oct. 18 0. 30 3. 3 5. 0 6. 42 8. 0 8. 12 8. 42 8. 52 12. 39 13. 7 22. 32 23. 19	*00982 *00545 *00625 *00708 *00695 *00700 *00632 *00650 *00675 *00690 *00610 *00620	1. 40 3. 40 9. 40 22. 54	55. 0 61. 0 62. 0 61. 0	56. 0 63. 0 66. 0 62. 0										

Oct. 19. The strap attached to the suspension skein broke, and the magnet fell through a space of about an inch.  
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.	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.	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.									
Oct. 26 o. 2 4. 18 4. 25: 5. 23 10. 1 10. 54: 14. 9 14. 38: 15. 28 17. 58 18. 43: 19. 21: 19. 49 20. 30 23. 58	22. 20. 20 18. 30 14. 10 17. 25 15. 0 10. 30 15. 20 21. 15 15. 10 15. 30 21. 50 15. 0 17. 10 16. 0 25. 0	Oct. 26 o. 15 4. 15 4. 30 5. 0 6. 17 10. 18 10. 35 10. 59 11. 46 12. 32 14. 8 14. 29 15. 6 16. 10 17. 30 18. 15 18. 44 19. 12 20. 30 21. 43 23. 0 23. 55	*1029 *1028 *1023 *1028 *1035 *1042 *1045 *1037 *1039 *1034 *1038 *1046 *1040 *1042 *1046 *1037 *1046 *1042 *1042 *1025 *1019 *1021	Oct. 26 o. 0 3. 0 7. 47 10. 30 17. 8 18. 36 19. 6 20. 30 23. 55	*01072 *01000 *00668 *00725 *01215 *01210 *01195 *01228 *01220	h # 11. 40 21. 40	o # 58. 0 55. 0	o # 59. 0 57. 0	Oct. 28 11. 32 11. 54 12. 17 13. 32 14. 30 15. 22 15. 56 16. 28 17. 9 17. 38  17. 56 18. 5 18. 16 18. 27 18. 42  19. 30 20. 38:  23. 38	22. 2. 0 14. 0 3. 50 23. 0 12. 30 27. 0 12. 30 45. 45 17. 10 43. 0   44. 30 31. 15 44. 15 33. 0 45. 25  41. 40 19. 10 *** 21. 30	Oct. 28 8. 55 9. 13 9. 21 9. 26 9. 46 10. 5 10. 31 10. 21 11. 20 11. 51  12. 21 13. 30 13. 52 14. 5 14. 25 14. 41 14. 56 15. 16 15. 20 15. 22 15. 31 16. 17 16. 41 16. 49 17. 8 17. 18 17. 34 17. 44 17. 56 *** 18. 16 *** 18. 24 18. 27 *** 18. 38 18. 45 18. 54 19. 6 19. 20 *** 19. 51 20. 20 20. 32 20. 41 *** 23. 10	*1038 *1022 *1038 *1016 *1060 *1026 *1031 *1031 *0998 *1035  *1002 *1024 *1014 *1025 *1022 *1034 *1018 *1064 *1059 *1066 *1057 *1100 *1019 *1015 *0982 *1014 *0941 *0977 *0956 *** *1006 *** *0993 *1003 *** *0966 *0989 *0960 *0983 *0953 *** *0977 *0972 *0986 *0977 *** *0987	Oct. 28 16. 11 16. 33 17. 7 17. 30 17. 44 18. 0 18. 9 18. 27 18. 44 18. 52 19. 5 19. 18 20. 20 20. 20 23. 55	*00718 *00650 *00632 *00785 *00845 *00795 *00840 *00800 *00900 *00890 *00960 *00930 *01127 *01227	h # o	o	o											
Oct. 27 o. 25 1. 4: 1. 22: 7. 56 20. 21 23. 55	22. 26. 0 23. 15 25. 50 15. 0 14. 0 20. 0	Oct. 27 o. 30 0. 50: 1. 16 1. 44 5. 0 5. 40 6. 50 9. 25 11. 30 14. 0 19. 0 20. 0 21. 45 23. 20 23. 27 23. 50	*1026 *1022 *1025 *1017 *1022 *1077 *1025 *1027 *1026 *1030 *1035 *1034 *1020 *1015 *1018 *1015	Oct. 27 o. 44 1. 57 3. 33 6. 0 9. 25 13. 0 18. 13 23. 55	*01200 *01092 *00740 *00792 *00700 *00758 *01265 *01245	1. 40 3. 40 9. 40 21. 40	60. 0 60. 0 63. 0 55. 0	61. 0 61. 0 67. 0 57. 0	Oct. 28 o. 32 3. 16 3. 20 4. 30 9. 18 9. 40: 9. 55: 10. 8: 10. 38 10. 55	22. 22. 30 19. 0 23. 40 19. 0 22. 16. 50 21. 51. 40 22. 0. 0 21. 57. 30 22. 5. 0 1. 15	Oct. 28 o. 30 1. 30 3. 10 3. 18 *** 4. 5 *** 7. 36 7. 46 8. 11	*1015 *1024 *1028 *1044 *** *1032 *** *1042 *1036 *1042	Oct. 28 1. 0 2. 30 5. 59 10. 11 11. 48 12. 3 13. 20 13. 44 15. 18 15. 38	*01250 *01140 *00690 *00630 *00708 *00620 *00725 *00675 *00715 *00658	1. 40 3. 40 9. 40 21. 40	58. 0 61. 0 59. 0 54. 0	59. 0 62. 0 64. 0 54. 0	Oct. 28 19. 51 20. 20 20. 32 20. 41 *** 23. 10	*0977 *0972 *0986 *0977 *** *0987	Oct. 29 o. 0 o. 20 4. 30	22. 28. 30 26. 20 22. 20 ***	Oct. 29 o. 0 o. 0 3. 10	*0977 *** *0981	Oct. 29 o. 0 3. 0 8. 0	*01235 *01232 *00940	1. 40 3. 40 9. 40	56. 0 57. 0 55. 0	57. 5 59. 0 57. 0

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol \*\*\* denotes that the magnet has been generally in a state of agitation. The Symbol (†) denotes that the register has failed between the preceding and following readings. The Symbol: attached to a time denotes that the reading will apply equally to a considerable time before and after that which is recorded.

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.	Göttingen Mean Solar Time.	Readings of Thermometers.		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.	Göttingen Mean Solar Time.	Readings of Thermometers.																																				
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.																																			
Oct. 29 6. 28 8. 18 8. 50 9. 18 9. 45 9. 50 10. 8 10. 16 10. 38 10. 57 11. 20 12. 30 13. 3 13. 28 14. 12 14. 30 15. 4. 15. 22. 15. 40 16. 30 23. 55	22. 24. 0 25. 0 20. 20 22. 30 13. 0 17. 10 13. 30 17. 40 12. 30 14. 45 8. 45 18. 20 17. 0 22. 10 20. 30 25. 30 24. 10 25. 35 22. 10 20. 40 27. 30	Oct. 29 3. 20 3. 32 3. 49 4. 30 4. 35 6. 51 6. 58 7. 2 7. 40 7. 44 8. 5 8. 20 8. 34 8. 55 9. 29 9. 53 10. 10 10. 13 10. 30 11. 12. 11. 21 12. 23 12. 30 12. 40 13. 55 14. 22 14. 40 14. 50 16. 35 17. 20 20. 52 22. 11 22. 42 23. 45	.1015 .1019 .1011 *** .1012 .1022 *** .1018 .1033 .1017 *** .1018 .1025 .1014 .1016 .1000 .0995 .1007 .1035 .1014 .1016 .1000 .1018 .1004 .1006 .1014 .1006 *** .1006 .1024 .1012 .1012 *** .1027 .1022 *** .1024 .1006 .1011 .1009	Oct. 29 9. 29 10. 3 11. 2 14. 8 14. 54 20. 0 23. 54	.01010 .00985 .01062 .01165 .01110 .01150 .01170	21. 40	50. 0	51. 0	Oct. 31 0. 38 8. 55 9. 30 11. 30 23. 50	22. 24. 30 21. 0 15. 20 21. 0 25. 0	Oct. 31 0. 45 1. 22 1. 30 1. 42 4. 45 5. 0 7. 30 8. 10 8. 50 9. 25 9. 52 10. 30 10. 50 16. 10 16. 15 19. 35 20. 35 22. 50 23. 30	.1022 .1024 .1019 .1024 .1026 .1023 .1026 .1030 .1027 .1036 .1028 .1035 .1030 .1039 .1043 .1052 .1040 .1036 .1030	Oct. 30 23. 55	.01145	Oct. 31 1. 0 2. 11 4. 24 16. 33 18. 30 20. 0 23. 55	.01110 .00975 .00555 .01100 .01068 .01093 .01070	Nov. 1 0. 38 12. 0 13. 16. 14. 21 17. 36 17. 55 20. 33 23. 30	22. 26. 50 20. 30 19. 30 21. 0 19. 10 20. 57 19. 10 21. 55 23. 36	Nov. 1 0. 40 12. 0 12. 9 12. 47 17. 23 20. 57 21. 25 21. 55 23. 36	.1033 .1038 .1044 .1038 .1053 .1042 .1046 .1038 .1036	Nov. 1 1. 0 2. 7 3. 35 4. 0 5. 23 6. 30 10. 0 15. 20 19. 0 20. 48 23. 36	.01025 .00900 .00548 .00532 .00570 .00605 .00545 .01082 .01025 .01087 .01046	1. 40 3. 40 9. 40 22. 40	53. 0 58. 0 55. 0 49. 0	.054. 0 .060. 0 .057. 0 .053. 5	Oct. 30 0. 10 4. 30 21. 0 23. 55	22. 27. 50 22. 30 20. 0 24. 30	Oct. 30 0. 30 1. 10 1. 32 3. 22 3. 58 11. 11 18. 0 20. 0 23. 40	.1008 *** .1009 .1006 .1020 .1011 .1034 .1036 .1034 .1024	Oct. 30 0. 15 2. 8 4. 0 6. 7 9. 0 13. 7 14. 30 16. 32 20. 45 22. 30	.01170 .00992 .00600 .00605 .00540 .00755 .00805 .00942 .01156 .01110	1. 40 3. 40 9. 40 21. 40	54. 0 58. 0 54. 5 50. 0	55. 0 59. 0 52. 0	Nov. 2 0. 0 3. 50 8. 13 9. 40 21. 30 23. 45	22. 26. 0 *** 23. 40 21. 0 21. 50 28. 30	Nov. 2 0. 0 0. 46 1. 6 2. 11 2. 48 4. 0 9. 30 10. 0 19. 0 21. 30 23. 58	.1037 .1040 .1036 .1045 .1041 *** .1048 .1056 .1050 .1056 .1050 .1055	Nov. 2 0. 0 2. 7 5. 0 7. 30 11. 12 14. 55 15. 7 15. 30 23. 56	.01047 .00972 .00805 .00713 .00715 .01003 .00992 .01015 .01078	7. 30 21. 40	49. 0 44. 0	.056. 0 .046. 0	Nov. 3 1. 10	22. 27. 20	Nov. 3 0. 28	.1046	Nov. 3 1. 13	.01050	1. 40	47. 0	.049. 0
Oct. 30 0. 10 4. 30 21. 0 23. 55	22. 27. 50 22. 30 20. 0 24. 30	Oct. 30 0. 30 1. 10 1. 32 3. 22 3. 58 11. 11 18. 0 20. 0 23. 40	.1008 *** .1009 .1006 .1020 .1011 .1034 .1036 .1034 .1024	Oct. 30 0. 15 2. 8 4. 0 6. 7 9. 0 13. 7 14. 30 16. 32 20. 45 22. 30	.01170 .00992 .00600 .00605 .00540 .00755 .00805 .00942 .01156 .01110	1. 40 3. 40 9. 40 21. 40	54. 0 58. 0 54. 5 50. 0	55. 0 59. 0 52. 0	Nov. 2 0. 0 3. 50 8. 13 9. 40 21. 30 23. 45	22. 26. 0 *** 23. 40 21. 0 21. 50 28. 30	Nov. 2 0. 0 0. 46 1. 6 2. 11 2. 48 4. 0 9. 30 10. 0 19. 0 21. 30 23. 58	.1037 .1040 .1036 .1045 .1041 *** .1048 .1056 .1050 .1056 .1050 .1055	Nov. 2 0. 0 2. 7 5. 0 7. 30 11. 12 14. 55 15. 7 15. 30 23. 56	.01047 .00972 .00805 .00713 .00715 .01003 .00992 .01015 .01078	7. 30 21. 40	49. 0 44. 0	.056. 0 .046. 0	Nov. 3 1. 10	22. 27. 20	Nov. 3 0. 28	.1046	Nov. 3 1. 13	.01050	1. 40	47. 0	.049. 0																										
Nov. 3 1. 10	22. 27. 20	Nov. 3 0. 28	.1046	Nov. 3 1. 13	.01050	1. 40	47. 0	.049. 0																																												

