

KG
11366
v.597

Gene Observations & Reductions.
L. 35

4 *Nov. 5 '76, to Oct. 25, 1876.*

Charles W. Sefer, University Bookstore, Cambridge.

| | | | |
|------|-------------------------------|--------------------|---------|
| 635. | ^{h m s} 21. 8. 35 | ^d 53 | Oct. 12 |
| | 20. 17 40 | 50 | " 18 |

—

Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|---|-----------|---|---|-----|------|--|--------------------|---|--------|---|-----------|
| d | | | | | | | | | | | |
| $(\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $(\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $(\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $(\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | | | | | | | | | |
| <p><i>Adopted values of i for 1876.</i></p> <p><i>1876.</i></p> <p><i>Jan 16 - May 1</i></p> <p><i>May 3 - July 23</i></p> <p><i>July 24 - Aug. 5</i></p> <p><i>Aug 6 - Jan 4 1877</i></p> | | | | | | <p><i>For Circle Readings</i></p> <p><i>15 tang. i</i></p> <p><i>0.12495</i></p> <p><i>0.12193</i></p> <p><i>0.12516</i></p> <p><i>0.12236</i></p> | | <p><i>For Declinations</i></p> <p><i>15 tang. i</i></p> <p><i>0.12495 n</i></p> <p><i>0.12193 n</i></p> <p><i>0.12516 n</i></p> <p><i>0.12236 n</i></p> | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $(\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $(\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $(\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $(\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $(\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | | | | | | | | | |

482
Date₁ = 1876 Aug. 26
n = -1.06

Observer
Recorder

183
Date₂ = Aug. 28
n = -1.04

Observer
Recorder

2

1876phase.pr

| Star. | α | δ | Mag. | T_s | T_m | T_e | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T |
|--------------------------------|-----------------------|------------|--|---------|-------|-------|-------|--------------------------|--|-----|------|--|---|
| 10 5 9 43.3 κ | 54 30 30.4 | 9.2 9.4 | 18 11 11.6 14.8 17.2 18.53 3 | 11 23.2 | 26.8 | 30.3 | 33.8 | 37.8 -79.07 | 11 29.5 38.32 -77.59 -1.48 10 11.25 -1.94 10 08.31 8. | | | Subtrad 1.00 from all. the readings for Aug 26+28 | |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | 9.1 | 11 11.7 14.3 18.2 18.73 3 | 11 23.8 | 27.6 | 31.1 | 34.6 | 38.3 -80.08 +0.014 | 11 30.8 -78.56 -1.46 10 11.06 -1.88 10 08.20 8. | | | Add +0.14 to (8D+28) Aug 28 21 has been added to sum of the constant and to final R.A. | |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 12 54 12 31.0 κ | 54 31 30.9 | 8.6 8.8 | 13 40.0 43.5 46.0 48.17 2 | 14 11.3 | 14.9 | 18.6 | 22.2 | 25.8 -79.07 | 14 18.56 -77.09 -1.48 12 59.49 -1.94 12 54.95 56. 14 18.52 -78.56 -1.46 12 59.52 -1.89 12 57.63 6 | | | | |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | 8.9 | 13 41.9 45.2 48.0 48.97 3 | 14 12.4 | 16.0 | 19.6 | 23.0 | 26.7 -80.08 1 | 14 18.52 -78.56 -1.46 12 59.52 -1.89 12 57.63 6 | | | | |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 20 38 20 12.8 κ | 54 21 20.7 | 7.8 7.1 | 21 22.3 25.2 28.3 28.27 4 | 21 53.7 | 57.4 | 0.9 | 4.5 | 8.1 -79.07 | 21 59. 29.2 -77.59 -1.48 20 41.85 -1.99 20 39.86 8 | | | | |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| X X X | | 7.5 | 21 12.5 15.3 18.5 18.43 4 | 21 54.6 | 58.2 | 1.6 | 5.3 | 9.0 -80.08 1 | 22 18.74 -78.56 -1.46 20 41.72 -1.93 20 39.79 8 | | | | |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 19 0 43 0 19.9 κ | 52 04 2.8 | 8.8 8.7 | 19 1 33.2 36.4 39.4 38.33 5 | 2 5.6 | 9.1 | 12.6 | 15.7 | 19.2 -78.96 | 2 18.44 -77.59 -1.36 0 53.48 -2.23 0 51.28 0 | | | | |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | 9.0 | 1 29.3 32.4 35.3 38.03 1 | 2 6.5 | 9.9 | 13.3 | 16.6 | 19.9 -79.57 5 | 2 18.24 -78.56 -1.33 0 53.36 -2.18 0 51.19 0 | | | | |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 1 46 1 22.8 κ | 54 48 46.6 47.0 | 9.4 9.3 | 3 13.7 15.70 2 | 3 11.1 | 14.3 | 18.2 | 21.7 | 25.3 -79.08 | 3 18.12 -77.59 -1.48 1 59.04 -2.18 1 56.86 5 | | | | |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | 9.4 | 3 5.0 7.7 10.7 8.80 6 | 3 11.6 | 15.3 | 18.9 | 22.4 | 26.0 -80.08 79.99 | 3 18.74 -78.56 -1.46 1 58.53 -2.13 1 56.71 2 | | | | |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |

Runs

Aug 26 +3' 49.19 50.02 -1.4 +2.88
 28 +3' 49.90 50.97 -1.4 +2.62

+2.88

3

+2.62

| | $T_m - T_s$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | S' |
|------------|--|--------------------|---------|------|-------------|--------------------|--------------------|--------------|--------|-------------|----|
| d | +15.79 1.19538 9.91078 123152 | 0' 54.4 | 52.7 | 71 | 55' 0 53.85 | 26' 54.80 | 30 43.99 | 44.82 | 55 | 54 30 32.67 | |
| (8) - D | 9.91078 123152 | 9.76378 108452 | | | | | | | | | |
| δ_1 | -1.20 -0.89 | 10 7.11 | 30 37.9 | | | | | | | | |
| d | +16.35 1.21352 9.91078 124666 | 0 54.7 | 53.9 | 8.6 | 0 54.30 | 26 54.05 | 30 43.99 | 45.02 | 65 | 54 30 26.30 | |
| (8) - D | 9.91078 124666 | 9.76378 109966 | | | | | | | | | |
| δ_2 | -1.20 -0.89 | 10 7.00 | 30 37.3 | | | | | | | | |
| d | +35.39 1.54888 9.91087 158211 | 4 37.1 | 34.5 | 11.6 | 4 35.80 | 28 12.55 | 32 1.74 | 2.57 | 60 | 54 31 23.54 | |
| (8) - D | 9.91087 158211 | 9.76360 1143484 | | | | | | | | | |
| δ_1 | -1.20 -1.12 | 12 55.35 | 31 39.6 | | | | | | | | |
| d | +34.57 1.53870 9.91087 157193 | 4 38.4 | 37.1 | 15.5 | 4 37.75 | 28 10.60 | 32 5.79 | 1.57 | 60 | 54 31 23.14 | |
| (8) - D | 9.91087 157193 | 9.76360 112466 | | | | | | | | | |
| δ_2 | -1.20 -1.12 | 12 55.44 | 31 38.9 | | | | | | | | |
| d | +35.65 1.55206 9.90996 158438 | 4 51.4 | 48.1 | 99.5 | 4 49.75 | 17 58.60 | 21 47.79 | 48.62 | 0 | 54 21 9.37 | |
| (8) - D | 9.90996 158438 | 9.76537 1143949 | | | | | | | | | |
| δ_1 | -1.22 -1.80 | 20 37.64 | 21 24.2 | | | | | | | | |
| d | +46.31 1.66567 9.90996 169799 | 4 42.2 | 41.5 | 37 | 4 41.85 | 18 6.50 | 21 55.69 | 57.47 | 0 | 54 21 6.57 | |
| (8) - D | 9.90996 169799 | 9.76537 1155340 | | | | | | | | | |
| δ_2 | -1.22 -1.80 | 20 37.58 | 21 24.1 | | | | | | | | |
| d | +36.11 1.55763 9.89702 154701 | 1 31.5 | 30.6 | 21 | 1 31.05 | 17.30 | 5 6.44 | 7.32 | 20 | 52 4 28.73 | |
| (8) - D | 9.89702 154701 | 9.78853 1146852 | | | | | | | | | |
| δ_1 | -1.42 -5.26 | 0 118.83 | 4 34.6 | | | | | | | | |
| d | +40.71 1.60970 9.89702 162908 | 1 26.5 | 27.1 | 13.6 | 1 26.80 | 17.55 | 5 10.74 | 11.57 | 20 | 52 4 24.58 | |
| (8) - D | 9.89702 162908 | 9.78853 1152059 | | | | | | | | | |
| δ_2 | -1.42 -5.26 | 0 48.79 | 4 34.4 | | | | | | | | |
| d | +4.42 0.64542 9.91239 0.68017 | 2 58.3 | 53.9 | 44.2 | 2 57.10 | 44 51.25 | 48 40.44 | 41.27 | 35 | 54 47 52.56 | |
| (8) - D | 9.91239 0.68017 | 9.76057 1152835 | | | | | | | | | |
| δ_1 | -1.24 -5.33 | 1 54.62 | 48 37.4 | | | | | | | | |
| d | +11.04 1.04297 9.91239 120777 | 2 53.1 | 51.9 | 5.0 | 2 52.50 | 44 55.85 | 48 45.04 | 45.87 | 35 | 54 48 55.74 | |
| (8) - D | 9.91239 120777 | 9.76057 1192590 | | | | | | | | | |
| δ_2 | -1.24 -5.33 | 1 54.48 | 48 36.3 | | | | | | | | |

Date₁ = 1876 Aug 26Observer
RecorderDate₂ = Aug 28Observer
Recorder

4

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| Star. | α | δ | Mag. | T_a | T_m | T_e | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T | |
|--|---------------------------------|------------|------|---------------------------------------|---------|-------|-------|-------|-------------------------|----------------------|---|---|---|--|
| 5 ³ 5 ^{9.0} K | 52 ⁴⁴ 42.4 | 7.3 7.9 | 19 | 6 49.4 52.3 53.6 53.43 1 | 6 53.8 | 57.3 | 0.6 | 4.2 | 7.3 -78.98 | 6 5 5 | 59.1 86.4 -77.60 -1.38 42.66 -2.24 38.42 0 | | | |
| ((8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | | |
| K | | 7.2 | | 6 24.3 28.7 31.6 28.20 7 | 6 54.6 | 58.1 | 1.4 | 4.7 | 8.2 -79.58 8 | 7 5 5 | 40 -78.54 -1.35 41.50 -2.19 38.32 8 | | | |
| ((8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | | |
| 7 ⁵⁶ 7 ^{32.9} K | 54 ²² 20.1 | 8.7 8.9 | | 8 49.8 53.7 56.8 58.43 2 | 9 14.8 | 18.5 | 21.9 | 25.6 | 29.1 -79.08 | 9 8 87 | 28.98 -77.60 -1.48 2.90 -2.22 26.8 59. 1 | | | |
| ((8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | | |
| K | | 8.7 | | 8 41.0 44.1 46.8 48.97 2 | 9 15.8 | 19.0 | 22.9 | 26.4 | 29.9 -80.00 79.98 | 9 8 8 7 | 38.50 -78.554 -1.46 2.79 -2.16 26.46 59. 1 | | | |
| ((8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | | |
| 10 ²⁹ 10 ^{5.2} K | 54 ⁵³ 51.7 9 | 8.9 8.9 | | 11 12.3 12.30 1 | 11 40.4 | 44.2 | 47.6 | 51.2 | 54.9 -79.12 | 11 10 11 | 48.66 -77.60 -1.52 28.54 58.72 -77.60 -1.52 36.60 -222 48.10 -78.54 -1.49 28.36 58.74 -78.54 -1.49 36.65 -216 58.08 -77.60 -1.52 58.96 -2.24 38.72 5 4 | -2.22 5 10 28.32 10 28.32 -222 3 10 38.38 10 26.27 28.22 -216 10 38.46 3 | | |
| ((8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | | |
| K | | 8.8 | | 11 16.7 18.80 5 | 11 41.3 | 44.9 | 48.4 | 51.9 | 55.5 -80.08 2 | 11 10 11 10 | 48.10 -78.554 -1.49 28.36 58.74 -78.554 -1.49 36.65 -216 58.08 -77.60 -1.52 58.96 -2.24 38.72 5 4 | 10 38.38 10 26.27 28.22 -216 10 38.46 3 | | |
| ((8) - D) $\frac{\kappa'}{100}$ | | 8.7 | | 11 18.3 8 | 11 49.5 | 53.0 | 56.6 | 0.2 | 3.9 -80.08 2 | 11 10 13 | 58.4 -78.554 -1.49 36.65 -216 58.08 -77.60 -1.52 58.96 -2.24 38.72 5 4 | 10 26.27 28.22 -216 10 38.46 3 | | |
| a_2 | | | | | | | | | | | | | | |
| 12 ³³ 12 ^{9.0} K | 54 ⁵⁶ 54.7 | 7.0 7.7 | | 13 20.1 22.8 25.9 28.93 1 | 13 50.9 | 54.4 | 58.1 | 1.7 | 5.3 -79.12 | 13 12 12 | 58.08 -77.60 -1.52 58.96 -2.24 38.72 5 4 | | | |
| ((8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | | |
| K | | 7.0 | | 13 30.2 33.0 35.7 38.97 1 | 13 57.6 | 55.2 | 58.7 | 2.3 | 5.9 -80.08 2 | 13 12 12 | 58.74 -78.554 -1.49 58.70 -2.19 38.52 8 | | | |
| ((8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | | |
| 15 ²⁶ 15 ^{2.8} K | 53 ²⁰ 8.7 23.7 | 8.3 7.9 | | 17 24.5 27.4 30.5 28.47 6 | 17 25.2 | 28.6 | 32.1 | 35.5 | 39.0 -79.03 | 17 16 16 | 38.08 -77.60 -1.43 13.05 -2.28 18.77 9 1 | | | |
| ((8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | | |
| K | | 8.2 | | 16 55.2 57.7 60 58.97 6 | 17 25.8 | 29.3 | 32.4 | 36.1 | 39.6 -79.93 1 | 17 16 16 | 38.68 -78.553 -1.40 12.73 -2.22 18.68 9 | | | |
| ((8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | | |

Runs

+2.88

+2.62

5

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | 8' |
|---------------------------|---|--------------------------------|------|---------|-----------|--------------------|------------------------------------|-----------------|--------|---|--|
| d | +8.21 0.91434 9.90082 0.93752 | 2 146 9.78213 0.81883w | 12.9 | 7.5 | 42, 13.75 | 40' 44 | 34.60 22.74 8.86 | 24.62 -6.59 | 40 | 52 144 15.13 18.03 -2 -31 +1023 +40 | 10.30 13.18 |
| (8) - D) $\frac{d'}{100}$ | -1.39 -5.66 | | | | | | | | | -10.50 44 17.87 20.71 | |
| δ_1 | | 537.03 | | 44 15.0 | | | | | | | |
| d | +33.20 1.52114 9.90091 1.54441 | 1 54.7 9.78213 0.42563w | 54.9 | 1.6 | 1 54.80 | 40 52 44 | 53.55 43.45 -2.503 | 44.52 -26.65 | 40 | 52 44 8.42 17.87 -29 -27 +10.36 +40 | +10.20 12.52 |
| (8) - D) $\frac{d'}{100}$ | -1.39 -5.66 | | | | | | | | | -10.50 44 17.87 20.71 | |
| δ_2 | | 536.94 | | 44 14.1 | | | | | | | |
| d | +28.35 1.45561 9.91005 1.48802 | 3 52.1 9.76519 0.13431w | 49.5 | 10.16 | 3 52.80 | 18 52 22 | 57.55 46.71 -30.76 | 47.57 -22.64 | 0 | 54 22 15.78 25.53 -21 -53 +11.92 +45 | +11.653 14.51 |
| (8) - D) $\frac{d'}{100}$ | -1.29 -5.86 | | | | | | | | | -10.60 22 26.56 29.44 | |
| δ_1 | | 758.39 | | 22 23.6 | | | | | | | |
| d | +38.83 1.58917 9.91005 1.62158 | 3 43.0 9.76519 0.14767w | 42.0 | 5.0 | 3 42.50 | 19 54 22 | 58.5 55.45 -41.84 | 56.82 -29.97 | 0 | 54 22 13.41 26.85 -39 -52 +12.05 +45 | +11.59 14.21 |
| (8) - D) $\frac{d'}{100}$ | -1.29 -5.86 | | | | | | | | | -10.70 22 27.44 30.6 | |
| δ_2 | | 758.37 | | 22 24.2 | | | | | | | |
| d | +35.36 1.54851 9.91292 1.60622 | 2 4.1 9.75949 0.14303w | 1.9 | 6.0 | 2 3.00 | 50 54 54 | 45.35 34.54 -38.35 | 35.37 -26.94 | 30 | 54 54 56.19 8.43 -32 -28 +12.43 +50 | 54 4.43 -42 -28 +12.43 +50 |
| (8) - D) $\frac{d'}{100}$ | -1.26 -6.07 | | | | | | | | | -10.70 54 12.94 54 8.84 | |
| δ_1 | | 758.37 | | 22 24.2 | | | | | | | |
| d | +31.72 1.50106 9.91292 1.53634 | 2 5.8 9.75949 0.13829w | 4.9 | 10.7 | 2 5.35 | 50 54 54 | 43.00 32.40 -31.38 | 33.97 -24.15 | 30 | 54 54 58.52 9.82 -26 -29 +12.58 +50 | 54 5.52 -36 -29 +12.58 +50 |
| (8) - D) $\frac{d'}{100}$ | -1.26 -6.07 | | | | | | | | | -11.10 54 13.87 54 9.47 | |
| δ_2 | | 758.37 | | 22 24.2 | | | | | | | |
| d | +35.15 1.54593 9.90996 1.57825 | 4 10.9 9.76537 0.14336w | 7.9 | 15.8 | 4 9.40 | 53 54 57 | 38.95 28.77 -37.87 | 28.97 -27.14 | 25 | 54 21 50.27 54 57 1.83 -33 -57 +11.87 +45 | +11.42 14.30 |
| (8) - D) $\frac{d'}{100}$ | -1.26 -6.24 | | | | | | | | | -12.70 57 5.43 57 2.65 -17 -60 +12.00 +45 | |
| δ_1 | | 1234.46 | | 56 59.2 | | | | | | | |
| d | +25.77 1.41111 9.91310 1.44657 | 4 18.0 9.75913 0.129260w | 16.1 | 14.1 | 4 17.05 | 53 54 57 | 31.30 21.20 -27.46 | 22.27 -19.62 | 25 | 57 21 53.24 57 2.65 -17 -60 +12.00 +45 | +11.68 14.30 |
| (8) - D) $\frac{d'}{100}$ | -1.26 -6.24 | | | | | | | | | -11.20 57 5.75 57 22.53 -1 -17 +10.89 +40 | |
| δ_2 | | 1234.27 | | 56 59.5 | | | | | | | |
| d | +4.61 0.66370 9.90471 0.69077 | 1 12.7 9.77524 0.56130w | 11.7 | 4.4 | 1 12.20 | 53 25 | 36.15 25.34 -49.06 -14.91 | 26.17 -36.44 | 0 | 53 25 18.45 25 24.06 -31 -11 +11.03 +40 | +11.11 13.99 |
| (8) - D) $\frac{d'}{100}$ | -1.38 -6.49 | | | | | | | | | -10.80 25 22.72 25 22.72 | |
| δ_1 | | 16 8.39 | | 25 19.2 | | | | | | | |
| d | +34.71 1.54045 9.90480 1.56761 | 0 48.8 9.77524 0.43788w | 46.9 | 15.7 | 0 47.85 | 22 53 25 | 0.50 50.40 -36.95 | 57.47 -27.41 | 0 | 53 25 18.45 25 24.06 -31 -11 +11.03 +40 | +11.01 13.63 |
| (8) - D) $\frac{d'}{100}$ | -1.38 -6.49 | | | | | | | | | -11.20 25 22.72 26.49 | |
| δ_2 | | 16 8.17 | | 25 20.0 | | | | | | | |

Sum
Continued

Date₁ = 1876 Aug. 26

Observer
Recorder

Date₂ = Aug. 28

Observer _____
Recorder _____

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| Star. | α | δ | Mag. | T_0 | T_m | T_e | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T | |
|------------|-----------|----------|-------|-------|------------|---------|-------|-------|-------|--------|------|---------------|-------|------|
| 22 | 26 | 54 17 | 8.8 | 19 | 23 24.7 | 23 46.6 | 50.1 | 53.5 | 57.3 | 0.8 | 26 | 58.66 | -1.1 | |
| 22 | 26 | 15.7 | 8.5 | | 27.0 | | | | | -79.08 | 22 | -77.60 | -1.1 | |
| (8) - D | κ' | | | | 30.8 | | | | | | 22 | -1.48 | -1.1 | |
| α_1 | | | | | 28.50 | | | | | | 22 | 34.58 | -1.1 | |
| | | | | | 6 | | | | | | 22 | -2.29 | -1.1 | |
| | | | | | | | | | | | 22 | 32.29 | -1.1 | |
| | | | | | | | | | | | | 1 | -1.1 | |
| | | | | | | | | | | | | 3 | -1.1 | |
| | | | 8.7 | 23 | 22.4 | 23 47.3 | 50.8 | 54.6 | 57.9 | 1.3 | 23 | 58.38 | -1.1 | |
| | | | | | 25.3 | | | | | -79.98 | | -78.553 | -1.1 | |
| | | | | | 27.3 | | | | | 7 | | -1.45 | -1.1 | |
| (8) - D | κ' | | | | 28.09 | | | | | | 22 | 34.38 | -1.1 | |
| α_2 | | | | | 4 | | | | | | 22 | -2.24 | -1.1 | |
| | | | | | | | | | | | 22 | 39.52 | -1.1 | |
| | | | | | | | | | | | | 31.16 | -1.1 | |
| | | | | | | | | | | | | 31. | -1.1 | |
| 24 | 52 | 52 54 | 8.6 | 25 | 57.6 | 26 13.7 | 17.1 | 20.5 | 24.1 | 27.4 | 26 | 58.56 | -1.1 | |
| 24 | 28.0 | 52.3 | 8.7 | | 54.2 | | | | | -79.01 | | -77.60 | -1.1 | |
| (8) - D | κ' | | | | 57.1 | | | | | | | -1.41 | -1.1 | |
| α_1 | | | | | 34.30 | | | | | | 25 | 1.55 | -1.1 | |
| | | | | | 3 | | | | | | | -2.33 | -1.1 | |
| | | | | | | | | | | | 24 | 59.22 | -1.1 | |
| | | | | | | | | | | | | 8 | -1.1 | |
| | | | | | | | | | | | | 0 | -1.1 | |
| | | | 8.8 | 25 | 37.0 | 26 14.2 | 17.8 | 21.0 | 24.7 | 28.3 | 26 | 58.20 | -1.1 | |
| | | | | | 41.0 | | | | | -79.98 | | -78.553 | -1.1 | |
| | | | | | 43.0 | | | | | 0 | | -1.38 | -1.1 | |
| (8) - D | κ' | | | | 43.0 | | | | | | 25 | 1.27 | -1.1 | |
| α_2 | | | | | 39. | | | | | | | -2.28 | -1.1 | |
| | | | | | | | | | | | 25 | 5.33 | -1.1 | |
| | | | | | | | | | | | 25 | 58.02 | -1.1 | |
| | | | | | | | | | | | | 58.02 | -1.1 | |
| 27 | 26 | 52 20 | 8.6 | 28 | 8.3 | 28 49.7 | 53.0 | 56.3 | 59.8 | 3.1 | 28 | 58.58 | -1.1 | |
| 27 | 24 | 18.5 | 8.8 | | 10.2 | | | | | -78.95 | | -77.60 | -1.1 | |
| (8) - D | κ' | | | | 13.2 | | | | | | | -1.38 | -1.1 | |
| α_1 | | | | | 15.57 | | | | | | 27 | 37.40 | -1.1 | |
| | | | | | 9 | | | | | | | -2.35 | -1.1 | |
| | | | | | | | | | | | 27 | 38.05 | -1.1 | |
| | | | | | | | | | | | | 4 | -1.1 | |
| | | | | | | | | | | | | 6 | -1.1 | |
| | | | | | | | | | | | | 28 | 58.06 | -1.1 |
| | | | | | 16.6 | | | | | -79.88 | | -78.553 | -1.1 | |
| | | | | | 19.4 | | | | | 6 | | -1.35 | -1.1 | |
| (8) - D | κ' | | | | 18.7 | | | | | | 27 | 37.16 | -1.1 | |
| α_2 | | | | | 5 | | | | | | | -2.38 | -1.1 | |
| | | | | | | | | | | | 27 | 38.88 | -1.1 | |
| | | | | | | | | | | | | 90 | -1.1 | |
| Aug. 26 | | | | | | | | | | | | | -1.1 | |
| 19 | 28 | 36 | 53 54 | 8.5 | 19 29 28.7 | 29 58.1 | 1.4 | 4.8 | 8.3 | 11.8 | 30 | 38.88 | -1.1 | |
| 28 | 12.8 | 52.6 | 9.0 | | 30.6 | | | | | -79.06 | | -77.60 | -1.1 | |
| (8) - D | κ' | | | | 33.5 | | | | | | | -1.46 | -1.1 | |
| α_1 | | | | | 36.0 | | | | | | 28 | 45.82 | -1.1 | |
| | | | | | 29 | | | | | | | -2.33 | -1.1 | |
| | | | | | | | | | | | 28 | 48.49 | -1.1 | |
| | | | | | | | | | | | | 2 | -1.1 | |
| Aug. 26 | | | | | | | | | | | | 49 | -1.1 | |
| 19 | 29 | 23 | 53 59 | 8.8 | 19 30 32.1 | 30 43.3 | 47.0 | 50.3 | 53.6 | 57.1 | 30 | 58.26 | -1.1 | |
| 28 | 59.7 | 57.2 | 9.0 | | 35.2 | | | | | -79.06 | | -77.60 | -1.1 | |
| (8) - D | κ' | | | | 37.6 | | | | | | | -1.46 | -1.1 | |
| α_2 | | | | | 38.97 | | | | | | 29 | 31.20 | -1.1 | |
| | | | | | 3 | | | | | | | -2.33 | -1.1 | |
| | | | | | | | | | | | 29 | 28.87 | -1.1 | |
| | | | | | | | | | | | | 9 | -1.1 | |
| Aug. 28 | | | | | | | | | | | | 3 | -1.1 | |
| 18 | 21 | 17 | 53 45 | 9.1 | 18 22 38.4 | 22 37.3 | 41.0 | 44.8 | 47.8 | 51.4 | 22 | 48.38 | -1.1 | |
| 20 | 54.2 | 44.0 | 9.1 | | 41.3 | | | | | -79.98 | | -78.553 | -1.1 | |
| (8) - D | κ' | | | | 44.8 | | | | | 5 | | -1.40 | -1.1 | |
| α_1 | | | | | 48.58 | | | | | | 21 | 24.42 | -1.1 | |
| | | | | | 0 | | | | | | | -1.95 | -1.1 | |
| | | | | | | | | | | | 21 | 22.47 | -1.1 | |
| | | | | | | | | | | | | 1 | -1.1 | |
| Aug. 28 | | | | | | | | | | | | | -1.1 | |
| 18 | 49 | 18 | 54 44 | 8.4 | 18 50 24.7 | 50 36.9 | 39.4 | 43.0 | 46.5 | 50.3 | 50 | 48.02 | -1.1 | |
| 48 | 53.2 | 43.7 | 8.2 | | 27.0 | | | | | -80.18 | | -78.553 | -1.1 | |
| (8) - D | κ' | | | | 30.4 | | | | | 0 | | -1.46 | -1.1 | |
| α_2 | | | | | 28.87 | | | | | | 49 | 23.09 | -1.1 | |
| | | | | | | | | | | | | 49 | 20.95 | -1.1 |
| Aug. 28 | | | | | | | | | | | | | -1.1 | |
| 18 | 50 | 27 | 54 43 | 8.6 | 18 51 15.0 | 51 36.3 | 38.8 | 43.3 | 46.8 | 50.7 | 51 | 48.38 | -1.1 | |
| 50 | 4.8 | 42.5 | 8.5 | | 17.0 | | | | | -84.20 | | -78.553 | -1.1 | |
| 49 | 54.8 | | | | 20.5 | | | | | 5 | | -1.46 | -1.1 | |
| (8) - D | κ' | | | | 38.6 | | | | | | 50 | 23.26 | -1.1 | |
| α_1 | | | | | 41.6 | | | | | | | -78.553 | -1.1 | |
| | | | | | | | | | | | 51 | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | | 20.7 | -1.1 | |
| | | | | | | | | | | | </ | | | |

Runs

+ 2.88

7

+ 2.62

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | 8' |
|------------|-----------|----------|------|---------|---------|--------------------|--------------------|--------------|--------|---------------|---------|
| | +26.16 | 3 10.1 | 8.1 | 18.2 | 3' 9.10 | 14' | 39.25 | | 5' | 54' 18' 0.28 | |
| d | 1.41764 | | | | | 54 18 | 28.721 | 29.27 | | 9.04 | |
| (8) - D | 9.90960 | 9.76607 | | | | | -28.76 | -20.23 | | -18 | +11.65 |
| δ_1 | 1.44960 | 1.30607 | | | | | | | | -43 | 14.53 |
| | -1.33 | | | | | | | | | +11.81 | |
| | -7.06 | | | | | | | | | +45 | |
| | | 22 29.96 | | 18 5.6 | | | | | | -10.90 | |
| | | | | | | | | | | 18 9.79 | 12.67 |
| d | +29.38 | 3 7.1 | 5.5 | 12.6 | 3 6.30 | 14 | 42.05 | | 5' | 54' 18' 0.32 | |
| (8) - D | 1.46805 | | | | | 54 18 | 31.47 | 33.02 | | 10.31 | |
| δ_2 | 9.90969 | 9.76590 | | | | | -31.53 | -22.71 | | -22 | +11.756 |
| | 1.50010 | 1.35631 | | | | | | | | -43 | 14.38 |
| | -1.33 | | | | | | | | | +11.96 | |
| | -7.06 | | | | | | | | | +45 | |
| | | 22 29.84 | | 18 6.2 | | | | | | -11.40 | |
| | | | | | | | | | | 18 10.67 | 13.29 |
| d | +26.26 | 1 9.1 | 7.2 | 16.3 | 1 8.15 | 51 | 40.20 | | 30 | 52' 55' 1.62 | |
| (8) - D | 1.41929 | | | | | 52 55 | 29.39 | 30.22 | | 9.24 | |
| δ_1 | 9.90184 | 9.78013 | | | | | -27.77 | -20.98 | | -18 | +10.45 |
| | 1.44352 | 1.32178 | | | | | | | | -15 | 13.33 |
| | -1.42 | | | | | | | | | +10.38 | |
| | -7.26 | | | | | | | | | +40 | |
| | | 24 56.80 | | 55 4.3 | | | | | | -11.00 | |
| | | | | | | | | | | 55 8.69 | 11.57 |
| d | +40.87 | 0 57.1 | 57.4 | 5.0 | 57.25 | 52 55 | 57.10 | | 30 | 52' 58' 5.78 | |
| (8) - D | 1.61140 | | | | | | -48.22 | -32.65 | | 9.12 | |
| δ_2 | 9.90197 | 9.78013 | | | | | | | | -44 | +10.37 |
| | 1.63573 | 1.51389 | | | | | | | | -13 | 12.99 |
| | -1.42 | | | | | | | | | +10.54 | |
| | -7.26 | | | | | | | | | +40 | |
| | | 24 56.60 | | 55 3.8 | | | | | | -11.40 | |
| | | | | | | | | | | 55 8.39 | 11.01 |
| d | +45.81 | 4 39.9 | 37.9 | 17.8 | 4 38.90 | 52 21 | 9.45 | | 0 | 52' 21' 10.55 | |
| (8) - D | 1.66096 | | | | | | -48.09 | -37.07 | | 22.40 | |
| δ_1 | 9.89869 | 9.78576 | | | | | | | | -55 | +8.99 |
| | 1.68201 | 1.56908 | | | | | | | | -64 | 11.87 |
| | -1.46 | | | | | | | | | +10.83 | |
| | -7.47 | | | | | | | | | +35 | |
| | | 27 32.59 | | 21 15.8 | | | | | | -11.00 | |
| | | | | | | | | | | 21 20.39 | 23.27 |
| d | +40.3 | 4 44.1 | 42.9 | 7.0 | 4 43.50 | 52 21 | 4.85 | | 0 | 21' 23.20 | |
| (8) - D | 1.60531 | | | | | | -32.62 | | | -43 | +9.23 |
| δ_2 | 9.89869 | | | | | | | | | -66 | 11.85 |
| | 1.62634 | | | | | | | | | +9.77 | |
| | -1.46 | | | | | | | | | +35 | |
| | -7.47 | | | | | | | | | -11.50 | |
| | | 27 32.44 | | 21 16.1 | | | | | | 21 20.93 | 23.55 |
| d | +34.28 | 0 23.7 | 21.9 | 2 5.6 | 0 22.80 | 53 56 | 25.55 | | 30 | 53' 55' 38.01 | |
| (8) - D | 1.53504 | | | | | | -36.73 | -26.75 | | 48.82 | |
| δ_1 | 9.90759 | 9.76991 | | | | | | | | -31 | +11.44 |
| | 1.56499 | 1.42731 | | | | | | | | -6 | 14.32 |
| | -1.37 | | | | | | | | | +11.41 | |
| | -7.57 | | | | | | | | | +40 | |
| | | 28 41.12 | | 55 44.5 | | | | | | -11.10 | |
| | | | | | | | | | | 55 49.16 | 52.04 |
| d | +15.29 | 1 30.4 | 28.8 | 57.2 | 27.60 | 54 56 | 18.75 | | 25 | 54' 53' 57.75 | |
| (8) - D | 1.18441 | | | | | | -16.14 | -11.91 | | 54 53 | 56.86 |
| δ_2 | 9.90244 | 9.76904 | | | | | | | | -6 | +11.64 |
| | 1.20921 | 1.07581 | | | | | | | | -21 | 14.52 |
| | -1.37 | | | | | | | | | +11.51 | |
| | -7.63 | | | | | | | | | +40 | |
| | | 29 26.50 | | 59 52.6 | | | | | | -11.10 | |
| | | | | | | | | | | 08 57.00 | 0.28 |
| d | +2.88 | 1 10.6 | 9.4 | 20.0 | 1 10.00 | 53 41 | 38.35 | | 40 | 53' 44' 54.47 | |
| (8) - D | 0.45939 | | | | | | -30.78 | -29.32 | | 53 44 | 54.47 |
| δ_1 | 9.90657 | 9.77181 | | | | | | | | -17 | +11.57 |
| | 1.44832 | 1.35356 | | | | | | | | +11.34 | 14.19 |
| | -1.26 | | | | | | | | | +40 | |
| | -1.86 | | | | | | | | | -9.60 | |
| | | 21 20.22 | | 45 29.8 | | | | | | 45 25.1 | 31.65 |
| d | +15.65 | 1 15.9 | 14.9 | 10.8 | 1 15.80 | 54 45 | 32.95 | | 40 | 54' 45' 54.47 | |
| (8) - D | 1.19451 | | | | | | -16.94 | -11.97 | | 11.95 | |
| δ_2 | 9.91203 | 9.76129 | | | | | | | | -7 | +11.95 |
| | 1.22890 | 1.07816 | | | | | | | | -17 | 14.52 |
| | -1.22 | | | | | | | | | +12.55 | |
| | -4.28 | | | | | | | | | +39 | |
| | | 2 26.2 | 26.1 | 3.2 | 2.615 | 40 | 22.20 | | 40 | 54' 43' 44.04 | |
| d | +15.14 | | | | | | -28.01 | -19.81 | | 53.26 | |
| (8) - D | 1.15013 | | | | | | | | | -10.50 | |
| δ_1 | 9.91194 | 9.76146 | | | | | | | | 0.45 | 16.72 |
| | 1.24472 | 1.07978 | | | | | | | | 43 | 57.86 |
| | -1.23 | | | | | | | | | 43 | 57.86 |
| | -4.38 | | | | | | | | | 43 | 57.86 |
| | -1.23 | | | | | | | | | 43 | 57.86 |
| | -4.38 | | | | | | | | | 43 | 57.86 |

Date₁ = 1876 Aug. 29
 n = -1.00

Observer
 Recorder

Date₂ = Aug. 30
 n = -1.03

Observer
 Recorder

| Star. | α | δ | Mag. | T_s | T_m | T_e | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T |
|-------------------------------------|--------------------------|------------|------|---------------------------------------|---------|-------|-------|-------|---------------------|---|--|---|---|
| 3 6 2 43.4 κ | 53 58 57.5 | 9.2 8.8 | 18 | 4 46.3 48.0 52.6 48.30 8 | 4 23.5 | 288 | 327 | 360 | 397 -80.18 8 | 4 33.54 -78.81 -1.38 3 12.35 -1.82 3 10.53 9 | 15 33.54 -78.81 -1.38 3 12.35 -1.82 3 10.53 9 | Subtract 1 sec. from all readings for Aug 29 + 30 Add +0.07 to (2D+m) for Aug 29 It has been added to the sum of the corrections and to final R.A. | |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | 9.5 | | 4 27.2 30.0 33.7 34.60 29 | 4 23.8 | 297 | 329 | 364 | 400 -80.46 | 4 32.56 -79.04 -1.42 3 32.50 -1.79 3 10.71 9 | | | |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 8 24 8 1.7 7 42.9 κ | 53 28 27.6 53 28.2 | 8.6 9.3 | 8 | 54.9 56.8 0.4 58.37 6 | 9 24.1 | 275 | 310 | 345 | 380 -80.16 5 | 9 32.22 -78.81 -1.35 8 10.86 -1.88 8 9.28 8 | | | |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | 8.4 | | 9 6.9 10.3 12.7 12.97 8 | 9 24.2 | 278 | 313 | 345 | 380 -80.43 | 9 32.16 -79.04 -1.39 8 10.73 -1.83 8 9.90 7 | | | |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 18 7 17 44.3 κ | 53 26 25.7 | 9.1 8.9 | 19 | 15.5 18.8 21.4 20.7 17. | 19 27.8 | 310 | 335 | 379 | 416 -80.16 | 19 32.35 -78.81 -1.35 18 14.61 -1.91 18 12.62 49 | | | |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | 8.9 | | 19 25.0 28.00 4 | 19 27.9 | 312 | 347 | 381 | 418 -80.43 | 19 32.74 -79.04 -1.39 18 14.31 -1.88 18 12.43 1 | | | |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 19 11 18 48.8 κ | 52 17 16.5 | 9.2 9.0 | 20 | 5.7 9.0 12.7 12.13 8 | 20 34.3 | 375 | 410 | 443 | 477 -80.40 09 | 20 44.16 -78.81 -1.29 19 21.07 -1.94 19 19.12 17.93 | 39 44.16 -78.81 -1.29 19 21.07 -1.94 19 19.12 17.93 | | |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | 9.2 | | 20 23.9 26.8 30.5 30.07 6 | 20 34.6 | 379 | 413 | 444 | 481 -80.37 | 20 42.26 -79.04 -1.33 19 20.89 -1.91 19 18.98 4 | | | |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 21 4 20 41.7 κ | 53 14 13.7 | 7.0 6.5 | 22 | 43.2 46.3 48.7 48.7 5 | 22 23.8 | 274 | 307 | 342 | 376 -80.15 4 | 22 32.74 -78.81 -1.34 21 10.60 -1.93 21 8.66 7 | | | |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | 7.0 | | 22 36 6.1 9.5 24.0 5 | 22 23.9 | 274 | 308 | 344 | 377 -80.42 | 22 32.84 -79.04 -1.38 21 10.42 -1.90 21 8.52 7 | | | |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |

Aug 29 +3' 50.04 51.31 -15 +2.46
 30 +3 50.74 51.11 -15 +2.73

+2.46

9

Runs

+2.73

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | 8' |
|------------|------------------|----------|------|---------|----------|--------------------|--------------------|--------------|--------|-------------|----------|
| | -16.76 | 0' 25.1 | 26.9 | 12.0 | 30 26.00 | 52' 22.35 | | | 30 | 53 56 30.35 | |
| d | 1.22427w | | | | | 53 56 12.39 | | 1366 | | 26.74 | |
| (8) - D | 9.90759 9.76991 | 1.11654 | | | | +17.96 | +13.08 | | | -7 | +11.79 |
| δ_1 | 1.25422 | | | | | | | | | -6 | 14.25 |
| | -1.24 | | | | | | | | | +11.52 | |
| | -0.028 | | | | | | | | | +40 | |
| | | 3 8.30 | | 56 31.6 | | | | | | -9.10 | |
| | | | | | 30 | | | | | 56 30.75 | 21.81 |
| | | | | | | | | | | 56 25.68 | 25.68 |
| d | +2.66 | 0 16.5 | 11.9 | 14 0 | 1170 | 52 36.65 | | | 30 | 53 56 24.34 | 56 25.68 |
| (8) - D | 0.42488 0.42488 | | | | | 53 56 27.39 | 27.76 | | | -0 | +11.74 |
| δ_1 | 0.45283 0.31715w | | | | | -2.58 | -2.08 | | | -3 | 14.47 |
| | -1.24 | | | | | | | | | +11.57 | |
| | -0.28 | | | | | | | | | +40 | |
| | | 3 8.47 | | 56 30.7 | | | | | | -9.20 | |
| | | | | | 58 | | | | | 56 28.22 | 30.95 |
| d | +33.65 | 3 0.9 | 2.0 | 2.9 3 | 145 | 53 24 46.90 | | | 55 | 53 28 1.09 | 67 |
| (8) - D | 1.52699 9.77456 | | | | | 53 28 36.77 | 38.25 | | | -29 | +10.70 |
| δ_1 | 9.90509 9.77456 | | | | | -35.85 | -26.54 | | | -45 | 13.16 |
| | -1.27 | | | | | | | | | +11.04 | |
| | -0.73 | | | | | | | | | +40 | |
| | | 8 6.74 | | 28 14.9 | | | | | | -9.20 | |
| | | | | | 58 | | | | | 28 13.21 | 15.67 |
| d | +21.19 | 3 10.1 | 10.9 | 10 3 | 1050 | 53 24 37.85 | | | 55 | 53 28 6.02 | |
| (8) - D | 1.32613 9.77473 | | | | | 53 28 28.59 | 28.96 | | | -12 | +10.73 |
| δ_1 | 9.90499 9.77473 | | | | | -22.57 | -16.72 | | | -48 | 13.46 |
| | -1.27 | | | | | | | | | +10.93 | |
| | -0.73 | | | | | | | | | +40 | |
| | | 8 6.63 | | 28 15.4 | | | | | | -9.30 | |
| | | | | | 58 | | | | | 28 14.67 | 16.40 |
| d | +16.59 | 0 9.9 | 11.1 | 2.10 | 0 10.50 | 53 22 37.85 | | | 0 | 53 26 10.66 | |
| (8) - D | 1.20925 9.77507 | | | | | 53 26 27.69 | 29.16 | | | -7 | +14.29 |
| δ_1 | 9.90480 9.77507 | | | | | -17.23 | -12.76 | | | -3 | 13.75 |
| | -1.28 | | | | | | | | | +10.99 | |
| | -1.59 | | | | | | | | | +40 | |
| | | 18 10.21 | | 26 19.2 | | | | | | -9.50 | |
| | | | | | 7 | | | | | 26 18.17 | 20.67 |
| d | +9.74 | 0 13.0 | 13.9 | .9 0 | 1345 | 53 22 34.90 | | | 0 | 53 26 15.24 | |
| (8) - D | 0.98856 9.77507 | | | | | 53 26 25.64 | 26.01 | | | -3 | +14.20 |
| δ_1 | 9.90480 9.77507 | | | | | -10.37 | -7.69 | | | -3 | 13.93 |
| | -1.28 | | | | | | | | | +10.86 | |
| | -1.59 | | | | | | | | | +40 | |
| | | 18 10.15 | | 26 21.0 | | | | | | -9.70 | |
| | | | | | 7 | | | | | 26 19.87 | 22.55 |
| d | +32.03 | 2 58.1 | 58.6 | 7 2 | 5835 | 52 14 50.00 | | | 5 | 52 18 23.20 | |
| (8) - D | 1.50556 9.78625 | | | | | 52 18 40.04 | 41.31 | | | -27 | 9.47 |
| δ_1 | 9.59840 9.78625 | | | | | -16.84 | -25.95 | | | -45 | 11.93 |
| | -1.35 | | | | | | | | | +9.84 | |
| | -1.68 | | | | | | | | | +35 | |
| | | 19 16.58 | | 18 16.3 | | | | | | -9.50 | |
| | | | | | 8 | | | | | 18 15.33 | 17.79 |
| d | +14.19 | 3 13.7 | 13.1 | .8 3 | 1340 | 52 14 34.95 | | | 5 | 52 18 14.81 | |
| (8) - D | 1.15198 9.78642 | | | | | 52 18 25.69 | 26.06 | | | -5 | +9.58 |
| δ_1 | 9.59830 9.78642 | | | | | -14.88 | -11.50 | | | -48 | 12.31 |
| | -1.35 | | | | | | | | | +9.76 | |
| | -1.68 | | | | | | | | | +35 | |
| | | 19 16.63 | | 18 15.5 | | | | | | -9.70 | |
| | | | | | 12 | | | | | 18 14.44 | 17.17 |
| d | +44.67 | 2 6.0 | 6.8 | .8 2 | 640 | 53 10 41.95 | | | 10 | 53 13 44.35 | |
| (8) - D | 1.65002 9.77694 | | | | | 53 14 31.99 | 33.26 | | | -57.83 | |
| δ_1 | 9.90377 9.77694 | | | | | -47.44 | -35.43 | | | -52 | +10.327 |
| | -1.29 | | | | | | | | | -27 | 12.83 |
| | -1.84 | | | | | | | | | +10.80 | |
| | | 21 6.38 | | 13 59.1 | | | | | | +40 | |
| | | | | | 12 | | | | | -9.70 | |
| | | | | | | | | | | 18 14.54 | 0.96 |
| d | +24.44 | 2 21.8 | 21.9 | 17 2 | 2180 | 53 10 26.50 | | | 10 | 53 13 51.29 | |
| (8) - D | 1.38810 9.77711 | | | | | 53 14 14.27 | 17.61 | | | -58.22 | |
| δ_1 | 9.90368 9.77711 | | | | | -25.95 | -19.39 | | | -15 | +10.58 |
| | -1.29 | | | | | | | | | -38.5 | 13.31 |
| | -1.84 | | | | | | | | | +10.68 | |
| | | 21 6.23 | | 13 59.9 | | | | | | +40 | |
| | | | | | | | | | | -9.70 | |
| | | | | | | | | | | 18 14.54 | 1.73 |

Date₁ = 1876 Aug. 29Observer
RecorderDate₂ = Aug. 30Observer
Recorder

10

| Star. | α | δ | Mag. | T_s | T_m | T_e | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T |
|-------|----------|----------|------|-------|---------|---------|-------|--------|-------|--------|------|---------------|---|
| 49 | 18 | 54 44 | 8.8 | 18 | 50 31.4 | 50 36.1 | 39.5 | 43.2 | 46.8 | 50.4 | 50 | 3.2 | |
| | | | 8.2 | | 33.6 | | | | | -80.20 | 49 | 4.820 | |
| | | | | | 35.7 | | | | | | 49 | -78.7880 | |
| | | | | | 38.57 | | | | | | 49 | -1.46 | |
| | | | | | 2.7 | | | | | | 49 | 23.01 | |
| | | | | | | | | | | | 49 | -2.03 | |
| | | | | | | | | | | | 49 | 20.97 | |
| | | | | | | | | | | | 19 | | |
| | | | | | | | | | | | 50 | 3.4240 | |
| | | | | | | | | | | | 50 | -79.05 | |
| | | | | | | | | | | | 49 | -1.44 | |
| | | | | | | | | | | | 49 | 22.91 | |
| | | | | | | | | | | | 49 | -2.00 | |
| | | | | | | | | | | | 49 | 20.91 | |
| | | | | | | | | | | | 19 | | |
| 18 | 30 27 | 54 43 | 8.8 | 51 | 25.1 | 51 37.0 | 40.3 | 43.8 | 46.9 | 50.6 | 51 | 2.72 | |
| | | | 8.5 | | 28.7 | | | | | -80.20 | 50 | -78.7880 | |
| | | | | | 33.8 | | | | | | 50 | -1.41 | |
| | | | | | 38.20 | | | | | | 50 | 23.53 | |
| | | | | | 49.4 | 51 47.8 | 51.0 | 58.6 | 57.6 | 1.0 | 51 | -78.7880 | |
| | | | | | 48.40 | | | (54.1) | | -80.20 | 51 | -1.41 | |
| | | | | | 8. | | | | | | 50 | 34.11 | |
| | | | | | | | | | | | 51 | -79.05 | |
| | | | | | | | | | | | 50 | -1.44 | |
| | | | | | | | | | | | 50 | 23.25 | |
| | | | | | | | | | | | 51 | -79.05 | |
| | | | | | | | | | | | 51 | -1.44 | |
| | | | | | | | | | | | 50 | 33.95 | |
| | | | | | | | | | | | 51 | -78.7880 | |
| | | | | | | | | | | | 50 | -1.26 | |
| | | | | | | | | | | | 0 | 36.62 | |
| | | | | | | | | | | | 0 | -2.16 | |
| | | | | | | | | | | | 0 | 34.45 | |
| | | | | | | | | | | | 3 | | |
| | | | | | | | | | | | 1 | 38.676 | |
| | | | | | | | | | | | 1 | -79.05 | |
| | | | | | | | | | | | 0 | -1.30 | |
| | | | | | | | | | | | 0 | 36.33 | |
| | | | | | | | | | | | 0 | -2.14 | |
| | | | | | | | | | | | 0 | 34.427 | |
| | | | | | | | | | | | 3 | | |
| | | | | | | | | | | | 3 | 12.64 | |
| | | | | | | | | | | | 1 | -78.7880 | |
| | | | | | | | | | | | 1 | -1.40 | |
| | | | | | | | | | | | 1 | 52.46 | |
| | | | | | | | | | | | 1 | -2.09 | |
| | | | | | | | | | | | 1 | 50.35 | |
| | | | | | | | | | | | 49 | | |
| | | | | | | | | | | | 1 | 12.82 | |
| | | | | | | | | | | | 3 | -79.05 | |
| | | | | | | | | | | | 1 | -1.44 | |
| | | | | | | | | | | | 1 | 52.33 | |
| | | | | | | | | | | | 1 | -2.07 | |
| | | | | | | | | | | | 1 | 50.26 | |
| | | | | | | | | | | | 49 | | |
| 5 | 31 | 53 26 | 7.8 | 6 | 38.6 | 6 52.4 | 55.9 | 52.2 | 28 | 60 | 6 | 8.26 | |
| | | | 7.5 | | 42.3 | | | | | -80.15 | 6 | -78.7880 | |
| | | | | | 44.8 | | | | | | 5 | -1.35 | |
| | | | | | 49.0 | | | | | | 5 | 39.13 | |
| | | | | | 6 | | | | | | 5 | -2.14 | |
| | | | | | | | | | | | 5 | 30.978 | |
| | | | | | | | | | | | 6 | 39 | |
| | | | | | | | | | | | 6 | 28.52 | |
| | | | | | | | | | | | 5 | -79.05 | |
| | | | | | | | | | | | 5 | -1.39 | |
| | | | | | | | | | | | 5 | 4.48 | |
| | | | | | | | | | | | 6 | 58.38 | |
| | | | | | | | | | | | 6 | -79.05 | |
| | | | | | | | | | | | 5 | -1.39 | |
| | | | | | | | | | | | 5 | 38.94 | |
| | | | | | | | | | | | 5 | -212.5 | |
| | | | | | | | | | | | 5 | 36.82 | |
| 4 | 32.3 | 53 25.1 | 9.0 | 5 | 55.0 | 6 18.0 | 21.6 | 25.0 | 28.3 | 31.7 | 6 | 39 | |
| | | | | | 57.6 | | | | | -80.44 | 6 | -79.05 | |
| | | | | | 0.8 | | | | | | 5 | -1.39 | |
| | | | | | 56.80 | | | | | | 5 | 4.48 | |
| | | | | | 2.0 | 6 52.2 | 56.0 | 52.5 | 28 | 64 | 6 | 58.38 | |
| | | | | | 2.44 | | | | | -80.44 | 6 | -79.05 | |
| | | | | | 100 | | | | | | 5 | -1.39 | |
| | | | | | | | | | | | 5 | 38.94 | |
| | | | | | | | | | | | 5 | -212.5 | |
| | | | | | | | | | | | 5 | 36.82 | |

Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|------------|-----------|----------|------|-------------|---------|--------------------|--------------------|--------------|--------|---------------|-----------|
| | + 0.63 | 1' 21.1 | 21.1 | 41' 21.10 | | 41' | 27.25 | | 40 | 54' 45' 6.87 | |
| d | 0.98363 | | | | | 54 45 | 14.29 | 18.56 | | 12.71 | |
| (8) - D | 9.91203 | 9.96129 | | | | | -10.42 | -5.85 | | -3 | +12.65 |
| δ_1 | 1.01802 | 0.76728 | | 113 | | | | 737 | | -19 | 15.11 |
| | -1.22 | | | | | | | | | +12.37 | |
| | -4.28 | 49 18.75 | | 45 12.8 | 41 | | | | | +50 | |
| | | | | | | | | | | -10.70 | |
| | | | | | | | | | | 45 14.66 | 17.12 |
| d | + 8.07 | 1 21.6 | 21.4 | 10.1 21.50 | | 41' | 26.85 | | 40 | 54' 45' 8.85 | |
| | 0.90687 | | | | | 54 45 | 14.59 | 17.96 | | 11.79 | |
| (8) - D | 9.91203 | 9.96129 | | | | | -5.74 | -16.17 | | -2 | +12.54 |
| δ_1 | 0.94126 | 0.79052 | | 42 | | | | | | -20 | 15.27 |
| | -1.22 | | | | | | | | | +12.26 | |
| | -4.28 | 49 18.69 | | 45 12.0 | | | | | | +50 | |
| | | | | | | | | | | -10.80 | |
| | | | | | | | | | | 45 13.53 | 16.26 |
| d | +14.52 | 2 35.6 | 34.9 | 10.53 35.25 | | 40 | 13.10 | | 40 | 54' 43' 47.43 | 44 0.66 |
| | 1.16194 | | | | | 54 44 | 9.77 | 4.41 | | 53.30 | -5 |
| (8) - D | 9.91194 | 9.96126 | | 54 43 33.30 | 44 0.66 | | -15.74 | -11.11 | | -5 | -39 |
| δ_1 | 1.19627 | 1.04579 | | +12.35 | +12.35 | | | | | -39 | +12.34 |
| | -1.23 | | | 14.81 | 14.81 | | | | | +45 | +45 |
| | -4.38 | 49 18.69 | | | | | | | | -10.70 | |
| | | | | | | | | | | 43 57.41 | 44 4.80 |
| d | +23.64 | 2 27.8 | 28.4 | 16.22 28.10 | | 40 | 20.25 | | 40 | 54' 43' 16.41 | 44 0.92 |
| | 1.37365 | | | | | 54 44 | 10.99 | 11.36 | | 53.27 | -5 |
| (8) - D | 9.91194 | 9.96146 | | 54 43 53.27 | 44 0.92 | | -26.58 | -18.09 | | -15 | -37 |
| δ_1 | 1.40795 | 1.25747 | | +12.17 | +12.27 | | | | | -37 | +12.24 |
| | -1.23 | | | 14.90 | 15.00 | | | | | +12.24 | +45 |
| | -4.38 | 49 18.69 | | | | | | | | +45 | -10.90 |
| | | | | | | | | | | -10.90 | 44 5.02 |
| d | +21.56 | 3 11 | 19 | 10 3 15.0 | | 51 | 24 16.85 | | 55 | 57' 28' 14.53 | |
| | 1.33365 | | | | | 51 28 | 36.59 | 38.16 | | 26.36 | +8.84 |
| (8) - D | 9.89344 | 9.94431 | | | | | -22.36 | -17.80 | | -13 | 11.27 |
| δ_1 | 1.34945 | 1.25032 | | | | | | | | -45 | |
| | -1.45 | | | | | | | | | +9.09 | |
| | -5.23 | 0 32.00 | | 28 15.5 | 30 | | | | | +30 | |
| | | | | | | | | | | -10.90 | |
| | | | | | | | | | | 28 14.77 | 20.73 |
| d | +36.25 | 2 48.1 | 48.5 | 6 2 48.30 | | 51 | 28 0.85.05 | | 55 | 57' 28' 14.53 | |
| | 1.55431 | | | | | 51 28 | 51.59 | 51.96 | | 22.01 | +8.55 |
| (8) - D | 9.89344 | 9.94431 | | | | | -37.59 | -29.92 | | -35 | 11.28 |
| δ_1 | 1.57511 | 1.47598 | | | | | | | | -42 | |
| | -1.45 | | | | | | | | | +9.02 | |
| | -5.23 | 0 31.82 | | 28 17.0 | 38 | | | | | +30 | |
| | | | | | | | | | | -11.10 | |
| | | | | | | | | | | 28 14.77 | 22.22 |
| d | +14.64 | 3 5.9 | 5.4 | 1.3 3 5.65 | | 54 | 44 12.70 | | 35 | 54' 48' 16.48 | |
| | 1.16554 | | | | | 54 48 | 32.44 | 34.01 | | 22.83 | +12.43 |
| (8) - D | 9.91239 | 9.96057 | | | | | -10.66 | -11.18 | | -46 | 14.89 |
| δ_1 | 1.20029 | 1.04847 | | | | | | | | +12.45 | |
| | -1.24 | | | | | | | | | +50 | |
| | -5.33 | 1 48.11 | | 48 21.3 | 38 | | | | | -11.10 | |
| | | | | | | | | | | 48 24.16 | 26.62 |
| d | +14.7 | 3 5.4 | 4.9 | 10.3 3 5.15 | | 54 | 48 43.20 | | 35 | 48' 23.08 | |
| | 1.16722 | 1.16732 | | | | 54 48 | 33.94 | 34.31 | | -6 | +12.35 |
| (8) - D | 9.91239 | 9.96057 | | | | | -10.66 | -11.18 | | -46 | 15.08 |
| δ_1 | 1.20207 | 1.05025 | | | | | | | | +12.37 | |
| | -1.24 | | | | | | | | | +50 | |
| | -5.33 | 1 48.02 | | 48 21.5 | | | | | | -11.30 | |
| | | | | | | | | | | 48 24.16 | 26.86 |
| d | +17.36 | 0 40.5 | 45.6 | 1.1 0 45.55 | | 53 | 25 2.80 | | 0 | 53' 25' 34.36 | |
| | 1.23955 | 1.23955 | | | | 53 25 | 52.84 | 54.11 | | 40.40 | +11.23 |
| (8) - D | 9.90480 | 9.94750 | | | | | -16.45 | -13.71 | | -8 | 13.69 |
| δ_1 | 1.26671 | 1.13698 | | | | | | | | -11 | |
| | -1.34 | | | | | | | | | +11.02 | |
| | -5.65 | 5 34.64 | | 25 37.3 | 59 | | | | | +40 | |
| | | | | | | | | | | -11.10 | |
| | | | | | | | | | | 25 40.53 | 42.99 |
| d | +24.12 | 4 49.9 | 49.4 | 13 4 49.65 | | 53 | 26 58.40 | | 55 | 53' 26' 20.56 | |
| | 1.43389 | | | | | 53 26 | 49.41 | 49.81 | | 28.40 | +14.53 |
| (8) - D | 9.90490 | 9.94490 | | | | | -28.58 | -21.41 | | -19 | 13.20 |
| δ_1 | 1.46065 | 1.33065 | | | | | | | | -72 | +10.98 |
| | -1.34 | | | | | | | | | +10.98 | +40 |
| | -5.65 | 5 34.64 | | 25 37.3 | | | | | | +40 | -11.30 |
| | | | | | | | | | | -11.30 | |
| | | | | | | | | | | 26 50.50 | 25 41.08 |
| | | | | | | | | | | 24.65 | |

Date₁ = 1876 Aug 28Observer
RecorderDate₂ = Aug 30Observer
Recorder

12

| Star. | α | δ | Mag. | T_s | T_m | T_a | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T |
|----------|-----------------|----------|------|-------|-------|---------|-------|-------|-------|--------|------|---------------|----------|
| 7 | 56 | 54 22 | 9.0 | 19 8 | 53.4 | 9 19.9 | 28.1 | 26.6 | 20.2 | 30.2 | 9 | 28.24 | |
| 7 | 32.9 | 20.1 | 8.9 | | 56.5 | 16.4 | 19.9 | 23.1 | 26.6 | -80.80 | 8 | -78.78 | |
| | | | | | 0.0 | | | | | 19 | | -1.40 | |
| | | | | | 58.63 | | | | | | 8 | 3.06 | |
| | | | | | 5 | | | | | | | -2.13 | |
| (8) - D | κ'_{100} | | | | | | | | | | 8 | 2.91 | |
| a_1 | | | | | | | | | | | | 59. | |
| | | | 9.0 | 8 | 37.4 | 9 16.3 | 19.8 | 23.2 | 26.9 | 30.3 | 9 | 28.30 | 22.50 |
| | | | | | 40.2 | | | | | -80.49 | 8 | -79.05 | |
| κ | | | | | 42.6 | | | | | | | -1.44 | |
| (8) - D | κ'_{100} | | | | 39.1 | | | | | | 8 | 2.81 | |
| a_2 | | | | | | | | | | | | -2.10 | |
| | | | | | | | | | | | 8 | 2.91 | |
| | | | | | | | | | | | 7 | 57 | |
| 10 | 29 | 54 53 | 9.0 | 11 | 27 | 11 41.7 | 45.2 | 48.9 | 52.8 | 56.1 | 11 | 48.94 | |
| 10 | 5.2 | 51.8 | 8.9 | | 7.4 | | | | | -80.22 | 10 | -78.78 | |
| 9 | 58.6 | 1.9 | | | 5.70 | | | | | | 10 | -1.42 | |
| (8) - D | κ'_{100} | | | | 1 | | | | | | 11 | 28.74 | -2.14 5 |
| a_1 | | 54 51.7 | 8.9 | 11 | 7.1 | 11 49.9 | 53.2 | 57.1 | 6.4 | 4.1 | 11 | 58.24 | 10 28.58 |
| | | | | | 8.10 | | | | | -80.22 | 10 | -78.78 | |
| | | | | | 6 | | | | | | 10 | -1.42 | |
| | | | 8.9 | 11 | 11.5 | 11 41.7 | 45.4 | 49.0 | 52.8 | 56.1 | 11 | 36.74 | -2.14 3 |
| κ | | | | | 17.50 | | | | | -80.52 | 11 | 48.00 | 10 38.68 |
| (8) - D | κ'_{100} | | | | 8 | | | | | | 10 | -79.05 | |
| a_2 | | | | | | | | | | | 10 | -1.47 | |
| | | | | | | | | | | | 10 | 28.48 | -2.11 5 |
| | | | 8.9 | 11 | 15.2 | 11 49.9 | 53.6 | 56.9 | 0.7 | 4.3 | 11 | 58.08 | 10 28.37 |
| κ | | | | | 15.20 | | | | | -80.52 | 11 | -79.05 | |
| (8) - D | κ'_{100} | | | | 4 | | | | | | 10 | -1.47 | |
| a_1 | | | | | | | | | | | 10 | 36.56 | -2.11 3 |
| | | | | | | | | | | | | 10 38.45 | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
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| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |

Runs

+ 2.46

13

+ 2.73

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | 8' |
|---------------------------|---|---------|------|---------|----------|--------------------|--------------------|--------------|--------|--|---|
| | +26.6 1.42488 9.76519 1.31243 | 8' 53.3 | 53.2 | .5 | 3' 53.25 | 18' 53.10 | | | 0 | 54 22 25.88 - 19 - 59 + 12.05 + 45 - 11.20 | |
| d | | | | | | 54 22 45.74 | 46.41 | - 20.53 | | + 11.22 14.18 | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.29 -5.86 δ_1 | | 758.63 | | 22 23.0 | | | | | | 22 26.40 | 28.86 |
| | +432.3 1.63579 9.91005 1.66820 | 3 39.5 | 39.1 | .6 | 3 39.30 | 19 9.05 | 23 0.16 | | 0 | 54 22 19.21 - 26.79 - 48 - 54 + 11.95 + 45 - 11.40 | |
| d | | | | | | 54 22 59.79 | 46.58 | - 33.37 | | + 11.38 14.11 | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.29 -5.86 δ_2 | | 758.42 | | 22 23.6 | | | | | | 22 26.77 | 29.50 |
| | +46.24 1.66502 9.91292 1.70030 | 1 57.4 | 58.1 | 15.5 | 1 57.75 | 50 50.60 | 40.64 | 41.91 | 30 | 54 53 50.49 54 6.68 - 56 - 29 + 12.58 + 50 - 11.30 54 10.07 | 46.58 54 3.94 - 63 - 29 + 12.58 + 50 - 11.30 7.26 |
| d | | | | | | 54 54 40.64 | 41.91 | - 35.23 | | + 12.23 + 12.58 + 12.16 | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_1 | | | | | | 50 50.60 | 40.64 | 41.91 | | | |
| | +49.64 1.69758 9.91292 1.73286 | | | | | 54 54 40.64 | 41.91 | - 37.97 | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_2 | | | | | | | | | | | |
| | +41.9 1.62221 9.75949 1.50406 | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_1 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_2 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_1 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_2 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_1 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_2 | | | | | | | | | | | |
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| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_1 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_2 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_1 | | | | | | | | | | | |
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| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_2 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_1 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_2 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_1 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_2 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_1 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_2 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_1 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_2 | | | | | | | | | | | |
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| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_1 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_2 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_1 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_2 | | | | | | | | | | | |
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| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_1 | | | | | | | | | | | |
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| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_2 | | | | | | | | | | | |
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| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_1 | | | | | | | | | | | |
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| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_2 | | | | | | | | | | | |
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| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_1 | | | | | | | | | | | |
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| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_2 | | | | | | | | | | | |
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| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_1 | | | | | | | | | | | |
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| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_2 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_1 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_2 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_1 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_2 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_1 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_2 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_1 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_2 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_1 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.26 -6.07 δ_2 | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |

Date₁ = 1876 Sept. 2
n = -1.04Observer
RecorderDate₂ = Sept. 3
n = -1.03Observer
Recorder

14

1876phae pr

| Star. | α | δ | Mag. | T_s | T_m | T_o | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T |
|------------------|-----------------|----------|---------|---------|---------|-------|-------|-------|--------|-------|--------|---------------|---|
| 12 33 | 54 56 | 8.5 | 19 12 | 41.1 | 12 49.8 | 53.4 | 57.0 | 0.6 | 4.2 | 12 | 57.00 | | |
| 12 90 | 54.4 | 7.7 | | 44.4 | | | | | -19.23 | 12 | -17.74 | | |
| K | | | | 48.0 | | | | | | 12 | -1.49 | | |
| (δ) - D | κ'_{100} | | | 44.50 | | | | | | 12 | 37.57 | 77 | |
| a_1 | | | | | | | | | | 12 | -2.02 | | |
| | | | | | | | | | | 12 | 35.75 | | |
| K | | | | | | | | | | | | | |
| (δ) - D | κ'_{100} | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 15 29 | 54 00 | 8.9 | 15 47.5 | 15 48.5 | 52.1 | 55.6 | 59.2 | 2.7 | 15 | 55.62 | | | |
| 15 5.9 | 53 58.9 | 9.0 | | 50.3 | | | | | -19.18 | 15 | -17.74 | | |
| K | | | | 53.2 | | | | | | 15 | -1.44 | | |
| (δ) - D | κ'_{100} | | | 50.33 | | | | | | 15 | 36.44 | | |
| a_1 | | | | | | | | | | 15 | -2.01 | | |
| | | | | | | | | | | 15 | 34.43 | | |
| K | | | | | | | | | | | | | |
| (δ) - D | κ'_{100} | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 22 18 | 53 11 | 9.3 | 22 9.2 | 22 38.9 | 42.1 | 45.6 | 49.1 | 52.5 | 22 | 45.64 | | | |
| 21 5.44 | 9.1 | 9.4 | | 11.7 | | | | | -19.12 | 22 | -17.74 | | |
| K | | | | 14.5 | | | | | | 22 | -1.38 | | |
| (δ) - D | κ'_{100} | | | 11.80 | | | | | | 22 | 26.52 | | |
| a_1 | | | | | | | | | | 22 | -2.10 | | |
| | | | | | | | | | | 22 | 24.42 | | |
| K | | | | | | | | | | | | | |
| (δ) - D | κ'_{100} | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 26 25 | 54 55 | 9.3 | 26 5.4 | 26 41.8 | 45.4 | 48.8 | 52.7 | 56.2 | 26 | 48.98 | | | |
| 26 0.0 | 53.1 | 9.3 | | 8.9 | | | | | -19.24 | 26 | -17.75 | | |
| K | | | | 11.5 | | | | | | 26 | -1.49 | | |
| (δ) - D | κ'_{100} | | | 8.53 | | | | | | 26 | 29.74 | | |
| a_1 | | | | | | | | | | 26 | -2.09 | | |
| | | | | | | | | | | 26 | 27.65 | | |
| K | | | | | | | | | | | | | |
| (δ) - D | κ'_{100} | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 27 19 | 52 50 | 8.5 | 27 21.5 | 27 40.4 | 43.8 | 47.3 | 50.6 | 54.0 | 27 | 47.22 | | | |
| 26 53.4 | 48.2 | 8.5 | | 24.5 | | | | | -19.13 | 27 | -17.75 | | |
| K | | | | 27.7 | | | | | | 27 | -1.38 | | |
| (δ) - D | κ'_{100} | | | 24.57 | | | | | | 27 | 28.09 | | |
| a_1 | | | | | | | | | | 27 | -2.14 | | |
| | | | | | | | | | | 27 | 25.95 | | |
| K | | | | | | | | | | | | | |
| (δ) - D | κ'_{100} | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |

Runs

Sept 2 + 3 46.16 51.24 -1.16 +2.92
 3 + 3 51.28 52.55 -1.16 +2.71

+2.92

15

+2.71

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | 8' |
|---------------------------|---|----------|---------|------|----------|--------------------|--------------------|--------------|--------|-------------|--------|
| d | +12.50 1.09691 9.91310 1.13237 | 4 29.8 | 27.2 | 170 | 29 28.00 | 53 19.85 | 54 19.85 | 11.09 | 25 | 54 56 57.45 | |
| (δ) - D) $\frac{d'}{100}$ | 9.74913 9.97840 | | | | | 54 57 | 54 57 | -13.56 | | 57 15.57 | |
| δ ₁ | -1.26 -6.24 | 12 34.49 | 56 57.7 | | | | | -9.52 | | -5 | |
| d | 9.91310 | 4 25.7 | 24.5 | 10.2 | 29 25.70 | 53 23.25 | 54 23.25 | | 25 | 54 56 57.45 | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | 54 57 | 54 57 | 14.53 | | 57 15.57 | |
| δ ₂ | | | | | | | | | | -72 | +12.27 |
| d | +5.29 0.72446 9.90805 0.75787 | 0 24.1 | 22.9 | 70 0 | 25 23.50 | 57 24.85 | 54 24.85 | 16.09 | 25 | 54 56 57.45 | |
| (δ) - D) $\frac{d'}{100}$ | 9.76904 9.96186 | | | | | 57 1 | 54 1 | -5.73 | | 57 11.93 | +12.07 |
| δ ₁ | -1.33 -6.49 | 15 33.10 | 17.7 | | | | | -4.16 | | -1 | +14.93 |
| d | 9.90814 | 4 54.9 | 52.8 | 7.7 | 24 53.85 | 57 54.50 | 54 54.50 | | 20 | 54 56 57.45 | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | 54 1 | 54 1 | 15.78 | | 57 11.93 | |
| δ ₂ | | | | | | | | | | -6 | |
| d | +33.84 1.52943 9.90349 1.55528 | 4 42.6 | 39.1 | 81.7 | 14 40.85 | 8 7.50 | 53 7.50 | 58.74 | 10 | 54 56 57.45 | |
| (δ) - D) $\frac{d'}{100}$ | 9.77744 9.92923 | | | | | 8 11 | 53 11 | -25.97 | | 57 11.93 | |
| δ ₁ | -1.40 -7.05 | 22 23.02 | 11 25.4 | | | | | -26.87 | | -30 | +10.4 |
| d | 9.90349 | 4 41.0 | 38.6 | 79.6 | 14 39.80 | 8 8.55 | 53 8.55 | | 10 | 54 56 57.45 | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | 8 11 | 53 11 | 59.83 | | 57 11.93 | |
| δ ₂ | | | | | | | | | | -75 | 13.03 |
| d | +40.45 1.60692 9.91301 1.64229 | 0 31.9 | 29.5 | 61.4 | 30 30.70 | 52 17.65 | 54 17.65 | 8.89 | 30 | 54 56 57.45 | |
| (δ) - D) $\frac{d'}{100}$ | 9.75931 9.94859 | | | | | 52 56 | 54 56 | -42.88 | | 57 11.93 | |
| δ ₁ | -1.30 -7.38 | 26 26.35 | 55 33.7 | | | | | -30.80 | | -42 | +12.57 |
| d | 9.91301 | 0 40.6 | 38.9 | 79.5 | 30 39.75 | 52 8.60 | 54 8.60 | | 30 | 54 56 57.45 | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | 52 56 | 54 56 | 59.88 | | 57 11.93 | |
| δ ₂ | | | | | | | | | | -8 | |
| d | +22.65 1.35504 9.90149 1.37892 | 0 11.4 | 10.1 | 1.5 | 35 10.75 | 47 37.60 | 52 37.60 | 28.84 | 35 | 54 56 57.45 | |
| (δ) - D) $\frac{d'}{100}$ | 9.78097 9.92584 | | | | | 47 51 | 52 51 | -23.93 | | 57 11.93 | |
| δ ₁ | -1.44 -7.46 | 27 24.51 | 51 4.5 | | | | | -18.13 | | -14 | +10.44 |
| d | 9.90149 | 0 12.1 | 10.9 | 3.0 | 35 11.50 | 47 36.85 | 52 36.85 | | 35 | 54 56 57.45 | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | 47 51 | 52 51 | 28.13 | | 57 11.93 | |
| δ ₂ | | | | | | | | | | -3 | 13.56 |

Date₁ = 1876 Sept. 2Observer
RecorderDate₂ = Sept. 3Observer
Recorder

16

| Star. | α | δ | Mag. | T_a | T_m | T_o | T_f | T_g | T_h | Sum | Mean | Red. to T_m | T |
|--------------------------------------|--------------------|------------|------|--|---------|-------|-------|-------|----------------|-------------------------------------|--------|---------------|---|
| 28 14 27 301 K | 52 23 208 | 9.3 9.1 | 19 | | Rel. f. | | | | | | 22.5 | | |
| $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | 9.4 | | | | | | | | | | | |
| $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 29 33 29 114 K | 53 49 47.2 | 8.3 9.0 | 19 | 29 45.4 50.3 52.7 49.03 | 29 54.7 | 58.2 | 17 | 53 | 8.8 -19.17 | 30 -17.75 -1402 | 17.75 | -17.75 | |
| $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | 29 -2.173 29 40.44 | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | 8.2 | | | | | | | | | | | |
| $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 30 46 30 215 K | 53 11 9.0 | 8.9 8.9 | | 30 33.5 34.4 39.4 36.52 | 31 4.8 | 8.2 | 11.6 | 15.0 | 18.5 -19.13 | 31 11.62 -17.75 -138 | -17.75 | -17.75 | |
| $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | 30 52.49 -2.16 30 50.33 | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | 8.7 | | | | | | | | | | | |
| $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 32 9 31 44.6 K | 53 55 53.0 | 8.4 8.6 | | 32 0.9 4.5 6.6 4.00 | 32 27.9 | 31.3 | 34.8 | 38.4 | 41.8 -19.19 | 32 34.84 -17.75 -144 | -17.75 | -17.75 | |
| $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | 32 15.65 -2.15 32 13.50 | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | 8.5 | | | | | | | | | | | |
| $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 33 8 32 43.3 K | 53 5 3.0 5.5 | 8.7 8.5 | | 33 47.8 5.0 2.1 2.4 6.3 8.5 5.73 | 33 27.8 | 31.4 | 34.7 | 38.4 | 41.8 -19.13 | 33 34.82 -17.75 -138 | -17.75 | -17.75 | |
| $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | 33 15.69 -2.17 33 13.52 | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | 8.6 | | | | | | | | | | | |
| $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |

[illegible]

Date₁ =Observer
RecorderDate₂ =Observer
Recorder

18

| Star. | α | δ | Mag. | T_s | T_m | T_e | T_f | T_g | T_h | Sum | Mean | Red. to T_m | T |
|------------|-----------------------|----------|------|-------|-------|-------|-------|-------|-------|--------|--------|---------------|---|
| 33 | 33 | 52 01 | 7.6 | 19 | 33 | 57.7 | 24.5 | 27.9 | 31.2 | 346 | 27.86 | - | |
| 33 | 34.9 | 51 58.5 | 7.9 | | 0.0 | | | | | | -17.75 | | |
| | κ | | | | 3.1 | | | | | -19.08 | -1.33 | | |
| ((8) - D) | $\frac{\kappa'}{100}$ | | | | 0.27 | | | | | 34 | 8.78 | | |
| α_1 | | | | | | | | | | 34 | -2.21 | | |
| | | | | | | | | | | 34 | 6.57 | | |
| | | | 8.0 | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| ((8) - D) | $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | |
| 35 | 41 | 51 15 | 8.9 | | 35 | 33.3 | 8.0 | 11.2 | 14.7 | 36 | 11.30 | - | |
| 35 | 16.4 | 12.9 | 9.0 | | 36.0 | | | | | | -17.75 | | |
| | κ | | | | 38.4 | | | | | -19.04 | -1.29 | | |
| ((8) - D) | $\frac{\kappa'}{100}$ | | | | 35.90 | | | | | 35 | 52.26 | | |
| α_1 | | | | | | | | | | 35 | -2.23 | | |
| | | | | | | | | | | | 50.03 | | |
| | | | 8.9 | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| ((8) - D) | $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| ((8) - D) | $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| α_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| ((8) - D) | $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| ((8) - D) | $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| α_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| ((8) - D) | $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| ((8) - D) | $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| α_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| ((8) - D) | $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | |

Runs

+292

19

+271

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|---------------------------------|--|----------|---------|--------|-------|--------------------|----------------------|--------------|--------|-------|--|
| d | +27.59 1.44075 9.78967 1.35278 _m | 0 10.6 | 8.9 | 195 25 | 9.75 | 57 1 | 38.60 | | 25 | 52 1 | 7.31 7.62 - 2 - 2 + 9.56 + 35 - 1200 7.91 |
| $((\delta) - D) \frac{d'}{100}$ | | | | | | | 3.1529.64 22.53 | | | | +9.68 12.60 |
| δ_1 | -1.50 -8.00 | 34 5.07 | 0 59.9 | 25 | 14.50 | 57 | 33.55 | | 25 | 1 | |
| d | | 0 15.1 | 14.5 | 9.6 0 | 14.50 | 52 | | | | | - - 3 + + 35 |
| $((\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | | | | | | | | | |
| d | +35.40 1.54900 9.79699 1.46835 _m | 0 52.0 | 50.1 | 2.10 | 57.05 | 11 | 57.30 | | 10 | 51 18 | 20.43 19.14 - 34 - 14 + 8.56 + 8.74 + 30 - 1200 15.15 18.62 |
| $((\delta) - D) \frac{d'}{100}$ | | | | | | 57 | 49.85 48.54 29.40 | | | | |
| δ_1 | -1.55 -8.14 | 35 48.48 | 15 10.5 | 10 | 55.05 | 11 | 53.30 | | 10 | | |
| d | | 0 58.2 | 54.9 | 10.10 | 55.05 | 57 | | | | | - - 14 + + 30 |
| $((\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | | | | | | | | | |

Date₁ = 1876 Oct. 2
n = -.90

Observer
Recorder

Date₂ = Oct. 3
n = -89

Observer
Recorder

20

[illegible]

Runs

Oct 2 +3' 51.33 51.63 -1.19 +2.35
 3 +3 51.84 52.05 -1.19 +2.42

+2.35

21

+2.42

| | T _m - T | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | 8' |
|----------------|--|-------------------------------|------|-------|-----------|--------------------|--------------------------|-----------------------|--------|---|-----------------|
| d | +18.61 1.26975 9.91310 1.30521 | 4' 16.1 4.75913 1.15124 | 20.1 | 36.2 | 29' 18.10 | 58' | 30.25 21.58 -20.19 | 21.88 -14.17 | 25 | 54 57 139 -771 -82 +12.80 +50 -16.00 | +12.39 14.74 |
| (8) - D | d' | | | | | | | | | | |
| δ ₁ | | | | | | | | | | | |
| d | +31.41 1.49707 9.91319 1.53262 | 4' 7.7 4.75895 1.13783 | 11.3 | 19.0 | 29' 9.50 | 53 | 38.85 30.69 -34.09 | 30.90 -23.90 | 25 | 54 56 56.60 57 7.00 -25 -78 +12.80 +50 -16.00 | +12.27 14.69 |
| (8) - D | d' | | | | | | | | | | |
| δ ₂ | | | | | | | | | | | |
| d | -17.0 1.23045 9.90197 9.78013 | 0' 26.9 0.78013 1.13294 | 31.5 | 58.4 | 30' 29.20 | 52 | 19.15 10.78 +13.58 | | 30 | 52 56 24.36 -8 -10 +10.69 +40 -16.50 | +10.91 13.26 |
| (8) - D | d' | | | | | | | | | | |
| δ ₁ | | | | | | | | | | | |
| d | -1.41 -70.4 59 -1.50 0.20140 9.90197 0.22873 | 0' 15.8 0.78013 0.10389 | 19.9 | 15.7 | 30' 17.55 | 52 | 30.50 22.34 +7.68 | 22.55 +1.27 | 30 | 52 56 24.02 21.28 0 +10.68 +40 -16.50 | +11.02 13.44 |
| (8) - D | d' | | | | | | | | | | |
| δ ₂ | | | | | | | | | | | |
| d | +24.35 1.38650 9.90942 1.41828 | 0' 30.9 0.76642 1.27528 | 34.9 | 5.8 | 32' 32.90 | 12 | 15.25 6.48 -26.20 | 7.00 -18.85 | 10 | 54 15 40.58 48.15 -15 -11 +12.05 +50 -17.10 | +12.29 14.64 |
| (8) - D | d' | | | | | | | | | | |
| δ ₁ | | | | | | | | | | | |
| d | +25.93 1.41380 9.90942 1.44558 | 0' 31.1 0.76642 1.30258 | 35.1 | 6.2 | 33' 33.10 | 12 | 15.25 4.09 -27.40 | 7.30 -20.07 | 10 | 54 15 39.19 47.23 -18 -10 +12.08 +50 -17.20 | +12.30 14.72 |
| (8) - D | d' | | | | | | | | | | |
| δ ₂ | | | | | | | | | | | |
| d | +21.39 1.33021 9.89395 1.34652 | 2' 57.2 0.79351 1.24608 | 1.9 | 119.1 | 52' 59.58 | 29 | 48.80 40.13 -22.21 | 40.43 -17.62 -7 | 50 | 51 33 14.92 22.51 -12 -57 +9.30 +40 -17.00 | +4.01 11.36 |
| (8) - D | d' | | | | | | | | | | |
| δ ₁ | | | | | | | | | | | |
| d | +25.57 1.40773 9.89395 1.42404 | 2' 54.1 0.79351 1.32360 | 59.1 | 13.2 | 52' 56.60 | 29 | 51.75 43.59 -26.55 | 43.80 -21.07 | 50 | 51 33 14.04 22.73 -18 -57 +9.26 +40 -17.10 | +8.91 11.33 |
| (8) - D | d' | | | | | | | | | | |
| δ ₂ | | | | | | | | | | | |
| d | +27.48 1.43902 9.90984 1.47125 | 0' 36.7 0.76554 1.32692 | 39.9 | 14.6 | 52' 38.30 | 17 | 10.05 1.68 -24.60 | | 5 | 54 20 31.78 40.45 -19 -11 +12.19 +50 -17.50 | +12.39 14.74 |
| (8) - D | d' | | | | | | | | | | |
| δ ₁ | | | | | | | | | | | |
| d | -11.96 1.07773 9.90978 1.10984 | 1' 9.3 0.76542 0.96581 | 12.2 | 21.5 | 52' 10.75 | 16 | 37.60 29.44 +12.84 | 29.65 +9.24 | 5 | 54 20 32.32 38.89 -4 -23 +12.15 +50 -17.60 | +12.38 14.84 |
| (8) - D | d' | | | | | | | | | | |
| δ ₂ | | | | | | | | | | | |

Date₁ = 1876 Oct. 2Observer
RecorderDate₂ = Oct. 3Observer
Recorder

22

| Star. | α | δ | Mag. | T_s | T_m | T_o | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T |
|--------------------------------|--------------------|------------|----------------------------------|----------------------------------|---------|-------|-------|-------|----------|----------|-------|---------------|---|
| 35 58 35 33.4 K | 51 10 7.4 | 9.3 9.2 | 19 36 260 26.00 | 36 4.9 | 8.2 | 11.5 | 14.8 | 17.9 | | | 5 | 36 | 11.50 ⁴⁶ -2.25 -1.12 36 8.13 ¹⁹ -1.38 36 6.75 ¹ |
| (S) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| K | | | 9.1 | 35 52.3 55.3 58.1 55.23 | 36 4.3 | 7.5 | 10.5 | 14.1 | 17.4 | 5 41.36 | 10.82 | 19 | 36 10.82 -2.25 -1.12 36 7.52 -1.35 36 6.47 50 |
| (S) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 38 42 38 16.0 K | 51 43 40.7 | 9.2 9.2 | 38 32.8 35.4 38.3 35.50 | 38 46.6 | 50.3 | 53.4 | 56.7 | 0.0 | 26 70.88 | 53.40 | | 19 | 38 53.40 -2.25 -1.15 38 50.02 -1.38 38 48.64 53.12 - 33.8 38 57.88 -2.25 -1.13 38 54.50 50 |
| (S) - D) $\frac{\kappa'}{100}$ | | | 8.7 | 38 44.8 44.80 | 38 57.3 | 54.6 | 58.0 | 1.3 | 4.2 | 28 94.38 | 57.88 | 19 | 38 57.88 -2.25 -1.13 38 54.50 50 |
| a_1 | 38 20.1 51 40.8 | | | | | | | | | | | | |
| K | | | 9.0 | 38 14.5 12.9 21.4 17.93 | 38 46.1 | 49.6 | 52.5 | 56.2 | 59.6 | 26 43.38 | 52.86 | 19 | 38 52.86 -1.84 -1.12 38 49.85 -1.35 38 48.50 4 - 2.99 |
| (S) - D) $\frac{\kappa'}{100}$ | | | 8.7 | 38 24.6 25.2 31.2 25.00 | 38 50.8 | 54.0 | 57.4 | 0.7 | 4.0 | 28 69.38 | 57.38 | 19 | 38 57.38 -1.84 -1.12 38 54.50 50 |
| a_2 | | | | | | | | | | | | | |
| 42 23 41 58.8 K | 54 43 40.5 | 8.6 | 42 0.2 3.7 6.4 3.50 | 42 25.2 | 28.9 | 32.3 | 36.0 | 39.6 | 16 20.42 | 32.40 | | 19 | 42 32.40 -2.24 -1.26 42 28.90 -1.26 42 27.64 |
| (S) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| K | | | 8.8 | 41 54.3 57.8 1.0 57.73 | 42 24.9 | 28.5 | 32.1 | 35.7 | 39.3 | 16 05.42 | 32.10 | 19 | 42 32.10 -1.84 -1.25 42 28.96 -1.23 42 27.73 |
| (S) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 46 59 46 34.7 K | 53 58 56.0 | 8.6 8.9 | 46 58.2 36.3 54.0 58.17 | 47 2.1 | 5.4 | 9.0 | 12.4 | 15.8 | 4 47.47 | 8.94 | | 19 | 47 8.94 -2.24 -1.24 47 5.46 -1.34 47 4.12 |
| (S) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| K | | | 9.0 | 46 39.2 42.1 45.3 42.20 | 47 14 | 4.9 | 8.4 | 11.9 | 13.5 | 4 21.47 | 8.42 | 19 | 47 8.42 -1.84 -1.23 47 5.31 -1.30 47 4.023 |
| (S) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 48 19 47 54.5 K | 53 11 9.0 | 8.8 9.0 | 47 56.4 39.6 2.1 59.37 | 48 23.0 | 26.4 | 29.8 | 33.2 | 36.9 | 14 93.48 | 29.86 | | 19 | 48 29.86 -2.24 -1.20 48 26.42 -1.38 48 25.04 |
| (S) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| K | | | 9.0 | 48 44 8.7 12.0 8.37 | 48 22.4 | 26.0 | 29.6 | 33.0 | 36.4 | 14 74.48 | 29.48 | 19 | 48 29.48 -1.84 -1.18 48 26.42 -1.35 48 25.07 |
| (S) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |

| | | T _m - T | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | +2.42 z | 8' |
|----|----------------|--------------------|------------|-------------|----------|------------|--------------------|--------------------|--------------|--------|-------------|----------------|
| 0 | | -14.5 | 1 29.1 | 34.0 | 6.31 | 10 31.55 | 6' | 16.80 | | 15 | 57 10 20.48 | |
| 09 | d | 1.14137 | | | | | 51 10 | 8.43 | 8.43 | | -6 | +8.89 |
| 1 | | 9.77715 | | | | | | | +12.05 | | -29 | 11.24 |
| 1 | (8) - D | 1.08088 | | | | | | | | | +8.89 | |
| 1 | | | | | | | | | | | +35 | |
| 1 | δ ₁ | -1.56 | 15 36 5.17 | 10 6.3 | | | | | | | -17.30 | |
| 1 | | -8.16 | 15 | | | | | | | | 10 14.42 | |
| 2 | | +55.59 | 1 4.5 | 9.4 | 13.9 | 16 6.95 | 6 | 41.410 | | 15 | 10 17.11 | |
| 2 | d | 1.19285 | | | | | 51 10 | 33.27 | 33.45 | | +20.50 | |
| 2 | | 9.89162 | 9.79715 | | | | | -16.10 | -12.95 | | -7 | +8.94 |
| 2 | (8) - D | 1.20683 | 1.11236 | | | | | | | | +8.87 | 11.36 |
| 2 | | | | | | | | | | | +35 | |
| 2 | δ ₂ | -1.56 | 36 4.94 | 10 6.3 | | | | | | | -17.40 | |
| 2 | | -8.16 | | | | | | | | | 10 14.46 | |
| 3 | | +17.90 | 2 50.0 | 0.4 | 116.4 | 2 58.20 | 39 | 50.15 | | 40 | 51 43 22.85 | 31.04 |
| 3 | d | 1.25285 | | 51 43 27.09 | 31.04 | | 51 43 | 41.78 | 41.78 | | -27.09 | -5 |
| 3 | | 9.89495 | 9.79192 | +4.24 | +9.24 | | | -16.63 | -14.69 | | -9 | -57 |
| 3 | (8) - D | 1.27016 | 1.16713 | | 11.55 | 11.59 | | | | | +57 | +9.46 |
| 3 | | | | | | | | | | | +40 | +40 |
| 3 | δ ₁ | -1.53 | 1.25720 | 1.11661 | 38.47.11 | 43 12.8 | 43 | 41.78 | 41.78 | | -17.50 | -17.50 |
| 3 | | -8.37 | 1.27451 | 1.17448 | 51.59 | 16.8 12 | | -16.82 | -16.82 | | 43 21.14 | 43 25.13 |
| 3 | | | | | | | | | | | | |
| 3 | d | +34.93 | 2 40.4 | 44.6 | 5.0 2 | 42.00 | 40 | 58.5 | 57.95 | 40 | 51 43 21.34 | 27.12 40 34.78 |
| 3 | | 1.54320 | | 51 43 29.28 | 43 34.78 | | 51 43 | 57.69 | 57.95 | | -29.28 | -25 |
| 3 | (8) - D | 1.56051 | 1.45748 | +5.00 | +9.09 | | | -16.82 | -28.67 | | -32 | -51 |
| 3 | | | | | | | | | | | -51 | +9.43 |
| 3 | δ ₂ | -1.53 | 1.46805 | 9.79192 | 38.46.99 | 43 14.7 | 40 | 58.5 | 58.90 | 40 | +9.43 | +40 |
| 3 | | -8.37 | 1.48536 | 1.38233 | 51.51 | 43 20.3 12 | 43 | 57.69 | 57.95 | | +40 | -17.60 |
| 3 | | | | | | | | | | | -17.60 | 43 28.69 |
| 3 | | | | | | | | | | | | |
| 3 | d | +28.90 | 2 38.4 | 41.0 | 79.4 2 | 34.70 | 40 | 8.65 | 44 0.28 | 40 | 54 23 28.70 | |
| 3 | | 1.46090 | | | | | 54 43 | 59.98 | 44 0.28 | | -38.16 | |
| 3 | (8) - D | 1.49520 | 1.34472 | | | | | -31.26 | -22.12 | | -22 | +12.37 |
| 3 | | | | | | | | | | | -49 | 14.72 |
| 3 | δ ₁ | -1.37 | | 42 26.27 | 43 26.2 | | | | | | +12.58 | |
| 3 | | -8.66 | | | | | | | | | +50 | |
| 3 | | | | | | | | | | | -18.80 | |
| 3 | | | | | | | | | | | 43 34.88 | |
| 4 | | +34.37 | 2 34.9 | 37.8 | 12.7 | 2 36.35 | 40 | 12.00 | 4.05 | 40 | 54 43 26.65 | |
| 4 | d | 1.53618 | | | | | 54 44 | 3.87 | 4.05 | | -37.87 | |
| 4 | | 9.91194 | 9.76146 | | | | | -37.19 | -26.24 | | -31 | +12.36 |
| 4 | (8) - D | 1.57048 | 1.41900 | | | | | | | | -49 | 14.68 |
| 4 | | | | | | | | | | | +12.56 | |
| 4 | δ ₂ | -1.37 | | 42 26.39 | 43 25.7 | | | | | | +50 | |
| 4 | | -8.66 | | | | | | | | | -18.16 | |
| 4 | | | | | | | | | | | 43 34.87 | |
| 4 | | | | | | | | | | | | |
| 4 | d | +12.77 | 2 12.1 | 15.4 | 75.2 | 13.75 | 55 | 34.60 | 26.23 | 25 | 53 59 12.21 | |
| 4 | | 1.10619 | | | | | 53 59 | 25.93 | 26.23 | | -16.28 | |
| 4 | (8) - D | 1.13642 | 1.09979 | | | | | -13.69 | -9.95 | | -5 | +11.86 |
| 4 | | | | | | | | | | | -42 | 14.21 |
| 4 | δ ₁ | -1.43 | | 47 2.69 | 59 3.3 | | | | | | +11.83 | |
| 4 | | -9.03 | | | | | | | | | +50 | |
| 4 | | | | | | | | | | | -18.20 | |
| 4 | | | | | | | | | | | 59 12.29 | |
| 4 | | | | | | | | | | | | |
| 4 | d | +26.22 | 2 2.5 | 5.9 | 8.4 | 2 4.20 | 55 | 44.15 | 36.20 | 25 | 53 59 7.67 | |
| 4 | | 1.41863 | | | | | 53 59 | 35.99 | 36.20 | | -15.77 | +4.70 |
| 4 | (8) - D | 1.44895 | 1.31021 | | | | | -28.72 | -20.43 | | -40 | 14.12 |
| 4 | | | | | | | | | | | +11.78 | |
| 4 | δ ₂ | -1.43 | | 47 2.60 | 59 2.6 | | | | | | +50 | |
| 4 | | -9.03 | | | | | | | | | -18.30 | |
| 4 | | | | | | | | | | | 59 11.59 | |
| 4 | | | | | | | | | | | | |
| 4 | d | +30.49 | 3 6.5 | 9.1 | 15.6 | 3 7.80 | 9 | 40.55 | 32.18 | 10 | 53 12 59.51 | |
| 4 | | 1.48416 | | | | | 53 13 | 31.68 | 32.18 | | -13 7.99 | |
| 4 | (8) - D | 1.51020 | 1.38363 | | | | | -32.37 | -24.19 | | -24 | +10.56 |
| 4 | | | | | | | | | | | -59 | 12.94 |
| 4 | δ ₁ | -1.48 | | 48 23.56 | 12 53.6 | | | | | | +11.02 | |
| 4 | | -9.14 | | | | | | | | | +40 | |
| 4 | | | | | | | | | | | -18.20 | |
| 4 | | | | | | | | | | | 13 2.73 | |
| 4 | | | | | | | | | | | | |
| 4 | d | +21.11 | 3 15.0 | 17.9 | 12.9 | 3 16.45 | 9 | 31.90 | 23.95 | 10 | 53 13 7.33 | |
| 4 | | 1.32214 | | | | | 53 13 | 23.44 | 23.95 | | -7.20 | +10.64 |
| 4 | (8) - D | 1.35043 | 1.22413 | | | | | -22.44 | -16.75 | | -63 | 13.06 |
| 4 | | | | | | | | | | | +10.99 | |
| 4 | δ ₂ | -1.48 | | 48 23.61 | 12 52.8 | | | | | | +40 | |
| 4 | | -9.14 | | | | | | | | | -18.30 | |
| 4 | | | | | | | | | | | 13 1.96 | |

