

ROYAL OBSERVATORY, GREENWICH.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE
AND
COMPUTATIONS
OF
APPARENT RIGHT ASCENSION.

1874.

[2]

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Jan. 1	1	☉ 1 L.	E	7.1	10.2	13.2	16.2	22.1	28.1	31.2	34.4	37.2	18.46.22.16	+0.64	33.18			14.10	18.47.45.52	
	2	☉ 2 L.	E	29.1	32.3	35.1	38.1	44.1	50.2	53.1	56.2	59.2	18.48.44.13	[+1.07]				[-2.25]		
	3	☉ Aquilæ	E	47.8	50.6	53.4	56.2	1.9	7.4	10.3	13.1	16.0	19.40.1.84	[-0.56]	1.92	14.15	12.23		19.40.14.18	+ 1.97
	4	α Aquilæ	E	9.8	12.7	15.5	18.4	23.8	29.5	32.3	35.0	37.9	19.44.23.86		23.92	36.12	12.20		19.44.36.17	+ 1.97
	5	γ Aquarii	AD	41.7	44.6	47.2	50.0	53.6	1.0	3.8	6.6	9.4	22.14.55.52		55.37	7.36	11.79	13.89†	....	
	6	σ Aquarii	AD	..	..	..	..	..	51.0	54.0	56.6	59.6	22.23.45.40		45.44	57.24	11.80		....	
	7	κ Piscium	AD	1.6	4.5	7.2	9.9	13.4	20.9	23.8	26.6	29.4	23.20.15.46		15.52	27.23	11.71		....	
	8	12 Ceti	E	10.1	12.8	15.5	18.4	23.9	29.4	32.2	35.0	37.7	0.23.23.87		23.92	35.71	11.79	11.85	0.23.35.73	+ 0.73
	9	κ Cassiopeiae	E	..	..	19.4	25.4	37.1	49.2	55.0	..	..	0.25.37.19		37.41	7.21			0.25.49.32	+ 1.72
	10	Groomb. 1909 S.P.	E	..	..	..	32.8	8.0	42.9	..	..	..	0.30.7.97		7.21				12.30.19.01	- 2.67
	11	β Ceti	E	49.0	51.8	54.6	57.5	3.4	9.3	12.1	15.0	18.0	0.37.3.39		3.43	15.27	11.84		0.37.15.22	+ 0.53
	12	23 Cassiopeiae	E	..	..	38.5	48.7	8.8	29.3	39.6	..	..	0.39.8.93		9.38				0.39.21.17	+ 2.35
	13	Bradley 1730 S.P.	E	..	..	37.8	4.5	58.7	52.0	19.0	..	..	0.47.58.54		57.38				12.48.9.16	- 3.62
	14	ε Piscium	E	58.0	0.8	3.4	6.3	11.7	17.4	20.3	22.9	25.7	0.56.11.82		11.88	23.68	11.80		0.56.23.64	+ 0.62
	15	μ Cassiopeiae	E	..	..	..	..	..	50.4	55.1	59.7	4.5	0.59.40.80		40.99				0.59.52.75	+ 1.15
	16	Polaris (E&E)	E	..	47.5	39.0	..	31.0	25.0	23.0	..	..	1.12.8.20		13.34	25.03	11.69		....	
	17	Neptune	E	..	..	47.3	50.0	55.6	1.3	4.0	6.7	9.7	1.37.55.62		55.68				1.38.7.38	
	18	Groomb. 2053 S.P.	E	..	..	..	..	..	24.7	39.5	53.5	7.5	1.41.57.04		56.43				13.42.8.12	- 0.08
	19	50 Cassiopeiae	E	..	..	3.7	12.4	30.0	47.8	56.7	..	..	1.52.30.07		30.47				1.52.42.18	+ 0.88
	20	α Arietis	E	37.0	40.2	43.0	46.0	52.3	58.2	1.2	4.0	7.3	1.59.52.12		52.22	4.01	11.79		2.0.3.88	+ 0.37
	21	Groomb. 2091 S.P.	E	..	..	6.7	15.3	31.8	48.3	56.2	..	..	2.9.31.70		31.37				14.9.43.02	+ 0.73
	22	☉ 1 L.	E	7.2	10.4	13.5	16.8	23.0	29.5	32.8	35.9	39.0	6.5.23.09		23.19				6.6.47.48	
Jan. 2	23	γ Piscium	C	13.4	16.2	18.9	21.6	27.2	32.8	35.5	38.2	41.0	23.10.27.18		27.24	36.74	9.50	11.61†	....	
	24	κ Piscium	C	3.8	6.7	9.4	12.2	17.7	23.3	26.0	28.7	31.5	23.20.17.68		17.74	27.22	9.48	[-2.19]	....	
	25	ξ Ceti	L	56.2	58.9	1.9	4.4	9.9	15.6	18.5	21.3	24.0	2.6.10.05		10.11	19.16	9.05	9.20	....	
	26	67 Ceti	L	18.8	21.8	24.5	27.2	32.8	38.4	41.3	44.0	46.8	2.10.32.83		32.88	41.82	8.94	[-2.19]	....	
	27	27 Arietis	L	31.5	34.5	37.2	40.1	45.8	51.8	54.6	57.3	0.2	2.23.45.87		45.96				2.23.54.94	+ 0.21
	28	μ Arietis	L	52.0	55.0	57.8	0.7	6.6	12.5	15.5	18.4	21.2	2.35.6.61		6.70				2.35.15.66	+ 0.16
	29	17 Persei	L	19.2	22.6	26.2	29.4	36.4	42.8	46.4	49.6	52.8	2.43.6.12		36.24				2.43.45.19	+ 0.17
	30	γ Eridani	L	53.4	56.4	59.0	2.0	7.6	13.1	16.0	18.7	21.6	2.50.7.51		7.56				2.50.16.50	- 0.16
	31	α Ceti	L	18.7	21.7	24.5	27.2	32.8	38.2	41.0	43.7	46.6	2.55.32.69		32.75	41.69	8.94		....	
	32	γ Geminorum	L	..	..	..	..	..	23.7	26.5	29.5	32.4	6.30.17.91		18.00	26.61	8.61		....	
Jan. 3	33	γ Aquilæ	AD	51.4	55.3	58.0	0.9	6.4	12.0	14.7	17.6	20.5	19.40.6.29		6.37	14.17	7.80	9.50	19.40.14.10	+ 1.95
	34	α Aquilæ	AD	14.4	17.2	20.0	22.8	28.3	33.9	36.7	39.5	42.4	19.44.28.33		28.39	36.13	7.74	[-2.16]	19.44.36.11	+ 1.96
	35	20 Ceti	E	12.1	15.0	17.7	20.4	26.0	31.5	34.4	37.0	40.0	0.46.25.99		26.04	33.41	7.37	7.46†	....	
	36	μ Andromedæ	E	19.7	23.4	26.8	30.3	37.4	44.3	47.7	51.4	54.9	0.49.37.29		37.42	44.83	7.41		....	
	37	ε Piscium	AD	2.5	5.2	7.9	10.6	16.4	22.0	24.8	27.4	30.4	0.56.16.33		16.39	23.66	7.27	7.34	0.56.23.65	+ 0.64
	38	Polaris (E&E)	AD	43.5	45.0	39.0	35.0	..	..	..	..	..	1.12.10.78		15.94	23.23	7.29		....	
	39	21 Ursæ Maj. S.P.	AD	19.0	24.1	28.8	33.9	43.6	53.4	58.3	3.0	8.0	1.18.43.61		43.43				13.18.50.65	+ 0.21
	40	2 Ursæ Maj. S.P.	AD	20.0	25.1	29.6	34.8	44.7	54.3	59.2	3.8	9.0	1.18.44.54		44.36				13.18.51.58	+ 0.21
	41	Piazzi I. 223	AD	19.5	22.6	25.2	27.9	33.7	39.4	42.0	44.9	47.8	1.52.33.64		33.72				1.52.40.89	+ 0.35
	42	α Draconis S.P.	AD	18.3	25.2	31.5	38.2	51.3	4.2	10.8	17.0	24.0	2.0.51.22		50.96				14.0.58.12	+ 0.52
	43	ξ Ceti	AD	58.1	0.8	3.5	6.4	11.8	17.5	20.3	23.1	26.0	2.6.11.93		11.99	19.15	7.16		2.6.19.14	+ 0.25
	44	Bradley 332	AD	59.6	6.8	13.7	20.7	34.9	49.0	56.0	3.0	10.0	2.18.34.80		35.12				2.18.42.25	+ 0.51
	45	Piazzi II. 115	AD	39.7	44.3	48.6	53.0	1.9	11.0	15.4	19.7	24.0	2.28.1.92		2.11				2.28.9.23	+ 0.35
	46	γ ² Ceti	AD	25.4	28.3	30.7	33.7	39.1	44.7	47.5	50.3	53.0	2.36.39.16		39.22	46.31	7.09		2.36.46.33	+ 0.04

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Arnold 1, applied to form Concluded Transit, Nos. 16 and 38, -22".20: and -17".40.

Correction for passage of Semidiameter, No. 22, +73".01.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

January 1 to 4. The azimuthal error used is the mean of those (-0".51 and -0".60) determined on January 1 and 3 by tabular places of ε Piscium and Polaris, allowing -0".02 for clock-rate in each case.

21. Very faint.

32. Faint.

MONTH Day Y.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock apparent- ly Slow.	Adopted Clock Slow at 0 ^h Sideral and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32^h.400.

Corrections to the times by Hardy for reduction to Arnold 1, applied to form Concluded Transit, No. 19, -72^h.30.

Corrections for passage of Semidiameter, Nos. 13, 16, and 43, -67^h.66: and -65^h.18.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

January 4^h. 23^h. The Clock Arnold 1 was put back 1^m.

January 4^h. 23^h. The R.A. micrometer screw was removed and cleaned; and the object-glass of the Transit-Circle cleaned.

January 5 to January 6, α Aquilæ. The azimuthal error by tabular places of Polaris and η Piscium, allowing -0^h.01 for clock-rate.

8. Cloudy.

16, 17. Very cloudy.

43. Correction to R.A. on true meridian, +0^h.01.

[4]

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at ^h Sidereal and (Lossing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Jan. 6	1	⊙ 1 L.....	L	177	209	237	268	328	386	417	446	477	19. 7. 32.70	+0.56	43.63			62.73	19. 9. 45.08	
	2	⊙ 2 L.....	L	39.4	42.5	45.5	48.4	54.4	0.3	3.4	6.3	9.0	19. 9. 54.34	(+2.23)				[-1.61]		
	3	γ Aquilæ.....	L	58.6	1.6	4.4	..	12.5	..	21.0	23.8	26.6	19. 39. 12.61	[+0.31]		12.78	14.19	61.41		
	4	α Aquilæ.....	L	..	..	..	..	34.7	40.3	43.0	45.8	48.5	19. 43. 34.61		34.77	36.16	61.39	....		
	5	γ ¹ Leonis.....	AD	46.3	49.3	51.8	55.0	0.7	6.9	9.5	..	..	10. 12. 0.84	(+1.60)	0.93	1.84	60.91	....		
	6	Venus 2 L.....	M	44.2	47.1	50.0	53.0	59.2	5.4	8.3	11.5	14.5	18. 23. 59.21	[-1.43]	59.18			61.68	18. 24. 59.38	
Jan. 7	7	⊙ 1 L.....	M	41.7	44.8	47.7	50.7	56.6	2.8	5.7	8.7	11.7	19. 11. 56.69		7.27			60.27	19. 14. 7.82	
	8	⊙ 2 L.....	M	..	6.0	9.1	11.8	17.5	24.0	27.1	30.0	..	19. 40. 17.90							
	9	α Aquilæ.....	M	21.7	24.6	27.4	30.3	35.6	41.3	44.1	46.8	49.7	19. 43. 35.70			35.75	36.16	60.41		19. 44. 36.27 + 1.93
	10	α Cygni.....	M	45.7	49.7	53.7	57.1	5.3	13.0	16.8	20.7	24.7	20. 36. 5.16		5.35			20. 37. 5.82 + 2.40		
	11	ζ Cygni.....	M	..	..	..	..	38.3	41.3	44.6	47.8	21. 6. 31.83		31.95	32.42	60.47	21. 7. 32.39 + 2.00			
	12	β Andromedæ...	M	22.7	26.3	29.5	33.0	39.7	46.4	49.7	53.3	56.6	1. 1. 39.65		39.79	39.99	60.20	1. 2. 40.00 + 0.93		
	13	Polaris....(E&E)	M	..	..	22.0	20.0	13.0	6.0	3.0	2.0	0.0	1. 11. 11.61		19.18	19.24	60.06	....		
	14	Neptune.....	M	..	54.7	57.4	0.3	6.0	11.3	14.0	17.0	..	1. 37. 5.78		5.83			1. 38. 6.01		
	15	β Arietis.....	M	25.5	28.5	31.3	34.4	40.2	46.1	49.0	52.2	55.1	1. 46. 40.24		40.33	40.38	60.05	1. 47. 40.50 + 0.50		
	16	ε Eridani.....	M	45.8	48.7	51.5	54.3	59.6	5.4	8.3	11.0	13.8	3. 25. 59.80		59.81	59.96	60.15	3. 26. 59.88 - 0.31		
	17	Aldebaran.....	M	27.5	30.4	33.0	36.0	41.8	47.7	50.6	53.5	56.5	4. 27. 41.87		41.94	41.89	59.95	4. 28. 41.95 - 0.39		
	18	Rigel.....	E	15.4	18.4	21.2	23.9	29.5	35.0	37.9	40.6	43.6	5. 7. 29.48		29.49	29.60	60.11	60.41†		
	19	β Tauri.....	E	4.3	7.6	10.6	14.0	20.1	26.4	29.5	32.6	35.8	5. 17. 20.07		20.18	20.27	60.09	....		
	20	γ Orionis.....	M	9.0	11.8	14.4	17.6	23.2	29.2	32.1	34.7	37.5	5. 59. 23.26		23.33	23.36	60.03	60.27		
	21	δ Ursæ Min.S.P.(E&E)	M	49.0	35.0	22.0	9.0	43.0	17.0	3.0	48.0	37.0	6. 11. 41.95		38.91	39.84	60.93	....		
	22	Cephei 51. (E&E)	M	17.0	17.0	15.0	11.0	5.0	..	58.0	54.0	52.0	6. 40. 3.99		7.70	8.74	61.04	....		
	23	40 Geminorum..	M	..	29.8	32.7	35.8	41.9	48.0	51.3	54.3	..	6. 50. 41.94		42.05			6. 51. 41.92 - 0.85		
	24	51 Geminorum..	M	54.5	57.6	0.5	3.2	8.9	14.8	17.6	20.4	22.9	7. 5. 8.91		8.98	8.92	59.94	7. 6. 8.83 - 0.80		
	25	59 Draconis S.P.	M	42.4	54.4	6.0	19.8	41.6	3.5	16.2	28.3	40.5	7. 12. 41.51		40.75			19. 13. 40.60 + 5.88		
	26	Castor.....	M	18.3	21.5	24.7	27.9	34.5	41.0	44.2	47.5	50.8	7. 25. 34.46		34.58	34.44	59.86	7. 26. 34.41 - 0.96		
	27	49 Camelopardali.	M	33.5	39.5	45.9	51.8	4.2	16.6	22.8	28.6	34.9	7. 34. 4.15		4.43			7. 35. 4.25 - 2.28		
	28	ε Draconis S.P..	M	51.1	59.7	7.5	15.5	..	48.0	55.9	3.6	12.2	7. 47. 31.77		31.26			19. 48. 31.07 + 4.37		
	29	6 Cancri.....	M	32.0	35.0	38.1	41.3	47.4	53.7	57.0	0.1	3.0	7. 54. 47.48		47.59	47.51	59.92	7. 55. 47.39 - 0.90		
	30	γ Cancri.....	M	45.8	48.5	51.5	54.5	0.1	6.4	9.5	12.4	15.3	8. 35. 0.43		0.52	0.29	59.77	8. 36. 0.28 - 0.80		
	31	Uranus.....	M	49.0	52.2	54.8	57.7	3.6	9.5	12.4	15.1	18.4	8. 47. 3.62		3.70			8. 48. 3.45		
	32	ε Ursæ Majoris..	M	53.7	0.0	5.8	12.0	23.6	35.6	41.3	47.3	52.7	9. 3. 23.51		23.86			9. 4. 23.60 - 2.18		
	33	α Hydræ.....	M	10.4	13.4	16.3	19.0	24.5	30.2	33.0	35.7	38.5	9. 20. 24.53		24.63	24.22	59.59	9. 21. 24.35 - 0.53		
	34	γ Leonis.....	C	..	..	..	..	21.8	27.5	30.4	33.1	36.0	11. 16. 21.84		21.90			60.12		
	35	δ 2 L.....	C	7.5	10.5	13.3	16.0	21.8	27.6	30.4	33.2	36.0	11. 26. 21.79		21.84			[-1.41]		
	36	γ Leonis.....	C	16.5	19.4	22.0	24.7	30.3	35.7	38.7	41.4	44.2	11. 29. 30.31		30.34	29.79	59.45	....		
	37	B. F. 1656.....	C	26.4	29.0	31.7	34.5	40.2	45.6	48.6	51.1	54.0	11. 41. 40.11		40.16			11. 42. 39.59 + 0.06		
Jan. 8	38	Procyon.....	L	..	34.1	37.0	39.5	45.0	50.7	53.5	56.2	..	7. 31. 45.12	(+1.30)	45.15	43.08	57.93	58.42†		
	39	γ Virginis.....	AD	19.7	22.7	25.4	28.2	33.8	39.5	42.3	45.2	48.0	12. 34. 33.85		33.86	30.18	56.32	57.27†		
	40	α Lyrae.....	M	24.5	28.0	31.6	35.2	42.1	49.4	52.9	56.3	0.0	18. 31. 42.19		42.31	38.22	55.91	[-1.82]		
	41	Venus 2 L.....	M	16.0	18.8	22.0	25.3	31.4	37.3	40.3	43.3	46.2	18. 40. 31.15		31.12			57.25	18. 41. 26.55	
42	β Lyrae.....	M	11.3	14.7	18.0	21.1	27.8	34.4	37.7	40.9	44.2	18. 44. 27.76		27.86	23.62	55.76	[-1.82]	....		
Jan. 10	43	⊙ 1 L.....	M	51.3	54.4	57.4	0.2	6.4	12.3	15.4	18.4	21.5	19. 25. 6.34		16.71			60.12	19. 27. 12.49	
	44	⊙ 2 L.....	M	..	..	18.5	20.9	27.1	32.9	36.2	39.1	42.2	19. 27. 27.13							

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Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Arnold 1, applied to form Concluded Transit, Nos. 13, 21, and 22, -61".20: -61".00: and -61".00.

Corrections for passage of Semidiameter, Nos. 6, 35, and 41, -0".40: -61".67: and -0".40.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

January 6, γ¹ Leonis, to January 10. The azimuthal error used is the mean of those (-1".35 and -1".51) determined on January 7, by tabular places of β Andromedæ and Polaris, and of δ Ursæ Minoris S.P. and Cephei 51, allowing -0".01 and -0".03 for clock-rate respectively.

5. Cloudy.
37. Very faint; cloudy.

9. Very tremulous.
41. Very faint; tremulous.

11, 25. Very faint.
42. Scarcely visible.

22. Faint; cloudy at times.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.																																																																										
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.																																																																																		
				s	s	s	s	s	s	s	s	s																																																																																		
h m s																			"																			s																			h m s																			s																		
Jan. 12	1	δ Arietis	C	19.8	22.7	25.6	28.5	34.4	40.4	43.2	46.3	49.0	3. 3. 34.41	+0.70	34.50	25.50	51.00	51.28	....																																																																											
	2	Piazzi III. 38 ...	C	31.3	34.3	37.0	40.0	45.9	51.9	54.8	57.6	0.6	3. 12. 45.91	(+0.89)	46.00			[−2.01]	3. 13. 37.01	− 0.03																																																																										
	3	f Tauri	C	50.0	52.8	55.5	58.5	4.2	9.7	12.6	15.5	18.2	3. 23. 4.09	[−0.27]	4.18	55.17	50.99		....																																																																											
	4	7 Tauri	C	52.8	56.0	58.8	2.0	8.0	14.0	17.0	20.0	23.0	3. 26. 7.92		8.02				3. 26. 59.01	− 0.03																																																																										
	5	13 Tauri	C	57.5	0.5	..	6.2	12.1	17.9	..	23.7	26.8	3. 34. 12.08		12.17				3. 35. 3.15	− 0.09																																																																										
	6	17 Tauri	C	17.7	20.8	23.7	26.7	32.7	38.7	41.9	44.7	47.9	3. 36. 32.74		32.84				3. 37. 23.82	− 0.09																																																																										
	7	η Tauri	C	53.8	56.9	59.7	2.8	8.8	14.9	17.9	20.8	23.9	3. 39. 8.80		8.90	59.91	51.01		....																																																																											
	8	28 Tauri	C	35.5	38.7	41.5	44.6	50.6	56.7	59.7	2.6	5.8	3. 40. 50.61		50.71				3. 41. 41.68	− 0.12																																																																										
	9	62 Tauri (1st Star)	C	16.3	19.4	22.4	25.4	31.4	37.4	40.6	43.6	46.6	4. 15. 31.43		31.53				4. 16. 22.45	− 0.31																																																																										
	10	62 Tauri (2d Star)	C	18.3	21.4	24.4	27.4	33.3	39.5	42.6	45.5	48.5	4. 15. 33.41		33.51				4. 16. 24.43	− 0.31																																																																										
	11	θ Virginis..(E&E)	L	42.8	56.7	10.6	24.5	38.3	52.1	6.0	..	..	13. 3. 24.45	(+1.65)	24.55	25.17	0.62	Hardy. 0.16†	....																																																																											
	12	Polaris S.P.(E&E)	L	..	..	27.0	24.5	19.5	11.5	..	..	..	13. 12. 18.94		12.94	14.33	1.39	[1.00]	1. 12. 13.75	+ 23.94																																																																										
	13	Spica	L	49.8	3.8	18.0	32.0	46.1	0.0	14.1	..	..	13. 18. 31.99		32.07	32.79	0.72		....																																																																											
	14	ζ Virginis..(E&E)	L	33.8	47.4	1.0	15.0	28.9	..	..	..	..	13. 28. 15.07		15.18	15.86	0.68		....																																																																											
	15	λ Libræ	E	56.0	59.1	2.0	5.0	10.8	16.5	19.6	22.6	25.5	15. 4. 10.77		10.84	1.20	50.36	51.36	15. 5. 1.05	+ 1.29																																																																										
	16	μ 2 L.	E	9.8	12.9	15.9	18.8	24.8	30.8	33.9	36.9	39.9	15. 12. 24.84		24.91			[−1.83]	15. 12. 8.65																																																																											
	17	α Coronæ	E	14.3	17.4	20.4	23.5	29.7	35.9	38.8	42.0	45.3	15. 28. 29.67		29.82	20.12	50.30		15. 29. 20.00	+ 1.07																																																																										
	18	α Lyræ	E	30.3	34.0	37.5	41.0	48.2	55.2	58.7	2.4	5.9	18. 31. 48.13		48.32	38.26	49.94		18. 32. 38.27	+ 2.06																																																																										
	19	Venus 2 L.	E	46.7	49.8	52.8	55.9	2.0	7.9	10.9	14.0	16.9	18. 57. 1.85		1.91				18. 57. 51.43																																																																											
Jan. 13	20	⊙ 1 L.	E	57.5	0.5	3.4	6.4	12.4	18.3	21.3	24.4	27.4	19. 38. 12.38						19. 40. 12.53																																																																											
	21	⊙ 2 L.	E	17.9	21.0	23.9	26.8	33.0	38.8	41.8	44.6	47.7	19. 40. 32.82																																																																																	
	22	α Aquilæ	E	32.3	35.3	37.9	40.8	46.4	52.0	54.8	57.5	0.3	19. 43. 46.34		46.46	36.21	49.75		19. 44. 36.32	+ 1.88																																																																										
	23	Polaris ... (E&E)	E	..	..	..	..	..	0.0	59.0	53.5	50.5	1. 11. 18.04		24.15	13.92	49.77	49.53	1. 12. 13.59	+ 24.35																																																																										
	24	η Piscium	E	40.0	43.0	45.8	48.6	54.4	0.0	2.9	5.7	8.6	1. 23. 54.31		54.44	43.91	49.47		1. 24. 43.86	+ 0.65																																																																										
	25	40 Cassiopeia ..	E	..	..	9.6	18.6	37.2	55.6	4.6	..	..	1. 27. 37.06		37.57				1. 28. 26.99	+ 2.05																																																																										
	26	ν Piscium	E	48.6	51.6	54.3	57.0	2.5	8.0	11.0	13.7	16.4	1. 34. 2.55		2.67	51.96	49.29		1. 34. 52.08	+ 0.51																																																																										
	27	Groomb. 2066 S.P.	E	..	..	56.0	11.6	41.7	12.3	28.4	..	..	1. 49. 42.09		41.34				13. 50. 30.73	− 1.43																																																																										
	28	α Arietis	E	59.3	2.4	5.2	8.2	14.3	20.3	23.3	26.3	29.4	1. 59. 14.28		14.43	3.86	49.43		2. 0. 3.81	+ 0.52																																																																										
	29	α Draconis S.P.	E	..	..	..	9.5	22.5	28.9	35.6	42.6	..	2. 0. 9.55		9.28				14. 0. 58.66	− 0.08																																																																										
	30	Groomb. 2091 S.P.	E	..	..	30.3	38.6	54.8	11.3	19.2	..	..	2. 8. 54.88		54.53				14. 9. 43.90	− 0.12																																																																										
	31	Bradley 341	E	56.4	59.3	2.0	4.8	10.5	16.0	18.9	21.7	24.6	2. 19. 10.45		10.58				2. 19. 59.93	+ 0.29																																																																										
	32	Bradley 348	E	..	..	..	57.1	15.7	33.6	..	..	..	2. 25. 15.43		15.94				2. 26. 5.29	+ 0.93																																																																										
	33	Groomb. 2132 S.P.	E	..	..	46.9	53.7	7.3	20.9	27.7	..	..	2. 30. 7.34		7.06				14. 30. 56.40	+ 0.33																																																																										
	34	η Persei	E	16.6	21.8	..	31.4	41.1	51.0	..	0.5	5.5	2. 40. 41.09		41.37				2. 41. 30.70	+ 0.45																																																																										
	35	β Ursæ Min. S.P.	E	..	..	..	..	36.7	47.4	58.0	8.2	..	2. 50. 16.08		15.59				14. 51. 4.90	+ 0.61																																																																										
	36	α Ceti	E	38.4	41.2	44.0	46.7	52.3	57.9	0.6	3.3	6.2	2. 54. 52.27		52.38	41.59	49.21		2. 55. 41.69	+ 0.04																																																																										
	37	β Persei	E	..	54.4	57.9	1.6	8.8	16.0	19.7	23.4	..	2. 59. 8.80		9.00				2. 59. 58.30	+ 0.22																																																																										
	38	Bradley 431	E	..	..	..	9.0	34.5	59.8	..	..	..	3. 3. 34.38		35.09				3. 4. 24.39	+ 0.10																																																																										
	39	Groomb. 2214 S.P.	E	..	..	..	..	21.9	36.7	44.0	51.3	..	3. 12. 22.06		21.76				15. 13. 11.05	+ 0.97																																																																										
	40	11 Ursæ Min. S.P.	E	..	..	..	4.6	22.4	40.8	..	..	..	3. 16. 22.64		22.24				15. 17. 11.52	+ 1.12																																																																										
	41	ε Eridani	E	56.5	59.4	2.2	5.0	10.6	16.2	18.8	21.7	24.4	3. 26. 10.54		10.62	59.89	49.27		3. 26. 59.89	− 0.24																																																																										
Jan. 14	42	⊙ 1 L.	L	18.6	21.6	24.5	27.2	35.3	39.4	42.4	45.4	48.4	19. 42. 33.40	(+1.33)																																																																																
	43	⊙ 2 L.	L	38.7	41.8	44.6	47.6	53.5	59.4	2.5	5.5	8.5	19. 44. 53.55						19. 44. 31.56																																																																											
Jan. 16	44	⊙ 2 L.	G	17.2	20.3	23.2	26.2	..	38.0	41.2	43.9	47.0	19. 53. 32.10	(+0.46)	32.16			45.76	19. 53. 6.59																																																																											
	45	ζ Cygni	G	..	..	..	..	54.5	57.6	0.6	4.0	21. 6. 48.01	[+0.06]	48.09	32.41	44.32	[−1.68]	21. 7. 32.37	+ 2.01																																																																											
	46	δ Ursæ Min. S.P.(E&E)	G	..	30.0	16.5	2.8	36.2	..	..	..	..	6. 11. 57.27		56.14	40.42	44.28	44.08	....																																																																											

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Arnold 1, applied to form Concluded Transit, Nos. 23 and 46, −47".90: and −39".40.

Corrections for passage of Semidiameter, Nos. 16, 19, and 44, −66".46: −0".40: and −69".94.

† This clock-error has been used in the reduction of the observations made with the Altazimuth.

January 12 to 14. The azimuthal error by Polaris S.P. and Polaris on January 12 and 13, allowing +0".91 for clock-rate and change of R.A.

January 16 to Uranus. The azimuthal error used is the mean of those (+0".35 and +0".23) by tabular places of δ Ursæ Minoris S.P. and Cephei 51, and of Pollux and λ Ursæ Minoris S.P., allowing −0".03 and −0".01 for clock-rate respectively.

19. Very faint.

45. Cloudy.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of		Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at ob- sideral and [Loss Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.		Collimation. (Level).	[Azimuth].						
Jan. 16	1	μ Geminorum ...	G	22.6	25.7	28.5	31.4	37.4	43.4	46.3	49.4	52.4	6. 14. 37.43	+0.70	37.51	21.04	43.53	44.08	6. 15. 21.15	- 0.79	
	2	ν Geminorum....	G	31.3	34.3	..	40.2	46.0	51.7	..	57.7	0.7	6. 20. 45.96	(+0.46)	46.04	29.66	43.62	[-1.68]	6. 21. 29.68	- 0.81	
	3	Cephei 51... (E&E)	G	14.8	15.0	11.2	9.0	..	..	..	..	..	6. 40. 23.46	[+0.06]	24.90	8.71	43.81		..	..	
	4	Arg. Zone + 26°. No. 1410	G	29.3	32.4	35.4	38.3	44.8	..	..	..	..	6. 50. 44.64	..	44.72	..	..	6. 51. 28.32	- 0.93		
	5	δ Canis Majoris ..	G	18.1	21.2	24.3	27.3	33.5	39.5	42.7	45.8	48.9	7. 2. 33.45	..	33.51	..	..	7. 3. 17.10	- 1.04		
	6	δ Geminorum....	G	38.2	41.3	44.2	47.2	53.2	59.2	2.0	4.9	8.2	7. 11. 53.14	..	53.22	36.74	43.52	7. 12. 36.80	- 0.93		
	7	κ Cygni S.P.	G	..	..	..	..	..	..	39.0	43.6	48.3	7. 13. 25.25	..	25.17	..	..	19. 14. 8.74	+ 2.62		
	8	68 Geminorum ..	G	27.7	30.6	33.5	36.5	42.3	48.0	50.8	53.9	56.6	7. 25. 42.19	..	42.27	..	..	7. 26. 25.83	- 0.90		
	9	Pollux	G	37.8	41.2	44.1	47.3	53.5	59.7	3.0	6.0	9.3	7. 36. 53.52	..	53.60	37.21	43.61	7. 37. 37.15	- 1.03		
	10	λ Ursæ Min. S.P. (E&E)	G	..	14.5	39.0	8.5	1.5	..	..	..	..	7. 48. 24.82	..	21.20	4.15	42.95		..	..	
	11	ω^1 Cancri	G	20.2	23.3	26.3	..	35.6	..	44.8	47.9	51.0	7. 52. 35.56	..	35.64	..	..	7. 53. 19.17	- 1.02		
	12	ϵ Hydræ	G	9.4	12.4	15.0	17.7	23.3	29.0	31.8	34.5	37.3	8. 39. 23.36	..	23.43	6.95	43.52	8. 40. 6.91	- 0.83		
	13	Uranus	G	35.4	38.5	41.3	44.3	50.0	55.8	58.7	1.7	4.6	8. 45. 50.02	..	50.10	..	..	8. 46. 33.57	..	..	
	14	Venus 2 L.	M	41.2	44.0	47.1	49.9	56.1	1.9	5.0	8.0	11.2	19. 18. 56.02	(+1.24)	55.98	..	44.25	19. 19. 38.29	..	..	
	15	α Aquilæ	M	39.6	42.6	45.3	48.3	53.6	59.4	2.2	4.8	7.8	19. 43. 53.72	[-1.53]	53.76	36.26	42.50	[-1.90]	19. 44. 36.43	+ 1.83	
Jan. 17	16	$\odot$ 1 L.	M	16.2	19.2	21.9	24.7	31.0	36.7	39.7	42.6	45.5	19. 55. 30.82	..	..	..	..	19. 57. 23.25	..	..	
	17	$\odot$ 2 L.	M	35.8	38.6	41.4	44.5	50.4	56.2	59.3	2.2	5.2	19. 57. 50.38	..	40.58	..	..	..	..	..	
	18	Polaris (E&E)	M	16.0	15.0	12.0	9.0	0.0	53.0	53.0	47.0	45.0	1. 11. 23.13	..	30.46	10.47	40.01	42.35		..	
	19	η Piscium	M	47.4	50.6	53.4	56.1	1.7	7.5	10.4	13.0	15.8	1. 24. 1.75	..	1.81	43.86	42.05	1. 24. 44.05	+ 0.70		
	20	ν Piscium	M	..	58.7	1.4	4.3	10.0	15.4	18.4	20.7	..	1. 34. 9.81	..	9.85	51.91	42.06	1. 34. 52.08	+ 0.56		
	21	* N.P.D. 51°. 54'.	M	3.4	7.2	10.6	14.0	21.0	28.0	31.5	34.9	38.4	2. 49. 20.97	..	21.10	..	..	2. 50. 3.23	+ 0.35		
	22	ρ Persei	M	..	10.2	13.4	17.0	23.7	30.9	34.6	38.2	..	2. 56. 23.97	..	24.10	..	..	2. 57. 6.22	+ 0.30		
	23	* N.P.D. 51°. 25'.	M	27.6	31.4	34.6	38.7	45.5	52.5	56.0	59.6	3.3	2. 58. 45.44	..	45.57	..	..	2. 59. 27.68	+ 0.28		
	24	ω Persei	M	9.5	13.0	16.5	20.0	27.2	34.0	38.0	41.5	45.0	3. 2. 27.16	..	27.30	..	..	3. 3. 9.41	+ 0.25		
	25	W.B. (2) III. 157	M	57.4	0.8	4.6	8.2	15.6	22.5	26.3	29.8	33.6	3. 8. 15.40	..	15.54	..	..	3. 8. 57.64	+ 0.22		
	26	δ Eridani	M	17.1	20.0	22.6	25.3	31.0	36.6	39.5	42.2	44.8	3. 36. 30.99	..	30.99	12.99	42.00	3. 37. 13.05	- 0.25		
	27	Rigel	M	33.5	36.6	39.2	42.0	47.6	53.3	56.0	58.8	1.6	5. 7. 47.60	..	47.60	29.57	41.97	5. 8. 29.54	- 0.62		
	28	17 Camelopardali.	M	5.0	11.7	17.4	..	35.4	..	53.7	0.0	6.0	5. 17. 35.53	..	35.85	..	..	5. 18. 17.78	- 1.35		
	29	ϵ Orionis	M	54.0	57.2	59.4	2.3	7.6	13.4	16.4	19.0	22.0	5. 29. 7.90	..	7.92	49.82	41.90	5. 29. 49.84	- 0.65		
	30	κ Orionis	M	51.6	54.5	57.2	59.9	5.4	11.2	13.9	16.8	19.6	5. 41. 5.55	..	5.55	47.56	42.01	5. 41. 47.45	- 0.75		
	31	δ Aurigæ	M	4.5	9.2	13.8	18.5	28.2	37.6	42.2	47.2	52.0	5. 48. 28.09	..	28.32	..	..	5. 49. 10.21	- 1.23		
	32	δ Ursæ Min. S.P. (E&E)	M	44.0	30.0	15.0	3.0	36.0	..	56.0	..	30.0	6. 12. 0.27	..	57.29	40.48	43.19		..	..	
	33	γ Geminorum ...	M	..	..	..	..	44.5	50.4	53.4	56.2	58.8	6. 29. 44.55	..	44.81	26.71	41.90	6. 30. 26.64	- 0.81		
	34	Cephei 51... (E&E)	M	..	..	..	..	..	54.0	51.0	47.0	43.0	6. 40. 20.79	..	24.37	8.72	44.35		..	..	
	35	Castor	M	36.3	39.6	42.4	46.2	52.4	58.8	2.4	5.5	9.5	7. 25. 52.54	..	52.65	34.57	41.92	7. 26. 34.41	- 1.09		
	36	σ Draconis S.P. ...	M	..	18.7	27.0	35.0	50.8	7.0	14.4	22.0	..	7. 31. 50.77	..	50.27	..	..	19. 32. 32.03	+ 4.24		
	37	λ Ursæ Min. S.P. (E&E)	M	..	..	..	..	..	59.0	29.0	54.0	27.0	7. 48. 30.68	..	21.29	3.80	42.51		..	..	
	38	ϵ Hydræ	M	11.4	14.2	16.7	19.5	25.0	30.6	33.4	36.1	38.7	8. 39. 25.05	..	25.09	6.97	41.88	8. 40. 6.76	- 0.85		
	39	Uranus	M	27.1	30.0	32.7	35.5	41.3	47.4	50.2	53.1	56.1	8. 45. 41.47	..	41.53	..	..	8. 46. 23.19	..	..	
Jan. 20	40	δ Ceti	AD	11.5	14.4	16.8	19.7	25.3	30.7	33.6	30.3	39.1	2. 32. 25.25	+0.74	25.36	1.30	35.94	36.16†		..	
	41	W.B. (2) II. 927.	M	41.9	..	48.8	52.2	59.2	6.0	9.5	..	16.6	2. 38. 59.15	(+0.80)	59.29	..	..	36.23	2. 39. 35.30	+ 0.47	
	42	16 Persei	M	..	..	..	..	..	8.5	12.0	15.5	19.0	2. 42. 1.47	[+0.66]	1.61	..	..	[-1.95]	2. 42. 37.62	+ 0.45	
	43	20 Persei	M	51.7	55.3	58.6	2.3	9.3	16.2	19.7	23.2	26.8	2. 45. 9.20	..	9.34	..	..	2. 45. 45.35	+ 0.43		
	44	Lalande 5538....	M	57.3	0.8	4.4	8.2	15.0	..	..	..	32.7	2. 53. 14.99	..	15.13	..	..	2. 53. 51.12	+ 0.36		
	45	ρ Persei	M	..	..	..	22.2	29.4	36.7	40.2	43.7	47.2	2. 56. 29.49	..	29.63	..	..	2. 57. 5.62	+ 0.34		
	46	ω Persei	M	15.2	18.8	22.2	26.0	32.8	40.0	43.4	47.3	50.8	3. 2. 32.92	..	33.06	..	..	3. 3. 9.04	+ 0.30		
	47	W.B. (2) III. 157	M	..	6.8	10.3	14.0	20.8	29.0	32.4	35.9	..	3. 8. 21.28	..	21.42	..	..	3. 8. 57.39	+ 0.27		

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Arnold 1, applied to form Concluded Transit, Nos. 3, 10, 18, 32, 34, and 37, $-39^s.40$: $-39^s.20$: $-37^s.00$: $-36^s.30$: $-36^s.30$: and $-36^s.10$.

Correction for passage of Scmidiameter, No. 14, $-0^s.41$.

† This clock-error has been used in the reduction of the observations made with the Altazimuth.

January 16, Venus 2 L., to January 17. The azimuthal error is the mean of those ($-0^s.77$ and $-2^s.29$) determined on January 17 by tabular places of Polaris and λ Ursæ Minoris S.P. and of δ Ursæ Minoris S.P. and Cephei 51, allowing $-0^s.50$ and $-0^s.04$ for clock-rate respectively.

January 20 to Piazzzi VIII. 30. The azimuthal error by tabular places of Cephei 51 and λ Ursæ Minoris S.P., allowing $-0^s.09$ for clock-rate.

4, 14. Very faint.

15. Faint.

18, 44. Cloudy.

44, 45, 46. These observations appear to be affected by a common error, and have therefore not been used in subsequent sections.

47. Observed in dark field; occasionally very faint.

157666MM.36A...1A

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1874.

[7]

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at ϕ^h Sidereal and [Lossing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Jan. 20	1	α Tauri	AD	12.2	14.8	17.6	20.5	26.0	31.6	34.5	37.1	40.1	3. 17. 26.02	+0.74	26.14	2.05	35.91	36.16†	...	
	2	Piazzi III. 260 ..	M	43.2	49.1	54.5	0.2	12.3	24.0	..	35.4	..	4. 5. 12.12	(+0.80)	12.31	..	..	36.23	4. 5. 48.21	- 0.38
	3	η Draconis S.P. ...	M	..	16.5	22.4	28.2	39.8	51.4	57.4	3.0	..	4. 21. 39.86	[+0.66]	39.80	..	..	[-1.95]	16. 22. 15.67	+ 1.46
	4	Aldebaran	M	51.4	54.4	57.3	0.0	5.8	11.8	14.6	17.3	20.3	4. 28. 5.86		5.99	41.82	35.83	..	4. 28. 41.86	- 0.32
	5	ι Aurigæ	M	55.4	58.8	2.0	5.1	11.6	18.4	21.8	25.0	28.4	4. 48. 11.81		11.95	47.85	35.90	..	4. 48. 47.79	- 0.46
	6	δ Orionis	M	..	48.0	50.7	53.6	59.0	4.6	7.1	10.0	..	5. 24. 58.97		59.08	34.80	35.72	..	5. 25. 34.87	- 0.63
	7	γ Geminorum	M	36.6	..	42.2	45.2	50.9	56.6	59.5	..	5.5	6. 29. 50.91		51.04	26.73	35.69	..	6. 30. 26.74	- 0.83
	8	Cephei 51. (E&E)	M	12.0	10.0	8.0	5.0	0.0	54.0	52.0	49.0	47.0	6. 40. 30.98		32.38	8.57	36.19	..	..	
	9	λ Ursæ Min. S.P. (E&E)	M	38.0	7.0	35.0	3.0	58.0	52.0	19.0	47.0	16.0	7. 48. 30.36		27.02	3.11	36.09	..	..	
	10	β Cancri	M	52.0	54.5	57.7	0.5	6.1	11.8	14.4	17.4	20.3	8. 9. 6.06		6.18	41.78	35.60	..	8. 9. 41.75	- 0.94
	11	Piazzi VIII. 30 ..	M	6.0	11.5	17.5	23.2	34.5	46.5	..	..	3.6	8. 11. 34.63		34.82	..	..	..	8. 12. 10.39	- 2.46
	12	α Ophiuchi	L	14.8	17.7	20.4	23.4	28.9	34.6	37.6	40.4	43.0	17. 28. 28.95	(+0.46)	29.00	3.65	34.65	35.97	17. 29. 3.64	+ 1.46
	13	μ Herculis	L	39.7	43.0	46.0	49.1	55.4	1.6	4.8	8.0	10.8	17. 40. 55.35	[-0.41]	55.43	30.10	34.67	[-1.83]	17. 41. 30.05	+ 1.57
	14	γ Draconis	L	41.7	46.4	50.6	55.1	3.8	12.9	17.4	21.7	26.2	17. 53. 3.94		4.07	..	..	..	17. 53. 38.68	+ 2.01
	15	α Lyrae	L	46.0	49.8	53.2	56.6	3.7	10.8	14.4	17.9	21.5	18. 32. 3.74		3.83	38.39	34.56	..	18. 32. 38.39	+ 1.93
	16	Venus 2 L.	L	..	28.6	31.6	34.5	40.5	46.5	49.5	52.5	..	19. 40. 40.50		40.53	..	..	..	19. 41. 14.61	
Jan. 21	17	$\odot$ 1 L.	L	24.2	27.2	30.0	32.8	38.7	44.7	47.8	50.6	53.7	20. 12. 38.83		48.30	..	..	..	20. 14. 22.73	
	18	$\odot$ 2 L.	L	43.0	46.0	48.8	51.8	57.7	3.6	6.6	9.5	12.6	20. 14. 57.71			..	..	..	..	
	19	ϵ Piscium	L	35.5	38.4	41.1	43.6	49.4	55.2	57.8	0.6	3.2	0. 55. 49.40		49.45	23.46	34.01	34.14	0. 56. 23.52	+ 0.84
	20	Polaris (E&E)	L	12.0	11.5	6.5	2.5	56.0	..	..	..	..	1. 11. 29.48		33.27	6.40	33.13	..	..	
	21	ξ 1 Ceti	E	30.4	33.4	36.2	38.8	44.4	50.0	52.9	55.7	58.5	2. 5. 44.46		44.51	18.95	34.44	34.54†	..	
	22	67 Ceti	E	53.3	56.2	58.8	1.7	7.2	12.9	15.6	18.4	21.2	2. 10. 7.23		7.28	41.60	34.32	..	..	
	23	δ Eridani	L	25.0	28.0	30.7	33.5	39.1	44.7	47.6	50.4	53.2	3. 36. 39.11		39.15	12.95	33.80	34.14	3. 37. 13.01	- 0.21
	24	27 Tauri	L	51.5	54.6	57.5	0.4	6.6	12.5	15.7	18.6	21.7	3. 41. 6.53		6.60	..	..	..	3. 41. 40.46	- 0.02
	25	36 Tauri	L	0.8	4.0	6.9	10.0	16.0	21.9	25.0	28.0	31.0	3. 56. 15.93		16.00	..	..	..	3. 56. 49.84	- 0.12
	26	δ Eridani	L	55.5	58.4	1.1	3.9	9.4	15.0	17.8	20.6	23.3	4. 5. 9.42		9.47	43.23	33.76	..	4. 5. 43.30	- 0.33
	27	53 Tauri	L	12.0	15.1	18.1	21.0	27.0	32.9	35.9	38.8	41.8	4. 11. 26.93		27.00	..	..	..	4. 12. 0.82	- 0.21
	28	Piazzi IV. 82	L	43.6	46.7	49.7	52.6	58.5	4.5	7.6	10.4	13.4	4. 19. 58.53		58.60	..	..	..	4. 20. 32.41	- 0.27
	29	β Canis Minoris ..	L	32.4	35.1	38.0	40.7	46.4	52.0	54.6	57.5	0.2	7. 19. 46.30		46.35	19.92	33.57	..	7. 20. 19.93	- 0.90
	30	δ 2 Geminorum ...	L	..	..	..	..	25.8	32.1	35.3	38.5	41.6	7. 21. 25.85		25.93	..	..	..	7. 21. 59.51	- 1.06
	31	Procyon	L	55.5	58.5	1.3	4.0	9.6	15.0	17.7	20.5	23.3	7. 32. 9.46		9.51	43.21	33.70	..	7. 32. 43.08	- 0.90
	32	λ Ursæ Min. S.P. (E&E)	L	..	..	..	..	..	57.5	23.0	46.5	17.0	7. 48. 35.22		30.39	2.98	32.59	..	..	
	33	ϵ Hydrae	L	19.7	22.5	25.2	27.9	33.6	39.0	41.9	44.6	47.5	8. 39. 33.52		33.57	7.03	33.46	..	8. 40. 7.05	- 0.91
	34	Uranus 1 L.	L	52.9	56.0	58.8	1.6	7.6	..	..	..	..	8. 45. 7.53		..	..	..	..	..	
	35	Uranus 2 L.	L	..	..	..	..	..	13.8	16.7	19.6	22.6	8. 45. 7.93		7.79	..	..	..	8. 45. 41.27	
Jan. 24	36	Polaris (E&E)	C	5.0	6.0	0.0	55.5	50.0	..	..	..	..	1. 11. 53.07	(+0.70)	58.54	3.67	5.13	7.14	..	
	37	μ Piscium	C	13.2	15.9	18.7	21.5	27.1	32.6	35.4	38.3	41.0	1. 23. 27.06	[-1.08]	27.09	..	..	[0.43]	1. 23. 34.25	+ 0.72
	38	Neptune	C	6.4	9.3	11.9	14.8	20.3	26.0	28.8	31.5	34.3	1. 38. 20.35		20.39	..	..	..	1. 38. 27.56	
	39	β Arietis	C	18.5	21.3	24.2	27.1	33.0	38.9	41.8	44.7	47.7	1. 47. 33.00		33.05	40.17	7.12	..	1. 47. 40.22	+ 0.71
	40	δ 1 L.	C	42.0	44.9	47.7	50.6	56.4	2.3	5.2	7.9	10.9	1. 54. 56.41		56.45	..	..	..	1. 56. 11.58	
	41	19 Arietis	C	49.0	52.0	54.7	57.6	3.3	9.0	11.8	14.7	17.5	2. 6. 3.27		3.32	..	..	..	2. 6. 10.50	+ 0.55
	42	67 Ceti	AD	20.7	23.4	26.0	28.9	34.4	39.8	42.8	45.5	48.4	2. 10. 34.41		34.42	41.56	7.14	7.11†	..	
	43	ξ 2 Ceti	AD	6.1	9.0	11.6	14.6	20.1	25.6	28.5	31.2	34.1	2. 21. 20.07		20.10	27.26	7.16	..	..	
	44	γ Ceti	C	54.5	57.3	59.8	2.7	8.3	13.9	16.6	19.4	22.2	2. 29. 8.28		8.31	15.39	7.08	7.14	2. 29. 15.49	+ 0.33
	45	α Arietis	C	14.8	17.5	20.4	23.4	29.0	34.7	37.5	40.3	43.2	2. 37. 28.95		29.00	..	..	..	2. 37. 36.19	+ 0.36
	46	W. B. (2) II. 927	C	10.7	14.1	17.6	21.0	28.0	35.0	38.6	42.0	45.5	2. 39. 28.02		28.12	..	..	..	2. 39. 35.31	+ 0.54
	47	* N.P.D. 51°. 54' ..	C	38.2	41.7	45.2	48.6	53.6	2.7	6.2	9.7	13.3	2. 49. 55.66		55.76	..	..	..	2. 50. 2.95	+ 0.46

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.
Corrections to the times by Hardy for reduction to Arnold's or Sidereal Standard, applied to form Concluded Transit, Nos. 8, 9, 20, 32, and 36, -28".20: -28".10:
-26".30: -25".50: and +3".70.
Corrections for passage of Semidiameter, Nos. 16 and 40, -0".39: and +67".96.
† These clock-errors have been used in the reduction of the observations made with the Altazimuth.
January 20, α Ophiuchi, to January 21. The azimuthal error by tabular places of Polaris and λ Ursæ Minoris S.P. on January 21, allowing -0".55 for clock-rate.
January 24^h. 0^h. The Sidereal Standard was again brought into use as the Transit-Clock.
January 24 to January 25, γ Arietis. The azimuthal error by tabular places of Polaris and λ Ursæ Minoris S.P. on January 24, allowing +0".11 for clock-rate.

3, 7, 11. Cloudy.

[8]

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s	h m s	''	s	s	s	s	h m s	s
Jan. 24	1	Lalande 5538....	C	26.5	30.0	33.6	37.1	44.2	51.3	54.7	58.3	1.8	2. 53. 44.14	+0.74	44.24			7.14	2. 53. 51.43	+ 0.44
	2	* N.P.D. 51°. 25'..	C	2.5	6.2	9.6	13.3	20.1	27.3	30.7	34.1	37.9	2. 59. 20.16	(+0.70)	20.26			[0.43]	2. 59. 27.45	+ 0.39
	3	ω Persei	C	..	..	51.4	55.1	2.2	9.2	12.7	16.3	20.0	3. 3. 2.09	[-1.08]	2.19				3. 3. 9.38	+ 0.37
	4	W. B. (2) III. 157	C	31.8	35.6	39.3	43.0	50.0	57.3	0.8	4.5	8.2	3. 8. 50.03		50.13				3. 8. 57.33	+ 0.33
	5	δ Orionis	C	13.6	16.5	19.3	21.9	27.4	33.0	35.7	38.5	41.4	5. 25. 27.46		27.48	34.78	7.30		5. 25. 34.72	+ 0.61
	6	ζ Draconis S.P. ...	C	41.7	49.3	56.4	3.7	18.8	33.7	41.1	48.4	56.2	5. 32. 18.87		18.51				17. 32. 25.75	+ 2.54
	7	B. A. C. 1813 ...	C	39.2	47.0	54.2	1.6	16.8	31.8	39.4	47.0	54.5	5. 39. 16.77		17.08				5. 39. 24.32	- 1.92
	8	γ Geminorum....	C	..	..	0.6	3.8	..	15.8	18.6	21.7	24.9	6. 7. 9.72		9.77	17.07	7.30		6. 7. 17.02	- 0.77
	9	Arg. Zone + 26°. No. 1410	C	5.4	8.6	11.6	14.8	21.1	27.2	30.3	33.3	36.2	6. 51. 20.92		21.00				6. 51. 28.26	- 0.96
	10	ζ Geminorum....	C	16.9	19.9	22.7	25.7	31.6	37.6	40.5	43.4	46.4	6. 52. 31.62		31.67	39.03	7.36		6. 56. 38.95	- 0.93
	11	Daphne	C	18.2	21.4	24.0	26.4	32.1	..	..	..	..	7. 5. 32.14		32.16				7. 5. 39.43	
	12	44 Camelopardali	C	..	..	..	26.6	37.4	48.2	53.7	58.8	4.4	7. 7. 37.36		37.57				7. 7. 44.84	- 2.04
	13	β Canis Minoris..	C	58.6	1.5	4.2	7.1	12.5	18.2	21.0	23.7	26.6	7. 20. 12.58		12.62	19.93	7.31		7. 20. 19.89	- 0.91
	14	Minerva	C	..	..	..	48.1	..	..	5.2	8.0	..	7. 32. 54.84		54.92				7. 33. 2.20	
	15	λ Ursæ Min.S.P.(E&E)	C	..	11.5	34.0	6.0	..	..	..	..	..	7. 49. 5.06		58.05	3.25	5.20		..	
	16	15 Argus	C	..	..	..	..	10.5	13.5	16.5	19.6	..	8. 2. 4.48		4.46	11.67	7.21		8. 2. 11.74	- 1.02
	17	ε Hydræ	C	45.7	48.7	51.4	54.2	59.7	5.3	8.2	10.9	13.7	8. 39. 59.73		59.76	7.06	7.30		8. 40. 7.06	- 0.94
	18	Uranus	C	47.6	50.6	53.5	56.4	2.2	8.0	11.0	13.9	16.8	8. 45. 2.20		2.25				8. 45. 9.55	
Jan. 25	19	α Arietis	E	41.0	44.0	47.0	50.0	56.0	1.8	5.0	7.9	11.0	1. 59. 55.94		56.00	3.70	7.70	7.71†	..	
	20	ξ ¹ Ceti	E	57.2	59.9	2.8	5.6	11.1	16.7	19.4	22.2	25.1	2. 6. 11.10		11.14	18.90	7.76	[0.22]	..	
	21	ξ ² Ceti	L	6.0	9.0	11.7	14.4	20.0	25.6	28.4	31.1	34.0	2. 21. 20.01		20.04	27.25	7.21	7.24	2. 21. 27.30	+ 0.41
	22	ν Ceti	L	54.3	57.0	59.7	2.6	8.1	13.6	16.4	19.3	22.0	2. 29. 8.09		8.12	15.38	7.26	[0.22]	2. 29. 15.38	+ 0.34
	23	δ Ceti	L	40.2	43.0	45.6	48.4	54.0	59.5	2.3	5.0	7.8	2. 32. 53.96		53.98	1.24	7.26		2. 33. 1.24	+ 0.28
	24	α Arietis	L	14.5	17.5	20.0	23.0	28.8	34.5	37.4	40.2	42.9	2. 37. 28.73		28.87				2. 37. 36.04	+ 0.37
	25	δ 1 L.	L	47.5	50.5	53.3	56.2	2.2	8.1	11.1	14.0	17.1	2. 49. 2.20		2.25				2. 50. 18.64	
	26	δ Arietis	L	3.4	6.3	9.4	12.3	18.2	23.8	26.9	29.7	32.6	3. 4. 18.04		18.09	25.35	7.26		3. 4. 25.36	+ 0.24
	27	τ ¹ Arietis	L	35.0	38.0	40.9	43.8	49.6	55.6	58.7	1.6	4.4	3. 13. 49.71		49.76	57.10	7.34		3. 13. 57.03	+ 0.19
	28	μ Herculis	AD	6.7	10.0	12.8	16.1	22.4	28.7	31.8	34.9	38.0	17. 41. 22.35	+0.77 (+1.22) [+0.58]	22.52	30.22	7.70	7.52 [0.09]	17. 41. 30.11	+ 1.45
Jan. 26	29	δ Eridani	AD	51.3	54.0	56.8	59.6	5.2	10.8	13.6	16.5	19.4	3. 37. 5.22		5.34	12.89	7.55	7.61	3. 37. 12.96	- 0.15
	30	δ 1 L.	AD	..	..	4.8	7.9	13.9	20.0	23.0	26.0	29.1	3. 45. 13.87		14.03				3. 46. 32.25	
	31	Α ¹ Tauri	AD	..	55.3	58.2	1.3	7.1	13.2	16.1	19.0	..	3. 57. 7.15		7.31	14.95	7.64		3. 57. 14.93	- 0.07
	32	α ¹ Eridani	C	..	..	27.2	30.1	..	..	..	..	..	4. 5. 35.61		35.73	43.17	7.44	7.49†	..	
	33	γ Tauri	C	15.6	18.5	21.3	24.0	30.0	35.6	38.6	41.4	44.2	4. 12. 29.90		30.05	37.63	7.58		..	
	34	η ¹ Tauri	AD	29.3	..	35.3	38.2	44.2	50.2	53.0	..	59.0	4. 17. 44.15		44.31			7.61	4. 17. 51.94	- 0.19
	35	ε Tauri	AD	53.4	56.4	59.4	2.3	8.1	13.9	17.0	19.8	22.8	4. 21. 8.10		8.25	15.82	7.57		4. 21. 15.88	- 0.22
	36	λ Ursæ Min.S.P.(E&E)	AD	..	..	..	..	..	..	..	41.0	13.0	7. 49. 0.48		55.70	3.34	7.64		..	
	37	β Cancri	AD	20.0	23.0	25.7	28.3	34.1	..	..	..	..	8. 9. 34.05		34.19	41.82	7.63		8. 9. 41.83	- 0.98
	38	α Lyrae	E	..	16.4	19.8	23.2	30.5	37.8	41.1	44.6	..	18. 32. 30.46	(+1.06)	30.62	38.52	7.90	7.75	18. 32. 38.50	+ 1.80
	39	α Aquilæ	E	..	17.4	20.0	23.0	28.4	34.0	36.9	39.6	..	19. 44. 28.44	[-0.14]	28.53	36.39	7.86	[0.17]	19. 44. 36.42	+ 1.70
Jan. 27	40	⊙ 1 L.	E	..	59.9	2.8	5.8	11.4	17.4	20.3	23.2	..	20. 38. 11.51		20.28				20. 39. 28.18	
	41	⊙ 2 L.	E	14.3	17.3	20.0	23.1	28.9	34.7	37.6	40.6	43.6	20. 40. 28.88							
	42	16 Persei	E	12.0	15.5	19.1	22.6	..	..	40.0	..	..	2. 42. 29.50		29.65			7.92	2. 42. 37.59	+ 0.57
	43	20 Persei	E	19.7	23.4	26.8	30.2	37.2	44.2	47.6	51.3	54.7	2. 45. 37.20		37.35				2. 45. 45.29	+ 0.55
	44	α Ceti	E	19.5	22.4	25.2	27.9	33.6	39.1	41.7	44.5	47.4	2. 55. 33.46		33.55	41.43	7.88		2. 55. 41.49	+ 0.20
	45	δ Arietis	E	2.6	5.6	8.5	11.5	17.4	23.0	26.1	29.0	32.0	3. 4. 17.28		17.39	25.32	7.93		3. 4. 25.33	+ 0.27
	46	W. B. (2) III. 157	E	31.0	34.9	38.3	42.0	49.4	56.5	59.9	3.7	7.3	3. 8. 49.19		49.35				3. 8. 57.29	+ 0.39
	47	Α ¹ Tauri	E	52.0	55.0	58.0	0.8	6.8	12.8	15.8	18.7	21.8	3. 57. 6.83		6.95	14.94	7.99		3. 57. 14.90	- 0.06

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 15 and 36, +4".00: and +5".40.

Corrections for passage of Semidiameter, Nos. 25, and 30, +69".12: and +70".59.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

January 25, μ Herculis, to January 26, β Cancri. The azimuthal error by tabular places of λ Ursæ Minoris S.P. and β Cancri on January 26.

January 26, α Lyrae, to January 27. The azimuthal error by tabular places of δ Ursæ Minoris S.P. and Cephei 51 on January 27.

4. Double; observed the brighter and preceding star.
16. Very cloudy.

8, 31, 35, 36, 37. Cloudy.
30. Correction to R.A. on true meridian, +0".01.

11, 31. Very faint.
46. Observed the first and brighter of two objects.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and (Lossing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Jan. 27	1	δ^1 Eridani.....	E	21'4	24'2	26'8	29'5	35'2	40'7	43'5	46'3	49'1	4. 5. 35'17	+0'77	35'25	43'16	7'91	7'92	4. 5. 43'20	- 0'26
	2	κ^1 Tauri.....	E	29'0	31'9	34'8	37'8	43'8	49'7	52'5	55'6	58'8	4. 17. 43'75	(+1'06)	43'88			0'17	4. 17. 51'83	- 0'18
	3	Aldebaran.....	L	19'7	22'7	25'4	28'3	34'1	39'9	42'8	45'6	48'5	4. 28. 34'09	[-0'14]	34'20	41'75	7'55	7'54	....	....
	4	τ Tauri.....	L	18'6	21'7	24'6	27'5	33'5	39'5	42'7	45'5	48'6	4. 34. 33'36		33'69	41'28	7'59		....	....
	5	δ^1 L.....	E	28'9	32'0	35'3	38'3	44'5	50'9	54'0	57'1	0'2	4. 43. 44'55		44'68			7'92	4. 42. 40'76	....
	6	λ Tauri.....	E	..	..	10'0	13'0	19'1	25'1	28'1	31'2	34'2	4. 50. 19'02		19'15				4. 50. 27'10	- 0'37
	7	δ Ursæ Min. S.P. (E&E)	E	..	..	..	..	..	2'5	4'9	5'3	23'0	6. 12. 35'61		33'74	41'95	8'21		....	....
	8	Cephei 51 (E&E)	E	..	..	..	..	..	46'0	44'5	41'0	38'5	6. 40. 57'07		59'44	7'65	8'21		....	....
	9	6 Cancri.....	E	23'8	27'2	30'2	33'5	39'6	46'0	48'8	52'0	55'4	7. 55. 39'58		39'72	47'77	8'05		7. 55. 47'70	- 1'16
	10	α^1 Cancri.....	E	..	..	..	56'0	1'7	7'6	10'5	13'5	16'5	8. 16. 1'77		1'88	9'88	8'00		8. 16. 9'86	- 1'07
	11	ν^2 Cancri.....	E	46'2	49'4	52'4	55'4	1'4	..	..	..	..	8. 21. 1'45		1'58				8. 21. 9'56	- 1'15
	12	29 Cancri.....	E	..	..	..	..	28'3	34'0	36'9	39'6	42'5	8. 21. 28'24		28'34				8. 21. 36'32	- 1'04
	13	Δ^1 Cancri.....	E	..	57'1	59'6	2'8	8'4	14'0	16'9	19'8	..	8. 36. 8'34		8'44				8. 36. 16'42	- 1'03
	14	Uranus.....	E	..	..	..	..	29'7	34'9	38'2	41'0	..	8. 44. 29'36		29'47				8. 44. 37'45	....
Jan. 29	15	α Lyrae.....	AD	12'8	16'4	19'9	23'4	30'4	37'6	41'2	44'5	48'2	18. 32. 30'46	(+1'29)	30'64	38'59	7'95	7'73	18. 32. 38'54	+ 1'73
	16	δ Cygni.....	AD	32'3	36'3	40'0	44'0	51'8	59'6	3'5	7'4	11'4	19. 40. 51'78	[-0'18]	51'97			0'22	19. 40. 59'88	+ 2'22
	17	α Aquilæ.....	AD	14'4	17'4	20'0	23'0	28'4	34'0	36'9	39'6	42'5	19. 44. 28'44		28'54	36'43	7'89		19. 44. 36'45	+ 1'66
	18	Venus 2 L.....	AD	34'6	37'8	40'6	43'6	49'4	55'4	58'4	1'2	4'4	20. 28. 49'46		49'54				20. 28. 57'08	....
	19	α Cygni.....	AD	38'1	42'1	46'0	49'8	57'5	5'4	9'3	13'3	17'1	20. 36. 57'59		57'78				20. 37. 5'70	+ 2'37
Jan. 30	20	$\odot$ 1 L.....	AD	18'7	21'8	24'5	27'3	33'2	39'0	41'9	44'7	47'9	20. 50. 33'20						20. 51. 49'62	....
	21	$\odot$ 2 L.....	AD	35'6	38'5	41'4	44'1	49'9	55'8	58'8	1'6	4'8	20. 52. 50'03						....	....
	22	ζ Cygni.....	AD	8'4	11'6	14'8	18'0	24'3	30'7	33'8	37'0	40'3	21. 7. 24'29		24'43	32'45	8'02		21. 7. 32'35	+ 1'97
	23	α Cephei.....	AD	52'9	58'9	4'8	10'6	22'4	34'4	40'2	46'1	51'9	21. 15. 22'42		22'71				21. 15. 30'63	+ 3'56
	24	Polaris (E&E)	AD	..	..	..	..	..	30'0	29'0	22'5	21'5	1. 11. 45'19		50'55	58'75	8'20	7'95	....	....
	25	ν Piscium.....	C	29'8	32'7	35'4	38'2	43'7	49'3	52'0	54'8	57'6	1. 34. 43'70		43'80	51'75	7'95	7'97	....	....
	26	α Piscium.....	C	21'6	24'5	27'3	30'0	35'6	41'3	44'0	46'8	49'7	1. 38. 35'62		35'72	43'73	8'01		....	....
	27	η Ursæ Maj. S.P.	AD	5'8	10'2	14'4	18'8	27'3	35'8	40'0	44'3	48'7	1. 42. 27'29		27'16			7'95	13. 42. 35'13	- 0'68
	28	Groomb. 2066 S.P.	AD	..	..	..	..	25'5	56'0	11'5	26'5	42'3	1. 50. 25'51		24'86				13. 50. 32'83	- 3'67
	29	α Draconis S.P.	AD	19'4	26'0	32'4	39'0	52'1	5'0	11'6	17'9	24'8	2. 0. 52'08		51'84				14. 0. 59'81	- 1'13
	30	ξ^1 Ceti.....	AD	56'8	59'7	2'4	5'1	10'8	16'3	19'1	21'9	24'8	2. 6. 10'75		10'85	18'83	7'98		2. 6. 18'82	+ 0'57
	31	ν Ceti.....	AD	53'4	56'4	59'0	1'8	7'3	12'9	15'7	18'4	21'4	2. 29. 7'34		7'44	15'35	7'91		2. 29. 15'41	+ 0'37
	32	W.B. (2) II. 927.	AD	9'5	13'3	16'5	20'1	27'0	34'0	37'5	40'9	44'4	2. 39. 26'99		27'16				2. 39. 35'13	+ 0'64
	33	W.B. (2) III. 157 (1st Star)	AD	31'1	34'7	38'3	41'9	49'1	..	..	..	..	3. 8. 49'10		49'28				3. 8. 57'26	+ 0'44
	34	W.B. (2) III. 157 (2d Star)	AD	..	..	..	..	..	56'5	0'0	3'7	7'4	3. 8. 49'23		49'41				3. 8. 57'39	+ 0'44
	35	δ Ursæ Min. S.P. (E&E)	AD	..	19'5	5'5	53'0	26'0	..	..	..	..	6. 12. 35'66		33'56	42'39	8'83		....	....
	36	β Canis Majoris..	AD	47'4	50'2	53'1	55'9	1'8	7'6	10'6	13'4	16'4	6. 17. 1'80		1'88	9'90	8'02		6. 17. 9'89	- 0'84
	37	Cephei 51 (E&E)	AD	..	..	55'0	51'5	47'0	..	..	..	..	6. 40. 56'10		58'75	7'37	8'62		....	....
	38	Groomb. 2719 S.P.	AD	..	..	..	..	42'4	2'0	12'6	22'4	32'4	6. 48. 42'46		42'06				18. 48. 50'07	+ 4'44
	39	47 Geminorum..	AD	11'4	14'7	17'7	20'8	27'0	33'3	36'4	39'4	42'5	7. 3. 26'99		27'13				7. 3. 35'14	- 1'02
	40	δ Geminorum....	AD	13'7	16'7	19'7	22'6	28'6	34'5	37'7	40'6	43'7	7. 12. 28'62		28'75	36'81	8'06		7. 12. 36'77	- 1'00
	41	Piazzi VII. 67...	AD	1'4	9'4	16'9	24'5	39'7	55'0	2'8	10'3	17'8	7. 17. 39'69		40'07				7. 17. 48'09	- 3'12
	42	ν Geminorum....	AD	46'8	50'0	53'0	56'0	2'4	8'6	11'6	14'8	18'0	7. 28. 2'33		2'47				7. 28. 10'49	- 1'10
	43	Pollux.....	AD	13'5	16'8	19'8	23'0	29'3	35'6	38'7	41'7	45'0	7. 37. 29'23		29'37	37'32	7'95		7. 37. 37'39	- 1'14
	44	δ^1 L.....	AD	10'1	13'5	16'7	19'7	26'0	32'3	35'5	38'6	42'0	7. 43. 26'01		26'15				7. 44. 44'69	....
	45	μ^2 Cancri.....	AD	29'5	32'7	35'5	38'7	44'7	51'0	54'0	57'0	0'0	8. 2. 44'76		44'90				8. 2. 52'92	- 1'16
	46	β Cancri.....	AD	19'8	22'6	25'4	28'0	33'8	39'4	42'3	45'0	48'0	8. 9. 33'78		33'89	41'85	7'96		8. 9. 41'91	- 1'01
	47	λ Cancri.....	AD	40'4	43'5	46'5	49'5	55'4	1'5	4'6	7'7	10'7	8. 12. 55'50		55'64				8. 13. 3'66	- 1'16

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32'' 400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 7, 8, 24, 35, and 37, + 6'' 10: + 6'' 10: + 9'' 20: + 9'' 40: and + 9'' 40.

Corrections for passage of Semidiameter, Nos. 5, 18, and 44, - 71'' 88: - 0'' 38: and + 70'' 51.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

January 29 to 31. The azimuthal error used is the mean of those (-0'' 31 and -0'' 04) determined on January 30 by tabular places of Polaris and ξ^1 Ceti and of δ Ursæ Minoris S.P. and Cephei 51.

5, 44. Correction to R.A. on true meridian, + 0'' 01.
15, 20, 21, 36. Very tremulous.

14. Very faint; observed in dark field, with wires illuminated.
18. Very faint and tremulous.

[10] TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation.		Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.	
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.		(Level).								
														[Azimuth].	"							
				s	s	s	s	s	s	s	s	s	h	m	s	s	s	s	h	m	s	s
Jan. 30	1	ξ Leonis	AD	47 ⁹ 50 ⁹	53 ⁵ 56 ⁴	2 ⁰	7 ⁷	10 ⁵	13 ⁵	16 ²	9. 25. 2 ⁰ 04	+0 ⁷⁷	2 ¹⁵	10 ¹⁸	8 ⁰³	7 ⁹⁵	9. 25. 10 ¹⁹	- 1 ⁰³				
	2	γ Draconis	E	8 ² 12 ⁶	17 ² 21 ⁷	30 ⁴	39 ²	43 ⁷	48 ⁰	52 ⁷	17. 53. 30 ³⁸	(+1 ²⁹)	30 ⁶⁰			8 ¹⁶	17. 53. 38 ⁸⁹	+ 1 ⁷³				
	3	α Lyrae	E	12 ⁵ 16 ¹	19 ⁵ 23 ²	30 ¹	37 ²	40 ⁷	44 ²	47 ⁹	18. 32. 30 ¹³	[-0 ¹⁸]	30 ³¹	38 ⁶¹	8 ³⁰	8 ¹⁶	....	....				
Jan. 31	4	⊙ 1 L.	E	24 ⁰ 27 ¹	30 ⁰ 32 ⁸	38 ⁶	44 ⁵	47 ⁴	50 ³	53 ¹	20. 54. 38 ⁶²	} 46 ⁹⁹					20. 55. 55 ³¹					
	5	⊙ 2 L.	E	40 ⁷ 43 ⁶	46 ⁴ 49 ⁵	55 ³	1 ⁰	4 ⁰	6 ⁸	9 ⁷	20. 56. 55 ²⁰											
Feb. 3	6	ε Hydrae	C	44 ⁶ 47 ⁵	50 ³ 53 ¹	58 ⁶	4 ²	7 ⁰	9 ⁷	12 ⁶	8. 39. 58 ⁶⁰	+0 ⁸⁴	58 ⁷¹	7 ¹⁵	8 ⁴⁴	8 ⁴²†	....	....				
	7	κ Cancri	C	33 ⁶ 36 ⁵	39 ⁴ 42 ⁰	47 ⁷	53 ⁴	56 ²	59 ¹	2 ⁰	9. 0. 47 ⁷⁴	(+1 ⁶⁵)	47 ⁸⁷	56 ³⁴	8 ⁴⁷	8 ⁴⁷	....	....				
	8	δ 2 L.	AD	.. ..	13 ² 16 ⁰	21 ⁸	27 ³	30 ³	33 ¹	36 ⁰	11. 9. 21 ⁶⁹	[-0 ⁵⁵]	21 ⁸¹			8 ³¹	11. 8. 28 ¹²	....				
	9	ν Leonis	AD	8 ⁴ 11 ²	13 ⁷ 16 ⁶	..	..	..	33 ⁰	35 ⁶	11. 30. 22 ⁰³		22 ¹³	30 ⁵²	8 ³⁹	8 ³¹	....	....				
	10	β Leonis	AD	16 ⁰ 18 ⁴	21 ² 24 ⁶	30 ²	36 ⁰	39 ¹	41 ⁸	44 ⁷	11. 42. 30 ²¹		30 ³⁴	38 ⁶⁹	8 ³⁵	8 ³⁵	....	....				
Feb. 4	11	11 Tauri	E	50 ⁶ 53 ⁷	56 ⁶ 59 ⁷	5 ⁹	11 ⁹	15 ⁰	17 ⁸	21 ²	3. 33. 5 ⁷⁹	} 5 ⁹⁴ 14 ⁶⁴ 8 ⁷⁰	50 ⁸³ 59 ⁶³ 8 ⁸⁰	54 ⁸⁴ 51 ⁶² 33 ¹³	10 ¹⁷ 37 ⁸⁴ 20 ⁵⁵	29 ⁴¹ 8 ⁸⁶	8 ⁸⁰ [0 ¹³]	16. 36. 3 ⁶⁶	+ 1 ⁶¹			
	12	η Tauri	E	.. 38 ⁶	41 ⁵ 44 ⁶	50 ⁸	57 ⁰	59 ⁷	2 ⁸	..	3. 39. 50 ⁶⁸											
	13	Piazzi XVI. 195 S.P.	E	.. ..	29 ⁸ 55 ⁸	21 ⁰	34 ⁴	47 ⁴	0 ³	..	4. 35. 55 ⁵⁶											
	14	ι Tauri	E	.. ..	42 ⁸ 45 ⁶	51 ³	57 ⁴	0 ²	..	..	4. 43. 51 ⁴⁸											
	15	Groomb. 2391 S.P.	E	.. ..	7 ⁵ 33 ⁷	0 ²	..	..	..	..	4. 48. 33 ⁸⁵											
	16	h ¹ Draconis S.P.	E	.. ..	57 ¹ 10 ⁶	23 ⁷	..	..	..	..	4. 55. 10 ⁵⁰											
	17	h ² Draconis S.P.	E	.. ..	.. ..	..	..	..	4 ²	11 ⁴	4. 55. 38 ¹⁷											
	18	Rigel	E	6 ⁴ 9 ⁵	12 ⁰ 15 ⁰	20 ⁴	26 ⁰	28 ⁹	31 ⁶	34 ⁵	5. 8. 20 ⁴⁶											
	19	17 Camelopardali.	E	.. 44 ⁴	50 ² 56 ⁴	8 ³	20 ⁵	26 ⁷	32 ⁶	..	5. 18. 8 ³⁸											
	20	Groombridge 966	E	.. 3 ⁷	14 ⁰ 24 ⁴	46 ⁰	7 ¹	17 ⁸	28 ⁶	..	5. 22. 45 ⁸⁴											
	21	β Draconis S.P.	E	.. ..	.. ..	24 ⁹	34 ⁰	38 ⁶	42 ⁹	47 ⁶	5. 27. 24 ⁹⁴											
	22	B. A. C. 1813 ...	E	37 ¹ 44 ⁷	52 ⁵ 59 ⁶	14 ⁷	..	..	..	..	5. 39. 14 ⁷¹											
	23	31 Camelopardali.	E	.. ..	16 ³ 21 ⁷	32 ⁸	43 ⁸	49 ⁴	..	..	5. 43. 32 ⁷⁷											
	24	α Orionis	E	58 ⁶ 1 ⁴	4 ² 7 ⁰	12 ⁶	18 ²	21 ⁰	23 ⁸	26 ⁶	5. 48. 12 ⁵⁸											
	25	γ Draconis S.P.	E	.. ..	17 ² 21 ⁶	30 ³	39 ⁴	44 ⁰	..	..	5. 53. 30 ⁵⁷											
	26	36 Camelopardali.	E	.. ..	.. ..	2 ⁸	16 ⁴	23 ¹	29 ⁸	36 ⁵	6. 0. 2 ⁸³											
	27	η Geminorum ...	L	53 ⁵ 56 ⁵	59 ⁶ 2 ⁴	8 ⁵	14 ⁵	17 ⁵	20 ⁶	23 ⁵	6. 7. 8 ⁴⁹											
	28	δ Ursæ Min. S.P. (E&E)	E	.. 14 ⁵	0 ⁵ 48 ⁰	22 ⁰	54 ⁰	42 ⁰	..	..	6. 12. 36 ⁹³											
	29	ν Geminorum ...	L	6 ⁴ 9 ⁵	12 ⁴ 15 ³	21 ¹	27 ¹	30 ⁰	33 ¹	36 ¹	6. 21. 21 ²¹											
	30	Cephei 51. (E&E)	E	50 ⁰ 51 ⁰	45 ⁵ 44 ⁰	..	..	31 ⁵	29 ⁰	..	6. 40. 53 ⁷³											
Feb. 5	31	Polaris (E&E)	C	.. ..	.. ..	19 ⁰	11 ⁰	9 ⁰	6 ⁰	3 ⁰	1. 11. 35 ⁹³	..	..	..	..	..	....	....				
Feb. 7	32	⊙ 1 L.	H	39 ⁸ ..	45 ⁸ 48 ⁹	54 ³	0 ⁰	3 ⁰	..	8 ⁹	21. 22. 54 ³⁷	(+2 ²³)	} 1 ⁸⁶	30 ⁹³ 39 ⁹⁸ 9 ⁰⁵	18 ²⁶ 54 ⁴² 18 ⁰¹	27 ⁰⁸ 9 ⁰⁷	8 ⁹⁶ [0 ¹⁰]	21. 24. 10 ⁹¹	21. 24. 10 ⁹¹			
	33	⊙ 2 L.	H	55 ⁰ 57 ⁹	0 ⁸ 3 ⁵	9 ⁰	15 ⁰	18 ⁰	20 ⁹	23 ⁶	21. 25. 9 ²⁸	[-1 ⁴⁹]										
	34	β Arietis	H	.. ..	21 ⁹ 25 ⁰	30 ⁸	36 ⁷	39 ⁸	42 ⁴	45 ⁵	1. 47. 30 ⁷⁸		30 ⁹³	39 ⁹⁸	9 ⁰⁵	9 ⁰⁶	....	....				
	35	ι Arietis	H	.. 6 ⁸	9 ⁴ 12 ³	18 ¹	23 ⁸	26 ⁹	29 ⁸	..	1. 50. 18 ¹³		18 ²⁶				1. 50. 27 ³³	+ 0 ⁸⁶				
	36	α Arietis	H	39 ² 42 ⁵	45 ³ 48 ³	54 ²	0 ³	3 ³	6 ²	9 ³	1. 59. 54 ²⁷		54 ⁴²	3 ⁵²	9 ¹⁰		....	....				
	37	ξ ² Ceti	H	3 ⁹ 6 ⁹	9 ⁶ 12 ³	18 ⁰	23 ⁷	26 ²	29 ⁰	31 ⁸	2. 21. 17 ⁹¹		18 ⁰¹	27 ⁰⁸	9 ⁰⁷		....	....				
	38	14 Trianguli ...	H	58 ⁰ 1 ³	4 ⁸ 8 ⁰	14 ⁹	21 ⁷	25 ²	28 ⁴	31 ⁹	2. 24. 14 ⁸⁸		15 ¹⁰				2. 24. 24 ¹⁷	+ 0 ⁸⁸				
	39	15 Trianguli ...	H	41 ⁴ 45 ⁰	47 ⁸ 51 ⁷	58 ²	4 ⁸	8 ⁴	11 ⁶	15 ¹	2. 27. 58 ¹⁹		58 ³⁹				2. 28. 7 ⁴⁶	+ 0 ⁸³				
	40	δ Ceti	H	38 ² 40 ⁹	43 ⁷ 46 ⁴	51 ⁸	57 ⁶	0 ²	3 ¹	5 ⁸	2. 32. 51 ⁹⁵		52 ⁰²	1 ⁰⁷	9 ⁰⁵		....	....				
	41	η 2 L.	E	19 ⁶ 22 ⁶	25 ³ 28 ²	34 ¹	40 ⁰	42 ⁸	45 ⁶	48 ⁷	14. 4. 34 ⁰⁸		34 ¹²			9 ²⁷	14. 3. 40 ⁷²	....				
	42	κ Virginis	E	.. ..	52 ⁹ 55 ⁷	1 ¹	6 ⁸	9 ⁷	12 ³	15 ²	14. 6. 1 ¹⁹		1 ²³	10 ⁵⁶	9 ³³	8 ³⁰	....	....				
	43	Arcturus	E	30 ⁸ 33 ⁸	36 ⁸ 39 ⁷	45 ⁷	51 ⁶	54 ⁷	57 ⁴	0 ³	14. 9. 45 ⁶²		45 ⁷⁶	55 ⁰⁹	9 ³³		....	....				

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32^r 400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 28, 30, and 31, +15^r 40: +15^r 40: and +18^r 10.

Corrections for passage of Semidiameter, Nos. 8 and 41, -62^r 06: and -62^r 73.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

February 3 and 4. The azimuthal error by tabular places of δ Ursæ Minoris S.P. and Cephei 51 on February 4.

February 7. The azimuthal error is the mean of the preceding and following determinations.

8. Very cloudy.

9, 10. Cloudy; observed in dark field.

31. Very tremulous and faint from fog; not used for determination of azimuthal error.

1876 JAN 36A...1A

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1874.

[11]

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Loss Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Feb. 8	1	π Virginis	L	2.9	5.8	8.6	11.1	17.0	22.3	25.3	28.1	31.0	11.54.16.87	+0.91	16.91	25.76	8.85	8.84†	....	
	2	ο Virginis	L	25.4	28.2	30.9	33.8	39.2	45.0	47.6	50.8	53.5	11.58.39.35	(+1.80)	39.39	48.24	8.85	[0.03]	....	
	3	Jupiter 1 L.....	L	13.9	16.8	19.5	22.1	27.8	33.2	...	...	...	12.5.27.73	[-2.43]	29.25				12.5.38.11	
	4	Jupiter 2 L.....	L	...	...	...	25.2	30.9	36.1	38.9	41.8	44.8	12.5.30.73							
	5	ρ Boötis	C	58.9	2.0	5.4	8.6	15.1	21.7	25.0	28.0	31.3	14.26.15.08		15.21	24.28	9.07	9.06	....	
	6	5 Libræ	C	37.8	40.6	43.2	46.1	51.9	57.8	0.2	3.2	6.2	14.38.51.87		51.83		[0.03]	14.39.0.91	+0.18	
	7	δ 2 L.....	C	17.8	20.9	23.7	26.7	32.6	38.4	41.6	44.4	47.2	14.51.32.57		32.52				14.50.36.78	
	8	1 Libræ	C	38.5	41.5	44.2	47.2	53.1	59.0	2.0	4.9	7.8	15.4.53.12		53.06	2.13	9.07	....		
	9	β Libræ	C	50.1	53.2	55.8	58.8	4.2	9.9	12.8	15.4	18.3	15.10.4.26		4.24	13.34	9.10	....		
	10	Piazzi XV. 96...	C	58.5	1.5	4.4	7.2	13.1	19.0	21.7	24.7	27.8	15.25.13.08		13.02				15.25.22.10	+0.47
	11	α Lyræ	M	...	15.5	18.8	22.4	29.7	36.5	40.1	43.7	...	18.32.29.50		29.68	38.83	9.15	9.21	18.32.38.92	+1.49
Feb. 9	12	⊙ 1 L.....	M	...	...	43.0	46.0	51.8	57.2	0.3	3.2	6.1	21.30.51.67						21.32.8.13	
	13	⊙ 2 L.....	M	51.6	54.9	57.6	0.3	6.2	12.0	14.7	17.6	20.7	21.33.6.16							
	14	ε Tauri	M	51.6	54.2	57.7	0.2	6.4	12.1	15.2	18.0	21.0	4.21.6.24		6.32	15.64	9.32	9.25	4.21.15.58	-0.04
	15	Aldebaran	M	17.8	20.9	23.7	26.5	32.3	37.8	40.8	43.9	46.9	4.28.32.27		32.33	41.59	9.26		4.28.41.59	-0.09
	16	Castor	M	8.9	12.2	15.4	18.9	25.1	31.7	35.0	38.3	41.8	7.26.25.23		25.38	34.64	9.26		7.26.34.64	-1.16
	17	Procyon	M	19.9	22.9	25.7	28.4	33.9	39.4	42.2	45.0	48.0	7.32.33.92		33.95	43.23	9.28		7.32.43.21	-0.92
	18	λ Ursæ Min. S.P. (E&E)	M	16.0	48.0	16.0	42.0	36.0	28.0	56.0	22.0	54.0	7.49.10.26		56.54	5.81	9.27	....		
	19	α Hydræ	M	1.9	4.7	7.1	9.8	15.6	21.0	23.8	26.7	29.3	9.21.15.52		15.50	24.71	9.21		9.21.24.77	-1.02
	20	ξ Leonis	M	46.8	49.8	52.3	55.2	0.9	6.8	9.4	12.2	15.0	9.25.0.92		0.97	10.29	9.32		9.25.10.24	-1.14
	21	δ Leonis	AD	1.3	4.4	7.3	10.1	16.0	22.1	25.0	28.0	31.1	11.7.16.12		16.21	25.44	9.23	9.14†	....	
	22	δ Crateris	AD	40.1	43.0	45.8	48.7	54.1	59.8	2.9	5.7	8.7	11.12.54.29		54.25	3.33	9.08	[0.05]	....	
	23	ζ Cygni	G	7.3	10.5	13.7	16.9	23.1	29.6	32.8	35.9	39.1	21.7.23.18	(+2.35) [-1.81]	23.37	32.53	9.16	9.28	21.7.32.59	+1.89
Feb. 10	24	⊙ 1 L.....	G	35.1	38.2	40.9	43.7	...	...	...	...	3.8	21.34.49.46						21.36.5.77	
	25	⊙ 2 L.....	G	...	...	...	...	...	9.3	12.3	15.0	17.9	21.37.3.59							
	26	Polaris (E&E)	G	...	11.5	7.0	3.0	55.5	...	...	41.0	...	1.11.29.44		39.32	49.34	10.02	9.21	....	
	27	θ Ceti	G	19.5	22.2	25.0	27.9	33.6	39.2	41.9	44.7	47.5	1.17.33.48		33.51	42.66	9.15		1.17.42.72	+0.82
	28	η Piscium	G	...	...	...	28.6	34.3	40.0	43.0	45.7	48.8	1.24.34.33		34.45	43.56	9.11		1.24.43.66	+1.00
	29	Piazzi XVI. 195 S.P.	G	...	4.9	18.0	30.3	55.8	22.8	35.6	48.0	...	4.35.56.61		55.41				16.36.4.61	+1.02
	30	Piazzi IV. 191 ..	G	...	33.4	42.8	53.2	13.1	33.0	43.7	53.2	...	4.46.13.10		14.02				4.46.23.22	-0.63
	31	h Draconis S.P. .	G	...	44.4	51.0	57.7	10.8	23.8	30.6	37.2	...	4.55.10.85		10.27				16.55.19.47	+0.99
	32	Rigel	G	6.0	9.0	11.5	14.4	19.8	25.5	28.5	31.2	33.9	5.8.19.95		19.98	29.34	9.36		5.8.29.18	-0.39
	33	n Tauri	G	18.5	21.6	24.4	27.5	33.4	39.3	42.4	45.2	48.3	5.11.33.38		33.54				5.11.42.73	-0.34
	34	17 Camelopardali.	G	37.2	43.4	49.4	55.6	7.6	19.9	26.0	32.0	38.2	5.18.7.64		8.16				5.18.17.35	-0.80
	35	δ Ursæ Min. S.P. (E&E)	G	...	...	45.0	35.5	4.0	39.5	25.5	...	...	6.12.40.70		36.35	44.93	8.58		...	
	36	γ Geminorum ...	G	...	...	...	...	17.2	23.3	26.0	28.9	31.8	6.30.17.34		17.47	26.66	9.19		6.30.26.66	-0.76
	37	Cephei 51. (E&E)	G	...	...	23.0	22.0	17.5	...	...	...	...	6.40.50.90		56.26	4.93	8.67		...	
	38	λ Ursæ Min. S.P. (E&E)	G	...	...	...	...	...	29.5	54.0	23.0	55.5	7.49.10.69		56.88	6.16	9.28		...	
	39	Uranus	G	46.0	46.1	51.8	54.8	0.6	6.6	9.6	12.5	15.4	8.42.0.70		0.83				8.42.10.02	
	40	γ Serpentis	E	13.8	16.9	19.5	22.4	28.3	33.8	36.7	39.6	42.6	15.50.28.16	(+3.25) [-2.36]	28.32	37.71	9.39	9.46†	....	
	41	δ Scorpil	AD	...	31.5	34.4	37.4	43.6	49.4	52.5	55.3	...	15.52.43.41		43.39			9.17	15.52.32.47	
	42	β Scorpil	E	42.3	45.2	48.0	51.0	57.0	2.7	5.8	8.4	11.4	15.57.56.84		56.82	6.16	9.34	9.46†	....	
	43	δ Ophiuchi	AD	21.1	24.0	26.7	29.4	35.0	40.4	43.2	46.1	49.0	16.7.34.97		35.03	44.04	9.01	9.17	....	
	44	σ Scorpil	AD	6.7	10.0	12.8	16.0	22.0	28.2	31.3	34.3	37.5	16.13.22.06		22.02			[0.14]	16.13.31.09	+0.72
	45	η 2 L.....	AD	28.7	31.8	35.0	38.0	44.4	50.6	53.8	57.0	...	0.16.36.44.35		44.30				16.35.42.93	
	46	κ Ophiuchi	AD	...	21.3	24.0	26.8	32.3	38.0	40.7	43.6	...	16.51.32.36		32.48	41.54	9.06		....	

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 18, 26, 35, 37, and 38, +33".70: +34".10: +34".50: +34".50: and +34".60.

Corrections for passage of Semidiameter, Nos. 7 and 45, -64".82: and -70".44.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

February 8 to February 9, δ Crateris. The azimuthal error by tabular places of Procyon and λ Ursæ Minoris S.P. on February 9.

February 9, ζ Cygni, to February 10, Uranus. The azimuthal error used is the mean of those (-1".75 and -1".87) determined on February 10 by tabular places of Polaris and λ Ursæ Minoris S.P. and of δ Ursæ Minoris S.P. and Cephei 51.

February 10, γ Serpentis, to February 12. The azimuthal error used is the mean of those (-2".14 and -2".58) determined on February 11 by tabular places of Polaris and λ Ursæ Minoris S.P. and of δ Ursæ Minoris S.P. and Cephei 51, allowing in the first case +0".02 for clock-rate.

3, 4. Ill-defined.

12. Cloudy.

24, 25. Very cloudy.

35, 37. Very diffused and tremulous.

38, 44. Very faint.

43. Very tremulous.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sideral and [Loss Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Feb. 10	1	ε Herculis	AD	..	..	..	..	18.1	24.5	27.8	31.0	34.3	16.55.18.07	+0.91	18.32	27.45	9.13	9.17	....	
	2	η Ophiuchi	AD	44.8	47.6	50.6	53.4	59.2	5.0	7.8	10.8	13.6	17. 2.59.18	(+3.25) [-2.36]	59.18	8.25	9.07	[-0.14]	....	
Feb. 11	3	⊙ 1 L.	AD	32.0	35.0	37.7	40.8	46.0	51.8	54.8	57.8	0.5	21.38.46.24		53.31			Hardy.	21.40. 2.35	
	4	⊙ 2 L.	AD	46.1	49.1	51.8	54.6	0.3	6.0	9.0	11.8	14.8	21.41. 0.37					44.37	....	
	5	Polaris ....(E&E)	AD	..	..	..	..	..	..	39.5	38.0	34.5	1.10.49.32		3.14	48.65	45.51	0.90	....	
	6	δ Eridani ....(E&E)	AD	45.9	0.0	13.9	28.0	41.9	56.0	10.0	..	..	3.36.27.98		28.01	12.65	44.64		....	
	7	ζ Ursæ Min.S.P.(E&E)	AD	30.6	38.4	46.3	53.2	1.0	8.8	16.5	..	..	3.47.53.47		51.90				15.48.36.61	- 0.70
	8	α ¹ Tauri ....(E&E)	AD	..	59.8	15.0	29.9	44.8	59.8	14.7	..	..	3.56.29.90		30.10	14.72	44.62		....	
	9	ε Tauri ....(E&E)	AD	46.0	1.0	15.9	30.6	45.2	59.9	14.6	..	..	4.20.30.47		30.64	15.61	44.97		....	
	10	δ Ursæ Min.S.P.(E&E)	AD	..	..	..	31.5	5.0	38.0	23.0	..	..	6.12. 4.61		59.08	45.16	46.08		....	
	11	μ Geminorum(E&E)	AD	0.2	15.1	30.0	44.7	59.3	13.9	28.6	..	..	6.20.44.56		44.73	29.57	44.84		....	
	12	42 Draconis S.P.(E&E)	AD	..	..	..	..	..	4.0	..	16.9	24.1	6.25.50.64		49.91				18.26.34.72	+ 2.35
	13	Cephei 51. ....(E&E)	AD	..	..	..	..	10.5	8.0	4.0	2.0	..	6.40.11.52		18.33	4.73	46.40		....	
	14	50 Draconis S.P.(E&E)	AD	..	..	..	37.4	32.2	26.7	21.0	..	..	6.49.37.55		36.30				18.50.21.12	+ 4.26
	15	δ Draconis S.P.(E&E)	AD	55.7	31.9	7.9	44.0	19.9	56.0	31.9	..	..	7.11.43.86		43.06				19.12.27.90	+ 3.19
Feb. 12	16	Castor ....(E&E)	AD	0.4	16.6	33.2	49.4	5.6	21.8	..	..	..	7.25.49.36		49.62	34.63	45.01		....	
	17	49 Camelop. ....(E&E)	AD	46.5	17.3	48.2	19.0	49.8	20.4	51.0	..	..	7.34.18.94		19.61				7.35. 4.47	- 2.42
	18	λ Ursæ Min.S.P.(E&E)	AD	..	..	..	..	32.0	59.0	22.0	55.0	..	7.48.37.63		20.09	6.48	46.39		....	
	19	η Cancri ....(E&E)	AD	57.0	12.0	26.9	41.9	55.9	11.0	26.0	..	..	8.24.41.55		41.73	26.39	44.66		....	
	20	γ Cancri ....(E&E)	AD	31.0	46.0	0.9	15.8	30.6	45.3	0.1	..	..	8.35.15.69		15.89	0.72	44.83		....	
	21	Uranus ....(E&E)	AD	30.6	45.1	59.9	14.5	29.2	44.0	58.7	..	..	8.41.14.59		14.76				8.41.59.65	
	22	β Tauri	E	..	39.1	54.9	58.2	..	..	..	..	..	5.18.10.65	(+2.35)	10.82	20.02	9.20	Sid.Stand. 9.21	....	
	23	ξ Geminorum	E	..	..	..	..	..	..	13.0	15.9	18.8	6.38. 4.52		4.61	13.78	9.17	[-0.08]	....	
Feb. 16	24	ζ ² Geminorum ...	AD	15.6	18.7	21.6	24.5	30.5	36.4	39.4	42.3	45.4	6.56.30.47	+0.96	30.45	38.95	8.50	8.52	6.56.38.94	- 0.85
	25	48 Geminorum ...	AD	24.3	27.4	30.2	33.4	39.4	..	..	..	..	7. 4.39.42	(-0.45)	39.40			[-0.09]	7. 4.47.89	- 0.92
	26	δ Geminorum	AD	13.3	16.4	19.4	22.3	28.2	34.2	37.1	40.1	43.2	7.12.28.22	[-1.68]	28.20	36.74	8.54		7.12.36.69	- 0.93
	27	β Canis Minoris ..	AD	57.4	0.2	3.0	5.8	11.4	17.0	19.8	22.5	25.4	7.20.11.37		11.33	19.89	8.56		7.20.19.82	- 0.87
	28	68 Geminorum	AD	3.0	5.9	8.7	11.6	17.4	23.2	26.0	28.8	31.7	7.26.17.34		17.31				7.26.25.80	- 0.94
	29	α Cancri	AD	14.2	17.3	19.8	22.6	28.3	34.0	36.8	39.7	42.6	8.51.28.34		28.32	36.79	8.47		8.51.36.81	- 1.15
	30	σ ¹ Ursæ Majoris ..	AD	37.3	44.7	51.6	58.8	13.2	..	..	..	..	8.57.13.21		13.38				8.57.21.87	- 3.76
	31	c Ursæ Majoris ..	AD	46.7	52.7	58.6	..	..	33.9	39.7	45.6	..	9. 4.16.14		16.26				9. 4.24.75	- 3.05
	32	83 Cancri	AD	34.9	38.0	40.9	43.7	49.3	55.5	58.4	1.2	4.2	9.11.49.56		49.54	57.99	8.45		9.11.58.03	- 1.24
	33	h Ursæ Majoris ..	AD	..	..	..	..	29.0	41.6	47.6	53.9	0.2	9.21.28.98		29.10				9.21.37.58	- 3.34
	34	27 Ursæ Majoris ..	AD	..	..	..	..	14.6	33.4	42.7	51.9	1.3	9.31.14.47		14.73				9.31.23.21	- 5.26
Feb. 17	35	Regulus	AD	18.2	21.2	23.8	26.7	32.3	38.0	40.9	43.7	46.6	10. 1.32.36		32.34	40.76	8.42		10. 1.40.82	- 1.19
	36	α ¹ Tauri	HC	51.4	54.4	57.4	0.3	6.3	12.2	15.3	18.2	21.2	3.57. 6.28	(-0.29)	6.27	14.62	8.35	8.39	3.57.14.64	+ 0.26
	37	ω ¹ Tauri	HC	26.5	29.4	32.4	35.3	41.1	46.8	49.8	52.7	55.7	4. 1.41.06		41.05	49.43	8.38	[-0.15]	4. 1.49.41	+ 0.21
	38	σ ¹ Eridani	HC	20.7	23.5	26.2	29.0	34.5	40.2	43.0	45.7	48.5	4. 5.34.57		34.52	42.86	8.34		4. 5.42.88	+ 0.04
	39	σ ² Eridani	HC	6.0	9.0	11.7	14.5	20.0	25.7	28.4	31.1	34.0	4. 9.20.03		19.98				4. 9.28.34	+ 0.04
	40	χ ¹ Tauri	HC	31.3	34.4	37.4	40.4	46.5	..	..	..	..	4.14.46.54		46.54				4.14.54.00	+ 0.15
	41	χ ² Tauri	HC	..	..	..	..	53.4	56.4	59.4	2.5	..	4.14.47.19		47.19				4.14.55.55	+ 0.15
	42	υ ² Tauri	HC	22.0	25.0	28.0	31.0	37.0	43.1	46.0	48.9	52.0	4.19.36.98		36.97				4.19.45.33	+ 0.11
	43	Aldebaran	HC	18.7	21.6	24.4	27.4	33.2	39.0	41.8	44.6	47.5	4.28.33.12		33.10	41.47	8.37		4.28.41.46	+ 0.03
	44	τ Tauri	HC	17.7	20.8	23.6	26.6	32.7	38.6	41.6	44.6	47.6	4.34.32.63		32.62	40.99	8.37		4.34.40.98	+ 0.01
	45	Rigel	HC	6.9	9.9	12.5	15.4	20.9	26.6	29.4	32.1	35.0	5. 8.20.95		20.90	29.23	8.33		5. 8.29.26	- 0.28

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32" 400.

February 11, Polaris to Uranus. The transits were observed by eye and ear.

February 16 to 21. The azimuthal error used is the mean of those (-1'' 69, -1'' 41, -1'' 51, -2'' 15, and -1'' 66) determined by tabular places of δ Ursæ Minoris S.P. and Cephei 51 on February 17 and 18, of Polaris and δ Orionis on February 19, and of δ Ursæ Minoris S.P. and Cephei 51 on February 19 and 20, allowing in the third case -0.02 for clock-rate.

1, 41. Very faint.
16. Image blurred.

2. Faint.
22. Observed over wires O, P, Q.

5, 9, 18. Very tremulous.
25, 30, 31. Cloudy.

7. Tremulous.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at Sidereal and [Lossing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
				h	m	s	h	m	s	h	m	s								
Feb. 17	1	Urania	HC	..	..	..	..	35.9	51.4	6.4	..	..	6. 10. 20.90	+0.96	20.89	..	..	8.39	6. 10. 29.24	
	2	δ Ursæ Min. S.P. (E&E)	HC	..	..	..	..	2.0	35.0	22.0	7.5	55.0	6. 12. 39.86	(-0.29)	37.77	46.69	8.92	[-0.15]		
	3	Cephei 51. (E&E)	HC	..	..	..	..	..	10.0	7.0	..	2.0	6. 40. 51.92	[-1.68]	54.27	3.22	8.95	....		
	4	Uranus	HC	36.7	39.7	42.5	45.5	51.4	57.3	0.2	3.2	6.1	8. 40. 51.38		51.37	..	..	8. 40. 59.72		
	5	α Cancri	HC	14.3	17.3	19.9	22.8	28.4	34.0	36.9	39.6	42.6	8. 51. 28.40		28.38	36.79	8.41	8. 51. 36.71	- 1.15	
	6	Fides	HC	..	..	..	..	56.1	..	7.5	10.9	14.1	9. 17. 2.00		1.99	..	..	9. 17. 10.32		
	7	27 Ursæ Majoris.	HC	..	..	46.6	56.3	15.2	33.3	42.8	..	..	9. 31. 14.79		15.09	..	..	9. 31. 23.42	- 5.27	
	8	ε Leonis	HC	19.7	22.8	25.5	28.7	34.8	41.0	43.9	46.9	50.0	9. 38. 34.78		34.77	43.14	8.37	9. 38. 43.10	- 1.38	
	9	Regulus	HC	18.4	21.4	24.0	26.9	32.6	38.2	41.1	43.7	46.7	10. 1. 32.54		32.52	40.77	8.25	10. 1. 40.85	- 1.20	
	10	Amphitrite	HC	30.8	33.7	36.5	39.4	45.2	50.8	53.6	56.5	59.6	10. 17. 45.10		45.08	..	..	10. 17. 53.41		
	11	Angelina	HC	45.3	48.2	50.8	53.7	59.5	4.9	7.6	10.4	13.2	10. 22. 59.26		59.23	..	..	10. 23. 7.55		
	12	Leto	HC	..	..	..	..	..	30.5	45.7	..	..	10. 44. 1.40		1.39	..	..	10. 44. 9.71		
Feb. 18	13	Aldebaran	E	18.6	21.6	24.4	27.2	32.9	38.7	41.5	44.4	47.4	4. 28. 32.95	(+0.63)	32.99	41.46	8.47	8.42†		
	14	τ Tauri	E	17.6	20.8	23.6	26.5	32.7	38.7	41.6	44.6	47.6	4. 34. 32.62		32.67	40.97	8.30	[-0.15]		
	15	μ Eridani	L	50.5	53.5	56.4	58.8	4.5	10.2	12.8	15.5	18.2	4. 39. 4.47		4.46	12.26	7.80	7.90		
	16	B. F. 625	L	12.1	15.3	18.2	21.3	27.4	33.4	36.5	39.5	42.5	4. 48. 27.32		27.37	..	..	[-0.15]	4. 48. 35.24	- 0.07
	17	ι Tauri	L	58.6	1.5	4.5	7.4	13.3	19.3	22.3	25.1	28.1	5. 0. 13.34		13.39	..	..	5. 0. 21.26	- 0.15	
	18	Rigel	L	7.4	10.2	13.0	15.8	21.4	27.1	29.8	32.5	35.4	5. 8. 21.38		21.36	29.22	7.86	..	5. 11. 53.38	- 0.32
	19	Bradley 743.	L	31.4	34.3	37.0	39.8	45.5	51.3	54.1	56.9	59.6	5. 11. 45.52		45.51	..	..	5. 28. 1.38	- 0.24	
	20	Piazzi V. 136.	L	37.9	41.1	44.0	47.1	53.5	59.6	3.0	5.9	9.2	5. 27. 53.45		53.51	..	..	5. 40. 2.99	- 0.39	
	21	131 Tauri	L	40.8	43.8	46.6	49.5	55.1	0.6	3.6	6.6	9.4	5. 39. 55.09		55.13	..	..	....		
	22	α Orionis	L	59.6	2.5	5.1	7.8	13.5	19.1	22.0	24.6	27.5	5. 48. 13.50		13.51	21.46	7.95	....		
	23	δ Ursæ Min. S.P. (E&E)	L	..	..	41.5	29.0	2.8	35.5	21.2	7.8	..	6. 12. 40.97		38.13	47.02	8.89	....		
	24	Cephei 51. (E&E)	L	24.0	24.0	20.8	18.0	13.0	..	..	..	..	6. 40. 51.00		54.37	2.88	8.51	....		
	25	Uranus	L	27.5	30.4	33.0	36.2	41.8	47.8	50.9	53.7	56.6	8. 40. 41.97		42.02	..	..	8. 40. 49.87		
	26	α Cancri	L	14.7	17.7	20.4	23.3	29.0	34.8	37.5	40.3	43.0	8. 51. 28.94		28.97	36.79	7.82	....		
Feb. 19	27	⊙ 1 L.	C	41.4	44.2	47.0	50.0	55.5	0.9	3.8	6.7	9.5	22. 9. 55.42		1.70	..	..	8.15		
	28	⊙ 2 L.	C	53.8	56.8	59.5	2.3	7.9	13.7	16.6	19.3	22.2	22. 12. 7.99		..	..	..	[-0.02]	22. 11. 9.83	
	29	Mercury (center)	C	4.0	7.0	9.6	12.4	18.0	23.6	26.4	29.3	32.0	23. 0. 18.01		17.99	..	..	23. 0. 26.12		
	30	Polaris ... (E&E)	C	..	..	..	..	..	31.0	28.0	23.0	19.5	1. 11. 27.44		34.39	42.21	7.82	8.13	....	
	31	ε Arietis	AD	37.0	40.0	42.9	45.8	51.7	57.7	0.6	3.6	6.6	2. 51. 51.73		51.78	59.92	8.14	8.09†	....	
	32	α Ceti	AD	19.2	22.1	24.7	27.4	33.0	38.7	41.4	44.2	47.0	2. 55. 33.06		33.07	41.11	8.04	..		
	33	δ Orionis	C	12.6	15.4	18.1	20.8	26.4	31.9	34.7	37.4	40.3	5. 25. 26.38		26.38	34.49	8.11	8.13	5. 25. 34.51	- 0.32
	34	25 Camelopardali.	C	1.8	6.9	11.5	16.3	25.7	35.6	40.4	45.3	49.9	5. 33. 25.89		26.08	..	..	5. 33. 34.21	- 0.57	
	35	137 Tauri	C	51.0	53.8	56.6	59.4	5.0	10.9	13.7	16.4	19.4	5. 45. 5.11		5.15	..	..	5. 45. 13.28	- 0.41	
	36	α Orionis	C	59.5	2.3	5.0	7.7	13.4	18.9	21.6	24.5	27.4	5. 48. 13.35		13.36	21.45	8.09	5. 48. 21.49	- 0.43	
	37	δ Ursæ Min. S.P. (E&E)	C	..	..	29.0	16.0	50.0	22.5	10.5	..	..	6. 12. 42.00		39.13	47.35	8.22	....		
	38	γ Geminorum	C	4.0	7.0	9.7	12.6	18.5	24.3	27.1	29.9	32.9	6. 30. 18.42		18.46	26.57	8.11	6. 30. 26.58	- 0.67	
	39	Cephei 51. (E&E)	C	..	..	..	..	58.5	53.5	51.0	48.0	46.0	6. 40. 50.18		53.55	2.51	8.96	....		
	40	53 Geminorum ..	C	42.0	45.4	48.3	51.5	57.6	4.0	7.1	10.3	13.4	7. 7. 57.70		57.76	..	..	7. 8. 5.88	- 0.95	
	41	18 Leonis	C	14.8	17.8	20.5	23.5	29.0	34.8	37.4	40.4	43.3	9. 39. 29.03		29.06	..	..	9. 39. 37.18	- 1.22	
	42	μ Leonis	C	13.5	16.6	19.6	22.8	29.0	35.3	38.1	41.4	44.4	9. 45. 28.93		28.99	37.08	8.09	9. 45. 37.11	- 1.45	
	43	Piazzi IX. 230.	C	..	28.9	31.6	34.6	..	..	49.9	..	55.7	9. 55. 40.70		40.75	..	..	9. 55. 48.87	- 1.38	
44	34 Leonis	C	30.4	33.3	36.2	38.8	44.6	50.2	53.2	56.0	58.8	10. 4. 44.59		44.62	..	..	10. 4. 52.74	- 1.25		
45	39 Leonis	C	..	..	..	5.7	11.6	17.8	20.8	23.7	26.9	10. 10. 11.69		11.74	..	..	10. 10. 19.86	- 1.40		
46	Angelina	C	..	..	..	..	13.0	..	..	24.5	27.4	10. 21. 13.21		13.22	..	..	10. 21. 21.34			
47	π Virginis	C	3.9	6.7	9.4	12.2	17.7	23.4	26.2	29.0	31.6	11. 54. 17.77		17.78	25.98	8.20	11. 54. 25.90	- 1.02		

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy or Arnold 1.