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.	Göttingen Mean Solar Time.	Readings of Thermometers.		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.	Göttingen Mean Solar Time.	Readings of Thermometers.																																																																				
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.																																																																			
Nov. 3 4. 0 5. 14: 6. 10: 6. 42: 7. 18 7. 38 8. 54 11. 52: 15. 30 18. 2 18. 28: 19. 13 23. 50	22. 26. 0 19. 10 21. 40 20. 40 22. 10 19. 30 21. 0 16. 0 22. 10 21. 50 23. 0 20. 20 26. 40	Nov. 3 0. 52 2. 0 4. 50 5. 53 6. 10 6. 38: 7. 30 7. 54 8. 18 8. 45 11. 39 12. 0 13. 15 18. 43: 23. 57	·1050 ·1045 ·1036 ·1052 ·1043 ·1050 ·1038 ·1044 ·1036 ·1050 ·1051 ·1060 ·1053 ·1061 ·1045	Nov. 3 4. 43 5. 28 6. 10 10. 0 16. 18 23. 54	·00510 ·00525 ·00510 ·00500 ·01030 ·01045	3. 40 9. 40 21. 45	50. 0 49. 0 44. 0	51. 0 50. 0 49. 0	Nov. 7 14. 12: 15. 0: 15. 53 17. 30 18. 49: 19. 30 23. 59	22. 21. 10 19. 0 21. 0 19. 35 21. 30 20. 0 26. 0	Nov. 7 19. 14 23. 55	·1053 ·1033	Nov. 7 6. 30 10. 30 14. 45 18. 35 19. 30 20. 30 23. 55	·00738 ·00705 ·00892 ·01250 ·01250 ·01275 ·01245	21. 40	49. 0 54. 0	Nov. 4 0. 0 1. 17 1. 48 3. 53: 4. 54: 5. 59: 11. 0 11. 15: 11. 58: 19. 12 20. 30 23. 55	22. 27. 0 26. 30 28. 5 20. 0 22. 40 20. 30 19. 30 22. 10 16. 15 21. 10 24. 30 26. 30	Nov. 4 0. 0 2. 30 12. 10: 13. 12 18. 40: 20. 23: 20. 50 23. 55	·1044 ·1037 ·1059 ·1050 ·1065 ·1058 ·1062 ·1059	Nov. 4 0. 11 1. 47 3. 34 4. 12 5. 30 6. 30 9. 0 15. 30 20. 33 23. 54	·01050 ·00900 ·00518 ·00547 ·00522 ·00525 ·00480 ·01040 ·00985 ·01040	1. 40 3. 40 9. 40 21. 46	49. 0 53. 0 49. 0 40. 0	50. 0 54. 0 54. 0 42. 0	Nov. 9 0. 0 1. 30 13. 50 15. 50 20. 15 23. 50	22. 23. 0 25. 10 20. 30 16. 30 19. 30 28. 10	Nov. 9 0. 0 12. 0 13. 54 14. 45 16. 1 17. 5 18. 58 19. 30 23. 55	·1034 ·1053 ·1048 ·1055 ·1051 ·1059 ·1051 ·1057 ·1040	Nov. 9 0. 0 2. 30 9. 0 15. 30 18. 30 20. 30 23. 55	·01227 ·01263 ·01022 ·01002 ·01000 ·01060 ·01150	7. 33	50. 0 49. 0 53. 0	Nov. 5 0. 35 12. 52 13. 35 14. 28 23. 55	22. 26. 30 19. 40 22. 50 19. 45 24. 40	Nov. 5 0. 35 5. 0 7. 40 10. 0 11. 30 12. 30 13. 33 23. 55	·1055 ·1040 ·1050 ·1043 ·1050 ·1047 ·1053 ·1036	Nov. 5 0. 30 4. 30 5. 7 7. 1 14. 0 21. 49 23. 56	·01055 ·00942 ·00500 ·00553 ·00502 ·00525 ·00565	1. 40 3. 40 9. 40 21. 40	44. 0 48. 0 49. 0 49. 0	45. 0 50. 0 50. 0 52. 5	Nov. 10 1. 13 1. 42: 2. 15 6. 0 15. 13 15. 55: 17. 45 18. 30 21. 12 23. 55	22. 29. 20 28. 0 30. 40 21. 10 21. 30 19. 0 22. 0 19. 40 25. 20	Nov. 10 1. 18 3. 30: 18. 30 20. 36 23. 21 *** 23. 39 21. 15	·1037 ·1025 ·1048 ·1056 ·1048 *** ·1054	Nov. 10 1. 30 3. 34 5. 30 9. 2 13. 14 18. 2 21. 15	·01070 ·00768 ·00838 ·00750 ·00858 ·01268 ·01195	1. 40	54. 0 57. 0 54. 0 48. 0 51. 0	Nov. 6 0. 20 4. 30 21. 0 21. 55 23. 55	22. 26. 10 20. 20 18. 10 17. 50 23. 10	Nov. 6 0. 23 19. 29 23. 53	·1036 ·1049 ·1034	Nov. 6 0. 22 4. 0 10. 30 14. 30 18. 48 23. 52	·00575 ·00720 ·00687 ·00840 ·01250 ·01252	1. 40 3. 40 9. 40 21. 40	53. 0 56. 0 53. 0 47. 0	54. 8 56. 0 53. 0 48. 0	Nov. 11 1. 10 1. 42 2. 12 3. 28 4. 10 4. 30 4. 41	22. 30. 0 31. 0 24. 30 21. 30 24. 50 23. 30 25. 30	Nov. 11 0. 21 *** 0. 57 2. 6 4. 2 4. 23 4. 33	·1040 *** ·1054 ·1040 ·1052 ·1037 ·1046	Nov. 11 1. 30 3. 23 5. 45 9. 56 10. 35 11. 5 13. 30	·01123 ·00782 ·00820 ·00750 ·00772 ·00738 ·00850	1. 40	51. 0 56. 0 54. 0 49. 0 54. 0	Nov. 7 0. 50 10. 0 11. 28:	22. 24. 40 19. 50 18. 0	Nov. 7 0. 52 2. 13 7. 47	·1035 ·1044 ·1034	Nov. 7 1. 0 2. 51 5. 28	·01210 ·01082 ·00690	1. 40 3. 40 9. 40	50. 0 55. 0 53. 0	50. 8 57. 0 58. 0	Nov. 7 14. 12: 15. 0: 15. 53 17. 30 18. 49: 19. 30 23. 59	22. 21. 10 19. 0 21. 0 19. 35 21. 30 20. 0 26. 0	Nov. 7 19. 14 23. 55	·1053 ·1033	Nov. 7 6. 30 10. 30 14. 45 18. 35 19. 30 20. 30 23. 55	·00738 ·00705 ·00892 ·01250 ·01250 ·01275 ·01245	21. 40	49. 0 54. 0
Nov. 4 0. 0 1. 17 1. 48 3. 53: 4. 54: 5. 59: 11. 0 11. 15: 11. 58: 19. 12 20. 30 23. 55	22. 27. 0 26. 30 28. 5 20. 0 22. 40 20. 30 19. 30 22. 10 16. 15 21. 10 24. 30 26. 30	Nov. 4 0. 0 2. 30 12. 10: 13. 12 18. 40: 20. 23: 20. 50 23. 55	·1044 ·1037 ·1059 ·1050 ·1065 ·1058 ·1062 ·1059	Nov. 4 0. 11 1. 47 3. 34 4. 12 5. 30 6. 30 9. 0 15. 30 20. 33 23. 54	·01050 ·00900 ·00518 ·00547 ·00522 ·00525 ·00480 ·01040 ·00985 ·01040	1. 40 3. 40 9. 40 21. 46	49. 0 53. 0 49. 0 40. 0	50. 0 54. 0 54. 0 42. 0	Nov. 9 0. 0 1. 30 13. 50 15. 50 20. 15 23. 50	22. 23. 0 25. 10 20. 30 16. 30 19. 30 28. 10	Nov. 9 0. 0 12. 0 13. 54 14. 45 16. 1 17. 5 18. 58 19. 30 23. 55	·1034 ·1053 ·1048 ·1055 ·1051 ·1059 ·1051 ·1057 ·1040	Nov. 9 0. 0 2. 30 9. 0 15. 30 18. 30 20. 30 23. 55	·01227 ·01263 ·01022 ·01002 ·01000 ·01060 ·01150	7. 33	50. 0 49. 0 53. 0	Nov. 5 0. 35 12. 52 13. 35 14. 28 23. 55	22. 26. 30 19. 40 22. 50 19. 45 24. 40	Nov. 5 0. 35 5. 0 7. 40 10. 0 11. 30 12. 30 13. 33 23. 55	·1055 ·1040 ·1050 ·1043 ·1050 ·1047 ·1053 ·1036	Nov. 5 0. 30 4. 30 5. 7 7. 1 14. 0 21. 49 23. 56	·01055 ·00942 ·00500 ·00553 ·00502 ·00525 ·00565	1. 40 3. 40 9. 40 21. 40	44. 0 48. 0 49. 0 49. 0	45. 0 50. 0 50. 0 52. 5	Nov. 10 1. 13 1. 42: 2. 15 6. 0 15. 13 15. 55: 17. 45 18. 30 21. 12 23. 55	22. 29. 20 28. 0 30. 40 21. 10 21. 30 19. 0 22. 0 19. 40 25. 20	Nov. 10 1. 18 3. 30: 18. 30 20. 36 23. 21 *** 23. 39 21. 15	·1037 ·1025 ·1048 ·1056 ·1048 *** ·1054	Nov. 10 1. 30 3. 34 5. 30 9. 2 13. 14 18. 2 21. 15	·01070 ·00768 ·00838 ·00750 ·00858 ·01268 ·01195	1. 40	54. 0 57. 0 54. 0 48. 0 51. 0	Nov. 6 0. 20 4. 30 21. 0 21. 55 23. 55	22. 26. 10 20. 20 18. 10 17. 50 23. 10	Nov. 6 0. 23 19. 29 23. 53	·1036 ·1049 ·1034	Nov. 6 0. 22 4. 0 10. 30 14. 30 18. 48 23. 52	·00575 ·00720 ·00687 ·00840 ·01250 ·01252	1. 40 3. 40 9. 40 21. 40	53. 0 56. 0 53. 0 47. 0	54. 8 56. 0 53. 0 48. 0	Nov. 11 1. 10 1. 42 2. 12 3. 28 4. 10 4. 30 4. 41	22. 30. 0 31. 0 24. 30 21. 30 24. 50 23. 30 25. 30	Nov. 11 0. 21 *** 0. 57 2. 6 4. 2 4. 23 4. 33	·1040 *** ·1054 ·1040 ·1052 ·1037 ·1046	Nov. 11 1. 30 3. 23 5. 45 9. 56 10. 35 11. 5 13. 30	·01123 ·00782 ·00820 ·00750 ·00772 ·00738 ·00850	1. 40	51. 0 56. 0 54. 0 49. 0 54. 0	Nov. 7 0. 50 10. 0 11. 28:	22. 24. 40 19. 50 18. 0	Nov. 7 0. 52 2. 13 7. 47	·1035 ·1044 ·1034	Nov. 7 1. 0 2. 51 5. 28	·01210 ·01082 ·00690	1. 40 3. 40 9. 40	50. 0 55. 0 53. 0	50. 8 57. 0 58. 0	Nov. 7 14. 12: 15. 0: 15. 53 17. 30 18. 49: 19. 30 23. 59	22. 21. 10 19. 0 21. 0 19. 35 21. 30 20. 0 26. 0	Nov. 7 19. 14 23. 55	·1053 ·1033	Nov. 7 6. 30 10. 30 14. 45 18. 35 19. 30 20. 30 23. 55	·00738 ·00705 ·00892 ·01250 ·01250 ·01275 ·01245	21. 40	49. 0 54. 0																	
Nov. 5 0. 35 12. 52 13. 35 14. 28 23. 55	22. 26. 30 19. 40 22. 50 19. 45 24. 40	Nov. 5 0. 35 5. 0 7. 40 10. 0 11. 30 12. 30 13. 33 23. 55	·1055 ·1040 ·1050 ·1043 ·1050 ·1047 ·1053 ·1036	Nov. 5 0. 30 4. 30 5. 7 7. 1 14. 0 21. 49 23. 56	·01055 ·00942 ·00500 ·00553 ·00502 ·00525 ·00565	1. 40 3. 40 9. 40 21. 40	44. 0 48. 0 49. 0 49. 0	45. 0 50. 0 50. 0 52. 5	Nov. 10 1. 13 1. 42: 2. 15 6. 0 15. 13 15. 55: 17. 45 18. 30 21. 12 23. 55	22. 29. 20 28. 0 30. 40 21. 10 21. 30 19. 0 22. 0 19. 40 25. 20	Nov. 10 1. 18 3. 30: 18. 30 20. 36 23. 21 *** 23. 39 21. 15	·1037 ·1025 ·1048 ·1056 ·1048 *** ·1054	Nov. 10 1. 30 3. 34 5. 30 9. 2 13. 14 18. 2 21. 15	·01070 ·00768 ·00838 ·00750 ·00858 ·01268 ·01195	1. 40	54. 0 57. 0 54. 0 48. 0 51. 0	Nov. 6 0. 20 4. 30 21. 0 21. 55 23. 55	22. 26. 10 20. 20 18. 10 17. 50 23. 10	Nov. 6 0. 23 19. 29 23. 53	·1036 ·1049 ·1034	Nov. 6 0. 22 4. 0 10. 30 14. 30 18. 48 23. 52	·00575 ·00720 ·00687 ·00840 ·01250 ·01252	1. 40 3. 40 9. 40 21. 40	53. 0 56. 0 53. 0 47. 0	54. 8 56. 0 53. 0 48. 0	Nov. 11 1. 10 1. 42 2. 12 3. 28 4. 10 4. 30 4. 41	22. 30. 0 31. 0 24. 30 21. 30 24. 50 23. 30 25. 30	Nov. 11 0. 21 *** 0. 57 2. 6 4. 2 4. 23 4. 33	·1040 *** ·1054 ·1040 ·1052 ·1037 ·1046	Nov. 11 1. 30 3. 23 5. 45 9. 56 10. 35 11. 5 13. 30	·01123 ·00782 ·00820 ·00750 ·00772 ·00738 ·00850	1. 40	51. 0 56. 0 54. 0 49. 0 54. 0	Nov. 7 0. 50 10. 0 11. 28:	22. 24. 40 19. 50 18. 0	Nov. 7 0. 52 2. 13 7. 47	·1035 ·1044 ·1034	Nov. 7 1. 0 2. 51 5. 28	·01210 ·01082 ·00690	1. 40 3. 40 9. 40	50. 0 55. 0 53. 0	50. 8 57. 0 58. 0	Nov. 7 14. 12: 15. 0: 15. 53 17. 30 18. 49: 19. 30 23. 59	22. 21. 10 19. 0 21. 0 19. 35 21. 30 20. 0 26. 0	Nov. 7 19. 14 23. 55	·1053 ·1033	Nov. 7 6. 30 10. 30 14. 45 18. 35 19. 30 20. 30 23. 55	·00738 ·00705 ·00892 ·01250 ·01250 ·01275 ·01245	21. 40	49. 0 54. 0																																		
Nov. 6 0. 20 4. 30 21. 0 21. 55 23. 55	22. 26. 10 20. 20 18. 10 17. 50 23. 10	Nov. 6 0. 23 19. 29 23. 53	·1036 ·1049 ·1034	Nov. 6 0. 22 4. 0 10. 30 14. 30 18. 48 23. 52	·00575 ·00720 ·00687 ·00840 ·01250 ·01252	1. 40 3. 40 9. 40 21. 40	53. 0 56. 0 53. 0 47. 0	54. 8 56. 0 53. 0 48. 0	Nov. 11 1. 10 1. 42 2. 12 3. 28 4. 10 4. 30 4. 41	22. 30. 0 31. 0 24. 30 21. 30 24. 50 23. 30 25. 30	Nov. 11 0. 21 *** 0. 57 2. 6 4. 2 4. 23 4. 33	·1040 *** ·1054 ·1040 ·1052 ·1037 ·1046	Nov. 11 1. 30 3. 23 5. 45 9. 56 10. 35 11. 5 13. 30	·01123 ·00782 ·00820 ·00750 ·00772 ·00738 ·00850	1. 40	51. 0 56. 0 54. 0 49. 0 54. 0	Nov. 7 0. 50 10. 0 11. 28:	22. 24. 40 19. 50 18. 0	Nov. 7 0. 52 2. 13 7. 47	·1035 ·1044 ·1034	Nov. 7 1. 0 2. 51 5. 28	·01210 ·01082 ·00690	1. 40 3. 40 9. 40	50. 0 55. 0 53. 0	50. 8 57. 0 58. 0	Nov. 7 14. 12: 15. 0: 15. 53 17. 30 18. 49: 19. 30 23. 59	22. 21. 10 19. 0 21. 0 19. 35 21. 30 20. 0 26. 0	Nov. 7 19. 14 23. 55	·1053 ·1033	Nov. 7 6. 30 10. 30 14. 45 18. 35 19. 30 20. 30 23. 55	·00738 ·00705 ·00892 ·01250 ·01250 ·01275 ·01245	21. 40	49. 0 54. 0																																																			
Nov. 7 0. 50 10. 0 11. 28:	22. 24. 40 19. 50 18. 0	Nov. 7 0. 52 2. 13 7. 47	·1035 ·1044 ·1034	Nov. 7 1. 0 2. 51 5. 28	·01210 ·01082 ·00690	1. 40 3. 40 9. 40	50. 0 55. 0 53. 0	50. 8 57. 0 58. 0	Nov. 7 14. 12: 15. 0: 15. 53 17. 30 18. 49: 19. 30 23. 59	22. 21. 10 19. 0 21. 0 19. 35 21. 30 20. 0 26. 0	Nov. 7 19. 14 23. 55	·1053 ·1033	Nov. 7 6. 30 10. 30 14. 45 18. 35 19. 30 20. 30 23. 55	·00738 ·00705 ·00892 ·01250 ·01250 ·01275 ·01245	21. 40	49. 0 54. 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 to a considerable time before and after that which is recorded.

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.	Göttingen Mean Solar Time.		Readings of Thermometers.		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.	Göttingen Mean Solar Time.		Readings of Thermometers.						
						Of H. F. Magnet.	Of V. F. Magnet.	Of H. F. Magnet.	Of V. F. Magnet.							Of H. F. Magnet.	Of V. F. Magnet.							
Nov. 11 5. 25 5. 48 9. 30 10. 31 11. 31 11. 40 12. 36 13. 12 13. 38 13. 55 14. 17 14. 45 15. 30 23. 55	22. 22. 50 23. 10 22. 20. 0 21. 52. 0 22. 13. 40 13. 0 17. 20 15. 0 17. 20 14. 0 13. 30 18. 0 15. 40 *** 22. 20	Nov. 11 5. 1 9. 5 10. 6 10. 41 11. 57 13. 20 13. 53 14. 12 15. 7 21. 11 23. 55	•1037 *** •1042 •1032 •1088 •1026 •1048 •1040 •1045 •1044 •1045 •1038	Nov. 11 18. 6 22. 0 23. 30	•01270 •01235 •01262					Nov. 14 13. 25 14. 18 14. 44 15. 0 15. 51 21. 7 23. 40	22. 19. 10 11. 30 16. 35 16. 0 20. 20 20. 10 24. 0	Nov. 14 8. 55 10. 40 12. 0 20. 26 22. 55 23. 51	•1041 •1060 •1045 •1060 •1065 •1056											
Nov. 12 1. 0 7. 59 8. 19 8. 53 10. 7 11. 25 12. 0 22. 0 23. 55	22. 22. 20 21. 5 6. 10 18. 50 18. 0 21. 0 19. 0 21. 55	Nov. 12 1. 5 7. 3 8. 6 8. 27 9. 10 11. 5 22. 51 23. 18 23. 55	•1038 •1040 •1026 •1048 •1034 •1044 •1043 •1048 •1043	Nov. 12 1. 5 3. 22 5. 30 9. 36 12. 0 15. 54 23. 15 23. 55	•01215 •00786 •01330 •01270 •00875 •01290 •01230 •01250					Nov. 12 1. 40 3. 40 9. 40 21. 40	53. 0 59. 0 55. 5 47. 0	55. 0 60. 8 59. 5 50. 0	Nov. 14 12. 46 13. 29 14. 17 14. 49 14. 52 16. 9 16. 31 17. 11 18. 0 23. 17	22. 24. 30 17. 0 13. 50 15. 10 8. 40 20. 0 15. 0 18. 0 *** 10. 0 16. 0 13. 10 19. 30 *** 11. 52 19. 0 10. 40 20. 40 12. 0 21. 10 23. 10	Nov. 15 0. 32 8. 22 8. 51 9. 4 9. 42 10. 19 10. 38 10. 54 12. 46 13. 29 14. 17 14. 49 14. 52 16. 9 16. 31 17. 11 18. 0 23. 17	0. 36 3. 45 4. 29 5. 0 *** 8. 39 9. 8 9. 24 9. 41 10. 10 10. 24 10. 45 11. 5 11. 52 12. 19 12. 36 13. 30 14. 32 14. 45 18. 5 *** 19. 36 23. 21	Nov. 15 1. 0 4. 0 6. 0 8. 30 14. 50 18. 0 23. 20	•1055 •1050 •1069 •1059 *** •1058 •1048 •1058 •1046 •1058 •1041 •1048 •1042 •1059 •1046 •1059 •1044 •1045 •1055 *** •1070 •1053						
Nov. 13 1. 18 9. 48 10. 15 10. 40 12. 7 12. 40 13. 7 13. 36 14. 11 14. 59 15. 54 23. 55	22. 24. 30 19. 40 16. 0 18. 0 16. 40 20. 0 19. 0 14. 55 20. 10 10. 30 20. 30 23. 30	Nov. 13 1. 15 3. 36 5. 51 8. 14 8. 52 10. 27 11. 13 23. 52	•1045 •1046 •1036 •1044 •1039 •1049 •1042 •1040	Nov. 13 1. 30 4. 0 5. 34 6. 0 14. 40 22. 0 23. 55	•01240 •00950 •00718 •00740 •00688 •00910 •01030					Nov. 13 1. 40 3. 40 9. 40 21. 40	52. 0 55. 0 54. 5 50. 0	54. 0 57. 0 56. 5 52. 0	Nov. 16 0. 0 0. 56 1. 4 5. 0 12. 15 22. 1 23. 50	22. 23. 40 30. 5 26. 30 21. 30 14. 5 20. 0 24. 10	Nov. 16 0. 0 1. 0 2. 0 3. 0 5. 0 9. 21 15. 0 17. 0 22. 0 22. 30 23. 55	•1055 •1063 •1054 •1062 •1059 •1066 •1058								
Nov. 14 0. 42 4. 14 4. 47 5. 47 6. 22 10. 4 10. 23 10. 46	22. 24. 10 *** 21. 0 23. 30 *** 15. 5 21. 0 21. 0 14. 55 19. 0	Nov. 14 0. 44 3. 36 3. 58 4. 38 *** 5. 43 7. 5 7. 28 8. 0 8. 30	•1040 •1043 •1037 •1040 *** •1020 •1036 •1028 •1040 •1035	Nov. 14 1. 0 3. 44 6. 5 8. 0 9. 34 14. 31 23. 0 23. 55	•01028 •00760 •00798 •00767 •00820 •01267 •01287 •01135					Nov. 14 1. 40 3. 40 9. 40 21. 40	54. 0 58. 0 53. 0 44. 0	56. 0 60. 3 58. 0 46. 0	Nov. 17 0. 55 1. 24 1. 57 2. 17 3. 57	22. 23. 50 22. 0 20. 50 17. 10 18. 0	Nov. 17 0. 38 0. 43 1. 0 1. 36 1. 47	•1050 •1054 •1046 •1058 •1052								

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.	Göttingen Mean Solar Time.	Readings of Thermometers.		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.	Göttingen Mean Solar Time.	Readings of Thermometers.																			
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.																		
Nov. 17 4. 7 4. 38: 6. 1 7. 45 8. 9 8. 29 12. 30: 14. 30 *** 16. 51 23. 55	22. 20. 0 16. 50 21. 10 21. 0 10. 50 13. 40 18. 50 21. 0 21. 0 22. 30	Nov. 17 3. 18 3. 36 4. 0 4. 5 4. 20 5. 13 6. 40 6. 50 7. 56 6. 32 9. 35 10. 29 12. 30 20. 15 23. 55	.1053 .1057 .1041 .1046 .1036 .1056 .1058 .1006 .1056 .1056 .1064 .1055 .1065 .1066 .1061	Nov. 17 23. 0	.01032				Nov. 20 4. 30: 22. 50 23. 32	22. 20. 0 21. 0 23. 20	Nov. 20 2. 40 9. 54 18. 0 22. 45 23. 55	.1046 .1052 .1068 .1063 .1056	Nov. 20 2. 36 6. 4 10. 0 16. 35 20. 30 22. 0 23. 45	.00648 .00768 .00668 .01206 .01175 .01155 .01180			Nov. 21 0. 53 3. 18 4. 59 9. 39 10. 47 11. 55 13. 5 19. 0 20. 5 20. 11 20. 30 21. 46: 22. 38 22. 50 23. 0 23. 47 23. 55	22. 23. 0 17. 10 26. 30 18. 0 19. 0 13. 10 21. 0 21. 0 30. 0 28. 10 30. 0 23. 0 24. 0 22. 0 24. 0 18. 30 22. 30	Nov. 21 0. 30 3. 0 3. 35 4. 35 4. 50 5. 11 7. 0 7. 34 8. 49 9. 0 9. 50 10. 27 10. 40 11. 28 11. 50 12. 44 15. 27 18. 0 19. 27 19. 58 20. 11 20. 31 21. 46 22. 0 22. 20 22. 45 23. 55	.1058 .1047 .1054 .1045 .1046 .1038 .1037 .1043 .1044 .1036 .1047 .1050 .1045 .1049 .1060 .1049 .1058 .1057 .1044 .1058 .1046 .1057 .1030 .1035 .1029 .1037 .1043	Nov. 21 1. 30 3. 30 4. 38 7. 0: 12. 0 19. 48 21. 46 23. 30	.01160 .00908 .00700 .00808 .00705 .01238 .01240 .01260	1. 40 3. 40 9. 40 21. 40	46. 3 51. 0 51. 0 46. 5	47. 4 55. 8 56. 0 52. 8										
Nov. 18 0. 24 9. 14 13. 21 14. 28 14. 49 22. 0 23. 55	22. 22. 20 17. 0 22. 0 18. 0 20. 0 19. 10 22. 20	Nov. 18 0. 30 4. 5 5. 45 7. 50 8. 28 9. 4 11. 59 12. 19 12. 30 12. 43 15. 9 15. 28 18. 27 21. 35 22. 10 23. 55	.1059 .1048 .1043 .1049 .1058 .1054 .1060 .1070 .1065 .1069 .1066 .1059 .1069 .1068 .1073 .1064	Nov. 18 0. 27 2. 38 5. 0 6. 14 9. 38 14. 0 16. 40 17. 30 22. 30 23. 55	.00930 .00575 .00582 .00605 .00545 .00750 .01070 .01032 .00970 .01040	1. 40 3. 40 9. 40 21. 40	45. 0 50. 0 48. 0 39. 0	47. 5 51. 0 52. 0 40. 0	Nov. 19 0. 56 6. 47 7. 2 7. 34 8. 12 8. 28 8. 55 9. 33 10. 30 21. 47 23. 50	22. 24. 0 19. 50 16. 30 18. 0 17. 0 19. 0 13. 0 18. 40 11. 0 19. 30 18. 30 21. 0	Nov. 19 0. 30 5. 0 6. 40 6. 52 7. 14 8. 12 8. 21 8. 32 8. 50 9. 0 10. 30 20. 10 23. 55	.1064 .1063 .1055 .1048 .1056 .1060 .1058 .1065 .1060 .1072 .1060 .1073 .1057	Nov. 19 1. 12 2. 38 5. 21 6. 5 9. 18 15. 0 18. 30 21. 47 23. 57	.01050 .00972 .00555 .00615 .00548 .00532 .00635 .00807 .00965	1. 40 3. 40 9. 40 21. 40	40. 0 44. 0 47. 0 44. 0	42. 0 47. 0 48. 0 45. 8	Nov. 20 0. 52	22. 22. 30	Nov. 20 1. 0	.1054	Nov. 20 1. 30	.00835	1. 40	48. 0 50. 0		Nov. 22 0. 0 0. 16 0. 20 0. 24 0. 28 0. 33 1. 15 1. 33 2. 9 3. 0 3. 42 4. 11 4. 42 4. 55	22. 28. 0 27. 10 29. 0 25. 50 27. 10 23. 30 32. 15 25. 40 21. 40 26. 5 27. 0 20. 40 25. 0 12. 30	Nov. 22 0. 0 1. 30 1. 40 2. 37 3. 4 3. 25 3. 47 4. 22 4. 46 4. 58 5. 11 5. 21 6. 18	.1043 .0998 .1004 .1010 .1006 .1014 .0998 .1032 .0996 .1016 *** .1014 .1022 .1004	Nov. 22 1. 30 3. 8 5. 0 9. 30 12. 55 16. 12 18. 40 21. 30 23. 6	.01135 .00878 .00912 .00790 .00760 .01275 .01210 .01280 .01280	1. 40 3. 40 9. 40 22. 56	51. 0 55. 0 53. 0 53. 0	55. 8 58. 8 56. 0 56. 0