Date₁ = 1876 Oct. 2Observer
RecorderDate₂ = Oct. 3Observer
Recorder

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| Star. | α | δ | Mag. | T_s | T_m | T_a | T_f | T_g | T_h | Sum | Mean | Red. to T_m | T |
|----------|-----------|----------|------|---------|---------|---------|-------|-------|-------|-------|----------|---------------|-------------|
| 50 | 40 | 54 20 | 9.4 | 19 50 | 253 | 53 46.9 | 50.6 | 54.0 | 54.6 | 1.2 | 27 03 | 50 54.06 | 19 50 54.06 |
| | | 18.0 | 9.3 | | 255.0 | | | | | | | -35.0 | 50 54.06 |
| (8) - D | κ' | | | | | | | | | | | | 50 50.56 |
| a_1 | | | | | | | | | | | | | 50 49.21 |
| κ | | | 9.4 | 50 29.5 | 50 46.5 | 50.1 | 53.7 | 54.1 | 0.8 | 26 82 | 50 53.64 | -3.10 | 50 53.64 |
| (8) - D | κ' | | | | | | | | | | | | 50 50.52 |
| a_2 | | | | | | | | | | | | | 50 49.23 |
| 52 | 8 | 54 26 | 9.2 | 51 42.8 | 52 9.5 | 13.6 | 17.0 | 20.6 | 23.9 | 8 46 | 52 16.92 | -35.0 | 52 16.92 |
| | | 23.9 | 9.0 | | 46.4 | | | | | | | | 52 16.92 |
| (8) - D | κ' | | | | 49.5 | | | | | | | | 52 13.42 |
| a_1 | | | | | 46.23 | | | | | | | | 52 12.06 |
| κ | | | 9.0 | 51 49.5 | 52 9.2 | 12.7 | 16.3 | 19.9 | 23.5 | 8 16 | 52 16.32 | -3.10 | 52 16.32 |
| (8) - D | κ' | | | | 52.3 | | | | | | | | 52 13.20 |
| a_2 | | | | | 54.3 | | | | | | | | 52 11.88 |
| | | | | | 52.03 | | | | | | | | 90 |
| 53 | 56 | 54 40 | 8.4 | 53 26.0 | 53 58.7 | 1.9 | 5.6 | 9.1 | 12.5 | 27 8 | 53 55.6 | -35.0 | 54 55.6 |
| | | 37.5 | 8.0 | | 29.5 | | | | | | | | 54 55.6 |
| (8) - D | κ' | | | | 28.4 | | | | | | | | 54 2.06 |
| a_1 | | | | | 29.63 | | | | | | | | 54 0.70 |
| κ | | | 8.5 | 53 44.8 | 53 58.0 | 1.5 | 5.2 | 8.7 | 12.4 | 25 8 | 53 55.6 | -3.10 | 54 51.6 |
| (8) - D | κ' | | | | 42.8 | | | | | | | | 54 2.04 |
| a_2 | | | | | 50.3 | | | | | | | | 54 0.71 |
| | | | | | 47.63 | | | | | | | | |
| 54 | 53 | 54 49 | 8.4 | 54 38.6 | 54 54.9 | 58.5 | 2.0 | 5.5 | 9.0 | 99 55 | 54 1.98 | -35.0 | 55 1.98 |
| | | 46.2 | 8.4 | | 41.7 | | | | | | | | 55 1.98 |
| (8) - D | κ' | | | | 46.4 | | | | | | | | 54 58.48 |
| a_1 | | | | | 42.23 | | | | | | | | 54 57.11 |
| κ | | | 8.4 | 54 32.7 | 54 54.4 | 58.1 | 1.5 | 5.1 | 8.8 | 79 55 | 54 1.58 | -3.11 | 55 1.58 |
| (8) - D | κ' | | | | 36.2 | | | | | | | | 54 58.46 |
| a_2 | | | | | 38.7 | | | | | | | | 54 58.19 |
| | | | | | 35.87 | | | | | | | | 57.14 |
| 53 | 41 | 54 49 | 8.0 | 55 36.5 | 55 43.0 | 46.6 | 50.1 | 53.6 | 57.3 | 25 06 | 55 50.12 | -35.0 | 55 50.12 |
| | | 46.4 | 8.5 | | 39.9 | | | | | | | | 55 50.12 |
| (8) - D | κ' | | | | 43.4 | | | | | | | | 55 46.62 |
| a_1 | | | | | 39.93 | | | | | | | | 55 45.25 |
| κ | | | 8.3 | 55 23.4 | 55 42.6 | 46.3 | 49.8 | 53.4 | 57.1 | 24 92 | 55 49.84 | -3.11 | 55 49.84 |
| (8) - D | κ' | | | | 27.3 | | | | | | | | 55 46.72 |
| a_2 | | | | | 30.0 | | | | | | | | 55 45.38 |
| | | | | | 26.90 | | | | | | | | |

| Runs | | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|------|------------------|------------------|----------|---------|--------|-------|--------------------|--------------------|--------------|--------|---------------|-----------|
| 6 | | + 28.56 | 4' 58.1 | 1.4 | 119.54 | 59.75 | 17' | 48.60 | | 0 | 54' 21' 9.16 | |
| 4 | | 1.45576 | | | | | 54' 21' | 40.23 | | | 18.18 | |
| 6 | d | 9.90996 | 9.76537 | | | | -30.77 | -22.05 | | | -21 | +11.54 |
| 5 | | 1.48808 | 4.34349m | | | | | | | | -95 | 13.89 |
| 1 | (δ) - D | $\frac{d'}{100}$ | | | | | | | | | +12.20 | |
| | δ_1 | -1.42 | 50 47.79 | 21 4.2 | | | | | | | +50 | |
| | | -9.32 | | | | | | | | | -18.50 | |
| | | | | | | | | | | | 21 13.57 | |
| 6 | | +19.94 | 0 6.3 | 9.7 | 16.00 | 8.00 | 17' | 40.35 | | 5 | 54' 21' 10.71 | |
| 2 | | 1.29973 | | | | | 54' 21' | 32.40 | | | 17.00 | |
| 2 | d | 9.90996 | 9.76537 | | | | -21.48 | -15.40 | | | -10 | +12.55 |
| 3 | | 1.33205 | 4.18746m | | | | | | | | -2 | 14.97 |
| | (δ) - D | $\frac{d'}{100}$ | | | | | | | | | +12.17 | |
| | δ_2 | -1.42 | 50 47.81 | 21 4.0 | | | | | | | +50 | |
| | | -9.32 | | | | | | | | | -18.60 | |
| | | | | | | | | | | | 21 13.57 | |
| 6 | | +30.69 | 3 57.0 | 0.2 | 117.23 | 58.60 | 23' | 59.75 | | 55 | 54' 27' 14.48 | |
| 4 | | 1.45700 | | | | | 54' 27' | 45.138 | | | 17.74 | |
| 6 | d | 9.91051 | 9.76431 | | | | -33.40 | -23.64 | | | -24 | +11.80 |
| 2 | | 1.51987 | 4.37367m | | | | | | | | -76 | 14.15 |
| 5 | (δ) - D | $\frac{d'}{100}$ | | | | | | | | | +12.30 | |
| | δ_1 | -1.42 | 52 10.64 | 27 3.9 | | | | | | | +50 | |
| | | -9.43 | | | | | | | | | -18.60 | |
| | | | | | | | | | | | 27 13.29 | |
| 6 | | +24.29 | 4 2.5 | 5.9 | 8.44 | 4.20 | 23' | 44.15 | | 55 | 54' 27' 9.49 | |
| 4 | | 1.38543 | | | | | 54' 27' | 35.99 | | | 17.49 | |
| 4 | d | 9.91051 | 9.76431 | | | | -26.20 | -18.71 | | | -15 | +11.85 |
| 2 | | 1.41830 | 4.27210m | | | | | | | | -78 | 14.24 |
| 8 | (δ) - D | $\frac{d'}{100}$ | | | | | | | | | +12.28 | |
| | δ_2 | -1.42 | 52 10.48 | 27 3.6 | | | | | | | +50 | |
| | | -9.43 | | | | | | | | | -18.70 | |
| | | | | | | | | | | | 27 13.06 | |
| 6 | | +24.29 | 0 29.1 | 32.5 | 61.60 | 30.80 | 37' | 17.55 | | 45 | 54' 40' 30.22 | |
| 4 | | 1.55546 | | | | | 54' 41' | 8.88 | | | 41.65 | |
| 6 | d | 9.91167 | 9.76200 | | | | -36.86 | -27.53 | | | -33 | +12.60 |
| 6 | | 1.58949 | 4.43982m | | | | | | | | -10 | 14.95 |
| 5 | (δ) - D | $\frac{d'}{100}$ | | | | | | | | | +12.53 | |
| | δ_1 | -1.41 | 53 59.29 | 40 28.3 | | | | | | | +50 | |
| | | -9.56 | | | | | | | | | -18.70 | |
| | | | | | | | | | | | 40 37.90 | |
| 6 | | +17.53 | 0 42.3 | 45.8 | 8.10 | 4.05 | 37' | 4.35 | | 45 | 54' 40' 37.23 | |
| 4 | | 1.24378 | | | | | 54' 40' | 56.40 | | | 42.94 | |
| 4 | d | 9.91167 | 9.76200 | | | | -16.96 | -13.43 | | | -7 | +12.82 |
| 3 | | 1.27778 | 4.12814m | | | | | | | | -13 | 13.24 |
| 5 | (δ) - D | $\frac{d'}{100}$ | | | | | | | | | +12.52 | |
| | δ_2 | -1.41 | 53 59.32 | 40 29.8 | | | | | | | +50 | |
| | | -9.56 | | | | | | | | | -18.80 | |
| | | | | | | | | | | | 40 39.44 | |
| 8 | | +19.75 | 1 58.4 | 2.1 | 12.00 | 0.25 | 45' | 48.10 | | 35 | 54' 49' 18.03 | |
| 4 | | 1.29557 | | | | | 54' 49' | 39.73 | | | 24.65 | |
| 6 | d | 9.91248 | 9.76039 | | | | -21.40 | -15.08 | | | -10 | +12.78 |
| 8 | | 1.33041 | 4.17832m | | | | | | | | -38 | 15.07 |
| 7 | (δ) - D | $\frac{d'}{100}$ | | | | | | | | | +12.70 | |
| | δ_1 | -1.41 | 54 55.70 | 49 11.3 | | | | | | | +50 | |
| | | -9.64 | | | | | | | | | -18.80 | |
| | | | | | | | | | | | 49 20.92 | |
| 8 | | +25.71 | 1 55.3 | 58.6 | 13.91 | 56.95 | 45' | 51.40 | | 35 | 54' 49' 15.38 | |
| 4 | | 1.41010 | | | | | 54' 49' | 43.24 | | | 23.82 | |
| 5 | d | 9.91248 | 9.76039 | | | | -24.86 | -19.63 | | | -17 | +12.60 |
| 6 | | 1.44494 | 4.29285m | | | | | | | | -39 | 15.02 |
| 3 | (δ) - D | $\frac{d'}{100}$ | | | | | | | | | +12.66 | |
| | δ_2 | -1.41 | 54 55.73 | 49 10.3 | | | | | | | +50 | |
| | | -9.64 | | | | | | | | | -18.90 | |
| | | | | | | | | | | | 49 19.94 | |
| 2 | | +10.19 | 1 54.2 | 57.9 | 12.11 | 56.05 | 45' | 52.30 | | 35 | 54' 49' 32.59 | |
| 4 | | 1.00817 | | | | | 54' 49' | 43.93 | | | 36.15 | |
| 6 | d | 9.91248 | 9.76039 | | | | -11.84 | -7.78 | | | -3 | +12.81 |
| 2 | | 1.04301 | 4.08905m | | | | | | | | -38 | 15.16 |
| 7 | (δ) - D | $\frac{d'}{100}$ | | | | | | | | | +12.72 | |
| | δ_1 | -1.41 | 55 43.84 | 49 22.8 | | | | | | | +50 | |
| | | -9.70 | | | | | | | | | -18.80 | |
| | | | | | | | | | | | 49 32.51 | |
| 8 | | +22.94 | 1 45.9 | 48.9 | 14.81 | 47.40 | 46' | 0.95 | | 35 | 54' 49' 24.93 | |
| 4 | | 1.36059 | | | | | 54' 49' | 52.79 | | | 35.49 | |
| 5 | d | 9.91248 | 9.76039 | | | | -24.86 | -17.51 | | | -14 | +12.70 |
| 2 | | 1.39543 | 4.24334m | | | | | | | | -34 | 15.12 |
| 4 | (δ) - D | $\frac{d'}{100}$ | | | | | | | | | +12.68 | |
| | δ_2 | -1.41 | 55 43.97 | 49 22.0 | | | | | | | +50 | |
| | | -9.70 | | | | | | | | | -18.90 | |
| | | | | | | | | | | | 49 31.71 | |

Date₁ = 1876 Oct. 2Observer
RecorderDate₂ = Oct. 3Observer
Recorder

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| Star. | α | δ | Mag. | T_s | T_m | T_e | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T |
|----------|-----------------------|----------|------|-------|-------|------------|-------|-------|-------|------|-------|---------------|------------|
| 57 | 20 | 54 50 | 8.5 | 19 | 56 | 57 222 | 25.8 | 29.4 | 33.0 | 26.3 | 14 67 | 57 2934 | 19 57 2934 |
| 56 | 54.4 | 47.8 | 8.1 | | 56.2 | 59.2 | | | | | | -3.53 | 57 25.81 |
| κ | | | | | 2.9 | 59.58 | | | | | | | 57 24.842 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | 8.7 | 57 | 10 | 57 21.7 | 25.5 | 29.0 | 32.5 | 36.4 | 14 51 | 57 2902 | 19 57 2902 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 3.8 | | | | | | | -3.12 | 57 25.89 |
| a_2 | | | | | 6.1 | 363 | | | | | | | 57 24.585 |
| 58 | 25 | 54 41 | 9.0 | 57 | 56.2 | 58 26.4 | 29.8 | 33.5 | 37.0 | 40.9 | 16 76 | 58 3382 | 19 58 3352 |
| 57 | 59.5 | 38.9 | 9.0 | | 59.0 | | | | | | | -3.52 | 58 30.00 |
| κ | | | | | 2.2 | 59.13 | | | | | | | 58 28.60 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | 9.2 | 57 | 59.4 | 58 26.0 | 29.7 | 33.2 | 36.7 | 40.2 | 16 58 | 58 3316 | 19 58 3316 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 2.4 | | | | | | | -3.11 | 58 30.04 |
| a_2 | | | | | 6.0 | 260 | | | | | | | 58 28.648 |
| 19 | 24 | 54 16 | 8.0 | 19 | 59 | 15 59 26.8 | 30.3 | 34.3 | 37.5 | 41.0 | 16 99 | 59 3898 | 19 59 3398 |
| 58 | 58.5 | 13.9 | 8.8 | | 3.9 | | | | | | | -3.49 | 59 30.59 |
| κ | | | | | 7.4 | 427 | | | | | | | 59 29.06 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | 8.2 | 59 | 8.3 | 59 26.5 | 30.0 | 33.6 | 37.0 | 40.7 | 16 78 | 59 3356 | 19 59 3356 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 11.5 | | | | | | | -3.10 | 59 30.45 |
| a_2 | | | | | 15.4 | 1173 | | | | | | | 59 29.056 |
| 20 | 39 | 54 6 | 7.5 | 20 | 0 | 35.5 | 1 16 | 5.0 | 8.4 | 12.1 | 15.4 | 4 31 | 1 8.62 |
| 0 | 322 | 3.4 | 7.9 | | 38.6 | | | | | | | -3.48 | 1 5.14 |
| κ | | | | | 42.4 | 38.83 | | | | | | | 1 3.69 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | 7.8 | 0 | 37.2 | 1 0.9 | 4.8 | 8.4 | 11.8 | 13.4 | 4 13 | 1 8.26 | 1 8.26 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 40.4 | | | | | | | -3.09 | 1 5.15 |
| a_2 | | | | | 43.5 | 40.37 | | | | | | | 1 3.745 |
| 2 | 29 | 54 36 | 9.2 | 2 | 6.5 | 2 30.8 | 34.4 | 37.7 | 41.4 | 45.0 | 18 93 | 2 3786 | 2 3786 |
| 2 | 2.4 | 33.9 | 9.0 | | 6.50 | | | | | | | -3.50 | 2 34.56 |
| κ | | | | | | | | | | | | | 2 32.91 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | | 9.0 | 2 | 14.3 | 2 30.4 | 34.0 | 37.5 | 41.1 | 44.6 | 18 86 | 2 3782 | 2 3782 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 17.7 | | | | | | | -3.10 | 2 34.61 |
| a_2 | | | | | 20.4 | 17.47 | | | | | | | 2 33.09 |

Runs

+ 2.35

27

+ 2.42

1876phae.pdf

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | 8' |
|------------|---|-------------------------------|---------|------|------------|---|--------------------|--------------|---|-------|----|
| | +29.84 1.47480 9.91257 1.50973 | 0' 11.9 9.76021 1.35737 | 15.0 | 6.9 | 35' 13.45 | 54 47 34.90 51 51 26.22 -22.34 -22.77 | 26.53 | 35 | 54 50 53.89 3.76 -23 +12.95 -4 15.30 +12.72 +50 -18.90 51 54 0.16 5033 | | |
| d | | | | | | | | | | | |
| δ_1 | -1.42 -9.83 | 57 23.00 | 50 50.3 | | | | | | | | |
| | +25.39 1.40466 9.91257 1.43959 | 0 16.1 9.76021 1.28723 | 19.5 | 15.6 | 35 0 17.80 | 54 47 30.55 51 51 22.39 -27.52 -17.37 | 22.60 | 35 | 54 50 57.87 3.23 -16 +12.96 -6 15.38 +12.68 +50 -18.00 50 49 59.61 | | |
| d | | | | | | | | | | | |
| δ_2 | -1.42 -9.83 | 57 23.13 | 50 49.8 | | | | | | | | |
| | +34.39 1.53643 9.91185 1.57064 | 3 45.4 9.76164 1.42043 | 47.9 | 13.3 | 3 46.65 | 54 39 1.70 51 42 53.03 -37.21 -26.33 | 53.33 | 40 | 51 42 15.82 27.00 -31 +12.06 -72 14.41 +12.59 +50 -18.00 42 22.41 | | |
| d | | | | | | | | | | | |
| δ_1 | -1.43 -9.91 | 58 27.17 | 42 12.5 | | | | | | | | |
| | +30.56 1.48515 9.91185 1.51936 | 3 48.3 9.76164 1.36915 | 51.3 | 9.6 | 3 48.80 | 54 39 58.55 51 43 0.77 -33.06 -23.40 | 50.60 | 40 | 51 42 27.33 27.20 -24 +12.08 -72 14.50 +12.54 +50 -19.10 42 22.60 | | |
| d | | | | | | | | | | | |
| δ_2 | -1.43 -9.91 | 58 27.25 | 42 12.7 | | | | | | | | |
| | +29.71 1.47290 9.90951 1.50477 | 4 25.1 9.76625 1.36151 | 28.1 | 13.2 | 4 26.60 | 54 13 21.75 51 17 13.48 -31.77 -22.99 | 13.38 | 5 | 51 16 41.11 50.39 -23 +11.58 -84 13.93 +12.13 +50 -18.00 16 45.32 | | |
| d | | | | | | | | | | | |
| δ_1 | -1.46 -9.98 | 59 27.60 | 16 35.3 | | | | | | | | |
| | +21.83 1.33905 9.90951 1.37092 | 4 31.7 9.76625 1.22766 | 34.6 | 6.3 | 4 33.15 | 54 13 15.20 51 17 4.04 -28.19 -16.89 | 7.25 | 5 | 51 16 43.55 50.36 -12 +11.62 -86 14.04 +12.10 +50 -19.10 16 45.20 | | |
| d | | | | | | | | | | | |
| δ_2 | -1.46 -9.98 | 59 27.60 | 16 35.3 | | | | | | | | |
| | +29.79 1.47407 9.90869 1.50512 | 4 37 9.76782 1.36425 | 5.7 | 9.4 | 4 47.0 | 54 3 43.65 51 7 34.78 -32.00 -23.13 | 35.28 | 15 | 54 7 2.94 12.15 -23 +11.46 -78 13.81 +11.97 +50 -19.10 7 6.86 | | |
| d | | | | | | | | | | | |
| δ_1 | -1.48 -10.10 | 1 2.21 | 6 56.8 | | | | | | | | |
| | +27.89 1.44545 9.90869 1.47650 | 4 5.1 9.76782 1.33563 | 25 | 12.6 | 4 6.30 | 54 3 42.05 51 7 33.94 -29.76 -21.66 | 34.10 | 15 | 54 7 3.93 12.44 -20 +11.44 -78 13.86 +11.92 +50 -19.20 7 1.10 | | |
| d | | | | | | | | | | | |
| δ_2 | -1.48 -10.10 | 1 2.27 | 6 57.0 | | | | | | | | |
| | +31.36 1.49638 9.91141 1.53015 | 3 52.9 9.76253 1.38127 | 55.9 | 8.8 | 3 54.40 | 54 37 53.95 51 37 45.28 -33.90 -24.06 | 45.58 | 45 | 54 37 11.38 21.52 -26 +12.00 -74 14.35 +12.50 +50 -19.20 37 16.67 | | |
| d | | | | | | | | | | | |
| δ_1 | -1.45 -10.22 | 2 31.46 | 37 6.4 | | | | | | | | |
| | +20.05 1.30211 9.91141 1.33588 | 4 0.9 9.76253 1.19700 | 3.0 | 3.9 | 4 1.98 | 54 37 46.40 51 37 38.15 -21.64 -18.77 | 38.15 | 45 | 54 37 11.37 22.48 -10 +12.08 -76 14.50 +12.44 +50 -19.30 37 12.91 | | |
| d | | | | | | | | | | | |
| δ_2 | -1.45 -10.22 | 2 31.56 | 37 7.8 | | | | | | | | |
| | | | | | | | | | | 18.07 | |

Date₁ = 1876 Oct. 2Observer
RecorderDate₂ = Oct. 3Observer
Recorder

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| Star. | α | δ | Mag. | T_e | T_m | T_e | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T |
|--------------------------------|---------------|------------|---------------------------------|-------------------------------|--------|----------------------|-------|-------|-------|-------|-------|---------------|--|
| 3 48 3 21.2 κ | 54 16 13.7 | 8.5 8.0 | 20 2 | 28.3 31.2 33.5 31.00 | 3 57.3 | 54.8 | 58.4 | 2.0 | 5.6 | 29213 | 58.42 | -3.49 | 3 58.42 -2.24 -1.25 3 54.93 -1.47 3 53.46 |
| (δ) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | 8.0 | 3 | 26.4 29.0 32.0 29.13 | 3 57.0 | 54.6 | 58.2 | 1.6 | 5.4 | 29083 | 58.16 | -3.10 | 3 58.16 -1.876 -1.24 3 55.05 -1.44 3 53.58 53.62 |
| (δ) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 4 30 4 3.0 κ | 54 56 53.9 | 9.0 8.5 | 4 56.0 56.00 | 4 — | — | 38.0 38.2 38.3 | 41.8 | 45.3 | | | | | 4 38.17 -2.24 -1.29 4 34.64 -1.44 4 33.20 |
| (δ) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | 8.6 | 4 20.2 23.3 26.6 23.37 | 4 30.5 | 34.1 | 37.7 | 41.4 | 45.0 | 18874 | 37.74 | | -3.13 | 4 37.74 -1.876 -1.27 4 34.60 -1.44 4 33.19 20 |
| (δ) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 7 14 6 50.4 κ | 54 45 51.2 | 8.5 8.8 | 7 80 10.4 13.1 10.50 | 7 12.5 | 23.2 | 26.6 | 30.2 | 33.7 | 13327 | 26.64 | | -3.53 | 7 26.64 -2.24 -1.29 7 23.11 -1.47 7 21.64 |
| (δ) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | 8.4 | 6 57.7 6.8 4.2 0.90 | 7 12.0 | 22.8 | 26.2 | 29.8 | 33.5 | 13137 | 26.26 | | -3.13 | 7 26.26 -1.86 -1.27 7 23.13 -1.44 7 21.69 |
| (δ) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 8 4 7 37.5 κ | 54 3 0.5 | 8.7 8.8 | 8 18.6 18.60 | 8 7.6 | 11.2 | 14.8 | 18.0 | 21.9 | 7358 | 14.70 | | -3.48 | 8 14.70 -2.24 -1.24 8 11.22 -1.52 8 9.70 |
| (δ) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | 8.8 | 8 6.2 8.9 12.1 9.07 | 8 7.5 | 11.1 | 14.4 | 17.4 | 21.4 | 7188 | 14.36 | | -3.09 | 8 14.36 -1.86 -1.23 8 11.27 -1.49 8 9.78 |
| (δ) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 9 15 8 48.2 κ | 54 21 18.2 | 8.8 9.0 | 8 58.6 2.8 6.4 2.93 | 9 18.3 | 21.6 | 25.2 | 28.4 | 32.3 | 13589 | 25.16 | | -3.50 | 9 25.16 -2.24 -1.26 9 21.66 -1.52 9 20.14 |
| (δ) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| κ | | 8.7 | 9 35 8.2 16.3 7.67 | 9 17.7 | 21.3 | 24.7 | 28.3 | 31.8 | 12389 | 24.76 | | -3.10 | 9 24.76 -1.86 -1.24 9 21.66 -1.48 9 20.18 |
| (δ) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |

$+2.35$ $+ 2.42$

| | T _m - T | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | 8' |
|----|---------------------------|---------|---------|------|---------|--------------------|--------------------|--------------|--------|-------------|--------|
| 2 | +27.42 | 3 38.3 | 41.1 | 79.4 | 3 38.70 | 14' | 8.65 | | 5 | 54 17 30.47 | |
| 5 | 1.43507 | | | | | 54 17 | 59.98 | 18 0.28 | | 39.06 | |
| | 9.90960 | 9.76625 | | | | | -29.51 | -21.22 | | -19 | +11.50 |
| | 1.47003 | 1.32668 | | | | | | | | -68 | 14.15 |
| | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +12.17 | |
| | -1.48 | | | | | | | | | +50 | |
| | -10.32 | 3 51.98 | 17 23.6 | | | | | | | -19.30 | |
| | | | | | | | | | | 17 33.91 | |
| 26 | +29.03 | 3 37.7 | 40.4 | 78.1 | 3 39.05 | 14 | 9.30 | | 5 | 54 17 29.89 | |
| | 1.46285 | | | | | 54 18 | 7.74 | 1.35 | | 35.89 | |
| | 9.90960 | 9.76625 | | | | | -31.25 | -22.46 | | -22 | +11.70 |
| | 1.49481 | 1.35146 | | | | | | | | -68 | 14.13 |
| | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +12.11 | |
| | -1.48 | | | | | | | | | +50 | |
| | -10.32 | 3 52.14 | 17 23.3 | | | | | | | -19.40 | |
| | | | | | | | | | | 17 33.62 | |
| | -17.8 | 3 53.5 | 56.2 | 9.7 | 3 54.85 | 53 | 53.00 | | 25 | 54 54 8.64 | |
| | 1.25042 | | | | | 54 57 | 41.83 | 45.13 | | 57 52.67 | +12.53 |
| | 9.91319 | 9.75895 | | | | | | +13.54 | | -8 | 14.88 |
| | 9.75895 | | | | | | | | | -74 | |
| | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +12.85 | |
| | -1.44 | | | | | | | | | +50 | |
| | -10.37 | 4 31.76 | 57 43.8 | | | | | | | -19.40 | |
| | | | | | | | | | | 57 54.15 | |
| | +14.37 | 3 27.4 | 31.0 | 58.4 | 3 29.20 | 54 | 19.15 | | 25 | 54 54 55.39 | |
| | 1.15746 | | | | | 54 58 | 10.99 | 11.20 | | 58 0.24 | +12.64 |
| | 9.91319 | 9.75895 | | | | | -15.60 | -10.93 | | -5 | 15.03 |
| | 9.75895 | | | | | | | | | -67 | |
| | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +12.83 | |
| | -1.44 | | | | | | | | | +50 | |
| | -10.37 | 4 31.76 | 57 45.4 | | | | | | | -19.50 | |
| | | | | | | | | | | 57 55.80 | |
| | +16.14 | 1 55.9 | 59.9 | 15.8 | 1 57.90 | 50 | 50.45 | | 30 | 54 54 24.24 | |
| | 1.20790 | 1.20790 | | | | 54 54 | 41.78 | 42.08 | | 26.68 | |
| | 9.91292 | 9.75949 | | | | | -14.61 | -15.48 | | -7 | +12.85 |
| | 9.75949 | | | | | | | 12.28 | | -38 | 15.20 |
| | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +12.80 | |
| | -1.46 | | | | | | | | | +50 | |
| | -10.58 | 7 20.18 | 54 14.9 | | | | | | | -19.50 | |
| | | | | | | | | | | 54 22.34 | |
| | +25.36 | 1 49.6 | 53.1 | 10.7 | 1 51.35 | 50 | 51.00 | | 30 | 54 54 21.33 | |
| | 1.40415 | | | | | 54 54 | 46.84 | 49.05 | | 29.73 | |
| | 9.91292 | 9.75949 | | | | | -24.01 | -19.32 | | -16 | +12.74 |
| | 9.75949 | | | | | | | | | -36 | 15.16 |
| | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +12.76 | |
| | -1.46 | | | | | | | | | +50 | |
| | -10.58 | 7 20.23 | 54 14.7 | | | | | | | -19.60 | |
| | | | | | | | | | | 54 25.29 | |
| | -3.90 | 2 7.9 | 10.9 | 18.8 | 2 9.40 | 0 | 38.95 | | 20 | 54 4 31.47 | |
| | 0.59106 | | | | | 54 4 | 30.87 | 30.58 | | 33.61 | |
| | 9.90842 | 9.76835 | | | | | +11.19 | +3.03 | | -0 | +12.02 |
| | 0.62184 | 0.48177 | | | | | | | | -40 | 14.37 |
| | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +11.92 | |
| | -1.51 | | | | | | | | | +50 | |
| | -10.63 | 8 8.19 | 4 17.8 | | | | | | | -19.50 | |
| | | | | | | | | | | 4 28.48 | |
| | +5.29 | 2 0.3 | 2.1 | 3.4 | 2 1.70 | 0 | 46.65 | | 20 | 54 4 32.81 | |
| | 0.42346 | | | | | 54 4 | 38.49 | 38.70 | | 34.59 | |
| | 9.90842 | 9.76835 | | | | | -5.68 | -48.13 | | -1 | +11.99 |
| | 0.75424 | 0.61417 | | | | | | | | -38 | 14.41 |
| | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +11.88 | |
| | -1.51 | | | | | | | | | +50 | |
| | -10.63 | 8 8.27 | 4 18.8 | | | | | | | -19.60 | |
| | | | | | | | | | | 4 29.40 | |
| | +22.23 | 3 50.4 | 54.1 | 4.5 | 3 52.25 | 18 | 56.10 | | 0 | 54 22 33.48 | |
| | 1.34694 | | | | | 54 22 | 47.43 | 47.73 | | 30.57 | |
| | 9.91005 | 9.76579 | | | | | -23.75 | -17.16 | | -13 | +11.87 |
| | 1.37935 | 1.23449 | | | | | | -1 | | -74 | 14.22 |
| | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +12.24 | |
| | -1.50 | | | | | | | | | +50 | |
| | -10.72 | 9 18.64 | 22 18.5 | | | | | | | -19.60 | |
| | | | | | | | | | | 22 32.87 | |
| | +17.09 | 3 54.8 | 57.9 | 12.7 | 3 56.35 | 18 | 52.00 | | 0 | 54 22 35.43 | |
| | 1.23274 | | | | | 54 22 | 43.54 | 44.05 | | 30.86 | |
| | 9.91005 | 9.76579 | | | | | -18.44 | -13.19 | | -7 | +11.89 |
| | 1.26515 | 1.20294 | | | | | | | | -76 | 14.31 |
| | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +12.20 | |
| | -1.50 | | | | | | | | | +50 | |
| | -10.72 | 9 18.68 | 22 14.8 | | | | | | | -19.70 | |
| | | | | | | | | | | 22 33.47 | |

Date₁ = 1876 Oct. 2Observer
RecorderDate₂ = Oct. 3Observer
Recorder

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| Star. | α | δ | Mag. | T_s | T_m | T_e | T_f | T_g | T_h | Sum | Mean | Red. to T_m | T | |
|------------------|-----------------------|----------|------|-------|-------|---------|-------|-------|-------|------|----------|---------------|----------|----------|
| 10 | 20 | 54 44 | 6.1 | 20 | 10 74 | 26.0 | 28.3 | 33.0 | 36.6 | 1472 | 10 29.44 | 20 | 10 29.44 | |
| 9 | 53.5 | 41.3 | 7.0 | | 9 9.3 | | | | | | | | -2.24 | |
| | | | | | 11.7 | | | | | | | -3.51 | -1.27 | |
| (δ) - D | $\frac{\kappa'}{100}$ | | | | 9.47 | | | | | | | | 10 25.93 | |
| a_1 | | | | | | | | | | | | | 10 24.42 | |
| | | | 6.4 | 9 | 57.0 | 10 22.1 | 25.6 | 29.2 | 32.7 | 1458 | 10 29.16 | 20 | 10 29.16 | |
| | | | | | 6.4 | | | | | | | | -1.86 | |
| | | | | | 8.2 | | | | | | | -3.10 | -1.24 | |
| (δ) - D | $\frac{\kappa'}{100}$ | | | | 8.20 | | | | | | | | 10 26.06 | |
| a_2 | | | | | | | | | | | | | -1.48 | |
| | | | | | | | | | | | | | 10 24.58 | |
| | | | | | | | | | | | | | | |
| 11 | 22 | 54 8 | 8.6 | 11 | 62 | 11 25.0 | 28.5 | 32.0 | 35.4 | 1599 | 11 31.98 | 20 | 11 31.98 | |
| 10 | 53.7 | 4.6 | 8.4 | | 8.9 | | | | | | | | -2.24 | |
| | | | | | 11.8 | | | | | | | -3.48 | -1.24 | |
| (δ) - D | $\frac{\kappa'}{100}$ | | | | 8.97 | | | | | | | | 11 28.50 | |
| a_1 | | | | | | | | | | | | | -1.58 | |
| | | | | | | | | | | | | | 11 26.92 | |
| | | | | | | | | | | | | | | |
| | | | 8.5 | 11 | 6.6 | 11 24.6 | 28.0 | 31.4 | 35.2 | 1579 | 11 31.58 | 20 | 11 31.58 | |
| | | | | | 4.1 | | | | | | | | -1.86 | |
| | | | | | 6.4 | | | | | | | -3.09 | -1.23 | |
| (δ) - D | $\frac{\kappa'}{100}$ | | | | 3.70 | | | | | | | | 11 28.49 | |
| a_2 | | | | | | | | | | | | | -1.54 | |
| | | | | | | | | | | | | | 11 26.95 | |
| | | | | | | | | | | | | | | |
| 12 | 33 | 54 16 | 9.0 | 12 | 54 | 12 36.6 | 40.0 | 43.5 | 47.0 | 2177 | 12 43.54 | 20 | 12 43.54 | |
| 12 | 6.6 | 13.5 | 9.1 | | 8.0 | | | | | | | | -2.24 | |
| | | | | | 10.0 | | | | | | | -3.49 | -1.25 | |
| (δ) - D | $\frac{\kappa'}{100}$ | | | | 7.80 | | | | | | | | 12 40.05 | |
| a_1 | | | | | | | | | | | | | -1.55 | |
| | | | | | | | | | | | | 20 | 12 38.50 | |
| | | | | | | | | | | | | | | |
| | | | 9.1 | 12 | 14.0 | 12 36.0 | 39.7 | 43.2 | 46.7 | 2160 | 12 43.20 | 20 | 12 43.20 | |
| | | | | | 17.5 | | | | | | | | -1.86 | |
| | | | | | 20.7 | | | | | | | -3.09 | -1.23 | |
| (δ) - D | $\frac{\kappa'}{100}$ | | | | 17.40 | | | | | | | | 12 40.11 | |
| a_2 | | | | | | | | | | | | | -1.52 | |
| | | | | | | | | | | | | | 12 38.59 | |
| | | | | | | | | | | | | | | |
| 13 | 44 | 54 17 | 8.8 | 13 | 29.0 | 13 47.9 | 51.3 | 54.9 | 58.5 | 17 | 2743 | 13 54.86 | 20 | 13 54.86 |
| 13 | 17.8 | 13.8 | 8.8 | | 32.1 | | | | | | | | -2.24 | |
| | | | | | 35.7 | | | | | | | -3.49 | -1.25 | |
| (δ) - D | $\frac{\kappa'}{100}$ | | | | 32.27 | | | | | | | | 13 51.37 | |
| a_1 | | | | | | | | | | | | | -1.56 | |
| | | | | | | | | | | | | | 13 49.81 | |
| | | | | | | | | | | | | | | |
| | | | 8.8 | 13 | 31.7 | 13 47.2 | 50.8 | 54.3 | 57.9 | 17 | 2716 | 13 54.32 | 20 | 13 54.32 |
| | | | | | 34.8 | | | | | | | | -1.856 | |
| | | | | | 39.1 | | | | | | | -3.09 | -1.23 | |
| (δ) - D | $\frac{\kappa'}{100}$ | | | | 35.20 | | | | | | | | 13 51.24 | |
| a_2 | | | | | | | | | | | | | -1.53 | |
| | | | | | | | | | | | | | 13 49.78 | |
| | | | | | | | | | | | | | | |
| 14 | 57 | 54 8 | 8.7 | 14 | 30.2 | 14 58.8 | 58.2 | 17 | 54 | 2.0 | 915 | 15 1.82 | 20 | 15 1.82 |
| 14 | 24.1 | 4.9 | 8.9 | | 33.4 | | | | | | | | -2.24 | |
| | | | | | 35.9 | | | | | | | -3.48 | -1.24 | |
| (δ) - D | $\frac{\kappa'}{100}$ | | | | 33.17 | | | | | | | | 14 58.34 | |
| a_1 | | | | | | | | | | | | | -1.58 | |
| | | | | | | | | | | | | | 14 56.76 | |
| | | | | | | | | | | | | | | |
| | | | 9.0 | 14 | 30.9 | 14 54.4 | 58.0 | 1.5 | 5.0 | 8.6 | 7515 | 15 1.50 | 20 | 15 1.50 |
| | | | | | 33.3 | | | | | | | | -1.856 | |
| | | | | | 35.4 | | | | | | | -3.09 | -1.23 | |
| (δ) - D | $\frac{\kappa'}{100}$ | | | | 33.20 | | | | | | | | 14 58.42 | |
| a_2 | | | | | | | | | | | | | -1.55 | |
| | | | | | | | | | | | | | 14 56.87 | |
| | | | | | | | | | | | | | | |

Runs

+ 2.35

31

| | | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | $+2.42$ z | 8' |
|----|------------|-----------|----------|------|---------|----------|--------------------|--------------------|--------------|--------|--------------|--------|
| 4 | | +19.97 | 0 57.0 | 0.1 | 117.1 | 40 58.53 | 41 | 49.80 | | 40 | 54 45 19.51 | |
| 4 | | 1.30038 | | | | | 54 45 | 41.13 | | | 26.16 | |
| 7 | d | 9.91212 | 9.76111 | | | | | -21.62 | 41.43 | | -10 | +12.86 |
| 7 | (8) - D | 1.33486 | 1.18385 | | | | | -14.22 | | | -19 | 15.21 |
| 42 | | -1.48 | | | | | | 16.27 | | | +12.65 | |
| | δ_1 | -10.80 | 10 22.94 | | 45 10.9 | | | | | | +50 | |
| | | | | | | 40 | | | | | -19.70 | |
| | | | | | | | | | | | 45 21.67 | |
| 0 | | +28.96 | 0 49.2 | 53.5 | 103.7 | 0 57.35 | 41 | 57.00 | | 40 | 54 45 17.49 | |
| 4 | | 1.46180 | | | | | 54 45 | 48.44 | 49.05 | | 26.91 | |
| 6 | d | 9.91212 | 9.76111 | | | | | -31.55 | -22.14 | | -23 | +12.70 |
| 8 | (8) - D | 1.49628 | 1.34527 | | | | | | | | -17 | 15.12 |
| | δ_2 | -1.48 | 10 23.10 | | 45 11.4 | | | | | | +12.60 | |
| | | -10.80 | | | | 17 | | | | | +50 | |
| | | | | | | | | | | | -19.80 | |
| | | | | | | | | | | | 45 22.23 | |
| 8 | | +23.01 | 2 56.6 | 59.5 | 16.1 | 2 58.05 | 4 | 50.30 | | 15 | 54 8 16.91 | |
| 4 | | 1.36192 | | | | | 54 8 | 41.63 | 41.93 | | 24.07 | |
| 4 | d | 9.90878 | 9.76765 | | | | | -24.72 | -17.86 | | -14 | +11.79 |
| 0 | (8) - D | 1.39306 | 1.25193 | | | | | | | | -57 | 14.14 |
| 2 | | -1.52 | 11 25.40 | | 8 7.6 | | | | | | +12.00 | |
| | δ_1 | -10.88 | | | | 14 | | | | | +50 | |
| | | | | | | | | | | | -19.70 | |
| | | | | | | | | | | | 8 16.51 | |
| 8 | | +27.88 | 2 52.8 | 56.9 | 9.7 | 2 54.85 | 4 | 53.50 | | 15 | 54 8 15.39 | |
| 6 | | 1.41452 | | | | | 54 8 | 46.34 | 45.65 | | 23.91 | |
| 19 | d | 9.90878 | 9.76765 | | | | | -29.95 | -21.64 | | -20 | +11.70 |
| 4 | (8) - D | 1.47643 | 1.33530 | | | | | | | | -53 | 14.12 |
| 5 | | -1.52 | 11 25.43 | | 8 7.2 | | | | | | +11.95 | |
| 5 | δ_2 | -10.88 | | | | 8 | | | | | +50 | |
| | | | | | | | | | | | -19.90 | |
| | | | | | | | | | | | 8 18.13 | |
| 4 | | +35.74 | 3 27.8 | 30.2 | 58.0 | 3 29.00 | 14 | 19.35 | | 5 | 54 17 32.21 | |
| 4 | | 1.55315 | | | | | 54 18 | 40.68 | 10.98 | | 43.34 | |
| 25 | d | 9.90960 | 9.76607 | | | | | -26.47 | -27.64 | | -33 | +12.65 |
| 5 | (8) - D | 1.58511 | 1.44158 | | | | | | | | -67 | 14.03 |
| 5 | | -1.52 | 12 36.98 | | 17 26.6 | | | | | | +12.18 | |
| 5 | δ_1 | -10.96 | | | | 8 | | | | | +50 | |
| | | | | | | | | | | | -19.80 | |
| | | | | | | | | | | | 17 37.57 | |
| 20 | | +25.80 | 3 35.3 | 37.6 | 12.9 | 3 36.45 | 14 | 11.90 | | 5 | 54 17 35.77 | |
| 6 | | 1.41162 | | | | | 54 18 | 37.74 | 3.96 | | 43.99 | |
| 3 | d | 9.90960 | 9.76607 | | | | | -27.77 | -19.96 | | -17 | +11.57 |
| 11 | (8) - D | 1.44358 | 1.30005 | | | | | | | | -68 | 14.19 |
| 2 | | -1.52 | 12 37.07 | | 17 27.5 | | | | | | +12.12 | |
| 59 | δ_2 | -10.76 | | | | 3 | | | | | +50 | |
| | | | | | | | | | | | -19.90 | |
| | | | | | | | | | | | 17 38.28 | |
| 6 | | +22.59 | 3 0.1 | 2.9 | 3.0 | 3 1.50 | 14 | 46.85 | | 5 | 54 18 13.86 | |
| 4 | | 1.35392 | | | | | 54 18 | 56.18 | 38.48 | | 21.01 | |
| 5 | d | 9.90969 | 9.76590 | | | | | -21.32 | -17.47 | | -14 | +11.97 |
| 7 | (8) - D | 1.38597 | 1.24218 | | | | | | | | -57 | 14.32 |
| | δ_1 | -1.52 | 13 48.29 | | 18 4.4 | | | | | | +12.18 | |
| | | -11.05 | | | | 8 | | | | | +50 | |
| | | | | | | | | | | | -19.90 | |
| | | | | | | | | | | | 18 15.43 | |
| 22 | | +19.12 | 3 2.9 | 5.1 | 8.0 | 3 4.00 | 14 | 44.35 | | 5 | 54 18 16.67 | |
| 56 | | 1.28149 | | | | | 54 18 | 36.14 | 36.40 | | 21.62 | |
| 3 | d | 9.90960 | 9.76590 | | | | | -20.58 | -14.78 | | -9 | +11.94 |
| 4 | (8) - D | 1.31354 | 1.16975 | | | | | | | | -59 | 14.36 |
| 3 | | -1.52 | 13 48.18 | | 18 4.9 | | | | | | +12.12 | |
| 0 | δ_2 | -11.05 | | | | 17 | | | | | +50 | |
| | | | | | | | | | | | -20.00 | |
| | | | | | | | | | | | 18 16.48 | |
| 2 | | +28.65 | 2 34.8 | 37.2 | 12.0 | 2 36.00 | 5 | 12.35 | | 15 | 54 8 32.90 | |
| 4 | | 1.45712 | | | | | 54 9 | 5.66 | 3.98 | | 41.74 | |
| 4 | d | 9.90878 | 9.76765 | | | | | -30.78 | -22.24 | | -21 | +11.62 |
| 4 | (8) - D | 1.48826 | 1.34713 | | | | | | | | -49 | 14.17 |
| | δ_1 | -1.53 | 14 55.23 | | 8 24.8 | | | | | | +12.02 | |
| | | -11.13 | | | | 17 | | | | | +50 | |
| | | | | | | | | | | | -20.00 | |
| | | | | | | | | | | | 8 35.91 | |
| 0 | | +28.30 | 2 34.5 | 37.2 | 11.7 | 2 36.85 | 5 | 12.50 | | 15 | 54 8 33.94 | |
| 56 | | 1.45170 | | | | | 54 9 | 4.44 | 4.55 | | 42.58 | |
| 3 | d | 9.90878 | 9.76765 | | | | | -30.40 | -21.97 | | -21 | +11.75 |
| 2 | (8) - D | 1.48293 | 1.34180 | | | | | | | | -49 | 14.17 |
| | δ_2 | -1.53 | 14 55.33 | | 8 25.5 | | | | | | +11.95 | |
| | | -11.13 | | | | | | | | | +50 | |
| | | | | | | | | | | | -20.10 | |
| | | | | | | | | | | | 8 36.65 | |

Date₁ = 1876 Oct. 2Observer
RecorderDate₂ = Oct. 3Observer
Recorder

32

| Star. | α | δ | Mag. | T_a | T_m | T_e | T_f | T_g | T_h | Sum | Mean | Red. to T_m | T |
|----------|-----------------------|----------|------|-------|---------|-------|-------|----------|-------|----------|----------|---------------|----------|
| 17 | 14 | 54 0 | 9.0 | 20 | 17 18.5 | 21.8 | 23.2 | 25.8 | 32.3 | 1266 | 17 25.32 | 20 | 17 35.32 |
| 16 | 47.8 | 53 57.4 | 9.4 | | | | | | | | | -3.48 | -2.24 |
| κ | | | | | | | | | | | | | -1.24 |
| (16) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 17 21.84 |
| a_1 | | | | | | | | | | | | | 17 20.23 |
| 17 | 14 | 54 0 | 9.0 | 20 | 17 18.5 | 21.8 | 23.2 | 25.8 | 32.3 | 1266 | 17 25.32 | 20 | 17 35.32 |
| κ | | | | | | | | | | | | | -1.856 |
| (16) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 17 21.84 |
| a_2 | | | | | | | | | | | | | 17 20.23 |
| 18 | 27 | 54 58 | 8.4 | 18 | 18 29.1 | 32.6 | 36.1 | 39.9 | 43.5 | 1816 | 18 36.32 | 20 | 18 36.32 |
| 17 | 59.1 | 54.8 | 8.4 | | | | | | | | | -3.53 | -2.24 |
| κ | | | | | | | | | | | | | -1.29 |
| (16) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 18 32.79 |
| a_1 | | | | | | | | | | | | | 18 31.22 |
| 18 | 27 | 54 58 | 8.4 | 18 | 18 29.1 | 32.6 | 36.1 | 39.9 | 43.5 | 1816 | 18 36.32 | 20 | 18 36.32 |
| κ | | | | | | | | | | | | | -1.856 |
| (16) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 18 32.79 |
| a_2 | | | | | | | | | | | | | 18 31.22 |
| 18 | 27 | 54 58 | 8.4 | 18 | 18 29.1 | 32.6 | 36.1 | 39.9 | 43.5 | 1816 | 18 36.32 | 20 | 18 36.32 |
| κ | | | | | | | | | | | | | -1.856 |
| (16) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 18 32.79 |
| a_2 | | | | | | | | | | | | | 18 31.22 |
| 19 | 44 | 54 15 | 6.6 | 19 | 19 47.1 | 50.7 | 54.0 | 57.5 | 61.4 | 2707 | 19 54.14 | 20 | 19 54.14 |
| 19 | 16.1 | 12.4 | 6.7 | | | | | | | | | -3.48 | -2.23 |
| κ | | | | | | | | | | | | | -1.25 |
| (16) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 19 50.66 |
| a_1 | | | | | | | | | | | | | 19 49.04 |
| 19 | 44 | 54 15 | 6.6 | 19 | 19 47.1 | 50.7 | 54.0 | 57.5 | 61.4 | 2707 | 19 54.14 | 20 | 19 54.14 |
| κ | | | | | | | | | | | | | -1.856 |
| (16) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 19 50.66 |
| a_2 | | | | | | | | | | | | | 19 49.04 |
| 19 | 44 | 54 15 | 6.6 | 19 | 19 47.1 | 50.7 | 54.0 | 57.5 | 61.4 | 2707 | 19 54.14 | 20 | 19 54.14 |
| κ | | | | | | | | | | | | | -1.856 |
| (16) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 19 50.66 |
| a_2 | | | | | | | | | | | | | 19 49.04 |
| 20 | 27 | 54 01 | 7.7 | 20 | 20 29.3 | 33.0 | 36.4 | 40.0 | 43.8 | 1825 | 21 36.50 | 20 | 21 36.50 |
| 20 | 59.7 | 54 58.4 | 6.9 | | | | | | | | | -3.52 | -2.23 |
| κ | | | | | | | | | | | | | -1.29 |
| (16) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 21 32.98 |
| a_1 | | | | | | | | | | | | | 21 31.38 |
| 20 | 27 | 54 01 | 7.7 | 20 | 20 29.3 | 33.0 | 36.4 | 40.0 | 43.8 | 1825 | 21 36.50 | 20 | 21 36.50 |
| κ | | | | | | | | | | | | | -1.85 |
| (16) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 21 32.98 |
| a_2 | | | | | | | | | | | | | 21 31.38 |
| 21 | 11.5 | 21 29.0 | 32.7 | 36.2 | 39.8 | 43.4 | 1811 | 21 36.22 | 20 | 21 36.22 | | -3.12 | -1.85 |
| κ | | | | | | | | | | | | | -1.27 |
| (16) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 21 33.10 |
| a_2 | | | | | | | | | | | | | 21 31.79 |
| 22 | 26 | 54 43 | 8.3 | 22 | 22 28.4 | 32.0 | 35.7 | 39.2 | 42.9 | 1782 | 22 35.64 | 20 | 22 35.64 |
| 21 | 58.2 | 32.9 | 7.9 | | | | | | | | | -3.51 | -2.23 |
| κ | | | | | | | | | | | | | -1.28 |
| (16) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 22 32.13 |
| a_1 | | | | | | | | | | | | | 22 30.51 |
| 22 | 26 | 54 43 | 8.3 | 22 | 22 28.4 | 32.0 | 35.7 | 39.2 | 42.9 | 1782 | 22 35.64 | 20 | 22 35.64 |
| κ | | | | | | | | | | | | | -1.845 |
| (16) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 22 32.13 |
| a_2 | | | | | | | | | | | | | 22 30.51 |
| 22 | 26 | 54 43 | 8.3 | 22 | 22 28.4 | 32.0 | 35.7 | 39.2 | 42.9 | 1782 | 22 35.64 | 20 | 22 35.64 |
| κ | | | | | | | | | | | | | -1.845 |
| (16) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 22 32.13 |
| a_2 | | | | | | | | | | | | | 22 30.51 |

Runs

+2.35

33

| | | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | 8' |
|----|------------|------------------|----------|---------|------|----------|--------------------|--------------------|--------------|--------|-----|----|
| 22 | | | 3' 56.2 | 58.7 | 149 | 23 57.45 | 58.1 | 50.90 | | 20 | | |
| 24 | | | | | | | 54 2 | 42.23 | 42.53 | | | |
| 4 | d | | | | | | | | | | | |
| 4 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | | |
| 4 | δ_1 | | 17 18.68 | | | | | | | | | |
| 4 | | | | | | | | | | | | |
| 4 | d | | 3 54.9 | 57.1 | 12.0 | 23 56.00 | 58 | 52.35 | | 20 | | |
| 4 | (8) - D | $\frac{d'}{100}$ | | | | | 54 2 | 44.19 | 44.40 | | | |
| 4 | δ_2 | | 17 18.73 | 2 2.7 | | | | | | | | |
| 4 | | | | | | | | | | | | |
| 4 | d | | 2 40.1 | 42.8 | 2.9 | 24 41.45 | 58 | 6.90 | | 25 | | |
| 4 | (8) - D | $\frac{d'}{100}$ | | | | | 54 58 | 58.23 | 58.53 | | | |
| 4 | δ_1 | | 18 29.72 | 58 21.2 | | | | | | | | |
| 4 | | | | | | | | | | | | |
| 4 | d | | 2 37.5 | 40.6 | 2.8 | 24 39.05 | 58 | 9.30 | | 25 | | |
| 4 | (8) - D | $\frac{d'}{100}$ | | | | | 54 59 | 58.23 | 58.53 | | | |
| 4 | δ_2 | | 18 29.69 | 58 21.4 | | | | | | | | |
| 4 | | | | | | | | | | | | |
| 4 | d | | 4 42.1 | 44.9 | 7.0 | 9 43.50 | 13 | 4.85 | | 5 | | |
| 4 | (8) - D | $\frac{d'}{100}$ | | | | | 54 16 | 56.18 | 56.48 | | | |
| 4 | δ_1 | | 19 47.49 | 16 14.3 | | | | | | | | |
| 4 | | | | | | | | | | | | |
| 4 | d | | 4 47.0 | 48.9 | 15.9 | 9 47.95 | 13 | 0.40 | | 5 | | |
| 4 | (8) - D | $\frac{d'}{100}$ | | | | | 54 16 | 56.22 | 56.48 | | | |
| 4 | δ_2 | | 19 47.58 | 16 13.7 | | | | | | | | |
| 4 | | | | | | | | | | | | |
| 4 | d | | 3 40.6 | 43.1 | 3.7 | 23 41.85 | 59 | 6.50 | | 20 | | |
| 4 | (8) - D | $\frac{d'}{100}$ | | | | | 54 2 | 57.53 | 58.13 | | | |
| 4 | δ_1 | | 21 29.76 | 2 12.8 | | | | | | | | |
| 4 | | | | | | | | | | | | |
| 4 | d | | 3 52.9 | 56.0 | 8.9 | 23 54.45 | 58 | 53.50 | | 20 | | |
| 4 | (8) - D | $\frac{d'}{100}$ | | | | | 54 2 | 45.71 | 45.95 | | | |
| 4 | δ_2 | | 21 29.91 | 2 12.1 | | | | | | | | |
| 4 | | | | | | | | | | | | |
| 4 | d | | 3 21.7 | 24.5 | 6.2 | 12 23.10 | 40 | 25.25 | | 40 | | |
| 4 | (8) - D | $\frac{d'}{100}$ | | | | | 54 44 | 16.58 | 16.88 | | | |
| 4 | δ_1 | | 22 28.97 | 43 46.4 | | | | | | | | |
| 4 | | | | | | | | | | | | |
| 4 | d | | 2 15.9 | 19.3 | 15.2 | 12 17.60 | 40 | 30.75 | | 40 | | |
| 4 | (8) - D | $\frac{d'}{100}$ | | | | | 54 44 | 22.59 | 22.80 | | | |
| 4 | δ_2 | | 22 29.06 | 43 46.8 | | | | | | | | |
| 4 | | | | | | | | | | | | |