The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy or Arnold 1 for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 2, 3, 23, 24, 30, 37, and 39, + 37".80:

+ 37".80: + 38".60: + 38".60: - 8".40: - 7".90 and - 7".90.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

February 19th. 0^h. The clock Hardy was taken away for repair, and Arnold 1 substituted in its place.

1. Scarcely visible; observed over wires X, Y, Z.
27, 28, 29. Very tremulous.

6. Very faint.
29. Faint.

12. Observed over wires Y, Z.
43. Very cloudy and faint.

23, 24, 25. Faint; misty.
46. Only seen occasionally.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level).		Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at ob- sideral and (Loving Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.					
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.		Error of Azimuth.												
				s	s	s	s	s	s	s	s	s		h	m							s				
Feb. 19	1	Jupiter 1 L.	C	47.4	50.0	52.7	55.5	0.8	..	..	..	..	12. 2. 1.00	+0.96	} 2.49			8.13	12. 2. 10.61							
	2	Jupiter 2 L.	C	..	..	..	..	4.0	9.5	12.4	14.9	17.9	12. 2. 3.97	(+0.63)							} (+1.38)	} 51.69		[-0.02]		
Feb. 20	3	☉ 1 L.	E	31.5	34.1	37.2	40.0	45.4	51.3	54.2	57.0	59.6	22. 13. 45.57	-1.68												
	4	☉ 2 L.	E	43.7	46.7	49.5	51.8	57.7	3.4	6.4	9.3	12.0	22. 15. 57.81					8.49	22. 15. 0.11							
	5	δ Eridani	L	50.6	53.5	56.4	59.0	4.7	10.4	13.3	16.0	18.7	3. 37. 4.71	4.71	12.51	7.80		[-0.08 ]	....							
	6	γ Tauri	L	36.3	39.4	42.5	45.5	51.5	57.4	0.3	3.5	6.6	3. 39. 51.42	51.52	59.38	7.86		7.84†	....							
	7	Aldebaran	E	18.5	21.4	24.4	27.2	33.0	38.8	41.6	44.4	47.5	4. 28. 32.96	33.04	41.43	8.39	8.41	4. 28. 21.44	+ 0.07							
	8	Piazzi XVI. 182 S.P.	E	..	..	55.6	11.0	40.2	9.2	25.0	..	..	4. 32. 40.28	39.17	..	..	..	16. 32. 47.56	- 0.18							
	9	μ Eridani	E	50.0	52.8	55.4	58.4	3.8	9.4	12.0	15.0	17.7	4. 39. 3.81	3.83	12.23	8.40		4. 39. 12.22	- 0.07							
	10	Piazzi IV. 191...	E	..	..	43.2	53.4	13.6	33.6	44.0	..	..	4. 46. 13.51	14.21	..	..		4. 46. 22.60	+ 0.02							
	11	β Camelopardali	E	..	..	..	53.3	4.3	15.5	21.0	26.7	32.4	4. 52. 4.35	4.70	..	..		4. 52. 13.09	- 0.03							
	12	ε Ursæ Min. S.P.	E	..	..	..	7.6	49.4	30.4	..	..	..	4. 58. 49.21	47.66	..	..		16. 58. 56.05	+ 1.15							
	13	Capella	E	54.7	58.6	2.5	6.5	14.3	22.4	26.4	30.4	34.4	5. 7. 14.44	14.64	..	..		5. 7. 23.03	- 0.18							
	14	Piazzi XVII. 61 S.P.	E	..	..	0.5	6.6	19.1	31.2	37.0	..	..	5. 11. 18.91	18.34	..	..		17. 11. 26.73	+ 0.68							
	15	ε Orionis	E	27.2	30.1	32.8	35.4	41.1	46.5	49.4	52.2	55.0	5. 29. 41.06	41.09	49.51	8.42		5. 29. 49.48	- 0.34							
	16	f Draconis S.P...	E	..	..	56.7	4.0	19.2	34.2	41.5	..	..	5. 32. 19.16	18.61	..	..		17. 32. 27.00	+ 1.18							
	17	B. A. C. 1813....	E	..	44.6	52.4	59.6	14.7	29.6	37.4	44.8	..	5. 39. 14.66	15.16	..	..		5. 39. 23.55	- 1.00							
	18	ψ ⁴ Draconis S.P.	E	..	25.5	34.0	43.3	1.8	19.5	28.6	37.8	..	5. 44. 1.58	0.89	..	..		17. 44. 9.28	+ 1.67							
	19	γ Draconis S.P...	E	9.5	14.0	18.3	23.0	31.7	40.6	45.0	49.4	54.0	5. 53. 31.77	31.46	..	..		17. 53. 39.85	+ 1.03							
	20	40 Camelopardali	E	..	51.7	57.2	2.6	13.6	25.0	30.6	35.8	..	6. 4. 13.76	14.11	..	..		6. 4. 22.50	- 1.06							
	21	δ Ursæ Min. S.P. (E&F)	E	54.5	42.0	28.5	..	48.0	21.5	7.5	..	..	6. 12. 42.47	38.87	47.67	8.80		....								
	22	Cephei 51. . (E&F)	E	7.5	7.5	2.5	59.5	56.0	..	..	..	..	6. 40. 49.15	53.37	2.15	8.78		....								
	23	Uranus	E	..	..	..	..	..	..	31.3	34.3	37.0	8. 40. 22.47	22.56	..	..		8. 40. 30.94								
	24	κ Cancri	E	..	..	..	42.4	48.0	53.6	56.5	59.3	2.0	9. 0. 47.97	48.04	56.42	8.38		9. 0. 56.42	- 1.16							
	25	Bradley 1300....	E	..	9.6	12.6	16.1	23.0	29.5	32.9	36.4	..	9. 7. 22.84	22.99	..	..		9. 7. 31.37	- 1.58							
	26	83 Cancri	E	35.0	38.0	40.8	43.5	49.6	55.4	58.4	1.2	4.1	9. 11. 49.53	49.62	58.01	8.39		9. 11. 58.00	- 1.26							
	27	Fides	E	..	10.4	13.3	16.1	22.0	28.0	31.0	33.7	..	9. 14. 22.04	22.13	..	..		9. 14. 30.51								
	28	ξ Leonis	E	48.0	50.9	53.5	56.4	1.8	7.6	10.4	13.3	16.0	9. 25. 1.97	2.04	10.35	8.31		9. 25. 10.42	- 1.20							
	29	9 Leonis	E	..	18.0	20.9	24.0	30.0	36.0	39.3	42.2	..	9. 30. 30.03	30.14	..	..		9. 30. 38.52	- 1.41							
	30	13 Leonis	E	0.5	3.9	7.0	10.0	16.2	22.4	25.5	28.7	31.8	9. 34. 16.20	16.31	..	..		9. 34. 24.69	- 1.44							
	31	16 Leonis Minoris	E	4.2	8.0	11.4	15.0	22.3	29.6	33.2	36.7	40.4	9. 42. 22.28	22.45	..	..		9. 42. 30.83	- 1.82							
	32	Lacaille 4072....	E	17.7	21.3	24.1	27.4	33.9	40.2	43.4	46.6	49.8	9. 50. 33.79	33.75	..	..		9. 50. 42.17	- 1.10							
	33	34 Leonis	E	..	33.1	35.8	38.6	44.3	50.0	52.8	55.7	..	10. 4. 44.31	44.39	..	..		10. 4. 52.77	- 1.26							
	34	Angelina	E	3.1	6.0	8.7	11.4	16.8	22.6	25.4	28.0	31.0	10. 20. 16.98	17.03	..	..		10. 20. 25.41								
	35	39 Leonis Minoris	E	..	..	6.0	9.3	15.4	21.6	24.7	..	..	10. 33. 15.38	15.50	..	..		10. 33. 23.87	- 1.51							
	36	Bradley 1485....	E	..	..	17.6	20.5	26.5	..	..	38.6	42.0	10. 36. 26.61	26.71	..	..		10. 36. 35.08	- 1.42							
	37	Leto	E	11.6	15.2	18.0	20.9	..	..	..	41.5	10. 41. 35.70	26.79	..	..	..		10. 41. 35.16								
	38	d Leonis	E	41.9	45.0	47.5	50.4	55.7	1.3	4.1	7.0	9.7	10. 53. 55.82	55.86	4.25	8.39		10. 54. 4.23	- 1.12							
	39	Lalande 21272....	E	..	44.4	47.4	50.2	56.0	2.0	4.8	7.6	..	11. 0. 56.03	56.12	..	..		11. 1. 4.49	- 1.30							
	40	Piazzi XI. 12....	E	7.7	10.5	13.2	16.0	21.7	27.2	30.0	32.8	35.6	11. 7. 21.62	21.67	..	..		11. 7. 30.04	- 1.15							
	41	Piazzi XI. 22....	E	1.4	4.2	7.1	9.8	15.6	21.4	24.2	27.0	29.9	11. 9. 15.60	15.68	..	..		11. 9. 24.05	- 1.21							
	42	π Virginis	E	3.5	6.4	9.4	12.0	17.5	23.3	25.9	28.7	31.6	11. 54. 17.57	17.62	26.00	8.38		11. 54. 25.99	- 1.04							
	43	Jupiter 1 L.	E	25.1	..	31.6	..	38.9	..	47.3	..	52.7	12. 1. 38.88	} 40.37				12. 1. 48.74								
	44	Jupiter 2 L.	E	28.0	..	33.5	..	41.8	..	50.2	..	55.7	12. 1. 41.80													
	45	72 Ophiuchi.	AD	59.5	2.5	5.2	8.0	13.6	19.2	22.0	24.7	27.6	18. 1. 13.57								(+1.75)	13.64	21.75	8.11	8.20	
	46	α Aquilæ	AD	14.6	17.6	20.4	23.3	28.6	34.1	37.1	39.8	42.7	19. 44. 28.67	28.74	36.85	8.11		[-0.11 ]	....							
	47	α Cygni	AD	38.2	42.0	45.9	49.8	57.6	5.5	9.5	13.2	17.3	20. 36. 57.64	57.88	..	..		20. 37. 5.99	+ 2.09							

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, $32^r.400$.

Corrections to the times by Arnold 1 for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 21 and 22, $-5^s.90$: and $-5^s.90$.

† This clock-error has been used in the reduction of the observations made with the Altazimuth.

3, 4. The limbs very badly defined.

35, 36. Faint.

1876600M. 36A...1A

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874. Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Feb. 21	1	⊙ 1 L.....	AD	..	..	..	..	35.5	41.2	44.0	46.7	49.6	22. 17. 35.48	+0.96	41.52			8.20	22. 18. 49.62	
	2	⊙ 2 L.....	AD	..	..	..	..	47.6	53.2	55.8	58.9	1.5	22. 19. 47.50	(+1.75) [-1.68]				[-0.11]		
Feb. 24	3	γ Tauri.....	L	15.2	18.4	20.8	23.7	29.5	35.3	38.1	41.0	43.9	4. 12. 29.52	+0.81	29.53	37.22	7.69	7.66†	....	
	4	ε Tauri.....	L	53.2	56.3	58.8	1.8	7.6	13.5	16.5	19.4	22.2	4. 21. 7.78	(+0.43)	7.81	15.41	7.60	[-0.05]	....	
	5	⊙ 1 L.....	E	24.6	27.8	30.7	34.0	40.3	46.7	49.8	53.0	56.2	5. 25. 40.32	[-1.69]	40.36			8.23	5. 27. 1.24	
	6	ε Orionis.....	E	27.4	30.3	33.0	35.6	41.3	46.8	49.5	52.4	55.2	5. 29. 41.26		41.24	49.45	8.21	[-0.05]	5. 29. 49.46	- 0.28
	7	κ Orionis.....	E	25.0	..	30.6	33.4	39.0	44.8	47.4	..	53.2	5. 41. 39.04		39.00	47.16	8.16		5. 41. 47.22	- 0.35
	8	136 Tauri.....	E	1.1	4.2	..	10.3	16.6	22.8	..	29.0	32.0	5. 45. 16.55		16.59				5. 45. 24.81	- 0.36
	9	139 Tauri.....	E	47.3	50.5	53.5	56.5	2.7	8.8	12.0	14.9	18.0	5. 50. 2.66		2.70				5. 50. 10.92	- 0.38
	10	δ Ursæ Min. S.P. (E&E)	E	..	..	..	..	..	10.0	58.5	43.5	31.0	6. 12. 42.97		40.42	48.86	8.44		....	
	11	Cephei 51. (E&E)	E	..	..	52.0	49.5	45.0	38.5	37.0	..	..	6. 40. 49.03		51.99	0.91	8.92		....	
	12	Groombridge 1400	E	..	..	45.0	53.3	9.5	25.8	34.1	..	..	7. 57. 9.50		9.85				7. 57. 18.06	- 3.46
	13	ρ Draconis S.P. ...	E	..	..	41.8	48.5	3.0	18.2	25.2	..	..	8. 2. 3.38		2.94				20. 2. 11.15	+ 3.38
	14	κ ¹ Cephei S.P. ...	E	..	..	13.7	26.4	51.7	17.0	29.7	..	..	8. 12. 51.77		51.04				20. 12. 59.25	+ 6.09
	15	γ Cancri.....	E	3.5	6.5	9.4	12.4	18.3	24.2	27.0	30.0	33.0	8. 25. 18.23		18.26	26.36	8.10		8. 25. 26.47	- 1.16
	16	π Ursæ Majoris..	E	..	39.3	45.4	52.4	5.2	18.0	24.7	31.0	..	8. 29. 5.08		5.34				8. 29. 13.55	- 3.07
	17	Uranus.....	E	31.2	34.2	37.0	40.1	45.8	51.6	54.4	57.4	0.3	8. 39. 45.76		45.79				8. 39. 54.00	
	18	Amphitrite.....	E	31.4	34.2	37.2	39.8	45.5	51.4	54.2	57.1	0.2	10. 10. 45.65		45.66				10. 10. 53.87	
	19	Angelina.....	E	32.1	35.2	37.8	40.6	46.4	52.0	54.6	57.4	0.4	10. 16. 46.26		46.25				10. 16. 54.46	
	20	ρ Leonis.....	E	49.6	52.3	55.1	58.0	3.5	9.2	12.0	14.7	17.5	10. 26. 3.53		3.52	11.75	8.23		10. 26. 11.73	- 1.23
	21	Groomb. 3887 S.P.	E	..	..	..	..	..	22.1	39.4	55.5	13.7	10. 38. 47.73		46.75				22. 38. 54.96	+ 10.72
	22	ω Ursæ Majoris..	E	..	..	..	..	29.4	37.0	44.5	48.5	52.3	10. 46. 36.92		37.01				10. 46. 45.22	- 2.06
	23	α Ursæ Majoris..	E	21.0	27.1	33.0	39.0	51.0	3.1	8.9	15.0	20.8	10. 55. 50.94		51.17				10. 55. 59.38	- 3.46
	24	Groomb. 3994 S.P.	E	..	..	20.4	26.8	39.2	51.9	57.5	..	..	11. 2. 39.19		38.81				23. 2. 47.02	+ 3.87
	25	π Virginis.....	E	3.7	6.7	9.4	..	17.7	..	26.1	29.0	31.6	11. 54. 17.72		17.71	26.07	8.36		11. 54. 25.92	- 1.11
	26	Jupiter 1 L.....	E	52.7	..	58.3	..	6.5	..	14.7	..	20.4	12. 0. 6.50		7.97				12. 0. 16.17	
	27	Jupiter 2 L.....	E	55.7	..	1.1	..	9.5	..	17.8	..	23.4	12. 0. 9.48							
	28	α Aquilæ.....	AD	14.9	17.7	20.6	23.5	29.0	34.6	37.4	40.1	43.0	19. 44. 28.95	(+1.40)	28.99	36.94	7.95	8.05 [-0.15]	....	
Feb. 25	29	κ Orionis.....	C	..	..	..	..	45.0	47.7	50.5	53.4	5. 41. 39.30		39.30	47.14	7.84	7.93†	....		
	30	α Orionis.....	C	59.5	2.4	5.0	7.7	13.4	19.0	21.8	24.5	27.4	5. 48. 13.39		13.43	21.37	7.94		....	
	31	ν Geminorum....	AD	6.7	9.8	..	15.6	21.5	27.4	..	33.2	36.4	6. 21. 21.49		21.58	29.40	7.82	7.90	....	
Feb. 27	32	⊙ 1 L.....	C	6.7	9.6	12.3	15.1	20.7	26.4	29.2	31.9	34.7	22. 40. 20.72	(-0.19)	26.19			7.49	22. 41. 33.64	
	33	⊙ 2 L.....	C	17.7	20.6	23.5	26.2	31.8	37.3	40.2	43.0	45.9	22. 42. 31.78					[-0.04]		
	34	o Tauri.....	AD	40.0	43.0	45.7	48.5	54.1	59.6	2.5	5.3	8.1	3. 17. 54.07		54.03	1.52	7.49	7.45†	....	
	35	γ Tauri.....	AD	33.0	36.0	38.8	41.5	47.2	52.7	55.7	58.4	1.4	3. 23. 47.17		47.15	54.54	7.39		....	
	36	κ Orionis.....	C	25.8	28.7	31.4	34.1	39.8	45.4	48.2	51.0	53.7	5. 41. 39.76		39.70	47.11	7.41	7.45	5. 41. 47.14	+ 0.30
	37	δ Aurigæ.....	C	38.5	43.5	48.0	52.6	2.4	11.7	16.5	21.1	25.9	5. 49. 2.21		2.29				5. 49. 9.73	- 0.52
	38	35 Draconis S.P. ...	C	..	..	..	32.1	57.0	21.2	33.4	45.2	57.8	5. 54. 56.66		56.07				17. 55. 3.51	+ 1.90
	39	3 Geminorum....	C	42.8	46.0	49.0	52.0	57.9	3.9	7.0	9.8	13.0	6. 1. 57.91		57.90				6. 2. 5.34	- 0.41
	40	η Geminorum....	C	54.3	57.4	0.2	3.4	9.3	15.3	18.3	21.3	24.3	6. 7. 9.29		9.28	16.74	7.46		6. 7. 16.72	- 0.44
	41	δ Ursæ Min. S.P. (E&E)	C	46.0	33.5	19.0	6.5	40.0	13.0	..	..	..	6. 12. 44.01		41.99	49.71	7.72		....	
	42	φ Draconis S.P. ...	C	41.7	50.3	58.8	7.5	24.6	..	..	..	..	6. 22. 24.75		24.31				18. 22. 31.75	+ 1.97
	43	Cephei 51. (E&E)	C	59.0	58.0	54.0	51.5	46.5	..	..	..	..	6. 40. 50.38		52.65	0.01	7.36		....	
	44	c Geminorum....	C	3.9	7.0	10.0	13.2	19.3	25.4	28.4	31.5	34.6	7. 36. 19.22		19.22				7. 36. 26.66	- 1.00
	45	λ Ursæ Min. S.P. (E&E)	C	..	..	..	..	3.0	29.0	57.0	..	..	7. 49. 14.26		8.06	15.08	7.02		....	
	46	ψ ² Cancri.....	C	30.0	33.1	36.2	39.3	45.4	51.7	54.7	57.6	0.8	8. 2. 45.39		45.39				8. 2. 52.83	- 1.12

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Arnold 1. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Arnold 1 for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 10, 11, 41, 43, and 45, + 5".00: + 5".00: + 4".10: + 4".10: and + 4".10.

Correction for passage of Semidiameter, No. 5, + 72".66.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

February 24 to March 1. The azimuthal error used is the mean of those (−1".99, −1".45, −1".79, and −1".52) determined by tabular places of δ Ursæ Minoris S.P. and Cephei 51 on February 24, 27, and 28, and of λ Ursæ Minoris S.P. and δ¹ Cancri on February 27.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874. Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s	h m s	"	s	s	s	s	h m s	s
Feb. 27	1	α^1 Cancri	C	47.8	51.0	53.7	56.6	2.5	8.4	11.2	14.2	17.2	8. 16. 2.49	+0.81	2.48	9.90	7.42	7.45	8. 16. 9.92	- 1.09
	2	δ 1 L.	C	23.4	28.7	31.7	34.8	41.0	47.2	50.4	53.4	56.6	8. 21. 41.00	(-0.19)	40.99			[-0.04]	8. 22. 57.25	
	3	γ 3 Draconis S.P.	C	5.0	15.2	25.6	35.8	56.5					8. 32. 56.70	[-1.69]	56.19				20. 33. 3.63	+ 5.23
	4	α Cygni S.P.	C	39.5	43.6	47.4	51.2	59.2	6.9	10.8	14.6	18.6	8. 36. 59.12		58.88				20. 37. 6.32	+ 1.95
	5	Uranus	C	5.7	8.6	11.6	14.4	20.3	26.2	29.2	32.0	35.0	8. 39. 20.32		20.31				8. 39. 27.75	
	6	ξ Cancri	C	45.7	48.8	51.6	54.7	0.4	6.5	9.6	12.5	15.5	9. 2. 0.57		0.56				9. 2. 8.00	- 1.30
	7	Bradley 1299.	C	4.4	7.3	10.3	13.3	19.2	25.2	28.0	31.1	34.0	9. 6. 19.18		19.17				9. 6. 26.61	- 1.30
	8	Bradley 3086 S.P.	C	53.9	2.0	9.9	18.4	34.7					11. 10. 34.70		34.28				23. 10. 41.71	+ 5.13
	9	Piazzi XI. 43.	C	44.6	51.4	57.6	4.0	17.3	30.4	37.0	43.4	50.0	11. 15. 17.25		17.41				11. 15. 24.84	- 3.95
	10	τ Leonis	C	7.4	10.2	12.9	15.6	21.2	26.7	29.5	32.4	35.0	11. 21. 21.19		21.15	28.62	7.47		11. 21. 28.58	- 1.23
	11	Piazzi XI. 146.	C	32.5	36.4	40.0	43.6	51.4	58.6	2.4	6.1	9.8	11. 36. 51.17		51.21				11. 36. 58.64	- 2.00
	12	β Leonis	C	17.4	20.4	23.2	26.0	31.7	37.5	40.2	43.3	46.0	11. 42. 31.73		31.71	39.15	7.44		11. 42. 39.14	- 1.27
	13	Jupiter 1 L.	C	39.8		45.2		53.6		1.9		7.4	11. 58. 53.56		55.04				11. 59. 2.47	
	14	Jupiter 2 L.	C	42.8		48.3		56.6		5.0		10.5	11. 58. 56.62							
Feb. 28	15	ϵ Orionis	L	28.4	31.3	34.0	36.8	42.3	47.8	50.7	53.4	56.1	5. 29. 42.29	(-0.45)	42.23	49.38	7.15	7.21†	....	
	16	κ Orionis	L	26.0	28.7	31.5	34.3	39.9	45.5	48.4	51.1	53.9	5. 41. 39.90		39.84	47.10	7.26	[0.00]	....	
	17	α Orionis	E	59.6	2.5	5.3	8.0	13.5	19.2	21.9	24.7	27.6	5. 48. 13.57		13.52	21.32	7.80	7.80	....	
	18	γ Draconis S.P.	E	10.4	14.9	19.3	23.7	32.5	41.4	45.8	50.3	54.7	5. 53. 32.59		32.33			[0.00]	17. 53. 40.13	+ 0.72
	19	α Camelopardali.	E		52.5	57.8	3.4	14.5	25.6	31.1	36.6		6. 4. 14.44		14.52				6. 4. 22.32	- 0.81
	20	ι Lyncis	E			53.3	59.1	10.6	22.4	28.1			6. 6. 10.67		10.76				6. 6. 18.56	- 0.88
	21	δ Ursæ Min. S.P. (E&E) ..	E				5.0	39.0	12.5	59.5	44.5	33.0	6. 12. 43.95		42.15	50.02	7.87		....	
	22	ϕ Draconis S.P.	E			58.7	7.2	24.1	41.6	50.2			6. 22. 24.41		24.00				18. 22. 31.80	+ 1.91
	23	γ Geminorum	E	4.5	7.2	10.2	13.0	18.7	24.5	27.5	30.4	33.4	6. 30. 18.80		18.76	26.45	7.69		....	
	24	Cephei 51. (E&E) ..	E			53.5	51.0		41.0	38.5	33.5		6. 40. 49.74		51.71	59.67	7.96		....	
	25	β Canis Minoris.	E					12.0	17.8	20.5	23.3	26.3	7. 20. 12.13		12.08	19.88	7.80		....	
	26	ϵ Hydræ	E	45.4	48.3	51.0	53.7	59.3	4.8	7.7	10.5	13.4	8. 39. 59.32		59.27	7.17	7.90		....	
	27	ξ Cancri	E	45.5	48.5	51.3	54.4	0.2	6.4	9.3	12.2	15.4	9. 2. 0.34		0.31				9. 2. 8.11	- 1.30
	28	Bradley 1299.	E							28.0	30.8	33.7	9. 6. 18.89		18.86				9. 6. 26.66	- 1.30
	29	δ 1 L.	E	31.7	34.8	37.8	40.9	46.9	53.0	56.0	59.0	2.0	9. 14. 46.88		46.85				9. 16. 1.10	
Mar. 1	30	δ Orionis	C	13.2	16.0	18.6	21.5	27.0	32.5	35.4	38.0	40.7	5. 25. 26.97		26.91	34.34	7.43	7.47†	....	
	31	α Leporis	C	48.7	51.6	54.5	57.4	3.4	9.2	12.0	14.9	17.7	5. 27. 3.25		3.19	10.62	7.43	[-0.17]	....	
	32	Piazzi IX. 135.	AD	29.5	32.5	35.5	38.5	44.2	50.1	53.2	56.0	59.1	9. 31. 44.27		44.24			7.41	9. 31. 51.58	- 1.35
	33	ϵ Leonis	AD	20.7	23.8	26.8	29.9	36.0	42.0	45.0	48.0	51.2	9. 38. 35.90		35.87	43.19	7.32	[-0.17]	9. 38. 43.21	- 1.43
	34	μ Leonis	AD	14.3	17.4	20.5	23.6	29.7	35.8	39.0	42.2	45.4	9. 45. 29.73		29.71	37.11	7.40		9. 45. 37.05	- 1.48
	35	η Leonis	AD	7.3	10.2	13.0	15.8	21.7	27.4	30.4	33.4	36.3	10. 0. 21.70		21.66				10. 0. 29.00	- 1.34
	36	δ 1 L.	AD	13.6	16.6	19.5	22.5	28.3	34.0	37.2	40.0	43.0	10. 4. 28.28		28.24				10. 5. 39.79	
	37	γ^1 Leonis	AD	40.7	43.7	46.6	49.6	55.5	1.3	4.4	7.3	10.2	10. 12. 55.46		55.43	2.77	7.34		10. 13. 2.77	- 1.41
	38	μ Hydræ	AD	39.3	42.1	45.0	47.9	53.7	59.5	2.4	5.2	8.0	10. 19. 53.65		53.59	0.91	7.32		10. 20. 0.93	- 1.09
	39	ι Leonis	AD	7.8	10.8	13.6	16.5	22.0	27.8	30.7	33.6	36.6	10. 25. 22.14		22.10				10. 25. 29.44	- 1.33
	40	34 Sextantis	AD	47.2	50.0	52.6	55.4	1.0	6.5	9.3	12.0	14.8	10. 36. 0.98		0.93	8.24	7.31		10. 36. 8.27	- 1.21
	41	ι Leonis	AD	17.9	20.8	23.5	26.2	32.0	37.6	40.3	43.2	46.2	10. 42. 31.95		31.92	39.25	7.33		10. 42. 39.25	- 1.28
Mar. 2	42	$\odot$ 1 L.	L	21.5	24.5	27.2	30.0	35.4	41.1	43.7	46.6	49.5	22. 51. 35.48	+0.90	40.70			7.04	22. 52. 47.70	
	43	$\odot$ 2 L.	L									57.0	0.0	(-0.36)				[-0.04]		
	44	Polaris (E&E) ..	G						13.5	12.5	6.0	4.7	1. 11. 24.85	[-0.77]	27.88	35.36	7.48	7.00	....	
	45	β Tauri	E	56.5	59.7	2.8	6.0	12.3	18.6	21.6	24.7	27.9	5. 18. 12.21		12.23	19.73	7.50	7.51†	....	
	46	δ Orionis	E	13.0	15.8	18.5	21.4	26.9	32.4	35.2	37.7	40.8	5. 25. 26.83		26.83	34.32	7.49		....	

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Arnold 1 for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 21, 24, and 44, +4".60: +4".60: and +5".00.

Corrections for passage of Semidiameter, Nos. 2, 29, and 36, +68".82: +66".45: and +64".21.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

March 2. The azimuthal error by tabular places of Polaris and δ Orionis.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at oh Sideral and [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Mar. 2	1	γ Geminorum ...	L	5 ⁰	8 ⁰	10 ⁷	13 ⁷	19 ⁵	25 ³	28 ³	30 ⁹	34 ⁰	6. 30. 19 ⁴⁶	+0 ⁰ 90	19 ⁴⁷			7 ⁰⁰	....	
	2	Cephei 51... (E&E)	L	..	57 ⁰	52 ⁰	50 ⁰	44 ⁸	39 ²	..	33 ⁰	32 ⁰	6. 40. 49 ²⁸	(-0 ⁰ 36)	50 ⁷⁴	58 ⁹⁴	8 ²⁰	[-0 ⁰ 04]	....	
	3	β Canis Minoris...	L	58 ⁸	1 ⁶	4 ⁴	7 ²	12 ⁷	18 ⁴	21 ²	23 ⁸	26 ⁷	7. 20. 12 ⁷⁴	[-0 ⁰ 77]	12 ⁷⁴				....	
	4	Bradley 1101	L	28 ⁰	31 ⁴	34 ⁶	37 ⁹	44 ⁵	51 ⁰	54 ³	57 ⁴	0 ⁶	7. 31. 44 ³⁸		44 ⁴⁰				7. 31. 51 ³⁹	- 1 ⁰²
	5	δ 1 L.	L	59 ¹	2 ²	4 ⁸	7 ⁸	13 ⁵	19 ⁴	22 ²	25 ⁰	27 ⁹	10. 51. 13 ⁵³		13 ⁵⁴				10. 52. 22 ⁹²	
	6	δ 2 L.	L	3 ⁹	6 ⁷	9 ⁶	12 ⁵	18 ³	24 ⁰	27 ⁰	30 ⁰	32 ⁸	10. 53. 18 ²⁹		18 ³⁰				10. 52. 22 ⁸⁹	
Mar. 3	7	⊙ 1 L.	C	5 ⁴	8 ⁰	10 ⁷	13 ⁵	19 ²	24 ⁸	27 ⁵	30 ²	33 ²	22. 55. 19 ¹⁴	(-0 ⁰ 20)				7 ³⁵	....	
	8	⊙ 2 L.	C	15 ⁸	18 ⁶	21 ³	24 ⁰	29 ⁶	35 ³	38 ¹	40 ⁸	43 ⁶	22. 57. 29 ⁶⁵	[-0 ⁰ 42]	24 ⁴³			[0 ⁰ 01]	22. 56. 31 ⁷⁹	
	9	Polaris.... (E&E)	G	37 ⁰	..	..	..	19 ⁰	..	..	..	3 ⁵	1. 11. 24 ⁵¹		27 ²⁹	34 ⁷²	7 ⁴³	7 ³⁶	....	
	10	Rigel	AD	7 ⁶	10 ⁷	13 ⁴	16 ¹	21 ⁷	27 ⁴	30 ⁰	32 ⁸	35 ⁷	5. 8. 21 ⁶⁹		21 ⁷²	29 ⁰¹	7 ²⁹	7 ³²	....	
	11	α Orionis	AD	59 ⁸	3 ⁰	5 ⁶	8 ⁴	13 ⁷	19 ⁶	22 ⁴	25 ⁰	27 ⁸	5. 48. 13 ⁹⁰		13 ⁹³	21 ²⁷	7 ³⁴	7 ³⁶	....	
	12	δ Ursæ Min. S.P. (E&E)	C	45 ⁵	32 ⁵	18 ⁰	7 ⁵	39 ⁰	..	..	..	..	6. 12. 44 ⁶²		43 ⁴⁶	51 ⁰⁵	7 ⁵⁹	7 ³⁶	....	
	13	β Canis Majoris...	C	47 ⁶	50 ⁶	53 ⁴	56 ⁴	2 ²	7 ⁹	10 ⁹	13 ⁷	16 ⁶	6. 17. 2 ¹³		2 ¹⁵	9 ⁴⁸	7 ³³		....	
	14	χ Draconis S.P. ...	C	24 ²	33 ⁸	42 ⁷	52 ²	10 ⁸	..	..	..	..	6. 23. 10 ⁸⁸		10 ⁶⁰				18. 23. 17 ⁹⁶	+ 1 ⁸⁴
	15	Cephei 51... (E&E)	C	..	..	53 ⁰	50 ⁵	44 ⁰	39 ⁵	37 ⁰	..	..	6. 40. 49 ⁷³		51 ⁰⁹	58 ⁵⁴	7 ⁴⁵		....	
	16	Groombridge 1245	C	47 ⁶	56 ⁴	4 ⁵	13 ⁰	29 ⁹	..	..	..	..	6. 51. 29 ⁹²		30 ⁰⁹				6. 51. 37 ⁴⁵	- 2 ¹⁴
	17	ζ Geminorum....	C	16 ⁵	19 ⁶	22 ⁴	25 ⁴	31 ⁴	37 ⁴	40 ⁴	43 ²	46 ¹	6. 56. 31 ³⁶		31 ³⁰	38 ⁷⁷	7 ³⁸		....	
	18	Groomb. 2771 S.P.	C	28 ¹	34 ⁰	39 ⁸	45 ⁸	57 ⁴	..	..	..	..	7. 1. 57 ⁵⁴		57 ³⁷				19. 2. 4 ⁷³	+ 1 ⁷⁶
	19	Groomb. 2899 S.P.	C	..	..	58 ⁰	4 ⁴	16 ⁵	28 ⁹	35 ¹	..	..	7. 33. 16 ⁶¹		16 ⁴³				19. 33. 23 ⁷⁹	+ 2 ²⁶
	20	β Cancri	C	20 ⁴	23 ⁴	26 ⁰	28 ⁸	34 ³	40 ⁰	42 ⁸	45 ⁵	48 ⁴	8. 9. 34 ³⁸		34 ⁴¹	41 ⁷⁹	7 ³⁸		....	
	21	Uranus	C	32 ⁴	35 ⁴	38 ²	41 ²	47 ⁰	52 ⁸	55 ⁷	58 ⁷	1 ⁵	8. 38. 46 ⁹⁷		47 ⁰⁰				8. 38. 54 ⁰⁶	
	22	Piazzi XI. 12 ...	C	8 ⁹	11 ⁸	14 ⁵	..	23 ⁰	..	31 ⁴	34 ¹	36 ⁸	11. 7. 22 ⁹⁰		22 ⁹³				11. 7. 30 ²⁹	- 1 ²⁷
	23	α Leonis	C	1 ²	4 ¹	6 ⁸	9 ⁶	15 ²	21 ⁰	23 ⁸	26 ⁵	29 ³	11. 17. 15 ²⁶		15 ²⁹				11. 17. 22 ⁶⁵	- 1 ²⁹
	24	δ 2 L.	C	37 ⁵	40 ³	43 ¹	45 ⁹	51 ⁵	57 ²	0 ⁰	2 ⁹	5 ⁷	11. 37. 51 ⁵⁵		51 ⁵⁸				11. 36. 57 ⁷⁴	
	25	δ Virginis	C	9 ⁶	12 ⁴	15 ⁰	17 ⁹	23 ⁵	29 ⁰	31 ⁸	34 ⁶	37 ³	11. 53. 23 ⁴⁴		23 ⁴⁷				11. 53. 30 ⁸³	- 1 ¹⁷
	26	Jupiter 1 L.	C	56 ⁹	..	2 ²	..	10 ⁶	..	18 ⁸	..	24 ⁴	11. 57. 10 ⁵⁶						11. 57. 19 ⁴⁶	
	27	Jupiter 2 L.	C	59 ⁷	..	5 ⁴	..	13 ⁶	..	21 ⁹	..	27 ⁴	11. 57. 13 ⁵⁸		12 ¹⁰				12. 3. 15 ⁰⁴	- 1 ¹⁴
	28	10 Virginis	C	53 ⁸	56 ⁶	59 ⁴	2 ¹	7 ⁶	13 ²	16 ⁰	18 ⁸	21 ⁵	12. 3. 7 ⁶⁴		7 ⁶⁷				....	
	29	η Virginis	C	7 ⁴	10 ³	13 ⁰	15 ⁸	21 ³	26 ⁸	29 ⁶	32 ³	35 ¹	12. 13. 21 ²⁷		21 ³⁰	28 ⁶⁴	7 ³⁴		....	
Mar. 4	30	⊙ 2 L.	E	58 ⁶	1 ⁴	4 ⁰	6 ⁹	12 ⁴	18 ¹	20 ⁹	23 ⁷	26 ⁴	23. 1. 12 ⁴⁷	(+0 ⁰ 44)	12 ⁵²			7 ⁵⁰	23. 0. 14 ⁸⁷	
	31	τ Cancri	E	3 ⁶	7 ⁰	..	13 ³	19 ⁸	26 ⁰	..	32 ⁴	35 ⁷	9. 0. 19 ⁶⁶		19 ⁷⁵			[0 ⁰ 01]	9. 0. 27 ²⁶	- 1 ⁴¹
	32	83 Cancri	E	36 ⁰	39 ⁰	41 ⁷	44 ⁶	50 ⁵	56 ⁴	59 ²	2 ¹	5 ⁰	9. 11. 50 ⁴⁸		50 ⁵⁵	57 ⁹⁹	7 ⁴⁴	7 ⁵¹	....	
	33	κ Leonis	E	57 ⁰	0 ¹	3 ⁴	6 ⁴	12 ⁶	18 ⁶	21 ⁸	25 ⁰	28 ⁰	9. 17. 12 ⁵²		12 ⁶¹				9. 17. 20 ¹²	- 1 ⁴⁰
	34	α Hydrae	E	3 ³	6 ⁰	8 ⁸	11 ⁶	17 ²	22 ⁸	25 ⁵	28 ⁴	31 ²	9. 21. 17 ¹⁸		17 ²⁴	24 ⁷⁴	7 ⁵⁰		....	
	35	ξ Leonis	E	48 ⁶	51 ⁶	54 ²	57 ⁰	2 ⁸	8 ³	11 ³	13 ⁹	16 ⁸	9. 25. 2 ⁷⁰		2 ⁷⁶	10 ³⁵	7 ⁵⁹		....	
Mar. 6	36	⊙ 1 L.	L	13 ⁸	16 ⁸	19 ⁴	22 ³	28 ⁰	33 ⁵	36 ³	38 ⁸	41 ⁸	23. 6. 27 ⁸³	(-0 ⁰ 08)				7 ¹²	23. 7. 40 ⁰⁷	
	37	⊙ 2 L.	L	23 ⁸	26 ⁹	29 ⁷	..	..	43 ⁵	46 ⁴	49 ³	51 ⁸	23. 8. 37 ⁹⁴	[-1 ⁰ 36]	32 ⁸⁶			[0 ⁰ 09]		
	38	α Andromedæ ...	L	28 ⁰	31 ²	34 ⁴	37 ⁵	43 ⁸	49 ⁸	53 ²	56 ⁴	59 ⁴	0. 1. 43 ⁷²		43 ⁷³	50 ⁹²	7 ¹⁹	7 ²¹	0. 1. 50 ⁹⁴	+ 1 ⁷⁰
	39	Polaris (E&E)	G	32 ⁵	33 ⁰	25 ⁵	21 ⁵	15 ⁵	..	..	..	..	1. 11. 21 ⁹³		26 ⁹¹	33 ⁰⁹	6 ¹⁸		1. 11. 34 ¹³	+ 65 ¹⁸
	40	κ Orionis	L	25 ⁸	28 ⁷	31 ⁵	34 ³	39 ⁷	45 ⁶	48 ⁴	51 ⁰	54 ⁰	5. 41. 39 ⁸⁶		39 ⁸³	46 ⁹⁹	7 ¹⁶		5. 41. 47 ⁰⁶	- 0 ¹⁸
	41	α Orionis	L	0 ¹	2 ⁹	5 ⁶	8 ⁴	13 ⁹	19 ⁵	22 ⁴	25 ²	27 ⁹	5. 48. 13 ⁹⁷		13 ⁹⁶	21 ²³	7 ²⁷		5. 48. 21 ¹⁹	- 0 ²¹
	42	1 Geminorum ...	L	5 ⁶	8 ⁷	11 ⁶	14 ⁷	20 ⁶	26 ⁷	29 ⁷	32 ⁷	35 ⁷	5. 56. 20 ⁶⁴		20 ⁶⁵	27 ⁹¹	7 ²⁶		5. 56. 27 ⁸⁸	- 0 ²⁶
	43	δ Ursæ Min. S.P. (E&E)	L	..	..	19 ⁸	6 ⁰	..	13 ²	..	..	33 ⁵	6. 12. 46 ⁵⁸		44 ⁶⁰	52 ¹⁶	7 ⁵⁶		18. 12. 51 ⁶⁹	+ 6 ⁷⁴
	44	Cephei 51... (E&E)	L	..	52 ⁰	48 ⁸	45 ⁸	40 ⁸	..	..	..	..	6. 40. 47 ⁰⁸		49 ⁴⁹	57 ²⁸	7 ⁷⁹		6. 40. 56 ⁷²	- 12 ³⁷
	45	α ¹ Cancri	M	47 ⁶	50 ⁵	53 ⁴	56 ⁴	2 ²	8 ⁰	11 ⁰	13 ⁷	16 ⁶	8. 16. 2 ¹⁴		2 ¹⁴	9 ⁸⁴	7 ⁷⁰	7 ⁶³	....	
	46	η Cancri	M	3 ⁸	7 ⁰	9 ⁷	12 ⁸	18 ⁷	24 ⁵	27 ⁷	30 ⁵	33 ⁵	8. 25. 18 ⁶⁷		18 ⁶⁷	26 ²⁹	7 ⁶²		....	

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Arnold I. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32¹.400.

Corrections to the times by Arnold I for reduction to Sideral Standard, applied to form Concluded Transit, Nos. 2, 9, 12, 15, 39, 43, and 44, +5¹.10: +5¹.10: +5¹.20: +5¹.30: +6¹.70: +6¹.50: and +6¹.50.

Corrections for passage of Semidiameter, Nos. 5, 6, 24, and 30, +62¹.40: -62¹.40: -61¹.20: and -65¹.16.

+ This clock-error has been used in the reduction of the observations made with the Altazimuth.

March 3 and 4. The azimuthal error used is the mean of those (-0⁰.50 and -0⁰.33) determined on March 3 by tabular places of Polaris and Rigel, and of δ Ursæ Minoris S.P. and Cephei 51.

March 6 to 8. The azimuthal error by consecutive transits of Polaris, Polaris S.P., and Polaris on March 6 and 7.

1, 2. Cloudy and occasionally faint.
26, 27. Faint; very foggy.

6. Correction for defect of illumination, +0⁰.01.
43, 44. Cloudy and faint.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at α^h Sidereal and [Loss Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Mar. 6	1	δ Leonis	L	3.7	6.6	9.7	12.7	18.5	24.5	27.4	30.5	33.2	11. 7. 18.51	+0.90	18.51	25.77	7.26	7.21	11. 7. 25.76	- 1.48
	2	Bradley 3086 S.P.	L	53.9	2.2	10.2	18.3	34.7	50.8	59.2	7.2	15.7	11. 10. 34.76	(-0.08)	34.33			[0.09]	23. 10. 41.58	+ 5.14
	3	Bradley 3121 S.P.	L	6.3	14.3	22.2	30.5	46.7	2.9	10.9	18.8	27.1	11. 20. 46.70	[-1.56]	46.28				23. 20. 53.53	+ 5.08
	4	β Leonis	L	17.6	20.5	23.4	26.2	31.8	37.6	40.6	43.3	46.3	11. 42. 31.90		31.90	39.23	7.33		11. 42. 39.15	- 1.35
	5	Groombridge 1830	L	19.7	23.3	26.8	30.4	37.3	44.4	47.8	51.4	55.0	11. 45. 37.31		37.35				11. 45. 44.60	- 2.00
	6	Jupiter 1 L.....	L	36.4	39.4	42.2	44.9	50.3	55.8	..	..	..	11. 55. 50.34						11. 55. 59.11	
	7	Jupiter 2 L.....	L	..	..	..	48.0	53.5	58.9	1.7	4.4	7.3	11. 55. 53.42							
	8	Polaris S.P. (E&E)	L	..	40.5	35.5	30.5	..	18.0	15.5	10.5	6.5	13. 11. 31.97		26.81	32.86	6.05		1. 11. 34.07	+ 65.41
	9	ι^2 Virginis	L	5.0	7.6	10.3	12.9	18.5	24.2	27.0	29.8	32.6	13. 25. 18.63		18.60				13. 25. 25.86	- 0.92
	10	m Virginis	L	39.7	42.4	45.3	48.0	53.5	59.5	2.2	4.8	7.8	13. 34. 53.65		53.62	0.85	7.23		13. 35. 0.88	- 0.87
	11	η 2 L.....	L	..	..	..	9.9	15.8	21.5	24.4	27.3	30.2	13. 48. 15.75		15.72				13. 47. 21.02	
Mar. 7	12	$\odot$ 1 L.....	C	55.7	58.6	1.2	4.1	9.7	15.5	18.0	20.7	23.6	23. 10. 9.65	(+0.53)				7.64	23. 11. 22.19	
	13	$\odot$ 2 L.....	C	5.6	8.6	11.3	14.0	19.6	25.2	27.9	30.8	33.5	23. 12. 19.59		14.61			[-0.06]		
	14	Polaris (E&E)	C	..	32.0	26.0	21.0	..	..	..	..	..	1. 11. 20.35		26.70	32.65	5.95	7.58	1. 11. 34.28	+ 65.62
	15	δ Ursæ Min. S.P. (E&E)	C	..	..	..	..	40.5	14.5	0.5	46.0	34.5	6. 12. 46.99		44.35	52.51	8.16		18. 12. 51.91	+ 6.39
	16	Piazzi VI. 126...	C	50.4	53.6	56.9	0.1	6.8	13.3	16.6	20.1	23.2	6. 24. 6.74		6.81				6. 24. 14.37	- 0.47
	17	γ Geminorum	C	4.4	7.4	10.2	13.0	18.8	24.6	27.6	30.4	33.3	6. 30. 18.83		18.86	26.35	7.49		6. 30. 26.42	- 0.45
	18	Cephei 51. (E&E)	C	..	52.0	47.5	46.0	41.0	35.0	..	..	..	6. 40. 46.19		49.28	56.86	7.58		6. 40. 56.84	- 11.95
	19	Groomb. 2719 S.P.	C	..	..	15.3	25.4	45.3	5.2	15.4	..	..	6. 48. 45.37		44.77				18. 48. 52.33	+ 2.35
	20	ζ Geminorum	C	16.4	19.5	22.2	25.3	31.2	37.0	40.1	43.0	45.9	6. 56. 31.16		31.19	38.72	7.53		6. 56. 38.75	- 0.62
	21	Castor	C	10.5	13.6	16.9	20.1	26.8	33.3	36.6	39.8	43.2	7. 26. 26.72		26.79	34.40	7.61		7. 26. 34.35	- 0.92
	22	ν Geminorum	C	47.1	50.2	53.4	56.5	2.7	8.8	12.0	15.1	18.2	7. 28. 2.64		2.70				7. 28. 10.26	- 0.86
	23	δ 4 Geminorum ..	C	10.2	13.4	16.4	19.4	25.4	31.4	34.3	37.2	40.2	7. 45. 25.30		25.35				7. 45. 32.91	- 0.91
	24	ι Cancri	C	29.1	32.0	34.8	37.7	43.4	49.3	52.1	55.0	57.7	7. 49. 43.45		43.48				7. 49. 51.04	- 0.87
	25	λ Ursæ Min. S.P. (E&E)	C	..	..	..	..	..	8.0	37.0	59.0	..	7. 49. 21.35		13.14	21.17	8.03		19. 49. 20.70	+ 56.05
	26	χ Cancri	C	2.4	5.5	8.6	11.7	17.9	24.4	27.5	30.5	33.6	8. 12. 17.98		18.04				8. 12. 25.60	- 1.12
	27	δ^1 Cancri	C	47.6	50.6	53.6	56.5	2.2	8.0	11.0	13.9	16.9	8. 16. 2.24		2.27	9.83	7.56		8. 16. 9.83	- 1.02
	28	Uranus	C	1.3	4.3	7.1	10.0	15.9	21.7	24.7	27.6	30.6	8. 38. 15.89		15.92				8. 38. 23.48	
	29	δ Leonis	AD	43.0	45.8	48.6	51.4	56.6	2.5	5.4	8.0	10.6	10. 53. 56.86		56.86	4.37	7.51	7.50†	....	
	30	χ Leonis	AD	10.8	13.7	16.6	19.2	24.7	30.5	33.2	36.0	38.9	10. 58. 24.82		24.84	32.26	7.42		....	
	31	π Cephei S.P.	C	..	..	8.7	19.4	40.4	1.1	11.7	..	..	11. 3. 40.31		39.68			7.58	23. 3. 47.23	+ 6.59
	32	Bradley 3086 S.P.	C	53.8	2.0	10.3	18.5	..	..	59.3	7.3	15.5	11. 10. 34.81		34.31				23. 10. 41.86	+ 5.13
	33	Piazzi XI. 43	C	44.3	51.4	57.6	4.2	17.4	30.3	36.8	43.2	49.9	11. 15. 17.17		17.45				11. 15. 25.00	- 4.00
	34	τ Leonis	C	7.4	10.1	12.7	15.5	21.1	26.5	29.4	32.1	35.0	11. 21. 21.07		21.07	28.63	7.56		11. 21. 28.62	- 1.24
	35	λ Draconis	C	10.8	19.0	27.0	35.0	51.0	7.2	15.6	23.4	31.8	11. 23. 51.13		51.51				11. 23. 59.06	- 5.01
	36	β Virginis	C	47.6	50.5	53.2	55.9	1.4	7.1	9.9	12.6	15.5	11. 44. 1.51		1.51	9.09	7.58		11. 44. 9.06	- 1.22
	37	Jupiter 1 L.....	C	9.0	..	14.6	..	22.9	..	31.3	..	36.7	11. 55. 22.88						11. 55. 31.91	
	38	Jupiter 2 L.....	C	12.0	..	17.5	..	26.0	..	34.2	..	39.6	11. 55. 25.84							
	39	Arcturus	E	..	..	39.2	42.0	48.1	53.8	56.8	59.7	3.0	14. 9. 48.00		48.03	55.88	7.85	7.83	....	
	40	λ Virginis	E	..	..	2.1	5.0	10.5	16.3	19.1	22.0	24.7	14. 12. 10.57		10.55			[-0.06]	14. 12. 18.34	- 0.73
	41	2 Libræ	E	..	20.6	23.5	26.2	31.9	37.6	40.4	43.2	..	14. 16. 31.88		31.87				14. 16. 39.63	- 0.72
	42	η 2 L.....	E	44.0	47.2	50.0	52.9	58.9	4.7	7.7	10.5	13.5	14. 33. 58.79		58.76				14. 33. 2.89	
	43	α Libræ	E	..	36.0	38.8	41.6	47.6	53.3	56.2	58.9	..	14. 43. 47.46		47.43	55.21	7.78		....	
	44	δ^1 Libræ	E	40.9	43.6	46.5	49.4	55.3	1.0	4.1	6.9	10.0	15. 4. 55.28		55.25	2.98	7.73		....	
Mar. 8	45	Regulus	L	..	22.5	25.3	28.1	33.7	39.5	42.3	45.0	..	10. 1. 33.74		33.76	40.84	7.08		....	
	46	34 Sextantis	L	47.2	50.2	53.0	55.6	1.1	6.7	9.6	12.2	15.0	10. 36. 1.16		1.16	8.27	7.11		....	

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, $32^{\circ}.400$.

Corrections to the times by Arnold 1 for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 8, 14, 15, 18, and 25, $+6^{\circ}.10$: $+5^{\circ}.80$: $+6^{\circ}.00$: $+6^{\circ}.00$: and $+6^{\circ}.00$.

Corrections for passage of Semidiameter, Nos. 11 and 42, $-61^{\circ}.96$: and $-63^{\circ}.66$.

† This clock-error has been used in the reduction of the observations made with the Altazimuth.

8, 9, 10. Very diffused.

14. Very faint.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Mar. 9	1	α ² Libræ	C	..	..	..	..	22.4	36.9	..	..	15. 15. 53.92		+0.97	53.89	0.72	6.83	7.10†	....	
	2	γ ¹ Libræ	C	..	..	..	56.8	2.6	8.3	11.2	14.1	17.0	15. 21. 2.55	(+0.97)	2.51	9.67	7.16	[-0.16]	....	
	3	δ Ophiuchi	L	23.8	26.8	29.6	32.4	38.0	43.5	46.4	49.2	52.0	16. 7. 37.94	[-2.13]	37.93	44.87	6.94	7.01	....	
	4	δ 2 L.	L	..	..	28.0	31.1	37.5	43.6	46.8	50.0	53.1	16. 14. 37.40		37.34			[-0.16]	16. 13. 35.64	
	5	22 Scorpii	L	11.7	14.7	17.5	20.6	26.8	32.8	35.8	38.8	41.7	16. 22. 26.68		26.62				16. 22. 33.52	- 0.16
	6	τ Scorpii	L	..	..	..	..	..	2.3	5.3	8.4	11.5	16. 27. 55.89		55.81				16. 28. 2.71	- 0.13
	7	ζ Herculis	L	9.5	12.6	15.8	19.2	25.6	32.3	35.5	38.5	41.9	16. 36. 25.63		25.72	32.57	6.85		....	
Mar. 10	8	Bradley 1414....	J	40.5	43.4	45.9	48.7	54.3	0.0	2.7	5.4	8.4	10. 4. 54.35	(+1.76)	54.36			7.01	10. 5. 1.31	- 1.12
	9	γ ¹ Leonis	J	40.9	44.0	47.0	49.8	55.7	1.5	4.6	7.5	10.6	10. 12. 55.71		55.81	2.79	6.98	[-0.15]	10. 13. 2.76	- 1.43
	10	29 Leonis Minoris	J	6.1	9.8	13.0	16.5	23.3	30.1	33.6	37.0	40.6	10. 18. 23.30		23.47				10. 18. 30.42	- 1.80
	11	ρ Leonis	J	50.6	53.5	56.2	59.0	4.7	10.4	13.1	16.0	18.9	10. 26. 4.69		4.75	11.81	7.06		10. 26. 11.69	- 1.29
	12	β Virginis	J	48.4	51.2	53.9	56.7	..	7.6	10.6	13.4	16.0	11. 44. 2.20		2.24	9.12	6.88		11. 44. 9.18	- 1.25
	13	Jupiter 1 L.	J	47.0	..	52.5	..	0.4	6.2	..	11.6	..	11. 54. 0.64							
	14	Jupiter 2 L.	J	49.6	..	55.4	..	3.4	8.9	..	14.5	..	11. 54. 3.46			2.09			11. 54. 9.03	
	15	β Corvi	J	..	..	..	34.5	40.4	46.5	49.5	52.4	55.5	12. 27. 40.46		40.42	47.26	6.80		12. 27. 47.35	- 1.05
	16	35 Comæ	J	44.9	47.8	50.8	54.0	59.6	5.7	8.8	11.7	14.8	12. 46. 59.75		59.85				12. 47. 6.78	- 1.43
	17	ε Virginis	J	..	37.4	40.0	42.8	48.4	54.2	57.0	59.7	..	12. 55. 48.47		48.54	55.52	6.98		12. 55. 55.47	- 1.24
	18	Polaris S.P. (E&E)	J	43.0	39.0	34.0	36.0	24.0	..	..	..	..	13. 11. 34.72		24.38	31.37	6.99		....	
	19	γ Herculis	E	0.1	3.2	6.0	9.0	15.0	20.9	23.8	26.7	29.5	16. 16. 14.89		14.99	22.12	7.13	7.29†	....	
	20	Antares	E	18.7	21.8	25.0	28.0	34.0	40.0	43.4	46.4	49.4	16. 21. 34.05		34.00	41.23	7.23		....	
	21	τ Scorpii	C	40.2	43.4	46.4	49.4	55.6	2.0	5.2	8.4	11.5	16. 27. 55.77		55.71			7.10	16. 28. 2.70	- 0.17
	22	ζ Herculis	C	9.3	12.7	15.6	18.8	25.3	31.9	35.3	38.5	41.9	16. 36. 25.45		25.60	32.60	7.00	[-0.16]	....	
	23	δ 2 L.	C	..	33.3	36.3	39.6	46.0	52.4	55.6	58.9	..	17. 10. 45.98		45.92				17. 9. 41.68	
	24	σ Ophiuchi	C	54.9	57.8	0.4	3.1	8.7	14.2	17.1	19.8	22.5	17. 20. 8.70		8.75	15.76	7.01		....	
	25	72 Ophiuchi	C	..	..	7.0	9.7	15.4	20.8	23.6	26.3	29.4	18. 1. 15.27		15.33	22.27	6.94		....	
Mar. 11	26	η Geminorum....	M	54.5	57.6	0.3	..	9.5	..	18.5	21.4	24.6	6. 7. 9.46	(+2.23)	9.57	16.54	6.97	7.02	6. 7. 16.56	- 0.24
	27	δ Ursæ Min. S.P. (E&E)	M	..	35.0	20.0	7.0	4.0	13.0	1.0	46.0	34.0	6. 12. 50.42	[-2.90]	45.26	53.84	8.58	[-0.12]	....	
	28	Cephei 51. (E&E)	M	..	..	..	39.0	34.0	29.0	25.0	22.0	20.0	6. 40. 42.62		48.80	55.37	6.57		....	
	29	51 Geminorum ..	M	47.0	50.4	53.0	55.8	1.6	7.5	10.4	13.2	16.0	7. 6. 1.64		1.72	8.71	6.99		7. 6. 8.70	- 0.59
	30	47 Camelopardali	M	40.5	46.2	51.8	57.2	8.2	19.6	25.2	30.5	36.5	7. 11. 8.36		8.85				7. 11. 15.83	- 1.38
	31	Procyon	M	21.9	24.8	27.4	30.3	35.7	41.5	44.2	47.0	49.8	7. 32. 35.82		35.86	42.97	7.11		7. 32. 42.84	- 0.66
	32	λ Ursæ Min. S.P. (E&E)	M	10.0	34.0	3.0	29.0	26.0	17.0	46.0	10.0	41.0	7. 49. 35.14		18.98	24.58	5.60		....	
	33	β Cancri	M	20.6	23.6	26.5	29.2	34.5	40.4	43.2	46.0	48.8	8. 9. 34.74		34.79	41.71	6.92		8. 9. 41.77	- 0.87
	34	3 Ursæ Majoris ..	M	21.1	27.6	34.2	..	54.1	..	14.3	20.8	27.2	8. 27. 54.13		54.75				8. 28. 1.73	- 2.82
	35	χ Ursæ Majoris ..	M	57.6	2.0	6.1	10.3	18.5	26.7	31.3	35.4	39.4	11. 39. 13.55		18.86				11. 39. 25.82	- 2.44
	36	Jupiter 1 L.	M	18.8	21.6	24.4	27.3	32.8	..	..	..	..	11. 53. 32.71							
	37	Jupiter 2 L.	M	..	..	..	..	35.6	41.2	43.9	46.6	49.5	11. 53. 35.59			34.17			11. 53. 41.13	
	38	η Virginis	M	8.0	11.0	13.5	16.3	21.8	27.4	30.2	32.8	35.8	12. 13. 21.85		21.85	28.75	6.90		12. 13. 28.81	- 1.20
	39	ρ Virginis	M	10.5	13.4	16.3	19.0	24.8	30.3	33.3	36.0	38.9	12. 35. 24.70		24.76	31.71	6.95		12. 35. 31.72	- 1.29
	40	Polaris S.P. (E&E)	M	47.0	42.0	36.0	32.0	27.0	20.0	15.0	10.0	9.0	13. 11. 37.82		25.09	31.00	5.91		....	
	41	Arcturus	M	33.9	37.0	40.1	43.1	49.0	55.0	57.8	0.6	3.7	14. 9. 48.89		48.99	55.97	6.98		14. 9. 55.94	- 1.11
	42	γ Serpentis	AD	17.4	20.4	23.5	26.1	31.8	37.4	40.3	43.1	46.2	15. 50. 31.78		31.86	38.60	6.74	6.83†	....	
	43	β ¹ Scorpii	AD	45.7	48.8	51.6	54.6	0.2	6.4	9.2	12.2	15.2	15. 58. 0.42		0.35	7.10	6.75	[-0.12]	....	
Mar. 12	44	κ Ophiuchi	L	21.9	24.9	27.7	30.4	35.9	41.7	44.4	47.0	49.9	16. 51. 35.96	(+1.52)	35.98	42.45	6.47	6.50†	....	
	45	ε Herculis	L	5.5	9.2	12.2	15.4	21.9	28.3	31.6	34.8	38.2	16. 55. 21.86		21.97	28.43	6.46	[-0.04]	....	

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Arnold 1. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Arnold 1 for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 18, 27, 28, 32, and 40, +8".20 : +9".70 : +9".80 : +9".90 : and +10".40.

Corrections for passage of Semidiameter, Nos. 4 and 23, -68".60 : and -71".23.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

March 9 and 10. The azimuthal error by tabular places of ε Virginis and Polaris S.P. on March 10.

March 11 to 14. The azimuthal error used is the mean of those (-1".62, -3".57, and -3".50) determined on March 11 by tabular places of δ Ursæ Minoris S.P. and Cephei 51, of Procyon and λ Ursæ Minoris S.P., and of ρ Virginis and Polaris S.P.

1. Observed over wires Y and Z.

3. Diffused.

4, 5. Very tremulous.

12, 15. Cloudy.

13, 14. Very diffused.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of		Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at Sidereal and [Lossing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
														Collimation. (Level).	Azimuth].						
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.										h	m	s
Mar. 14	1	β Cancri	L	21.3	24.2	26.9	29.6	35.4	41.0	43.7	46.5	49.3	8. 9. 35.30	+0.97	35.23	41.67	6.44	6.46		8. 37. 35.36	
	2	Uranus 1 L.	L	14.0	17.2	20.0	23.0	28.7	..	..	..	..	8. 37. 28.76	(-0.12)							
	3	Uranus 2 L.	L	..	..	..	..	..	35.0	37.9	41.0	43.8	8. 37. 29.15	(-2.90)							
	4	α Cancri	L	16.2	19.0	21.7	24.6	30.3	36.0	38.7	41.6	44.5	8. 51. 30.27		30.21	36.68	6.47	....			
	5	Bradley 1283.	L	2.4	5.3	8.0	10.8	16.6	22.4	25.3	28.1	31.2	8. 59. 16.66		16.60			8. 59. 23.05	- 1.11		
	6	83 Cancri	L	37.1	40.0	42.9	45.8	51.6	57.4	0.2	3.2	6.1	9. 11. 51.57		51.52	57.93	6.41	....			
	7	μ Hydrae	L	40.2	43.2	46.0	48.8	54.6	0.2	3.2	6.0	9.0	10. 19. 54.56		54.43	0.91	6.48	....			
Mar. 16	8	ρ Leonis	E	..	..	..	..	5.0	10.7	13.7	16.1	19.4	10. 26. 5.10	+0.93	5.05	11.80	6.75	....			
	9	ζ Leonis	E	18.4	21.2	24.0	26.8	32.4	37.9	41.0	43.6	46.5	10. 42. 32.40	(-0.80) (-1.56)	32.35	39.30	6.95	....			
Mar. 18	10	Polaris (E&E)	C	..	..	..	..	4.5	58.0	55.5	51.0	48.5	1. 11. 19.62	(-1.29)	21.97	28.10	6.13	6.55	1. 11. 28.51	+70.17	
	11	ϵ Canis Majoris ..	C	18.6	21.8	24.9	28.0	34.4	40.7	43.8	47.0	50.3	6. 53. 34.36		34.29	40.75	6.46	[-0.12]	6. 53. 40.81	- 0.33	
	12	Bradley 2440 S.P.	C	..	16.2	28.1	40.4	4.8	29.0	..	..	..	7. 3. 4.82		4.43			19. 3. 10.94	+ 2.34		
	13	κ Cygni S.P.	C	..	..	..	..	4.4	13.4	18.0	..	..	7. 14. 4.26		4.02			19. 14. 10.53	+ 0.94		
	14	τ Draconis S.P.	C	..	..	..	..	..	8.4	17.8	27.1	37.0	7. 17. 49.35		49.02			19. 17. 55.53	+ 2.16		
	15	σ Ursae Majoris ..	C	..	20.0	25.2	30.8	42.3	53.8	59.6	5.3	..	8. 19. 42.37		42.36			8. 19. 48.87	- 2.12		
	16	η Cancri	C	..	8.3	10.8	13.7	19.7	25.6	28.5	31.5	..	8. 25. 19.70		19.63	26.17	6.54	8. 25. 26.17	- 0.97		
	17	π Ursae Majoris ..	C	..	..	..	..	54.0	6.7	19.7	26.4	32.6	8. 29. 6.75		6.76			8. 29. 13.27	- 2.55		
	18	Uranus	C	51.1	54.0	56.8	59.7	5.6	11.5	14.4	17.4	20.3	8. 37. 5.62		5.55			8. 37. 12.06			
	19	34 Sextantis	C	..	50.8	53.5	56.4	1.8	7.4	10.3	13.0	..	10. 36. 1.86		1.78	8.27	6.49	10. 36. 8.28	- 1.24		
	20	Thisbe	C	39.6	42.3	45.0	..	53.0	..	1.8	4.0	7.3	10. 45. 53.26		53.19			10. 45. 59.69			
	21	β Ursae Majoris ..	C	44.6	49.8	54.6	59.7	10.0	20.3	25.3	30.3	35.5	10. 54. 9.98		9.95			10. 54. 16.45	- 3.02		
	22	B. F. 1620	C	39.7	45.6	51.4	57.3	8.8	20.6	26.5	32.2	38.0	11. 25. 8.85		8.84			11. 25. 15.33	- 3.61		
	23	Cassandra	C	54.0	56.8	59.6	2.6	8.0	13.6	16.2	19.0	21.8	11. 41. 7.93		7.85			11. 41. 14.34			
	24	π Virginis	C	6.0	8.8	11.5	14.3	19.8	25.5	28.3	31.0	33.8	11. 54. 19.86		19.79	26.31	6.52	11. 54. 26.28	- 1.35		
	25	θ Virginis	C	6.5	9.4	12.1	14.8	20.3	25.8	28.6	31.5	34.3	13. 3. 20.35		20.27	26.77	6.50	13. 3. 26.75	- 1.17		
	26	Polaris S.P. (E&E)	C	..	..	18.5	15.0	7.0	4.0	58.0	..	..	13. 11. 24.44		21.80	27.94	6.14	1. 11. 28.88	+70.33		
Mar. 19	27	6 Cancri	AD	..	..	..	..	..	47.5	50.5	53.7	57.0	7. 55. 41.17	[-1.41]	41.11	47.48	6.37	6.37	7. 55. 47.42	- 0.87	
	28	β Cancri	AD	21.3	24.1	27.0	29.7	35.3	41.0	43.8	46.7	49.5	8. 9. 35.36		35.29	41.61	6.32	[-0.19]	8. 9. 41.60	- 0.77	
	29	d^1 Cancri	AD	48.9	51.8	54.7	57.6	3.4	9.4	12.4	15.2	18.2	8. 16. 3.49		3.43	9.69	6.26	8. 16. 9.73	- 0.88		
	30	ρ^2 Cancri (1st Star)	AD	48.9	52.2	55.0	58.2	..	..	..	..	..	8. 19. 4.45		4.39			8. 19. 10.69	- 1.01		
	31	ρ^2 Cancri (2d Star)	AD	..	..	..	..	..	4.7	10.8	14.0	17.0	8. 19. 4.60		4.54			8. 19. 10.84	- 1.01		
	32	Uranus	AD	45.7	48.8	51.7	54.5	0.4	6.2	9.3	12.2	15.2	8. 37. 0.43		0.37			8. 37. 6.67			
	33	83 Cancri	AD	37.2	40.0	43.0	..	51.7	..	..	..	..	9. 11. 51.69		51.63	57.89	6.26	9. 11. 57.93	- 1.14		
	34	ν Leonis	AD	11.2	13.9	16.6	19.4	25.0	30.4	33.3	36.0	38.8	11. 30. 24.94		24.88	31.09	6.21	11. 30. 31.16	- 1.27		
	35	Jupiter 1 L.	AD	32.7	..	38.3	..	46.7	52.0	..	57.7	..	11. 49. 46.58		47.98	26.32	6.26	11. 49. 54.26	- 1.36		
	36	Jupiter 2 L.	AD	35.7	..	41.3	..	49.6	55.1	..	0.4	..	11. 49. 49.52								
	37	π Virginis	AD	..	..	..	..	20.1	25.7	28.6	31.3	34.1	11. 54. 20.13								
	38	δ Ursae Majoris ..	AD	..	..	..	..	..	18.3	23.3	28.5	33.6	12. 9. 7.74		7.72			12. 9. 13.99	- 3.20		
39	ρ Virginis	AD	11.4	14.4	17.0	19.9	25.6	31.3	34.0	36.8	39.7	12. 35. 25.55		25.48	31.81	6.33	12. 35. 31.75	- 1.39			
40	Polaris S.P. (E&E)	AD	24.0	21.5	17.0	15.0	..	..	..	..	..	13. 11. 23.71		21.34	27.68	6.34	....				
Mar. 20	41	η Cancri	C	5.4	8.2	11.2	14.2	20.0	26.0	29.1	31.9	34.9	8. 25. 20.08	(-0.74)	20.05	26.14	6.09	6.22† [-0.17]			
	42	Uranus	E	40.3	43.4	46.3	49.3	55.0	0.7	3.8	6.6	9.6	8. 36. 54.98		54.96			6.45	8. 37. 1.35		
	43	ϵ Hydrae	C	47.0	49.7	52.4	55.3	0.6	6.4	9.3	12.0	14.7	8. 40. 0.81		0.76	6.99	6.23	6.22†	....		
	44	κ Cancri	E	35.8	38.6	41.4	44.3	49.8	55.6	58.4	1.0	4.0	9. 0. 49.85		49.81	56.27	6.46	6.45	....		
	45	σ Leonis	E	6.3	9.0	11.7	14.6	20.4	25.9	28.8	31.5	34.4	9. 34. 20.27		20.23	26.57	6.34	....			

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32.400.

Corrections to the times by Arnold 1 for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 10, 26, and 40, +15.30: +15.20: and +15.40.

† This clock-error has been used in the reduction of the observations made with the Altazimuth.

March 16 to 18. The azimuthal error by Polaris and Polaris S.P. on March 18, allowing +0.16 for change of R.A.

March 19 to 22. The azimuthal error by tabular places of ρ Virginis and Polaris S.P. on March 19.

8. Very faint; observed in dark field.

27, 33, 38. Cloudy.

1876COMM: 36A...1A

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of		Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at ^h Sidereal and [Loss Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.									
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.		Collimation. (Level).	[Azimuth].															
																					s	s	s	s	s	s	s	s	s	s
Mar. 20	1	θ Leonis	E	..	..	24.1	27.0	32.7	38.5	41.4	44.2	47.1	11. 7. 32.71	+0.93	32.68			6.45	11. 7. 39.05	- 1.45										
	2	σ Leonis	E	19.5	22.4	25.0	27.8	33.4	39.0	41.7	44.4	47.3	11. 14. 33.37	(-0.74)	33.32			[-0.17]	11. 14. 39.69	- 1.33										
	3	ν Leonis	E	11.0	13.8	16.5	19.4	24.8	30.4	33.3	35.8	38.6	11. 30. 24.82	[-1.41]	24.78	31.09	6.31		....											
	4	β Leonis	E	18.8	21.6	24.5	27.3	33.0	38.6	41.5	44.4	47.4	11. 42. 32.99		32.95	39.34	6.39		....											
	5	B. A. C. 4005....	E	8.0	11.0	13.8	16.6	22.4	27.9	30.8	33.6	36.6	11. 44. 22.28		22.24				11. 44. 28.61	- 1.44										
	6	Jupiter 1 L.	E	4.2	..	9.6	..	17.9	..	26.2	..	31.8	11. 49. 17.92						11. 49. 25.78											
	7	Jupiter 2 L.	E	7.1	..	12.6	..	21.0	..	29.4	..	..	11. 49. 20.98		19.41															
Mar. 21	8	α Cancri.....	A D	16.5	19.3	22.1	24.9	30.6	36.3	39.1	..	..	8. 51. 30.59		30.55	36.61	6.06	6.14†	....											
	9	κ Cancri.....	AD	36.1	39.0	41.8	44.7	50.2	55.8	58.7	1.4	4.3	9. 0. 50.21		50.17	56.26	6.09	[-0.17]	....											
Mar. 22	10	83 Cancri.....	E	37.2	40.3	43.2	46.0	51.9	57.7	0.5	3.5	6.5	9. 11. 51.85		51.83	57.87	6.04	6.10†	....											
	11	α Hydræ	E	4.6	7.4	10.2	13.0	18.7	24.2	27.1	29.9	32.6	9. 21. 18.61		18.56	24.62	6.06	[-0.12]	....											
Mar. 23	12	$\odot$ 1 L.....	C	31.7	34.7	37.4	40.2	45.6	51.2	53.9	56.7	59.5	0. 8. 45.63	+0.91				5.80	0. 9. 55.79											
	13	$\odot$ 2 L.....	C	40.6	43.4	46.2	49.0	54.3	0.0	2.9	5.5	8.4	0. 10. 54.46	(-1.69)	49.99			[-0.14]												
	14	Venus 1 L.....	C	7.3	10.2	13.0	15.6	21.2	27.0	29.5	32.4	35.0	0. 37. 21.23	[-1.02]	21.16				0. 37. 27.33											
	15	Polaris.... (E&E)	C	..	21.5	14.0	..	..	36.5	53.0	51.0	..	1. 11. 21.96		22.45	27.13	4.68		1. 11. 28.24	+71.14										
	16	γ 1 L.....	C	50.3	53.4	56.5	59.8	6.0	12.3	15.5	18.6	21.8	5. 4. 5.99		5.92				5. 5. 25.44											
	17	β Tauri.....	C	57.9	1.0	4.3	7.4	13.7	19.8	23.2	26.2	29.4	5. 18. 13.63		13.55	19.34	5.79		5. 18. 19.32	+ 0.32										
	18	μ Geminorum ...	L	59.8	3.0	5.8	8.9	14.9	20.9	23.8	26.8	29.8	6. 15. 14.84		14.76	20.34	5.58	5.60†	....											
	19	ξ Geminorum ...	L	53.6	56.5	59.4	2.1	7.7	13.4	16.4	19.1	22.0	6. 38. 7.78		7.71	13.24	5.53		....											
	20	Pollux	C	15.4	18.6	21.7	24.9	31.2	37.5	40.7	43.9	46.9	7. 37. 31.17		31.09	36.86	5.77	5.80	7. 37. 36.85	- 0.68										
	21	B. F. 1083....	C	48.0	51.2	54.3	57.4	3.7	10.0	13.2	16.2	19.4	7. 42. 3.68		3.60				7. 42. 9.36	- 0.72										
	22	1 Cancri.....	C	30.7	33.6	36.7	39.4	45.3	51.0	53.7	56.7	59.6	7. 49. 45.17		45.09				7. 49. 50.84	- 0.66										
	23	5 Cancri.....	C	59.7	2.8	5.6	8.5	14.4	20.0	23.0	25.9	28.8	7. 54. 14.28		14.20				7. 54. 19.95	- 0.69										
	24	ψ 2 Cancri.....	C	31.5	34.6	37.6	40.7	47.0	53.0	56.0	59.1	2.2	8. 2. 46.82		46.75				8. 2. 52.50	- 0.83										
	25	Uranus.....	C	26.7	29.8	32.7	35.6	41.4	47.3	50.1	53.1	56.0	8. 36. 41.39		41.31				8. 36. 47.06											
	26	60 Cancri.....	C	43.7	46.7	49.5	52.2	57.9	3.6	6.4	9.3	12.0	8. 48. 57.90		57.83				8. 49. 3.58	- 0.93										
	27	α Cancri.....	C	16.9	19.8	22.5	25.3	31.0	36.6	39.5	42.2	45.0	8. 51. 31.07		31.00	36.59	5.59		8. 51. 36.75	- 0.95										
	28	81 Leonis.....	C	43.5	46.5	49.3	52.0	57.9	3.8	6.6	9.4	12.4	11. 18. 57.91		57.83				11. 19. 3.56	- 1.49										
	29	88 Leonis.....	C	55.9	58.8	1.7	4.6	10.3	16.0	18.9	21.7	24.6	11. 25. 10.26		10.18				11. 25. 15.91	- 1.46										
	30	ν Leonis.....	C	11.7	14.5	17.2	19.8	25.5	31.0	33.8	36.4	39.3	11. 30. 25.45		25.39	31.10	5.71		11. 30. 31.12	- 1.28										
	31	Cassandra.....	C	8.7	11.5	14.0	16.8	22.4	28.0	31.0	33.7	36.7	11. 37. 22.52		22.45				11. 37. 28.18											
	32	β Leonis.....	C	19.5	22.3	25.2	28.0	33.6	39.4	42.3	45.2	48.0	11. 42. 33.69		33.61	39.35	5.74		11. 42. 39.34	- 1.47										
	33	Jupiter 1 L.....	C	39.8	..	45.3	..	53.7	..	2.0	..	7.6	11. 47. 53.66						11. 48. 0.83											
	34	Jupiter 2 L.....	C	42.8	..	48.3	..	56.7	..	5.1	..	10.6	11. 47. 56.68																	
	35	31 Comæ.....	C	14.0	17.2	20.2	23.4	29.6	35.9	39.1	42.3	45.4	12. 45. 29.64		29.56	35.37	5.81		12. 45. 35.29	- 1.74										
	36	Polaris S.P. (E&E)	C	21.0	19.0	..	..	..	57.0	54.0	46.0	..	13. 11. 23.22		22.46	27.06	4.60		1. 11. 28.18	+71.21										
Mar. 24	37	β Tauri.....	AD	58.0	1.2	4.3	7.4	13.7	20.0	23.3	26.3	29.5	5. 18. 13.72	[-0.11]	13.67	19.32	5.65	5.62	5. 18. 19.27	+ 0.34										
	38	δ Orionis.....	AD	14.6	17.4	20.2	22.8	28.3	33.8	36.8	39.4	42.3	5. 25. 28.38		28.36	33.96	5.60	[-0.07]	5. 25. 33.96	+ 0.21										
	39	ϵ Orionis.....	AD	29.5	32.4	35.0	37.9	43.4	48.9	51.8	54.4	57.2	5. 29. 43.37		43.35	48.98	5.63		5. 29. 48.95	+ 0.19										
	40	ζ Orionis.....	AD	4.5	7.3	10.0	12.8	18.2	23.8	26.6	29.3	32.2	5. 34. 18.28		18.26				5. 34. 23.86	+ 0.18										
	41	136 Tauri.....	AD	3.2	6.3	9.4	12.5	18.7	25.0	28.1	31.2	34.4	5. 45. 18.72		18.67				5. 45. 24.27	+ 0.15										
	42	α Orionis.....	AD	1.3	4.1	6.9	9.7	15.2	20.8	23.6	26.4	29.3	5. 48. 15.24		15.21	20.93	5.72		5. 48. 20.81	+ 0.09										
	43	γ 1 L.....	AD	50.7	54.0	57.2	0.3	6.8	13.4	16.5	19.6	23.0	6. 6. 6.80		6.75				6. 7. 25.80											
	44	δ Ursæ Min. S.P. (E&E)	AD	..	..	..	..	..	53.0	39.0	25.5	..	6. 12. 51.41		51.72	58.43	6.71		18. 12. 57.32	+ 0.47										
	45	ν Geminorum....	AD	8.7	11.9	14.5	17.5	23.6	29.6	32.5	35.3	38.2	6. 21. 23.52		23.48	28.95	5.47		6. 21. 29.08	- 0.10										

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Arnold 1. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Arnold 1 for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 15, 36, and 44, +18".80: +18".50: and +18".20.

Corrections for passage of Semidiameter, Nos. 14, 16, and 43, +0".37: +73".75: and +73".45.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

March 23. The azimuthal error by Polaris and Polaris S.P., allowing -0".01 for clock-rate and change of R.A.

March 24 and 25. The azimuthal error by consecutive transits of Polaris S.P., Polaris, and Polaris S.P.

5, 41. Very faint.

14. Very faint and tremulous.

36. Cloudy.

[22] TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at Sidereal and [Loss Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.	
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.									
				s	s	s	s	s	s	s	s	s		h m s							//
Mar. 24	1	49 Aurigæ	AD	54.8	58.0	1.2	4.4	10.6	16.8	19.8	23.1	26.1	6. 27. 10.51	+0.91	10.46			5.62	6. 27. 16.06	- 0.16	
	2	54 Aurigæ	AD	15.3	18.6	21.5	24.7	31.0	37.4	40.5	43.5	46.7	6. 31. 31.00	(-1.69)	30.95			[-0.07]	6. 31. 36.55	- 0.19	
	3	Cephei 51. . (E&E)	AD	..	..	33.5	31.5	26.0	21.0	..	..	..	6. 40. 44.05	[-0.11]	43.50	50.08	6.58		6. 40. 49.10	- 5.17	
	4	Groombridge 1228	AD	14.1	23.0	31.0	39.6	56.5	13.8	22.5	31.0	39.1	6. 46. 56.66		56.53				6. 47. 2.13	- 0.90	
	5	ε Canis Majoris . . .	E	19.2	22.2	25.5	28.6	34.7	41.0	44.0	47.2	50.6	6. 53. 34.76		34.80	40.62	5.82	5.83†	....		
	6	ζ Geminorum	E	17.9	21.0	23.8	26.8	32.7	38.6	41.6	44.5	47.6	6. 56. 32.70		32.65	38.44	5.79		....		
	7	17 Lynceis	AD	47.0	52.8	58.0	4.0	15.0	26.7	32.5	38.1	43.9	6. 58. 15.32		15.22			5.62	6. 58. 20.82	- 0.78	
	8	Bradley 2440 S.P.	AD	..	..	29.3	41.6	5.8	30.2	42.3	54.3	6.5	7. 3. 5.87		5.89				19. 3. 11.49	+ 1.77	
	9	λ Ursæ Min. S.P. (E&E)	AD	..	..	..	..	..	6.5	31.0	53.5	28.0	7. 49. 29.72		30.87	36.94	6.07		19. 49. 36.47	+ 40.28	
	10	ο Ursæ Majoris . . .	AD	14.6	20.4	26.1	31.6	43.0	54.6	0.2	6.0	11.9	8. 19. 43.11		43.01				8. 19. 48.61	- 1.94	
	11	η Cancri	AD	5.7	8.7	11.7	14.6	20.4	25.4	29.5	32.4	33.3	8. 25. 20.51		20.46	26.09	5.63		8. 25. 26.06	- 0.89	
	12	Bradley 2673 S.P.	AD	38.5	47.4	56.5	5.2	23.6	41.4	50.5	59.4	8.6	8. 30. 23.53		23.52				20. 30. 29.12	+ 3.21	
	13	Uranus	AD	22.3	25.3	28.2	31.3	37.0	43.0	45.7	48.6	51.7	8. 36. 36.99		36.95				8. 36. 42.55		
	14	34 Sextantis	AD	48.8	51.6	54.5	57.2	2.7	8.3	11.0	13.8	16.6	10. 36. 2.70		2.67	8.26	5.59		10. 36. 8.26	- 1.23	
	15	Victoria	AD	48.6	..	..	..	2.6	7.6	..	13.6	16.7	10. 43. 2.48		2.47				10. 43. 8.06		
	16	Bradley 3077 S.P.	AD	40.0	45.0	49.9	54.7	5.1	15.2	20.2	25.1	30.1	11. 7. 5.07		5.01				23. 7. 10.60	+ 2.83	
	17	δ Crateris	AD	43.8	46.8	49.7	52.6	58.1	4.0	6.9	9.6	12.4	11. 12. 58.19		58.19	3.70	5.51		11. 13. 3.78	- 1.17	
	18	Piazzi XI. 43. . . .	AD	46.7	53.3	59.8	6.4	19.5	32.7	39.3	45.5	52.0	11. 15. 19.41		19.30				11. 15. 24.89	- 4.03	
	19	λ Draconis	AD	13.0	21.4	29.0	37.4	53.4	9.7	17.7	25.4	33.7	11. 23. 53.34		53.21				11. 23. 58.80	- 5.06	
	20	Cassandra	AD	24.8	..	29.7	32.9	38.6	43.9	47.0	..	52.6	11. 36. 38.48		38.45				11. 36. 44.04		
	21	Bradley 3166 S.P.	AD	8.2	15.7	22.9	30.0	44.0	58.4	5.4	12.5	19.6	11. 41. 44.14		44.10				23. 41. 49.69	+ 4.34	
	22	Jupiter 1 L.	AD	12.0	..	17.6	..	25.8	..	34.2	..	39.6	11. 47. 25.82		27.33				11. 47. 32.92		
	23	Jupiter 2 L.	AD	15.1	..	20.5	..	28.9	..	37.4	..	42.7	11. 47. 28.90								
	24	π Virginis	AD	..	..	..	..	..	26.4	29.1	32.0	34.8	11. 54. 20.79		20.76	26.34	5.58		11. 54. 26.35	- 1.38	
	25	ρ Virginis	AD	12.4	15.4	18.0	20.6	26.3	32.0	34.8	37.6	40.4	12. 35. 26.37		26.34	31.85	5.11		12. 35. 31.92	- 1.43	
	26	η Cassiopeie S.P. . .	AD	55.5	0.4	5.5	10.6	20.7	30.9	36.3	41.0	46.2	12. 41. 20.83		20.78				0. 41. 26.36	+ 2.99	
	27	γ Cassiopeie S.P. . .	AD	30.5	36.3	41.3	47.0	58.3	9.5	15.3	20.6	26.0	12. 48. 58.36		58.31				0. 49. 3.89	+ 3.29	
	28	ε Virginis	AD	36.0	39.0	41.7	44.4	50.2	55.7	58.6	1.5	4.3	12. 55. 50.14		50.11	55.70	5.59		12. 55. 55.69	- 1.42	
	29	Polaris S.P. (E&E)	AD	..	..	..	..	..	54.0	50.0	47.0	48.0	13. 11. 21.24		22.12	26.89	4.77		1. 11. 27.70	+ 71.38	
Mar. 25	30	⊙ 1 L.	L	48.5	51.4	53.9	56.6	1.7	7.5	10.6	13.3	16.0	0. 16. 2.15	(-0.45)	6.63			5.32	0. 17. 11.95		
	31	⊙ 2 L.	L	57.3	0.0	2.8	5.5	11.0	16.6	19.3	22.2	24.9	0. 18. 11.05					[-0.01]			
	32	Venus 1 L.	L	12.6	15.6	18.2	21.0	26.6	32.4	35.0	37.8	40.7	0. 46. 26.63		26.66				0. 46. 32.35		
	33	Polaris . . . (E&E)	L	..	..	12.5	8.5	3.0	53.5	53.0	48.5	43.5	1. 11. 19.53		21.27	26.78	5.51		1. 11. 26.59	+ 71.49	
	34	ξ Geminorum	L	53.6	56.6	59.4	2.3	7.7	13.6	16.4	19.2	22.2	6. 38. 7.87		7.91	13.21	5.30		6. 38. 13.23	- 0.18	
	35	θ Canis Majoris . . .	L	0.8	3.7	6.6	9.4	15.1	20.7	23.5	26.4	29.2	6. 48. 15.02		15.06	20.32	5.26		6. 48. 20.38	- 0.18	
	36	ζ Geminorum	L	18.2	21.3	24.3	27.3	33.0	39.0	42.0	44.9	47.7	6. 56. 33.06		33.09	38.43	5.34		6. 56. 38.41	- 0.33	
	37	⊙ 1 L.	L	30.4	33.6	36.7	39.8	46.1	52.7	56.0	59.2	2.3	7. 6. 46.28		46.32				7. 8. 3.71		
	38	υ Geminorum	L	49.3	52.5	55.6	58.4	4.7	11.1	13.9	17.0	20.0	7. 28. 4.70		4.74				7. 28. 10.06	- 0.58	
	39	Procyon	C	23.3	26.0	28.7	31.5	37.0	42.5	45.4	48.1	51.0	7. 32. 37.03		37.06	42.76	5.70	5.70†	....		
	40	Pollux	C	15.4	18.6	21.6	24.9	31.0	37.5	40.7	43.6	46.8	7. 37. 31.10		31.14	36.83	5.69		....		
	41	φ Geminorum	L	26.9	30.0	33.1	36.2	42.4	48.5	51.6	54.7	57.6	7. 45. 42.31		42.35			5.32	7. 45. 47.67	- 0.69	
	42	λ Ursæ Min. S.P. (E&E)	L	..	..	..	..	..	7.0	33.0	1.0	28.0	7. 49. 32.44		30.18	37.82	7.64		19. 49. 35.50	+ 39.40	
	43	β Cancri	L	22.2	25.0	27.6	30.5	36.2	41.7	44.6	47.2	50.2	8. 9. 36.11		36.15	41.53	5.38		8. 9. 41.47	- 0.69	
	44	η Cancri	L	5.9	9.0	12.0	14.7	20.6	26.6	29.7	32.6	35.5	8. 25. 20.72		20.76	26.08	5.32		8. 25. 26.08		
	45	Uranus 1 L.	L	18.0	21.1	23.8	26.7	32.4	..	..	..	..	8. 36. 32.58		32.83				8. 36. 38.15		
	46	Uranus 2 L.	L	..	..	..	..	..	39.0	41.7	44.8	47.7	8. 36. 33.02								
	47	μ Hydræ	L	..	..	..	..	..	1.3	4.3	7.1	10.0	10. 19. 55.57			55.61	0.87	5.26		10. 20. 0.93	- 1.05
	48	β Leonis	L	19.6	22.7	25.4	28.3	34.1	39.6	42.6	45.5	48.5	11. 42. 34.02			34.05	39.36	5.31		11. 42. 39.37	- 1.48

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Arnold 1 for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 3, 9, 29, 33, and 42, + 18".20 : + 18".10 : + 18".10 : + 18".30 : and + 18".30.

Corrections for passage of Semidiameter, Nos. 32 and 37, + 0".37 : and + 72".07.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

13, 26, 27, 29, 33. Very tremulous.

32. Tremulous and ill-defined.

MONTH DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Mar. 25	1	Jupiter 1 L.....	L	44.0	46.7	49.5	52.0	57.6	3.2	..	..	..	11. 46. 57.69	+0.91	59.38			5.32	11. 47. 47.0	
	2	Jupiter 2 L.....	L	..	..	..	55.5	0.9	6.6	9.4	12.0	15.0	11. 47. 1.01	(-0.45)				[-0.01]		
	3	♄ Virginis.....	L	57.4	0.1	3.2	5.8	11.5	17.0	19.7	22.5	25.3	12. 49. 11.37	(-0.11)	11.40	16.77	5.37		12. 49. 16.71	- 1.35
	4	Calliope.....	L	54.8	..	..	..	9.0	..	17.6	..	23.4	12. 56. 9.05		9.09				12. 56. 14.40	
	5	Polaris S.P. (E&E)	L	18.0	17.5	12.0	12.0	..	57.0	..	..	..	13. 11. 22.21		20.43	26.68	6.25		1. 11. 25.74	+71.59
Mar. 26	6	♄ Ursæ Min. S.P. (E&E)	E	..	..	..	1.5	35.5	8.5	55.0	40.5	..	6. 12. 54.89	(-0.38)	54.17	59.08	4.91	5.83	18. 12. 59.96	- 0.18
	7	Cephei 51. (E&E)	E	..	35.5	..	28.5	..	..	17.0	12.5	10.5	6. 40. 42.59	(-0.03)	43.43	49.33	5.90	[-0.17]	6. 40. 49.21	- 4.42
	8	♄ Canis Majoris..	E	19.0	22.2	25.4	28.5	34.8	41.2	44.1	47.3	50.7	6. 53. 34.77		34.84	40.58	5.74		6. 53. 40.62	- 0.16
	9	♄ Canis Minoris..	AD	59.7	2.7	5.5	8.2	13.8	19.5	22.4	25.1	28.0	7. 20. 13.86		13.90	19.42	5.52	5.61†	..	
	10	Castor.....	AD	11.9	15.5	18.6	22.0	28.5	35.0	38.4	41.5	44.9	7. 26. 28.44		28.48	34.07	5.59		..	
	11	♊ Geminorum....	E	48.6	51.6	54.8	57.8	4.1	10.4	13.4	16.4	19.6	7. 28. 4.05		4.09			5.83	7. 28. 9.87	- 0.56
	12	♊ Geminorum....	E	..	29.5	32.6	35.7	42.0	48.1	51.3	54.3	..	7. 45. 41.90		41.94				7. 45. 47.72	- 0.68
	13	♊ L.....	E	19.2	22.5	25.7	28.7	34.8	41.4	44.4	47.4	50.5	8. 4. 34.94		34.98				8. 5. 50.62	
	14	♌ 1 Cancri.....	E	49.3	52.4	55.2	58.0	3.8	9.6	12.6	15.5	18.5	8. 16. 5.86		3.90	9.60	5.70		8. 16. 9.67	- 0.79
	15	♌ 3 Cancri.....	E	43.4	46.5	49.4	52.5	58.5	4.6	7.6	10.5	13.7	8. 23. 58.49		58.53				8. 24. 4.30	- 0.90
	16	♌ 7 Cancri.....	E	39.8	42.8	46.0	48.8	54.7	..	..	..	..	8. 35. 54.74		54.79	0.42	5.63		8. 36. 0.56	- 0.93
	17	Uranus.....	E	13.7	16.8	..	22.7	28.6	34.5	..	40.2	43.6	8. 36. 28.57		28.61				8. 36. 34.38	
	18	♌ Leonis.....	E	5.1	8.2	11.0	14.0	..	26.0	..	..	..	11. 7. 19.95		20.00	25.83	5.83		11. 7. 25.75	- 1.54
	19	♌ Leonis.....	E	..	..	..	..	..	..	41.8	44.6	47.6	11. 7. 33.13		33.17				11. 7. 38.92	- 1.37
	20	♌ Crateris.....	E	43.5	46.5	49.4	52.3	58.0	3.6	6.4	9.4	12.2	11. 12. 57.90		57.95	3.70	5.75		11. 13. 3.70	- 1.17
	21	♌ 1 Leonis.....	E	43.4	46.4	49.2	..	57.8	..	6.4	9.3	12.2	11. 18. 57.78		57.82				11. 19. 3.57	- 1.49
	22	B. F. 1620.....	E	..	..	52.0	57.6	9.4	21.0	26.6	..	..	11. 25. 9.28		9.36				11. 25. 15.11	- 3.60
	23	Groombridge 1804	E	..	..	..	..	18.0	30.5	36.6	42.7	48.6	11. 30. 18.23		18.30				11. 30. 24.05	- 3.76
	24	Cassandra.....	E	59.0	1.9	4.5	7.3	12.7	18.6	21.4	23.8	26.6	11. 35. 12.85		12.89				11. 35. 18.64	
	25	Jupiter 1 L.....	E	16.0	..	21.6	..	29.7	..	38.2	..	43.7	11. 46. 29.82							
	26	Jupiter 2 L.....	E	19.2	..	24.8	..	33.0	..	41.4	..	46.8	11. 46. 33.02		31.46				11. 46. 37.21	
	27	Bradley 3195 S.P.	E	..	..	..	..	3.0	13.8	19.7	25.4	31.2	11. 55. 2.93		2.83				23. 55. 8.58	+ 3.36
	28	♄ Cassiopeiæ S.P.	E	..	..	23.7	29.7	41.5	53.5	59.6	..	..	12. 25. 41.64		41.53				0. 25. 47.27	+ 3.59
	29	Bradley 48 S.P.	E	..	..	..	23.6	3.0	42.2	..	..	..	12. 30. 3.01		2.70				0. 30. 8.44	+ 12.20
	30	♄ Virginis.....	E	12.0	14.9	17.5	20.3	26.0	31.5	34.4	37.3	40.2	12. 35. 25.99		26.03	31.87	5.84		12. 35. 31.77	- 1.45
	31	Calliope.....	E	..	..	10.1	13.0	18.5	24.2	27.3	..	..	12. 55. 18.60		18.64				12. 55. 24.38	
	32	Polaris S.P. (E&E)	E	..	..	..	..	3.0	55.5	53.0	..	51.0	13. 11. 24.21		22.43	26.44	4.01		1. 11. 28.17	+71.83
	33	Spica.....	E	14.7	17.6	20.4	23.0	28.8	34.4	37.1	40.0	42.9	13. 18. 28.74		28.79	34.59	5.80		13. 18. 34.53	
Mar. 27	34	♄ 1 L.....	C	4.4	7.1	9.8	12.6	18.2	23.8	26.5	29.4	32.1	0. 23. 18.19	(-0.92)	22.61			5.36	0. 24. 27.97	
	35	♄ 2 L.....	C	13.1	16.0	18.7	21.4	27.0	32.5	35.4	38.0	41.0	0. 25. 26.99					[-0.20]		
	36	Venus 1 L.....	C	18.9	22.0	24.8	27.4	33.0	38.5	41.3	44.0	47.0	0. 55. 32.97		32.99				0. 55. 38.71	
	37	Polaris.... (E&E)	C	..	..	..	..	55.0	53.0	47.0	47.0	..	1. 11. 21.85		22.40	26.31	3.91		1. 11. 27.75	+71.96
	38	♄ Arietis.....	C	42.7	45.8	48.7	51.6	57.7	3.7	6.7	9.6	12.7	1. 59. 57.67		57.68	3.02	5.34		..	
	39	♄ Andromedæ...	AD	30.0	33.4	36.4	39.5	45.8	52.1	55.3	58.4	1.6	0. 1. 45.80	(-2.11)	45.75	51.02	5.27	5.27	..	
													[+1.09]					[-0.16]		
Mar. 28	40	♄ 1 L.....	AD	42.5	45.3	47.7	50.6	56.2	1.6	4.7	7.4	10.4	0. 26. 56.24						0. 28. 5.96	
	41	♄ 2 L.....	AD	..	..	..	59.6	5.2	10.6	13.5	16.2	18.9	0. 29. 5.10		0.69					
	42	Venus 1 L.....	AD	52.6	55.6	58.3	1.0	6.6	12.4	15.0	17.6	20.5	1. 0. 6.60		6.61				1. 0. 12.24	
	43	♄ Andromedæ...	AD	17.0	20.5	23.9	27.3	34.0	40.8	44.1	47.4	50.8	1. 2. 33.95		33.88	39.15	5.27		..	
	44	Polaris.... (E&E)	AD	..	..	..	..	58.0	56.0	47.0	45.0	..	1. 11. 24.78		20.78	26.06	5.28		..	
Mar. 29	45	89 Herculis.....	C	0.4	3.6	6.5	9.6	15.7	21.8	25.0	28.0	31.2	17. 50. 15.72		15.68	20.60	4.92		..	

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Arnold 1. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Arnold 1 for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 5, 6, 7, 32, 37, and 44, + 18".40 : + 19".50 : + 19".50 : + 19".60 : + 20".10 : and + 22".00.

Corrections for passage of Semidiameter, Nos. 13, 36, and 42, + 69".87 : + 0".37 : and + 0".37.

† This clock-error has been used in the reduction of the observations made with the Altazimuth.

March 26 to March 27, ♄ Arietis. The azimuthal error by Polaris S.P. and Polaris, allowing + 0".03 for clock-rate and change of R.A.

March 27, ♄ Andromedæ, to March 29. The azimuthal error by tabular places of ♄ Andromedæ and Polaris on March 28, allowing - 0".01 for clock-rate.

4, 37. Very faint.

5, 44. Very tremulous.

36. Very faint and tremulous.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at Sidereal and [Loss Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Mar. 30	1	Castor	AD	12.8	16.2	19.4	22.6	29.3	35.7	..	..	..	7. 26. 29.18	+0.93	29.10	34.00	4.90	4.93†	....	
	2	Procyon	AD	24.0	26.8	29.6	32.4	37.8	43.4	46.4	49.0	51.8	7. 32. 37.89	(-1.92)	37.83	42.68	4.85	[-0.17]	....	
	3	λ Ursæ Min. S.P. (E&E)	E	..	..	48.0	19.5	11.5	7.0	32.5	..	..	7. 49. 37.33	[-0.58]	37.96	42.81	4.85		....	
	4	δ 1 L.	E	..	..	..	21.5	27.3	33.0	35.8	38.6	41.5	11. 21. 27.23		27.17				11. 22. 33.47	
Mar. 31	5	δ Geminorum	L	16.8	19.9	22.9	25.7	31.6	37.7	40.7	43.6	46.7	7. 12. 31.72	(-1.28)	31.67	36.15	4.48	4.53†	....	
	6	β Canis Minoris .	L	0.9	3.8	6.6	9.4	15.0	20.5	23.4	26.1	29.0	7. 20. 14.95	[-1.04]	14.90	19.33	4.43	[-0.24]	....	
	7	Procyon	C	24.1	26.9	29.5	32.4	38.0	43.6	46.4	49.2	51.8	7. 32. 37.97		37.92	42.67	4.75	4.78	7. 32. 42.62	- 0.36
	8	49 Camelopardali.	C	..	..	..	..	..	17.3	23.4	29.4	..	7. 34. 58.82		58.80			[-0.24]	7. 35. 3.50	- 1.16
	9	λ Ursæ Min. S.P. (E&E)	C	..	..	..	..	11.0	5.5	32.0	..	..	7. 49. 37.67		35.51	43.96	8.45		19. 49. 40.21	+ 33.26
	10	15 Argus	C	51.4	54.5	57.4	0.3	6.5	12.5	15.5	18.6	21.6	8. 2. 6.45		6.43	11.06	4.63		8. 2. 11.13	- 0.41
	11	66 Draconis S.P. .	C	..	..	..	..	..	38.1	43.8	49.5	55.7	8. 3. 26.46		26.27				20. 3. 30.97	+ 1.31
	12	68 Draconis S.P. .	C	..	1.4	7.1	13.3	24.9	36.6	42.4	47.9	..	8. 9. 24.86		24.67				20. 9. 29.37	+ 1.40
	13	Groomb. 3150 S.P.	C	..	..	49.3	56.3	10.3	24.0	31.0	..	..	8. 16. 10.22		10.01				20. 16. 14.71	+ 1.83
	14	Uranus	C	58.3	1.2	4.0	7.0	12.8	18.6	21.6	24.5	27.5	8. 36. 12.82		12.77				8. 36. 17.46	
	15	6 Cephei S.P. ...	C	6.3	12.6	18.8	25.4	38.1	50.7	57.2	3.4	9.9	9. 16. 38.09		37.90				21. 16. 42.59	+ 2.52
	16	α Hydræ	C	5.9	8.8	11.4	14.4	19.9	25.5	28.4	31.0	33.8	9. 21. 19.88		19.84	24.52	4.68		9. 21. 24.53	- 0.83
	17	δ Ursæ Majoris ..	C	..	..	52.6	0.7	17.6	33.8	42.2	..	..	9. 23. 17.33		17.35				9. 23. 22.04	- 3.66
	18	B. F. 1343.	C	44.8	..	..	..	..	40.8	49.0	56.9	5.0	9. 31. 24.82		24.82				9. 31. 29.50	- 3.69
	19	78 Draconis S.P. .	C	38.8	47.6	56.3	5.2	23.0	40.4	49.4	57.8	7.0	9. 41. 22.91		22.68				21. 41. 27.36	+ 4.01
	20	Piazzi XXI. 360 S.P.	C	..	..	40.2	..	58.6	10.9	16.9	22.9	29.2	9. 52. 58.66		58.46				21. 53. 3.14	+ 2.80
	21	B. F. 1656.	C	22.5	25.4	28.1	30.7	36.4	41.9	44.6	47.4	50.3	11. 42. 36.34		36.29				11. 42. 40.95	- 1.37
	22	Jupiter 1 L.	C	1.2	..	6.8	..	15.0	..	23.5	..	28.9	11. 44. 15.06		16.57				11. 44. 21.23	
	23	Jupiter 2 L.	C	4.4	..	9.8	..	18.2	..	26.6	..	32.0	11. 44. 18.18							
	24	δ Virginis	C	12.6	15.5	18.1	20.9	26.5	32.0	34.8	37.5	40.3	11. 53. 26.44		26.39				11. 53. 31.05	- 1.37
	25	α Virginis	C	30.2	33.2	35.8	38.6	44.3	49.9	52.6	55.4	58.3	11. 58. 44.24		44.18	48.87	4.69		11. 58. 48.84	- 1.43
	26	δ 1 L.	C	42.5	45.5	48.0	51.0	56.6	2.4	5.2	7.9	10.9	12. 4. 56.64		56.59				12. 6. 1.99	
	27	η Virginis	C	10.5	13.3	16.0	18.9	24.3	29.9	32.6	35.4	38.2	12. 13. 24.33		24.29	28.90	4.61		12. 13. 28.95	- 1.35
	28	γ ² Virginis	C	..	..	..	..	13.3	18.9	21.6	24.2	27.3	12. 35. 13.30		13.26				12. 35. 17.91	- 1.34
	29	ε Virginis	C	37.0	40.0	42.6	45.5	51.1	56.8	59.6	2.4	5.2	12. 55. 51.12		51.07	55.77	4.70		12. 55. 55.72	- 1.49
	30	Polaris S.P. (E&E)	C	..	..	..	..	..	50.0	47.0	37.0	40.0	13. 11. 23.47		21.75	25.37	3.62		1. 11. 26.40	+ 72.90
Apr. 1	31	Polaris (E&E)	AD	..	..	4.0	..	..	46.0	43.0	37.5	36.0	1. 11. 19.42	(-0.88)	21.81	25.32	3.51	4.54	1. 11. 26.35	+ 72.95
Apr. 3	32	γ ¹ Leonis	AD	44.3	47.4	50.3	53.1	59.1	4.8	7.8	11.0	14.0	10. 12. 59.06		59.04	2.66	3.62	3.78†	....	
	33	α Leonis	AD	54.1	57.0	59.6	2.6	8.1	13.7	16.6	19.4	22.3	10. 26. 8.13		8.09	11.73	3.64	[-0.36]	....	
	34	Arcturus	E	38.0	40.9	43.8	46.7	52.6	..	..	..	..	14. 9. 52.61		52.59	56.39	3.80		....	
Apr. 5	35	ρ Virginis	E	14.7	17.6	20.4	23.3	28.9	..	..	40.2	43.1	12. 35. 28.88	[-0.70]	28.86	31.93	3.07	3.26†	....	
	36	35 Virginis	E	11.0	13.8	16.6	19.3	24.9	30.4	33.2	35.8	38.6	12. 41. 24.82		24.81	27.90	3.09	[-0.34]	....	
	37	Piazzi XV. 96 ...	AD	6.5	9.5	12.3	15.2	21.0	27.0	29.9	32.7	35.9	15. 25. 21.10		21.10			2.93	15. 25. 23.81	- 1.15
	38	κ Libræ	AD	25.2	28.2	31.0	33.9	39.6	45.6	48.6	51.6	54.5	15. 34. 39.78		39.78			[-0.34]	15. 34. 42.49	- 1.13
	39	α Serpentis	AD	48.2	51.1	53.9	56.8	2.0	7.7	10.6	13.4	16.2	15. 38. 2.19		2.18	4.91	2.73		15. 38. 4.89	- 1.18
	40	ε Serpentis	AD	16.6	19.5	22.2	25.0	30.5	36.3	39.0	41.7	44.5	15. 44. 30.57		30.56	33.28	2.72		15. 44. 33.27	- 1.15
	41	δ 2 L.	AD	49.0	52.2	55.2	58.3	4.5	10.6	13.7	16.8	20.0	15. 57. 4.45		4.45				15. 55. 59.72	
	42	δ Ophiuchi	AD	29.0	32.0	34.6	37.4	42.9	48.5	51.4	54.0	56.8	16. 7. 42.94		42.93	45.60	2.67		16. 7. 45.63	- 1.04
	43	γ Herculis	AD	5.5	8.5	11.4	14.3	20.1	26.0	28.9	31.8	34.7	16. 16. 20.12		20.11	22.83	2.72		16. 16. 22.81	- 1.12
	44	22 Scorpil	AD	16.4	19.5	22.5	25.6	31.6	37.6	40.8	43.8	47.0	16. 22. 31.62		31.62				16. 22. 34.32	- 0.99

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Arnold 1 for reduction to Sidereal Standard, applied to form Concluded Transit, [Nos.] 3, 9, 30, and 31, + 24".70 : + 26".00 : + 26".40 : and + 27".30.