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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.	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.	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. 27 23. 20	22. 23. 30	Nov. 27 10. 54 11. 3 11. 10 11. 50 12. 0 12. 13 21. 0 23. 20	*1074 *1070 *1074 *1060 *1063 *1058 *1076 *1066						Dec. 1 9. 18: 9. 48: 10. 22 10. 56 12. 26 12. 50: 16. 27 23. 42	22. 18. 30 7. 45 16. 30 15. 0 19. 0 15. 0 21. 30 23. 30	Dec. 1 9. 24 9. 52: 10. 11: 10. 27: 10. 47 12. 0 12. 35 13. 16 21. 26 23. 41	*1062 *1083 *1066 *1070 *1060 *1063 *1069 *1066 *1072 *1058						
Nov. 28 0. 10 8. 0 8. 54 9. 0 21. 40 23. 30	22. 24. 10 19. 40 15. 5 18. 50 19. 20 23. 30	Nov. 28 0. 5 4. 44 5. 0 5. 30 20. 41 23. 30	*1054 *1061 *1055 *1059 *1079 *1070	Nov. 28 (†) 4. 0 5. 45 11. 30 18. 25 23. 0 23. 55	*01015 *00758 *00690 *01215 *01162 *01175		1. 40 3. 40 9. 40 21. 40	47. 0 49. 0 49. 5 44. 0	51. 0 53. 0 53. 0 48. 5	Dec. 2 0. 0 0. 21 6. 10 7. 15 23. 55	22. 23. 30 24. 20 20. 0 20. 20 22. 0	Dec. 2 0. 0 2. 29 2. 51 3. 2 6. 1 6. 30: 19. 0 23. 46	*1059 *1072 *1058 *1062 *1055 *1047 *1079 *1070	Dec. 2 0. 0 3. 12 5. 30 9. 30 16. 39 18. 0 21. 47 23. 52	*00915 *00700 *00790 *00693 *01248 *01242 *01275 *01270	1. 40 3. 40 9. 40 21. 40	49. 0 51. 0 50. 5 48. 0	53. 5 55. 0 57. 0 51. 0
Nov. 29 1. 0 11. 6 11. 44 13. 59 16. 30 17. 20 21. 30: 23. 30	22. 23. 0 19. 10 11. 0 21. 10 7. 0 15. 0 8. 40 23. 10	Nov. 29 0. 0 0. 43 1. 0 4. 0 10. 6 12. 52 14. 22 15. 0 19. 6 23. 52	*1062 *1066 *1075 *1064 *1077 *1070 *1082 *1078 *1087 *1075	Nov. 29 1. 0 2. 0 4. 0 5. 29 9. 58 18. 35 22. 45	*01190 *01180 *00940 *00670 *00635 *01170 *01150		1. 40 3. 40 9. 40 22. 40	45. 0 48. 0 48. 0 43. 0	49. 5 52. 5 53. 0 48. 0	Dec. 3 0. 0 13. 6 13. 28 13. 43 14. 10: 14. 35 16. 0 21. 51 23. 55	22. 22. 30 20. 0 17. 10 17. 0 19. 50 17. 15 20. 0 19. 0 22. 0	Dec. 3 0. 0 2. 3 5. 0 13. 0 13. 28: 14. 0 19. 30 23. 22	*1060 *1069 *1057 *1065 *1073 *1063 *1073 *1072	Dec. 3 0. 30 4. 52 7. 22 9. 24 14. 0 19. 30 23. 22	*01210 *00730 *00725 *00645 *00718 *01100 *01110	1. 40 3. 40 9. 35 21. 40	49. 0 52. 0 52. 0 45. 0	53. 5 55. 0 53. 0 50. 0
Nov. 30 0. 32 10. 12 10. 45 11. 48 11. 58 12. 12 12. 46: 13. 54 14. 58 15. 30 17. 0 22. 3 23. 58	22. 25. 10 19. 30 16. 30 20. 0 18. 0 22. 20 19. 0 21. 20 18. 10 24. 40 21. 30 20. 50 24. 10	Nov. 30 0. 6 4. 2 10. 30 12. 0 14. 0 15. 0 16. 0 18. 0 21. 14 21. 27 23. 54	*1086 *1071 *1076 *1068 *1080 *1078 *1084 *1087 *1076 *1088 *1077	Nov. 30 0. 0 2. 10 6. 0 8. 20 10. 30 15. 20 23. 0 23. 55	*01138 *01175 *00965 *00807 *00820 *01120 *01128 *01087		8. 30 21. 40	44. 0 45. 0	51. 0 46. 0	Dec. 4 0. 15 9. 37 9. 56 10. 34 22. 0 23. 55	22. 22. 10 19. 20 13. 10 18. 10 18. 30 22. 10	Dec. 4 0. 25 7. 45 8. 25 9. 41 9. 57 10. 41 21. 47 21. 52 23. 10 23. 45	*1063 *1060 *1055 *1065 *1068 *1058 *1060 *1066 *1068 *1070	Dec. 4 1. 0 3. 30 6. 37 14. 30 18. 0 19. 0 23. 55	*01235 *01140 *00690 *00712 *00805 *00820 *00735	1. 40 3. 40 9. 40 21. 40	47. 5 49. 5 50. 0 49. 0	55. 5 53. 0 54. 0 53. 0
Dec. 1 0. 55 4. 40 5. 25 6. 30 7. 30: 7. 52: 8. 52:	22. 26. 10 20. 30 22. 50 21. 15 18. 40 20. 50 17. 20	Dec. 1 0. 55 1. 26 4. 1 4. 15 4. 39 5. 47 6. 45	*1075 *1081 *1066 *1071 *1066 *1069 *1062	Dec. 1 1. 0 3. 0 4. 15 5. 0 15. 0 21. 48 23. 42	*01003 *00842 *00648 *00700 *00623 *00955 *00935		1. 40 3. 40 9. 40 21. 45	43. 0 45. 5 50. 0 46. 0	48. 0 52. 0 51. 0 51. 0	Dec. 5 0. 0 4. 0 18. 18 18. 49: 19. 23 21. 25 21. 44	22. 22. 50 20. 50 20. 0 27. 30 21. 10 20. 5 22. 10	Dec. 5 0. 30 4. 0 8. 0 13. 0 13. 52 18. 33 19. 19:	*1069 *1057 *1059 *1063 *1069 *1066 *1085	Dec. 5 0. 32 3. 0 12. 9 15. 2 23. 30	*00710 *00802 *00755 *00785 *01070	1. 40 3. 40 9. 40 21. 46	53. 0 54. 0 56. 5 53. 0	57. 0 58. 0 57. 5 57. 5

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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.	Göttingen Mean Solar Time.	Readings of Thermometers.		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.	Göttingen Mean Solar Time.	Readings of Thermometers.	
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
Dec. 5 h m 22. 0 23. 55	o ' // 22. 20. 10 21. 0	Dec. 5 h m 20. 18 20. 52 21. 45 21. 58 23. 30	•1081 •1071 •1078 •1066 •1064	h m		h m			Dec. 6 h m 22. 34 23. 30	o ' // 22. 20. 40 24. 30	Dec. 6 h m 15. 7 15. 20 15. 41 16. 3 16. 32 16. 49 19. 33 19. 37 19. 40 21. 42 21. 46 21. 52 22. 26 22. 40 23. 55	•1003 •1002 •1026 •1017 •1031 •1026 •1042 •1049 •1041 •1040 •1046 •1037 •1041 •1038 •1048	h m		h m		
Dec. 6 o. 12 4. 52 6. 24 6. 49 7. 10 7. 45 8. 9 8. 40 9. 2 9. 9 9. 14 9. 18 9. 20 9. 42 9. 57 10. 8 10. 19 10. 31 10. 40 10. 43 10. 44 10. 46 10. 50 10. 51 10. 56 11. 8 11. 31 11. 40 11. 45 12. 4 12. 38 12. 40 13. 37 14. 3 14. 7 14. 22 14. 48 15. 2 15. 37 15. 57 16. 22 16. 35	22. 20. 40 18. 20 27. 20 23. 50 25. 30 22. 30 5. 50 21. 10 9. 50 4. 30 6. 30 11. 10 6. 30 22. 7. 0 21. 59. 50 22. 9. 30 5. 10 22. 6. 0 21. 45. 20 50. 30 45. 10 50. 0 21. 46. 30 22. 11. 50 21. 49. 40 22. 36. 50 21. 53. 30 50. 10 54. 20 47. 40 53. 40 21. 51. 40 22. 8. 30 22. 4. 30 21. 50. 0 22. 31. 30 4. 10 37. 20 11. 10 15. 40 14. 0 19. 0 ***	Dec. 6 h m 0. 30 5. 18 6. 5 6. 9 6. 51 7. 25 7. 38 8. 3 8. 21 8. 55 9. 20 9. 27 9. 55 10. 13 10. 22 10. 24 10. 35 10. 38 10. 40 10. 42 10. 55 11. 17 11. 21 11. 25 11. 29 11. 32 11. 38 11. 45 12. 15 13. 2 13. 8 13. 15 13. 26 13. 32 13. 40 14. 8 14. 14 14. 20 14. 28 14. 52	•1058 *** •1063 •1052 •1054 •1022 •1017 •1022 •1004 •1014 *** •0991 *** •1014 •0987 •0988 •0959 •0967 •0962 •1034 •1015 •1029 •0996 •1149 •0997 •1000 •0983 •0985 •0981 •0995 •0969 *** •0982 *** •0958 •0967 •0967 •0954 •0965 •0955 •1046 •1018 •1038 •0984 •1056	Dec. 6 h m 0. 12 2. 1 4. 20 5. 30 5. 38 6. 42 7. 53 8. 52 9. 55 10. 10 10. 25 10. 32 10. 35 10. 47 10. 50 10. 52 10. 56 11. 14 11. 16 11. 27 12. 35 12. 58 13. 13 13. 23 13. 32 13. 38 14. 5 14. 17 14. 20 14. 28 14. 48 15. 2 18. 0 22. 50	•01120 •01082 •00845 •00870 •00940 •00910 •00975 •01085 •00925 •00915 •00965 •00900 •01010 •00708 •01002 •00925 •00972 •00770 •00790 •00713 •00875 •00810 •00930 •00870 •00930 •00920 •01065 •00940 •00990 •00890 •01000 •00945 •01253 •01350	1. 40 3. 40 9. 40 22. 40	53. 59. 0 57. 059. 0 55. 060. 0 53. 57. 0	Dec. 7 o. 0 1. 30 2. 39 4. 0 5. 30 6. 29 7. 4 7. 47 8. 51 9. 30 9. 52 10. 44 11. 20 14. 41 15. 36 18. 30 21. 19 22. 6 23. 50 23. 55	22. 22. 30 24. 10 19. 50 22. 50 22. 0 6. 10 17. 50 19. 30 7. 20 10. 0 8. 30 21. 0 18. 0 23. 0 18. 40 20. 58 20. 0 21. 5 16. 30 30. 30	Dec. 7 h m 0. 30 4. 12 5. 38 6. 22 7. 30 8. 27 8. 36 13. 24 19. 24 20. 58 23. 55	•1051 •1051 •1041 •1048 •1005 •1032 •1038 •1033 •1034 •1062 •1038 •1053 •1038 •1049 •1040 •1040 •1048 •1043 •1050 •1047 •1063 •1059 •1066 •1056 •1059	Dec. 7 h m 0. 6 4. 12 5. 38 6. 22 7. 30 8. 27 8. 36 13. 24 19. 24 20. 58 23. 55	•01355 •01412 •01430 •01350 •01300 •01310 •01280 •01450 •01368 •01425 •01310	8. 43 21. 50	53. 056. 0 50. 056. 0		

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





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.	Göttingen Mean Solar Time.	Readings of Thermometers.		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.	Göttingen Mean Solar Time.	Readings of Thermometers.					
							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.				
Dec. 17 h m 11. 0: 11. 43: 12. 0: 12. 18 15. 22 15. 43 22. 0 23. 55	22. 16. 30 19. 0 18. 0 20. 0 19. 35 21. 10 20. 30 25. 0	Dec. 17 h m 19. 33	1093 ***																		
Dec. 18 0. 35 1. 21 1. 45 2. 55 8. 15 9. 0 9. 20 10. 25: 13. 43: 14. 16 14. 48: 17. 9: 19. 43 20. 45 21. 53 23. 55	22. 25. 30 25. 20 26. 40 27. 30 20. 10 13. 50 16. 30 13. 10 21. 15 18. 40 33. 50 15. 10 21. 30 25. 15 21. 30 26. 15	Dec. 18 h m 1. 0 1. 55 2. 50 3. 32 4. 7 6. 3 6. 40 8. 18 9. 22 9. 39 10. 55 14. 1 14. 31 14. 42 15. 50 17. 0 18. 25 19. 32 19. 41 20. 20 22. 9 23. 32 23. 55	1068 1071 1070 1048 1060 1070 1066 1072 1065 1070 1065 1079 1075 1082 1078 1084 *** 1089 1082 1088 1075 *** 1074 1068 1063	Dec. 18 h m 1. 0 2. 5 6. 30 9. 12 14. 30 14. 38 15. 11 17. 2 20. 31 23. 55	101365 101333 00942 00923 00978 00990 00973 01032 01120 01075		1. 40 48. 5 54. 0 3. 40 50. 0 54. 8 10. 43 49. 0 54. 0 21. 40 49. 0 53. 5														
Dec. 19 0. 35 1. 43 4. 40 5. 17 6. 19 7. 20 8. 20 10. 24 15. 42 22. 55 23. 14 23. 40	22. 21. 10 27. 0 21. 20 16. 10 19. 10 20. 0 17. 20 17. 0 20. 30 20. 0 24. 5 20. 10	Dec. 19 h m 0. 30 1. 0 4. 1 5. 8 5. 58 6. 55 7. 28 9. 30 10. 24 18. 0 18. 0 20. 31 22. 1 22. 30	1048 1050 1056 1046 1058 1059 1054 1062 1058 1071 1077 1070 1068 1062	Dec. 19 h m 1. 0 2. 24 5. 38 9. 55 18. 0 19. 30 20. 30 23. 0 23. 55	01005 00770 00990 00844 01010 01060 01050 01095 01060		1. 40 53. 4 56. 5 3. 40 56. 5 59. 4 9. 40 54. 5 57. 5 21. 40 53. 5 57. 0														
									Dec. 19 h m 23. 1 23. 10 23. 35												
									Dec. 20 h m 0. 40 1. 1 1. 48 2. 45 8. 0 8. 29 8. 42 10. 50 11. 20 12. 15 13. 32 13. 58 15. 35 23. 28	22. 21. 10 23. 10 21. 0 24. 0 21. 0 18. 40 19. 40 17. 30 20. 30 12. 30 21. 10 15. 40 20. 40 22. 40	Dec. 20 h m 1. 0 1. 22 2. 2 6. 35 7. 28 8. 25 9. 30 10. 11 10. 24 11. 6 11. 14 11. 20 16. 40 19. 20 23. 30	1069 1058 1064 1060 1050 1050 1060 1057 1063 1070 1067 1070 1068 1076 1068	Dec. 20 h m 1. 0 3. 0 5. 18 7. 30 7. 52 13. 38 21. 0 23. 25	01003 00885 00913 00870 00995 00888 01495 01483		1. 40 56. 0 58. 0 3. 40 58. 0 60. 0 9. 40 55. 0 58. 4 23. 4 54. 0 57. 5					
									Dec. 21 h m 0. 0 0. 50 1. 7 1. 8 1. 36 2. 0 2. 18 2. 34 5. 45 6. 10 7. 6 7. 27 7. 45 9. 35 10. 12 10. 24 11. 30 11. 34 11. 46 12. 15 13. 42 13. 48 14. 5 15. 0 15. 6 15. 26 19. 30:	22. 22. 40 22. 20 24. 40 21. 5 31. 20 24. 40 23. 0 24. 40 20. 0 25. 0 19. 0 24. 40 20. 0 25. 0 19. 20 19. 0 16. 40 10. 30 21. 0 19. 30 24. 10 19. 30 *** 7. 38 21. 30 15. 5 20. 0 *** 19. 0	Dec. 21 h m 0. 0 1. 43 1. 49 1. 53 6. 24 8. 0 22. 6 23. 55	1069 1070 1085 1066 1073 1073 1080 1070 1078 *** 1056 1082 1074 1078 1074 *** 1053 *** 1078 1085 1072 1083	Dec. 21 h m 0. 0 1. 43 1. 49 1. 53 6. 24 8. 0 22. 6 23. 55	01500 01505 01525 01510 *** 01505 *** 01507 *** 01458 01340	10. 42 52. 0 55. 0 21. 40 50. 0 55. 5						

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							Of H. F. Magnet.	Of V. F. Magnet.								Of H. F. Magnet.	Of V. F. Magnet.
Dec. 23 h m s 23. 58	° ' " 22. 23. 50	Dec. 23 h m s 19. 40 20. 45	*1090 *1080 ***	h m s		h m s	o o		Dec. 25 h m s 21. 6: 21. 35: 22. 15: 23. 30	° ' " 22. 18. 5	Dec. 25 h m s 21. 47 23. 29	*1083 *1072 *** *1065	h m s		h m s	o o	
Dec. 24 0. 20 1. 50: 2. 44: 4. 50: 5. 50: 7. 7 7. 34: 8. 11 8. 50 10. 23 10. 42: 11. 30 11. 55: 12. 12: 12. 30 12. 48 13. 3 13. 18: 14. 1: 14. 42: 15. 42 16. 52: 20. 25 21. 18 23. 50	22. 24. 0 21. 45 24. 30 19. 30 21. 30 15. 20 20. 10 14. 30 19. 20 18. 15 20. 5 16. 0 17. 20 16. 25 18. 40 17. 50 19. 15 15. 30 25. 40 14. 35 20. 30 16. 20 23. 20 22. 10 25. 0	Dec. 24 h m s 0. 30 1. 10 1. 21 2. 31 4. 0 5. 7 6. 28 6. 25 7. 51 8. 16 8. 57 10. 10 10. 40 13. 45 14. 34 15. 0 18. 55 20. 15 22. 17 23. 50	*1062 *1068 *1065 *1076 *1065 *** *1060 *1063 *1073 *1069 *1079 *1069 *1064 *1069 *1063 *1074 *1068 *1086 *1083 *1070 *1070	Dec. 24 h m s 1. 0 5. 17 10. 9 13. 57 14. 10 18. 47 23. 53	*01345 *00875 *00802 *00985 *00980 *01380 *01338	h m s 1. 40 3. 40 9. 40 23. 25	51. 5 54. 0 53. 0 45. 8	56. 0 57. 0 57. 0 51. 0	Dec. 26 0. 47 1. 6 4. 9 4. 23 5. 1 6. 0 9. 48 10. 28: 11. 10 15. 30 21. 27 23. 30	22. 20. 20 18. 0 21. 30 23. 25 17. 0 20. 0 17. 50 7. 40 17. 20 21. 0 18. 0 20. 45	Dec. 26 h m s 0. 47 1. 30 3. 50 4. 51: 5. 53 9. 47 10. 16 10. 39 19. 20 23. 56	*1065 *1076 *1073 *1045 *1073 *1077 *1062 *1072 *1099 *1080	h m s 1. 0 5. 30 9. 9 14. 27 21. 0 23. 55	*01252 *00745 *00702 *01240 *01172 *01202	h m s 1. 40 3. 40 9. 30 21. 45	48. 0 50. 0 47. 2 39. 0	52. 0 54. 0 52. 0 45. 0
Dec. 25 0. 8 1. 0: 5. 22: 8. 0: 9. 4: 9. 46 10. 20 11. 30 13. 13: 14. 20: 14. 50: 15. 28 16. 58 17. 24 17. 47 19. 59:	22. 23. 0 25. 10 15. 50 21. 0 18. 20 19. 50 19. 0 23. 50 14. 45 19. 40 15. 15 20. 40 18. 20 19. 40 18. 5 21. 0	Dec. 25 h m s 0. 0 1. 12: 2. 0: 2. 19 3. 6 6. 1 7. 0 8. 46 8. 58 9. 22 11. 39 11. 53 13. 21 16. 35 17. 10 18. 46	*1070 *1081 *1069 *1077 *1068 *1091 *1080 *1078 *1076 *1038 *1077 *1088 *1076 *1083 *1072 *1085	Dec. 25 h m s 0. 5 4. 0 5. 30 14. 27 17. 5 19. 0 20. 0 23. 55	*01335 *01415 *01368 *01202 *01330 *01010 *01330 *01295	h m s 11. 30 21. 40	46. 0 44. 0	50. 0 49. 0	Dec. 27 0. 4 0. 32 3. 51 4. 20: 6. 7 6. 48 7. 8 7. 20 7. 33 7. 53 8. 3 9. 15 10. 0 10. 23 11. 32 12. 43 13. 14 15. 20 16. 53 21. 5 21. 8 21. 18 22. 23 22. 46 23. 25	22. 21. 50 25. 10 23. 40 25. 40 19. 5 27. 0 22. 5 22. 40 18. 0 17. 40 19. 0 15. 40 17. 0 6. 50 17. 0 20. 0 18. 0 19. 10 17. 0 20. 5 24. 10 16. 5 22. 30 *** 22. 36 22. 55 *** 25. 0	Dec. 27 h m s 0. 9 1. 12 2. 55 6. 25 6. 35 6. 43 7. 5: 7. 13: 7. 27 10. 16 10. 27 11. 3 19. 44 20. 42 21. 7 21. 11 21. 29 21. 50 21. 55 22. 5 22. 12 22. 13 22. 22 22. 28 22. 36 22. 41 22. 48 22. 54 23. 1 23. 6 23. 25	*1080 *1065 *1076 *1056 *1049 *1053 *1045 *1049 *1044 *1063 *1074 *1064 *1084 *1070 *1084 *1059 *1091 *** *1062 *1079 *1057 *1072 *1057 *1071 *1064 *1078 *1065 *1078 *1064 *1068 *1060 *1079	h m s 0. 30 1. 30 4. 12 5. 7 6. 0 8. 30 11. 30 15. 0 21. 30 23. 53	*01175 *01085 *00655 *00735 *00723 *00742 *00665 *00635 *00845 *00850	h m s 1. 40 3. 40 9. 40 23. 22	43. 0 47. 0 46. 5 44. 3	48. 0 51. 0 52. 0 50. 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 to a considerable time before and after that which is recorded.