Date₁ = 1876 Oct. 2Observer
RecorderDate₂ = Oct. 3Observer
Recorder

34

| Star. | α | δ | Mag. | T_s | T_m | T_e | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T | |
|----------|-----------------------|----------|------|----------|---------|-------|-------|-------|-------|-----------|----------|---------------|------------|----------|
| 26 | 25 | 53 16 | 8.0 | 20 26 66 | 26 306 | 33.9 | 37.3 | 40.8 | 44.3 | 1869 | 26 37.38 | 20 | 26 37.88 | |
| κ | | 13.2 | 7.3 | 9.2 | | | | | | | | -3.43 | -2.23 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | 12.1 | | | | | | | | | -1.20 | |
| a_1 | | | | 9.47 | | | | | | | | 20 | 26 33.95 | |
| κ | | | | | | | | | | | | | -1.72 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | 20 | 26 32.23 | |
| a_1 | | | | | | | | | | | | | -1.6 | |
| κ | | | 7.7 | 26 15 | 26 302 | 33.5 | 36.9 | 40.4 | 43.8 | 1846 | 26 36.92 | 20 | 26 36.92 | |
| κ | | | | 4.5 | | | | | | | | -3.04 | -1.845 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | 6.8 | | | | | | | | | -1.19 | |
| a_2 | | | | 4.27 | | | | | | | | 20 | 26 33.89 | |
| κ | | | | | | | | | | | | | -1.69 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | 20 | 26 32.1820 | |
| a_2 | | | | | | | | | | | | | 32.19 | |
| 27 | 41 | 54 9 | 8.9 | 27 7.8 | 27 165 | 20.3 | 23.7 | 27.4 | 30.8 | 1187 | 27 23.74 | 20 | 27 23.74 | |
| κ | | 6.2 | 8.1 | 11.6 | | | | | | | | -3.47 | -2.23 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | 13.2 | | | | | | | | -1.68 | -1.24 | |
| a_1 | | | | 11.53 | | | | | | | | | 27 20.27 | |
| κ | | | | 27 57.3 | 27 44.9 | 48.4 | 51.9 | 55.8 | | 27 46.572 | | -3.47 | 27 51.88 | |
| (8) - D | $\frac{\kappa'}{100}$ | | 8.1 | 0.5 | | | | | | | | | -2.23 | |
| a_1 | | | | 4.5 | | | | | | | | -1.69 | 27 48.41 | |
| κ | | | | 0.77 | | | | | | | | | -1.23 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | 7.9 | | | | | | | | -3.08 | 27 23.30 | |
| a_2 | | | 8.6 | 27 4.5 | 27 163 | 20.0 | | 26.7 | 30.2 | | | | -1.845 | |
| κ | | | | 11.4 | | | | 18.58 | | 27 46.74 | | -3.08 | 27 20.22 | |
| (8) - D | $\frac{\kappa'}{100}$ | | 7.9 | 7.93 | | | | | | | | | 27 51.46 | |
| a_2 | | | | 2.90 | | | | | | | | -3.08 | -1.845 | |
| κ | | | | 29 | 20.6 | 29 45 | 48.7 | 52.3 | 55.8 | 59.5 | 2618 | 29 52.36 | 20 | 29 52.36 |
| κ | | | | 22.9 | | | | | | | | | -2.23 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | 26.4 | | | | | | | | -3.47 | -1.24 | |
| a_1 | | | | 23.30 | | | | | | | | | 29 48.89 | |
| κ | | | | | | | | | | | | | -1.72 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | 20 | 29 47.17 | |
| a_1 | | | | | | | | | | | | | -1.6 | |
| κ | | | 6.9 | 29 29.3 | 29 44.6 | 48.4 | 51.8 | 55.3 | 58.9 | 2590 | 29 51.80 | 20 | 29 51.80 | |
| κ | | | | 32.8 | | | | | | | | | -1.845 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | 35.4 | | | | | | | | -3.08 | -1.23 | |
| a_2 | | | | 32.50 | | | | | | | | | 29 48.93 | |
| κ | | | | | | | | | | | | | -1.69 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 29 47.04 | |
| a_2 | | | | | | | | | | | | | -1.6 | |
| 31 | 0 | 54 8 | 9.4 | 30 47.8 | 31 5.3 | 8.8 | 12.4 | 15.9 | 19.5 | 619 | 31 12.38 | 20 | 31 12.38 | |
| κ | | 5.2 | 9.4 | 30.5 | | | | | | | | | -2.23 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | 32.9 | | | | | | | | -3.47 | -1.24 | |
| a_1 | | | | 30.43 | | | | | | | | | 31 8.91 | |
| κ | | | | | | | | | | | | | -1.72 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 31 7.19 | |
| a_1 | | | | | | | | | | | | | -1.6 | |
| κ | | | 9.1 | 30 47.1 | 31 5.0 | 8.5 | 12.0 | 15.5 | 19.0 | 600 | 31 12.00 | 20 | 31 12.00 | |
| κ | | | | 49.9 | | | | | | | | | -1.845 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | 52.7 | | | | | | | | -3.08 | -1.23 | |
| a_2 | | | | 49.90 | | | | | | | | | 31 8.93 | |
| κ | | | | | | | | | | | | | -1.69 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 31 7.24 | |
| a_2 | | | | | | | | | | | | | -1.6 | |
| 32 | 14 | 54 8 | 9.1 | 31 48.4 | 32 23.6 | 26.9 | 30.8 | 34.0 | 37.5 | 1528 | 32 30.56 | 20 | 32 30.56 | |
| κ | | 5.2 | 9.0 | 52.5 | | | | | | | | | -2.23 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | 56.9 | | | | | | | | -3.47 | -1.24 | |
| a_1 | | | | 52.70 | | | | | | | | | 32 27.09 | |
| κ | | | | | | | | | | | | | -1.74 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 32 25.35 | |
| a_1 | | | | | | | | | | | | | -1.6 | |
| κ | | | 9.1 | 31 53.4 | 32 28.2 | 26.8 | 30.1 | 33.8 | 37.3 | 1512 | 32 30.24 | 20 | 32 30.24 | |
| κ | | | | 58.0 | | | | | | | | | -1.845 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | 1.2 | | | | | | | | -3.08 | -1.23 | |
| a_2 | | | | 58.20 | | | | | | | | | 32 27.17 | |
| κ | | | | | | | | | | | | | -1.70 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 32 25.47 | |
| a_2 | | | | | | | | | | | | | -1.6 | |

Runs

+2.35

35

| | | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|------|------------|------------------|----------|----------|---------|----------|--------------------|--------------------|--------------|--------|-----|-----------|
| 8 | | +27.91 | 3' 48.2 | 52.0 | 100.2 | 3' 50.10 | 13' | 58.25 | | 5 | 53 | 17' 19.42 |
| 3 | | 1.44576 | | | | | 53 | 17 | 49.58 | 49.88 | | 27.77 |
| 0 | d | 9.90405 | 9.77643 | | | | | | | | | |
| 5 | | 1.47217 | 1.34455 | | | | | | -29.66 | -22.11 | | -21 |
| 2 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | | +10.65 |
| 3 | | -1.63 | | | | | | | | | | -72 |
| | δ_1 | -11.96 | 26 30.60 | 17 8.3 | | | | | | | | +11.13 |
| | | | | | | | | | | | | +4.5 |
| | | | | | | | | | | | | -20.50 |
| 20 | | +32.65 | 3 45.1 | 48.1 | 13.2 | 3 46.60 | 53 | 14 | 1.75 | 53.80 | | 17 20.27 |
| 45 | | 1.51388 | | | | | | | | | | 17 18.54 |
| 9 | d | 9.90405 | 9.77643 | | | | | | | | | 27.94 |
| 9 | | 1.54029 | 1.41267 | | | | | | -34.40 | -25.86 | | -28 |
| 820 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | | +10.52 |
| 9 | | -1.63 | | | | | | | | | | 12.94 |
| | δ_2 | -11.96 | 26 30.56 | 17 8.3 | | | | | | | | -72 |
| | | | | | | | | | | | | +11.07 |
| | | | | | | | | | | | | +4.5 |
| | | | | | | | | | | | | -20.60 |
| 14 | | +12.21 | 0 54.1 | 57.4 | 11.5 | 0 55.75 | 62 | 52.60 | | 15 | 54 | 17 30.77 |
| 23 | | 1.08672 | | | | | 54 | 10 | 43.93 | 44.23 | | 34.82 |
| 24 | d | 9.91033 | 9.76466 | | | | | | | | | -4 |
| 27 | | 1.11941 | 1.09737 | | | | | | -13.16 | -9.41 | | +12.63 |
| 88 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | | -27 |
| 23 | | -8.9 | 1 26.5 | 24.5 | | | | | | | | 14.98 |
| 24 | | 0.94939 | | | | | | | | | | +12.34 |
| 41 | δ_1 | -1.59 | | | | | 54 | 10 | 25.85 | 17.48 | | +50 |
| | | -12.05 | 27 15.68 | 10 17.2 | | | | | -17.16 | +6.86 | | -20.60 |
| 30 | | 1.15.4 | | | | | | | | | | 10 27.20 |
| 84.5 | | 1.18752 | | | | | | | | | | 35.15 |
| 23 | | 9.76747 | | | | | | | | | | 27.20 |
| 65 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | | -6 |
| 46 | | 1.07735 | | | | | | | | | | +12.05 |
| 84.5 | | -1.59 | | | | | | | | | | -36 |
| 23 | δ_2 | -12.05 | 29 51.8 | 54.8 | 6.6 | 15 53.30 | 54 | 9 | 46.89 | 47.10 | | 14.47 |
| 39 | | -1.59 | | | | | | | | | | +11.97 |
| | | -12.05 | | | | | | | | | | +50 |
| | | | | | | | | | | | | -20.70 |
| 36 | | +29.56 | 4 51.8 | 54.8 | 6.6 | 15 53.30 | 54 | 9 | 46.89 | 47.10 | | 14.47 |
| 33 | | 1.217070 | | | | | | | | | | +50 |
| 4 | d | 9.90887 | 9.76747 | 27 16.98 | 10 16.9 | | | | | | | -20.70 |
| 9 | | 1.50193 | 1.36053 | 45.13 | 5.724 | | | | | | | 28.52 |
| 2 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | | -20.70 |
| 17 | | -1.61 | | | | | | | | | | 10 27.20 |
| | δ_1 | -12.19 | 29 45.56 | 1 46.6 | | | | | | | | 35.15 |
| | | | | | | | | | | | | 27.20 |
| 0 | | +19.30 | 4 18.5 | 20.9 | 39.4 | 4 17.70 | 54 | 2 | 28.65 | 20.70 | | -9 |
| 45 | | 1.28556 | | | | | | | | | | -82 |
| 23 | d | 9.90814 | 9.76887 | | | | | | | | | +11.43 |
| 69 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | | 13.85 |
| 84.5 | | 1.31606 | 1.17679 | | | | | | | | | +11.84 |
| | δ_2 | -1.61 | 29 45.42 | 1 46.5 | | | | | | | | +50 |
| | | -12.19 | | | | | | | | | | -20.50 |
| | | | | | | | | | | | | 12 58.73 |
| 8 | | +21.95 | 1 46.5 | 47.9 | 14.4 | 1 47.20 | 54 | 9 | 52.45 | 52.78 | | 13 |
| 3 | | 1.341143 | | | | | | | | | | 34 |
| 4 | d | 9.90887 | 9.76747 | | | | | | | | | +12.04 |
| 1 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | | +50 |
| 22 | | 1.34266 | 1.23126 | | | | | | | | | -20.80 |
| 9 | | -1.61 | | | | | | | | | | 9 29.37 |
| | δ_1 | -12.28 | 31 5.58 | 9 17.1 | | | | | | | | 28.69 |
| | | | | | | | | | | | | 35.75 |
| 20 | | +22.10 | 1 46.4 | 49.1 | 15.5 | 1 47.75 | 54 | 9 | 52.45 | 52.65 | | -13 |
| 45 | | 1.341439 | | | | | | | | | | 34 |
| 23 | d | 9.90887 | 9.76747 | | | | | | | | | +12.04 |
| 3 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | | +50 |
| 9 | | 1.34562 | 1.23422 | | | | | | | | | -20.80 |
| 84.5 | | -1.61 | | | | | | | | | | 9 29.37 |
| | δ_2 | -12.28 | 31 5.62 | 9 16.7 | | | | | | | | 28.69 |
| | | | | | | | | | | | | 35.75 |
| 56 | | +37.86 | 1 33.1 | 36.1 | 7.2 | 1 34.60 | 54 | 10 | 5.08 | 5.38 | | -38 |
| 23 | | 1.54818 | | | | | | | | | | -30 |
| 4 | d | 9.90887 | 9.76747 | | | | | | | | | +12.04 |
| 9 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | | +50 |
| 35 | | 1.61941 | 1.46801 | | | | | | | | | -20.90 |
| | δ_1 | -1.62 | 32 23.73 | 9 16.9 | | | | | | | | 9 29.31 |
| | | -12.37 | | | | | | | | | | 26.01 |
| 45 | | +32.04 | 1 38.5 | 41.0 | 79.5 | 1 39.75 | 54 | 10 | 8.60 | 0.65 | | -27 |
| 3 | | 1.50569 | | | | | | | | | | 35.79 |
| 17 | d | 9.90887 | 9.76747 | | | | | | | | | +11.89 |
| 70 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | | 14.31 |
| 84.5 | | 1.53692 | 1.39582 | | | | | | | | | +11.97 |
| | δ_2 | -1.62 | 32 23.84 | 9 16.7 | | | | | | | | +50 |
| | | -12.37 | | | | | | | | | | -21.00 |
| | | | | | | | | | | | | 9 29.10 |

Date₁ = 1876 Oct. 2Observer
RecorderDate₂ = Oct. 3Observer
Recorder

36

1876phase.pr

| Star. | α | δ | Mag. | T_a | T_m | T_e | T_f | T_g | T_h | Sum | Mean | Red. to T_m | T | |
|----------------|-----------------------|----------|------------|------------|---------|-------|-------|----------|-------|----------|----------|---------------|-----------|-------|
| 34 6 | 53° 25' | 8.7 | 20 33 54.5 | 34 11.8 | 15.3 | 18.9 | 22.3 | 25.9 | 9 44 | 34 18.88 | 20 | 34 18.88 | 18.88 | |
| 33 38.5 | 20.7 | 8.4 | 36.9 | | | | | | | | | -3.45 | -2.23 | |
| $(\delta) - D$ | $\frac{\kappa'}{100}$ | | 52.2 | | | | | | | | | | -1.22 | |
| α_1 | | | 58.4 | | | | | | | | | | 34 15.43 | |
| | | | | | | | | | | | | 20 | 34 13.65 | |
| | | | | | | | | | | | | | -1.6 | |
| | | | | | | | | | | | | | -1.2 | |
| 8.2 | 83 39.4 | 34 11.6 | 15.0 | 18.6 | 22.0 | 25.4 | 9 28 | 34 18.56 | 20 | 34 18.56 | 18.56 | -3.05 | -1.835 | |
| κ | 43.0 | | | | | | | | | | | | -1.20 | |
| $(\delta) - D$ | $\frac{\kappa'}{100}$ | | 45.9 | | | | | | | | | | 34 15.53 | |
| α_2 | | | 42.77 | | | | | | | | | | -1.75 | |
| | | | | | | | | | | | | | 34 13.786 | |
| | | | | | | | | | | | | | -1.6 | |
| | | | | | | | | | | | | | -1.2 | |
| 36 0 | 53 59 | 9.5 | 36 6.9 | 36 5.7 | 8.8 | 12.4 | 16.3 | 19.4 | 6 26 | 36 12.52 | 20 | 36 12.52 | 12.52 | |
| 35 32.1 | 53.2 | 9.5 | 6.90 | | | | | | | | | -3.47 | -2.23 | |
| $(\delta) - D$ | $\frac{\kappa'}{100}$ | | | | | | | | | | | | -1.24 | |
| α_1 | | | | | | | | | | | | | 36 9.05 | |
| | | | | | | | | | | | | | -1.80 | |
| | | | | | | | | | | | | | 36 7.25 | |
| | | | | | | | | | | | | | -1.6 | |
| | | | | | | | | | | | | | -1.2 | |
| 9.6 | 35 48.1 | 36 5.2 | 8.7 | 12.4 | 15.7 | 19.3 | 9 3 | | | | | | 36 12.26 | |
| κ | 57.3 | | | | | | | | | | | -3.08 | -1.835 | |
| $(\delta) - D$ | $\frac{\kappa'}{100}$ | | 54.0 | | | | | | | | | | -1.23 | |
| α_2 | | | 57.13 | | | | | | | | | | 36 9.20 | |
| | | | | | | | | | | | | | -1.76 | |
| | | | | | | | | | | | | | 36 7.42 | |
| | | | | | | | | | | | | | -1.6 | |
| | | | | | | | | | | | | | -1.2 | |
| Oct. 3 | 19 39 8.7 | 54 43 | 8.3 | 19 39 31.8 | 39 58.4 | 20 | 5.7 | 9.0 | 12.6 | 2 77 | 40 5.54 | 19 | 40 5.54 | 5.54 |
| 39 32.6 | 40.7 | 8.4 | 35.0 | | | | | | | | | -3.12 | -1.835 | |
| $(\delta) - D$ | $\frac{\kappa'}{100}$ | | 37.6 | | | | | | | | | | -1.25 | |
| α_1 | | | 34.80 | | | | | | | | | | 40 2.40 | |
| | | | | | | | | | | | | | -1.23 | |
| | | | | | | | | | | | | | 40 1.14 | |
| | | | | | | | | | | | | | 21 | |
| | | | | | | | | | | | | | -1.3 | |
| | | | | | | | | | | | | | -8.1 | |
| Oct. 3 | 19 43 25 | 54 5 | 6.5 | 19 43 4.2 | 43 27.5 | 31.0 | 34.6 | 38.0 | 41.6 | 17 27 | 43 34.54 | 19 | 43 34.54 | 34.54 |
| 43 0.7 | 2.9 | 6.5 | 7.3 | | | | | | | | | -3.09 | -1.835 | |
| $(\delta) - D$ | $\frac{\kappa'}{100}$ | | 10.6 | | | | | | | | | | -1.23 | |
| α_2 | | | 7.37 | | | | | | | | | | 43 31.42 | |
| | | | | | | | | | | | | | -1.27 | |
| | | | | | | | | | | | | | 43 30.14 | |
| | | | | | | | | | | | | | -1.6 | |
| | | | | | | | | | | | | | -8.1 | |
| Oct. 3 | 19 44 2.9 | 51 9 | 9.2 | 19 44 13.7 | 44 32.5 | 35.9 | 38.9 | 42.2 | 45.6 | 19 51 | 44 39.02 | 19 | 44 39.02 | 39.02 |
| 44 1.0 | 6.9 | 9.3 | 18.4 | | | | | | | | | -2.96 | -1.835 | |
| $(\delta) - D$ | $\frac{\kappa'}{100}$ | | 22.5 | | | | | | | | | | -1.10 | |
| α_1 | | | 19.20 | | | | | | | | | | 44 36.03 | |
| | | | | | | | | | | | | | -1.42 | |
| | | | | | | | | | | | | | 44 34.61 | |
| | | | | | | | | | | | | | -1.6 | |
| | | | | | | | | | | | | | -8.1 | |
| Oct. 3 | 20 28 1.7 | 53 41 | 8.2 | 20 28 17.6 | 28 20.6 | 24.2 | 27.6 | 31.0 | 34.5 | 13 79 | 28 27.58 | 20 | 28 27.58 | 27.58 |
| 27 4.93 | 37.9 | 8.2 | 19.8 | | | | | | | | | -3.05 | -1.835 | |
| $(\delta) - D$ | $\frac{\kappa'}{100}$ | | 22.7 | | | | | | | | | | -1.20 | |
| α_2 | | | 20.03 | | | | | | | | | | 28 24.54 | |
| | | | | | | | | | | | | | -1.69 | |
| | | | | | | | | | | | | | 28 22.85 | |
| | | | | | | | | | | | | | -1.6 | |
| | | | | | | | | | | | | | -1.2 | |
| κ | | | | | | | | | | | | | | |
| $(\delta) - D$ | $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| α_1 | | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | | |
| $(\delta) - D$ | $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | | |

Runs

37

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|----------------------------|---|-------------------------------|----------|---------|----------|--------------------|--------------------------|-----------------|--------|---|-----------------------------------|
| d | +22.01 1.341262 9.90471 1.36969 | 1' 15.6 9.77524 1.24022 | 19.4 | 150 | 1' 17.50 | 21 53 25 | 30.85 22.48 -22.43 | 22.48 -17.39 | 0 | 53 24 58.75 25 5.00 -13 -25 +11.28 +45 | +2.35 +2.42 +11.35 13.70 |
| ((8) - D) $\frac{d'}{100}$ | -1.66 -12.50 | δ_1 | 34 11.99 | 24 45.3 | | | | | | -20.80 24 57.80 25 5.24 -33 -21 +11.21 +45 | |
| d | +35.79 1.55376 9.90480 1.58092 | 1 5.5 9.77507 1.45119 | 8.3 | 138 | 1 6.90 | 21 53 25 | 41.45 33.27 -33.10 | 33.50 -28.26 | 0 | 53 24 55.18 25 5.24 -33 -21 +11.21 +45 | +11.12 13.54 |
| ((8) - D) $\frac{d'}{100}$ | -1.66 -12.50 | δ_2 | 34 12.10 | 24 45.3 | | | | | | -21.00 24 57.78 25 5.24 -33 -21 +11.21 +45 | |
| d | +5.62 0.74974 9.90796 0.78006 | 1 55.5 9.76922 0.64132 | 58.9 | 144 | 1 57.20 | 55 53 59 | 51.15 42.45 -6.03 | 42.78 -4.38 | 25 | 53 59 36.45 38.40 -1 -37 +11.89 +50 | +12.01 14.36 |
| ((8) - D) $\frac{d'}{100}$ | -1.64 -12.62 | δ_1 | 36 5.61 | 59 19.1 | | | | | | -21.00 59 31.76 57 39.33 -12 -32 +11.79 +50 | +11.85 14.27 |
| d | +21.2 0.90796 1.32684 9.76922 1.21792 | 1 43.4 9.76922 0.64132 | 45.7 | 9.1 | 44.53 | 56 53 59 | 3.50 55.85 -16.52 | | 25 | 57 39.33 -12 -32 +11.79 +50 | |
| ((8) - D) $\frac{d'}{100}$ | -1.64 -12.62 | δ_2 | 36 5.78 | 59 19.8 | | | | | | -21.20 59 32.40 | |
| d | +30.74 1.48770 9.91194 1.52200 | 2 18.9 9.76146 1.37152 | 22.6 | 413 | 2 20.75 | 40 54 44 | 27.60 19.14 -33.27 | 19.65 -23.52 | 40 | 54 43 46.14 56.13 -24 -44 +12.58 +50 | +12.40 14.82 |
| ((8) - D) $\frac{d'}{100}$ | -1.36 -8.48 | δ_1 | 39 59.85 | 43 45.6 | | | | | | -17.90 43 53.05 54 5 56.74 6 5.03 | |
| d | +27.17 1.43109 9.90851 1.46496 | 0 12.4 9.76817 1.32462 | 16.1 | 85 | 0 14.25 | 2 52 6 | 34.10 25.94 -29.17 | 26.15 -21.12 | 20 | 54 5 56.74 6 5.03 -19 -4 +11.91 +50 | +12.18 14.60 |
| ((8) - D) $\frac{d'}{100}$ | -1.41 -8.75 | δ_2 | 43 28.77 | 5 52.8 | | | | | | -18.10 6 12.53 51 10 1.28 5.48 -11 -25 +8.87 +35 | |
| d | +19.82 1.29710 9.89152 1.31098 | 1 16.1 9.79731 1.21677 | 20.8 | 369 | 1 18.45 | 6 51 10 | 29.90 21.74 -20.46 | 21.95 -16.47 | 15 | 51 10 1.28 5.48 -11 -25 +8.87 +35 | +8.86 11.28 |
| ((8) - D) $\frac{d'}{100}$ | -1.58 -8.83 | δ_1 | 44 33.06 | 9 50.0 | | | | | | -17.90 9 58.86 53 42 21.97 24.33 | |
| d | +7.55 0.81795 9.90639 0.90670 | 4 9.0 9.77216 0.77247 | 11.3 | 203 | 4 10.15 | 38 53 42 | 38.20 36.04 -2.07 | 30.25 -5.92 | 40 | 53 42 21.97 24.33 -2 -80 +11.50 +45 | +11.13 13.55 |
| ((8) - D) $\frac{d'}{100}$ | -1.62 -12.09 | δ_2 | 28 21.22 | 42 5.1 | | | | | | -20.70 42 17.18 | |
| d | | | | | | | | | | | |
| ((8) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| ((8) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | | | | | | | | | |

date₁ = 1876 Oct. 10
 $n = -.80$

Observer
 Recorder

date₂ = Oct. 12
 $n = -.76$

Observer
 Recorder

38

| Star. | α | δ | Mag. | T_a | T_m | T_o | T_r | T_s | T_h | Sum | Mean | Red. to T_m | T |
|----------------|-----------------------|----------|------|-------|-------|-------|---------|-------|-------|------|------|---------------|----------|
| 53 | 33 | 50 19 | 7.8 | 19 | 53 | 28.0 | 37.1 | 403 | 434 | 468 | 50.0 | 19 | 55 43.52 |
| 55 | 7.8 | 16.1 | 7.2 | | | 81.0 | | | | | | | +0.16 |
| κ | | | | | | 34.0 | | | | | | -0.79 | -95 |
| $(\delta) - D$ | $\frac{\kappa'}{100}$ | | | | | 31.00 | | | | | | | 42.73 |
| a_1 | | | | | | | | | | | | | -1.33 |
| | | | | | | | | | | | | 19 | 55 41.40 |
| | | | 7.0 | | 53 | 7.0 | 36.2 | 39.4 | 42.7 | 45.9 | 49.0 | 21 32 | 55 42.64 |
| κ | | | | | | 11.0 | | | | | | | +0.967 |
| $(\delta) - D$ | $\frac{\kappa'}{100}$ | | | | | 13.0 | | | | | | +0.07 | 55 42.70 |
| a_2 | | | | | | 10.33 | | | | | | | -1.26 |
| | | | | | | | | | | | | 19 | 55 41.45 |
| | | | | | | | | | | | | | 3.85 |
| 56 | 48 | 50 26 | 9.2 | | 56 | 20.0 | 53.0 | 58.0 | 1.3 | 4.6 | 7.9 | 68 | 57 1.36 |
| 56 | 21.2 | 23.6 | 9.0 | | | 23.2 | | | | | | | +0.16 |
| κ | | | | | | 26.2 | | | | | | -0.81 | -97 |
| $(\delta) - D$ | $\frac{\kappa'}{100}$ | | | | | 23.13 | | | | | | | 57 0.55 |
| a_1 | | | | | | | | | | | | | -1.33 |
| | | | | | | | | | | | | | 56 59.22 |
| | | | 9.2 | | 56 | 32.4 | 56 54.0 | 57.4 | 0.5 | 3.7 | 6.8 | 34 | 57 0.48 |
| κ | | | | | | 35.4 | | | | | | | +0.967 |
| $(\delta) - D$ | $\frac{\kappa'}{100}$ | | | | | 36.5 | | | | | | +0.05 | -92 |
| a_2 | | | | | | 35.43 | | | | | | | 57 0.52 |
| | | | | | | | | | | | | 19 | 56 59.26 |
| | | | | | | | | | | | | | -1.27 |
| 57 | 24 | 51 30 | 9.2 | | 57 | 39.3 | 57 25.1 | 38.4 | 41.7 | 45.0 | 48.5 | 20 87 | 57 41.74 |
| 56 | 58.5 | 27.7 | 9.0 | | | 39.30 | | | | | | | +0.16 |
| κ | | | | | | | | | | | | -0.55 | -101 |
| $(\delta) - D$ | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 57 40.89 |
| a_1 | | | | | | | | | | | | | -1.28 |
| | | | | | | | | | | | | 19 | 57 39.61 |
| | | | | | | | | | | | | | -9.8 |
| 56 | 58.5 | 51 27.7 | 8.8 | | 57 | 25.8 | 57 26.9 | 30.3 | 33.7 | 36.7 | 40.2 | 16 78 | 57 33.56 |
| κ | | | | | | 28.3 | | | | | | | +0.967 |
| $(\delta) - D$ | $\frac{\kappa'}{100}$ | | | | | 31.4 | | | | | | +0.01 | -96 |
| a_2 | | | | | | 28.50 | | | | | | | 57 33.56 |
| | | | | | | | | | | | | 19 | 57 32.35 |
| | | | | | | | | | | | | | -1.22 |
| 58 | 57 | 51 51 | 8.7 | | 58 | 57.6 | 58 53.4 | 58.7 | 2.0 | 5.3 | 8.8 | 102 | 59 2.04 |
| 58 | 23.8 | 46.5 | 8.5 | | | 40.6 | | | | | | | +0.16 |
| κ | | | | | | 43.6 | | | | | | -0.86 | -102 |
| $(\delta) - D$ | $\frac{\kappa'}{100}$ | | | | | 40.60 | | | | | | | 59 1.18 |
| a_1 | | | | | | | | | | | | | -1.27 |
| | | | | | | | | | | | | 19 | 58 59.91 |
| | | | | | | | | | | | | | -1.5 |
| | | | | | | | | | | | | | -9.8 |
| | | | 8.8 | | 58 | 17.0 | 58 34.6 | 57.8 | 1.0 | 4.6 | 7.8 | 58 | 59 1.16 |
| κ | | | | | | 26.3 | | | | | | | +0.967 |
| $(\delta) - D$ | $\frac{\kappa'}{100}$ | | | | | 23.0 | | | | | | 0.00 | -97 |
| a_2 | | | | | | 20.10 | | | | | | | 59 1.15 |
| | | | | | | | | | | | | 19 | 58 59.95 |
| | | | | | | | | | | | | | -1.21 |
| 19 | 59 | 53 | 7.8 | | 59 | 30.7 | 59 52.9 | 3.0 | 6.3 | 9.7 | 13.0 | 3 19 0 | 638 |
| 59 | 29.7 | 19.9 | 8.0 | | | 33.3 | | | | | | | +0.16 |
| κ | | | | | | 35.8 | | | | | | -0.85 | -101 |
| $(\delta) - D$ | $\frac{\kappa'}{100}$ | | | | | 33.27 | | | | | | | 0 5.53 |
| a_1 | | | | | | | | | | | | | -1.31 |
| | | | | | | | | | | | | 20 | 0 4.22 |
| | | | | | | | | | | | | | -1.6 |
| | | | 7.8 | | 59 | 27.8 | 59 52.0 | 23 | 5.6 | - | - | | 5.60 |
| κ | | | | | | 30.6 | | | | | | +0.01 | +0.967 |
| $(\delta) - D$ | $\frac{\kappa'}{100}$ | | | | | 32.6 | | | | | | | -96 |
| a_2 | | | | | | 30.83 | | | | | | | 0 5.60 |
| | | | | | | | | | | | | | -1.25 |
| | | | | | | | | | | | | 20 | 0 4.36 |
| | | | | | | | | | | | | | -1.62 |
| | | | | | | | | | | | | | -1.0 |

| Runs | | T _m - T | | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | 8' |
|---------------------------------|----------------|-------------------------------|---|----------|------|---------|-------|-----------------|-----------------|-----------|--------|--|----------------|
| Oct 10 +3 51.77 51.35 -20 +2.31 | | 12 +3 52.44 52.44 -20 +2.31 | | | | | | | | | | | |
| 52.16 | d | +12.5 | 1 | 50.2 | 55.2 | 5.4 | 52.70 | 15 | 55.65 | 47.00 | 5 | 50 19 36.42 | |
| 55.73 | (δ) - D | 1.09691 9.80504 1.02431 | | 9.80504 | | | | 50 19 | 47.12 | -10.58 | | -5 -37 +7.94+2.01 +30 | +7.82 10.13 |
| 55.73 | δ ₁ | -1.66 -9.70 | | 55 39.74 | | 19 18.2 | | | | | | -19.10 19 27.45 | |
| 55.73 | d | +32.31 | 1 | 32.8 | 37.9 | 10.7 | 35.35 | 16 | 13.00 | 5.4 | 5 | 50 19 36.42 | |
| 55.73 | (δ) - D | 1.50934 9.88636 1.51806 | | 9.80489 | | | | 50 20 | 54.4 | -32.47 | | -38.11 -27 -32 +8.25 +30 | +7.94 10.40 |
| 55.73 | δ ₂ | -1.66 -9.70 | | 55 39.79 | | 19 19.6 | | | | | | -19.20 19 27.31 | |
| 55.73 | d | +38.23 | 4 | 27.9 | 32.1 | 6.10 | 30.50 | 23 | 17.85 | 9.20 | 55 | 50 26 30.55 | |
| 55.73 | (δ) - D | 1.58240 9.88409 1.59185 | | 9.80397 | | | | 50 27 | 9.42 | -32.26 | | -36.94 -40 -90 +8.03 +30 | +7.03 9.34 |
| 55.73 | δ ₁ | -1.66 -9.79 | | 56 57.56 | | 26 17.3 | | | | | | -19.20 26 27.08 | |
| 55.73 | d | +25.05 | 4 | 40.9 | 45.9 | 6.8 | 43.40 | 23 | 4.95 | | 55 | 50 26 31.79 | |
| 55.73 | (δ) - D | 1.39881 9.88709 1.40826 | | 9.80397 | | | | 50 26 | 57.39 | -25.66 | | -36.25 -17 -94 +8.37 +30 | +7.56 10.02 |
| 55.73 | δ ₂ | -1.66 -9.79 | | 56 57.60 | | 26 17.2 | | | | | | -19.50 26 26.97 | |
| 55.73 | d | +2.44 | 0 | 35.9 | 40.9 | 7.8 | 38.40 | 24 | 9.95 | 1.30 | 55 | 57 30 59.29 | diff # 0 |
| 55.73 | (δ) - D | 0.38739 9.89364 0.40339 | | 9.80336 | | | | 51 31 | 1.42 | -2.53 | | -0 -12 +9.14 +40 | +9.42 11.73 |
| 55.73 | δ ₁ | -1.61 -9.84 | | 57 38.00 | | 30 41.8 | | | | | | -19.40 30 51.62 | |
| 55.73 | d | +5.06 | 0 | 7.8 | 12.0 | 19.80 | 9.90 | 27 | 38.45 | | 55 | 57 31 25.64 | diff # 3 |
| 55.73 | (δ) - D | 0.70415 9.89375 0.72026 | | 9.79383 | | | | 51 31 | 30.89 | -5.25 | | -26.72 -1 -3 +9.52 +40 | +9.55 12.34 |
| 55.73 | δ ₂ | -1.61 -9.84 | | 57 30.74 | | 31 9.7 | | | | | | -19.50 31 19.56 | |
| 55.73 | d | +21.44 | 4 | 15.2 | 19.2 | 14.4 | 17.20 | 48 | 31.15 | 22.50 | 30 | 57 52 4.54 | |
| 55.73 | (δ) - D | 1.33122 9.89574 1.34932 | | 9.79063 | | | | 51 52 | 22.92 | -22.35 | | -11.54 -12 -83 +9.49 +40 | +8.94 11.25 |
| 55.73 | δ ₁ | -1.59 -9.94 | | 58 58.32 | | 51 46.4 | | | | | | -19.50 51 56.29 | |
| 55.73 | d | +41.06 | 4 | 0.3 | 3.5 | 3.8 | 1.90 | 48 | 46.45 | | 30 | 57 51 36.47 | |
| 55.73 | (δ) - D | 1.61342 9.89584 1.63162 | | 9.79047 | | | | 51 52 | 36.89 | -42.82 | | -52 5.36 -45 -80 +9.89 +40 | +9.04 11.50 |
| 55.73 | δ ₂ | -1.59 -9.94 | | 58 58.36 | | 51 47.3 | | | | | | -19.60 51 57.20 | |
| 55.73 | d | +33.11 | 2 | 43.0 | 46.9 | 9.9 | 44.95 | 20 | 3.40 | 54.75 | 0 | 57 23 20.84 | |
| 55.73 | (δ) - D | 1.57996 9.89294 1.53526 | | 9.79510 | | | | 57 23 | 55.14 | -34.30 | | -27.34 -29 -55 +9.00 +35 | +8.57 10.82 |
| 55.73 | δ ₁ | -1.62 -10.03 | | 0 2.60 | | 23 8.6 | | | | | | -19.60 23 18.57 | |
| 55.73 | d | +35.3 | 2 | 42.3 | 46.4 | 8.72 | 44.35 | 20 | 4.00 | | 0 | 50 56 7.56 | |
| 55.73 | (δ) - D | 1.54777 9.89294 1.46523 | | 9.79510 | | | | 57 23 | 56.41 | -29.19 | | -33 -55 +9.38 +35 | +8.55 11.31 |
| 55.73 | δ ₂ | -1.62 -10.03 | | 0 2.74 | | 23 8.8 | | | | | | -19.70 23 18.86 | |

Date₁ = 1876 Oct. 10Observer
RecorderDate₂ = Oct. 12Observer
Recorder

| Star. | α | δ | Mag. | T_a | T_m | T_e | T_f | T_g | T_h | Sum | Mean | Red. to T_m | T |
|-------|------------------|----------|------|--------|--------|--------|-------|-------|-------|-------|--------|---------------|---------|
| 20 | 0 45 | 51 24 | 8.7 | 20 0 | 30.1 | 0 48.9 | 52.1 | 53.5 | 58.7 | 27 | 2773 | 0 5546 | 0 55.46 |
| | 0 18.4 | 21.1 | 8.7 | | 33.1 | | | | | | | -0.85 | + 0.16 |
| | κ | | | | 33.3 | | | | | | | | - 101. |
| | (δ) - D | | | | 32.90 | | | | | | | | 0 54.61 |
| | a_1 | | | | | | | | | | | 20 | 0 53.29 |
| | | | | | | | | | | | | | |
| | | | 8.6 | 1 20 | 0 48.3 | 57.5 | 57.7 | 58.0 | 15 | 2740 | 0 5480 | 20 | 0 54.80 |
| | κ | | | | 54 | | | | | | | +0.01 | + 0.97 |
| | (δ) - D | | | | 57 | | | | | | | | - 96 |
| | a_2 | | | | 53.7 | | | | | | | 20 | 0 53.55 |
| | | | | | | | | | | | | | |
| 1 | 37 | 51 28 | 6.0 | 1 20.5 | 1 40.7 | 44.0 | 47.3 | 50.6 | 53.9 | 23 65 | 1 4730 | 20 | 1 47.30 |
| | 1 10.8 | 25.3 | 6.2 | | 23.6 | | | | | | | -0.85 | + 0.16 |
| | κ | | | | 26.0 | | | | | | | | - 101 |
| | (δ) - D | | | | 23.37 | | | | | | | | 1 46.45 |
| | a_1 | | | | | | | | | | | 20 | 1 45.13 |
| | | | | | | | | | | | | | |
| | | | 6.2 | 1 25.0 | 1 39.8 | 43.3 | 46.4 | 49.8 | 53.2 | 23 25 | 1 4650 | 20 | 1 46.50 |
| | κ | | | | 31.0 | | | | | | | +0.01 | + 0.97 |
| | (δ) - D | | | | 33.6 | | | | | | | | - 96 |
| | a_2 | | | | 30.87 | | | | | | | 20 | 1 45.25 |
| | | | | | | | | | | | | | |
| 2 | 52 | 52 47 | 6.5 | 2 21.3 | 2 53.3 | 36.8 | 0.2 | 3.6 | 7.0 | 09 3 | 0.18 | 20 | 3 0.18 |
| | 2 24.0 | 44.5 | 6.9 | | 24.3 | | | | | | | -0.88 | + 0.16 |
| | κ | | | | 26.9 | | | | | | | | - 104 |
| | (δ) - D | | | | 24.17 | | | | | | | | 2 59.30 |
| | a_1 | | | | | | | | | | | 20 | - 1.27 |
| | | | | | | | | | | | | | 2 58.03 |
| | | | | | | | | | | | | | |
| | | | 5.5 | 2 18.9 | 2 52.6 | 53.9 | 59.2 | 2.6 | 6.1 | 29 64 | 2 5928 | 20 | 2 59.28 |
| | κ | | | | 21.3 | | | | | | | -0.02 | + 0.97 |
| | (δ) - D | | | | 25.4 | | | | | | | | - 99 |
| | a_2 | | | | 21.57 | | | | | | | 20 | 2 59.29 |
| | | | | | | | | | | | | | - 1.20 |
| | | | | | | | | | | | | | 2 58.06 |
| | | | | | | | | | | | | | |
| 4 | 37 | 51 21 | 8.8 | 4 15.2 | 4 40.4 | 43.6 | 47.0 | 50.3 | 53.6 | 23 49 | 4 4698 | 20 | 4 46.98 |
| | 4 10.6 | 18.1 | 8.6 | | 17.8 | | | | | | | -0.85 | + 0.16 |
| | κ | | | | 19.9 | | | | | | | | - 101 |
| | (δ) - D | | | | 17.63 | | | | | | | | 4 46.13 |
| | a_1 | | | | | | | | | | | 20 | - 1.35 |
| | | | | | | | | | | | | | 4 44.78 |
| | | | | | | | | | | | | | |
| | | | 8.5 | 4 27.0 | 4 39.7 | 42.8 | 46.0 | 49.6 | 52.9 | 23 10 | 4 4620 | 20 | 4 46.20 |
| | κ | | | | 29.8 | | | | | | | +0.01 | + 0.97 |
| | (δ) - D | | | | 32.7 | | | | | | | | - 96 |
| | a_2 | | | | 29.83 | | | | | | | 20 | 4 46.21 |
| | | | | | | | | | | | | | - 1.29 |
| | | | | | | | | | | | | | 4 44.92 |
| | | | | | | | | | | | | | |
| 5 | 56 | 51 18 | 8.3 | 5 29.4 | 5 59.9 | 3.0 | 6.5 | 9.8 | 13.2 | 32 46 | 6 648 | 20 | 6 6.48 |
| | 5 29.8 | 15.0 | 7.8 | | 31.9 | | | | | | | -0.84 | + 0.16 |
| | κ | | | | 34.1 | | | | | | | | - 100 |
| | (δ) - D | | | | 31.80 | | | | | | | | 6 5.64 |
| | a_1 | | | | | | | | | | | 20 | - 1.37 |
| | | | | | | | | | | | | | 6 4.27 |
| | | | | | | | | | | | | | |
| | | | 8.0 | 5 33.3 | 5 59.0 | 2.4 | 6.6 | 8.9 | 12.3 | 28 25 | 5 564 | 20 | 6 5.64 |
| | κ | | | | 37.4 | | | | | | | +0.03 | + 0.97 |
| | (δ) - D | | | | 40.4 | | | | | | | | - 94 |
| | a_2 | | | | 37.03 | | | | | | | 20 | 6 5.67 |
| | | | | | | | | | | | | | - 1.31 |
| | | | | | | | | | | | | | 6 4.36 |

Runs

+ 2.31

41

+ 2.46

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | 8' |
|----|------------------|------------------|------|---------|----------|--------------------|--------------------|--------------|--------|---------|-------------|
| 6 | +22.56 | 1' 20.9 | 26.0 | 6.9 | 1' 23.45 | 21' | 24.90 | | 0 | 51' 24' | 53.30 |
| 6 | 1.35334 | | | | | 51 | 25 | 16.67 | | 51' 24' | 57.60 |
| 1 | 9.89304 | 9.79494 | | | | | | 16.25 | | | 13 |
| 2 | 1.36874 | 1.27064 | | | | | | -18.65 | | | 28 |
| 9 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | +9.02 |
| | -1.62 δ_1 | 0 51.67 | | 24 39.1 | | | | | | | +35 |
| | -10.09 | | | | | | | | | | -19.70 |
| 2 | | | | | | | | | | | 24 49.17 |
| 7 | -10.54 | 1 50.9 | 55.7 | 6.6 | 1 53.30 | 20 | 55.05 | | 0 | 51' 24' | 58.44 |
| 6 | 1.02407 | | | | | 51 | 24 | 47.49 | | 51' 24' | 56.23 |
| 6 | 9.89304 | 9.79494 | | | | | | +16.45 | | | -3 |
| 5 | 1.03947 | 0.94137 | | | | | | +8.74 | | | 38 |
| | (8) - D | $\frac{d'}{100}$ | | | | | | | | | +9.41 |
| | -1.62 δ_2 | 0 51.93 | | 24 38.2 | | | | | | | +35 |
| | -10.09 | | | | | | | | | | -19.80 |
| | | | | | | | | | | | 24 48.24 |
| 0 | +23.93 | 2 5.6 | 9.9 | 10.3 | 2 7.75 | 25 | 40.60 | | 55 | 51' 29' | 7.55 |
| 0 | 1.37894 | | | | | 51 | 29 | 32.57 | | 51' 29' | 12.21 |
| 1 | 9.89304 | 9.79415 | | | | | | -17.74 | | | -15 |
| 15 | 1.39484 | 1.29545 | | | | | | | | | 42 |
| 2 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | +9.10 |
| 3 | -1.62 δ_1 | 1 43.51 | | 28 53.5 | | | | | | | +35 |
| | -10.16 | | | | | | | | | | -19.70 |
| | | | | | | | | | | | 29 3.70 |
| 0 | +15.63 | 2 14.1 | 7.8 | 11.9 | 2 15.95 | 25 | 32.40 | | 55 | 51' 29' | 8.69 |
| 7 | 1.19396 | | | | | 51 | 29 | 24.84 | | 51' 29' | 11.94 |
| 6 | 9.89304 | 9.79431 | | | | | | -16.21 | | | -7 |
| 1 | 1.20976 | 1.11063 | | | | | | -12.90 | | | 45 |
| 6 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | +9.48 |
| 5 | -1.62 δ_2 | 1 43.63 | | 28 53.8 | | | | | | | +35 |
| | -10.16 | | | | | | | | | | -19.80 |
| | | | | | | | | | | | 29 3.91 |
| 5 | +36.01 | 3 19 | 5.0 | 6.9 | 3 34.5 | 44 | 44.90 | | 35 | 52' 47' | 58.64 |
| 4 | 1.55642 | | | | | 52 | 48 | 46.64 | | 52' 47' | 7.40 |
| 0 | 9.90130 | 9.78130 | | | | | | -36.85 | | | -34 |
| 7 | 1.58008 | 1.46008 | | | | | | | | | 61 |
| 3 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | +10.43 |
| | -1.56 δ_1 | 2 56.47 | | 47 49.4 | | | | | | | +40 |
| | -10.25 | | | | | | | | | | -19.90 |
| | | | | | | | | | | | 47 46 59.69 |
| 8 | +37.84 | 3 2.5 | 5.0 | 7.5 | 3 3.75 | 44 | 44.60 | | 35 | 52' 47' | 57.54 |
| 7 | 1.57299 | | | | | 52 | 48 | 37.04 | | 52' 47' | 7.07 |
| 9 | 9.90130 | 9.78130 | | | | | | -32.50 | | | -37 |
| 0 | 1.59665 | 1.47665 | | | | | | -29.97 | | | 61 |
| 6 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | +10.86 |
| | -1.56 δ_2 | 2 56.50 | | 47 49.6 | | | | | | | +40 |
| | -10.25 | | | | | | | | | | -20.00 |
| | | | | | | | | | | | 47 46 59.81 |
| 98 | +29.35 | 3 49.8 | 54.1 | 10.3 | 3 51.95 | 18 | 56.10 | | 0 | 51' 22' | 17.74 |
| 16 | 1.46761 | | | | | 51 | 22 | 48.77 | | 51' 22' | 23.47 |
| 13 | 9.89284 | 9.79526 | | | | | | -30.40 | | | -23 |
| 35 | 1.48281 | 1.38523 | | | | | | -24.28 | | | 77 |
| 98 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | +8.98 |
| | -1.64 δ_1 | 4 43.14 | | 22 3.8 | | | | | | | +35 |
| | -10.38 | | | | | | | | | | -19.90 |
| | | | | | | | | | | | 22 14.21 |
| 20 | +16.37 | 4 1.9 | 6.0 | 7.9 | 4 3.95 | 18 | 44.40 | | 0 | 51' 22' | 14.84 |
| 17 | 1.21405 | | | | | 51 | 22 | 36.84 | | 51' 22' | 23.30 |
| 96 | 9.89284 | 9.79526 | | | | | | -16.45 | | | -7 |
| 21 | 1.22925 | 1.13167 | | | | | | -13.54 | | | 81 |
| 29 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | +9.36 |
| 92 | -1.64 δ_2 | 4 43.28 | | 22 4.2 | | | | | | | +35 |
| | -10.38 | | | | | | | | | | -20.00 |
| | | | | | | | | | | | 22 14.59 |
| 8 | +34.68 | 2 27.0 | 32.2 | 59.2 | 2 29.60 | 15 | 18.75 | | 5 | 51' 18' | 34.64 |
| 6 | 1.54008 | | | | | 51 | 19 | 16.52 | | 51' 18' | 41.37 |
| 0 | 9.89244 | 9.79589 | | | | | | -35.68 | | | -32 |
| 4 | 1.55488 | 1.45833 | | | | | | -28.73 | | | 50 |
| 7 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | +8.92 |
| | -1.65 δ_1 | 6 2.62 | | 18 21.6 | | | | | | | +35 |
| | -10.48 | | | | | | | | | | -20.00 |
| | | | | | | | | | | | 18 32.13 |
| 4 | +18.61 | 2 33.6 | 37.5 | 11.1 | 2 35.55 | 15 | 12.80 | | 5 | 51' 18' | 35.64 |
| 7 | 1.45652 | | | | | 51 | 19 | 5.24 | | 51' 18' | 41.54 |
| 4 | 9.89244 | 9.79589 | | | | | | -34.60 | | | -22 |
| 1 | 1.49132 | 1.39477 | | | | | | -23.70 | | | 52 |
| 1 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | +9.29 |
| | -1.65 δ_2 | 6 2.71 | | 18 22.3 | | | | | | | +35 |
| | -10.48 | | | | | | | | | | -20.10 |
| | | | | | | | | | | | 18 32.80 |