Corrections for passage of Semidiameter, Nos. 4, 26, and 41, + 61".45 : + 60".74 : and - 67".43.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

March 30. The azimuthal error by tabular places of Procyon and λ Ursæ Minoris S.P.

March 31 to April 3. The azimuthal error by Polaris S.P. and Polaris on March 31 and April 1, allowing - 0".05 for clock-rate and change of R.A.

April 5 to 7. The azimuthal error by Polaris S.P. and Polaris on April 6 and 7, allowing - 0".16 for clock-rate and change of R.A.

4. Cloudy.

18, 20. Very cloudy.

20. Faint.

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1874.

[25]

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Apr. 5	1	ζ Ophiuchi	AD	57.6	0.3	3.2	6.0	11.6	17.3	20.0	22.7	25.7	16. 30. 11.58	+0.93	11.57	14.23	2.66	2.93	16. 30. 14.27	- 0.94
	2	25 Scorpii	AD	51.6	54.7	57.6	0.5	6.7	13.0	16.1	19.0	22.0	16. 39. 6.77	(-0.88) [-0.70]	6.77			[-0.34]	16. 39. 9.47	- 0.93
Apr. 6	3	Uranus 1 L.	L	46.8	49.8	52.5	55.6	1.3	7.3	10.2	..	..	8. 36. 1.38	+0.85	1.66			2.38	8. 36. 3.95	
	4	Uranus 2 L.	L	..	..	..	..	..	..	..	..	..	8. 36. 1.94	(-0.43)				[-0.26]		
	5	ε Hydrae	L	50.6	53.4	56.2	59.0	4.3	10.1	12.9	15.5	18.5	8. 40. 4.48		4.49	6.78	2.29		8. 40. 6.78	- 0.66
	6	α Cancri	L	20.0	23.0	25.6	28.5	34.2	39.8	42.7	45.5	48.4	8. 51. 34.17		34.18	36.41	2.23		8. 51. 36.46	- 0.77
	7	Bradley 1283....	L	6.2	9.1	11.8	14.8	20.5	26.3	29.1	32.0	34.9	8. 59. 20.51		20.52				8. 59. 22.80	- 0.85
	8	π Leonis	L	18.0	20.9	23.6	26.4	32.0	37.6	40.4	43.3	46.0	9. 53. 32.00		32.01	34.26	2.25		9. 53. 34.28	- 1.04
	9	ρ Leonis	L	55.4	58.3	1.0	3.8	9.4	15.3	17.8	20.7	23.5	10. 26. 9.44		9.45	11.70	2.25		10. 26. 11.72	- 1.18
	10	34 Sextantis....	L	52.0	55.0	57.5	0.3	6.0	11.4	14.3	17.0	19.8	10. 36. 5.90		5.91	8.19	2.28		10. 36. 8.18	- 1.16
	11	ν Leonis	L	15.0	17.7	20.6	23.3	28.9	34.5	37.2	40.0	42.6	11. 30. 28.84		28.84	31.10	2.26		11. 30. 31.11	- 1.28
	12	Jupiter 1 L.....	L	29.3	32.0	34.8	37.6	43.3	48.7	..	..	..	11. 41. 43.14		44.72					
	13	Jupiter 2 L.....	L	..	..	..	..	..	..	..	..	..	11. 41. 46.27							
	14	Piazzi XI. 207...	L	22.0	24.8	27.4	30.2	35.6	41.4	44.0	46.8	49.6	11. 52. 35.73		35.73				11. 52. 37.99	- 1.34
	15	ο Virginis	L	32.6	35.5	38.2	41.1	46.6	52.2	55.0	57.7	0.5	11. 58. 46.58		46.59	48.88	2.29		11. 58. 48.84	- 1.44
	16	Piazzi XII. 6....	L	58.6	1.6	4.4	7.2	12.7	18.2	21.0	23.7	26.5	12. 5. 12.64		12.65				12. 5. 14.90	- 1.40
	17	Piazzi XII. 143..	L	59.9	2.8	5.5	8.3	13.8	19.5	22.3	25.0	27.7	12. 32. 13.85		13.85				12. 32. 16.09	- 1.36
	18	Piazzi XII. 183..	L	48.0	50.8	53.5	56.3	1.8	7.5	10.3	13.0	15.7	12. 41. 1.86		1.86				12. 41. 4.10	- 1.35
	19	δ Virginis	L	0.7	3.5	6.2	9.0	14.5	20.2	22.8	25.7	28.4	12. 49. 14.54		14.55	16.85	2.30		12. 49. 16.79	- 1.43
	20	Polaris S.P. (E&E)	L	9.0	8.0	2.0	59.5	50.5	..	..	..	..	13. 11. 26.59		23.87	25.52	1.65		1. 11. 26.11	+7.25
21	γ Serpentis	C	22.4	25.4	28.3	31.2	36.7	42.6	45.5	48.3	51.2	15. 50. 36.82		36.83	39.27	2.44	2.62†	....		
22	β ¹ Scorpii	C	50.6	53.8	56.6	59.6	5.4	11.2	14.2	17.2	19.9	15. 58. 5.37		5.37	7.83	2.46	[-0.26]	....		
23	22 Scorpii	E	16.3	19.4	22.5	25.5	31.4	37.6	40.6	43.6	46.9	16. 22. 31.51		31.51			2.92	16. 22. 34.25	- 1.02	
24	ζ Ophiuchi	E	..	0.2	3.2	5.9	11.5	17.3	19.8	22.6	..	16. 30. 11.48		11.49	14.26	2.77	[-0.26]	....		
25	ζ Herculis	E	14.3	17.6	20.8	24.2	30.6	37.3	40.4	43.7	47.0	16. 36. 30.63		30.65	33.41	2.76		....		
26	25 Scorpii	E	51.6	54.7	57.7	0.6	..	13.0	15.8	19.2	22.2	16. 39. 6.82		6.82				16. 39. 9.36	- 0.96	
27	δ 2 L.	E	9.9	13.3	16.4	19.5	25.9	32.3	35.5	38.8	42.0	16. 51. 25.93		25.93				16. 50. 18.78		
28	θ Ophiuchi	E	59.3	2.4	5.4	8.4	14.4	20.5	23.5	26.5	29.7	17. 14. 14.43		14.43	17.15	2.72		....		
29	α Ophiuchi	E	..	..	54.7	57.4	3.3	8.7	11.6	..	..	17. 29. 3.12		3.13	5.84	2.71		....		
30	3 Sagittarii	E	20.2	23.5	26.6	29.5	36.0	42.2	45.4	48.4	51.4	17. 39. 35.96		35.96				17. 39. 38.69	- 0.73	
Apr. 7	31	⊙ 1 L.....	M	9.4	..	..	..	23.7	29.2	32.2	35.0	37.7	1. 3. 23.69		28.22			2.55	1. 4. 30.76	
	32	⊙ 2 L.....	M	19.0	21.5	24.4	27.2	32.7	38.4	41.2	43.7	46.6	1. 5. 32.73					[-0.26]		
	33	Polaris ....(E&E)	M	..	..	..	..	..	46.0	40.0	36.0	32.0	1. 11. 21.44		24.05	25.58	1.53		1. 11. 26.59	+7.69
	34	ν Leonis	M	14.8	17.6	20.6	23.2	28.7	34.2	37.0	39.7	42.4	11. 30. 28.67		28.67	31.10	2.43		....	
Apr. 8	35	Polaris ....(E&E)	G	..	7.5	1.0	..	50.5	42.0	..	36.0	32.5	1. 11. 22.44	[-0.89]	25.37	25.67	0.30	2.24	1. 11. 27.59	+7.60
	36	Venus 1 L.	G	34.6	37.5	40.2	43.1	48.5	54.4	..	..	..	1. 50. 48.66		48.66			[-0.42]	1. 50. 51.24	
	37	Procyon	G	26.5	29.4	32.0	34.8	40.4	46.0	48.9	51.5	54.4	7. 32. 40.42		40.42	42.54	2.12		7. 32. 42.53	- 0.23
	38	λ Ursæ Min. S.P. (E&E)	G	..	34.0	58.5	26.0	20.5	..	..	..	..	7. 49. 52.78		48.90	52.87	3.97		19. 49. 51.00	+24.35
	39	ω ¹ Cancri	G	1.4	4.5	7.5	10.6	16.7	22.9	25.9	29.0	32.2	7. 53. 16.71		16.71				7. 53. 18.81	- 0.50
	40	Bradley 1147....	G	..	53.6	5.0	16.4	39.5	2.6	14.3	25.8	..	8. 3. 39.49		39.72				8. 3. 41.82	- 2.41
	41	Bradley 2615 S.P.	G	..	..	48.8	54.5	5.7	16.7	22.5	..	..	8. 11. 5.67		5.46				20. 11. 7.56	+ 1.02
	42	η Cancri	G	9.0	12.2	15.0	17.9	23.7	29.8	32.8	35.6	38.6	8. 25. 23.83		23.83	25.88	2.05		8. 25. 25.92	- 0.68
	43	Uranus	G	44.8	47.6	50.5	53.4	59.4	5.3	8.2	11.0	13.9	8. 35. 59.32		59.32				8. 36. 1.41	
	44	Regulus	G	24.5	27.4	30.0	32.9	38.5	44.3	47.0	49.8	52.8	10. 1. 38.55		38.55	40.66	2.11		10. 1. 40.61	- 1.09
	45	μ Hydrae	G	44.3	47.3	50.1	53.0	58.8	4.5	7.4	10.4	13.2	10. 19. 58.75		58.74	0.75	2.01		10. 20. 0.80	- 0.93
	46	Bradley 1458....	G	..	52.2	9.9	27.2	2.9	..	..	..	..	10. 31. 3.09		3.49				10. 31. 5.55	- 9.42

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Arnold 1. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Arnold 1 for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 20, 33, 35, and 38, +34".00: +31".40: +33".00: and +31".50.

Corrections for passage of Semidiameter, Nos. 27 and 36, -69".89: and +0".37.

† This clock-error has been used in the reduction of the observations made with the Altazimuth.

April 8. The azimuthal error by Polaris and Polaris S.P., allowing -0".14 for clock-rate and change of R.A.

14, 33. Very tremulous.

31, 33, 35. Cloudy.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Apr. 8	1	Brad. 3147 S.P. (E&E)	G	..	..	..	..	25.3	12.8	57.0	45.2	11.27.22.13	+0.85	20.88			2.24	23.27.22.92	+27.54	
	2	Jupiter 1 L.....	G	41.2	..	46.5	..	54.8	..	3.4	..	8.7	11.40.54.90	(-0.43)	56.30					
	3	Jupiter 2 L.....	G	44.0	..	49.4	..	57.8	..	6.0	..	11.4	11.40.57.70	(-0.89)				11.40.58.34		
	4	π Virginis.....	G	10.4	13.4	15.8	18.7	24.3	30.0	32.7	35.4	38.3	11.54.24.31		24.31	26.37	2.06	11.54.26.34	+1.41	
	5	Polaris S.P. (E&E)	G	15.0	11.0	8.0	2.5	..	..	..	..	..	13.11.28.56		25.50	25.71	0.21	1.11.27.51	+72.56	
	6	ε ² Boötis.....	G	13.0	16.4	19.4	22.5	28.7	..	38.0	41.3	..	14.39.28.71		28.71	30.73	2.02	14.39.30.70	-1.68	
	7	γ Herculis.....	L	6.8	9.7	12.5	15.5	21.3	27.0	30.2	33.0	35.9	16.16.21.31		21.31	22.90	1.59	1.87↑	....	
	8	σ Ophiuchi.....	L	1.2	4.0	6.7	9.4	15.1	20.6	23.4	26.1	28.9	17.20.15.02		15.02	16.59	1.57	(-0.42)	....	
	9	η Serpentis.....	AD	32.3	35.2	37.8	40.7	46.0	51.7	54.5	57.3	0.0	18.14.46.14		46.13	47.91	1.78	2.05	....	
	10	λ Sagittarii.....	AD	55.3	58.4	1.3	4.5	10.7	16.8	19.9	22.8	25.8	18.20.10.59		10.58	12.23	1.65	(-0.42)	....	
	11	α Lyrae.....	AD	21.3	25.0	28.4	31.8	38.8	46.0	49.6	53.2	56.7	18.32.38.94		38.95	40.73	1.78	....	....	
	12	δ 2 L.....	AD	16.7	20.1	22.9	26.6	32.8	39.8	43.0	46.0	49.5	18.49.33.02		33.01			18.48.21.59	....	
	13	ε Aquilæ.....	AD	38.5	41.5	44.1	47.0	52.6	58.4	1.3	4.3	7.0	18.53.52.73		52.73	54.45	1.72	....	....	
Apr. 10	14	γ ¹ Leonis.....	J	46.7	50.0	52.7	55.6	1.5	7.4	10.4	13.4	16.4	10.13.1.55	(-1.87)	1.51	2.60	1.09	1.31	10.13.2.62	-1.24
	15	Bradley 1433.....	J	..	26.6	30.3	34.0	41.5	49.0	52.5	56.3	..	10.14.41.42		41.43			(-0.46)	10.14.42.54	-1.73
	16	ρ Leonis.....	J	56.5	59.5	2.3	5.0	10.7	16.2	19.2	21.8	24.9	10.26.10.66		10.62	11.68	1.06	....	10.26.11.73	-1.16
	17	35 Leonis Minoris	J	50.8	54.3	57.5	0.9	7.9	14.9	18.4	21.8	25.3	10.29.7.94		7.93			....	10.29.9.04	-1.67
	18	Jupiter 1 L.....	J	..	57.8	..	3.4	8.8	14.5	..	19.9	..	11.40.8.86		10.26				11.40.11.35	
	19	Jupiter 2 L.....	J	..	0.6	..	6.2	11.8	17.4	..	23.0	25.6	11.40.11.76							
	20	β Virginis.....	J	54.4	57.3	59.8	2.7	8.2	13.7	16.5	19.2	22.1	11.44.8.19		8.14	9.22	1.08	....	11.44.9.23	-1.35
	21	η Virginis.....	J	14.0	16.8	19.6	22.4	28.0	33.6	36.4	39.0	41.8	12.13.27.93		27.87	28.92	1.05	....	12.13.28.95	-1.37
	22	Piazzi XII. 111..	J	56.5	59.5	2.0	4.8	10.3	15.9	18.8	21.5	24.3	12.25.10.37		10.31			....	12.25.11.38	-1.35
	23	25 Comæ.....	J	25.4	28.3	31.1	34.0	39.8	45.7	48.6	51.5	54.3	12.30.39.83		39.79			....	12.30.40.86	-1.62
	24	10 Canum Venat.	J	44.7	48.3	52.0	55.4	2.7	10.0	13.6	17.1	20.8	12.39.2.70		2.70			....	12.39.3.77	-2.19
	25	ε Virginis.....	J	40.4	43.3	46.3	49.1	54.9	0.3	3.3	6.0	8.9	12.55.54.70		54.66	55.83	1.17	....	12.55.55.72	-1.55
	26	Polaris S.P. (E&E)	J	11.0	8.0	2.0	0.0	..	..	..	..	..	13.11.29.43		24.60	25.78	1.18	....	....	
27	γ Aquilæ.....	L	..	..	..	10.0	15.6	21.3	24.0	27.0	29.7	19.40.15.63		15.59	16.20	0.61	....	....		
28	α Aquilæ.....	L	23.6	26.6	29.3	32.0	37.5	43.1	46.0	48.9	51.6	19.44.37.60		37.55	38.16	0.61	....	....		
29	θ Aquilæ.....	L	..	..	..	..	47.7	53.0	56.1	58.7	1.5	20.4.47.63		47.57	48.14	0.57	....	....		
Apr. 11	30	ο Leonis.....	L	11.9	14.8	17.6	20.4	25.9	31.6	34.4	37.3	40.0	9.33.25.97		25.93	26.35	60.42	60.34	....	
	31	μ Leonis.....	L	20.9	24.0	27.0	30.1	36.4	42.4	45.6	48.7	51.8	9.44.36.29		36.26	36.81	60.55	[0.35]	....	
	32	Regulus.....	L	26.0	29.0	31.7	34.6	40.4	45.8	48.8	51.6	54.5	10.0.40.24		40.20	40.63	60.43	....	....	
	33	Bradley 1414.....	L	..	48.8	51.3	54.4	0.3	6.0	8.7	11.7	..	10.4.0.14		0.07			....	10.5.0.56	-0.91
	34	22 Sextantis....	L	8.6	11.5	14.2	17.0	22.5	28.2	31.0	33.7	36.4	10.10.22.55		22.48			....	10.11.22.97	-0.93
35	δ Leonis.....	L	10.4	13.6	16.4	19.3	25.3	31.2	34.2	37.0	40.1	11.6.25.25		25.21	25.77	60.56	....	....		
Apr. 13	36	τ Leonis.....	E	59.1	..	..	38.0	40.9	..	..	..	11.20.26.93	+0.94 (+0.04) (-0.34)	26.97	28.66	61.69	....	....		
Apr. 15	37	15 Argûs.....	S	52.5	55.5	58.4	1.5	7.6	13.7	16.6	19.7	22.8	8.1.7.56	(-0.56)	7.60	10.78	63.18	62.96	8.2.10.81	-0.13
	38	β Cancri.....	S	24.0	27.1	29.6	32.3	38.0	43.6	46.4	49.4	52.0	8.8.38.02		38.03	41.21	63.18	[0.74]	8.9.41.24	-0.37
	39	σ ¹ Ursæ Majoris	S	..	..	..	..	30.7	38.0	45.0	52.9	..	8.56.16.40		16.49			....	8.57.19.72	-2.16
	40	38 Lyncis.....	S	..	43.7	47.0	50.4	57.5	4.4	8.0	11.3	..	9.9.57.44		57.46			....	9.11.0.70	-1.09
	41	α Hydræ.....	S	7.4	10.1	12.8	15.5	21.2	26.7	29.5	32.1	35.2	9.20.21.15		21.17	24.33	63.16	....	9.21.24.42	-0.64
	42	θ Ursæ Majoris..	S	0.6	5.3	9.8	14.4	23.5	32.3	37.0	41.5	46.0	9.23.23.34		23.38			....	9.24.26.63	-1.59
	43	ο Leonis.....	S	8.9	11.9	14.7	17.4	23.0	28.6	31.5	34.0	37.0	9.33.22.98		22.99	26.30	63.31	....	9.34.26.24	-0.86
	44	ψ Leonis.....	S	35.5	38.4	41.0	43.8	49.5	55.3	58.2	1.1	3.8	9.35.49.60		49.62			....	9.36.52.87	-0.92
	45	μ Leonis.....	S	..	..	24.1	27.5	33.4	39.6	42.7	45.7	49.0	9.44.33.43		33.45	36.76	63.31	....	9.45.36.71	-1.13

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Arnold's for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 1, 5, and 26, +30".90: +31".00: and +35".80.

Correction for passage of Semidiameter, No. 12, -73".14.

† This clock-error has been used in the reduction of the observations made with the Altazimuth.

April 10 and 11. The azimuthal error by tabular places of ε Virginis and Polaris S.P. on April 10.

April 11^d. 0^h. The Sidereal Standard was put back 1^m; at the same time the auxiliary crutch-rating-weight was raised one inch, and the barometric compensation apparatus was adjusted.

April 13 to 19. The azimuthal error by tabular places of Polaris S.P. and ζ Virginis on April 16.

2, 3, 26. Very tremulous.
34. Sky misty.

16, 33. Very faint.
36. Observed over wires O, W, and X.

18, 19. Image very bad.

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1874.

[27]

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire. h m s	Error of Collimation. (Level). [Azimuth]. "	Seconds of Transit Cor- rected. s	Tabular R.A. of Known Stars. s	Clock appa- rently Slow. s	Adopted Clock Slow at 0 ^h Sidereal and [Losing Rate]. s	Apparent R.A. of Center from the Observation. h m s	Correction for Reduction to Mean R.A. 1874, Jan. 1. s
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Apr. 15	1	19 Leonis Minoris	s	37.4	41.0	44.5	48.4	55.6	3.2	7.0	10.3	14.3	9. 48. 55.71	+0.94	55.73			62.96	9. 49. 58.99	- 1.48
	2	Regulus	s	23.2	26.0	28.8	31.6	37.4	43.0	45.7	48.4	51.4	10. 0. 37.26	(-0.56)	37.28	40.59	63.31	[0.74]	10. 1. 40.55	- 1.02
														[-0.34]						
Apr. 16	3	8 Leonis	AD	..	10.0	13.0	16.0	21.8	27.7	30.9	33.7	..	11. 6. 21.84		21.86	25.73	63.87	63.53	11. 7. 25.68	- 1.44
	4	8 Crateris	AD	45.6	48.6	51.4	54.2	59.7	5.5	8.4	11.1	14.1	11. 11. 59.81		59.84	3.62	63.78	[0.63]	11. 13. 3.66	- 1.09
	5	7 Leonis	AD	11.0	13.8	16.5	19.4	24.9	30.4	33.2	36.0	38.8	11. 20. 24.87		24.88	28.64	63.76		11. 21. 28.71	- 1.25
	6	2 Draconis	AD	58.4	6.6	14.7	22.8	39.0	55.2	3.2	11.2	19.4	11. 27. 38.87		38.96				11. 28. 42.79	- 4.66
	7	Jupiter 1 L.	AD	41.5	..	47.2	..	55.5	..	3.8	..	9.4	11. 36. 55.46							
	8	Jupiter 2 L.	AD	44.5	..	50.1	..	58.4	..	6.7	..	12.1	11. 36. 58.34		56.91				11. 38. 0.74	
	9	β Virginis	AD	51.5	54.4	57.2	59.7	5.4	11.0	13.7	16.4	19.3	11. 43. 5.38		5.40	9.20	63.80		11. 44. 9.24	- 1.35
	10	γ Ursæ Majoris ..	AD	46.8	51.7	56.4	1.0	10.4	20.0	24.8	29.6	34.3	11. 46. 10.52		10.56				11. 47. 14.40	- 2.80
	11	7 Draconis	AD	..	..	3.7	11.0	25.4	40.0	47.1	54.2	1.5	12. 41. 25.36		25.44				12. 42. 29.30	- 4.58
	12	ε Ursæ Majoris ..	AD	..	..	13.0	18.0	28.0	38.0	43.2	48.0	53.1	12. 47. 27.97		28.01				12. 48. 31.87	- 3.18
	13	ε Virginis	AD	37.7	40.7	43.4	46.3	51.9	57.6	0.4	3.2	6.1	12. 54. 51.90		51.93	55.85	63.92		12. 55. 55.80	- 1.57
	14	μ Cassiopeiæ S.P.	AD	24.3	29.0	33.6	38.5	47.8	57.4	2.0	6.7	11.5	12. 58. 47.90		47.77				0.59. 51.64	+ 2.44
	15	Polaris S.P. (E&E)	AD	..	..	..	..	..	41.5	37.0	30.0	28.5	13. 10. 24.42		22.39	26.28	63.89		..	
	16	ζ Virginis	AD	0.1	3.1	5.6	8.4	14.0	19.5	22.3	25.0	27.8	13. 27. 13.96		13.98	17.88	63.90		13. 28. 17.86	- 1.48
	17	ω Cassiopeiæ S.P.	AD	18.2	25.6	32.5	39.8	54.2	8.8	15.9	22.8	30.3	13. 31. 54.31		54.15				1. 32. 58.03	+ 4.11
	18	ε Cassiopeiæ S.P.	AD	..	49.5	55.7	1.4	13.6	26.0	32.2	38.1	..	13. 44. 13.85		13.79				1. 45. 17.59	+ 3.41
	19	48 Cassiopeiæ S.P.	AD	49.2	57.2	5.3	13.7	30.0	46.6	54.7	2.7	11.4	13. 50. 30.16		29.97				1. 51. 33.86	+ 4.70
	20	τ Virginis	AD	..	..	..	..	11.6	17.2	20.0	22.8	25.5	13. 54. 11.65		11.67	15.58	63.91		13. 55. 15.56	- 1.51
Apr. 19	21	ξ Leonis	L	50.0	53.1	55.9	58.7	4.2	9.8	12.8	15.6	19.3	9. 24. 4.36	(-1.51)	4.33	9.92	65.59		....	
	22	ε Leonis	L	21.9	25.1	28.0	31.1	37.1	43.1	46.3	49.3	52.2	9. 37. 37.09		37.05	42.77	65.72		....	
Apr. 20	23	⊙ 1 L.	AD	..	4.8	7.6	10.4	16.1	21.5	24.5	27.4	..	1. 50. 16.01	+0.81	21.21			66.24	1. 52. 27.50	
	24	⊙ 2 L.	AD	12.3	15.1	17.8	20.8	26.5	32.0	35.0	37.7	40.7	1. 52. 26.41	(-1.88)				[0.63]		
	25	Venus 1 L.	AD	28.6	31.5	34.5	37.3	43.0	48.7	51.7	54.5	57.4	2. 46. 43.00	+0.99	42.99				2. 47. 49.69	
	26	⊙ 1 L.	AD	17.3	20.6	23.6	26.7	33.3	39.5	42.7	45.8	49.4	5. 38. 33.18		33.14				5. 40. 54.53	
	27	α Orionis	AD	0.1	3.0	5.7	8.6	14.1	19.7	22.4	25.3	28.1	5. 47. 14.09		14.10	20.53	66.43		5. 48. 20.49	+ 0.49
	28	34 Sextantis	C	47.6	50.5	53.2	55.8	1.4	7.0	9.8	12.5	15.4	10. 35. 1.45		1.46	8.07	66.61	66.31†	....	
	29	l Leonis	C	18.5	21.4	24.2	26.9	32.5	38.1	41.1	43.8	46.7	10. 41. 32.56		32.56	39.12	66.56		....	
	30	ψ Ursæ Majoris ..	AD	10.1	14.2	18.0	22.0	29.9	37.8	41.8	45.5	49.6	11. 1. 29.84		29.75			66.24	11. 2. 36.28	- 2.01
	31	δ Leonis	AD	4.4	7.4	10.1	13.2	19.1	25.1	28.0	31.2	34.1	11. 6. 19.15		19.13	25.70	66.57		11. 7. 25.66	- 1.41
	32	Piazzi XI. 43 ...	AD	45.4	52.0	58.5	5.0	18.2	31.3	37.9	44.3	50.8	11. 14. 18.10		17.90				11. 15. 24.43	- 3.56
	33	λ Draconis	AD	11.4	20.0	27.7	35.9	52.0	8.4	16.5	24.5	32.6	11. 22. 52.04		51.79				11. 23. 58.33	- 4.48
	34	ν Leonis	AD	10.7	13.5	16.2	18.9	24.5	29.9	32.8	35.4	38.4	11. 29. 24.46		24.48	31.05	66.57		11. 30. 31.02	- 1.23
	35	Jupiter 1 L.	AD	21.7	..	27.4	..	35.7	..	43.9	..	49.5	11. 35. 35.62							
	36	Jupiter 2 L.	AD	24.6	..	30.2	..	38.6	..	46.8	..	52.3	11. 35. 37.05		37.06				11. 36. 43.60	
	37	γ Ursæ Majoris ..	AD	44.0	49.0	53.7	58.6	7.8	17.4	22.2	27.0	31.7	11. 46. 7.89		7.76				11. 47. 14.31	- 2.75
	38	β Cassiopeiæ S.P.	AD	52.2	57.5	2.7	8.0	18.5	29.0	34.3	39.6	45.2	12. 1. 18.59		18.69				0. 2. 25.24	+ 2.62
	39	δ Ursæ Majoris ..	AD	41.6	46.8	51.9	57.2	7.5	17.9	23.0	28.2	33.4	12. 8. 7.45		7.30				12. 9. 13.86	- 3.13
	40	η Virginis	AD	8.6	11.4	14.2	16.9	22.4	28.0	30.6	33.5	36.1	12. 12. 22.39		22.41	28.91	66.50		12. 13. 28.97	- 1.36
	41	Polaris S.P. (E&E)	AD	..	..	..	..	..	28.0	24.5	16.0	15.0	13. 10. 16.54		20.09	27.58	67.49		1. 11. 26.67	+ 7.069
	42	ζ Virginis	AD	57.5	0.3	3.0	5.7	11.4	16.8	19.6	22.4	25.3	13. 27. 11.32		11.34	17.90	66.56		13. 28. 17.93	- 1.50
	43	ω Cassiopeiæ S.P.	AD	15.2	22.7	29.7	37.1	51.4	5.7	13.0	20.0	27.5	13. 31. 51.43		51.60				1. 32. 58.19	+ 4.05
	44	Cybele	AD	..	..	..	22.9	..	33.8	36.6	39.3	41.9	13. 38. 28.20		28.24				13. 39. 34.83	
	45	ε Cassiopeiæ S.P.	AD	40.6	46.5	52.5	58.7	11.1	23.2	29.3	35.3	41.4	13. 44. 11.01		11.14				1. 45. 17.74	+ 3.36
	46	9 Boötis	AD	..	..	..	38.1	44.4	50.6	53.6	56.8	59.8	13. 49. 44.26		44.22				13. 50. 50.82	- 1.91

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Arnold I. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Arnold I for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 15 and 41, -23".80: and -18".40.

Corrections for passage of Semidiameter, Nos. 25 and 26, +0".39: and +75".00.

† This clock-error has been used in the reduction of the observations made with the Altazimuth.

April 20 to 24. The azimuthal error by seven consecutive transits of Polaris and Polaris S.P.

14. Faint, and very tremulous.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire. h m s	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Apr. 20	1	τ Virginis	AD	55.2	58.0	0.5	3.5	9.2	14.6	17.4	20.1	22.8	13. 54. 9.01	+0.81	9.03	15.61	66.58	66.24	13. 55. 15.63	- 1.54
	2	α Draconis	AD	23.9	30.2	36.8	43.3	56.2	9.4	15.7	22.4	28.9	13. 59. 56.26	(-1.88)	56.06			[0.63]	14. 1. 2.67	- 4.11
	3	55 Cassiopeiæ S.P.	AD	52.6	59.6	6.5	13.2	26.6	40.3	47.1	53.5	0.4	14. 3. 26.70	[+0.99]	26.85				2. 4. 33.46	+ 3.74
	4	Arcturus	AD	35.3	38.3	41.3	44.2	50.1	55.8	58.8	1.7	4.8	14. 8. 50.02		50.00	56.58	66.58		14. 9. 56.61	- 1.72
	5	α Andromedæ ...	L	29.0	32.4	35.5	38.5	44.7	50.8	51.3	57.3	0.3	0. 0. 44.73	(-2.93)	44.61	51.38	66.77	66.65	0. 1. 51.26	+ 1.24
	6	Mercury 2 L.....	L	5.7	8.6	11.4	14.2	19.6	25.3	28.1	30.7	33.6	0. 19. 19.66		19.64			[0.63]	0. 20. 26.06	
	7	Polaris ....(E&E)	L	..	..	..	52.0	42.0	34.0	35.0	29.0	26.0	1. 10. 25.06		19.11	27.72	68.61		1. 11. 25.79	+ 70.55
Apr. 21	8	$\odot$ 1 L.....	L	45.2	48.2	51.0	53.7	59.4	5.0	7.8	10.7	13.4	1. 53. 59.35		4.65				1. 56. 11.35	
	9	$\odot$ 2 L.....	L	56.1	58.8	1.5	4.3	10.0	15.7	18.5	21.4	24.5	1. 56. 10.07							
	10	Venus 1 L.....	L	19.2	22.2	25.0	28.0	33.6	39.5	42.3	45.2	48.2	2. 51. 33.66		33.59				2. 52. 40.70	
	11	γ Geminorum ...	L	4.5	7.5	10.0	13.1	19.0	24.6	27.6	30.4	33.4	6. 29. 18.88		18.81	25.63	66.82		6. 30. 25.63	+ 0.27
	12	δ 1 L.....	L	44.6	47.9	51.0	54.2	0.4	7.0	10.1	13.4	16.6	6. 42. 0.57		0.46				6. 44. 21.18	
	13	ξ Leonis	E	48.5	51.4	54.3	57.0	2.7	8.4	11.2	14.0	16.9	9. 24. 2.69		2.64	9.90	67.26	67.06†	....	
	14	α Leonis	E	4.8	7.7	10.5	13.3	19.0	24.5	27.4	30.2	33.0	9. 33. 18.91		18.86	26.22	67.36		....	
	15	ϵ Leonis	L	20.9	23.8	26.8	29.9	36.0	42.0	45.2	48.1	51.0	9. 37. 35.94		35.84	42.74	66.90	66.65	9. 38. 42.74	- 0.98
	16	Groomb. 3594 S.P.	L	52.6	59.2	5.5	12.2	24.9	37.8	44.2	50.5	57.2	9. 45. 24.95		25.16				21. 46. 32.06	+ 1.93
	17	Groomb. 3667 S.P.	L	..	59.0	13.9	29.6	0.5	31.5	46.7	1.8	..	9. 55. 0.58		1.29				21. 56. 8.20	+ 5.52
	18	35 Ursæ Majoris ..	L	17.9	25.1	31.7	38.7	52.4	6.3	13.0	19.8	27.0	10. 19. 52.38		52.00				10. 20. 58.92	- 3.08
	19	31 Cephei S.P. ...	L	40.9	50.4	59.5	9.2	27.8	46.8	56.4	5.6	15.2	10. 31. 28.06		28.45				22. 32. 35.38	+ 3.87
	20	ι Leonis	L	18.1	21.0	23.8	26.5	32.2	37.8	40.7	43.4	46.4	10. 41. 32.09		32.04	39.11	67.07		10. 42. 38.97	- 1.14
	21	α Ursæ Majoris ..	L	19.2	23.1	26.9	30.7	38.3	45.9	49.8	53.6	57.5	10. 45. 38.30		38.11				10. 46. 45.04	- 1.85
	22	Groomb. 3946 S.P.	L	54.9	3.7	12.7	22.0	40.3	58.8	8.0	17.0	26.4	10. 52. 40.51		40.88				22. 53. 47.81	+ 4.10
	23	B. A. C. 3821.....	L	..	33.4	41.0	48.8	4.1	19.5	27.4	34.8	..	11. 3. 4.08		3.65				11. 4. 10.59	- 4.02
	24	δ Crateris	L	42.5	45.4	48.1	51.0	56.6	2.4	5.3	8.0	11.0	11. 11. 56.68		56.72	3.58	66.86		11. 13. 3.66	- 1.05
	25	Jupiter 1 L.....	L	3.4	6.3	9.0	11.7	17.3	22.7	..	..	..	11. 35. 17.25		18.68				11. 36. 25.63	
	26	Jupiter 2 L.....	L	..	..	..	14.7	20.2	25.7	28.5	31.3	34.0	11. 35. 20.17							
	27	Polaris S.P. (E&E)	L	..	46.5	41.0	38.5	29.0	21.0	..	..	..	13. 10. 13.33		19.14	27.86	68.72		1. 11. 26.13	+ 70.41
	28	η Bootis	L	21.2	24.3	27.2	30.1	35.8	41.7	44.8	47.6	50.6	13. 47. 35.90		35.82	42.86	66.84		13. 48. 42.83	- 1.74
	29	Mercury 2 L.....	C	41.5	44.2	46.9	49.6	55.1	0.6	3.5	6.0	9.1	0. 23. 55.15	(-3.41)	55.11			67.52	0. 25. 2.41	
	30	Polaris ....(E&E)	C	..	5.0	0.5	55.0	46.5	38.5	..	..	..	1. 10. 29.23		22.21	27.97	65.76	[0.55]	1. 11. 29.76	+ 70.30
Apr. 22	31	$\odot$ 1 L.....	C	28.5	31.4	34.3	37.2	42.8	48.5	51.4	54.1	57.0	1. 57. 42.78		48.13				1. 59. 55.70	
	32	$\odot$ 2 L.....	C	39.4	42.3	45.3	48.0	53.4	59.4	2.3	5.0	7.8	1. 59. 53.64							
	33	Venus 1 L.....	C	10.8	14.0	16.6	19.6	25.4	31.2	33.9	37.0	39.9	2. 56. 25.34		25.26				2. 57. 33.24	
	34	α Orionis	C	58.9	1.7	4.5	7.6	13.0	18.6	21.4	24.1	27.0	5. 47. 12.96		12.89	20.51	67.62		5. 48. 20.54	+ 0.51
	35	Pollux	C	13.1	16.4	19.4	22.5	28.9	35.3	38.2	41.4	44.5	7. 36. 28.82		28.67	36.33	67.66		7. 37. 36.36	- 0.15
	36	δ 1 L.....	C	23.8	27.1	30.3	33.4	39.8	46.1	49.4	52.5	55.6	7. 42. 39.74		39.60				7. 44. 58.98	
	37	ϵ Hydræ	AD	45.0	47.7	50.6	53.5	58.8	4.6	7.4	10.0	13.0	8. 38. 58.93		58.86	6.55	67.69	67.48†	....	
	38	α Cancri	AD	14.5	17.4	20.1	22.9	28.6	34.3	37.2	39.8	42.8	8. 50. 28.60		28.52	36.18	67.66		....	
	39	26 Cephei S.P. ...	C	19.8	26.4	32.5	39.0	51.8	4.7	11.0	17.3	24.0	10. 21. 51.89		52.13			67.52	22. 22. 59.89	+ 2.33
	40	Groomb. 3834 S.P.	C	..	..	17.2	28.0	50.4	12.6	23.8	..	..	10. 28. 50.47		51.02				22. 29. 58.78	+ 4.49
	41	34 Sextantis	C	46.6	49.4	52.0	54.7	0.2	5.9	8.6	11.4	14.2	10. 35. 0.32		0.26	8.05	67.79		10. 36. 8.02	- 1.02
	42	Groom. 3904 S.P. (1st Star)	C	55.3	..	10.0	..	32.0	..	53.9	..	9.0	10. 43. 31.99		32.30				22. 44. 40.06	+ 3.03
	43	Groom. 3904 S.P. (2d Star)	C	..	3.5	..	18.0	..	47.5	..	2.0	..	10. 43. 32.67		32.98				22. 44. 40.74	+ 3.03
	44	Groomb. 3946 S.P.	C	..	..	12.0	21.3	39.5	57.9	7.4	..	..	10. 52. 39.68		40.11				22. 53. 47.88	+ 4.03
	45	Bradley 3654 S.P.	C	..	..	13.5	20.4	34.3	47.8	54.8	..	..	10. 57. 34.20		34.48				22. 58. 42.25	+ 2.98
	46	δ Leonis	C	3.3	6.2	9.1	12.0	18.0	24.0	26.9	29.8	32.9	11. 6. 18.00		17.89	25.68	67.79		11. 7. 25.66	- 1.39

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & X); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Arnold 1 for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 7, 27, and 30, -17".90: -17".30: and -17".50.

Corrections for passage of Semidiameter, Nos. 6, 10, 12, 29, 33, and 36, -0".24: +0".39: +73".89: -0".23: +0".39: and +71".67.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

5. Very faint.

6. Ill-defined.

7. Very tremulous.

36. Correction to R.A. on true meridian, +0".01.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.										Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Leaving Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.									
				s	s	s	s	s	s	s	s	s									
				h	m	s	h	m	s	h	m	s									
Apr. 22	1	Jupiter 1 L.....	C	45.4	..	51.0	..	59.3	..	7.6	..	13.3	11. 34. 59.30	+0.81	} 0.65			67.52	11. 36. 8.43		
	2	Jupiter 2 L.....	C	48.4	..	53.8	..	2.2	..	10.4	..	15.9	11. 35. 2.12	(-3.41)				[0.55]			
	3	68 Ursæ Majoris.	C	..	..	7.5	12.9	23.3	33.7	38.7	..	..	12. 4. 23.19	+0.99		22.85			12. 5. 30.65	- 3.08	
	4	4 Draconis.....	C	51.9	0.0	8.1	16.2	32.0	48.0	56.4	4.1	12.5	12. 23. 32.07			31.54			12. 24. 39.34	- 4.91	
	5	κ Draconis.....	C	..	..	..	..	3.5	19.9	28.3	36.6	44.5	12. 27. 3.30			2.75			12. 28. 10.56	- 5.06	
	6	7 Draconis.....	C	..	..	..	..	..	36.6	43.9	50.6	58.4	12. 41. 22.02			21.53			12. 42. 29.34	- 4.50	
	7	δ Virginis.....	C	55.3	58.0	0.7	3.5	9.3	14.8	17.5	20.3	23.0	12. 48. 9.13			9.07	16.90	67.83	12. 49. 16.88	- 1.48	
	8	Polaris S.P. (E&E)	C	..	..	44.0	41.0	32.0	28.0	20.0	..	..	13. 10. 16.74			23.58	28.10	64.52	1. 11. 31.40	+70.17	
	9	Spica.....	C	13.0	15.8	18.7	21.5	27.0	32.6	35.5	38.1	41.0	13. 17. 27.00			27.01	34.81	67.80	13. 18. 34.83	- 1.44	
	10	Groombridge 2029	C	23.3	32.6	41.0	50.0	8.0	..	..	..	..	13. 33. 7.84			7.25			13. 34. 15.08	- 5.61	
	11	Cybele.....	C	51.0	54.0	..	59.1	..	10.3	13.4	16.0	..	13. 37. 4.87			4.86			13. 38. 12.69		
	12	γ Virginis.....	C	54.0	56.8	59.6	2.3	7.9	13.4	16.1	18.9	21.7	13. 54. 7.83			7.78	15.63	67.85	13. 55. 15.62	- 1.56	
	13	Polaris.... (E&E)	E	..	..	..	..	..	..	35.0	29.0	25.0	1. 10. 26.64	(-2.81)		20.96	28.20	67.24	[0.57]	1. 11. 29.26	+70.07
Apr. 23	14	⊙ 1 L.....	E	..	15.5	18.3	21.0	26.6	32.2	35.3	38.0	..	2. 1. 26.67		} 32.12				2. 3. 40.44		
	15	⊙ 2 L.....	E	23.6	26.4	29.0	31.9	37.7	43.5	46.2	49.0	52.0	2. 3. 37.66								
	16	Venus 1 L.....	E	3.5	6.5	9.4	12.3	18.0	23.8	26.9	29.6	32.6	3. 1. 18.04			17.98			3. 2. 26.72		
	17	Aldebaran.....	E	..	..	..	..	..	38.3	41.0	44.0	46.9	4. 27. 32.44			32.38	40.61	68.23	4. 28. 40.76	+ 0.89	
	18	Procyon.....	E	..	22.8	25.6	28.4	33.8	39.3	42.2	45.0	..	7. 31. 33.84			33.81	42.31	68.50	7. 32. 42.26	- 0.00	
	19	Pollux.....	E	12.2	15.6	18.7	21.7	28.0	34.2	37.4	40.6	43.8	7. 36. 27.99			27.88	36.32	68.44	7. 37. 36.33	- 0.14	
	20	β Cancri.....	E	..	21.6	24.4	27.3	32.7	38.5	41.3	44.0	..	8. 8. 32.80			32.75	41.10	68.35	8. 9. 41.21	- 0.26	
	21	δ 1 L.....	E	1.0	4.4	7.3	10.4	16.6	22.6	25.7	28.8	32.0	8. 39. 16.50			16.41			8. 41. 33.77		
	22	α Cancri.....	E	13.6	16.5	19.3	22.1	27.8	33.5	36.3	39.0	42.0	8. 50. 27.77			27.72	36.17	68.45	8. 51. 36.20	- 0.53	
	23	ξ Cancri.....	E	44.1	47.1	50.1	53.1	59.2	5.0	8.0	11.0	14.1	9. 0. 59.05			58.96			9. 2. 7.44	- 0.69	
	24	α Hydræ.....	E	1.8	4.6	7.4	10.2	16.0	21.4	24.2	27.0	30.0	9. 20. 15.82			15.83	24.22	68.39	9. 21. 24.32	- 0.53	
	25	λ Leonis.....	E	9.0	12.2	15.2	18.2	24.2	30.2	33.3	36.1	39.4	9. 23. 24.18			24.09			9. 24. 32.58	- 0.84	
	26	ε Leonis.....	L	19.7	22.6	25.5	28.5	34.7	40.8	44.0	46.9	50.0	9. 37. 34.71			34.61	42.71	68.10	67.82†	....	
	27	μ Leonis.....	L	13.3	16.5	19.5	22.6	28.7	35.0	38.0	41.2	44.3	9. 44. 28.76			28.66	36.65	67.99	....	....	
	28	Jupiter 1 L.....	E	27.7	..	33.4	..	41.6	..	50.0	..	55.5	11. 34. 41.62		} 43.09			68.27	11. 35. 51.63		
	29	Jupiter 2 L.....	E	30.8	..	36.3	..	44.6	..	53.0	..	58.5	11. 34. 44.62								
	30	β Leonis.....	E	16.4	19.4	22.3	25.2	30.8	36.5	39.4	42.3	45.1	11. 41. 30.81			30.75	39.31	68.56	11. 42. 39.30	- 1.43	
	31	β Cassiopeie S.P.	E	50.0	55.3	0.5	5.8	16.6	27.0	32.3	37.4	42.9	12. 1. 16.46			16.60			0. 2. 25.16	+ 2.55	
	32	13 Cassiopeie S.P.	E	..	..	..	..	..	12.4	19.1	25.6	32.9	12. 22. 58.94			59.16			0. 24. 7.72	+ 3.52	
	33	γ Cassiopeie S.P.	E	..	..	32.7	37.1	46.7	55.8	0.4	..	..	12. 28. 46.57			46.67			0. 29. 55.24	+ 2.26	
	34	76 Ursæ Majoris.	E	..	..	40.2	46.4	58.9	11.2	17.4	..	..	12. 34. 58.78			58.46			12. 36. 7.03	- 3.81	
	35	7 Draconis.....	E	..	..	59.4	6.6	21.4	35.7	43.0	..	..	12. 41. 21.18			20.79			12. 42. 29.36	- 4.49	
	36	8 Draconis.....	E	..	..	2.7	9.6	23.4	37.0	43.9	..	..	12. 49. 23.28			22.92			12. 50. 31.40	- 4.27	
	37	Groomb. 215 S.P.	E	..	..	4.4	14.2	34.2	53.9	3.9	..	..	12. 54. 34.18			34.57			0. 55. 43.15	+ 5.54	
	38	Polaris S.P. (E&E)	E	46.0	44.5	..	..	..	21.0	16.5	..	..	13. 10. 12.41			17.96	28.31	70.35	1. 11. 26.54	+69.96	
	39	Spica.....	E	12.0	15.0	17.7	20.4	26.2	31.8	34.6	37.4	40.3	13. 17. 26.13			26.16	34.82	68.66	13. 18. 34.75	- 1.45	
	40	Cybele.....	E	9.4	12.0	14.8	17.6	23.0	..	..	..	..	13. 36. 23.13			23.14			13. 37. 31.73		
	41	Electra.....	E	..	..	..	..	..	58.7	1.4	4.0	7.3	13. 37. 52.69			52.63			13. 39. 1.22		
	42	Arcturus.....	E	33.3	36.1	39.0	42.0	47.8	53.7	56.8	59.6	2.8	14. 8. 47.88			47.81	56.60	68.79	14. 9. 56.41	- 1.74	
Apr. 24	43	λ Leonis.....	AD	8.6	11.6	14.6	17.7	23.7	29.7	32.8	35.8	38.7	9. 23. 23.66			23.57		68.62	9. 24. 32.43	- 0.83	
	44	δ 1 L.....	AD	20.4	23.5	26.5	29.4	35.4	41.3	44.5	47.6	50.5	9. 31. 35.43			35.36		[0.62]	9. 33. 50.32		
	45	μ Leonis.....	AD	12.4	15.6	18.6	21.6	27.7	34.0	37.2	40.2	43.4	9. 44. 27.82			27.72	36.63	68.91	....	....	
	46	π Leonis.....	AD	11.3	14.0	16.8	19.6	25.1	31.0	33.7	36.3	39.2	9. 52. 25.20			25.16	34.05	68.89	....	....	
	47	η Leonis.....	AD	5.4	8.4	11.2	14.0	19.7	25.6	28.5	31.4	34.4	9. 59. 19.82			19.75			10. 0. 28.63	- 0.97	

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Arnold 1. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Arnold 1 for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 8, 13, and 38, - 17".00: - 16".80: and - 16".60.

Corrections for passage of Semidiameter, Nos. 16, 21, and 44, + 0".40: + 68".89: and + 66".10.

† This clock-error has been used in the reduction of the observations made with the Altazimuth.

11. Cloudy.

16, 33. Very faint.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0h Sidereal and [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874. Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Apr. 24	1	Regulus	AD	17.5	20.4	23.2	26.0	31.8	37.5	40.3	43.0	45.9	10. 0. 31.72	+0.81	31.67	40.48	68.81	68.62	....	
	2	37 Leonis	AD	32.6	35.6	38.4	41.4	47.0	52.6	55.5	58.4	1.10. 8. 46.93	(-2.81)	46.87			[0.62]	10. 9. 55.75	- 0.98	
	3	γ^1 Leonis	AD	38.8	41.8	44.8	47.7	53.6	59.6	2.5	5.4	8.4	10. 11. 53.60	[+0.99]	53.53	2.44	68.91	....		
	4	δ Leonis	C	1.9	5.1	7.9	10.8	16.9	22.8	25.7	28.7	31.7	11. 6. 16.81		16.73	25.66	68.93	68.64†	....	
Apr. 25	5	η Leonis	S	4.5	7.4	10.3	13.2	19.0	24.7	27.5	30.6	33.4	9. 59. 18.93	(-3.07)	18.88			69.52	10. 0. 28.65	- 0.94
	6	γ^1 Leonis	S	37.8	40.8	43.7	46.8	52.6	58.6	1.7	4.5	7.5	10. 11. 52.65	[+1.79]	52.59	2.43	69.84	[0.60]	10. 13. 2.36	- 1.07
	7	μ Hydrae	E	36.4	39.3	..	45.0	50.8	56.6	..	2.3	5.3	10. 18. 50.79		50.88	0.57	69.69	69.48†	....	
	8	δ 1 L.	S	51.4	54.4	57.3	0.0	5.9	11.7	14.8	17.4	20.6	10. 20. 5.92		5.88			69.52	10. 22. 19.38	
	9	ρ Leonis	E	..	50.6	53.4	56.2	1.9	7.4	10.2	13.0	..	10. 25. 1.78		1.75	11.53	69.78	69.48†	....	
	10	κ Leonis	S	22.0	24.9	27.6	30.5	36.2	41.6	44.8	47.6	50.6	10. 38. 36.18		36.14			69.52	10. 39. 45.92	- 1.13
	11	ι Leonis	S	15.2	18.3	20.8	23.6	29.4	35.0	37.8	40.6	43.5	10. 41. 29.33		29.31	39.07	69.76		10. 42. 39.10	- 1.10
	12	λ Leonis	S	40.5	43.6	46.4	49.0	54.6	0.0	2.9	5.5	8.4	10. 52. 54.52		54.52	4.21	69.69		10. 54. 4.31	- 1.08
	13	χ Leonis	S	8.3	11.4	13.9	16.7	..	27.8	30.4	33.4	36.4	10. 57. 22.26		22.24	32.11	69.87		10. 58. 32.03	- 1.13
	14	66 Leonis	S	25.2	27.9	30.8	33.4	38.9	44.6	47.2	49.9	53.0	11. 1. 38.95		38.96				11. 2. 48.76	- 1.08
	15	81 Leonis	S	39.3	42.2	45.2	48.0	53.7	59.5	2.4	5.2	8.2	11. 17. 53.73		53.69				11. 19. 3.49	- 1.35
	16	ν Leonis	S	7.4	10.4	12.8	15.6	21.1	26.7	29.4	32.1	35.0	11. 29. 21.15		21.16	31.02	69.86		11. 30. 30.97	- 1.20
	17	Jupiter 1 L.	S	55.0	..	0.4	..	8.8	..	16.9	..	22.6	11. 34. 8.72		10.05				11. 35. 19.86	
	18	Jupiter 2 L.	S	57.5	..	3.0	..	11.4	..	19.7	..	25.4	11. 34. 11.38							
	19	Groombridge 1879	S	27.6	55.9	22.3	..	42.3	..	2.2	29.3	36.9	12. 14. 42.12		40.34				12. 15. 50.16	- 15.46
	20	β Corvi	S	22.8	25.7	28.7	31.7	37.6	43.7	46.8	49.5	52.6	12. 26. 37.65		37.77	47.49	69.72		12. 27. 47.60	- 1.28
	21	Groombr. 120 S.P.	S	47.5	54.4	0.5	7.4	20.7	33.8	40.8	47.4	54.2	12. 33. 20.81		21.15				0. 34. 30.98	+ 3.46
	22	ϵ Virginis	S	31.8	34.8	37.5	40.3	46.1	41.6	54.6	57.2	0.1	12. 54. 45.98		45.96	55.86	69.90		12. 55. 55.80	- 1.58
	23	Bradley 117 S.P.	S	56.8	11.7	25.7	40.4	9.0	38.2	52.6	7.2	21.8	13. 0. 9.37		10.26				1. 1. 20.10	+ 8.16
	24	Polaris S.P. (E&E)	S	..	..	..	..	31.0	20.0	14.0	8.0	..	13. 10. 11.35		18.90	28.75	69.85		....	
	25	ζ Virginis	S	..	..	..	2.6	8.0	13.4	16.4	19.2	22.0	13. 27. 8.05		8.06	17.93	69.87		13. 28. 17.92	- 1.53
	26	46 Cassiopeia S.P.	S	..	..	..	..	0.1	15.2	22.5	29.9	37.9	13. 45. 0.45		0.85				1. 46. 10.71	+ 4.07
	27	94 Virginis	S	15.2	18.0	20.8	23.6	29.2	34.8	37.6	40.3	43.2	13. 58. 29.16		29.21	39.02	69.81		13. 59. 39.08	- 1.53
	28	κ Virginis	S	48.0	51.0	53.7	56.5	2.1	7.8	10.5	13.4	16.6	14. 5. 2.16		2.22	12.07	69.85		14. 6. 12.09	- 1.52
Apr. 26	29	Spica	AD	10.6	13.4	16.1	18.9	24.6	30.4	33.2	35.6	38.8	13. 17. 24.62		24.69	34.83	70.14	69.75†	....	
	30	ζ Virginis	AD	54.0	56.9	59.6	2.2	7.6	13.4	16.0	18.7	21.6	13. 27. 7.76		7.77	17.93	70.16	[0.72]	....	
	31	Polaris (E&E)	E	..	..	..	..	..	37.0	34.0	28.0	24.5	1. 10. 25.69	+0.80 (-2.96)	19.29	29.13	69.84	70.85	1. 11. 30.17	+ 69.14
Apr. 27	32	$\odot$ 1 L.	E	13.5	16.2	18.9	21.7	27.4	33.0	36.0	38.9	41.7	2. 16. 27.46	[+1.20]	33.14				2. 18. 44.05	
	33	$\odot$ 2 L.	E	24.6	27.6	30.4	33.3	39.0	44.6	47.4	50.3	53.3	2. 18. 38.92						3. 22. 11.05	
	34	Venus 1 L.	E	..	48.3	51.1	54.0	59.7	5.7	8.4	11.5	..	3. 20. 59.78		59.71				....	
	35	Aldebaran	E	15.4	18.4	21.2	24.0	29.8	35.4	38.5	41.2	44.1	4. 27. 29.75		29.69	40.60	70.91		....	
	36	μ Leonis	G	10.3	13.5	16.4	19.6	25.7	32.0	35.0	38.0	41.3	9. 44. 25.72		25.62	36.59	70.97	70.70†	....	
	37	π Leonis	G	9.0	12.0	14.8	17.4	23.0	28.7	31.5	34.2	37.3	9. 52. 23.08		23.04	34.02	70.98		....	
	38	Regulus	E	15.2	18.1	20.9	23.7	29.4	35.2	37.9	40.6	43.6	10. 0. 29.38		29.32	40.45	71.13	70.85	....	
	39	ρ Leonis	E	46.2	49.1	51.8	54.6	0.0	5.8	8.5	11.4	14.2	10. 25. 0.16		0.11	11.50	71.39		....	
	40	δ Leonis	E	59.6	2.7	5.6	8.7	14.4	20.4	23.4	26.3	29.4	11. 6. 14.48		14.39	25.64	71.25		....	
	41	σ Leonis	E	14.5	17.4	20.0	22.8	28.5	33.8	36.7	39.6	42.4	11. 13. 28.39		28.36				11. 14. 39.53	- 1.18
	42	Jupiter 1 L.	E	24.0	27.0	29.6	32.2	38.0	..	..	..	..	11. 33. 37.90		39.35				11. 34. 50.53	
	43	Jupiter 2 L.	E	..	..	..	..	40.8	46.4	49.3	52.0	52.7	11. 33. 40.85							
	44	δ 1 L.	E	13.7	16.6	19.4	22.0	27.8	33.5	36.4	39.3	42.0	11. 49. 27.83		27.81				11. 51. 49.96	
	45	10 Virginis	E	..	53.2	55.9	58.7	4.3	10.0	12.5	15.2	..	12. 2. 4.24		4.22				12. 3. 15.41	- 1.34

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Arnold 1 for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 24 and 31, -16".50 and -17".20.

Corrections for passage of Semidiameter, Nos. 8, 34, and 44, +63".72; +0".40; and +70".97.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

April 25 to 26, ζ Virginis. The azimuthal error by tabular places of Polaris S.P. and ζ Virginis on April 25, allowing -0".01 for clock-rate.

April 26, Polaris, to April 29. The azimuthal error by six consecutive transits of Polaris and Polaris S.P.

10, 23, 24, 26. Tremulous.

14. The times at the second and third wires have also been used for the fourth and fifth wires of an Altazimuth transit, δ 1 L., Face Right.

34. Very faint.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at ^h Sidereal and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Apr. 27	1	η Virginis.....	E	4 ⁰	6 ⁸	9 ⁵	12 ³	17 ⁸	23 ³	26 ⁰	28 ⁸	31 ⁷	12. 12. 17 ⁷⁸	+0 ⁸⁰	17 ⁷⁶	28 ⁸⁹	71 ¹³	70 ⁸⁵	....	
	2	κ Cassiopeiæ S.P..	E	..	..	18 ⁷	24 ⁸	36 ⁷	48 ⁵	54 ⁵	..	..	12. 24. 36 ⁶⁹	(-2 ⁹⁶)	36 ⁹¹	28 ⁸⁹	71 ¹³	[0 ⁶⁸]	0. 25. 48 ¹¹	+2 ⁹³
	3	Bradley 48 S.P....	E	..	..	..	..	57 ⁷	37 ⁰	55 ⁰	15 ³	35 ²	12. 28. 58 ⁰¹	[+1 ²⁰]	59 ⁰¹	28 ⁸⁹	71 ¹³		0. 30. 10 ²¹	+10 ⁶⁵
	4	Groombridge 1927	E	..	..	..	..	52 ⁴	10 ³	28 ⁷	46 ⁹	..	12. 40. 15 ¹⁷		14 ¹²	28 ⁸⁹	71 ¹³		12. 41. 25 ³³	-10 ⁸⁶
	5	Polaris S.P. (E&E)	E	39 ⁵	38 ⁰	..	..	25 ⁰	..	14 ⁵	..	..	13. 11. 12 ⁸⁶		19 ¹⁵	29 ²⁸	10 ¹³	10 ⁸⁵	1. 11. 30 ³⁷	+68 ⁹⁹
	6	Spica	E	..	12 ⁴	15 ²	18 ⁰	23 ⁶	29 ³	32 ⁰	34 ⁸	..	13. 18. 23 ⁵⁹		23 ⁶¹	34 ⁸³	11 ²²		....	
	7	Piazzi XIII. 133.	E	38 ⁰	53 ⁵	8 ⁴	23 ³	53 ⁰	..	..	..	..	13. 25. 52 ⁹⁰		52 ⁰⁴	34 ⁸³	11 ²²		13. 26. 3 ²⁷	-9 ¹⁸
	8	α Libræ	E	..	33 ⁵	36 ³	39 ⁴	45 ⁰	50 ⁶	53 ⁶	56 ⁵	..	14. 43. 44 ⁹⁷		45 ⁰³	56 ¹⁸	11 ¹⁵		....	
	9	β Libræ	E	50 ⁰	52 ⁹	55 ⁶	58 ⁴	4 ⁰	9 ⁶	12 ⁵	15 ⁴	18 ²	15. 10. 4 ⁰⁵		4 ⁰⁷	15 ²¹	11 ¹⁴		....	
	10	Sirona	E	22 ⁵	25 ⁶	28 ⁵	31 ²	37 ³	42 ⁸	45 ⁷	48 ⁶	51 ⁴	15. 12. 37 ⁰⁴		37 ¹⁰	15 ²¹	11 ¹⁴		15. 12. 48 ³⁸	
	11	Polaris (E&E)	AD	..	57 ⁰	49 ⁰	46 ⁰	37 ⁰	..	..	..	..	1. 11. 25 ⁵¹	(-2 ⁷⁰)	19 ⁶⁸	29 ⁴⁵	9 ⁷⁷	11 ¹⁸ [0 ⁵⁵]	1. 11. 30 ⁸⁹	+68 ⁸²
Apr. 28	12	⊙ 1 L.	AD	59 ⁵	2 ⁷	5 ⁴	8 ³	14 ⁰	19 ⁶	22 ⁵	25 ⁴	28 ³	2. 21. 13 ⁹⁵		19 ⁷³	40 ⁵⁹	11 ³²		2. 22. 30 ⁹⁶	
	13	⊙ 2 L.	AD	11 ³	14 ²	17 ⁰	19 ⁹	25 ⁶	31 ³	34 ⁰	37 ⁰	39 ⁹	2. 23. 25 ⁵⁹		58 ²⁸	40 ⁵⁹	11 ³²		3. 27. 9 ⁹⁴	
	14	Venus 1 L.	AD	43 ⁶	46 ⁷	49 ⁶	52 ⁴	58 ⁴	4 ³	7 ²	10 ⁰	13 ⁰	3. 26. 58 ³³		29 ²⁷	40 ⁵⁹	11 ³²		4. 28. 40 ⁵⁵	+0 ⁹¹
	15	Aldebaran	AD	15 ⁰	17 ⁸	20 ⁷	23 ⁵	29 ⁴	35 ¹	38 ⁰	40 ⁸	43 ⁸	4. 28. 29 ³²		29 ⁰¹	40 ⁵⁹	11 ³²		....	
	16	Regulus	C	14 ⁹	17 ⁷	20 ⁴	23 ⁴	29 ²	34 ⁶	37 ⁶	40 ³	43 ²	10. 1. 29 ⁰⁰	(-1 ⁶⁹)	49 ⁰⁴	0 ⁵³	11 ⁴⁹	11 ²³†	....	
	17	μ Hydræ	C	34 ⁶	37 ⁵	40 ³	43 ³	48 ⁹	54 ⁷	57 ⁷	0 ⁴	3 ⁴	10. 19. 48 ⁹⁵		33 ⁵²	0 ⁵³	11 ⁴⁹	11 ¹⁸	10. 46. 44 ⁹⁵	-1 ⁷⁴
	18	ω Ursæ Majoris...	AD	14 ⁴	18 ⁵	22 ³	26 ⁰	33 ⁵	41 ⁴	45 ⁰	48 ⁸	52 ⁸	10. 46. 33 ⁶⁰		52 ⁸⁰	4 ¹⁸	11 ³⁸		10. 54. 4 ²³	-1 ⁰⁵
	19	δ Leonis	AD	38 ⁸	41 ⁷	44 ⁵	47 ²	52 ⁸	58 ⁴	1 ⁰	3 ⁹	6 ⁸	10. 53. 52 ⁷⁷		47 ⁴⁸	4 ¹⁸	11 ³⁸		10. 55. 58 ⁹¹	-2 ⁸⁵
	20	α Ursæ Majoris..	AD	17 ⁷	23 ⁸	29 ⁷	35 ⁸	47 ⁷	59 ⁶	5 ⁷	11 ⁵	17 ⁶	10. 55. 47 ⁶³		24 ⁸³	4 ¹⁸	11 ³⁸		11. 2. 36 ²⁶	-1 ⁸⁹
	21	ψ Ursæ Majoris..	AD	5 ³	9 ⁴	13 ⁰	17 ¹	25 ⁰	32 ⁸	36 ⁷	40 ⁵	44 ⁶	11. 2. 24 ⁹⁰		14 ²⁵	25 ⁶³	11 ³⁸		11. 7. 25 ⁶⁸	-1 ³⁴
	22	δ Leonis	AD	59 ⁴	2 ⁶	5 ⁴	8 ⁴	14 ²	20 ²	23 ¹	26 ¹	29 ¹	11. 7. 14 ²⁶		13 ⁰⁵	31 ⁰⁰	11 ⁴⁸		23. 13. 24 ⁴⁹	+2 ⁹⁷
	23	ο Cephei S.P....	AD	36 ⁷	44 ¹	51 ²	58 ⁵	13 ²	26 ⁹	34 ²	41 ⁵	49 ⁰	11. 13. 12 ⁸⁷		46 ⁶⁷	31 ⁰⁰	11 ⁴⁸		11. 23. 58 ¹¹	-4 ¹⁹
	24	λ Draconis	AD	6 ⁴	14 ⁶	22 ⁶	30 ⁷	47 ³	3 ¹	11 ⁰	19 ²	27 ⁵	11. 23. 46 ⁹⁰		19 ⁵²	31 ⁰⁰	11 ⁴⁸		11. 30. 30 ⁹⁶	-1 ¹⁸
	25	ν Leonis	AD	5 ⁶	8 ⁶	11 ¹	13 ⁹	19 ⁵	25 ¹	27 ⁸	30 ⁵	33 ⁴	11. 30. 19 ⁴⁸		25 ⁰⁹	31 ⁰⁰	11 ⁴⁸		11. 34. 36 ⁵³	
	26	Jupiter 1 L.	AD	9 ⁶	..	15 ²	..	23 ⁵	..	32 ⁰	..	37 ⁵	11. 34. 23 ⁵⁴		17 ²⁰	31 ⁰⁰	11 ⁴⁸		11. 44. 28 ⁶⁵	-1 ³⁸
	27	Jupiter 2 L.	AD	12 ⁶	..	18 ⁴	..	26 ⁶	..	34 ⁹	..	40 ⁵	11. 34. 26 ⁵⁸		3 ⁷⁰	31 ⁰⁰	11 ⁴⁸		12. 3. 15 ¹⁶	-1 ³³
	28	B. A. C. 4005....	AD	..	..	..	..	22 ⁸	25 ⁸	28 ⁶	31 ⁴	..	11. 44. 17 ¹⁹		17 ⁴¹	28 ⁸⁹	11 ⁴⁸		12. 13. 28 ⁸⁷	-1 ³⁴
	29	10 Virginis	AD	49 ⁷	52 ⁹	55 ⁵	58 ²	3 ⁵	9 ³	12 ⁰	14 ⁶	17 ⁵	12. 3. 3 ⁶⁷		36 ⁰⁶	28 ⁸⁹	11 ⁴⁸		12. 27. 47 ⁵²	-1 ²⁸
	30	η Virginis	AD	3 ⁶	6 ³	9 ⁰	11 ⁹	17 ³	22 ⁹	25 ⁸	28 ⁵	31 ²	12. 13. 17 ³⁷		27 ⁰⁵	28 ⁸⁹	11 ⁴⁸		12. 34. 49 ²⁶	
	31	β Corvi	AD	20 ⁹	24 ⁰	27 ⁰	30 ⁰	35 ⁹	42 ⁰	45 ⁰	48 ⁰	51 ⁰	12. 27. 35 ⁹⁵		33 ⁹⁵	28 ⁸⁹	11 ⁴⁸		12. 46. 45 ⁴²	-1 ⁴²
	32	δ 1 L.	AD	12 ⁸	15 ⁷	18 ⁶	21 ⁴	27 ⁰	32 ⁷	35 ⁵	38 ³	41 ³	12. 33. 27 ⁰¹		1 ⁷⁴	28 ⁸⁹	11 ⁴⁸		12. 55. 13 ²¹	-4 ⁴¹
	33	38 Virginis	AD	20 ⁰	23 ⁰	25 ⁶	28 ⁴	34 ⁰	39 ⁵	42 ²	45 ⁰	47 ⁷	12. 46. 33 ⁹¹		15 ⁶²	27 ⁰⁵	11 ⁴³		13. 3. 27 ¹⁰	-1 ⁴⁵
	34	θ Draconis	AD	26 ⁰	33 ⁴	40 ³	47 ⁷	2 ²	16 ⁴	23 ⁶	30 ⁷	37 ⁷	12. 55. 1 ⁹⁴		19 ⁵²	29 ⁶³	10 ¹¹		1. 11. 31 ⁰⁰	+68 ⁶⁴
	35	θ Virginis	AD	1 ⁶	4 ⁵	7 ³	10 ⁰	15 ⁶	21 ⁰	24 ⁰	26 ⁷	29 ⁵	13. 3. 15 ⁵⁶		6 ⁴¹	17 ⁹⁴	11 ⁵³		13. 28. 17 ⁹⁰	-1 ⁵⁴
	36	Polaris S.P. (E&E)	AD	..	..	..	..	22 ⁵	20 ⁰	15 ⁰	13 ⁰	13. 11. 15 ⁹⁷		55 ⁸⁷	29 ⁶³	10 ¹¹		1. 42. 7 ³⁶	+7 ²⁷	
	37	ζ Virginis	AD	52 ⁵	55 ⁴	58 ⁰	0 ⁸	6 ⁴	11 ⁹	14 ⁷	17 ⁶	20 ²	13. 28. 6 ³⁷		26 ⁴⁷	29 ⁶³	10 ¹¹		13. 50. 37 ⁹⁷	-9 ⁴⁵
	38	Bradley 230 S.P...	AD	51 ⁰	4 ⁰	17 ³	29 ⁵	55 ⁶	21 ⁰	33 ⁸	46 ⁴	0 ¹	13. 41. 55 ⁵⁰		45 ¹⁹	29 ⁶³	10 ¹¹		14. 9. 56 ⁶⁹	-1 ⁷⁸
	39	Groombridge 2066	AD	..	..	..	..	57 ⁶	13 ³	28 ³	44 ⁰	..	13. 50. 26 ⁹⁵		27 ⁴⁹	29 ⁶³	10 ¹¹		2. 18. 39 ⁰⁰	+3 ⁷⁴
	40	Arcturus	AD	30 ⁵	33 ⁵	36 ³	39 ³	45 ³	51 ⁰	54 ³	56 ⁹	59 ⁸	14. 9. 45 ¹⁹		49 ⁵¹	29 ⁶³	10 ¹¹		2. 26. 1 ⁰²	+4 ⁹²
	41	Bradley 332 S.P.	AD	52 ¹	59 ²	6 ⁴	13 ²	27 ²	41 ³	48 ²	55 ⁰	2 ⁷	14. 18. 27 ³¹		45 ⁶¹	29 ⁶³	10 ¹¹		2. 33. 57 ¹²	+3 ⁷⁷
	42	Bradley 348 S.P.	AD	3 ⁷	12 ⁹	21 ⁸	31 ²	49 ²	7 ⁵	16 ⁵	25 ⁴	34 ⁵	14. 25. 49 ²⁶		17 ¹⁷	29 ⁶³	10 ¹¹		2. 41. 28 ⁶⁸	+2 ³⁹
	43	Bradley 366 S.P.	AD	9 ⁷	16 ⁷	23 ⁸	30 ⁹	45 ⁵	59 ⁶	6 ⁹	13 ⁸	21 ⁴	14. 33. 45 ⁴³		6 ⁶³	29 ⁶³	10 ¹¹		2. 49. 18 ¹⁵	+7 ⁸⁴
	44	η Persei S.P.	AD	52 ⁷	57 ⁷	2 ⁵	7 ⁴	17 ¹	26 ⁸	31 ⁶	36 ¹	41 ⁴	14. 41. 17 ⁰⁷		52 ⁴⁹	4 ⁰⁹	11 ⁶⁰		15. 5. 4 ⁰¹	-1 ⁶⁰
	45	Ceph. 47 (Hev.) S.P.	AD	53 ⁸	8 ⁷	22 ⁸	37 ⁴	6 ⁵												

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.			Error of Collimation. (Level). [Azimuth].		Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	h	m	s	"							
				s	s	s	s	s	s	s	s	s											
Apr. 29	1	☉ 2 L.....	L	58.2	1.4	4.2	7.0	12.9	18.8	21.6	24.4	27.5	2. 27. 12.87	+0.80		12.88			11.52	2. 26. 18.60			
	2	Venus 1 L.....	L	43.1	46.0	48.8	51.8	57.8	3.6	6.4	9.5	12.3	3. 31. 57.68	(-1.55)		57.69			[0.55]	3. 32. 9.70			
	3	Aldebaran.....	L	14.5	17.4	20.5	23.2	28.8	34.6	37.6	40.4	43.4	4. 28. 28.90	+1.20		28.92	40.59	11.67		4. 28. 40.54	+ 0.91		
	4	γ ¹ Leonis.....	E	35.5	38.4	41.4	44.4	50.0	56.2	59.0	1.8	5.0	10. 12. 50.17	(-0.75)		50.22	2.38	12.16	11.98†	....			
	5	μ Hydræ.....	E	33.6	36.7	39.5	42.3	48.3	54.0	56.8	59.6	2.6	10. 19. 48.13			48.25	0.52	12.27		....			
	6	ρ Leonis.....	L	45.6	48.6	51.4	54.1	59.7	5.4	8.0	10.8	13.5	10. 25. 59.65			59.71	11.48	11.77	11.52	10. 26. 11.47	- 0.96		
	7	34 Sextantis.....	L	42.3	45.2	48.0	50.5	55.8	1.8	4.6	7.4	10.0	10. 35. 56.16			56.24	7.98	11.74		10. 36. 8.00	- 0.95		
	8	ι Leonis.....	L	13.2	16.0	18.7	21.5	27.2	32.8	35.8	38.5	41.3	10. 42. 27.20			27.26	39.03	11.77		10. 42. 39.02	- 1.06		
	9	ι Cephei S.P.....	L	24.0	31.0	37.5	44.2	57.6	10.8	17.5	24.4	30.9	10. 44. 57.60			57.70				22. 45. 9.47	+ 2.35		
	10	α Ursæ Majoris ..	L	17.0	22.9	29.0	35.0	47.2	59.0	5.2	10.8	17.0	10. 55. 46.96			46.94				10. 55. 58.71	- 2.82		
	11	Groomb. 3994 S.P.	L	..	..	..	..	36.5	48.8	55.3	1.1	7.8	11. 2. 36.57			36.66				23. 2. 48.43	+ 2.35		
	12	Bradley 3085 S.P.	L	4.0	13.9	23.2	33.5	52.8	12.2	22.4	31.6	41.7	11. 9. 52.89			53.03				23. 10. 4.80	+ 4.10		
	13	4 Cassiopeia S.P.	L	31.6	37.4	43.2	49.1	0.8	12.4	18.2	23.8	29.7	11. 19. 0.74			0.82				23. 19. 12.60	+ 2.30		
	14	ν Leonis.....	L	5.3	8.1	10.7	13.6	19.3	24.8	27.5	30.1	32.8	11. 30. 19.10			19.18	30.99	11.81		11. 30. 30.96	- 1.17		
	15	Jupiter 1 L.....	L	56.0	59.0	1.5	4.6	9.9	15.5	..	..	..	11. 34. 9.95			} 11.57				11. 34. 23.35			
	16	Jupiter 2 L.....	L	..	..	..	7.5	13.1	18.5	21.4	24.2	26.9	11. 34. 13.03										
	17	38 Virginis.....	L	19.5	22.5	25.3	28.0	33.5	39.2	42.0	44.8	47.6	12. 46. 33.58			33.66				12. 46. 45.47	- 1.42		
	18	Piazzi XII. 255 ..	L	11.5	17.9	23.9	30.3	43.2	56.0	2.4	8.5	15.0	12. 56. 43.14			43.11				12. 56. 54.93	- 3.91		
	19	θ Virginis.....	L	1.3	4.2	7.0	9.6	15.2	20.7	23.6	26.2	29.0	13. 3. 15.18			15.27	27.06	11.79		13. 3. 27.09	- 1.46		
	20	Polaris S.P. (E&E)	L	..	..	..	40.5	36.0	..	..	..	..	13. 11. 15.71			17.25	30.04	12.79		1. 11. 29.07	+ 68.23		
	21	δ 1 L.....	L	29.3	32.3	35.0	37.9	43.6	49.2	52.2	54.9	57.8	13. 16. 43.56			43.65				13. 17. 56.75			
	22	h Virginis.....	L	55.5	58.4	1.0	3.9	9.4	15.0	17.7	20.5	23.4	13. 26. 9.40			9.50				13. 26. 21.33	- 1.49		
	23	B. F. 1886.....	L	9.5	12.3	15.1	17.9	23.4	29.2	31.8	34.6	37.4	13. 40. 23.45			23.54				13. 40. 35.37	- 1.52		
	24	η Bootis.....	L	16.6	19.5	22.3	25.3	31.0	36.7	39.8	42.8	45.6	13. 48. 31.05			31.10	42.90	11.80		13. 48. 42.94	- 1.78		
Apr. 30	25	☉ 1 L.....	C	34.1	37.0	39.8	42.7	48.4	54.2	57.3	0.0	2.8	2. 28. 48.45	(-0.81)		} 54.33			12.28	2. 30. 6.66			
	26	☉ 2 L.....	C	45.8	48.7	51.6	54.5	0.1	5.9	8.7	11.6	14.6	2. 31. 0.15	+0.52					[0.52]	3. 37. 11.01			
	27	Venus 1 L.....	C	43.4	46.5	49.4	52.3	58.2	4.1	7.2	10.0	13.0	3. 36. 58.21			58.24				3. 37. 11.01			
	28	ι Leonis.....	C	12.5	15.4	18.0	..	..	..	35.1	37.8	40.7	10. 42. 26.55			26.58	39.02	12.44		10. 42. 39.09	- 1.05		
	29	δ Leonis.....	AD	..	..	4.0	7.0	13.0	19.1	22.0	25.0	27.9	11. 7. 13.03			13.06	25.61	12.55	12.32†	....			
	30	σ Leonis.....	C	13.0	15.8	18.5	21.4	26.8	32.5	35.3	38.0	40.8	11. 14. 26.88			26.91			12.28	11. 14. 39.43	- 1.16		
	31	τ Leonis.....	C	2.2	..	7.7	10.5	16.0	21.5	24.4	..	29.8	11. 21. 15.98			16.02	28.55	12.53		11. 21. 28.55	- 1.16		
	32	Jupiter 1 L.....	C	43.2	..	48.6	..	56.9	..	5.2	..	10.7	11. 33. 56.90			} 58.38				11. 34. 10.91			
	33	Jupiter 2 L.....	C	46.0	..	51.5	..	59.7	..	8.2	..	13.6	11. 33. 59.78										
	34	β Leonis.....	AD	..	..	..	..	32.3	35.4	..	..	..	11. 42. 26.65			26.68	39.26	12.58	12.32†	....			
	35	ι 1 Comæ.....	C	55.5	58.5	1.3	4.2	10.0	15.7	18.8	21.5	24.5	12. 14. 9.98			10.01			12.28	12. 14. 22.55	- 1.56		
	36	γ Comæ.....	C	12.7	16.0	19.2	22.3	28.6	35.0	38.0	41.2	44.4	12. 20. 28.57			28.59				12. 20. 41.14	- 1.78		
	37	Piazzi XII. 111 ..	C	45.0	47.8	50.5	53.3	58.7	4.4	7.2	9.8	12.7	12. 24. 58.80			58.85				12. 25. 11.40	- 1.34		
	38	25 Comæ.....	C	13.7	16.7	19.5	22.4	28.3	34.0	37.0	39.9	42.8	12. 30. 28.23			28.26				12. 30. 40.81	- 1.60		
	39	ρ Virginis.....	C	5.3	8.2	11.0	13.8	19.4	24.9	27.7	30.5	33.4	12. 35. 19.33			19.36	31.95	12.59		12. 35. 31.91	- 1.53		
	40	34 Virginis.....	C	28.0	30.8	33.6	36.4	42.1	47.7	50.5	53.4	56.2	12. 40. 42.06			42.08				12. 40. 54.63	- 1.56		
	41	Polaris S.P. (E&E)	C	57.0	57.0	51.0	47.5	..	31.0	..	..	..	13. 11. 17.40			17.84	30.51	12.67		....			
	42	Spica.....	C	8.2	11.0	13.6	16.5	22.2	27.7	30.5	33.3	36.2	13. 18. 22.12			22.17	34.84	12.67		13. 18. 34.74	- 1.47		
	43	h Virginis.....	C	54.8	57.6	0.4	3.2	9.0	14.4	17.3	20.0	23.0	13. 26. 8.83			8.88				13. 26. 21.45	- 1.49		
	44	m Virginis.....	C	35.0	37.7	40.5	43.4	49.0	54.5	57.3	0.0	2.9	13. 34. 48.90			48.95	1.49	12.54		13. 35. 1.52	- 1.51		
	45	B. F. 1886.....	C	8.9	11.7	14.5	17.4	22.8	28.4	31.4	34.0	37.0	13. 40. 22.88			22.93				13. 40. 35.50	- 1.53		
	46	δ 1 L.....	C	3.8	6.7	9.6	12.5	18.3	24.0	27.2	29.8	32.8	14. 1. 18.28			18.34				14. 2. 33.47			
	47	λ Virginis.....	C	52.4	55.3	58.0	0.8	6.5	12.4	15.2	17.8	20.7	14. 12. 6.54			6.60				14. 12. 19.18	- 1.57		

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32" 400.

Corrections to the times by Arnold 1 for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 20 and 41, -19" 30: and -23" 20.

Corrections for passage of Semidiameter, Nos. 1, 2, 21, 27, and 46, -65" 86: +0" 41: +61" 28: +0" 41: and +62" 55.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

April 30. The azimuthal error by tabular places of Polaris S.P. and Spica.

3. 37. Very faint.

1876GAMW. 36A...1A

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at oh Sidereal and [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874. Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
April 30	1	5 Libræ	C	35.7	38.8	41.4	44.4	50.1	55.6	58.7	1.4	4.4	14. 38. 50.04	+0.80	50.11			12.28	14. 39. 2.70	- 1.60
	2	α Libræ	C	29.3	32.2	35.0	37.9	43.5	49.4	52.3	55.0	57.8	14. 43. 43.58	(-0.81) [+0.52]	43.65	56.22	12.57	[0.52]	14. 43. 56.25	- 1.60
May 1	3	β Virginis	L	42.4	45.3	47.7	50.6	56.3	1.8	4.6	7.4	10.0	11. 43. 56.21	[+1.17]	56.28	9.13	12.85	12.58†	....	
	4	γ Virginis	E	1.7	4.6	7.3	10.0	15.6	..	..	..	..	12. 13. 15.56		15.64	28.88	13.24	13.07	12. 13. 28.96	+ 1.33
	5	θ Virginis	L	0.2	3.2	5.8	8.6	14.1	19.6	22.6	25.2	28.1	13. 3. 14.14		14.23	27.06	12.83	12.58†	....	
	6	Polaris S.P.(E&E)	E	..	..	..	..	44.5	37.0	33.0	..	27.5	13. 11. 18.13		19.74	31.02	11.28	13.07	1. 11. 33.08	+67.25
	7	ζ Virginis	E	50.7	53.5	56.2	58.9	4.5	10.1	12.8	15.5	18.4	13. 28. 4.49		4.57	17.95	13.38	[0.50]	13. 28. 17.92	- 1.55
	8	Arcturus	E	28.6	31.5	34.6	37.4	43.4	49.2	52.3	55.1	58.0	14. 9. 43.33		43.38	56.66	13.28		14. 9. 56.74	- 1.80
	9	λ Virginis	E	..	..	..	..	19.9	34.0	48.2	..	..	14. 12. 5.66		5.76				14. 12. 19.12	- 1.58
	10	5 Libræ	E	34.8	37.8	40.6	43.4	49.2	55.0	57.8	0.3	3.5	14. 38. 49.13		49.24				14. 39. 2.61	- 1.61
	11	δ 1 L.	E	54.4	57.4	0.3	3.3	9.2	15.2	18.3	21.3	24.3	14. 48. 9.28		9.40				14. 49. 27.12	
	12	δ 2 L.	E	..	..	..	..	18.1	24.1	27.2	30.1	33.0	14. 50. 18.15		18.27				14. 49. 27.21	
	13	α Libræ	E	36.0	39.0	41.9	44.9	50.6	56.5	59.5	2.4	5.2	15. 4. 50.65		50.77	4.13	13.36		15. 5. 4.15	- 1.64
	14	β Libræ	E	..	50.7	53.4	56.2	1.8	7.4	10.3	12.9	..	15. 10. 1.78		1.87	15.27	13.40		15. 10. 15.26	- 1.62
	15	Piazzi XV. 96...	E	56.0	59.1	1.9	4.8	10.8	16.6	19.6	22.5	25.5	15. 25. 10.74		10.86				15. 25. 24.25	- 1.64
	16	α Coronæ	E	54.0	57.4	0.2	3.4	9.6	15.8	19.0	22.0	25.2	15. 29. 9.59		9.63	23.08	13.45		15. 29. 23.02	- 1.89
	17	α Herculis	E	27.7	30.6	33.5	36.4	..	47.6	50.5	53.4	56.2	17. 8. 41.96		42.02	55.59	13.57		17. 8. 55.45	- 1.46
	18	Polaris ....(E&E)	AD	3.0	5.5	58.0	54.5	..	..	..	..	..	1. 11. 16.51	(+0.75)	18.45	31.28	12.83	13.33 [0.42]	1. 11. 31.80	+66.99
May 2	19	δ Virginis	AD	..	..	..	..	..	11.5	14.3	17.0	12. 49. 3.15			3.29	16.90	13.61		12. 49. 16.84	- 1.48
	20	ε Virginis	AD	27.9	31.0	33.7	36.5	42.2	47.6	50.7	53.5	56.2	12. 55. 42.13		42.27	55.86	13.59		12. 55. 55.83	- 1.58
	21	θ Virginis	C	59.5	2.2	5.0	7.8	13.4	19.0	21.7	24.5	27.3	13. 3. 13.36		13.51	27.06	13.55	13.34†	....	
	22	Polaris S.P.(E&E)	AD	..	..	59.5	57.0	50.5	..	..	..	..	13. 11. 18.93		17.18	31.55	14.37	13.33	1. 11. 30.74	+66.72
	23	Spica	C	7.0	9.8	12.7	15.5	21.3	26.8	29.5	32.3	35.2	13. 18. 21.11		21.25	34.84	13.59	13.34†	....	
	24	τ Boötis	AD	49.9	53.0	55.8	58.6	4.5	10.2	13.2	16.1	19.1	13. 41. 4.47		4.61	18.24	13.63	13.33	13. 41. 18.18	- 1.76
	25	ε Cassiopeiæ S.P.	AD	..	..	..	52.0	4.3	16.7	22.8	28.9	35.0	13. 45. 4.46		4.45				1. 45. 18.02	+ 3.12
	26	Groombridge 2066	AD	..	24.0	38.2	53.1	24.4	55.5	10.2	25.3	..	13. 50. 24.24		24.58				13. 50. 38.15	- 9.34
	27	54 Cassiopeiæ S.P.	AD	17.4	25.8	34.5	43.2	0.0	16.8	25.5	33.8	42.0	13. 57. 59.96		59.92				1. 58. 13.50	+ 4.51
	28	Groombridge 2123	AD	5.4	11.8	17.8	24.2	36.5	49.2	55.4	1.5	7.8	14. 27. 36.57		36.76				14. 27. 50.34	- 3.90
	29	θ Persei S.P.	AD	59.7	3.9	8.0	12.2	20.4	29.2	33.4	37.4	41.6	14. 35. 20.68		20.71				2. 35. 34.30	+ 1.93
	30	6 Ursæ Minoris ..	AD	..	..	..	..	3.6	22.4	31.4	39.9	49.6	14. 45. 3.54		3.78				14. 45. 17.37	- 5.55
	31	α Libræ	AD	35.7	38.8	41.7	44.5	50.4	56.3	59.4	2.2	5.1	15. 4. 50.44		50.60	4.14	13.54		15. 5. 4.19	- 1.65
	32	β Libræ	AD	47.6	50.4	53.2	56.2	1.5	7.2	10.2	12.9	15.7	15. 10. 1.64		1.79	15.28	13.49		15. 10. 15.38	- 1.63
	33	α Persei S.P.	AD	43.3	47.6	51.7	56.0	4.5	13.1	17.4	21.5	26.0	15. 15. 4.61		4.64				3. 15. 18.24	+ 1.89
	34	ζ 1 Libræ	AD	42.6	45.6	48.4	51.4	57.0	2.8	5.7	8.6	11.5	15. 20. 57.04		57.19	10.83	13.64		15. 21. 10.79	- 1.64
	35	Piazzi XV. 96...	AD	55.9	58.8	1.5	4.5	10.5	16.4	19.4	22.4	25.1	15. 25. 10.48		10.64				15. 25. 24.24	- 1.65
	36	δ Persei S.P.	AD	22.0	26.0	30.0	34.1	42.4	50.5	54.5	58.5	2.8	15. 33. 42.34		42.36				3. 33. 55.96	+ 1.74
	37	δ 2 L.	AD	..	6.0	9.4	12.4	18.2	24.7	27.7	30.7	..	15. 40. 18.41		18.57				15. 39. 25.42	
	38	δ Scorpii	AD	26.1	29.0	31.9	35.0	41.0	46.8	50.0	53.0	55.9	15. 52. 40.95		41.11				15. 52. 54.72	- 1.67
	39	ρ Ophiuchi	AD	34.8	38.0	40.8	43.6	49.9	55.9	58.9	1.8	4.8	16. 17. 49.80		49.95				16. 18. 3.56	- 1.65
May 3	40	ξ 2 Libræ	E	29.4	32.1	34.8	37.5	43.3	49.1	51.8	54.5	57.6	14. 49. 43.32		43.46	57.62	14.16	13.95†	....	
	41	ψ Boötis	E	34.6	38.0	40.9	44.1	50.4	56.6	59.6	2.6	6.0	14. 58. 50.29		50.44	4.76	14.32	[0.47]	....	
	42	δ Scorpii	L	25.9	29.2	31.9	35.0	41.0	47.0	50.0	52.8	55.8	15. 52. 40.94		41.10			13.42	15. 52. 54.83	- 1.69
	43	δ Ophiuchi	L	18.6	21.4	24.1	26.6	32.3	38.0	40.7	43.3	46.2	16. 7. 32.34		32.48	46.17	13.69	[0.47]	....	
	44	γ Herculis	L	54.8	57.7	0.6	3.6	9.6	15.4	18.5	21.2	24.1	16. 16. 9.48		9.63	23.41	13.78		....	
	45	ρ Ophiuchi (S. Star).	L	34.6	37.6	40.7	43.5	49.6	55.6	58.7	1.7	4.6	16. 17. 49.59		49.74				16. 18. 3.48	- 1.67

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Arnold 1. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Arnold 1 for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 6, 18, and 22, -27^s.00: -29^s.40: and -31^s.30.

Corrections for passage of Semidiameter, Nos. 11, 12, and 37, +64^s.44: -64^s.44: and -66^s.76.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

May 1 to 3. The azimuthal error by consecutive transits of Polaris S.P., Polaris, and Polaris S.P.

11 and 12. Correction applied to R.A. of center for defect of illumination, -0^s.10.

27. Very faint.

37. Correction to R.A. on true meridian, +0^s.01

19. Cloudy.

38, 39. Diffused.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s	h m s	"	s	s	s	s	h m s	s
May 3	1	2 L.	L	36.5	39.7	42.8	46.2	52.4	58.7	2.0	5.2	8.2	16. 33. 52.38	+0.80	52.53			13.42	16. 32. 57.09	
	2	κ Ophiuchi	L	16.0	18.8	21.6	24.2	29.8	35.5	38.2	41.2	44.0	16. 51. 29.90	(+0.75) [+1.17]	30.04	43.78	13.74	[0.47]	....	
May 6	3	δ Leonis.	J	34.5	37.3	40.1	43.0	48.6	54.0	56.7	59.6	2.2	10. 53. 48.42	+1.11	48.50	4.11	15.61	15.38	10. 54. 4.12	-0.98
	4	Lalande 21185. .	J	55.2	58.8	2.3	5.7	12.6	19.4	23.0	26.4	29.7	10. 56. 12.54	(+0.27)	12.65			[0.53]	10. 56. 28.27	-1.47
	5	67 Leonis.	J	33.7	36.9	39.8	42.7	49.0	55.2	58.2	1.1	4.3	11. 1. 48.96	[-0.04]	49.06				11. 2. 4.68	-1.29
	6	δ Crateris.	J	33.5	36.4	39.2	42.0	47.6	53.4	56.3	59.2	2.0	11. 12. 47.71		47.80	3.45	15.65		11. 13. 3.43	-0.92
	7	86 Leonis.	J	25.4	28.5	31.3	34.2	40.0	45.8	48.8	51.8	54.6	11. 23. 40.03		40.13				11. 23. 55.76	-1.31
	8	ν Leonis.	J	1.3	4.3	7.0	9.8	15.2	20.8	23.5	26.4	29.1	11. 30. 15.25		15.33	30.94	15.61		11. 30. 30.96	-1.12
	9	Jupiter 1 L.	J	37.9	..	43.3	..	51.6	57.1	..	2.7	..	11. 32. 51.62		53.05				11. 33. 8.69	
	10	Jupiter 2 L.	J	40.5	..	46.0	..	54.3	59.8	..	5.5	..	11. 32. 54.32							
	11	β Leonis.	J	9.1	12.0	14.9	17.6	23.4	29.3	32.2	35.0	37.8	11. 42. 23.46		23.56	39.21	15.65		11. 42. 39.20	-1.33
	12	B. A. C. 4005. .	J	58.6	1.6	4.2	7.2	13.0	18.5	21.4	24.2	27.2	11. 44. 12.86		12.95				11. 44. 28.59	-1.32
	13	Piazzi XII. 6. .	J	45.3	48.0	50.8	53.5	59.2	4.7	7.5	10.2	12.8	12. 4. 59.09		59.17				12. 5. 14.82	-1.32
	14	6 Comæ.	J	7.6	10.6	13.4	16.2	22.0	27.7	30.7	33.4	36.3	12. 9. 21.97		22.07				12. 9. 37.72	-1.47
	15	Polaris S.P. (E&E)	J	..	..	..	..	25.0	14.0	12.0	8.0	5.0	13. 11. 23.24		19.48	33.65	14.17		1. 11. 35.15	+64.62
	16	ζ Virginis.	J	48.3	51.3	53.8	56.6	2.3	7.7	10.5	13.2	16.1	13. 28. 2.18		2.26	17.96	15.70		13. 28. 17.94	-1.56
	17	72 Ophiuchi.	C	54.2	57.0	59.6	2.4	8.2	13.7	16.7	19.3	22.3	18. 1. 8.13		8.21	23.89	15.68	[15.28 0.53]	....	
	18	Polaris. (E&E)	S	..	..	..	..	..	..	..	5.0	0.0	1. 11. 16.24	-0.06	19.29	33.87	14.58	[15.91 0.31]	1. 11. 35.22	+64.40
May 7	19	2 L.	S	34.6	37.4	40.6	43.4	49.4	..	..	..	3.7	2. 57. 49.17		49.25				2. 56. 58.71	
	20	31 Comæ.	S	3.6	6.9	9.9	..	19.4	..	28.6	31.7	35.2	12. 45. 19.44		19.52	35.44	15.92		12. 45. 35.60	-1.81
	21	δ Virginis.	S	46.8	49.7	52.4	55.2	0.5	6.2	9.0	11.8	14.7	12. 49. 0.68		0.75	16.89	16.14		12. 49. 16.83	-1.47
	22	ε Virginis.	S	25.6	28.5	31.4	34.0	39.6	45.4	48.1	50.8	53.8	12. 55. 39.66		39.74	55.85	16.11		12. 55. 55.82	-1.57
	23	Polaris S.P. (E&E)	S	44.0	..	35.0	..	..	..	..	..	..	13. 11. 22.15		19.10	34.10	15.00		1. 11. 35.18	+64.17
	24	β Libræ.	S	..	..	..	..	59.1	4.6	7.6	10.4	13.4	15. 9. 59.16		59.24	15.34	16.10		15. 10. 15.35	-1.69
	25	α Coronæ.	S	51.3	54.6	57.6	0.6	7.0	13.0	16.2	19.4	22.6	15. 29. 6.89		6.97	23.15	16.18		15. 29. 23.08	-1.96
May 8	26	l Leonis.	G	8.4	11.4	14.0	16.8	22.5	28.1	30.9	33.8	36.6	10. 42. 22.48	(+0.27)	22.58	38.93	16.35	16.19	10. 42. 38.88	-0.96
	27	δ Leonis.	G	33.8	36.7	39.4	42.1	47.7	53.3	56.0	58.8	1.4	10. 53. 47.67	[+0.20]	47.76	4.09	16.33	[0.25]	10. 54. 4.06	-0.96
	28	67 Leonis.	G	32.8	36.0	39.1	42.0	48.2	54.3	57.4	0.4	3.5	11. 1. 48.16		48.27				11. 2. 4.57	-1.27
	29	Bradley 3085 S.P.	G	..	..	..	..	..	..	18.4	28.0	38.0	11. 9. 49.22		48.96				23. 10. 5.27	+3.45
	30	Bradley 3125 S.P.	G	..	6.8	14.5	22.6	38.5	54.4	2.3	10.3	..	11. 21. 38.57		38.36				23. 21. 54.67	+2.86
	31	60 Ursæ Majoris.	G	12.1	16.5	20.4	24.5	32.7	40.8	45.0	49.0	53.1	11. 31. 32.64		32.78				11. 31. 49.09	-2.01
	32	β Leonis.	G	8.4	11.5	14.3	17.1	22.8	28.6	31.5	34.3	37.2	11. 42. 22.84		22.95	39.19	16.24		11. 42. 39.26	-1.31
	33	δ Corvi.	G	..	54.3	57.0	59.8	5.6	11.5	14.4	17.2	..	12. 23. 5.66		5.76	22.12	16.36		12. 23. 22.08	-1.24
	34	25 Comæ.	G	9.6	12.7	15.5	18.4	24.3	30.1	33.0	36.0	38.9	12. 30. 24.26		24.37				12. 30. 40.69	-1.57
	35	Polaris S.P. (E&E)	G	45.5	41.0	36.5	35.5	..	..	..	..	..	13. 11. 21.57		18.24	34.52	16.28		....	
	36	Spica.	G	4.2	7.4	10.2	13.0	18.5	23.8	26.9	29.7	32.7	13. 18. 18.47		18.57	34.84	16.27		13. 18. 34.90	-1.47
	37	β Serpentis.	G	..	56.4	59.2	2.0	7.8	13.4	16.4	19.0	..	15. 40. 7.71		7.82				15. 40. 24.17	-1.81
	38	ε Serpentis.	G	3.6	6.4	9.1	11.8	17.5	23.0	25.8	28.4	31.3	15. 44. 17.41		17.50	33.87	16.37		15. 44. 33.85	-1.74
	39	α Aquilæ.	AD	24.5	27.5	30.2	33.0	38.5	44.4	47.1	49.9	52.9	19. 11. 38.64		38.74	55.14	16.40	[16.19 0.25]	....	
	40	δ Aquilæ.	AD	39.5	42.1	45.0	47.8	53.3	58.7	1.5	4.3	7.2	19. 18. 53.25		53.34	9.72	16.38		....	
May 9	41	τ Leonis.	E	57.7	0.5	3.1	5.9	11.5	17.1	19.8	22.5	25.3	11. 21. 11.47	(+0.74)	11.58	28.48	16.90	16.68	....	
	42	60 Ursæ Majoris.	E	11.7	15.9	19.9	24.0	32.1	..	..	..	..	11. 31. 32.16		32.34			[0.36]	11. 31. 49.19	-1.99
	43	Jupiter 1 L.	E	14.0	..	19.7	..	28.0	..	36.4	..	42.0	11. 32. 28.00		29.56				11. 32. 46.21	
	44	Jupiter 2 L.	E	17.0	..	22.5	..	31.0	..	39.3	..	44.8	11. 32. 30.90							
	45	β Leonis.	E	7.8	10.8	13.5	16.4	22.0	28.0	30.9	33.7	36.6	11. 42. 22.17		22.30	39.19	16.89		....	

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 15, 18, 23, and 35, -1".10: -2".50: -3".70: and -5".80.

Corrections for passage of Semidiameter, Nos. 1 and 19, -69".19: and -66".49.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

May 5^d, 22^h. The clock Hardy again brought into use.

May 6 and 7. The azimuthal error by consecutive transits of Polaris S.P., Polaris, and Polaris S.P.

May 8 and 9. The azimuthal error used is the mean of those (+0".21 and +0".19) determined by tabular places of Polaris S.P. and Spica on May 8, and of Polaris S.P. and Arcturus on May 9, allowing 0".02 for clock-rate in the latter case.

1. Very tremulous and ill-defined. Correction to R.A. on true meridian, +0".01.

19, 23. Very cloudy.

20, 21. Faint.

18. Cloudy and very tremulous.

23. The time at the first wire was set down 1^m. 54".0.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
				h	m	s	h	m	s	h	m	s								
May 9	1	γ Ursæ Majoris ..	E	..	..	..	47.6	57.3	6.6	11.3	16.0	21.0	11. 46. 57.10	+1.11	57.32			16.68	11. 47. 14.18	- 2.43
	2	Groombridge 1845	E	..	..	36.3	54.8	33.2	10.7	29.7	..	..	11. 53. 32.82	(+0.74)	33.57			[0.36]	11. 53. 50.43	- 9.21
	3	Groomb. 4222 S.P.	E	..	..	..	..	17.4	28.5	34.0	39.5	45.5	11. 58. 17.25	[+0.20]	17.09				23. 58. 33.95	+ 2.11
	4	Bradley 6 S.P. ...	E	..	..	..	..	8.2	20.0	31.4	43.4	12. 8. 45.19		44.79				0. 9. 1.65	+ 5.16	
	5	η Virginis.....	E	58.3	0.8	3.6	6.4	11.8	17.4	20.2	22.9	25.8	12. 13. 11.89		12.00	28.84	16.84			
	6	12 Cassiopeiæ S.P.	E	..	..	14.9	20.7	32.0	43.5	49.2	..	..	12. 17. 32.09		31.93			0. 17. 48.79	+ 2.30	
	7	Oeltz. Arg. 12753	E	..	30.5	34.6	38.8	46.8	55.0	59.0	3.2	..	12. 27. 46.80		46.98			12. 28. 3.85	- 2.32	
	8	Groomb. 120 S.P.	E	..	..	54.1	0.8	14.3	27.6	34.3	..	..	12. 34. 14.26		14.06			0. 34. 30.93	+ 2.90	
	9	η Cassiopeiæ S.P.	E	..	..	54.8	0.0	10.5	20.6	25.7	..	..	12. 41. 10.35		10.20			0. 41. 27.07	+ 2.06	
	10	Bradley 1730....	E	..	..	42.3	8.8	..	56.3	23.8	..	..	12. 48. 2.58		3.64			12. 48. 20.51	- 14.73	
	11	Bradley 1731....	E	..	..	50.1	16.4	..	4.8	32.1	..	..	12. 48. 10.63		11.69			12. 48. 28.56	- 14.73	
	12	Bradley 109 S.P.	E	..	..	22.6	37.5	7.9	37.8	52.8	..	..	12. 58. 7.81		7.28			0. 58. 24.15	+ 7.55	
	13	Polaris S.P. (E&E)	E	..	45.0	39.5	36.0	27.5	..	..	..	10.0	13. 11. 22.42		18.07	34.93	16.86			
	14	Oeltz. Arg. 13558	E	..	..	14.8	18.8	27.2	35.4	39.8	..	..	13. 15. 27.18		27.36			13. 15. 44.24	- 2.53	
	15	Arcturus	E	25.0	28.0	30.9	33.8	39.5	45.5	48.5	51.4	54.4	14. 9. 39.64		39.78	56.68	16.84			
	16	α Aquilæ	L	8.6	11.4	14.0	17.0	22.5	28.0	31.0	33.7	36.5	19. 44. 22.50		22.62	39.04	16.42	16.12† [0.36]		
May 10	17	γ Aquilæ	C	46.0	48.7	51.5	54.2	59.9	5.5	8.4	11.3	13.9	19. 39. 59.91	+0.91	0.00	17.10	17.10	16.91†		
	18	α Aquilæ	C	7.8	10.8	13.5	16.3	21.8	27.5	30.2	33.1	35.8	19. 44. 21.85	(+0.29)	21.93	39.07	17.14	[0.25]		
	19	α Pegasi.....	L	..	..	..	..	17.6	20.5	23.4	26.3	22. 58. 11.92	[+0.29]	12.01	28.88	16.87	16.46	22. 58. 28.81	+ 0.21	
	20	δ 2 L.....	L	33.7	36.9	39.7	42.6	48.4	54.2	57.0	59.7	2.7	23. 19. 48.30		48.39			[0.35]	23. 18. 56.75	
May 11	21	ν Leonis	L	0.0	3.0	5.5	8.4	13.7	19.4	22.2	25.0	27.7	11. 30. 13.86		13.95	30.90	16.95	16.81	11. 30. 30.93	- 1.08
	22	60 Ursæ Majoris.	L	..	..	..	23.7	..	40.4	44.4	48.5	52.6	11. 31. 32.06		32.18			11. 31. 49.16	- 1.96	
	23	β Leonis	L	7.8	10.8	13.5	16.3	22.0	27.7	30.7	33.6	36.4	11. 42. 22.07		22.16	39.17	17.01	11. 42. 39.14	- 1.29	
	24	Groombridge 1830	L	9.5	13.4	16.8	20.5	27.4	34.4	38.0	41.6	45.2	11. 45. 27.39		27.50			11. 45. 44.48	- 1.88	
	25	Piazzi XII. 6 ...	L	43.7	46.6	49.5	52.0	57.7	3.2	6.0	8.6	11.6	12. 4. 57.63		57.71			12. 5. 14.70	- 1.29	
	26	ε Virginis.....	L	24.8	27.6	30.2	33.0	38.6	44.4	47.3	50.0	52.9	12. 55. 38.73		38.82	55.84	17.02	12. 55. 55.82	- 1.56	
	27	Polaris S.P. (E&E)	L	47.5	44.0	41.0	37.0	29.0	..	..	..	..	13. 11. 21.55		18.90	35.84	16.94			
	28	Oeltz. Arg. 13558	L	6.2	10.6	14.6	18.7	27.1	35.3	39.5	43.5	47.6	13. 15. 26.97		27.09			13. 15. 44.09	- 2.51	
	29	ζ Virginis.....	L	47.0	50.1	52.5	55.3	1.0	6.5	9.4	12.0	14.8	13. 28. 0.94		1.03	17.96	16.93	13. 28. 18.04	- 1.56	
	30	86 Virginis.....	L	43.9	46.8	49.5	52.3	58.0	3.6	6.5	9.3	12.1	13. 38. 57.98		58.07			13. 39. 15.08	- 1.54	
	31	α Lyra.....	E	6.1	10.0	13.5	17.2	24.3	31.3	35.0	38.3	41.9	18. 32. 24.15		24.26	41.76	17.50	17.24†		
	32	ε Aquilæ	E	..	..	..	..	6.4	11.7	14.7	17.4	20.3	18. 35. 6.24		6.33	23.84	17.51	[0.35]		
May 15	33	δ Crateris.....	L	30.2	33.0	35.8	38.7	44.2	50.0	52.8	55.8	58.7	11. 12. 44.34	(-0.78)	44.37	3.37	19.00	18.83	11. 13. 3.43	- 0.84
	34	τ Leonis	L	55.5	58.3	1.0	3.9	9.4	14.9	17.8	20.4	23.1	11. 21. 9.34	[-0.09]	9.36	28.42	19.06	[0.49]	11. 21. 28.42	- 1.03
	35	60 Ursæ Majoris.	L	9.5	13.8	17.8	21.8	29.9	..	..	..	..	11. 31. 30.00		30.01			11. 31. 49.07	- 1.89	
	36	Jupiter 1 L.	L	..	..	..	..	..	..	10.0	12.8	11. 31. 58.89		} 0.29				11. 32. 19.35		
	37	Jupiter 2 L.	L	..	..	..	..	1.6	7.1	..	..	15.7	11. 32. 1.64							
	38	β Leonis	L	5.8	8.8	11.4	14.3	19.9	25.7	28.8	31.3	34.3	11. 42. 20.01		20.03	39.13	19.10	11. 42. 39.10	- 1.25	
	39	β Virginis.....	L	36.1	39.0	41.8	44.4	49.9	55.5	58.2	0.9	2.8	11. 43. 49.82		49.85	9.03	19.18	11. 44. 8.92	- 1.16	
	40	Piazzi XI. 207...	L	4.9	7.8	10.3	13.1	18.8	24.1	27.1	29.8	32.7	11. 52. 18.71		18.74			11. 52. 37.81	- 1.17	
	41	Oeltz. Arg. 12753	L	23.9	28.3	32.4	36.3	44.7	52.8	56.9	0.9	5.1	12. 27. 44.55		44.56			12. 28. 3.64	- 2.24	
	42	ρ Virginis.....	L	58.7	1.6	..	7.1	12.9	18.4	..	24.0	26.9	12. 35. 12.78		12.80	31.89	19.19	12. 35. 31.89	- 1.47	
	43	δ Virginis.....	L	43.9	46.8	49.4	52.2	57.8	3.2	6.1	8.9	11.5	12. 48. 57.73		57.75	16.86	19.11	12. 49. 16.84	- 1.44	
	44	Polaris S.P. (E&E)	L	53.0	49.5	44.0	39.5	33.5	..	..	..	..	13. 11. 21.18		20.15	38.42	18.27	1. 11. 39.25	+ 59.85	
	45	Oeltz. Arg. 13558	L	4.3	8.7	12.7	16.9	25.0	33.4	37.6	41.6	45.7	13. 15. 25.06		25.07			13. 15. 44.17	- 2.47	
	46	Bradley 1895....	L	0.2	3.5	6.1	9.1	14.9	20.8	23.6	26.4	29.3	14. 44. 14.75		14.78			14. 44. 33.91	- 1.74	

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 13, 27, and 44, -6^h.60: -8^h.30: and -12^h.80.