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.	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.	Göttingen Mean Solar Time.		Readings of Thermo-meters.		
						h	m	Of H. F. Magnet.	Of V. F. Magnet.							h	m	Of H. F. Magnet.	Of V. F. Magnet.	h
		Dec. 29 h m 22. 24 23. 55	.1043 .1066																	
Dec. 30 1. 40 3. 35 9. 27 21. 40	22. 22. 11* 17. 14* 23. 52* 19. 32*	Dec. 30 h m 0. 20 2. 58 5. 17 21. 2 23. 55	.1062 .1070 .1058 .1088 .1080	Dec. 30 h m 0. 30 4. 52 5. 30 7. 0 15. 30 17. 30 19. 30	.01150 .00820 .00825 .00735 .01283 .01250 .01275	Dec. 31 h m 1. 40 3. 35 9. 27 21. 40	48. 0 52. 0 47. 0 52. 0 41. 0 47. 0			Dec. 31 h m 1. 30 22. 0 23. 55	22. 20. 50 17. 40 20. 40	Dec. 31 h m 1. 8 2. 32 2. 37 5. 22 5. 30 6. 5 21. 30 23. 55	.1053 .1054 .1070 .1072 .1078 .1070 .1087 .1080	Dec. 31 h m 1. 30 2. 57 5. 22 11. 30 23. 0 23. 55	.01232 .01115 .00705 .01230 .01227	Dec. 31 h m 1. 40 3. 40 9. 40 21. 40	43. 8 48. 5 44. 0 42. 0	48. 4 50. 0 49. 0 47. 0		

The indications are taken from the sheets of the Photographic Record, except where an asterisk is attached to the number, in which instances they are inferred from observations made with the telescope in the ancient manner. The Symbol \*\*\* denotes that the magnet has been generally in a state of agitation. The Symbol (+) denotes that the register has failed between the preceding and following readings. The Symbol: attached to a time denotes that the reading will apply equally to a considerable time before and after that which is recorded.

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The following Tables exhibit the times and amounts of the Dislocations of the Vertical Force Curves, for the Years 1848, 1849, 1850, and 1851. For 1848 and 1849, the numbers are given only for those days which are selected for exhibition of the photographic indications in the printed volumes: for 1850 and 1851 the numbers are given for every day on which a record is made.

In every photographic sheet, from the beginning to the first dislocation, the printed numbers represent exactly the ordinates measured for the photographic curves. After the first dislocation, the numbers taken from the curve are corrected by a constant of such an amount as will unite the dislocated parts in one continuous curve. After each successive dislocation a new constant is necessary.

In the following tables, the second column exhibits the times at which the first and successive dislocations occur, and the third column exhibits the times at which the second and successive dislocations occur, or at which the sheet terminates. The last column gives, for the interval of time between the numbers of the second and third columns, the correction with the sign with which it must be applied to the printed numbers in order to reproduce the numbers taken immediately from the sheets.

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## DISLOCATIONS IN THE PHOTOGRAPHIC RECORDS OF MAGNETIC VERTICAL FORCE

Table exhibiting the INTERVALS of TIME through which the PHOTOGRAPHIC READINGS of the VERTICAL FORCE MAGNET have received alteration on account of the DISLOCATIONS of CURVES: and the CORRECTIONS which must be applied to the PRINTED NUMBERS in order to reproduce the PHOTOGRAPHIC READINGS.

Year, Month, and Day.	Göttingen Mean Time of		Correction Applicable to the Printed Numbers.	Year, Month, and Day.	Göttingen Mean Time of		Correction Applicable to the Printed Numbers.
	Preceding Dislocation.	Following Dislocation, or End of Sheet.			Preceding Dislocation.	Following Dislocation, or End of Sheet.	
1848. May 26	<sup>h</sup> 18.45 <sup>m</sup>	<sup>h</sup> 22.27 <sup>m</sup>	+ 0.00025	1848. September 21	<sup>h</sup> 10.35 <sup>m</sup>	<sup>h</sup> 25.12 <sup>m</sup>	+ 0.00214
	22.27	24.36	- 0.00005	October 6	0.80	23.33	- 0.00030
	24.36	25.16	- 0.00185		23.33	24.12	- 0.00055
	27	3.25	- 0.00065		23	3.13	+ 0.00100
	12.28	22.50	+ 0.00030		27	25.5	+ 0.00007
July 23	1.40	24.16	+ 0.00063		30	24.32	- 0.00030
	24.16	24.55	+ 0.00133			3.38	+ 0.00052
	29	24.5	- 0.00018	November 3	24.34	25.9	- 0.00030
August 1	2.47	24.10	+ 0.00080		18	5.15	+ 0.00295
	24.10	24.40	+ 0.00070			12.25	+ 0.00260
	24.40	24.55	+ 0.00050		19	24.24	- 0.00065
	3	1.43	- 0.00075		21	5.55	+ 0.00330
	8	3.31	+ 0.00027			12.7	+ 0.00180
	24.10	24.55	+ 0.00092			21.32	+ 0.0010
	21	24.35	+ 0.00087	December 2	24.13	25.15	- 0.00145
	25	1.24	- 0.00013		8	3.27	+ 0.00050
September 8	24.35	25.20	- 0.00110			8.38	+ 0.00235
	18	1.19	- 0.00050		10	7.46	+ 0.00395
		1.52	- 0.00110		14	3.30	+ 0.00043
		2.10	- 0.00140			6.40	+ 0.00077
		3.40	- 0.00150		18	3.2	+ 0.00062
		12.28	- 0.00070			4.5	+ 0.00080
		18.37	- 0.00150			4.5	+ 0.00007
		22.5	- 0.00085		20	24.8	- 0.00130
		23.23	- 0.00245			21.43	- 0.00125
		24.28	- 0.00265			23.26	- 0.00305
	20	3.35	- 0.00020		21	24.18	+ 0.00053
		6.37	+ 0.00010			4.52	+ 0.00081
		11.15	+ 0.00045			6.40	- 0.00063
		20.15	+ 0.00030			21.38	- 0.00081
		22.1	- 0.00060			21.46	- 0.00109
	21	4.7	- 0.00056			21.55	- 0.00151
		4.32	- 0.00036			22.38	- 0.00166
		10.28	+ 0.00194			23.23	- 0.00179
		10.35				23.53	
1849. January 4	9.49	23.6	+ 0.00150	1849. January 8	3.37	9.42	+ 0.00126
	23.6	23.42	- 0.00030		9.42	23.35	+ 0.00314
	5	9.42	+ 0.00200		23.35	23.55	+ 0.00144
		21.44	+ 0.00100		9	8.30	+ 0.00318
		23.16	+ 0.00060			9.55	+ 0.00148
	6	7.10	+ 0.00045			23.10	- 0.00032
		9.42	+ 0.00100		10	2.37	+ 0.00020
		23.20	+ 0.00170			3.20	+ 0.00045
	7	9.57	+ 0.00017			3.33	+ 0.00158
	8	2.13	+ 0.00041			8.28	+ 0.00480
		2.42				9.55	

Year, Month, and Day.	Göttingen Mean Time of		Correction Applicable to the Printed Numbers.	Year, Month, and Day.	Göttingen Mean Time of		Correction Applicable to the Printed Numbers.
	Preceding Dislocation.	Following Dislocation, or End of Sheet.			Preceding Dislocation.	Following Dislocation, or End of Sheet.	
1849. January 10	<sup>h</sup> 9. 55	<sup>h</sup> <sup>m</sup> 23. 25	+ 0.00345	1849. March 10	<sup>h</sup> <sup>m</sup> 3. 12	<sup>h</sup> <sup>m</sup> 23. 58	+ 0.00100
11	23. 25	23. 50	+ 0.00125	April 5	8. 58	23. 48	+ 0.00200
12	9. 25	23. 17	+ 0.00122	10	1. 18	22. 13	- 0.00335
13	23. 17	23. 47	- 0.00024	11	19. 31	23. 40	- 0.00175
14	9. 25	23. 14	+ 0.00120	15	22. 50	23. 48	- 0.00220
15	23. 14	23. 35	+ 0.00138	18	10. 20	24. 58	+ 0.00165
16	23. 35	23. 43	+ 0.00151	28	8. 50	22. 15	+ 0.00165
17	23. 43	23. 58	+ 0.00247	30	4. 26	23. 58	+ 0.00170
18	1. 10	3. 46	+ 0.00015	May 6	22. 33	24. 25	- 0.00195
19	3. 46	9. 29	+ 0.00035	7	19. 12	23. 42	- 0.00135
20	9. 29	24. 0	+ 0.00250	8	21. 38	23. 57	- 0.00140
21	10. 0	21. 49	- 0.00107	9	18. 33	23. 42	- 0.00137
22	21. 49	22. 35	- 0.00179	10	17. 40	24. 8	- 0.00140
23	22. 35	23. 37	- 0.00194	12	0. 5	24. 5	- 0.00173
24	9. 44	23. 13	+ 0.00030	19	2. 25	24. 9	- 0.00215
25	23. 13	23. 53	- 0.00185	21	3. 34	23. 58	+ 0.00043
26	2. 32	2. 53	+ 0.00035	22	21. 55	24. 16	- 0.00295
27	2. 53	9. 25	+ 0.00067	28	3. 44	24. 16	- 0.00070
28	9. 25	23. 22	+ 0.00347	June 13	3. 23	4. 22	+ 0.00045
29	23. 22	23. 52	+ 0.00375	17	4. 22	24. 0	+ 0.00103
30	9. 25	9. 45	+ 0.00028	July 2	18. 18	23. 58	- 0.00130
31	9. 45	23. 25	+ 0.00140	5	3. 30	24. 49	+ 0.00078
1	23. 25	23. 59	- 0.00085	8	20. 22	24. 22	- 0.00050
2	10. 7	23. 17	+ 0.00220	11	22. 59	24. 25	- 0.00045
3	23. 17	23. 48	+ 0.00102	25	8. 13	24. 24	+ 0.00245
4	3. 34	9. 33	+ 0.00035		3. 2	3. 8	+ 0.00038
5	9. 33	22. 15	+ 0.00210	27	3. 8	4. 16	+ 0.00090
6	22. 15	23. 26	+ 0.00190	28	4. 16	4. 53	+ 0.00115
7	3. 46	9. 54	+ 0.00167	29	4. 53	6. 12	+ 0.00143
8	9. 54	23. 12	+ 0.00455	30	6. 12	20. 35	+ 0.00163
9	23. 12	23. 48	+ 0.00353	26	20. 35	24. 27	- 0.00053
10	9. 40	23. 30	+ 0.00155		1. 48	3. 2	+ 0.00045
11	7. 36	9. 50	+ 0.00423		3. 2	3. 8	+ 0.00105
12	9. 50	21. 40	+ 0.00268		3. 8	3. 30	+ 0.00128
13	21. 40	23. 20	+ 0.00238		3. 30	5. 40	+ 0.00305
14	23. 20	23. 52	- 0.00098		5. 40	5. 47	+ 0.00325
15	9. 40	21. 52	+ 0.00265		5. 47	19. 3	+ 0.00357
16	21. 52	23. 10	+ 0.00215		19. 3	24. 37	+ 0.00342
17	1. 27	23. 5	- 0.00030		4. 13	6. 5	+ 0.00117
18	February 3	3. 35	3. 24		6. 5	19. 0	+ 0.00249
19	3. 24	4. 3	4. 3		19. 0	24. 42	- 0.00044
20	4. 3	23. 32	+ 0.00120		4. 15	5. 0	+ 0.00020
21	22. 48	23. 39	+ 0.00160		5. 0	5. 54	+ 0.00060
22	11. 40	23. 54	- 0.00085		5. 54	23. 43	+ 0.00230
23	22. 37	23. 37	+ 0.00245		2. 32	4. 36	+ 0.00180
24	9	23. 38	+ 0.00240		4. 36	4. 43	+ 0.00205
25	10	23. 38	+ 0.00190		4. 43	24. 10	+ 0.00475
26	13	3. 33	- 0.00050		7. 13	24. 17	+ 0.00085
27	15	9. 37	+ 0.00300		August 3	15. 58	- 0.00080
28	20	2. 13	- 0.00192		9	18. 8	- 0.00093
29	22	5. 48	+ 0.00375		23	17. 28	- 0.00085
30	27	8. 38	- 0.00022		September 17	4. 5	+ 0.00080
31	28	3. 30	+ 0.00027		20	20. 48	- 0.00055
32	28	3. 30	+ 0.00015				
33	March 2	21. 44	23. 42				
34	3	8. 45	23. 27				
35	4	9. 30	24. 5				
36	6	5. 56	23. 57				
37	6	7. 42	23. 52				

Jan. 24 to 29. The Magnet was under adjustment.      Feb. 3. Workmen were employed in the Magnetic Observatory.  
 Feb. 13. This displacement occurred on the occasion of observing the time of vertical vibration, for determination of the scale-constant.  
 Feb. 20. A workman employed in the Magnetic Observatory.      July 25 to 28, and 30. Workmen busy in the Magnetic Observatory.

## DISLOCATIONS IN THE PHOTOGRAPHIC RECORDS OF MAGNETIC VERTICAL FORCE

Year, Month, and Day.	Göttingen Mean Time of		Correction Applicable to the Printed Numbers.	Year, Month, and Day.	Göttingen Mean Time of		Correction Applicable to the Printed Numbers.
	Preceding Dislocation.	Following Dislocation, or End of Sheet.			Preceding Dislocation.	Following Dislocation, or End of Sheet.	
1849. October 1	<sup>h</sup> 23. <sup>m</sup> 5	<sup>h</sup> 24. <sup>m</sup> 26	- 0.00120	1849. October 18	<sup>h</sup> 3. <sup>m</sup> 43	<sup>h</sup> 24. <sup>m</sup> 13	+ 0.00020
2	0. 59	23. 58	- 0.00045	November 9	8. 3	24. 35	+ 0.00163
5	6. 4	22. 53	+ 0.00032	December 6	2. 22	24. 44	- 0.00055
6	22. 53	24. 50	+ 0.00012				
	5. 45	24. 50	+ 0.00038				
1850. January 1	3. 22	11. 58	- 0.00020	1850. May 1	17. 31	24. 45	- 0.00060
4	11. 58	23. 41	+ 0.00125	4	4. 14	23. 35	- 0.00079
5	16. 47	24. 34	- 0.00025	20	0. 5	3. 4	- 0.00100
6	18. 45	23. 33	- 0.00033		3. 4	19. 25	- 0.00030
10	14. 27	25. 13	- 0.00105		19. 25	20. 36	- 0.00060
13	5. 42	7. 27	+ 0.00025		20. 36	24. 7	- 0.00090
17	7. 27	24. 17	+ 0.00125	June 29	13. 13	23. 47	- 0.00079
18	10. 12	25. 1	- 0.00040	July 1	0. 57	24. 12	+ 0.00357
17	4. 2	5. 56	+ 0.00020	6	5. 37	23. 33	+ 0.00083
18	5. 56	24. 25	+ 0.00175	8	5. 12	23. 54	+ 0.00147
23	7. 13	24. 11	+ 0.00150	12	3. 28	24. 55	+ 0.00060
23	10. 50	25. 0	+ 0.00135	18	21. 55	24. 15	- 0.00075
28	2. 25	24. 30	- 0.00150	19	3. 30	9. 42	- 0.00020
29	21. 43	24. 47	- 0.00058		9. 42	19. 22	- 0.00070
February 2	4. 11	23. 48	+ 0.00030		19. 22	20. 22	- 0.00220
3	7. 15	24. 59	+ 0.00175		20. 22	24. 20	- 0.00295
7	7. 47	23. 50	+ 0.00168	20	6. 50	24. 2	- 0.00130
10	22. 7	24. 55	- 0.00115	21	1. 7	7. 18	+ 0.00025
11	22. 24	23. 55	- 0.00122		7. 18	25. 6	+ 0.00055
20	9. 23	13. 7	+ 0.00052	August 15	22. 30	24. 0	- 0.00195
	13. 7	23. 50	+ 0.00355	19	7. 31	24. 27	+ 0.00110
March 3	21. 51	22. 2	- 0.00102	21	3. 58	24. 17	- 0.00032
4	22. 2	24. 57	- 0.00204	September 20	10. 1	24. 30	+ 0.00032
7	20. 54	24. 11	- 0.00105	27	3. 0	24. 30	- 0.00285
8	23. 25	23. 50	- 0.00120	October 31	5. 32	24. 15	+ 0.00037
10	21. 25	24. 5	- 0.00105	November 6	6. 35	23. 33	+ 0.00153
14	0. 12	23. 41	- 0.00127	8	6. 52	24. 15	+ 0.00138
15	22. 15	23. 15	- 0.00100	16	2. 33	23. 25	+ 0.00137
17	16. 56	23. 48	- 0.00105	21	22. 55	24. 30	- 0.00070
19	18. 50	23. 41	- 0.00045	22	11. 12	24. 27	+ 0.00015
19	7. 12	23. 58	+ 0.00080	24	1. 40	23. 43	- 0.00090
20	8. 31	23. 52	+ 0.00076	December 3	6. 25	24. 25	+ 0.00265
23	4. 27	23. 55	- 0.00100	12	2. 35	3. 30	+ 0.00240
31	20. 55	24. 5	- 0.00085	25	3. 30	24. 25	+ 0.00327
April 2	21. 8	23. 59	- 0.00133		6. 43	23. 18	+ 0.00350
7	9. 20	24. 2	+ 0.00090				
9	22. 25	23. 55	- 0.00075				
12	21. 21	24. 3	- 0.00137				
26	6. 35	24. 3	+ 0.00065				
28	20. 30	24. 30	- 0.00088				
30	7. 22	24. 2	+ 0.00045				

May 20. Workmen employed in the Magnetic Observatory.