Date₁ = 1876 Oct. 10Observer
RecorderDate₂ = Oct. 12Observer
Recorder

| Star. | α | δ | Mag. | T_s | T_m | T_o | T_f | T_g | T_h | Sum | Mean | Red. to T_m | T |
|----------|-----------------|----------|------|-------|--------|---------|-------|-------|-------|------|----------|---------------|----------|
| 6 | 59 | 51 25 | 9.1 | 20 | 6 40.5 | 73 | 10.5 | 13.9 | 17.1 | 528 | 7 10.56 | 20 | 7 10.56 |
| 6 | 32.5 | 22.8 | 9.2 | | 48.3 | | | | | | | -0.85 | + 0.16 |
| | κ | | | | 45.8 | | | | | | | | - 1.01 |
| | | | | | 43.20 | | | | | | | | 7 9.71 |
| (8) - D | κ'_{100} | | | | | | | | | | | | - 1.38 |
| a_1 | | | | | | | | | | | | 20 | 7 8.33 |
| κ | | | 9.2 | 6 | 54.3 | 7 8.1 | 6.6 | 9.8 | 13.2 | 490 | 7 9.80 | 20 | 7 9.80 |
| | | | | | 57.8 | | | | | | | +0.01 | + 0.97 |
| | | | | | 1.6 | | | | | | | | - 9.6 |
| (8) - D | κ'_{100} | | | | 57.90 | | | | | | | | 7 9.81 |
| a_2 | | | | | | | | | | | | 20 | - 1.32 |
| | | | | | | | | | | | | | 7 8.49 |
| 8 | 12 | 51 17 | 8.7 | 7 | 48.6 | 8 16.1 | 18.5 | 22.8 | 26.0 | 1137 | 8 22.74 | 20 | 8 22.74 |
| 7 | 43.6 | 14.7 | 8.2 | | 53.0 | | | | | | | -0.84 | + 0.16 |
| | κ | | | | 55.6 | | | | | | | | - 1.00 |
| (8) - D | κ'_{100} | | | | 52.78 | | | | | | | | 8 21.90 |
| a_1 | | | | | | | | | | | | 20 | - 1.39 |
| | | | | | | | | | | | | | 8 20.51 |
| κ | | | 8.1 | 7 | 52.1 | 8 15.4 | 18.6 | 22.0 | 25.3 | 1103 | 8 22.06 | 20 | 8 22.06 |
| | | | | | 55.4 | | | | | | | +0.02 | + 0.97 |
| | | | | | 57.5 | | | | | | | | - 9.5 |
| (8) - D | κ'_{100} | | | | 55.00 | | | | | | | | 8 22.08 |
| a_2 | | | | | | | | | | | | 20 | - 1.33 |
| | | | | | | | | | | | | | 8 20.75 |
| 9 | 25 | 51 52 | 9.0 | 8 | 57.7 | 9 28.0 | 31.5 | 34.8 | 38.0 | 1737 | 9 34.74 | 20 | 9 34.74 |
| 8 | 38.1 | 49.0 | 8.9 | | 0.0 | | | | | | | -0.86 | + 0.16 |
| | κ | | | | 2.7 | | | | | | | | - 1.02 |
| (8) - D | κ'_{100} | | | | 0.13 | | | | | | | | 9 33.88 |
| a_1 | | | | | | | | | | | | | - 1.37 |
| | | | | | | | | | | | | | 9 32.51 |
| κ | | | 9.0 | 9 | 2.9 | 9 27.2 | 30.6 | 33.9 | 36.9 | 1691 | 9 33.82 | 20 | 9 33.82 |
| | | | | | 5.4 | | | | | | | 0.00 | + 0.97 |
| | | | | | 8.3 | | | | | | | | - 9.7 |
| (8) - D | κ'_{100} | | | | 5.53 | | | | | | | | 9 33.82 |
| a_2 | | | | | | | | | | | | | - 1.31 |
| | | | | | | | | | | | | | 9 32.51 |
| 10 | 27 | 51 31 | 9.0 | 10 | 4.9 | 10 30.9 | 34.3 | 37.6 | 41.0 | 1882 | 10 37.64 | 20 | 10 37.64 |
| 10 | 10.5 | 28.4 | 9.1 | | 8.3 | | | | | | | -0.85 | + 0.16 |
| | κ | | | | 10.9 | | | | | | | | - 1.01 |
| (8) - D | κ'_{100} | | | | 8.03 | | | | | | | | 10 36.79 |
| a_1 | | | | | | | | | | | | | - 1.40 |
| | | | | | | | | | | | | | 10 35.39 |
| κ | | | 9.0 | 10 | 4.7 | 10 30.3 | 33.5 | 36.9 | 40.2 | 1844 | 10 36.88 | 20 | 10 36.88 |
| | | | | | 7.6 | | | | | | | +0.01 | + 0.97 |
| | | | | | 10.2 | | | | | | | | - 9.6 |
| (8) - D | κ'_{100} | | | | 7.50 | | | | | | | | 10 36.89 |
| a_2 | | | | | | | | | | | | | - 1.34 |
| | | | | | | | | | | | | | 10 35.55 |
| 13 | 22 | 51 50 | 9.4 | 12 | 52.0 | 13 27.0 | 30.5 | 33.8 | 37.1 | 1688 | 13 33.76 | 20 | 13 33.76 |
| 12 | 53.3 | 47.0 | 9.0 | | 2.3 | | | | | | | -0.86 | + 0.16 |
| | κ | | | | 5.0 | | | | | | | | - 1.02 |
| (8) - D | κ'_{100} | | | | 2.10 | | | | | | | | 13 32.90 |
| a_1 | | | | | | | | | | | | | - 1.41 |
| | | | | | | | | | | | | | 13 31.49 |
| κ | | | 9.4 | 13 | 14.1 | 13 26.3 | 29.6 | 33.0 | 36.4 | 1648 | 13 32.96 | 20 | 13 32.96 |
| | | | | | 14.10 | | | | | | | 0.00 | + 0.97 |
| | | | | | | | | | | | | | - 9.7 |
| (8) - D | κ'_{100} | | | | | | | | | | | | 13 32.96 |
| a_2 | | | | | | | | | | | | | - 1.35 |
| | | | | | | | | | | | | | 13 31.61 |

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|------------|---|----------|------|---------|----------|--------------------|--------------------|--------------|--------|-----|-----------|
| d | +27.36 1.43712 9.89324 1.45272 | 4' 24.0 | 28.9 | 12.9 | 4' 26.45 | 23' | 21.90 | 13.25 | 55 | 51 | 27 |
| (8) - D | 9.79463 1.45411 | | | | | 27 | -26.60 | -22.60 | | | |
| δ_1 | -1.64 -10.55 | 7 6.69 | | 26 36.8 | | | | | | | |
| d | +11.90 1.07655 9.89324 1.09116 | 4 37.8 | 42.0 | 79.8 | 4 39.90 | 23 | 8.45 | | 55 | 51 | 26 |
| (8) - D | 9.79463 1.09254 | | | | | 27 | -12.34 -9.83 | | | | |
| δ_2 | -1.64 -10.55 | 7 6.85 | | 26 31.6 | | | | | | | |
| d | +30.01 1.47722 9.89244 1.49207 | 2 21.5 | 26.0 | 7.5 | 2 23.75 | 15 | 24.60 | 15.95 | 5 | 51 | 18 |
| (8) - D | 9.79589 1.39552 | | | | | 19 | -21.05 -24.86 | | | | |
| δ_1 | -1.66 -10.65 | 8 18.85 | | 18 31.2 | | | | | | | |
| d | +27.06 1.43233 9.89244 1.44713 | 2 24.5 | 30.0 | 54.5 | 2 27.25 | 15 | 21.10 | 13.54 | 5 | 51 | 18 |
| (8) - D | 9.79589 1.35058 | | | | | 19 | -22.42 | | | | |
| δ_2 | -1.66 -10.65 | 8 19.09 | | 18 31.7 | | | | | | | |
| d | +34.61 1.53920 9.89584 1.55740 | 3 40.9 | 44.9 | 5.8 | 3 42.90 | 49 | 5.45 | 56.80 | 30 | 51 | 52 |
| (8) - D | 9.79047 1.45203 | | | | | 52 | -26.29 -28.32 | | | | |
| δ_1 | -1.63 -10.74 | 9 30.88 | | 52 8.6 | | | | | | | |
| d | +28.29 1.45163 9.89584 1.46983 | 3 48.0 | 51.7 | 99.7 | 3 49.85 | 48 | 58.50 | 50.94 | 30 | 51 | 52 |
| (8) - D | 9.79047 1.36446 | | | | | 52 | -27.50 -23.15 | | | | |
| δ_2 | -1.63 -10.74 | 9 30.88 | | 52 8.4 | | | | | | | |
| d | +29.61 1.47144 9.89385 1.48765 | 3 27.8 | 31.9 | 58.7 | 3 29.85 | 29 | 18.50 | 9.85 | 50 | 51 | 32 |
| (8) - D | 9.79367 1.38747 | | | | | 33 | -30.74 -24.40 | | | | |
| δ_1 | -1.66 -10.81 | 10 33.73 | | 32 25.3 | | | | | | | |
| d | +29.38 1.46805 9.89385 1.48426 | 3 28.9 | 33.8 | 62.7 | 3 31.35 | 29 | 17.00 | 9.44 | 50 | 51 | 32 |
| (8) - D | 9.79367 1.38408 | | | | | 33 | -30.50 -24.22 | | | | |
| δ_2 | -1.66 -10.81 | 10 33.89 | | 32 25.5 | | | | | | | |
| d | +31.66 1.50051 9.89534 1.51841 | 1 16.5 | 20.1 | 36.6 | 1 18.30 | 46 | 30.05 | 21.40 | 35 | 51 | 49 |
| (8) - D | 9.79045 1.41382 | | | | | 50 | -32.99 -25.93 | | | | |
| δ_1 | -1.65 -11.03 | 13 29.84 | | 49 35.5 | | | | | | | |
| d | +18.86 1.27554 9.89534 1.29344 | 1 29.5 | 33.4 | 62.9 | 1 31.45 | 46 | 16.90 | 9.34 | 35 | 51 | 49 |
| (8) - D | 9.79095 1.18885 | | | | | 50 | -17.65 -15.45 | | | | |
| δ_2 | -1.65 -11.03 | 13 29.96 | | 49 34.5 | | | | | | | |

Date₁ = 1876 Oct. 10Observer
RecorderDate₂ = Oct. 12Observer
Recorder

| Star. | α | δ | Mag. | T_s | T_m | T_e | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T |
|--|----------|----------|-------------------|---|---------|-------|-------|-------|-------|------|----------|---------------|---|
| 14 27 14 08 K | 51° 44' | 41.7 | 8.6 9.0 | 20 14 4.7 7.6 10.0 7.43 | 14 31.6 | 34.9 | 38.2 | 41.6 | 44.9 | 1912 | 14 38.24 | -0.85 | 14 38.24 + 0.16 - 1.01 14 37.39 - 1.42 20 14 35.97 |
| ((S) - D) $\frac{\kappa'}{100}$ a_1 | | | | | | | | | | | | | |
| K | | | 8.5 | 14 6.0 8.8 11.3 8.70 | 14 30.8 | 33.9 | 37.5 | 40.8 | 44.0 | 1870 | 14 37.40 | +0.01 | 14 37.40 + 0.97 - 96 14 37.41 - 1.36 14 36.05 |
| ((S) - D) $\frac{\kappa'}{100}$ a_2 | | | | | | | | | | | | | |
| 15 26 14 59.1 K | 51 35 | 31.4 | 7.4 8.1 | 15 4.0 6.2 9.0 6.40 | 15 30.3 | 33.4 | 36.6 | 40.0 | 43.3 | 1836 | 15 36.72 | -0.85 | 15 36.72 + 0.16 - 1.01 15 35.87 - 1.44 15 34.43 |
| ((S) - D) $\frac{\kappa'}{100}$ a_1 | | | | | | | | | | | | | |
| K | | | 7.0 | 15 8.2 11.6 14.3 11.37 | 15 29.3 | 32.4 | 35.8 | 39.2 | 42.3 | 1790 | 15 35.80 | +0.01 | 15 35.80 + 0.97 - 96 15 35.81 - 1.38 15 34.43 15 34.43 |
| ((S) - D) $\frac{\kappa'}{100}$ a_2 | | | | | | | | | | | | | |
| 16 24 15 57.8 K | 51 5 | 2.1 | 8.9 8.5 9.0 | 16 7.5 10.5 13.5 10.50 16 44.8 47.9 50.9 47.87 | 16 28.3 | 31.5 | 34.8 | 38.4 | 41.5 | 1745 | 16 34.90 | -0.83 | 16 34.90 + 0.16 - 99 16 34.07 - 1.48 20 16 36.20 + 0.16 - 99 -0.83 16 35.37 |
| ((S) - D) $\frac{\kappa'}{100}$ a_1 | | | | | | | | | | | | | |
| K | | | 8.9 | 16 4.0 7.8 4.83 | 16 27.4 | 30.7 | 34.0 | 37.4 | 40.6 | 1701 | 16 34.02 | +0.03 | 16 34.02 + 0.97 - 94 16 34.05 - 1.41 20 16 35.22 + 0.97 - 94 -1.41 16 35.25 |
| ((S) - D) $\frac{\kappa'}{100}$ a_2 | | | 8.7 | 16 42.7 45.3 48.0 45.33 | 16 28.5 | 32.0 | 35.2 | 38.6 | 41.8 | 1761 | 16 35.22 | +0.03 | 16 35.22 + 0.97 - 94 -1.41 16 35.25 |
| 17 31 17 4.8 K | 51 18 | 14.6 | 9.2 8.9 | 17 27.3 30.0 33.2 30.17 | 17 36.7 | 40.0 | 43.2 | 46.4 | 49.9 | 2162 | 17 43.24 | -0.84 | 17 43.24 + 0.16 - 1.00 17 42.40 - 1.48 17 40.92 |
| ((S) - D) $\frac{\kappa'}{100}$ a_1 | | | | | | | | | | | | | |
| K | | | 8.6 | 17 28.6 32.3 35.0 31.97 | 17 35.7 | 39.0 | 42.4 | 45.8 | 49.0 | 2119 | 17 42.38 | +0.03 | 17 42.38 + 0.97 - 94 17 42.41 - 1.41 17 41.00 |
| ((S) - D) $\frac{\kappa'}{100}$ a_2 | | | | | | | | | | | | | |
| 19 3 18 36.6 K | 51 43 | 40.2 | 8.8 8.8 | 18 37.2 40.3 42.4 39.97 | 19 7.5 | 10.8 | 14.1 | 17.4 | 20.7 | 705 | 19 14.10 | -0.85 | 19 14.10 + 0.16 - 1.01 19 13.25 - 1.47 19 11.78 |
| ((S) - D) $\frac{\kappa'}{100}$ a_1 | | | | | | | | | | | | | |
| K | | | 8.5 | 18 40.5 44.3 46.7 43.83 | 19 6.8 | 10.1 | 13.3 | 16.5 | 20.0 | 667 | 19 13.34 | +0.01 | 19 13.34 + 0.97 - 96 19 13.35 - 1.41 19 11.94 |
| ((S) - D) $\frac{\kappa'}{100}$ a_2 | | | | | | | | | | | | | |

Runs

+ 2.31

45

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | $+ 2.46$ z | δ' |
|------------|---|----------|---------|------|-----------|--------------------|---------------------------|--------------|---|--|-----------|
| d | +30.81 1.48869 9.89514 1.50619 | 0' 30.1 | 35.2 | 5.3 | 40' 32.65 | 42' | 15.70 | 40 | 51' 45' 35.39 | | |
| (8) - D | 9.79160 1.40265 | | | | | 51 46 | 7.05 -32.08 | 40 | 41.78 -26 -10 +9.38 +40 -20.60 45 32.91 | +9.42 11.73 | |
| δ_1 | -1.66 -11.11 | 14 34.31 | 45 21.8 | | | | | | | | |
| d | +28.70 1.45788 9.89514 1.47538 | 0 33.1 | 37.6 | 10.7 | 40' 35.85 | 42' | 13.00 | 40 | 51' 45' 35.56 | | |
| (8) - D | 9.79160 1.37184 | | | | | 51 46 | 5.44 -25.88 -23.64 | 40 | 41.90 -22 -12 +9.78 +40 -20.50 45 33.40 | +9.84 12.30 | |
| δ_2 | -1.66 -11.11 | 14 34.39 | 45 22.3 | | | | | | | | |
| d | +30.32 1.48173 9.89415 1.49824 | 0 46.4 | 50.5 | 9.6 | 40' 48.45 | 31 | 59.90 | 50 | 57' 35' 20.14 | | |
| (8) - D | 9.79319 1.39728 | | | | | 51 35 | 51.25 -31.50 -24.96 | 50 | 26.39 -25 -16 +9.20 +40 -20.70 35 19.09 | +9.16 11.50 | |
| δ_1 | -1.67 -11.18 | 15 32.76 | 35 5.9 | | | | | | | | |
| d | +24.43 1.38792 9.89415 1.40443 | 0 52.7 | 57.1 | 9.8 | 40' 54.90 | 31 | 53.45 | 50 | 57' 35' 20.57 | | |
| (8) - D | 9.79319 1.30347 | | | | | 51 35 | 45.69 -25.38 -20.11 | 50 | 25.78 -16 -19 +9.59 +40 -20.80 35 17.08 | +9.64 12.10 | |
| δ_2 | -1.67 -11.18 | 15 32.76 | 35 5.9 | | | | | | | | |
| d | +24.40 1.38739 9.89112 1.40087 | 1 2.9 | 6.5 | 9.4 | 40' 47.0 | 1 | 43.65 | 20 | 57' 5' 42.25 | | |
| (8) - D | 9.79793 1.30768 | | | | | 51 5 | 35.42 -25.17 -20.31 | 20 | 14.69 -16 -21 +8.70 +35 -20.70 5 4.98 | 37.44 -4 -17 +8.70 +35 -20.70 5 9.97 | 0.16 |
| δ_1 | -1.70 -11.25 | 10 47.8 | 52.5 | | | | | | | | |
| d | +29.49 1.46967 9.89112 1.48315 | 0 39.2 | 3.9 | 12.3 | 40' 1.1 | 1 | 46.50 | 20 | 57' 5' 8.82 | | |
| (8) - D | 9.79793 1.38996 | | | | | 51 5 | 39.24 -30.42 -24.54 | 20 | 14.70 -23 -20 +9.06 +35 -20.80 5 5.04 | 42.52 -3 -16 +9.06 +35 -20.80 5 5.04 | |
| δ_2 | -1.70 -11.25 | 10 46.2 | 51.9 | | | | | | | | |
| d | +13.07 1.11628 9.89244 1.13108 | 2 39.4 | 43.5 | 8.9 | 40' 4.5 | 15 | 6.90 | 5 | 51' 18' 45.15 | | |
| (8) - D | 9.79589 1.03453 | | | | | 51 18 | 58.25 -13.52 -10.83 | 5 | 47.42 -5 -54 +8.92 +35 -20.80 18 37.61 | +8.68 10.99 | |
| δ_1 | -1.70 -11.33 | 17 39.22 | 18 26.3 | | | | | | | | |
| d | +10.41 1.01745 9.89244 1.03225 | 2 42.4 | 46.1 | 8.5 | 40' 4.25 | 15 | 4.10 | 5 | 51' 18' 45.77 | | |
| (8) - D | 9.79589 0.93570 | | | | | 51 18 | 56.54 -10.74 -8.62 | 5 | 47.92 -3 -55 +9.29 +35 -20.90 18 38.54 | +9.086 11.52 | |
| δ_2 | -1.70 -11.33 | 17 39.30 | 18 27.2 | | | | | | | | |
| d | +34.13 1.53314 9.89504 1.55054 | 1 58.8 | 49 | 12.4 | 40' 2.35 | 40 | 46.00 | 40 | 51' 44' 2.24 | | |
| (8) - D | 9.79176 1.44726 | | | | | 51 44 | 37.35 -35.53 -28.01 | 40 | 9.32 -31 -41 +9.35 +40 -20.90 43 59.78 | +9.03 11.34 | |
| δ_1 | -1.68 -11.44 | 19 10.10 | 43 48.3 | | | | | | | | |
| d | +29.44 1.46997 9.89504 1.48737 | 2 5.1 | 9.1 | 14.2 | 40' 7.0 | 40 | 41.25 | 40 | 51' 44' 2.47 | | |
| (8) - D | 9.79176 1.38409 | | | | | 51 44 | 33.69 -30.72 -24.22 | 40 | 9.47 -23 -42 +9.75 +40 -21.00 44 0.43 | +9.50 11.96 | |
| δ_2 | -1.68 -11.44 | 19 10.26 | 43 49.0 | | | | | | | | |

Date₁ = 1876 Oct. 10Observer
RecorderDate₂ = Oct. 12Observer
Recorder

| Star. | α | δ | Mag. | T_s | T_m | T_o | T_r | T_e | T_h | Sum | Mean | Red. to T_m | T |
|-----------------|-----------------------|----------|------|------------|---------|-------|-------|-------|-------|-------|----------|---------------|----------|
| 20 | 11 | 51 6 | 9.1 | 20 19 46.9 | 20 18.0 | 21.1 | 24.5 | 27.8 | 31.1 | 12.25 | 20 24.50 | 20 | 20 24.50 |
| | | | | 50.0 | | | | | | | | | + 0.16 |
| | | | | 52.5 | | | | | | | | | - 99 |
| | | | | 49.80 | | | | | | | | | 20 23.67 |
| | | | | | | | | | | | | | - 1.51 |
| | | | | | | | | | | | | | 20 22.16 |
| (δ - D) | $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| | | | 9.0 | 19 56.4 | 20 17.1 | 20.1 | 23.4 | 26.7 | 30.0 | 11.73 | 20 23.46 | 20 | 20 23.46 |
| | | | | 0.0 | | | | | | | | | + 0.97 |
| | | | | 2.6 | | | | | | | | | - 94 |
| | | | | 59.73 | | | | | | | | | 20 23.49 |
| | | | | | | | | | | | | | - 1.45 |
| | | | | | | | | | | | | | 20 22.04 |
| (δ - D) | $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 21 | 27 | 51 22 | 9.1 | 21 6.7 | 21 33.2 | 36.3 | 39.6 | 42.9 | 46.3 | 19.83 | 21 39.66 | 20 | 21 39.66 |
| | | | | 10.1 | | | | | | | | | + 6.16 |
| | | | | 12.7 | | | | | | | | | - 101 |
| | | | | 9.83 | | | | | | | | | 21 38.51 |
| | | | | | | | | | | | | | - 1.50 |
| | | | | | | | | | | | | | 21 37.31 |
| (δ - D) | $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| | | | 9.0 | 21 2.0 | 21 32.7 | 35.7 | 38.7 | 42.4 | 45.5 | 19.51 | 21 39.02 | 20 | 21 39.02 |
| | | | | 5.4 | | | | | | | | | + 0.97 |
| | | | | 8.0 | | | | | | | | | - 96 |
| | | | | 5.13 | | | | | | | | | 21 39.03 |
| | | | | | | | | | | | | | - 1.44 |
| | | | | | | | | | | | | | 21 37.59 |
| (δ - D) | $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 24 | 39 | 51 15 | 8.3 | 24 33.5 | 24 44.1 | 47.5 | 50.7 | 54.0 | 57.3 | 25.36 | 24 50.72 | 20 | 24 50.72 |
| | | | | 36.9 | | | | | | | | | + 0.15 |
| | | | | 39.7 | | | | | | | | | - 101 |
| | | | | 36.70 | | | | | | | | | 24 49.56 |
| | | | | | | | | | | | | | - 1.53 |
| | | | | | | | | | | | | | 24 48.33 |
| (δ - D) | $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| | | | 8.4 | 24 34.0 | 24 43.3 | 46.7 | 49.9 | 53.4 | 56.5 | 24.98 | 24 49.96 | 20 | 24 49.96 |
| | | | | 37.5 | | | | | | | | | + 0.98 |
| | | | | 40.2 | | | | | | | | | - 95 |
| | | | | 37.23 | | | | | | | | | 24 49.99 |
| | | | | | | | | | | | | | - 1.48 |
| | | | | | | | | | | | | | 24 48.51 |
| (δ - D) | $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 25 | 54 | 52 56 | 8.1 | 25 29.0 | 25 55.8 | 2.2 | 5.6 | 9.0 | 12.5 | 2.81 | 26 56.2 | 20 | 26 56.2 |
| | | | | 32.0 | | | | | | | | | + 0.15 |
| | | | | 35.2 | | | | | | | | | - 106 |
| | | | | 32.07 | | | | | | | | | 26 4.71 |
| | | | | | | | | | | | | | - 1.48 |
| | | | | | | | | | | | | | 26 3.23 |
| (δ - D) | $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| | | | 7.4 | 25 37.9 | 25 57.9 | 1.5 | 4.8 | 8.1 | 11.4 | 2.37 | 26 4.74 | 20 | 26 4.74 |
| | | | | 40.6 | | | | | | | | | + 0.98 |
| | | | | 44.4 | | | | | | | | | - 101 |
| | | | | 40.97 | | | | | | | | | 26 4.71 |
| | | | | | | | | | | | | | - 1.41 |
| | | | | | | | | | | | | | 26 3.30 |
| (δ - D) | $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 26 | 56 | 52 34 | 9.0 | 26 46.6 | 26 59.7 | 3.0 | 6.4 | 9.8 | 13.2 | 3.21 | 27 6.42 | 20 | 27 6.42 |
| | | | | 46.60 | | | | | | | | | + 0.15 |
| | | | | | | | | | | | | | - 104 |
| | | | | | | | | | | | | | 27 5.53 |
| | | | | | | | | | | | | | - 1.51 |
| | | | | | | | | | | | | | 27 4.08 |
| (δ - D) | $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| | | | 8.5 | 26 36.0 | 26 58.4 | 2.2 | 5.6 | 8.9 | 12.5 | 2.79 | 27 5.58 | 20 | 27 5.58 |
| | | | | 39.6 | | | | | | | | | + 0.98 |
| | | | | 41.7 | | | | | | | | | - 99 |
| | | | | 39.10 | | | | | | | | | 27 5.57 |
| | | | | | | | | | | | | | - 1.44 |
| | | | | | | | | | | | | | 27 4.13 |
| (δ - D) | $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|---|-----------|----------|------|-------|------|--------------------|--------------------|--------------|--------|--------|----------------|
| 0 | +38.70 | 4' 4.4" | 30.4 | 4.8 | 19 | 57.40 | 2' | 55.95 | 15' | 51' 6" | 11.92 |
| 1 | 1.54033 | | | | | 57.40 | 51 | 55.95 | 47.30 | | 23.43 |
| 2 | 9.89122 | 9.79778 | | | | | | | | | -32 +7.77 |
| 3 | 1.55391 | 1.46047 | | | | | | | | | -97 10.08 |
| 4 | -1.72 | | | | | | | | | | +871 |
| 5 | -11.52 | | | | | | | | | | +35 |
| 6 | | 20 20.44 | | 6 | 1.1 | | | | | | -20.90 |
| 7 | | | | | | | | | | | 6-20.61 (2.61) |
| 8 | +23.73 | 4 57.1 | 18 | 118.9 | 4 | 59.45 | 2 | 118.90 | 15 | 51 6 | 16.86 |
| 9 | 1.37530 | | | | | | 51 | 6 | 41.34 | | 21.60 |
| 0 | 9.89122 | 9.79778 | | | | | | | | | -15 +8.28 |
| 1 | 1.38888 | 1.29544 | | | | | | | | | -100 10.74 |
| 2 | -1.72 | | | | | | | | | | +9.08 |
| 3 | -11.52 | | | | | | | | | | +35 |
| 4 | | 20 20.32 | | 5 | 59.7 | | | | | | -21.10 |
| 5 | | | | | | | | | | | 6 11.24 |
| 6 | +29.83 | 2 55.2 | 59.9 | 15.1 | 2 | 59.55 | 19 | 50.80 | 0 | 51 23 | 17.48 |
| 7 | 1.47465 | | | | | | 51 | 23 | 50.80 | | -23 +8.53 |
| 8 | 9.89294 | 9.79510 | | | | | | | | | -59 10.84 |
| 9 | 1.48995 | 1.39211 | | | | | | | | | +9.00 |
| 0 | -1.71 | | | | | | | | | | +35 |
| 1 | -11.61 | | | | | | | | | | -21.00 |
| 2 | | 21 35.60 | | 22 | 55.7 | | | | | | 23 7.32 |
| 3 | +33.89 | 2 53.2 | 58.1 | 11.3 | 2 | 55.65 | 19 | 52.70 | 0 | 51 23 | 17.12 |
| 4 | 1.53007 | | | | | | 51 | 23 | 45.14 | | -31 +8.43 |
| 5 | 9.89294 | 9.79510 | | | | | | | | | -59 11.29 |
| 6 | 1.54537 | 1.44753 | | | | | | | | | +9.38 |
| 7 | -1.71 | | | | | | | | | | +35 |
| 8 | -11.61 | | | | | | | | | | -20.20 |
| 9 | | 21 35.88 | | 22 | 56.6 | | | | | | 23 8.21 |
| 0 | +14.02 | 4 42.3 | 45.1 | 7.4 | 4 | 43.70 | 13 | 41.65 | 5 | 51 16 | 44.92 |
| 1 | 1.14675 | | | | | | 51 | 16 | 56.42 | | 44.88 |
| 2 | 9.89223 | 9.79621 | | | | | | | | | -5 +8.24 |
| 3 | 1.16134 | 1.06532 | | | | | | | | | -94 10.55 |
| 4 | -1.73 | | | | | | | | | | +8.88 |
| 5 | -11.84 | | | | | | | | | | +35 |
| 6 | | 24 46.60 | | 16 | 21.9 | | | | | | -21.20 |
| 7 | +12.73 | 4 44.4 | 47.9 | 12.3 | 4 | 46.15 | 13 | 2.20 | 5 | 51 16 | 44.48 |
| 8 | 1.10483 | | | | | | 51 | 16 | 52.64 | | 44.09 |
| 9 | 9.89223 | 9.79621 | | | | | | | | | -5 +6.63 |
| 0 | 1.11942 | 1.02340 | | | | | | | | | -95 11.09 |
| 1 | -1.73 | | | | | | | | | | +9.28 |
| 2 | -11.84 | | | | | | | | | | +35 |
| 3 | | 24 46.78 | | 16 | 21.9 | | | | | | -21.40 |
| 4 | +33.55 | 3 55.4 | 58.6 | 14.0 | 3 | 57.00 | 53 | 50.35 | 25 | 52 57 | 7.62 |
| 5 | 1.52569 | | | | | | 52 | 57 | 45.12 | | 15.92 |
| 6 | 9.90216 | 9.77980 | | | | | | | | | -29 +9.92 |
| 7 | 1.55021 | 1.42785 | | | | | | | | | -79 12.23 |
| 8 | -1.65 | | | | | | | | | | +10.60 |
| 9 | -11.93 | | | | | | | | | | +40 |
| 0 | | 26 1.58 | | 56 | 54.8 | | | | | | -21.40 |
| 1 | +23.77 | 4 4.5 | 7.2 | 11.7 | 4 | 58.5 | 53 | 42.50 | 25 | 52 57 | 9.74 |
| 2 | 1.37603 | | | | | | 52 | 57 | 34.94 | | 15.96 |
| 3 | 9.90216 | 9.77980 | | | | | | | | | -15 +10.50 |
| 4 | 1.40053 | 1.27819 | | | | | | | | | -81 12.96 |
| 5 | -1.65 | | | | | | | | | | +11.06 |
| 6 | -11.93 | | | | | | | | | | +40 |
| 7 | | 26 1.65 | | 56 | 55.4 | | | | | | -21.60 |
| 8 | +19.82 | 1 12.9 | 16.0 | 8.9 | 1 | 14.45 | 31 | 33.90 | 50 | 52 35 | 4.84 |
| 9 | 1.29710 | | | | | | 52 | 35 | 25.25 | | 9.29 |
| 0 | 9.89995 | 9.78362 | | | | | | | | | -11 +10.27 |
| 1 | 1.31941 | 1.20308 | | | | | | | | | -25 12.58 |
| 2 | -1.67 | | | | | | | | | | +10.23 |
| 3 | -12.00 | | | | | | | | | | +40 |
| 4 | | 27 2.35 | | 34 | 48.4 | | | | | | -21.50 |
| 5 | +26.48 | 1 9.2 | 12.1 | 21.3 | 1 | 10.65 | 31 | 37.70 | 50 | 52 35 | 2.26 |
| 6 | 1.42292 | | | | | | 52 | 35 | 30.14 | | 8.82 |
| 7 | 9.90005 | 9.78346 | | | | | | | | | -18 +14.66 |
| 8 | 1.44533 | 1.32874 | | | | | | | | | -23 13.12 |
| 9 | -1.67 | | | | | | | | | | +10.67 |
| 0 | -12.00 | | | | | | | | | | +40 |
| 1 | | 27 2.46 | | 34 | 48.3 | | | | | | -21.60 |
| 2 | | | | | | | | | | | 35 08.34 |

Date₁ = 1876 Oct. 10Observer
RecorderDate₂ = Oct. 12Observer
Recorder

| Star. | α | δ | Mag. | T_s | T_m | T_e | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T |
|------------|-----------------------|----------|------|-------|---------|---------|-------|-------|-------|------|------|---------------|-------------|
| 27 | 39 | 51 52 | 6.1 | 20 | 27 31.9 | 27 44.4 | 47.8 | 57.1 | 57.4 | 57.7 | 2554 | 27 51.08 | 20 27 51.08 |
| κ | | 49.1 | 6.0 | | 34.9 | | | | | | | -0.87 | +0.15 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 37.5 | | | | | | | | -1.02 |
| α_1 | | | | | 34.77 | | | | | | | | 27 50.21 |
| κ | | | | | | | | | | | | | -1.54 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 27 48.67 |
| α_1 | | | | | | | | | | | | | |
| κ | | | 6.5 | 27 | 34.3 | 27 43.5 | 46.9 | 50.3 | 53.4 | 56.7 | 2508 | 27 50.16 | 20 27 50.16 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 36.4 | | | | | | | +0.01 | +0.98 |
| α_2 | | | | | 40.8 | | | | | | | | -0.97 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 37.17 | | | | | | | | 27 50.17 |
| α_2 | | | | | | | | | | | | | -1.48 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 27 48.69 |
| α_2 | | | | | | | | | | | | | |
| 29 | 34 | 50 14 | 9.1 | 29 | 12.4 | 29 41.3 | 44.4 | 47.7 | 50.8 | 54.0 | 2382 | 29 47.64 | 20 29 47.64 |
| κ | | 50 10.8 | 9.0 | | 16.1 | | | | | | | -0.81 | +0.15 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 18.6 | | | | | | | | -0.96 |
| α_1 | | | | | 15.70 | | | | | | | | 29 46.83 |
| κ | | | | | | | | | | | | | -1.63 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 29 45.20 |
| α_1 | | | | | | | | | | | | | |
| κ | | | 8.8 | 29 | 8.8 | 29 40.4 | 43.5 | 46.7 | 48.9 | 53.1 | 2336 | 29 46.72 | 20 29 46.72 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 11.8 | | | | | | | +0.07 | +0.98 |
| α_2 | | | | | 14.5 | | | | | | | | -0.91 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 11.70 | | | | | | | | 29 46.79 |
| α_2 | | | | | | | | | | | | | -1.57 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 29 45.22 |
| α_2 | | | | | | | | | | | | | |
| 31 | 4 | 51 25 | 6.2 | 30 | 35.5 | 31 9.6 | 12.9 | 16.2 | 19.5 | 22.8 | 810 | 31 16.20 | 20 31 16.20 |
| κ | | 21.6 | 6.3 | | 38.3 | | | | | | | -0.86 | +0.15 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 40.8 | | | | | | | | -1.01 |
| α_1 | | | | | 38.20 | | | | | | | | 31 15.34 |
| κ | | | | | | | | | | | | | -1.61 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 31 13.73 |
| α_1 | | | | | | | | | | | | | |
| κ | | | 6.8 | 30 | 40.6 | 31 8.7 | 12.1 | 15.3 | 18.6 | 21.8 | 765 | 31 15.30 | 20 31 15.30 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 44.0 | | | | | | | +0.02 | +0.98 |
| α_2 | | | | | 46.5 | | | | | | | | -0.96 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 43.70 | | | | | | | | 31 15.32 |
| α_2 | | | | | | | | | | | | | -1.55 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 31 13.77 |
| α_2 | | | | | | | | | | | | | |
| 32 | 39 | 52 52 | 9.1 | 32 | 19.4 | 32 42.9 | 46.3 | 49.8 | 53.1 | 56.5 | 2486 | 32 49.72 | 20 32 49.72 |
| κ | | 49.1 | 8.8 | | 22.0 | | | | | | | -0.91 | +0.15 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 24.8 | | | | | | | | -1.06 |
| α_1 | | | | | 22.07 | | | | | | | | 32 48.81 |
| κ | | | | | | | | | | | | | -1.55 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 32 47.26 |
| α_1 | | | | | | | | | | | | | |
| κ | | | 8.8 | 32 | 15.5 | 32 41.9 | 45.2 | 48.8 | 52.1 | 55.5 | 2435 | 32 48.70 | 20 32 48.70 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 18.7 | | | | | | | -0.03 | +0.98 |
| α_2 | | | | | 21.7 | | | | | | | | -1.01 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 18.63 | | | | | | | | 32 48.67 |
| α_2 | | | | | | | | | | | | | -1.48 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 32 47.19 |
| α_2 | | | | | | | | | | | | | |
| 33 | 33 | 52 31 | 6.9 | 33 | 29.3 | 33 37.2 | 40.6 | 44.0 | 47.4 | 50.8 | 2200 | 33 44.00 | 20 33 44.00 |
| κ | | 28.1 | 6.5 | | 31.7 | | | | | | | -0.89 | +0.15 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 34.9 | | | | | | | | -1.04 |
| α_1 | | | | | 31.97 | | | | | | | | -1.57 |
| κ | | | | | | | | | | | | | 33 43.11 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | -1.57 |
| α_1 | | | | | | | | | | | | | 33 41.54 |
| κ | | | | | | | | | | | | | |
| κ | | | 6.4 | 33 | 14.4 | 33 36.2 | 38.9 | 43.2 | 46.3 | 49.9 | 2155 | 33 43.10 | 20 33 43.10 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 17.8 | | | | | | | -0.01 | +0.98 |
| α_2 | | | | | 20.2 | | | | | | | | -0.96 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 17.47 | | | | | | | | 33 43.12 |
| α_2 | | | | | | | | | | | | | -1.51 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 33 41.58 |
| α_2 | | | | | | | | | | | | | |

Runs

+2.31

49

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|------------|-----------|---------|------|-------|------------|--------------------|--------------------|--------------|--------|-------------|-----------|
| | +16.31 | 2 56.5 | 1.0 | 1175 | 32 2 58.75 | 49' | 49.60 | | 30 | 57 53 24.36 | |
| d | 1.21245 | | | | | 51 53 | 42.04 | | | 27.61 | |
| (8) - D | 9.89594 | 9.79031 | | | | | 44.84 | 40.95 | | - 7 | +9.25 |
| δ_1 | 1.23675 | 1.12512 | | | | | 17.01 | -13.34 | | - 59 | 11.56 |
| | | | | | | | | | | + 9.51 | |
| | | | | | | | | | | + 40 | |
| | | | | | | | | | | - 21.40 | |
| | | | | | | | | | | 53 17.77 | |
| | | | | | | | | | | 57 53 23.89 | |
| d | 1.11361 | | | | | 51 53 | 37.44 | | 30 | 26.82 | |
| (8) - D | 9.89594 | 9.79031 | | | | | 12.55 | | | - 5 | +9.66 |
| δ_2 | 1.13191 | 1.02628 | | | | | -10.62 | | | - 61 | 12.12 |
| | | | | | | | | | | + 9.92 | |
| | | | | | | | | | | + 40 | |
| | | | | | | | | | | - 21.60 | |
| | | | | | | | | | | 53 17.34 | |
| d | +31.94 | 0 25.1 | 30.1 | 55.2 | 0 27.60 | 12 | 20.75 | | 10 | 45.04 | |
| (8) - D | 1.50433 | | | | | 50 16 | 12.52 | 12.10 | | 50 15 45.44 | |
| δ_1 | 9.80565 | 9.78274 | | | | | -3.77 | -25.91 | | - 28 | +7.78 |
| | 1.47233 | 1.46343 | | | | | | 27.06 | | - 9 | 10.09 |
| | | | | | | | | | | + 7.85 | |
| | | | | | | | | | | + 30 | |
| | | | | | | | | | | - 21.40 | |
| | | | | | | | | | | 15 33.73 | |
| d | +35.02 | 0 22.4 | 28.0 | 10.4 | 0 26.20 | 12 | 23.15 | | 10 | 15 45.92 | |
| (8) - D | 1.54432 | | | | | 16 | 15.59 | | | - 33 | |
| δ_2 | 9.80565 | 9.78274 | | | | | -27.04 | | | - 8 | +8.09 |
| | 1.47233 | 1.46343 | | | | | -29.47 | | | + 8.20 | 10.55 |
| | | | | | | | | | | + 30 | |
| | | | | | | | | | | - 21.60 | |
| | | | | | | | | | | 15 34.87 | |
| d | +38.00 | 0 18.8 | 23.4 | 42.2 | 0 21.10 | 22 | 27.25 | | 0 | 57 25 39.64 | |
| (8) - D | 1.57978 | | | | | 51 26 | 19.02 | 18.60 | | 47.20 | |
| δ_1 | 9.89314 | 9.79478 | | | | | -39.38 | -31.40 | | - 37 | +8.91 |
| | 1.59528 | 1.49692 | | | | | | | | - 7 | 11.22 |
| | | | | | | | | | | + 9.02 | |
| | | | | | | | | | | + 35 | |
| | | | | | | | | | | - 21.60 | |
| | | | | | | | | | | 25 36.82 | |
| d | +31.60 | 0 25.5 | 29.1 | 14.6 | 0 27.30 | 22 | 21.05 | | 0 | 57 25 44.76 | |
| (8) - D | 1.48572 | | | | | 51 26 | 13.49 | | | 45.21 | |
| δ_2 | 9.89314 | 9.79478 | | | | | -31.77 | | | - 26 | +9.42 |
| | 1.50122 | 1.40286 | | | | | -25.28 | | | - 9 | 11.88 |
| | | | | | | | | | | + 9.42 | |
| | | | | | | | | | | + 35 | |
| | | | | | | | | | | - 21.60 | |
| | | | | | | | | | | 25 38.29 | |
| d | +27.65 | 2 59.5 | 2.9 | 122.4 | 3 120 | 49 | 47.15 | | 30 | 52 53 46.9 | |
| (8) - D | 1.44190 | | | | | 52 53 | 38.92 | 38.60 | | 16.39 | |
| δ_1 | 9.90148 | 9.78047 | | | | | -29.23 | -22.11 | | - 20 | +10.11 |
| | 1.46584 | 1.34458 | | | | | | | | - 60 | 12.42 |
| | | | | | | | | | | + 10.57 | |
| | | | | | | | | | | + 40 | |
| | | | | | | | | | | - 21.90 | |
| | | | | | | | | | | 53 6.91 | |
| d | +30.07 | 2 58.6 | 2.4 | 121.0 | 3 0.50 | 49 | 47.85 | | 30 | 52 53 46.0 | |
| (8) - D | 1.47813 | | | | | 52 53 | 40.29 | | | 16.25 | |
| δ_2 | 9.90178 | 9.78047 | | | | | -31.79 | | | - 24 | +10.55 |
| | 1.50227 | 1.38096 | | | | | -24.64 | | | - 60 | 13.01 |
| | | | | | | | | | | + 10.99 | |
| | | | | | | | | | | + 40 | |
| | | | | | | | | | | - 22.10 | |
| | | | | | | | | | | 53 17.16 | |
| d | +12.03 | 3 53.4 | 57.6 | 11.0 | 3 55.50 | 28 | 52.85 | | 50 | 52 32 51.96 | |
| (8) - D | 1.08027 | | | | | 52 32 | 44.62 | 44.20 | | 34.57 | |
| δ_1 | 9.89976 | 9.78379 | | | | | -12.66 | -9.69 | | - 4 | +9.75 |
| | 1.16239 | 0.98642 | | | | | | | | - 79 | 12.06 |
| | | | | | | | | | | + 10.18 | |
| | | | | | | | | | | + 40 | |
| | | | | | | | | | | - 21.90 | |
| | | | | | | | | | | 32 24.67 | |
| d | +25.63 | 3 42.2 | 45.0 | 7.2 | 3 43.60 | 29 | 47.5 | | 50 | 52 32 30.22 | |
| (8) - D | 1.40875 | | | | | 52 32 | 59.19 | | | 36.54 | |
| δ_2 | 9.89976 | 9.78379 | | | | | -26.94 | | | - 17 | +10.12 |
| | 1.45687 | 1.31490 | | | | | -20.65 | | | - 74 | 12.58 |
| | | | | | | | | | | + 10.63 | |
| | | | | | | | | | | + 40 | |
| | | | | | | | | | | - 22.10 | |
| | | | | | | | | | | 32 27.02 | |

1876phae.proj.1601R

date, = 1876 Oct. 10

Observer
Recorder

Date₂ = *Oct. 12*

Date, = Oct. 12

Observer
Recorder

Recorder

50

| Star. | α | δ | Mag. | T_s | T_m | T_e | T_f | T_g | T_h | Sum | Mean | Red. to T_m | T |
|----------|----------|----------|------|-------|---------|---------|-------|-------|-------|------|-------|---------------|-------------|
| 33 | 34 | 50° 38' | 8.8 | 20 | 34 530 | 35 117 | 14.8 | 18.2 | 21.4 | 24.7 | 9.08 | 35 1816 | 20 35 18.16 |
| κ | | 34.7 | 8.5 | | 56.5 | | | | | | | | + 0.15 |
| (8) — D | | | | | 58.7 | | | | | | | - 0.82 | - 97 |
| a_1 | | | | | 56.07 | | | | | | | | 35 17.34 |
| κ | | | | | | | | | | | | | - 1.66 |
| (8) — D | | | | | | | | | | | | | 35 15.68 |
| a_2 | | | | | | | | | | | | | |
| 34 | 39 | 50 38 | 8.8 | | 34 520 | 35 10.9 | 14.2 | 17.4 | 20.7 | 23.8 | 8.70 | 35 17.40 | 20 35 17.40 |
| κ | | | | | 53.4 | | | | | | | | + 0.98 |
| (8) — D | | | | | 56.0 | | | | | | | + 0.06 | - 92 |
| a_1 | | | | | 53.13 | | | | | | | | 35 17.46 |
| κ | | | | | | | | | | | | | - 1.60 |
| (8) — D | | | | | | | | | | | | | 35 15.86 |
| a_2 | | | | | | | | | | | | | |
| 39 | 39 | 50 14 | 9.0 | | 39 328 | 40 6.5 | 9.9 | 13.0 | 16.2 | 19.5 | 6.51 | 40 13.02 | 20 40 13.02 |
| κ | | 10.2 | 8.7 | | 42.4 | | | | | | | | + 0.15 |
| (8) — D | | | | | 44.6 | | | | | | | - 0.80 | - 95 |
| a_1 | | | | | 42.27 | | | | | | | | 40 12.22 |
| κ | | | | | | | | | | | | | - 1.73 |
| (8) — D | | | | | | | | | | | | | 40 10.49 |
| a_2 | | | | | | | | | | | | | |
| 40 | 34 | 50 34 | 8.8 | | 39 410 | 40 3.5 | 8.9 | 12.0 | 15.4 | 18.7 | 6.05 | 40 12.10 | 20 40 12.10 |
| κ | | 30.2 | | | 43.6 | | | | | | | | + 0.98 |
| (8) — D | | | | | 45.8 | | | | | | | + 0.08 | - 90 |
| a_1 | | | | | 43.47 | | | | | | | | 40 12.18 |
| κ | | | | | | | | | | | | | - 1.67 |
| (8) — D | | | | | | | | | | | | | 40 10.51 |
| a_2 | | | | | | | | | | | | | |
| 40 | 34 | 50 34 | 8.8 | | 40 313 | 40 40.5 | 43.6 | 47.0 | 50.2 | 53.6 | 23.49 | 40 46.98 | 20 40 46.98 |
| κ | | 30.2 | 8.4 | | 34.0 | | | | | | | | + 0.15 |
| (8) — D | | | | | 36.5 | | | | | | | - 0.81 | - 96 |
| a_1 | | | | | 33.93 | | | | | | | | 40 46.17 |
| κ | | | | | | | | | | | | | - 1.72 |
| (8) — D | | | | | | | | | | | | | 40 44.45 |
| a_2 | | | | | | | | | | | | | |
| 40 | 34 | 50 34 | 8.8 | | 40 326 | 40 39.6 | 42.8 | 46.0 | 49.3 | 52.6 | 23.03 | 40 46.06 | 20 40 46.06 |
| κ | | | | | 36.0 | | | | | | | | + 0.98 |
| (8) — D | | | | | 38.2 | | | | | | | + 0.06 | - 92 |
| a_1 | | | | | 35.60 | | | | | | | | 40 46.12 |
| κ | | | | | | | | | | | | | - 1.66 |
| (8) — D | | | | | | | | | | | | | 40 44.46 |
| a_2 | | | | | | | | | | | | | |
| 41 | 30 | 50 19 | 9.2 | | 41 353 | 41 37.3 | 40.5 | 43.7 | 46.8 | 50.3 | 21.86 | 41 43.72 | 20 41 43.72 |
| κ | | 15.3 | 9.0 | | 35.30 | | | | | | | | + 0.15 |
| (8) — D | | | | | | | | | | | | - 0.80 | - 95 |
| a_1 | | | | | | | | | | | | | 41 42.92 |
| κ | | | | | | | | | | | | | - 1.74 |
| (8) — D | | | | | | | | | | | | | 41 41.18 |
| a_2 | | | | | | | | | | | | | |
| 41 | 23.6 | 50 13.9 | 8.7 | | 41 33.4 | 41 56.2 | 58.3 | 2.7 | 5.9 | 9.1 | 31.34 | 42 43.68 | 20 42 26.8 |
| κ | | | | | 35.7 | | | | | | | | + 0.98 |
| (8) — D | | | | | 38.4 | | | | | | | + 0.08 | - 90 |
| a_1 | | | | | 33.83 | | | | | | | | 42 27.6 |
| κ | | | | | | | | | | | | | - 1.68 |
| (8) — D | | | | | | | | | | | | | 42 1.08 |
| a_2 | | | | | | | | | | | | | |
| 42 | 37 | 52 31 | 6.2 | | 42 20.8 | 42 41.4 | 44.7 | 48.0 | 51.4 | 54.8 | 24.03 | 42 48.06 | 20 42 48.06 |
| κ | | 28.0 | 6.2 | | 23.7 | | | | | | | | + 0.15 |
| (8) — D | | | | | 26.0 | | | | | | | - 0.89 | - 104 |
| a_1 | | | | | 23.50 | | | | | | | | 42 47.17 |
| κ | | | | | | | | | | | | | - 1.66 |
| (8) — D | | | | | | | | | | | | | 42 45.51 |
| a_2 | | | | | | | | | | | | | |
| 42 | 37 | 52 31 | 6.2 | | 42 35.9 | 42 40.4 | 43.9 | 47.1 | 50.6 | 54.0 | 23.60 | 42 47.20 | 20 42 47.20 |
| κ | | | | | 38.3 | | | | | | | | + 0.98 |
| (8) — D | | | | | 40.7 | | | | | | | - 0.01 | - 95 |
| a_1 | | | | | 38.30 | | | | | | | | 42 47.1 |
| κ | | | | | | | | | | | | | - 1.60 |
| (8) — D | | | | | | | | | | | | | 42 45.59 |
| a_2 | | | | | | | | | | | | | |