Correction for passage of Semidiameter, No. 20, -68".44.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

May 10 and 11. The azimuthal error by tabular places of Polaris S.P. and ζ Virginis on May 11.

May 15 to 17. The azimuthal error by consecutive transits of Polaris S.P., Polaris, and Polaris S.P.

19. Very faint.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at oh Sidereal and (Lossing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
May 15	1	Piazzi XIV. 212.	L	..	37.8	40.6	43.5	49.4	55.2	58.1	1.0	..	14. 49. 49.34	+0.91	49.37			18.83	14. 50. 8.50	- 1.79
	2	Sirona	L	7.1	..	12.9	15.8	21.4	27.3	29.8	..	..	14. 56. 21.43	(-0.78)	21.46			[0.49]	14. 56. 40.59	
	3	¹ Libræ	L	30.5	33.5	36.3	39.3	45.2	51.0	54.0	56.9	59.8	15. 4. 45.15	(-0.09)	45.18	4.28	19.10		15. 5. 4.32	- 1.79
	4	Piazzi XV. 19 ...	L	32.8	35.9	38.9	41.8	47.7	53.7	56.8	59.4	2.6	15. 8. 47.70		47.74				15. 9. 6.88	- 1.81
	5	⁸ Ophiuchi	L	13.4	16.3	19.0	21.8	27.2	32.9	35.7	38.6	41.3	16. 7. 27.33		27.36	46.36	19.00		16. 7. 46.52	- 1.80
	6	^β Andromedæ ...	AD	3.3	6.9	10.1	13.7	20.2	27.0	30.6	33.8	37.2	1. 2. 20.28	(-0.44)	20.32	39.90	19.58	19.50	1. 2. 39.84	+ 1.02
	7	Polaris ....(E&E)	AD	..	..	..	..	32.0	23.5	21.0	..	..	1. 11. 17.87		19.59	38.78	19.19	[0.48]	1. 11. 39.11	+ 59.49
May 16	8	⊙ 1 L.	AD	32.0	35.1	38.0	41.0	46.8	52.4	55.7	58.5	1.3	3. 30. 46.73		54.03				3. 32. 13.60	
	9	⊙ 2 L.	AD	46.7	49.6	52.3	55.5	1.2	7.1	10.0	13.1	16.0	3. 33. 1.26							
	10	Venus 1 L.	AD	12.9	16.0	18.9	22.0	27.9	34.1	37.0	40.0	43.1	4. 59. 27.96		28.00				4. 59. 48.03	
	11	^β Leonis	AD	5.0	8.1	10.9	13.8	19.3	25.1	28.0	30.9	33.8	11. 42. 19.41		19.45	39.13	19.68		11. 42. 39.18	- 1.25
	12	^γ Ursæ Majoris ..	AD	30.2	35.2	39.8	44.7	54.0	3.6	8.2	13.1	17.9	11. 46. 54.04		54.09				11. 47. 13.82	- 2.29
	13	^π Virginis	AD	52.4	55.4	58.0	0.8	6.2	11.9	14.9	17.7	20.3	11. 54. 6.38		6.42	26.19	19.77		11. 54. 26.16	- 1.23
	14	Groombridge 1853	AD	29.0	35.5	41.5	47.8	0.2	12.8	19.0	25.1	31.2	11. 59. 0.20		0.27				11. 59. 20.01	- 3.05
	15	68 Ursæ Majoris ..	AD	44.3	49.8	54.8	59.9	10.2	20.7	25.9	30.9	36.2	12. 5. 10.26		10.31				12. 5. 30.05	- 2.62
	16	Groombridge 1879	AD	13.1	40.4	7.0	34.0	27.1	20.3	48.0	14.3	41.7	12. 15. 27.07		27.45				12. 15. 47.20	- 12.59
	17	Oeltz. Arg. 12753	AD	..	..	..	..	..	..	..	0.1	4.6	12. 27. 43.75		43.80				12. 28. 3.55	- 2.22
	18	^ρ Virginis	AD	58.0	0.8	3.7	6.2	12.1	17.9	20.6	23.2	26.2	12. 35. 12.06		12.10	31.88	19.78		12. 35. 31.85	- 1.46
	19	30 Comæ	AD	..	..	..	..	51.0	57.2	0.4	3.6	6.8	12. 42. 50.98		51.02				12. 43. 10.77	- 1.74
	20	^α Canum Venat. ..	AD	..	..	..	..	50.0	57.0	0.7	4.2	8.0	12. 49. 49.99		50.03				12. 50. 9.79	- 2.02
	21	^ε Virginis	AD	22.0	..	27.8	30.5	..	41.8	44.6	47.3	50.1	12. 55. 36.10		36.14	55.82	19.68		12. 55. 55.90	- 1.54
	22	Polaris S.P. (E&E)	AD	..	..	..	41.0	34.5	..	23.5	16.0	15.0	13. 11. 20.85		19.09	39.16	20.07		1. 11. 38.85	+ 59.11
	23	Oeltz. Arg. 13558	AD	3.7	8.0	11.9	16.1	24.1	32.4	36.7	40.9	45.0	13. 15. 24.28		24.33				13. 15. 44.10	- 2.46
	24	Sirona	AD	..	..	..	..	28.9	..	..	40.3	43.8	14. 55. 29.06		29.10				14. 55. 48.90	
	25	¹ Libræ	AD	29.8	32.9	35.8	38.8	44.2	50.2	53.2	56.1	59.1	15. 4. 44.44		44.48	4.29	19.81		15. 5. 4.28	- 1.80
	26	^δ Boötis	AD	50.9	54.4	57.8	0.7	7.7	14.3	17.8	21.1	24.2	15. 10. 7.62		7.66				15. 10. 27.46	- 2.18
	27	^α Persei S.P.	AD	37.6	42.0	45.9	50.2	58.8	..	..	..	..	15. 14. 58.83		58.74				3. 15. 18.54	+ 1.71
May 17	28	^δ Leonis	E	50.0	53.0	..	59.1	5.0	10.8	..	16.6	19.8	11. 7. 4.88		4.92	25.43	20.51	20.27†	...	
	29	^δ Crateris	E	28.7	31.6	34.2	37.1	42.8	48.5	51.4	54.1	57.1	11. 12. 42.82		42.86	3.35	20.49	[0.50]	...	
May 18	30	⊙ 1 L.	L	27.4	30.5	33.3	36.4	..	48.1	51.2	53.8	57.1	3. 38. 42.20	+0.80	49.64			20.27	3. 40. 9.98	
	31	⊙ 2 L.	L	42.5	45.4	48.5	51.1	57.0	2.7	6.0	8.7	12.0	3. 40. 57.08	(-0.84)				[0.48]		
	32	^δ Leonis	L	29.6	32.5	35.0	38.0	43.6	49.2	51.9	54.6	57.4	10. 53. 43.32	(-0.17)	43.52	3.99	20.47		...	
	33	^χ Leonis	L	57.7	0.2	3.1	5.8	11.5	17.0	19.9	22.6	25.4	10. 58. 11.45		11.45	31.89	20.44		...	
	34	^δ Leonis	L	50.0	53.2	56.0	59.0	4.8	10.9	13.7	16.7	19.8	11. 7. 4.88		4.88	25.42	20.54		...	
	35	Jupiter 1 L.	L	39.2	41.9	44.7	47.5	53.0	..	..	..	..	11. 31. 53.01		54.41				11. 32. 14.91	
	36	Jupiter 2 L.	L	..	..	..	50.3	55.7	1.5	4.2	6.9	9.6	11. 31. 55.80							
	37	^β Leonis	L	..	7.5	10.1	12.8	..	24.3	27.1	30.1	33.0	11. 42. 18.62		18.62	39.11	20.49		...	
	38	^ε 2 Boötis	AD	54.7	58.0	1.0	4.2	10.4	16.6	19.8	23.0	26.0	14. 39. 10.39		10.38	31.08	20.70	20.45†	...	
	39	^α Libræ	AD	21.1	24.3	26.8	29.8	35.5	41.4	44.3	47.1	49.9	14. 43. 35.56		35.59	56.36	20.77	[0.48]	...	
May 19	40	^ο Virginis	E	13.2	15.8	18.7	21.5	27.3	32.9	35.7	38.5	41.4	11. 58. 27.20	(-1.04)	27.19	48.69	21.50	21.30†	...	
	41	^ε Corvi	E	3.4	6.5	9.4	12.2	18.2	24.4	27.4	30.2	33.4	12. 3. 18.32		18.35	39.86	21.51	[0.42]	...	
	42	Groombridge 1888	C	22.9	29.5	35.7	42.2	55.0	8.0	14.6	20.8	27.3	12. 18. 55.06		55.03			21.02	12. 19. 16.26	- 3.22
	43	^δ 2 Corvi	C	46.3	49.3	52.2	55.0	0.7	6.4	9.4	12.2	15.2	12. 23. 0.73		0.75	22.06	21.31	[0.42]	12. 23. 21.99	- 1.18
	44	Oeltz. Arg. 12753	C	..	..	30.2	34.2	42.3	50.7	54.7	..	..	12. 27. 42.40		42.37				12. 28. 3.61	- 2.18
	45	76 Ursæ Majoris ..	C	14.3	20.5	26.6	32.8	45.2	57.6	3.8	9.9	16.1	12. 35. 45.15		45.12				12. 36. 6.36	- 3.25

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 7 and 22, -13".20: and -13".90.

Correction for passage of Semidiameter, No. 10, +0".43.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

May 18 to 21. The azimuthal error from consecutive transits of Polaris S.P., Polaris, and Polaris S.P.

2. Very faint.

7, 21, 26, 27. Cloudy.

8, 9, 10. Very tremulous.

35, 36, 37. Faint.

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1874.

[37]

1976GGMW

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Lossing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.			
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.											
																					h	m	s
May 19	1	Piazzi XII. 183...	C	..	31.8	34.5	37.4	43.0	48.4	51.3	53.9	..	12. 40. 42.87	+0.80	42.87			21.02	12. 41. 4.11	- 1.32			
	2	8 Virginis	C	41.8	44.6	47.3	50.0	55.5	1.0	3.8	6.6	9.5	12. 48. 55.55	(-1.04)	55.54	16.84	21.30	[0.42]	12. 49. 16.78	- 1.42			
	3	Groomb. 192 S.P.	C	36.4	43.3	49.7	56.5	10.0	23.5	30.1	36.6	43.8	12. 50. 10.05	[-0.17]	9.97				0. 50. 31.21	+ 2.57			
	4	Groomb. 219 S.P.	C	..	..	12.3	18.0	29.3	40.3	45.8	..	..	12. 55. 29.17		29.09				0. 55. 50.34	+ 1.27			
	5	Polaris S.P. (E&E)	C	53.5	52.0	46.0	43.5	36.0	..	..	..	..	13. 11. 20.23		19.92	41.20	21.28		1. 11. 41.17	+57.07			
	6	1 ^h Libræ	C	28.5	31.4	34.3	37.3	43.1	49.0	51.9	54.7	57.7	15. 4. 43.08		43.11	4.31	21.20		15. 5. 4.39	- 1.82			
	7	Lacaille 6425....	C	51.4	54.5	57.6	0.5	6.7	12.8	15.8	18.8	22.0	15. 26. 6.65		6.68				15. 26. 27.97	- 1.91			
	8	Piazzi III. 160 S.P.	C	12.9	29.4	45.5	2.5	..	..	..	..	..	15. 48. 35.38		35.30				3. 48. 56.59	+ 7.84			
	9	γ Herculis	C	47.7	50.7	53.6	56.4	2.3	8.3	11.2	14.1	17.1	16. 16. 2.36		2.35	23.64	21.29		16. 16. 23.65	- 1.93			
	10	3 Sagittarii	C	3.0	6.2	9.1	12.2	18.6	24.8	28.0	31.0	34.0	17. 39. 18.51		18.54				17. 39. 39.87	- 1.99			
	11	ψ ¹ Draconis	C	..	17.6	26.4	35.3	53.5	11.5	20.5	29.7	..	17. 43. 53.42		53.40				17. 44. 14.73	- 3.87			
	12	Bradley 2252....	C	..	19.0	28.2	37.3	55.5	13.3	22.2	31.4	..	17. 43. 55.19		55.17				17. 44. 16.50	- 3.87			
	13	89 Herculis	C	45.3	48.3	51.5	54.5	0.5	6.8	10.0	13.0	16.0	17. 50. 0.62		0.60	21.96	21.36		17. 50. 21.93	- 1.75			
	14	72 Ophiuchi	C	49.0	51.8	54.5	57.4	3.0	8.5	11.3	14.0	16.9	18. 1. 2.92		2.91	24.20	21.29		18. 1. 24.24	- 1.66			
	15	Polaris.... (E&E)	AD	..	..	..	41.0	35.0	27.0	24.0	..	..	1. 11. 17.92	(-0.39)	19.58	41.50	21.92	21.42 [0.36]	1. 11. 41.02	+56.77			
May 20	16	⊙ 1 L.	AD	24.6	27.7	30.6	33.6	39.4	45.2	48.3	51.4	54.2	3. 46. 39.42		39.45				3. 48. 8.48				
	17	ν Leonis	L	55.6	58.4	1.0	3.9	9.5	15.0	17.8	20.5	23.2	11. 30. 9.41		9.43	30.85	21.40	21.20† 21.42	....				
	18	Jupiter 1 L.	AD	38.7	..	44.2	..	52.4	..	0.8	..	6.3	11. 31. 52.46		53.82				11. 32. 15.41				
	19	Jupiter 2 L.	AD	41.3	..	46.8	..	55.2	..	3.5	..	9.0	11. 31. 55.14										
	20	β Leonis	AD	3.1	6.2	9.0	11.8	17.5	23.2	26.1	28.9	31.8	11. 42. 17.49		17.52	39.09	21.57		11. 42. 39.11	- 1.21			
	21	γ Ursæ Majoris ..	AD	28.3	33.5	38.0	42.7	52.1	1.7	6.5	11.2	15.8	11. 46. 52.16		52.21				14. 47. 13.81	- 2.20			
	22	π Virginis	AD	..	53.4	56.1	59.0	4.5	10.1	12.9	15.6	..	11. 54. 4.48		4.51	26.16	21.65		11. 54. 26.11	- 1.20			
	23	Groombridge 1853	AD	27.2	33.5	39.6	45.8	58.2	10.5	16.8	23.0	29.2	11. 58. 58.15		58.22				11. 59. 19.82	- 2.92			
	24	68 Ursæ Majoris ..	AD	42.4	47.7	52.6	57.9	8.2	18.8	23.9	29.0	34.2	12. 5. 8.26		8.31				12. 5. 29.91	- 2.52			
	25	η Virginis	AD	53.3	56.1	58.8	1.6	7.2	12.7	15.5	18.1	21.0	12. 13. 7.12		7.14	28.78	21.64		12. 13. 28.74	- 1.23			
	26	4 Draconis	AD	36.5	44.7	52.6	0.7	16.8	32.8	41.0	49.0	57.1	12. 24. 16.73		16.83				12. 24. 38.44	- 3.98			
	27	Oeltz. Arg. 12753	AD	21.4	25.6	29.5	33.6	41.6	50.1	54.0	58.3	2.3	12. 27. 41.79		41.83				12. 28. 3.44	- 2.16			
	28	35 Virginis	L	52.7	55.5	58.2	0.9	6.5	12.0	14.8	17.6	20.4	12. 41. 6.49		6.51	27.86	21.35	21.20† 21.42	....				
	29	α Canum Venat. ..	AD	..	..	37.5	40.9	48.2	55.3	59.0	2.5	6.0	12. 49. 48.17		48.21				12. 50. 9.82	- 1.98			
	30	ε Virginis	AD	20.0	22.9	25.8	28.4	34.2	39.7	42.7	45.4	48.2	12. 55. 34.13		34.15	55.80	21.65		12. 55. 55.96	- 1.52			
	31	Polaris S.P. (E&E)	AD	53.0	52.0	47.5	46.0	..	..	..	..	..	13. 11. 20.95		19.24	41.81	22.57		1. 11. 40.86	+56.46			
	32	Oeltz. Arg. 13558	AD	1.5	6.0	10.0	14.1	22.3	30.6	34.9	38.8	43.1	13. 15. 22.33		22.37				13. 15. 43.99	- 2.41			
	33	Sirona	AD	51.9	54.5	57.4	..	5.6	..	14.9	17.5	20.4	14. 52. 6.00		6.04				14. 52. 27.68				
	34	ψ Boötis	AD	27.6	30.8	33.8	37.0	43.2	49.5	52.5	55.5	58.8	14. 58. 43.16		43.18	4.87	21.69		14. 59. 4.82	- 2.07			
	35	γ Ursæ Minoris ..	AD	54.8	4.1	12.7	21.8	40.0	58.4	7.3	16.4	25.5	15. 20. 40.04		40.14				15. 21. 1.79	- 5.26			
	36	γ Camelop. S.P. ..	AD	58.2	5.8	14.9	23.0	40.0	56.9	5.6	13.4	22.4	15. 36. 40.10		39.95				3. 37. 1.60	+ 3.82			
	37	Piazzi III. 177 S.P.	AD	25.0	31.0	37.4	43.1	55.2	7.0	13.1	18.9	25.5	15. 45. 55.18		55.06				3. 46. 16.72	+ 2.52			
	38	Groomb. 766 S.P.	AD	38.3	2.4	26.2	50.5	39.5	29.4	53.7	17.0	41.6	15. 58. 40.04		39.67				3. 59. 1.33	+11.64			
	39	Metis	AD	46.0	49.3	51.9	..	..	..	..	..	..	16. 8. 0.81		0.85				16. 8. 22.51				
	40	Antares	AD	6.0	9.2	12.2	15.2	21.4	27.5	30.7	33.7	37.0	16. 21. 21.41		21.45	43.04	21.59		16. 21. 43.12	- 2.01			
	41	Piazzi IV. 112 S.P.	AD	32.5	44.0	55.3	6.4	28.6	51.4	2.2	13.3	24.9	16. 31. 28.82		28.62				4. 31. 50.29	+ 4.72			
	42	α Camelop. S.P. ..	AD	33.6	40.9	47.6	54.6	7.7	22.1	28.5	35.2	42.4	16. 41. 8.12		7.99				4. 41. 29.66	+ 2.62			
	43	β Camelop. S.P. ..	AD	21.5	27.0	32.7	38.2	49.5	0.6	6.0	11.5	17.2	16. 51. 49.40		49.29				4. 52. 10.96	+ 1.98			
	44	72 Ophiuchi	AD	48.6	51.4	54.2	57.0	2.5	8.2	10.9	13.7	16.6	18. 1. 2.55		2.57	24.22	21.65		18. 1. 24.26	- 1.68			
May 21	45	⊙ 1 L.	E	40.5	43.5	46.4	49.4	55.3	1.2	4.3	7.0	10.1	3. 50. 55.28	(-0.92)	2.94				....				
	46	⊙ 2 L.	E	55.8	58.8	1.6	4.5	10.4	16.4	19.4	22.4	25.6	3. 53. 10.53						....				

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 5, 15, and 31, -16".00 : -16".00 : and -16".20.

Correction for passage of Semidiameter, No. 16, +67".55.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

May 20^d. 23^h. The clock Hardy was connected with the Chronograph and used as Transit-Clock.

15, 36, 38. Tremulous.

16. Cloudy.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at oh Sideral and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
May 24	1	♋ Leonis	AD	..	17'0	19'7	22'5	28'1	33'7	36'5	39'2	..	10. 58. 28'07	+0'80	28'05	31'83	3'78	4'03	10. 58. 31'83	- 0'85
	2	♋ Leonis	AD	6'7	9'9	12'8	15'7	21'6	27'6	30'6	33'5	36'5	11. 7. 21'64	(-2'01)	21'60	25'36	3'76	[-0'55]	11. 7. 25'38	- 1'07
	3	♋ Leonis	AD	21'5	24'5	27'2	30'0	35'4	41'0	43'9	46'6	49'5	11. 14. 35'49	[+0'75]	35'48	38'34	3'69		11. 14. 39'25	- 0'93
	4	♋ Leonis	AD	10'7	13'7	16'4	19'2	24'6	30'2	33'0	35'7	38'5	11. 21. 24'65		24'65	28'34	3'74		11. 21. 28'42	- 0'95
	5	♋ Leonis	AD	13'3	16'1	18'8	21'5	27'0	32'5	35'4	38'1	40'9	11. 30. 27'04		27'05	30'79	3'74		11. 30. 30'82	- 0'97
	6	♋ Leonis	AD	29'7	32'7	35'4	38'3	44'0	49'6	52'5	55'3	58'3	11. 34. 43'96		43'95	47'10	3'71		11. 35. 49'20	- 1'17
	7	♋ Leonis	AD	21'0	24'0	26'8	29'7	35'3	41'1	44'0	46'7	49'8	11. 42. 35'36		35'34	39'05	3'87		11. 42. 39'10	- 1'16
	8	♋ Leonis	AD	51'3	54'2	56'8	59'6	5'2	10'7	13'5	16'3	19'0	11. 44. 5'16		5'16	9'03	3'74		11. 44. 8'92	- 1'16
	9	♋ Leonis	AD	8'5	11'4	14'0	16'8	22'4	28'0	30'8	33'5	36'4	11. 54. 22'40		22'38	26'12	3'78		11. 54. 26'14	- 1'21
	10	♋ Leonis	AD	30'8	33'6	36'5	39'3	44'8	50'6	53'4	56'2	59'0	11. 58. 44'89		44'87	48'65	3'47	3'72†	11. 58. 48'63	- 1'21
	11	♋ Leonis	L	10'4	13'4	16'0	18'7	24'5	30'0	32'7	35'5	38'3	12. 41. 24'37		24'37	27'84	3'39	[-0'55]	12. 41. 27'84	- 1'21
	12	♋ Leonis	L	9'6	12'6	15'3	18'0	23'6	29'3	32'0	34'7	37'5	13. 3. 23'60		23'61	27'00	3'39	[-0'55]	13. 3. 27'00	- 1'21
May 25	13	♋ Leonis	C	18'4	21'3	24'0	26'8	32'5	37'8	40'6	43'5	46'2	16. 24. 32'33	+0'77	32'36	35'48	3'12	3'47†	16. 24. 35'48	- 1'15
	14	♋ Leonis	C	58'2	0'9	3'7	6'5	12'3	17'7	20'6	23'4	26'3	16. 30. 12'16	(-2'30)	12'18	15'25	3'07	[-0'54]	16. 30. 15'25	- 1'28
	15	♋ Leonis	L	20'6	24'1	27'5	30'8	37'6	44'5	47'7	51'1	54'6	1. 2. 37'58	[+1'66]	37'50	40'20	2'70	2'67	1. 2. 40'20	+ 0'72
	16	Polaris	L	..	7'0	1'5	57'0	48'0	41'5	37'0	..	28'0	1. 11. 47'84		42'05	45'22	3'17	[-0'47]	1. 11. 47'84	+ 53'05
May 26	17	♋ Leonis	AD	22'0	25'0	27'8	30'6	36'4	42'2	45'0	47'8	50'8	11. 42. 36'38		36'37	39'03	2'66	2'89†	11. 42. 39'03	- 1'15
	18	♋ Leonis	L	9'6	12'5	15'2	18'0	23'7	29'2	32'1	34'8	37'6	11. 54. 23'62		23'64	26'11	2'47	2'67	11. 54. 26'11	- 1'28
	19	♋ Leonis	L	1'4	4'2	6'8	9'7	15'2	..	..	..	..	12. 35. 15'18		15'22	18'11	2'48		12. 35. 18'11	- 1'28
	20	♋ Leonis	L	..	..	..	..	..	21'0	23'8	26'4	29'2	12. 35. 15'39		15'43	18'34	2'48		12. 35. 18'34	- 1'28
	21	♋ Leonis	L	17'2	20'4	23'4	26'6	33'0	39'2	42'3	45'5	48'5	12. 45. 32'87		32'82	35'30	2'48		12. 45. 35'30	- 1'67
	22	♋ Leonis	L	0'5	3'5	6'1	8'8	14'5	20'0	22'9	25'5	28'4	12. 49. 14'45		14'47	16'80	2'33		12. 49. 16'80	- 1'38
	23	♋ Leonis	L	39'3	42'1	44'9	47'6	53'4	59'0	1'8	4'5	7'5	12. 55. 53'33		53'33	55'77	2'44		12. 55. 55'77	- 1'49
	24	♋ Leonis	L	49'5	52'4	55'1	57'8	0'7	3'7	9'2	12'2	15'0	13. 1. 3'64		3'69	6'08	2'44		13. 1. 6'08	- 1'49
	25	Polaris S.P. (E&E)	L	..	..	..	..	37'0	28'5	25'0	18'0	17'0	13. 11. 36'91		42'69	45'60	2'91		13. 11. 45'10	+ 52'67
	26	♋ Leonis	L	10'1	12'8	15'5	18'3	23'9	29'5	32'3	35'0	37'9	13. 25. 23'90		23'96	26'81	2'32		13. 25. 26'81	- 1'49
	27	♋ Leonis	L	45'1	48'0	50'7	53'5	59'1	4'7	7'5	10'4	13'2	13. 34. 59'11		59'18	1'50	2'32		13. 35. 1'58	- 1'52
	28	♋ Leonis	L	47'4	50'4	53'0	56'1	1'9	7'8	10'8	13'7	16'6	15. 5. 1'95		2'06	4'36	2'30		15. 5. 4'43	- 1'87
	29	♋ Leonis	L	54'8	59'2	3'4	7'6	16'2	24'6	28'8	33'0	37'5	15. 15. 16'16		16'33	19'11	2'30		15. 15. 19'11	+ 1'50
	30	♋ Leonis	L	..	47'3	52'5	58'0	8'8	19'7	25'2	30'9	..	15. 22. 8'86		8'63	11'35	2'30		15. 22. 11'00	- 3'31
	31	♋ Leonis	L	46'5	49'3	52'3	55'2	1'5	7'2	10'2	13'1	16'0	16. 2. 1'24		1'35	4'08	2'32		16. 2. 4'08	- 1'87
	32	♋ Leonis	L	0'5	3'4	6'0	8'8	14'4	20'0	22'8	25'4	28'4	17. 37. 14'39		14'41	16'73	2'32		17. 37. 16'74	- 1'87
	33	♋ Leonis	L	15'5	18'8	21'9	24'9	31'3	37'5	40'7	43'8	46'9	17. 41. 31'23		31'18	33'58	2'40		17. 41. 33'52	- 1'91
May 27	34	♋ Leonis	C	54'3	57'3	0'0	3'2	9'2	15'1	18'0	21'0	24'0	4. 15. 9'10	[+1'36]	..	..	..	2'49	4. 16. 19'53	- 1'67
	35	♋ Leonis	C	10'4	13'3	16'3	19'2	25'2	31'1	34'3	37'0	40'2	4. 17. 25'20		..	..	..	[-0'45]	4. 17. 25'20	- 1'67
	36	Polaris S.P. (E&E)	C	..	..	49'0	47'0	36'5	..	..	20'0	20'5	13. 11. 38'91		44'15	46'39	2'24		13. 11. 44'15	- 1'67
	37	Oeltz. Arg. 13558	C	..	..	..	..	..	50'0	54'3	58'5	2'5	13. 15. 41'85		41'71	44'15	2'24		13. 15. 43'95	- 2'33
	38	♋ Leonis	C	10'3	13'1	15'7	18'6	24'2	29'6	32'4	35'2	38'0	13. 25. 24'10		24'15	27'00	2'22		13. 25. 26'39	- 1'49
	39	♋ Leonis	C	..	..	..	..	..	21'3	24'0	26'7	29'5	13. 28. 15'67		15'69	17'93	2'24		13. 28. 17'93	- 1'49
	40	♋ Leonis	C	..	48'2	50'8	53'7	59'3	4'8	7'6	10'4	..	13. 34. 59'23		59'28	1'50	2'22		13. 34. 59'28	- 1'49
	41	♋ Leonis	C	50'4	53'3	56'0	59'0	4'6	10'5	13'3	16'2	19'0	13. 45. 4'68		4'74	7'08	2'22		13. 45. 7'08	- 1'49
	42	♋ Leonis	E	22'7	25'5	28'4	31'1	36'7	42'3	45'1	47'8	50'7	13. 59. 36'68		36'73	39'12	2'39	2'57†	13. 59. 39'12	- 1'67
	43	♋ Leonis	C	56'0	58'8	1'4	4'4	9'8	15'6	18'4	21'2	24'0	14. 6. 9'93		9'98	12'20	2'22	2'49	14. 6. 12'20	- 1'67
	44	♋ Leonis	C	..	..	..	11'6	17'2	22'9	25'7	28'4	31'4	14. 12. 17'18		17'24	20'00	2'22		14. 12. 19'46	- 1'67
	45	♋ Leonis	C	7'8	11'2	14'3	17'4	23'9	30'4	33'5	36'8	40'0	14. 26. 23'89		23'82	26'04	2'22		14. 26. 26'04	- 1'67
	46	♋ Leonis	E	39'8	42'7	45'6	48'4	54'2	59'7	2'6	5'5	8'7	14. 43. 54'12		54'20	56'40	2'20	2'57†	14. 43. 56'40	- 1'67

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections for passage of Semidiameter, Nos. 6, 24, and 41, + 61".48: + 61".12: and + 62".15.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

May 24. The azimuthal error used is the mean of the preceding and following determinations.

May 25 and 26. The azimuthal error by Polaris and Polaris S.P., allowing - 0".65 for clock-rate and change of R.A.

May 27. The azimuthal error by tabular places of Polaris S.P. and ζ Virginis.

12. Faint.

43, 44. Very faint; cloudy.

18. The time at the second wire is also used as the fourth wire in an Altazimuth transit, ♀ U. L., Face Right.

MONTH and Y.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at Sidereal and (losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
May 28	1	κ Virginis	AD	56.3	59.2	1.9	4.7	10.4	15.9	18.7	21.5	24.5	14. 6. 10.33	+0.77	10.45	12.20	1.75	2.01	14. 6. 12.20	- 1.65
	2	Arcturus	AD	40.2	43.5	46.1	49.0	55.0	0.8	3.7	6.7	9.6	14. 9. 54.91	(-2.30)	54.92	56.68	1.76	[-0.44]	14. 9. 56.67	- 1.82
	3	λ Virginis	AD	3.2	6.1	8.9	11.8	17.4	23.0	26.0	28.8	31.7	14. 12. 17.41	[+2.60]	17.55				14. 12. 19.30	- 1.67
	4	δ 1 L.	AD					7.8	13.6				14. 31. 7.75		7.91				14. 32. 13.54	
	5	ε ² Boötis	AD	13.7	16.9	20.0	23.2	29.4	35.6	38.7	41.9	45.1	14. 39. 29.35		29.33	31.09	1.76		14. 39. 31.07	- 2.04
	6	α Libræ	AD	40.2	43.1	46.0	48.8	54.5	0.2	3.2	6.0	9.0	14. 43. 54.54		54.69	56.41	1.72		14. 43. 56.43	- 1.79
	7	β Boötis	AD			1.7	5.5	12.7	20.2	23.7	27.3	31.0	14. 57. 12.71		12.62				14. 57. 14.36	- 2.37
	8	λ Libræ	AD	47.8	50.8	53.7	56.6	2.6	8.4	11.4	14.2	17.2	15. 5. 2.50		2.65	4.37	1.72		15. 5. 4.38	- 1.88
May 29	9	Polaris S.P. (E&E)	E						29.0	28.0	18.5	20.0	13. 11. 38.68		46.15	48.08	1.93	1.81	1. 11. 47.77	+50.19
	10	ζ Virginis	E	2.3	5.3	8.0	10.6	16.3	21.7	24.6	27.4	30.3	13. 28. 16.26		16.34	17.93	1.59	[-0.34]	13. 28. 17.96	- 1.53
	11	m Virginis	E	45.8	48.6	51.4	54.3	59.7	5.4	8.1	11.0	13.7	13. 34. 59.75		59.87	1.49	1.62		13. 35. 1.49	- 1.51
	12	κ Virginis	C	56.6	59.6	2.2	5.0	10.7	16.3	19.2	21.9	24.7	14. 6. 10.67		10.79	12.20	1.41	1.60†	....	
	13	Arcturus	C	40.5	43.6	46.5	49.4	55.3	1.3	4.2	7.0	10.0	14. 9. 55.29		55.30	56.68	1.38		....	
	14	α Libræ	E	40.5	43.4	46.1	48.9	54.5	0.4	3.3	6.1	8.9	14. 43. 54.66		54.81	56.41	1.60	1.81	14. 43. 56.41	- 1.79
	15	ω Boötis	E	20.4	23.5	26.5	29.7		42.0	45.0	48.0	51.1	14. 56. 35.75		35.73				14. 56. 37.33	- 2.04
	16	λ Libræ	E	48.0	51.0	53.8	56.8	2.6	8.5	11.5	14.4	17.4	15. 5. 2.65		2.82	4.37	1.55		15. 5. 4.42	- 1.88
	17	γ Serpentis	E	11.3	14.3	17.1	19.9	25.7	31.3	34.2	36.9	39.9	15. 16. 25.60		25.64				15. 16. 27.24	- 1.94
	18	δ 1 L.	E	54.9	58.0	1.0	4.0	10.2	16.3	19.1	22.2	25.3	15. 20. 10.10		10.28				15. 21. 18.04	
	19	α Coronæ	E	6.1	9.5	12.3	15.6	21.8	28.0	31.0	34.1	37.3	15. 29. 21.72		21.70	23.30	1.60		15. 29. 23.29	- 2.11
	20	42 Libræ	E	35.3	38.3	41.2	44.2		56.1	59.2	2.3	5.4	15. 32. 50.22		50.42				15. 32. 52.01	- 2.00
	21	δ Scorp.	E			44.4	47.3	53.2	59.3	2.3			15. 52. 53.28		53.47				15. 52. 55.06	- 2.04
	22	ζ Ophiuchi	E	59.4	2.2	5.1	7.9	13.7	19.2	22.1	24.8	27.6	16. 30. 13.54		13.67	15.30	1.63		16. 30. 15.25	- 2.01
	23	μ Herculis	E	16.5	19.8	22.8	25.9	32.0	38.6	41.5	44.5	47.9	17. 41. 32.14		32.12	33.63	1.51		17. 41. 33.68	- 1.96
	24	Polaris (E&E)	G						48.0	43.5			1. 11. 54.26		46.87	48.51	1.64	0.99 [-0.27]	1. 11. 47.85	+49.76
May 30	25	⊙ 1 L.	L		10.3	13.1	16.1	22.0	28.1				4. 27. 22.07						4. 28. 31.30	
	26	⊙ 2 L.	L						47.7	50.4	53.8		4. 29. 38.65							
	27	δ Corvi	L	6.4	9.4	12.2	15.1	20.9	26.7	29.6	32.4	35.2	12. 23. 20.86		21.02	21.98	0.96		12. 23. 21.87	- 1.10
	28	ρ Virginis	AD	16.6	19.4	22.2	25.0	30.7	36.2	39.1	41.9	44.8	12. 35. 30.64		30.63	31.79	1.11	1.27†	....	
	29	31 Comæ	AD	18.5	21.7	24.7	28.0	34.1	40.3	43.7	46.7	49.9	12. 45. 34.15		34.13	35.27	1.14		....	
	30	δ Virginis	L	2.1	4.9	7.6	10.3	15.9	21.3	24.2	26.9	29.8	12. 49. 15.87		15.94	16.78	0.84	0.99	12. 49. 16.79	- 1.36
	31	Polaris S.P. (E&E)	L	58.5	55.5	50.0	47.0						13. 11. 40.14		47.61	48.94	1.33		1. 11. 48.45	+49.33
	32	Piazzi XIV. 22.	L	13.8	16.7	19.6	22.6	28.3	34.1	37.1	40.0	42.8	14. 8. 28.31		28.47				14. 8. 29.30	- 1.66
	33	f Boötis	L	22.2	25.2	28.1	30.9	36.9	42.8	45.7	48.7	51.5	14. 20. 36.87		36.88	37.67	0.79		14. 20. 37.71	- 1.88
	34	α Coronæ	L	7.0	10.1	13.1	16.2	22.5	28.8	31.9	34.9	38.0	15. 29. 22.47		22.45	23.31	0.86		15. 29. 23.27	- 2.12
	35	42 Libræ	L	36.0	39.2	42.1	45.0	51.2	57.2	0.1	3.1	6.1	15. 32. 51.08		51.28				15. 32. 52.10	- 2.01
	36	B. A. C. 5197	L	5.9	9.1	12.1	15.1	21.0	27.2	30.1	33.1	36.2	15. 38. 21.06		21.26				15. 38. 22.08	- 2.03
	37	γ Serpentis	L	24.8	27.9	30.7	33.5	39.2	45.1	47.9	50.9	53.8	15. 50. 39.29		39.31	40.05	0.74		15. 50. 40.12	- 2.02
	38	δ Scorp.	L	39.2	42.3	45.2	48.3	54.2	0.2	3.2	6.1	9.2	15. 52. 54.19		54.38				15. 52. 55.19	- 2.05
	39	Lacaille 6710.	L	58.3	1.6	4.3	7.4	13.4	19.4	22.5	25.5	28.4	16. 1. 13.39		13.59				16. 1. 14.40	- 2.08
	40	δ 1 L.	L	36.7	40.0	43.0	46.1	52.2	58.7	1.9	4.9	8.1	16. 12. 52.37		52.57				16. 14. 2.07	
May 31	41	Antares	L	26.8	30.0	33.0	36.1	42.3	48.3	51.7	54.5	57.6	16. 21. 42.23		42.44	43.19	0.75		16. 21. 43.25	- 2.16
	42	ζ Ophiuchi	L	0.3	3.3	6.0	8.8	14.3	20.0	23.0	25.6	28.4	16. 30. 14.39		14.52	15.31	0.79		16. 30. 15.32	- 2.02
	43	25 Scorp.	L	54.5	57.8	0.7	3.7	9.9	16.0	19.0	22.1	25.1	16. 39. 9.83		10.04				16. 39. 10.84	- 2.17
	44	η Boötis	E	27.2	30.2	33.1	36.0	41.9	47.8	50.7	53.6	56.4	13. 48. 41.86		41.87	42.88	1.01	1.18†	....	
	45	τ Virginis	E	0.9	3.8	6.3	9.2	14.7	20.2	23.0	25.7	28.4	13. 55. 14.67		14.75	15.72	0.97	[-0.33]	....	

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections for passage of Semidiameter, Nos. 4, 18, and 40, +63".88: +66".16: and +68".68.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

May 28 to 31. The azimuthal error by consecutive transits of Polaris S.P., Polaris, and Polaris S.P.

3, 4, 6, 24, 25, 26. Cloudy.
9. Observed through cloud.

4, 18, 40. Correction to R.A. on true meridian, +0".01.
36. Faint from light cloud.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sideral and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
May 31	1	Antares	C	26.9	30.0	33.0	36.1	42.2	48.3	51.3	54.5	57.7	16. 21. 42.19	+0.77	42.40	43.20	0.80	1.01	....	
	2	ζ Herculis	C	17.4	20.8	24.0	27.1	33.7	40.2	43.4	46.7	50.0	16. 36. 33.67	(-2.30)	33.63	34.41	0.78	[-0.33]	....	
	3	25 Scorpii	C	54.5	57.8	0.7	3.9	9.9	16.0	19.1	22.1	25.1	16. 39. 9.87	[+2.60]	10.08				16. 39. 10.86	- 2.19
	4	δ 2 L.	C	27.3	30.9	33.9	37.0	43.6	49.9	53.1	56.2	59.5	17. 11. 43.46		43.68				17. 10. 33.48	
	5	σ Ophiuchi	C	3.2	6.0	8.7	11.4	16.9	22.3	25.2	28.0	30.7	17. 20. 16.91		16.98	17.75	0.77		....	
	6	3 Sagittarii	C	23.5	26.8	29.8	33.0	39.1	45.3	48.8	51.8	54.9	17. 39. 39.19		39.41				17. 39. 40.18	- 2.26
	7	Piazzi XVII. 359	C	51.7	55.0	58.0	1.3	7.5	13.7	17.1	20.1	23.1	18. 0. 7.47		7.69				18. 0. 8.45	- 2.26
June 1	8	⊙ 1 L.	AD	17.6	20.7	23.7	26.6	32.3	38.2	41.2	44.5	47.4	4. 35. 32.45	+0.52				0.64	4. 36. 41.36	
	9	⊙ 2 L.	AD	34.1	37.3	40.1	43.2	49.3	55.2	58.3	1.2	4.3	4. 37. 49.20	(-2.93)				[-0.35]	....	
	10	μ Geminorum	AD	4.2	7.2	10.0	13.1	19.0	25.1	28.0	31.1	34.0	6. 15. 19.05	[+3.04]	19.01	19.68	0.67		6. 15. 19.56	+ 0.57
	11	Venus 1 L.	AD	50.1	53.3	56.2	59.3	5.6	11.8	14.6	17.6	20.7	6. 25. 5.44		5.39				6. 25. 6.39	
	12	Polaris S.P. (E&E)	AD	..	..	..	..	40.5	53.0	29.0	19.5	18.0	13. 11. 39.87		50.17	50.64	0.47		....	
	13	Spica	AD	20.2	23.1	25.8	28.6	34.2	39.8	42.7	45.3	48.3	13. 18. 34.20		34.33	34.78	0.45		13. 18. 34.78	- 1.41
	14	Piazzi XIII. 133.	AD	..	..	16.9	31.8	1.4	31.3	46.5	0.6	16.3	13. 26. 1.41		0.15				13. 26. 0.59	- 7.04
	15	m Virginis	AD	47.0	49.8	52.7	55.3	1.0	6.7	9.3	12.1	15.0	13. 35. 0.97		1.10	1.48	0.38		13. 35. 1.54	- 1.50
	16	Arcturus	AD	..	..	47.4	50.3	56.2	2.1	5.0	8.0	11.1	14. 9. 56.21		56.18	56.67	0.49		14. 9. 56.61	- 1.81
	17	Groombridge 2105	AD	53.3	0.8	8.0	15.8	30.7	45.7	53.2	0.7	8.2	14. 17. 30.65		30.08				14. 17. 30.51	- 4.12
	18	Groombridge 2123	AD	19.0	25.2	31.4	37.8	50.3	2.8	9.0	15.1	21.3	14. 27. 50.17		49.71				14. 27. 50.14	- 3.57
	19	β Libræ	L	1.2	4.1	6.9	9.6	15.3	20.9	23.6	26.4	29.2	15. 10. 15.22		15.34	15.52	0.18	0.42†	....	
	20	α Libræ	L	47.6	50.3	53.2	56.0	1.9	7.4	10.4	13.1	16.1	15. 16. 1.76		1.91	2.12	0.21		....	
	21	Capella S.P.	AD	1.3	5.2	9.2	13.1	21.2	29.1	33.0	37.0	41.0	17. 7. 21.16		21.44			0.64	5. 7. 21.83	+ 1.10
	22	θ Ophiuchi	AD	2.7	5.9	8.8	12.0	18.1	24.1	27.2	30.2	33.3	17. 14. 18.00		18.21	18.55	0.34		17. 14. 18.60	- 2.23
	23	Groomb. 966 S.P.	AD	55.0	5.8	16.1	26.9	48.1	9.4	20.1	31.0	41.7	17. 22. 48.32		49.26				5. 22. 49.65	+ 3.73
	24	α Ophiuchi	AD	..	55.6	58.4	1.1	6.9	12.4	15.4	18.1	..	17. 29. 6.81		6.82	7.09	0.27		17. 29. 7.21	- 1.98
	25	23 Camelop. S.P.	AD	2.0	7.9	13.6	19.2	30.8	42.4	48.1	53.8	59.7	17. 32. 30.89		31.37				5. 32. 31.75	+ 1.71
	26	3 Sagittarii	AD	23.9	27.0	30.1	33.2	39.6	45.7	48.7	52.0	55.1	17. 39. 39.44		39.67				17. 39. 40.05	- 2.28
	27	δ Aurigæ S.P.	AD	43.4	48.3	52.9	57.7	7.1	16.6	21.2	26.0	30.8	17. 49. 7.15		7.51				5. 49. 7.89	+ 1.22
	28	72 Ophiuchi	AD	10.0	12.8	15.7	18.3	24.1	29.7	32.6	35.2	38.1	18. 1. 24.04		24.07	24.46	0.39		18. 1. 24.45	- 1.92
June 2	29	α Orionis	E	..	8.9	11.5	14.2	20.0	25.7	28.3	31.2	..	5. 48. 19.94	(-3.52)	19.92	20.40	0.48	0.55	5. 48. 20.39	+ 0.62
	30	Venus 1 L.	E	10.7	13.8	16.9	19.9	25.9	32.0	35.3	38.1	41.3	6. 30. 25.96	[+2.27]	25.84			[-0.32]	6. 30. 26.76	
	31	Procyon	E	27.7	30.4	33.1	35.9	41.4	47.1	49.8	52.6	55.4	7. 32. 41.47		41.45	41.96	0.51		7. 32. 41.90	+ 0.35
	32	β Leonis	E	..	27.2	30.1	33.0	38.7	44.4	47.3	50.2	..	11. 42. 38.67		38.60	38.97	0.37		11. 42. 38.99	- 1.09
	33	Polaris S.P. (E&E)	E	..	57.0	51.0	48.0	40.0	32.5	..	..	..	13. 11. 40.82		51.02	51.44	0.42		....	
	34	Spica	E	20.3	23.1	25.9	28.6	34.2	40.0	42.8	45.4	48.6	13. 18. 34.30		34.36	34.78	0.42		13. 18. 34.73	- 1.41
	35	42 Cassiopeiæ S.P.	E	..	..	43.0	50.8	7.3	23.7	31.9	..	..	13. 33. 7.39		8.02				1. 33. 8.39	+ 2.72
	36	Piazzi I. 159 S.P.	E	..	..	18.0	24.2	36.7	48.9	54.9	..	..	13. 38. 36.58		37.02				1. 38. 37.39	+ 1.92
	37	Piazzi XIII. 263.	E	..	..	..	..	15.0	3.3	27.2	50.9	..	13. 46. 14.82		12.63				13. 46. 13.00	- 11.31
	38	11 Boötis	E	..	..	20.0	23.1	29.4	35.8	38.8	..	..	13. 55. 29.40		29.26				13. 55. 29.63	- 1.91
	39	Piazzi XIII. 306.	E	..	..	45.3	53.2	8.9	24.5	32.4	..	..	13. 59. 8.81		8.14				13. 59. 8.50	- 4.16
	40	Arcturus	E	41.9	..	..	..	56.6	2.3	5.4	8.2	11.1	14. 9. 56.48		56.39	56.66	0.27		14. 9. 56.75	- 1.80
	41	Piazzi II. 60 S.P.	E	..	..	..	..	23.3	59.0	17.1	..	..	14. 19. 23.45		24.96				2. 19. 25.32	+ 6.43
	42	Groombridge 2123	E	..	..	31.9	38.0	50.2	..	9.0	..	21.6	14. 27. 50.34		49.83				14. 27. 50.19	- 3.55
	43	Bradley 366 S.P.	E	..	..	35.2	42.6	56.9	11.1	18.7	..	..	14. 33. 56.94		57.50				2. 33. 57.86	+ 2.64
	44	ξ Boötis	E	21.8	24.7	27.7	30.6	36.3	42.2	45.2	48.1	51.1	14. 45. 36.39		36.30				14. 45. 36.65	- 1.95
	45	Piazzi XIV. 226.	E	..	..	..	15.2	20.8	26.7	29.5	32.3	35.3	14. 51. 20.83		20.76				14. 51. 21.11	- 1.93
	46	ω Boötis	E	..	24.9	27.9	31.1	37.3	43.3	46.4	49.4	..	14. 56. 37.16		37.03				14. 56. 37.38	- 2.04

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections for passage of Semidiameter, Nos. 4, 11, and 30, -70".98; +0".45; and +0".46.

† This clock-error has been used in the reduction of the observations made with the Altazimuth.

June 1. The azimuthal error by tabular places of Polaris S.P. and Spica.

June 2. The azimuthal error by tabular places of Polaris S.P. and Spica.

3, 10. Very faint.

4. Correction to R.A. on true meridian, +0".01.

11. Very tremulous and cloudy.

40, 41, 42. Cloudy.

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1874.

[41]

1876GGMM

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock app- arently Slow.	Adopted Clock Slow at Sidereal and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
													h m s	"	s	s	s	s	h m s	s
June 3	1	θ Virginis	L	4 ⁰	7 ⁰	9 ⁵	12 ³	17 ⁸	23 ³	26 ²	29 ⁰	31 ⁷	13. 3. 17 ⁸ 4	+0 ⁵ 2	17 ⁹ 7	26 ⁹ 5	8 ⁹ 8	8 ⁹ 2	...	
	2	Polaris S.P. (E&E)	L	..	..	50 ⁰	48 ⁰	39 ⁵	30 ⁵	..	..	..	13. 11. 30 ³ 9	(-3 ⁵ 2)	43 ⁵ 3	52 ¹ 9	8 ⁶ 6	[0 ² 7]	1. 11. 52 ⁶ 0	+46 ⁰ 8
	3	Lacaille 6425.	L	3 ⁶	7 ⁰	9 ⁹	13 ⁰	19 ³	25 ³	28 ⁴	31 ²	34 ¹	15. 26. 19 ⁰ 6	[+3 ⁹ 1]	19 ³ 2	..	..	..	15. 26. 28 ⁴ 1	-2 ⁰ 2
	4	Piazzi III. 102 S.P.	L	..	26 ⁵	33 ⁴	40 ⁴	54 ⁶	8 ⁷	15 ⁶	22 ⁴	..	15. 33. 54 ⁵ 8		55 ⁵ 36	..	..	..	3. 34. 4 ⁴ 6	+2 ⁶ 1
	5	B. A. C. 5197	L	..	..	..	..	..	18 ⁹	21 ⁹	24 ⁹	28 ⁰	15. 38. 12 ⁷ 8		13 ⁰ 3	..	..	..	15. 38. 22 ¹ 3	-2 ⁰ 6
	6	A ² Scorpii	L	40 ⁶	43 ⁶	46 ⁶	49 ⁶	55 ⁷	1 ⁹	5 ¹	8 ⁰	11 ¹	15. 45. 55 ⁷ 7		56 ⁰ 3	..	..	..	15. 46. 5 ¹ 3	-2 ⁰ 9
	7	Piazzi XV. 237	L	21 ⁵	24 ⁷	27 ⁶	30 ⁶	36 ⁷	43 ⁰	45 ⁸	49 ⁰	51 ⁹	15. 55. 36 ⁷ 2		36 ⁹ 8	..	..	..	15. 55. 46 ⁰ 8	-2 ¹ 3
	8	Piazzi XV. 265	L	4 ⁵	7 ⁶	10 ⁵	13 ⁷	20 ⁰	26 ²	29 ²	32 ⁰	35 ³	16. 0. 19 ⁸ 6		20 ¹ 2	..	..	..	16. 0. 29 ² 2	-2 ¹ 5
	9	Piazzi XVI. 10	L	54 ²	57 ³	0 ⁰	3 ¹	9 ⁰	15 ⁰	17 ⁷	21 ⁰	23 ⁹	16. 6. 9 ⁰ 0		9 ² 3	..	..	..	16. 6. 18 ³ 3	-2 ¹ 1
	10	Antares	L	18 ⁴	21 ⁷	24 ⁷	27 ⁷	33 ⁸	40 ⁰	43 ¹	46 ²	49 ²	16. 21. 33 ⁸ 4		34 ¹ 0	43 ² 3	9 ¹ 3	..	..	..
	11	22 Scorpii	L	11 ⁰	14 ⁰	17 ⁰	20 ¹	26 ²	32 ³	35 ⁴	..	..	16. 22. 26 ¹ 8		26 ⁴ 4	..	..	..	16. 22. 35 ⁵ 4	-2 ¹ 9
	12	ζ Ophiuchi	L	52 ⁰	54 ⁸	57 ⁶	0 ³	6 ⁰	11 ⁷	14 ⁴	17 ⁴	20 ²	16. 30. 6 ⁰ 2		6 ¹ 8	15 ³ 6	9 ¹ 8	..	..	..
	13	α Ophiuchi	L	43 ⁸	46 ⁷	49 ⁵	52 ⁴	57 ⁸	3 ⁶	6 ⁶	9 ⁴	12 ²	17. 28. 57 ⁹ 8		58 ⁰ 0	7 ¹ 2	9 ¹ 2	..	..	..
	14	Oeltz. Arg. 17413	L	25 ⁸	33 ⁷	41 ²	48 ⁶	3 ⁸	..	..	..	..	17. 37. 3 ⁷ 7		3 ⁰ 4	..	..	..	17. 37. 12 ¹ 6	-3 ⁷ 0
	15	Oeltz. Arg. 17419	L	..	..	..	..	13 ⁴	28 ⁴	35 ⁸	43 ⁵	50 ⁸	17. 37. 13 ² 3		12 ⁵ 0	..	..	..	17. 37. 21 ⁶ 2	-3 ⁶ 9
	16	α Lyrae	J	15 ³	19 ¹	22 ⁵	26 ⁰	33 ⁰	40 ¹	43 ⁷	47 ³	51 ⁰	18. 32. 33 ⁰ 8		32 ⁸ 9	42 ³ 1	9 ⁴ 2	9 ¹ 9†	...	..
	17	2 Aquilæ	J	0 ⁷	3 ⁸	6 ⁵	9 ³	14 ⁹	20 ⁵	23 ³	26 ²	29 ⁰	18. 35. 14 ⁸ 9		15 ⁰ 4	24 ⁴ 1	9 ³ 7	..	..	..
	18	ω Sagittarii	C	44 ³	47 ⁵	50 ⁶	53 ⁶	59 ⁷	6 ⁰	9 ⁰	12 ¹	15 ³	19. 47. 59 ⁷ 5		0 ⁰ 2	..	..	9 ¹ 6	19. 48. 9 ⁴ 0	-2 ⁰ 5
	19	λ Sagittarii	C	53 ⁷	56 ⁷	59 ⁷	2 ⁷	9 ⁰	15 ¹	18 ²	21 ³	24 ⁴	19. 51. 8 ⁹ 4		9 ² 1	..	..	[0 ² 7]	19. 51. 18 ⁵ 9	-2 ⁰ 3
	20	θ Aquilæ	C	26 ⁵	29 ²	32 ⁰	34 ⁸	40 ⁴	45 ⁸	48 ⁴	51 ³	54 ⁰	20. 4. 40 ² 5		40 ³ 5	49 ⁷ 6	9 ⁴ 1	..	..	..
	21	δ 2 L.	C	47 ⁷	51 ⁰	54 ¹	57 ³	3 ⁶	9 ⁹	13 ²	16 ³	19 ⁴	20. 13. 3 ⁵ 8		3 ⁸ 4	..	..	..	20. 12. 1 ⁰ 1	..
	22	ρ Capricorni	C	18 ⁰	20 ⁸	23 ⁸	26 ⁶	32 ⁵	38 ³	41 ⁴	44 ²	47 ⁰	20. 21. 32 ⁵ 1		32 ⁷ 2	41 ⁹ 9	9 ² 7	..	..	..
	23	ε Delphini	C	49 ⁴	52 ²	55 ⁰	58 ⁰	3 ⁴	9 ¹	12 ⁰	14 ⁶	17 ⁶	20. 27. 3 ⁴ 6		3 ⁴ 9	12 ⁹ 8	9 ⁴ 9	..	..	..
	24	Polaris	G	..	..	17 ⁰	14 ⁰	4 ⁵	55 ⁵	54 ⁰	48 ⁵	..	1. 11. 54 ⁸ 3	(-3 ³ 1)	42 ² 7	52 ⁵ 6	10 ² 9	9 ⁵ 2	1. 11. 51 ⁸ 0	+45 ⁷ 1
	25	β Arietis	G	16 ⁴	19 ⁴	22 ⁴	25 ³	31 ³	37 ⁰	40 ⁰	42 ⁸	45 ⁷	1. 47. 31 ¹ 3		31 ¹ 1	40 ⁴ 9	9 ³ 8	[0 ² 1]	1. 47. 40 ⁶ 5	+0 ³ 9
June 4	26	⊙ 1 L.	G	26 ⁷	29 ⁷	32 ⁶	35 ⁶	41 ⁵	47 ⁵	50 ⁶	53 ⁴	56 ⁸	4. 47. 41 ⁵ 8		50 ⁰ 9	..	..	..	4. 48. 59 ⁶ 5	..
	27	⊙ 2 L.	G	..	..	49 ⁹	52 ⁸	58 ⁹	4 ¹	7 ⁷	10 ⁷	13 ⁸	4. 49. 58 ⁶ 8		..	..	..	..	..	..
	28	Rigel	G	4 ⁶	7 ⁵	10 ²	13 ⁰	18 ⁷	24 ⁰	26 ⁹	29 ⁷	32 ⁷	5. 8. 18 ⁵ 7		18 ⁷ 3	28 ² 5	9 ⁵ 2	..	5. 8. 28 ² 9	+0 ⁷ 0
	29	Mercury 1 L.	G	48 ⁶	51 ⁷	54 ⁵	57 ⁹	4 ⁰	10 ²	13 ²	16 ²	19 ⁵	5. 43. 3 ⁹ 5		3 ⁹ 0	..	..	..	5. 43. 13 ⁶ 7	..
	30	α Orionis	G	..	..	2 ⁷	5 ⁴	10 ⁶	16 ³	19 ³	21 ⁹	24 ⁸	5. 48. 10 ⁸ 3		10 ⁸ 9	20 ⁴ 2	9 ⁵ 3	..	5. 48. 20 ⁴ 6	+0 ⁶ 0
	31	Sirius	G	10 ⁶	13 ⁷	16 ⁷	19 ⁴	25 ²	31 ¹	34 ⁰	36 ⁷	39 ⁵	6. 39. 25 ¹ 9		25 ³ 9	..	..	..	6. 39. 34 ⁹ 7	+0 ⁷ 1
	32	Venus 1 L.	G	40 ⁹	44 ⁰	47 ⁰	49 ⁹	56 ¹	2 ⁰	5 ²	8 ²	11 ²	6. 40. 56 ⁰ 2		55 ⁹ 7	..	..	..	6. 41. 6 ⁰ 1	..
	33	35 Comæ	G	42 ⁴	45 ⁵	48 ⁴	51 ⁴	57 ⁴	3 ²	6 ³	9 ³	12 ²	12. 46. 57 ³ 2		57 ² 9	..	..	..	12. 47. 6 ⁹ 2	-1 ⁵ 0
	34	ε Virginis	G	31 ⁹	34 ⁸	37 ⁵	40 ³	45 ⁹	51 ⁷	54 ⁶	57 ³	0 ¹	12. 55. 45 ⁹ 9		46 ⁰ 3	55 ⁷ 1	9 ⁶ 8	..	12. 55. 55 ⁶ 6	-1 ⁴ 3
	35	Polaris S.P. (E&E)	G	58 ⁰	53 ⁵	49 ⁰	44 ⁵	38 ³	..	..	..	..	13. 11. 29 ⁰ 6		41 ⁷ 5	52 ⁹ 1	11 ¹ 6	..	1. 11. 51 ³ 8	+45 ³ 6
	36	Spica	G	10 ⁸	13 ⁵	16 ⁵	19 ⁶	25 ²	30 ⁷	33 ³	36 ²	39 ²	13. 18. 24 ⁹ 8		25 ¹ 4	34 ⁷ 7	9 ⁶ 3	..	13. 18. 34 ⁷ 8	-1 ⁴ 0
	37	Piazzi XVI. 195	G	..	12 ²	24 ⁹	37 ⁹	3 ⁵	29 ⁵	42 ⁹	55 ⁴	..	16. 36. 3 ⁶ 4		2 ³ 2	..	..	..	16. 36. 11 ⁹ 8	-6 ⁵ 1
	38	β Camelop. S.P.	G	..	..	44 ⁴	50 ⁰	1 ⁰	12 ³	18 ⁰	..	..	16. 52. 1 ¹ 7		1 ⁷ 6	..	..	..	4. 52. 11 ⁴ 3	+1 ⁷ 7
	39	γ Ophiuchi	E	46 ⁸	49 ⁸	52 ⁷	55 ⁵	1 ³	6 ⁹	9 ⁸	12 ⁸	15 ⁷	17. 3. 1 ² 4		1 ⁴ 4	11 ² 9	9 ⁸ 5	9 ⁷ 0†	...	..
	40	α Herculis	E	31 ⁹	34 ⁹	37 ⁹	40 ⁶	46 ⁴	52 ⁰	54 ⁸	57 ⁶	0 ⁶	17. 8. 46 ³ 0		46 ³ 2	56 ¹ 7	9 ⁸ 5	..	..	..
	41	θ Ophiuchi	G	53 ⁴	56 ⁵	59 ⁴	2 ⁴	8 ⁷	14 ⁷	17 ⁸	20 ⁹	23 ⁸	17. 14. 8 ⁵ 9		8 ⁸ 5	18 ⁵ 9	9 ⁷ 4	9 ⁵ 2	17. 14. 18 ⁵ 2	-2 ² 7
	42	Groombridge 2437	G	..	31 ²	39 ⁷	48 ⁶	6 ⁵	24 ⁵	33 ⁰	42 ⁴	..	17. 18. 6 ⁴ 8		5 ⁶ 2	..	..	..	17. 18. 15 ² 9	-4 ⁴ 1

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.						
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.														
				s	s	s	s	s	s	s	s	s														
June 4	1	β Andromedæ ...	II	14.1	17.5	20.8	24.0	30.8	37.5	41.1	44.3	47.8	1. 2. 30.85	+0.52	30.72	40.52	9.80	9.72	1. 2. 40.45	+ 0.40						
	2	Polaris ....(E&E)	II	..	..	..	..	6.5	57.0	..	50.5	48.0	1. 11. 56.11	(-3.31)	43.55	53.27	9.72	0.12	1. 11. 53.28	+45.00						
	3	η Piscium	H	20.4	23.4	26.0	29.0	34.8	40.4	43.2	46.1	49.0	1. 24. 34.68	[+3.91]	34.70	44.37	9.67	..	1. 24. 44.43	+ 0.19						
June 5	4	$\odot$ 1 L.	H	33.2	36.0	39.0	41.9	48.1	54.2	57.1	59.8	3.2	4. 51. 48.03	}	56.54	..	..	..	4. 53. 6.28	..						
	5	$\odot$ 2 L.	H	50.4	53.1	56.0	59.1	5.1	11.0	14.1	17.2	20.1	4. 54. 5.10													
	6	Rigel	II	4.4	7.3	9.9	12.7	18.3	23.9	26.6	29.5	32.4	5. 8. 18.31								18.47	28.26	9.79	..	5. 8. 28.22	+ 0.69
	7	ϵ Orionis	H	24.9	27.7	30.4	33.2	38.7	44.2	47.0	49.9	52.7	5. 29. 38.72								38.83	48.53	9.70	..	5. 29. 48.58	+ 0.64
	8	Mercury 1 L.	II	35.7	38.9	41.9	44.9	51.2	57.4	0.4	3.4	6.6	5. 51. 51.13								51.08	..	..	..	5. 52. 1.03	..
	9	Venus 1 L.	II	59.7	2.9	5.7	8.8	14.9	21.0	24.1	27.2	29.7	6. 46. 14.86								14.81	..	..	..	6. 46. 25.02	..
	10	Polaris S.P. (E&E)	II	..	..	52.5	49.0	42.0	34.5	..	..	..	13. 11. 32.78								45.47	53.62	8.15	..	1. 11. 55.26	+44.65
	11	Spica	II	10.8	13.6	16.4	19.1	24.8	30.4	33.3	36.0	39.0	13. 18. 24.80								24.96	34.76	9.80	..	13. 18. 34.75	- 1.39
	12	δ 2 L.	E	51.2	54.2	57.2	0.0	5.9	12.0	14.9	17.9	21.0	22. 8. 6.01								6.22	..	..	9.90	22. 7. 7.06	..
	13	α Pegasi	E	5.4	8.4	11.2	14.0	19.7	25.4	28.4	31.2	33.8	22. 58. 19.70								19.72	20.71	9.99	0.09	...	..
	14	Polaris ....(E&E)	AD	..	..	20.0	15.5	9.0	..	59.0	51.5	..	1. 11. 58.61								46.05	53.98	7.93	9.99	1. 11. 56.04	+44.29
June 7	15	ψ Sagittarii	AD	25.5	28.8	31.8	34.8	40.9	47.0	50.1	53.2	56.3	19. 7. 40.91	}	56.54	..	..	..		..						
	16	ω Aquilæ	AD	31.8	34.8	37.5	40.3	46.0	51.6	54.6	57.3	0.2	19. 11. 45.99													
	17	δ 2 L.	C	13.1	16.0	19.0	..	27.4	..	36.0	38.8	41.7	23. 54. 27.40													
	18	α Andromedæ ...	C	27.2	30.4	33.5	36.6	42.8	49.2	52.2	55.4	58.5	0. 1. 42.84													
	19	Polaris ....(E&E)	C	26.0	26.0	18.5	14.0	6.0	..	..	..	..	1. 11. 56.78													
June 8	20	Polaris S.P. (E&E)	C	..	..	..	..	45.0	36.5	32.5	27.0	25.5	13. 11. 35.83	}	56.54	..	..	..	1. 11. 55.69	+42.43						
	21	τ Boötis	C	53.5	56.4	59.3	2.3	8.0	13.8	16.7	19.7	22.6	13. 41. 8.01													
	22	ι Draconis	C	5.7	12.5	19.0	25.5	38.8	51.9	58.8	5.2	12.0	13. 47. 38.76													
	23	η 5 Virginis	C	40.4	43.4	46.0	48.8	54.3	59.8	2.8	5.5	8.3	13. 59. 54.35													
	24	Arcturus	C	31.8	34.8	37.7	40.6	46.5	52.3	55.4	58.3	1.2	14. 9. 46.49													
	25	α Coronæ	C	57.7	0.7	3.9	7.1	13.2	19.5	22.5	25.6	28.8	15. 29. 13.19													
	26	τ 6 Serpentis	C	49.2	52.1	54.9	57.7	3.5	9.3	12.2	15.1	18.0	15. 35. 3.54													
	27	β Serpentis	C	59.7	2.8	5.6	8.5	14.3	20.0	23.0	25.7	28.5	15. 40. 14.21													
	28	κ Coronæ	C	4.4	7.8	11.2	14.6	21.5	28.3	31.7	35.2	38.6	15. 46. 21.45													
	29	γ Serpentis	C	..	..	..	..	30.1	35.7	38.6	41.5	44.4	15. 50. 30.00													
	30	θ Ophiuchi	C	53.0	56.2	59.2	2.2	8.4	14.5	17.5	20.5	23.5	17. 14. 8.30													
	31	43 Ophiuchi	C	..	..	..	..	11.6	18.0	24.4	27.3	30.4	17. 15. 17.91													
	32	Piazzi XVII. 117	C	31.7	34.8	37.8	40.9	47.2	53.2	56.2	59.5	2.6	17. 23. 47.07													
	33	α Ophiuchi	C	42.9	45.8	48.5	51.4	57.0	2.8	5.5	8.4	11.3	17. 28. 57.04													
	34	η 2 Ophiuchi	E	0.0	3.2	6.0	8.8	14.3	20.0	22.7	25.4	28.3	18. 1. 14.28													
	35	μ Sagittarii	E	50.6	53.6	56.6	59.6	5.5	11.4	14.4	17.3	20.2	18. 6. 5.45													
	36	Polaris ....(E&E)	AD	..	..	..	..	5.0	56.5	55.0	48.0	44.5	1. 11. 54.56													
	37	α Ceti	AD	17.3	20.1	22.8	25.5	31.2	36.7	39.5	42.1	45.0	2. 55. 31.12													
	38	α Persei	AD	47.8	52.0	56.4	0.4	9.1	17.5	21.8	26.0	30.4	3. 15. 9.00													
June 9	39	$\odot$ 1 L.	AD	2.8	5.8	8.9	11.7	17.9	23.8	27.0	29.8	33.0	5. 8. 17.83	}	56.54	..	..	..	5. 9. 36.68	..						
	40	Mercury 1 L.	AD	5.6	8.6	11.9	14.8	21.0	27.2	30.2	33.4	36.4	6. 25. 20.98													
	41	Sirius	AD	10.1	13.2	16.0	18.6	24.5	30.4	33.3	36.3	39.2	6. 39. 24.60													
	42	Venus 1 L.	AD	9.6	12.8	15.6	18.8	25.0	31.2	34.2	37.0	40.0	7. 7. 24.88													
	43	θ Virginis	AD	2.8	5.7	8.4	11.0	16.5	22.2	25.1	27.7	30.5	13. 3. 16.63													
	44	Polaris S.P. (E&E)	AD	..	59.0	55.0	52.5	44.5	37.0	..	..	..	13. 11. 35.30													

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 2, 10, 14, 19, 20, 36, and 44, -9".50: -9".50: -9".40: -9".40: -9".40: -9".40: and -9".40.

Corrections for passage of Semidiameter, Nos. 8, 9, 12, 17, 39, 40, and 42, +0".20: +0".46: -69".15: -67".29: +68".73: +0".21: and +0".46.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

June 7, δ 2 L., to June 10, α Vulpeculæ. The azimuthal error by four consecutive transits of Polaris and Polaris S.P.

4, 5. Very tremulous.

7, 8, 10. Just visible.

12. Faint.

12, 17. Correction to R.A. on true meridian, +0".01.

17. Limb too faint for proper observation.

19. Very faint; cloudy.

37, 38, 41. Tremulous.

MONTH 1874 DAILY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at Sidereal and [Loss Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
June 9	1	ζ Ursæ Maj. (1st Star)	AD	19'1	24'1	28'7	33'7	43'4	53'3	58'2	3'2	8'0	13. 18. 43'47	+0'88	43'26			10'03	13. 18. 53'36	- 2'45
	2	ζ Ursæ Maj. (2d Star)	AD	20'0	25'0	29'7	34'8	44'4	54'2	59'2	4'0	8'8	13. 18. 44'41	(-2'41)	44'20			[0'13]	13. 18. 54'30	- 2'45
	3	Piazzi XIII. 133.	AD	..	..	..	21'6	50'9	20'9	36'1	50'8	5'7	13. 25. 51'07	[+3'95]	49'96				13. 26. 0'06	- 6'32
	4	Groombridge 2029	AD	19'6	28'7	37'5	46'4	4'2	22'0	31'0	39'8	48'7	13. 34. 4'14		3'54				13. 34. 13'64	- 4'12
	5	η Ursæ Majoris ..	AD	5'3	9'6	13'8	18'3	27'0	35'4	39'8	44'0	48'3	13. 42. 26'79		26'64				13. 42. 36'74	- 2'33
	6	γ Boötis	AD	18'0	21'0	24'0	26'8	32'6	38'5	41'5	44'5	47'4	13. 48. 32'68		32'74	42'84	10'10		13. 48. 42'85	- 1'72
	7	γ Persei S.P.	AD	6'0	10'8	15'1	20'0	28'2	38'1	42'8	47'4	52'0	14. 55. 27'86		28'25				2. 55. 38'36	+ 1'23
	8	λ Libræ	AD	39'4	42'4	45'2	48'3	54'0	0'0	3'0	5'8	8'9	15. 4. 54'09		54'35	4'41	10'06		15. 5. 4'46	- 1'92
	9	Bradley 448 S.P. ..	AD	9'6	16'2	22'7	29'4	42'4	55'6	2'3	8'6	15'6	15. 8. 42'54		43'13				3. 8. 53'24	+ 2'16
	10	α Persei S.P.	AD	47'2	51'4	55'7	0'0	8'5	16'8	21'3	25'3	29'7	15. 15. 8'47		8'83				3. 15. 18'94	+ 1'12
	11	Groomb. 642 S.P. ..	AD	23'4	5'2	46'2	29'0	53'4	..	..	..	..	15. 24. 53'98		57'63				3. 25. 7'74	+ 18'22
	12	α Coronæ	AD	57'6	0'8	3'8	7'0	13'3	19'4	22'5	25'6	28'7	15. 29. 13'16		13'18	23'31	10'13		15. 29. 23'29	- 2'12
	13	γ Camelop. S.P.	AD	9'1	17'5	25'9	34'3	51'3	8'3	16'3	24'9	33'5	15. 36. 51'31		52'07				3. 37. 2'18	+ 3'05
	14	ε Serpentis	AD	10'0	12'9	15'5	18'3	24'0	29'5	32'2	35'0	37'8	15. 44. 23'88		24'02	34'13	10'11		15. 44. 34'14	- 2'00
	15	Piazzi III. 177 S.P. ..	AD	36'2	42'2	48'5	54'6	6'7	18'5	24'5	30'4	36'5	15. 46. 6'50		7'04				3. 46. 17'16	+ 1'95
	16	σ Ophiuchi	AD	53'7	56'4	59'3	2'0	7'6	13'0	15'9	18'7	21'5	17. 20. 7'54		7'68	17'88	10'20		17. 20. 17'80	- 2'10
	17	19 Camelop. S.P. ..	AD	19'3	25'7	31'9	38'2	50'8	3'6	9'8	16'1	22'5	17. 24. 50'93		51'51				5. 25. 1'63	+ 1'84
	18	Oeltz. Arg. 17415	AD	..	..	..	..	..	..	..	33'6	41'3	17. 37. 3'49		3'02				17. 37. 13'15	- 3'71
	19	Oeltz. Arg. 17419	AD	..	..	..	..	..	..	34'7	42'3	50'1	17. 37. 12'18		11'71				17. 37. 21'84	- 3'74
	20	α Aquilæ	L	45'3	48'1	50'8	53'7	59'0	4'6	7'5	10'4	13'0	19. 48. 59'13		59'26	9'18	9'92	9'81†	....	
	21	θ Capricorni	L	28'8	31'8	34'6	37'5	43'3	49'1	52'0	54'8	57'8	20. 58. 43'28		43'54	53'46	9'92	[0'13]	....	
June 10	22	ψ Boötis	E	..	41'7	44'9	48'1	54'3	0'5	3'6	6'8	..	14. 58. 54'23		54'25	4'86	10'61	10'43	14. 59. 4'80	- 2'06
	23	β Libræ	E	50'8	53'8	56'5	59'3	4'9	10'5	13'4	16'2	18'9	15. 10. 4'90		5'11	15'55	10'44	[0'20]	15. 10. 15'67	- 1'90
	24	γ Serpentis	E	2'5	5'5	8'2	11'2	16'7	22'5	25'4	27'8	30'8	15. 16. 16'71		16'81				15. 16. 27'37	- 1'96
	25	β Coronæ	E	13'6	17'0	20'1	23'3	29'6	36'0	39'3	42'4	45'6	15. 22. 29'63		29'64				15. 22. 40'20	- 2'14
	26	α Coronæ	E	57'3	0'3	3'5	6'6	12'7	19'2	22'0	25'1	28'4	15. 29. 12'76		12'78	23'31	10'53		15. 29. 23'34	- 2'12
	27	Piazzi XVI. 159 ..	E	..	46'5	49'5	52'7	59'0	5'2	8'4	11'5	..	16. 36. 58'94		59'27				16. 37. 9'84	- 2'35
	28	Lacaille 7015	E	..	..	22'8	25'8	31'8	38'0	41'0	44'0	..	16. 43. 31'86		32'17				16. 43. 42'74	- 2'31
	29	24 Ophiuchi	E	..	51'7	54'6	57'7	3'7	9'5	12'7	15'6	..	16. 49. 3'61		3'90				16. 49. 14'47	- 2'30
	30	28 Ophiuchi	E	..	..	57'9	0'9	7'2	13'4	16'5	..	..	16. 56. 7'16		7'47				16. 56. 18'04	- 2'35
	31	η Ophiuchi	E	46'0	49'0	52'1	54'8	0'3	6'3	9'2	12'0	14'8	17. 3. 0'51		0'76	11'37	10'61		17. 3. 11'33	- 2'23
	32	Bradley 2174	E	..	2'8	5'7	8'8	15'0	21'3	24'3	27'8	..	17. 6. 15'07		15'39				17. 6. 25'06	- 2'39
	33	43 Ophiuchi	E	..	..	8'0	11'1	17'5	23'6	26'8	..	..	17. 15. 17'38		17'71				17. 15. 28'28	- 2'43
	34	α Ophiuchi	E	42'4	45'3	48'0	51'0	56'5	2'3	5'0	7'7	10'7	17. 28. 56'52		56'62	7'21	10'59		17. 29. 7'20	- 2'10
	35	Oeltz. Arg. 17415	E	25'7	33'8	40'7	48'6	3'4	..	..	..	..	17. 37. 3'48		3'01				17. 37. 13'59	- 3'71
	36	Oeltz. Arg. 17419	E	..	..	..	..	12'0	27'2	34'8	42'5	50'0	17. 37. 12'16		11'69				17. 37. 22'27	- 3'74
	37	δ Aquilæ	WC	46'2	49'2	51'6	54'4	59'9	5'4	8'5	11'5	13'8	19. 19. 0'03		0'18	10'59	10'41	10'30†	....	
	38	α Vulpeculæ	WC	4'0	7'0	10'2	13'0	..	25'0	28'1	30'8	34'4	19. 25. 19'03		19'07	29'57	10'50	[0'20]	....	
	39	Polaris (E&E)	S	..	..	..	16'0	..	0'0	55'0	49'5	44'5	1. 11. 56'12	(-1'57)	47'70	58'07	10'37	10'41	....	
	40	Aldebaran	S	16'3	19'0	21'6	24'5	30'3	36'2	39'1	41'7	44'7	4. 28. 30'36	[+4'34]	30'50	40'93	10'43	[0'16]	4. 28. 40'94	+ 0'57
June 11	41	⊙ 1 L.	S	19'4	22'4	25'5	28'6	34'6	40'6	43'5	46'7	49'6	5. 16. 34'52		43'44				5. 17. 53'88	
	42	⊙ 2 L.	S	37'0	40'2	43'1	46'2	52'2	58'2	1'1	4'2	7'0	5. 18. 52'11						6. 41. 9'01	
	43	Mercury (center) ..	S	43'0	46'3	49'2	52'2	58'0	4'4	7'4	10'4	13'6	6. 40. 58'24						15. 44. 34'24	- 2'01
	44	ε Serpentis	S	9'7	12'6	15'3	18'0	23'5	29'0	31'7	34'6	37'4	15. 44. 23'52		23'72	34'14	10'42		15. 50. 40'17	- 2'07
	45	γ Serpentis	S	15'1	18'1	20'9	23'6	29'4	35'4	38'3	41'0	44'0	15. 50. 29'51		29'65	40'10	10'45		15. 58. 8'66	- 5'78
	46	17 Ursæ Minoris ..	S	1'7	13'5	24'6	36'0	58'8	21'3	33'3	44'8	55'9	15. 57. 58'78		58'14				4. 10. 49'24	+ 1'68
	47	Piazzi IV. 22 S.P. ..	S	10'2	15'8	21'3	26'9	38'3	49'4	55'1	0'3	6'3	16. 10. 38'22		38'72					

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32" 400.

Correction to the time by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, No. 39, -9" 40.

Correction for passage of Semidiameter, No. 43, +0" 21.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

June 9^h 23^m. The pendulum contact-springs of the Sidereal Standard Clock were taken off and cleaned.

June 10, Polaris, to June 12. The azimuthal error by Polaris and Polaris S.P., allowing -0" 39 for clock-rate and change of R.A.

39, 40, 43. Tremulous.

46. Faint and tremulous.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of		Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Lossing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874. Jan. 1.											
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.		Collimation. (Level).	Azimuth.																	
																						s	s	s	s	s	s	s	s	s	''	
																				h	m	s			s	s	s	s	h	m	s	s
June 11	1	Antares	S	17 ^o 20 ^m 1	23 ^s 2	26 ^s 3	32 ^s 6	38 ^s 7	41 ^s 8	44 ^s 7	47 ^s 7	16. 21. 32 ^s 43	+ 0 ^s 88	32 ^s 78	43 ^s 32	10 ^s 54	10 ^s 41	16. 21. 43 ^s 30	- 2 ^s 29													
	2	Piazzi XVI. 182. .	S	31 ^s 2	46 ^s 5	0 ^s 5	15 ^s 8	44 ^s 9	14 ^s 3	28 ^s 9	44 ^s 7	59 ^s 6	16. 32. 45 ^s 02	(- 1 ^s 57)	44 ^s 11		[0 ^s 16]	16. 32. 54 ^s 63	- 7 ^s 13													
	3	Piazzi IV. 204 S.P.	S	28 ^s 6	38 ^s 6	48 ^s 5	58 ^s 0	17 ^s 5	37 ^s 5	46 ^s 5	56 ^s 7	7 ^s 2	16. 48. 17 ^s 76	[+ 4 ^s 34]	18 ^s 60			4. 48. 29 ^s 12	+ 3 ^s 38													
	4	Groombridge 2411	S	..	4 ^s 4	13 ^s 5	23 ^s 3	42 ^s 2	1 ^s 5	11 ^s 6	21 ^s 1	..	16. 58. 42 ^s 43		41 ^s 91			16. 58. 52 ^s 43	- 4 ^s 82													
	5	α ¹ Herculis	S	31 ^s 4	34 ^s 1	37 ^s 0	39 ^s 8	45 ^s 4	51 ^s 0	54 ^s 2	57 ^s 0	59 ^s 7	17. 8. 45 ^s 49		45 ^s 64	56 ^s 25	10 ^s 61	17. 8. 56 ^s 16	- 2 ^s 12													
	6	Oeltz. Arg. 17415	S	25 ^s 6	32 ^s 8	40 ^s 3	47 ^s 8	3 ^s 4	..	..	..	..	17. 37. 3 ^s 02		2 ^s 67			17. 37. 13 ^s 20	- 3 ^s 72													
	7	Oeltz. Arg. 17419	S	..	..	..	..	12 ^s 5	27 ^s 0	34 ^s 8	42 ^s 4	49 ^s 2	17. 37. 12 ^s 04		11 ^s 69			17. 37. 22 ^s 22	- 3 ^s 74													
	8	μ ¹ Sagittarii	S	50 ^s 5	53 ^s 5	56 ^s 1	59 ^s 2	4 ^s 9	10 ^s 9	14 ^s 0	17 ^s 0	20 ^s 0	18. 6. 5 ^s 10		5 ^s 42	15 ^s 98	10 ^s 56	18. 6. 15 ^s 95	- 2 ^s 35													
	9	η Serpentis	S	25 ^s 0	27 ^s 8	30 ^s 5	33 ^s 2	38 ^s 7	44 ^s 2	47 ^s 0	49 ^s 9	52 ^s 7	18. 14. 38 ^s 75		38 ^s 98	49 ^s 49	10 ^s 51	18. 14. 49 ^s 51	- 2 ^s 11													
	10	ζ Camelop. S.P.	S	58 ^s 4	6 ^s 4	13 ^s 0	20 ^s 7	35 ^s 0	49 ^s 7	57 ^s 2	4 ^s 6	11 ^s 8	18. 37. 35 ^s 26		35 ^s 91			6. 37. 46 ^s 44	+ 1 ^s 63													
	11	β ¹ Lyrae	S	0 ^s 4	4 ^s 0	7 ^s 3	10 ^s 3	17 ^s 3	23 ^s 7	27 ^s 2	30 ^s 2	33 ^s 8	18. 45. 17 ^s 10		17 ^s 16	27 ^s 69	10 ^s 53	18. 45. 27 ^s 70	- 2 ^s 03													
	12	ε Pegasi	J	36 ^s 5	39 ^s 5	42 ^s 0	44 ^s 8	50 ^s 6	56 ^s 0	58 ^s 8	1 ^s 8	4 ^s 6	21. 37. 50 ^s 50		50 ^s 68	1 ^s 16	10 ^s 48	10 ^s 29†	....													
	13	δ Capricorni	J	41 ^s 6	44 ^s 4	47 ^s 4	50 ^s 1	55 ^s 9	1 ^s 7	4 ^s 7	7 ^s 3	10 ^s 4	21. 39. 55 ^s 92		56 ^s 22	6 ^s 60	10 ^s 38	[0 ^s 16]	....													
	14	β Andromedæ ...	II	13 ^s 4	16 ^s 9	20 ^s 0	23 ^s 4	30 ^s 3	37 ^s 0	40 ^s 4	43 ^s 7	47 ^s 1	1. 2. 30 ^s 22	(- 1 ^s 21)	30 ^s 30	40 ^s 77	10 ^s 47	10 ^s 63	1. 2. 40 ^s 94	+ 0 ^s 15												
	15	Polaris (E&E)	II	..	..	20 ^s 5	17 ^s 0	9 ^s 5	..	..	..	..	1. 11. 59 ^s 02		51 ^s 41	59 ^s 04	7 ^s 63	[0 ^s 12]	1. 12. 2 ^s 05	+ 39 ^s 23												
June 12	16	⊙ 1 L.	II	..	..	..	..	..	49 ^s 3	52 ^s 4	55 ^s 4	58 ^s 4	5. 20. 43 ^s 29						5. 22. 2 ^s 83													
	17	⊙ 2 L.	II	45 ^s 6	48 ^s 6	51 ^s 7	54 ^s 6	0 ^s 8	7 ^s 1	10 ^s 0	12 ^s 9	15 ^s 9	5. 23. 0 ^s 77																			
	18	α Orionis	II	55 ^s 7	58 ^s 8	1 ^s 5	..	10 ^s 0	..	18 ^s 3	20 ^s 7	23 ^s 7	5. 48. 9 ^s 78		9 ^s 98	20 ^s 48	10 ^s 50	5. 48. 20 ^s 64	+ 0 ^s 54													
	19	Venus 1 L.	II	54 ^s 5	57 ^s 7	0 ^s 6	3 ^s 7	9 ^s 7	15 ^s 6	18 ^s 7	21 ^s 6	24 ^s 7	7. 23. 9 ^s 61		9 ^s 74			7. 23. 20 ^s 88														
	20	Castor	II	..	..	12 ^s 4	15 ^s 8	22 ^s 4	..	32 ^s 1	35 ^s 5	38 ^s 8	7. 26. 22 ^s 34		22 ^s 43	33 ^s 18	10 ^s 75	7. 26. 33 ^s 10	+ 0 ^s 30													
	21	δ Virginis	II	52 ^s 0	54 ^s 7	57 ^s 3	0 ^s 0	5 ^s 6	11 ^s 4	14 ^s 0	16 ^s 7	19 ^s 6	12. 49. 5 ^s 68		5 ^s 89	16 ^s 68	10 ^s 79	12. 49. 16 ^s 58	- 1 ^s 26													
	22	37 Comæ	II	49 ^s 1	52 ^s 4	55 ^s 6	58 ^s 9	5 ^s 5	11 ^s 8	15 ^s 2	18 ^s 4	21 ^s 6	12. 54. 5 ^s 36		5 ^s 45			12. 54. 16 ^s 14	- 1 ^s 60													
	23	Polaris S.P. (E&E)	II	..	9 ^s 5	4 ^s 0	0 ^s 0	54 ^s 0	..	..	..	..	13. 11. 43 ^s 88		51 ^s 82	59 ^s 53	7 ^s 71	1. 12. 2 ^s 52	+ 38 ^s 74													
	24	Spica	II	9 ^s 6	12 ^s 6	15 ^s 4	18 ^s 1	23 ^s 8	29 ^s 4	32 ^s 2	35 ^s 0	37 ^s 8	13. 18. 23 ^s 75		24 ^s 03	34 ^s 72	10 ^s 69	13. 18. 34 ^s 73	- 1 ^s 35													
	25	25 Canum Venat. .	II	..	29 ^s 2	32 ^s 5	35 ^s 8	42 ^s 7	49 ^s 8	53 ^s 2	56 ^s 6	..	13. 31. 42 ^s 94		43 ^s 00			13. 31. 53 ^s 70	- 1 ^s 88													
	26	3 Boötis	II	27 ^s 7	30 ^s 9	33 ^s 8	36 ^s 9	43 ^s 2	49 ^s 4	52 ^s 4	55 ^s 4	58 ^s 6	13. 40. 43 ^s 12		43 ^s 24			13. 40. 53 ^s 94	- 1 ^s 75													
	27	Groombridge 2055	II	..	..	..	..	31 ^s 6	43 ^s 5	49 ^s 6	55 ^s 3	1 ^s 2	13. 45. 31 ^s 63		31 ^s 48			13. 45. 42 ^s 18	- 2 ^s 93													
	28	9 Boötis	II	..	27 ^s 6	30 ^s 5	33 ^s 6	39 ^s 9	46 ^s 3	49 ^s 4	52 ^s 4	..	13. 50. 39 ^s 93		40 ^s 05			13. 50. 50 ^s 75	- 1 ^s 69													
	29	τ Virginis	II	50 ^s 8	53 ^s 6	56 ^s 5	59 ^s 1	4 ^s 7	10 ^s 4	13 ^s 1	15 ^s 9	18 ^s 8	13. 55. 4 ^s 75		4 ^s 98	15 ^s 67	10 ^s 69	13. 55. 15 ^s 68	- 1 ^s 60													
	30	Piazzi XIII. 306.	II	..	..	..	..	57 ^s 3	13 ^s 2	21 ^s 0	28 ^s 7	36 ^s 5	13. 58. 57 ^s 37		57 ^s 07			13. 59. 7 ^s 77	- 3 ^s 78													
	31	δ Ophiuchi	II	21 ^s 7	24 ^s 5	27 ^s 4	30 ^s 0	35 ^s 5	41 ^s 0	44 ^s 0	46 ^s 7	49 ^s 5	16. 7. 35 ^s 57		35 ^s 82	46 ^s 63	10 ^s 81	16. 7. 46 ^s 53	- 2 ^s 07													
	32	η Ophiuchi	II	..	49 ^s 0	..	54 ^s 5	0 ^s 4	6 ^s 2	..	11 ^s 7	14 ^s 7	17. 3. 0 ^s 33		0 ^s 64	11 ^s 39	10 ^s 75	17. 3. 11 ^s 36	- 2 ^s 25													
	33	Piazzi IV. 311 S.P.	II	40 ^s 4	53 ^s 6	8 ^s 0	22 ^s 0	48 ^s 0	..	..	..	..	17. 8. 48 ^s 06		49 ^s 10			5. 8. 59 ^s 82	+ 4 ^s 73													
	34	Groomb. 944 S.P.	II	..	..	48 ^s 0	20 ^s 5	25 ^s 7	28 ^s 6	2 ^s 4	..	..	17. 21. 25 ^s 24		27 ^s 58			5. 21. 38 ^s 30	+ 12 ^s 24													
	35	α Ophiuchi	II	42 ^s 0	45 ^s 2	47 ^s 8	50 ^s 8	56 ^s 4	2 ^s 0	4 ^s 7	7 ^s 6	10 ^s 4	17. 28. 56 ^s 30		56 ^s 48	7 ^s 23	10 ^s 75	17. 29. 7 ^s 20	- 2 ^s 12													
	36	Oeltz. Arg. 17413	II	23 ^s 7	31 ^s 9	39 ^s 3	46 ^s 7	2 ^s 0	17 ^s 1	24 ^s 4	32 ^s 2	39 ^s 8	17. 37. 1 ^s 84		1 ^s 56			17. 37. 12 ^s 28	- 3 ^s 76													
June 13	37	Polaris S.P. (E&E)	L	12 ^s 5	12 ^s 0	5 ^s 5	1 ^s 0	..	45 ^s 0	..	..	..	13. 11. 54 ^s 67	(- 0 ^s 51)	59 ^s 56	0 ^s 49	0 ^s 93	....														
	38	Spica (E&E)	L	51 ^s 4	5 ^s 2	19 ^s 5	33 ^s 7	47 ^s 6	1 ^s 6	15 ^s 8	..	..	13. 18. 33 ^s 56	[+ 3 ^s 48]	33 ^s 81	34 ^s 71	0 ^s 90	....														
	39	ζ Virginis . (E&E)	L	35 ^s 1	49 ^s 0	2 ^s 9	16 ^s 7	30 ^s 6	44 ^s 3	58 ^s 1	..	..	13. 28. 16 ^s 69		16 ^s 91	17 ^s 85	0 ^s 94	....														
	40	ζ Ophiuchi . (E&E)	L	31 ^s 9	46 ^s 0	0 ^s 1	14 ^s 0	28 ^s 1	42 ^s 0	56 ^s 1	..	..	16. 30. 14 ^s 05		14 ^s 30	15 ^s 44	1 ^s 14	....														
	41	ζ Herculis . (E&E)	L	44 ^s 1	0 ^s 3	16 ^s 9	33 ^s 1	49 ^s 2	5 ^s 9	21 ^s 9	..	..	16. 36. 33 ^s 08		33 ^s 20	34 ^s 48	1 ^s 28	....														
June 14	42	κ Ophiuchi . (E&E)	L	1 ^s 0	14 ^s 9	29 ^s 0	43 ^s 1	57 ^s 1	11 ^s 1	25 ^s 1	..	..	16. 51. 43 ^s 06		43 ^s 25	44 ^s 36	1 ^s 11	....														
	43	ζ																														

1876 JANUARY

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Loss Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.		
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.										
				s	s	s	s	s	s	s	s	s										
				s	s	s	s	s	s	s	h	m	s	"	s	s	s	s	h	m	s	s
June 17	1	ζ Virginis.....	E	..	..	57.4	0.0	5.6	11.2	13.8	16.6	19.4	13. 28. 5.57	+0.94	5.82	17.82	12.00	11.77	....			
	2	η Boötis.....	E	15.9	19.0	21.7	24.7	30.4	36.4	39.4	42.3	45.2	13. 48. 30.54	(+0.27)	30.76	42.77	12.01	[0.40]	....			
	3	Arcturus.....	E	..	32.7	35.5	38.4	44.4	..	53.3	56.0	..	14. 9. 44.33	[+3.35]	44.55	56.58	12.03	....				
	4	α Libræ.....	C	37.6	40.7	43.5	46.5	52.2	58.2	1.0	4.0	7.0	15. 4. 52.28		52.60	4.41	11.81	11.57†	....			
	5	β Libræ.....	C	49.5	52.4	55.0	57.8	3.4	9.2	11.8	14.6	17.5	15. 9. 3.45		3.73	15.55	11.82	....				
	6	β Serpentis.....	E	57.8	0.6	3.4	6.4	12.2	..	..	23.7	26.7	15. 40. 12.14		12.37			11.77	15. 40. 24.40	- 2.04		
June 19	7	Venus 1 L.....	C	4.4	7.8	10.8	13.7	19.8	25.9	28.7	31.7	34.8	7. 59. 19.71	(-0.27)	19.88			12.34	7. 59. 32.81			
	8	Δ 1 L.....	C	16.8	20.0	22.8	25.6	31.3	37.3	40.1	43.1	46.1	10. 30. 31.44		31.63			[0.35]	10. 31. 48.25			
	9	δ Leonis.....	C	57.5	0.7	3.5	6.3	12.4	18.2	21.2	24.2	27.3	11. 7. 12.35		12.53	25.08	12.55	....				
	10	Polaris S.P. (E&E)	C	..	..	..	..	0.0	50.5	46.5	40.5	39.0	13. 11. 48.66		52.95	5.53	12.58	....				
	11	Spica.....	C	7.9	10.9	13.6	16.3	21.9	27.6	30.3	33.1	36.0	13. 18. 21.94		22.20	34.67	12.47	....				
	12	46 Cassiopeiæ S.P.	C	..	30.4	37.7	45.0	59.9	15.0	22.2	29.4	..	13. 46. 0.01		0.44				1. 47. 12.98	+ 1.47		
	13	48 Cassiopeiæ S.P.	C	..	..	..	..	23.8	40.2	48.3	56.3	4.8	13. 51. 23.77		24.22				1. 51. 36.76	+ 1.79		
	14	κ Virginis.....	C	45.4	48.2	51.0	53.8	59.2	4.9	7.8	10.4	13.2	14. 5. 59.30		59.56	12.13	12.57	....				
June 21	15	Δ 1 L.....	E	19.7	22.4	25.2	28.0	33.8	39.3	42.1	45.1	47.9	12. 0. 33.70	[+4.09]	33.96			13.23	12. 1. 48.60			
	16	δ Virginis.....	E	49.1	52.0	54.8	57.4	3.0	8.5	11.2	14.0	17.0	12. 49. 2.98		3.23	16.61	13.38	[0.31]	....			
	17	ε Virginis.....	E	27.8	30.8	33.5	..	41.9	47.7	50.3	53.2	56.1	12. 55. 41.93		42.15	55.57	13.42	....				
	18	Polaris S.P. (E&E)	E	21.5	18.0	12.0	8.5	..	..	..	..	..	13. 11. 51.14		56.44	7.16	10.72		1. 12. 9.84	+ 31.11		
	19	α Serpentis.....	C	38.4	41.2	43.9	46.7	52.2	57.9	0.7	3.4	6.3	15. 37. 52.28		52.51	5.73	13.22	[13.04†]	....			
	20	γ Serpentis.....	C	12.2	15.2	18.1	21.0	26.8	32.6	34.9	38.1	41.0	15. 50. 26.63		26.84	40.10	13.26	[0.31]	....			
	21	Polaris (E&E)	II	..	..	..	19.5	10.5	5.0	1.0	54.5	..	1. 11. 59.72	+0.91 (-0.06)	55.21	7.58	12.36	[13.35 [0.35]	1. 12. 8.58	+ 30.69		
June 22	22	⊙ 1 L.....	II	59.8	3.0	5.9	8.9	14.9	21.0	24.0	27.1	30.2	6. 2. 14.95		24.05				6. 3. 37.49			
	23	⊙ 2 L.....	II	17.6	20.8	23.8	26.7	32.6	38.8	41.8	44.7	47.9	6. 4. 32.72									
	24	Δ 1 L.....	II	27.9	30.8	33.6	36.5	41.9	47.7	50.5	53.2	56.1	12. 43. 42.00		42.28				12. 44. 56.90			
	25	Polaris S.P. (E&E)	II	..	..	..	..	0.0	52.8	..	..	41.5	13. 11. 49.07		54.00	8.03	14.03		1. 12. 7.54	+ 30.24		
	26	ζ Virginis.....	II	50.2	53.0	55.7	58.5	4.0	9.6	12.3	15.0	17.8	13. 28. 3.99		4.26	17.78	13.52		13. 28. 17.81	- 1.38		
	27	ε Boötis.....	AD	1.8	5.0	8.0	11.1	17.3	23.6	26.8	29.8	33.0	14. 39. 17.35		17.54	30.97	13.43	13.23†	....			
	28	α ² Libræ.....	AD	28.2	31.2	34.0	37.0	42.7	48.3	51.2	54.0	57.1	14. 43. 42.62		42.94	56.39	13.45		....			
	29	γ Herculis.....	H	55.4	58.3	1.3	4.0	10.0	16.0	18.9	21.8	24.8	16. 16. 9.98		10.19	23.85	13.66	13.35	16. 16. 23.77	- 2.14		
	30	ω Herculis.....	II	10.1	13.0	15.8	18.7	24.2	30.1	32.9	35.8	38.8	16. 19. 24.36		24.59				16. 19. 38.18	- 2.12		
	31	Oeltz. Arg. 15798	H	2.8	6.3	9.3	..	17.7	24.2	26.9	30.0	..	16. 31. 17.99		18.34				16. 31. 31.93	- 2.33		
	32	Lutetia.....	H	..	6.9	9.9	12.8	18.6	24.7	27.2	30.4	..	16. 31. 18.61		18.96				16. 31. 32.55			
	33	η Ophiuchi.....	II	43.2	46.0	48.9	51.6	57.5	3.2	6.2	9.0	11.9	17. 2. 57.48		57.80	11.48	13.68		17. 3. 11.40	- 2.34		
	34	Groomb. 944 S.P.	II	39.9	13.2	45.0	18.2	..	..	..	..	..	17. 21. 23.28		24.80				5. 21. 38.40	+ 11.24		
	35	f Draconis.....	H	..	..	..	..	18.2	33.4	40.9	48.1	55.8	17. 32. 18.36		18.30				17. 32. 31.91	- 3.70		
	36	ψ ¹ Draconis.....	II	..	..	..	43.6	1.1	20.1	28.5	37.6	47.0	17. 44. 1.48		1.36				17. 44. 14.97	- 4.23		
	37	Bradley 2252....	II	..	..	36.5	45.2	3.4	21.3	30.8	39.4	48.8	17. 44. 3.36		3.24				17. 44. 16.85	- 4.22		
	38	Piazzi V. 335 S.P.	II	2.3	10.3	17.8	25.4	41.3	57.4	5.0	12.4	20.8	18. 4. 41.48		41.98				6. 4. 55.59	+ 1.90		
	39	δ Ursæ Min. (E&E)	II	..	..	54.0	41.3	15.5	..	..	..	..	18. 13. 3.03		1.34	15.79	14.45		18. 13. 14.96	- 16.89		
	40	η Serpentis.....	H	21.7	24.8	27.4	30.1	35.9	41.2	44.1	46.8	49.4	18. 14. 35.76		36.04	49.65	13.61		18. 14. 49.66	- 2.27		
	41	Bradley 2308....	II	26.7	29.8	33.0	35.8	41.8	48.0	50.9	53.8	57.0	18. 16. 41.84		42.05				18. 16. 55.67	- 2.20		
	42	γ Sagittarii.....	II	..	48.1	51.1	54.1	0.3	6.4	9.6	12.7	..	18. 20. 0.30		0.66	14.26	13.60		18. 20. 14.28	- 2.62		
	43	2 Aquilæ.....	II	56.9	59.8	2.6	5.3	..	16.7	19.3	22.1	25.0	18. 35. 10.93		11.23	24.77	13.54		18. 35. 24.85	- 2.35		
	44	Ceph. 51 S.P. (E&E)	II	..	32.8	30.5	27.2	20.8	..	..	..	..	18. 40. 10.70		13.24	27.63	14.39		6. 40. 26.86	+ 17.28		
	45	Comet III. 1874 S.P.	WC	..	..	..	..	..	27.9	34.8	12.9	49.2	19. 21. 58.06		58.54				7. 22. 12.17			

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 10, 18, 21, 25, 39, and 44, - 10".60: - 11".10: - 11".30: - 11".60: - 11".60: and - 11".60.

Corrections for passage of Semidiameter, Nos. 7, 8, 15, and 24, + 0".47: + 64".12: + 61".24: and + 61".07.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

June 18^d. 0^h. Very slightly lowered the pendulum contact-springs of the Sidereal Standard Clock, making a rather firmer contact.

June 21 and 22. The azimuthal error by consecutive transits of Polaris S.P., Polaris, and Polaris S.P.

7, 9. Extremely tremulous.

24, 25. Cloudy.

8, 15, 24. Correction to R.A. on true meridian, + 0".01.

45. Observed over the wires W, X, Y, and Z.

21. Faint at times.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at Sidereal and [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s	h m s	"	s	s	s	s	h m s	s
June 23	1	Aldebaran	AD	12.6	15.6	18.2	..	..	..	..	..	..	4. 28. 26.96	+0.91	27.10	41.19	14.09	14.00	....	
	2	ε Orionis	AD	20.8	23.4	26.2	28.9	34.5	39.9	42.8	45.7	48.3	5. 29. 34.47	(-1.10)	34.66	48.75	14.09	[0.47]	....	
														[+3.44]						
June 24	3	⊙ 1 L.....	AD	18.1	21.3	24.1	27.2	33.2	39.3	42.3	45.3	48.3	6. 10. 33.21						6. 11. 56.34	
	4	⊙ 2 L.....	AD	35.8	39.0	42.0	45.0	51.0	56.9	0.1	3.1	6.2	6. 12. 50.98							
	5	κ Virginis.....	AD	43.6	46.2	49.1	51.8	57.5	3.2	6.2	8.8	11.8	14. 5. 57.56		57.78	12.10	14.32		14. 6. 12.06	- 1.55
	6	δ 1 L.....	AD	..	..	..	8.4	14.2	20.2	23.1	26.1	29.1	14. 12. 14.32		14.56				14. 13. 32.05	
	7	β Librae	AD	46.9	49.9	52.3	55.3	0.9	6.6	9.4	12.2	15.2	15. 10. 0.95		1.17	15.54	14.37		15. 10. 15.47	- 1.89
	8	γ Serpentis.....	L	11.3	14.2	17.2	20.0	25.0	31.7	34.6	37.6	40.2	15. 50. 25.83		25.97	40.10	14.13	13.80†	....	
	9	β ¹ Scorpii	L	39.8	43.0	45.8	48.7	54.6	0.5	3.3	6.3	9.2	15. 55. 54.56		54.82	8.90	14.08		....	
	10	Antares	AD	13.3	16.5	19.5	22.7	28.9	35.0	38.1	41.1	44.2	16. 21. 28.78		29.08	43.38	14.30	14.00	16. 21. 43.40	- 2.35
	11	Lutetia	AD	22.8	26.0	28.8	31.6	37.1	43.8	46.9	49.8	52.5	16. 29. 37.68		37.96				16. 29. 52.58	
	12	η Ophiuchi	AD	42.6	45.7	48.2	51.2	57.0	2.6	5.6	8.3	11.2	17. 2. 56.91		57.16	11.49	14.33		17. 3. 11.49	- 2.35
	13	Oeltz. Arg. 17413	AD	13.4	21.0	28.2	36.0	..	20.3	28.2	35.6	43.1	17. 36. 58.18		57.98				17. 37. 12.32	- 3.71
	14	μ Herculis	AD	3.9	7.1	10.1	13.2	19.5	25.8	28.9	32.0	35.1	17. 41. 19.49		19.58	33.91	14.33		17. 41. 33.93	- 2.24
	15	ψ ² Draconis	AD	..	..	..	..	..	30.2	39.2	48.2	57.2	17. 57. 12.26		11.97				17. 57. 26.32	- 4.12
	16	δ Ursæ Min. (E&E)	AD	22.0	9.5	56.0	42.5	15.5	..	..	..	..	18. 13. 3.01		0.79	15.70	14.91		....	
	17	λ Sagittarii	AD	44.3	47.4	50.3	53.6	59.6	5.8	9.0	11.8	15.0	18. 19. 59.61		59.91	14.29	14.38		18. 20. 14.27	- 2.65
	18	Groombridge 2655	AD	36.8	50.0	2.2	15.2	40.7	5.9	18.9	31.4	44.2	18. 35. 40.49		40.01				18. 35. 54.37	- 5.04
	19	Ceph. 51 S.P. (E&E)	AD	..	..	..	..	21.5	16.5	15.0	10.0	..	18. 40. 9.72		12.75	27.67	14.92		....	
	20	ζ Aquilæ	AD	10.5	13.4	16.2	19.2	24.9	30.7	33.3	36.1	39.1	18. 59. 24.80		24.94	39.23	14.29		18. 59. 39.31	- 2.17
	21	Piazzi VII. 67 S.P.	AD	51.1	58.4	6.1	13.5	28.8	44.1	51.7	58.9	7.0	19. 17. 28.90		29.37				7. 17. 43.75	+ 1.29
	22	Comet III. 1874 S.P.	AD	50.2	57.7	5.1	12.4	27.3	41.1	48.2	56.6	4.1	19. 25. 27.02		27.49				7. 25. 41.87	
June 25	23	Venus 1 L.....	S	18.0	20.8	23.7	26.9	32.7	38.6	41.6	44.4	47.5	8. 29. 32.67		32.79			14.47	8. 29. 47.90	
June 27	24	δ Ophiuchi	C	16.7	19.5	22.2	25.0	30.5	36.0	38.8	41.6	44.3	16. 7. 30.50		30.71	46.66	15.95	15.55	....	
	25	19 Scorpii	C	..	..	..	..	..	..	..	1.5	4.6	16. 12. 49.42		49.71			[0.60]	16. 13. 5.66	- 2.29
June 28	26	72 Ophiuchi.....	WC	54.0	56.9	59.8	2.6	7.9	13.6	16.5	19.0	22.1	18. 1. 8.02		8.17	24.81	16.64		....	
	27	β Andromedæ ...	J	7.6	11.2	14.3	17.7	24.4	31.3	34.7	38.0	41.3	1. 2. 24.47	+0.68	24.41	41.40	16.99		....	
	28	Polaris (E&E)	J	..	38.5	31.0	27.0	18.0	9.0	9.0	2.5	..	1. 12. 2.21	(-1.85)	57.45	14.43	16.98		....	
	29	γ Piscium	J	14.0	16.8	19.7	22.4	28.0	33.9	36.8	39.6	42.5	1. 24. 28.16	[+1.49]	28.17	45.11	16.94		....	
June 29	30	Aldebaran	L	9.6	12.5	15.5	18.2	23.7	29.7	32.8	35.4	38.5	4. 28. 23.97	[+2.81]	24.02	41.33	17.31	17.20	....	
																		[0.62]		
June 30	31	⊙ 1 L.....	L	8.7	11.6	14.5	17.4	23.7	29.6	32.5	35.6	38.6	6. 35. 23.55						6. 36. 49.73	
	32	⊙ 2 L.....	L	26.0	29.2	32.0	35.1	41.2	47.2	50.3	53.2	56.2	6. 37. 41.13							
July 1	33	Piazzi III. 54 S.P.	C	6.1	11.4	16.6	21.9	32.5	43.1	48.4	53.5	59.0	15. 19. 32.54	(-2.11)	32.87			18.11	3. 19. 51.33	+ 0.64
	34	α Coronæ	C	49.4	52.5	55.5	58.6	4.8	11.0	14.1	17.1	20.3	15. 29. 4.78		4.76	23.22	18.46	[0.55]	15. 29. 23.22	- 2.03
	35	B. A. C. 5197....	C	48.1	51.5	54.4	57.4	3.4	9.5	12.7	15.6	18.6	15. 38. 3.42		3.63				15. 38. 22.10	- 2.11
	36	A ² Scorpii	C	31.1	34.2	37.4	40.3	46.3	52.5	55.5	58.6	1.6	15. 45. 46.36		46.57				15. 46. 5.04	- 2.15
	37	π Scorpii	C	42.1	45.2	48.1	51.2	57.3	3.5	6.7	9.6	12.8	15. 50. 57.36		57.57				15. 51. 16.04	- 2.20
	38	β ¹ Scorpii	C	35.5	38.6	41.4	44.3	50.3	56.1	59.1	1.8	5.0	15. 57. 50.22		50.41	8.91	18.50		15. 58. 9.89	- 2.17
	39	Piazzi XVI. 10 ..	C	45.0	47.9	50.8	53.7	59.6	5.5	8.4	11.5	14.5	16. 5. 59.63		59.82				16. 6. 18.30	- 2.22
	40	25 Herculis	C	21.4	25.0	28.3	31.8	38.8	45.7	49.3	52.7	56.2	16. 20. 38.77		38.72				16. 20. 57.20	- 2.28
	41	κ Ophiuchi	M	11.6	14.5	17.1	20.0	25.6	31.3	34.1	36.8	39.5	16. 51. 25.59		25.66	44.44	18.78	18.33†	....	
	42	ε Herculis	M	55.7	59.0	2.0	5.3	11.8	18.2	21.7	24.7	28.1	16. 55. 11.81		11.78	30.43	18.65		....	