Year, Month, and Day.	Göttingen Mean Time of		Correction Applicable to the Printed Numbers.	Year, Month, and Day.	Göttingen Mean Time of		Correction Applicable to the Printed Numbers.
	Preceding Dislocation.	Following Dislocation, or End of Sheet.			Preceding Dislocation.	Following Dislocation, or End of Sheet.	
1851.	h	m		1851.	h	m	
January 2	2.40	24.55	+ 0.00230	May 16	18.50	21.23	- 0.00070
3	2.43	25.20	+ 0.00222		21.23	24.13	- 0.00100
8	7.15	11.25	+ 0.00303	20	4.40	4.55	+ 0.00030
	11.25	24.24	+ 0.00273		4.55	5.15	+ 0.00100
9	6.20	24.25	+ 0.00205		5.15	5.20	+ 0.00130
14	8.42	24.18	+ 0.00288		5.20	19.50	+ 0.00210
16	6.14	24.15	+ 0.00272		19.50	24.38	+ 0.00140
21	5.29	10.12	+ 0.00220	21	4.12	4.38	+ 0.00020
	10.12	24.0	- 0.00060		4.38	5.13	+ 0.00060
22	6.45	23.50	+ 0.00222		5.13	19.58	+ 0.00080
	23.50	24.58	+ 0.00192		19.58	24.5	+ 0.00040
27	5.15	24.20	+ 0.00122	22	4.58	24.8	+ 0.00048
28	4.25	24.15	+ 0.00145	23	17.35	24.54	- 0.00070
30	5.30	24.1	+ 0.00202	26	14.28	22.45	- 0.00073
					22.45	23.46	- 0.00086
February 8	5.43	23.3	+ 0.00148	June 8	5.32	24.42	+ 0.00245
14	12.29	24.27	+ 0.00255	22	11.24	15.20	- 0.00026
16	21.31	24.5	- 0.00100		15.20	24.16	- 0.00077
19	7.15	24.15	+ 0.00181	July 11	5.7	24.42	+ 0.00032
20	9.35	24.35	+ 0.00150	August 4	8.52	24.38	+ 0.00065
22	20.55	22.45	- 0.00130	5	6.35	24.13	+ 0.00087
26	21.5	24.15	- 0.00168	8	5.27	6.7	+ 0.00020
March 8	5.53	23.30	+ 0.00177		6.7	7.12	+ 0.00036
14	11.1	24.15	+ 0.00169		7.12	24.15	+ 0.00056
16	20.18	24.40	- 0.00139	18	11.32	16.8	- 0.00023
21	6.43	24.30	+ 0.00210		16.8	23.58	- 0.00100
24	5.7	24.29	+ 0.00042	September 2	2.41	24.28	- 0.00310
26	21.50	24.25	- 0.00200	5	19.37	23.57	- 0.00042
29	10.1	23.37	+ 0.00170	11	21.25	24.5	- 0.00145
30	22.50	25.0	- 0.00100	October 1	21.55	22.35	- 0.00440
31	21.50	24.35	- 0.00050		22.35	24.0	- 0.00473
April 6	20.3	25.11	- 0.00170	November 2	21.30	25.5	- 0.00400
8	3.38	24.28	+ 0.00029	10	21.15	22.30	- 0.00069
12	11.30	22.19	+ 0.00226		22.30	23.10	- 0.00129
13	22.25	24.25	- 0.00130	24	23.10	25.0	- 0.00182
16	8.8	23.47	+ 0.00195		4.3	24.35	+ 0.00050
18	7.37	24.32	+ 0.00149	December 3	7.21	24.6	+ 0.00120
21	21.10	25.15	- 0.00115	5	3.25	24.8	+ 0.00040
22	16.20	24.39	- 0.00112	17	5.51	23.5	+ 0.00178
25	16.12	19.30	- 0.00020		23.5	24.35	+ 0.00111
	19.30	24.5	- 0.00125	20	5.20	23.24	+ 0.00020
27	21.0	25.0	- 0.00083	29	2.33	24.29	- 0.00165
May 3	18.15	23.19	- 0.00078				
4	16.40	24.41	- 0.00078				
8	4.38	23.10	+ 0.00122				
12	13.52	24.37	- 0.00092				

May 16, 20, 21, 22. Workmen were employed in the Magnetic Observatory.



ROYAL OBSERVATORY, GREENWICH.

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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.

---

1851.



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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 2 was used throughout the year.

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MAGNETIC DIP, observed at the ROYAL OBSERVATORY, GREENWICH, in the Year 1851.

Day and Approximate Hour, 1851.	Magnetic Dip.	Day and Approximate Hour, 1851.	Magnetic Dip.	Day and Approximate Hour, 1851.	Magnetic Dip.		
January <sup>d h</sup> 5. 21 68. 34' .75 6. 3 68. 44' .50 6. 9 68. 37' .50 12. 21 68. 32' .50 13. 3 68. 44' .25 13. 9 68. 45' .00 19. 21 68. 37' .50 20. 3 68. 43' .75 20. 9 68. 39' .00 26. 21 68. 40' .75 27. 3 68. 38' .00 27. 9 68. 37' .50		May <sup>d h</sup> 5. 9 68. 40' .00 11. 21 68. 41' .75 12. 3 68. 41' .75 12. 9 68. 37' .50 18. 21 68. 38' .00 19. 3 68. 40' .00 19. 9 68. 36' .75 25. 21 68. 42' .50 26. 3 68. 35' .50 26. 9 68. 37' .50		August <sup>d h</sup> 31. 21 68. 43' .00			
February <sup>d h</sup> 2. 21 68. 38' .25 3. 3 68. 41' .75 3. 9 68. 39' .00 9. 21 68. 44' .25 10. 3 68. 23' .75 10. 9 68. 38' .75 16. 21 68. 39' .25 17. 3 68. 32' .75 17. 9 68. 42' .25 23. 21 68. 52' .50 24. 3 68. 41' .25 24. 9 68. 40' .50		June <sup>d h</sup> 1. 21 68. 40' .50 2. 3 68. 36' .25 2. 9 68. 37' .50 8. 21 68. 38' .00 9. 3 68. 40' .50 9. 9 68. 37' .00 15. 21 68. 36' .75 16. 3 68. 40' .00 16. 9 68. 38' .00 22. 21 68. 43' .00 23. 3 68. 42' .50 23. 9 68. 45' .50 29. 21 68. 39' .25 30. 3 68. 37' .50 30. 9 68. 42' .50		September <sup>d h</sup> 7. 21 68. 36' .25 8. 3 68. 33' .25 8. 9 68. 41' .00 14. 21 68. 45' .75 15. 3 68. 41' .50 15. 9 68. 42' .75 21. 21 68. 44' .00 22. 3 68. 42' .00 22. 9 68. 45' .25 28. 21 68. 37' .50 29. 3 68. 41' .75 29. 9 68. 30' .50		October <sup>d h</sup> 5. 21 68. 45' .50 6. 3 68. 41' .00 6. 9 68. 35' .00 12. 21 68. 40' .75 13. 3 68. 48' .00 13. 9 68. 40' .50 19. 21 68. 36' .75 20. 3 68. 40' .00 20. 9 68. 26' .25 26. 21 68. 48' .75 27. 3 68. 39' .25 27. 9 68. 40' .50	
March <sup>d h</sup> 2. 21 68. 41' .25 3. 3 68. 39' .00 3. 9 68. 43' .75 16. 21 68. 37' .00 17. 3 68. 51' .25 17. 9 68. 41' .75 23. 21 68. 35' .50 24. 3 68. 39' .25 24. 9 68. 37' .50 30. 21 68. 40' .25 31. 3 68. 42' .00 31. 9 68. 41' .75		July <sup>d h</sup> 6. 21 68. 42' .50 7. 3 68. 40' .50 7. 9 68. 36' .75 13. 21 68. 39' .25 14. 3 68. 38' .75 14. 9 68. 38' .75 20. 21 68. 33' .00 21. 3 68. 36' .25 21. 9 68. 36' .75 27. 21 68. 43' .75 28. 3 68. 37' .50 28. 9 68. 38' .00		November <sup>d h</sup> 2. 21 68. 38' .75 3. 3 68. 38' .75 3. 9 68. 40' .75 9. 21 68. 40' .00 10. 3 68. 38' .75 10. 9 68. 41' .25 16. 21 68. 45' .50 17. 3 68. 40' .00 17. 9 68. 38' .75 23. 21 68. 40' .50 24. 3 68. 38' .00 24. 9 68. 40' .50 30. 21 68. 38' .75			
April <sup>d h</sup> 6. 21 68. 41' .25 7. 3 68. 38' .00 7. 9 68. 41' .75 13. 21 68. 41' .25 14. 3 68. 44' .00 14. 9 68. 41' .25 20. 21 68. 41' .25 21. 3 68. 43' .00 21. 9 68. 44' .25 27. 21 68. 49' .25 28. 3 68. 45' .00 28. 9 68. 42' .50		August <sup>d h</sup> 3. 21 68. 33' .75 4. 3 68. 39' .25 4. 9 68. 44' .25 10. 21 68. 41' .25 11. 3 68. 40' .00 11. 9 68. 42' .00 17. 21 68. 49' .00 18. 3 68. 46' .25 18. 9 68. 45' .00 24. 21 68. 47' .50 25. 3 68. 49' .25 25. 9 68. 41' .75 30. 3 68. 36' .50		December <sup>d h</sup> 1. 3 68. 43' .75 7. 21 68. 39' .00 8. 3 68. 38' .75 8. 9 68. 39' .00 14. 21 68. 42' .50 15. 3 68. 39' .25 15. 9 68. 40' .00 21. 21 68. 37' .50 28. 21 68. 38' .75 29. 3 68. 40' .50 29. 9 68. 39' .25			
May <sup>d h</sup> 4. 21 68. 40' .50 5. 3 68. 40' .25							

February 9<sup>d</sup>. 21<sup>h</sup> and 10<sup>d</sup>. 3<sup>h</sup>. The weather was very damp, and the needle was sluggish.

February 23<sup>d</sup>. 21<sup>h</sup> and October 20<sup>d</sup>. 9<sup>h</sup>. The observations were taken with great care.

March 17. Rain was falling: the circumstances were unfavourable.

No subsequent use has been made of the results from the observations taken Feb. 10<sup>d</sup>. 3<sup>h</sup>; 17<sup>d</sup>. 3<sup>h</sup>; 23<sup>d</sup>. 21<sup>h</sup>; March 17<sup>d</sup>. 3<sup>h</sup>; and Oct. 20<sup>d</sup>. 9<sup>h</sup>. The observations on Sep. 7<sup>d</sup>. 21<sup>h</sup>; 8<sup>d</sup>. 3<sup>h</sup>; 8<sup>d</sup>. 9<sup>h</sup>; and 21<sup>d</sup>. 21<sup>h</sup>, were made by Mr. P. Morton.

## OBSERVATIONS OF THE MAGNETIC DIP.

MEAN MONTHLY MAGNETIC DIP, at the ROYAL OBSERVATORY, GREENWICH, in the Year 1851.

1851, Month.	Mean Monthly Dip at 21 <sup>h</sup> .	Number of Observations.	Mean Monthly Dip at 3 <sup>h</sup> .	Number of Observations.	Mean Monthly Dip at 9 <sup>h</sup> .	Number of Observations.
January	68.36.38	4	68.42.62	4	68.39.75	4
February	68.40.58	3	68.41.50	2	68.40.13	4
March	68.38.50	4	68.40.08	3	68.41.19	4
April	68.43.25	4	68.42.50	4	68.42.44	4
May	68.40.69	4	68.39.38	4	68.37.94	4
June	68.39.60	4	68.39.70	5	68.39.10	5
July	68.39.63	4	68.38.25	4	68.37.56	4
August	68.42.90	5	68.42.21	5	68.43.25	4
September	68.40.87	4	68.39.62	4	68.39.87	4
October	68.42.94	4	68.42.06	4	68.38.70	3
November	68.40.70	5	68.38.88	4	68.40.31	4
December	68.39.44	4	68.40.56	4	68.39.42	3
Mean	68.40.46	49	68.40.78	47	68.39.97	47

On September 5<sup>d</sup>, at 0<sup>h</sup>, Mr. Morton determined the dip to be 68°.36'.5 from observations of the inclination of needle A 2, in two planes at right angles to each other.

On September 23<sup>d</sup>.22<sup>h</sup>, Mr. Glaisher, with a three-inch needle, determined the dip to be 68°.37'.5, whilst Mr. Henderson, in an adjoining apartment, with a nine-inch needle (A 2), determined it to be 68°.36'.25.

*Mean of all = 68.40.4 ✓*

ROYAL OBSERVATORY, GREENWICH.

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OBSERVATIONS

OF

DEFLEXION OF A MAGNET

FOR

ABSOLUTE MEASURE

OF

HORIZONTAL FORCE.

---

1851.

The Apparatus used for observation of the Deflexion of a Magnet is described, and the method of computing the results is explained, in the *Greenwich Magnetical and Meteorological Observations*, 1847, Introduction, page xlv, and in 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 formula 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, 1851.	Position of Deflecting Magnet with regard to Suspended Magnet.	Distance of Centers of Magnets.	Temperature.	Observed Deflexion.	Mean of the Times of Vibration of Deflecting Magnet.	Number of Vibrations.	Temperature.
January 4	Lateral.....	ft. in. 1. 0	44.4	11. 56. 0.07	5.117	100	43.5
	Axial.....			6. 21. 10.39			
	Lateral.....	1. 6	48.4	3. 32. 20.20	5.112	100	44.8
	Axial.....			1. 47. 45.90			
February 8	Lateral.....	1. 0	48.4	11. 57. 48.09	5.118	100	48.7
	Axial.....			6. 27. 51.28			
	Lateral.....	1. 6	48.5	3. 31. 21.69	5.113	100	48.2
	Axial.....			1. 47. 29.60			
March 13	Lateral.....	1. 0	48.5	11. 54. 51.04	5.118	100	48.0
	Axial.....			6. 28. 43.59			
	Lateral.....	1. 6	68.0	3. 30. 4.81	5.113	100	49.8
	Axial.....			1. 47. 31.05			
June 24	Lateral.....	1. 0	68.0	11. 47. 30.98	5.072	100	66.3
	Axial.....			6. 27. 31.93			
	Lateral.....	1. 6	61.4	3. 29. 25.25	5.133	100	68.2
	Axial.....			1. 46. 14.40			
July 19	Lateral.....	1. 0	61.4	11. 52. 10.66	5.137	100	61.0
	Axial.....			6. 27. 35.40			
	Lateral.....	1. 6	76.7	3. 29. 57.55	5.134	100	60.5
	Axial.....			1. 47. 14.30			
August 12	Lateral.....	1. 0	76.7	11. 48. 52.25	5.130	100	74.0
	Axial.....			6. 29. 45.53			
	Lateral.....	1. 6	62.8	3. 28. 44.64	5.140	100	77.0
	Axial.....			1. 46. 19.22			
September 15	Lateral.....	1. 0	62.8	11. 46. 34.22	5.142	128	62.0
	Axial.....			6. 27. 19.10			
	Lateral.....	1. 6	62.7	3. 29. 15.80	5.115	106	65.0
	Axial.....			1. 47. 10.69			
October 20	Lateral.....	1. 0	62.7	11. 49. 30.70	5.140	100	62.4
	Axial.....			6. 27. 54.09			
	Lateral.....	1. 6	46.7	3. 28. 57.78	5.139	100	62.4
	Axial.....			1. 46. 9.71			
November 10	Lateral.....	1. 0	46.7	11. 46. 15.90	5.133	100	46.5
	Axial.....			6. 27. 16.00			
	Lateral.....	1. 6	48.1	3. 29. 42.09	5.133	100	48.0
	Axial.....			1. 46. 16.72			
December 11	Lateral.....	1. 0	48.1	11. 48. 19.45	5.132	100	46.5
	Axial.....			6. 25. 26.11			
	Lateral.....	1. 6		3. 28. 19.43	5.135	100	49.1
	Axial.....			1. 47. 23.83			

June 24. The observations for determining the time of vibration before taking the deflexion observations were irregular, and the result is discordant from all other results; as the times of vibration before and after are usually nearly alike, and as no suspicion rested on the latter, the adopted time of vibration in the calculation of the Absolute Measure of Horizontal Force is that found after the deflexions were taken.

October 20. The suspension-skein of the Declination Magnet broke during these experiments. In deducing the results for this day no correction has been applied for change of position of magnet during the successive observations.

## COMPUTATION OF THE VALUES OF ABSOLUTE MEASURE OF HORIZONTAL FORCE.

Computation of the Values of Absolute Measure of Horizontal Force.

Month and Day, 1851.	Apparent Value of $a$ .	Apparent Value of $b$ .	Mean Value of $b$ .	Apparent Value of $a_1$ .	Apparent Value of $b_1$ .	Adopted Value of $a$ , assuming the Mean Value of $b$ as applicable to all.	$\text{Log. } \frac{1}{2} a$ = $\text{Log. } \frac{m}{X}$	Adopted Time of Vibration of Deflecting Magnet.	$\text{Log. } m X$ .	Value of $X$ .	Value of $m$ .
January 4	+0.20678	-0.00280	-0.00105	+0.10187	+0.00878	+0.20696	9.01486	5.115	0.17084	3.784	0.3916
February 8	+0.20748	-0.00019		+0.09990	+0.01268	+0.20823	9.01752	5.115	0.17084	3.773	0.3928
March 13	+0.20608	+0.00037		+0.09970	+0.01314	+0.20732	9.01561	5.116	0.17068	3.784	0.3919
June 24	+0.20637	-0.00201		+0.09772	+0.01477	+0.20553	9.01182	5.133	0.16780	3.784	0.3889
July 19	+0.20626	-0.00058		+0.09942	+0.01315	+0.20667	9.01425	5.135	0.16746	3.772	0.3898
August 12	+0.20486	-0.00011		+0.09734	+0.01579	+0.20568	9.01216	5.135	0.16746	3.781	0.3888
September 15	+0.20630	-0.00221		+0.09942	+0.01301	+0.20529	9.01136	5.129	0.16848	3.789	0.3889
October 20	+0.20510	-0.00017		+0.09750	+0.01510	+0.20587	9.01258	5.139	0.16678	3.777	0.3888
November 10	+0.20713	-0.00312		+0.09814	+0.01427	+0.20531	9.01136	5.133	0.16780	3.786	0.3887
December 11	+0.20424	+0.00035		+0.10024	+0.01165	+0.20446	9.01043	5.129	0.16848	3.793	0.3890

Values of Absolute Measure of Horizontal Force, from Observations of Vibration of the Deflecting Magnet  $\frac{D}{XX}$ , unaccompanied by Deflexion.

Month and Day, 1851.	Adopted time of Vibration.	Temperature.	$\text{Log. } m X$ .	Value of $m$ interpolated from the Deflexion Observations.	Inferred Value of $X$ .
February	21	47.0	0.16932	0.3925	3.763
	30	47.0	0.16932	0.3920	3.767
March	8	47.5	0.17034	0.3920	3.776
April	5	47.5	0.16966	0.3912	3.778
May	26	56.5	0.16950	0.3898	3.790
	30	66.3	0.16864	0.3896	3.785
July	17	66.5	0.16950	0.3897	3.791
August	21	74.0	0.16728	0.3886	3.783
September	10	67.0	0.16814	0.3888	3.788
November	19	36.5	0.16950	0.3888	3.799
December	29	38.0	0.16898	0.3892	3.791

The number of observed vibrations employed in each determination was 100.

ROYAL OBSERVATORY, GREENWICH.

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R E S U L T S

OF

METEOROLOGICAL OBSERVATIONS.

---

1851.



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

The barometer is described in the *Greenwich Magnetical and Meteorological Observations*, 1847, Introduction, page xlvi, and in the corresponding parts of several preceding volumes. The barometer has been read at 21<sup>h</sup>, 0<sup>h</sup>, 3<sup>h</sup>, 9<sup>h</sup> (Astronomical), on every day, excepting on Sundays and on Good Friday and Christmas Day, on which days 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 and lowest readings of the dry thermometers" are self-registering thermometers, as described in the Introduction, 1847, page lxvii; and their index-errors have been found weekly, in the manner there explained. The readings given in these tables are corrected for the index-errors.

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

The mean daily reading of the dry thermometer is inferred from observations taken at the same hours as the observations of the barometer; the mean of these is corrected by a quantity given in the *Phil. Trans.*, 1848, part I.

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 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.	Reading of the Dry-bulb Thermometer.	Factor.	Reading of the Dry-bulb Thermometer.	Factor.	Reading of the Dry-bulb Thermometer.	Factor.	Reading of the Dry-bulb Thermometer.	Factor.	Reading of the Dry-bulb Thermometer.	Factor.
20	8.5	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 highest temperature in the sunshine, 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. That for the highest temperature in the sunshine was out of order on January 6, 18, 19, 26, 31; February 16; from February 22 to March 9; on March 16, 23, 30; April 6, 13, 20, 27; May 17, 18, 24, 28; June 14, 22, 29, 30; July 6, 13, 20, 24, 27; August 3, 10, 17, 22, 23, 24, 26; and from August 30 to December 9: after this time the self-registering thermometer used for solar radiation is a mercurial thermometer with a blackened bulb, of a new construction, invented by Messrs. Negretti and Zambra; its peculiarity consists in the insertion of a detached piece of glass within the thermometer tube, near the bulb, the tube being bent at the place to prevent the enclosed piece of glass from moving down the tube; by this construction the mercury passes the piece of glass on an increase of heat, but cannot repass it when the heat declines, and thus indicates the highest temperature. Since the introduction of this instrument, no

observation has been lost from its derangement. The thermometer for maximum temperature of the air was always replaced by a similar instrument whenever it became deranged.