Runs

+ 2.31

51

+ 2.46

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|------------------|---|--------------------------------|------|---------|-------|--------------------|--------------------|--------------|--------|---|-----------|
| d | +22.09 1.34420 9.88844 1.35500 | 1' 41.9 9.80197 1.26853m | 46.4 | 8.3 | 44.15 | 36' | 4.20 | 55.55 | 45 | 50 39' 33.32 | |
| (δ) - D | $\frac{d'}{100}$ | | | | | 50 39 | -22.65 | -18.56 | | 36.99 | +8.176 |
| δ_1 | -1.80 -12.59 | 13.88 35 17.48 | | 39 19.1 | | | | | | -13 -34 +8.28 +35 -21.80 39 25.66 | 10.47 |
| d | +24.27 1.38504 9.88844 1.39587 | 1 41.3 9.80197 1.30940m | 44.8 | 6.1 | 43.05 | 36 | 5.30 | 57.74 | 45 | 50 39' 32.86 | |
| (δ) - D | $\frac{d'}{100}$ | | | | | 50 39 | -20.39 | | | 37.35 | +6.46 |
| δ_2 | -1.80 -12.59 | 14.06 35 17.66 | | 39 13.7 | | | | | | -16 -34 +8.61 +35 -22.00 39 26.27 | 10.92 |
| d | +30.75 1.46585 9.88594 1.49615 | 0 56.4 9.80565 1.41586m | 0.9 | 112.3 | 0 | 58.65 | 11 | 49.70 | 10 | 50 15' 10.13 | |
| (δ) - D | $\frac{d'}{100}$ | | | | | 50 15 | -26.05 | 41.05 | | 15.08 | +7.73 |
| δ_1 | -1.84 -12.89 | 8.65 40 12.33 | | 14 50.0 | | | | | | -25 -19 +7.87 +30 -22.10 15 21.94 | 10.04 |
| d | +28.63 1.45682 9.88594 1.46512 | 0 58.9 9.80565 1.38483m | 3.9 | 122.8 | 11 | 140 | 11 | 46.95 | 10 | 50 15' 10.27 | |
| (δ) - D | $\frac{d'}{100}$ | | | | | 50 15 | -24.26 | | | 15.13 | +6.07 |
| δ_2 | -1.84 -12.89 | 8.67 40 12.35 | | 14 50.5 | | | | | | -22 -20 +8.19 +30 -22.30 15 3.36 | 10.53 |
| d | +13.05 1.11561 9.88793 1.12590 | 1 22.0 9.80274 1.04071m | 27.4 | 9.4 | 1 | 24.70 | 31 | 23.65 | 50 | 50 35' 2.06 | |
| (δ) - D | $\frac{d'}{100}$ | | | | | 50 35 | -15.42 | 15.00 | | 4.02 | +8.23 |
| δ_1 | -1.83 -12.94 | 42.62 40 46.28 | | 34 39.4 | | | | | | -13.36 -10.98 -5 -28 +8.21 +35 -22.20 34 53.36 | 10.54 |
| d | +10.46 1.01953 9.88793 1.02982 | 1 25.1 9.80274 1.094463m | 29.9 | 15.0 | 1 | 27.00 | 31 | 20.85 | 50 | 50 35' 2.58 | |
| (δ) - D | $\frac{d'}{100}$ | | | | | 50 35 | -10.41 | | | 4.49 | +8.57 |
| δ_2 | -1.83 -12.94 | 42.63 40 46.27 | | 34 40.2 | | | | | | -8.80 -29 +8.54 +35 -22.40 34 53.12 | 11.03 |
| d | +8.42 0.92531 9.88636 0.93403 | 1 37.5 9.80504 1.085271m | 41.7 | 79.2 | 1 | 39.60 | 16 | 8.75 | 5 | 50 19' 57.93 | |
| (δ) - D | $\frac{d'}{100}$ | | | | | 50 20 | -8.59 | 0.10 | | 52.98 | +7.90 |
| δ_1 | -1.84 -13.00 | 39.34 41 47.02 | | 19 28.0 | | | | | | -7.12 -2 -33 +7.95 +30 -22.20 19 40.99 | 10.21 |
| d | +26.85 1.42894 9.88626 1.43756 | 2 27.9 9.80519 1.35649m | 32.9 | 60.8 | 2 | 30.40 | 15 | 17.95 | 5 | 50 18' 43.08 | |
| (δ) - D | $\frac{d'}{100}$ | | | | | 50 19 | -24.39 | | | 47.67 | +7.44 |
| δ_2 | -1.85 -13.00 | 41 59.23 | | 18 22.6 | | | | | | -20 -50 +8.24 +30 -22.40 18 35.57 | 10.30 |
| d | +24.56 1.39023 9.89976 1.41235 | 3 27.8 9.78395 1.29654m | 31.1 | 58.9 | 3 | 29.45 | 29 | 18.80 | 50 | 52 32' 44.73 | |
| (δ) - D | $\frac{d'}{100}$ | | | | | 52 33 | -25.87 | 10.15 | | 50.36 | +9.75 |
| δ_1 | -1.75 -13.07 | 42 43.76 | | 32 25.0 | | | | | | -16 -70 +10.21 +40 -22.40 32 41.21 | 12.06 |
| d | +8.90 0.94939 9.89976 0.97715 | 3 42.1 9.78395 1.45670m | 44.5 | 6.6 | 3 | 43.30 | 29 | 5.05 | 50 | 52 32' 44.73 | |
| (δ) - D | $\frac{d'}{100}$ | | | | | 52 32 | -5.70 | | | 57.79 | +10.27 |
| δ_2 | -1.75 -13.07 | 42 43.84 | | 32 28.8 | | | | | | -2 -74 +10.63 +40 -22.70 32 41.82 | 12.73 |

Date₁ = 1876 Oct. 10Observer
RecorderDate₂ = Oct. 12Observer
Recorder

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| Star. | α | δ | Mag. | T_d | T_m | T_a | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T |
|----------|-----------|----------|------|-------|---------|---------|-------|-------|-------|------|-------|---------------|-------------|
| 48 | 39 | 50 11 | 8.0 | 20 | 43 22.8 | 43 45.6 | 48.8 | 52.0 | 53.3 | 58.5 | 260.2 | 43 52.04 | 20 48 52.04 |
| 43 | 10.9 | 13.3 | 8.2 | | 23.3 | | | | | | | | + 0.15 |
| κ | | | | | 28.4 | | | | | | | -0.80 | - 95 |
| (8) - D | κ' | | | | 23.60 | | | | | | | | 43 51.24 |
| a_1 | | | | | | | | | | | | | 43 49.48 |
| a_2 | | | | | | | | | | | | | |
| 48 | 2 | 50 48 | 9.5 | 47 | 47.4 | 48 8.0 | 11.4 | 14.5 | 17.9 | 21.3 | 73.1 | 48 14.62 | 20 48 14.62 |
| 47 | 32.7 | 44.7 | 9.4 | | 49.3 | | | | | | | | + 0.15 |
| κ | | | | | 57.6 | | | | | | | -0.82 | - 97 |
| (8) - D | κ' | | | | 49.43 | | | | | | | | 48 13.80 |
| a_1 | | | | | | | | | | | | | 48 11.96 |
| a_2 | | | | | | | | | | | | | 12.02 |
| 48 | 2 | 50 48 | 9.5 | 47 | 47.4 | 48 8.0 | 11.4 | 14.5 | 17.9 | 21.3 | 73.1 | 48 14.62 | 20 48 14.62 |
| 47 | 32.7 | 44.7 | 9.4 | | 49.3 | | | | | | | | + 0.15 |
| κ | | | | | 57.6 | | | | | | | -0.82 | - 97 |
| (8) - D | κ' | | | | 49.43 | | | | | | | | 48 13.80 |
| a_1 | | | | | | | | | | | | | 48 11.96 |
| a_2 | | | | | | | | | | | | | 12.02 |
| 49 | 58 | 54 58 | 9.1 | 49 | 48.6 | 49 30.7 | 0.4 | 4.0 | 7.4 | 11.0 | 19.5 | 50 39.0 | 20 50 39.0 |
| 49 | 26.2 | 53.0 | 9.0 | | 57.2 | | | | | | | | + 0.15 |
| κ | | | | | 53.4 | | | | | | | -0.99 | - 114 |
| (8) - D | κ' | | | | 57.73 | | | | | | | | 50 2.91 |
| a_1 | | | | | | | | | | | | | 50 1.28 |
| a_2 | | | | | | | | | | | | | |
| 49 | 58 | 54 58 | 9.1 | 49 | 48.6 | 49 30.7 | 0.4 | 4.0 | 7.4 | 11.0 | 19.5 | 50 39.0 | 20 50 39.0 |
| 49 | 26.2 | 53.0 | 9.0 | | 57.2 | | | | | | | | + 0.15 |
| κ | | | | | 53.4 | | | | | | | -0.99 | - 114 |
| (8) - D | κ' | | | | 57.73 | | | | | | | | 50 2.91 |
| a_1 | | | | | | | | | | | | | 50 1.28 |
| a_2 | | | | | | | | | | | | | |
| 51 | 52 | 54 27 | 9.2 | 57 | 57.0 | 57 53.8 | 59.2 | 27 | 6.0 | 9.9 | 136 | 52 27.2 | 20 52 27.2 |
| 51 | 23.6 | 22.8 | 8.6 | | 40.3 | | | | | | | | + 0.15 |
| κ | | | | | 43.1 | | | | | | | -0.97 | - 112 |
| (8) - D | κ' | | | | 40.13 | | | | | | | | 52 1.75 |
| a_1 | | | | | | | | | | | | | 52 0.08 |
| a_2 | | | | | | | | | | | | | |
| 51 | 52 | 54 27 | 9.2 | 57 | 57.0 | 57 53.8 | 59.2 | 27 | 6.0 | 9.9 | 136 | 52 27.2 | 20 52 27.2 |
| 51 | 23.6 | 22.8 | 8.6 | | 40.3 | | | | | | | | + 0.15 |
| κ | | | | | 43.1 | | | | | | | -0.97 | - 112 |
| (8) - D | κ' | | | | 40.13 | | | | | | | | 52 1.75 |
| a_1 | | | | | | | | | | | | | 52 0.08 |
| a_2 | | | | | | | | | | | | | |
| 53 | 19 | 50 34 | 9.5 | 53 | 53.0 | 53 25.4 | 28.6 | 32.0 | 35.0 | 38.4 | 159.4 | 53 31.88 | 20 53 31.88 |
| 52 | 49.8 | 30.4 | 9.3 | | 20.00 | | | | | | | | + 0.15 |
| κ | | | | | | | | | | | | -0.82 | - 97 |
| (8) - D | κ' | | | | | | | | | | | | 53 32.18 |
| a_1 | | | | | | | | | | | | | 53 30.34 |
| a_2 | | | | | | | | | | | | | |
| 53 | 19 | 50 34 | 9.5 | 53 | 53.0 | 53 25.4 | 28.6 | 32.0 | 35.0 | 38.4 | 159.4 | 53 31.88 | 20 53 31.88 |
| 52 | 49.8 | 30.4 | 9.3 | | 20.00 | | | | | | | | + 0.15 |
| κ | | | | | | | | | | | | -0.82 | - 97 |
| (8) - D | κ' | | | | | | | | | | | | 53 32.18 |
| a_1 | | | | | | | | | | | | | 53 30.34 |
| a_2 | | | | | | | | | | | | | |
| 53 | 19 | 50 34 | 9.5 | 53 | 53.0 | 53 25.4 | 28.6 | 32.0 | 35.0 | 38.4 | 159.4 | 53 31.88 | 20 53 31.88 |
| 52 | 49.8 | 30.4 | 9.3 | | 20.00 | | | | | | | | + 0.15 |
| κ | | | | | | | | | | | | -0.82 | - 97 |
| (8) - D | κ' | | | | | | | | | | | | 53 32.18 |
| a_1 | | | | | | | | | | | | | 53 30.34 |
| a_2 | | | | | | | | | | | | | |

| | | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | 8' |
|----|------------|-----------|----------|---------|---------|-----------|--------------------|--------------------|--------------|--------|-----------------|--------|
| 4 | | +26.64 | 2' 28.9 | 33.1 | 620 | 31' 31.00 | 15' | 17.35 | | 5 | 50 18' 44.95 | |
| 5 | d | 1.42553 | | | | | 50 19 | 4.12 | 8.70 | | 50 18' 46.15 | |
| 6 | (8) - D | 9.88626 | 9.80519 | | | | | -24.17 | -22.55 | | - 19 | +7.64 |
| 8 | δ_1 | 1.43415 | 1.35308 | | | | | | | | - 50 | 9.85 |
| | | -1.86 | 43 47.62 | | 18 20.2 | | | | | | + 7.93 | |
| | | -13.14 | | | | | | | | | + 30 | |
| | | | | | | | | | | | -22.30 | |
| | | | | | | | | | | | 18 33.70 | 2.058 |
| 0 | | +27.63 | 2 29.2 | 33.0 | 622 | 3110 | 15' | 17.25 | | 5 | 50 18' 44.51 | |
| 8 | d | 1.44138 | | | | | 50 19 | 9.69 | | | 50 18' 46.31 | |
| 0 | (8) - D | 9.88626 | 9.80519 | | | | | -24.18 | | | - 21 | +7.64 |
| 20 | δ_1 | 1.45000 | 1.36893 | | | | | -23.38 | | | - 50 | 10.30 |
| 8 | | -1.86 | 43 47.72 | | 18 21.0 | | | | | | + 8.25 | |
| | | -13.14 | | | | | | | | | + 30 | |
| | | | | | | | | | | | -22.50 | |
| | | | | | | | | | | | 18 34.11 | |
| 2 | | +25.19 | 1 31.9 | 36.0 | 79 | 3395 | 46 | 14.40 | | 35 | 50 49' 40.28 | |
| 5 | d | 1.40123 | | | | | 50 50 | 6.44 | 5.75 | | 50 49' 44.66 | |
| 7 | (8) - D | 9.88948 | 9.80043 | | | | | -25.89 | -21.09 | | - 17 | +8.33 |
| 10 | δ_1 | 1.41307 | 1.32402 | | | | | -24.00 | | | - 31 | 10.64 |
| 8 | | -1.85 | 48 11.17 | | 49 19.3 | | | | | | + 8.46 | |
| 2 | | -13.43 | | | | | | | | | + 35 | |
| | | | | | | | | | | | -22.60 | |
| | | | | | | | | | | | 49 32.70 | |
| 0 | | +11.03 | 1 47.8 | 51.0 | 988 | 4940 | 45 | 58.95 | | 35 | 50 49' 40.05 | |
| 8 | d | 1.04258 | | | | | 50 49 | 57.39 | | | 50 49' 42.16 | |
| 2 | (8) - D | 9.88948 | 9.80043 | | | | | -4.34 | | | - 4 | +8.73 |
| 4 | δ_1 | 1.05442 | 0.96537 | | | | | -9.23 | | | - 38 | 11.19 |
| | | -1.85 | 48 10.09 | | 49 17.1 | | | | | | + 8.80 | |
| | | -13.43 | | | | | | | | | + 35 | |
| | | | | | | | | | | | -22.80 | |
| | | | | | | | | | | | 49 30.55 | |
| | | +12.17 | 1 37.8 | 40.0 | 728 | 35890 | 56 | 9.45 | | 25 | 54 59' 57.32 | |
| 1 | d | 1.08529 | | | | | 54 50 | 1.22 | 0.80 | | 54 59' 57.32 | |
| 3 | (8) - D | 9.76922 | 9.76870 | | | | | -9.48 | | | - 4 | +12.86 |
| | δ_1 | 1.66 | 49 59.62 | | 59 29.9 | | | | | | - 33 | +15.82 |
| | | -13.55 | | | | | | | | | +11.69 | 15.17 |
| | | | | | | | | | | | + 50 | |
| | | | | | | | | | | | -23.00 | |
| | | | | | | | | | | | 54 59' 43.47 | |
| | | +33.15 | 1 20.9 | 23.9 | 48 | 2240 | 56 | 25.95 | | 25 | 54 59' 42.84 | |
| 7 | d | 1.52048 | | | | | 54 50 | 18.39 | | | 54 59' 52.56 | +12.22 |
| 9 | (8) - D | 9.90496 | 9.76922 | | | | | -35.55 | | | - 28 | +15.14 |
| 6 | δ_1 | 1.55080 | 1.41206 | | | | | -26.83 | | | - 27 | 15.68 |
| | | -1.66 | 49 59.65 | | 59 31.4 | | | | | | +13.17 | |
| | | -13.55 | | | | | | | | | + 30 | |
| | | | | | | | | | | | -23.80 | |
| | | | | | | | | | | | 57 44.34 | |
| | | +22.59 | 3 53.9 | 57.6 | 115 | 5375 | 23 | 52.60 | | 55 | 54 27' 20.44 | |
| 1 | d | 1.35392 | | | | | 54 27 | 44.34 | 43.95 | | 54 27' 26.55 | |
| 7 | (8) - D | 9.91051 | 9.76431 | | | | | -24.34 | -17.40 | | - 19 | +11.75 |
| 8 | δ_1 | 1.38679 | 1.24059 | | | | | | | | - 79 | 14.04 |
| | | -1.70 | 51 58.38 | | 27 3.8 | | | | | | +12.16 | |
| | | -13.67 | | | | | | | | | + 50 | |
| | | | | | | | | | | | -23.10 | |
| | | | | | | | | | | | 27 17.49 | |
| 2 | | +14.99 | 4 12 | 4.2 | 54 | 270 | 23 | 45.65 | | 55 | 54 27' 37.63 | |
| 8 | d | 1.17580 | | | | | 54 27 | 38.09 | | | 54 27' 26.54 | |
| 6 | (8) - D | 9.76431 | 9.76431 | | | | | -6.46 | | | - 6 | +12.31 |
| 0 | δ_1 | 1.06247 | 0.81030 | 0.60410 | | | | -46.14 | | | - 81 | 14.77 |
| 8 | | -1.70 | 51 58.48 | | 27 4.2 | | | -11.55 | | | +12.68 | |
| | | -13.67 | | | | | | | | | + 50 | |
| | | | | | | | | | | | -23.40 | |
| | | | | | | | | | | | 27 17.91 | |
| 0 | | +13.0 | 1 4.9 | 9.1 | 140 | 700 | 31 | 41.35 | | 50 | 50 35' 21.76 | |
| 7 | d | 1.11394 | | | | | 50 35 | 32.12 | 32.70 | | - 5 | +8.29 |
| 1 | (8) - D | 9.80259 | | | | | | -10.94 | | | - 22 | 10.60 |
| 4 | δ_1 | 1.03889 | | | | | | | | | + 8.21 | |
| | | -1.89 | 53 28.45 | | 34 55.7 | | | | | | + 35 | |
| | | -13.77 | | | | | | | | | -22.90 | |
| | | | | | | | | | | | 35 9.46 | |
| 8 | | +29.31 | 0 52.8 | 55.9 | 67 | 0 | 53.35 | 31 | 53.00 | | 50 50 35' 44.42 | |
| 8 | d | 1.24602 | | | | | 50 35 | 47.44 | | | 50 50 35' 22.78 | |
| 2 | (8) - D | 9.88803 | 9.80259 | | | | | -30.02 | | | - 23 | +8.47 |
| 14 | δ_1 | 1.47741 | 1.39197 | | | | | -24.66 | | | - 18 | 10.93 |
| 8 | | -1.89 | 53 28.27 | | 34 56.7 | | | | | | + 8.53 | |
| 8 | | -13.77 | | | | | | | | | + 35 | |
| | | | | | | | | | | | -23.20 | |
| | | | | | | | | | | | 35 10.51 | |

Date₁ = 1876 Oct. 10Observer
RecorderDate₂ = Oct. 12Observer
Recorder

54

1876phae,pr

| Star. | α | δ | Mag. | T_s | T_m | T_o | T_e | T_g | T_h | Sum | Mean | Red. to T_m | T |
|----------------------|-----------------|----------|------------|---------|-------------------------------|---------|-------|-------|-------|------|---------|---|---|
| 33 | 41.0 | 54° 42' | 7.5 6.4 | 20 53 | 53.7 58.0 0.9 58.20 | 56 12.7 | 16.3 | 18.9 | 23.4 | 27.0 | 993 | 56 1986 | 20 56 19.86 + 0.15 - 1.12 56 18.89 - 1.71 56 17.18 |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| α_1 | | | | | | | | | | | | | |
| κ | | | 7.0 | 53 57.5 | 56 11.7 | 15.3 | 18.9 | 22.4 | 26.0 | 943 | 56 1886 | 20 56 18.86 + 0.99 - 1.06 56 18.79 - 1.64 56 17.15 | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | |
| 56 | 26.2 | 50 53 | 9.0 9.1 | 57 2.5 | 57 2.5 | 5.8 | 9.1 | 12.1 | 15.6 | | | | 57 9.02 + 0.15 - .99 57 8.18 - 1.86 57 6.32 |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| α_1 | | | | | | | | | | | | | |
| κ | | | 9.0 | 56 34.0 | 57 1.6 | 4.8 | 8.0 | 11.0 | 14.4 | 398 | 57 796 | 20 57 7.96 + 0.99 - .94 57 8.01 - 1.80 57 6.21 | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | |
| 58 | 1.7 | 52 9 | 9.0 8.0 | 58 17.4 | 58 36.9 | 40.2 | — | 46.9 | 50.3 | | | | 58 43.58 + 0.15 - 1.02 58 42.71 - 1.83 58 40.88 |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| α_1 | | | | | | | | | | | | | |
| κ | | | 8.4 | 58 11.1 | 58 35.9 | 39.2 | 42.6 | 46.0 | 49.4 | 2131 | 58 4262 | 20 58 42.62 + 0.99 - .97 58 42.64 - 1.77 58 40.87 | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | |
| Single Observations. | | | | | | | | | | | | | |
| 20 | 45 34 | 50 4 | 8.9 8.8 | 20 48 | 21.0 24.8 27.0 24.27 | 45 40.9 | 44.1 | 47.3 | 50.5 | 53.8 | 2366 | 45 4732 | 20 45 47.32 + 0.15 - .95 45 46.52 - 1.78 45 44.74 |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| α_1 | | | | | | | | | | | | | |
| 20 | 54 24 | 54 43 | 9.0 9.0 | 20 54 | 11.0 13.6 17.0 13.87 | 54 26.0 | 29.6 | 33.2 | 36.8 | 40.4 | 1660 | 54 3320 | 20 54 33.20 + 0.99 - 1.06 54 33.13 - 1.62 54 31.51 |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | |
| 20 | 59 52 | 53 26 | 8.2 8.3 | 20 59 | 39.0 39.00 | 59 51.1 | 54.6 | 58.1 | 1.6 | 5.0 | 2904 | 59 5808 | 20 59 58.08 + 0.99 - 1.03 59 58.04 - 1.73 59 56.31 |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| α_1 | | | | | | | | | | | | | |
| 21 | 0 32 | 52 26 | 9.6 9.5 | 21 0 | 51 56.1 | 59.3 | 2.8 | 5.9 | 9.4 | 1351 | 270 | 21 1 2.70 + 0.99 - .99 1 2.70 - 1.79 01 0.91 | |
| (8) - D | κ'_{100} | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | |

Runs

+2.31

55

+2.46

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | 8' |
|----|---------------------------|----------|------|---------|------|--------------------|--------------------|--------------|--------|-------------|--------|
| 6 | +21.66 | 2 11.3 | 13.5 | 24.8 | 42 2 | 40 | 35.95 | | 40 | 54 44 42.8 | |
| 5 | 1.33566 | | | | | 54 44 | 24.49 | | | 10.72 | |
| 2 | 9.91194 | 9.76146 | | | | | -23.44 | 27.30 | | -12 | +12.39 |
| 1 | 1.36996 | 2.21948 | | | | | | -16.58 | | -44 | 14.70 |
| 8 | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +12.45 | |
| | -1.71 | | | | | | | | | +50 | |
| | -13.95 | 56 15.47 | | 43 48.1 | | | | | | -23.40 | |
| 86 | +18.73 | 2 13.7 | 16.5 | 10.2 | 42 2 | 40 | 33.25 | | 40 | 54 44 15.42 | |
| 99 | 1.27254 | | | | | 54 44 | 25.69 | | | 11.36 | |
| 06 | 9.91194 | 9.76146 | | | | | -20.24 | | | -9 | +12.92 |
| 4 | 1.30684 | 2.15636 | | | | | -14.33 | | | -45 | 15.38 |
| 1 | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +12.96 | |
| | -1.71 | | | | | | | | | +50 | |
| | -13.95 | 56 15.44 | | 43 49.1 | | | | | | -23.70 | |
| 2 | | | | | | | | | | 44 3.04 | |
| 5 | | 3 56.1 | 0.4 | 116.5 | 33 3 | 48 | 50.10 | | 30 | | |
| 9 | 9.88978 | 9.79996 | | | | 50 52 | 41.87 | 41.45 | | -79 | |
| 5 | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +8.50 | |
| 2 | -1.89 | | | | | | | | | +35 | |
| | -13.95 | 57 4.43 | | | | | | | | -23.18 | |
| 6 | +11.09 | 3 51.9 | 56.1 | 8.0 | 33 3 | 48 | 54.35 | | 30 | 50 52 35.39 | |
| 9 | 1.04493 | | | | | 50 52 | 46.79 | | | 37.52 | |
| 4 | 9.88978 | 9.79996 | | | | | -11.40 | | | -4 | +8.38 |
| 1 | 1.05707 | 2.09672 | | | | | -9.27 | | | -78 | 10.84 |
| 1 | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +8.85 | |
| | -1.89 | | | | | | | | | +35 | |
| | -14.00 | 57 4.32 | | 52 11.0 | | | | | | -23.40 | |
| 8 | | | | | | | | | | 52 24.96 | |
| 3 | +23.0 | 0 35.0 | 38.5 | 13.5 | 15 0 | 7 | 11.60 | | 15 | 52 10 44.26 | |
| 8 | 1.36173 | | | | | 52 11 | 3.37 | 2.95 | | -14 | +9.98 |
| 3 | 9.89767 | 9.78756 | | | | | | -18.67 | | -12 | 12.29 |
| 8 | 9.78756 | | | | | | | | | +9.84 | |
| 8 | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +40 | |
| | -1.85 | | | | | | | | | -23.30 | |
| | -14.09 | 58 39.03 | | 10 19.2 | | | | | | 10 33.25 | |
| 62 | +28.69 | 0 32.1 | 35.9 | 8.0 | 15 0 | 7 | 14.35 | | 15 | 52 10 36.75 | |
| 99 | 1.45773 | | | | | 52 11 | 6.79 | | | 43.47 | |
| 97 | 9.89767 | 9.78756 | | | | | -20.04 | | | -22 | +10.32 |
| 64 | 1.47770 | 2.36750 | | | | | -23.32 | | | -11 | 12.78 |
| 77 | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +10.25 | |
| 87 | -1.85 | | | | | | | | | +40 | |
| | -14.09 | 58 39.02 | | 10 18.6 | | | | | | -23.60 | |
| 32 | +23.05 | 0 45.7 | 50.2 | 95.9 | 20 0 | 2 | 0.40 | | 20 | 50 5 28.73 | |
| 15 | 1.36267 | | | | | 50 5 | 52.17 | 51.75 | | 32.15 | |
| 95 | 9.88489 | 9.80716 | | | | | -23.44 | -19.60 | | -14 | +7.71 |
| 52 | 1.36992 | 2.29219 | | | | | | | | -16 | 10.02 |
| 78 | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +7.71 | |
| 74 | -1.87 | | | | | | | | | +30 | |
| | -13.27 | 45 42.87 | | 5 6.5 | | | | | | -22.40 | |
| 20 | | | | | | | | | | 10 32.65 | |
| 99 | +19.03 | 1 59.6 | 2.7 | 122.3 | 42 2 | 40 | 47.20 | | 40 | 54 44 18.72 | |
| 06 | 1.25623 | | | | | 54 44 | 39.64 | | | 24.85 | |
| 13 | 9.91203 | 9.76129 | | | | | -20.92 | | | -9 | +12.00 |
| 62 | 1.32062 | 2.16988 | | | | | -14.79 | | | -40 | 15.46 |
| 51 | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +12.99 | |
| | -1.70 | | | | | | | | | +50 | |
| | -13.84 | 54 29.81 | | 44 2.9 | | | | | | -23.60 | |
| 8 | +19.08 | 2 53.8 | 57.7 | 11.5 | 2 2 | 24 | 52.60 | | 55 | 53 28 24.72 | |
| 3 | 1.28058 | | | | | 53 28 | 45.04 | | | 29.99 | |
| 24 | 9.90509 | 9.77456 | | | | | -20.92 | | | -59 | |
| 73 | 1.30803 | 2.17750 | | | | | -15.05 | | | +11.62 | |
| 4 | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +45 | |
| 5 | -1.80 | | | | | | | | | -23.70 | |
| | -14.18 | 59 54.51 | | 28 6.0 | | | | | | 28 20.14 | |
| 99 | +19.03 | 1 59.6 | 2.7 | 122.3 | 42 2 | 40 | 47.20 | | 40 | 54 44 18.72 | |
| 06 | 1.25623 | | | | | 54 44 | 39.64 | | | 24.85 | |
| 13 | 9.91203 | 9.76129 | | | | | -20.92 | | | -9 | +12.00 |
| 62 | 1.32062 | 2.16988 | | | | | -14.79 | | | -40 | 15.46 |
| 51 | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +12.99 | |
| | -1.70 | | | | | | | | | +50 | |
| | -13.84 | 54 29.81 | | 44 2.9 | | | | | | -23.60 | |
| 8 | +19.08 | 2 53.8 | 57.7 | 11.5 | 2 2 | 24 | 52.60 | | 55 | 53 28 24.72 | |
| 3 | 1.28058 | | | | | 53 28 | 45.04 | | | 29.99 | |
| 24 | 9.90509 | 9.77456 | | | | | -20.92 | | | -59 | |
| 73 | 1.30803 | 2.17750 | | | | | -15.05 | | | +11.62 | |
| 4 | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +45 | |
| 5 | -1.80 | | | | | | | | | -23.70 | |
| | -14.18 | 59 54.51 | | 28 6.0 | | | | | | 28 20.14 | |
| 99 | +19.03 | 1 59.6 | 2.7 | 122.3 | 42 2 | 40 | 47.20 | | 40 | 54 44 18.72 | |
| 06 | 1.25623 | | | | | 54 44 | 39.64 | | | 24.85 | |
| 13 | 9.91203 | 9.76129 | | | | | -20.92 | | | -9 | +12.00 |
| 62 | 1.32062 | 2.16988 | | | | | -14.79 | | | -40 | 15.46 |
| 51 | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +12.99 | |
| | -1.70 | | | | | | | | | +50 | |
| | -13.84 | 54 29.81 | | 44 2.9 | | | | | | -23.60 | |
| 8 | +19.08 | 2 53.8 | 57.7 | 11.5 | 2 2 | 24 | 52.60 | | 55 | 53 28 24.72 | |
| 3 | 1.28058 | | | | | 53 28 | 45.04 | | | 29.99 | |
| 24 | 9.90509 | 9.77456 | | | | | -20.92 | | | -59 | |
| 73 | 1.30803 | 2.17750 | | | | | -15.05 | | | +11.62 | |
| 4 | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +45 | |
| 5 | -1.80 | | | | | | | | | -23.70 | |
| | -14.18 | 59 54.51 | | 28 6.0 | | | | | | 28 20.14 | |
| 99 | +19.03 | 1 59.6 | 2.7 | 122.3 | 42 2 | 40 | 47.20 | | 40 | 54 44 18.72 | |
| 06 | 1.25623 | | | | | 54 44 | 39.64 | | | 24.85 | |
| 13 | 9.91203 | 9.76129 | | | | | -20.92 | | | -9 | +12.00 |
| 62 | 1.32062 | 2.16988 | | | | | -14.79 | | | -40 | 15.46 |
| 51 | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +12.99 | |
| | -1.70 | | | | | | | | | +50 | |
| | -13.84 | 54 29.81 | | 44 2.9 | | | | | | -23.60 | |
| 8 | +19.08 | 2 53.8 | 57.7 | 11.5 | 2 2 | 24 | 52.60 | | 55 | 53 28 24.72 | |
| 3 | 1.28058 | | | | | 53 28 | 45.04 | | | 29.99 | |
| 24 | 9.90509 | 9.77456 | | | | | -20.92 | | | -59 | |
| 73 | 1.30803 | 2.17750 | | | | | -15.05 | | | +11.62 | |
| 4 | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +45 | |
| 5 | -1.80 | | | | | | | | | -23.70 | |
| | -14.18 | 59 54.51 | | 28 6.0 | | | | | | 28 20.14 | |
| 99 | +19.03 | 1 59.6 | 2.7 | 122.3 | 42 2 | 40 | 47.20 | | 40 | 54 44 18.72 | |
| 06 | 1.25623 | | | | | 54 44 | 39.64 | | | 24.85 | |
| 13 | 9.91203 | 9.76129 | | | | | -20.92 | | | -9 | +12.00 |
| 62 | 1.32062 | 2.16988 | | | | | -14.79 | | | -40 | 15.46 |
| 51 | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +12.99 | |
| | -1.70 | | | | | | | | | +50 | |
| | -13.84 | 54 29.81 | | 44 2.9 | | | | | | -23.60 | |
| 8 | +19.08 | 2 53.8 | 57.7 | 11.5 | 2 2 | 24 | 52.60 | | 55 | 53 28 24.72 | |
| 3 | 1.28058 | | | | | 53 28 | 45.04 | | | 29.99 | |
| 24 | 9.90509 | 9.77456 | | | | | -20.92 | | | -59 | |
| 73 | 1.30803 | 2.17750 | | | | | -15.05 | | | +11.62 | |
| 4 | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +45 | |
| 5 | -1.80 | | | | | | | | | -23.70 | |
| | -14.18 | 59 54.51 | | 28 6.0 | | | | | | 28 20.14 | |
| 99 | +19.03 | 1 59.6 | 2.7 | 122.3 | 42 2 | 40 | 47.20 | | 40 | 54 44 18.72 | |
| 06 | 1.25623 | | | | | 54 44 | 39.64 | | | 24.85 | |
| 13 | 9.91203 | 9.76129 | | | | | -20.92 | | | -9 | +12.00 |
| 62 | 1.32062 | 2.16988 | | | | | -14.79 | | | -40 | 15.46 |
| 51 | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +12.99 | |
| | -1.70 | | | | | | | | | +50 | |
| | -13.84 | 54 29.81 | | 44 2.9 | | | | | | -23.60 | |
| 8 | +19.08 | 2 53.8 | 57.7 | 11.5 | 2 2 | 24 | 52.60 | | 55 | 53 28 24.72 | |
| 3 | 1.28058 | | | | | 53 28 | 45.04 | | | 29.99 | |
| 24 | 9.90509 | 9.77456 | | | | | -20.92 | | | -59 | |
| 73 | 1.30803 | 2.17750 | | | | | -15.05 | | | +11.62 | |
| 4 | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +45 | |
| 5 | -1.80 | | | | | | | | | -23.70 | |
| | -14.18 | 59 54.51 | | 28 6.0 | | | | | | 28 20.14 | |
| 99 | +19.03 | 1 59.6 | 2.7 | 122.3 | 42 2 | 40 | 47.20 | | 40 | 54 44 18.72 | |
| 06 | 1.25623 | | | | | 54 44 | 39.64 | | | 24.85 | |
| 13 | 9.91203 | 9.76129 | | | | | -20.92 | | | -9 | +12.00 |
| 62 | 1.32062 | 2.16988 | | | | | -14.79 | | | -40 | 15.46 |
| 51 | (8) - D) $\frac{d'}{100}$ | | | | | | | | | +12.99 | |
| | -1.70 | | | | | | | | | +50 | |
| | -13.84 | 54 29.81 | | 44 2.9 | | | | | | -23.60 | |
| 8 | +19.08 | 2 53.8 | 57.7 | 11.5 | 2 2 | 24 | 52.60 | | 55 | 53 28 24.72 | |
| 3 | 1.28058 | | | | | 53 28 | 45.04 | | | 29.99 | |
| 24 | 9.90509 | 9.77456 | | | | | -20.92 | | | -59 | |
| 73 | 1.30803 | | | | | | | | | | |

Date₁ = 1876 Oct. 12 ⁴⁹⁰

Observer
Recorder

Date, =

Observer
Recorder

56

[illegible]

Runs

57

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|-----------------------------------|---|-------------------|------|---------|-----------|--------------------|--------------------|--------------|--------|-------------|-----------|
| | +24.07 1.38148 9.90422 1.41106 | 4 13.1 1.27445 | 15.7 | 8.8 | 3.4 14.40 | 48' | 33.95 | | 30 | 53 52' 0.62 | |
| d | | | | | | 53 52 | 26.89 | | | 7.58 | |
| (δ) - D $\frac{d'}{100}$ | | | | | | | -25.77 | | | -15 | +11.55 |
| δ_1 | -1.79 -14.32 | 2 16.85 | | 51 43.4 | | | -18.81 | | | -85 | 14.01 |
| | | | | | | | | | | +12.05 | |
| | | | | | | | | | | +50 | |
| | | | | | | | | | | -23.90 | |
| | | | | | | | | | | 51 57.69 | |
| | +33.64 1.51196 9.89995 1.53427 | 1 33.4 1.41794 | 36.9 | 10.3 | 51 35.15 | 31 | 13.20 | | 50 | 52 34 31.42 | |
| d | | | | | | 52 35 | 5.64 | | | 39.46 | |
| (δ) - D $\frac{d'}{100}$ | | | | | | | -34.22 | | | -29 | +10.5945 |
| δ_2 | -1.87 -14.55 | 6 7.24 | | 34 13.8 | | | -26.18 | | | -32 | 12.91 |
| | | | | | | | | | | +10.66 | |
| | | | | | | | | | | +40 | |
| | | | | | | | | | | -24.00 | |
| | | | | | | | | | | 34 28.37 | |
| | +41.19 1.61179 9.90374 1.64092 | 1 40.1 1.51409 | 41.9 | 2.0 | 11 41.00 | 11 | 7.35 | | 10 | 53 14 16.05 | |
| d | | | | | | 53 14 | 59.79 | | | 27.12 | |
| (δ) - D $\frac{d'}{100}$ | | | | | | | -43.74 | | | -44 | +10.90 |
| δ_1 | -1.85 -14.65 | 7 47.73 | | 14 1.8 | | | -32.67 | | | -34 | 13.45 |
| | | | | | | | | | | +11.37 | |
| | | | | | | | | | | +40 | |
| | | | | | | | | | | -24.10 | |
| | | | | | | | | | | 14 16.47 | |
| | +21.51 1.33264 9.90462 1.35962 | 2 54.0 1.23041 | 57.1 | 11.1 | 2 55.55 | 19 | 52.80 | | 0 | 53 23 22.35 | |
| d | | | | | | 53 23 | 15.24 | | | -12 | +11.29 |
| (δ) - D $\frac{d'}{100}$ | | | | | | | -22.89 | | | -59 | 13.43 |
| δ_2 | -1.85 -14.70 | 8 37.83 | | 23 3.0 | | | -17.00 | | | +11.53 | |
| | | | | | | | | | | +45 | |
| | | | | | | | | | | -24.20 | |
| | | | | | | | | | | 22 57.09 | |
| | +24.59 1.39076 9.89693 1.41005 | 2 23.5 1.30181 | 27.8 | 11.3 | 2 25.65 | 0 | 22.70 | | 20 | 52 34 49.43 | |
| d | | | | | | 52 4 | 15.14 | | | 55.70 | |
| (δ) - D $\frac{d'}{100}$ | | | | | | | -25.77 | | | -16 | +9.88 |
| δ_1 | -1.91 -14.77 | 9 46.54 | | 3 28.6 | | | -20.04 | | | -48 | 12.34 |
| | | | | | | | | | | +10.12 | |
| | | | | | | | | | | +40 | |
| | | | | | | | | | | -24.10 | |
| | | | | | | | | | | 3 43.34 | |
| d | | | | | | | | | | | |
| (δ) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | | | | | | | | | |

Date₁ = 1876 Oct. 15
 $\eta = -.72$

Observer
 Recorder

Date₂ = Oct. 16
 $\eta = -.67$

Observer
 Recorder

58

| Star. | α | δ | Mag. | T_s | T_m | T_e | T_f | T_g | T_h | Sum | Mean | Red. to T_m | T |
|------------|-----------|----------|------|--------|---------|---------|-------|-------|-------|-------|----------|---------------|-------------|
| 44 | 16 | 54 39 | 8.8 | 20 44 | 0.9 44 | 180 | 21.6 | 25.1 | 28.6 | 32.3 | 12.56 | 44 2512 | 20 44 2512 |
| | 43 | 48.6 | 9.0 | | 4.8 | | | | | | | +1.25 | 44 26.37 |
| | | | | | 8.0 | | | | | | | | 44 24.95 |
| | | | | | 4.57 | | | | | | | | |
| (8) — D | κ' | | | | | | | | | | | | |
| α_1 | | | | | | | | | | | | | |
| | | | 9.0 | 43 | 40.5 | 44 17.8 | 21.3 | 24.7 | 28.4 | 32.0 | 12.42 | 44 24.84 | 20 44 24.84 |
| | | | | | 43.6 | | | | | | | +1.60 | 44 26.44 |
| | | | | | 46.1 | | | | | | | | 44 25.06 |
| | | | | | 43.40 | | | | | | | | |
| (8) — D | κ' | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | |
| 45 | 34 | 50 50 | 6.7 | 45 112 | 45 120 | 45.2 | 48.5 | 57.8 | 53.0 | 24.25 | 45 48.50 | 20 45 48.50 | |
| | 45 | 9.9 | 6.3 | | 13.6 | | | | | | | +1.37 | 45 48.50 |
| | | | | | 15.9 | | | | | | | | 45 49.57 |
| | | | | | 13.57 | | | | | | | | 45 48.76 |
| (8) — D | κ' | | | | | | | | | | | | |
| α_1 | | | | | | | | | | | | | |
| | | | 7.0 | 45 | 35.5 | 45 41.6 | 44.9 | 48.1 | 57.4 | 54.6 | 24.06 | 45 48.12 | 20 45 48.12 |
| | | | | | 38.9 | | | | | | | +1.72 | 45 49.54 |
| | | | | | 40.2 | | | | | | | | 45 48.56 |
| | | | | | 37.87 | | | | | | | | |
| (8) — D | κ' | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | |
| 47 | 28 | 51 26 | 9.1 | 47 53 | 47 33.1 | 36.4 | 39.8 | 42.0 | 46.6 | 19.89 | 47 39.78 | 20 47 39.78 | |
| | 46 | 59.8 | 9.0 | | 8.4 | | | | | | | +1.36 | 47 41.14 |
| | | | | | 10.8 | | | | | | | | 47 39.53 |
| | | | | | 8.17 | | | | | | | | |
| (8) — D | κ' | | | | | | | | | | | | |
| α_1 | | | | | | | | | | | | | |
| | | | 9.2 | 47 | 52 | 47 32.7 | 36.0 | 39.4 | 42.7 | 46.0 | 19.68 | 47 39.36 | 20 47 39.36 |
| | | | | | 8.4 | | | | | | | +1.70 | 47 41.06 |
| | | | | | 10.9 | | | | | | | | 47 39.48 |
| | | | | | 8.17 | | | | | | | | |
| (8) — D | κ' | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | |
| 48 | 32 | 52 10 | 9.0 | 48 6.9 | 48 34.8 | 38.4 | 41.7 | 45.2 | 48.5 | 20.86 | 48 41.72 | 20 48 41.72 | |
| | 48 | 3.7 | 9.0 | | 10.1 | | | | | | | +1.34 | 48 43.06 |
| | | | | | 13.1 | | | | | | | | 48 41.48 |
| | | | | | 10.03 | | | | | | | | |
| (8) — D | κ' | | | | | | | | | | | | |
| α_1 | | | | | | | | | | | | | |
| | | | 9.0 | 48 | 24.8 | 48 34.6 | 38.1 | 41.4 | 44.7 | 48.0 | 20.68 | 48 41.36 | 20 48 41.36 |
| | | | | | 27.4 | | | | | | | +1.68 | 48 43.04 |
| | | | | | 30.3 | | | | | | | | 48 41.49 |
| | | | | | 27.50 | | | | | | | | |
| (8) — D | κ' | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | |
| 49 | 53 | 54 58 | 8.8 | 50 0.7 | 49 54.3 | 57.9 | 1.5 | 3.0 | 8.7 | 7.45 | 1.48 | 20 50 1.48 | |
| | 49 | 26.2 | 9.0 | | 3.0 | | | | | | | +1.33 | 50 2.71 |
| | | | | | 5.6 | | | | | | | | 50 1.24 |
| | | | | | 3.10 | | | | | | | | |
| (8) — D | κ' | | | | | | | | | | | | |
| α_1 | | | | | | | | | | | | | |
| | | | 9.1 | 49 | 40.5 | 49 53.9 | 57.4 | 1.0 | 4.7 | 8.1 | 51.50 | 102 | 50 1.02 |
| | | | | | 43.8 | | | | | | | +1.58 | 50 2.60 |
| | | | | | 47.1 | | | | | | | | 50 1.43 |
| | | | | | 43.80 | | | | | | | | 50 1.17 |
| (8) — D | κ' | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | |

Runs

Oct 15 + 3' 53.49 52.47 -21 +2.75
 16 + 3 52.41 -21 +2.34

+275

59

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|------------|-----------|----------|------|---------|----------|--------------------|--------------------|--------------|--------|-------------|------------|
| | +20.55 | 0 30.9 | 32.9 | 38.0 | 45 31.90 | 37 | 16.45 | | 45 | 54 40 47.72 | |
| d | 1.31281 | | | | | 54 41 | 9.94 | 8.92 | | 53.17 | |
| (8) - D | 9.91164 | 9.76200 | | | | | -22.22 | -15.75 | | -11 | +13.34 |
| | 1.34684 | 1.19717 | | | | | | | | +13.03 | 16.06 |
| δ_1 | -1.65 | 44 23.30 | | 40 32.8 | | | | | | +50 | |
| δ_2 | -13.18 | | | | | | | | | -23.30 | |
| | | | | | | | | | | 40 45.93 | |
| | +41.44 | 0 13.1 | 13.9 | 1.0 | 45 13.50 | 37 | 34.85 | | 45 | 54 40 42.44 | |
| d | 1.61742 | | | | | 54 41 | 27.26 | | | 55.51 | |
| (8) - D | 9.91164 | 9.76200 | | | | | -44.52 | | | -44 | +12.78 |
| | 1.65145 | 1.50178 | | | | | -31.75 | | | -4 | 15.12 |
| δ_1 | -1.65 | 44 23.41 | | 40 34.0 | | | | | | +12.76 | |
| δ_2 | -13.18 | | | | | | | | | +50 | |
| | | | | | | | | | | -23.40 | |
| | | | | | | | | | | 40 47.23 | |
| | +34.93 | 4 42.4 | 44.5 | 6.9 | 34 43.45 | 48 | 4.90 | | 30 | 50 51 22.78 | |
| d | 1.544320 | | | | | 50 51 | 58.39 | 57.34 | | 28.15 | Ex minutes |
| (8) - D | 9.88968 | 9.80012 | | | | | -55.94 | -29.22 | | -33 | +79.4 |
| | 1.55524 | 1.46568 | | | | | | | | -99 | 10.69 |
| δ_1 | -1.84 | 45 46.42 | | 51 2.6 | | | | | | +8.91 | |
| δ_2 | -13.28 | | | | | | | | | +35 | |
| | | | | | | | | | | -23.00 | |
| | | | | | | | | | | 51 15.84 | |
| | +10.25 | 4 1.9 | 6.3 | 8.2 | 34 4.10 | 48 | 44.25 | | 30 | 50 52 26.72 | |
| d | 1.01072 | | | | | 50 52 | 36.66 | | | 28.09 | |
| (8) - D | 9.88978 | 9.79996 | | | | | -14.64 | | | -3 | +16.14 |
| | 1.02286 | 0.93304 | | | | | -8.57 | | | -86 | 10.53 |
| δ_1 | -1.84 | 45 46.42 | | 51 2.2 | | | | | | +8.73 | |
| δ_2 | -13.28 | | | | | | | | | +35 | |
| | | | | | | | | | | -23.10 | |
| | | | | | | | | | | 51 15.84 | |
| | +31.61 | 3 52.2 | 55.9 | 8.1 | 58 54.05 | 23 | 54.30 | | 55 | 51 27 15.82 | |
| d | 1.49982 | | | | | 51 27 | 47.49 | 46.77 | | 20.67 | |
| (8) - D | 9.89334 | 9.79447 | | | | | -32.74 | -26.10 | | -26 | +8.82 |
| | 1.51552 | 1.41665 | | | | | | | | -82 | 11.57 |
| δ_1 | -1.82 | 47 37.24 | | 26 55.6 | | | | | | +9.55 | |
| δ_2 | -13.39 | | | | | | | | | +35 | |
| | | | | | | | | | | -23.20 | |
| | | | | | | | | | | 27 9.04 | |
| | +31.19 | 3 52.2 | 54.9 | 7.1 | 58 53.65 | 23 | 54.50 | | 55 | 51 27 14.84 | |
| d | 1.49402 | | | | | 51 27 | 47.21 | | | 21.46 | |
| (8) - D | 9.89334 | 9.79447 | | | | | -32.54 | | | -26 | +8.62 |
| | 1.50972 | 1.41085 | | | | | -25.75 | | | -82 | 10.96 |
| δ_1 | -1.82 | 47 37.66 | | 26 55.7 | | | | | | +9.35 | |
| δ_2 | -13.39 | | | | | | | | | +35 | |
| | | | | | | | | | | -23.30 | |
| | | | | | | | | | | 27 9.12 | |
| | +31.69 | 4 35.4 | 36.1 | 11.5 | 14 35.75 | 8 | 12.60 | | 10 | 52 12 32.40 | |
| d | 1.50092 | | | | | 52 12 | 6.09 | 5.07 | | 39.33 | |
| (8) - D | 9.89441 | 9.78739 | | | | | -33.79 | -25.74 | | -26 | +9.54 |
| | 1.52099 | 1.41067 | | | | | | | | -97 | 12.26 |
| δ_1 | -1.80 | 48 39.68 | | 11 14.8 | | | | | | +10.34 | |
| δ_2 | -13.46 | | | | | | | | | +40 | |
| | | | | | | | | | | -23.30 | |
| | | | | | | | | | | 11 28.29 | |
| | +13.86 | 4 48.0 | 50.2 | 98.2 | 14 49.10 | 52 | 59.25 | | 10 | 52 11 37.44 | |
| d | 1.14176 | | | | | | 51.66 | | | 40.40 | |
| (8) - D | 9.89441 | 9.78739 | | | | | -44.52 | | | -5 | +9.47 |
| | 1.16183 | 1.05151 | | | | | -11.26 | | | -101 | 11.81 |
| δ_1 | -1.80 | 48 39.69 | | 11 15.4 | | | | | | +10.13 | |
| δ_2 | -13.46 | | | | | | | | | +40 | |
| | | | | | | | | | | -23.40 | |
| | | | | | | | | | | 11 28.81 | |
| | -1.62 | 1 51.8 | 53.0 | 4.8 | 26 52.40 | 55 | 55.95 | | 25 | 54 59 51.20 | |
| d | 0.20952 | | | | | 54 59 | 47.44 | 48.42 | | 49.65 | |
| (8) - D | 9.91336 | 9.75859 | | | | | -47.76 | +1.23 | | -0 | +13.49 |
| | 0.24524 | 0.09047 | | | | | | | | -40 | 16.24 |
| δ_1 | -1.66 | 49 59.58 | | 59 28.6 | | | | | | +13.39 | |
| δ_2 | -13.55 | | | | | | | | | +50 | |
| | | | | | | | | | | -23.70 | |
| | | | | | | | | | | 59 42.19 | |
| | +14.22 | 1 34.9 | 37.0 | 11.9 | 26 35.95 | 56 | 12.40 | | 25 | 54 59 46.71 | |
| d | 1.23603 | | | | | 55 0 | 4.87 | | | 51.72 | |
| (8) - D | 9.91336 | 9.75859 | | | | | -16.42 | | | -7 | +13.14 |
| | 1.27175 | 1.11698 | | | | | -13.09 | | | -34 | 15.53 |
| δ_1 | -1.66 | 49 59.51 | | 59 29.9 | | | | | | +13.10 | |
| δ_2 | -13.55 | | | | | | | | | +50 | |
| | | | | | | | | | | -23.80 | |
| | | | | | | | | | | 59 43.45 | |