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 16, 19, and 28, -12".50: -12".50: and -16".00.

Corrections for passage of Semidiameter, Nos. 6 and 23, +63".20: and +0".48.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

June 23 to June 28, 72 Ophiuchi. The azimuthal error by tabular places of δ Ursæ Minoris and Cephei 51 S.P., allowing -0".01 for clock-rate.

June 28, β Andromedæ. The azimuthal error by tabular places of β Andromedæ and Polaris.

June 29 to July 1. The azimuthal error used is the mean of those (+3".08 and +2".53) determined by tabular places of δ Ursæ Minoris and Cephei 51 S.P., and of λ Ursæ Minoris and θ Capricorni on July 1.

1. Cloudy.

6. Cloudy; very faint. Correction to R.A. on true meridian, +0".01.

7. Very diffused.

25. Extremely faint; cloudy.

Reading of Transit-Micrometer, $32^{\text{h}}.400$.
 Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 3, 4, 9, 22, 39, and 47, $-18^{\text{h}}.60$: $-18^{\text{h}}.60$: $-18^{\text{h}}.60$:
 $-19^{\text{h}}.60$: $-19^{\text{h}}.90$: and $-20^{\text{h}}.50$.
 Corrections for passage of Semidiameter, Nos. 12, 21, and 36, $-71^{\text{h}}.80$: $+0^{\text{h}}.49$: and $+0^{\text{h}}.63$.
 † This clock-error has been used in the reduction of the observations made with the Altazimuth.
 July 2 to 4. The azimuthal error by five consecutive transits of Polaris S.P. and Polaris.

7. The time at the eighth wire is also used as the fifth wire in an Altazimuth transit, $\gg$ L. L., Face Left.	8. Well condensed planetary nucleus.
12. Correction to R.A. on true meridian, $+0^s.01$.	21, 22, 23, 35, 39, 41, 43, 45, 46. Cloudy.
25, 26. Very faint and tremulous.	30. Very faint.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of		Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.		Collimation. (Level).	[Azimuth].						
July 3	1	Spica	II	0 ⁶	3 ⁵	6 ³	9 ²	14 ⁸	20 ³	25 ³	26 ⁰	29 ⁰	13. 18. 14 ⁷⁶	+ 0 ⁶⁸		14 ⁹⁷	34 ⁵⁵	19 ⁵⁸	19 ²¹	13. 18. 34 ⁵⁴	- 1 ¹⁸
	2	ζ Virginis	II	44 ¹	47 ⁰	49 ⁷	52 ⁵	58 ⁰	3 ⁶	6 ²	9 ¹	11 ⁹	13. 27. 57 ⁹⁹	(- 2 ⁷¹)		58 ¹⁶	17 ⁶⁹	19 ⁵³	[0 ⁶⁴]	13. 28. 17 ⁷³	- 1 ²⁹
	3	η Ursæ Majoris ..	II	..	59 ⁷	4 ⁰	8 ⁴	17 ⁰	25 ⁵	30 ⁰	34 ⁰	..	13. 42. 16 ⁹⁰	[+ 4 ⁴⁵]		16 ⁷¹	..	..	..	13. 42. 36 ²⁸	- 1 ⁸⁵
	4	η Boötis	II	8 ⁴	11 ⁴	14 ²	17 ¹	23 ⁰	28 ⁹	31 ⁸	34 ⁷	37 ⁷	13. 48. 23 ⁰⁰			23 ⁰⁶	42 ⁶³	19 ⁵⁷	..	13. 48. 42 ⁶⁴	- 1 ⁵¹
	5	ζ Herculis	II	58 ⁵	1 ⁸	4 ⁹	8 ¹	14 ⁸	21 ⁴	24 ⁶	27 ⁹	31 ²	16. 36. 14 ⁷⁷			14 ⁷⁴	34 ⁴⁶	19 ⁷²	..	16. 36. 34 ³⁹	- 2 ²²
	6	25 Scorpii	II	35 ⁸	38 ⁸	41 ⁹	45 ⁰	51 ⁰	57 ²	0 ⁴	3 ⁴	6 ³	16. 38. 51 ⁰⁶			51 ³⁸	..	..	..	16. 39. 11 ⁰³	- 2 ⁴⁴
	7	50 Herculis	II	10 ⁶	13 ⁹	17 ⁰	20 ²	26 ⁶	33 ⁰	36 ¹	39 ⁴	42 ⁶	16. 45. 26 ⁵⁷			26 ⁵⁴	..	..	..	16. 45. 46 ²⁰	- 2 ²⁴
	8	Groombridge 2390	II	..	..	..	..	..	14 ²	19 ⁵	25 ²	30 ⁹	16. 52. 2 ⁶⁹			2 ³¹	..	..	..	16. 52. 21 ⁹⁷	- 2 ⁹⁷
	9	Groombridge 2411	II	44 ⁶	54 ⁸	4 ⁰	13 ⁸	33 ⁰	52 ⁰	1 ⁸	11 ²	21 ¹	16. 58. 32 ⁸⁴			32 ⁰²	..	..	..	16. 58. 51 ⁶⁸	- 4 ²⁶
	10	Groombridge 2432	II	48 ⁴	54 ²	59 ⁶	5 ⁴	16 ⁶	28 ⁰	33 ⁸	39 ⁴	45 ¹	17. 14. 16 ⁶⁷			16 ²⁹	..	..	..	17. 14. 35 ⁹⁶	- 3 ⁰⁰
	11	Groombridge 2433	II	13 ³	19 ⁰	24 ⁹	30 ¹	41 ³	52 ⁹	58 ⁸	4 ³	9 ⁸	17. 14. 41 ⁵⁵			41 ¹⁷	..	..	..	17. 15. 0 ⁸⁴	+ 2 ⁹⁹
	12	19 Camelop. S.P.	II	..	..	..	..	42 ⁰	54 ⁵	1 ⁰	7 ⁰	13 ⁹	17. 24. 42 ⁰²			42 ⁷¹	..	..	..	5. 25. 2 ³⁸	+ 1 ¹⁴
	13	23 Camelop. S.P.	II	43 ¹	49 ²	55 ⁰	0 ⁶	12 ⁰	23 ⁷	29 ¹	35 ³	41 ²	17. 32. 12 ¹⁹			12 ⁸²	..	..	..	5. 32. 32 ⁵⁰	+ 0 ⁹⁶
	14	72 Ophiuchi.	II	51 ⁰	53 ⁹	56 ⁶	59 ⁵	5 ¹	10 ⁶	13 ⁵	16 ²	19 ¹	18. 1. 5 ⁰⁴			5 ¹⁵	24 ⁸⁵	19 ⁷⁰	..	18. 1. 24 ⁸⁴	- 2 ³¹
	15	δ Ursæ Min. (E&E)	II	26 ²	13 ⁰	0 ²	..	19 ⁵	..	..	..	..	18. 12. 58 ⁸⁰			54 ²⁰	14 ⁶²	20 ⁴²	..	18. 13. 13 ⁸⁹	- 15 ⁷²
	16	Piazzi XVIII. 93	II	4 ⁷	12 ⁰	19 ²	26 ⁴	40 ⁷	55 ¹	2 ²	9 ⁵	16 ⁵	18. 19. 40 ⁶⁴			40 ⁰⁹	..	..	..	18. 19. 59 ⁷⁹	- 3 ³⁸
	17	α Lyre	C	5 ⁶	9 ²	12 ⁶	16 ²	23 ¹	30 ¹	33 ⁸	37 ⁴	41 ⁰	18. 32. 23 ¹⁹			23 ¹⁰	42 ⁶⁹	19 ⁵⁹	19 ¹¹†	....	..
	18	Ceph. 51 S.P. (E&E)	II	36 ⁵	36 ⁰	32 ⁸	29 ⁰	..	..	..	..	..	18. 40. 4 ³²			10 ²⁶	28 ⁸⁰	18 ⁵⁴	19 ²¹	6. 40. 29 ⁹⁷	+ 16 ¹¹
	19	β Lyre	II	..	..	58 ³	1 ⁷	8 ¹	15 ⁰	18 ²	21 ⁶	25 ⁰	18. 45. 8 ²⁹			8 ²⁴	27 ⁹⁶	19 ⁷²	..	18. 45. 27 ⁹⁵	- 2 ³⁰
	20	ω Aquilæ	II	22 ⁵	25 ³	28 ⁰	30 ⁹	36 ⁵	42 ³	45 ⁰	47 ⁸	50 ⁷	19. 11. 36 ⁵³			36 ⁶³	56 ³⁷	19 ⁷⁴	..	19. 11. 56 ³⁵	- 2 ²⁹
	21	Δ Aquilæ	II	14 ⁹	..	20 ⁶	23 ⁴	29 ⁰	34 ⁹	37 ⁶	..	43 ³	19. 13. 29 ⁰⁸			29 ¹⁸	..	..	..	19. 13. 48 ⁹⁰	- 2 ²⁸
	22	8 Cygni	II	31 ²	34 ⁶	38 ⁰	41 ¹	47 ⁹	54 ⁵	57 ⁹	1 ²	4 ⁷	19. 26. 47 ⁸⁷			47 ⁸²	..	..	..	19. 27. 7 ⁵⁵	- 2 ²⁴
	23	ε Sagittarii	C	58 ⁵	1 ⁴	4 ³	7 ¹	13 ⁰	18 ⁶	21 ⁵	24 ³	27 ⁴	19. 33. 12 ⁸⁸			13 ¹⁴	32 ⁷⁹	19 ⁶⁵	19 ¹¹†	....	..
	24	Comet III. 1874 S.P.	II	10 ⁰	15 ⁰	20 ⁶	27 ³	40 ³	52 ⁴	58 ⁵	5 ⁴	11 ⁰	19. 38. 40 ¹¹			40 ⁷⁸	..	..	19 ²¹	7. 39. 0 ⁵¹	..
	25	ι Aquarii	L	5 ⁹	9 ¹	11 ⁷	14 ⁷	20 ³	26 ⁰	29 ⁰	31 ⁷	34 ⁶	21. 59. 20 ³²			20 ⁵⁷	..	..	18 ⁸³	21. 59. 39 ⁹⁹	- 2 ¹²
	26	θ Aquarii	L	39 ⁵	42 ²	45 ⁰	47 ⁹	53 ³	59 ⁰	1 ⁸	4 ⁷	7 ³	22. 9. 53 ³⁹			53 ⁶¹	12 ⁹⁵	19 ³⁴	[0 ⁶⁴]	....	..
	27	45 Aquarii	L	43 ⁰	45 ⁹	48 ⁶	51 ⁵	57 ²	3 ⁰	5 ⁸	8 ⁷	11 ⁷	22. 11. 57 ²⁴			57 ⁴⁹	..	..	..	22. 12. 16 ⁹¹	- 2 ⁰⁵
	28	Lalande 44356.	L	5 ⁷	8 ⁸	11 ⁶	14 ⁵	19 ⁹	25 ⁸	28 ⁷	31 ⁵	34 ³	22. 34. 20 ⁰⁷			20 ¹⁶	..	..	..	22. 34. 39 ⁵⁹	- 1 ⁶³
	29	Δ 2 L.	L	14 ⁸	17 ⁷	20 ⁷	23 ⁶	29 ⁴	35 ³	38 ⁰	41 ¹	43 ⁹	22. 45. 29 ³⁶			29 ⁶⁰	..	..	..	22. 44. 40 ⁷¹	..
	30	α Pegasi	L	56 ⁷	59 ⁶	2 ⁴	5 ⁴	11 ⁰	16 ⁸	19 ⁶	22 ⁴	25 ³	22. 58. 11 ⁰¹			11 ⁰⁹	30 ⁶⁰	19 ⁵¹	..	....	..
	31	Polaris (E&E)	J	..	..	..	..	..	19 ⁰	14 ⁰	11 ⁵	1. 12. 8 ⁶³	(- 2 ²⁷)			57 ⁹¹	18 ⁶⁷	20 ⁷⁶	19 ⁷⁹	1. 12. 17 ⁷³	+ 19 ⁶⁰
	32	η Piscium	J	..	14 ¹	16 ⁸	19 ⁸	..	31 ¹	33 ⁹	36 ⁸	..	1. 24. 25 ³⁹			25 ⁴⁹	45 ²⁸	19 ⁷⁹	[0 ⁷⁰]	1. 24. 45 ³²	- 0 ⁷²
July 4	33	Polaris S.P. (E&E)	J	30 ⁰	26 ⁵	20 ⁵	18 ⁰	9 ⁰	..	..	..	..	13. 11. 49 ³²			0 ³⁰	19 ⁰⁸	18 ⁷⁸	..	1. 12. 20 ⁴⁸	+ 19 ¹⁹
	34	Spica	J	0 ⁰	2 ⁹	5 ⁸	8 ⁶	14 ¹	19 ⁷	22 ⁷	25 ⁴	28 ²	13. 18. 14 ¹⁴			14 ³⁸	34 ⁵⁴	20 ¹⁶	..	13. 18. 34 ⁵⁶	- 1 ¹⁷
	35	ζ Virginis	J	43 ⁵	46 ⁴	49 ⁰	51 ⁸	57 ²	2 ⁹	5 ⁸	8 ⁵	11 ²	13. 27. 57 ³⁴			57 ⁵²	17 ⁶⁸	20 ¹⁶	..	13. 28. 17 ⁷⁰	- 1 ²⁸
	36	η Ursæ Majoris ..	J	54 ⁷	59 ⁰	3 ²	7 ⁶	16 ⁰	24 ⁸	29 ⁸	33 ³	37 ⁶	13. 40. 16 ¹¹			15 ⁹⁵	..	..	..	13. 40. 36 ¹⁴	- 1 ⁸³
	37	η Boötis	J	7 ⁷	10 ⁶	13 ⁵	16 ⁴	22 ²	28 ¹	31 ⁰	34 ⁰	36 ⁹	13. 48. 22 ²⁵			22 ³³	42 ⁶²	20 ²⁹	..	13. 48. 42 ⁵²	- 1 ⁵⁰
	38	κ Ophiuchi	J	9 ⁹	12 ⁹	15 ⁷	18 ⁴	24 ⁰	29 ⁶	32 ⁴	35 ¹	38 ⁰	16. 51. 23 ⁹⁸			24 ¹²	44 ⁴⁴	20 ³²	..	16. 51. 44 ⁴⁰	- 2 ¹⁹
	39	Groombridge 2395	J	18 ⁴	24 ⁶	30 ⁷	36 ⁵	48 ⁴	0 ⁵	6 ⁵	12 ²	18 ⁶	16. 54. 48 ⁴⁴			48 ⁰⁹	..	..	..	16. 55. 8 ³⁷	- 3 ⁰⁷
	40	Groombridge 2419	J	..	5 ²	18 ⁰	31 ⁰	57 ⁴	23 ³	36 ¹	49 ⁶	..	17. 1. 57 ¹¹			56 ⁰⁶	..	..	..	17. 2. 16 ³⁵	- 5 ³⁵
	41	Piazzi XVII. 23.	J	17 ⁵	21 ⁰	24 ³	27 ³	34 ⁰	40 ⁶	44 ⁰	47 ³	50 ³	17. 8. 34 ⁰⁰			34 ³⁸	..	..	..	17. 8. 54 ⁶⁷	- 2 ⁷²
	42	Groomb. 944 S.P.	J	34 ²	7 ⁸	40 ⁰	13 ²	17 ⁸	22 ⁴	54 ⁹	26 ⁷	59 ⁸	17. 21. 17 ⁶⁹			20 ⁹²	..	..	..	5. 21. 41 ²²	+ 9 ⁵⁰
	43	72 Ophiuchi.	J	50 ⁵	53 ⁴	56 ²	58 ⁷	4 ²	10 ⁰	12 ⁹	15 ⁸	18 ⁵	18. 1. 4 ⁴⁵			4 ⁵⁸	24 ⁸⁵	20 ²⁷	..	18. 1. 24 ⁹⁰	- 2 ³¹
	44	δ Ursæ Min. (E&E)	J	22 ⁵	12 ⁰	58 ⁰	..	..	51 ⁵	38 ⁰	24 ⁰	..	18. 12. 55 ⁸³			51 ⁶⁴	14 ⁵⁰	22 ⁸⁶	..	18. 13. 11 ⁹⁶	- 15 ⁶⁰
	45	Ceph. 51 S.P. (E&E)	J	37 ⁵	36 ⁵	33 ⁵	31 ⁰	..	..	..	..	..	18. 40. 4 ⁵⁵			10 ⁰³	28 ⁹⁰	18 ⁸⁷	..	6. 40. 30 ³⁷	+ 16 ⁰¹
	46	α Vulpeculæ	J	54 ⁴	57 ⁵	0 ⁴	3 ⁶	9 ⁷	15 ⁶	18 ⁸	21 ⁸	24 ⁹	19. 23. 9 ⁶⁰			9 ⁶⁵	29 ⁹⁸	20 ³³	..	19. 23. 30 ⁰¹	- 2 ²⁴
	47	ε Sagittarii	WC	57 ⁸	0 ⁷	3 ⁶	6 ⁷	12 ⁰	18 ⁰	21 ⁰	23 ⁶	26 ⁷	19. 33. 12 ²²			12 ⁴⁹	32 ⁸¹	20 ³²	19 ⁷⁶†	....	..
	48	Comet III. 1874 S.P.	J	19 ²	25 ²	31 ⁰	37 ⁰	49 ¹	1 ¹	7 ⁰	12 ⁹	19 ⁴	19. 39. 49 ¹⁵			49 ⁷⁸	..	..	19 ⁷⁹	7. 40. 10 ¹⁴	..

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 15, 18, 31, 33, 44, and 45, - 20".60: - 20".60: - 20".90: - 21".30: - 21".40: and - 21".40.

Correction for passage of Semidiameter, No. 29, - 68".34.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

24. Faint; misty.
41. Very faint.

29. Correction to R.A. on true meridian, + 0".01.
48. Observed with field slightly illuminated.

30. Faint; cloudy.

1876GCO
MM...36A...1A

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation, (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at ^h Sidereal and [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.										
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.																		
				s	s	s	s	s	s	s	s	s																		
				h	m	s																								
July 4	1	μ Aquarii	WC	19 ^o 22 ^o 24 ^o 27 ^o 32 ^o 38 ^o 41 ^o 44 ^o 47 ^o 20. 45. 33. 08	+0 ^o 68 (-2 ^o 27) [+4 ^o 45]	33.31	53.69	20.38	19 ^h 76 ^m	23. 37. 36. 06																				
	2	δ 2 L.	C	 16.9 22.6 28.4 23. 38. 22. 62		22.84			19 ^h 79 ^m																					
July 5	3	β Lyrae	M	50.4 53.7 56.9 0 ^o 1 6.8 13.5 16.8 20.0 23.3 18. 45. 6. 80	+0 ^o 76 (-1 ^o 88)	6.79	27.98	21.19	20 ^h 56 ^m	0. 29. 27. 57																				
	4	ε Aquilæ	M	21.2 24.0 26.7 29.4 35.3 41.3 44.1 47.0 49.8 18. 53. 35. 40		35.49	56.48	20.99	20 ^h 68 ^m																					
	5	δ 2 L.	WC	 7.8 13.4 19.0 21.6 24.6 27.5 0. 29. 13. 29		13.47			21 ^h 12 ^m																					
	6	μ Andromedæ	WC	8.0 11.6 15.0 18.4 25.5 32.5 36.0 39.6 43.2 0. 49. 25. 50		25.48	46.61	21.13	21 ^h 06 ^m																					
	7	β Andromedæ	WC	3.6 7.1 10.5 13.9 20.5 27.2 30.6 34.0 37.3 1. 2. 20. 50		20.51	41.66	21.15																						
	8	Polaris (E&E)	WC	 31.0 22.5 20.0 14.5 13.0 1. 12. 8. 18		59.12	20.38	21.26																						
	9	Aldebaran	S	5.7 8.7 11.5 14.3 20.3 25.8 28.7 31.7 34.4 4. 28. 20. 11		20.21	41.48	21.27	21 ^h 19 ^m																					
	10	Rigel	S	53.2 56.2 59.0 1.5 7.2 13.0 15.6 18.5 21.2 5. 8. 7. 24		7.47	28.73	21.26	21 ^h 06 ^m																					
	July 6	11	⊙ 1 L.	S		50.4 53.4 56.4 59.6 5.3 11.4 14.3 17.1 20.4 7. 0. 5. 35	-1 ^o 50 [+4 ^o 20]	13.89																						
		12	⊙ 2 L.	S		 16.2 22.3 28.2 31.3 34.4 37.4 7. 2. 22. 27																								
13		Venus 1 L.	S	30.7 33.5 36.3 39.2 44.8 50.8 53.6 56.4 59.3 9. 22. 44. 94	45.04																									
14		κ Ophiuchi	S	8.5 11.5 14.4 17.0 22.6 28.2 31.2 33.9 36.7 16. 51. 22. 65	22.79	44.43				21.64																				
15		ε Herculis	S	52.6 55.7 59.1 2.3 8.7 15.2 18.5 21.6 24.8 16. 55. 8. 69	8.72	30.41				21.69																				
16		72 Ophiuchi	S	49.0 52.0 54.6 57.3 3.2 8.7 11.4 14.2 17.0 18. 1. 3. 03	3.17	24.87				21.70																				
17		δ Ursæ Min. (E&E)	S	 45.0 .. 51.8 39.0 24.2 12.0 18. 11. 55. 31	51.78	14.29				22.51																				
18		8 Lynceis S.P.	S	 29.6 35.7 47.2 58.5 4.6 10.2 16.2 18. 25. 47. 15	47.68																									
19		Bradley 2348.	S	20.7 25.7 30.3 35.3 .. 54.5 59.3 4.4 9.0 18. 35. 44. 85	44.68																									
20		Ceph. 51 S.P. (E&E)	S	 24.0 19.5 16.0 12.5 11.0 18. 40. 1. 82	6.48	29.09				22.61																				
21		ε Aquilæ	S	20.4 23.4 26.3 29.0 34.8 40.4 43.4 46.4 49.0 18. 53. 34. 77	34.88	56.49				21.61																				
22		Piazzi VI. 334 S.P.	S	39.4 57.8 15.7 34.6 .. 45.7 4.2 21.4 .. 19. 11. 10. 01	11.55																									
23		Groombridge 2900	S	 16.0 31.0 .. 30.7 45.0 1.3 15.6 19. 29. 0. 71	58.67																									
24		Comet III. 1874 S.P.	S	 29.6 34.9 19. 41. 51. 92	52.43																									
25		θ Aquilæ	L	15.2 18.2 20.7 23.5 29.2 34.6 37.4 40.3 43.0 20. 4. 29. 10	29.29	50.51				21.22	20 ^h 70 ^m																			
26		α ² Capricorni	L	30.6 33.6 36.2 39.0 44.7 50.3 53.3 56.2 59.0 20. 10. 44. 75	44.99	6.22				21.23																				
27		α Delphini	S	13.0 15.8 18.8 22.0 27.4 33.4 35.9 39.1 41.7 20. 33. 27. 43	27.54	49.28				21.74	21 ^h 19 ^m																			
28		Radcliffe 4976	S	.. 41.4 4.5 27.7 13.5 2.3 25.0 48.1 .. 20. 41. 14. 42	12.30																									
29		θ Capricorni	S	 32.2 38.0 40.8 43.8 46.4 20. 58. 32. 09	32.36	54.20				21.84																				
30		Saturn 1 L.	S	48.8 51.9 54.7 57.6 3.6 21. 2. 3. 43	4.28																									
31	Saturn 2 L.	S	49.9 53.1 55.7 58.8 4.9 21. 2. 4. 59																											
32	Polaris (E&E)	M	.. 51.0 45.0 41.0 31.0 25.0 1. 12. 9. 10																											
July 7	33	⊙ 1 L.	M	56.2 59.3 2.2 5.0 11.1 17.1 20.0 23.1 26.1 7. 4. 11. 11	-1 ^o 50 [+4 ^o 20]	19.71																								
	34	⊙ 2 L.	M	13.0 16.0 19.1 22.2 28.0 34.0 37.3 40.1 43.2 7. 6. 28. 08																										
	35	Venus 1 L.	M	12.2 15.2 18.0 21.0 26.7 32.4 35.5 38.3 41.3 9. 27. 26. 71															26.84											
	36	Polaris S.P. (E&E)	M	 22.0 17.0 8.0 2.0 56.0 .. 13. 11. 52. 30															0.95	21.82	20.87									
	37	η Boötis	M	5.6 8.8 11.6 14.5 20.4 26.3 29.0 32.0 35.2 13. 48. 20. 36															20.49	42.59	22.10									
	38	α Draconis	M	6.6 13.3 19.6 26.2 39.0 52.3 58.7 5.3 12.0 14. 0. 39. 17															38.91											
	39	Arcturus	M	19.5 22.5 .. 28.3 34.0 40.0 .. 46.0 48.8 14. 9. 34. 13															34.26	56.40	22.14									
	40	ι Boötis	M	59.7 4.0 8.7 13.0 22.1 31.3 35.4 40.4 44.6 14. 11. 22. 10															22.02											
	41	ρ Boötis	M	47.3 50.6 53.6 57.0 3.4 10.0 13.2 16.5 19.6 14. 26. 3. 44															3.50	25.71	22.21									
	42	34 Boötis	M	17.2 20.4 23.3 26.3 32.6 38.7 42.0 45.2 48.2 14. 37. 32. 63															32.72											
	43	β Ursæ Minoris	M	55.0 5.8 16.2 26.5 47.4 8.6 19.1 29.3 40.3 14. 50. 47. 49															46.92											
	44	β Boötis	M	33.5 37.3 40.9 44.7 51.8 59.2 2.8 6.4 10.1 14. 56. 51. 83															51.84											
	45	β Libræ	M	39.2 41.8 .. 47.3 53.0 58.6 .. 4.4 7.1 15. 9. 53. 04															53.29	15.48	22.19									
	46	α Camelop. S.P.	M	34.3 40.9 .. 54.7 8.2 22.0 .. 35.4 42.7 16. 41. 8. 36															8.96											

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32^h 40^m.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 8, 17, 20, 32, and 36, - 22^h 20^m - 22^h 60^m - 22^h 60^m - 22^h 80^m and - 23^h 40^m.

Corrections for passage of Semidiameter, Nos. 2, 5, 13, and 35, - 67^h 27^m - 67^h 04^m + 0^h 49^m and + 0^h 49^m.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

July 5 and 6. The azimuthal error used is the mean of those (+ 4^h 07^m and + 4^h 16^m) determined

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of		Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal [Lossing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.				
														Collimation.											
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.		(Level).	[Azimuth].							"			
				s	s	s	s	s	s	s	s	s	h	m	s			s	s	s	s	h	m	s	s
July 7	1	κ Ophiuchi	M	8.2	11.0	13.6	16.4	22.2	27.8	30.5	33.4	36.1	16. 51. 22.12	+0.76	22.28	44.43	22.15	21.84	16. 51. 44.53	- 2.18					
	2	ϵ Herculis	M	52.0	55.4	58.4	1.5	8.0	14.4	18.0	20.8	24.2	16. 55. 8.04	(-1.50)	8.10	30.41	22.31	[0.58]	16. 55. 30.35	- 2.25					
	3	δ Ursæ Min.(E&E)	M	..	..	59.0	45.0	19.0	53.0	40.0	25.0	12.0	18. 12. 55.12	[+4.20]	51.88	14.17	22.29	..	18. 13. 14.16	-15.27					
	4	α Lyræ	M	2.5	..	9.7	13.2	20.4	27.5	31.0	..	38.0	18. 32. 20.30	..	20.32	42.70	22.38	..	18. 32. 42.61	- 2.38					
	5	Ceph. 51 S.P.(E&E)	M	..	35.0	33.0	32.0	25.0	16.0	15.0	..	..	18. 40. 1.06	..	5.40	29.23	23.83	..	6. 40. 27.69	+15.68					
	6	μ Aquilæ	M	22.0	24.8	27.4	30.2	36.0	41.4	44.2	47.0	49.8	19. 27. 35.85	..	36.03	58.36	22.33	..	19. 27. 58.34	- 2.36					
	7	ϵ^1 Sagittarii	M	55.8	58.8	1.5	4.3	10.3	15.8	19.1	21.6	24.8	19. 33. 10.21	..	10.49	32.85	22.36	..	19. 33. 32.80	- 2.66					
	8	Comet III. 1874 S.P.	M	19.4	25.0	30.2	36.0	46.8	57.9	2.9	8.2	13.3	19. 42. 46.67	..	47.15	..	..	7. 43. 9.47	..						
	9	β Aquilæ	C	33.6	36.4	39.2	41.8	47.4	53.0	55.7	58.3	1.1	19. 48. 47.37	..	47.55	9.73	22.18	21.71†	....	..					
	10	ϵ Sagittarii	C	19.0	22.4	25.5	28.4	34.7	41.2	44.3	47.4	50.5	19. 54. 34.79	..	35.14	57.34	22.20	[0.58]	....	..					
	11	β Andromedæ	L	2.6	6.0	9.4	12.7	19.6	26.4	29.7	33.0	36.5	1. 2. 19.51	(-2.07)	19.51	41.74	22.23	22.16	1. 2. 41.69	- 0.82					
	12	Polaris(E&E)	L	..	54.0	44.0	45.0	35.5	25.5	23.5	18.0	12.5	1. 12. 9.97	..	0.35	22.31	21.96	[0.53]	1. 12. 22.54	+15.96					
	13	β Arietis	L	4.6	7.7	10.5	13.4	19.4	25.2	28.2	31.0	34.2	1. 47. 19.33	..	19.41	41.57	22.16	..	1. 47. 41.61	- 0.69					
	14	δ 2 L.	L	0.1	3.3	5.9	9.0	14.7	20.6	23.5	26.4	29.3	2. 16. 14.74	..	14.86	..	..	..	2. 15. 27.87	..					
July 8	15	$\odot$ 1 L.	L	1.7	4.8	7.9	10.7	17.0	22.8	25.9	28.7	31.9	7. 8. 16.80	} 25.41	25.41	..	..	7. 9. 47.73	..	..					
	16	$\odot$ 2 L.	L	18.7	22.0	24.7	28.0	34.0	39.8	42.7	46.0	49.0	7. 10. 33.86												
	17	Venus 1 L.	L	52.7	55.7	58.4	1.4	7.0	12.8	16.0	18.7	21.6	9. 32. 7.12	..	7.22	..	..	9. 32. 30.08	..	..					
	18	Polaris S.P. (E&E)	L	..	..	24.5	21.5	..	4.0	..	53.0	53.0	13. 11. 49.19	..	59.06	22.82	23.76	..	1. 12. 21.51	+15.45					
	19	Spica	L	57.8	0.7	3.4	6.4	11.9	17.5	20.3	23.1	26.0	13. 18. 11.88	..	12.11	34.51	22.40	..	13. 18. 34.56	- 1.14					
	20	ζ Virginis	L	..	..	46.6	49.5	55.0	0.5	3.4	6.1	8.9	13. 27. 55.00	..	55.18	17.65	22.47	..	13. 28. 17.64	- 1.25					
	21	14 Camelop. S.P.	L	54.2	0.4	6.2	12.4	24.1	36.1	42.1	47.9	54.2	17. 1. 24.23	..	24.79	..	..	5. 1. 47.33	+ 0.81						
	22	α^1 Herculis	L	..	22.3	25.2	27.9	33.7	39.4	42.3	45.3	..	17. 8. 33.70	..	33.81	56.36	22.55	..	17. 8. 56.35	- 2.23					
	23	Groombridge 2432	L	45.1	51.0	56.5	2.0	13.5	24.6	30.5	36.2	41.8	17. 14. 13.42	..	13.15	..	..	17. 14. 35.69	- 2.92						
	24	Groombridge 3714	L	16.6	22.1	27.5	33.1	44.0	55.3	0.8	6.4	12.0	17. 23. 44.15	..	43.89	..	..	17. 24. 6.43	- 2.89						
	25	α Ophiuchi	L	30.6	33.5	36.3	39.0	44.7	50.6	53.3	55.9	58.9	17. 28. 44.74	..	44.86	7.39	22.53	..	17. 29. 7.40	- 2.28					
	26	δ Ursæ Min.(E&E)	L	..	..	..	..	19.0	52.0	39.0	25.2	12.8	18. 12. 54.24	..	50.48	14.02	23.54	..	18. 13. 13.04	-15.12					
	27	Ceph. 51 S.P.(E&E)	L	38.8	36.0	32.0	29.0	25.8	19.0	..	12.5	..	18. 40. 0.97	..	5.90	29.36	23.46	..	6. 40. 28.47	+15.55					
	28	Groom. 1245 S.P.	L	28.0	36.8	45.4	53.6	10.8	27.5	35.8	44.2	52.9	18. 51. 10.63	..	11.43	..	..	6. 51. 34.01	+ 1.40						
	29	ζ Aquilæ	L	2.6	5.5	8.3	11.2	16.7	22.5	25.4	28.2	31.0	18. 59. 16.80	..	16.92	39.39	22.47	..	18. 59. 39.50	- 2.33					
	30	Bradley 2420	L	20.2	23.7	26.7	29.9	36.5	43.0	46.1	49.4	52.7	19. 5. 36.44	..	36.46	..	..	19. 5. 59.04	- 2.32						
	31	Piazzi VI. 334 S.P.	L	39.2	57.3	15.0	32.7	9.1	44.6	2.5	20.0	38.5	19. 11. 8.91	..	10.52	..	..	7. 11. 33.10	+ 3.89						
	32	Piazzi XIX. 126	L	..	..	..	38.2	44.4	50.7	53.8	56.8	59.9	19. 21. 44.39	..	44.73	..	..	19. 22. 7.32	- 2.92						
	33	μ Aquilæ	L	21.7	24.5	27.4	30.0	35.6	41.2	44.0	46.8	49.5	19. 27. 35.61	..	35.76	58.38	22.62	..	19. 27. 58.35	- 2.38					
	34	Piazzi VII. 132 S.P.	L	..	45.7	2.9	19.6	53.4	27.1	43.8	0.3	..	19. 34. 53.42	..	54.95	..	..	7. 35. 17.54	+ 3.43						
35	Comet III. 1874 S.P.	L	11.8	17.0	21.8	27.0	37.5	48.0	53.2	58.2	3.6	19. 43. 37.60	..	38.08	..	..	7. 44. 0.68	..	..						
36	λ Ursæ Min.(E&E)	L	..	..	..	..	..	5.0	33.0	58.0	26.0	19. 50. 43.16	..	30.91	54.84	23.93	..	19. 50. 53.51	-37.62						
37	α^2 Capricorni	L	29.1	32.0	34.9	37.8	43.3	49.0	51.8	54.7	57.6	20. 10. 43.34	..	43.59	6.26	22.67	..	20. 11. 6.19	- 2.56						
38	ξ Aquarii	J	27.5	30.4	33.3	36.0	41.6	47.1	49.9	52.6	55.6	21. 30. 41.54	..	41.76	4.80	23.04	22.58†	....	..						
39	ϵ Pegasi	J	24.8	27.6	30.3	33.1	38.6	44.2	47.0	49.9	52.8	21. 37. 38.68	..	38.82	1.89	23.07	[0.53]	....	..						
40	Sirius	C	57.3	0.2	3.2	6.0	11.9	17.5	20.6	23.3	26.1	6. 39. 11.77	(-2.41) [+5.59]	12.12	..	..	22.91 [0.54]	6. 39. 35.18	+ 0.47						
July 9	41	$\odot$ 1 L.	C	7.0	10.1	13.0	16.0	22.0	28.0	31.0	33.9	37.0	7. 12. 21.98	} 30.40	30.40	..	..	7. 13. 53.47	..	..					
	42	$\odot$ 2 L.	C	23.5	26.6	29.6	32.6	38.7	44.8	47.7	50.7	53.6	7. 14. 38.62												
	43	Venus 1 L.	C	31.6	34.5	37.3	40.2	45.8	51.6	54.5	57.5	0.4	9. 36. 45.91	..	46.04	..	..	9. 37. 9.66	..	..					
	44	Polaris S.P. (E&E)	C	..	..	..	..	10.0	..	..	53.0	50.0	13. 11. 45.81	(-3.24)	0.70	23.87	23.17	..	..	..					
	45	σ Ophiuchi	C	40.7	43.6	46.5	49.0	54.6	0.1	2.9	5.7	8.5	17. 19. 54.60	..	54.77	18.07	23.30	..	..	..					
	46	β Draconis	C	52.4	56.8	1.2	5.6	14.9	23.8	28.3	32.9	37.6	17. 27. 14.79	..	14.50	..	..	17. 27. 37.80	- 2.59	..					

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, $32'' \cdot 400$.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 3, 5, 12, 18, 26, 27, 36, and 44, $-23^{\circ} 50' : -23^{\circ} 50' : -23^{\circ} 60' : -24^{\circ} 00' : -24^{\circ} 20' : -24^{\circ} 40' : -24^{\circ} 60' : -24^{\circ} 80' : -24^{\circ} 100' : -24^{\circ} 120' : -24^{\circ} 140' : -24^{\circ} 160' : -24^{\circ} 180' : -24^{\circ} 200' : -24^{\circ} 220' : -24^{\circ} 240' : -24^{\circ} 260' : -24^{\circ} 280' : -24^{\circ} 300' : -24^{\circ} 320' : -24^{\circ} 340' : -24^{\circ} 360' : -24^{\circ} 380' : -24^{\circ} 400' : -24^{\circ} 420' : -24^{\circ} 440' : -24^{\circ} 460' : -24^{\circ} 480' : -24^{\circ} 500' : -24^{\circ} 520' : -24^{\circ} 540' : -24^{\circ} 560' : -24^{\circ} 580' : -24^{\circ} 600' : -24^{\circ} 620' : -24^{\circ} 640' : -24^{\circ} 660' : -24^{\circ} 680' : -24^{\circ} 700' : -24^{\circ} 720' : -24^{\circ} 740' : -24^{\circ} 760' : -24^{\circ} 780' : -24^{\circ} 800' : -24^{\circ} 820' : -24^{\circ} 840' : -24^{\circ} 860' : -24^{\circ} 880' : -24^{\circ} 900' : -24^{\circ} 920' : -24^{\circ} 940' : -24^{\circ} 960' : -24^{\circ} 980' : -24^{\circ} 1000' : -24^{\circ} 1020' : -24^{\circ} 1040' : -24^{\circ} 1060' : -24^{\circ} 1080' : -24^{\circ} 1100' : -24^{\circ} 1120' : -24^{\circ} 1140' : -24^{\circ} 1160' : -24^{\circ} 1180' : -24^{\circ} 1200' : -24^{\circ} 1220' : -24^{\circ} 1240' : -24^{\circ} 1260' : -24^{\circ} 1280' : -24^{\circ} 1300' : -24^{\circ} 1320' : -24^{\circ} 1340' : -24^{\circ} 1360' : -24^{\circ} 1380' : -24^{\circ} 1400' : -24^{\circ} 1420' : -24^{\circ} 1440' : -24^{\circ} 1460' : -24^{\circ} 1480' : -24^{\circ} 1500' : -24^{\circ} 1520' : -24^{\circ} 1540' : -24^{\circ} 1560' : -24^{\circ} 1580' : -24^{\circ} 1600' : -24^{\circ} 1620' : -24^{\circ} 1640' : -24^{\circ} 1660' : -24^{\circ} 1680' : -24^{\circ} 1700' : -24^{\circ} 1720' : -24^{\circ} 1740' : -24^{\circ} 1760' : -24^{\circ} 1780' : -24^{\circ} 1800' : -24^{\circ} 1820' : -24^{\circ} 1840' : -24^{\circ} 1860' : -24^{\circ} 1880' : -24^{\circ} 1900' : -24^{\circ} 1920' : -24^{\circ} 1940' : -24^{\circ} 1960' : -24^{\circ} 1980' : -24^{\circ} 2000' : -24^{\circ} 2020' : -24^{\circ} 2040' : -24^{\circ} 2060' : -24^{\circ} 2080' : -24^{\circ} 2100' : -24^{\circ} 2120' : -24^{\circ} 2140' : -24^{\circ} 2160' : -24^{\circ} 2180' : -24^{\circ} 2200' : -24^{\circ} 2220' : -24^{\circ} 2240' : -24^{\circ} 2260' : -24^{\circ} 2280' : -24^{\circ} 2300' : -24^{\circ} 2320' : -24^{\circ} 2340' : -24^{\circ} 2360' : -24^{\circ} 2380' : -24^{\circ} 2400' : -24^{\circ} 2420' : -24^{\circ} 2440' : -24^{\circ} 2460' : -24^{\circ} 2480' : -24^{\circ} 2500' : -24^{\circ} 2520' : -24^{\circ} 2540' : -24^{\circ} 2560' : -24^{\circ} 2580' : -24^{\circ} 2600' : -24^{\circ} 2620' : -24^{\circ} 2640' : -24^{\circ} 2660' : -24^{\circ} 2680' : -24^{\circ} 2700' : -24^{\circ} 2720' : -24^{\circ} 2740' : -24^{\circ} 2760' : -24^{\circ} 2780' : -24^{\circ} 2800' : -24^{\circ} 2820' : -24^{\circ} 2840' : -24^{\circ} 2860' : -24^{\circ} 2880' : -24$

1876GCGMM: 36A...1A

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1874.

[51]

1876 MONTH and A Y.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Lossing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
				s	s	s	s	s	s	s	h m s	"	s	s	s	s	h m s	s		
July 10	1	⊙ 1 L.	AD	11'9	15'0	17'9	21'0	27'0	33'0	36'0	39'0	42'0	7. 16. 26'96	+0'76	} 35'15			23'42	7. 17. 58'76	
	2	⊙ 2 L.	AD	28'4	31'5	34'4	37'4	43'4	49'3	52'3	55'3	58'3	7. 18. 43'35	(-4'17)						
	3	Venus 1 L.	AD	9'3	12'2	15'0	17'8	23'6	29'3	32'2	35'2	38'1	9. 41. 23'62	[+5'59]						
	4	ζ Aquilæ	AD	1'2	4'3	6'9	9'8	15'4	21'2	24'0	26'8	29'8	18. 59. 15'47							
	5	ω Aquilæ	AD	18'3	21'1	24'0	26'9	32'5	38'1	41'0	43'7	46'7	19. 11. 32'46							
	6	α Vulpeculæ	AD	51'0	54'1	57'2	0'0	6'2	12'2	15'3	18'1	21'4	19. 23. 6'13							
	7	μ Aquilæ	AD	20'4	23'4	26'0	28'8	34'5	39'9	42'8	45'5	48'4	19. 27. 34'39							
July 12	8	γ Aquilæ	WC	39'0	41'9	44'6	47'6	53'1	58'7	1'5	4'2	7'0	19. 39. 53'05	(-2'88)	53'20	18'50	25'30	24'81	....	
	9	Comet III. 1874 S.P.	WC	1'0	5'4	9'6	14'1	22'7	31'3	35'8	39'8	44'5	19. 46. 22'73		23'28			[0'57]	7. 46. 48'56	
	10	c Sagittarii.	WC	16'0	19'3	22'2	25'6	31'8	38'0	41'1	44'4	47'5	19. 54. 31'74		32'17	57'43	25'26		....	
July 13	11	Venus 1 L.	L	54'0	57'0	59'7	2'6	8'2	13'9	17'0	19'8	22'8	9. 55. 8'31	+0'62	8'41			25'08	9. 55. 34'21	
	12	ε Virginis	L	15'7	18'6	21'5	24'2	29'8	35'5	38'5	41'2	44'0	12. 55. 29'86	(-3'63)	29'98	55'35	25'37	[0'54]	....	
	13	Polaris S.P. (E&E)	L	32'0	29'0	22'0	19'5	13'0	4'0	..	..	..	13. 11. 45'14	[+6'21]	2'37	27'73	25'36		....	
	14	Spica	L	54'6	57'6	0'4	3'2	8'8	14'4	17'4	20'1	23'0	13. 18. 8'81		9'10	34'46	25'36		....	
	15	α Serpentis	L	26'0	29'0	31'8	34'5	40'0	45'6	48'5	51'2	54'0	15. 37. 40'05		40'20	5'64	25'44		....	
	16	3 Herculis	L	58'2	1'1	4'0	6'8	12'3	17'7	20'7	23'4	26'2	15. 54. 12'25		12'42				15. 54. 37'86 - 1'98	
	17	Piazzi XVI. 10 ..	L	37'6	40'7	43'6	46'5	52'3	58'4	1'3	4'3	7'3	16. 5. 52'43		52'82				16. 6. 18'26 - 2'18	
	18	λ Ursæ Min. (E&E)	L	..	..	..	..	..	9'5	38'0	1'0	30'5	19. 50. 43'58		22'06	53'96	31'90		....	
																	Hardy.			
July 14	19	Venus 1 L. (E&E)	S	25'6	40'0	54'5	8'8	..	36'9	51'2	..	..	10. 0. 8'57	[+5'55]	8'64			-1'79	10. 0. 7'25	
	20	ε Virginis .. (E&E)	S	..	29'0	43'2	57'4	11'4	25'4	39'5	..	..	12. 55. 57'27		57'36	55'34	-2'02	[+0'23]	....	
	21	Polaris S.P. (E&E)	S	33'0	..	..	..	..	..	1'0	55'5	54'0	13. 12. 14'18		30'22	28'58	-1'64		....	
	22	α Ophiuchi. (E&E)	S	26'5	40'7	54'9	9'2	23'4	37'6	51'9	..	..	17. 29. 9'20		9'28	7'38	-2'00		....	
	23	β Ophiuchi. (E&E)	S	37'2	51'1	5'2	19'1	..	47'0	0'8	..	..	17. 36. 19'07		19'21	17'19	-2'02		....	
	24	δ Ursæ Min. (E&E)	S	26'5	..	..	..	..	53'5	40'8	27'0	15'0	18. 13. 20'13		13'90	12'79	-1'11		....	
	25	Ceph. 51 S.P. (E&E)	S	..	35'0	31'0	28'5	..	18'5	16'0	11'8	..	18. 40. 24'26		32'24	30'78	-1'46		....	
	26	ε Aquilæ .. (E&E)	S	..	30'0	44'2	58'4	12'7	27'0	41'2	..	..	18. 53. 58'43		58'50	56'55	-1'95		....	
	27	Bradley 2440 (E&E)	S	18'0	9'0	20'0	..	22'0	23'0	23'6	..	..	19. 3. 21'01		19'52				19. 3. 17'55 - 4'40	
	28	ε Aquarii .. (E&E)	S	13'5	27'3	41'4	55'4	..	23'5	37'5	..	..	20. 40. 55'46		55'71	53'75	-1'96		....	
	29	μ Aquarii .. (E&E)	S	13'4	27'4	41'4	55'4	9'5	23'5	37'5	..	..	20. 45. 55'46		55'71	53'89	-1'82		....	
	30	Saturn 1 L. (E&E)	S	40'4	54'8	9'0	..	..	..	..	..	..	21. 0. 23'84		} 24'91				21. 0. 22'92	
	31	Saturn 2 L. (E&E)	S	..	..	..	..	40'0	54'1	9'1	..	..	21. 0. 25'36							
July 15	32	ζ Herculis	E	50'9	..	57'5	0'6	7'3	13'7	17'1	..	23'5	16. 36. 7'21	(-3'39)	7'19	34'37	27'18	26'79†	....	
	33	κ Ophiuchi.	E	3'0	5'9	8'7	11'5	17'0	22'6	25'5	28'4	31'2	16. 51. 17'07	[+6'94]	17'25	44'41	27'16	[0'55]	....	
	34	η Ophiuchi.	C	..	..	..	..	..	53'0	55'7	58'6	17. 2. 44'26		44'64	11'55	26'91	26'56	17. 3. 11'59 - 2'41		
	35	δ Herculis.	C	11'5	14'6	17'5	20'6	26'7	32'8	35'8	38'8	41'9	17. 9. 26'66		26'71			[0'55]	17. 9. 53'66 - 2'22	
	36	43 Ophiuchi.	C	..	..	..	..	1'0	7'5	10'6	13'6	17'0	17. 15. 1'14		1'65				17. 15. 28'60 - 2'67	
	37	σ Ophiuchi.	C	37'2	40'0	42'6	45'4	51'0	56'5	59'4	2'0	4'8	17. 19. 50'97		51'19	18'07	26'98		17. 20. 18'15 - 2'29	
	38	Piazzi XVII. 203.	C	40'3	43'2	46'0	48'8	54'6	0'1	3'3	6'2	9'1	17. 35. 54'60		54'73				17. 36. 21'69 - 2'28	
	39	Piazzi XVII. 359.	C	25'9	29'2	32'2	35'4	41'7	48'0	51'1	54'3	57'5	17. 59. 41'67		42'18				18. 0. 9'15 - 2'87	
	40	δ Ursæ Min. (E&E)	C	29'0	16'5	3'0	48'0	22'5	..	..	..	..	18. 12. 52'68		45'76	12'59	26'83		....	
	41	Radcliffe 3896 ...	C	35'7	38'8	41'6	44'5	50'3	56'1	59'0	1'8	4'7	18. 16. 50'26		50'37				18. 17. 17'35 - 2'35	
	42	α Lyræ	C	58'0	1'6	5'3	8'7	15'7	23'0	26'5	29'9	33'5	18. 32. 15'77		15'66	42'71	27'05		18. 32. 42'64 - 2'39	
	43	Ceph. 51 S.P. (E&E)	C	..	35'5	32'5	29'0	24'5	19'5	..	..	..	18. 39. 55'20		4'19	31'00	26'81		....	
	44	Piazzi XIX. 126 ..	C	24'6	27'6	30'7	34'0	40'1	46'4	49'6	52'6	55'7	19. 21. 40'12		40'63				19. 22. 7'63 - 3'18	
	45	μ Aquilæ	C	17'4	20'3	23'0	25'8	31'4	36'9	39'7	42'4	45'3	19. 27. 31'34		31'53	58'45	26'92		19. 27. 58'54 - 2'45	

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 13, 18, 40, and 43, -27".70 : -27".80 : -29".60 : and -29".60.

Corrections for passage of Semidiameter, Nos. 3, 11, and 19, +0".49 : +0".50 : and +0".50.

† This clock-error has been used in the reduction of the observations made with the Altazimuth.

July 13. The azimuthal error by tabular places of Polaris S.P. and Spica.

July 14. The azimuthal error used is the mean of those (+5".76 and +5".33) determined by tabular places of ε Virginis and Polaris S.P. and of δ Ursæ Minoris and Cephei 51 S.P.

July 15 to Saturn 2 L. The azimuthal error used is the mean of those (+6".86 and +7".02) determined by tabular places of δ Ursæ Minoris and Cephei 51 S.P. and of μ Aquilæ and λ Ursæ Minoris, allowing -0".01 for clock-rate in each case.

3. Diffused and tremulous.

July 14. The observations on this day were made by eye and ear, using the clock Hardy, the registration on the Chronograph having failed.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
July 15	1	λ Ursæ Min. (E&E)	C	..	..	..	..	20.0	15.0	43.0	..	..	19. 50. 49.10	+0.62	26.67	53.43	26.76	26.56	...	
	2	32 Vulpeculæ ...	C	30.9	34.2	37.3	40.3	46.6	52.7	55.7	59.0	2.2	20. 48. 46.51	(-3.39)	46.53	13.61	27.08	[0.55]	20. 49. 13.57	- 2.22
	3	Saturn 1 L.	C	24.1	27.3	30.1	33.1	39.0	44.7	47.6	50.5	53.4	20. 59. 38.84	[+6.94]	39.92				21. 0. 6.96	
	4	Saturn 2 L.	C	25.6	28.6	31.5	34.5	40.2	46.0	49.0	51.7	54.8	20. 59. 40.19	(-2.49)				27.03	6. 39. 35.13	+ 0.37
	5	Sirius	AD	53.0	56.2	59.0	1.7	7.5	13.3	16.5	19.3	22.1	6. 39. 7.60	[+5.78]	7.94			[0.59]		
July 16	6	$\odot$ 1 L.	AD	31.4	34.6	37.6	40.5	46.5	52.4	55.6	58.4	1.3	7. 40. 46.46		54.46				7. 42. 21.68	
	7	$\odot$ 2 L.	AD	47.4	50.5	53.4	56.4	2.1	8.2	11.4	14.1	17.1	7. 43. 2.27							
	8	ϵ Virginis	AD	13.6	16.6	19.3	22.2	27.8	33.4	36.4	39.0	41.9	12. 55. 27.78		27.94	55.32	27.38		12. 55. 55.29	- 1.04
	9	Polaris S.P. (E&E)	AD	37.0	32.5	28.0	22.0	17.0	..	..	..	..	13. 11. 46.88		0.88	30.19	29.31		....	
	10	Spica	AD	52.6	55.6	58.3	1.1	6.8	12.4	15.4	18.1	21.0	13. 18. 6.79		7.09	34.42	27.33		13. 18. 34.45	- 1.05
	11	α Serpentis	L	24.3	27.0	30.0	32.5	37.9	43.7	46.6	49.4	52.1	15. 37. 38.14		38.33	5.61	27.28	26.90†	....	
	12	ϵ Serpentis	L	52.7	55.7	58.3	1.0	6.4	12.2	15.0	17.6	20.4	15. 44. 6.57		6.77	34.05	27.28		....	
	13	50 Hercules	AD	1.4	5.9	9.1	12.3	18.6	25.0	28.3	31.4	34.6	16. 45. 18.48		18.51			27.03	16. 45. 45.95	- 2.16
	14	κ Ophiuchi	AD	2.7	5.6	8.4	11.2	16.8	22.5	25.4	28.0	30.8	16. 51. 16.80		16.97	44.41	27.44		16. 51. 44.41	- 2.16
	15	δ^1 Draconis	AD	23.0	30.0	36.3	42.7	56.2	9.6	16.4	22.7	29.5	16. 54. 56.21		55.70				16. 55. 23.15	- 2.95
	16	δ^2 Draconis	AD	..	..	..	..	..	37.4	44.0	50.5	57.2	16. 55. 24.10		23.59				16. 55. 51.04	- 2.92
	17	δ Ursæ Min. (E&E)	AD	25.0	15.0	58.5	46.0	..	..	..	..	..	18. 12. 48.83		43.50	12.39	28.89		....	
	18	α Lyræ	AD	57.4	0.9	4.7	8.3	15.3	22.5	26.0	29.5	33.1	18. 32. 15.27		15.22	42.71	27.49		18. 32. 42.71	- 2.39
	19	Ceph. 51 S.P. (E&E)	AD	..	36.5	33.0	31.0	26.0	..	..	..	..	18. 39. 55.61		2.61	31.22	28.61		....	
	20	ϵ Aquilæ	AD	14.6	17.6	20.4	23.4	29.3	34.7	37.6	40.4	43.4	18. 53. 29.02		29.16	56.56	27.40		18. 53. 56.65	- 2.39
	21	Brad. 2421 (1st Star)	AD	27.6	39.0	50.3	0.7	24.1	45.8	57.0	8.5	19.5	18. 57. 23.52		22.44				18. 57. 49.94	- 4.12
	22	Brad. 2421 (2nd Star)	AD	28.8	40.4	51.4	1.9	25.3	47.0	58.0	9.4	20.6	18. 57. 24.67		23.59				18. 57. 51.09	- 4.12
	23	Bradley 2420	AD	15.5	18.7	21.9	25.0	31.7	38.0	41.4	44.7	47.7	19. 5. 31.60		31.61				19. 5. 59.11	- 2.36
	24	ω Aquilæ	AD	14.8	17.6	20.5	23.4	28.8	34.6	37.4	40.0	43.0	19. 11. 28.88		29.04	56.49	27.45		19. 11. 56.54	- 2.41
	25	Piazzi XIX. 126 ..	AD	24.0	27.2	30.2	33.5	39.6	45.7	49.0	52.0	55.2	19. 21. 39.57		40.00				19. 22. 7.50	- 3.03
	26	Piazzi VII. 132 S.P.	AD	24.0	40.5	57.1	14.4	47.6	21.7	38.4	55.4	12.7	19. 34. 48.11		50.28				7. 35. 17.79	+ 3.14
	27	Groomb. 1374 S.P.	AD	43.2	53.3	..	13.6	34.0	54.3	..	14.6	25.4	19. 44. 34.14		35.50				7. 45. 3.01	+ 1.36
	28	λ Ursæ Min. (E&E)	AD	..	..	..	..	13.0	..	..	2.0	31.0	19. 50. 40.92		23.56	53.20	29.64		....	
	29	Eurynome	AD	20.5	23.6	..	29.2	34.5	40.1	..	46.4	49.3	19. 55. 34.78		35.11				19. 56. 2.63	
	30	θ Aquilæ	AD	9.0	11.8	14.6	17.4	23.0	28.5	31.2	34.0	36.8	20. 4. 22.90		23.15	50.67	27.52		20. 4. 50.67	- 2.53
	31	α Ursæ Maj. S.P.	AD	49.4	55.2	0.8	6.6	18.0	29.4	35.4	40.8	46.7	20. 19. 18.06		18.84				8. 19. 46.37	+ 0.28
	32	3 Ursæ Maj. S.P.	AD	56.9	3.6	10.3	17.1	30.6	43.6	50.0	56.5	3.5	20. 27. 30.30		31.20				8. 27. 58.73	+ 0.41
	33	32 Vulpeculæ ...	AD	30.4	33.6	36.5	39.7	46.0	52.1	55.3	58.4	1.5	20. 48. 45.91		45.97	13.61	27.64		20. 49. 13.51	- 2.23
	34	Saturn 1 L.	AD	7.1	10.4	13.2	16.0	21.8	27.7	30.9	33.6	36.6	20. 59. 21.89							
	35	Saturn 2 L.	AD	8.6	11.6	14.4	17.4	23.2	29.1	32.1	35.0	37.8	20. 59. 23.22		22.92				20. 59. 50.47	
July 17	36	$\odot$ 1 L.	E	32.8	35.7	38.8	41.8	47.8	53.6	56.7	59.7	2.6	7. 44. 47.70	(-1.63)						
	37	$\odot$ 2 L.	E	48.5	51.6	54.5	57.5	3.5	9.4	12.5	15.4	18.4	7. 47. 3.46	[+6.02]	55.75			27.92	7. 46. 23.88	
	38	Venus 1 L.	E	54.6	57.6	0.5	3.4	9.0	14.7	17.5	20.3	23.4	10. 13. 8.98		9.19			[0.65]	10. 13. 37.89	
	39	Polaris S.P. (E&E)	E	..	..	..	..	20.0	13.0	10.0	1.5	0.0	13. 11. 49.77		2.36	30.99	28.63		....	
	40	η Boötis	E	59.5	2.4	5.3	8.3	14.2	19.9	22.8	25.7	28.7	13. 48. 14.07		14.24	42.48	28.24		13. 48. 42.53	- 1.36
	41	α Libræ	E	13.3	16.2	19.0	21.8	27.5	33.3	36.2	39.0	41.7	14. 43. 27.53		27.91	56.22	28.31		14. 43. 56.23	- 1.60
	42	α Coronæ	E	39.0	42.2	45.4	48.4	54.6	0.7	3.8	7.3	10.3	15. 28. 54.60		54.72	23.06	28.34		15. 29. 23.06	- 1.87
	43	Piazzi IV. 112 S.P.	E	..	..	49.6	0.5	23.6	46.5	57.4	..	..	16. 31. 23.59		24.98				4. 31. 53.35	+ 1.45
	44	Lacaille 7015	E	58.7	1.6	4.6	7.6	13.8	..	..	..	..	16. 43. 13.75		14.20				16. 43. 42.57	- 2.43
	45	β Camelop. S.P.	E	..	..	..	32.4	43.6	54.6	0.2	..	..	16. 51. 43.54		44.29				4. 52. 12.67	+ 0.26
	46	14 Camelop. S.P.	E	..	..	0.4	6.4	18.5	30.7	36.6	..	..	17. 1. 18.56		19.36				5. 1. 47.74	+ 0.39
	47	α Herculis	E	13.5	16.4	19.3	22.0	27.8	33.5	36.4	39.3	42.2	17. 8. 27.80		28.00	56.34	28.34		17. 8. 56.38	- 2.21

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (B & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 1, 9, 17, 19, 28, and 39, -29".60: -30".30: -30".40: 30".40: 30".40: and -31".00.

Corrections for passage of Semidiameter, No. 38, +0".50.

† This clock-error has been used in the reduction of the observation made with the Altazimuth.

July 15, Sirius, to July 16, Saturn 2 L. The azimuthal error used is the mean of those (+6".92, +5".59, and +4".83) determined by tabular places of Polaris S.P. and Spica and of δ Ursæ Minoris and Cephei 51 S.P., allowing 0".01 for clock-rate, and of λ Ursæ Minoris and θ Aquilæ.

July 17 to 19. The azimuthal error used is the mean of those (+6".08 and 5".96) determined by tabular places of Polaris S.P. and η Boötis on July 17, allowing 0".01 for clock-rate, and of Polaris S.P. and Spica on July 18.

9. Faint and tremulous.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at ^h Sidereal and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
July 17	1	δ Herculis	E	9.7	12.9	16.0	19.2	25.3	31.3	34.3	37.3	40.4	17. 9. 25.13	+0.62	25.27			27.92	17. 9. 53.65	- 2.20
	2	43 Ophiuchi.....	E	44.0	47.4	50.3	53.5	59.6	5.8	9.2	12.3	15.4	17. 14. 59.69	(-1.63)	0.17			[0.65]	17. 15. 28.56	- 2.66
	3	α Ophiuchi.....	C	24.9	27.7	30.5	33.5	39.0	44.7	47.6	50.4	53.4	17. 28. 39.05	[+6.02]	39.26	7.38	28.12	27.70†	....	....
	4	β Ophiuchi.....	C	34.8	37.6	40.3	43.3	48.6	54.4	57.2	59.7	2.6	17. 36. 48.70		48.95	17.19	28.24	....	....	....
	5	ν Draconis	E	..	..	5.7	14.8	31.6	48.7	57.4	..	..	18. 55. 31.59		30.98			29.72	18. 55. 59.41	- 3.47
	6	ζ Aquilæ	E	56.6	59.6	2.4	5.3	10.6	16.5	19.4	22.3	25.2	18. 59. 10.86		11.06	39.45	28.39		18. 59. 39.49	- 2.39
	7	59 Draconis.....	E	..	..	47.5	58.8	23.4	46.4	57.7	..	..	19. 13. 22.69		21.74				19. 13. 50.18	- 4.19
	8	α Aquilæ	E	..	0.6	3.4	6.2	11.8	..	..	22.8	25.8	19. 44. 11.74		11.98	40.55	28.57		19. 44. 40.44	- 2.46
	9	Saturn 1 L.	E	50.0	53.0	55.8	58.7	4.5	10.3	13.1	..	19.0	20. 59. 4.48		5.57				20. 59. 34.06	....
	10	Saturn 2 L.	E	51.4	54.4	57.3	0.2	5.8	11.6	14.5	..	20.4	20. 59. 5.88						....	....
	11	ζ Cygni	E	52.0	55.4	58.4	1.5	8.1	14.4	17.6	20.7	24.0	21. 7. 7.98		8.08	36.61	28.53		21. 7. 36.57	- 2.19
	12	β Tauri.....	L	35.7	38.9	42.0	45.3	51.6	57.7	0.8	4.0	7.2	5. 17. 51.44	(-1.66)	51.55	19.82	28.27	28.08	5. 18. 19.76	- 0.16
July 18	13	⊙ 1 L.....	L	34.3	37.2	40.0	43.4	48.9	55.0	57.8	0.7	4.0	7. 48. 49.01		57.03			[0.59]	7. 50. 25.30	....
	14	⊙ 2 L.....	L	50.0	52.8	55.7	59.0	4.7	10.6	13.6	16.6	19.6	7. 51. 4.71						....	....
	15	Regulus	L	57.2	59.8	2.7	5.6	11.4	16.8	19.8	22.6	25.5	10. 1. 11.25		11.46	39.80	28.34		10. 1. 39.79	- 0.23
	16	Venus 1 L.	L	21.9	24.8	27.8	30.5	36.4	42.4	44.6	47.7	50.7	10. 17. 36.29		36.50				10. 18. 5.33	....
	17	⊙ 1 L.....	L	42.0	45.4	47.7	50.6	56.5	2.1	5.2	7.9	10.7	11. 41. 56.43		56.68				11. 43. 26.77	....
	18	ε Virginis.....	L	12.5	15.5	18.3	20.8	26.6	32.5	35.4	38.0	40.8	12. 55. 26.69		26.90	55.30	28.40		12. 55. 55.30	- 1.02
	19	Polaris S.P. (E&E)	L	43.0	39.5	34.0	29.0	20.5	13.5	..	..	..	13. 11. 51.16		3.82	32.06	28.24		....	....
	20	Spica	L	51.7	54.4	57.3	0.0	5.6	11.4	14.2	17.1	19.8	13. 18. 5.70		6.05	34.40	28.35		13. 18. 34.46	- 1.03
	21	α Coronæ	L	38.8	42.0	45.0	48.2	54.5	0.5	3.7	6.8	10.0	15. 28. 54.36		54.49	23.05	28.56		15. 29. 22.95	- 1.86
	22	χ Serpentis	L	10.6	13.5	16.2	19.0	24.6	30.5	33.4	36.3	38.8	15. 35. 24.75		24.95				15. 35. 53.41	- 1.86
	23	ε Serpentis.....	AD	51.2	54.0	56.7	59.6	5.2	10.6	13.5	16.2	19.0	15. 44. 5.09		5.34	34.03	28.69	28.32†	....	....
	24	γ Serpentis.....	AD	56.6	59.6	2.5	5.4	11.1	16.8	19.6	22.5	25.5	15. 50. 11.05		11.23	39.96	28.73		....	....
	25	3 Herculis	L	35.3	38.0	0.5	3.5	9.0	14.6	17.4	20.2	23.0	15. 54. 9.03		9.28			28.08	15. 54. 37.75	- 1.95
	26	μ Herculis	L	49.7	52.8	55.8	59.0	5.4	11.6	14.6	17.8	21.0	17. 41. 5.28		5.39	33.93	28.54		17. 41. 33.90	- 2.26
	27	ζ Aquilæ	L	56.5	59.6	2.4	5.3	10.8	16.5	19.5	22.0	25.0	18. 59. 10.83		11.03	39.46	28.43		18. 59. 39.58	- 2.40
July 19	28	⊙ 1 L.....	C	16.3	19.3	21.9	25.0	30.4	36.0	38.8	41.6	44.5	12. 25. 30.41		30.70			29.08†	12. 27. 1.25	....
	29	γ ¹ Virginis.....	C	33.7	36.8	39.4	42.2	47.6	53.4	56.2	58.8	1.5	12. 34. 47.71		48.00			[0.65]	12. 35. 17.42	- 0.82
	30	α Coronæ	E	37.8	41.1	..	47.3	..	..	2.7	..	9.0	15. 28. 53.41		53.53	23.04	29.51		....	....
	31	α Serpentis	E	21.8	24.7	27.5	30.3	..	41.5	44.1	47.0	49.8	15. 37. 35.82		36.07	5.59	29.52		....	....
	32	δ Ophiuchi	E	2.8	5.8	8.5	11.3	16.7	22.3	25.1	27.8	30.8	16. 7. 16.77		17.08	46.59	29.51		....	....
July 20	33	γ ¹ Virginis.....	AD	..	..	..	41.6	47.2	52.7	55.5	58.3	1.0	12. 34. 47.17	+0.58	47.38			29.54	12. 35. 17.27	- 0.81
	34	ε Virginis	AD	11.3	14.0	16.7	19.5	25.3	31.0	33.7	36.5	39.4	12. 55. 25.25	(-3.56)	25.36	55.28	29.92	[0.67]	....	....
	35	⊙ 1 L.....	AD	32.6	35.6	38.4	41.3	47.0	52.5	55.4	58.3	1.0	13. 8. 46.88	[+6.07]	47.13				13. 10. 18.44	....
	36	Polaris S.P. (E&E)	AD	39.0	36.0	29.5	27.5	..	..	..	..	..	13. 11. 46.99		3.95	33.61	29.66		....	....
	37	Spica	AD	50.2	53.0	55.8	58.6	4.2	9.8	12.6	15.5	18.3	13. 18. 4.20		4.49	34.38	29.89		....	....
July 21	38	α Ophiuchi	L	23.5	26.4	29.0	31.9	37.6	43.4	46.1	48.8	51.7	17. 28. 37.58		37.69	7.37	29.68	29.19†	....	....
	39	Venus 1 L.	E	36.0	38.9	41.6	44.5	50.2	55.7	58.5	1.4	4.1	10. 30. 50.08	(-2.69)	50.25			[30.43 0.62 30.14†]	10. 31. 21.46	....
	40	κ Ophiuchi	C	59.6	2.5	5.3	8.1	13.7	19.3	22.0	24.9	27.7	16. 51. 13.66		13.83	44.38	30.55		....	....
	41	ε Herculis	C	43.6	47.0	50.0	53.3	59.6	6.2	9.3	12.6	15.8	16. 54. 59.68		59.69	30.30	30.61		....	....
	42	β Ophiuchi.....	E	..	35.2	37.7	40.5	46.1	51.8	54.4	57.3	..	17. 36. 46.12		46.33	17.18	30.85	30.43	17. 37. 17.21	- 2.32
	43	μ Herculis	E	47.4	50.7	53.5	56.6	3.0	9.4	12.4	15.6	18.8	17. 41. 3.02		3.05	33.91	30.86		17. 41. 33.94	- 2.24
	44	Piazzi XVII. 255	E	36.0	39.1	42.1	45.0	50.8	56.5	59.6	2.5	5.5	17. 42. 50.77		50.88				17. 43. 21.77	- 2.28
	45	γ ⁰ Ophiuchi	E	..	25.5	28.2	31.0	..	42.0	45.0	47.6	..	17. 58. 36.52		36.74				17. 59. 7.63	- 2.41

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 19 and 36, - 31".70: and - 33".40.

Corrections for passage of Semidiameter, Nos. 16, 17, 28, 35, and 39, + 0".50: + 61".71: + 61".12: + 61".39: and + 0".51.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

July 20 to 26. The azimuthal error used is the mean of those (+ 5".95, + 6".25, + 6".03, + 6".59, and + 5".50) determined by tabular places of Polaris S.P. and Spica on July 20, of δ Ursæ Minoris and Cephei 51 S.P. on July 22, 23, and 24, and of λ Ursæ Minoris and α Capricorni on July 24, allowing 0".01 for clock-rate.

15. Faint.

17, 28, 35. Correction to R.A. on true meridian, + 0".01.

27. Faint; cloudy.

45. The larger star observed.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
July 21	1	δ Ursæ Min. (E&E)	E	..	16.0	0.5	48.5	21.5	55.0	42.0	..	..	18. 12. 46.75	+0.58	40.99	11.42	30.43	30.43	....	
	2	Ceph. 51 S.P. (E&E)	E	42.5	38.5	36.5	..	..	..	20.0	15.5	14.0	18. 39. 53.95	(-2.69)	1.47	32.25	30.78	[0.62]	....	
	3	ζ Aquilæ	E	54.2	57.2	59.7	2.7	8.4	14.1	17.0	19.7	22.8	18. 59. 8.40	[+6.07]	8.54	39.47	30.93		18. 59. 39.46	- 2.41
	4	α Aquilæ	E	3.8	6.7	9.5	12.3	18.0	23.6	26.4	29.4	32.2	19. 13. 17.97		18.13				19. 13. 49.06	- 2.44
	5	α Aquilæ	E	55.4	58.3	0.8	3.8	9.4	15.2	17.8	20.7	23.4	19. 44. 9.40		9.59	40.59	31.00		19. 44. 40.53	- 2.50
	6	Eurynome	E	..	24.6	27.4	30.2	35.7	41.4	44.3	47.3	..	19. 50. 35.82		36.15				19. 51. 7.09	
	7	γ Draconis	E	..	..	24.2	41.4	15.6	48.9	6.7	..	..	20. 36. 15.26		13.33				20. 36. 44.29	- 4.82
	8	δ Ursæ Maj. S.P.	E	..	..	8.4	14.4	26.4	38.3	44.3	..	..	20. 42. 26.40		27.28				8. 42. 58.24	+ 0.17
	9	δ Ursæ Maj. S.P.	E	41.7	45.9	50.1	54.3	2.6	11.2	15.1	19.3	23.6	20. 50. 2.69		3.29				8. 50. 34.26	- 0.10
	10	Saturn 1 L.	E	39.7	42.7	45.5	48.4	54.2	0.0	2.9	5.8	8.8	20. 57. 54.20		55.23				20. 58. 26.20	
	11	Saturn 2 L.	E	41.1	44.0	46.8	49.6	55.5	1.4	4.2	7.2	10.2	20. 57. 55.53							
	12	ζ Cygni	E	..	..	..	59.4	5.7	12.0	15.3	18.5	21.6	21. 7. 5.69		5.71	36.67	30.96		21. 7. 36.69	- 2.25
July 23	13	⊙ 1 L.	C	30.6	33.6	36.4	39.5	45.4	51.4	54.4	57.3	0.1	8. 8. 45.39	(-1.73)	52.91			31.47	8. 10. 24.58	
	14	⊙ 2 L.	C	45.5	48.4	51.4	54.0	0.0	6.0	9.0	12.0	14.9	8. 11. 0.12					[0.59]		
	15	⊙ 1 L.	C	12.4	15.6	18.5	21.6	27.7	33.9	36.9	40.0	43.0	15. 28. 27.71		28.13				15. 30. 6.68	
	16	α Serpentis	C	19.5	22.3	25.1	27.8	33.4	39.0	41.8	44.5	47.4	15. 37. 33.40		33.65	5.55	31.90		15. 38. 5.50	- 1.82
	17	ζ Herculis	E	45.7	49.0	52.2	55.5	1.8	8.5	11.8	15.0	18.3	16. 36. 1.95		2.03	34.29	32.26	31.75†	....	
	18	κ Ophiuchi	C	58.4	1.0	3.7	6.6	12.3	17.8	20.7	23.5	26.4	16. 51. 12.25		12.47	44.37	31.90	31.47	16. 51. 44.35	- 2.12
	19	ε Herculis	E	42.0	45.4	48.4	51.6	58.1	4.6	7.8	11.3	14.4	16. 54. 58.14		58.22	30.28	32.06	31.75†	....	
	20	ο Herculis	C	52.3	55.5	58.5	1.7	8.0	14.3	17.5	20.5	23.7	18. 2. 7.97		8.07			31.47	18. 2. 39.98	- 2.29
	21	δ Ursæ Min. (E&E)	C	26.5	14.5	59.0	47.0	20.5	..	..	..	..	18. 12. 44.00		39.12	10.94	31.82		....	
	22	Radcliffe 3896 ...	C	30.7	33.7	36.6	39.5	45.3	51.0	54.0	56.8	59.6	18. 16. 45.22		45.40				18. 17. 17.32	- 2.34
	23	Ceph. 51 S.P. (E&E)	C	..	41.0	38.0	34.5	31.0	25.0	..	..	..	18. 39. 54.48		1.01	32.78	31.77		....	
	24	ε Aquilæ	C	10.3	13.0	16.1	18.8	24.5	30.3	33.2	36.0	38.9	18. 53. 24.55		24.74	56.58	31.84		18. 53. 56.67	- 2.41
	25	μ Aquilæ	C	12.4	15.1	18.0	20.7	26.2	31.8	34.6	37.4	40.3	19. 27. 26.26		26.50	58.51	32.01		19. 27. 58.45	- 2.51
	26	η Delphini	C	15.4	18.4	21.2	23.9	29.7	35.5	38.2	40.8	43.7	20. 27. 29.62		29.83				20. 28. 1.80	- 2.45
	27	27 Vulpeculæ ...	C	57.0	0.1	3.3	6.2	12.4	18.6	21.7	24.7	27.8	20. 31. 12.39		12.50				20. 31. 44.47	- 2.36
	28	ε Aquarii	C	7.6	10.4	13.3	16.0	21.5	27.3	30.0	32.9	35.6	20. 40. 21.60		21.94	53.89	31.95		20. 40. 53.92	- 2.71
	29	Saturn 1 L.	C	4.0	6.9	9.7	12.7	18.5	24.4	27.2	30.0	33.0	20. 57. 18.47		19.56				10. 57. 51.54	
	30	Saturn 2 L.	C	5.4	8.3	11.2	14.0	19.9	25.7	28.6	31.4	34.4	20. 57. 19.85							
July 24	31	δ Ursæ Min. (E&E)	AD	..	..	..	..	..	..	24.5	11.5	18. 12. 40.54	(-0.07)	37.19	10.67	33.48	32.01	....		
	32	η Serpentis	L	3.4	6.3	9.0	11.7	17.3	22.7	25.5	28.3	31.1	18. 14. 17.23		17.60	49.85	32.25	[0.59]	....	
	33	γ Draconis	AD	4.7	14.3	23.5	32.4	51.4	9.6	19.4	28.5	37.7	18. 22. 51.20		50.82				18. 23. 23.28	- 3.50
	34	α Lyrae	L	52.6	56.2	59.6	3.2	10.2	17.5	20.8	24.3	28.2	18. 32. 10.26		10.41	42.69	32.28		....	
	35	2 Aquilæ	AD	38.3	41.1	43.8	46.6	52.2	57.7	0.4	3.4	6.2	18. 34. 52.17		52.57	25.05	32.48		18. 35. 25.04	- 2.63
	36	Ceph. 51 S.P. (E&E)	AD	..	..	..	35.5	29.5	25.0	24.0	..	..	18. 39. 53.97		58.77	33.08	34.31		....	
	37	β Lyrae	AD	38.9	42.4	45.5	48.7	55.5	2.2	5.5	8.6	12.0	18. 44. 55.45		55.64	28.02	32.38		18. 45. 28.11	- 2.36
	38	ε Aquilæ	AD	..	12.5	15.4	18.2	23.9	29.5	32.5	35.3	..	18. 53. 23.88		24.17	56.58	32.41		18. 53. 56.64	- 2.41
	39	δ Aquilæ	AD	24.4	27.4	30.1	32.8	38.4	43.8	46.6	49.3	52.2	19. 18. 38.31		38.60	11.20	32.60		19. 19. 11.08	- 2.55
	40	μ Aquilæ	AD	11.6	14.7	17.4	20.0	25.6	31.3	34.0	36.9	39.7	19. 27. 25.67		25.99	58.52	32.53		19. 27. 58.48	- 2.52
	41	Groombridge 2899	AD	25.7	31.8	38.0	44.0	56.4	8.4	14.6	20.6	27.4	19. 32. 56.27		56.17				19. 33. 28.66	- 2.80
	42	ζ ¹ Cygni	AD	51.7	55.2	58.5	1.8	8.4	15.1	18.4	21.6	25.0	19. 41. 8.38		8.57				19. 41. 41.06	- 2.38
	43	Eurynome	AD	22.3	..	..	..	36.0	41.6	..	..	..	19. 47. 36.13		36.55				19. 48. 9.04	
	44	λ Ursæ Min. (E&E)	AD	..	..	..	..	..	2.0	..	58.0	28.0	19. 50. 29.01		17.72	51.41	33.69		....	
	45	α ² Capricorni ...	AD	19.5	22.4	25.2	28.0	33.6	39.4	42.2	45.0	47.7	20. 10. 33.65		34.06	6.49	32.43		20. 11. 6.57	- 2.79
	46	Groombridge 3150	AD	12.7	19.8	26.6	33.5	47.4	0.8	8.2	14.6	21.9	20. 15. 47.22		47.05				20. 16. 19.56	- 2.89
	47	λ Ursæ Maj. S.P.	AD	10.8	17.3	23.8	30.5	44.1	57.5	4.2	10.6	17.6	20. 22. 44.10		44.89				8. 23. 17.40	+ 0.31

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 1, 2, 21, 23, 31, 36, and 44, -34".50: -34".50: -36".00: -36".00: -36".80: -36".80: and -37".00.

Correction for passage of Semidiameter, No. 15, +66".69.

+ This clock-error has been used in the reduction of the observations made with the Altazimuth.

15. Correction to R.A. on true meridian, +0".01.
43. Very faint.

35. Faint; cloudy.
46. Faint.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at Sidereal (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874. Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
July 24	1	32 Vulpeculæ ...	AD	25.3	28.6	31.6	34.8	41.0	46.9	50.3	53.5	56.4	20. 48. 40.91	+0.58	41.13	13.72	32.59	32.01	20. 49. 13.65	- 2.33
	2	Saturn 1 L.	AD	46.0	48.9	51.7	54.6	0.4	6.3	9.2	12.1	15.0	20. 57. 0.45	(-0.07)	1.54			[0.59]	20. 57. 34.46	
	3	Saturn 2 L.	AD	47.3	50.2	53.1	55.8	1.8	7.6	10.4	13.4	16.3	20. 57. 1.75	[+6.07]						
July 25	4	☉ 1 L.	E	25.0	27.9	31.0	33.8	39.6	45.6	48.4	51.5	54.4	8. 16. 39.66	(+0.22)	47.14			32.60	8. 18. 19.94	
	5	☉ 2 L.	E	39.3	42.3	45.2	48.0	54.2	59.9	3.0	5.8	8.8	8. 18. 54.06							
July 26	6	α Lyræ	L	51.4	55.0	58.5	1.8	8.8	16.2	19.6	23.2	26.8	18. 32. 9.00		9.18	42.67	33.49		....	
	7	μ Aquilæ	AD	10.6	13.5	16.0	18.9	24.5	30.0	32.8	35.6	38.4	19. 27. 24.46		24.79	58.53	33.74	33.28†	....	
	8	ε Sagittarii	AD	44.4	47.4	50.2	53.2	58.8	4.6	7.5	10.4	13.0	19. 32. 58.81		59.25	33.06	33.81	[0.62]	....	
July 27	9	β ¹ Lyræ	C	37.2	40.4	43.6	46.9	53.5	0.0	3.5	6.6	10.1	18. 44. 53.50	+0.80	53.64	28.01	34.37	33.85	....	
	10	σ Sagittarii	C	39.9	43.0	46.0	49.1	55.3	1.4	4.5	7.6	10.7	18. 46. 55.25	(-0.86)	55.75			[0.66]	18. 47. 30.12	- 3.01
	11	δ Aquilæ	C	22.6	25.6	28.3	31.1	36.5	42.0	44.8	47.5	50.4	19. 18. 36.51	[+6.19]	36.83	11.21	34.38		....	
	12	☽ 1 L.	C	12.5	15.6	19.0	22.2	28.6	35.2	38.4	41.5	44.8	19. 22. 28.62		29.12				19. 24. 17.44	
	13	α Sagittæ	C	41.3	44.3	47.0	49.8	55.6	1.5	4.5	7.4	10.3	19. 33. 55.72		55.97				19. 34. 30.36	- 2.45
	14	γ Aquilæ	E	29.8	32.6	35.3	38.1	43.9	49.6	52.4	55.1	57.8	19. 39. 43.83		44.11	18.62	34.51	34.04†	....	
	15	α Aquilæ	E	51.6	54.5	57.3	0.1	5.7	11.4	14.2	17.0	19.6	19. 44. 5.69		5.98	40.62	34.64		....	
	16	σ Sagittarii	C	20.0	23.1	26.2	29.3	35.5	41.6	44.7	47.8	50.8	19. 47. 35.41		35.91			33.85	19. 48. 10.30	- 3.15
	17	λ Ursæ Min. (E&E)	C	..	..	46.0	..	..	6.0	36.0	57.0	..	19. 50. 28.53		15.52	49.91	34.39		....	
	18	A Sagittarii	C	..	..	..	..	..	15.6	31.1	..	..	19. 50. 44.72		45.22				19. 51. 19.61	- 3.14
	19	α ² Capricorni	C	17.5	20.5	23.3	26.0	31.7	37.4	40.3	43.0	45.9	20. 10. 31.72		32.13	6.53	34.40		....	
July 28	20	ε Serpentis	S	44.6	47.6	..	53.0	58.5	4.0	..	9.7	12.4	15. 43. 58.51	(-0.27)	58.79	33.94	35.15	34.76	15. 44. 33.04	- 1.81
	21	β ¹ Scorpii	S	18.6	21.6	24.6	27.4	33.4	39.3	42.2	45.0	47.7	15. 57. 33.29	[+4.92]	33.67	8.75	35.08	[0.59]	15. 58. 8.82	- 2.01
	22	Groombridge 2320	S	49.3	57.4	4.3	12.0	26.6	41.6	49.1	56.5	4.2	16. 5. 26.72		26.57				16. 6. 1.72	- 2.35
	23	ξ Coronæ	S	21.7	25.2	28.4	31.7	38.0	44.5	47.7	50.8	54.2	16. 16. 37.99		38.16				16. 17. 13.32	- 1.93
	24	A Draconis	S	..	11.2	18.6	26.7	42.0	57.5	5.0	13.0	..	16. 27. 41.03		41.75				16. 28. 16.91	- 2.52
	25	22 Ophiuchi	S	25.9	29.0	31.7	35.0	40.8	47.1	50.0	53.1	56.1	16. 46. 40.93		41.32				16. 47. 16.49	- 2.37
	26	ε Herculis	S	38.6	42.2	45.3	48.5	55.1	..	4.7	8.0	..	16. 54. 54.98		55.15	30.22	35.07		16. 55. 30.33	- 2.06
	27	14 Camelop. S.P.	S	..	48.5	54.5	0.5	12.6	24.6	30.6	36.4	..	17. 1. 12.59		13.14				5. 1. 48.32	- 0.19
	28	Piazzi IV. 311 S.P.	S	..	..	..	..	26.6	53.1	7.2	20.4	34.0	17. 8. 26.60		27.63				5. 9. 2.81	+ 1.07
	29	α Ophiuchi	L	18.2	21.0	23.7	26.5	32.3	38.0	40.9	43.6	46.5	17. 28. 32.28		32.53	7.33	34.80	34.38†	....	
	30	β Ophiuchi	L	..	31.2	33.6	36.5	42.1	47.6	50.4	53.2	..	17. 36. 42.05		42.33	17.15	34.82		....	
	31	ψ ¹ Draconis	S	54.1	3.4	12.1	21.2	39.3	57.6	6.5	15.7	25.0	17. 43. 39.36		39.10			34.76	17. 44. 14.30	- 3.10
	32	ε Herculis	S	48.7	51.8	55.2	58.3	4.6	11.0	14.0	17.2	20.4	18. 2. 4.56		4.74				18. 2. 39.94	- 2.26
	33	δ Ursæ Min. (E&E)	S	..	..	..	..	..	50.8	37.2	24.0	11.2	18. 12. 36.08		33.56	9.50	35.94		....	
	34	8 Lynceis S.P. ...	S	..	..	..	..	..	34.5	45.9	51.8	57.5	3.3	18. 25. 34.37		34.91			6. 26. 10.12	+ 0.05
	35	α Lyræ	S	49.6	53.2	56.7	0.0	7.4	14.6	18.0	21.6	25.1	18. 32. 7.32		7.46	42.66	35.20		18. 32. 42.68	- 2.34
	36	Ceph. 51 S.P. (E&E)	S	..	..	..	40.0	..	30.0	28.0	24.0	21.0	18. 39. 54.86		58.52	34.48	35.96		....	
	37	α Aquilæ	S	51.2	54.0	56.6	59.5	5.2	10.4	13.5	16.4	19.2	19. 44. 5.09		5.36	40.63	35.27		19. 44. 40.61	- 2.46
	38	σ Sagittarii	S	19.2	22.5	25.4	28.4	34.5	40.6	43.8	47.1	50.2	19. 47. 34.00		35.02				19. 48. 10.27	- 3.16
	39	A Sagittarii	S	28.5	31.5	34.6	37.7	44.0	50.2	53.3	56.5	59.4	19. 50. 43.93		44.35				19. 51. 19.60	- 3.15
	40	68 Draconis	S	..	35.2	41.1	47.0	58.6	10.2	16.2	22.1	..	20. 8. 58.58		58.53				20. 9. 33.79	- 2.71
	41	☽ 1 L.	S	35.2	38.4	41.6	44.8	51.0	57.3	0.2	3.6	6.7	20. 24. 50.95		51.36				20. 26. 39.74	
	42	ε Aquarii	S	4.4	7.1	10.1	12.8	18.2	24.1	26.8	29.5	32.4	20. 40. 18.35		18.68	53.96	35.28		20. 40. 53.95	- 2.78
	43	Piazzi XX. 339 ..	S	50.0	53.1	55.9	58.9	5.2	11.0	14.3	17.1	20.2	20. 45. 5.05		5.46				20. 45. 40.73	- 3.10
	44	Saturn 1 L.	S	32.4	35.6	38.0	41.4	47.3	53.0	55.8	58.8	1.5	20. 55. 47.07		48.16				20. 56. 23.43	
	45	Saturn 2 L.	S	33.8	36.9	39.8	42.6	48.6	54.4	57.3	0.2	3.2	20. 55. 48.51							

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 17, 33, and 36, -39".80: -40".70: and -40".70

Corrections for passage of Semidiameter, Nos. 12 and 41, +73".92: and +73".10.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

July 27. The azimuthal error by tabular places of λ Ursæ Minoris and α² Capricorni, allowing 0".01 for clock-rate.

July 28. The azimuthal error by tabular places of δ Ursæ Minoris and Cephei 51 S.P., allowing 0".01 for clock-rate.

1. Very diffused.

2, 3. Ill-defined.

12, 41. Correction to R.A. on true meridian, +0".02.

18. Observed over wires Y and Z.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation, (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Lossing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
July 28	1	ζ Capricorni	S	40.6	43.6	46.6	49.6	55.4	1.8	4.5	7.5	10.6	21. 18. 55.56	+ 0.80	55.95			34.76	21. 19. 31.23	- 3.01
	2	θ Aquarii	S	24.2	27.0	29.5	32.4	38.1	43.7	46.0	48.9	51.9	22. 9. 37.94	(- 0.27)	38.27	13.56	35.29	[0.59]	22. 10. 13.57	- 2.59
	3	γ Aquarii	S	21.7	24.5	..	29.9	35.5	41.2	..	46.7	49.4	22. 14. 35.54	[+ 4.92]	35.84	11.30	35.46		22. 15. 11.15	- 2.48
July 29	4	89 Herculis	C	31.3	34.5	37.6	40.6	46.7	52.9	55.8	59.0	2.0	17. 49. 46.68	(+ 0.45)	46.97	22.44	35.47	35.10†	....	
	5	72 Ophiuchi	C	35.0	38.0	40.6	43.4	49.0	54.5	57.3	0.0	3.0	18. 0. 48.95	[+ 6.21]	49.30	24.87	35.57	[0.56]	....	
	6	δ Ursæ Min. (E&E)	E	..	12.5	58.5	45.0	17.5	52.5	39.0	..	..	18. 12. 36.37		33.66	9.22	35.56	35.33	....	
	7	α Lyrae	E	49.0	52.4	56.0	59.6	6.7	13.6	17.2	20.6	24.4	18. 32. 6.58		6.81	42.66	35.85	[0.56]	18. 32. 42.57	- 2.34
	8	Ceph. 51 S.P. (E&E)	E	50.0	48.0	45.0	42.5	..	31.5	..	24.5	..	18. 39. 55.58		50.66	34.81	35.15		....	
	9	ζ Aquilæ	E	49.3	52.2	54.9	57.7	3.5	9.2	11.9	14.8	17.7	18. 59. 3.45		3.79	39.49	35.70		18. 59. 39.56	- 2.43
	10	α Sagittæ	E	..	42.7	45.5	48.6	54.2	59.8	3.1	6.0	..	19. 33. 54.24		54.57				19. 34. 30.36	- 2.45
	11	χ ¹ Cygni	E	48.4	51.6	55.0	58.2	4.9	11.5	14.8	18.0	21.5	19. 41. 4.85		5.09				19. 41. 40.88	- 2.39
	12	α Aquilæ	E	50.4	53.4	56.0	58.7	4.6	10.2	12.9	15.6	18.5	19. 44. 4.46		4.81	40.63	35.82		19. 44. 40.60	- 2.54
	13	12 Vulpeculæ . . .	E	49.9	53.2	56.0	59.0	4.8	11.0	13.8	16.9	19.8	19. 45. 4.91		5.22				19. 45. 41.01	- 2.43
	14	14 Vulpeculæ . . .	E	57.6	0.6	3.5	6.6	12.6	18.6	21.5	24.4	27.6	19. 53. 12.54		12.85				19. 53. 48.64	- 2.43
	15	Piazzi XX. 339 . .	E	49.4	52.3	55.2	58.2	4.3	10.4	13.4	16.3	19.4	20. 45. 4.29		4.80				20. 45. 40.61	- 3.11
	16	Saturn 1 L.	E	14.1	17.3	20.0	23.0	..	34.6	37.6	..	43.4	20. 55. 28.77		29.91				20. 56. 5.73	
	17	Saturn 2 L.	E	15.5	18.5	..	24.4	30.1	35.8	..	41.7	44.7	20. 55. 30.08							
	18	ζ Cygni	E	44.7	48.1	51.3	54.4	0.6	7.4	10.4	13.6	16.6	21. 7. 0.76			1.03	36.78	35.75	21. 7. 36.85	- 2.36
	19	1 Pegasi	E	27.0	30.2	33.0	36.0	41.8	47.6	50.6	53.6	56.5	21. 15. 41.79		42.11				21. 16. 17.94	- 2.41
	20	ζ Capricorni	E	40.0	43.0	46.0	48.9	55.0	1.0	4.0	6.9	10.0	21. 18. 54.96		55.46				21. 19. 31.29	- 3.02
	21	δ L.	E	18.8	21.9	24.9	28.0	34.1	40.4	43.4	46.4	49.5	21. 27. 34.14		34.63				21. 26. 59.00	
	22	δ Capricorni	E	17.3	20.2	22.9	25.6	31.5	37.4	40.2	43.0	46.0	21. 39. 31.55		32.02	7.85	35.83		21. 40. 7.86	- 2.84
	23	13 Pegasi	E	..	23.6	26.5	29.4	35.3	41.0	43.9	46.8	..	21. 43. 35.18		35.52				21. 44. 11.36	- 2.38
	24	α Aquarii	E	31.0	33.8	36.6	39.4	45.1	..	..	..	..	21. 58. 44.90		45.30	21.15	35.85		21. 59. 21.14	- 2.52
	25	α Aquarii	E	..	..	..	..	4.3	9.9	12.8	15.5	18.6	21. 59. 4.20		4.66				21. 59. 40.50	- 2.74
	26	Procyon	L	52.4	55.3	58.0	0.6	6.3	11.8	14.6	17.5	20.3	7. 32. 6.29	(+ 0.36)	6.66	42.37	35.71	35.51	7. 32. 42.34	- 0.06
	27	Pollux	L	44.8	47.8	51.0	54.2	0.2	6.7	9.8	13.0	16.2	7. 37. 0.40		0.67	36.38	35.71	[0.55]	7. 37. 36.35	- 0.20
July 30	28	72 Ophiuchi	AD	34.4	37.4	40.0	43.0	48.5	54.2	57.0	59.6	2.5	18. 0. 48.49	(- 0.53)	48.79	24.87	36.08	35.65†	....	
	29	μ Sagittarii	AD	25.0	28.0	31.0	34.0	39.9	45.8	48.7	51.7	54.8	18. 5. 39.85		40.32	16.36	36.04		....	
	30	δ Ursæ Min. (E&E)	L	26.0	13.8	0.0	45.8	..	52.8	40.0	26.2	13.0	18. 12. 36.36		32.74	8.95	36.21	35.51	....	
	31	λ Sagittarii	L	22.8	26.0	29.0	32.0	38.1	44.4	47.4	50.4	53.6	18. 19. 38.16		38.66	14.52	35.86		18. 20. 14.59	- 2.88
	32	Bradley 2320	L	49.6	52.7	55.5	58.3	4.1	9.7	12.7	15.4	18.4	18. 24. 4.03		4.47				18. 24. 40.40	- 2.69
	33	α Lyrae	L	48.8	52.6	55.8	59.6	6.8	13.6	17.1	20.6	24.3	18. 32. 6.55		6.70	42.65	35.95		18. 32. 42.63	- 2.33
	34	2 Aquilæ	L	34.8	37.6	40.3	43.2	48.7	54.4	57.3	0.0	2.7	18. 34. 48.75		49.14	25.05	35.91		18. 35. 25.08	- 2.63
	35	Ceph. 51 S.P. (E&E)	L	..	46.8	43.0	41.8	..	30.8	..	23.8	..	18. 39. 53.41		58.51	35.13	36.62		....	
	36	Piazzi XX. 165 . .	L	0.1	3.3	6.5	9.6	15.6	21.6	24.6	27.7	30.6	20. 24. 15.48		15.98				20. 24. 51.96	- 3.15
	37	α Delphini	L	59.0	1.8	4.6	7.6	13.2	19.0	21.8	24.8	27.6	20. 33. 13.25		13.53	49.61	36.08		20. 33. 49.51	- 2.49
	38	17 Capricorni . . .	L	3.5	6.5	9.3	12.2	18.2	24.0	27.1	30.1	33.1	20. 38. 18.20		18.68				20. 38. 54.66	- 3.06
	39	Piazzi XX. 339 . .	L	49.2	52.3	55.2	58.3	4.3	10.3	13.6	16.4	19.4	20. 45. 4.30		4.79				20. 45. 40.78	- 3.12
	40	Piazzi XX. 401 . .	L	37.5	41.5	45.1	49.0	56.7	4.3	8.1	11.9	15.8	20. 50. 56.62		56.71				20. 51. 32.70	- 2.40
	41	Saturn 1 L.	L	55.8	58.8	1.6	4.5	10.4	16.3	19.3	22.2	25.0	20. 55. 10.42		11.58				20. 55. 47.57	
	42	Saturn 2 L.	L	57.4	0.0	3.2	6.0	11.8	17.6	20.6	23.5	26.4	20. 55. 11.82							
	43	6 Equulei	L	35.8	39.0	41.6	44.6	50.1	55.6	58.5	1.3	4.0	21. 3. 50.04			50.34			21. 4. 26.33	- 2.51
	44	ξ Aquarii	L	15.1	17.7	20.6	23.3	29.0	34.5	37.2	40.0	42.7	21. 30. 28.88		29.27	5.24	35.97		21. 31. 5.27	- 2.72
	45	δ Capricorni	L	17.0	20.0	22.7	25.6	31.4	37.3	40.0	42.9	46.0	21. 39. 31.42		31.87	7.87	36.00		21. 40. 7.87	- 2.86
	46	Groombridge 3616 .	L	30.5	36.4	42.0	47.9	59.0	10.5	16.0	21.6	27.2	21. 49. 58.98		58.88				21. 50. 34.89	- 2.50
	47	α Aquarii	L	49.8	53.0	55.6	58.5	4.2	9.7	12.6	15.6	18.4	21. 59. 4.14		4.57				21. 59. 40.58	- 2.76

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 6, 8, 30, and 35, -41".80: -41".80: -42".90: and -42".92.

Correction for passage of Semidiameter, No. 21, -71".48.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

July 29 to 31. The azimuthal error used is the mean of those (+5".94, +6".47, and +6".22) determined by tabular places of δ Ursæ Minoris and Cephei 51 S.P. on July 29 and 30, allowing 0".01 for clock-rate in each case, and of α Lyrae and Cephei 51 S.P.

21. Correction to R.A. on true meridian, +0".02.

32. The time at the 8th wire has also been used for the 2d wire of an Altazimuth observation, δ 2 L., Face Right.

36. Very faint.

186600M. 36A....1A

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1874.

[57]

MONTH and 1874 A.Y.	No. of Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at oh Sidereal and [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
July 30	1	θ Aquarii.....	L	23.4	26.3	28.8	31.5	37.0	42.8	45.7	48.4	51.2	22. 9. 37.21	+0.80	37.60	13.60	36.00	35.51	22. 10. 13.62	- 2.63
	2	45 Aquarii.....	L	27.1	29.7	32.6	35.4	41.2	46.8	49.7	52.5	55.4	22. 11. 41.14	(-0.53)	41.57			[0.55]	22. 12. 17.59	- 2.72
	3	δ 2 L.....	L	46.8	49.9	52.7	55.7	..	7.5	10.4	13.4	16.6	22. 25. 1.84	[+6.21]	2.28				22. 24. 28.63	
	4	ζ Pegasi.....	L	22.7	25.4	28.2	31.0	36.7	42.3	45.0	47.9	50.6	22. 34. 36.62		36.92	12.95	36.03		22. 35. 12.95	- 2.32
	5	τ 2 Aquarii.....	L	7.0	10.0	12.7	15.5	21.4	27.0	29.8	32.8	35.4	22. 42. 21.27		21.70				22. 42. 57.73	- 2.61
	6	74 Aquarii.....	L	2.6	5.4	8.2	11.0	16.6	22.3	25.1	28.0	30.7	22. 46. 16.63		17.05				22. 46. 53.08	- 2.56
July 31	7	α Lyræ.....	C	48.0	51.7	55.3	58.8	5.7	13.1	16.3	19.9	23.5	18. 32. 5.80	(-1.12)	5.80	42.64	36.75	36.32	....	
	8	Ceph. 51 S.P. (E&E)	C	..	47.0	44.5	42.0	..	..	..	..	..	18. 39. 52.94		58.65	35.42	36.77	[0.49]	....	
	9	α 2 Capricorni....	C	15.4	18.3	21.0	23.7	29.5	35.3	38.0	40.8	43.7	20. 10. 29.50		29.91	6.57	36.66		....	
	10	35 Cygni.....	C	57.5	0.8	4.2	7.5	14.2	21.0	24.4	27.5	31.0	20. 13. 14.20		14.32				20. 13. 51.05	- 2.41
	11	40 Cygni.....	C	2.3	5.8	9.3	12.8	19.8	26.8	30.4	33.8	37.3	20. 22. 19.78		19.88				20. 22. 56.62	- 2.41
	12	27 Vulpeculæ....	C	52.3	53.4	58.5	1.4	7.6	13.8	16.9	19.9	23.0	20. 31. 7.61		7.79				20. 31. 44.53	- 2.43
	13	ε Aquarii.....	E	..	..	..	..	..	..	25.2	28.0	30.8	20. 40. 16.74		17.12	53.99	36.87	36.45†	....	
	14	μ Aquarii.....	E	..	..	..	11.4	16.8	22.6	25.3	28.0	31.0	20. 45. 16.90		17.28	54.14	36.86	[0.49]	....	
	15	α Lyræ.....	AD	47.7	51.4	54.8	58.4	5.5	12.6	16.0	19.5	23.3	18. 32. 5.44	(-1.09)	5.53	42.63	37.10	36.67	18. 32. 42.66	- 2.31
	16	2 Aquilæ.....	AD	33.5	36.5	39.3	42.0	47.5	53.3	56.0	58.8	1.6	18. 34. 47.59	[+5.60]	47.93	25.05	37.12	[0.60]	18. 35. 25.06	- 2.63
	17	Ceph. 51 S.P. (E&E)	AD	..	..	..	..	37.0	31.5	28.5	25.0	24.0	18. 39. 52.15		57.28	35.70	38.42		....	
	18	ε Aquilæ.....	AD	4.8	7.9	10.6	13.5	19.3	24.9	27.8	30.8	33.6	18. 53. 19.22		19.45	56.58	37.13		18. 53. 56.59	- 2.41
	19	τ Draconis.....	AD	..	46.6	55.8	5.4	24.4	43.6	53.0	2.5	..	19. 17. 24.38		23.85				19. 18. 1.00	- 3.27
Aug. 1	20	μ Aquilæ.....	AD	7.1	10.0	12.7	15.5	21.1	26.6	29.5	32.3	35.0	19. 27. 21.07		21.33	58.55	37.22		19. 27. 58.48	- 2.55
	21	α Sagittariæ.....	AD	38.4	41.4	44.3	47.0	53.0	58.7	1.6	4.5	7.5	19. 33. 52.92		53.14				19. 34. 30.30	- 2.46
	22	γ Aquilæ.....	AD	27.1	30.0	32.8	35.5	41.3	46.8	49.6	52.4	55.4	19. 39. 41.19		41.43	18.64	37.21		19. 40. 18.59	- 2.52
	23	α Aquilæ.....	J	49.2	52.0	54.5	57.5	3.2	8.7	11.6	14.2	17.3	19. 44. 3.12		3.38	40.64	37.26	36.81†	....	
	24	λ Ursæ Min. (E&E)	AD	..	..	..	..	6.0	..	35.0	55.0	29.0	19. 50. 21.34		8.97	47.43	38.46	36.67	....	
	25	c Sagittariæ.....	J	4.2	7.5	10.5	13.5	19.8	26.2	29.3	32.3	35.7	19. 54. 19.85		20.31	57.66	37.35	36.81†	....	
	26	θ Aquilæ.....	AD	59.6	2.3	5.1	7.8	13.3	18.8	21.6	24.4	27.2	20. 4. 13.33		13.64	50.81	37.17	36.67	20. 4. 50.81	- 2.67
	27	Lalande (F.) 3334	AD	53.4	59.3	5.0	11.0	22.5	34.2	40.0	45.6	51.7	20. 6. 22.47		22.29				20. 6. 59.46	- 2.68
	28	α Cygni.....	AD	13.8	18.0	21.7	25.6	33.5	41.3	45.2	49.0	53.1	20. 36. 33.44		33.47				20. 37. 10.66	- 2.42
	29	32 Vulpeculæ....	AD	20.8	24.2	27.2	30.3	36.5	42.6	45.8	48.9	52.1	20. 48. 36.46		36.61	13.80	37.19		20. 49. 13.80	- 2.41
	30	Saturn 1 L.....	AD	19.0	22.0	25.0	27.8	33.5	39.5	42.4	45.2	48.2	20. 54. 33.61		34.68				20. 55. 11.87	
	31	Saturn 2 L.....	AD	20.4	23.4	26.2	29.1	35.0	40.8	43.7	46.5	49.5	20. 54. 34.94							
	32	δ 2 L.....	AD	47.2	50.2	52.8	55.6	1.4	7.0	9.9	12.7	15.5	0. 13. 1.35		1.66			37.27	0. 12. 31.33	
Aug. 2	33	ρ Capricorni.....	C	50.6	53.6	56.5	59.3	5.2	11.0	13.9	16.7	19.7	20. 21. 5.15		5.55	43.23	37.68	37.28†	....	
	34	ε Delphini.....	C	22.0	25.0	27.7	30.5	36.2	41.8	44.6	47.4	50.2	20. 26. 36.13		36.37	14.10	37.73	[0.51]	....	
	35	10 Ceti.....	WC	19.7	22.6	25.2	28.1	33.4	38.7	41.7	44.5	47.4	0. 19. 33.46		33.75				0. 20. 11.67	- 2.09
	36	ε Andromedæ....	WC	2.2	5.3	8.3	11.5	17.7	24.0	27.3	30.5	33.4	0. 31. 17.77		17.91	55.89	37.98	[37.91]	0. 31. 55.83	- 1.86
	37	β Ceti.....	WC	25.0	28.2	31.0	33.8	39.5	45.4	48.5	51.3	54.3	0. 36. 39.64		40.04	17.97	37.93	[0.51]	0. 37. 17.96	- 2.17
	38	Piazzi O. 189....	WC	56.4	59.3	2.0	4.8	10.3	15.8	18.5	21.3	24.0	0. 41. 10.25		10.52				0. 41. 48.44	- 1.96
	39	μ Andromedæ....	WC	52.0	55.7	59.4	2.6	9.8	16.7	20.2	23.6	27.3	0. 49. 9.67		9.76	47.61	37.85		0. 49. 47.69	- 1.78
	40	ε Piscium.....	WC	33.9	37.0	39.6	42.3	47.8	53.4	56.4	59.2	1.8	0. 55. 47.91		48.17	26.15	37.98		0. 56. 26.10	- 1.85
	41	δ 2 L.....	WC	29.5	32.5	35.3	38.0	43.7	49.4	52.5	55.3	58.0	1. 5. 43.78		44.05				1. 5. 14.18	
	42	ο Piscium.....	WC	54.1	56.8	59.6	2.1	7.9	13.5	16.4	19.2	22.0	1. 38. 7.93		8.19	46.10	37.91		1. 38. 46.13	- 1.64
Aug. 3	43	⊙ 1 L.....	S	30.9	33.9	36.8	39.6	45.4	51.2	54.1	57.3	0.0	8. 51. 45.45	+0.67	45.61			38.07	8. 53. 30.27	
	44	Polaris S.P. (E&E)	S	..	59.0	55.5	51.0	..	..	..	27.0	26.0	13. 11. 57.92	(-0.78)	5.04	45.74	40.70	[0.47]	....	
	45	η Ursæ Majoris..	S	36.0	40.3	44.6	48.7	57.6	6.0	10.0	14.4	18.9	13. 41. 57.35	[+4.07]	57.35				13. 42. 35.69	- 1.15

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 8, 17, 24, and 44, -44".00: -45".00: -45".00: and -47".00.