The thermometer for the maximum temperature of the water of the Thames was out of order from April 13 to April 16; June 29 and 30; and from July 1 to July 25; and that for minimum temperature of the water of the Thames on June 29 and 30; from July 5 to 7; and July 13 to 24.

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, and they probably differ little from the absolute maxima and minima.

The difference between the mean temperature for the day and the mean for the same day of the year on an average of ten years, is found by comparison with a table of results deduced by Mr. Glaisher from ten years' observations, made in the Magnetic and Meteorological Department of the Royal Observatory from the beginning of 1841 to the end of 1850. For all ordinary week days, to the end of 1847, the mean adopted in these results was the mean of the twelve readings made at equidistant intervals of two hours. For Sundays and exceptional days in those years the maximum and minimum readings were taken, and their mean was corrected for a difference exhibited in the Introductions to the various volumes of the *Magnetical and Meteorological Observations*. For 1848, 1849, and 1850, the mean adopted was the mean of four observations daily, corrected for diurnal range.

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<sup>h</sup> to 22<sup>h</sup> (10<sup>h</sup> A.M. to 10<sup>h</sup> 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<sup>h</sup> P.M. from Crosley's Rain-gauge, described in page lxxv of the Introduction, 1847. If, however, there appears to be any doubt as to the correctness of the results, reference is made to the Rain-gauge No. 2, described in the same place.

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

The Electrical Apparatus is described in page lxxvii of the Introduction, 1847. The following is the explanation of the notation employed, it being premised that the quality of the Electricity is always to be supposed positive when no indication of quality is given:

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

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

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

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

Observations of special character are reserved for the pages following the tabular arrangement.

RESULTS OF METEOROLOGICAL OBSERVATIONS

Table with columns: MONTH and DAY, 1851.; Phases of the Moon.; READINGS OF THERMOMETERS. (Dry, Dew Point, In the Water of the Thames); Difference between the Dew Point Temperature and Air Temperature.; WIND AS DEDUCED FROM ANEMOMETERS. (OSLER'S, General Direction, Pressure in lbs.); WRELL'S (Amount of Horizontal Movement of the Air); Rain in Inches read at 9th P. M.

MONTH and DAY, 1851.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A. M.	P. M.	A. M.	P. M.
Jan. 1	o	o	10, ci.-s, sc	10, ci.-s, sc, m.-r
2	o	o	8, ci.-s, sc	8, ci.-s, sc
3	o	o	10, ci.-s, r	10, ci.-s, r
4	o	o	5, ci.-s, li.-cl	8, ci.-s, li.-cl, sc
5	o	o	o	5, ci.-s, li.-cl, r
6	o	o	5, ci.-s, sc	o
7	o	o	10, ci.-s	7, ci.-s, sc
8	o	o	5, ci.-s, li.-cl	10, ci.-s, r
9	o	o	o	10, ci.-s, li.-cl, h.-r
10	o	o	10, ci.-s	o
11	o	o	10, ci.-s, m.-r	10, ci.-s, r
12	o	o	10, ci.-s, sc	10, ci.-s, m.-r
13	o	o	10, ci.-s	10, ci.-s, sc
14	o	o	7, ci.-s, li.-cl, sc	10, ci.-s
15	o	o	10, ci.-s, sc	7, ci.-s, li.-cl, sc
16	o	o	o	10, ci.-s, sc
17	o	o	o	10, ci.-s, h.-r
18	o	s : o	1	7, ci.-s
19	o	o	7, ci.-s	1
20	o	o	10, ci.-s, sqs, w, r	7, ci.-s
21	o	o	9, ci.-s, li.-cl, sc	10, ci.-s, sqs, w, r
22	o	o	o	2
23	o	m : o	o	10, ci.-s, li.-cl, sc, h.-r
24	m	m	th.-f	o
25	o	o	8, ci.-s, s	3, ci.-s, li.-cl
26	o	o	9	8, ci.-s, s
27	o	o	8	9
28	o	o	10, r	3, ci.-cu
29	o	o	10	o
30	o	o	10, sqs, r	10, h.-r
31	o	o	10, h.-r	8
Feb. 1	o	o	10	8
2	o	o	10, ci.-s, sc, r	10, h.-r
3	o	o	10, ci.-s, th.-f	8
4	o	o : s : o	10, s, f	8
5	o	o	10, ci.-s, sc, h.-r	10, sqs, r
6	o	o	o	8
7	o	o	10, ci.-s, sc, r	8
8	o	o	5, cu, ci.-cu, ci.-s	8
9	o	o	7, s, li.-cl, h	8
10	o	o	10, ci.-s	8
11	o	o	10, ci.-s, li.-cl, sc	8
12	o	o	7, cu.-s, ci.-s	8
13	s N	o	10, ci.-s, r	8
14	o	o	10, ci.-s, th.-f	8
15	s P	o	o	8
16	o	o	o	8
17	s P	o	o	8
18	o	o	9, ci.-s, li.-cl, sc	8
19	o	o	10, ci.-s, sc	8
20	o	o	10, ci.-s, sc	8
21	o	o	10, ci.-s, h, so.-ha	8
22	s	s	10	8
23	o	o	o	8
24	o	o	10, cu.-s, ci.-s, r	8
25	o	o	10, ci.-s, f	8
26	m	m	5, ci.-s, sc	8
27	o	o	10, cu.-s, ci.-s, sc	8
28	m	m	10, cu.-s, ci.-s, sc	8

RESULTS OF METEOROLOGICAL OBSERVATIONS

Table with columns: MONTH and DAY, 1851.; Phases of the Moon.; READINGS OF THERMOMETERS. (Dry, Dew Point, In the Water of the Thames); Difference between the Dew Point Temperature and Air Temperature.; WIND AS DEDUCED FROM ANEMOMETERS. (General Direction, Pressure in lbs. on the square foot., Rain in Inches read at 9h P. M.); and various sub-columns for temperature readings and wind directions.

MONTH and DAY, 1851.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A. M.	P. M.	A. M.	P. M.
Mar. 1	m	m	o	10 : v
2	o	o	o	5, ci.-s, li.-cl : v
3	o	o	10, ci.-s	10, ci.-s
4	o	o : m : o	5, ci.-s, li.-cl	5, ci.-s, li.-cl, sc : 10, ci.-s
5	v	v	10, ci.-s, r	10, ci.-s, r
6	o	o	o	10
7	o	o : m : o	10, ci.-s	10, ci.-s
8	s	s	10	10 : 8 : o
9	m	m	5, ci.-s, sc	10, ci.-s, sc
10	o	o	10, ci.-s	10, ci.-s, r
11	o	o	o	10, ci.-s, sc, h : o
12	o	s N : o : s N	10, c.-is, sl.-r	10, ci.-s, sl.-r
13	o	s	10	7 : o : o
14	s	s	10	10
15	N	N	10	10
16	o	o	7	v, r
17	o	o	10, h.-r	10, h.-r
18	o	o : s N : o	10, r	10, r : o
19	o	o : s P, s N, sps : o	10, r	10, r
20	o	o	5, cu, cu.-s, ci.-s, fr.-shs	5, cu, cu.-s, ci.-s, fr.-shs, hl : o
21	o	o	v, r	v, h.-r
22	o	o	10, h.-sqs, w, r	10, h, sqs, w, r
23	o	o	10, r	10, r
24	o	o	10	10, r : 10
25	o	o	10, r	10, r
26	o	o	10, r	10, r : o
27	o	o	3	10, li.-shs : o
28	o	o	7	7 : 7 : o
29	o	s N, sps, g. cur : o	10, shs, hl, r	10, shs, hl, r
30	o	o	v, shs, hl, r	o, shs, hl, r
31	o	o	10, ci.-s	10, ci.-s : v
April 1	o	o : s P : o	10	3 : 10
2	s	s	10, sl.-r	10, sl.-r
3	o	o	10	10 : 7
4	o	o	9, cu, cu.-s, ci.-s, sc	9, cu, cu.-s, ci.-s, s
5	o	o	10	10
6	m	m	10, cu.-s, ci.-s	10, cu.-s, ci.-s : o
7	o	o	7, cu, cu.-s, ci.-s	10, cu, cu.-s, ci.-s
8	s N, s P, sps, g. cur	o	10, cu, cu.-s, ci.-s	10, cu, cu.-s, ci.-s, shs, hl, r
9	o	o	10	10, r : 10, r : v
10	o	o	10	10
11	s	o	10, cu.-s, ci.-s	10, cu.-s, ci.-s, r
12	s	o	10	10 : o
13	o	o	10	10 : o
14	o	o	10, ci.-s	10, ci.-s
15	o	o	10, ci.-s	10, ci.-s
16	o	o	10, cu, cu.-s, ci.-s, sl.-r	7, cu, cu.-s, ci.-s : 10, ci.-s, sl.-r
17	o	o	10, cu.-s, ci.-s, li.-cl	v, cu.-s, ci.-s, li.-cl
18	o : o : w	o	li.-cl	o
19	o	o : w : o	5, li.-cl	o
20	w	o	10	10 : 10, h.-r
21	o	o	10, ci.-s, fr.-shs	10, ci.-s, fr.-shs
22	o	o	10, ci.-s, h, h.-r	10, ci.-s, h, h.-r : 10, ci.-s, h
23	o	o : s : o	7, cu, cu.-s, ci.-s	7, cu, cu.-s, ci.-s : o
24	o	o : s : o	7, ci.-cu, ci.-s	5, ci.-cu, ci.-s : o
25	o	o : s : o	10, cu.-s, ci.-s, m.-r	10, cu.-s, ci.-s
26	o	P, N, sps, g. cur : o	10, cu, cu.-s, ci.-s	10, cu, cu.-s, ci.-s, sh.-r
27	o	o	10	v : shr.-r
28	s N, s P, sps, g. cur	s N, s P, sps, g. cur	10, cu, cu.-s, ci.-s	10, cu, cu.-s, ci.-s : o
29	o	s N, s P, sps, g. cur : o	10, h.-sh, r	10, h.-sh.-r, t

RESULTS OF METEOROLOGICAL OBSERVATIONS

Table with columns: MONTH and DAY, 1851.; Phases of the Moon.; Mean Daily Reading of the Barometer; READINGS OF THERMOMETERS (Dry, Dew Point, Water of the Thames); Difference between the Dew Point and Air Temperature; WIND AS DEDUCED FROM ANEMOMETERS (OSLER'S, General Direction, Pressure, Rain); and Rain in Inches read at 9 P. M.

MONTH and DAY, 1851.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
April 30	s N, s P, sps, g. cur.	s N, s P, sps, g. cur	7	v, fr.-shs, l, t
May 1	o	o : s : o	10, cu, cu.-s, ci.-s	10, cu, cu.-s, ci.-s
2	o	o	7, cu.-s, ci.-s, sc	7, cu.-s, ci.-s, sc
3	s P, s N, sps	s P, s N, sps	10, r	10, r
4	m	m	7	7, hl : o
5	o	s	10, fr.-shs.-r	10, fr.-shs.-r
6	o : o : s	o	10, ci.-s	10, ci.-s
7	o	m	10, cu.-s, ci.-s, sc	10, cu.-s, ci.-s, sc
8	m	m	7, cu, cu.-s, ci.-s	7, cu, cus, ci.-s, : o
9	o	o	10	10 : 10 : o
10	o	o	v, cu, cu.-s, ci.-s	v, cu, cu.-s, ci.-s, sh.-r
11	o	o	o	10, cu, ci.-s, li.-cl
12	o : o : s N	o	10, ci.-s : sh.-r	10, ci.-s
13	o	o	10, cu.-s, ci.-s, sc	7, cu.-s, ci.-s, sc
14	o	o	10, ci.-s	10 cis : 10, ci.-f : o
15	s	s	o	7 : 7 : o
16	o	m	o	10, cu, cu.-s, li.-cl
17	o	o	10	10 : o
18	o	o	10	10 : h.-r : o
19	o	s N : o	10, cu.-s, ci.-s, shs.-hl.-r	7, cu.-s, ci.-s, shs.-hl.-r : o
20	o	s : o	10, cu, cu.-s, ci.-s	10, cu., cu.-s, ci.-s
21	s	s	10, ci.-s	10, ci.-s
22	s	s : o	10, ci.-s	10, ci.-s
23	s	s	10 ci.-s, h : m.-r	10, ci.-s, h : 5, ci.-s, h : o
24	s	s	o	7, cu., cu.-s, s : 10, s
25	o	o	10	10 : sh.-r
26	o	o	10, cu, cu.-s, li.-cl	7, cu, cu.-s, li.-cl : sl.-r
27	o	o	o	10, ci.-s
28	o	o	3, cu, ci.-s, li.-cl	3, cu, ci.-s, li.-cl
29	o	s : o	o	o
30	s	o	7 cu.-s, ci.-s, li.-cl, sc : 10, cu.-s, ci.-s, li.-cl, sc	7, cu.-s, ci.-s, li.-cl, sc : 10, cu.-s, ci.-s, li.-cl
31	o : o : m	o : o : m	o : 5, li.-cl	4, li.-cl : o
June 1	o	o	o	o
2	o	o	o	7 : o
3	o	o : o : w	7, ci.-s	7, ci.-s : 10, ci.-s
4	s	s	10, r	7 : o
5	s	s	10, cu.-s, ci.-s, sc	10, cu.-s, ci.-s, sc : hr
6	o	o	10, ci.-s, li.-cl, sc	10, ci.-s, li.-cl, sc : v
7	o	o	10	10
8	o	o	10, ci.-s	10, ci.-s : o : 10, ci.-s
9	o	o	10, ci.-s, fr.-r	10, ci.-s, fr.-r
10	o	o	10, ci.-s	10, ci.-s, h.-r
11	o	o	9, cu, cu.-s, ci.-s	10, cu, cu.-s, ci.-s
12	o	o	10, ci.-s, r	10, ci.-s, r
13	o	o	10, ci.-s	10, ci.-s : r
14	w	w	10	10 : r
15	o	o	10	10 : r
16	o	o	5, r	5 : o
17	o	o	10, cu.-s, ci.-s	10, cu.-s, ci.-s : o
18	o	o	5, sl.-r	10
19	o	o	10, cu, cu.-s	10, cu, cu.-s : o
20	o	o	10, cu, cu.-s	10, ci.-s
21	o	o	v, li.-cl	10, ci.-s
22	o	o	10, ci.-s	o
23	o	o	10, cu.-s, ci.-s, l.-sc	10, cu.-s, ci.-s, l.-sc : o
24	o	o	10, ci.-s, li.-cl	10, ci.-s, li.-cl : o
25	o	o	10, ci.-s, so.-ha	10, ci.-s : v
26	o	w : o	o	o
27	o	m : o	o	o



RESULTS OF METEOROLOGICAL OBSERVATIONS

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MONTH and DAY, 1851.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
28	m : o : o	o	o	o
29	o	o	o	o
30	o	s	o	o : o : 7, ci.-s, li.-cl
July 1	s, N	s, N	10, ci.-s, li.-cl, sc, r	10, ci.-s, li.-cl, sc : l, t
2	o	o	7, ci.-s, li.-cl	o
3	o	o	10, ci.-s	o : 10, ci.-s
4	o	o	10, ci.-s	5, ci.-s, li.-cl : o
5	o	o	o	o
6	o	o	10, ci.-s, li.-cl	10, ci.-s, li.-cl
7	o	o	7, cu.-s, ci.-s, li.-cl	10, cu.-s, ci.-s, li.-cl
8	o	s, N, sps : o	10, cu, cu.-s, li.-cl, fr.-shs	9, cu, cu.-s, li.-cl : 10, l, t, h.-r
9	o	o	10, ci.-s	10, ci.-s, li.-shs
10	o	s, N, sps, g. cur : o	10, cu.-s, ci.-s, sc	10, cu.-s, t, sqs.-r : o
11	o	o	10, cu, cu.-s, ci.-s	10, cu, cu.-s, ci.-s
12	m	m	7, cu, ci.-s, li.-cl	7, cu, ci.-s, li.-cl : o
13	o	o : o : m	10, ci.-s	10, ci.-s
14	o	s, N, sps : o	7, cu.-s, ci.-s, li.-cl, sqs.-w.-r	4, cu.-s, ci.-s, li.-cl
15	o	s, N, sps : o	o	7, cu, cu.-s, ci.-s, shs.-r
16	o	s : o	7, cu, cu.-s, ci.-s	7, cu, cu.-s, ci.-s
17	o	s, N : o	10	10 : l, t, h.-r : 10
18	o : o : s, P	o	7, cu, cu.-s, ci.-s	7, cu, cu.-s, ci.-s
19	w	o	10	10, h.-r
20	o	o	10, ci.-s, sc, r	10, ci.-s, sc.-r
21	o	o : o : w	o	5, ci.-s, li.-cl : o
22	o : o : w	o	o	5, cu, ci.-s, li.-cl : 10, ci.-s
23	o	o	10, ci.-s, sc, h.-r	10, ci.-s, sc, t : h.-r
24	o	o	10, ci.-s, sc, r	10, ci.-s, sc, r
25	o	o : s, P : o	10, cu.-s, ci.-s, li.-cl	10, cu.-s, ci.-s, li.-cl
26	o	o	10	10 : sh.-r : o
27	o	o	10, cu.-s, ci.-s, sc	10, cu.-s, ci.-s, sc : l.-r
28	o	o	10, ci.-s, sc, shs.-r	10, ci.-s, sc, shs.-r
29	o	o	7, cu, cu.-s, ci.-s	3, cu, cu.-s, ci.-s : v
30	o	o : s, N : o	3, cu, cu.-s, ci.-s	10, cu, cu.-s, ci.-s : h.-r, t
31	o	o	10, ci.-s	10, ci.-s : 9, ci.-s : 10, ci.-s, r
Aug. 1	o	o	10, cu, cu.-s, ci.-s	10, cu, cu.-s, ci.-s : r
2	v	v	10, cu, cu.-s, ci.-s	5, cu, cu.-s, ci.-s : 10, ci.-s
3	o	o	7	o
4	o	o	o	3, cu, cu.-s : 10, ci.-s
5	o	o : o : s	7, cu, cu.-s, li.-cl	7, : o : 10, cu, ci.-s
6	o	m : o	10, ci.-s	10, ci.-s
7	o	s : o	10, cu, cu.-s, ci.-s	o
8	v	v	2	o
9	o	o	10, ci.-s	10, ci.-s
10	s	s	10, ci.-s	10, ci.-s
11	o	o	10, cu, cu.-s, ci.-s	10, cu, cu.-s, ci.-s : o
12	o	o : s	7	5 : 10
13	v : s, N, sps, g. cur	v	10, cu, cu.-s, ci.-s : h.-r	10 : v, l, t
14	o	o	7, cu.-s, ci.-s	10, cu.-s, ci.-s : v, cu.-s, ci.-s
15	o	o	5, cu, cu.-s, ci.-s	3, cu, cu.-s : 10, ci.-s
16	m	m	10, ci.-s, m.-r	10, ci.-s, m.-r
17	s	o	10, cu.-s, ci.-s, sc	10, cu.-s, ci.-s, sc, h.-r : l
18	o	o	10, cu.-s, ci.-s	7, cu.-s, ci.-s : o
19	o	o	o	o
20	o	s : o	o	7 : o
21	m	m	7, s, ci	o
22	w	o	2 : o	o : 2 : o
23	o	o	10, ci.-s : r	10, ci.-s : o
24	o	o	10, ci.-s, li.-cl, sc, h.-shs	10, ci.-s, li.-cl, sc : o
25	o	o	7, ci.-s	7, ci.-s : 10, ci.-s

RESULTS OF METEOROLOGICAL OBSERVATIONS

Table with columns: MONTH and DAY, 1851; Phases of the Moon; READINGS OF THERMOMETERS (Dry, Dew, Water of Thames); Difference between Dew Point and Air Temperature; WIND AS DEDUCED FROM ANEMOMETERS (General Direction, Pressure, Rain); and other meteorological data.