Date₁ = 1876 Oct 15Observer
RecorderDate₂ = Oct 16Observer
Recorder

60

1876page: p

| Star. | α | δ | Mag. | T_s | T_m | T_a | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T |
|-------------------------------|-----------------|------------|------------------------------------|--------|-------|-------|-------|-------|-------|---------|------|---|-----|
| 57 19 50 50.4 κ | 54 1 53 57.1 | 8.9 9.0 | 20 37 53 8.7 12.0 8.67 | 57 201 | 24.0 | 27.7 | 30.6 | 34.3 | 13 64 | 57 2728 | 20 | 51 2728 + 2.26 - 99 51 28.55 - 1.53 51 27.02 | |
| ((8) - D) κ'_{100} | | | | | | | | | | | | +1.37 | |
| a_1 | | | | | | | | | | | | | |
| 50 32.1 κ | 54 2.8 | 8.4 | 50 46.8 49.3 52.2 49.43 | 57 1.0 | 4.6 | 8.1 | 11.5 | 15.1 | 403 | 51 806 | 20 | 51 8.06 + 2.54 - 92 51 9.68 - 1.49 51 7.93 8.17 | |
| ((8) - D) κ'_{100} | | | | | | | | | | | | +1.62 | |
| a_2 | | | | | | | | | | | | | |
| 52 19 51 50.2 κ | 50 14 10.4 | 5.8 5.5 | 32 0.0 2.6 5.7 2.77 | 52 233 | 26.0 | 29.7 | 32.9 | 36.4 | 14 88 | 52 2976 | 20 | 52 29.76 + 2.26 - 86 52 31.16 - 1.70 52 29.46 | |
| ((8) - D) κ'_{100} | | | | | | | | | | | | +1.40 | |
| a_1 | | | | | | | | | | | | | |
| κ | | 6.4 | 52 2.0 4.8 7.3 4.70 | 52 230 | 26.3 | 29.5 | 32.6 | 35.9 | 14 73 | 52 2946 | 20 | 52 29.46 + 2.54 - 80 52 31.20 - 1.68 52 29.52 | |
| ((8) - D) κ'_{100} | | | | | | | | | | | | +1.74 | |
| a_2 | | | | | | | | | | | | | |
| 53 19 52 49.8 κ | 50 34 30.4 | 9.0 9.3 | 52 53.9 52.0 58.6 56.17 | 58 240 | 27.3 | 30.5 | 33.7 | 37.1 | 15 26 | 53 3052 | 20 | 53 30.52 + 2.26 - 87 53 31.91 - 1.70 53 30.21 | |
| ((8) - D) κ'_{100} | | | | | | | | | | | | +1.39 | |
| a_1 | | | | | | | | | | | | | |
| κ | | 9.3 | 53 55 8.7 11.4 8.583 | 53 237 | 26.7 | 30.2 | 33.2 | 36.6 | 15 04 | 53 3008 | 20 | 53 30.08 + 2.54 - 81 53 31.81 - 1.67 53 30.02 1.4 | |
| ((8) - D) κ'_{100} | | | | | | | | | | | | +1.73 | |
| a_2 | | | | | | | | | | | | | |
| 21 5 56 5 25.6 κ | 53 14 9.8 | 8.4 8.1 | 21 5 30.2 32.9 36.0 33.03 | 5 544 | 1.1 | 4.5 | 8.0 | 11.5 | 2 28 | 5 456 | 21 | 6 4.56 + 2.26 - 96 6 5.86 - 1.72 6 4.14 | |
| ((8) - D) κ'_{100} | | | | | | | | | | | | +1.30 | |
| a_1 | | | | | | | | | | | | | |
| κ | | 8.3 | 5 28.7 31.4 34.4 31.00 | 5 57.2 | 0.6 | 4.1 | 7.6 | 11.0 | 3 20 | 5 6 410 | 21 | 6 4.10 + 2.54 - 90 6 5.74 - 1.69 6 4.05 | |
| ((8) - D) κ'_{100} | | | | | | | | | | | | +1.64 | |
| a_2 | | | | | | | | | | | | | |
| 7 42 7 141 κ | 53 14 9.7 | 6.7 6.5 | 7 14.0 16.8 19.6 16.80 | 7 437 | 46.4 | 49.9 | 53.5 | 57.0 | 25 00 | 7 5000 | 21 | 7 30.00 + 2.26 - 96 7 51.30 - 1.74 7 49.56 | |
| ((8) - D) κ'_{100} | | | | | | | | | | | | +1.30 | |
| a_1 | | | | | | | | | | | | | |
| κ | | 7.4 | 7 17.5 20.4 22.8 20.23 | 7 425 | 46.0 | 49.5 | 52.9 | 56.5 | 24 74 | 7 4948 | 21 | 7 49.48 + 2.54 - 90 7 51.12 - 1.71 7 49.41 | |
| ((8) - D) κ'_{100} | | | | | | | | | | | | +1.64 | |
| a_2 | | | | | | | | | | | | | |

| | $T_m - T_s$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|------------------|---|----------|---------|-------|----------|--------------------|--------------------|--------------|--------|------|-----------|
| d | +18.61 1.26975 9.90814 1.30025 | 4' 43.5 | 43.0 | 0 | 4' 43.25 | 58' | 5.10 | 57.57 | 20 | 54.1 | 43.08 |
| (δ) - D | $\frac{d'}{100}$ | | | | | | | | | | |
| δ_1 | -1.72 -13.64 | 51 25.30 | 1 20.2 | | | | | | | | |
| d | +18.63 1.27021 9.90869 1.30126 | 3 59.3 | 1.0 | 120.3 | 4 | 0.15 | 48.20 | 40.61 | 15 | 7 | 26.14 |
| (δ) - D | $\frac{d'}{100}$ | | | | | | | | | | |
| δ_1 | -1.72 -13.61 | 51 6.47 | 7 2.8 | | | | | | | | |
| d | +26.99 1.43120 9.88594 1.43950 | 0 53.8 | 57.5 | 11.3 | 0 | 55.65 | 52.90 | 45.17 | 10 | 50 | 15 16.68 |
| (δ) - D | $\frac{d'}{100}$ | | | | | | | | | | |
| δ_1 | -1.90 -13.70 | 52 27.56 | 14 56.1 | | | | | | | | |
| d | +24.76 1.39375 9.88594 1.40205 | 0 54.5 | 58.7 | 13.2 | 0 | 56.60 | 51.75 | 44.16 | 10 | 50 | 15 18.92 |
| (δ) - D | $\frac{d'}{100}$ | | | | | | | | | | |
| δ_1 | -1.90 -13.70 | 52 27.62 | 14 56.4 | | | | | | | | |
| d | +34.35 1.53593 9.88803 1.54632 | 0 45.9 | 49.1 | 15.0 | 0 | 47.50 | 0.55 | 53.32 | 50 | 50 | 35 19.16 |
| (δ) - D | $\frac{d'}{100}$ | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | +21.55 1.33345 9.88803 1.34384 | 0 57.4 | 1.4 | 11.8 | 0 | 59.40 | 48.95 | 41.36 | 50 | 50 | 35 19.29 |
| (δ) - D | $\frac{d'}{100}$ | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | +31.53 1.49872 9.90377 1.52485 | 1 47.9 | 48.5 | 16.4 | 1 | 48.20 | 0.15 | 52.62 | 10 | 53 | 14 20.16 |
| (δ) - D | $\frac{d'}{100}$ | | | | | | | | | | |
| δ_1 | -1.84 -14.35 | 6 2.30 | 14 2.8 | | | | | | | | |
| d | +32.60 1.51322 9.90377 1.53935 | 1 45.9 | 47.1 | 13.0 | 1 | 46.50 | 1.85 | 54.86 | 10 | 53 | 14 17.40 |
| (δ) - D | $\frac{d'}{100}$ | | | | | | | | | | |
| δ_1 | -1.84 -14.35 | 6 2.21 | 14 2.8 | | | | | | | | |
| d | +33.20 1.52114 9.90377 1.54727 | 1 47.9 | 48.9 | 16.8 | 1 | 48.40 | 10 | 54.95 | 10 | 53 | 14 18.18 |
| (δ) - D | $\frac{d'}{100}$ | | | | | | | | | | |
| δ_1 | -1.85 -14.65 | 7 47.71 | 14 0.8 | | | | | | | | |
| d | +29.25 1.46613 9.90377 1.49226 | 1 49.7 | 52.1 | 101.8 | 1 | 50.90 | 57.45 | 49.86 | 10 | 53 | 14 18.80 |
| (δ) - D | $\frac{d'}{100}$ | | | | | | | | | | |
| δ_1 | -1.85 -14.65 | 7 47.56 | 14 0.7 | | | | | | | | |

Date₁ = 1876 Oct. 15

491

Observer
RecorderDate₂ = Oct. 16

492

Observer
Recorder

62

[illegible]

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | $+2.75$ $+2.34$ z | δ' |
|-----------------------------------|---|-------------------------------|------|---------|-------------|--------------------|------------------------------------|-----------------|--------|--|-----------|
| d | +29.07 1.46345 9.91363 1.49944 | 3' 38.1 9.75805 1.34386 | 38.2 | 3 | 23 38.15 | 59 58 | 10.20 3.69 -31.58 | 2.67 -22.07 | 20 | 55' 2' 32.11 40.60 -22 -76 +13.41 +50 -24.70 2 31.58 | |
| (δ) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | -1.78 -14.73 | 9 3.77 | | 2 16.8 | | | | | | | |
| d | +14.32 1.15594 9.91363 1.19193 | 3 49.1 9.75805 1.03635 | 50.1 | 992 | 3 49.60 | 58 55 | 58.75 51.16 -15.56 -10.87 | | 20 | 55' 2' 35.60 40.29 -5 -80 +13.15 +50 -24.80 2 30.63 | |
| (δ) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | -1.78 -14.73 | 9 3.68 | | 2 15.9 | | | | | | | |
| d | +28.19 1.45010 9.89314 1.46560 | 0 12.1 9.79478 1.36724 | 13.9 | 6.0 | 0 13.00 | 22 51 | 35.35 28.54 -29.21 | 27.82 -23.29 | 0 | 57' 25' 59.63 26 4.53 -21 -4 +9.53 +35 -24.60 25 52.31 | |
| (δ) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | -1.94 -14.79 | 10 4.89 | | 25 37.5 | | | | | | | |
| d | +19.17 1.28262 9.89324 1.29822 | 0 17.6 9.79463 1.19961 | 20.5 | 38.1 | 0 19.05 | 22 51 | 29.30 21.71 -12.87 -15.83 | | 0 | 57' 26' 11.54 15.88 -10 -6 +9.32 +35 -24.70 25 53.03 | |
| (δ) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | -1.94 -14.79 | 10 4.85 | | 25 38.2 | | | | | | | |
| d | +12.77 1.10619 9.89732 1.12587 | 3 50.9 9.78805 1.01660 | 54.1 | 5.0 | 3 52.50 | 3 52 | 55.85 49.34 -12.86 | 48.32 -10.39 | 15 | 52' 7' 35.94 37.93 -5 -82 +10.27 +40 -23.20 7 27.28 | |
| (δ) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | -1.79 -13.31 | 46 22.43 | | 7 12.0 | | | | | | | |
| d | +30.54 1.41848 9.88543 1.49296 | 2 13.6 9.80595 1.41318 | 15.1 | 8.7 | 2 14.35 | 10 50 | 34.00 27.44 -31.11 -25.89 | 26.47 | 10 | 50' 13' 56.55 14 0.60 -25 -46 +8.25 +30 -24.50 13 46.69 | |
| (δ) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | -1.99 -14.86 | 11 19.96 | | 13 31.8 | | | | | | | |
| d | +29.4 1.46885 9.88644 9.80489 1.39560 | 8 15.3 9.80489 | 17.7 | 13.0 | 0 16.50 | 50 | 31.85 25.34 -24.87 | 24.32 | 40 | 13 59.45 -23 -6 +8.38 +30 -24.60 45 45.99 | |
| (δ) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | -1.98 -14.92 | 23.86 12 27.82 | | 45 31.1 | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | | | | | | | | | |

Date₁ = 1876 Oct. 15
n = -72

Observer
Recorder

Date₂ = Oct. 14
n = -72

Observer _____
Recorder _____

64

[illegible]

Runs

Oct 15 + 3 ~~53.49~~ 52.47 -21 +2.75
 17 + 3 53.02 53.24 -21 +2.50

+2.75
 +2.50

65

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | 8' |
|--------------------------|--|--------|----------|----------|-------|--------------------|--------------------|--------------|--------|--|-----------------|
| d | +24.71 1.39287 9.79415 1.30938m | 1 17.4 | 19.1 | 16.5 | 18.25 | 26' | 30.10 | 55 | 51 30 | 2.18 -16 -27 +9.61 +40 -24.80 29 49.71 | 12.33 |
| (8) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | 14 34.65 | 29 34.17 | | | | | | | |
| d | +8.74 0.94151 9.79415 0.85802m | 1 30.2 | 33.1 | 3.31 | 31.65 | 26 | 16.70 | 55 | 30 | 2.5123 -2 -32 +9.28 +40 -25.00 29 49.57 | 11.84 |
| (8) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | 14 34.62 | 29 34.5 | | | | | | | |
| d | +24.71 1.39287 9.89495 1.41018m | 2 56.0 | 58.9 | 14.9 | 57.45 | 39 | 50.90 | 40 | 51 43 | 19.99 -22 -63 +9.84 +40 -24.90 43 7.23 | 12.14 |
| (8) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | 15 51.51 | 42 52.1 | | | | | | | |
| d | +8.74 0.94151 9.89495 0.95882m | 3 8.8 | 11.6 | 20.4 | 102.0 | 39 | 38.15 | 40 | 51 43 | 19.03 -6 -67 +9.71 +40 -25.10 43 5.81 | 11.88 |
| (8) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | 15 51.45 | 42 50.7 | | | | | | | |
| d | +26.47 1.45439 9.89495 1.47019m | 2 51.8 | 55.1 | 6.9 | 53.45 | 24 | 54.90 | 55 | 51 28 | 21.22 -26 -61 +9.05 +40.23 +35 -24.80 28 7.15 | Ex ^o |
| (8) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | 17 15.23 | 27 52.0 | | | | | | | |
| d | +15.05 1.14754 9.89495 1.19334m | 2 50.5 | 53.4 | 3.9 | 51.95 | 24 | 56.40 | 55 | 51 28 | 21.79 -30 -61 +9.44 +35 -25.00 28 7.05 | Ex ^o |
| (8) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | 17 15.13 | 27 51.8 | | | | | | | |
| d | +31.00 1.49136 9.89495 1.50237m | 4 17.4 | 19.2 | 16.6 | 18.30 | 38 | 30.05 | 40 | 50 41 | 57.24 -26 -90 +9.80 +35 -24.90 41 4.38 | Ex ^o |
| (8) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | 18 36.26 | 41 30.7 | | | | | | | |
| d | +33.01 1.51865 9.89495 1.52966m | 4 20.0 | 22.9 | 3.9 | 21.45 | 38 | 26.90 | 40 | 50 41 | 56.09 -23 -90 +9.64 +35 -25.00 41 4.215 | Ex ^o |
| (8) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | 18 36.30 | 41 26.8 | | | | | | | |
| d | +30.77 1.48813 9.89495 1.50434m | 3 52.1 | 50.4 | 5.3 | 50.20 | 28 | 58.10 | 50 | 51 32 | 19.65 25.21 | |
| (8) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | +29.28 1.46657 9.89495 1.48278m | 3 53.0 | 53.4 | 8.4 | 54.20 | 28 | 54.15 | 50 | 51 32 | 16.48 23.26 | |
| (8) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | | | | | | | | | |

These circle readings repeated on
 next page.

Date₁ = 1876 Oct. 15Observer
RecorderDate₂ = Oct. 17Observer
Recorder

| Star. | α | δ | Mag. | T_s | T_m | T_e | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T |
|--|--|---|---|-------|----------|-------|--|-------|-------|-----|------|---------------|---|
| 1876phae pr 20 27 19 34.8 κ (8) - D) $\frac{\kappa'}{100}$ a_1 | 58 31 27.1 8.9 8.7 | 21 20 1.9 4.8 7.5 4.73 | 20 30.4 33.9 37.4 40.7 44.4 | 18 68 | 20 37.36 | 21 | 20 37.36 + 2.26 - 97 20 38.65 - 1.84 20 36.78 | | | | | | |
| κ (8) - D) $\frac{\kappa'}{100}$ a_2 | 9.0 | 20 46 1.9 1.20 8.17 | 20 29.7 33.2 36.7 40.1 43.7 | 18 34 | 20 36.68 | 21 | 20 36.68 + 2.98 - 97 20 38.69 - 1.81 20 36.88 | | | | | | |
| 28 53 28 22.0 κ (8) - D) $\frac{\kappa'}{100}$ a_1 | 54 50 45.4 8.6 8.2 | 28 30.5 33.2 37.0 33.57 | 28 59.0 2.7 6.2 10.0 | 13 4 | 29 26.8 | 21 | 29 26.8 + 2.26 - 102 29 3.92 - 1.91 29 2.01 | | | | | | |
| κ (8) - D) $\frac{\kappa'}{100}$ a_2 | 8.6 | 28 16.6 19.8 22.3 19.257 | 28 57.8 38.3 1.9 5.4 9.0 | 30 94 | 29 18.8 | 21 | 29 18.8 + 2.98 - 102 29 3.84 - 1.85 29 1.99 | | | | | | |
| 30 56 30 22.8 κ (8) - D) $\frac{\kappa'}{100}$ a_1 | 51 35 31.2 8.8 9.0 | 30 31.5 35.0 37.5 34.67 | 29 6.2 9.6 12.9 | 3 11 | 31 6.22 | 21 | 31 6.22 + 2.26 - 91 31 7.57 - 2.05 31 5.52 | | | | | | |
| κ (8) - D) $\frac{\kappa'}{100}$ a_2 | 9.1 | 30 29.7 32.6 35.8 32.70 | 2.0 5.3 8.6 12.0 | 32 66 | 31 5.32 | 21 | 31 5.32 + 2.98 - 91 31 7.39 - 2.00 31 5.39 | | | | | | |
| 33 3 32 29.0 κ + + + (8) - D) $\frac{\kappa'}{100}$ a_1 | 52. 16 11.7 8.6 8.5 | 66.8 | | | | | | | | | | | |
| κ (8) - D) $\frac{\kappa'}{100}$ a_2 | 8.8 | 32 33.0 35.3 38.9 35.73 | 33 5.7 9.2 12.4 15.8 19.2 | 6 23 | 33 12.46 | 21 | 33 12.46 + 2.98 - 93 33 + 14.51 - 2.00 33 12.51 | | | | | | |
| 43 9 44 22.8 κ (8) - D) $\frac{\kappa'}{100}$ a_1 | 53 46 44.7 42.0 27.5 33.8 53 41.7 | 45 11.3 11.30 45 2.9 7.6 10.8 14.5 17.9 | 45 10.94 10.10 21.7 24.6 | 5 47 | 45 10.94 | 21 | 45 10.94 + 2.27 - 97 45 12.24 - 2.14 45 17.53 + 2.27 45 14.99 + 2.99 45 10.12 + 2.99 45 12.14 - 2.08 45 10.06 | | | | | | |
| κ (8) - D) $\frac{\kappa'}{100}$ a_2 | 8.2 | 44 44.3 47.7 50.6 47.33 | 45 3.0 6.4 10.3 13.5 17.2 | 5 06 | 45 10.12 | 21 | 45 10.12 + 2.99 45 12.14 - 2.08 45 10.06 | | | | | | |

Runs

+2.75

67

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|------------|---|----------|-------------|--------------|-------------|--------------------|--------------------|--------------|-------------|----------|-----------|
| d | +32.63 1.51362 9.90555 1.54153 | 3' 50.1 | 50.4 | 53 50.25 | 28 58.10 | 53 32 51.59 | 50.57 | 50 | 53 32 16.79 | 24.89 | +11.8 |
| (8) - D | 1.40968 | | | | | -34.80 | -25.68 | | | -27 | 13.93 |
| δ_1 | -1.91 -15.39 | 20 34.87 | 31 58.1 | 53 | | | | | | +11.80 | |
| d | +28.51 1.45500 9.90546 1.48282 | 3 53.0 | 55.4 | 8.4 3 54.20 | 28 54.15 | 53 32 47.17 | 47.39 | 50 | 53 32 16.77 | 24.75 | +11.67 |
| (8) - D | 1.35106 | | | | | -30.40 | -22.44 | | | -21 | 13.57 |
| δ_1 | -1.91 -15.39 | 20 34.97 | 31 57.5 | 34 | | | | | | +11.65 | |
| d | +29.11 1.46404 9.91266 1.49906 | 4 41.9 | 41.9 | 4 41.90 | 48 6.45 | 54 51 59.94 | 58.92 | 30 | 54 51 28.39 | 36.72 | +12.52 |
| (8) - D | 1.34643 | | | | | -31.55 | -22.20 | | | -22 | 15.27 |
| δ_1 | -1.91 -15.86 | 29 0.10 | 51 10.3 | 34 | | | | | | +13.23 | |
| d | +42.31 1.62644 9.91266 1.66146 | 4 30.1 | 31.8 | 1.9 4 30.95 | 48 17.40 | 54 52 10.42 | 10.64 | 30 | 54 51 24.66 | 38.37 | +12.16 |
| (8) - D | 1.50883 | | | | | -45.86 | -32.27 | | | -46 | 14.66 |
| δ_1 | -1.91 -15.86 | 29 0.08 | 51 11.1 | 49 | | | | | | +13.07 | |
| d | +31.55 1.49900 9.89435 1.51571 | 4 3.5 | 3.9 | 1.4 4 3.70 | 33 44.65 | 51 37 38.14 | 37.12 | 45 | 51 37 5.35 | 11.16 | +9.02 |
| (8) - D | 1.41424 | | | | | -32.79 | -25.96 | | | -27 | 11.77 |
| δ_1 | -2.05 -15.96 | 31 3.47 | 36 41.4 | 49 | | | | | | +9.73 | |
| d | +32.62 1.51348 9.89435 1.53019 | 4 1.0 | 3.4 | 4.4 4 2.20 | 33 46.15 | 51 37 39.17 | 39.39 | 45 | 51 37 5.27 | 12.53 | +8.88 |
| (8) - D | 1.42872 | | | | | -39.90 | -26.84 | | | -28 | 11.38 |
| δ_1 | -2.05 -15.96 | 31 3.34 | 36 42.1 | 9 | | | | | | +9.60 | |
| d | 4 10.4 | 11.0 | 1.4 4 10.70 | 13 37.65 | 52 17 31.44 | 30.12 | 5 | | | -25.90 | |
| (8) - D | | | | | | | | | | 36 58.03 | |
| δ_1 | | | | | | | | | | | |
| d | +36.73 1.56502 9.89830 1.58568 | 4 8.1 | 9.0 | 17.1 4 8.55 | 13 39.80 | 52 17 32.82 | 33.04 | 5 | 52 17 3.24 | 17.02 | +9.52 |
| (8) - D | 1.47380 | | | | | -88.52 | -29.77 | | | -35 | 12.02 |
| δ_1 | -2.04 -16.08 | 33 10.47 | 16 33.1 | 38 | | | | | | +10.30 | |
| d | -0.36 9.55630 9.90685 5.58551 | 3 15.4 | 14.9 | 10.3 3 15.15 | 44 33.20 | 53 48 26.69 | 25.67 | 35 | 53 48 2.04 | 25.95 | +11.57 |
| (8) - D | 9.44996 | | | | | +5.56 | +0.28 | | | -0 | 14.62 |
| δ_1 | -2.06 -16.69 | 3 15.4 | 14.9 | 10.3 3 15.15 | 44 33.20 | 53 48 26.69 | 25.67 | 35 | 53 48 2.04 | 25.95 | +11.57 |
| d | +22.59 1.35392 9.90694 1.38322 | 2 56.6 | 58.2 | 14.8 2 57.40 | 44 50.95 | 53 48 43.97 | 44.19 | 25 | 53 48 19.80 | 26.51 | +11.64 |
| (8) - D | 1.24740 | | | | | -24.77 | -17.68 | | | -14 | 14.14 |
| δ_1 | -2.06 -16.69 | 45 8.00 | 47 57.3 | | | | | | | +11.74 | |

Date₁ = 1876 Oct. 15Observer
RecorderDate₂ = Oct. 17Observer
Recorder

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| Star. | α | δ | Mag. | T_s | T_m | T_e | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T |
|---------|-----------------------|----------|------|-----------|---------|-------|-------|-------|-------|------|----------|---------------|----------|
| 46 | 25 | 54 48 | 8.8 | 21 46 112 | 46 23.8 | 292 | 327 | 363 | 389 | 1637 | 46 3274 | 21 | 46 3274 |
| | | | | | 143 | | | | | | | | + 2.27 |
| | | | | | 16.9 | | | | | | | | - 1.02 |
| | | | | | 14.13 | | | | | | | +1.25 | 46 33.99 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 46 31.87 |
| a_1 | | | | | | | | | | | | | |
| | | | 8.3 | 46 135 | 46 24.9 | 283 | 319 | 355 | 380 | 1596 | 46 3192 | 21 | 46 31.92 |
| | | | | | 171 | | | | | | | | + 2.99 |
| | | | | | 202 | | | | | | | +1.97 | 46 33.89 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 16.93 | | | | | | | | 46 31.82 |
| a_2 | | | | | | | | | | | | | |
| 48 | 2 | 54 4 | 7.0 | 47 250 | 48 36 | 7.0 | 10.5 | 141 | 177 | 529 | 48 1058 | 21 | 48 10.58 |
| | | | | | 282 | | | | | | | | + 2.27 |
| | | | | | 312 | | | | | | | +1.38 | 48 11.86 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 28.13 | | | | | | | | 48 9.69 |
| a_1 | | | | | | | | | | | | | |
| | | | 6.4 | 47 406 | 48 28 | 6.2 | 9.8 | 134 | 168 | 490 | 48 980 | 21 | 48 9.80 |
| | | | | | 437 | | | | | | | | + 2.99 |
| | | | | | 463 | | | | | | | +2.00 | 48 11.80 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 43.53 | | | | | | | | 48 9.69 |
| a_2 | | | | | | | | | | | | | |
| 49 | 14 | 53 12 | 9.3 | 49 130 | 49 13.9 | 173 | 20.8 | 24.4 | 27.5 | 1039 | 49 2078 | 21 | 49 20.78 |
| | | | | | 1300 | | | | | | | | + 2.27 |
| | | | | | | | 49 | 19.89 | | | 49 34.69 | +1.31 | 49 22.09 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | 49 35.58 |
| a_1 | | | | | | | | | | | | +1.31 | 49 34.59 |
| | | | | | | | | | | | | -2.20 | 49 20.15 |
| | | | 9.0 | 49 504 | 49 13.0 | 16.7 | — | 23.7 | 27.2 | | | +2.03 | 49 22.96 |
| | | | | | 52.9 | | | | | | 49 34.75 | | 49 22.96 |
| | | | | | 56.7 | | 49 | 20.04 | | | | | 49 22.96 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 53.67 | | | | | | | +2.03 | 49 34.86 |
| a_2 | | | | | 18.80 | | | | | | | -2.14 | 49 36.89 |
| | | | | | | | | | | | | +1.31 | 50 43.56 |
| | | | 8.1 | 50 343 | 50 36.7 | 400 | 43.5 | 470 | 50.6 | 2178 | 50 4356 | 21 | 50 43.56 |
| | | | | | 37.7 | | | | | | | | + 2.27 |
| | | | | | 39.7 | | | | | | | | - 2.22 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 37.23 | | | | | | | | 50 44.87 |
| a_1 | | | | | | | | | | | | | 50 42.65 |
| | | | | | | | | | | | | | |
| | | | 8.8 | 50 180 | 50 36.0 | 394 | 42.8 | 463 | 48.6 | 2141 | 50 4282 | 21 | 50 42.82 |
| | | | | | 21.7 | | | | | | | | + 2.99 |
| | | | | | 23.0 | | | | | | | +2.03 | 50 44.85 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 21.57 | | | | | | | | 50 42.68 |
| a_2 | | | | | | | | | | | | | |
| 51 | 52 | 52 49 | 8.1 | 51 28.9 | 51 54.5 | 380 | 1.3 | 4.7 | 8.1 | 66 | 52 132 | 21 | 52 13.2 |
| | | | | | 31.6 | | | | | | | | + 2.27 |
| | | | | | 34.0 | | | | | | | +1.33 | 52 2.65 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 31.50 | | | | | | | | 52 2.24 |
| a_1 | | | | | | | | | | | | | 52 0.41 |
| | | | | | | | | | | | | | |
| | | | 8.4 | 51 29.0 | 51 53.6 | 371 | 0.6 | 4.0 | 7.4 | 27 | 52 0.54 | 21 | 52 0.54 |
| | | | | | 32.8 | | | | | | | +2.04 | 52 2.99 |
| | | | | | 35.7 | | | | | | | | - 9.5 |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 32.50 | | | | | | | | 52 2.58 |
| a_2 | | | | | | | | | | | | | 52 0.39 |

Runs

+2.75

69

+2.50

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|----|-----------|----------|------|----------|-------|--------------------|--------------------|--------------|--------|----|-------------|
| 1 | +18.61 | 1' 25.0 | 26.7 | 117 | 36.1 | 25.88 | 46 | 22.50 | 35 | 54 | 54.83 |
| 2 | 1.26975 | | | | | | 52 | 50 | | 50 | 0.76 |
| 3 | 9.91248 | 9.76039 | | | | | | 14.97 | | | +13.33 |
| 4 | 1.30459 | 1.15250 | | | | | | -20.16 | -14.21 | | -29 |
| 5 | | | | | | | | | | | +13.21 |
| 6 | | | | | | | | | | | +50 |
| 7 | -203 | | | | | | | | | | -26.50 |
| 8 | -16.75 | 46 29.84 | | 49 33.6 | | | | | | | 49 50.34 |
| 9 | | | | | 36 | | | | | | 54 49 57.23 |
| 10 | +14.99 | 1 26.1 | 29.7 | 15.8 | 27.90 | 46 | 20.45 | | 35 | 54 | 54.23 |
| 11 | 1.117580 | | | | | | 52 | 50 | | 50 | 2.25 |
| 12 | 9.91248 | 9.76039 | | | | | | 13.69 | | | -6 |
| 13 | 1.21064 | 1.05855 | | | | | | -16.24 | -11.44 | | -30 |
| 14 | | | | | | | | | | | +13.05 |
| 15 | | | | | | | | | | | +50 |
| 16 | -203 | | | | | | | | | | -26.80 |
| 17 | -16.75 | 46 29.79 | | 49 34.4 | | | | | | | 49 57.14 |
| 18 | | | | | 19 | | | | | | 54 6 00.00 |
| 19 | +42.45 | 4 56.1 | 56.4 | .5 | 56.25 | 2 | 52.10 | | 15 | 54 | 54.59 |
| 20 | 1.62788 | | | | | | 52 | 50 | | 50 | 11.59 |
| 21 | 9.90860 | 9.76800 | | | | | | 44.57 | | | -47 |
| 22 | 1.65884 | 1.51824 | | | | | | -45.89 | -32.98 | | -103 |
| 23 | | | | | | | | | | | +12.41 |
| 24 | | | | | | | | | | | +50 |
| 25 | -207 | | | | | | | | | | -26.50 |
| 26 | -16.82 | 48 7.62 | | 5 42.4 | | | | | | | 5 57.25 |
| 27 | | | | | 10 | | | | | | 54 6 57.14 |
| 28 | +26.27 | 0 8.9 | 11.2 | 20.1 | 1005 | 2 | 38.30 | | 20 | 54 | 54.11 |
| 29 | 1.41946 | | | | | | 52 | 50 | | 50 | 11.13 |
| 30 | 9.90860 | 9.76800 | | | | | | 31.54 | | | -18 |
| 31 | 1.45042 | 1.30982 | | | | | | -25.21 | -20.41 | | -4 |
| 32 | | | | | | | | | | | +12.26 |
| 33 | | | | | | | | | | | +50 |
| 34 | -207 | | | | | | | | | | -26.90 |
| 35 | -16.82 | 48 7.62 | | 5 42.4 | | | | | | | 5 57.27 |
| 36 | | | | | 10 | | | | | | 53 16 30.42 |
| 37 | +7.78 | 0 2.1 | 3.2 | 32.01 | 53 0 | 26.5 | 12 | 45.70 | | 10 | 53 16 30.42 |
| 38 | 0.89098 | | | 53 16 | 49 | 17.78 | 53 16 | 39.19 | | 10 | 53 16 30.42 |
| 39 | 9.90396 | 9.77660 | | 14.64 | 49 | 32.58 | 53 16 | 38.17 | | 10 | 53 16 30.42 |
| 40 | 0.91730 | 0.78994 | | | 11 | 15.24 | 53 16 | -8.27 | -6.16 | | -2 |
| 41 | +42.58 | 1 0.8 | 1.1 | 53.68 | 19 1 | 0.85 | 11 | 47.50 | | 10 | 53 16 30.42 |
| 42 | 1.65921 | | | 53 15 | 49 | 17.78 | 53 15 | 40.89 | | 10 | 53 16 30.42 |
| 43 | 9.90396 | 9.77660 | | 14.64 | 49 | 32.58 | 53 15 | 39.87 | | 10 | 53 16 30.42 |
| 44 | 1.65921 | 1.52831 | | | | | | -45.23 | -32.98 | | -26.50 |
| 45 | -33.5 | 0 82.4 | 35.8 | 14.87 | 10 | | | +13.81 | | 16 | 20.15 |
| 46 | 1.52504 | | | 16 34.04 | 52 0 | 34.10 | 12 | 14.25 | | 10 | 16 34.04 |
| 47 | 9.90396 | 9.77660 | | 13.88 | 49 | 17.93 | 53 16 | 7.49 | | 10 | 16 34.04 |
| 48 | 1.42417 | | | | 10 | 32.64 | 53 16 | +26.55 | | 10 | 16 34.04 |
| 49 | +16.06 | 0 32.4 | 35.8 | 8.2 | 0 | 34.10 | 12 | 14.25 | | 10 | 16 34.04 |
| 50 | 1.20575 | | | 15 54.76 | 53 16 | | | 7.49 | | 10 | 16 34.04 |
| 51 | 9.90396 | 9.77660 | | 14.10 | 19 | 11 | 53 16 | -17.46 | -12.73 | | -26.90 |
| 52 | 1.33197 | 1.10488 | | | | | | | | 16 | 21.02 |
| 53 | +6.33 | 4 9.0 | 9.1 | | 4 | 9.05 | 3 | 38.30 | | 15 | 53 7 25.08 |
| 54 | 0.80140 | | | | 53 7 | | 53 7 | 30.77 | | 15 | 53 7 25.08 |
| 55 | 9.90311 | 9.77812 | | | | | | -5.03 | | 15 | 53 7 25.08 |
| 56 | 0.82687 | 0.70188 | | | | | | | | 15 | 53 7 25.08 |
| 57 | | | | | | | | | | 15 | 53 7 25.08 |
| 58 | -2.12 | | | | | | | | | 15 | 53 7 25.08 |
| 59 | -16.94 | 50 40.53 | | 6 55.8 | | | | | | 15 | 53 7 25.08 |
| 60 | | | | | 18 | | | | | 15 | 53 7 25.08 |
| 61 | +21.25 | 3 56.5 | 59.1 | 15.6 | 3 | 57.80 | 3 | 50.55 | | 15 | 53 7 25.08 |
| 62 | 1.32736 | | | | 53 7 | | 53 7 | 43.79 | | 15 | 53 7 25.08 |
| 63 | 9.90311 | 9.77812 | | | | | | -22.53 | -16.90 | | -12 |
| 64 | 1.35283 | 1.22784 | | | | | | | | | -82 |
| 65 | | | | | | | | | | | +11.24 |
| 66 | | | | | | | | | | | +40 |
| 67 | -2.12 | | | | | | | | | | -26.90 |
| 68 | -16.94 | 50 40.56 | | 6 56.2 | | | | | | | 7 13.19 |
| 69 | | | | | 35 | | | | | | 52 50 13.79 |
| 70 | +29.82 | 0 56.0 | 57.1 | 13.1 | 0 | 56.55 | 46 | 51.80 | | 35 | 52 50 13.79 |
| 71 | 1.47451 | | | | 52 50 | | 52 50 | 45.29 | | 35 | 52 50 13.79 |
| 72 | 9.90149 | 9.78097 | | | | | | 44.27 | | 35 | 52 50 13.79 |
| 73 | 1.49836 | 1.37784 | | | | | | -31.80 | -23.87 | | -23 |
| 74 | | | | | | | | | | | -19 |
| 75 | | | | | | | | | | | +11.04 |
| 76 | | | | | | | | | | | +40 |
| 77 | -2.14 | | | | | | | | | | -26.60 |
| 78 | -17.01 | 51 58.27 | | 49 50.6 | | | | | | | 50 45.7 |
| 79 | | | | | 35 | | | | | | 52 50 13.80 |
| 80 | +28.04 | 0 56.9 | 59.0 | 15.9 | 0 | 57.95 | 46 | 50.40 | | 35 | 52 50 13.80 |
| 81 | 1.44778 | | | | 52 50 | | 52 50 | 43.42 | | 35 | 52 50 13.80 |
| 82 | 9.90149 | 9.78097 | | | | | | 43.64 | | 35 | 52 50 13.80 |
| 83 | 1.47163 | 1.35111 | | | | | | -29.62 | -22.41 | | -21 |
| 84 | | | | | | | | | | | -20 |
| 85 | | | | | | | | | | | +10.92 |
| 86 | | | | | | | | | | | +40 |
| 87 | -2.14 | | | | | | | | | | -26.90 |
| 88 | -17.01 | 51 58.25 | | 49 50.7 | | | | | | | 50 7.71 |

Date₁ = 1876 Oct. 15Observer
RecorderDate₂ = Oct. 17Observer
Recorder

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1876phae.pr

| Star. | α | δ | Mag. | T_s | T_m | T_e | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T |
|----------|-----------------------|----------|------|---------|---------|-------|-------|-------|-------|------|----------|---------------|------------|
| 58 | 0 | 52° 12' | 9.0 | 21 32 | 35.8 | 53 30 | 6.4 | 9.7 | 13.0 | 16.4 | 485 | 53 9.70 | 21 53 9.70 |
| 52 | 24.0 | 7.0 | 8.8 | | 38.2 | | | | | | | +1.34 | 53 9.27 |
| κ | | | | | 41.9 | | | | | | | | 53 11.01 |
| (5) - D | $\frac{\kappa'}{100}$ | | | | 38.97 | | | | | | | | 53 8.76 |
| a_1 | | | | | | | | | | | | | |
| 53 | 28 | 53 29 | 6.5 | 55 03 | 35 30.4 | 34.0 | 37.4 | 41.0 | 44.3 | 1871 | 55 37.42 | 21 55 37.42 | |
| 54 | 51.5 | 24.8 | 7.5 | | 3.0 | | | | | | | +1.30 | 55 38.72 |
| κ | | | | | 6.6 | | | | | | | | 55 36.46 |
| (5) - D | $\frac{\kappa'}{100}$ | | | | 8.30 | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| 54 | 54.5 | 53 22 | 8.0 | 54 54.5 | 53 22.9 | 32.2 | 36.5 | 40.1 | 43.5 | 1832 | 55 36.64 | 21 55 36.64 | |
| κ | | | | | 0.0 | | | | | | | +2.02 | 55 38.66 |
| (5) - D | $\frac{\kappa'}{100}$ | | | | 2.8 | | | | | | | | 55 36.45 |
| a_2 | | | | | 0.10 | | | | | | | | |
| 21 | 56 56 | 53 22 | 8.5 | 56 25.8 | 56 58.9 | 2.3 | 5.8 | 9.3 | 12.7 | 3290 | 57 58.0 | 21 57 58.0 | |
| 56 | 19.1 | 17.0 | 8.4 | | 28.4 | | | | | | | +1.30 | 57 58.0 |
| κ | | | | | 31.7 | | | | | | | | 57 58.0 |
| (5) - D | $\frac{\kappa'}{100}$ | | | | 25.73 | | | | | | | | 57 58.0 |
| a_1 | | | | | | | | | | | | | |
| 56 | 38.8 | 53 22 | 8.6 | 56 38.8 | 56 58.0 | 1.4 | 4.8 | 8.4 | 11.9 | 245 | 57 4.90 | 21 57 4.90 | |
| κ | | | | | 41.8 | | | | | | | +2.02 | 57 4.90 |
| (5) - D | $\frac{\kappa'}{100}$ | | | | 44.4 | | | | | | | | 57 4.90 |
| a_2 | | | | | 41.67 | | | | | | | | |
| 22 | 2 6 | 52 31 | 8.5 | 22 1 | 52.1 | 2 7.9 | 11.3 | 14.6 | 18.0 | 732 | 2 14.64 | 22 2 14.64 | |
| 1 | 28.0 | 26.2 | 7.9 | | 54.6 | | | | | | | +1.33 | 2 14.64 |
| κ | | | | | 57.2 | | | | | | | | 2 14.64 |
| (5) - D | $\frac{\kappa'}{100}$ | | | | 54.63 | | | | | | | | 2 14.64 |
| a_1 | | | | | | | | | | | | | |
| 52 | 55 | 52 31 | 9.3 | 3 4.8 | 3 18.4 | 21.7 | 25.1 | 28.8 | 32.0 | 1260 | 3 25.20 | 22 3 25.20 | |
| 2 | 25.3 | 5.5 | 9.3 | | 7.5 | | | | | | | +1.31 | 3 25.20 |
| κ | | | | | 10.6 | | | | | | | | 3 25.20 |
| (5) - D | $\frac{\kappa'}{100}$ | | | | 7.63 | | | | | | | | 3 25.20 |
| a_1 | | | | | | | | | | | | | |
| 52 | 55 | 52 31 | 9.4 | 2 56.9 | 3 17.3 | 20.9 | 24.4 | 27.7 | 31.4 | 1217 | 3 24.34 | 22 3 24.34 | |
| κ | | | | | 58.7 | | | | | | | +2.03 | 3 24.34 |
| (5) - D | $\frac{\kappa'}{100}$ | | | | 3.6 | | | | | | | | 3 24.34 |
| a_2 | | | | | 7.07 | | | | | | | | |

Runs

+2.75

71

+2.50

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | 8' |
|------------|---|----------|---------|------|-------|--------------------|--------------------|--------------|--------|--|-----------------|
| d | +30.73 1.48756 9.89791 1.50783 | 2 14.0 | 15.1 | 9.1 | 14.55 | 10 | 33.80 | 26.27 | 10 | 52 13 55.09 | |
| (8) - D | 9.78707 1.39699 | | | | | 52 14 | 27.29 -32.20 | -24.95 | | 14 1.32 -25 -46 +1039 +40 -26.60 13 47.55 | 14.08 12.83 |
| δ_1 | -2.16 -17.06 | 53 6.60 | 13 30.5 | | 12 | | | | | | |
| d | +27.38 1.43743 9.89791 1.45770 | 2 16.1 | 19.8 | 15.9 | 17.95 | 10 | 30.40 | 23.64 | 10 | 52 13 54.73 | |
| (8) - D | 9.78707 1.34686 | | | | | 52 14 | 27.42 -28.69 | -22.23 | | 14 1.41 -20 -48 +10.29 +40 -26.90 13 47.02 | +10.01 12.51 |
| δ_2 | -2.16 -17.06 | 53 6.55 | 13 30.0 | | 55 | | | | | | |
| d | +34.12 1.53301 9.90527 1.56064 | 0 11.9 | 13.1 | 5.0 | 12.50 | 27 | 35.85 | 28.32 | 55 | 53 30 52.98 | |
| (8) - D | 9.77422 1.42959 | | | | | 53 31 | 29.31 -36.36 | -26.89 | | 31 1.43 -30 -4 +11.78 +45 -26.80 20 49.27 | +11.89 14.64 |
| δ_1 | -2.14 -17.17 | 55 34.32 | 30 32.1 | | 55 | | | | | | |
| d | +36.54 1.56277 9.90537 1.59080 | 0 8.9 | 11.9 | 20.8 | 10.40 | 27 | 37.95 | 31.19 | 55 | 53 30 52.02 | |
| (8) - D | 9.77405 1.45918 | | | | | 53 31 | 30.97 -38.45 | -28.79 | | 31 2.40 -35 -4 +11.66 +45 -27.10 30 49.52 | +14.72 14.22 |
| δ_2 | -2.14 -17.17 | 55 34.31 | 30 32.1 | | 3 | | | | | | |
| d | +24.07 1.56962 9.90471 1.59669 | 2 6.4 | 7.9 | 14.8 | 7.15 | 20 | 41.20 | 33.67 | 0 | 53 23 55.18 | |
| (8) - D | 9.77524 1.46662 | | | | | 53 24 | 34.69 -39.51 | -29.28 | | 24 4.39 -36 -44 +11.65 +45 -26.80 23 57.64 | +14.30 14.05 |
| δ_1 | -2.15 -17.24 | 57 2.67 | 23 40.4 | | 2 | | | | | | |
| d | +23.23 1.36605 9.90462 1.39303 | 2 17.0 | 19.2 | 16.2 | 18.10 | 20 | 30.25 | 23.49 | 0 | 53 23 58.55 | |
| (8) - D | 9.77554 1.26382 | | | | | 53 24 | 23.24 -24.72 | -18.36 | | 24 5.13 -14 -48 +11.54 +45 -27.20 23 57.80 | +14.37 13.87 |
| δ_2 | -2.15 -17.24 | 57 2.54 | 23 34.6 | | 53 | | | | | | |
| d | +24.01 1.30125 9.89976 1.32337 | 3 56.2 | 58.0 | 14.2 | 57.10 | 28 | 51.25 | 43.72 | 50 | 52 32 23.68 | |
| (8) - D | 9.78395 1.20756 | | | | | 52 32 | 44.77 -21.06 | -16.13 | | 27.59 -10 -82 +10.72 +40 -27.00 30 13.54 | +10.70 12.95 |
| δ_1 | -2.21 -17.46 | 2 11.39 | 31 56.1 | | 53 | | | | | | |
| d | +24.95 1.39407 9.89976 1.41919 | 3 57.1 | 53.5 | 4.6 | 52.30 | 28 | 56.05 | 49.29 | 50 | 52 32 22.82 | |
| (8) - D | 9.78395 1.30338 | | | | | 52 32 | 49.07 -26.25 | -20.11 | | 29.18 -16 -82 +10.60 +40 -27.30 32 14.40 | +10.02 12.52 |
| δ_2 | -2.21 -17.46 | 2 11.30 | 31 56.9 | | 32 | | | | | | |
| d | +17.57 1.24477 9.90184 1.26900 | 2 8.6 | 9.5 | 18.1 | 9.05 | 50 | 39.30 | 31.77 | 30 | 52 54 14.21 | |
| (8) - D | 9.78030 1.14743 | | | | | 52 54 | 32.79 -18.58 | -14.01 | | 17.73 -17.8 -44 +11.11 +40 -27.00 54 4.47 | +10.99 13.74 |
| δ_1 | -2.21 -17.51 | 3 21.93 | 53 47.0 | | 32 | | | | | | |
| d | +24.27 1.38567 9.90184 1.40930 | 2 2.0 | 4.8 | 6.8 | 3.40 | 50 | 44.95 | 38.19 | 30 | 52 54 12.31 | |
| (8) - D | 9.78030 1.28773 | | | | | 52 54 | 37.94 -25.66 | -19.40 | | 18.79 -15 -44 +10.99 +40 -27.40 54 4.69 | +10.80 13.30 |
| δ_2 | -2.21 -17.51 | 3 21.84 | 53 47.2 | | | | | | | | |