Corrections for passage of Semidiameter, Nos. 3, 32, 41, and 43, -69".69: -67".61: -67".81: and +66".42.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

August 1 and 2. The azimuthal error by tabular places of Cephei 51 S.P. and λ Ursæ Minoris, allowing 0".02 for clock-rate.

August 3 to August 4, Piazzi XX. 36. The azimuthal error used is the mean of those (+4".18, +3".88, and +4".14) determined by tabular places of Polaris S.P. and λ Ursæ Minoris, and of δ Ursæ Minoris and Cephei 51 S.P. on August 3, and of β Aquilæ and λ Ursæ Minoris on August 4, allowing 0".14, 0".01, and 0".00 respectively for clock-rate.

3. Correction to R.A. on true meridian, +0".02.

32, 41. Correction to R.A. on true meridian, +0".01.

8, 43. Very cloudy.

44. Tremulous.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Loss Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874 Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s			s	s	s	s	s	s
Aug. 3	1	53 Herculis	s	18.7	22.0	25.3	28.6	35.0	41.4	44.6	47.8	51.3	16. 47. 34.94	+0.67	35.04			38.07	16. 48. 13.44	- 1.95
	2	κ Ophiuchi	s	51.7	54.7	57.5	0.1	5.8	11.4	14.3	17.0	20.0	16. 51. 5.81	(-0.78)	6.00	44.28	38.28	[0.47]	16. 51. 44.40	- 2.03
	3	Groombridge 2395	s	59.4	5.6	11.4	17.4	29.5	41.4	47.6	53.5	59.6	16. 54. 29.44	[+4.07]	29.32				16. 55. 7.72	- 2.18
	4	Groombridge 2427	s	9.0	20.2	31.3	42.0	3.9	25.9	37.2	48.3	59.4	17. 5. 4.04		3.59				17. 5. 41.99	- 2.80
	5	43 Ophiuchi	s	34.0	37.3	40.2	43.5	49.6	55.8	59.0	2.3	5.5	17. 14. 49.65		49.99				17. 15. 28.40	- 2.57
	6	β Draconis	s	36.5	41.0	45.5	50.0	59.3	8.2	12.7	17.2	21.8	17. 26. 59.09		59.06				17. 27. 37.47	- 2.15
	7	ι Herculis	s	58.3	2.5	6.4	10.4	..	26.3	30.1	34.2	38.3	17. 35. 18.27		18.29				17. 35. 56.70	- 2.16
	8	89 Herculis	s	28.5	31.7	34.6	37.7	43.8	50.1	53.3	56.2	59.3	17. 49. 43.88		44.01	22.39	38.38		17. 50. 22.43	- 2.18
	9	40 Camelop. S.P.	s	14.9	20.3	25.7	31.4	42.7	53.5	59.2	4.4	10.4	18. 3. 42.55		43.01				6. 4. 21.43	- 0.34
	10	δ Ursæ Min. (E&E)	s	..	..	..	..	19.5	..	41.0	..	13.5	18. 12. 32.30		29.71	7.92	38.21		..	..
	11	χ Draconis	s	..	7.9	17.0	26.4	44.9	3.2	12.8	22.0	..	18. 22. 44.80		44.46				18. 23. 22.89	- 3.07
	12	α Lyrae	s	46.2	50.0	53.5	57.2	4.2	11.2	14.7	18.2	21.8	18. 32. 4.08		4.15	42.61	38.46		18. 32. 42.58	- 2.29
	13	Ceph. 51 S.P. (E&E)	s	..	..	..	..	40.0	..	32.0	..	..	18. 39. 52.91		58.36	36.27	37.91		..	..
	14	α Vulpeculae	AD	36.5	39.7	42.7	45.6	51.6	57.8	0.7	3.8	7.0	19. 22. 51.68		51.82	30.13	38.31	37.85†	..	..
	15	μ Aquilæ	AD	6.2	9.2	11.8	14.5	20.0	25.6	28.4	31.3	34.0	19. 27. 20.21		20.41	58.55	38.14		..	..
	16	ε Sagittarii	s	39.9	43.0	45.6	48.6	54.5	0.0	3.0	5.9	8.8	19. 32. 54.35		54.64	33.10	38.46	38.07	19. 33. 33.09	- 2.91
	17	λ Ursæ Min. (E&E)	s	..	..	..	..	1.0	58.0	..	54.0	27.0	19. 50. 14.86		6.22	46.63	40.41		..	..
	18	Bradley 2615	s	..	10.8	16.2	22.0	33.0	44.1	49.8	55.0	..	20. 10. 32.93		32.84				20. 11. 11.31	- 2.65
	19	Piazzi VIII. 52 S.P.	s	4.0	12.0	20.2	28.3	44.0	0.2	8.4	15.6	24.1	20. 19. 44.16		44.78				8. 20. 23.25	+ 0.30
	20	α Cygni	s	12.7	16.6	20.4	24.2	31.8	40.0	43.6	47.6	51.4	20. 36. 32.00		32.03				20. 37. 10.50	- 2.43
	21	β Aquarii	s	5.5	8.3	11.2	13.8	19.5	24.9	27.7	30.4	33.3	21. 24. 19.38		19.63	58.13	38.54		21. 24. 58.12	- 2.74
	22	ξ Aquarii	s	12.5	15.3	18.2	20.8	26.4	32.2	34.8	37.6	40.5	21. 30. 26.46		26.72	5.29	38.57		21. 31. 5.21	- 2.77
Aug. 4	23	δ Aquilæ	J	18.4	21.2	23.7	26.6	32.1	37.7	40.5	43.3	46.1	19. 18. 32.16	(-0.24)	32.40	11.22	38.82	38.44	..	..
	24	α Vulpeculae	J	36.0	39.0	42.0	45.2	51.0	57.4	0.3	3.3	6.4	19. 22. 51.15		51.31	30.13	38.82	[0.46]	..	..
	25	ε Sagittæ	J	44.2	47.3	50.0	52.8	58.6	4.4	7.3	10.0	13.0	19. 30. 58.60		58.80				19. 31. 37.61	- 2.46
	26	γ Aquilæ	J	25.6	28.4	31.3	34.0	39.6	45.4	48.0	50.8	53.7	19. 39. 39.62		39.84	18.65	38.81		..	..
	27	π Aquilæ	J	55.1	58.0	0.8	3.6	9.4	15.0	17.7	20.5	23.4	19. 42. 9.25		9.47				19. 42. 48.29	- 2.51
	28	β Aquilæ	J	17.0	19.8	22.6	25.4	30.8	36.5	39.4	42.2	44.9	19. 48. 30.94		31.17	9.97	38.80		..	..
	29	λ Ursæ Min. (E&E)	J	..	..	..	..	6.0	58.0	28.0	..	..	19. 50. 14.65		7.54	46.17	38.63		..	..
	30	19 Vulpeculae	J	40.1	43.4	46.3	49.3	55.5	1.9	..	..	..	20. 5. 55.57		55.73				20. 6. 34.55	- 2.44
	31	Piazzi XX. 36	J	..	..	..	58.2	4.4	10.7	13.5	16.7	19.7	20. 6. 4.34		4.50				20. 6. 43.32	- 2.44
	32	δ 2 L.	AD	..	..	..	..	..	6.0	9.1	12.0	14.8	2. 55. 0.01	[+4.65]	0.23			38.80	2. 54. 28.59	..
Aug. 5	33	ζ Aquilæ	AD	45.8	48.8	51.6	54.5	0.0	5.7	8.6	11.5	14.3	18. 59. 0.07		0.31	39.47	39.16		..	..
	34	δ Aquilæ	AD	18.0	20.8	23.6	26.3	31.8	37.4	40.2	42.9	45.6	19. 18. 31.83		32.10	11.22	39.12		..	..
	35	δ 2 L.	s	14.7	18.0	20.8	24.0	30.2	36.3	39.6	42.5	45.5	3. 53. 30.16	(-0.04)	30.39			39.48	3. 52. 57.79	..
	36	Aldebaran	s	48.2	51.2	54.1	56.9	2.6	8.3	11.2	14.1	17.1	4. 28. 2.62	[+5.23]	2.88	42.39	39.51	[0.48]	4. 28. 42.45	- 0.89
Aug. 6	37	⊙ 1 L.	s	2.6	5.5	8.6	11.5	17.1	22.8	25.8	28.8	31.2	9. 3. 17.08		23.41				9. 5. 3.07	..
	38	⊙ 2 L.	s	14.7	17.7	20.6	23.5	29.3	35.0	37.8	40.8	43.7	9. 5. 29.21		50.05				11. 39. 30.30	..
	39	Venus 1 L.	s	35.9	38.9	41.4	44.3	49.6	55.3	58.0	0.7	3.8	11. 38. 49.74		8.77	48.51	39.74		..	..
	40	Polaris S.P. (E&E)	s	9.0	7.0	1.0	57.0	..	..	..	..	..	13. 12. 1.16		54.41	34.20	39.79		13. 18. 34.15	- 0.83
	41	Spica	s	40.0	42.9	45.6	48.5	54.0	59.5	2.6	5.3	8.2	13. 17. 54.05		38.17	17.95	39.78		17. 20. 18.00	- 2.17
	42	σ Ophiuchi	s	24.0	27.0	29.6	32.1	37.8	43.3	46.3	49.1	51.7	17. 19. 37.86		26.06				17. 24. 5.89	- 2.16
	43	Radcliffe 3714	s	..	4.0	9.5	15.0	26.0	37.2	42.8	48.4	..	17. 23. 26.08		27.46	7.26	39.80		17. 29. 7.29	- 2.15
	44	α Ophiuchi	s	13.1	15.9	18.5	21.4	27.1	33.0	35.7	38.7	41.5	17. 28. 27.19		3.96				17. 37. 43.79	- 2.43
	45	ω Draconis	s	25.9	33.8	41.1	48.9	4.2	19.4	27.2	34.7	42.6	17. 37. 4.14		30.89				6. 0. 10.73	- 0.36
	46	36 Camelop. S.P.	s	..	3.3	10.2	16.7	30.1	43.6	50.4	57.0	..	17. 59. 30.24						..	..

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 10, 13, 17, 29, and 40, -47".30: -47".30: -47".30: -48".30: and -50".00.

Corrections for passage of Semidiameter, Nos. 32, 35, and 39, -72".50: -72".36: and +0".54.

† This clock-error has been used in the reduction of the observations made with the Altazimuth.

August 4, δ 2 L., to August 5, δ Aquilæ. The azimuthal error is the mean of the preceding and following determinations.

August 5, δ 2 L., to August 6. The azimuthal error used is the mean of those (+5".20 and +5".25) determined by tabular places of Polaris S.P. and Spica, and δ Ursæ Minoris and Cephei 51 S.P. on August 6, allowing 0".01 for clock-rate in the latter case.

10, 13. Cloudy.

32. Very faint; cloudy.

17, 37, 38, 39, 40. Tremulous.

32, 35. Correction to R.A. on true meridian, +0".01.

20. Very diffused.

35. Faint.

26. Very cloudy.

1866QJAM...36A...1A

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1874.

[59]

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Lossing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Aug. 6	1	δ Ursæ Min. (E&E)	S	25.0	13.8	59.5	46.5	..	53.0	40.2	26.5	13.2	18. 12. 29.17	+0.67	26.50	7.00	40.50	39.48	....	
	2	8 Lynceis S.P.	S	..	..	12.7	18.4	30.0	41.7	47.5	..	..	18. 25. 30.10	(-0.04)	30.69	..	..	[0.48]	6. 26. 10.54	- 0.36
	3	α Lyræ	S	44.6	48.3	51.6	55.5	2.6	9.5	13.1	16.5	20.3	18. 32. 2.42	[+5.23]	2.58	42.58	40.00	..	18. 32. 42.43	- 2.26
	4	Ceph. 51 S.P. (E&E)	S	..	54.5	50.5	48.5	43.0	36.8	34.0	30.0	..	18. 39. 52.91		56.79	37.33	40.54	..	....	
	5	Groomb. 1245 S.P.	S	11.7	20.7	29.3	37.8	54.5	11.5	20.0	28.0	36.8	18. 50. 54.55		55.32	..	..	..	6. 51. 35.18	+ 0.06
	6	β Aquilæ	S	..	..	21.5	24.5	29.8	35.5	38.3	41.0	43.8	19. 48. 29.90		30.20	9.97	39.77	..	19. 49. 10.08	- 2.57
	7	Groombridge 2992	S	34.9	40.7	45.9	51.9	2.7	13.9	19.6	25.5	31.2	19. 52. 2.87		2.84	..	..	..	19. 52. 42.72	- 2.60
	8	μ Aquarii	S	59.7	2.9	5.5	8.2	13.9	19.5	22.4	25.3	28.0	20. 45. 13.92		14.28	54.20	39.92	..	20. 45. 54.17	- 2.86
	9	Saturn 1 L.	S	46.5	49.0	52.3	55.1	0.8	6.7	9.6	12.6	15.5	20. 53. 0.88		2.02	..	..	..	20. 53. 41.92	
	10	Saturn 2 L.	S	47.5	50.7	53.6	56.5	2.4	8.2	11.2	14.2	17.3	20. 53. 2.38							
	11	β Aquarii	C	4.2	7.1	9.7	12.5	18.2	23.7	26.5	29.3	32.0	21. 24. 18.11		18.46	58.20	39.74	39.25	....	
	12	ξ Aquarii	C	11.4	14.2	16.9	19.8	25.4	31.0	33.8	36.6	39.4	21. 30. 25.37		25.72	5.34	39.62	[0.48]	....	
Aug. 7	13	δ Aquilæ	L	15.9	..	21.6	24.4	29.8	..	..	..	43.7	19. 48. 29.85	(-0.83)	30.03	9.98	39.95	39.56	....	
	14	λ Ursæ Min. (E&E)	L	..	..	..	..	..	..	..	55.0	26.0	19. 50. 12.12	[+3.52]	4.55	44.36	39.81	[0.40]	....	
	15	α² Capricorni	L	12.2	15.3	17.8	20.8	26.4	32.2	35.0	37.8	41.6	20. 10. 26.54		26.78	6.61	39.83	..	....	
Aug. 8	16	89 Herculis	C	26.3	29.5	32.4	35.5	41.6	47.8	51.2	54.0	57.3	17. 49. 41.71	(-0.39)	41.90	22.34	40.44	40.20	17. 50. 22.31	- 2.13
	17	72 Ophiuchi.	C	30.2	33.0	35.7	38.5	44.3	49.7	52.6	55.5	58.3	18. 0. 44.18	[+5.40]	44.45	24.81	40.36	[0.28]	18. 1. 24.86	- 2.27
	18	13 Lyræ	C	32.7	36.6	40.4	44.2	51.8	59.5	3.3	7.2	11.0	18. 50. 51.83		51.92	..	..	..	18. 51. 32.34	- 2.28
	19	τ Sagittarii	C	11.0	14.2	17.2	20.3	26.6	32.8	35.9	39.0	42.2	18. 58. 26.55		26.99	..	..	..	18. 59. 7.41	- 3.08
	20	ψ Sagittarii	C	55.6	58.8	1.6	4.8	11.1	17.2	20.2	23.3	26.2	19. 7. 10.95		11.38	51.77	40.39	..	19. 7. 51.80	- 3.05
	21	Piazzi XIX. 84.	C	45.4	48.6	51.6	54.8	1.0	7.3	10.5	13.5	16.7	19. 16. 1.02		1.46	..	..	..	19. 16. 41.88	- 3.16
	22	λ Ursæ Min. (E&E)	C	45.0	18.0	43.0	9.0	..	..	..	..	..	19. 50. 13.58		3.16	43.63	40.47	..	....	
	23	α² Capricorni	C	11.5	14.5	17.3	20.2	25.6	31.5	34.3	37.1	40.0	20. 10. 25.76		26.13	6.61	40.48	..	20. 11. 6.56	- 2.91
	24	Piazzi XX. 170.	C	29.2	32.3	35.3	38.2	44.4	50.5	53.6	56.6	59.6	20. 24. 44.38		44.81	..	..	..	20. 25. 25.25	- 3.22
	25	Bradley 2671	C	50.7	53.6	56.4	59.3	5.0	10.6	13.5	16.5	19.4	20. 34. 4.98		5.23	..	..	..	20. 34. 45.67	- 2.54
	26	ε Aquarii	C	59.2	2.0	4.7	7.5	13.3	19.0	21.6	24.4	27.3	20. 40. 13.20		13.56	54.06	40.50	..	20. 40. 54.00	- 2.88
	27	Saturn 1 L.	C	9.7	12.9	15.7	18.6	24.4	30.2	33.3	36.2	39.0	20. 52. 24.43		25.52	..	..	..	20. 53. 5.96	
	28	Saturn 2 L.	C	11.3	14.4	17.2	20.0	25.7	31.6	34.5	37.5	40.4	20. 52. 25.82							
	29	α Pegasi	E	36.3	39.3	41.9	44.7	50.5	56.3	59.0	1.8	5.0	22. 57. 50.52		50.77	31.49	40.72	40.39	....	
	30	γ Piscium	E	..	..	..	..	59.7	5.2	7.6	10.6	13.4	23. 9. 59.53		59.83	40.43	40.60	[0.28]	....	
Aug. 10	31	Polaris S.P. (E&E)	AD	..	12.0	4.5	2.5	55.5	..	..	..	..	13. 12. 2.62	+0.83	10.89	51.80	40.91	40.64	....	
	32	η Ursæ Majoris ..	AD	32.8	37.2	41.4	45.8	54.4	2.9	7.3	11.5	15.8	13. 41. 54.31	(+0.20)	54.44	..	..	[0.36]	13. 42. 35.29	- 0.99
	33	η Boötis	AD	46.3	49.4	52.2	55.2	0.9	6.8	9.7	12.6	15.7	13. 48. 0.96	[+6.13]	1.26	42.18	40.92	..	13. 48. 42.11	- 1.06
	34	γ Aquilæ	AD	23.4	26.2	28.9	31.7	37.4	42.9	45.8	48.6	51.4	19. 39. 37.34		37.68	18.65	40.97	..	19. 40. 18.61	- 2.53
	35	α Aquilæ	AD	45.4	48.4	51.1	53.7	59.5	5.0	7.8	10.6	13.5	19. 43. 59.42		59.77	40.66	40.88	..	19. 44. 40.70	- 2.57
	36	β Aquilæ	AD	14.7	17.7	20.4	23.2	28.7	34.3	37.1	39.8	42.7	19. 48. 28.71		29.07	9.98	40.91	..	19. 49. 10.01	- 2.58
	37	ε Draconis	AD	..	..	..	..	..	42.9	49.5	..	2.0	19. 59. 30.02		29.97	..	..	..	20. 0. 10.91	- 2.65
	38	θ Aquilæ	AD	55.5	58.5	1.3	4.1	9.5	15.2	..	..	..	20. 4. 9.53		9.92	50.85	40.93	..	20. 4. 50.86	- 2.71
	39	υ Piscium	C	59.0	2.0	4.6	7.4	12.8	18.5	21.2	23.9	26.8	1. 34. 12.89		13.26	54.37	41.11	..	....	
Aug. 11	40	⊙ 2 L.	J	..	..	..	..	30.4	36.2	39.1	41.9	44.7	9. 24. 30.40	(+0.70)	30.70	..	..	41.16	9. 24. 6.25	
	41	Polaris S.P. (E&E)	J	15.0	14.5	8.5	5.0	58.5	..	..	..	..	13. 12. 4.70	[+5.03]	9.91	52.50	42.59	[0.33]	....	
	42	Spica	J	..	..	..	..	52.4	58.0	0.9	3.6	6.5	13. 17. 52.38		52.76	34.15	41.39	..	13. 18. 34.10	- 0.78
	43	η Boötis	J	45.9	48.9	51.8	54.7	0.3	6.3	9.4	12.1	15.2	13. 48. 0.50		0.79	42.16	41.37	..	13. 48. 42.14	- 2.24
	44	72 Ophiuchi.	J	29.0	31.9	34.6	37.5	43.0	48.5	51.5	54.2	57.0	18. 0. 43.00		43.33	24.78	41.75	..	18. 1. 24.74	- 2.24
	45	42 Draconis.	J	..	31.5	38.0	44.9	58.3	11.4	18.2	25.0	..	18. 24. 58.13		58.18	..	..	..	18. 25. 39.59	- 2.35

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 1, 4, 14, 22, 31, and 41, -50^s.10: -50^s.10: -51^s.10:

-51^s.90: -53^s.10: and -53^s.80.

Correction for passage of Semidiameter, No. 40, -65^s.74.

August 7. The azimuthal error by tabular places of λ Ursæ Minoris and α² Capricorni.

August 8. The azimuthal error by tabular places of λ Ursæ Minoris and α² Capricorni.

August 10. The azimuthal error by tabular places of Polaris S.P. and η Boötis, allowing 0^s.01 for clock-rate.

August 11. The azimuthal error by tabular places of Polaris S.P. and λ Ursæ Minoris, allowing 0^s.10 for clock-rate.

13, 14, 15. Faint; cloudy.

37, 38, 40. Cloudy.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at oh Sidereal and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874. Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Aug. 11	1	Groombridge 2627	J	31.7	35.6	39.3	42.8	50.1	57.3	1.0	4.6	8.4	18.34.50.06	+0.83	50.27			41.16	18.35.31.69	- 2.19
	2	29 Sagittarii	J	17.7	20.8	23.6	26.5	32.4	38.4	41.4	44.2	47.4	18.41.32.46	(+0.70)	32.88			[0.33]	18.42.14.30	- 2.82
	3	13 Lyræ	J	31.6	35.5	39.3	43.1	50.8	58.5	2.3	6.1	9.9	18.50.50.76	+5.03	50.96				18.51.32.38	- 2.24
	4	Brad. 2421 (1st Star)	J	11.5	23.4	34.2	45.3	7.3	29.7	41.0	52.1	3.5	18.57.7.46		7.30				18.57.48.72	- 2.99
	5	Brad. 2421 (2d Star)	J	12.6	24.3	34.9	46.1	8.2	30.7	41.8	53.1	4.3	18.57.8.35		8.19				18.57.49.61	- 2.99
	6	ψ Sagittarii	J	54.7	57.7	0.8	3.8	10.0	16.2	19.2	22.1	25.4	19.7.9.96		10.39	51.77	41.38		19.7.51.81	- 3.05
	7	γ Aquilæ	J	22.9	25.8	28.5	31.3	37.0	42.5	45.4	48.2	51.1	19.39.36.94		37.26	18.64	41.38		19.40.18.69	- 2.52
	8	π Aquilæ	J	52.5	55.4	58.0	0.8	6.5	12.1	15.1	17.8	20.8	19.42.6.53		6.85				19.42.48.28	- 2.51
	9	λ Ursæ Min. (E&E)	J	..	..	..	..	0.0	35.5	26.0	51.0	19.0	19.50.4.59		58.62	41.31	42.69		..	
	10	19 Vulpeculæ ...	J	..	..	43.5	46.7	53.0	59.0	2.4	..	..	20.5.52.90		53.17				20.6.34.61	- 2.44
	11	Piazzi XX. 36	J	..	..	..	..	..	8.1	11.0	14.2	17.2	20.6.1.80		2.07				20.6.43.53	- 2.44
	12	17 Capricorni....	J	57.9	0.8	3.7	6.8	12.9	18.6	21.7	24.6	27.6	20.38.12.71		13.14				20.38.54.58	- 3.18
	13	32 Vulpeculæ	J	16.6	19.8	22.9	26.0	32.3	38.4	41.5	44.5	47.8	20.48.32.17		32.43	13.85	41.42		20.49.13.88	- 2.46
	14	Saturn 1 L.	J	15.5	18.5	21.2	24.2	30.0	35.9	38.8	41.6	44.6	20.51.30.02		31.11				20.52.12.56	
	15	Saturn 2 L.	J	16.9	19.8	22.6	25.5	31.3	37.3	40.2	42.9	46.0	20.51.31.37							
Aug. 13	16	μ Herculis	L	36.0	39.5	42.6	45.6	51.7	58.1	1.1	4.3	7.4	17.40.51.78	[+6.09]	52.07	33.67	41.60	41.44	....	
	17	72 Ophiuchi	L	29.0	31.8	34.5	37.4	43.0	48.6	51.4	54.2	57.0	18.0.42.97		43.34	24.76	41.42	[0.12]	....	
	18	δ Ursæ Min. (E&E)	L	26.5	14.8	0.0	47.0	..	..	..	27.0	14.8	18.12.24.83		22.45	4.58	42.13		....	
	19	Ceph. 51 S.P. (E&E)	L	1.2	1.0	57.0	54.5	49.2	..	41.2	..	..	18.39.54.10		57.77	40.22	42.45		....	
	20	α Aquilæ	L	44.7	47.6	50.3	53.2	58.7	4.4	7.3	9.8	12.6	19.43.58.71		59.09	40.65	41.56		....	
Aug. 14	21	⊙ 1 L.	C	23.3	26.3	29.2	32.0	37.6	43.4	46.3	49.2	52.0	9.33.37.68		43.53			41.68	9.35.25.27	
	22	⊙ 2 L.	C	34.3	37.4	40.2	43.0	48.7	54.4	57.3	0.1	3.0	9.35.48.69					[0.15]	....	
	23	β Aquilæ	C	13.9	16.8	19.5	22.2	27.7	33.3	36.2	38.9	41.7	19.48.27.78		28.16	9.97	41.81		....	
	24	λ Ursæ Min. (E&E)	C	..	..	..	..	2.0	0.0	27.0	..	..	19.50.5.65		57.38	39.19	41.81		....	
	25	Bradley 1147 S.P.	C	38.3	10.0	21.2	33.1	..	..	..	..	..	20.2.56.24		57.23				8.3.39.03	+ 0.30
	26	β Capricorni....	C	2.2	5.1	7.8	10.7	16.4	22.3	25.2	27.9	30.9	20.13.16.48		16.95	58.76	41.81		....	
	27	Groombridge 3150	C	..	..	16.7	23.6	37.4	51.4	58.4	..	..	20.15.37.46		37.45				20.16.19.26	- 2.68
Aug. 15	28	κ Ophiuchi	L	47.9	50.8	53.5	56.4	1.8	7.6	10.4	13.2	16.0	16.51.1.94		2.31	44.13	41.82		....	
	29	ε Herculis	L	31.6	35.0	38.1	41.4	47.8	54.3	57.6	0.6	4.0	16.54.47.79		48.06	29.95	41.89		....	
	30	δ Ursæ Min. (E&E)	E	..	..	0.0	47.5	..	..	..	..	14.0	18.12.23.55		21.17	3.96	42.79	42.10	....	
	31	η Serpentis	E	53.3	56.0	58.8	1.5	7.0	12.6	15.4	18.1	21.0	18.14.7.06		7.48	49.75	42.27	[0.26]	18.14.49.78	- 2.37
	32	α Lyræ	E	42.0	45.8	49.3	52.8	59.9	7.0	10.6	14.0	17.6	18.31.59.85		0.09	42.46	42.37		18.32.42.39	- 2.14
	33	Ceph. 51 S.P. (E&E)	E	4.0	2.0	59.0	56.5	51.0	46.0	..	..	..	18.39.54.82		58.49	40.93	42.44		....	
	34	ζ Aquilæ	E	42.5	45.5	48.4	51.2	56.8	2.6	5.4	8.2	11.0	18.58.56.82		57.18	39.42	42.24		18.59.39.48	- 2.36
	35	32 Vulpeculæ ...	E	15.7	18.7	21.7	24.8	31.4	37.5	40.5	43.6	47.0	20.48.31.18		31.47	13.86	42.39		20.49.13.79	- 2.47
	36	Saturn 1 L.	E	4.3	7.3	10.2	13.1	19.0	24.8	27.7	30.6	33.5	20.50.18.92		20.05				20.51.2.38	
	37	Saturn 2 L.	E	5.6	8.6	11.4	14.5	20.2	26.0	29.0	31.9	34.9	20.50.20.22							
	38	Pomona	E	..	39.1	41.6	44.6	50.2	55.8	58.4	1.0	..	21.18.50.07		50.50				21.19.32.83	
Aug. 17	39	⊙ 1 L.	L	37.5	40.4	43.0	46.0	51.6	57.4	0.1	3.2	5.9	9.44.51.66	+0.58	51.94			42.13	9.46.39.43	
	40	ε Herculis	L	31.3	34.6	37.7	40.8	47.5	53.8	57.1	0.2	3.5	16.54.47.36	(+0.24)	47.57	29.91	42.34	[0.22]	16.55.29.85	- 1.75
	41	α ¹ Herculis	L	59.3	2.1	4.9	7.8	13.5	19.3	22.1	24.9	27.7	17.8.13.49	[+5.37]	13.76	56.05	42.29		17.8.56.05	- 1.92
	42	α Ophiuchi	L	10.5	13.4	16.1	19.0	24.5	30.3	33.1	35.9	38.7	17.28.24.59		24.87	7.13	42.26		17.29.7.16	- 2.02
	43	Bradley 2228....	L	..	2.4	5.3	8.4	14.4	20.5	23.6	26.6	..	17.25.14.43		14.67				17.35.56.96	- 1.97
	44	μ Herculis	E	34.9	38.0	41.2	44.3	50.5	56.9	59.9	3.1	6.4	17.40.50.55		50.77	33.62	42.85	42.69†	....	
	45	72 Ophiuchi	E	27.6	30.4	33.3	36.0	41.6	47.3	49.8	52.8	55.7	18.0.41.59		41.88	24.72	42.84		....	

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 9, 18, 19, 24, 30, and 33, -54".00: -55".40: -55".40: -56".10: -56".60: and -56".60.

Correction for passage of Semidiameter, No. 39, +65".27.

† This clock-error has been used in the reduction of the observations made with the Altazimuth.

August 13 to 16. The azimuthal error used is the mean of those (+6".30, +6".09, and +5".87) determined by tabular places of δ Ursæ Minoris and Cephei 51 S.P. on August 13, of β Aquilæ and λ Ursæ Minoris on August 14, and of δ Ursæ Minoris and Cephei 51 S.P. on August 15.

August 17 to 20. The azimuthal error used is the mean of those (+5".38, +5".90, +4".79, and +5".40) determined by tabular places of δ Ursæ Minoris and Cephei 51 S.P. on August 17 and 19, of Polaris S.P. and Spica and of δ Ursæ Minoris and Cephei 51 S.P. on August 20.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Loss Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.				
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.												
				s	s	s	s	s	s	s	s	s												
											h	m	s											
Aug. 17	1	δ Ursæ Min. (E&E)	L	27 ^o 15 ^m 0 ^s	47 ^m 21 ^s 0 ^s	..	..	..	15 ^m 8 ^s	18. 12. 22 ^m 90 ^s	+0 ^m 58 ^s	20 ^m 29 ^s	3 ^m 30 ^s	43 ^m 01 ^s	42 ^m 13 ^s	....								
	2	Ceph. 51 S.P. (E&E)	L	5 ^m 8 ^s 3 ^s	0 ^m 58 ^s 0 ^s 52 ^s 0 ^s	..	..	..	..	18. 39. 54 ^m 80 ^s	(+0 ^m 24 ^s)	58 ^m 64 ^s	41 ^m 68 ^s	43 ^m 04 ^s	[0 ^m 22 ^s]	....								
	3	ε Aquarii	L	57 ^m 5 ^s 0 ^s 3 ^s 1 ^s	5 ^m 8 ^s 11 ^s 4 ^s	17 ^m 0 ^s	19 ^m 8 ^s	22 ^m 6 ^s 25 ^s 5 ^s	20. 40. 11 ^m 43 ^s	[+5 ^m 37 ^s]	11 ^m 80 ^s	54 ^m 10 ^s	42 ^m 30 ^s		20. 40. 54 ^m 12 ^s	- 2 ^m 92 ^s								
	4	Piazzi XX. 339	L	42 ^m 8 ^s 46 ^s 3 ^s	49 ^m 2 ^s 52 ^s 58 ^s 2 ^s	4 ^m 2 ^s	7 ^m 4 ^s	10 ^m 3 ^s 13 ^s 4 ^s	20. 44. 58 ^m 19 ^s		58 ^m 61 ^s				20. 45. 40 ^m 93 ^s	- 3 ^m 27 ^s								
	5	Saturn 1 L.	L	29 ^m 5 ^s 32 ^s 5 ^s	35 ^m 3 ^s 38 ^s 3 ^s	44 ^m 1 ^s	49 ^m 9 ^s	52 ^m 8 ^s 56 ^s 0 ^s	59 ^m 0 ^s	20. 49. 44 ^m 14 ^s	} 45 ^m 24 ^s				20. 50. 27 ^m 56 ^s									
	6	Saturn 2 L.	L	30 ^m 9 ^s 33 ^s 7 ^s	36 ^m 9 ^s 39 ^s 8 ^s	45 ^m 6 ^s	51 ^m 4 ^s	54 ^m 4 ^s 57 ^s 3 ^s	0 ^m 2 ^s	20. 49. 45 ^m 56 ^s														
	7	β Aquarii	L	1 ^m 6 ^s 4 ^s 6 ^s	7 ^m 4 ^s 10 ^s 0 ^s	15 ^m 6 ^s	21 ^m 3 ^s	24 ^m 1 ^s 26 ^s 8 ^s	29 ^m 6 ^s	21. 24. 15 ^m 65 ^s					21. 24. 58 ^m 33 ^s	- 2 ^m 87 ^s								
	8	Castor	AD	35 ^m 0 ^s 38 ^s 3 ^s	41 ^m 5 ^s 44 ^s 8 ^s	51 ^m 3 ^s	57 ^m 9 ^s	1 ^m 0 ^s 4 ^s 3 ^s	7 ^m 6 ^s	7. 25. 51 ^m 27 ^s	(-0 ^m 31 ^s)	51 ^m 44 ^s	34 ^m 17 ^s	42 ^m 73 ^s	42 ^m 58 ^s	7. 26. 34 ^m 08 ^s	- 0 ^m 69 ^s							
Aug. 18	9	Arcturus	AD	58 ^m 3 ^s 1 ^s 2 ^s	4 ^m 2 ^s 7 ^s 2 ^s	12 ^m 9 ^s	18 ^m 8 ^s	21 ^m 8 ^s 24 ^s 7 ^s	27 ^m 7 ^s	14. 9. 12 ^m 96 ^s		13 ^m 18 ^s	55 ^m 85 ^s	42 ^m 67 ^s		14. 9. 55 ^m 88 ^s	- 0 ^m 99 ^s							
	10	δ 1 L.	AD	31 ^m 6 ^s 34 ^s 5 ^s	37 ^m 5 ^s 40 ^s 3 ^s	46 ^m 1 ^s	52 ^m 2 ^s	55 ^m 0 ^s 57 ^s 9 ^s	0 ^m 8 ^s	14. 19. 46 ^m 19 ^s		46 ^m 56 ^s				14. 21. 32 ^m 25 ^s								
	11	ρ Boötis	AD	26 ^m 0 ^s 29 ^s 4 ^s	32 ^m 4 ^s 35 ^s 6 ^s	42 ^m 2 ^s	48 ^m 6 ^s	51 ^m 8 ^s 53 ^s 0 ^s	58 ^m 3 ^s	14. 25. 42 ^m 12 ^s		42 ^m 30 ^s	25 ^m 06 ^s	42 ^m 76 ^s		14. 26. 25 ^m 00 ^s	- 1 ^m 09 ^s							
	12	72 Ophiuchi	AD	27 ^m 8 ^s 30 ^s 7 ^s	33 ^m 4 ^s 36 ^s 2 ^s	41 ^m 9 ^s	47 ^m 5 ^s	50 ^m 4 ^s 53 ^s 1 ^s	55 ^m 8 ^s	18. 0. 41 ^m 85 ^s		42 ^m 11 ^s	24 ^m 71 ^s	42 ^m 60 ^s		18. 1. 24 ^m 84 ^s	- 2 ^m 17 ^s							
	13	α Lyre	AD	41 ^m 8 ^s 45 ^s 6 ^s	49 ^m 0 ^s 52 ^s 5 ^s	59 ^m 6 ^s	6 ^m 5 ^s	10 ^m 4 ^s ..	18. 31. 59 ^m 58 ^s		59 ^m 70 ^s	42 ^m 42 ^s	42 ^m 72 ^s		18. 32. 42 ^m 43 ^s	- 2 ^m 10 ^s								
Aug. 19	14	δ 1 L.	E	2 ^m 3 ^s 5 ^s 2 ^s	8 ^m 1 ^s 11 ^s 2 ^s	17 ^m 4 ^s	23 ^m 2 ^s	26 ^m 3 ^s 29 ^s 3 ^s	32 ^m 4 ^s	15. 7. 17 ^m 24 ^s	(-1 ^m 05 ^s)	17 ^m 62 ^s			43 ^m 07 ^s	15. 9. 6 ^m 16 ^s								
	15	α Coronæ	E	23 ^m 7 ^s 26 ^s 9 ^s	30 ^m 0 ^s 33 ^s 0 ^s	39 ^m 3 ^s	45 ^m 7 ^s	48 ^m 7 ^s	51 ^m 6 ^s	15. 28. 39 ^m 28 ^s		39 ^m 42 ^s	22 ^m 56 ^s	43 ^m 14 ^s	[0 ^m 15 ^s]	15. 29. 22 ^m 59 ^s	- 1 ^m 37 ^s							
	16	α Serpentis	E	8 ^m 0 ^s 10 ^s 9 ^s	13 ^m 6 ^s 16 ^s 3 ^s	21 ^m 9 ^s	27 ^m 3 ^s	30 ^m 1 ^s 33 ^s 0 ^s	35 ^m 8 ^s	15. 37. 21 ^m 86 ^s		22 ^m 10 ^s	5 ^m 22 ^s	43 ^m 12 ^s		15. 38. 5 ^m 27 ^s	- 1 ^m 49 ^s							
	17	η Ophiuchi	L	13 ^m 9 ^s 16 ^s 8 ^s	19 ^m 8 ^s 22 ^s 4 ^s	22 ^m 4 ^s	28 ^m 2 ^s 34 ^s 1 ^s	36 ^m 9 ^s	39 ^m 8 ^s	17. 2. 28 ^m 23 ^s		28 ^m 58 ^s	11 ^m 27 ^s	42 ^m 69 ^s	42 ^m 62 ^s†	....								
	18	α Herculis	L	58 ^m 8 ^s 1 ^s 9 ^s	4 ^m 4 ^s 7 ^s 3 ^s	13 ^m 0 ^s	18 ^m 9 ^s	21 ^m 7 ^s 24 ^s 4 ^s	27 ^m 3 ^s	17. 9. 13 ^m 06 ^s		13 ^m 26 ^s	56 ^m 02 ^s	42 ^m 76 ^s		....								
	19	δ Ursæ Min. (E&E)	E	.. 17 ^m 0 ^s	2 ^m 5 ^s 50 ^s 0 ^s	22 ^m 0 ^s	56 ^m 0 ^s	43 ^m 5 ^s ..	..	18. 12. 22 ^m 81 ^s		19 ^m 01 ^s	2 ^m 60 ^s	43 ^m 59 ^s	43 ^m 07 ^s	....								
	20	λ Sagittarii	E	15 ^m 3 ^s 18 ^s 6 ^s	21 ^m 5 ^s 24 ^s 5 ^s	30 ^m 8 ^s	36 ^m 9 ^s	40 ^m 0 ^s 43 ^s 1 ^s	46 ^m 1 ^s	18. 19. 30 ^m 73 ^s		31 ^m 14 ^s	14 ^m 40 ^s	43 ^m 26 ^s		18. 20. 14 ^m 32 ^s	- 2 ^m 76 ^s							
	21	Ceph. 51 S.P. (E&E)	E	.. 4 ^m 0 ^s	0 ^m 5 ^s 59 ^s 0 ^s	54 ^m 0 ^s	48 ^m 0 ^s	45 ^m 0 ^s ..	..	18. 39. 53 ^m 90 ^s		59 ^m 08 ^s	42 ^m 51 ^s	43 ^m 43 ^s		....								
	22	Groomb. 1119 S.P. (E&E)	E	.. ..	.. ..	38 ^m 0 ^s	55 ^s 5 ^s	32 ^m 0 ^s ..	..	19. 26. 39 ^m 93 ^s		53 ^m 92 ^s				7. 27. 37 ^m 11 ^s	+ 14 ^m 34 ^s							
	23	α Aquilæ	E	43 ^m 1 ^s 46 ^s 1 ^s	49 ^m 0 ^s 51 ^s 7 ^s	57 ^m 2 ^s	2 ^m 8 ^s	5 ^m 5 ^s	8 ^m 2 ^s	11 ^m 1 ^s	19. 43. 57 ^m 17 ^s		57 ^m 41 ^s	40 ^m 63 ^s	43 ^m 22 ^s		19. 44. 40 ^m 60 ^s	- 2 ^m 54 ^s						
	24	Piazzi VII. 282 S.P.	E	.. ..	40 ^m 0 ^s 47 ^s 1 ^s	0 ^m 8 ^s	14 ^m 1 ^s	21 ^m 1 ^s ..	..	19. 57. 0 ^m 68 ^s		1 ^m 44 ^s				7. 57. 44 ^m 63 ^s	- 0 ^m 53 ^s							
	25	66 Draconis	E	22 ^m 6 ^s 28 ^s 8 ^s		40 ^m 0 ^s	51 ^m 8 ^s	3 ^m 4 ^s ..	15 ^m 0 ^s	21 ^m 0 ^s	20. 2. 51 ^m 75 ^s		51 ^m 55 ^s				20. 3. 34 ^m 74 ^s	- 2 ^m 42 ^s						
	26	α Capricorni	E	8 ^m 8 ^s 11 ^s 9 ^s	14 ^m 8 ^s 17 ^s 5 ^s	23 ^m 1 ^s	29 ^m 0 ^s	31 ^m 7 ^s	34 ^m 5 ^s	20. 10. 23 ^m 17 ^s		23 ^m 51 ^s	6 ^m 63 ^s	43 ^m 12 ^s		20. 11. 6 ^m 71 ^s	- 2 ^m 93 ^s							
	27	Groomb. 1418 S.P. (E&E)	E	.. 57 ^m 5 ^s	31 ^m 0 ^s	7 ^m 0 ^s	17 ^m 5 ^s	27 ^m 5 ^s ..	..	..	20. 17. 17 ^m 86 ^s		21 ^m 13 ^s				8. 18. 4 ^m 33 ^s	+ 3 ^m 17 ^s						
	28	η Delphini	E	4 ^m 5 ^s 7 ^s 5 ^s	10 ^m 2 ^s 13 ^s 1 ^s	18 ^m 8 ^s	24 ^m 3 ^s	27 ^m 2 ^s	30 ^m 0 ^s	20. 27. 18 ^m 71 ^s		18 ^m 92 ^s				20. 28. 2 ^m 12 ^s	- 2 ^m 58 ^s							
	29	Piazzi XX. 265	E	48 ^m 3 ^s 56 ^s 3 ^s	4 ^m 2 ^s 12 ^s 3 ^s	28 ^m 5 ^s	45 ^m 0 ^s	52 ^m 8 ^s	0 ^m 7 ^s	9 ^m 3 ^s	20. 31. 28 ^m 53 ^s		28 ^m 11 ^s				20. 32. 11 ^m 31 ^s	- 2 ^m 77 ^s						
	30	Groombridge 3274	E		1 ^m 0 ^s	6 ^m 5 ^s	17 ^m 6 ^s	28 ^m 8 ^s	34 ^m 5 ^s ..	..	20. 39. 17 ^m 63 ^s		17 ^m 46 ^s				20. 40. 0 ^m 66 ^s	- 2 ^m 52 ^s						
	31	μ Aquarii	E	57 ^m 0 ^s 59 ^s 6 ^s	2 ^m 2 ^s	5 ^m 1 ^s	10 ^m 9 ^s	16 ^m 3 ^s	19 ^m 1 ^s	21 ^m 9 ^s	24 ^m 9 ^s	20. 45. 10 ^m 76 ^s		11 ^m 08 ^s	54 ^m 26 ^s	43 ^m 18 ^s		20. 45. 54 ^m 29 ^s	- 2 ^m 92 ^s					
	32	Saturn 1 L.	E			3 ^m 8 ^s	9 ^m 4 ^s	15 ^m 3 ^s	18 ^m 2 ^s	21 ^m 2 ^s	24 ^m 2 ^s	20. 49. 9 ^m 49 ^s	} 10 ^m 59 ^s				20. 49. 53 ^m 79 ^s							
	33	Saturn 2 L.	E			5 ^m 1 ^s	10 ^m 9 ^s	16 ^m 8 ^s	19 ^m 7 ^s	22 ^m 7 ^s	25 ^m 7 ^s	20. 49. 10 ^m 96 ^s												
	34	ζ Ursæ Maj. S.P.	E		11 ^m 1 ^s	18 ^m 8 ^s	33 ^m 2 ^s	47 ^m 8 ^s	54 ^m 9 ^s ..	..	20. 58. 33 ^m 22 ^s			34 ^m 03 ^s				8. 59. 17 ^m 23 ^s	- 0 ^m 24 ^s					
35	ζ Cygni	E	37 ^m 8 ^s 41 ^s 0 ^s	.. ..	47 ^m 3 ^s	53 ^m 7 ^s	59 ^m 9 ^s ..	6 ^m 3 ^s	9 ^m 8 ^s	21. 6. 53 ^m 66 ^s		53 ^m 77 ^s	36 ^m 90 ^s	43 ^m 13 ^s		21. 7. 36 ^m 97 ^s	- 2 ^m 48 ^s							
36	Pomona	E	13 ^m 0 ^s 15 ^s 18 ^s	9 ^m 21 ^s	26 ^m 6 ^s	32 ^m 1 ^s	35 ^m 0 ^s	38 ^m 0 ^s	40 ^m 9 ^s	21. 15. 26 ^m 79 ^s		27 ^m 10 ^s				21. 16. 10 ^m 30 ^s								
37	Harmonia	E	24 ^m 6 ^s 27 ^s 5 ^s	30 ^m 1 ^s	33 ^m 1 ^s	39 ^m 0 ^s	44 ^m 7 ^s	47 ^m 5 ^s	50 ^m 6 ^s	22. 42. 38 ^m 96 ^s		39 ^m 31 ^s				22. 43. 22 ^m 52 ^s								
38	λ Aquarii	E	7 ^m 8 ^s 10 ^s 6 ^s	13 ^m 4 ^s	16 ^m 1 ^s	21 ^m 8 ^s	27 ^m 3 ^s	30 ^m 1 ^s	33 ^m 0 ^s	22. 45. 21 ^m 75 ^s														

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Aug. 20	1	DI L.	M	54.2	57.4	0.2	3.3	9.6	16.0	19.0	22.0	25.3	15.58. 9.63	+0.58	10.03			43.06	16. 0. 1.08	
	2	σ Scorpii	M	35.1	38.0	41.0	44.1	50.3	56.3	59.3	2.4	5.7	16. 12. 50.22	(-1.05)	50.62			[0.15]	16. 13. 33.78	- 1.87
	3	γ Herculis	M	25.3	28.3	31.2	34.1	39.8	45.8	48.8	51.7	54.7	16. 15. 39.94	[+5.37]	40.12	23.30	43.18		16. 16. 23.28	- 1.59
	4	Antares	M	44.0	47.1	50.1	53.2	59.3	5.6	8.8	11.7	14.9	16. 20. 59.38		59.79	42.97	43.18		16. 21. 42.95	- 1.94
	5	Capella S.P.	M	20.9	24.8	28.8	32.7	40.7	48.4	52.5	56.2	0.4	17. 6. 40.63		41.08				5. 7. 24.25	- 1.37
	6	α Ophiuchi	M	9.5	12.3	15.1	18.1	23.6	29.2	32.2	35.0	37.9	17. 28. 23.64		23.85	7.09	43.24		17. 29. 7.02	- 1.98
	7	f Draconis	M	9.3	17.6	24.7	32.3	47.1	2.0	9.4	16.7	24.6	17. 31. 47.02		46.67				17. 32. 29.84	- 1.64
	8	Piazzi XVII. 255	M	23.4	26.4	29.2	32.0	38.0	43.8	46.9	49.8	52.9	17. 42. 38.02		38.20				17. 43. 21.37	- 1.99
	9	δ Ursæ Min. (E&E)	M	..	..	1.0	47.0	..	57.0	45.0	29.0	17.0	18. 12. 22.07		18.27	2.22	43.95		....	
	10	λ Sagittarii	AD	15.7	18.8	21.8	25.0	30.9	37.1	40.2	43.2	46.3	18. 19. 30.97		31.37	14.39	43.02	42.89†	....	
	11	α Lyræ	AD	41.7	45.3	48.7	52.3	59.3	6.4	10.0	13.5	17.3	18. 31. 59.35		59.41	42.38	42.97		....	
	12	Ceph. 51 S.P. (E&E)	M	..	..	..	54.0	54.0	51.0	47.0	42.0	40.0	18. 39. 53.76		58.94	42.95	44.01	43.06	....	
	13	μ Aquilæ	M	0.9	3.9	6.8	9.6	15.3	20.8	23.7	26.3	29.0	19. 27. 15.12		15.36	58.50	43.14		19. 27. 58.54	- 2.50
	14	ε Sagittæ	M	39.9	42.8	45.9	48.4	54.1	0.0	2.8	5.5	8.6	19. 30. 54.20		54.39				19. 31. 37.57	- 2.40
	15	γ Aquilæ	M	21.2	24.2	26.8	29.7	35.3	41.0	43.7	46.4	49.2	19. 39. 35.26		35.49	18.61	43.12		19. 40. 18.67	- 2.49
	16	ρ Capricorni	M	45.2	48.3	51.2	54.1	59.9	5.5	8.3	11.4	14.3	20. 20. 59.78		0.14	43.30	43.16		20. 21. 43.33	- 3.06
	17	Groomb. 1446 S.P.	M	3.9	14.2	24.3	34.3	54.6	14.4	24.8	34.3	45.1	20. 24. 54.51		55.59				8. 25. 38.78	- 0.09
	18	γ Draconis	M	57.3	14.2	31.9	49.9	25.5	0.6	18.7	35.9	53.8	20. 35. 25.16		23.92				20. 36. 7.11	- 3.97
	19	Saturn 1 L.	M	38.2	41.2	44.0	46.9	52.8	58.7	..	..	..	20. 48. 52.79		53.73				20. 49. 36.92	
	20	Saturn 2 L.	M	..	..	..	47.7	54.0	59.9	..	5.7	8.7	20. 48. 53.93							
	21	ζ Cygni	M	37.7	40.8	44.1	47.3	53.7	59.9	3.1	6.2	9.4	21. 6. 53.55		53.66	36.90	43.24		21. 7. 36.85	- 2.48
	22	η Aquarii	M	58.3	1.3	4.0	6.8	12.1	17.7	20.4	23.3	26.1	22. 28. 12.20		12.48	55.61	43.13		22. 28. 55.68	- 2.79
	23	μ Pegasi	M	59.3	2.6	5.7	8.5	14.5	20.4	23.5	26.5	29.8	22. 43. 14.50		14.65	57.91	43.26		22. 43. 57.85	- 2.55
Aug. 21	24	Venus 1 L.	L	32.5	55.4	58.1	0.8	6.2	12.0	14.7	17.2	20.1	12. 40. 6.31	(-0.77)	6.68			42.87	12. 40. 50.23	
	25	Polaris S.P. (E&E)	L	..	21.0	15.0	11.0	4.5	58.0	..	..	..	13. 12. 4.57	[+6.60]	16.48	59.94	43.46	[0.12]	....	
	26	Spica	L	36.8	39.7	42.4	45.1	50.8	56.3	59.2	2.1	4.8	13. 17. 50.78		51.18	34.05	42.87		13. 18. 34.12	- 0.68
	27	κ Ophiuchi	L	46.8	49.7	52.2	55.2	0.8	6.4	9.1	11.8	14.8	16. 51. 0.74		1.04	44.05	43.01		16. 51. 43.99	- 1.80
	28	DI L.	L	39.5	42.9	..	49.2	55.7	2.0	..	8.2	11.6	16. 52. 55.57		56.08				16. 54. 49.49	
	29	η Ophiuchi	L	13.5	16.4	19.1	22.1	27.8	33.7	36.6	39.3	42.2	17. 2. 27.83		28.27	11.24	42.97		17. 3. 11.23	- 2.10
	30	δ Ursæ Min. (E&E)	L	29.0	17.0	2.8	49.8	..	..	..	..	..	18. 12. 22.06		17.73	1.82	44.09		....	
	31	Bradley 2320	L	42.4	45.4	48.2	51.1	57.0	2.7	5.6	8.3	11.2	18. 23. 56.86		57.30				18. 24. 40.26	- 2.57
	32	α Lyræ	E	41.0	44.8	48.1	51.8	58.7	6.0	9.4	13.0	16.7	18. 31. 58.80		58.90	42.36	43.46	43.33†	....	
	33	2 Aquilæ	E	27.2	30.0	32.7	35.5	41.2	46.9	49.6	52.3	55.2	18. 34. 41.16		41.56	24.93	43.37		....	
	34	Ceph. 51 S.P. (E&E)	L	..	..	..	1.0	..	..	46.0	42.5	40.0	18. 39. 53.98		0.00	43.42	43.42	42.87	....	
	35	ε Aquilæ	L	59.0	1.9	4.8	7.4	13.3	19.1	21.9	24.8	27.6	18. 53. 13.29		13.56	56.45	42.89		18. 53. 56.52	- 2.28
	36	α Delphini	L	..	..	..	0.8	6.4	12.0	15.0	17.9	20.8	20. 33. 6.39		6.66	49.69	43.01		20. 33. 49.63	- 2.55
	37	17 Capricorni ...	L	56.3	59.5	2.6	5.3	11.3	17.2	20.1	23.2	26.2	20. 38. 11.27		11.77				20. 38. 54.74	- 3.18
	38	μ Aquarii	L	57.0	59.8	2.5	5.3	11.0	16.5	29.5	22.1	25.0	20. 45. 10.95		11.35	54.26	42.91		20. 45. 54.32	- 2.92
	39	Saturn 1 L.	L	21.3	24.7	27.4	30.1	36.0	42.0	44.8	47.7	50.6	20. 48. 36.04		37.22				20. 49. 20.19	
	40	Saturn 2 L.	L	23.0	26.0	28.8	31.7	37.4	43.4	46.3	49.1	52.0	20. 48. 37.50							
	41	ζ Cygni	L	37.6	41.2	44.2	47.3	53.7	0.2	3.3	6.5	9.7	21. 6. 53.72		53.89	36.90	43.01		21. 7. 36.87	- 2.48
	42	α Equulei	L	37.0	39.9	42.6	45.3	51.0	56.3	59.2	2.0	4.9	21. 8. 50.90		51.22	34.18	42.96		21. 9. 34.20	- 2.72
	43	Pomona	L	..	37.4	39.5	42.7	48.3	54.0	56.8	59.7	..	21. 13. 48.31		48.70				21. 14. 31.68	
	44	η Aquarii	L	58.2	1.1	..	6.7	12.1	17.7	..	23.2	26.0	22. 28. 12.12		12.48	55.62	43.14		22. 28. 55.46	- 2.80
	45	67 Aquarii	L	44.9	47.7	50.4	53.3	59.0	4.6	7.3	10.0	13.0	22. 35. 58.89		59.28				22. 36. 42.26	- 2.89
	46	Harmonia	L	39.4	42.2	..	47.4	53.7	59.4	2.6	5.2	..	22. 40. 53.64		54.08				22. 41. 37.06	
	47	74 Aquarii	L	56.0	59.0	1.7	4.4	10.2	15.7	18.5	21.3	24.2	22. 46. 10.10		10.52				22. 46. 53.50	- 3.07
	48	α ¹ Geminorum ..	AD	34.0	37.4	40.4	43.9	..	..	..	..	..	7. 25. 50.33	(+0.09)	50.56			43.18 [0.08]	7. 26. 33.76	- 0.80

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 9, 12, 25, 30, and 34, -60".10: -60".10: -60".70:
-60".80: and -60".80.

Corrections for passage of Semidiameter, Nos. 1, 24, and 28, +6".88: +0".62: and +7".44.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

August 21 and 22. The azimuthal error used is the mean of those (+6".94, +6".17, +6".14, and +7".13) determined by tabular places of Polaris S.P. and Spica and of δ Ursæ Minoris and Cephei 51 S.P. on August 21, and of Polaris S.P. and Spica and of δ Ursæ Minoris and Cephei 51 S.P. on August 22.

1. Correction to R.A. on true meridian, +0".01.

25. Very tremulous.

28. Correction to R.A. on true meridian, +0".02.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Aug. 24	1	λ Ursæ Min.(E&E)	J	..	..	..	..	53.0	..	25.0	48.0	..	19. 49. 53.25	+0.47	40.66	31.12	50.46	43.68		
	2	θ Aquilæ.....	J	52.9	55.6	58.3	1.1	6.8	12.2	15.0	17.8	20.5	20. 4. 6.67	(-0.20) [+6.32]	7.02	50.83	43.81	[0.15]	20. 4. 50.82	- 2.69
Aug. 25	3	72 Ophiuchi....	L	26.7	29.7	32.3	35.2	40.8	46.5	49.2	52.1	54.8	18. 0. 40.80	(+0.25) [+5.19]	41.07	24.62	43.55	43.58	18. 1. 24.68	- 2.08
	4	η Serpentis.....	L	51.8	55.0	57.3	0.1	5.8	11.4	14.0	16.8	19.6	18. 14. 5.73		6.05	49.64	43.59	[0.04]	18. 14. 49.66	- 2.26
	5	γ Aquilæ.....	E	20.2	23.2	25.9	28.8	34.3	39.9	42.6	45.5	48.3	19. 39. 34.28		34.55	18.58	44.03	44.03†		
	6	α Aquilæ.....	E	42.2	45.1	47.9	50.8	56.2	1.9	4.7	7.3	10.2	19. 43. 56.23		56.51	40.59	44.08			
	7	λ Ursæ Min.(E&E)	L	..	..	..	..	58.0	55.0	25.0	52.0	21.5	19. 49. 55.35		46.46	30.10	43.64	43.58		
	8	α^2 Capricorni....	L	8.4	11.3	14.1	17.0	22.6	28.4	31.2	34.0	36.9	20. 10. 22.64		23.00	6.61	43.61		20. 11. 6.61	- 2.91
	9	Piazzi XX. 170..	L	26.1	29.1	32.1	35.2	41.3	47.4	50.5	53.6	56.6	20. 24. 41.30		41.70	..	..		20. 25. 25.31	- 3.25
	10	α Delphini.....	L	51.7	54.4	57.2	0.1	5.8	11.3	14.3	17.2	20.2	20. 33. 5.78		6.03	49.66	43.63		20. 33. 49.64	- 2.54
	11	ψ Capricorni....	L	41.9	45.0	47.9	51.0	57.2	3.4	6.5	9.5	12.6	20. 37. 57.19		57.59	..	..		20. 38. 41.20	- 3.30
	12	Saturn 1 L.....	L	15.9	19.0	21.9	24.8	30.5	36.6	39.3	42.2	45.1	20. 47. 30.57		31.66	37.30	47.05	43.61	20. 48. 15.27	20. 58. 33.56
	13	Saturn 2 L.....	L	17.4	20.4	23.2	26.1	32.1	37.8	40.7	43.7	46.6	20. 47. 31.98							
	14	δ 1 L.....	L	21.5	24.7	27.9	30.7	37.0	42.9	46.1	49.2	52.5	20. 56. 36.91							
	15	ϕ Capricorni....	L	31.9	35.0	37.8	40.8	46.7	52.6	55.5	58.4	1.4	21. 7. 46.66		37.30	16.82	43.61	21. 8. 30.67	- 3.22	
	16	ϵ Capricorni....	L	18.3	21.4	24.0	27.0	32.8	38.8	41.6	44.4	47.3	21. 14. 32.83		33.21	16.82	43.61	21. 15. 16.83	- 3.14	
	17	ϵ Capricorni....	L	6.0	8.9	11.7	14.9	20.6	26.6	29.5	32.3	35.3	21. 29. 20.63		21.02	13.93	43.69	21. 30. 4.64	- 3.21	
	18	θ Aquarii.....	L	16.0	19.0	21.4	24.1	29.9	35.6	38.3	41.1	43.9	22. 9. 29.90		30.24	13.93	43.69	22. 10. 13.86	- 2.96	
	19	45 Aquarii.....	L	19.7	22.6	25.4	28.3	34.0	39.7	42.7	45.3	48.1	22. 11. 33.96		34.32	..	..	22. 12. 17.94	- 3.07	
	20	50 Aquarii.....	L	46.8	49.8	52.3	55.4	1.0	6.9	9.7	12.6	15.4	22. 17. 1.08		1.44	..	..	22. 17. 45.06	- 3.07	
	21	56 Aquarii.....	L	36.8	39.7	42.5	45.5	51.2	56.9	59.9	2.6	5.4	22. 22. 51.15		51.52	..	..	22. 23. 35.14	- 3.09	
	22	η Aquarii.....	L	57.8	0.6	3.6	6.3	11.7	17.2	20.1	22.9	25.6	22. 28. 11.74		12.05	55.65	43.60	22. 28. 55.67	- 2.83	
	23	Harmonia.....	L	59.7	2.9	5.4	8.3	14.2	20.0	22.9	25.8	28.6	22. 37. 14.18		14.55	..	..	22. 37. 58.17		
Aug. 26	24	$\odot$ 1 L.....	AD	52.1	55.1	57.9	0.7	6.2	12.0	14.9	17.4	20.4	10. 18. 6.28	[+4.89]	11.15	40.59	24.61	44.02	43.78	10. 19. 54.95
	25	$\odot$ 2 L.....	AD	1.4	4.5	7.1	9.9	15.4	21.1	24.0	26.8	29.6	10. 20. 15.51							
	26	72 Ophiuchi....	J	26.3	29.2	32.0	34.8	40.3	46.0	48.8	51.5	54.3	18. 0. 40.34							
	27	δ Ursæ Min.(E&E)	AD	..	..	..	..	33.0	20.5	6.5	54.0	18. 12. 18.40		15.99	59.81	43.82	43.78	....		
	28	α Lyrae.....	AD	40.6	44.2	47.7	51.1	58.2	5.3	9.0	12.5	16.0	18. 31. 58.26		58.42	42.27	43.85	18. 32. 42.26	- 1.95	
	29	2 Aquilæ.....	AD	26.7	29.6	32.3	35.2	40.7	46.3	49.1	51.9	54.8	18. 34. 40.72		41.04	24.88	43.84	18. 35. 24.88	- 2.46	
	30	β Lyrae.....	AD	27.3	30.7	34.1	37.2	..	..	..	..	..	18. 44. 43.86		44.04	27.69	43.65	18. 45. 27.88	- 2.03	
	31	ζ Aquilæ.....	J	40.9	43.8	46.8	49.6	55.3	0.8	3.7	6.7	9.5	18. 58. 54.99		55.23	39.32	44.09	44.00†	....	
	32	λ Ursæ Min.(E&E)	AD	..	..	..	..	36.0	31.0	4.0	26.0	..	19. 49. 53.78		45.57	29.12	43.55	43.78	....	
	33	θ Aquilæ.....	AD	52.8	55.6	58.3	1.1	6.7	12.0	14.9	17.7	20.4	20. 4. 6.59		6.88	50.82	43.94	20. 4. 50.73	- 2.68	
	34	Saturn 1 L.....	AD	0.1	3.3	6.0	9.1	14.9	20.7	23.7	26.6	29.5	20. 47. 14.86		15.83	46.65	25.27	14.39	58.34	43.95
	35	Saturn 2 L.....	AD	1.4	4.6	7.3	..	16.1	..	24.8	27.9	30.8	20. 47. 16.10							
	36	ϕ Capricorni....	AD	31.5	34.5	37.4	40.4	46.3	52.2	55.2	58.1	1.2	21. 8. 46.29							
	37	35 Capricorni....	AD	10.0	13.1	16.0	18.8	25.0	31.0	33.8	36.8	39.9	21. 19. 24.91		25.27	..	..	21. 20. 9.12	- 3.23	
	38	β Aquarii.....	AD	0.2	3.0	5.8	8.6	14.1	19.6	22.4	25.2	28.0	21. 29. 14.08		14.39	58.34	43.95	21. 29. 58.24	- 2.91	
	39	ϵ Capricorni....	AD	5.7	8.7	11.6	14.6	20.3	26.2	29.1	32.1	35.1	21. 29. 20.36		20.72	..	..	21. 30. 4.57	- 3.21	
	40	ϵ Pegasi.....	AD	4.4	7.3	10.0	13.0	18.4	24.1	26.9	39.6	32.4	21. 37. 18.43		18.68	2.55	43.87	21. 38. 2.53	- 2.71	
	41	Groombridge 3571	AD	6.3	10.2	13.6	17.2	24.2	31.2	34.8	38.2	41.9	21. 43. 24.15		24.30	..	..	21. 44. 8.15	- 2.51	
	42	16 Pegasi.....	AD	23.0	26.1	29.1	32.1	38.2	44.3	47.5	50.5	53.6	21. 46. 38.23		38.44	22.34	43.90	21. 47. 22.29	- 2.57	
	43	δ 1 L.....	AD	48.3	51.3	54.3	57.3	3.3	9.3	12.2	15.2	18.4	21. 56. 3.27		3.62	..	..	21. 57. 58.57		
	44	Bradley 2904....	AD	..	58.4	0.9	3.9	9.5	15.2	18.0	20.6	..	22. 2. 9.47		9.78	..	..	22. 2. 53.63	- 2.97	
	45	1 Lacertæ.....	AD	29.9	33.3	36.9	40.4	47.3	54.2	57.7	1.1	4.6	22. 9. 47.23		47.39	..	..	22. 10. 31.24	- 2.55	
	46	50 Aquarii.....	AD	46.7	49.4	52.2	55.1	0.8	6.3	9.3	12.2	15.2	22. 17. 0.78		1.12	..	..	22. 17. 44.97	- 3.08	

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 1, 7, 27, and 32, -62".20: -62".80: -41".00: and -41".10.

Corrections for passage of Semidiameter, Nos. 14, and 43, +72".62: and +71".09.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

August 25. The azimuthal error by tabular places of λ Ursæ Minoris and α^2 Capricorni.

August 26 to 28. The azimuthal error used is the mean of those (+4".94, +5".06, and +4".67) determined by tabular places of δ Ursæ Minoris and α Lyrae, and of λ Ursæ Minoris and θ Aquilæ on August 26, and of δ Ursæ Minoris and Cephei S.P. on August 28.

1. Only just visible.

14. Correction to R.A. on true meridian, +0".02.

9. Very faint.

30. Cloudy.

11. Tremulous.

43. Correction to R.A. on true meridian, +0".01.

MONTH DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at Sidereal and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Aug. 26	1	η Aquarii	AD	57.7	0.6	3.4	6.1	11.6	17.1	19.9	22.7	25.3	22. 28. 11.58	+ 0.47	11.87	55.66	43.79	43.78	22. 28. 55.72	- 2.84
	2	τ^2 Aquarii	AD	59.8	2.6	5.4	8.3	14.0	19.6	22.4	25.3	28.3	22. 42. 13.95	(+ 0.25) [+ 4.89]	14.29			[0.08]	22. 42. 58.15	- 3.05
Aug. 27	3	δ Eridani	L	46.3	49.2	52.0	55.0	0.5	6.0	8.9	11.4	14.2	4. 5. 0.37		0.68	44.46	43.78	43.83	....	
	4	γ Tauri	L	40.8	43.8	46.5	49.3	55.1	0.7	3.4	6.3	9.3	4. 11. 55.00		55.23	39.11	43.88	[0.00]	....	
Aug. 28	5	α Ophiuchi	AD	8.7	11.6	..	17.2	22.8	28.5	..	34.2	37.0	17. 28. 22.84		23.08	6.98	43.90	43.97	....	
	6	β Ophiuchi	AD	..	21.7	24.3	..	32.6	..	41.0	..	46.5	17. 36. 32.63		32.90	16.83	43.93	[- 0.07]	....	
	7	μ Herculis	J	33.7	36.6	39.9	43.0	49.2	55.4	58.7	1.6	4.9	17. 40. 49.19		49.39	33.43	44.04	44.12	17. 41. 33.46	- 1.76
	8	δ^2 Herculis	J	44.9	48.0	51.0	54.1	0.1	6.3	9.5	12.4	15.6	17. 43. 0.19		0.39			[- 0.07]	17. 43. 44.46	- 1.80
	9	γ^2 Ophiuchi	J	26.2	29.1	31.8	34.7	40.3	45.8	48.8	51.3	54.3	18. 0. 40.24		40.49	24.58	44.09		18. 1. 24.36	- 2.04
	10	δ Ursæ Min. (E&E)	J	..	..	..	..	58.5	32.0	19.5	4.5	52.0	18. 12. 16.71		14.30	59.08	44.78		....	
	11	Ceph. 51 S.P. (E&E)	J	53.0	50.5	48.0	44.5	..	..	..	..	..	18. 39. 58.75		2.30	46.74	44.44		....	
	12	β^1 Lyrae	J	27.0	30.3	33.5	37.0	43.5	50.0	53.4	56.7	0.1	18. 44. 43.47		43.65	27.66	44.01		18. 45. 27.72	- 2.00
	13	γ^1 Lyrae	J	28.8	32.7	36.3	40.2	47.8	55.4	59.3	3.1	7.1	18. 50. 47.82		47.94				18. 51. 32.01	- 1.93
	14	Piazzi VI. 293 S.P.	J	42.4	47.9	53.5	59.0	9.9	21.0	26.4	32.1	37.7	18. 54. 10.03		10.54				6. 54. 54.61	- 1.33
	15	ζ Aquilæ	J	40.9	43.8	46.5	49.4	55.0	0.7	3.6	6.6	9.4	18. 58. 55.08		55.32	39.30	43.98		18. 59. 39.39	- 2.24
	16	δ Aquilæ	J	13.0	15.8	18.5	21.3	26.8	32.3	35.0	37.8	40.7	19. 18. 26.78		27.06	11.11	44.05		19. 19. 11.12	- 2.46
	17	Piazzi XIX. 126.	J	..	10.6	13.8	16.9	23.2	29.1	32.3	35.5	..	19. 21. 23.03		23.42				19. 22. 7.48	- 3.05
	18	ϵ Sagittæ	J	38.8	41.8	44.7	47.6	53.2	59.1	2.0	4.9	7.7	19. 30. 53.29		53.52				19. 31. 37.58	- 2.34
	19	Groombridge 2899	J	..	..	25.7	31.7	43.9	56.0	2.2	..	..	19. 32. 43.86		43.83				19. 33. 27.89	- 2.05
	20	ψ^1 Aquarii	J	21.8	24.8	27.3	30.2	35.9	41.3	44.1	47.0	49.9	23. 8. 35.79		36.11				23. 9. 20.16	- 2.97
	21	ψ^2 Aquarii	J	25.8	28.4	31.2	34.0	..	45.2	48.0	51.0	53.9	23. 10. 39.66		39.98				23. 11. 24.03	- 2.95
	22	κ Piscium	J	32.8	35.7	38.4	41.1	46.8	52.3	55.0	57.8	0.7	23. 19. 46.71		46.99	31.14	44.15		23. 20. 31.04	- 2.79
	23	B. F. 1620 S.P.	J	58.1	3.9	9.6	15.4	27.1	39.0	44.9	50.5	56.3	23. 24. 27.25		27.78				11. 25. 11.83	- 0.24
	24	Groomb. 1804 S.P.	J	..	11.9	17.7	23.8	35.9	47.9	54.2	0.1	..	23. 29. 55.99		36.52				11. 30. 20.57	- 0.19
	25	3 Draconis S.P.	J	4.8	12.1	19.3	26.4	40.9	55.3	2.5	9.6	17.3	23. 34. 40.98		41.59				11. 35. 25.64	+ 0.02
	26	η 2 L	J	19.6	22.7	25.5	28.1	34.0	39.6	42.5	45.3	48.2	23. 50. 33.93		34.23				23. 50. 9.52	
Aug. 29	27	Piazzi XXIII. 282	J	20.2	23.0	25.8	28.6	33.9	39.6	42.2	45.2	47.9	0. 1. 34.03		34.33			44.05	0. 2. 18.38	- 2.74
	28	γ Pegasi	J	49.1	51.8	54.5	57.4	3.1	8.9	11.5	14.4	17.5	0. 6. 3.12		3.35	47.51	44.16		0. 6. 47.40	- 2.60
	29	10 Ceti	J	14.0	16.8	19.5	22.3	27.8	33.4	36.1	38.9	41.7	0. 19. 27.81		28.10				0. 20. 12.15	- 2.67
	30	$\odot$ 1 L	L	..	..	..	..	4.0	9.7	12.2	15.0	18.0	10. 29. 3.89	(+ 0.81)	8.69			43.77	10. 30. 52.44	
	31	$\odot$ 2 L	L	..	..	..	7.1	12.8	18.4	21.2	24.0	27.0	10. 31. 12.78	[+ 6.26]				[- 0.05]		
	32	Arcturus	L	57.2	59.9	2.9	5.9	11.7	17.6	20.6	23.5	26.5	14. 9. 11.74		12.05	55.71	43.66		14. 9. 55.79	- 0.85
	33	β Ophiuchi	L	18.8	21.7	24.5	27.1	32.7	38.2	41.1	43.8	46.6	17. 36. 32.70		33.07	16.82	43.75		17. 37. 16.80	- 1.96
	34	μ Herculis	L	..	..	..	..	49.4	55.6	58.9	1.9	5.0	17. 40. 49.38		49.67	33.41	43.74		17. 41. 33.40	- 1.74
	35	δ Ursæ Min. (E&E)	L	5.0	52.8	38.0	25.0	59.0	32.0	19.8	5.0	..	18. 12. 17.14		14.36	58.70	44.34		....	
	36	Ceph. 51 S.P. (E&E)	L	..	..	48.0	..	39.0	34.0	31.0	28.0	26.5	18. 39. 58.59		2.80	47.15	44.35		....	
	37	ϵ Aquilæ	L	57.8	1.0	3.8	6.7	12.4	18.1	20.9	23.8	26.7	18. 53. 12.34		12.68	56.36	43.68		18. 53. 56.41	- 2.19
	38	μ Aquilæ	WC	0.1	2.9	5.7	8.8	13.9	19.5	22.4	25.0	27.9	19. 27. 14.00		14.36	58.43	44.07	44.14†	....	
	39	ϵ^1 Sagittarii	WC	34.0	37.0	39.8	42.7	48.6	54.2	57.2	59.8	3.0	19. 32. 48.46		48.91	33.03	44.12		....	
	40	17 Capricorni	L	55.6	58.7	1.5	4.4	10.6	16.5	19.5	22.3	25.3	20. 38. 10.47		10.95			43.77	20. 38. 54.68	- 3.18
	41	Saturn 1 L	L	14.1	17.1	19.9	22.8	28.8	34.6	37.2	40.2	43.3	20. 46. 28.64		29.82				20. 47. 13.55	
	42	Saturn 2 L	L	15.6	18.6	21.3	24.2	29.9	36.1	38.6	41.7	44.7	20. 46. 30.05							
	43	β Aquarii	L	0.4	3.2	6.0	8.8	14.1	19.7	22.7	25.2	28.2	21. 24. 14.24		14.65	58.35	43.70		21. 24. 58.38	- 2.92
	44	ω Piscium	L	..	57.9	0.6	3.4	9.0	14.8	17.3	20.0	..	23. 52. 8.97		9.34	53.17	43.83		23. 52. 53.06	- 2.70
	45	Piazzi XXIII. 282	L	20.4	23.3	26.0	28.8	34.3	39.8	42.7	45.3	48.2	0. 1. 34.29		34.69			43.72	0. 2. 18.41	- 2.76

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 10, 11, 35, and 36, -41".3.

Corrections for passage of Semidiameter, No. 26, -68".77.

† This clock-error has been used in the reduction of the observations made with the Altazimuth.

August 29. The azimuthal error by tabular places of δ Ursæ Minoris and Cephei 51 S.P.

26. Correction to R.A. on true meridian, +0".01.

30, 31. Cloudy.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h of Sidereal and [Lossing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Aug. 29	1	10 Ceti	L	14.4	17.2	19.8	22.7	28.1	33.7	36.5	39.2	41.9	0. 19. 28.14	+0.47	28.53			3.72	0. 20. 12.25	- 2.69
	2	2 L.	L	39.7	42.5	45.4	48.3	54.0	59.7	2.4	5.4	8.2	0. 44. 53.94	(+0.81) [+6.26]	54.32			[0.05]	0. 44. 29.37	
Sept. 1	3	ε Arietis	E	3.6	6.9	9.6	12.6	18.6	24.4	27.3	30.4	33.4	2. 51. 18.51	+0.61	18.73	2.82	44.09	44.08†	....	
	4	α Ceti	E	45.5	48.4	51.0	53.7	59.6	5.0	7.8	10.5	13.3	2. 54. 59.40	(-0.56) [+5.95]	59.70	43.75	44.05	[0.10]	....	
	5	α Tauri	L	6.2	9.2	11.6	14.7	20.3	25.7	28.6	31.4	34.3	3. 17. 20.21		20.49	4.11	43.62	43.64	3. 18. 4.12	- 2.03
	6	f Tauri	L	59.2	2.3	4.7	7.6	13.5	18.7	21.7	24.6	27.4	3. 23. 13.28		13.54	57.13	43.59	[0.10]	3. 23. 57.17	- 2.03
	7	ε Eridani	L	3.6	6.4	9.2	12.0	17.6	23.3	26.0	28.8	31.6	3. 26. 17.59		17.96	1.53	43.57		3. 27. 1.59	- 1.88
	8	2 L.	L	28.4	31.5	34.5	37.5	43.7	49.7	52.7	56.0	59.1	3. 34. 43.66		43.87				3. 34. 15.00	
	9	η Tauri	L	2.8	5.8	9.0	11.9	17.8	24.2	27.2	30.2	33.2	3. 39. 17.98		18.18	1.83	43.65		3. 40. 1.80	- 2.02
	10	27 Tauri	L	..	..	49.5	52.5	58.6	4.6	7.6	10.6	13.6	3. 40. 58.53		58.73				3. 41. 42.35	- 2.01
	11	33 Tauri	L	38.9	42.0	44.8	47.9	53.8	0.0	2.9	5.8	9.2	3. 48. 53.90		53.11				3. 49. 37.73	- 1.98
	12	A ¹ Tauri	L	18.1	21.2	24.0	27.0	32.9	39.0	42.0	44.8	47.9	3. 56. 32.97		33.18	16.82	43.64		3. 57. 16.80	- 1.94
	13	p Tauri	L	12.2	15.6	18.6	21.5	27.6	33.8	36.9	40.0	43.1	4. 2. 27.67		27.87				4. 3. 11.49	- 1.94
	14	α ² Eridani	L	32.0	34.8	..	40.4	45.8	51.5	..	57.1	59.8	4. 8. 45.89		46.25				4. 9. 29.87	- 1.58
	15	Aldebaran	L	44.8	47.9	50.6	53.6	59.5	5.2	8.0	10.9	13.7	4. 27. 59.33		59.58	43.25	43.67		4. 28. 43.20	- 1.75
	16	Regulus	W	41.6	44.5	47.4	50.3	56.0	1.6	4.4	7.3	9.8	10. 0. 55.86		56.12	40.07	43.95	44.05 [-0.16]	10. 1. 40.10	- 0.50
Sept. 2	17	⊙ 1 L.	W	22.0	24.7	27.3	30.1	36.0	41.5	44.4	46.9	50.0	10. 43. 35.86							
	18	⊙ 2 L.	W	30.2	33.3	36.0	38.8	44.4	50.0	52.6	55.6	58.0	10. 45. 44.30							
	19	Polaris S.P. (E&E)	W	6.0	5.5	1.5	0.0	53.0	..	..	..	..	13. 12. 9.73		19.93	7.55	47.62		....	
	20	Venus 1 L.	W	14.4	17.0	19.6	22.6	28.4	33.7	36.5	39.5	42.4	13. 28. 28.21		28.58				13. 29. 13.23	
	21	η Bootis	W	43.2	46.3	49.0	51.8	57.6	3.5	6.3	9.5	12.5	13. 47. 57.72		57.95	41.91	43.96		13. 48. 41.91	- 0.79
	22	Piazzi XVII. 176.	W	50.5	53.7	..	0.0	6.6	12.8	..	19.3	22.7	17. 31. 6.48		6.65				17. 31. 50.58	- 1.61
	23	72 Ophiuchi.	W	26.4	29.3	31.8	34.6	40.3	45.6	48.7	51.5	54.5	18. 0. 40.28		40.56	24.51	43.95		18. 1. 24.49	- 1.97
	24	η Serpentis	W	51.3	54.3	57.0	59.6	5.3	10.8	13.7	16.4	19.1	18. 14. 5.26		5.60	49.54	43.94		18. 14. 49.53	- 2.16
	25	α Ursæ Maj. S.P.	W	..	40.0	45.5	51.5	2.4	14.1	20.2	24.9	..	20. 19. 2.71		3.42				8. 19. 47.34	- 0.61
	26	α Delphini.	AD	51.3	54.2	57.0	59.9	5.6	11.4	14.3	17.2	20.1	20. 33. 5.65		5.90	49.62	43.72	43.86†	....	
	27	ε Aquarii	AD	56.0	58.8	1.6	4.5	9.8	15.7	18.4	21.4	24.0	24. 40. 10.00		10.37	54.08	43.71		....	
	28	Saturn 1 L.	W	15.7	18.8	21.8	24.8	30.2	36.4	39.4	41.7	44.5	20. 45. 30.35					44.05	20. 46. 15.27	
	29	Saturn 2 L.	W	16.8	20.0	23.0	25.8	31.6	37.5	40.4	42.8	46.0	20. 45. 31.53							
	30	α Cephei	W	..	..	..	40.7	52.7	4.6	11.0	16.8	22.5	21. 14. 52.88		52.74				21. 15. 36.65	- 2.49
Sept. 3	31	β Tauri	AD	21.8	25.0	28.1	31.3	37.5	43.8	47.1	50.2	53.3	5. 17. 37.53	(+0.61)	37.80	21.37	43.57	43.56	5. 18. 21.34	- 1.71
	32	ε Orionis	AD	52.8	55.6	58.3	0.9	6.5	12.0	14.9	17.6	20.3	5. 29. 6.52		6.91	50.51	43.60	[0.08]	5. 29. 50.45	- 1.34
	33	2 L.	AD	34.2	37.4	40.5	43.6	50.1	56.5	59.6	2.8	6.1	5. 38. 50.06		50.33				5. 38. 19.43	
	34	κ Orionis	AD	49.9	52.9	55.6	58.5	4.0	9.6	12.4	15.3	18.1	5. 41. 4.02		4.43	47.97	43.54		5. 41. 47.97	- 1.16
Sept. 4	35	Polaris S.P. (E&E)	J	17.0	15.0	..	..	1.5	51.5	..	41.5	41.0	13. 12. 18.16		25.84	8.84	43.00		....	
	36	μ Herculis	AD	33.7	37.0	40.0	43.3	49.5	55.7	58.9	1.9	5.3	17. 40. 49.44		49.71	33.29	43.58		17. 41. 33.21	- 1.62
	37	87 Herculis	AD	45.2	48.4	51.3	54.3	0.3	6.6	9.6	12.7	16.0	17. 43. 0.46		0.74				17. 43. 44.24	- 1.67
	38	72 Ophiuchi.	AD	26.6	29.5	32.3	35.1	40.6	46.3	49.1	51.8	54.8	18. 0. 40.66		41.00	24.47	43.47		18. 1. 24.50	- 1.93
	39	δ Ursæ Min. (E&E)	AD	..	..	..	..	57.5	31.0	18.0	3.5	..	18. 12. 15.20		12.60	56.30	43.70		....	
	40	Ceph. 51 S.P. (E&E)	AD	..	..	..	50.0	43.5	37.0	35.0	..	..	18. 40. 1.88		5.84	50.07	44.23		....	
	41	θ Aquilæ	AD	53.0	55.8	58.6	1.3	6.8	12.4	15.3	18.0	20.8	20. 4. 6.87		7.24	50.76	43.52		20. 4. 50.73	- 2.62
	42	Lalande (F.) 3384	AD	46.1	52.0	57.8	3.5	15.4	27.2	32.9	38.6	44.5	20. 6. 15.28		15.31				20. 6. 58.80	- 2.03
	43	Groomb. 1418 S.P.	AD	..	0.6	35.0	11.0	21.0	..	..	..	..	20. 17. 21.42		23.97				8. 18. 7.46	- 0.10
	44	α Ursæ Maj. S.P.	AD	35.3	40.8	46.5	52.4	3.6	15.0	20.8	26.6	32.4	20. 19. 3.76		4.40				8. 19. 47.89	- 1.14
	45	Piazzi XX. 170 ..	AD	26.0	29.2	32.0	35.2	41.4	47.4	50.4	53.6	56.7	20. 24. 41.30		41.77				20. 25. 25.26	- 3.20

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V; W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 19, 35, 39, and 40, - 42".10 : - 41".90 : - 41".80 : and - 41".80.

Corrections for passage of Semidiameter, Nos. 2, 8, 20, and 33, - 68".68 : - 72".49 : + 0".69 : and - 74".45.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

September 1 to 4. The azimuthal error used is the mean of those (+ 5".60 and + 6".29) determined from tabular places of Polaris S.P. and μ Herculis, allowing - 0".04 for clock-rate, and of δ Ursæ Minoris and Cephei 51 S.P., on September 4.

1. Cloudy.

19. Very tremulous; not used for azimuthal error.

2, 33. Correction to R.A. on true meridian, + 0".01.

30. Very cloudy.

16. Very faint and tremulous.

35. Very faint.

1976MM .36A...1A

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1874.

[67]

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Lossing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Sept. 4	1	27 Vulpeculæ ...	AD	45.4	48.5	51.5	54.5	0.6	6.9	10.0	13.0	16.2	20.31. 0.71	+0.61	0.99			43.56	20.31. 44.48	- 2.36
	2	17 Capricorni ...	AD	55.7	58.9	1.9	4.8	10.8	16.7	19.6	22.8	25.7	20.38. 10.75	(+0.61)	11.21			[-0.08]	20.38. 54.70	- 3.16
	3	Saturn 1 L.	AD	48.7	51.7	54.6	57.5	3.3	9.2	12.1	15.0	17.8	20.45. 3.30	[+5.95]						
	4	Saturn 2 L.	AD	49.9	53.0	55.8	58.7	4.6	10.4	13.4	16.3	19.3	20.45. 4.58		4.38				20.45. 47.87	
	5	32 Vulpeculæ ...	L	14.8	17.9	20.9	24.0	30.4	36.5	39.7	42.8	45.9	20.48. 30.30		30.57	13.79	43.22	43.36†	...	
	6	6 Capricorni ...	AD	56.4	59.3	2.4	5.2	11.0	16.8	19.7	22.4	25.5	20.58. 10.95		11.40	54.81	43.41	43.56	20.58. 54.89	- 3.11
	7	B. F. 1283 S.P. ...	AD	37.4	47.4	57.0	6.8	26.2	45.6	55.1	4.8	15.0	21. 2. 26.22		27.15				9. 3. 10.64	- 0.64
	8	ζ Cygni ...	AD	37.3	40.5	43.7	46.8	53.3	59.6	2.8	5.8	9.1	21. 6. 53.18		53.44	36.85	43.41		21. 7. 36.93	- 2.43
	9	6 Cephei ...	AD	32.2	38.7	45.1	51.3	4.2	16.9	23.4	29.5	36.2	21. 16. 4.12		4.10				21. 16. 47.59	- 2.48
	10	Piazzi XXI. 142.	AD	34.5	40.8	46.9	53.2	6.0	18.0	24.6	30.6	36.8	21. 19. 5.66		5.65				21. 19. 49.14	- 2.50
	11	7 Cephei ...	AD	4.4	11.6	18.3	25.2	39.0	52.9	59.6	6.3	13.4	21. 24. 38.90		38.85				21. 25. 22.34	- 2.57
	12	ξ Aquarii ...	AD	7.7	10.5	13.2	16.0	21.6	27.3	30.0	32.8	35.6	21. 30. 21.62		22.03	5.50	43.47		21. 31. 5.52	- 2.98
	13	ε Pegasi ...	L	4.8	7.7	10.4	13.3	19.0	24.4	27.4	30.1	32.9	21. 37. 18.86		19.20	2.55	43.35	43.36†	...	
	14	δ 2 L.	C	..	..	29.4	32.8	39.3	45.6	49.0	52.1	55.3	6. 41. 39.20		39.47			43.28	6. 41. 8.98	
Sept. 8	15	δ Ursæ Min. (E&E)	W	..	..	34.0	21.0	54.0	27.5	15.0	0.5	..	18. 12. 12.70	(+1.19)	10.83	54.57	43.74	43.52	...	
	16	Bradley 2320....	W	..	..	47.4	50.3	56.2	1.9	4.9	7.1	10.8	18. 23. 56.10	[+5.68]	56.53			[-0.07]	18. 24. 40.00	- 2.34
	17	α Lyrae ...	W	40.5	44.1	47.7	51.1	58.2	5.3	9.0	12.3	16.0	18. 31. 58.21		58.47	41.99	43.52		...	
	18	Ceph. 51 S.P. (E&E)	W	..	..	..	..	46.0	38.5	42.0	33.5	32.5	18. 40. 5.36		8.49	52.21	43.72		...	
	19	ε Aquilæ ...	W	58.0	1.2	4.0	6.8	12.6	18.1	21.0	23.9	26.8	18. 53. 12.47		12.81	56.22	43.41		...	
	20	ζ Aquilæ ...	W	41.2	44.0	47.0	49.7	55.3	0.9	4.0	6.7	9.6	18. 58. 55.36		55.71	39.15	43.44		...	
	21	γ Aquilæ ...	W	20.5	23.5	26.2	29.0	34.7	40.2	42.9	45.9	48.8	19. 39. 34.61		34.96	18.44	43.48		...	
	22	ε Draconis ...	W	54.2	0.9	6.9	13.9	26.5	39.9	46.0	52.2	58.3	19. 59. 26.48		26.55				20. 0. 10.01	- 1.82
Sept. 9	23	δ Ursæ Min. (E&E)	C	0.5	49.0	35.0	20.5	54.0	..	..	..	..	18. 12. 12.89	(+0.88)	10.74	54.17	43.43	43.33	...	
	24	α Lyrae ...	C	40.8	44.3	47.7	51.3	58.5	5.5	9.0	12.6	16.1	18. 31. 58.39		58.62	41.97	43.35	[0.00]	...	
	25	2 Aquilæ ...	C	27.0	30.0	32.6	35.3	41.0	46.4	49.3	52.0	54.9	18. 34. 40.93		41.33	24.70	43.37		...	
	26	Ceph. 51 S.P. (E&E)	C	..	..	58.0	54.5	53.0	46.5	41.5	..	..	18. 40. 5.70		9.15	52.70	43.55		...	
	27	Groombridge 2742	C	49.7	55.8	1.2	7.3	19.2	31.1	37.0	43.0	48.9	18. 55. 19.19		19.26				18. 56. 2.59	- 1.33
	28	Piazzi XIX. 84..	C	42.3	45.6	48.8	51.8	58.0	4.1	7.3	10.4	13.7	19. 15. 57.97		58.45				19. 16. 41.78	- 2.91
	29	ε Sagittæ ...	C	39.4	42.3	45.2	48.0	53.8	59.4	2.5	5.3	8.2	19. 30. 53.77		54.09				19. 31. 37.42	- 2.19
	30	Piazzi VII. 132 S.P.	C	..	..	..	..	..	12.1	29.2	45.5	3.1	19. 34. 38.49		39.72				7. 35. 23.05	- 2.52
	31	λ Ursæ Min. (E&E)	C	..	..	58.0	24.0	..	..	47.5	13.0	..	19. 49. 39.05		33.49	14.82	41.33		...	
	32	Bradley 1147 S.P.	C	58.8	10.2	21.8	33.4	56.8	..	..	..	..	20. 2. 56.66		57.59				8. 3. 40.92	- 1.70
	33	α Delphini ...	C	51.7	54.7	57.3	0.2	6.0	11.8	14.6	17.3	20.3	20. 33. 5.97		6.29	49.57	43.28		...	
	34	Saturn 1 L.	C	44.7	47.7	50.5	53.4	59.2	5.2	8.0	11.0	13.9	20. 43. 59.26						20. 44. 43.69	
	35	Saturn 2 L.	C	45.9	49.0	51.9	54.8	0.5	6.5	9.4	12.2	15.2	20. 44. 0.58		0.36					
Sept. 10	36	Polaris S.P. (E&E)	EG	..	..	..	..	..	..	52.0	45.0	..	13. 12. 21.63	(+1.54)	25.81	11.62	45.81	43.41	1. 13. 9.23	-33.35
	37	Venus 1 L.	EG	29.0	32.0	34.8	37.8	43.5	49.0	52.0	55.0	57.7	14. 0. 43.40	[+5.12]	43.80			[0.02]	14. 1. 27.96	
	38	Arcturus ...	EG	57.3	0.2	3.0	6.0	11.9	17.7	20.7	23.7	26.6	14. 9. 11.88		12.20	55.57	43.37		14. 9. 55.62	- 0.71
	39	δ Ursæ Min. (E&E)	EG	57.0	46.1	31.3	17.5	..	24.8	15.0	1.3	4.7	18. 12. 10.46		9.27	53.77	44.50		18. 12. 52.70	+ 5.13
	40	α Lyrae ...	EG	40.7	44.3	47.8	51.1	58.0	5.2	8.9	12.4	16.1	18. 31. 58.24		58.52	41.94	43.42		18. 32. 41.95	- 1.62
	41	β Lyrae ...	EG	..	..	34.1	37.0	43.7	50.3	53.6	57.1	0.3	18. 44. 43.74		44.04	27.41	43.37		18. 45. 27.47	- 1.75
	42	ζ Aquilæ ...	EG	41.2	44.0	47.0	49.8	55.5	0.9	4.1	6.9	9.7	18. 58. 55.44		55.77	39.12	43.35		18. 59. 39.20	- 2.06
	43	α Delphini ...	EG	51.4	54.3	57.2	0.0	5.8	11.7	14.3	17.2	20.0	20. 33. 5.74		6.08	49.56	43.48		20. 33. 49.51	- 2.44
	44	Saturn 1 L.	EG	32.5	35.7	38.5	41.3	..	52.8	..	..	..	20. 43. 47.15							
	45	Saturn 2 L.	EG	33.6	36.9	39.8	42.3	47.7	53.9	..	..	..	20. 43. 48.20		48.10				20. 44. 31.53	
	46	Polaris (E&E)	EG	..	..	..	..	..	10.0	1.0	56.0	52.0	1. 12. 29.53		26.09	11.82	45.73	43.43	1. 13. 9.52	-33.55

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy.
The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 15, 18, 23, 26, 31, 36, 39, and 46, -41".20: -41".20:
-41".50: -41".50: -41".50: -41".70: -41".70: and -41".70.

Corrections for passage of Semidiameter, Nos. 14 and 37, -73".76: and +0".74.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

September 8 and 9. The azimuthal error used is the mean of those (+5".66, +5".75, and +5".72) determined by tabular places of δ Ursæ Minoris and
Cephei 51 S.P. on September 8 and 9, and of λ Ursæ Minoris and α Delphini on September 9.

September 10. The azimuthal error by Polaris S.P. and Polaris, allowing -0".20 for clock-rate and change of R.A.

14. Correction to R.A. on true meridian, +0".01.
34, 35. Very faint; cloudy.

16. Very faint and cloudy.
36, 40. Cloudy.

22. Very faint.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of		Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at oh Sideral and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
														Collimation.							
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.		(Level).	[Azimuth].						

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, $32^{\circ} 400$.

Corrections to the times by Hardy for reduction to Sideral Standard, applied to form Concluded Transit, Nos. 27, 31, and 33, $-42^{\circ} 20'$: $-42^{\circ} 80'$: and $-42^{\circ} 80'$.

Correction for passage of Semidiameter, No. 30, $-64^{\circ} 02'$.

September 12. The azimuthal error by tabular places of β Andromedæ and Polaris.

September 14, to 20 Ceti. The azimuthal error by tabular places of δ Ursæ Minoris and and Cephei 51 S.P.

27. Image diffused.
36. Mag. = 8.

29. Very faint.
38. Extremely faint. Mag. = 11.

30. Very cloudy.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of		Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at Sidereal and (Leaving Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.			
														Collimation.										
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.		(Level).	[Azimuth].									
				s	s	s	s	s	s	s	s	s	h	m	s	"	s	s	s	s	h	m	s	s
Sept. 14	1	Ariadne	C	..	31.5	34.0	37.2	42.8	48.5	51.2	54.2	..	0. 9. 42.74	+0.70	43.13									
	2	20 Ceti.....	C	39.5	42.3	45.1	47.8	53.4	59.0	1.7	4.3	7.2	0. 45. 53.35	(+1.51)	53.77	36.92	43.15	43.22	0. 10. 26.35					
	3	Polaris.... (E&E)	C	35.0	35.0	30.0	25.0	18.0	..	..	..	..	1. 12. 34.94	[+5.77]	28.05	13.75	45.70	[-0.09]	0. 46. 36.99	- 2.88				
	4	PiazzixIII.96S.P.	C	..	..	38.4	44.7	57.3	9.9	16.2	..	..	1. 20. 57.34	[+7.22]	58.11				1. 13. 11.27	-35.48				
	5	50 Andromedæ ..	C	25.7	29.3	33.0	36.5	43.9	51.2	54.9	58.4	2.1	1. 28. 43.86		44.17				1. 29. 27.39	- 2.89				
	6	♈ Piscium	C	57.7	0.5	3.2	5.9	11.6	17.1	19.9	22.7	25.5	1. 34. 11.55		12.02	55.20	43.18		1. 34. 55.23	- 2.73				
	7	Piazzix I. 159	C	..	..	41.1	47.4	59.6	12.0	18.1	..	..	1. 37. 59.60		59.70				1. 38. 42.91	- 3.60				
	8	♈ Arietis.....	C	45.3	48.3	51.1	54.0	59.9	5.8	8.9	11.8	14.8	1. 46. 59.96		0.36	43.60	43.24		1. 47. 43.57	- 2.72				
	9	Neptune.....	C	37.7	40.6	43.3	46.1	51.7	57.3	0.0	3.0	5.7	1. 54. 51.69		52.14				1. 55. 35.35					
	10	Regulus.....	W	42.3	45.2	48.2	51.0	56.6	2.2	5.1	7.9	10.8	10. 0. 56.57		57.01	40.26	43.25	43.31	10. 1. 40.30	- 0.69				
Sept. 15	11	♄ 1 L.	W	13.2	16.2	19.0	21.7	27.2	32.8	35.6	38.3	41.1	11. 30. 27.21											
	12	♄ 2 L.	W	..	..	..	..	34.8	40.4	43.3	45.9	48.8	11. 32. 34.85		31.51									
	13	Mercury (center).	W	2.7	5.6	8.2	11.0	16.3	22.1	25.0	27.8	30.5	11. 57. 16.56		17.05									
	14	Polaris S.P. (E&E)	W	..	..	..	..	6.5	54.0	54.0	45.0	42.5	13. 12. 20.34		28.12	14.02	45.90		1. 13. 11.41	-35.75				
	15	♈ Boötis	W	43.6	46.6	49.4	52.3	58.0	3.7	7.0	9.7	12.8	13. 47. 58.10		58.51	41.79	43.28		13. 48. 41.80	- 0.67				
	16	Arcturus	W	57.2	0.1	3.0	6.0	11.9	17.8	20.8	23.4	26.3	14. 9. 11.82		12.23	55.53	43.30		14. 9. 55.52	- 0.67				
	17	Venus 1 L.	W	40.0	43.0	45.8	48.3	54.5	0.4	3.3	5.6	9.0	14. 20. 54.41		54.96				14. 21. 39.04					
	18	♄ Ursæ Min. (E&E)	W	59.0	47.5	32.5	19.0	52.5	..	13.0	59.5	46.5	18. 12. 9.49		6.99	51.77	44.78		18. 12. 50.27	+ 7.13				
	19	♄ Lyræ	AD	40.7	44.2	47.8	51.3	58.3	5.4	9.1	12.7	16.2	18. 31. 58.38		58.71	41.82	43.11	43.10†	..					
	20	♄ Aquilæ	AD	27.0	30.0	32.7	35.5	41.0	46.7	49.5	52.2	55.1	18. 34. 41.06		41.58	24.61	43.03		..					
	21	Ceph. 51 S.P. (E&E)	W	..	2.5	58.5	56.0	50.0	45.0	42.0	..	..	18. 40. 7.84		11.88	55.60	43.72	43.31	6. 40. 55.16	-10.69				
	22	♄ Aquilæ	W	58.0	1.0	4.0	6.8	12.3	18.0	21.0	23.7	26.8	18. 53. 12.38		12.82	56.11	43.29		18. 53. 56.10	- 1.94				
	23	♄ Capricorni	W	0.4	3.7	6.2	9.2	14.8	20.4	23.4	26.1	29.2	20. 13. 14.80		15.35	58.59	43.24		20. 13. 58.63	- 2.81				
	24	Lacaille 8466....	W	17.0	20.5	23.7	27.0	33.2	39.5	42.8	45.9	49.3	20. 22. 33.18		33.79				20. 23. 17.07	- 3.22				
	25	Saturn 1 L.	W	37.4	40.3	43.3	46.2	52.1	57.7	0.7	3.7	6.6	20. 42. 51.98						20. 43. 36.48					
	26	Saturn 2 L.	W	38.7	41.7	44.4	47.4	53.3	59.2	2.1	4.9	8.0	20. 42. 53.28		53.20				20. 43. 36.48					
	27	Groombridge 3357 ..	W	7.1	10.7	14.2	17.9	25.1	32.5	36.0	39.4	43.0	20. 54. 25.07		25.39				20. 55. 8.67	- 2.20				
	28	Hebe.....	W	48.9	52.3	55.3	58.7	3.5	10.0	12.5	15.4	17.4	23. 59. 3.76		4.33				23. 59. 47.60					
	29	♄ Ceti	W	5.7	8.6	11.3	14.1	19.3	25.1	28.2	30.9	33.7	0. 12. 19.65		20.18	3.43	43.25	43.27	0. 13. 3.45	- 3.04				
	30	12 Ceti.....	W	41.8	44.7	47.3	..	55.7	..	4.0	6.7	9.6	0. 22. 55.66		56.17	39.39	43.22		0. 23. 39.44	- 2.95				
	31	♄ Cassiopeiæ....	W	54.0	58.9	3.5	7.9	17.1	26.4	31.0	35.5	40.3	0. 29. 17.14		17.37				0. 30. 0.64	- 3.09				
	32	♄ Cassiopeiæ....	W	23.8	28.9	33.7	39.1	49.0	59.4	4.3	9.6	14.8	0. 40. 49.14		49.33				0. 41. 32.60	- 3.32				
	33	♄ Andromedæ ..	W	17.5	20.7	23.6	26.5	32.3	38.6	41.7	44.5	47.5	0. 47. 32.53		32.93				0. 48. 16.20	- 2.82				
	34	♄ Piscium	W	29.4	32.2	35.0	37.9	43.2	48.9	51.7	54.3	57.2	0. 55. 43.29		43.75	27.13	43.38		0. 56. 27.02	- 2.83				
	35	Polaris.... (E&E)	W	35.5	34.0	30.5	26.0	19.0	11.5	..	..	..	1. 12. 34.96		28.07	14.29	46.22		1. 13. 11.34	-36.02				
	36	50 Andromedæ ..	W	25.4	29.2	33.0	36.6	43.7	51.0	54.8	58.3	2.0	1. 28. 43.75		44.06				1. 29. 27.33	- 2.92				
	37	Piazzix I. 159	W	28.7	35.2	41.1	47.2	59.4	11.8	18.0	24.1	30.3	1. 37. 59.48		59.58				1. 38. 42.85	- 3.64				
Sept. 16	38	♄ Pegasi.....	L	..	..	..	42.9	48.5	54.3	57.2	59.9	2.7	22. 57. 48.52		48.95	31.88	42.93	42.89	..					
Sept. 18	39	♄ Lyræ	L	27.7	31.1	34.2	37.5	44.2	50.8	54.1	57.3	0.6	18. 44. 44.14	(+1.24)	44.43	27.24	42.81	42.86†	..					
	40	♄ Aquilæ.....	L	58.7	1.4	4.3	7.2	12.9	18.6	21.5	24.3	27.3	18. 53. 12.89	[+5.08]	13.22	56.06	42.84	[0.00]	..					
	41	♄ Aquarii.....	C	24.1	27.1	29.6	32.5	38.0	43.6	46.4	49.2	52.0	21. 58. 38.03		38.40	21.49	43.09	43.17	21. 59. 21.57	- 2.86				
	42	♄ Aquarii.....	C	16.7	19.4	22.2	25.0	30.6	..	..	..	..	..	..	..	..	..	..	22. 10. 14.15	- 3.02				
	43	♄ Pegasi.....	L	34.4	37.3	40.1	42.9	48.6	54.4	57.3	59.9	3.0	22. 57. 48.63		48.96	31.89	42.93	42.86†	..					
	44	15 Andromedæ....	C	29.6	33.2	36.7	40.2	..	54.6	58.2	1.8	5.3	23. 27. 47.42		47.68			43.17	23. 28. 30.85	- 2.79				
	45	♄ Ursæ Maj. S.P.	C	19.7	23.8	27.9	32.2	40.3	48.8	52.8	56.9	1.2	23. 38. 40.43		40.84				11. 39. 24.01	- 0.55				
	46	24 Piscium.....	C	32.8	35.7	38.3	41.1	46.7	52.2	55.0	57.8	0.4	23. 45. 46.64		47.02				23. 46. 30.19	- 3.03				

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 3, 14, 18, 21, and 35, -42".80: -42".90: -43".00: -43".00: and -43".10.

Correction for passage of Semidiameter, No. 17, +0".70.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

September 14, Polaris, to September 16. The azimuthal error by consecutive transits of Polaris, Polaris S.P., and Polaris.

September 18 and 19. The azimuthal error by tabular places of ♄ Ceti and Polaris on September 18.

24, 38. Very faint.