MONTH and DAY, 1851.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Aug. 26	o	o	10, ci.-s	10, ci.-s, h.-r : v
27	o	m : o	10, cu.-s, ci.-s, li.-cl	10, cu.-s, ci.-s, li.-cl : r
28	o	o	7, cu. cu.-s, ci.-s	10, cu. cu.-s, ci.-s : o
29	s, N, sps, g. cur : o	o : o : w	10, shs.-r	10, shs.-r : 7 : 10
30	w	w	10, ci.-s	10, ci.-s : o
31	m	m	10, cu.-s, ci.-s, h	8, cu.-s, ci.-s : 10, cu.-s, ci.-s
Sep. 1	o	o : o : w	10, cu. cu.-s, ci.-s	7, cu. cu.-s, ci.-s
2	v	v	10, ci.-cu, ci.-s, r	7, ci.-cu, ci.-s
3	s	s	10, cu. cu.-s, ci.-s	v, cu. cu.-s, ci.-s : o
4	v, w : o : o	o	10, ci.-s	10, ci.-s
5	o	o	v, cu. cu.-s, ci.-s	10, cu. cu.-s, ci.-s
6	o	o	7, cu.-s, ci.-s, li.-cl	7, cu.-s, ci.-s, li.-cl
7	o	o	v, cu.-s, ci.-s	v, cu.-s, ci.-s : 10, ci.-s
8	o	o : o : w	10, ci.-cu, ci.-s, li.-cl	10, ci.-cu, ci.-s, li.-cl
9	o	s : o	o	o
10	o	s : o	o, h	o
11	o	v : o	o, h	o
12	o : m	o	o, th.-h	o
13	o	s : o	o, th.-f	o
14	o	o	o	o
15	o	o	10, ci.-s	7, ci.-cu, ci.-s, sc : o
16	o	o	10, cu.-s, ci.-s	10, cu.-s, ci.-s
17	o	o	10, ci.-cu, ci.-s, li.-cl, m.-r	v, ci.-cu., ci.-s, li.-cl
18	o	o	7, cu. ci.-cu, ci.-s	7, cu. ci.-cu., ci.-s : o
19	o	o	7, cu.-s, ci.-s	7, cu.-s, ci.-s, r
20	o	o	10, ci.-s	10, ci.-s, sl.-r : o
21	o	o	10, ci.-s	10, ci.-s
22	o	o	10, ci.-s, li.-cl	10, ci.-s : o
23	o	o	o	5, ci.-s, h : 10, ci.-s
24	o	o	10, s, li.-cl	10, s, li.-cl : o
25	o	o	10, cu.-s, ci.-s	10, cu.-s, ci.-s, r
26	o	o	5, cu. cu.-s, ci.-s	10, cu. cu.-s, ci.-s : v
27	o	o	8, cu.-s, ci.-s	10, cu.-s, ci.-s, m.-r
28	o	o	v	v : o
29	o	o	10, cu.-s, ci.-s, sc	5, cu.-s, ci.-s, sc : v, a
30	o	o	10, ci.-s, r	10, ci.-s, r
Oct. 1	o	o	5, ci.-s	10, ci.-s, r
2	s	s	v, cu. ci.-s, r	v, cu. ci.-s, r : a
3	s	s	5, cu. cu.-s, ci.-s	5, cu. cu.-s, ci.-s : o
4	s	s	10, cu. cu.-s, r	v, cu. cu.-s : o
5	o	o : o : m	5, cu. ci.-s, sc	5, cu. ci.-s, sc : o
6	o	o	7, cu. cu.-s, ci.-s	5, cu. ci.-s : 10, r
7	o	s	10, ci.-s, r	10, ci.-s : 7, ci.-s
8	s	s	5, cu. ci.-s, li.-cl	v, cu. ci.-s, li.-cl
9	o	o	10, ci.-s, r	10, ci.-s, r
10	o	o	10, ci.-s, sc, li.-cl	7, ci.-s, sc, li.-cl : v
11	o	o	10, cu.-s, ci.-s, sc	o : v
12	o : m : o	o	7, ci.-s	7, ci.-s
13	o	o	10, cu.-s, ci.-s	10, cu.-s, ci.-s, r
14	o	o	7, ci.-s, sc	10, ci.-s, sc
15	o	o	10, ci.-s, r	10, ci.-s, r
16	o	o	o	5, cu. cu.-s : o
17	o	o	o	7, cu.-s, ci.-s, h : o
18	o	o	10, ci.-s, sl.-r	10, ci.-s, sl.-r
19	o	o	10, ci.-s	10, ci.-s
20	o	o	10, ci.-s	10, ci.-s
21	o	o	10, cu.-s, ci.-s, sc, sl.-r	10, cu.-s, ci.-s, sc
22	o	o	10, ci.-s	10, ci.-s
23	o	w : o	10, ci.-s	10, ci.-s

RESULTS OF METEOROLOGICAL OBSERVATIONS

Table with columns for MONTH and DAY (1851), Phases of the Moon, READINGS OF THERMOMETERS (Dry, Dew Point, Air Temperature), WIND AS DEDUCED FROM ANEMOMETERS (OSLER'S, General Direction, Pressure), and Rain in Inches read at 9 P. M.

MONTH and DAY, 1851.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A.M.	P.M.	A.M.	P.M.
Oct. 24	o	o	10, ci.-s	10, ci.-s
25	o	o	10, ci.-s	10, ci.-s
26	o	o	10	v : 10
27	o	o	10, ci.-s, h	10, ci.-s, h : o
28	o	o	10	10 : r
29	o	o	10, cu.-s, h	10, cu.-s, h, r
30	o	o	5, ci.-cu, ci.-s, sc	v, ci.-cu, sc : 10, ci.-s, r
31	o	o	o : 7, cu, ci.-cu	7, cu, ci.-cu : 10, ci.-s
Nov. 1	o	o	10, ci.-s	o
2	s	s	v, cu, ci.-s, sc, hl, r	v, cu, ci.-s, sc, hl, r : o
3	o	o	7, cu, ci.-cu, h	v, cu, ci.-cu : o
4	o	o	10, ci.-s, r, sl	7, ci.-s : o
5	o	o	10, s, h	10, s, h : r
6	o	o	o	10, ci.-s, h
7	w	S, sps : w	10, cu, ci.-cu, s, sc	10, cu, ci.-cu, sc, r : v
8	o	o	10, ci.-cu, ci.-s, h	10, ci.-cu, ci.-s, h
9	o	o	10, ci.-s	10, ci.-s
10	o	s	7, ci.-cu, s, sc	7, ci.-cu, s, sc : 10, ci.-cu, s, sc
11	m	m	7	o : 10
12	o	m	10, ci.-cu, s	o
13	s, P, sps.	s P, sps	10, ci.-s, f	10, ci.-s, f
14	o	o : o : w	o	7 : o
15	o	o : s : o	10, ci.-cu, ci.-s, h	10, ci.-cu, ci.-s : o
16	s	s	10, s, h	o
17	o	o : m : o	o	10, cu.-s, ci.-s : o
18	o	w	o : 10, ci.-cu, ci.-s, h	10, ci.-cu, ci.-s, h
19	s	s	10, ci.-cu, ci.-s	10, ci.-cu, ci.-s
20	s	s	o	o
21	o	o	10, cu.-s, ci.-s, m.-r	10, cu.-s, ci.-s : v
22	o	o	7, ci.-cu, ci.-s, r	v, ci.-cu, ci.-s
23	o	o	10, ci.-s	10, ci.-s
24	o	o	10, ci.-s, sc, h.-r	4, ci.-s, sc : 8, ci.-s, sc
25	s	s	o	o
26	s	s : o	10, ci.-s, f	10, ci.-s, f
27	o	o : o : m	10, ci.-s, f, r	10, ci.-s, f
28	o	m	10, ci.-cu, ci.-s	10, ci.-cu, ci.-s
29	o	s	o	4, ci.-s : 10, ci.-s
30	o	o : o : m	7, ci.-cu, ci.-s	o : f
Dec. 1	o	o	o	10, ci.-s, f, r
2	o	o	10, ci.-s	10, ci.-s
3	o	o : o : w	10, ci.-s	10, ci.-s, r
4	o : s	s	o	10, ci.-s : r
5	o	o	7, ci.-cu, ci.-s	10, ci.-cu, ci.-s
6	o	o	10, ci.-s	10, ci.-s
7	o	o	10, ci.-s	10, ci.-s
8	o	o	5, ci.-s, li.-cl	o
9	o	o	10, ci.-s	10, ci.-s : r
10	o	o	10, ci.-s, li.-cl, sc	7, ci.-s, li.-cl, sc
11	o	s	o	li.-cl, h : o
12	s, sps	s, sps	th.-f	th.-f
13	s	s	10, ci.-s	10, ci.-s
14	o	o	10, th.-f	10, th.-f
15	o	o	10, ci.-s	10, ci.-s
16	o	m : o	10, ci.-s	10, ci.-s
17	m	m	10, ci.-s	10, ci.-s
18	m	m : o	10, ci.-s	10, ci.-s
19	o	o	10	o : 10, th.-r
20	o	o	10, ci.-s, th.-r	10, ci.-s, th.-r
21	o	o	10, r	10, r : v

RESULTS OF METEOROLOGICAL OBSERVATIONS

MONTH and DAY, 1851.	Phases of the Moon.	Mean Daily Reading of the Barometer (corrected and reduced to 32° Fahrenheit).	READINGS OF THERMOMETERS.										Difference between the Dew Point Temperature and Air Temperature.	Difference between the Mean Tem- perature of the Day and the Mean Tem- perature of the same day on an Average of 10 years.	WIND AS DEDUCED FROM ANEMOMETERS.						
			Dry.			Dew Point.		In the Water of the Thames, at Greenwich, by Self-Regis- tering Ther- mometer, read at 9 o'clock next morning.		OSLER'S.					Pressure in lbs. on the square foot.			WHE- WELL'S Amount of Horizontal Movement of the Air on each Day.	Rain in Inches read at 9 P. M.		
			Highest.	Lowest.	Mean Daily Value.	Mean Daily Value.	Highest in the Sun, as shown by a Self-Registering Thermometer read at 9 P. M.	Lowest on the Grass, as shown by a Self-Registering Thermometer read at 9 A. M.	Highest.	Lowest.	Mean Daily Value.	Greatest.			Least.	General Direction.				Greatest.	Least.
			in.	°	°	°	°	°	°	°	°	°			°	°	°	A. M.	P. M.	lbs.	lbs.
Dec. 22	New	29.490	46.1	39.9	43.5	41.0	48.0	37.5	44.5	41.6	2.5	3.7	2.5	+ 4.5	S	Calm; N	0.0	0.0	0.0	150	0.35
23	Greatest Declination S.	30.023	44.4	37.9	40.3	36.5	46.5	32.0	44.5	41.6	3.8	5.5	3.3	+ 1.6	N	N	0.0	0.0	0.0	30	0.00
24	..	30.158	42.1	34.9	38.4	33.6	49.0	32.0	44.2	41.5	4.8	6.0	3.8	+ 0.1	NE	Calm	0.0	0.0	0.0	20	0.00
25	..	30.216	39.4	30.1	36.2	30.5	45.5	24.0	44.0	41.4	5.7	7.0	5.3	- 1.9	SE	Calm	0.0	0.0	0.0	25	0.00
26	..	30.405	41.2	28.9	33.6	27.9	43.0	27.0	43.5	40.6	5.7	9.0	3.9	- 4.3	N; E	E	0.0	0.0	0.0	15	0.00
27	..	30.321	36.1	24.9	32.1	24.7	40.0	17.0	42.5	40.5	7.4	8.3	6.8	- 5.6	Calm	Calm	0.0	0.0	0.0	25	0.00
28	..	30.293	41.1	35.8	37.7	34.2	41.0	30.0	42.6	40.5	3.5	4.8	3.1	+ 0.2	N	Calm	0.0	0.0	0.0	10	0.06
29	Apogee	30.378	39.6	33.7	36.6	31.8	42.0	30.5	41.5	39.5	4.8	7.5	3.8	- 0.7	Calm	Calm	0.0	0.0	0.0	5	0.00
30	First Quarter. In Equator.	30.340	40.9	30.4	36.2	32.9	42.0	33.0	41.5	39.0	3.3	5.1	3.3	- 1.0	Calm	Calm	0.0	0.0	0.0	..	0.00
31	..	30.079	35.8	29.9	33.1	28.1	37.0	22.5	41.0	38.6	5.0	6.2	4.9	- 3.9	Calm	Calm	0.0	0.0	0.0	15	0.00

MONTH and DAY, 1851.	ELECTRICITY.		CLOUDS AND WEATHER.	
	A. M.	P. M.	A. M.	P. M.
Dec. 22	o	o	10, ci.-s, r	10, ci.-s, r
23	o	o	7, ci.-s, h	7, ci.-s, h : 10, ci.-s, h
24	o	o	10, cu.-s, ci.-s	o : 10, cu.-s, ci.-s
25	o	o	10	10
26	o	o	o	v, cu.-s, ci.-s : o
27	o	o	10, ci.-s	10, ci.-s
28	o	o	10, r	10, r
29	o	o	10	10
30	o	o	10	10 : o
31	o	w	10	10



(cxii) EXTREME READINGS OF THE BAROMETER, AND READINGS OF THERMOMETERS SUNK IN THE GROUND,

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 sometimes be sensibly erroneous.

MAXIMA.				MINIMA.				MAXIMA.				MINIMA.								
Approximate Mean Solar Time, 1851.			Reading.	Approximate Mean Solar Time, 1851.			Reading.	Approximate Mean Solar Time, 1851.			Reading.	Approximate Mean Solar Time, 1851.			Reading.					
d	h	m	in.	d	h	m	in.	d	h	m	in.	d	h	m	in.					
January	3.	0.	0	29	837	January	1.	9.	0	29	587	May	30.	21.	0	30	371			
	11.	0.	0	30	020		8.	9.	0	29	312		June	7.	0.	0	29	850		
	15.	21.	0	29	644		14.	21.	0	28	948			17.	21.	0	30	236		
	18.	9.	0	30	004		16.	9.	0	29	397			24.	9.	0	30	134		
	23.	9.	0	30	231		21.	0.	0	29	378			July	6.	10.	20	29	942	
	27.	3.	0	29	854		26.	11.	0	29	599				11.	3.	0	30	008	
February	4.	9.	0	29	882	31.	0.	0	29	077	21.	0.			0	29	970			
	6.	21.	0	30	062	February	5.	9.	0	29	389	August	4.		21.	0	30	122		
	9.	9.	0	30	311		7.	21.	0	29	809		18.		21.	0	30	233		
	15.	0.	0	30	200		13.	3.	0	29	814		25.		9.	0	30	017		
	21.	21.	0	29	912		20.	3.	0	29	611		30.	22.	30	30	084			
	26.	9.	0	30	260		24.	3.	0	29	675		September	15.	21.	0	30	466		
March	8.	9.	0	29	943		March	5.	9.	0	29			527	23.	9.	0	30	008	
	11.	0.	0	29	863	9.		21.	0	29	462	October		11.	22.	30	30	164		
	24.	21.	0	29	656	22.		22.	30	28	839			24.	21.	0	30	286		
	April	1.	0.	0	30	032		26.	0.	0	29			296	November	4.	21.	0	29	914
		18.	21.	0	29	919		April	9.	0.	0			29		693	12.	21.	9	30
		25.	9.	0	29	754			22.	0.	0		29	273		22.	9.	0	30	041
May		6.	21.	0	29	748	27.		7.	0	29		427	December		2.	21.	0	30	191
		13.	21.	0	30	217	May		10.	3.	0	29	501			11.	21.	0	30	403
		23.	21.	0	30	227			9.	0.	0	29	742			26.	9.	0	30	449

## READINGS OF THERMOMETERS SUNK IN THE GROUND.

(I).—Reading of a Thermometer whose bulb is sunk to the depth of 25·6 feet (24 French feet) below the surface of the soil, at Noon on every Day, except Sundays.

Day of the Month, 1851.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
a	o	o	o	o	o	o	o	o	o	o	o	o
1	51·42	50·81	50·23	49·46	48·88	S	48·88	49·43	50·23	51·03	51·60	51·81
2	51·40	S	S	49·44	48·87	48·74	48·91	49·43	50·24	51·07	S	51·83
3	51·40	50·78	50·17	49·43	48·85	48·69	48·88	S	50·27	51·07	51·60	51·84
4	51·35	50·75	50·22	49·40	S	48·66	48·90	49·48	50·30	51·10	51·61	51·82
5	S	50·76	50·14	49·37	48·87	48·66	48·92	49·48	50·31	S	51·62	51·84
6	51·34	50·71	50·12	S	48·83	48·67	S	49·50	50·35	51·14	51·65	51·84
7	51·83	50·79	50·09	49·37	48·82	48·77	48·90	49·54	S	51·17	51·67	S
8	51·30	50·68	50·14	49·33	48·80	S	48·90	49·58	50·40	51·18	51·69	51·84
9	51·27	S	S	49·27	48·80	48·67	48·92	49·59	50·43	51·10	S	51·84
10	51·27	50·64	50·03	49·26	48·81	48·66	48·94	S	50·45	51·25	51·70	51·84
11	51·26	50·60	50·00	49·26	S	48·67	48·95	49·65	50·48	51·28	51·71	51·78
12	S	50·88	49·97	49·24	48·78	48·69	48·97	49·70	50·50	S	51·73	51·74
13	51·23	50·60	49·95	S	48·75	48·68	S	49·70	50·54	51·32	51·71	51·75
14	51·19	50·55	49·91	49·19	48·75	48·70	49·00	49·74	S	51·34	51·73	S
15	51·19	50·53	49·86	49·17	48·75	S	49·04	49·77	50·60	51·34	51·70	51·71
16	51·16	S	S	49·15	48·74	48·74	49·04	49·80	50·64	51·34	S	51·73
17	51·14	50·46	49·85	49·15	48·73	48·68	49·05	S	50·65	51·35	51·73	51·73
18	51·10	50·48	49·84	<i>Not</i>	S	48·71	49·08	49·83	50·68	51·60	51·73	51·68
19	S	50·46	49·79	49·14	48·70	48·73	49·08	49·85	50·71	S	51·73	51·70
20	51·07	50·45	49·76	S	48·70	48·74	S	49·90	50·73	51·95	51·75	51·70
21	51·06	50·46	49·64	49·18	48·71	48·75	49·18	49·94	S	51·45	51·75	S
22	51·04	50·38	49·70	49·06	48·73	S	49·22	49·95	50·80	51·47	51·78	51·66
23	51·03	S	S	49·04	48·70	48·73	49·22	49·96	50·83	51·49	S	51·64
24	50·95	50·36	49·65	49·03	48·70	48·75	49·23	S	50·85	51·54	51·80	51·62
25	50·95	50·33	49·64	48·98	S	48·78	49·21	50·00	50·89	51·53	51·78	Christ. Day.
26	S	50·30	49·60	48·97	48·68	48·78	49·24	50·08	50·88	S	51·76	51·55
27	50·93	50·27	49·58	S	48·73	48·80	S	50·05	50·92	51·55	51·82	51·55
28	50·92	50·25	49·55	48·92	48·74	48·81	49·28	50·08	S	51·55	51·82	S
29	50·90		49·53	48·90	48·74	S	49·32	50·07	50·95	51·54	51·82	51·53
30	50·87		S	48·81	48·70	48·88	49·34	50·14	51·05	51·58	S	51·54
31	50·87		49·47		48·73		49·35	S		<i>ot</i>		51·47
	27/ 31·44	28/ 50·16	28/ 50·55	49·86	The letter S denotes that the day was Sunday.							

January 7. The reading seems to be too high by 0°·5.

February 12. The reading seems to be somewhat too high; probably it should be 50°·58.

April 18. Good Friday: the instruments were not read.

October 20. The reading seems to be somewhat too high.

From 1846, April, to 1847, December, this thermometer was read every two hours, night and day (excepting 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.

(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, except Sundays.

Day of the Month, 1851.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
a	o	o	o	o	o	o	o	o	o	o	o	o
1	49·77	48·14	46·88	46·04	46·62	S	50·52	53·17	55·09	55·33	54·43	51·98
2	49·63	S	S	46·05	46·66	48·25	50·67	53·18	55·10	55·35	S	51·90
3	49·60	48·04	46·80	46·05	46·68	48·20	50·70	S	55·14	55·33	54·30	51·77
4	49·44	47·94	46·93	46·04	S	48·24	50·78	53·28	55·18	55·33	54·25	51·64
5	S	47·90	46·78	46·10	46·93	48·33	50·91	53·31	55·16	S	54·22	51·57





(cxvi)

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

January 22. The reading seems to be too high by 2°.

February 7. The reading seems to be too high by 2°.

April 18. Good Friday.

June 2. The reading seems to be 2° or 3° too low.

August 6. The reading seems 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, in the months from April to September, was found to be 0°·08 higher than the mean for 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 box which covers the tops of the deep-sunk Thermometers, at Noon on every Day, except Sundays.

Day of the Month, 1851.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
d	o	o	o	o	o	o	o	o	o	o	o	o
1	51·0	41·0	42·0	47·0	49·0	S	68·0	67·5	64·0	53·0	48·0	35·5
2	50·6	S	S	48·0	50·0	62·5	70·1	67·5	65·0	55·0	S	39·5
3	46·0	39·0	39·0	48·0	48·0	63·0	64·5	S	67·0	53·0	43·0	40·0
4	45·7	44·0	42·0	48·0	S	57·0	62·0	69·0	64·0	58·0	41·0	37·5
5	S	44·0	43·0	45·0	45·5	59·0	62·5	63·0	63·0	S	38·0	44·0
6	40·0	43·0	40·0	S	48·0	59·0	S	65·0	63·0	54·8	45·0	46·0
7	43·0	41·0	41·0	43·0	50·0	60·0	66·0	66·0	S	56·0	45·0	S
8	43·5	44·0	43·0	46·0	51·0	S	66·0	70·0	61·0	54·0	45·5	48·5
9	41·4	S	S	44·0	57·0	61·0	63·0	67·0	61·0	51·8	S	47·0
10	43·0	43·5	42·0	46·0	58·0	58·0	62·6	S	60·5	59·8	46·0	50·5
11	48·0	41·0	41·0	46·0	S	58·0	59·0	67·0	59·0	58·0	44·5	46·0
12	S	41·0	42·0	46·0	56·0	55·0	65·5	79·0	57·0	S	45·8	38·0
13	47·0	43·0	43·0	S	54·0	61·0	S	71·0	59·0	59·0	43·0	42·0
14	46·0	43·0	43·0	45·0	52·0	60·0	64·0	68·5	S	59·8	45·0	S
15	46·0	40·0	41·0	46·0	58·0	S	63·5	69·0	60·5	57·0	39·0	40·0
16	45·0	S	S	48·0	55·0	60·0	63·0	68·0	60·0	51·0	S	42·0
17	47·0	38·0	43·0	53·0	53·0	59·0	63·0	S	61·0	49·0	36·0	44·5
18	42·0	46·0	44·3	<i>44·3</i>	S	59·0	61·0	64·0	60·0	52·0	38·0	39·4
19	S	47·7	45·0	53·0	54·0	64·8	61·0	63·0	60·0	S	34·8	46·0
20	43·0	46·6	48·0	S	57·0	66·0	S	66·0	61·0	59·4	38·0	48·0
21	47·5	47·7	48·0	54·8	55·0	68·0	65·0	68·5	S	58·0	38·8	S
22	42·8	41·8	47·0	53·0	58·0	S	64·5	64·5	60·0	55·5	43·0	47·0
23	42·0	S	S	53·0	58·0	60·0	63·0	64·0	58·0	55·5	S	43·0
24	38·0	44·5	46·0	53·0	58·0	61·0	61·0	S	62·0	58·5	43·0	42·0
25	38·0	43·0	46·4	52·0	S	65·5	63·0	63·0	61·0	54·0	39·0	Christ. Day.
26	S	43·0	46·0	51·0	58·0	67·0	62·0	62·0	50·0	S	37·0	38·0
27	42·0	40·0	46·4	S	57·0	70·0	S	63·0	54·0	53·5	38·5	36·5
28	43·0	39·0	48·0	48·0	58·0	71·0	64·0	61·0	S	51·5	38·0	S
29	48·0	49·0	49·0	48·0	59·0	S	66·0	56·0	53·0	48·0	36·5	39·0
30	42·0		S	48·0	63·0	69·0	66·0	58·5	56·0	48·0	S	40·5
31	41·0		46·0		61·0		63·0	S		<i>Not</i>		38·0
31.	37.											

The letter S denotes that the day was Sunday.

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

Day of the Month, 1851.	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	53·0	40·0	43·0	52·0	53·0	S	73·0	72·0	73·0	58·0	51·0	33·0
2	52·0	S	S	51·0	56·0	71·0	80·5	73·0	69·0	56·5	S	41·0
3	48·0	41·7	38·0	49·5	49·0	70·0	66·0	S	72·0	60·0	44·0	39·5
4	45·0	40·0	48·0	49·8	S	56·0	65·0	75·5	60·9	62·0	39·0	36·0
5	S	48·0	45·5	48·0	48·5	59·5	67·5	72·0	65·5	S	39·0	47·5
6	41·0	44·0	43·0	S	51·0	64·0	S	65·8	66·0	58·0	46·0	47·5
7	45·0	43·0	45·5	45·0	54·6	64·0	73·0	71·0	S	59·0	46·0	S
8	48·0	46·8	46·0	51·0	56·0	S	68·8	78·0	60·5	58·0	48·0	42·0

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

Day of the Month, 1851.	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
9	42·0	S	S	43·0	61·0	58·0	61·5	72·0	66·5	54·8	S	51·5
10	46·0	44·0	39·0	47·0	57·0	54·0	66·0	S	69·0	65·0	48·0	52·0
11	48·8	44·8	45·0	48·0	S	61·0	65·0	72·0	69·0	65·8	48·0	47·0
12	S	43·0	43·4	48·0	59·8	61·0	73·0	78·8	63·0	S	48·0	34·0
13	49·0	42·0	48·0	S	56·0	64·0	S	74·0	66·0	63·8	41·0	41·8
14	45·5	44·0	48·0	48·0	56·0	66·0	68·0	73·0	S	63·0	44·0	S
15	48·0	41·0	39·0	49·0	63·0	S	68·0	75·0	65·0	55·8	36·5	36·0
16	47·8	S	S	51·0	61·0	65·0	64·0	76·0	68·0	53·8	S	42·5
17	48·0	41·0	45·0	58·0	56·0	63·0	64·8	S	66·0	51·0	35·0	45·0
18	43·0	51·0	47·0	Not	S	64·0	67·0	66·0	64·0	57·0	36·4	36·0
19	S	51·0	48·0	59·8	57·0	75·0	62·5	68·0	65·5	S	34·5	50·0
20	41·7	50·0	53·0	S	58·0	75·0	S	75·0	65·0	65·0	41·0	50·5
21	47·8	51·0	54·0	59·0	59·0	82·0	73·0	77·0	S	59·8	41·5	S
22	44·0	44·4	48·0	54·0	66·8	S	73·9	77·0	65·0	54·0	44·0	46·8
23	44·5	S	S	60·0	61·0	64·5	63·0	71·0	66·0	56·8	S	41·8
24	33·6	49·0	49·0	59·8	65·0	69·0	58·0	S	66·0	56·5	44·0	40·8
25	39·0	45·0	50·0	51·0	S	74·0	66·0	68·0	64·0	54·8	40·8	Christ. Day.
26	S	44·0	49·7	56·0	59·0	78·8	66·0	63·5	54·0	S	34·0	36·0
27	45·8	43·0	49·0	S	61·0	84·4	S	65·0	59·0	55·8	37·5	33·8
28	47·0	30·4	53·0	47·0	66·0	82·5	67·0	64·0	S	53·0	36·5	S
29	51·0		53·0	50·0	70·0	S	73·0	53·5	58·0	45·8	36·5	37·8
30	43·0		S	52·4	69·5	79·0	73·0	59·8	57·0	48·0	S	39·5
31	41·0		48·0		66·0		64·7	S		Not		36·0

The letter S denotes that the day was Sunday.

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.

1850. Dec. 31. 12. <sup>d h</sup> The direction of the wind was S.W.
1851. Jan. 31. 12. ,, ,, E., which implies a direct motion of 225°.
- Jan. 3. 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 585°.
1851. Jan. 31. 12. <sup>d h</sup> The direction of the wind was E.
- Feb. 28. 12. ,, ,, W., which implies apparent retrograde motion of 180°.
- Feb. 2. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360°.
- Feb. 10. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360°.
- Feb. 14. 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 900°.
1851. Feb. 28. 12. <sup>d h</sup> The direction of the wind was W.
- March 31. 12. ,, ,, W., which implies no change.
- March 2. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360°.
- March 8. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360°.
- March 11. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360°.
- March 14. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360°.
- March 18. 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 1080°.
1851. March 31. 12. <sup>d h</sup> The direction of the wind was W.
- April 30. 12. ,, ,, W.N.W., which implies a direct motion of 22½°.
- April 1. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360°.
- April 16. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of 360°.
- April 19. 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 21. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of 360°.

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

1851. April <sup>d h</sup> 29. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of  $360^{\circ}$ .  
Therefore the whole excess of direct motion in the month of April was  $742\frac{1}{2}^{\circ}$ .
1851. April <sup>d h</sup> 30. 12. The direction of the wind was W.N.W.  
May 31. 12. ,, ,, E., which implies apparent direct motion of  $157\frac{1}{2}^{\circ}$ .  
May 3. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of  $360^{\circ}$ .  
May 15. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of  $360^{\circ}$ .  
May 24. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of  $360^{\circ}$ .  
May 27. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of  $360^{\circ}$ .  
May 28. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of  $360^{\circ}$ .  
Therefore the whole excess of direct motion in the month of May was  $1957\frac{1}{2}^{\circ}$ .
1851. May <sup>d h</sup> 31. 12. The direction of the wind was E.  
June 30. 12. ,, ,, E.S.E., which implies apparent direct motion of  $22\frac{1}{2}^{\circ}$ .  
June 27. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of  $360^{\circ}$ .  
Therefore the whole excess of retrograde motion in the month of June was  $337\frac{1}{2}^{\circ}$ .
1851. June <sup>d h</sup> 30. 12. The direction of the wind was E.S.E.  
July 31. 12. ,, ,, S.W., which implies apparent direct motion of  $112\frac{1}{2}^{\circ}$ .  
July 1. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of  $360^{\circ}$ .  
July 8. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of  $360^{\circ}$ .  
Therefore the whole excess of direct motion in the month of July was  $832\frac{1}{2}^{\circ}$ .
1851. July <sup>d h</sup> 31. 12. The direction of the wind was S.W.  
August 31. 12. ,, ,, W.N.W., which implies apparent direct motion of  $67\frac{1}{2}^{\circ}$ .  
August 12. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of  $360^{\circ}$ .  
August 19. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of  $360^{\circ}$ .  
August 27. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of  $360^{\circ}$ .  
Therefore the whole excess of direct motion in the month of August was  $427\frac{1}{2}^{\circ}$ .
1851. August <sup>d h</sup> 31. 12. The direction of the wind was W.N.W.  
Sep. 30. 12. ,, ,, S.W., which implies apparent direct motion of  $292\frac{1}{2}^{\circ}$ .  
Sep. 12. 2. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of  $360^{\circ}$ .  
Sep. 12. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of  $360^{\circ}$ .  
Sep. 22. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of  $360^{\circ}$ .  
Therefore the whole excess of direct motion in the month of September was  $652\frac{1}{2}^{\circ}$ .
1851. Sep. <sup>d h</sup> 30. 12. The direction of the wind was S.W.  
Oct. 31. 12. ,, ,, S.W., which implies a retrograde motion of  $360^{\circ}$ .  
Sep. 30. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of  $360^{\circ}$ .  
Oct. 19. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of  $360^{\circ}$ .  
Therefore the whole excess of retrograde motion in the month of October was  $360^{\circ}$ .
1851. Oct. <sup>d h</sup> 31. 12. The direction of the wind was S.W.  
Nov. 30. 12. ,, ,, N.N.E., which implies a retrograde motion of  $202\frac{1}{2}^{\circ}$ .  
The trace was not shifted throughout the month, therefore the excess of retrograde motion in the month of November was  $202\frac{1}{2}^{\circ}$ .
1851. Nov. <sup>d h</sup> 30. 12. The direction of the wind was N.N.E.  
Dec. 31. 12. ,, ,, W., which implies apparent direct motion of  $247\frac{1}{2}^{\circ}$ .  
Nov. 30. 22. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of  $360^{\circ}$ .  
Dec. 15. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of  $360^{\circ}$ .  
Dec. 22. 2. The trace was shifted to the next set of lines upwards, which implies apparent retrograde motion of  $360^{\circ}$ .  
Dec. 24. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of  $360^{\circ}$ .  
Dec. 30. 22. The trace was shifted to the next set of lines downwards, which implies apparent direct motion of  $360^{\circ}$ .  
Therefore the whole excess of direct motion in the month of December was  $607\frac{1}{2}^{\circ}$ .  
The whole excess of direct motion to the end of the year was  $6885^{\circ}$ .

AMOUNT OF RAIN COLLECTED IN EACH MONTH OF THE YEAR 1851.

	1851, Month.	Monthly Amount of Rain collected in the Gauge.			
		On the Roof of the Library.	Crosley's.	Cylinder partly sunk in the Ground.	Cylinder partly sunk in the Ground at the Royal Naval Schools.
		in.	in.	in.	in.
	January	2·4	2·4	2·7	2·8
	February	0·9	0·9	1·3	1·0
	March	3·7	3·6	4·1	4·1
	April	1·8	2·3	2·3	2·0
	May	0·6	0·8	0·8	0·9
	June	1·3	1·3	1·8	1·2
	July	3·3	4·0	4·2	4·0
	August	2·4	2·3	2·6	2·4
	September	0·4	0·4	0·5	0·4
	October	1·7	1·8	2·2	1·7
	November	0·5	0·6	0·6	0·6
	December	0·5	0·5	0·6	0·6
	Sums	19·5	20·9	23·7	21·7

On April 18, the reading of Crosley's gauge had increased 0<sup>in</sup>·6 only from the beginning of the month, during which period rain to the depth of 1<sup>in</sup>·5 had fallen. On April 19, the train of wheels was examined, cleaned, and oiled; and on April 20, the fall of rain, as shewn in the cylinder gauge placed in the vicinity of Crosley's, since April 1, being 2<sup>in</sup>·2, the reading of Crosley's was set to the reading for April 1, increased by this amount: after this the gauge worked well to the end of the year, shewing, however, uniformly a fall about one-tenth smaller than the actual fall as deduced from the cylindrical gauge.

The gauges at the Royal Observatory are read at 9<sup>h</sup> P. M., and the monthly records for the Royal Observatory terminate at 9<sup>h</sup> P. M., on the last day of every month. The gauge at the Royal Naval Schools is read at noon on the last day of every month, and the monthly record for the Royal Naval Schools terminates at noon on the last day of every month. The results at the two places are not strictly comparable in those instances in which rain has fallen between the hours of noon and 9<sup>h</sup> P. M. on the last day of the month.

At the Royal Naval Schools the reading was not taken for September; but, at the end of October, the amount accumulated in the two months was found to be 2<sup>in</sup>·1. The monthly falls at the Royal Observatory were 0<sup>in</sup>·5 for September and 2<sup>in</sup>·2 for October; and the number 2·1, when divided in proportion to these falls, gives 0<sup>in</sup>·4 for September, and 1<sup>in</sup>·7 for October, which quantities are inserted in the table above.



EXTRAORDINARY ELECTROMETER OBSERVATIONS

Greenwich Mean Solar Time, or Limits of Time, 1851.	Sign of Electricity, as shewn by Dry Pile Apparatus.	READINGS OF ELECTROMETERS.					Time of Recovery after Discharge.	RONALDS' SPARK-MEASURER.		GALVANOMETER.	
		Single Gold Leaf of Dry Pile Appa- ratus.	Double Gold Leaf.	Volta (1).	Volta (2).	Henley.		Opening of Spark- measurer, or Length of Spark.	Corresponding Frequency.	The Head of the Needle towards A.	The Head of the Needle towards B.
March 29. 0. 43. 0 to 29. 0. 45	Neg.	B. R.	B. R.	B. R.	B. R.	40	Instantly	0.03	Abundant	30	..
April 29. 23. 10. 0	Pos.	B. R.	B. R.	B. R.	B. R.	10	Instantly	0.20	2 in 1	..	..
23. 13. 0	Pos.	B. R.	B. R.	B. R.	B. R.	45	Instantly	..	..	..	10
23. 14. 0	0	B. R.	B. R.	B. R.	B. R.	20 to 30	Instantly	0.01	None	..	..
23. 15. 0	Pos.	B. R.	B. R.	B. R.	B. R.	6	Instantly	..	..	..	..
23. 15. 30	0	B. R.	B. R.	B. R.	B. R.	30	Instantly	0.01	1 in 1	..	3
23. 16. 0	Neg.	B. R.	B. R.	B. R.	B. R.	..	Instantly	..	..	5	..
23. 19. 0	Neg.	B. R.	B. R.	B. R.	B. R.	25	Instantly	0.01	3 in 2	5	..
23. 20. 0	Neg.	B. R.	B. R.	B. R.	B. R.	20	Instantly	0.01	..	5	..
23. 23. 0	0	0	0	0	0	..	..	..	..	..	..
23. 23. 5	Pos.	B. R.	B. R.	B. R.	B. R.	10	Instantly	0.05	..	..	1
23. 38. 0	Neg.	0	0	0	0	..	..	..	..	..	..
April 30. 1. 13. 0	0	0	0	0	0	..	..	..	..	..	..
1. 19. 0	Pos.	B. R.	B. R.	B. R.	B. R.	45	Instantly	0.25	..	..	10
1. 20. 0	0	0	0	0	0	..	..	..	..	..	..
1. 20. 30	0	B. R.	B. R.	B. R.	B. R.	45	Instantly	0.02	1 in 1	..	..
1. 22. 0	Pos.	B. R.	B. R.	B. R.	B. R.	..	Instantly	0.02	3 in 2	..	10
1. 23. 30	Pos.	B. R.	B. R.	B. R.	B. R.	..	Instantly	0.02	5 in 2	..	..
1. 24. 0	0	B. R.	B. R.	B. R.	B. R.	40	Instantly	0.02	None	..	..
1. 27. 0	0	B. R.	B. R.	B. R.	B. R.	3	Instantly	..	..	..	..
1. 32. 50	0	0	0	0	0	..	..	..	..	..	..
1. 32. 55	Pos.	B. R.	B. R.	B. R.	B. R.	15	Instantly	0.13	1 in 1	..	5
1. 35. 0	0	B. R.	B. R.	B. R.	B. R.	45	Instantly	0.15	3 in 2	..	..
1. 43. 0	Neg.	B. R.	B. R.	B. R.	B. R.	40	Instantly	0.02	None	..	..
1. 45. 0	Neg.	B. R.	B. R.	B. R.	B. R.	45	Instantly	0.02	In quick succession	10	..
Aug. 12. 23. 3. 0	Neg.	B. R.	B. R.	B. R.	B. R.	40	Instantly	0.02	2 in 1	6	..
23. 5. 0	Neg.	B. R.	B. R.	B. R.	B. R.	40	Instantly	0.13	1 in 1	3	..
23. 7. 0	Pos.	B. R.	B. R.	B. R.	B. R.	10	Instantly	0.08	1 in 2	..	2
23. 9. 0	Pos.	B. R.	B. R.	B. R.	B. R.	20	Instantly	0.10	1 in 1	..	3
23. 11. 0	Pos.	B. R.	B. R.	B. R.	B. R.	23	Instantly	0.10	2 in 1	..	2
23. 15. 0	Neg.	B. R.	B. R.	B. R.	B. R.	10	Instantly	0.07	1 in 1	2	..
23. 30. 0	Neg.	B. R.	B. R.	B. R.	B. R.	10	Instantly	0.07	1 in 1	..	..
23. 38. 0	Neg.	B. R.	B. R.	B. R.	B. R.	10	Instantly	0.05	1 in 3	..	..
23. 45. 0	Neg.	0	0	0	0	..	..	..	..	..	..

The letters B. R. denote that the gold leaf or straws have been deflected from the vertical *beyond the range* up to which confidence can be placed in their indications. The greatest inclination considered trustworthy, for all the electrometers except Henley's, is about 20° from the vertical.

WIND.		REMARKS.
From Osler's Anemometer.		
Direction.	Pressure in lbs. per square foot.	
W	from lbs. to lbs. 0 to 6	A sudden exhibition of electricity accompanied with sudden heavy rain, the wind blowing strongly.
W	..	A considerable darkness, particularly in W.
W	..	Rain in large drops.
W	..	
W	..	Squall of wind and rain.
W	..	Heavy rain.
W	..	Frozen rain, or pieces of ice, with hail and rain falling.
W	..	Lighter near the horizon in W.
W	..	Brighter, and rain less heavy.
W	..	No rain.
W	..	
W	..	Clear sky; the Sun shining brightly.
W by N	..	Distant thunder heard in N.W. direction.
W by N	..	
WNW	..	A dark mass of cloud rising.
WNW	..	
WNW	..	
WNW	..	Dark cloud.
WNW	..	North horizon bright.
WNW	..	
....	..	Lightning, and a spark seen.
WNW	..	Loud thunder heard.
WNW	..	
W by N	..	Loud thunder heard in W. and S. W.
W by N	2 to 4	
Calm	..	Sky overcast; cirro-stratus and scud: heavy rain began to fall.
Calm	..	
Calm	..	
Calm	..	Heavy rain still falling.
Calm	..	Still overcast, and heavy rain.
Calm	..	Heavy rain continues falling.
Calm	..	Sky overcast: heavy rain.
Calm	..	Rain less heavy.
Calm	..	Rain still continues.