42. Faint; cloudy.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Loss Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.	
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.									
				s	s	s	s	s	s	s	s	s									
											h	m	s				s	h	m	s	s
Sept. 18	1	♌ Piscium.....	C	56.0	58.8	1.5	4.3	9.9	15.3	18.2	20.9	23.8	23. 52. 9.83	+0.70	10.18	53.40	43.22	43.17	23. 52. 53.35	- 2.93	
	2	Ariadne	C	..	38.1	41.0	43.6	49.3	55.0	57.8	0.3	..	0. 5. 49.27	(+1.24)	49.61	53.40	43.22	[0.00]	0. 6. 32.78	- 3.07	
	3	♌ Ceti	C	5.8	8.8	11.5	14.3	19.9	25.5	28.2	31.0	33.8	0. 12. 19.84	[+5.08]	20.23	3.46	43.23		0. 13. 3.40	- 2.87	
	4	53 Piscium.....	C	18.6	21.6	24.3	27.2	32.9	38.7	41.4	44.1	47.2	0. 29. 32.87		33.20	18.96	43.21		0. 30. 16.37	- 3.16	
	5	♌ Ceti.....	C	20.7	23.7	26.6	29.5	35.4	41.2	44.1	47.0	50.0	0. 36. 35.33		35.75	15.78	43.22		0. 37. 18.92	- 2.84	
	6	Polaris ....(E&E)	C	39.0	38.5	31.0	27.0	20.5	..	..	..	..	1. 12. 36.43		32.56	55.27	43.26		1. 22. 31.34	- 2.80	
	7	96 Piscium.....	C	33.9	36.8	39.4	42.2	47.8	53.5	56.2	59.0	1.8	1. 21. 47.82		48.17	40.32	43.21		1. 34. 55.18	- 2.75	
	8	♌ Piscium.....	C	57.7	0.6	3.3	6.2	11.7	17.2	20.0	22.7	25.6	1. 34. 11.65		12.01	40.32	43.21		1. 55. 16.15	- 0.75	
	9	Neptune.....	C	18.6	21.4	24.2	27.1	32.7	38.2	41.2	43.8	46.7	1. 54. 32.64		32.98	40.32	43.21	43.28	10. 1. 40.33	- 0.75	
	10	Regulus	S	42.5	45.4	48.3	51.2	56.7	2.4	5.3	8.1	11.1	10. 0. 56.76	(+1.54)	57.11	40.32	43.21	[-0.14]			
Sept. 19	11	♌ 1 L.....	S	34.9	37.6	40.2	43.2	48.9	54.2	57.2	59.9	2.3	11. 44. 48.69		53.08	56.04	43.11		11. 46. 36.29	- 1.87	
	12	♌ 2 L.....	S	42.9	45.7	48.3	51.2	56.6	2.2	5.1	7.8	10.8	11. 46. 56.71		12.93	56.04	43.11		18. 53. 56.10	- 1.79	
	13	♌ Aquilæ	S	58.2	1.2	4.0	7.0	12.4	18.2	21.2	24.2	27.0	18. 53. 12.58		48.94	18.29	43.17		19. 12. 32.11	- 0.79	
	14	♌ Draconis	S	..	..	..	..	48.7	3.4	10.5	17.7	24.9	19. 11. 48.81		35.12	18.29	43.17		19. 40. 18.29	- 2.17	
	15	♌ Aquilæ	S	20.8	23.4	26.4	29.3	34.8	40.3	43.3	46.0	48.8	19. 39. 34.77		57.45	13.92	43.17		19. 45. 40.62	- 2.02	
	16	12 Vulpeculæ ...	S	42.2	45.2	48.2	51.2	57.3	3.1	6.1	9.0	12.0	19. 44. 57.12		58.40	13.92	43.17		19. 52. 41.56	- 1.41	
	17	Groombridge 2992	S	..	..	..	..	9.5	15.0	20.8	26.3	31.9	19. 51. 58.20		47.44	13.92	43.17		20. 1. 30.60	- 2.08	
	18	17 Vulpeculæ ...	S	32.2	35.1	38.1	41.0	47.3	53.1	56.2	59.2	2.2	20. 0. 47.12		7.54	50.60	43.06	43.17†	....		
	19	♌ Aquilæ	AD	53.4	56.2	58.9	1.4	7.1	12.7	15.6	18.3	21.0	20. 4. 7.16		23.37	6.41	43.04		....		
	20	♌ Capricorni ...	AD	8.7	11.7	14.4	17.3	23.1	28.7	31.6	34.2	37.1	20. 10. 22.96		47.62	13.92	43.17	43.28	20. 17. 30.78	+ 0.01	
	21	Groombridge 3212	S	..	..	..	..	24.4	52.4	48.8	43.3	12.5	..	..	30.75	13.92	43.17		20. 27. 13.91	- 2.37	
	22	♌ Delphini	S	16.4	19.2	21.8	24.7	30.4	36.1	39.0	41.7	44.4	20. 26. 30.40		27.19	34.09	43.21		20. 33. 10.35	- 1.43	
	23	73 Draconis.....	S	35.2	45.8	56.1	6.8	27.2	48.3	58.2	8.5	19.1	20. 32. 27.15		50.88	34.09	43.21		20. 56. 13.65	- 1.77	
	24	Saturn 1 L.....	S	59.7	2.5	5.6	8.5	14.3	20.1	22.9	26.0	28.9	20. 42. 14.26		47.14	42.51	43.21		21. 9. 34.04	- 2.63	
	25	Saturn 2 L.....	S	0.8	3.9	6.9	9.8	15.7	21.3	24.4	27.3	30.1	20. 42. 15.56		42.51	42.51	43.21		21. 12. 30.30	- 2.24	
	26	Bradley 2748....	S	35.7	46.8	57.4	8.7	..	52.3	3.7	14.4	25.5	20. 55. 30.46		42.51	42.51	43.21		22. 7. 25.66	- 2.74	
	27	♌ Equulei.....	S	36.7	39.4	42.2	45.1	50.5	56.1	58.9	1.5	4.3	21. 8. 50.51		42.51	42.51	43.21		22. 7. 25.66	- 2.74	
	28	♌ Cygni	S	29.0	32.8	36.3	39.7	46.8	54.0	57.5	1.0	4.9	21. 11. 46.86		42.51	42.51	43.21		22. 7. 25.66	- 2.74	
	29	24 Cephei.....	S	58.4	7.4	16.0	24.8	42.6	59.9	8.9	17.9	26.5	22. 6. 42.42		42.51	42.51	43.21		22. 7. 25.66	- 2.74	
Sept. 21	30	♌ 1 L.....	EG	46.2	49.4	51.7	54.6	0.0	5.4	8.4	11.1	13.9	11. 52. 0.06	+0.67	4.44	15.74	42.79	42.96	11. 53. 47.30	- 2.11	
	31	♌ 2 L.....	EG	53.9	57.0	59.6	2.4	8.0	13.4	16.2	19.2	21.9	11. 54. 7.93	(+1.31)	32.95	15.74	42.79	[-0.21]	18. 6. 15.75	- 2.11	
	32	♌ Sagittarii	EG	..	20.8	23.5	26.6	32.4	38.5	41.4	44.1	..	18. 5. 32.44	[+6.41]	6.06	49.03	42.97		18. 32. 41.62	- 1.35	
	33	♌ Ursæ Min.(E&E)	EG	59.0	47.5	33.8	19.5	..	26.3	13.5	0.0	46.7	18. 12. 8.25		58.82	41.67	42.85		18. 32. 41.62	- 1.35	
	34	♌ Lyræ	EG	40.8	44.7	48.0	51.2	58.5	5.7	9.2	12.6	16.4	18. 31. 58.53		16.35	59.00	42.65		18. 32. 41.62	- 1.35	
	35	Ceph. 51 S.P.(E&E)	EG	11.0	8.6	4.5	3.5	..	51.5	48.2	44.5	43.0	18. 40. 12.80		56.39	38.94	42.55		18. 32. 41.62	- 1.35	
	36	♌ Aquilæ	AD	41.8	44.8	47.5	50.3	56.0	1.6	4.6	7.4	10.3	18. 58. 56.00		13.52	56.06	42.54		18. 32. 41.62	- 1.35	
	37	♌ Aquilæ	AD	59.0	2.0	4.7	7.5	13.0	18.7	21.6	24.4	27.3	19. 11. 13.12		47.81	42.54	42.96		18. 32. 41.62	- 1.35	
	38	♌ 1 L.....	EG	31.6	34.8	37.8	41.0	47.3	53.6	56.7	59.8	3.2	20. 26. 47.28		58.88	42.54	42.96		18. 32. 41.62	- 1.35	
	39	Saturn 1 L.....	EG	43.3	46.2	49.0	51.8	57.8	3.6	6.5	9.5	12.4	20. 41. 57.77		19.60	2.49	42.89		18. 32. 41.62	- 1.35	
	40	Saturn 2 L.....	EG	44.2	47.3	50.2	53.0	59.0	5.0	7.8	10.7	13.7	20. 41. 58.96		49.12	31.89	42.77		18. 32. 41.62	- 1.35	
	41	♌ Pegasi	EG	5.3	..	10.8	13.5	19.4	24.8	27.5	..	33.2	21. 37. 19.19		42.29	25.07	42.78		18. 32. 41.62	- 1.35	
	42	♌ Pegasi	EG	34.4	37.5	40.0	43.0	48.5	54.4	57.6	0.3	3.2	22. 57. 48.74		3.30	53.42	42.71		18. 32. 41.62	- 1.35	
	43	♌ Sculptoris	EG	..	29.5	32.5	35.6	41.7	48.0	51.4	53.7	..	23. 41. 41.74		18.01	53.42	42.71		18. 32. 41.62	- 1.35	
	44	Hesperia.....	EG	48.5	51.6	55.0	57.4	2.5	8.4	11.3	14.0	17.2	23. 45. 2.86		18.01	53.42	42.71		18. 32. 41.62	- 1.35	
	45	♌ Piscium.....	EC	56.4	59.2	2.0	4.5	10.4	15.9	18.7	21.4	24.3	23. 52. 10.30		18.01	53.42	42.71		18. 32. 41.62	- 1.35	
	46	Hebe	EG	2.7	5.8	8.7	11.7	17.4	23.4	26.2	39.3	32.5	23. 55. 17.50		18.01	53.42	42.71		18. 32. 41.62	- 1.35	

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 6, 33, and 35, -44".00 : -44".60 : and -44".60.

Correction for passage of Semidiameter, No. 38, + 72".64.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

September 21 to Neptune. The azimuthal error used is the mean of those (+ 6".21 and + 6".60) determined by tabular places of δ Ursæ Minoris and Cephei 51 S.P., and of ε Piscium and Polaris.

10. Cloudy.

41. Very faint and misty.

38. Correction to R.A. on true meridian, + 0".02.

44. Very faint.

1875

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.	
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.		Collimation. (Level).							
																					[Azimuth].
s	s	s	s	s	s	s	s	s	h	m	s	"	s	s	s	s	h	m	s	s	
Sept. 21	1	♄ Ceti.	EG	6.1	9.3	12.0	14.7	20.6	26.0	28.7	31.4	34.5	0. 12. 20.35	+0.67	20.82	3.48	42.66	42.75	0. 13. 3.57	- 3.09	
	2	♄ Piscium	EG	30.2	32.9	35.7	38.5	44.1	49.5	52.3	55.3	58.1	0. 55. 44.05	(+1.31)	44.46	27.21	42.75	[-0.21]	0. 56. 27.20	- 2.91	
	3	Polaris (E&E)	EG	42.0	40.0	38.0	34.0	..	..	..	..	..	1. 12. 40.44	[+6.41]	34.39	16.81	42.42	....	....		
	4	♄ Arietis	EG	46.0	49.0	51.8	54.8	0.6	6.6	9.6	12.4	15.5	1. 47. 0.68		1.05	43.73	42.68	1. 47. 43.78	- 2.85		
	5	♄ Neptune	EG	3.8	6.8	9.5	12.4	17.9	23.5	26.3	29.2	31.6	1. 54. 17.87		18.28			1. 55. 1.01			
	6	Regulus	C	43.4	46.3	49.0	51.8	57.5	3.1	6.0	8.8	11.6	10. 0. 57.48	(+0.86) [+5.87]	57.83	40.38	42.55	42.55 [-0.11]	10. 1. 40.33	- 0.81	
Sept. 22	7	♄ Serpentis.	L	52.8	55.6	58.4	1.0	6.6	12.2	15.0	17.6	20.5	18. 14. 6.61		7.01	49.23	42.22	42.29†	....		
	8	♄ Lyrae	L	28.2	31.6	34.8	38.2	44.7	51.5	54.6	57.8	1.1	18. 44. 44.69		44.96	27.15	42.19	....	....		
	9	♄ Aquilæ	C	59.4	2.0	4.9	7.4	13.3	18.9	21.7	24.5	27.4	19. 11. 13.26		13.62	56.05	42.43	42.55	19. 11. 56.08	- 1.97	
	10	59 Draconis	C	..	..	..	40.4	3.6	27.0	39.0	50.6	2.4	19. 13. 3.66		3.39				19. 13. 45.85	+ 0.27	
	11	Piazzi XIX. 237 ..	C	..	32.4	35.7	38.9	45.4	52.0	55.0	58.3	..	19. 36. 45.36		45.87				19. 37. 28.33	- 2.92	
	12	♄ Ursæ Min. (E&E)	C	..	..	45.0	15.0	..	6.5	..	..	33.0	19. 49. 24.73		16.83	59.57	42.74	....	....		
	13	λ Sagittæ	C	49.2	52.0	54.8	57.6	3.4	9.2	12.0	14.8	17.8	19. 57. 3.40		3.74				19. 57. 46.20	- 2.13	
	14	♄ Capricorni.	C	9.3	12.2	15.0	17.7	23.5	29.2	32.0	34.8	37.7	20. 10. 23.47		23.91	6.37	42.46		20. 11. 6.37	- 2.67	
	15	35 Cygni	C	51.3	54.7	57.9	1.2	8.0	14.7	18.1	21.4	24.8	20. 13. 7.98		8.25				20. 13. 50.71	- 1.94	
	16	Piazzi VIII. 52 S.P.	C	..	..	18.6	26.8	42.8	58.7	6.7	..	..	20. 19. 42.77		43.51				8. 20. 25.97	- 2.24	
	17	Piazzi XX. 298 ..	C	5.5	8.7	11.6	14.6	20.6	26.6	29.5	32.5	35.6	20. 40. 20.55		21.02				20. 41. 3.48	- 3.05	
	18	Saturn 1 L.	C	35.5	38.7	41.4	44.4	50.2	56.0	59.0	2.0	4.8	20. 41. 50.21		51.34				20. 42. 33.80		
	19	Saturn 2 L.	C	36.9	39.8	42.8	45.7	51.6	57.4	0.3	3.3	6.2	20. 41. 51.54						21. 17. 3.82	- 3.14	
	20	♄ Capricorni ...	C	6.0	9.1	12.0	15.0	20.9	26.9	29.8	32.7	35.8	21. 16. 20.90		21.37				21. 28. 11.57		
	21	♄ 1 L.	C	1.8	5.0	8.0	11.0	17.0	23.3	26.3	29.3	32.3	21. 26. 17.09		17.56				21. 38. 2.42	- 2.64	
	22	♄ Pegasi	C	5.6	8.5	11.2	14.0	19.6	25.3	28.0	30.8	33.6	21. 37. 19.61		19.97	2.48	42.51		21. 40. 8.09	- 3.11	
	23	♄ Capricorni.	C	10.8	13.7	16.5	19.4	25.2	31.0	33.9	36.8	39.7	21. 39. 25.19		25.64	8.12	42.48		21. 55. 35.74	- 3.16	
	24	♄ Aquarii	C	38.3	41.3	44.1	47.0	52.8	58.7	1.5	4.5	7.5	21. 54. 52.84		53.29				23. 45. 2.73		
	25	Hesperia	C	6.0	..	11.7	..	19.9	..	..	..	..	23. 44. 19.90		20.29				23. 52. 53.41	- 2.95	
	26	♄ Piscium	C	56.6	59.6	2.3	5.0	10.6	16.2	19.0	21.8	24.4	23. 52. 10.60		10.97	53.42	42.45		23. 55. 22.50		
	27	Hebe	C	24.9	28.0	30.8	33.6	39.6	45.5	48.5	51.4	54.3	23. 54. 39.60		40.06				0. 2. 35.91		
	28	Ariadne	C	39.2	42.2	44.6	47.4	53.2	..	..	..	..	0. 1. 53.11		53.47			42.44	....		
	29	Polaris (E&E)	C	42.0	45.0	35.5	33.0	26.5	..	..	..	..	1. 12. 41.03		34.88	17.05	42.17		1. 22. 31.48	- 2.90	
	30	♄ Piscium	C	34.8	37.6	40.3	43.2	48.8	54.2	57.1	59.7	2.6	1. 21. 48.68		49.05				1. 24. 47.47	- 2.88	
	31	♄ Piscium	C	50.3	53.4	56.2	59.0	4.7	10.4	13.4	16.1	19.0	1. 24. 4.70		5.04	47.44	42.40		1. 38. 15.86	- 2.91	
	32	♄ Ceti.	C	18.6	21.6	24.4	27.2	33.0	38.7	41.6	44.5	47.4	1. 37. 32.98		33.43				1. 47. 43.84	- 2.87	
	33	♄ Arietis	C	46.4	49.4	52.3	55.3	1.0	7.0	10.0	12.8	15.8	1. 47. 1.09		1.41	43.75	42.34		1. 54. 55.77		
	34	♄ Neptune	C	59.0	1.8	4.6	7.4	13.0	18.6	21.4	24.2	27.1	1. 54. 12.99		13.34						
Sept. 24	35	♄ 1 L.	S	..	36.3	39.0	41.8	47.3	53.0	55.6	58.5	..	12. 2. 47.33	(+0.72)	51.75			42.39	12. 4. 34.05		
	36	♄ 2 L.	S	41.5	44.3	47.2	50.0	55.4	..	..	..	9.2	12. 4. 55.40	[+5.80]				[-0.18]	....		
	37	♄ Ursæ Min. (E&E)	S	58.0	46.5	31.8	18.0	52.0	26.0	13.0	59.0	46.0	18. 12. 6.66		4.32	47.75	43.43		18. 12. 46.57	+ 11.15	
	38	♄ Lyrae	S	41.6	45.2	48.6	52.1	59.4	6.3	9.7	13.4	16.8	18. 31. 59.20		59.43	41.60	42.17		18. 32. 41.68	- 1.28	
	39	Ceph. 51 S.P. (E&E)	S	..	10.0	7.5	6.0	0.0	53.5	51.5	..	..	18. 40. 14.72		18.33	0.61	42.28		6. 41. 0.58	- 15.70	
	40	♄ 1 L.	S	28.0	31.5	34.8	38.2	44.7	51.3	54.6	57.8	0.8	18. 44. 44.60		44.85	27.11	42.26		18. 45. 27.10	- 1.45	
	41	♄ Aquilæ	C	43.6	46.6	49.3	52.0	57.6	3.4	6.2	8.8	11.7	19. 43. 57.67		58.02	40.25	42.23	42.35†	....		
	42	♄ Aquilæ	C	13.3	16.0	18.8	21.5	27.2	32.6	35.4	38.1	41.0	19. 48. 27.08		27.43	9.60	42.17		....		
	43	♄ Delphini	S	52.4	55.4	58.2	1.0	6.8	12.7	15.4	18.3	21.3	20. 33. 6.81		7.13	49.40	42.27	42.39	20. 33. 49.37	- 2.28	
	44	♄ Andromedæ ...	S	..	..	..	..	..	13.4	17.0	20.5	24.0	0. 49. 6.44		6.67	48.84	42.17	42.21	0. 49. 48.87	- 3.01	
	45	♄ Andromedæ ...	S	44.6	48.0	51.5	54.6	1.3	8.2	11.5	15.0	18.3	1. 2. 1.42		1.67	43.93	42.26		1. 2. 43.87	- 3.01	
	46	Polaris (E&E)	S	..	45.5	38.5	33.0	27.5	21.5	17.0	..	..	1. 12. 41.65		35.31	17.48	42.17		1. 13. 17.51	- 39.21	

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 3, 12, 29, 37, 39, and 46, -44".70: -44".70:

-44".70: -45".20: and -45".30.

Correction for passage of Semidiameter, No. 21, +71".54.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

September 21, Regulus, to September 22. The azimuthal error used is the mean of those (+5".74 and +6".00) determined by tabular places of λ Ursæ Minoris and α^2 Capricorni, and of Polaris and η Piscium, on September 22.

September 24 and 25. The azimuthal error by consecutive transits of Polaris, Polaris S.P., and Polaris.

21. Correction to R.A. on true meridian, +0".02.

25. Extremely faint. Sky covered with thin white cloud.

24. Close double star, observed as one mass.

36, 44. Very cloudy.

46. Cloudy.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.	
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.									
				s	s	s	s	s	s	s	s	s									
Sept. 25	1	⊙ 1 L.....	E	9.6	12.5	15.3	17.9	23.4	29.0	31.7	34.5	37.4	12. 6. 23.46	+0.67	} 27.87				42.41	12. 8. 10.15	
	2	⊙ 2 L.....	E	17.6	20.6	23.4	26.0	31.6	37.3	40.0	42.7	45.5	12. 8. 31.62	(-0.43)					[-0.25]	1. 13. 18.10	-39.33
	3	Mercury 1 L.....	E	2.0	4.8	7.7	..	16.0	..	24.4	27.0	29.8	12. 57. 15.93	[+5.80]		16.29				12. 57. 58.74	-0.58
	4	Polaris S.P. (E&E)	E	..	25.0	21.0	17.5	12.0	4.0	..	..	..	13. 12. 26.36			35.83	17.60	41.77		14. 9. 55.49	-0.58
	5	Arcturus	E	58.3	1.2	4.2	7.3	13.0	18.9	21.8	24.7	27.7	14. 9. 12.99			13.23	55.44	42.21		....	
	6	72 Ophiuchi.....	AD	27.8	30.7	33.6	36.3	41.9	47.6	50.4	53.2	56.0	18. 0. 41.93			42.22	24.12	41.90	42.12†	....	
	7	α Lyrae	AD	41.8	45.4	48.8	52.4	59.6	6.5	10.2	13.7	17.3	18. 31. 59.49			59.62	41.57	41.95		....	
	8	δ Aquilæ	E	14.4	17.3	19.9	22.8	28.3	33.7	36.5	39.4	42.2	19. 18. 28.26			28.58	10.74	42.16	42.41	19. 19. 10.79	-2.09
	9	α Aquilæ	E	43.6	46.5	49.3	..	57.7	..	6.2	8.8	11.7	19. 43. 57.66			57.96	40.23	42.27		19. 44. 40.16	-2.14
	10	λ Ursæ Min. (E&E)	E	..	..	..	..	12.5	..	..	..	..	19. 49. 27.10			15.71	55.93	40.22		19. 49. 57.91	+21.29
	11	α² Capricorni....	E	9.6	12.4	15.4	18.0	23.9	29.5	32.4	35.2	38.1	20. 10. 23.82			24.22	6.33	42.11		20. 11. 6.42	-2.63
	12	Hebe	E	..	34.2	36.8	39.8	45.6	51.6	54.6	57.5	..	23. 52. 45.70			46.13	..	..		23. 53. 28.29	
	13	29 Piscium.....	E	28.7	31.5	34.3	37.0	42.4	48.0	50.7	53.5	56.3	23. 54. 42.47			42.82	..	..		23. 55. 24.98	-3.06
	14	Piazzi XXIII. 282	E	25.3	27.9	30.6	36.1	41.8	44.5	47.4	..	..	0. 1. 36.20			36.54	..	..	42.16	0. 2. 18.70	-3.06
	15	⊙ 1 L.....	E	11.4	14.2	17.0	19.7	25.4	..	..	..	..	0. 15. 25.47			25.81	..	..		0. 17. 17.26	
	16	⊙ 2 L.....	E	29.6	32.5	35.4	38.3	43.8	49.7	52.5	55.4	58.2	0. 17. 43.92			44.26	..	..		0. 17. 17.12	
	17	Piazzi O. 189....	E	53.2	55.8	58.6	1.4	6.8	12.5	15.3	18.0	20.7	0. 41. 6.90			7.21	..	..		0. 41. 49.36	-3.01
	18	20 Ceti	E	..	..	46.3	49.2	54.8	0.0	2.9	..	..	0. 45. 54.62			54.96	37.06	42.10		0. 46. 37.11	-3.02
	19	h Piscium.....	E	..	9.5	12.4	15.5	22.0	28.0	31.4	34.3	..	0. 50. 21.84			22.03	..	..		0. 51. 4.18	-2.96
	20	σ¹ Piscium.....	E	..	3.2	6.3	9.4	16.0	22.4	25.7	28.8	..	0. 55. 15.94			16.12	..	..		0. 55. 58.27	-2.98
	21	e Piscium.....	E	59.4	2.3	4.9	7.7	13.3	18.8	21.5	24.4	27.2	1. 1. 13.26			13.57	..	..		1. 1. 55.72	-2.95
	22	Polaris (E&E)	E	..	48.5	41.0	39.0	31.5	24.0	..	..	..	1. 12. 45.28			36.37	17.73	41.36		1. 13. 18.52	-39.46
	23	η Piscium.....	E	50.7	53.6	56.5	59.3	5.0	10.6	13.4	16.4	19.4	1. 24. 4.97			5.24	47.49	42.25		1. 24. 47.38	-2.93
	24	τ Ceti	E	..	21.8	24.7	27.5	33.4	39.0	42.0	44.8	..	1. 37. 33.28			33.69	..	..		1. 38. 15.83	-2.96
	25	Neptune.....	E	43.3	46.0	48.8	51.6	57.3	2.8	5.7	8.5	11.4	1. 53. 57.24			57.53	..	..		1. 54. 39.67	
	26	α Arietis.....	E	9.8	13.1	15.9	18.9	24.8	30.9	33.8	36.9	40.0	1. 59. 24.88			25.10	7.32	42.22		2. 0. 7.24	-2.94
Sept. 26	27	⊙ 1 L.....	C	45.8	48.7	51.4	54.1	59.6	5.2	7.9	10.6	13.5	12. 9. 59.62	(-0.29)	} 4.13				41.93	12. 11. 45.92	
	28	⊙ 2 L.....	C	54.0	57.0	59.6	2.3	7.9	13.4	16.2	19.0	21.7	12. 12. 7.88	[+6.42]					[-0.27]	1. 13. 18.73	-39.61
	29	Polaris S.P. (E&E)	C	..	..	..	..	15.0	3.0	59.0	56.5	..	13. 12. 26.66			36.95	17.88	40.93		15. 5. 57.96	-1.56
	30	Venus 1 L.....	C	59.7	3.1	6.0	8.9	14.8	20.8	23.7	26.7	29.8	15. 5. 14.81			15.28	..	..		18. 1. 24.18	
	31	72 Ophiuchi.....	C	28.1	31.0	33.6	36.5	42.2	47.7	50.5	53.4	56.2	18. 0. 42.12			42.45	24.10	41.65		....	
	32	α Lyrae	L	42.4	45.8	49.5	52.8	59.8	7.0	10.6	14.0	17.6	18. 31. 59.91			0.07	41.55	41.48	41.65†	....	
	33	2 Aquilæ	L	28.6	31.5	34.4	37.0	..	48.2	51.2	53.8	56.6	18. 34. 42.63			43.05	24.44	41.39		....	
	34	λ Ursæ Min. (E&E)	C	..	..	..	..	15.0	11.5	..	39.0	..	19. 49. 25.73			13.38	54.80	41.42	41.93	19. 49. 55.09	+22.42
	35	17 Vulpeculæ ...	C	33.5	36.6	39.5	42.5	48.6	54.6	57.6	0.4	3.5	20. 0. 48.50			48.75	..	..		20. 1. 30.45	-1.97
	36	Piazzi XX. 36....	C	45.5	48.8	51.8	55.0	1.1	7.2	10.4	13.4	16.5	20. 6. 1.05			1.28	..	..		20. 6. 42.98	-1.95
	37	α² Capricorni....	C	10.0	12.9	15.7	18.5	24.2	29.9	32.8	35.6	38.4	20. 10. 24.20			24.63	6.32	41.69		20. 11. 6.63	-2.62
	38	Piazzi VIII. 46 S.P.	C	..	..	..	..	25.6	33.0	40.1	47.6	20. 17. 11.13		12.02	..	..		8. 17. 53.72	-2.48		
	39	Groomb. 1431 S.P.	C	..	..	..	..	43.3	27.3	49.4	9.6	31.7	20. 22. 43.49		45.67	..	..		8. 23. 27.37	-4.12	
	40	α Delphini	C	53.1	56.0	58.8	1.6	7.4	13.2	16.0	18.8	21.6	20. 33. 7.37		7.66	49.37	41.71		20. 33. 49.36	-2.25	
	41	Saturn 1 L.....	C	8.5	11.4	14.3	17.3	23.1	29.0	31.9	35.0	37.7	20. 41. 23.12		24.25	..	..		20. 42. 5.95		
	42	Saturn 2 L.....	C	9.8	12.9	15.7	18.5	24.4	30.3	33.3	36.2	39.0	20. 41. 24.44		..	..	..		8. 59. 18.49	-1.96	
	43	σ² Ursæ Maj. S.P.	C	..	..	14.0	21.4	36.1	50.2	57.6	..	..	20. 58. 35.91		36.80	..	..		21. 9. 47.87	-2.14	
	44	τ Cygni	C	48.6	52.3	55.6	59.0	6.0	13.1	16.5	19.9	23.4	21. 9. 6.01		6.18	..	..		23. 28. 0.77	-11.03	
	45	Bradley 3147 (E&E)	C	..	..	..	35.0	9.5	42.5	28.5	16.5	..	23. 27. 22.74		19.10	..	..		0. 30. 16.45	-2.95	
	46	53 Piscium.....	C	20.2	23.3	26.0	28.7	34.4	40.3	43.2	45.9	48.8	0. 29. 34.51		34.80	..	..	41.66	0. 31. 56.92	-2.93	
	47	ε Andromedæ ...	C	59.5	2.6	5.6	8.8	15.0	21.4	24.5	27.6	30.7	0. 31. 15.05		15.27	56.96	41.69				

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 4, 10, 22, 29, 34, and 45, -45".30: -45".40: -45".50: -45".70: -45".80: and 45".80.

Corrections for passage of Semidiameter, Nos. 3, 15, 16, and 30, +0".17: +69".31: -69".31: and +0".92.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

September 26 and 27. The azimuthal error by consecutive transits of Polaris S.P., Polaris, and Polaris S.P.

15. Correction for defect of illumination, -0".03.

29. Sky thick; star extremely faint.

15, 16. Correction to R.A. on true meridian, +0".01.

41, 42. Planet's image very tremulous.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.	
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.		h m s							"
Sept. 26	1	Piazzi O. 189	C	53.7	56.5	59.3	2.0	7.5	13.1	15.8	18.6	21.4	0. 41. 7.52	+0.67	7.87			41.66	0. 41. 49.52	- 3.02	
	2	Bradley 90	C	27.8	33.6	39.0	44.6	56.0	7.2	12.8	18.4	23.8	0. 44. 55.86	(-0.29)	55.77			[-0.27]	0. 45. 37.42	- 3.55	
	3	ε Piscium	C	31.4	34.2	36.9	39.6	45.4	51.0	53.6	56.4	59.4	0. 55. 45.30	[+6.42]	45.64	27.27	41.63	0. 56. 27.29	- 2.97		
	4	e Piscium	C	59.8	2.8	5.5	8.3	13.7	19.4	22.1	24.9	27.6	1. 1. 13.77		14.12			1. 1. 55.77	- 2.96		
	5	Polaris (E&E)	C	49.5	50.0	42.0	..	..	26.0	23.0	..	..	1. 12. 46.13		36.49	18.05	41.56	1. 13. 18.14	-39.78		
	6	δ 2 L.	C	12.5	15.4	18.2	21.2	26.6	32.5	35.4	38.3	41.1	1. 13. 26.78		27.12			1. 12. 58.81			
	7	η Piscium	C	51.4	54.3	57.0	59.7	5.6	11.4	14.2	17.0	19.8	1. 24. 5.58		5.87	47.50	41.63	1. 24. 47.51	- 2.94		
	8	ο Piscium	C	51.4	54.4	57.0	59.6	5.4	11.0	13.7	16.5	19.4	1. 38. 5.36		5.69	47.40	41.71	1. 38. 47.33	- 2.94		
	9	Piazzi I. 223	C	48.2	51.0	53.8	56.6	2.3	7.8	10.7	13.5	16.4	1. 52. 2.24		2.55			1. 52. 44.19	- 2.92		
	10	Neptune	C	38.3	41.2	43.9	46.7	52.3	57.9	0.5	3.5	6.4	1. 53. 52.30		52.63			1. 54. 34.27			
Sept. 27	11	Polaris S.P. (E&E)	L	..	..	..	20.0	9.0	4.5	..	54.5	..	13. 12. 25.73		36.02	18.23	42.21	41.95†	1. 13. 17.82	-39.96	
	12	α² Capricorni	E	10.0	12.8	15.6	18.5	24.1	29.8	32.7	35.4	38.4	20. 10. 24.13		24.56	6.30	41.74	[-0.28]	....		
	13	β Capricorni	E	..	5.0	7.6	10.6	16.3	22.0	25.0	27.8	..	20. 13. 16.30		16.75	58.44	41.69	....			
	14	Piazzi I. 223	AD	48.3	51.3	54.0	56.8	2.5	8.1	11.0	13.8	16.6	1. 52. 2.47		2.78			41.40	1. 52. 44.16	- 2.93	
	15	α Arietis	AD	10.7	14.0	16.7	19.8	25.7	31.7	34.8	37.7	40.8	1. 59. 25.75		26.00	7.36	41.36	[-0.28]	....		
	16	ξ¹ Ceti	AD	26.5	29.5	32.3	35.0	40.6	46.1	49.0	51.6	54.6	2. 5. 40.56		40.90	22.30	41.40	....			
	17	δ 2 L.	AD	29.2	32.1	35.1	38.0	43.7	49.7	52.6	55.5	58.4	2. 10. 43.79		44.09			2. 10. 14.12			
	18	ξ² Ceti	AD	35.0	37.6	40.4	43.3	48.7	54.5	57.4	0.0	2.8	2. 20. 48.83		49.17	30.53	41.36	....			
	19	γ² Ceti	AD	53.6	56.4	59.2	1.9	7.5	13.0	15.7	18.6	21.4	2. 36. 7.46		7.82	49.16	41.34	....			
	20	π Arietis	AD	22.5	25.5	28.4	31.2	37.0	42.7	45.7	48.6	51.5	2. 41. 36.99		37.27			2. 42. 18.64	- 2.87		
	21	ρ² Arietis	AD	50.5	53.4	56.3	59.2	5.0	10.8	13.7	16.7	19.5	2. 48. 4.99		5.27			2. 48. 46.64	- 2.86		
Sept. 28	22	⊙ 1 L.	L	59.3	2.1	4.6	7.5	12.8	18.5	21.4	24.0	26.8	12. 17. 12.98	+0.62	17.54			41.19	12. 18. 58.57		
	23	⊙ 2 L.	L	7.5	10.3	13.0	15.8	21.4	27.0	29.7	32.4	35.3	12. 19. 21.36	(-0.25)				[-0.32]			
	24	ω Aquilæ	L	0.5	3.5	6.1	9.0	14.7	20.4	23.2	26.0	28.8	19. 11. 14.67	[+6.38]					19. 11. 55.90	- 1.87	
	25	δ Aquilæ	L	15.6	18.4	21.2	24.0	29.4	35.0	37.8	40.4	43.3	19. 18. 29.43			14.97	55.95	40.98	19. 19. 10.70	- 2.05	
	26	λ Ursæ Min. (E&E)	L	..	..	..	..	11.0	6.0	36.5	3.0	33.0	19. 49. 22.77		29.77	10.70	40.93	19. 49. 51.57	+24.72		
	27	θ Aquilæ	L	..	..	..	3.7	9.2	14.8	17.6	..	..	20. 4. 9.24		10.44	52.50	42.06	20. 4. 50.52	- 2.34		
	28	Saturn 1 L.	L	57.4	0.2	3.2	6.2	12.0	17.9	20.8	23.7	26.6	20. 41. 11.98		9.60	50.48	40.88				
	29	Saturn 2 L.	L	58.7	1.6	4.5	7.5	13.4	19.3	22.2	25.1	28.0	20. 41. 13.35		13.12				20. 41. 54.04		
	30	θ Capricorni	C	58.5	1.4	4.3	7.3	13.1	19.0	21.7	24.6	27.6	20. 58. 13.04			13.48	54.62	41.14	41.43†	....	
	31	ζ Cygni	C	39.4	42.6	45.6	48.9	55.3	1.5	4.8	7.9	11.3	21. 6. 55.23			55.44	36.60	41.16	....		
	32	Bradley 3135	L	..	57.7	5.9	14.8	32.0	49.5	57.7	6.3	..	23. 26. 31.91			31.55			41.19	23. 27. 12.43	- 3.55
	33	ι Piscium	L	36.0	39.0	41.6	44.4	50.0	55.5	58.3	0.8	3.8	23. 32. 40.92		50.25	31.14	40.89	23. 33. 31.13	- 2.98		
	34	24 Piscium	L	..	..	..	..	54.5	57.5	59.9	2.8	23. 45. 48.95		49.32				23. 46. 30.19	- 3.08		
	35	Bradley 3192	L	3.6	6.9	9.9	13.0	19.0	25.3	28.3	31.3	34.5	23. 53. 19.05		19.28				23. 54. 0.15	- 2.88	
	36	Piazzi XXIII. 270	L	44.2	47.0	49.6	52.4	..	3.4	6.4	9.1	11.8	23. 57. 57.96		58.32				23. 58. 39.19	- 3.05	
	37	γ Pegasi	L	52.4	55.4	58.2	0.8	6.6	12.5	15.3	18.0	21.0	0. 6. 6.67		6.96	47.85	40.89	0. 6. 47.85	- 2.94		
	38	Polaris (E&E)	L	52.0	50.0	43.5	41.0	35.0	..	26.0	21.0	..	1. 12. 47.85		38.22	18.80	40.58	1. 13. 19.07	-40.53		
39	π Arietis	L	23.0	26.2	29.2	32.0	37.6	43.4	46.4	49.2	52.2	2. 41. 37.67		37.95			2. 42. 18.78	- 2.89			
40	ρ² Arietis	L	51.1	54.0	56.9	59.6	5.6	11.4	14.4	17.2	20.1	2. 48. 5.57		5.84			2. 48. 46.67	- 2.89			
41	α Ceti	L	49.4	52.2	55.0	57.6	3.3	8.7	11.6	14.3	17.1	2. 55. 3.23		3.57	44.42	40.85	2. 55. 44.40	- 2.79			
42	δ 2 L.	L	14.5	17.6	20.6	23.6	29.5	35.6	38.7	41.7	44.7	3. 10. 29.59		29.84				3. 9. 57.55			
Sept. 29	43	Polaris S.P. (E&E)	E	..	..	..	..	8.0	5.0	57.0	..	..	13. 12. 29.13	(+0.13)	38.58	18.99	40.41	41.26	1. 13. 19.70	-40.72	
	44	θ Capricorni	E	58.4	1.4	4.4	7.2	13.2	18.8	21.7	24.6	27.6	20. 58. 13.02		13.47	54.61	41.14	[-0.25]	....		
	45	ζ Cygni	E	39.5	42.7	45.9	..	55.4	..	5.0	8.1	11.3	21. 6. 55.38		55.62	36.58	40.96	....			
	46	α Equulei	AD	38.9	41.8	44.6	47.3	52.8	58.4	1.1	3.8	6.6	21. 8. 52.79		53.14	33.99	40.85	41.08†	....		

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 5, 11, 26, 38, and 43, -45".80: -46".00: -46".20:

-46".20: and -46".10.

Corrections for passage of Semidiameter, Nos. 6, 17, and 42, -69".97: -71".35: and -73".13.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

September 28 and 29. The azimuthal error by Polaris and Polaris S.P., allowing -0".37 for clock-rate and change of R.A.

6, 17, 42. Correction to R.A. on true meridian, +0".01.
25, 39. Cloudy.

17. Limb diffused.
28, 29. Tremulous and ill-defined.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at Sideral and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.			
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.											
				s	s	s	s	s	s	s	s	s									h	m	s
Sept. 29	1	ε Pegasi	AD	7.2	10.1	12.8	15.6	21.3	26.8	29.6	32.5	35.3	21. 37. 21.23	+0.62	21.56	2.42	40.86	41.08†	....				
	2	α Aquarii	E	26.3	29.2	31.6	34.4	40.0	45.6	48.3	51.0	54.0	21. 58. 40.03	(+0.13)	40.41	21.43	41.02	41.26	....				
	3	ε Pegasi	E	..	18.0	20.8	23.8	29.9	36.1	39.2	42.0	..	22. 0. 29.94	[+6.38]	30.21	11.25	41.04	[-0.25]	....				
	4	31 Pegasi	E	26.0	29.1	31.7	34.6	40.3	45.8	48.6	51.3	54.4	22. 14. 40.21		40.53				22. 15. 21.56	- 2.69			
Sept. 30	5	⊙ 1 L.	S	12.7	15.7	18.2	21.2	26.5	32.2	35.2	37.8	40.6	12. 24. 26.66	(+0.45)	31.30	19.37	40.84	41.01	12. 26. 12.18	....			
	6	⊙ 2 L.	S	..	..	..	..	35.3	40.7	43.4	46.3	49.1	12. 26. 35.18	[+6.04]									
	7	Polaris S.P. (E&E)	S	..	..	26.0	21.0	16.0	9.0	6.0	0.0	..	13. 12. 30.41		38.53								
	8	Venus 1 L.	S	..	1.6	4.4	7.4	13.5	19.2	22.5	25.4	..	15. 21. 13.37		13.84								15. 21. 55.63
Oct. 1	9	⊙ 1 L.	J	50.2	53.0	55.7	58.6	4.3	9.7	12.5	15.4	18.1	12. 28. 4.15	(+0.83)	8.82			40.83	12. 29. 49.55				
	10	⊙ 2 L.	J	58.7	1.5	4.3	7.2	12.7	18.4	21.2	23.8	26.7	12. 30. 12.70										
Oct. 2	11	Ceph. 51 S.P. (E&E)	EG	21.5	20.0	..	..	..	..	..	..	..	18. 40. 22.60	(+1.21)	24.91	4.92	40.01	40.63	6. 41. 5.38	-20.01			
	12	ζ Aquilæ	EG	43.7	46.6	49.6	52.4	58.1	3.6	6.6	9.5	12.3	18. 58. 58.02	[+4.86]	58.33	38.75	40.42		18. 59. 38.80	- 1.69			
	13	ψ Sagittarii	EG	..	..	..	4.0	10.3	16.3	19.5	22.6	25.6	19. 7. 10.23		10.65	51.13	40.48		19. 7. 51.12	- 2.41			
	14	λ Ursæ Min. (E&E)	EG	..	..	..	..	..	56.0	26.0	52.0	22.0	19. 49. 11.45		6.56	47.13	40.57		19. 49. 47.02	+30.09			
	15	α Delphini	EG	..	..	..	..	8.6	14.3	17.3	20.0	22.8	20. 33. 8.54		8.85	49.28	40.43		20. 33. 49.31	- 2.16			
	16	Saturn 1 L.	EG	39.2	42.2	45.3	48.2	..	59.5	2.8	5.6	8.6	20. 41. 53.90		54.90				20. 42. 35.36				
	17	Saturn 2 L.	EG	40.3	43.6	46.4	49.3	55.1	1.0	4.0	6.7	9.9	20. 41. 55.12										
	18	ω Piscium	C	..	1.7	4.4	7.3	12.8	18.5	21.2	24.0	..	23. 52. 12.81		13.14	53.47	40.33	40.59†	....				
	19	2 Ceti	C	25.0	27.8	30.8	33.6	39.5	..	..	..	..	23. 56. 39.46		39.85	20.29	40.44		....				
	20	δ Piscium	EG	17.0	20.0	22.6	25.5	31.0	36.6	39.3	42.0	45.1	0. 41. 30.99		31.32	11.73	40.41	40.43	0. 42. 11.75	- 3.03			
	21	μ Andromedæ ..	EG	50.9	54.4	57.8	1.2	8.4	15.4	18.8	22.3	25.8	0. 49. 8.30		8.56	48.93	40.37		0. 49. 48.99	- 3.10			
	22	Polaris (E&E)	EG	48.0	46.0	43.0	40.0	..	..	..	..	..	1. 12. 45.04		41.25	20.05	38.80		1. 13. 21.67	-41.78			
	23	α Arietis	EG	11.6	14.7	17.7	20.8	26.7	32.7	35.7	38.6	41.4	1. 59. 26.63		26.93	7.44	40.51		2. 0. 7.34	- 3.06			
	24	δ 2 L.	E	55.6	58.9	..	5.2	11.5	..	..	..	..	7. 24. 11.57	(+2.34)	11.93			40.54	7. 23. 39.35				
	Oct. 3	25	Polaris S.P. (E&E)	E	..	..	..	..	..	14.5	..	..	..	13. 12. 39.42		41.38	20.13	38.75		1. 13. 21.83	-41.86		
26		γ Aquilæ	E	23.2	25.9	28.7	31.6	37.2	42.8	45.6	48.5	51.4	19. 39. 37.19		37.56	18.07	40.51		19. 40. 17.97	- 1.95			
27		λ Ursæ Min. (E&E)	E	..	..	..	59.0	56.0	53.0	..	..	..	19. 49. 9.41		7.71	45.67	37.96		19. 49. 48.12	+31.55			
28		14 Sagittæ	E	..	53.8	56.6	59.6	5.4	11.0	13.8	16.6	..	19. 57. 5.23		5.59				19. 57. 46.00	- 1.95			
29		θ Aquilæ	E	..	58.6	1.3	4.2	9.6	15.2	17.9	20.8	..	20. 4. 9.63		10.02	50.41	40.39		20. 4. 50.43	- 2.27			
30		19 Vulpeculæ ..	E	..	..	44.0	46.9	53.0	59.4	2.5	5.5	8.6	20. 5. 53.14		53.50				20. 6. 33.91	- 1.82			
31		β Capricorni	E	..	6.3	9.0	11.7	17.5	23.5	26.3	29.1	..	20. 13. 17.60		18.00	58.35	40.35		20. 13. 58.41	- 2.57			
32		Piazzi IX. 37 S.P.	E	..	..	19.4	39.2	18.5	57.6	17.6	..	..	21. 18. 18.58		19.18				9. 18. 59.58	- 3.03			
33		θ Ursæ Maj. S.P.	E	23.3	27.9	32.4	37.0	45.8	54.8	59.6	3.8	8.6	21. 23. 45.95		46.33				9. 24. 26.73	- 1.66			
34		5 Pegasi	E	..	1.5	4.5	7.5	13.4	19.3	22.0	25.0	..	21. 31. 13.28		13.64				21. 31. 54.04	- 2.39			
35		9 Pegasi	E	..	..	..	..	54.4	0.0	3.0	5.8	8.9	21. 37. 54.31		54.68				21. 38. 35.08	- 2.44			
36		Groombridge 3590	E	..	..	45.0	53.1	8.9	24.6	32.8	..	..	21. 44. 8.83		9.09				21. 44. 49.48	- 1.89			
37		79 Draconis	E	..	..	10.8	20.6	39.3	58.5	8.4	..	..	21. 50. 39.23		39.46				21. 51. 19.85	- 1.95			
38		α Aquarii	E	..	..	..	..	40.7	46.2	49.0	51.7	54.5	21. 58. 40.65		41.04	21.40	40.36		21. 59. 21.43	- 2.77			
39		24 Cephei	E	0.3	..	18.6	27.3	44.9	2.7	11.7	..	29.2	22. 6. 44.91		45.16				22. 7. 25.55	- 2.23			
40		Piazzi X. 22 S.P.	E	..	..	40.6	4.3	49.7	37.5	1.0	..	..	22. 14. 50.76		51.40				10. 15. 31.79	- 0.63			
41		σ Aquarii	E	6.6	9.5	12.4	15.3	20.7	26.5	29.3	32.1	35.1	22. 23. 20.82		21.22	1.65	40.43		22. 24. 1.61	- 3.03			
42		Piazzi XXII. 186	E	45.9	48.9	51.6	54.4	0.0	5.7	8.6	11.4	14.2	22. 34. 0.06		0.43				22. 34. 40.82	- 2.71			
43		67 Aquarii	E	47.6	50.5	53.3	56.0	1.5	7.2	10.0	12.8	15.6	22. 36. 1.59		1.99				22. 36. 42.38	- 3.00			
44		ξ Pegasi	E	31.7	34.7	37.4	40.2	45.9	51.6	54.4	57.4	0.0	22. 39. 45.90		46.27				22. 40. 26.66	- 2.76			

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sideral Standard, applied to form Concluded Transit, Nos. 7, 11, 14, 22, 25, and 27, -46".10: -46".30: -46".30: -46".20: -46".00: and -46".00.

Corrections for passage of Semidiameter, Nos. 8 and 24, +0".94: and -73".08.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

September 30 and October 1. The azimuthal error by tabular places of ε Pegasi on September 29 and Polaris S.P. on September 30, allowing -0".22 for clock-rate.

October 2 to 4. The azimuthal error by Polaris and Polaris S.P., allowing -0".13 for clock-rate and change of R.A.

5, 6. Cloudy.

11. Faint and tremulous.

24. Correction to R.A. on true meridian, +0".01.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
				h	m	s	h	m	s	h	m	s								
Oct. 3	1	51 Pegasi	E	..	27 ⁰ 29 ⁸	32 ⁷	38 ⁶ 44 ⁵	47 ⁵	50 ⁴	..	22. 50. 38 ⁶ 61	+0 ⁶ 2	38 ⁹ 7				40 ⁵ 4	22. 51. 19 ³ 36	- 2 ⁷ 2	
	2	α Pegasi	E	36 ⁹	39 ⁷	..	45 ⁴ 51 ² 56 ⁸	..	2 ⁵	5 ⁵	22. 57. 51 ¹ 12	(+2 ³ 4) [+4 ⁸ 6]	51 ⁴ 9	31 ⁸ 7	40 ³ 8	[-0 ¹ 6]	22. 58. 31 ¹ 88	- 2 ⁷ 8		
Oct. 4	3	τ Tauri	L	48 ⁷	51 ⁸ 54 ⁶	57 ⁶	3 ⁸ 9 ⁷	12 ⁷	15 ⁶	18 ⁸	4. 34. 3 ⁶ 8		4 ⁵ 0	43 ⁸ 1	39 ⁷ 6	39 ⁸ 5†				
	4	μ Eridani	L	20 ⁶	23 ⁴ 26 ¹	28 ⁸	34 ³ 39 ⁹	42 ⁷	45 ⁴	48 ²	4. 38. 34 ³ 36		34 ⁷ 5	14 ⁶ 4	39 ⁸ 9	[-0 ¹ 12]				
Oct. 5	5	Polaris S.P. (E&E)	S	..	41 ⁰ 35 ⁵	31 ⁰ 25 ⁰	..	..	..	..	13. 12. 40 ⁵ 2	+0 ² 8	39 ⁵ 1	20 ³ 5	40 ⁸ 4	40 ² 5	1. 13. 19 ⁶ 1	-42 ⁰ 8		
	6	Ceph. 51 S.P. (E&E)	S	..	22 ⁰ 18 ⁰	16 ⁰ 10 ⁵	5 ⁵	2 ⁰ 57 ⁰	..	..	18. 40. 25 ⁰ 8	(+2 ⁷ 9) [+3 ² 1]	24 ⁷ 2	6 ⁶ 6	41 ⁹ 4	[-0 ² 20]	6. 41. 4 ⁸ 1	-21 ⁷ 5		
	7	ε Aquilæ	S	1 ⁰	4 ¹	6 ⁸	9 ⁸ 15 ⁴	21 ²	24 ²	27 ⁰ 29 ⁶	18. 53. 15 ⁴ 44	15 ⁷ 5	55 ⁷ 5	40 ⁰ 0	18. 53. 55 ⁸ 4	- 1 ⁵ 8				
	8	ζ Aquilæ	S	..	49 ⁹	52 ⁷ 58 ⁴	4 ⁰ 6 ⁹	9 ⁷	12 ⁷	18. 58. 58 ³ 6	58 ⁶ 6	38 ⁶ 9	40 ⁰ 3	18. 59. 38 ⁷ 5	- 1 ⁶ 3					
	9	γ Aquilæ	S	23 ⁶	26 ⁵ 29 ³	32 ²	37 ⁶ 43 ⁴	46 ¹	49 ⁰	51 ⁷	19. 39. 37 ⁶ 9	37 ⁹ 9	18 ⁰ 4	40 ⁰ 5	19. 40. 18 ⁰ 8	- 1 ⁹ 2				
	10	Piazzi VII. 187 S.P.	S	59 ⁰	15 ⁴ 30 ⁷	46 ⁷	17 ⁵ 49 ²	4 ⁷	19 ⁶	36 ⁴	19. 44. 17 ⁸ 2	17 ⁹ 2	..	..	7. 44. 58 ⁰ 1	- 5 ⁷ 4				
	11	Piazzi VII. 282 S.P.	S	..	39 ⁵ 46 ⁵	53 ⁴	6 ⁸ 20 ⁴	27 ³	34 ²	..	19. 57. 6 ⁹ 3	7 ¹ 4	..	..	7. 57. 47 ² 2	- 3 ² 1				
	12	Groombridge 3051	S	58 ⁸	5 ³ 11 ³	17 ³	29 ⁶ 42 ²	48 ⁵	54 ⁵	1 ¹	20. 2. 29 ⁷ 9	30 ¹ 4	6 ¹ 9	40 ¹ 9	20. 3. 10 ² 2	- 0 ⁹ 0				
	13	α ² Capricorni	S	11 ⁵	14 ⁵ 17 ²	20 ¹	25 ⁷ 31 ⁴	34 ¹	37 ⁰	40 ⁰	20. 10. 25 ⁷ 0	26 ⁰ 0	..	..	20. 11. 6 ⁰ 8	- 2 ⁴ 9				
	14	Groombridge 3212	S	..	56 ⁰ 23 ⁴	51 ³	46 ³ 42 ⁶	10 ⁶	37 ⁴	..	20. 16. 46 ⁵ 4	47 ¹ 9	..	..	20. 17. 27 ² 7	+ 3 ⁵ 4				
	15	73 Draconis	S	..	47 ⁶ 57 ⁵	7 ⁷	28 ⁶ 49 ⁶	0 ⁰	10 ¹	..	20. 32. 28 ⁶ 2	29 ⁰ 3	..	..	20. 33. 9 ¹ 1	- 0 ² 5				
	16	Saturn 1 L.	S	29 ⁸	32 ⁹ 35 ⁸	38 ⁹	44 ⁶ 50 ⁴	53 ³	56 ²	59 ⁴	20. 40. 44 ⁵ 7	45 ⁴ 8	..	..	20. 41. 25 ⁵ 6	..				
	17	Saturn 2 L.	S	31 ¹	34 ³ 37 ²	40 ⁰	45 ⁷ 51 ⁶	54 ⁵	57 ⁵	0 ³	20. 40. 45 ⁷ 8	32 ² 7	..	..	20. 56. 12 ³ 5	- 0 ⁶ 2				
	18	Bradley 2748	S	..	48 ² 59 ⁴	10 ²	..	53 ⁷	4 ⁴	16 ⁰	..	20. 55. 31 ⁸ 8	32 ⁸ 2	..	..	9. 3. 12 ⁸ 9	- 2 ⁷ 6			
	19	B. F. 1283 S.P.	S	..	53 ⁸	3 ⁶	13 ⁵	32 ⁶ 51 ⁸	1 ⁴	11 ³	..	21. 2. 32 ⁶ 6	53 ⁹ 0	33 ⁹ 2	40 ⁰ 2	21. 9. 33 ⁹ 7	- 2 ⁴ 6			
	20	α Equulei	S	39 ⁵	42 ⁶ 45 ³	48 ²	53 ³ 59 ²	2 ⁰	4 ⁶	7 ⁶	21. 8. 53 ³ 5	25 ² 7	5 ³ 0	40 ⁰ 3	21. 31. 5 ³ 4	- 2 ⁷ 8				
	21	ξ Aquarii	S	10 ⁹	13 ⁷ 16 ⁶	19 ⁴	25 ⁰ 30 ⁶	33 ⁴	36 ²	39 ⁰	21. 30. 24 ⁹ 6	50 ⁹ 7	31 ¹ 4	40 ¹ 7	23. 33. 31 ⁰ 2	- 2 ⁹ 8				
	22	ι Piscium	S	36 ⁸	39 ⁶ 42 ⁵	45 ¹	50 ⁶ 36 ²	59 ⁰	1 ⁸	4 ⁵	23. 32. 50 ⁶ 6	7 ⁷ 4	47 ⁸ 8	40 ¹ 4	0. 6. 47 ⁷ 9	- 2 ⁹ 7				
	23	γ Pegasi	S	53 ²	56 ¹ 58 ⁸	1 ⁸	7 ⁴ 13 ³	16 ⁰	18 ⁸	21 ⁷	0. 6. 7 ⁴ 3	53 ⁷ 6	..	..	0. 10. 33 ⁸ 1	- 2 ⁹ 7				
	24	θ Andromedæ	S	35 ⁸	39 ⁶ 43 ⁰	46 ⁴	53 ⁶	0 ²	4 ⁰	7 ⁵	0. 9. 53 ⁵ 9	31 ⁸ 6	..	..	0. 19. 11 ⁹ 1	- 5 ⁸ 3				
25	Bradley 24	S	..	31 ⁸ 46 ⁷	1 ³	31 ⁵	1 ⁴	16 ²	31 ⁹	..	22 ¹ 4	..	..	0. 26. 2 ¹ 9	- 3 ⁰ 0					
26	52 Piscium	S	7 ⁰	10 ² 13 ⁰	16 ⁰	21 ⁸ 27 ⁶	30 ⁶	33 ⁸	36 ⁶	0. 25. 21 ⁸ 3	46 ⁹ 0	..	..	0. 37. 26 ⁹ 5	- 4 ⁸ 8					
27	21 Cassiopeiæ	S	55 ⁵	6 ⁰ 16 ⁰	26 ¹	46 ⁴	7 ⁰	17 ²	27 ³	0. 36. 46 ⁴ 9	36 ⁴ 8	..	..	0. 48. 16 ⁵ 2	- 3 ⁰ 4					
28	36 Andromedæ	S	21 ¹	24 ² 27 ⁰	30 ²	36 ³ 42 ³	45 ²	48 ¹	51 ³	0. 47. 36 ¹ 7	18 ³ 4	..	..	0. 55. 58 ³ 8	- 3 ⁰ 8					
29	σ ¹ Piscium	S	2 ⁰	5 ²	8 ⁴	11 ⁵	18 ⁰	24 ⁵	27 ⁶	0. 55. 18 ⁰ 2	39 ⁶ 4	20 ³ 9	40 ⁷ 5	1. 13. 19 ⁶ 8	-42 ¹ 2					
30	Polaris (E&E)	S	41 ⁰	39 ⁰ 34 ⁰	30 ⁰	26 ⁰	..	..	..	1. 12. 38 ⁰ 6	6 ⁵ 4	46 ⁶ 2	40 ⁰ 8	1. 17. 46 ⁵ 8	- 3 ¹ 4					
31	θ ¹ Ceti	S	52 ³	55 ² 57 ⁹	0 ⁴	6 ² 11 ⁸	14 ⁷	17 ⁵	20 ⁴	1. 17. 6 ² 4	51 ⁵ 1	..	..	1. 22. 31 ⁵ 5	- 3 ⁰ 6					
32	96 Piscium	S	37 ⁴	40 ¹ 42 ⁸	45 ⁶	51 ³ 56 ⁸	59 ⁶	2 ⁴	5 ⁰	1. 21. 51 ² 0	2 ² 0	..	..	1. 53. 42 ² 3	..					
33	Neptune	S	47 ⁹	50 ⁶ 53 ⁵	56 ⁴	2 ³	7 ⁵	10 ³	13 ²	1. 53. 1 ⁹ 0	42 ⁴ 0	22 ⁴ 3	40 ⁰ 3	2. 6. 22 ⁴ 3	- 3 ⁰ 3					
34	ξ ¹ Ceti	S	28 ²	31 ⁰ 33 ⁶	36 ⁵	42 ²	47 ⁵	50 ⁵	53 ³	2. 5. 42 ⁰ 9	..	..	..	..	..	..				
Oct. 7	35	α Aquilæ	E	46 ⁰	48 ⁸ 51 ⁵	54 ⁴	59 ⁸	5 ⁵	8 ⁴	11 ³	19. 43. 59 ⁹ 4	(+2 ⁰ 0) [+2 ⁵ 7]	0 ¹ 8	40 ⁰ 5	39 ⁸ 7	39 ⁹ 6	19. 44. 39 ⁹ 1	- 1 ⁹ 6		
	36	λ Ursæ Min. (E&E)	E	..	..	..	..	42 ⁰	15 ⁰	39 ⁵	19. 48. 59 ² 3	0 ³ 2	40 ¹ 8	39 ⁸ 6	[-0 ² 8]	..	..	..		
	37	Piazzi VIII. 137 S.P.	E	..	..	24 ³	31 ⁵	45 ⁸	0 ¹	7 ²	..	45 ⁹ 8	..	..	8. 37. 25 ⁷ 0	- 2 ⁹ 0				
	38	6 Ursæ Maj. S.P.	E	..	..	50 ⁷	57 ⁰	10 ⁴	23 ⁴	30 ⁰	..	10 ⁵ 2	..	..	8. 45. 50 ² 4	- 2 ⁶ 9				
	39	Bradley 2749	E	..	..	..	2 ¹	34 ⁶	6 ⁶	..	..	34 ⁷ 0	..	..	20. 53. 14 ⁴ 2	+ 0 ³ 7				
	40	Piazzi XX. 465	E	12 ⁵	16 ⁴ 20 ⁰	..	31 ²	..	42 ⁰	45 ⁵	20. 58. 30 ⁹ 7	31 ² 1	..	..	20. 59. 10 ⁹ 3	- 2 ¹ 1				
	41	ζ Cygni	E	40 ⁸	44 ⁰ 47 ⁰	50 ³	56 ⁵	3 ⁰	6 ⁰	9 ⁴	21. 6. 56 ⁵ 9	56 ⁸ 2	36 ⁴ 7	39 ⁶ 5	21. 7. 36 ⁵ 3	- 2 ⁰ 5				
	42	35 Vulpeculæ	E	..	..	..	29 ²	35 ⁴	38 ⁶	41 ⁶	21. 21. 29 ¹ 8	29 ⁴ 2	..	..	21. 22. 9 ¹ 3	- 2 ¹ 8				
	43	β ² Cephei	E	..	..	58 ⁸	6 ⁷	23 ¹	39 ³	47 ⁶	..	23 ³ 1	..	..	21. 27. 3 ⁰ 2	- 1 ⁴ 0				
	44	ε Pegasi	E	8 ⁴	11 ⁴ 14 ⁰	16 ⁸	22 ³	28 ¹	31 ⁰	33 ⁵	21. 37. 22 ⁴ 2	22 ⁶ 6	2 ³ 4	39 ⁶ 8	21. 38. 2 ³ 7	- 2 ⁵ 0				
	45	9 Pegasi	E	..	..	..	55 ³	0 ⁹	3 ⁸	6 ⁶	21. 37. 55 ¹ 3	55 ³ 7	..	..	21. 38. 35 ⁰ 8	- 2 ³ 9				
	46	α Aquarii	E	27 ⁷	30 ⁴ 33 ²	35 ⁸	41 ⁵	47 ⁰	49 ⁷	52 ⁴	21. 58. 41 ⁴ 3	41 ⁶ 6	21 ³ 7	39 ⁷ 1	21. 59. 21 ³ 6	- 2 ⁷ 4				

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32^f. 400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 5, 6, 30, and 36, -45^m 70^s: -45^m 60^s: -45^m 60^s: and -46^m 30^s.

† This clock-error has been used in the reduction of the observations made with the Altazimuth.

October 5. The azimuthal error by Polaris S.P. and Polaris, allowing -0^m. 14 for clock-rate and change of R.A.

October 7. The azimuthal error by tabular places of α Aquilæ and λ Ursæ Minoris.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at ^{oh} Sidereal and [Loss Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Oct. 7	1	3 Draconis S.P...	E	..	..	24.1	31.6	46.0	0.4	7.6	..	..	23. 34. 45.98	+0.28	46.15			39.96	11. 35. 25.84	- 0.40
	2	ϕ Pegasi	E	13.3	16.2	19.2	21.9	27.8	33.7	36.6	39.5	42.5	23. 45. 27.83	(+2.00)	28.07			[-0.28]	23. 46. 7.75	- 2.89
	3	Piazzi XXIII. 229	E	6.3	9.3	12.5	15.5	21.6	27.6	30.7	33.7	36.9	23. 48. 21.54	[+2.57]	21.77				23. 49. 1.45	- 2.88
	4	ω Piscium.....	E	59.6	2.6	5.3	8.0	13.6	19.4	21.9	24.7	27.6	23. 52. 13.62		13.86	53.48	39.62		23. 52. 53.54	- 3.01
Oct. 8	5	$\odot$ 1 L.....	C	21.6	24.6	27.4	30.2	35.6	41.3	44.0	46.7	49.6	12. 53. 35.65	[+3.11]	40.61			39.41	12. 55. 19.86	
	6	$\odot$ 2 L.....	C	31.1	33.8	36.6	39.6	45.0	50.6	53.4	56.3	59.2	12. 55. 45.05					[-0.30]		
	7	λ Ursæ Min. (E&E)	C	..	..	..	..	..	44.0	15.5	41.0	..	19. 48. 59.87			59.79	38.91	39.12	..	
	8	θ Aquilæ	C	57.2	59.9	2.6	5.4	11.0	16.4	19.3	22.0	24.7	20. 4. 10.93			11.19	50.33	39.14	..	
	9	Groombridge 3140	C	45.6	49.4	52.6	56.4	3.4	10.5	14.3	17.6	21.2	20. 15. 3.42		3.67				20. 15. 42.83	- 1.53
	10	Piazzi XX. 146 ..	C	15.8	19.0	21.8	24.9	30.8	36.9	39.8	42.8	45.8	20. 21. 30.83		31.11				20. 22. 10.27	- 2.71
	11	γ Delphini	C	8.0	10.8	13.6	16.4	22.2	27.8	30.6	33.5	36.4	20. 27. 22.13		22.39				20. 28. 1.54	- 2.08
	12	Saturn 1 L.....	C	24.6	27.6	30.4	33.3	39.1	45.1	48.0	50.9	53.9	20. 40. 39.19		40.14					
	13	Saturn 2 L.....	C	25.9	28.9	31.8	34.6	40.5	46.5	49.4	52.2	55.1	20. 40. 40.53						20. 41. 19.29	
	14	1 Pegasi	C	23.8	26.7	29.6	32.6	38.5	44.3	47.1	50.1	53.0	21. 15. 38.39			38.65			21. 16. 17.80	- 2.24
	15	16 Pegasi	C	27.5	30.5	33.5	36.6	42.6	48.8	51.9	55.0	58.0	21. 46. 42.68			42.93	22.09	39.16	..	
	16	Groombridge 3621	C	28.5	34.3	39.6	45.5	57.0	..	..	..	..	21. 50. 56.85		57.09				21. 51. 36.23	- 1.90
	17	23 Pegasi	C	59.6	2.7	5.7	9.0	15.1	21.6	24.6	27.7	30.9	21. 59. 15.18		15.43				21. 59. 54.57	- 2.35
	18	1 Lacertæ	C	34.6	38.0	41.4	44.8	51.6	58.7	2.3	5.6	9.2	22. 9. 51.77		52.01				22. 10. 31.14	- 2.31
	19	45 Aquarii	C	..	27.4	30.0	33.0	38.5	44.3	47.2	49.9	..	22. 11. 38.59		38.86				22. 12. 17.99	- 3.01
	20	50 Aquarii	C	51.4	54.3	57.0	59.8	5.6	11.3	14.1	16.9	19.7	22. 17. 5.55		5.82				22. 17. 44.95	- 3.04
	21	γ Pegasi	C	54.1	57.1	59.9	2.8	..	..	17.1	19.9	23.1	0. 6. 8.50		8.76	47.89	39.13	39.11	..	
Oct. 9	22	α Lyrae	EG	44.5	48.0	51.6	55.3	2.1	9.2	12.7	16.2	19.8	18. 32. 2.13	[+3.86]	2.39	41.23	38.84	39.17	18. 32. 41.30	- 0.91
	23	ϵ Aquilæ	EG	2.4	5.3	8.0	10.7	16.6	22.3	25.3	28.1	31.1	18. 53. 16.62		16.91	55.68	38.77	[-0.34]	18. 53. 55.81	- 1.51
	24	θ Lyrae	EG	4.3	7.7	11.3	14.8	21.6	28.6	32.2	35.6	39.3	19. 11. 21.68		21.95				19. 12. 0.85	- 1.12
	25	λ Ursæ Min. (E&E)	EG	..	..	22.0	51.5	..	44.0	15.0	..	..	19. 48. 59.57		57.87	37.67	39.80		..	
	26	θ Aquilæ	EG	57.4	0.1	2.7	5.6	11.1	16.6	19.5	22.2	25.0	20. 4. 11.12		11.42	50.31	38.89		20. 4. 50.31	- 2.17
	27	Saturn 1 L.....	EG	23.4	26.6	29.3	32.2	38.3	43.9	47.0	50.0	53.0	20. 40. 38.17		39.12				20. 41. 18.00	
	28	Saturn 2 L.....	EG	24.6	27.6	30.6	33.5	39.5	45.4	48.3	51.2	54.2	20. 40. 39.41							
	29	θ Aquarii	EG	20.7	23.6	26.4	29.3	34.6	40.4	43.0	45.7	48.8	22. 9. 34.70			35.01	13.86	38.85	22. 10. 13.87	- 2.89
	30	ϵ Piscium	EG	34.3	37.2	39.8	42.6	48.2	53.8	56.5	59.3	2.2	0. 55. 43.19			48.49	27.39	38.90	0. 56. 27.31	- 3.09
	31	Polaris (E&E)	EG	48.0	46.0	43.0	39.0	..	..	..	..	..	1. 12. 43.81		42.52	20.71	38.19		..	
	32	β Arietis	EG	50.1	53.2	56.0	59.0	4.8	10.7	13.6	16.5	19.6	1. 47. 4.81		5.09	44.02	38.93		1. 47. 43.90	- 3.14
	33	Neptune	EG	25.0	27.6	30.7	33.4	39.0	44.5	47.4	50.2	53.2	1. 52. 38.99		39.28				1. 53. 18.08	
Oct. 10	34	$\odot$ 1 L.....	L	..	46.3	49.0	51.8	57.5	3.0	5.7	8.5	..	13. 0. 57.37	(+1.18)	2.40			38.56	13. 2. 40.76	
	35	$\odot$ 2 L.....	L	53.0	55.7	58.6	1.2	7.0	12.5	15.4	18.2	20.9	13. 3. 6.92	[+3.31]				[-0.37]		
	36	α Ophiuchi	L	13.5	16.4	19.3	22.2	27.6	33.5	36.3	39.0	41.8	17. 28. 27.72			27.94	6.25	38.31	17. 29. 6.23	- 1.14
	37	ρ Capricorni	L	49.7	52.8	55.5	58.4	4.5	10.3	13.2	16.0	19.0	20. 21. 4.36			4.63	42.84	38.21	20. 21. 42.88	- 2.58
	38	α Delphini	L	56.4	59.3	2.0	5.0	10.7	16.5	19.3	22.2	25.0	20. 33. 10.70		10.92	49.16	38.24		20. 33. 49.17	- 2.04
	39	Saturn 1 L.....	L	23.2	26.3	29.1	32.0	38.0	43.8	46.6	49.5	52.6	20. 40. 37.88		38.82				20. 41. 17.06	
	40	Saturn 2 L.....	L	24.6	27.6	30.4	33.4	39.2	45.2	47.8	51.0	54.0	20. 40. 39.22							
	41	Piazzi XX. 401 ..	L	34.6	38.4	42.2	45.9	53.6	1.2	5.2	9.0	12.8	20. 50. 53.63			53.81			20. 51. 32.05	- 1.63
	42	α Pegasi	L	39.1	42.0	44.8	47.6	53.5	59.3	1.9	4.9	7.7	22. 57. 53.40			53.63	31.84	38.21	22. 58. 31.84	- 2.75
	43	γ Aquarii	L	29.7	32.5	35.3	38.0	43.6	49.4	52.1	54.7	57.7	23. 9. 43.65		43.90				23. 10. 22.10	- 3.07
	44	ϵ Andromedæ ...	L	2.9	6.0	9.3	12.4	18.6	25.0	28.1	31.3	34.5	0. 31. 18.64		18.84	57.05	38.21	38.19	0. 31. 57.02	- 3.02
	45	Polaris (E&E)	L	49.5	50.5	43.5	41.0	34.5	25.5	..	..	..	1. 12. 44.89		42.68	20.85	38.17		..	
	46	96 Piscium	L	39.4	42.2	45.0	47.6	53.3	58.8	1.7	4.4	7.2	1. 21. 53.27		53.51				1. 22. 31.68	- 3.12

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, $32^{\circ}.400$.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 7, 25, 31, and 45, $-46^{\circ}.80$: $-47^{\circ}.40$: $-47^{\circ}.40$: and $-48^{\circ}.30$.

October 8. The azimuthal error by tabular places of λ Ursæ Minoris and θ Aquilæ.

October 9. The azimuthal error used is the mean of those ($+3''.44$ and $+4''.27$) determined by tabular places of λ Ursæ Minoris and θ Aquilæ, and of ϵ Piscium and Polaris.

October 10. The azimuthal error by tabular places of Polaris and β Arietis, allowing $-0''.01$ for clock-rate.

21. Very cloudy.

39, 40. Faint.

1876
G.O.M.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.		Collimation.						
														(Level).						
s	s	s	s	s	s	s	s	s	h	m	s	"	s	s	s	s	h	m	s	s
Oct. 10	1	Parthenope	L	56.4	59.2	1.8	4.7	10.2	15.7	18.5	21.3	24.0	1. 33. 10.18	+0.28	10.42			38.19	1. 33. 48.59	
	2	β Arietis	L	51.0	54.0	56.8	59.7	5.6	11.5	14.6	17.5	20.5	1. 47. 5.67	(+1.18)	5.88	44.03	38.15	[−0.37]	1. 47. 44.04	− 3.15
	3	Neptune	L	19.6	22.4	25.2	27.9	33.6	39.0	41.8	44.8	47.6	1. 52. 33.53	[+3.31]	33.76				1. 53. 11.92	
Oct. 12	4	α Lyrae	E	..	48.8	52.4	55.6	2.8	9.9	13.5	17.1	..	18. 32. 2.84	+0.64	3.07	41.15	38.08	38.29	18. 32. 41.14	− 0.83
	5	β Lyrae	E	..	35.4	38.4	41.7	48.4	55.2	58.4	1.7	..	18. 44. 48.43	(+1.01)	48.69	26.70	38.01	[−0.29]	18. 45. 26.75	− 1.04
	6	α Aquilæ	E	47.6	50.4	53.3	56.0	1.6	7.3	10.2	12.9	15.7	19. 44. 1.65	[+5.13]	1.97	39.97	38.00		19. 44. 40.02	− 1.88
	7	λ Ursæ Min. (E&E)	E	..	..	..	..	..	49.0	19.0	..	..	19. 49. 1.85		55.86	33.90	38.04		..	
	8	35 Cygni	E	55.4	58.7	2.0	5.4	12.3	19.0	22.3	25.5	29.0	20. 13. 12.15		12.40				20. 13. 50.45	− 1.53
	9	η Delphini	E	9.2	12.0	14.7	17.5	23.3	28.9	31.6	34.5	37.4	20. 27. 23.22		23.53				20. 28. 1.57	− 2.02
	10	δ Delphini	E	43.9	46.9	49.6	52.7	58.3	4.0	6.8	9.7	12.6	20. 36. 58.26		58.57				20. 37. 36.61	− 2.03
	11	Saturn 1 L.	E	23.0	26.1	..	..	37.8	43.7	46.5	49.5	52.4	20. 40. 37.74		38.79				20. 41. 16.83	
	12	Saturn 2 L.	E	24.4	27.5	..	33.2	39.1	44.9	47.8	50.7	53.8	20. 40. 39.04							
	13	31 Vulpeculæ	E	..	55.3	58.4	1.5	7.7	13.8	17.0	20.1	..	20. 46. 7.66			7.94				20. 46. 45.98
	14	Piazzi XX. 452	E	..	..	..	..	..	1.6	5.2	8.7	12.3	20. 56. 54.46		54.69				20. 57. 32.73	− 1.73
	15	ζ Cygni	E	42.1	45.4	48.5	51.6	58.1	4.6	7.6	10.9	14.1	21. 6. 58.07		58.34	36.38	38.04		21. 7. 36.38	− 1.96
	16	τ Cygni	E	51.8	55.4	58.8	2.3	9.3	16.4	19.8	23.2	26.7	21. 9. 9.27		9.50				21. 9. 47.54	− 1.85
	17	Polaris (E&E)	E	..	..	..	46.0	37.0	31.0	..	22.5	..	1. 12. 47.74		43.10	21.19	38.09	38.00	..	
	18	ο Piscium	E	55.2	58.1	0.9	3.6	9.2	14.9	17.6	20.4	23.3	1. 38. 9.22		9.54	47.60	38.06		1. 38. 47.52	− 3.14
Oct. 13	19	μ Pegasi	C	4.9	8.0	11.0	14.0	20.0	26.2	29.3	32.2	35.3	22. 43. 20.07	[+7.17]	20.43	57.94	37.51		..	
	20	λ Aquarii	C	13.5	16.4	19.0	21.8	27.4	33.0	35.7	38.5	41.5	22. 45. 27.40		27.88	5.30	37.42		..	
	21	ε Piscium	C	..	..	41.2	43.8	49.5	55.0	57.8	0.3	3.4	0. 55. 49.40		49.82	27.41	37.59		..	
	22	Polaris (E&E)	C	58.0	..	..	..	..	..	..	..	..	1. 12. 51.88		43.78	21.36	37.58		..	
Oct. 18	23	λ Ursæ Min. (E&E)	S	..	..	..	48.0	..	..	43.0	..	19. 48. 55.71	[+5.59]	48.73	25.36	36.63	36.78	..	..	
	24	Α Sagittarii	S	26.5	29.4	32.6	35.6	41.8	48.0	51.0	54.1	57.2	19. 50. 41.77		42.24			[−0.18]	19. 51. 18.87	− 2.44
	25	Δ L.	S	15.3	18.5	21.6	24.5	31.2	37.6	40.6	44.0	47.1	20. 1. 31.13		31.60				20. 3. 20.08	
	26	β Capricorni	S	6.7	9.7	12.5	15.4	21.3	26.7	29.6	32.4	35.3	20. 13. 21.07		21.49	58.12	36.63		..	
	27	ρ Capricorni	S	51.0	54.0	56.9	59.8	5.6	11.5	14.4	17.3	20.3	20. 21. 5.62		6.06	42.69	36.63		..	
	28	ζ Cygni	C	43.4	46.9	49.9	53.1	59.4	5.7	9.0	12.3	15.4	21. 6. 59.42		59.70	36.28	36.58	36.72†	..	
	29	α Equulei	C	43.0	45.6	48.6	51.3	56.9	2.5	5.3	8.0	10.6	21. 8. 56.84		57.20	33.74	36.54	[−0.18]	..	
Oct. 19	30	ρ Boötis	AD	31.4	34.9	38.0	41.3	47.7	54.1	57.4	0.6	3.9	14. 25. 47.67	+0.49	47.92	24.40	36.48	36.51	14. 26. 24.35	− 0.43
	31	ε ² Boötis	AD	37.2	40.4	43.4	46.7	52.7	59.0	2.2	5.3	8.5	14. 38. 52.78	(+1.32)	53.03	29.52	36.49	[−0.14]	14. 39. 29.45	− 0.47
	32	Mercury 1 L.	AD	34.3	37.3	40.3	43.2	49.1	54.9	58.0	0.9	4.0	15. 4. 49.09	[+4.01]	49.43				15. 5. 26.07	
	33	ζ Ophiuchi	AD	23.7	26.4	29.1	31.9	37.5	43.1	46.0	48.8	51.7	16. 29. 37.56		37.87	14.33	36.46		16. 30. 14.28	− 1.04
	34	Venus 1 L.	AD	43.3	46.5	49.7	52.7	59.0	5.2	8.2	11.3	14.5	16. 32. 58.90		59.25				16. 33. 36.92	
	35	γ Aquilæ	E	26.8	29.8	32.6	35.4	40.9	46.5	49.2	52.1	54.9	19. 39. 40.90		41.18	17.80	36.62	36.76†	..	
	36	α Aquilæ	E	48.8	51.8	54.4	57.3	3.0	8.5	11.3	14.1	17.0	19. 44. 2.89		3.17	39.85	36.68		..	
	37	λ Ursæ Min. (E&E)	AD	..	..	..	..	42.0	12.0	41.0	10.0	19. 48. 51.59		48.39	24.88	36.49	36.51	19. 49. 24.78	+ 53.34	
	38	α ² Capricorni	AD	15.2	18.0	20.7	23.6	29.2	34.8	37.7	40.5	43.4	20. 10. 29.21		29.53	5.97	36.44		20. 11. 5.92	− 2.27
	39	Piazzi XX. 170	AD	32.5	35.9	38.8	41.8	48.0	54.0	57.2	0.1	3.2	20. 24. 47.91		48.26				20. 25. 24.65	− 2.60
	40	Piazzi XX. 298	AD	11.2	14.3	17.3	20.3	26.3	32.3	35.3	38.3	41.3	20. 40. 26.28		26.63				20. 41. 3.02	− 2.66
	41	μ Aquarii	AD	3.0	6.0	8.8	11.5	17.1	22.8	25.4	28.1	31.1	20. 45. 17.07		17.38	53.73	36.35		20. 45. 53.77	− 2.39
	42	λ Ursæ Maj. S.P.	AD	39.0	43.4	47.3	51.7	59.8	8.4	12.7	16.7	20.9	20. 50. 0.01		0.34				8. 50. 36.73	− 2.56
	43	Δ L.	AD	25.8	28.9	31.9	35.1	41.1	47.2	50.3	53.6	56.8	20. 59. 41.16		41.51				21. 1. 28.86	
	44	ζ Cygni	AD	43.8	47.1	50.0	53.3	59.6	6.0	9.3	12.3	15.7	21. 6. 59.64		59.88	36.26	36.38		21. 7. 36.27	− 1.84
	45	σ Cygni	AD	35.3	39.2	42.5	46.1	53.2	0.2	3.9	7.3	11.0	21. 11. 53.16		53.88				21. 12. 29.77	− 1.69

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 7, 17, 22, 23, and 37, -49".10: -49".30: -50".00: -52".50: and -53".20.

Corrections for passage of Semidiameter, Nos. 25, 32, 34, and 43, +71".83: +0".22: +1".26: and +70".95.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

October 12. The azimuthal error used is the mean of those (+5".11 and +5".14) determined by tabular places of α Aquilæ and λ Ursæ Minoris, and of Polaris and ο Piscium, allowing -0".01 for clock-rate in the latter case.

October 13. The azimuthal error by tabular places of ε Piscium and Polaris.

October 18. The azimuthal error by tabular places of λ Ursæ Minoris and β Capricorni.

October 19 and 20. The azimuthal error by consecutive transits of Polaris, Polaris S.P., and Polaris.

25. Correction to R.A. on true meridian, +0".02.

26, 27. Faint.

43. Correction to R.A. on true meridian, +0".01.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at oh Sideral and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1894, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Oct. 19	1	33 Capricorni ...	AD	11.9	15.0	17.8	20.8	26.7	32.6	35.6	38.7	41.8	21. 16. 26.74	+0.49	27.07			36.51	21. 17. 3.46	- 2.81
	2	2 Pegasi	AD	24.8	28.0	30.9	33.9	39.9	45.9	48.8	51.8	55.0	21. 23. 39.85	(+1.32)	40.11			[-0.14]	21. 24. 16.50	- 2.06
	3	ε Capricorni	AD	12.8	15.8	18.7	21.6	27.5	33.3	36.3	39.2	42.2	21. 29. 27.47	[+4.01]	27.80				21. 30. 4.19	- 2.84
	4	α Cassiopeiae ...	AD	24.2	29.6	34.1	39.3	49.0	58.8	3.8	8.7	13.4	0. 32. 48.95		49.13			36.37	0. 33. 25.50	- 3.43
	5	μ Andromedæ ...	AD	55.0	58.7	2.0	5.7	12.5	19.5	23.1	26.5	30.0	0. 49. 12.53		12.76	49.03	36.27		0. 49. 49.13	- 3.20
	6	μ Cassiopeiae ...	AD	57.6	2.6	7.2	12.1	21.3	30.9	35.8	40.2	45.1	0. 59. 21.38		21.57				0. 59. 57.93	- 3.90
	7	Polaris (E&E)	AD						42.0	35.0	31.0	28.0	1. 12. 47.31		44.83	21.52	36.69		1. 13. 21.19	-43.25
	8	Parthenope	AD	52.3	55.3	58.0	0.7	6.0	11.8	14.7	17.2	19.8	1. 25. 6.18		6.48				1. 25. 42.84	
	9	ν Piscium	AD	5.2	8.1	10.7	13.5	19.1	24.8	27.4	30.2	33.1	1. 34. 19.10		19.38	55.66	36.28		1. 34. 55.76	- 3.19
	10	Neptune	AD	24.8	27.7	30.6	33.1	38.6	44.2	47.3	49.9	53.0	1. 51. 38.78		39.06				1. 52. 15.42	
	11	Polaris S.P. (E&E)	C	53.0	50.0	45.0	43.0	35.0					13. 12. 44.01	(+1.85)	45.87	21.44	35.57	36.43	1. 13. 22.21	-43.17
Oct. 20	12	⊙ 1 L.	C	59.7	2.7	5.5	8.4	14.0	19.5	22.3	25.3	28.1	13. 38. 13.93						13. 39. 56.29	
	13	⊙ 2 L.	C	11.2	14.1	16.8	19.7	25.4	30.9	33.9	36.6	39.5	13. 40. 25.32							
	14	Venus 1 L.	C	8.5	11.6	14.8	17.7	24.2	30.3	33.4	36.6	39.6	16. 36. 24.05		24.41				16. 37. 2.01	
	15	72 Ophiuchi.	C	33.2	36.0	38.7	41.6	47.2					18. 0. 47.02		47.32	23.71	36.39		18. 1. 23.62	- 1.17
	16	ζ Aquilæ	L	47.8	50.8	53.6	56.5	2.2	7.9	10.7	13.6	16.4	18. 59. 2.15		2.45	38.44	35.99	36.15†	....	
	17	ω Aquilæ	L	5.3	8.1	10.9	13.5	19.3	24.9	27.6	30.5	33.4	19. 11. 19.25		19.55	55.57	36.02		....	
	18	Saturn 1 L.	C	39.5	42.5	45.5	48.3	54.2	0.0	3.0	6.0	8.9	20. 40. 54.19					36.43	20. 41. 31.48	
	19	Saturn 2 L.	C	40.7	43.7	46.8	49.6	55.6	1.3	4.4	7.4	10.4	20. 40. 55.52		55.20					
	20	θ Capricorni	C	3.3	6.1	9.0	11.8	17.8	23.6	26.4	29.4	32.3	20. 58. 17.72		18.06	54.32	36.26		20. 58. 54.34	- 2.62
	21	33 Capricorni	C	12.0	15.1	18.0	21.0	26.8	32.7	35.7	38.7	41.6	21. 16. 26.82		27.16				21. 17. 3.44	- 2.79
	22	θ Ursæ Maj. S.P.	C			37.4	42.0	51.1	59.9	4.4			21. 23. 51.00		51.32				9. 24. 27.60	- 2.35
	23	ε Capricorni	C	12.7	15.9	18.7	21.6	27.6	33.4	36.5	39.4	42.3	21. 29. 27.54		27.88				21. 30. 4.16	- 2.82
	24	Bradley 2829.	C	35.1	38.0	41.0	43.7	49.6	55.2	58.2	1.0	3.9	21. 36. 49.50		49.84				21. 37. 26.12	- 2.79
	25	⊙ 1 L.	C	4.4	7.5	10.4	13.4	19.4	25.4	28.3	31.3	34.4	21. 56. 19.36		19.70				21. 58. 5.86	
	26	θ Aquarii	C	23.3	26.0	28.7	31.5	37.2	42.8	45.6	48.3	51.2	22. 9. 37.16		37.48	13.76	36.28		22. 10. 13.75	- 2.79
	27	56 Aquarii	C	44.3	47.0	49.8	52.7	58.4	4.2	7.0	9.7	12.7	22. 22. 58.40		58.73				22. 23. 35.06	- 2.97
	28	τ ² Aquarii	C		10.1	13.1	15.9	21.6	27.4	30.0	32.9		22. 42. 21.55		21.88				22. 42. 58.15	- 3.02
	29	Polaris (E&E)	C				48.5	42.0		34.0	29.0		1. 12. 48.21		46.92	21.38	34.46	36.26	1. 13. 23.17	-43.11
	30	θ Ceti	C	56.2	59.2	1.8	4.6	10.3	15.8	18.6	21.4	24.3	1. 17. 10.21		10.53	46.73	36.20		1. 17. 46.78	- 3.25
Oct. 21	31	ζ Aquilæ	AD	47.9	50.8		56.6	2.2	7.8		13.6	16.5	18. 59. 2.18	(+2.16)	2.51	38.42	35.91	36.17†	....	
	32	ω Aquilæ	AD	5.3	8.0	10.8	13.5	19.4	24.8	27.5	30.5	33.4	19. 11. 19.22	[+4.33]	19.55	55.55	36.00	[-0.26]	....	
	33	Saturn 1 L.	E	43.4	46.4	49.3	52.3	58.0	4.0	6.7	9.7	12.8	20. 40. 58.04					36.52	20. 41. 35.33	
	34	Saturn 2 L.	E	44.6	47.6	50.5	53.4	59.4	5.3	7.9	11.0	14.0	20. 40. 59.28		59.03			[-0.26]		
	35	32 Vulpeculæ ...	E	21.0	24.2	27.1	30.3	36.5	42.8	46.0	49.0	52.2	20. 48. 36.53		36.85	13.11	36.26		20. 49. 13.15	- 1.72
	36	θ Capricorni	E	3.1	6.0	8.9	11.8	17.5	23.4	26.4	29.3	32.2	20. 58. 17.60		17.96	54.29	36.33		20. 58. 54.25	- 2.59
	37	β Aquarii	E	7.4	10.3	13.2	15.7	21.3	26.8	29.6	32.4	35.3	21. 24. 21.32		21.67	57.95	36.28		21. 24. 57.96	- 2.52
	38	56 Aquarii	E	44.0	46.9	49.7	52.6	58.4	4.1	6.9	9.9	12.8	22. 22. 58.33		58.69				22. 23. 34.97	- 2.96
	39	τ ² Aquarii	E	7.1	10.0	12.7	15.7	21.3	27.1	29.9	32.7	35.6	22. 42. 21.33		21.69				22. 42. 57.97	- 3.01
	40	⊙ 1 L.	E	16.5	19.5	22.4	25.3	30.7	36.7	39.4	42.6	45.6	22. 51. 30.95		31.31				22. 53. 16.64	
	41	ϑ ¹ Aquarii	E	29.5	32.5	35.4	38.1	43.6	49.4	52.2	54.8	57.7	23. 8. 43.67		44.03				23. 9. 20.30	- 3.04
	42	γ Piscium	E	50.3	53.3	55.9	58.7	4.3	9.8	12.5	15.4	18.3	23. 10. 4.26		4.61	40.83	36.22		23. 10. 40.88	- 2.89
	43	Piazzi XXIII. 96	E				22.4	27.8	33.0		38.7	41.4	23. 22. 27.65		28.00				23. 23. 4.27	- 3.01
	44	Polaris (E&E)	E		57.0	50.5	47.0	41.0			28.0		1. 12. 46.08		44.93	21.21	36.28	36.26	....	
	45	ν Piscium	E	5.3	8.0	10.8	13.5	19.0	24.5	27.4	30.3	33.0	1. 34. 19.06		19.40	55.67	36.27		1. 34. 55.64	- 3.20
	46	ο Piscium	E	57.2	0.0	2.7	5.5	11.0	16.8	19.5	22.2	25.2	1. 38. 11.12		11.46	47.68	36.22		1. 38. 47.70	- 3.22

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, $32^{\circ}.400$.

Corrections to the times by Hardy for reduction to Sideral Standard, applied to form Concluded Transit, Nos. 7, 11, 29, and 44, $-53^{\circ}.30$: $-53^{\circ}.00$: $-53^{\circ}.70$: and $-54^{\circ}.40$.

Corrections for passage of Semidiameter, Nos. 14, 25, and 40, $+1^{\circ}.29$: $+69^{\circ}.88$: and $+69^{\circ}.05$.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

October 21. The azimuthal error by tabular places of Polaris and ν Piscium.

14, 18, 19. Very tremulous.
27, 29. Faint; cloudy.

25, 40. Correction to R.A. on true meridian, $+0^{\circ}.01$.
October 21. Images of stars were very tremulous all the evening.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Oct. 21	1	Neptune	E	12 ^o	14 ^m	17 ^s	20 ⁴	26 ^o	31 ^m	5 ^s	34 ⁴	37 ²	40 ⁰	1. 51. 25 ⁹⁷	+0 ⁴⁹	26 ³⁰		36 ²⁶	1. 52. 2 ⁵⁴	
	2	α Arietis	E	16 ^o	19 ^m	22 ^s	25 ⁰	31 ²	37 ⁰	40 ²	43 ²	46 ²	1. 59. 31 ⁰⁹	(+2 ¹⁶) [+4 ³³]	31 ⁴²	7 ⁷⁰	36 ²⁸	[−0 ²⁶]	2. 0. 7 ⁶⁶	− 3 ³²
Oct. 22	3	γ Aquilæ	L	27 ⁹	30 ⁸	33 ⁶	36 ³	41 ⁹	47 ⁶	50 ⁵	53 ⁴	56 ¹	19. 39. 41 ⁹⁹	[+2 ⁹¹]	42 ²⁶	17 ⁷⁶	35 ⁵⁰	35 ⁷⁸	19. 40. 17 ⁷⁹	− 1 ⁶⁴
	4	α Aquilæ	L	50 ⁰	52 ⁸	55 ⁵	58 ⁴	4 ⁰	9 ⁶	12 ⁴	15 ³	17 ⁹	19. 44. 3 ⁹⁷		4 ²⁴	39 ⁸¹	35 ⁵⁷	[−0 ³⁰]	19. 44. 39 ⁷⁷	− 1 ⁷²
	5	β Aquilæ	L	19 ⁵	22 ⁴	25 ⁰	27 ⁷	33 ³	38 ⁹	41 ⁷	44 ⁴	47 ³	19. 48. 33 ³⁴		33 ⁶¹	9 ¹⁶	35 ⁵⁵		19. 49. 9 ¹⁴	− 1 ⁷⁶
	6	λ Ursæ Min. (E&E)	L	..	..	..	..	..	..	..	..	..	19. 48. 42 ⁵⁵		44 ¹⁰	10 ⁷⁵	35 ⁶⁵		19. 49. 19 ⁶³	+5 ⁷⁴⁷
	7	α ² Capricorni	L	15 ⁷	18 ⁹	21 ⁵	24 ⁴	30 ³	35 ⁷	38 ⁶	41 ⁵	44 ⁴	20. 10. 30 ¹⁰		30 ³⁸	5 ⁹³	35 ⁵⁵		20. 11. 5 ⁹¹	− 2 ²³
	8	α Delphini	C	58 ⁵	1 ⁵	4 ⁴	7 ³	12 ⁸	18 ⁸	21 ⁶	24 ⁴	27 ³	20. 33. 12 ⁹⁴		13 ²¹	48 ⁹⁶	35 ⁷⁵	36 ⁰⁵†	....	
	9	Saturn 1 L	L	48 ¹	51 ²	54 ⁰	57 ⁰	2 ⁸	8 ⁵	11 ⁵	14 ⁴	17 ³	20. 41. 2 ⁷⁴				35 ⁷⁸			
	10	Saturn 2 L	L	49 ⁵	52 ⁴	55 ³	58 ²	4 ⁰	9 ⁸	12 ⁶	15 ⁷	18 ⁸	20. 41. 4 ⁰²		3 ⁶⁵				20. 41. 39 ¹⁷	
	11	ε Pegasi	C	12 ⁰	15 ⁰	17 ⁶	20 ⁵	26 ⁰	31 ⁷	34 ⁵	37 ³	40 ²	21. 37. 26 ⁰⁷		26 ³⁴	2 ¹⁶	35 ⁸²	36 ⁰⁵†	....	
	12	ψ ¹ Aquarii	L	30 ⁶	33 ⁶	36 ²	39 ²	44 ⁶	50 ³	53 ²	56 ⁰	58 ⁸	23. 8. 44 ⁷⁰		44 ⁹⁷			35 ⁷⁸	23. 9. 20 ⁴⁶	− 3 ⁰⁴
	13	κ Piscium	L	41 ⁷	44 ⁵	47 ³	49 ⁸	55 ⁵	0 ⁹	3 ⁸	6 ⁶	9 ⁴	23. 19. 55 ⁴⁸		55 ⁷⁵	31 ²⁷	35 ⁵²		23. 20. 31 ²⁴	− 2 ⁹²
	14	Piazzi XXIII. 96.	L	14 ⁶	17 ⁵	20 ²	23 ⁰	28 ⁴	34 ⁰	36 ⁸	39 ⁶	42 ³	23. 22. 28 ⁴⁷		28 ⁷⁴				23. 23. 4 ²³	− 3 ⁰⁰
	15	ι Piscium	L	41 ³	44 ⁴	47 ⁰	49 ⁶	55 ⁴	0 ⁷	3 ⁶	6 ⁴	9 ³	23. 32. 55 ²⁸		55 ⁵⁵	31 ⁰⁹	35 ⁵⁴		23. 33. 31 ⁰⁴	− 2 ⁹³
	16	δ ¹ L	L	45 ¹	48 ⁰	51 ⁰	53 ⁸	59 ⁶	5 ²	8 ⁰	11 ⁰	13 ⁷	23. 45. 59 ⁴⁶		59 ⁷³				23. 47. 44 ⁰⁶	
	17	29 Piscium	L	..	..	..	..	41 ⁰	43 ⁷	49 ⁵	54 ⁹	57 ⁶	0 ³	3 ³	23. 54. 49 ³²		49 ⁵⁹		23. 55. 25 ⁰⁷	− 3 ⁰⁸
	18	44 Piscium	L	10 ³	13 ¹	15 ⁸	18 ⁴	24 ⁰	29 ⁶	32 ⁴	35 ²	37 ⁹	0. 18. 24 ⁰⁶		24 ³³			35 ⁴⁸	0. 18. 59 ⁸¹	− 3 ⁰⁹
	19	Polaris (E&E)	L	..	..	..	..	39 ⁰	33 ⁵	29 ⁰	26 ⁵	25 ⁰	1. 12. 43 ⁷³		44 ⁹⁹	21 ⁰⁷	36 ⁰⁸		1. 13. 20 ⁴⁵	− 42 ⁸⁰
	20	ν Piscium	L	6 ²	9 ¹	11 ⁷	14 ⁴	20 ⁰	25 ⁶	28 ⁵	31 ²	33 ⁹	1. 34. 20 ⁰⁵		20 ³²	55 ⁶⁷	35 ³⁵		1. 34. 55 ⁷⁸	− 3 ²⁰
	21	τ Ceti	L	26 ⁰	29 ⁰	31 ⁸	34 ⁷	40 ⁴	46 ²	49 ²	52 ⁰	55 ⁰	1. 37. 40 ⁴⁶		40 ⁷⁴				1. 38. 16 ²⁰	− 3 ²⁴
	22	Neptune	L	6 ⁵	9 ⁶	12 ²	15 ⁰	20 ⁵	26 ³	29 ⁰	31 ⁸	34 ⁵	1. 51. 20 ⁵⁸		20 ⁸⁵				1. 51. 56 ³¹	
	23	α Arietis	L	17 ⁰	20 ⁰	23 ⁰	26 ⁰	32 ⁰	38 ⁰	41 ⁰	44 ⁰	47 ¹	1. 51. 31 ⁹⁹		32 ²⁷	7 ⁷¹	35 ⁴⁴		2. 0. 7 ⁷³	− 3 ³³
	24	27 Arietis	L	8 ¹	11 ³	14 ⁰	17 ⁰	22 ⁸	28 ⁵	31 ⁵	34 ⁴	37 ³	2. 23. 22 ⁷⁵		23 ⁰³				2. 23. 58 ⁴⁸	− 3 ³¹
	25	δ Arietis	L	38 ⁵	41 ⁵	44 ⁴	47 ⁴	53 ³	59 ²	2 ⁰	5 ⁰	7 ⁸	3. 3. 53 ²²		53 ⁴⁹	28 ⁹⁴	35 ⁴⁵		3. 4. 28 ⁹³	− 3 ³⁵
	26	Pallas	L	31 ⁸	35 ⁰	38 ⁰	40 ⁸	46 ⁹	53 ⁰	55 ⁸	58 ⁷	1 ⁸	3. 8. 46 ⁸⁴		47 ¹²				3. 9. 22 ⁵⁶	
	27	Polaris S.P. (E&E)	AD	57 ⁰	56 ⁰	51 ⁵	..	..	..	..	..	..	13. 12. 47 ³⁶	(+2 ⁹⁶)	45 ⁰⁶	21 ⁰²	35 ⁹⁶	35 ⁶¹ [−0 ¹⁹]	1. 13. 20 ⁵⁷	− 42 ⁷⁵
Oct. 23	28	γ Aquilæ	AD	27 ⁹	30 ⁸	33 ⁵	36 ⁴	41 ⁸	47 ⁶	50 ⁴	53 ³	56 ⁰	19. 39. 41 ⁹⁵		42 ²⁶	17 ⁷⁴	35 ⁴⁸		....	
	29	α Aquilæ	AD	50 ¹	53 ⁰	55 ⁶	58 ⁴	4 ⁰	9 ⁶	12 ⁴	15 ³	18 ¹	19. 44. 4 ⁰⁴		4 ³⁵	39 ⁷⁹	35 ⁴⁴		....	
	30	14 Vulpeculæ ...	AD	56 ⁸	59 ⁸	2 ⁸	5 ⁹	11 ⁸	17 ⁷	20 ⁷	23 ⁷	26 ⁷	19. 53. 11 ⁷⁵		12 ⁰⁸				19. 53. 47 ⁵³	− 1 ⁴³
	31	β ² Cygni	AD	..	..	..	..	3 ⁴	10 ³	17 ²	20 ⁶	23 ⁸	27 ⁵	20. 4. 10 ²³		10 ⁵⁷			20. 4. 46 ⁰²	− 0 ⁷⁰
	32	α ² Capricorni	E	15 ⁷	18 ⁶	21 ⁵	24 ³	30 ⁰	35 ⁶	38 ⁵	41 ⁴	44 ³	20. 10. 29 ⁹⁷		30 ²⁷	5 ⁹¹	35 ⁶⁴	35 ⁸⁰†	....	
	33	β Capricorni	E	7 ⁹	10 ⁸	13 ⁵	16 ⁵	22 ²	27 ⁷	30 ⁷	33 ⁵	36 ⁴	20. 13. 22 ¹²		22 ⁴¹	58 ⁰⁴	35 ⁶³		....	
	34	ε Delphini	AD	23 ⁶	26 ⁵	29 ⁴	32 ⁰	37 ⁸	43 ⁴	46 ¹	49 ⁰	51 ⁸	20. 26. 37 ⁷¹		38 ⁰²	13 ⁴¹	35 ³⁹	35 ⁶¹	....	
	35	Saturn 1 L	AD	..	..	58 ⁸	1 ⁶	7 ⁶	..	..	..	22 ⁰	20. 41. 7 ⁴⁸							
	36	Saturn 2 L	AD	..	..	59 ⁸	2 ⁷	8 ⁶	..	..	..	23 ²	20. 41. 8 ⁵⁶		8 ³¹				20. 41. 43 ⁷⁶	
	37	α Andromedæ ...	AD	4 ¹	7 ³	10 ³	13 ⁴	19 ⁷	26 ⁰	29 ²	32 ⁴	35 ⁶	0. 1. 19 ⁷⁴		20 ⁰⁸	55 ⁵²	35 ⁴⁴		....	
Oct. 24	38	β Aquilæ	L	19 ⁶	22 ⁶	25 ³	28 ⁰	33 ⁶	39 ³	42 ⁰	44 ⁷	47 ⁵	19. 48. 33 ⁶²	(+2 ⁵²)	33 ⁹⁸	9 ¹²	35 ¹⁴	35 ²⁴†	....	
	39	α Delphini	C	58 ⁸	1 ⁷	4 ⁵	7 ⁵	13 ²	18 ⁹	21 ⁷	24 ⁵	27 ⁴	20. 33. 13 ¹²	[+4 ⁴⁵]	13 ⁴⁷	48 ⁹³	35 ⁴⁶	35 ⁴⁸	20. 33. 48 ⁸⁶	− 1 ⁸¹
	40	Saturn 1 L	C	57 ⁶	0 ⁵	3 ⁵	6 ³	12 ³	18 ¹	21 ³	24 ¹	27 ⁰	20. 41. 12 ²⁸					[−0 ¹⁰]	20. 41. 48 ⁷⁰	
	41	Saturn 2 L	C	58 ⁷	2 ¹	4 ⁷	7 ⁷	13 ⁶	19 ⁴	22 ⁴	25 ³	28 ³	20. 41. 13 ⁵⁶		13 ³¹					
	42	β Aquarii	L	..	..	..	..	..	28 ⁰	30 ⁷	33 ⁵	36 ³	21. 24. 22 ³⁷		22 ⁷⁴	57 ⁹¹	35 ¹⁷	35 ²⁴†	....	
	43	ξ Aquarii	C	15 ⁴	18 ³	21 ⁰	23 ⁷	29 ⁴	35 ⁰	37 ⁷	40 ⁵	43 ³	21. 30. 29 ³⁴		29 ⁷²	5 ⁰⁷	35 ³⁵	35 ⁴⁸	21. 31. 5 ¹¹	− 2 ⁵⁵
	44	9 Pegasi	C	44 ⁶	47 ⁵	50 ⁴	53 ⁴	59 ²	4 ⁸	7 ⁷	10 ⁷	13 ⁶	21. 37. 59 ⁰⁸		59 ⁴⁴				21. 38. 34 ⁸³	− 2 ¹⁷
	45	20 Ceti	C	47 ⁸	50 ⁷	53 ⁴	56 ⁰	1 ⁵	7 ³	9 ⁸	12 ⁶	15 ⁵	0. 46. 1 ⁶¹		1 ⁹⁸	37 ²²	35 ²⁴	35 ³⁸	0. 46. 37 ³⁶	− 3 ¹⁸

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32⁴⁰⁰.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 6, 19, and 27, −54⁸⁰: −55⁰⁰: and −55⁵⁰.

Correction for passage of Semidiameter, No. 16, +68⁸⁴.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

October 22 and 23. The azimuthal error by Polaris and Polaris S.P., allowing −0⁰⁵ for clock-rate and change of R.A.

October 24. The azimuthal

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at oh Sidereal [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Oct. 24	1	ε Piscium	C	..	40.7	43.4	46.0	51.6	57.3	0.0	2.6	..	0.55.51.64	+0.49	52.00	27.45	35.45	35.38	0.56.27.38	- 3.15
	2	γ ¹ Piscium	C	22.4	25.4	28.1	30.8	36.4	42.0	44.7	47.4	50.2	1. 6.36.36	(+2.52)	36.72	12.12	35.40	[-0.10]	1. 7.12.10	- 3.18
	3	Polaris ....(E&E)	C	59.5	0.0	..	..	43.0	37.0	..	..	..	1.12.46.08	[+4.45]	45.54	20.93	35.39	....	....	
Oct. 27	4	Aldebaran	AD	55.4	58.3	1.1	3.9	9.6	15.6	18.4	21.2	24.0	4.28.9.70	+0.65	9.99	44.83	34.84	34.95	....	
	5	δ ² L.....	AD	35.4	38.5	41.6	44.7	51.3	57.5	0.6	3.8	7.3	4.47.51.16	(+0.69)	51.42	..	..	[-0.19]	4.47.9.67	
	6	Rigel	AD	..	45.5	48.3	51.1	56.6	2.2	..	7.7	10.6	5.7.56.61	[+4.97]	56.91	31.83	34.92	....	....	
	7	β Tauri	AD	32.3	35.5	38.6	41.6	48.0	54.3	57.4	0.4	3.7	5.17.47.94		48.19	23.15	34.96	....	....	
	8	Polaris S.P. (E&E)	C	..	..	..	48.0	42.0	33.0	..	..	..	13.12.41.47		47.11	20.89	33.78	34.98	....	
Oct. 28	9	⊙ 1 L.....	C	33.4	36.4	39.0	42.0	47.8	53.5	56.3	59.2	2.0	14.8.47.71	(+0.46)	54.63				14.10.29.48	
	10	⊙ 2 L.....	C	46.5	49.5	52.4	55.4	0.8	6.4	9.5	12.2	14.9	14.11.0.83							
	11	α Coronæ	C	31.0	34.2	37.3	40.2	46.7	52.7	55.8	58.9	2.0	15.28.46.30			46.73	21.63	34.90	15.29.21.57	- 0.44
	12	Venus 1 L.....	C	14.1	17.4	20.3	23.5	29.8	36.0	39.2	42.3	45.5	17.1.29.75		30.18				17.2.6.46	
	13	α Herculis	C	..	..	..	..	19.8	25.5	28.4	31.2	34.0	17.8.19.76		20.03	54.93	34.90		17.8.54.85	- 0.80
	14	α Ophiuchi	C	16.8	19.6	22.4	25.3	31.0	36.6	39.4	42.3	45.2	17.28.30.94		31.21	6.01	34.80		17.29.6.03	- 0.90
	15	ν Piscium	L	7.0	9.9	12.7	15.4	21.0	26.5	29.3	32.0	34.8	1.34.20.94		21.24	55.71	34.47	34.49†	....	
	16	ε Piscium	L	59.0	1.9	4.6	7.4	12.9	18.5	21.4	24.0	27.0	1.38.12.95		13.24	47.72	34.48	....	....	
	17	Piazzi I. 170	C	24.4	28.0	31.3	34.8	41.6	48.6	52.2	55.6	59.0	1.40.41.70		41.90			34.76	1.41.16.64	- 3.50
	18	β Arietis	C	..	57.6	0.5	3.4	9.3	15.3	18.2	21.1	..	1.47.9.31		9.57	44.20	34.63		1.47.44.31	- 3.32
	19	Neptune	C	..	32.0	34.8	37.5	43.2	48.8	51.5	54.3	..	1.50.43.14		43.42				1.51.18.16	
	20	Piazzi I. 243	C	..	..	..	..	22.3	25.3	..	..	..	1.56.16.51		16.77				1.56.51.51	- 3.34
	21	Piazzi V. 41	E	17.6	20.7	23.7	26.8	33.2	39.4	42.4	45.8	49.0	5.12.33.15		33.38			34.98	5.13.8.31	- 3.52
	22	β Tauri	E	32.4	35.7	38.7	41.6	47.9	54.3	57.5	0.4	4.0	5.17.48.02		48.25	23.18	34.93	[-0.22]	....	
	23	δ Orionis	E	48.0	51.0	53.6	56.4	1.6	7.4	10.1	12.9	15.8	5.25.1.85		2.17	37.12	34.95		....	
	24	ε Orionis	E	3.1	5.8	8.5	11.4	16.8	22.3	25.4	27.9	30.8	5.29.16.87		17.19	52.09	34.90		....	
	25	δ ² L.....	E	43.4	46.7	49.8	53.2	59.6	5.9	9.2	12.4	15.6	5.54.59.50		59.73				5.54.17.94	
	26	δ Ursæ Min. S.P. (E&E)	E	2.5	49.0	35.0	22.0	56.0	..	16.5	..	..	6.11.54.84		57.45	33.24	35.79		....	
Oct. 30	27	α Ceti		56.5	59.5	2.0	4.7	10.4	15.9	18.6	21.4	24.2	2.55.10.34	(+1.00)	10.67	44.96	34.29	34.30†	....	
Oct. 31	28	ε Tauri	E	..	..	..	..	44.3	50.0	53.2	56.0	59.0	4.20.44.29		44.58	19.08	34.50	34.55†	....	
	29	Aldebaran	E	55.7	58.6	1.3	4.2	10.2	15.7	18.6	21.6	24.6	4.28.10.04		10.34	44.92	34.58	[-0.08]	....	
Nov. 2	30	δ Ceti	E	..	..	..	..	35.7	38.6	..	44.2	2.32.30.25	+0.85	30.62	4.87	34.25		....		
	31	σ Arietis	E	46.8	49.8	52.6	55.4	1.0	7.0	9.7	12.6	15.5	2.44.1.14	(+2.04)	1.48	35.68	34.20		....	
	32	τ Arietis	AD	11.6	14.6	17.5	20.6	26.5	32.5	35.6	38.6	41.4	3.13.26.52	[+4.22]	26.86	0.84	33.98	34.03†	....	
	33	ε Tauri	AD	17.2	19.8	22.6	25.5	31.3	36.7	39.4	42.3	45.2	3.17.31.10		31.45	5.49	34.04	[-0.12]	....	
	34	Polaris S.P. (E&E)	L	4.5	3.0	5.7	0.55.0	48.0	..	37.5	33.0	32.0	13.12.44.23		45.05	19.46	34.41	33.76	....	
	35	Arcturus	L	6.6	9.7	12.7	15.5	21.4	27.3	30.2	33.0	36.2	14.9.21.38		21.72	55.49	33.77	[-0.10]	14.9.55.42	- 0.63
Nov. 3	36	⊙ 1 L.....	L	0.4	3.5	6.3	9.1	14.7	20.7	23.5	26.4	29.4	14.33.14.87		22.40				14.34.56.10	
	37	⊙ 2 L.....	L	14.7	17.6	20.6	23.5	29.3	35.2	37.6	40.6	43.5	14.35.29.15							
	38	α Coronæ	L	32.0	35.4	38.2	41.4	47.6	54.0	56.8	0.0	3.1	15.28.47.58			47.91	21.63	33.72	15.29.21.61	- 0.44
	39	Venus 1 L.....	L	35.9	39.2	42.3	45.3	51.6	57.9	1.0	4.1	7.4	17.16.51.61		52.01				17.17.27.30	
	40	α Ophiuchi	L	17.7	20.7	23.4	26.3	32.0	37.6	40.6	43.5	46.4	17.28.32.00		32.35	5.96	33.61		17.29.6.04	- 0.85
	41	λ Ursæ Min. (E&E)	L	..	..	..	..	..	..	..	3.0	28.5	59.0	19.48.29.24		28.93	3.25	34.32	....	
	42	Bradley 2615....	L	6.3	12.2	17.5	23.2	34.1	45.3	51.2	56.5	2.1	20.10.34.22		34.51				20.11.8.18	+ 0.26
	43	ρ Capricorni....	L	53.9	56.7	59.6	2.5	8.4	14.3	17.2	20.1	23.0	20.21.8.39		8.78	42.45	33.67		20.21.42.46	- 2.21

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32.400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 3, 8, 26, 34, and 41, -57.10: -60.00: -61.40: -64.80: and -65.10.

Corrections for passage of Semidiameter, Nos. 5, 12, 25, and 39, -76.67: +1.46: -76.73: and +1.60.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

October 27 to 31. The azimuthal error used is the mean of those (+4.34 and +6.24) determined by tabular places of Polaris S.P. and α Coronæ, allowing -0.01 for clock-rate, and of ε Orionis and δ Ursæ Minoris S.P., on October 27 and 28, giving double weight to the former.

November 2 to November 3, ε Canis Majoris. The azimuthal error by tabular places of Polaris S.P. and λ Ursæ Minoris, allowing -0.03 for clock-rate.

1. Faint; cloudy.

5, 8. Cloudy.

5, 25. Correction to R.A. on true meridian, +0.01.

27. Very faint; cloudy.

1876G0AMM.1.

1876G0AMM.1.

1876G0AMM.1.

1876G0AMM.1.

1876G0AMM.1.

1876G0AMM.1.

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1876G0AMM.1.

1876G0AMM.!

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE; AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at α Sidereal and [Leaving Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Nov. 7	1	☉ 1 L.....	L	55.2	58.1	0.8	3.8	9.6	15.4	18.4	21.1	24.0	14. 48. 9.58	+0.85	17.57			32.98	14. 49. 50.46	
	2	☉ 2 L.....	L	10.7	13.4	16.1	19.1	25.0	30.7	33.6	36.5	39.3	14. 50. 24.01	(+1.25)						
	3	α Delphini.....	L	1.2	4.3	6.9	9.7	15.5	21.2	24.2	27.3	30.0	20. 33. 15.57	[+3.63]	15.85	48.71	32.86	20. 33. 48.71	- 1.59	
	4	ϵ Aquarii.....	L	6.0	9.0	11.6	14.4	20.0	25.8	28.5	31.4	34.2	20. 40. 20.08		20.40	53.28	32.88	20. 40. 53.26	- 2.10	
	5	Saturn 1 L.....	L	51.3	54.3	57.1	59.9	6.0	11.6	14.7	17.5	20.5	20. 43. 5.86		6.88			20. 43. 39.74		
	6	Saturn 2 L.....	L	52.6	55.6	58.4	1.3	7.4	13.3	16.0	19.0	21.8	20. 43. 7.24							
	7	Bradley 2934....	L	30.7	39.4	48.2	56.6	14.2	31.6	40.4	48.8	57.4	22. 7. 14.08		14.25	1.30	32.84	22. 7. 47.11	- 0.39	
	8	σ Aquarii.....	L	14.2	17.0	19.6	22.5	28.2	33.7	36.6	39.4	42.3	22. 23. 28.14		28.46			22. 24. 1.31	- 2.68	
	9	η Aquarii.....	L	8.5	11.4	14.0	16.7	22.4	27.8	30.6	33.3	36.0	22. 28. 22.28		22.58	55.37	32.79	22. 28. 55.43	- 2.55	
	10	20 Ceti.....	L	50.2	53.2	55.8	58.6	4.0	9.8	12.5	15.3	17.9	0. 46. 4.13		4.43	37.20	32.77	0. 46. 37.27	- 3.16	
	11	Bradley 109.....	L	50.5	6.2	20.0	35.6	5.4	35.5	49.6	4.3	19.5	0. 58. 5.06		5.16	18.19	35.19	0. 58. 37.99	- 6.39	
	12	Polaris....(E&E)	L	..	..	..	..	50.0	48.0	49.0	40.0	..	1. 12. 43.97		43.00			1. 13. 15.83	- 39.92	
	13	ν Piscium.....	L	8.6	11.4	14.1	16.9	22.4	27.9	30.8	33.6	36.4	1. 34. 22.44		22.74	55.75	33.01	1. 34. 55.57	- 3.28	
	14	Neptune.....	L	29.0	31.4	34.2	37.0	42.5	48.3	51.0	53.8	56.7	1. 49. 42.64		42.92			1. 50. 15.75		
Nov. 9	15	Saturn 1 L.....	C	13.6	16.7	19.5	22.3	28.3	34.1	36.9	39.8	42.9	20. 43. 28.21	+0.46	29.24			32.89	20. 44. 2.06	
	16	Saturn 2 L.....	C	14.9	18.0	20.8	23.6	29.6	35.4	38.3	41.3	44.2	20. 43. 29.54	(+1.36)						
	17	θ Capricorni....	C	6.4	9.4	12.1	15.0	20.8	26.7	29.6	32.5	35.4	20. 58. 20.86	[+4.53]	21.21	54.03	32.82	20. 58. 54.03	- 2.33	
	18	γ Aquarii.....	C	..	..	30.0	32.6	38.2	43.7	46.5	49.3	52.0	22. 14. 38.18		38.50	11.29	32.79	22. 15. 11.32	- 2.47	
	19	50 Aquarii.....	C	57.3	0.2	3.0	5.7	11.5	17.2	20.0	22.9	25.6	22. 17. 11.47		11.82	5.04	32.76	22. 17. 44.64	- 2.68	
	20	10 Lacertæ.....	C	47.6	51.5	55.0	58.4	5.5	12.6	16.0	19.5	23.2	22. 33. 5.45		5.69			22. 33. 38.50	- 1.97	
	21	λ Aquarii.....	C	..	..	..	26.4	32.0	37.6	40.3	43.1	45.9	22. 45. 31.94		32.28	5.04	32.76	22. 46. 5.09	- 2.72	
	22	β Pegasi.....	C	53.6	57.0	0.0	3.2	9.4	15.5	18.6	21.8	25.0	22. 57. 9.31		9.57			22. 57. 42.38	- 2.34	
	23	χ Aquarii.....	C	34.6	37.6	40.4	43.2	48.6	54.3	57.0	59.8	2.6	23. 9. 48.67		49.01	5.01	32.85	23. 10. 21.82	- 2.84	
	24	75 Pegasi.....	C	50.3	53.3	55.9	59.0	4.6	10.5	13.5	16.4	19.2	23. 31. 4.72		5.01			23. 31. 37.82	- 2.66	
	25	ϕ Pegasi.....	C	19.8	22.9	25.7	28.6	34.5	40.1	43.1	46.0	49.0	23. 45. 34.39		34.67	53.36	32.85	23. 46. 7.48	- 2.74	
	26	ω Piscium.....	C	6.4	9.1	11.9	14.6	20.2	25.7	28.6	31.3	34.1	23. 52. 20.20		20.51			23. 52. 53.32	- 2.89	
	27	85 Pegasi.....	C	49.7	53.0	56.0	59.0	5.3	11.5	14.5	17.5	20.6	23. 55. 5.20		5.46	43.93	17.73	32.81	23. 55. 38.27	- 2.81
	28	86 Pegasi.....	C	..	32.4	35.2	38.0	43.6	49.4	52.1	55.0	..	23. 58. 43.64		43.93			23. 59. 16.74	- 2.86	
	29	Polaris....(E&E)	C	37.0	37.0	30.5	27.5	22.5	..	..	..	..	1. 12. 48.27		44.92	46.78	32.81	..		
	30	θ Ceti.....	C	59.6	2.5	5.4	8.0	13.6	19.4	22.0	24.8	27.5	1. 17. 13.63		13.97			1. 17. 46.78	- 3.30	
	31	σ Arietis.....	C	48.4	51.3	54.0	57.0	2.6	8.4	11.2	14.0	17.0	2. 44. 2.64		2.94	35.75	32.81	2. 44. 35.74	- 3.51	
	32	Diana.....	C	30.4	33.6	37.1	40.2	46.8	53.2	56.2	59.4	2.8	2. 45. 46.60		46.86	19.46	32.83	2. 46. 19.66		
	33	Hygeia.....	C	4.3	7.5	10.2	13.3	19.3	25.2	28.0	31.0	34.0	2. 53. 19.18		19.46			2. 53. 52.26		
	34	Juno.....	C	1.2	4.1	6.9	9.5	15.2	20.6	23.5	26.2	29.0	3. 0. 15.11		15.44	29.20	32.83	3. 0. 48.24		
	35	δ Arietis.....	C	41.5	44.5	47.4	50.2	56.0	2.0	5.0	7.7	10.7	3. 3. 56.09		56.37			3. 4. 29.17	- 3.61	
Nov. 10	36	ϵ Aquarii.....	AD	6.1	9.1	11.8	14.6	20.2	25.8	28.7	31.5	34.3	20. 40. 20.22	(+1.61)	20.48	53.24	32.76	32.91	20. 40. 53.29	- 2.06
	37	μ Aquarii.....	AD	6.4	9.3	12.0	14.8	20.3	26.0	28.8	31.6	34.6	20. 45. 20.41	[+2.99]	20.67	53.42	32.75	-0.12	20. 45. 53.48	- 2.08
	38	32 Vulpeculæ....	AD	24.0	27.3	30.4	33.5	39.6	46.0	49.2	52.2	55.3	20. 48. 39.69		39.93	12.75	32.82	20. 49. 12.74	- 1.36	
	39	ζ Cygni.....	AD	..	..	..	..	2.8	9.3	12.5	15.6	18.8	21. 7. 2.86		3.10	35.85	32.75	21. 7. 35.90	- 1.43	
	40	α Cephei.....	AD	31.9	38.0	43.6	49.6	1.3	13.3	19.0	25.0	31.1	21. 15. 1.38		1.60	57.68	32.76	21. 15. 34.40	- 0.13	
	41	β Aquarii.....	AD	10.6	13.6	16.4	19.1	24.7	30.3	33.0	35.8	38.6	21. 24. 24.66		24.92			21. 24. 57.72	- 2.25	
	42	δ Sculptoris.....	AD	..	..	..	..	58.1	1.1	4.3	7.4	23.4	21. 51. 65.65		51.93	24.88	32.95	23. 42. 24.72	- 3.33	
	43	Bradley 3195....	AD	..	..	25.0	30.5	41.7	53.0	58.9	4.2	9.7	23. 54. 41.74		41.96	17.51	32.50	23. 55. 14.75	- 2.76	
	44	Polaris....(E&E)	AD	35.5	34.0	26.0	25.5	..	..	..	..	..	1. 12. 45.18		45.01			1. 13. 17.79	- 39.24	
	45	ξ Andromedæ....	AD	6.7	10.8	14.5	18.4	26.2	34.0	37.9	41.8	45.8	1. 14. 26.26		26.48	18.52	32.79	1. 14. 59.26	- 3.47	
	46	ζ^1 Ursæ Maj. S.P.	AD	53.6	58.6	3.6	8.5	18.4	28.0	33.1	37.7	42.8	1. 18. 18.29		18.52			13. 18. 51.30	- 0.45	
	47	ζ^2 Ursæ Maj. S.P.	AD	54.7	59.6	4.6	9.5	19.3	29.1	34.1	38.7	43.8	1. 18. 19.31		19.54			13. 18. 52.32	- 0.45	

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 12, 29, and 44, -69".00 : - 33".20: and -33".30.

November 9. The azimuthal error by tabular places of Polaris and θ Ceti.

November 10 to November 11, δ Arietis. The azimuthal error by Polaris and Polaris S.P., allowing + 0".10 for clock-rate and change of R.A.

5, 6. Image very diffused.
14. Faint.

11. Image bad.
27, 28. Cloudy.

12. Very tremulous.
42. Very faint.

13. Diffused.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of		Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at Sideral and (Loss Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874. Jan. 1.
														Collimation.							
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.		(Level).	[Azimuth].						
Nov. 10	1	♄ Cassiopeiæ.....	AD	58.0	5.4	12.2	19.5	34.0	48.3	55.5	2.7	10.2	1. 32. 33.92	+0.46		34.13			32.79	1. 33. 6.91 — 4.81	
	2	♃ Piscium.....	AD	8.8	11.7	14.3	17.2	22.7	28.4	31.1	33.8	36.7	1. 34. 22.73	(+1.61)		22.98	55.75	32.77	[−0.12]	1. 34. 55.76 — 3.28	
	3	♆ Neptune.....	AD	10.4	13.5	16.3	19.0	24.6	30.3	33.2	36.0	38.9	1. 49. 24.67	[+2.99]		24.92				1. 49. 57.70	
	4	♃ Hygeia.....	AD	15.8	18.8	21.6	24.6	30.7	36.4	39.6	41.6	45.6	2. 52. 30.51			30.75				2. 53. 3.53	
	5	♃ Juno.....	AD	19.2	21.9	24.6	27.4	32.9	38.5	41.4	43.9	46.8	2. 59. 32.94			33.20				3. 0. 5.97	
	6	♄ Persei.....	AD	..	..	30.0	33.6	40.6	47.9	51.5	55.0	58.6	3. 2. 40.70			40.93				3. 3. 13.70 — 4.04	
	7	♂ Arietis.....	AD	13.0	16.1	19.1	22.0	27.9	33.7	36.8	39.6	42.7	3. 13. 27.86			28.10	0.94	32.84		3. 14. 0.87 — 3.65	
	8	♂ Tauri.....	AD	53.6	56.6	59.4	2.4	8.0	13.6	16.6	19.5	22.5	4. 12. 8.00			8.24	41.08	32.84		4. 12. 41.01 — 3.63	
	9	Polaris S.P. (E&E)	E	..	..	..	..	..	12.0	11.0	5.0	4.0	13. 12. 46.46	(+2.63)		44.90	17.37	32.47	33.02	1. 13. 17.80 — 39.10	
Nov. 11	10	♄ 1 L.....	E	..	5.7	8.6	11.4	17.2	23.1	25.9	28.9	..	15. 4. 17.23								
	11	♄ 2 L.....	E	18.8	21.8	24.6	27.6	33.4	39.3	42.1	44.8	47.9	15. 6. 33.37								
	12	♂ Arietis.....	E	..	19.3	22.3	25.1	31.1	37.1	40.0	43.0	..	2. 51. 31.11	(+3.83)		31.49	4.24	32.75	32.80	15. 5. 58.47	
	13	Pallas.....	E	..	..	55.3	58.2	4.4	10.5	13.5	16.5	20.0	2. 53. 4.33			4.64				2. 53. 37.41	
	14	Juno.....	E	36.8	39.6	42.5	45.3	50.8	56.3	59.1	1.7	4.6	2. 58. 50.73			51.07				2. 59. 23.84	
	15	♂ Arietis.....	E	41.4	44.4	47.3	50.3	56.1	1.9	4.9	7.9	10.6	3. 3. 56.07			56.44	29.22	32.78		..	
	16	Polaris S.P. (E&E)	L	..	34.5	30.0	28.5	22.5	..	..	6.5	8.0	13. 12. 47.37	(+4.05)		43.86	17.09	33.23	32.30	1. 13. 16.04 — 38.82	
	17	Spica.....	L	47.7	50.5	53.3	56.2	1.7	7.4	10.2	13.0	15.8	13. 18. 1.74	[+3.61]		2.11	34.34	32.23	[−0.22]	13. 18. 34.29 — 0.97	
	18	Arcturus.....	L	8.2	11.3	14.2	17.1	23.0	28.9	31.8	34.7	37.6	14. 9. 22.96			23.37	55.60	32.23		14. 9. 55.54 — 0.74	
Nov. 12	19	♄ Ursæ Minoris..	L	36.8	47.0	57.0	8.0	28.7	49.8	59.9	10.4	21.1	14. 50. 28.66			29.37				14. 51. 1.53 + 3.61	
	20	♄ 1 L.....	L	7.2	10.2	13.0	15.9	21.7	27.7	30.6	33.3	36.5	15. 8. 21.77								
	21	♄ 2 L.....	L	23.9	26.8	29.9	32.7	38.2	44.1	47.1	50.0	52.9	15. 10. 38.38								
	22	Venus 1 L.....	L	47.6	50.7	54.2	57.2	3.5	9.7	13.0	16.0	19.2	17. 32. 3.43			3.80				15. 10. 2.61	
	23	♄ Aquilæ.....	L	30.8	33.8	36.4	39.3	44.9	50.6	53.3	56.1	59.0	19. 39. 44.89			45.29	17.46	32.17		17. 32. 37.79	
	24	♄ Aquilæ.....	L	53.0	55.8	58.5	1.3	7.0	12.5	15.4	18.2	21.0	19. 44. 6.94			7.30	39.51	32.21		19. 40. 17.41 — 1.34	
	25	♄ Ursæ Min. (E&E)	L	..	..	..	..	..	40.0	9.5	36.0	6.0	19. 48. 8.15			13.43	51.67	38.24		19. 44. 39.42 — 1.42	
	26	♄ Aquilæ.....	L	3.5	6.3	9.0	11.8	17.3	23.0	25.9	28.4	31.1	20. 4. 17.34			17.73	49.82	32.09		19. 48. 45.55 + 85.55	
	27	♄ Cygni.....	L	8.9	12.2	..	18.7	..	31.5	..	38.0	41.4	20. 35. 25.10			25.53				20. 4. 49.85 — 1.68	
Nov. 13	28	Polaris S.P. (E&E)	L	..	..	..	..	..	..	..	0.0	0.5	1. 12. 39.68			43.90	16.94	33.04	32.08	20. 35. 57.64 — 1.11	
	29	♄ Piscium.....	L	9.4	12.2	15.1	17.9	23.3	29.0	31.8	34.4	37.3	1. 34. 23.36			23.76	55.75	31.99		1. 13. 15.97 — 38.67	
	30	♄ Arietis.....	L	57.2	0.1	3.0	6.0	11.9	17.8	20.8	23.8	26.7	1. 47. 11.90			23.76	55.75	31.99		1. 34. 55.83 — 3.28	
	31	Saturn 1 L.....	S	..	6.0	9.0	11.8	..	..	26.4	29.4	32.5	20. 44. 17.68	(+2.76)							
	32	Saturn 2 L.....	S	..	7.2	10.2	13.1	..	..	27.7	30.8	..	20. 44. 18.94	[+1.65]		18.52			32.46	20. 44. 50.81	
	33	32 Vulpeculæ...	C	24.8	27.9	31.0	34.0	40.3	46.7	49.8	52.8	56.0	20. 48. 40.34			40.62	12.70	32.08	[−0.20]	..	
	34	Piazzi XX. 452..	S	41.6	45.3	48.7	52.4	59.4	6.8	10.2	13.8	17.3	20. 56. 59.47			59.78			32.25†	..	
	35	♄ Cygni.....	S	47.3	50.8	53.8	56.9	3.3	9.7	12.9	16.1	19.2	21. 7. 3.31			3.60	35.80	32.20	32.46	20. 57. 32.07 — 1.02	
	36	♄ Cephei.....	S	32.2	38.2	43.9	49.7	1.5	13.4	19.4	25.2	31.2	21. 15. 1.58			2.00				21. 7. 35.89 — 1.38	
	37	♄ Pegasi.....	S	26.5	29.5	32.2	34.9	40.5	46.0	48.9	51.8	54.4	22. 34. 40.51			40.75	12.98	32.23		21. 15. 34.28 — 0.00	
	38	♄ Pegasi.....	S	54.1	57.3	0.4	3.6	9.8	16.0	19.2	22.1	25.2	22. 57. 9.71			9.98				22. 35. 13.02 — 2.35	
	39	61 Pegasi.....	S	51.4	54.7	57.7	0.8	7.1	13.2	16.4	19.3	22.7	23. 9. 7.00			7.27				22. 57. 42.25 — 2.29	
	40	64 Pegasi.....	S	59.6	3.0	6.0	9.3	16.0	22.4	25.7	28.8	32.0	23. 15. 15.84			16.13				23. 9. 39.54 — 2.37	
	41	Bradley 3125....	S	46.8	..	3.0	11.0	27.1	..	50.9	58.8	6.6	23. 21. 26.86			27.36				23. 15. 48.40 — 2.38	
	42	♄ Piscium.....	S	44.7	47.5	50.2	52.8	58.5	4.1	6.9	9.6	12.2	23. 32. 58.48			58.72	30.94	32.22		23. 21. 59.63 — 1.98	
	43	79 Pegasi.....	S	31.3	34.7	37.7	40.9	47.1	53.3	56.6	59.5	2.9	23. 42. 47.08			47.35				23. 33. 30.98 — 2.78	
	44	Bradley 3195....	S	13.8	19.6	25.2	30.9	42.0	53.1	58.8	4.6	10.0	23. 54. 41.95			42.36				23. 43. 19.61 — 2.62	
	45	♄ Andromedæ...	S	7.3	10.3	13.4	16.7	22.8	29.2	32.3	35.4	38.6	0. 1. 22.86			23.15	55.39	32.24	32.26	23. 55. 14.62 — 2.68	
	46	68 Ursæ Maj. S.P.	S	..	..	..	..	56.3	6.8	12.0	17.0	22.8	0. 4. 56.50			56.51				0. 1. 55.41 — 2.77	

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy.
The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 9, 16, 25, and 28, — 33".30.

Corrections for passage of Semidiameter, No. 22, + 1".85.

† This clock-error has been used in the reduction of the observations made with the Altazimuth.

November 11, Polaris S.P., to November 12. The azimuthal error by Polaris S.P. and Polaris, allowing — 0".05 for clock-rate and change of R.A.

November 13. The azimuthal error by tabular places of μ Andromedæ and Polaris.

3, 9. Very faint.

16. Tremulous.

17. Faint.

31, 32. Very cloudy.

46. Very tremulous.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at Sidereal and [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Nov. 13	1	μ Andromedæ ...	S	58.8	2.5	5.8	9.5	16.4	23.5	26.9	30.5	34.0	0.49. 16.40	+0.46	16.70	48.98	32.28	32.26	0.49. 48.95	- 3.15
	2	Groombridge 234	S	28.8	34.7	40.2	46.2	58.2	9.9	16.0	21.8	27.7	0.57. 58.11	(+2.76)	58.53			[-0.20]	0.58. 30.78	- 3.79
	3	Polaris (E&E)	S	..	30.0	24.0	19.0	13.0	7.5	3.5	..	..	1.12. 39.62	[+1.65]	44.29	16.57	32.28		..	..
	4	Groombridge 329.	S	..	..	..	..	41.7	53.9	0.1	6.0	12.1	1.23. 41.70		42.12				1.24. 14.37	- 4.26
	5	Neptune	S	53.6	56.4	59.3	2.0	7.7	13.4	16.1	18.8	21.7	1.49. 7.64		7.88				1.49. 40.12	..
	6	σ Arietis	S	48.9	51.9	54.7	57.3	3.3	9.0	11.7	14.6	17.7	2.44. 3.22		3.47	35.78	32.31		2.44. 35.71	- 3.54
	7	Juno	S	14.0	16.9	19.5	22.2	27.8	33.5	36.2	39.0	41.7	2.57. 27.84		28.06				2.58. 0.30	..
	8	γ^1 Eridani	S	..	28.7	31.4	34.4	40.0	45.7	48.4	51.3	..	3.51. 39.96		40.17	12.41	32.24		3.52. 12.40	- 3.39
	9	α^1 Tauri	S	31.3	34.2	37.3	40.2	46.1	52.0	55.0	58.1	0.9	3.56. 46.10		46.36	18.67	32.31		3.57. 18.59	- 3.79
Nov. 14	10	$\odot$ 1 L.	AD	17.9	21.0	23.8	26.8	32.6	38.7	41.2	44.2	47.0	15.16. 32.56	(+3.27)	41.16			32.03	15.18. 13.11	..
	11	$\odot$ 2 L.	AD	34.7	37.9	40.5	43.4	49.4	55.3	58.2	0.9	5.9	15.18. 49.33	[+1.46]				[-0.12]	..	..
	12	α Andromedæ ...	AD	7.7	10.8	13.7	16.9	23.0	29.3	32.7	35.7	39.0	0.1. 23.17		23.48	55.38	31.90	31.91	0.1. 55.39	- 2.76
	13	γ Pegasi	AD	1.1	4.2	7.0	9.8	15.6	21.2	24.1	27.1	29.9	0.6. 15.54		15.81	47.76	31.95		0.6. 47.72	- 2.85
	14	ϵ Andromedæ ...	AD	9.0	11.9	15.1	18.1	24.6	30.9	34.1	37.2	40.5	0.31. 24.57		24.88	56.99	32.11		0.31. 56.79	- 2.96
	15	δ Piscium	AD	25.7	28.4	31.0	34.0	39.6	45.2	48.0	50.8	53.6	0.41. 39.56		39.82	11.78	31.96		0.42. 11.73	- 3.08
	16	20 Ceti	AD	51.2	54.0	56.8	59.4	5.0	10.6	13.4	16.1	19.0	0.46. 5.04		5.28	37.18	31.90		0.46. 37.19	- 3.14
	17	Groombridge 192.	AD	31.7	38.3	45.2	51.8	5.1	18.5	25.2	32.0	38.6	0.50. 5.10		5.63				0.50. 37.54	- 3.82
	18	μ Cassiopeiæ ...	AD	2.0	6.7	11.3	16.0	25.6	35.1	39.9	44.3	49.3	0.59. 25.54		25.96				0.59. 57.87	- 3.50
	19	Polaris (E&E)	AD	..	..	..	..	13.0	6.0	3.5	0.0	..	1.12. 38.11		44.25	16.14	31.89		..	..
	20	γ Andromedæ ...	AD	23.1	27.0	30.6	34.1	41.8	49.2	53.0	56.6	0.4	1.55. 41.73		42.08				1.56. 13.98	- 3.74
	21	α Arietis	AD	..	..	..	..	36.0	41.9	44.8	47.8	50.8	1.59. 35.83		36.12	7.85	31.73		2.0. 8.02	- 3.47
Nov. 15	22	σ Arietis	C	49.4	52.2	55.2	58.0	3.7	9.4	12.3	15.1	18.0	2.44. 3.68		3.95	35.79	31.84		..	..
	23	ϵ Arietis	C	17.2	20.3	23.1	26.1	32.0	38.0	41.0	44.0	46.9	2.51. 32.05		32.33	4.27	31.94		..	..
	24	α Ceti	C	59.2	2.1	4.9	7.4	13.0	18.5	21.4	24.0	27.0	2.55. 13.04		13.29	45.11	31.82		..	..
	25	δ Arietis	C	42.5	45.4	48.3	51.2	57.1	3.1	6.0	8.8	11.8	3.3. 57.11		57.39	29.26	31.87		..	..
	26	β Capricorni	J	29.8	32.6	35.4	38.3	44.2	..	..	..	..	21.14. 44.15	+0.74	44.43	15.98	31.55	31.72†	..	..
Nov. 17	27	β Aquarii	J	11.7	..	17.2	20.0	25.6	31.3	34.2	..	40.0	21.24. 25.69	(+1.64)	25.96	57.59	31.63	[-0.15]	..	..
	28	α Aquarii	L	..	..	41.0	43.7	49.2	54.7	57.6	0.1	3.0	21.58. 49.19	[+2.87]	49.46	20.89	31.43	31.50	..	..
	29	δ 1 L.	L	21.1	24.2	27.0	30.0	35.9	41.8	44.8	47.6	50.5	22.28. 35.86		36.14			[-0.15]	22.30. 15.56	..
	30	μ Pegasi	L	10.9	14.0	16.9	19.9	26.0	32.0	35.0	38.0	41.1	22.43. 25.95		26.22	57.53	31.31		..	..
	31	γ 4 Aquarii	L	7.5	10.4	13.1	16.0	21.7	27.3	30.1	32.9	35.8	22.46. 21.63		21.90				22.46. 53.26	- 2.70
	32	β Ursæ Maj. S.P.	L	19.2	24.3	29.4	34.3	44.7	55.0	59.8	4.7	10.0	22.53. 44.64		44.81				10.54. 16.17	- 2.77
	33	Groombridge 3994	L	49.6	56.0	1.9	8.2	20.6	33.1	39.4	45.6	51.8	23.2. 20.64		20.90				23.2. 52.26	- 1.59
	34	γ Piscium	L	55.2	58.0	0.6	3.4	9.0	14.5	17.3	20.1	22.9	23.10. 8.98		9.24	40.59	31.35		..	..
	35	Polaris (E&E)	L	20.5	20.0	15.2	12.5	..	..	..	..	..	1.12. 42.39		43.26	14.60	31.34	31.35	..	..
	36	μ Aquarii	L	..	10.8	13.6	16.3	22.0	27.7	30.4	33.2	..	20.45. 21.97	(+1.33)	22.20	53.31	31.11	31.20†	..	..
Nov. 19	37	32 Vulpeculæ ...	L	25.7	29.0	31.9	35.1	41.2	47.6	50.7	53.7	56.9	20.48. 41.28	[+2.46]	41.50	12.60	31.10	[-0.10]	..	..
	38	24 Piscium	E	44.4	47.3	50.0	52.8	58.3	3.9	6.7	9.4	12.2	23.45. 58.31		58.54			31.63	23.46. 30.07	- 2.87
	39	29 Piscium	E	39.3	42.1	44.9	47.7	53.1	58.8	1.5	4.2	7.0	23.54. 53.16		53.39			[-0.10]	23.55. 24.92	- 2.90
	40	γ Pegasi	E	1.7	4.6	7.4	10.2	16.0	21.8	24.6	27.4	30.2	0.6. 15.97		16.19	47.72	31.53	31.53	0.6. 47.72	- 2.81
	41	δ 1 L.	E	29.3	32.3	35.2	37.9	43.8	49.3	52.2	55.2	57.9	0.13. 43.66		43.89				0.15. 23.35	..
	42	44 Piscium	E	13.0	16.8	19.6	22.3	27.8	33.4	36.0	38.9	41.7	0.18. 27.80		28.04	59.57	31.53		0.18. 59.57	- 2.97
	43	12 Ceti	E	53.8	56.8	59.5	2.2	7.8	13.4	16.1	18.9	21.7	0.23. 7.78		8.02	39.48	31.46		0.23. 39.55	- 3.04
	44	Piazzi O. 189....	E	3.8	6.7	9.6	12.3	17.8	23.3	26.1	29.0	31.8	0.41. 17.80		18.03				0.41. 49.56	- 3.09
	45	Polaris (E&L)	E	29.0	..	..	..	..	..	..	0.5	59.0	1.12. 42.19		43.07	13.55	30.48		1.13. 14.60	- 35.28

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32.400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 3, 19, 35, and 45, - 33.30 : - 33.60 : - 23.10 : and - 30.80.

Corrections for passage of Semidiameter, Nos. 29, and 41, + 68.05 : and + 67.92.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

November 14 and 15. The azimuthal error by tabular places of 20 Ceti and Polaris.

November 17. The azimuthal error from tabular places of γ Piscium and Polaris, allowing - 0.01 for clock-rate.

November 19 and 20. The azimuthal error from Polaris, Polaris S.P., and Polaris.

12, 13. Faint.

28. Faint; cloudy.

15. Tremulous.

29, 41. Correction to R.A. on true meridian, + 0.01.

21. Cloudy.

26, 27. Only just visible through cloud.

36. Cloudy.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and (losing rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874. Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Nov. 19	1	α Arietis	E	21.0	24.2	27.2	30.3	36.2	42.1	45.0	48.2	51.2	1. 59. 36.13	+0.74	36.35	7.86	31.51	31.53	2. 0. 7.87	- 3.48
	2	θ Arietis	E	24.3	27.3	30.2	33.0	38.8	44.7	47.7	50.6	53.5	2. 10. 38.88	(+1.33)	39.10			[-0.10]	2. 11. 10.62	- 3.50
	3	Juno	E	16.8	19.8	22.4	25.2	30.8	36.3	39.1	41.9	44.7	2. 53. 30.75	[+2.46]	30.99				2. 54. 2.51	
	4	α Ceti	E	59.4	2.2	5.0	7.7	13.3	18.8	21.7	24.4	27.2	2. 55. 13.28		13.51	45.14	31.63		2. 55. 45.03	- 3.51
	5	Polaris S.P. (E&E)	C	29.0	26.0	22.0	23.0	14.0	..	..	..	..	13. 12. 44.58	(+1.67)	43.35	13.30	29.95	31.25	1. 13. 14.58	-35.03
	6	Arcturus	C	9.5	12.6	15.4	18.3	24.2	30.1	33.1	36.0	39.0	14. 9. 24.23		24.47	55.73	31.26	[-0.03]	14. 9. 55.70	- 0.87
Nov. 20	7	$\odot$ 1 L.	C	9.9	13.0	15.7	18.8	..	..	..	..	..	15. 41. 24.62							
	8	$\odot$ 2 L.	C	28.1	31.2	34.1	37.0	42.9	48.9	51.8	54.8	57.7	15. 43. 42.93							
	9	ϵ Andromedæ ...	C	9.8	13.0	16.0	19.2	25.3	31.8	35.0	38.1	41.2	0. 31. 25.46	(+2.32)	25.75	56.94	31.19	31.22	0. 31. 56.97	- 2.91
	10	δ 1 L.	C	..	..	..	..	39.7	42.3	45.1	48.1	..	1. 7. 33.78		34.06				1. 9. 14.49	
	11	Polaris (E&E)	C	..	..	..	..	7.5	3.0	1.0	5.7	..	1. 12. 40.52		43.60	13.08	29.48		1. 13. 14.82	-34.81
	12	ϕ Piscium	C	2.3	5.2	7.9	10.7	16.2	21.8	24.7	27.4	30.2	1. 38. 16.24		16.52	47.77	31.25		1. 38. 47.74	- 3.31
	13	β Arietis	C	58.2	1.0	3.9	7.0	12.9	18.8	21.7	24.4	27.6	1. 47. 12.82		13.10	44.27	31.17		1. 47. 44.32	- 3.39
	14	Neptune	C	15.3	18.4	21.2	23.9	29.4	35.3	38.0	40.8	43.6	1. 48. 29.52		29.80				1. 49. 1.02	
	15	Δ^1 Tauri	C	32.3	35.4	38.3	41.3	47.3	53.2	56.1	59.2	2.2	3. 56. 47.23		47.52	18.77	31.25		3. 57. 18.74	- 3.89
	16	ϵ Tauri	C	33.4	36.4	39.2	42.2	48.0	53.8	56.9	59.7	2.7	4. 20. 47.99		48.27	19.46	31.19		4. 21. 19.49	- 3.86
	17	Vesta	C	49.8	52.7	55.4	58.3	4.0	9.9	12.7	15.5	18.3	4. 31. 4.05		4.33				4. 31. 35.55	
Nov. 22	18	α Andromedæ ...	C	..	..	..	17.7	23.7	30.1	33.2	36.3	39.6	0. 1. 23.79	+0.67	24.12	55.30	31.18	31.24	....	
	19	γ Pegasi	C	1.9	4.9	7.5	10.4	16.1	21.9	24.8	27.5	30.3	0. 6. 16.12	(+3.49)	16.41	47.70	31.29	[0.04]	....	
	20	ϵ Andromedæ ...	M	9.8	12.9	15.9	19.0	25.3	31.4	34.7	37.9	41.0	0. 31. 25.29	[+1.14]	25.62	56.92	31.30	31.30†	....	
	21	β Andromedæ ...	M	55.8	59.0	2.5	5.7	12.3	19.0	22.6	26.1	29.5	1. 2. 12.47		12.83	44.12	31.29		....	
	22	Polaris (E&E)	C	..	22.0	17.5	14.0	7.0	..	..	..	..	1. 12. 35.50		43.25	12.28	29.03	31.24	1. 13. 14.49	-34.01
	23	π Arietis	AD	33.3	36.2	39.4	42.1	47.9	53.7	56.5	59.4	2.4	2. 41. 47.86		48.16			31.22	2. 42. 19.38	- 3.61
	24	ρ^2 Arietis	AD	1.0	4.3	7.2	10.1	15.9	21.8	24.7	27.5	30.5	2. 48. 15.87		16.17			[0.04]	2. 48. 47.39	- 3.65
	25	ϵ Arietis	AD	17.9	21.0	23.8	26.9	32.7	38.6	41.7	44.7	47.7	2. 51. 32.76		33.07	4.32	31.25		2. 52. 4.29	- 3.70
	26	α Ceti	AD	59.7	2.8	5.3	8.0	13.8	19.2	22.0	24.7	27.6	2. 55. 13.66		13.93	45.16	31.23		2. 55. 45.15	- 3.53
	27	δ 1 L.	AD	18.1	21.1	24.3	27.2	33.2	39.3	42.3	45.3	48.2	3. 4. 33.20		35.50				3. 6. 18.59	
	28	τ^2 Arietis	AD	47.7	50.9	53.8	56.5	2.4	8.4	11.3	14.3	17.2	3. 15. 2.48		2.79				3. 15. 34.02	- 3.77
	29	η Tauri	AD	20.2	23.1	25.8	28.8	34.1	39.9	42.7	45.3	48.2	3. 17. 34.21		34.48	5.70	31.22		3. 18. 5.71	- 3.62
	30	ζ Tauri	AD	13.0	15.9	18.9	21.5	27.2	33.0	35.8	38.7	41.4	3. 23. 27.24		27.53	58.78	31.25		3. 23. 58.70	- 3.68
	31	ϵ Eridani	AD	17.8	20.5	23.2	26.1	31.7	37.3	40.1	42.9	45.7	3. 26. 31.68		31.91	3.10	31.19		3. 27. 3.14	- 3.45
	32	δ Eridani	AD	..	..	..	..	45.0	50.4	53.4	56.2	58.9	3. 36. 44.89		45.12	16.24	31.12		3. 37. 16.38	- 3.50
	33	η Tauri	AD	17.0	20.1	23.1	26.1	32.2	38.1	41.2	44.1	47.3	3. 39. 32.11		32.43	3.72	31.29		3. 40. 3.66	- 3.91
	34	33 Tauri	AD	..	56.0	58.8	2.2	8.1	14.2	17.2	20.3	..	3. 49. 8.08		8.40				3. 49. 39.63	- 3.92
	35	Polaris S.P. (E&E)	EG	..	..	..	..	15.0	12.0	8.0	5.0	13. 12. 49.80		42.47	12.09	29.62	31.36	[0.00]	1. 13. 13.83	-33.82
Nov. 23	36	$\odot$ 1 L.	EG	46.4	49.2	52.0	55.4	0.8	7.0	10.3	13.1	15.8	15. 54. 1.09							
	37	$\odot$ 2 L.	EG	5.1	8.2	11.0	13.7	19.7	25.5	28.7	31.6	34.8	15. 56. 19.79							
	38	Venus 1 L.	EG	6.3	9.4	12.4	15.6	21.7	28.0	31.3	34.3	37.4	17. 33. 21.80		21.99				17. 33. 55.51	
	39	ϵ Aquarii	WC	7.5	10.4	13.3	15.9	21.5	27.2	30.1	32.8	35.6	20. 40. 21.57		21.80	53.09	31.29	31.28†	....	
	40	θ Aquarii	WC	27.8	30.6	33.5	36.3	41.9	47.5	50.4	53.0	55.8	22. 40. 41.85		42.09	13.35	31.26		....	
	41	Fomalhaut	EG	56.4	59.7	2.8	6.1	12.6	18.6	22.2	25.2	28.3	22. 50. 12.41		12.59	43.99	31.40	31.36	22. 50. 43.95	- 3.00
	42	α Pegasi	EG	45.5	48.5	51.4	54.0	59.6	5.6	8.4	11.2	14.2	22. 57. 59.80		0.10	31.42	31.32		22. 58. 31.46	- 2.33
	43	Groombridge 4005	EG	52.0	59.3	5.7	12.6	26.8	40.7	47.4	54.2	1.6	23. 4. 26.64		27.27				23. 4. 58.63	- 1.25
	44	Polaris (E&E)	EG	..	..	..	..	..	0.0	58.0	54.0	53.0	1. 12. 33.94		41.69	11.90	30.21		1. 13. 13.05	-33.63
	45	ϕ Piscium	EG	2.3	5.0	7.9	10.4	16.1	21.7	24.6	27.4	30.3	1. 38. 16.17		16.44	47.77	31.33		1. 38. 47.80	- 3.31
	46	Neptune	EG	..	..	..	..	13.7	19.4	22.2	25.0	27.6	1. 48. 13.71		13.99				1. 48. 45.35	

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy.
The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 5, 11, 22, 35, and 44, -30".80: -31".00:
-31".80: -31".60: and -31".50.

Corrections for passage of Semidiameter, Nos. 10, 27, and 38, +69".20: +73".95: and +2".16.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.
November 22 and 23. The azimuthal error from Polaris, Polaris S.P., and Polaris.

7, 8, 11. Very cloudy.
23, 28. Faint.

10, 27. Correction to R.A. on true meridian, +0".01.
25, 27, 29. Diffused.

14, 32, 34, 35. Very faint.
31. Tremulous.

TRANSITS OBSERVED WITH THE TRANSIT-CIRCLE, AND COMPUTATIONS OF APPARENT RIGHT ASCENSION,

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at ^h Sidereal and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Nov. 23	1	♄ Ceti	EG	37.1	40.0	42.6	45.6	51.3	56.9	59.6	2.4	5.3	2. 5. 51.18	+0.67	51.45	22.81	31.36	31.36	2. 6. 22.81	- 3.41
	2	Piazzi II. 61	EG	13.8	17.8	21.5	25.4	32.4	39.7	43.5	47.0	50.8	2. 14. 32.41	(+3.49)	32.80			[0.00]	2. 15. 4.16	- 3.88
	3	Bradley 348	EG	54.9	4.2	13.0	22.0	40.5	58.5	7.7	16.9	25.7	2. 25. 40.30	[+1.14]	41.08				2. 26. 12.44	- 6.61
	4	♄ Arietis	EG	47.7	50.7	53.5	56.5	2.4	8.1	11.4	14.2	17.2	3. 15. 2.39		2.70				3. 15. 34.06	- 3.78
	5	♄ Eridani	EG	17.6	20.4	23.2	25.8	31.4	37.0	40.0	42.6	45.7	3. 26. 31.50		31.73	3.11	31.38		3. 27. 3.09	- 3.46
Nov. 24	6	♄ 1 L.	L	0.3	3.5	6.5	9.4	15.3	21.3	24.2	27.2	30.2	15. 58. 15.30	(+3.38)				31.02	15. 59. 55.94	
	7	♄ 2 L.	L	19.5	22.5	25.4	28.4	34.4	40.3	43.3	46.2	49.3	16. 0. 34.35	[+0.21]				[0.00]		
	8	♄ Capricorni	AD	30.0	33.0	35.9	38.8	44.4	50.4	53.3	56.2	59.0	21. 14. 44.54		44.69	15.90	31.21	31.25	....	
	9	♄ Aquarii	AD	12.3	15.3	17.7	20.6	26.2	31.6	34.6	37.3	40.1	21. 24. 26.17		26.35	57.51	31.16		....	
	10	Bradley 3168	L	..	53.0	58.4	3.7	14.5	25.4	30.8	36.2	..	23. 42. 14.52		15.05			31.02	23. 42. 46.00	- 2.19
	11	♄ Piscium	L	8.2	11.0	13.7	16.6	22.1	27.6	30.5	33.2	35.9	23. 52. 22.07		22.29	53.24	30.95		23. 52. 53.24	- 2.77
	12	2 Ceti	L	34.4	37.4	40.4	43.4	49.2	55.0	57.7	0.5	3.5	23. 56. 49.03		49.17	20.03	30.86		23. 57. 20.12	- 3.04
	13	Piazzi XXIII. 270	L	54.2	57.0	59.6	2.3	8.1	13.6	16.3	19.1	21.8	23. 58. 7.98		8.17				23. 58. 39.12	- 2.86
	14	♄ Pegasi	L	2.2	5.2	8.0	10.8	16.5	22.0	25.1	27.7	30.8	0. 6. 16.46		16.71	47.68	30.97	30.95	0. 6. 47.66	- 2.77
	15	Polaris ... (E&E)	L	16.5	16.0	11.5	9.0	..	57.5	56.5	51.0	..	1. 12. 31.41		40.49	11.49	31.00		....	
	16	♄ Piscium	L	10.6	13.6	16.3	19.0	24.3	30.0	33.0	35.6	38.4	1. 34. 24.51		24.73	55.74	31.01		1. 34. 55.68	- 3.27
	17	Neptune	L	55.0	57.8	0.5	3.4	9.0	14.5	17.4	20.2	22.9	1. 48. 8.94		9.17				1. 48. 40.12	
Nov. 26	18	♄ 2 L.	E	20.3	23.4	26.7	29.7	36.0	42.6	45.7	48.8	52.3	7. 34. 36.14	(+3.08)	36.38			31.40	7. 33. 52.89	
	19	Pollux	E	52.8	56.0	59.2	2.2	8.5	14.8	17.7	21.2	24.2	7. 37. 8.48	[-0.51]	8.73	40.06	31.33	[-0.09]	....	
	20	♄ 1 Cancri	E	35.0	38.3	41.3	44.3	50.5	56.6	59.7	2.9	6.0	7. 52. 50.49		50.73				7. 53. 22.10	- 3.77
	21	♄ 2 Cancri	E	8.5	11.7	14.6	17.7	24.0	30.1	33.3	36.1	39.4	8. 2. 23.90		24.14				8. 2. 55.51	- 3.73
	22	♄ Cancri	E	58.4	1.3	4.0	6.8	12.6	18.3	21.0	23.7	26.6	8. 9. 12.50		12.69	44.09	31.40		....	
	23	♄ Hydræ	L	..	..	..	..	55.3	0.7	3.6	6.5	9.2	9. 20. 55.22		55.35	26.22	30.87	30.90†	....	
	24	♄ Leonis	L	27.0	29.7	32.5	35.4	41.0	46.7	49.5	52.2	55.0	9. 24. 40.98		41.17	12.02	30.85	[-0.09]	....	
	25	Polaris S.P. (E&E)	S	..	29.0	24.0	19.0	14.5	..	..	..	..	13. 12. 48.44		39.02	10.16	31.14	31.26	....	
	26	Spica	S	49.4	52.3	55.0	57.7	3.5	9.1	11.9	14.8	17.4	13. 18. 3.44		3.56	34.70	31.14	[-0.09]	....	
	27	♄ Arcturus	S	9.8	12.6	15.5	18.5	24.5	30.3	33.2	36.2	39.2	14. 9. 24.40		24.62	55.87	31.25		....	
	28	♄ Ursæ Minoris ..	S	37.7	48.3	58.6	9.0	30.0	50.6	1.0	11.9	22.6	14. 50. 29.90		30.74				14. 51. 1.94	+ 3.40
	29	Mercury 2 L.	S	49.2	52.0	54.9	57.7	3.4	9.2	12.0	14.9	17.8	14. 56. 3.44		3.55				14. 56. 34.49	
Nov. 27	30	♄ 1 L.	S	46.0	49.0	51.9	54.5	0.8	6.7	9.6	12.8	15.8	16. 11. 0.77						16. 12. 41.90	
	31	♄ 2 L.	S	5.6	8.5	11.6	14.5	20.3	26.3	29.5	32.4	35.4	16. 13. 20.44						....	
	32	Venus 1 L.	S	17.2	20.2	23.1	26.1	32.3	38.3	41.3	44.5	47.6	17. 28. 32.26		32.32				17. 29. 5.77	
	33	♄ Ursæ Maj. S.P. ..	S	58.6	4.7	10.7	16.4	28.5	40.3	46.7	52.4	58.6	22. 55. 28.59		28.24				10. 55. 59.41	- 3.46
	34	♄ Pegasi	S	45.7	48.6	51.4	54.2	59.9	5.7	8.5	11.5	14.4	22. 57. 59.96		0.16	31.37	31.21		....	
	35	♄ Cephei	S	29.5	40.5	50.5	0.7	22.0	42.8	53.6	4.1	14.5	23. 3. 21.93		22.88				23. 3. 54.05	- 0.29
	36	♄ Cephei	S	20.7	28.2	35.4	42.6	56.8	11.2	18.8	25.7	33.0	23. 12. 56.87		57.54				23. 13. 28.71	- 1.24
	37	Piazzi XI. 74 S.P. ..	S	53.5	59.7	5.8	11.9	23.8	35.6	41.7	47.4	53.8	23. 21. 23.74		23.39				11. 21. 54.56	- 2.96
	38	♄ Draconis S.P.	S	..	..	..	..	10.5	26.9	34.6	43.2	51.3	23. 28. 10.67		10.13				11. 28. 41.30	- 3.16
Nov. 29	39	♄ Ceti	E	34.3	37.1	39.8	42.6	48.2	53.6	56.5	59.2	2.0	2. 28. 48.12	(+2.90)	48.29	19.20	30.91	30.98†	....	
	40	♄ Ceti	E	20.0	22.8	25.5	28.4	33.8	39.4	42.2	44.9	47.7	2. 32. 33.84		33.97	5.00	31.03	[-0.14]	....	
Dec. 1	41	34 Sextantis	C	22.4	25.4	28.0	30.5	36.1	41.8	44.4	47.5	50.2	10. 35. 36.23	+0.88	36.39	9.49	33.10	33.01†	....	
	42	♄ Leonis	C	53.2	56.1	58.8	1.6	7.3	13.0	15.6	18.5	21.3	10. 42. 7.24	(+2.46)	7.42	40.50	33.08	[0.17]	....	
	43	♄ Leonis	L	45.2	47.8	50.6	53.3	58.8	4.5	7.2	9.9	12.7	11. 29. 58.87	[-0.15]	59.02	31.91	32.89	32.86	11. 30. 31.96	- 2.09
	44	♄ Virginis	L	38.1	41.0	43.8	46.5	52.0	57.7	0.4	3.1	6.0	11. 38. 52.05		52.22			[0.17]	11. 39. 25.16	- 2.11

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 15 and 25, -30".90: and -27".30.

Corrections for passage of Semidiameter, Nos. 18, 29, and 32, -74".87: -0".26: and +2".26.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

November 24. The azimuthal error by tabular places of Polaris and ♄ Piscium.

November 26 to 29. The azimuthal error by tabular places of Polaris S.P. and Spica on November 26.

November 30^d. The Sidereal Standard stopped 2^s. in winding.

December 1 to December 3, ♄ Eridani. The azimuthal error by Polaris S.P., Polaris, and Polaris S.P.

15. Tremulous.

25, 29, 32, 33, 35. Faint.

18. Correction to R.A. on true meridian +0".01.

44. Very tremulous.

1876 O.A.M. 36A...1A

AT THE ROYAL OBSERVATORY, GREENWICH, IN THE YEAR 1874.

[87]

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Dec. 1	1	2 L.	L	..	11'1	13'8	16'8	22'2	28'0	30'8	33'6	..	11. 53. 22'30	+0'88	22'46			32'86	11. 52. 53'90	
	2	o Virginis.	L	2'4	5'3	8'0	10'7	16'4	22'2	25'0	27'7	30'4	11. 58. 16'43	(+2'46)	16'60	49'44	32'84	[0'17]	11. 58. 49'54	- 2'00
	3	10 Virginis.	L	29'1	31'7	34'7	37'4	43'0	48'5	51'2	53'8	56'8	12. 2. 42'89	[-0'15]	43'06				12. 3. 16'01	- 1'92
	4	η Virginis.	L	42'5	45'4	48'2	51'0	56'5	1'8	4'8	7'5	10'1	12. 12. 56'40		56'55	29'40	32'85		12. 13. 29'50	- 1'85
	5	Polaris S.P. (E&E)	L	21'5	21'0	18'0	15'5	12'0	..	..	..	..	13. 12. 41'82		33'80	6'75	32'95		1. 13. 6'75	-28'48
Dec. 2	6	1 L.	L	15'0	18'3	21'2	23'9	30'1	36'0	38'8	41'7	45'0	16. 32. 29'98	(+2'85)	30'09				16. 34. 13'41	
	7	χ Aquarii.	L	34'4	37'5	40'2	42'9	48'5	54'3	57'0	59'6	2'5	23. 9. 48'52		48'67				23. 10. 21'69	- 2'59
	8	κ Piscium.	L	44'1	46'8	49'6	52'3	57'7	3'6	6'2	8'8	11'7	23. 19. 57'84		58'01	30'90	32'89		23. 20. 31'03	- 2'55
	9	Groomb. 1782 S.P.	L	..	..	..	..	26'2	4'5	24'0	42'9	3'5	23. 22. 25'75		24'36				11. 22. 57'39	- 5'74
	10	ι Piscium.	L	43'8	46'7	49'4	52'2	57'6	3'2	6'0	8'7	11'5	23. 32. 57'66		57'84	30'76	32'92		23. 33. 30'87	- 2'60
	11	Bradley 3166.	L	46'4	53'7	59'6	7'6	21'9	36'2	43'4	50'3	57'5	23. 41. 21'79		22'41				23. 41. 55'44	- 1'72
	12	Piazzi XXIII. 270	L	52'0	54'9	57'6	0'3	5'9	11'6	14'2	16'9	19'6	23. 58. 5'87		6'04				23. 58. 39'07	- 2'78
	13	Polaris (E&E)	L	9'5	9'0	3'0	59'0	..	49'0	45'5	..	..	1. 12. 24'87		33'95	6'42	32'47	33'03	1. 13. 6'99	-28'15
	14	η Piscium.	L	0'3	3'3	5'9	8'8	14'6	20'4	23'3	26'0	29'0	1. 24. 14'60		14'81	47'76	32'95		1. 24. 47'85	- 3'20
	15	Neptune.	L	15'0	17'9	20'7	23'5	29'0	34'7	37'5	40'3	43'0	6. 17. 29'04		29'23				1. 48. 2'27	
	16	μ Geminorum.	AD	35'7	38'8	41'8	45'0	50'8	56'8	59'6	2'9	6'0	6. 14. 50'81		51'05	24'41	33'36	33'28†	....	
	17	β Canis Majoris.	AD	24'6	27'4	30'3	33'2	39'0	44'8	47'7	50'6	53'6	6. 16. 39'00		39'12	12'40	33'28	[0'17]	....	
	18	2 L.	C	18'5	21'6	24'5	27'2	32'8	38'4	41'2	44'0	47'0	12. 36. 32'78	(+3'44)	32'96			33'24	12. 36. 5'32	
	19	δ Virginis.	C	29'5	32'4	35'1	37'8	43'4	48'8	51'7	54'5	57'3	12. 48. 43'37		43'58	17'10	33'52	[0'29]	12. 49. 16'97	- 1'68
Dec. 3	20	Polaris S.P. (E&E)	C	..	25'0	22'0	17'0	12'0	..	..	..	..	13. 12. 44'23		34'10	6'09	31'99		1. 13. 7'50	-27'82
	21	Spica.	C	47'3	50'1	52'9	55'6	1'2	6'8	9'7	12'5	15'4	13. 18. 1'26		1'42	34'88	33'46		13. 18. 34'82	- 1'51
	22	Mercury 2 L.	C	..	..	..	..	44'5	58'9	13'3	..	..	15. 15. 30'07	+3'37	30'38				15. 16. 3'57	
	23	α Coronæ.	C	..	..	..	..	48'2	54'4	57'5	0'5	3'7	15. 28. 48'14	+0'88	48'45	21'89	33'44		15. 29. 21'88	- 0'70
	24	h Aquarii.	C	50'5	53'5	56'0	59'0	4'4	10'0	12'8	..	..	22. 58. 4'46		4'63				22. 58. 38'15	- 2'53
	25	γ Piscium.	C	53'0	55'7	58'5	1'3	7'0	12'4	15'3	17'8	20'6	23. 10. 6'82		7'02	40'42	33'40		23. 10. 40'54	- 2'48
	26	79 Pegasi.	C	..	33'0	36'0	39'2	45'5	51'7	54'9	57'9	..	23. 42. 45'32		45'63				23. 43. 19'16	- 2'39
	27	φ Pegasi.	C	18'8	22'0	24'6	27'6	33'4	39'3	42'3	45'1	48'0	23. 45. 33'43		33'69				23. 46. 7'22	- 2'50
	28	ω Piscium.	C	5'6	8'4	11'2	13'9	19'4	25'0	27'8	30'5	33'4	23. 52. 19'44		19'65	53'15	33'50		23. 52. 53'18	- 2'68
	29	Piazzi XXIII. 270	C	51'5	54'4	57'0	59'7	5'4	10'8	13'6	16'3	19'2	23. 58. 5'30		5'49				23. 58. 39'02	- 2'77
Dec. 4	30	f Tauri.	C	10'8	13'8	16'5	19'4	25'0	30'7	33'5	36'3	39'4	3. 23. 25'05		25'26	58'86	33'60	33'53	3. 23. 58'83	- 3'76
	31	7 Tauri.	C	14'0	17'2	20'0	23'0	29'2	35'2	38'2	41'3	44'2	3. 26. 29'11		29'40				3. 27. 2'97	- 3'96
	32	11 Tauri.	C	29'8	33'0	35'9	39'0	45'0	51'2	54'2	57'3	0'3	3. 32. 45'05		45'35	18'88	33'53		3. 33. 18'92	- 4'01
	33	13 Tauri.	C	18'5	21'4	24'4	27'3	33'2	39'0	41'8	44'8	47'6	3. 34. 33'09		33'35				3. 35. 6'92	- 3'90
	34	23 Tauri.	C	6'2	9'3	12'1	15'2	21'1	27'2	30'3	33'2	36'2	3. 38. 21'17		21'45				3. 38. 55'02	- 4'00
	35	ζ Persei.	C	27'2	30'3	33'5	36'7	43'3	49'8	53'0	56'2	59'5	3. 45. 43'25		43'58				3. 46. 17'15	- 4'24
	36	γ Eridani.	C	24'6	27'6	30'3	33'3	38'8	44'6	47'5	50'3	53'2	3. 51. 38'89		39'04	12'59	33'55		3. 52. 12'62	- 3'57
	37	ν Leonis.	E	43'8	46'9	49'6	..	57'8	..	6'2	9'0	11'7	11. 29. 57'83	(+2'75)	57'95	31'98	34'03	33'79†	....	
	38	β Leonis.	E	..	54'5	57'4	0'1	5'9	11'8	14'7	17'5	..	11. 42. 5'96	[-1'08]	6'12	40'09	33'97	[0'43]	....	
	39	Mercury 2 L.	AD	39'0	42'2	45'0	47'8	53'7	59'5	2'3	5'3	8'0	15. 19. 53'63		53'69			33'69	15. 20. 27'34	
	40	α Coronæ.	AD	32'4	35'5	38'6	41'6	47'8	54'0	57'3	0'2	3'4	15. 28. 47'84		48'07	21'91	33'84	[0'28]	15. 29. 21'94	- 0'72
	41	η Draconis.	AD	11'9	17'9	23'6	29'5	41'3	53'0	58'6	4'5	10'3	16. 21. 41'13		41'67				16. 22. 15'55	+ 1'79
	42	ζ Herculis.	AD	42'2	45'6	48'6	52'0	58'4	5'0	8'2	11'4	14'7	16. 35. 58'42		58'67	32'52	33'85		16. 36. 32'55	- 0'28
Dec. 4	43	2 L.	AD	16'0	19'0	22'0	25'0	30'9	37'1	40'0	43'0	46'0	16. 43. 30'98		31'02				16. 42. 54'41	
	44	Venus 1 L.	AD	..	..	..	..	30'5	36'6	39'6	42'7	45'6	17. 14. 30'50		30'53				17. 15. 6'79	
	45	α Lyrae.	AD	48'4	52'1	55'5	59'0	6'1	13'4	16'7	20'3	23'8	18. 32. 6'11		6'39	40'27	33'88		18. 32. 40'30	+ 0'05

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400; for Mercury, Dec. 2, 32".232.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 5, 13, and 20, -28".60: -28".80: and -29".00.

Corrections for passage of Semidiameter, Nos. 1, 6, 18, 22, 39, 43, and 44, -61".50: -70".34: -61".03: -0".23: -70".50: and +2".37.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

December 3, ν Leonis, to December 4. The azimuthal error by tabular places of Polaris and α Arietis, allowing +0".01 for clock-rate.

3, 22, 24. Very faint.

5. Very tremulous.

22. Observed over wires X, Y, Z.

36. Very faint; cloudy.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of		Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at ϕ Sideral and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.	
														Collimation.								
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.		(Level).	[Azimuth].							
				s	s	s	s	s	s	s	s	s	h	m	s	s	s	s	h	m	s	s
Dec. 4	1	ι Cephei	AD	..	..	18.0	24.4	37.9	51.2	58.0	4.8	11.5	22. 44. 37.91	+0.88	38.37			33.69	22. 45. 12.32	- 0.38		
	2	α Pegasi	AD	42.8	45.8	48.7	51.5	57.3	3.0	5.8	8.6	11.5	22. 57. 57.20	(+1.76)	57.32	31.29	33.97	[0.28]	22. 58. 31.28	- 2.20		
	3	π Cephei	AD	26.1	37.3	47.4	58.1	19.0	39.7	50.4	0.7	11.3	23. 3. 18.80	[-1.08]	19.54				23. 3. 53.50	+ 0.24		
	4	χ Aquarii	AD	33.6	36.5	39.3	42.0	47.6	53.2	56.0	58.8	1.4	23. 9. 47.58		47.64				23. 10. 21.60	- 2.57		
	5	Bradley 3100.	AD	24.5	28.1	31.6	35.1	42.1	49.1	52.5	56.0	59.6	23. 14. 42.04		42.23				23. 15. 16.19	- 1.96		
	6	κ Piscium	AD	43.1	45.8	48.5	51.3	56.8	2.4	5.3	8.0	10.7	23. 19. 56.86		56.94	30.88	33.94		23. 20. 30.90	- 2.53		
	7	Polaris (E&E)	AD	..	..	..	..	..	..	48.0	41.5	39.5	1. 12. 22.94		31.17	5.16	33.99	33.97	....			
	8	Neptune	AD	5.4	8.3	11.2	14.1	19.5	25.2	27.9	30.5	33.5	1. 47. 19.49		19.59				1. 47. 53.58			
	9	α Arietis	AD	..	21.8	24.7	27.6	33.7	39.7	42.9	45.8	..	1. 59. 33.71		33.85	7.85	34.00		2. 0. 7.84	- 3.47		
	10	Bradley 282	AD	30.7	40.6	49.9	59.6	19.4	38.7	48.2	57.9	7.9	2. 1. 19.13		19.82				2. 1. 53.81	- 6.05		
	11	θ Arietis	AD	21.8	25.0	27.6	30.7	36.6	42.4	45.4	48.3	51.3	2. 10. 36.54		36.67				2. 11. 10.67	- 3.50		
	12	ϵ^2 Ceti	AD	..	46.0	48.7	51.4	57.0	2.6	5.4	8.2	..	2. 20. 57.01		57.11	31.12	34.01		2. 21. 31.11	- 3.46		
	13	Piazzi II. 115 ...	AD	17.4	22.0	26.3	30.6	39.4	48.4	53.0	57.2	1.7	2. 27. 39.51		39.79				2. 28. 13.79	- 4.38		
	14	f Tauri	AD	10.6	13.6	16.3	19.1	24.7	30.4	33.2	36.0	38.9	3. 23. 24.74		24.84	58.86	34.02		3. 23. 58.85	- 3.76		
	15	7 Tauri	AD	13.5	16.8	19.7	22.7	28.7	34.9	37.8	40.8	44.0	3. 26. 28.73		28.88				3. 27. 2.89	- 3.97		
	16	17 Tauri	AD	38.5	41.5	44.5	47.6	53.6	59.6	2.7	5.6	8.6	3. 36. 53.55		53.70				3. 37. 27.71	- 4.01		
	17	η Tauri	AD	14.8	17.7	20.6	23.6	29.6	35.7	38.7	41.7	44.8	3. 39. 29.65		29.80	3.82	34.02		3. 40. 3.81	- 4.01		
	18	27 Tauri	AD	55.0	58.2	1.2	4.2	10.2	..	..	..	..	3. 41. 10.19		10.34				3. 41. 44.35	- 4.02		
	19	28 Tauri	AD	..	..	..	..	..	17.6	20.7	23.5	26.6	3. 41. 11.50		11.65				3. 41. 45.66	- 4.03		
Dec. 5	20	ι Piscium	E	42.5	45.4	48.0	50.7	56.3	1.8	4.6	7.4	10.2	23. 32. 56.30	(+1.24)	56.51	30.73	34.22	34.13	23. 33. 30.84	- 2.57		
	21	79 Pegasi	E	29.1	32.4	35.5	38.6	44.7	51.2	54.4	57.5	0.5	23. 42. 44.85	[+1.79]	45.06			[0.20]	23. 43. 19.39	- 2.36		
	22	ϕ Pegasi	E	..	21.3	24.1	27.0	32.8	38.7	41.6	44.4	..	23. 45. 32.86		33.06				23. 46. 7.39	- 2.48		
	23	ω Piscium	E	4.7	7.6	10.4	13.0	18.6	24.1	27.0	29.8	32.5	23. 52. 18.61		18.82	53.13	34.31		23. 52. 53.15	- 2.66		
	24	Polaris (E&E)	E	..	..	..	..	..	7.5	6.0	59.0	..	1. 12. 27.99		30.20	4.58	34.38	34.33	....			
	25	σ Piscium	E	59.1	2.2	4.8	7.5	13.0	18.6	21.5	24.3	27.2	1. 38. 13.12		13.32	47.73	34.41		1. 38. 47.66	- 3.27		
	26	Neptune	E	..	..	..	..	9.2	15.0	20.5	23.4	26.0	1. 47. 14.89		15.09				1. 47. 49.44			
	27	α Arietis	E	18.3	21.3	24.2	27.2	33.3	39.4	42.2	45.2	48.4	1. 59. 33.26		33.47	7.85	34.38		2. 0. 7.82	- 3.47		
	28	6 Trianguli	E	..	..	23.5	26.5	32.9	39.4	42.6	..	..	2. 4. 32.96		33.17				2. 5. 7.52	- 3.57		
	29	θ Arietis	E	21.5	24.5	27.4	30.4	36.2	42.0	45.0	47.8	50.8	2. 10. 36.18		36.39				2. 11. 10.74	- 3.49		
	30	B. F. 298	E	..	..	49.4	52.3	57.8	3.5	6.5	..	..	2. 15. 57.88		58.08				2. 16. 32.43	- 3.46		
	31	Bradley 341	E	15.3	18.0	20.7	23.5	29.1	34.7	37.5	40.4	43.4	2. 19. 29.15		29.35				2. 20. 3.70	- 3.48		
	32	31 Arietis	E	..	..	3.5	6.3	9.0	14.7	20.4	23.3	26.0	2. 29. 14.71		14.92				2. 29. 49.27	- 3.55		
	33	μ Arietis	E	30.2	33.4	36.3	39.0	45.0	50.7	53.7	56.7	59.6	2. 34. 44.94		45.15				2. 35. 19.50	- 3.64		
	34	21 Persei	E	..	..	55.3	58.4	1.5	8.0	14.6	17.7	21.0	2. 49. 8.04		8.25				2. 49. 42.60	- 3.92		
	35	α Ceti	E	..	..	59.6	2.3	5.1	10.6	16.2	19.0	21.6	2. 55. 10.60		10.81	45.20	34.39		2. 55. 45.16	- 3.57		
Dec. 6	36	δ Virginis	L	29.0	31.9	34.7	37.4	43.0	48.5	51.3	54.0	56.8	12. 48. 42.94	+0.56	43.01	17.22	34.21	34.11	....			
	37	Polaris S.P. (E&E)	L	17.5	17.0	14.0	9.5	3.5	58.5	..	..	..	13. 12. 33.49	(+1.11)	28.85	3.73	34.88	[0.24]	1. 13. 3.09	-25.46		
	38	α Coronæ	L	32.0	35.2	38.3	41.4	47.6	53.7	56.8	0.0	3.1	15. 28. 47.56	[-0.38]	47.67	21.96	34.29		....			
	39	Mercury 2 L....	L	7.7	10.8	13.6	16.5	22.4	28.2	31.2	34.0	36.9	15. 34. 22.35		22.40				15. 34. 56.46			
Dec. 7	40	Polaris (E&E)	L	..	..	12.0	4.0	1.0	56.5	52.0	47.0	..	1. 12. 55.62		0.32	3.44	3.12	Hardy. 2.66	1. 13. 2.96	-25.17		
	41	σ Piscium .. (E&E)	L	..	..	17.0	31.0	45.0	59.0	12.9	26.9	..	1. 38. 44.99		45.07	47.72	2.65	[-0.34]	....			
	42	Neptune (E&E)	L	..	..	10.8	24.8	38.9	52.9	6.9	20.9	..	1. 47. 38.87		38.95				1. 47. 41.59			
	43	δ Ceti (E&E)	L	..	..	..	..	48.4	2.2	16.0	29.9	43.8	2. 33. 2.23		2.30	5.00	2.70		....			
	44	δ Eridani .. (E&E)	L	..	..	..	..	59.8	13.7	27.8	41.7	56.0	3. 37. 13.74		13.80	16.32	2.52		....			
	45	Bradley 531 (E&E)	L	..	..	28.1	42.2	56.0	9.9	23.8	37.6	..	3. 42. 56.02		56.08				3. 42. 58.69	- 3.66		

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidercal Standard, applied to form Concluded Transit, Nos. 7, 24, and 37, -30".40: -31".00: and -31".60.

Correction for passage of Semidiameter, No. 39, -0".21.

December 5. The azimuthal error by tabular places of Polaris and σ Piscium, allowing +0".01 for clock-rate.

December 6 and 7. The azimuthal error by Polaris S.P. and Polaris, allowing +0".12 for clock-rate and change of R.A.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at oh Sidereal and (Loss Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Dec. 9	1	γ Piscium.....	s	51.4	54.3	57.0	59.6	5.3	10.7	13.5	16.4	19.2	23. 10. 5.25	+0.56	5.35	40.36	35.01	34.90	23. 10. 40.48	- 2.42
	2	κ Piscium.....	s	41.7	44.6	47.4	50.0	55.6	1.2	3.9	6.7	9.5	23. 19. 55.60	(+1.93)	55.69	30.83	35.14	[0.24]	23. 20. 30.82	- 2.48
	3	Bradley 3202 (1st Star).	s	2.9	9.8	16.2	22.8	36.1	49.6	56.0	2.6	9.5	23. 55. 36.11	-0.56	36.53				23. 56. 11.67	- 1.83
	4	Bradley 3202 (2nd Star)	s	5.4	12.4	18.5	25.4	38.6	51.8	58.6	5.2	11.8	23. 55. 38.57		38.99				23. 56. 14.13	- 1.83
	5	ι Ceti.....	s	14.0	16.9	19.6	22.5	28.1	33.8	36.6	39.3	42.0	0. 12. 28.07		28.14	3.25	35.11	35.14	0. 13. 3.28	- 2.86
	6	12 Cassiopeiæ...	s	49.8	55.6	1.0	6.9	18.5	29.7	35.5	41.3	47.0	0. 17. 18.31		18.67				0. 17. 53.81	- 2.38
	7	13 Cassiopeiæ...	s	..	..	18.2	25.1	38.6	52.2	58.8	..	..	0. 23. 38.54		38.96				0. 24. 14.10	- 2.53
	8	π Andromedæ...	s	20.4	23.5	27.0	30.4	36.8	43.4	46.8	49.9	53.3	0. 29. 36.80		36.98				0. 30. 12.12	- 2.71
	9	β Ceti.....	s	29.1	32.2	35.0	37.9	43.7	49.6	52.5	55.4	58.4	0. 36. 43.74		43.79	18.87	35.08		0. 37. 18.94	- 3.07
	10	ε Ursæ Maj. S.P..	s	..	35.6	40.7	45.7	55.7	5.7	10.8	15.8	..	0. 47. 55.76		55.56				12. 48. 30.71	- 1.92
	11	Groombridge 219.	s	52.2	58.0	3.3	9.1	20.4	31.4	37.2	42.5	48.1	0. 55. 20.20		20.55				0. 55. 55.70	- 3.94
	12	Polaris....(E&E)	s	..	10.5	5.0	0.0	55.0	51.0	45.5	42.5	39.0	1. 12. 20.88		27.72	2.23	34.51		1. 13. 2.87	-23.96
	13	50 Andromedæ...	s	34.2	38.0	41.6	45.3	52.5	59.7	3.6	7.2	10.8	1. 28. 52.52		52.73				1. 29. 27.88	- 3.35
	14	η Ursæ Maj. S.P..	s	39.0	43.4	47.6	52.0	0.5	9.0	13.4	17.5	21.9	1. 42. 0.51		0.35				13. 42. 35.51	- 1.23
	15	Neptune.....	s	..	47.6	50.4	53.0	58.6	4.4	7.0	9.7	..	1. 46. 58.64		58.75				1. 47. 33.91	
	16	ξ ² Ceti.....	s	41.9	44.8	47.6	50.4	55.9	1.4	4.3	7.0	9.8	2. 20. 55.88		55.99	31.11	35.12		2. 21. 31.15	- 3.45
	17	Groomb. 2123 S.P.	s	39.8	46.4	52.6	58.7	11.4	23.7	30.2	36.1	42.7	2. 27. 11.34		11.05				14. 27. 46.21	+ 0.29
	18	Groomb. 2146 S.P.	s	50.0	56.0	2.0	8.2	19.5	31.4	37.2	43.1	49.0	2. 38. 19.65		19.39				14. 38. 54.56	+ 0.31
	19	Terpsichore.....	s	31.8	35.3	..	41.8	48.1	54.8	..	1.2	5.0	3. 57. 48.26		48.44				3. 58. 23.62	
	20	Vesta.....	s	30.3	33.2	36.0	39.0	44.8	50.3	53.2	56.0	59.0	4. 10. 44.62		44.75				4. 11. 19.93	
	21	ε Tauri.....	s	29.5	32.9	35.7	38.5	44.3	50.3	53.2	56.0	59.2	4. 20. 44.38		44.52	19.69	35.17		4. 21. 19.70	- 4.09
	22	κ Orionis.....	s	1.3	4.1	6.7	9.5	15.2	20.7	23.5	26.4	29.2	5. 41. 15.16		15.23	50.45	35.22		5. 41. 50.43	- 3.64
	23	137 Tauri.....	s	27.3	30.2	32.8	35.8	41.6	47.4	50.3	53.0	55.8	5. 44. 41.56		41.69				5. 45. 16.89	- 4.09
	24	39 Camelopardali.	s	53.2	58.8	4.2	10.0	21.0	32.3	38.0	43.6	49.4	5. 59. 21.12		21.47				5. 59. 56.67	- 7.02
	25	δ Ursæ Min. S.P.(E&E)	s	26.5	14.8	0.0	46.0	..	53.5	41.0	..	..	6. 11. 47.25		44.57	20.76	35.19		18. 12. 19.77	+38.14
	26	Piazzi VI. 126...	s	26.6	30.0	33.2	36.5	43.0	49.6	52.9	56.3	59.2	6. 23. 43.01		43.19				6. 24. 18.39	- 4.69
	27	25 Geminorum...	s	37.8	41.0	44.2	47.3	53.5	59.7	2.9	6.0	9.4	6. 32. 53.51		53.67				6. 33. 28.88	- 4.51
	28	Cephei 51.(E&E)	s	..	..	40.5	38.0	32.0	27.0	23.5	21.0	..	6. 40. 58.30		1.68	37.09	35.41		6. 41. 36.89	-52.18
	29	μ Canis Majoris...	s	33.9	37.0	39.7	42.5	48.1	54.0	56.8	59.6	2.4	6. 49. 48.20		48.27				6. 50. 23.48	- 3.44
	30	ε Canis Majoris...	s	52.5	55.7	58.8	2.0	8.3	14.6	17.6	20.8	24.0	6. 53. 8.22		8.25	43.63	35.38		6. 53. 43.46	- 3.21
	31	ζ Geminorum.....	s	52.2	55.2	58.1	0.8	7.0	12.8	15.7	18.7	21.7	6. 56. 6.89		7.03	42.29	35.26		6. 56. 42.24	- 4.19
	32	Polaris S.P.(E&E)	AD	..	..	13.0	11.0	4.0	..	..	51.0	..	13. 12. 32.02		25.29	1.90	36.61	35.02	1. 13. 0.45	-23.63
	33	Spica.....	AD	45.8	48.7	51.4	54.2	59.8	5.5	8.3	11.3	14.1	13. 17. 59.88		59.95	35.08	35.13	[0.25]	....	
Dec. 10	34	⊙ 1 L.....	AD	9.6	12.7	15.7	18.6	24.8	30.7	33.8	36.7	39.6	17. 7. 24.66						17. 9. 10.82	
	35	⊙ 2 L.....	AD	31.4	34.6	37.5	40.4	46.6	52.5	55.6	58.5	1.6	17. 9. 46.49							
	36	Polaris....(E&E)	AD	..	..	..	..	..	47.0	46.0	39.0	35.0	1. 12. 16.04		22.88	1.55	38.67	35.27	1. 12. 58.16	-23.28
	37	50 Andromedæ...	AD	34.1	37.8	41.5	45.0	52.3	59.6	3.3	6.8	10.6	1. 28. 52.31		52.52				1. 29. 27.81	- 3.34
	38	γ Piscium.....	AD	6.4	9.2	11.8	14.7	20.2	25.8	28.7	31.3	34.2	1. 34. 20.24		20.34	55.67	35.33		....	
	39	β Arietis.....	AD	54.0	57.3	0.0	3.0	8.8	14.7	17.6	20.6	23.5	1. 47. 8.81		8.95	44.21	35.26		....	
Dec. 13	40	Piazzi I. 243....	AD	1.7	4.6	7.5	10.4	16.4	21.7	25.2	28.1	31.3	1. 56. 16.30		16.43				1. 56. 51.72	- 3.38
	41	θ Ceti.....	AD	56.6	59.5	2.3	5.0	10.7	16.3	19.2	21.9	24.7	1. 17. 10.67	(+1.31)	10.72	46.61	35.89		....	
	42	η Piscium.....	AD	57.4	0.3	3.2	5.9	11.6	17.4	20.3	23.1	26.0	1. 24. 11.67		11.76	47.70	35.94		....	
Dec. 14	43	α Coronæ.....	C	..	..	..	..	..	52.2	55.2	58.2	1.4	15. 28. 45.84	+1.05	46.16	22.11	35.95	35.85	15. 29. 22.16	- 0.92
	44	⊙ 2 L.....	C	10.4	13.6	16.5	19.4	25.5	31.5	34.5	..	..	17. 27. 25.49	(+2.88)	25.71			[0.23]		
	45	α Andromedæ...	L	3.4	6.6	9.6	12.6	19.0	25.4	28.4	31.5	34.7	0. 1. 18.99	(+1.27)	19.31	55.04	35.73	35.79†	17. 26. 50.64	
Dec. 14	46	γ Pegasi.....	L	57.2	0.1	2.8	5.7	11.4	17.1	19.9	22.8	25.4	0. 6. 11.36		11.64	47.49	35.85		....	

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 12, 25, 28, 32, and 36, -33".30: -33".50: -33".50: -33".60: and -34".50.

Correction for passage of Semidiameter, No. 44, -71".09.

† This clock-error has been used in the reduction of the observations made with the Altazimuth.

December 9 to 13. The azimuthal error from Polaris, Polaris S.P., and Polaris.

December 14. The azimuthal error from tabular places of ε Piscium and Polaris.

32. Diffused and tremulous.

38, 40. Very faint.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth].	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at Sidereal and (Losing Rate).	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Dec. 14	1	δ Piscium	C	..	24.3	27.0	29.7	35.4	40.8	43.7	46.5	..	0. 41. 35.31	+ 1.05	35.58	11.57	35.99	36.08	0. 42. 11.67	- 2.87
	2	υ ¹ Cassiopeiæ	C	32.2	37.5	42.6	47.9	58.5	9.0	14.3	19.4	24.6	0. 46. 58.40	(+ 2.88)	58.88			[0.23]	0. 47. 34.97	- 2.84
	3	ε Piscium	C	37.0	39.8	42.5	45.4	51.0	56.5	59.3	2.0	4.8	0. 55. 50.91	+ 1.27	51.19	27.25	36.06		0. 56. 27.28	- 2.95
	4	υ ³ Piscium	C	..	20.0	22.8	25.9	31.7	37.6	40.5	43.4	..	1. 2. 31.67		31.96				1. 3. 8.05	- 2.98
	5	Polaris (E&E)	C	..	..	3.0	0.0	53.5	48.0	46.5	..	..	1. 12. 14.96		22.19	58.26	36.07		...	
	6	Bradley 187	C	..	..	..	..	..	..	..	12.8	15.8	1. 19. 1.09		1.39				1. 19. 37.48	- 3.12
	7	Bradley 230	C	39.0	52.2	4.7	17.6	43.4	..	..	..	..	1. 41. 43.29		44.27				1. 42. 20.37	- 5.88
	8	Neptune	C	26.6	29.4	32.2	35.0	40.5	46.1	48.9	51.6	54.5	1. 46. 40.52		40.80				1. 47. 16.90	
	9	56 Ceti	C	58.2	1.2	4.2	..	13.3	..	22.3	25.2	28.2	1. 50. 13.20		13.42				1. 50. 49.52	- 3.32
	10	δ Ceti	C	14.7	17.6	20.3	23.0	28.7	34.3	37.0	39.6	42.5	2. 32. 28.61		28.87	4.98	36.11		2. 33. 4.97	- 3.46
	11	μ Arietis	C	28.5	31.5	34.3	37.3	43.0	49.0	52.0	54.8	57.8	2. 34. 43.12		43.42				2. 35. 19.52	- 3.62
	12	41 Arietis	C	46.2	49.3	52.4	55.5	1.5	7.8	10.9	13.9	17.1	2. 42. 1.60		1.92				2. 42. 38.03	- 3.78
	13	53 Tauri	C	13.6	16.5	19.5	22.5	28.3	34.3	37.2	40.0	43.2	4. 11. 28.32		28.62				4. 12. 4.74	- 4.15
	14	19 Ursæ Min. S.P.	C	..	..	..	22.3	45.3	8.4	20.0	31.2	43.5	4. 13. 45.30		44.78				16. 14. 20.90	+ 5.93
	15	γ Ursæ Min. S.P.	C	..	45.4	56.5	8.2	31.2	..	..	..	..	4. 20. 31.24		30.73				16. 21. 6.85	+ 5.98
	16	α Draconis S.P.	C	56.5	4.3	12.0	19.5	35.1	..	..	..	..	4. 27. 35.21		34.93				16. 28. 11.05	+ 3.24
	17	Astræa	C	..	..	..	0.5	6.6	..	15.1	17.4	..	4. 41. 6.33		6.61				4. 41. 42.73	
	18	Bradley 686	C	19.0	21.9	24.7	27.6	33.4	39.2	42.1	45.0	47.8	4. 49. 33.39		33.68				4. 50. 9.81	- 4.17
	19	m Tauri	C	13.4	16.4	19.3	22.2	28.0	33.8	36.7	39.6	42.6	4. 59. 27.98		28.27				5. 0. 4.40	- 4.27
	20	β Eridani	C	..	..	..	..	6.7	12.3	15.0	17.7	20.5	5. 1. 6.64		6.89				5. 1. 43.02	- 3.76
	21	Rigel	C	42.3	45.2	47.8	50.6	56.3	1.8	4.7	7.4	10.2	5. 7. 56.23		56.47	32.67	36.20		5. 8. 32.60	- 3.72
	22	Elpis	C	..	6.2	9.0	11.5	17.2	23.1	25.7	28.5	..	5. 46. 17.29		17.57				5. 46. 53.70	
	23	χ ³ Orionis	C	13.0	16.1	18.8	21.9	27.6	33.6	36.5	39.4	42.4	5. 55. 27.68		27.98				5. 56. 4.11	- 4.34
	24	υ Orionis	C	36.1	39.0	41.7	44.6	50.4	56.0	59.0	1.7	4.6	5. 59. 50.33		50.61	26.85	36.24		6. 0. 26.74	- 4.19
Dec. 16	25	α Coronæ	E	29.2	32.4	35.5	38.6	44.7	51.1	54.3	57.2	0.4	15. 28. 44.79	[- 0.24]	45.06	22.17	37.11	36.91	15. 29. 22.16	- 0.98
Dec. 17	26	α Aquilæ	E	48.1	51.0	53.5	56.4	2.0	7.5	10.4	13.3	16.0	19. 44. 2.00		2.21	39.28	37.07		19. 44. 39.36	- 1.19
	27	θ Aquarii	AD	22.0	24.8	27.6	30.4	35.9	41.6	44.4	47.4	50.0	22. 9. 35.99		36.15	13.10	36.95	36.68†	...	
	28	γ Aquarii	AD	19.9	22.7	25.5	28.2	33.7	39.4	42.1	44.8	47.6	22. 14. 33.75		33.93	10.88	36.95		...	
	29	44 Piscium	E	8.2	11.0	13.7	16.4	22.0	27.4	32.3	33.0	35.8	0. 18. 21.96		22.14	59.33	37.19	37.20	0. 18. 59.34	- 2.73
	30	12 Ceti	E	48.0	50.8	53.5	56.3	2.0	7.5	10.2	12.9	15.8	0. 23. 1.87		2.04	39.23	37.19		0. 23. 39.24	- 2.79
	31	δ Piscium	E	20.2	23.2	25.7	28.5	34.2	39.6	42.6	45.3	48.1	0. 41. 34.14		34.34	11.54	37.20		0. 42. 11.55	- 2.84
	32	υ ¹ L.	E	59.1	1.8	4.6	7.5	13.2	18.8	21.6	24.4	27.4	0. 45. 13.14		13.33				0. 46. 57.86	
	33	Bradley 107	E	29.4	32.4	35.0	37.7	43.4	48.9	51.6	54.4	57.3	0. 52. 43.33		43.53				0. 53. 20.74	- 2.91
	34	ζ ¹ Piscium	E	20.7	23.5	26.1	29.0	..	40.0	43.0	45.7	48.5	1. 6. 34.53		34.73	11.94	37.21		1. 7. 11.94	- 3.00
	35	Polaris ... (E&E)	E	..	..	..	..	51.0	45.5	..	39.5	..	1. 12. 8.92		18.71	55.78	37.07		...	
	36	Vesta	E	53.5	56.7	59.5	2.3	7.6	13.6	16.4	19.4	22.1	4. 3. 7.87		8.09				4. 3. 45.34	
	37	Aldebaran	E	..	56.6	59.4	2.2	8.1	13.7	16.7	19.5	..	4. 28. 8.01		8.24	45.61	37.37		4. 28. 45.49	- 4.11
Dec. 18	38	η Aquarii	L	4.0	7.0	9.4	12.2	17.6	23.4	26.1	28.8	31.6	22. 28. 17.77		17.95	54.92	36.97	36.71†	...	
	39	ζ Pegasi	L	21.4	24.2	27.0	29.7	35.4	41.0	43.8	46.6	49.5	22. 34. 35.38		35.59	12.58	36.99	[0.29]	...	
	40	Polaris (E&E)	C	5.5	6.0	1.0	57.0	54.0	..	..	..	..	1. 12. 9.01		18.80	56.04	37.24		...	
	41	η Piscium	C	56.0	..	..	4.8	10.2	..	..	..	..	1. 24. 10.34		10.56	47.66	37.10		...	
Dec. 19	42	ι Ceti	E	11.4	14.3	17.1	19.8	25.3	31.0	33.7	36.6	39.4	0. 12. 25.38	[- 0.56]	25.52	3.14	37.62	37.69†	...	
	43	44 Piscium	E	7.6	10.5	..	..	..	27.0	29.7	32.3	35.3	0. 18. 21.39		21.56	59.31	37.75	[0.32]	...	
	44	μ Andromedæ ...	J	53.3	57.0	0.4	3.9	10.8	17.7	21.2	24.7	28.3	0. 49. 10.78		11.09	48.60	37.51	37.63	0. 49. 48.73	- 2.77
	45	ε Piscium	J	35.6	38.3	41.0	43.7	49.4	55.1	57.8	0.6	3.2	0. 55. 49.39		49.57	27.21	37.64	[0.32]	0. 56. 27.21	- 2.91

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 5, 35, and 40, -38".50: -41".60: and -43".00.

Correction for passage of Semidiameter, No. 32, +67".31.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

December 16 to 18. The azimuthal error used is the mean of those (-0".16 and -0".32) determined by tabular places of ζ¹ Piscium and Polaris on December 17, and of Polaris and η Piscium on December 18.

December 19 and 20. The azimuthal error by tabular places of ε Piscium and Polaris.

32. Correction to R.A. on true meridian, +0".01.

40, 41. Faint; cloudy.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of Collimation. (Level). [Azimuth]. "	Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at Sidereal and [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.								
				s	s	s	s	s	s	s	s	s								
Dec. 19	1	Bradley 117.....	J	39'8	54'9	9'0	23'4	52'1	21'2	36'1	50'3	4'9	1. 0. 52'29	+1'05	53'66			37'63	1. 1. 31'30	- 3'54
	2	Polaris ....(E&E)	J	..	..	..	..	45'0	44'5	39'0	37'5		1. 12. 6'43	(+2'88)	16'76	54'35	37'59	[0'32]	....	
	3	τ Ceti.....	J	23'9	26'8	29'7	32'3	38'0	43'8	46'9	49'7	52'7	1. 37. 38'18	[-0'56]	38'29				1. 38. 15'94	- 3'08
	4	Neptune	J	10'7	13'6	16'3	19'1	24'7	30'3	33'2	35'8	38'8	1. 46. 24'70		24'89				1. 47. 2'54	
	5	Piazzi I. 223	J	52'4	55'3	58'1	1'0	6'8	12'3	15'2	17'8	20'8	1. 52. 6'61		6'81				1. 52. 44'46	- 3'27
	6	α Arietis	J	14'9	17'9	20'8	23'8	30'0	35'9	38'8	41'8	44'8	1. 59. 29'84		30'09	7'77	37'68		2. 0. 7'75	- 3'39
	7	19 Arietis	J	22'3	25'2	27'9	30'9	36'7	42'2	45'0	48'0	50'8	2. 5. 36'53		36'74				2. 6. 14'40	- 3'37
	8	Piazzi II. 61	J	7'8	11'4	15'0	18'7	26'1	33'3	37'0	40'7	44'3	2. 14. 26'00		26'33				2. 15. 3'99	- 3'76
	9	14 Trianguli	J	33'8	37'3	40'7	44'0	50'9	57'8	1'1	4'4	7'9	2. 23. 50'85		51'16				2. 24. 28'82	- 3'76
	10	1 L.	J	42'1	45'2	48'1	51'1	57'0	2'9	5'9	8'9	11'7	2. 34. 56'97		57'19				2. 36. 46'39	
	11	ε Arietis	J	11'5	14'7	17'6	20'5	26'3	32'3	35'3	38'1	41'2	2. 51. 26'37		26'60	4'35	37'75		2. 52. 4'27	- 3'73
	12	δ Arietis	J	36'8	39'8	42'7	45'7	51'5	57'3	0'3	3'2	6'1	3. 3. 51'47		51'69	29'37	37'68		3. 4. 29'36	- 3'78
	13	Vesta	J	11'3	14'3	17'1	20'0	25'7	31'3	34'2	37'2	40'0	4. 1. 25'66		25'87				4. 2. 3'55	
	14	γ Tauri	J	49'3	52'2	55'1	57'8	3'7	9'3	12'2	15'1	17'9	4. 12. 3'60		3'81	41'51	37'70		4. 12. 41'50	- 4'06
	15	γ Ursæ Min. S.P.	J	32'4	44'0	55'5	6'9	29'7	52'6	4'1	15'5	27'2	4. 20. 29'85		28'95				16. 21. 6'64	+ 5'86
	16	Δ Draconis S.P.	J	55'4	2'8	10'4	18'2	34'0	49'2	57'1	4'6	12'5	4. 27. 33'86		33'29				16. 28. 10'98	+ 3'14
	17	Astræa.....	J	..	12'3	15'4	17'9	24'0	28'8	32'1	35'0	..	4. 36. 23'61		23'82				4. 37. 1'51	
Dec. 20	18	α Pegasi	C	38'8	41'8	44'3	47'2	53'0	58'9	1'7	4'4	7'2	22. 57. 53'02		53'23	31'11	37'88	37'56†	....	
	19	γ Piscium	C	48'4	51'2	53'9	56'8	2'2	7'9	10'6	13'3	16'1	23. 10. 2'25		2'42	40'25	37'83	[0'32]	....	
Dec. 21	20	γ Piscium	AD	38'2	41'2	43'9	46'6	52'2	57'7	0'6	3'3	6'2	23. 32. 52'19	+1'14	52'40	30'56	38'16	37'85†	....	
	21	ω Piscium.....	AD	0'6	3'6	6'2	9'0	14'6	20'1	23'1	25'8	28'7	23. 52. 14'61	(+2'41)	14'83	52'96	38'13	[0'30]	....	
	22	Polaris ....(E&E)	E	..	..	4'0	..	54'0	47'0	46'5	..	..	1. 12. 6'63	[+0'38]	14'55	52'98	38'43	38'41	....	
	23	ω ¹ Tauri	E	..	..	..	..	15'0	21'0	23'8	26'8	29'7	4. 1. 15'04		15'28	53'74	38'46	[0'30]	....	
	24	ε Tauri	E	26'6	29'4	32'2	35'2	41'0	47'0	49'9	52'9	55'8	4. 20. 41'10		41'33	19'77	38'44		....	
	25	Aldebaran	E	52'6	55'5	58'1	1'0	7'0	12'8	15'7	18'5	21'3	4. 28. 6'92		7'16	45'63	38'47		....	
	26	1 L.	E	59'1	2'3	5'5	8'7	15'1	21'2	24'7	27'7	30'9	4. 41. 14'99		15'24				4. 43. 18'41	
Dec. 23	27	1 L.	AD	41'3	44'2	47'1	50'2	56'0	2'4	5'5	8'4	11'5	18. 4. 56'26	(+3'42)	7'67			38'48	18. 6. 46'39	
	28	2 L.	AD	3'6	6'9	10'0	13'0	19'0	25'0	28'1	31'0	34'0	18. 7. 18'92	[-0'93]				[0'32]		
	29	θ Aquarii	E	20'0	22'8	25'6	28'5	34'0	39'6	42'4	45'2	48'0	22. 9. 33'99		34'14	13'06	38'92	38'66†	....	
	30	γ Aquarii	E	17'6	20'8	23'4	26'0	31'5	37'4	40'1	42'8	45'6	22. 14. 31'67		31'84	10'83	38'99		....	
	31	Polaris ....(E&E)	AD	..	..	..	..	49'0	44'0	43'0	37'0	..	1. 12. 0'28		12'68	51'45	38'77	38'80	....	
	32	γ Piscium.....	AD	54'4	57'3	0'0	2'9	8'6	14'4	17'2	20'1	23'0	1. 24. 8'63		8'86	47'62	38'76		....	
	33	α Cassiopeiæ ...	AD	50'5	57'9	4'8	11'9	26'6	40'8	47'9	55'0	2'4	1. 32. 26'36		27'17				1. 33. 5'99	- 3'80
	34	ν Piscium	AD	2'6	5'6	8'4	11'1	16'5	21'9	24'8	27'9	30'6	1. 34. 16'58		16'77	55'57	38'80		....	
	35	Piazzi I. 170	AD	19'5	23'3	26'6	30'0	37'1	44'3	47'6	51'0	54'1	1. 40. 37'02		37'38				1. 41. 16'20	- 3'30
	36	Neptune	AD	0'1	3'2	..	..	14'0	19'7	22'7	25'4	28'3	1. 46. 14'17		14'38				1. 46. 53'20	
Dec. 25	37	α Arietis	AD	..	..	..	22'4	28'6	34'6	37'6	40'7	43'7	1. 59. 28'58		28'85	7'74	38'89		....	
	38	γ Cancri	E	..	..	..	..	23'6	29'8	32'8	35'6	38'7	8. 35. 23'73	(+2'48)	23'93	3'81	39'88	39'70	....	
	39	2 L.	E	..	41'1	44'0	47'2	53'2	59'4	2'4	5'4	..	9. 4. 53'21	[-1'12]	53'41			[0'35]	9. 4. 22'83	
	40	83 Cancri.....	E	6'3	9'3	12'0	15'0	20'8	26'6	29'7	32'4	35'4	9. 11. 20'82		21'01	0'78	39'77		....	
	41	Polaris S.P. (E&E)	AD	..	..	..	..	12'0	..	..	56'0	57'5	13. 12. 20'01		9'47	49'19	39'72		....	
	42	Spica	AD	41'6	44'7	47'4	50'2	55'9	1'4	4'3	7'0	9'9	13. 17. 55'80		55'89	35'60	39'71		....	
Dec. 27	43	ε Orionis	E	58'6	1'4	4'4	7'0	12'5	18'0	20'8	23'5	26'4	5. 29. 12'49		12'61	53'13	40'52	40'42†	....	
	44	κ Orionis	E	..	..	..	..	15'6	18'5	21'4	24'0	..	5. 41. 10'03		10'12	50'64	40'52	[0'42]	....	

Polaris and other stars very near the pole are observed by eye and ear over the wires P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P.; using the Clock Hardy. The Intervals of the Wires of both systems are given in the Introduction.

Reading of Transit-Micrometer, 32".400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 2, 22, 31, and 41, -44".70: -46".80: -48".50: and -51".20.

Corrections for passage of Semidiameter, Nos. 10, 26, 39, +71".53: +76".69: -70".42.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

December 21. The azimuthal error by tabular places of Polaris and α¹ Tauri, allowing 0".04 for clock-rate.

December 23. The azimuthal error by tabular places of Polaris and γ Piscium.

December 25 to 27. The azimuthal error by Polaris S.P. and Spica on December 25.

10, 26, 39. Correction to R.A. on true meridian, +0".01.

23, 36. Very faint.

32. Tremulous.

17. Misty.

31. Very diffused.

41. Very diffused and tremulous.

21. Observed in dark field.

MONTH and DAY.	No. for Reference.	NAME OF OBJECT.	Observer.	Seconds of Transit over the Wires.									Concluded Transit over the Center Wire.	Error of		Seconds of Transit Cor- rected.	Tabular R.A. of Known Stars.	Clock appa- rently Slow.	Adopted Clock Slow at 0 ^h Sidereal and [Losing Rate].	Apparent R.A. of Center from the Observation.	Correction for Reduction to Mean R.A. 1874, Jan. 1.
				I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.		Collimation. (Level). [Azimuth].	"						
Dec. 28	1	ω Piscium.....	EG	..	..	..	6.5	12.1	17.7	20.3	..	25.8	23. 52. 12.01	+0.97		12.11	52.89	40.78		....	
	2	α Andromedæ ...	EG	58.2	1.3	4.3	7.6	13.8	20.1	23.2	26.5	29.7	0. 1. 13.83	(+2.78)		14.04	54.86	40.82		....	
	3	ι Ceti	EG	8.2	11.2	13.9	16.8	22.2	27.7	30.9	33.3	36.2	0. 12. 22.55	[-2.08]		22.29	3.05	40.76		....	
Dec. 29	4	ε Andromedæ....	M	..	2.8	5.6	8.9	15.1	21.2	24.4	27.6	..	0. 31. 15.04			15.25	56.51	41.26	41.23	0. 31. 56.49	- 2.48
	5	β Ceti	M	22.9	26.0	28.8	31.7	37.5	43.2	46.3	49.0	52.2	0. 36. 37.49			37.49	18.65	41.16	[0.47]	0. 37. 18.73	- 2.85
	6	Polaris ....(E&E)	M	..	..	..	..	..	43.0	38.0	36.0	33.0	1. 11. 50.80			3.27	45.87	42.60		....	
	7	Neptune	M	47.6	50.5	53.2	55.9	1.6	7.3	10.0	12.8	15.7	1. 46. 1.60			1.72				1. 46. 42.98	
	8	α Arietis	M	11.0	14.2	17.2	20.2	26.3	32.4	35.2	38.2	41.2	1. 59. 26.19			26.37	7.69	41.32		2. 0. 7.64	- 3.31
	9	ξ ² Ceti	M	35.6	38.6	41.3	44.0	49.7	55.3	58.0	0.8	3.6	2. 20. 49.63			49.74	31.01	41.27		2. 21. 31.02	- 3.35
	10	γ Tauri	M	45.9	48.8	51.4	54.4	59.9	5.9	8.8	11.6	14.3	4. 12. 0.09			0.24	41.52	41.28		4. 12. 41.55	- 4.07
	11	υ ² Tauri	M	53.2	56.3	59.2	2.2	8.3	14.1	17.2	20.1	23.3	4. 19. 8.19			8.37				4. 19. 49.68	- 4.27
	12	τ Tauri	M	49.1	52.2	55.1	57.9	3.8	9.8	12.9	15.9	19.0	4. 34. 3.95			4.13	45.35	41.22		4. 34. 45.45	- 4.35
	13	γ Draconis S.P...	M	47.8	54.1	0.7	7.2	20.3	33.3	39.9	46.1	52.7	4. 39. 20.29			19.65				16. 40. 0.97	+ 2.11
	14	137 Tauri	M	21.3	24.3	27.1	30.0	35.7	41.4	44.1	47.2	49.9	5. 44. 35.65			35.78				5. 45. 17.12	- 4.28
	15	α Orionis	M	29.7	32.8	35.5	38.1	43.9	49.3	52.1	54.8	57.8	5. 47. 43.76			43.87	25.19	41.32		5. 48. 25.21	- 4.17
	16	η Geminorum....	M	24.4	27.7	30.3	33.1	39.2	45.3	48.3	51.2	54.3	6. 6. 39.29			39.47	20.93	41.46		6. 7. 20.82	- 4.63
	17	δ Ursæ Min.S.P.(E&E)	M	43.0	31.0	18.0	12.0	37.0	9.0	55.0	43.0	31.0	6. 11. 41.45			36.45	18.55	42.10		....	
	18	γ Geminorum ...	WC	34.5	37.3	40.1	43.1	48.9	54.7	57.4	0.3	3.2	6. 29. 48.81			48.96	30.36	41.40	41.26†	....	
	19	Cephei 51..(E&E)	M	..	..	2.0	57.0	49.0	44.0	43.0	38.0	36.0	6. 40. 54.51			0.65	41.47	40.82	41.23	....	
	20	υ Draconis S.P...	M	..	..	44.9	53.5	10.8	27.4	..	44.4	53.2	6. 55. 10.43			9.56				18. 55. 50.92	+ 5.17
	21	β Canis Minoris..	WC	27.5	30.5	33.3	36.2	41.7	47.4	50.0	53.0	55.7	7. 19. 41.68			41.79	23.17	41.38	41.26†	....	
	22	π Virginis.....	AD	32.8	..	38.0	41.2	47.1	52.1	54.9	..	0.7	11. 53. 46.66			46.77	27.93	41.16	41.00	....	
	23	ο Virginis.....	AD	55.1	57.7	0.6	3.4	9.2	14.6	17.4	20.3	23.3	11. 58. 9.04			9.16	50.39	41.23	[0.42]	....	
	24	η Virginis	AD	35.4	38.0	40.7	43.4	49.3	54.7	57.3	59.9	2.7	12. 12. 49.02			49.10	30.33	41.23		....	
	25	δ 2 L.	AD	49.4	52.0	54.8	57.7	3.0	8.9	11.9	14.7	17.4	12. 19. 3.29			3.36				12. 18. 43.04	
Dec. 30	26	ε Piscium	S	31.4	34.2	37.0	39.8	45.3	50.9	53.7	56.4	59.3	0. 55. 45.31	(+3.04)		45.36	27.10	41.74		....	
	27	β Andromedæ ...	S	44.8	48.3	51.4	..	1.6	..	11.8	15.2	18.7	1. 2. 1.66	[-3.60]		1.90	43.70	41.80		....	
	28	Polaris ....(E&E)	S	..	56.0	52.5	49.0	45.0	..	..	..	..	1. 11. 47.56			3.18	44.98	41.80		....	
Dec. 31	29	π Virginis	E	..	..	..	..	45.7	51.3	53.9	56.7	59.6	11. 53. 45.61			45.66	28.00	42.34	42.17† [0.34]	....	

The observations of transits are usually made by the galvanic or chronographic method, the wires employed being generally P, Q, R, S, T, U, V, W, X; in reversed order for stars S.P. Occasionally the observations are made by eye and ear (E & E); the wires then employed are N, O, P, T, X, Y, Z; in reversed order for stars S.P.

Reading of Transit-Micrometer, 32^h.400.

Corrections to the times by Hardy for reduction to Sidereal Standard, applied to form Concluded Transit, Nos. 6, 17, 19, and 28, —55^h.20 : —55^h.50 : —55^h.50 : and —55^h.70.

Correction for passage of Semidiameter, No. 25, —61^h.54.

† These clock-errors have been used in the reduction of the observations made with the Altazimuth.

December 28 and 29. The azimuthal error used is the mean of those (—2^h.90 and —1^h.26) determined by tabular places of β Ceti and Polaris, and of δ Ursæ Minoris S.P. and Cephei 51.

December 30 and 31. The azimuthal error by tabular places of β Andromedæ and Polaris on December 30.

1, 2, 3. Very faint.
25. Limb indistinct.

22, 23, 24, 29. Very faint; observed in dark field.
28. Extremely faint.