72

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Runs

+275-

73

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | $+2.50$ z | δ' |
|----------------------------|-----------|---------|------|------|----------------|--------------------|--------------------|--------------|--------|--------------|-----------|
| d | | | | | ' " | | | | ' | | |
| ((8) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | +24.13 | 4' 3.4" | 3.8 | 7.2 | 19 4 3.60 | 53 3 | 44.75 | 15 | 53 7 | 12.65 | |
| ((8) - D) $\frac{d'}{100}$ | 1.38256 | 9.77812 | | | | 53 7 | 38.74 | 37.22 | | 18.03 | |
| δ_1 | 1.40803 | 1.28304 | | | | | -26.59 | -19.19 | | -15 | +10.74 |
| d | | | | | | | | | | | |
| ((8) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | +29.48 | 3 4.8 | 5.1 | 9.9 | 58 3 4.95 | 53 24 | 43.40 | 55 | 53 28 | 5.49 | |
| ((8) - D) $\frac{d'}{100}$ | 1.46953 | 9.77456 | | | | 53 28 | 36.89 | 35.87 | | 12.62 | |
| δ_1 | 1.49698 | 1.36645 | | | | | -31.40 | -23.25 | | -23 | +11.209 |
| d | | | | | | | | | | | |
| ((8) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | +34.11 | 4 88.1 | 38.6 | 7 | 589 4 38.85 | 52 283 | 10.10 | 55 | 52 34 | 27.61 | |
| ((8) - D) $\frac{d'}{100}$ | 1.53288 | 9.78412 | | | | 52 327 | 7.49 | 247 | | 26 34.33 | |
| δ_1 | 1.55490 | 1.44936 | | | | | -35.88 | -28.14 | | -31 | +9.82 |
| d | | | | | | | | | | | |
| ((8) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | +34.50 | 3 7.1 | 9.4 | 16.5 | 53 3 8.25 | 57 29 | 40.10 | 50 | 51 32 | 54.30 | |
| ((8) - D) $\frac{d'}{100}$ | 1.53782 | 9.79361 | | | | 57 33 | 33.12 | 33.34 | | 33 49.2 | |
| δ_1 | 1.55413 | 1.45369 | | | | | -35.82 | -28.42 | | -32 | +8.99 |
| d | | | | | | | | | | | |
| ((8) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| ((8) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| ((8) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| ((8) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |

date₁ = 1876 Oct. 18
 $\eta = -64$

Observer
 Recorder

date₂ = Oct. 19
 $\eta = -78$

Observer
 Recorder

74

| Star. | α | δ | Mag. | T_{δ} | T_m | T_o | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T |
|--|---------------|------------|---------|----------------------------------|---------|-------|-------|-------|-------|---------|---------|--|--|
| 10 15 9 48.6 κ | 52 44 40.7 | 7.0 6.5 | 20 10 | 46 7.7 120 8.10 | 10 14.8 | 18.3 | 21.5 | 25.0 | 28.4 | 1080 | 10 2160 | 20 | 10 31.60 + 3.51 - 83 10 24.28 - 1.07 10 23.21 |
| (8) - D κ'_{100} α_1 | | | | | | | | | | | | | |
| κ | | 7.0 | 10 15.2 | 10 14.0 17.7 21.3 18.07 | 17.4 | 21.0 | 24.3 | 27.8 | 10 45 | 10 2090 | 20 | 10 20.90 + 4.21 - 1.01 10 24.10 - 1.04 10 23.06 | |
| (8) - D κ'_{100} α_2 | | | | | | | | | | | | | |
| 12 36 12 9.6 κ | 50 48 45.0 | 9.0 9.0 | 12 48 | 12 38.0 8.1 10.6 7.83 | 41.1 | 44.5 | 47.6 | 57.0 | 2222 | 12 4444 | 20 | 12 44.44 + 3.51 - 77 12 47.18 - 1.20 12 45.98 | |
| (8) - D κ'_{100} α_1 | | | | | | | | | | | | | |
| κ | | 9.0 | 12 4.3 | 12 37.5 6.7 8.8 6.60 | 40.3 | 43.7 | 47.0 | 57.1 | 2186 | 12 4372 | 20 | 12 43.72 + 4.21 - 94 12 46.99 - 1.17 12 45.82 | |
| (8) - D κ'_{100} α_2 | | | | | | | | | | | | | |
| 13 34 13 7.4 κ | 50 11 7.8 | 9.5 9.3 | 13 15.2 | 13 36.3 19.3 22.7 19.07 | 39.6 | 42.8 | 46.1 | 49.4 | 2142 | 13 4284 | 20 | 13 42.84 + 3.51 - 76 13 45.59 - 1.21 13 44.35 | |
| (8) - D κ'_{100} α_1 | | | | | | | | | | | | | |
| κ | | 9.5 | 13 29.1 | 13 35.8 31.5 34.0 31.53 | 39.0 | 42.2 | 45.4 | 48.7 | 2111 | 13 4222 | 20 | 13 42.22 + 4.21 - 93 13 45.50 - 1.21 13 44.29 | |
| (8) - D κ'_{100} α_2 | | | | | | | | | | | | | |
| 14 47 14 20.8 κ | 51 15 11.7 | 9.5 9.5 | 14 35.2 | 14 48.7 38.0 40.9 38.03 | 52.0 | 55.2 | 58.5 | 1.9 | 2763 | 14 5526 | 20 | 14 55.26 + 3.51 - 80 14 57.97 - 1.20 14 56.77 | |
| (8) - D κ'_{100} α_1 | | | | | | | | | | | | | |
| κ | | 9.4 | 14 22.4 | 14 47.9 24.9 26.7 24.67 | 51.4 | 54.7 | 57.8 | 1.1 | 2729 | 14 5458 | 20 | 14 54.58 + 4.21 - 97 14 57.52 - 1.16 14 56.66 | |
| (8) - D κ'_{100} α_2 | | | | | | | | | | | | | |
| 15 47 15 20.5 κ | 50 50 47.3 | 8.5 8.7 | 15 23.2 | 15 48.5 26.5 29.0 26.23 | 52.6 | 56.0 | 59.2 | 2.5 | 2798 | 15 5596 | 20 | 15 55.96 + 3.51 - 79 15 58.68 - 1.23 15 57.45 | |
| (8) - D κ'_{100} α_1 | | | | | | | | | | | | | |
| κ | | 8.4 | 15 21.9 | 15 48.9 34.7 37.1 34.57 | 52.2 | 55.4 | 58.7 | 1.9 | 2771 | 15 5542 | 20 | 15 55.42 + 4.21 - 97 15 58.66 - 1.20 15 57.46 | |
| (8) - D κ'_{100} α_2 | | | | | | | | | | | | | |

Oct 18 + 3' 54.90
19 + 3 54.49

-21 + 2.27
-21 + 2.47

+ 2.27

75

Runs

| | | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | $+2.47$ z | δ' |
|--|------------|---|------------------------------|------|------------------|---|---|--------------------|--------------|--|-----------------|-----------|
| | | +13.50 1.13033 9.90091 1.15360 | 1 47.2 9.78197 1.03466 | 49.9 | 17.1 44 48.55 | 40' 59.80 52 44 54.70 -14.24 -10.83 | 40' 59.80 52 44 54.70 -14.24 -10.83 | | | 40 52 44 40.46 43.84 -5 -38 +10.70 +40 -20.90 44 42.30 2591 | | |
| | d | | | | | | | | | | +10.67 12.94 | |
| | (8) - D | $\frac{d'}{100}$ | | | | | | | | | | |
| | δ_1 | -1.59 -10.80 | 10 21.62 | | 44 25.1 | | | | | | | |
| | | | | | | | | | | | | |
| | | +2.83 0.45179 9.90091 0.47506 | 1 56.2 9.78197 0.35612 | 58.9 | 15.1 1 57.55 | 40 50.80 52 44 45.29 -27.86 -2.99 -2.27 | 40 50.80 52 44 45.29 -27.86 -2.99 -2.27 | | | 40 52 44 45.29 43.02 -0 -40 +10.74 +40 -20.90 44 42.30 2591 | | |
| | d | | | | | | | | | | +10.74 13.21 | |
| | (8) - D | $\frac{d'}{100}$ | | | | | | | | | | |
| | δ_2 | -1.59 -10.80 | 10 21.47 | | 44 24.5 | | | | | | | |
| | | | | | | | | | | | | |
| | | +36.61 1.56360 9.88948 1.57544 | 2 3.7 9.80043 1.48639 | 7.4 | 11.1 2 55.55 | 45 42.80 50 49 37.70 -37.62 -30.65 | 45 42.80 50 49 37.70 -37.62 -30.65 | | | 35 50 49 40.08 40.05 -36 -44 +869 +35 -20.90 44 35.33 | | |
| | d | | | | | | | | | | +8.24 10.51 | |
| | (8) - D | $\frac{d'}{100}$ | | | | | | | | | | |
| | δ_1 | -1.70 -10.97 | 12 45.28 | | 48 45.7 | | | | | | | |
| | | | | | | | | | | | | |
| | | +37.12 1.56360 9.88948 1.58145 | 2 2.8 9.80043 1.49240 | 5.9 | 6.7 2 43.55 | 45 44.00 50 49 38.49 -38.15 -31.07 | 45 44.00 50 49 38.49 -38.15 -31.07 | | | 35 50 49 40.08 40.05 -36 -44 +869 +35 -20.90 44 35.33 | | |
| | d | | | | | | | | | | +8.24 10.74 | |
| | (8) - D | $\frac{d'}{100}$ | | | | | | | | | | |
| | δ_2 | -1.70 -10.97 | 12 44.12 | | 48 46.3 | | | | | | | |
| | | | | | | | | | | | | |
| | | +23.77 1.37603 9.88552 1.38391 | 4 30.9 9.80625 1.30464 | 34.9 | 5.8 4 32.90 | 8 15.45 50 12 10.35 -24.21 -20.17 | 8 15.45 50 12 10.35 -24.21 -20.17 | | | 10 50 11 46.14 50.18 -15 -95 +805 +30 -20.90 48 57.26 | | |
| | d | | | | | | | | | | +7.25 9.52 | |
| | (8) - D | $\frac{d'}{100}$ | | | | | | | | | | |
| | δ_1 | -1.73 -11.04 | 13 42.62 | | 11 27.8 | | | | | | | |
| | | | | | | | | | | | | |
| | | +10.69 1.02898 9.88552 1.03686 | 4 43.1 9.80625 0.95759 | 46.4 | 9.5 4 44.75 | 8 3.60 50 11 85.09 -10.89 -9.07 | 8 3.60 50 11 85.09 -10.89 -9.07 | | | 10 50 11 44.20 44.02 -3 -99 +808 +30 -20.90 11 37.95 | | |
| | d | | | | | | | | | | +7.36 9.83 | |
| | (8) - D | $\frac{d'}{100}$ | | | | | | | | | | |
| | δ_2 | -1.73 -11.04 | 13 42.56 | | 11 26.9 | | | | | | | |
| | | | | | | | | | | | | |
| | | +17.23 1.23629 9.89213 1.25078 | 0 44.5 9.79636 1.15501 | 46.9 | 11.4 0 45.70 | 12 2.65 57 15 67.55 -47.81 -14.29 | 12 2.65 57 15 67.55 -47.81 -14.29 | | | 10 57 15 39.74 43.26 -8 -15 +9.14 +35 -21.10 15 33.69 | | |
| | d | | | | | | | | | | +9.26 11.53 | |
| | (8) - D | $\frac{d'}{100}$ | | | | | | | | | | |
| | δ_1 | -1.69 -11.13 | 14 55.05 | | 15 22.6 | | | | | | | |
| | | | | | | | | | | | | |
| | | +29.91 1.47582 9.89213 1.49031 | 0 31.1 9.79636 1.39454 | 35.9 | 9.70 0 48.50 | 11 59.85 12 14.85 57 15 54.34 16 9.34 -30.92 -24.80 -24.80 | 11 59.85 12 14.85 57 15 54.34 16 9.34 -30.92 -24.80 -24.80 | | | 10 57 15 23.42 24.54 -45.54 -24 -17 +919 +35 -21.20 15 33.69 | | |
| | d | | | | | | | | | | +9.13 11.60 | |
| | (8) - D | $\frac{d'}{100}$ | | | | | | | | | | |
| | δ_2 | -1.69 -11.13 | 14 54.97 | | 15 24.8 | | | | | | | |
| | | | | | | | | | | | | |
| | | +29.73 1.47319 9.88958 1.48513 | 0 21.9 9.80027 1.39582 | 26.1 | 8.0 0 24.00 | 47 24.35 50 51 19.25 -30.56 -24.88 | 47 24.35 50 51 19.25 -30.56 -24.88 | | | 35 50 50 48.69 54.34 -23 -8 +8.73 +35 -21.20 15 33.69 | | |
| | d | | | | | | | | | | +8.47 11.64 | |
| | (8) - D | $\frac{d'}{100}$ | | | | | | | | | | |
| | δ_1 | -1.71 -11.20 | 15 53.74 | | 50 33.0 | | | | | | | |
| | | | | | | | | | | | | |
| | | +20.85 1.31911 9.88958 1.38105 | 0 28.9 9.80027 1.24174 | 32.8 | 6.17 0 30.88 | 47 17.50 50 51 11.99 -21.43 -17.45 | 47 17.50 50 51 11.99 -21.43 -17.45 | | | 35 50 50 40.58 54.54 -12 -11 +8.77 +35 -21.20 50 44.21 | | |
| | d | | | | | | | | | | +8.89 11.36 | |
| | (8) - D | $\frac{d'}{100}$ | | | | | | | | | | |
| | δ_2 | -1.71 -11.20 | 15 55.75 | | 50 33.5 | | | | | | | |
| | | | | | | | | | | | | |

Date₁ = 1867 Oct. 18Observer
RecorderDate₂ = Oct. 19Observer
Recorder

| Star. | α | δ | Mag. | T_s | T_m | T_e | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T |
|-------------------------|----------|----------|---------|---------|--------|-------|-------|-------|-------|-------|---------|---------------|------------|
| 16 30 | 50 51 | 8.8 | 20 16 | 19.9 | 16 214 | 24.7 | 28.0 | 31.2 | 34.4 | 13 97 | 16 2794 | 20 16 | 27.94 |
| 16 37 | 48.4 | 8.7 | | 23.3 | | | | | | | | | + 3.51 |
| 15 κ 54.0 | | | | 23.9 | | | 16 | 29.42 | | 16 | 40.93 | + 2.72 | - 1.24 |
| (8) - D κ'_{100} | | 8.8 | 16 | 53.8 | 16 335 | 36.6 | 39.8 | 42.9 | 46.4 | 19 92 | 16 3984 | 20 16 | 39.84 |
| 16 3.1 | 50 48.4 | | | 56.7 | | | | | | | | | + 3.51 |
| α_1 | | | | 0.3 | | | | | | | | + 2.72 | 16 - 42.50 |
| | | | | 56.93 | | | | | | | | | 1.23 |
| 15 54.0 | | 8.4 | 16 | 34.8 | 16 208 | 24.0 | 27.4 | 30.8 | 34.2 | 13 72 | 16 2744 | 20 16 | 27.44 |
| κ | | | | 36.4 | | | | | | | | | + 4.21 |
| (8) - D κ'_{100} | | | | 35.80 | | | | | | | | + 3.24 | - 1.21 |
| α_2 | | | | | | | | | | | | - 1.21 | 16 30.68 |
| | | | | | | | | | | | | | - 1.21 |
| 19 20 | 52 59 | 8.7 | 18 453 | 19 193 | 22.7 | 26.2 | 29.6 | 33.0 | 36.4 | 13 08 | 19 3616 | 20 19 | 26.16 |
| 18 53.2 | 50.4 | 8.6 | | 47.8 | | | | | | | | | + 3.51 |
| κ | | | | 50.3 | | | 19 | 27.66 | | 19 | 29.38 | + 2.66 | - 1.16 |
| (8) - D κ'_{100} | | 7.3 | 19 | 335 | 19 209 | 24.5 | 27.8 | 31.4 | 34.8 | 13 94 | 19 2788 | 20 19 | 27.88 |
| 18 56.7 | 52 57.4 | | | 47.87 | | | | | | | | | + 3.51 |
| α_1 | | | | 36.0 | | | | | | | | + 2.66 | - 1.16 |
| | | | | 39.8 | | | | | | | | | - 1.16 |
| | | | | 36.43 | | | | | | | | | - 1.16 |
| | | 8.3 | 18 | 46.8 | 19 186 | 22.0 | 25.5 | 28.9 | 32.4 | 12 74 | 19 2548 | 20 19 | 25.48 |
| κ | | | | 49.0 | | | | | | | | | + 4.21 |
| (8) - D κ'_{100} | | 6.9 | 19 | 34.8 | 19 205 | 23.8 | 27.3 | 30.6 | 34.2 | 13 64 | 19 2728 | 20 19 | 27.28 |
| α_2 | | | | 52.0 | | | | | | | | + 3.17 | - 1.12 |
| | | | | 49.27 | | | | | | | | | - 1.12 |
| | | | | 37.1 | | | | | | | | + 3.17 | - 1.12 |
| | | | | 40.3 | | | | | | | | | - 1.12 |
| | | | | 37.40 | | | | | | | | | - 1.12 |
| 20 21 | 50 33 | 9.3 | 20 383 | 20 21.7 | 24.9 | 28.2 | 31.5 | 34.5 | | | | 20 28.182 | + 3.51 |
| 19 53.8 | 30.0 | 8.8 | | 38.30 | | | | | | | | | - 77 |
| κ | | | | | | | | | | | | 20 30.92 | - 1.29 |
| (8) - D κ'_{100} | | | | | | | | | | | | 20 29.62 | 57 |
| α_1 | | | | | | | | | | | | | - 1.7 |
| | | | | | | | | | | | | | - 1.7 |
| | | 8.9 | 20 | 8.6 | 20 208 | 24.0 | 27.5 | 30.7 | 34.0 | 13 68 | 20 2736 | 20 20 | 27.3640 |
| κ | | | | 11.4 | | | | | | | | | + 4.21 |
| (8) - D κ'_{100} | | | | 14.2 | | | | | | | | + 3.27 | - 1.26 |
| α_2 | | | | 11.60 | | | | | | | | | - 1.26 |
| | | | | | | | | | | | | 20 29.32 | 41 |
| 21 13 | 50 36 | 9.0 | 21 6.1 | 21 150 | 18.2 | 21.5 | 25.0 | 28.2 | 31.5 | 10 79 | 21 2158 | 20 21 | 21.58 |
| 20 46.0 | 33.0 | 8.8 | | 9.5 | | | | | | | | | + 3.51 |
| κ | | | | 12.1 | | | | | | | | | - 77 |
| (8) - D κ'_{100} | | | | 9.23 | | | | | | | | + 2.74 | - 1.30 |
| α_1 | | | | | | | | | | | | | - 1.30 |
| | | | | | | | | | | | | 21 23.52 | - 1.7 |
| | | | | | | | | | | | | | - 1.7 |
| | | 8.8 | 21 | 2.0 | 21 145 | 17.6 | 21.0 | 24.3 | 27.5 | 10 49 | 21 2098 | 20 21 | 20.98 |
| κ | | | | 4.2 | | | | | | | | | + 4.21 |
| (8) - D κ'_{100} | | | | 6.7 | | | | | | | | + 3.27 | - 1.27 |
| α_2 | | | | 4.30 | | | | | | | | | - 1.27 |
| | | | | | | | | | | | | 21 22.98 | - 1.74 |
| 23 27 | 50 35 | 8.7 | 23 12.9 | 23 230 | 32.2 | 35.3 | 38.6 | 42.1 | 45.4 | 17 72 | 23 3544 | 20 23 | 35.44 |
| 23 7.01 | 32.1 | 8.6 | | 16.0 | | | | | | | | | + 3.51 |
| κ | | | | 19.5 | | | | | | | | + 2.74 | - 1.32 |
| (8) - D κ'_{100} | | | | 16.13 | | | | | | | | | - 1.32 |
| α_1 | | | | | | | | | | | | 23 36.86 | - 1.7 |
| | | | | | | | | | | | | | - 1.7 |
| | | 8.7 | 22 | 5.8 | 23 281 | 31.5 | 34.7 | 38.0 | 41.4 | 17 37 | 23 3474 | 20 23 | 34.74 |
| κ | | | | 8.2 | | | | | | | | | + 4.21 |
| (8) - D κ'_{100} | | | | 6.3 | | | | | | | | + 3.27 | - 1.29 |
| α_2 | | | | 3.10 | | | | | | | | | - 1.29 |
| | | | | | | | | | | | | 23 36.72 | - 1.7 |
| | | | | | | | | | | | | | - 1.7 |

Runs

+2.27

77

+2.47

| | | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | 8' | | | | | | |
|-----|---------|-----------|---------|---------|------|-------|--------------------|--------------------|--------------|--------|------|-------|-------|--------|-------|--------|-------|--------|
| 4 | -1.71 | +4.91 | 4 20.9 | 24.4 | 5.3 | 34 | 22.65 | 48 | 25.70 | 30 | 50 | 52 | 15.55 | 11.2 | 52 | 1.25 | | |
| 1 | -1.26 | 0.69108 | | | | | | 50 | 52 | 20.60 | 52 | 16.59 | 16.49 | 11.5 | - | 8 | | |
| 6 | | 9.88968 | 9.80012 | | | | | | | 5.05 | | | | -1 | | -103 | | |
| 9 | 29.42 | 0.70312 | 0.61856 | | | | | | | -4.11 | | 10.43 | | -92 | | +874 | | |
| 4 | (8) - D | -1.09 | 4 33.9 | 58.9 | 128 | 4 | 56.40 | 47 | 51.95 | 52 | 1.15 | | | +8.74 | | +35 | | |
| 6 | | 1.23244 | | | | | | 50 | 51 | 46.95 | | | | +35 | | -21.20 | | |
| 23 | 41.53 | 9.88968 | 9.80012 | 1627.71 | 51 | 54.5 | | | | +17.57 | | 10.25 | | -21.20 | | 51 | 50.30 | |
| 4 | -1.71 | 12.4478 | 1.15522 | 39.62 | 390 | 38.34 | | | | +14.30 | | | | 52 | 5.72 | | | |
| 21 | -11.26 | -8.16 | 4 32.9 | 36.4 | 290 | 2.3 | 34.65 | 48 | 13.70 | | 30 | 50 | 52 | 16.58 | | | | |
| 7 | | 0.91169 | | | | | | 50 | 52 | 8.19 | | | | 15.02 | | | | |
| 8 | | 9.88968 | 9.80012 | | | | | | | +8.39 | | | | -2 | | +8.14 | | |
| 1 | (8) - D | 0.92373 | 0.83417 | | | | | | | +6.53 | | | | -97 | | 10.61 | | |
| 47 | -1.71 | | | | | | | | | | | | | +8.78 | | | | |
| 47 | -11.26 | | | 1627.76 | 51 | 53.2 | | | | | | | | +35 | | | | |
| 6 | | | | | | | | | | | | | | -21.20 | | | | |
| 51 | | +38.29 | 0 35.4 | 38.5 | 13.9 | 15 | 36.95 | 57 | | | 25 | 52 | 44.3 | | | | | |
| 25 | -1.62 | 1.58309 | | | | | | 42 | 11.40 | | 40 | 52 | 45 | 25.44 | 46 | 44.91 | 46 | 12.75 |
| 34 | -11.46 | 9.90101 | 9.78180 | | | | | 46 | 6.30 | | | | | 35.59 | | -2 | | |
| 8 | (8) - D | 1.60646 | 1.48725 | | | | | 53 | -40.41 | | | | | -39 | | +10.58 | -13 | +11.25 |
| 7 | | -8.55 | 0 35.4 | 38.5 | 13.9 | 15 | 36.95 | 57 | -30.71 | | 25 | | | -13 | | 18.15 | | +10.72 |
| 35 | -1.62 | 0.93197 | | | | | | 42 | 11.40 | | 40 | | | +10.72 | | +10.72 | | 135.2 |
| 36 | -11.46 | 9.90101 | 9.78180 | 1926.04 | 0 | 15.7 | | 53 | 5.89 | | | | | +40 | | -21.60 | | |
| 8 | | 9.95534 | 0.83613 | 27.76 | 0 | 53.25 | | | | +9.02 | | | | -21.60 | | 1 | 4.67 | |
| 4 | -1.62 | +36.21 | 0 35.8 | 40.5 | 26.3 | 0 | 38.15 | 57 | 10.20 | | 25 | 53 | 0 | 27.14 | | | | |
| 55 | -11.46 | 1.55883 | | | | | | 53 | 5.10 | | | | | 35.82 | 36.23 | | -3 | |
| 8 | | 9.90244 | 9.77930 | | | | | | | -36.34 | | | | -35 | | +10.95 | -13 | +11.27 |
| 24 | (8) - D | 1.58363 | 1.46049 | | | | | 53 | -28.87 | | | | | -13 | | 13.42 | | +11.03 |
| 15 | -1.62 | -10.12 | 0 35.8 | 40.5 | 26.3 | 0 | 38.15 | 57 | 10.20 | | 25 | 53 | 0 | +11.03 | | +40 | | 13.74 |
| 2 | -11.46 | 1.1262 | | | | | | 53 | 5.10 | | | | | +40 | | -21.70 | | |
| | | 1.00518 | 9.77930 | 1925.91 | 0 | 16.5 | | | | +10.71 | | | | -21.70 | | 1 | 7.55 | 5.00 |
| | | 9.90244 | 9.77930 | 27.71 | 0 | 53.5 | | | | +8.50 | | | | 0 | 27.45 | | | |
| | | 1.02998 | 2 23.4 | 57.0 | 104 | 52 | 55.20 | 50 | 29.53 | 1.5 | 50 | 50 | 33 | 56.55 | | | | |
| | | -10.1 | [53.4] | | | | | | 33 | 48.05 | | | | -3 | | +8.12 | | |
| | | 1.00432 | | | | | | | | | | | | -61 | | 10.39 | | |
| | (8) - D | 9.80290 | | | | | | | | +8.50 | | | | +8.41 | | | | |
| | | 0.92958 | | | | | | | | | | | | +35 | | | | |
| | -1.74 | | | 2027.83 | 33 | 33.9 | | | | | | | | -21.50 | | | | |
| | -11.53 | | | | | | | | | | | | | 33 | 45.44 | | | |
| 640 | | +15.96 | 2 30.4 | 34.5 | 4.9 | 2 | 32.45 | 30 | 15.90 | | 50 | 33 | 54.05 | | | | | |
| 1 | | 1.20303 | | | | | | 50 | 34 | 10.39 | | | | 56.95 | | | | |
| 4 | | 9.88782 | 9.80290 | | | | | | | -16.34 | | | | -7 | | +6.22 | | |
| 3 | (8) - D | 1.21321 | 1.12829 | | | | | | | -13.44 | | | | -53 | | 10.69 | | |
| 6 | | | | | | | | | | | | | | +847 | | | | |
| 41 | -1.74 | | | 2027.67 | 33 | 34.6 | | | | | | | | +35 | | | | |
| 8 | -11.53 | | | | | | | | | | | | | -21.50 | | | | |
| 7 | | +12.35 | 4 45.5 | 48.8 | 14.3 | 4 | 47.15 | 33 | 1.20 | | 45 | 50 | 36 | 43.45 | | | | |
| 7 | | 1.09167 | | | | | | 50 | 36 | 56.10 | | | | 45.71 | | | | |
| 7 | | 9.88813 | 9.80244 | | | | | | | -12.65 | | | | -4 | | +7.76 | | |
| 32 | (8) - D | 1.10216 | 1.01647 | | | | | | | -10.39 | | | | -101 | | 10.03 | | |
| 0 | | | | | | | | | | | | | | +846 | | | | |
| 52 | -1.74 | | | 2121.28 | 36 | 22.5 | | | | | | | | +35 | | | | |
| 8 | -11.60 | | | | | | | | | | | | | -21.60 | | | | |
| 21 | | +16.68 | 4 41.4 | 44.5 | 5.9 | 4 | 42.95 | 33 | 5.40 | | 45 | 50 | 36 | 42.80 | | | | |
| 24 | | 1.22220 | | | | | | 50 | 36 | 59.89 | | | | 45.86 | | | | |
| 5 | | 9.88813 | 9.80244 | | | | | | | -14.09 | | | | -8 | | +7.78 | | |
| 7 | (8) - D | 1.23269 | 1.14700 | | | | | | | -14.03 | | | | -97 | | 10.25 | | |
| 8 | | | | 2121.24 | 36 | 22.9 | | | | | | | | +850 | | | | |
| 4 | -1.74 | | | | | | | | | | | | | +35 | | | | |
| 7 | -11.60 | | | | | | | | | | | | | -21.60 | | | | |
| 1 | | +19.31 | 4 24.4 | 26.9 | 11.3 | 4 | 25.65 | 33 | 22.70 | | 45 | 50 | 36 | 57.82 | | | | |
| 7 | | 1.28578 | | | | | | 50 | 37 | 17.60 | | | | 37 | 1.36 | | | |
| 8 | | 9.88813 | 9.80244 | | | | | | | -14.48 | | | | -11 | | +7.60 | | |
| 2 | (8) - D | 1.29627 | 1.21058 | | | | | | | -16.21 | | | | -92 | | 10.07 | | |
| 86 | | | | | | | | | | | | | | +848 | | | | |
| 4 | -1.75 | | | 2335.71 | 36 | 38.0 | | | | | | | | +35 | | | | |
| 21 | -11.76 | | | | | | | | | | | | | -21.70 | | | | |
| 74 | | +31.64 | 4 12.5 | 16.6 | 9.1 | 4 | 14.55 | 33 | 33.80 | | 45 | 50 | 36 | 55.88 | | | | |
| 74 | | 1.50024 | | | | | | 50 | 37 | 28.29 | | | | 37 | 1.68 | | | |
| 01 | | 9.88813 | 9.80244 | | | | | | | -32.47 | | | | -27 | | +7.72 | | |
| 29 | (8) - D | 1.51073 | 1.42504 | | | | | | | -26.61 | | | | -88 | | 10.19 | | |
| 72 | -1.75 | | | | | | | | | | | | | +852 | | | | |
| | -11.76 | | | 2334.97 | 36 | 38.3 | | | | | | | | +35 | | | | |
| | | | | | | | | | | | | | | -21.80 | | | | |
| | | | | | | | | | | | | | | 36 | 50.07 | | | |

Date₁ = 1876 Oct. 18Observer
RecorderDate₂ = Oct. 19Observer
Recorder

| Star. | α | δ | Mag. | T_s | T_m | T_a | T_f | T_g | T_h | Sum | Mean | Red. to T_m | T |
|--|----------|-----------------------------|---|---------|-------|-------|-------|-------|-------|----------------------|------|---|---|
| 24 45 24 17.9 κ (8) - D) $\frac{\kappa'}{100}$ a_1 | | 50° 13' 10.1 8.5 | 20 24 22.9 26.4 29.0 26.10 | 24 47.8 | 50.9 | 54.4 | 57.6 | 0.6 | 2713 | 24 54.26 24 54.26 | 20 | 24 54.26 + 3.51 - 76 24 57.01 - 1.35 24 55.66 | |
| 24 45 24 17.9 κ (8) - D) $\frac{\kappa'}{100}$ a_2 | | 8.8 | 24 23.7 27.9 30.2 27.27 | 24 47.0 | 50.3 | 53.6 | 56.8 | 0.0 | 2677 | 24 53.54 24 53.54 | 20 | 24 53.54 + 4.21 - 94 24 56.81 - 1.32 24 55.49 | |
| 25 54 25 27.6 κ (8) - D) $\frac{\kappa'}{100}$ a_1 | | 52 56 52.5 7.9 | 25 45.8 48.5 51.6 48.63 | 25 54.9 | 58.4 | 1.8 | 6.2 | 8.5 | 88 | 26 176 | 20 | 26 176 + 3.51 - 85 26 4.42 - 1.21 26 3.21 | |
| 25 54 25 27.6 κ (8) - D) $\frac{\kappa'}{100}$ a_2 | | 8.0 | 25 22.8 26.2 28.9 25.97 | 25 54.3 | 57.7 | 1.3 | 4.6 | 8.0 | 59 | 26 118 | 20 | 26 118 + 4.21 - 104 26 4.35 - 1.18 26 3.17 | |
| 29 56 29 28.6 κ (8) - D) $\frac{\kappa'}{100}$ a_1 | | 50 19 15.4 9.0 | 29 30.0 32.4 34.3 32.23 | 29 58.1 | 1.5 | 4.6 | 8.0 | 11.0 | 238 | 30 476 | 20 | 30 476 + 3.51 - 77 30 7.50 - 1.40 30 6.10 5.98 | |
| 29 56 29 28.6 κ (8) - D) $\frac{\kappa'}{100}$ a_2 | | 8.9 | 29 29.2 32.3 35.2 32.23 | 29 57.5 | 0.8 | 4.0 | 7.4 | 10.4 | 201 | 30 4.02 | 20 | 30 4.02 + 4.21 - 93 30 7.30 - 1.36 30 5.94 | |
| 33 18 32 50.0 κ (8) - D) $\frac{\kappa'}{100}$ a_1 | | 50 43 39.4 9.5 9.0 | 33 25.3 28.7 32.0 27.00 28.7 | 33 20.0 | 23.63 | 26.8 | 30.0 | 33.3 | | | | 33 26.72 + 3.51 - 77 33 29.52 - 1.41 33 28.05 | |
| 33 18 32 50.0 κ (8) - D) $\frac{\kappa'}{100}$ a_2 | | 9.1 | 33 5.8 8.0 10.4 8.07 | 33 19.4 | 22.8 | 25.8 | 29.0 | 32.5 | 1295 | 33 25.90 | 20 | 33 25.90 + 4.22 - 94 33 29.18 - 1.38 33 27.80 | |
| 38 19 37 57.9 37 51.9 κ (8) - D) $\frac{\kappa'}{100}$ a_1 | | 52 58 54.9 9.3 9.0 | 37 50.4 52.4 55.7 52.83 57.2 1.3 4.4 8.97 | 38 16.0 | 19.4 | 22.9 | 26.4 | 29.8 | 1145 | 38 22.90 | 20 | 38 22.90 + 3.51 - 85 38 25.56 - 1.34 38 26.90 + 3.51 - 85 38 29.56 - 1.34 38 22.26 + 4.22 - 104 38 25.44 - 1.27 38 26.42 + 4.22 - 1.04 38 29.60 | |
| 38 19 37 57.9 37 51.9 κ (8) - D) $\frac{\kappa'}{100}$ a_2 | | 8.5 | 37 44.2 47.3 50.5 47.33 57.4 54.7 58.0 54.70 | 38 15.4 | 18.8 | 22.3 | 25.7 | 29.1 | 1113 | 38 22.26 | 20 | 38 22.26 + 4.22 - 104 38 25.44 - 1.27 38 26.42 + 4.22 - 1.04 38 29.60 | |

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | S' |
|----------------|--|--------------------------------|-------------------------------|---------------------------|-------------------------|--------------------|------------------------------------|--------------|--------|--|--|
| d | +28.16 1.44963 9.88584 1.45783m | 1' 38.9 9.80580 1.37779m | 42.1 | 81.0 | 11' 4.055 | 11 | 44.85 2.75 -24.70 -23.87 | | 10 | 50' 14' 34.05 38.88 -22 -36 +8.11 +30 -21.50 14 27.18 | +2.27 +2.47 +7.43 10.10 |
| $(\delta) - D$ | $\frac{d'}{100}$ | | | | | | | | | | |
| δ_1 | -1.78 -1.85 | 24 53.88 | | 14 15.3 | | | | | | | |
| d | +26.27 1.41946 9.88584 1.42766m | 1 40.1 9.80580 1.34762m | 43.8 | 3.9 | 1 41.95 | 11 | 6.40 0.89 -26.74 -22.26 | | 10 | 50' 14' 34.72 38.63 -19 -36 +8.12 +30 -21.50 14 27.17 | +7.84 10.34 |
| $(\delta) - D$ | $\frac{d'}{100}$ | | | | | | | | | | |
| δ_2 | -1.78 -1.85 | 24 53.71 | | 14 15.3 | | | | | | | |
| d | +13.13 1.11826 9.90206 1.14268m | 4 15.0 9.77997 1.02059m | 16.1 | 11.1 | 4 15.55 | 53 | 32.80 27.70 -13.59 -10.49 | | 25 | 52' 57' 13.81 17.21 -5 -88 +10.74 +40 -22.10 57 7.79 | +1.041 12.68 |
| $(\delta) - D$ | $\frac{d'}{100}$ | | | | | | | | | | |
| δ_1 | -1.65 -1.93 | 26 1.56 | | 56 55.9 | | | | | | | |
| d | +25.21 1.40157 9.90216 1.42609m | 4 5.1 9.77980 1.30373m | 7.4 | 12.5 | 4 6.25 | 53 | 42.10 36.59 -26.64 -20.12 | | 25 | 52' 57' 6.92 16.47 -17 -86 +10.88 +40 -22.20 57 6.99 | +10.25 12.72 |
| $(\delta) - D$ | $\frac{d'}{100}$ | | | | | | | | | | |
| δ_2 | -1.65 -1.93 | 26 1.52 | | 56 55.1 | | | | | | | |
| d | +32.53 1.51228 9.88636 1.52100m | 1 16.8 9.80504 1.43968m | 19.8 | 16.6 | 1 18.30 | 16 | 30.05 24.95 -23.19 -27.52 | | 5 | 50' 19' 51.46 57.13 -29 -27 +8.20 +30 -22.20 19 45.44 | +7.54 10.21 |
| $(\delta) - D$ | $\frac{d'}{100}$ | | | | | | | | | | |
| δ_1 | -1.79 -1.21 | 30 4.19 | | 19 33.2 | | | | | | | |
| d | +31.79 1.50229 9.88636 1.51101m | 1 15.2 9.80504 1.42969m | 20.1 | 35.3 | 1 17.65 | 16 | 30.70 25.19 -26.44 -26.90 | | 5 | 50' 19' 52.75 58.29 -27 -27 +8.22 +30 -22.20 19 45.44 | +7.98 10.45 |
| $(\delta) - D$ | $\frac{d'}{100}$ | | | | | | | | | | |
| δ_2 | -1.79 -1.21 | 30 4.15 | | 19 34.3 | | | | | | | |
| d | -1.4 9.60206m 9.88636 9.52578 | 2 52.4 9.80504 1.42969m | 56.2 | 8.6 | 2 54.30 | 39 | 54.05 48.95 +9.87 | | 40 | 43' 43' 50.52 49.29 -0 -61 +8.60 +35 -22.40 43 40.45 | +8.34 10.61 |
| $(\delta) - D$ | $\frac{d'}{100}$ | | | | | | | | | | |
| δ_1 | -1.79 -1.24 | 33 26.26 | | 43 26.3 | | | | | | | |
| d | +17.83 1.25115 9.88636 1.26234m | 2 33.6 9.80504 1.42969m | 37.9 | 11.5 | 2 35.75 | 40 | 12.60 7.09 -18.30 -14.96 | | 40 | 50' 43' 58.79 13 52.15 -9 -55 +8.64 +35 -22.60 43 40.45 | +8.35 10.82 |
| $(\delta) - D$ | $\frac{d'}{100}$ | | | | | | | | | | |
| δ_2 | -1.79 -1.24 | 33 26.01 | | 43 28.0 | | | | | | | |
| d | +30.07 1.47813 9.90235 1.50284m | 1 50.1 9.77946 1.37995m | 52.5 | 2.6 | 1 57.30 | 55 | 57.05 51.95 -31.83 -23.99 | | 25 | 52' 59' 20.12 57 21.09 27.96 -24 -40 +10.98 +40 -23.00 59 1.99 | 30.86 -18 -40 +10.98 +40 -23.00 59 20.93 |
| $(\delta) - D$ | $\frac{d'}{100}$ | | | | | | | | | | |
| δ_1 | -1.71 -1.79 | 1.41380 9.90235 1.43851m | 1 50.1 9.77946 1.37995m | 52.5 38 22.51 26.51 | 2.6 59 5.52 8.126 | 55 52 59 | 57.05 51.95 -31.83 -23.99 | | 25 | 52' 59' 20.12 57 21.09 27.96 -24 -40 +10.98 +40 -23.00 59 1.99 | 30.86 -18 -40 +10.98 +40 -23.00 59 20.93 |
| d | +34.93 1.54320 9.90235 1.56791m | 1 45.5 9.77946 1.44502m | 47.6 | 13.1 | 1 46.55 | 56 | 1.80 56.40 -36.98 -27.86 | | 25 | 52' 59' 19.72 28.54 -32 -38 +11.01 +40 -23.10 59 18.92 | 30.89 -26 -38 +11.01 +40 -23.10 59 21.23 |
| $(\delta) - D$ | $\frac{d'}{100}$ | | | | | | | | | | |
| δ_2 | -1.71 -1.79 | 1.50133 9.90235 1.52604m | 1 45.5 9.77946 1.44502m | 47.6 38 22.42 26.58 | 13.1 59 6.1 8.3 | 56 52 59 | 1.80 56.40 -36.98 -27.86 | | 25 | 52' 59' 19.72 28.54 -32 -38 +11.01 +40 -23.10 59 18.92 | 30.89 -26 -38 +11.01 +40 -23.10 59 21.23 |

80

9. Date₁ = 1876 Oct. 18

Observer
RecorderDate₂ = Oct. 18Observer _____
Recorder _____

Runs

[illegible]

+2.27

81

+2.47

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|----|--------------------|------------|----------|---------|------|--------------------|--------------------|--------------|--------|---------------|-----------|
| 16 | +29.06 | 0' 29.7 | 33.3 | 63.0 | 35 | 31.50 | 47' | 16.85 | 35 | 51' 50' 41.46 | |
| 1 | 1.46330 | | | | | 51 | 51 | 11.75 | | 47.96 | |
| 1 | 9.89564 | 9.79079 | | | | | | -30.29 | | -22 | +9.86 |
| 1 | 1.48130 | 1.37645 | | | | | | -23.79 | | -11 | 12.13 |
| 5 | (δ) - D | d' | | | | | | | | +9.79 | |
| | -1.76 | | | | | | | | | +40 | |
| | -12.85 | δ_1 | 39 21.69 | 50 24.2 | 35 | | | | | -23.00 | |
| 6 | +23.86 | 0 24.7 | 37.9 | 12.6 | 0 | 36.30 | 44 | 12.05 | 35 | 51 50 41.67 | |
| 22 | 1.37767 | | | | | 51 | 51 | 6.54 | | 47.00 | |
| 78 | 9.89564 | 9.79079 | | | | | | -24.87 | | -15 | +9.92 |
| 90 | 1.39567 | 1.29082 | | | | | | -19.54 | | -13 | 12.39 |
| 38 | (δ) - D | d' | | | | | | | | +9.80 | |
| 52 | -1.76 | | | | | | | | | +40 | |
| | -12.85 | δ_2 | 39 21.76 | 50 23.5 | 12 | | | | | -23.00 | |
| 2 | +20.85 | 2 14.1 | 16.3 | 10.4 | 2 | 15.20 | 10 | 33.15 | 10 | 52 14 6.20 | |
| 51 | 1.31911 | | | | | 52 | 14 | 28.05 | | 11.12 | |
| 3 | 9.89791 | 9.78707 | | | | | | -21.85 | | -12 | +10.00 |
| 10 | 1.33938 | 1.22854 | | | | | | -16.93 | | -46 | 12.27 |
| 30 | (δ) - D | d' | | | | | | | | +10.18 | |
| | -1.75 | | | | | | | | | +40 | |
| | -12.90 | δ_1 | 40 12.55 | 13 47.4 | 12 | | | | | -23.10 | |
| 42 | +18.42 | 2 14.5 | 18.9 | 13.4 | 2 | 16.70 | 52 | 10 31.65 | 10 | 52 14 6.84 | |
| 22 | 1.26529 | | | | | 52 | 14 | 26.14 | | 11.19 | |
| 00 | 9.89791 | 9.78707 | | | | | | -19.30 | | -9 | +10.05 |
| 64 | 1.28556 | 1.17472 | | | | | | -14.95 | | -48 | 12.52 |
| 37 | (δ) - D | d' | | | | | | | | +10.22 | |
| 27 | -1.75 | | | | | | | | | +40 | |
| | -12.90 | δ_2 | 40 12.52 | 13 48.6 | 23 | | | | | -22.20 | |
| | | | 3 15.4 | 17.9 | 13.3 | 3 | 16.65 | 59 31.70 | 20 | 53 56 5.40 | |
| | | | | | | 53 | 3 | 26.60 | | -69 | |
| | | | | | | | | | | +11.07 | |
| | | | | | | | | | | +40 | |
| 66 | +33.43 | 3 11.2 | 12.6 | 3.8 | 3 | 11.90 | 59 | 36.45 | 20 | 53 56 5.52 | |
| 22 | 1.52414 | | | | | 53 | 3 | 30.94 | | 4.32 | |
| 04 | 9.90273 | 9.77879 | | | | | | -35.42 | | -29 | +10.54 |
| 84 | 1.54923 | 1.42529 | | | | | | -26.62 | | -67 | 13.01 |
| 35 | (δ) - D | d' | | | | | | | | +11.07 | |
| 49 | -1.72 | | | | | | | | | +40 | |
| | -13.04 | δ_2 | 42 20.77 | 2 40.9 | 5 | | | | | -23.40 | |
| 06 | +25.39 | 0 49.5 | 52.4 | 10.19 | 0 | 50.95 | 16 | 57.40 | 5 | 51 20 26.02 | |
| 51 | 1.40466 | | | | | 51 | 20 | 52.80 | | 31.28 | |
| 80 | 9.89264 | 9.79558 | | | | | | -26.28 | | -17 | +9.26 |
| 77 | 1.41966 | 1.32260 | | | | | | -21.02 | | -17 | 11.53 |
| 68 | (δ) - D | d' | | | | | | | | +9.25 | |
| 29 | -1.81 | | | | | | | | | +35 | |
| | -13.12 | δ_1 | 43 27.48 | 20 65 | 5 | | | | | -23.20 | |
| 38 | +22.91 | 0 50.0 | 54.2 | 4.2 | 0 | 52.10 | 16 | 56.25 | 5 | 51 20 27.02 | |
| 22 | 1.36003 | | | | | 51 | 20 | 50.74 | | 31.77 | |
| 97 | 9.89264 | 9.79558 | | | | | | -23.72 | | -14 | +9.29 |
| 3 | 1.37503 | 1.27797 | | | | | | -18.77 | | -19 | 11.76 |
| 55 | (δ) - D | d' | | | | | | | | +9.27 | |
| 18 | -1.81 | | | | | | | | | +35 | |
| | -13.12 | δ_2 | 43 27.37 | 20 71 | 55 | | | | | -23.30 | |
| 90 | +22.47 | 0 0.8 | 3.9 | 4.7 | 0 | 23.5 | 27 | 46.00 | 55 | 53 31 16.95 | |
| 51 | 1.35160 | | | | | 53 | 31 | 40.90 | | 23.20 | |
| 56 | 9.90834 | 9.77405 | | | | | | -23.95 | | -13 | +11.68 |
| 38 | 1.37933 | 1.24801 | | | | | | -17.70 | | -0 | 14.15 |
| 17 | (δ) - D | d' | | | | | | | | +11.56 | |
| | -1.71 | | | | | | | | | +45 | |
| | -13.19 | δ_1 | 44 35.46 | 31 0.7 | 54 | | | | | -23.50 | |
| 42 | +26.62 | 4 55.5 | 59.9 | 15.4 | 4 | 57.70 | 27 | 50.65 | 50 | 53 31 16.76 | |
| 22 | 1.42521 | | | | | 53 | 31 | 45.14 | | 24.17 | |
| 05 | 9.90534 | 9.77405 | | | | | | -26.38 | | -19 | +10.83 |
| 9 | 1.45294 | 1.32162 | | | | | | -20.97 | | -104 | 13.30 |
| 24 | (δ) - D | d' | | | | | | | | +11.54 | |
| | -1.71 | | | | | | | | | +45 | |
| | -13.19 | δ_2 | 44 35.53 | 31 0.7 | | | | | | -23.60 | |
| | | | | | | | | | | 231 13.87 | |

Date₁ = 1876 Oct. 18Observer
RecorderDate₂ = Oct. 19Observer
Recorder

82

Run

| Star. | α | δ | Mag. | T_s | T_m | T_e | T_f | T_g | T_h | Sum | Mean | Red. to T_m | T |
|-------------------------------|---------------|------------|------|----------------------------------|---------|-------|-------|-------|-------|-------|----------|---------------|--|
| 45 30 45 1.7 κ | 53 45 41.8 | 6.5 6.6 | 20 | 45 10.9 10.90 | 45 29.0 | 32.4 | 36.0 | 39.6 | 43.0 | 18 00 | 45 36.00 | 20 | 45 36.00 + 3.51 - 85 45 38.66 - 1.37 45 37.29 |
| (8) - D $\frac{\kappa'}{100}$ | | | | | | | | | | | | +2.66 | |
| a_1 | | | | | | | | | | | | | |
| κ | | 6.4 | | 45 11.0 13.5 16.0 13.50 | 45 28.4 | 32.0 | 35.6 | 38.9 | 42.4 | 17 73 | 45 35.46 | 20 | 45 35.46 + 4.22 - 1.05 45 38.63 - 1.34 45 37.29 |
| (8) - D $\frac{\kappa'}{100}$ | | | | | | | | | | | | +3.17 | |
| a_2 | | | | | | | | | | | | | |
| 46 13 45 46.6 κ | 52 6 2.8 | 7.3 7.8 | | 45 56.0 58.0 1.2 58.73 | 46 16.4 | 19.7 | 23.1 | 26.3 | 29.8 | 11 53 | 46 23.06 | 20 | 46 23.06 + 3.51 - 82 46 27.75 - 1.47 46 24.28 |
| (8) - D $\frac{\kappa'}{100}$ | | | | | | | | | | | | +2.69 | |
| a_1 | | | | | | | | | | | | | |
| κ | | 8.0 | | 45 58.2 2.0 5.6 22.7 | 46 15.7 | 19.1 | 22.5 | 25.9 | 29.2 | 11 24 | 46 22.48 | 20 | 46 22.48 + 4.22 - 1.00 46 25.70 - 1.44 46 23.26 |
| (8) - D $\frac{\kappa'}{100}$ | | | | | | | | | | | | +3.22 | |
| a_2 | | | | | | | | | | | | | |
| 47 45 47 16.9 κ | 53 36 32.3 | 7.5 8.0 | | 47 30.7 33.9 36.0 33.53 | 47 45.2 | 49.0 | 52.2 | 53.8 | 59.1 | 26 13 | 47 52.26 | 20 | 47 52.26 + 3.51 - 85 47 54.92 - 1.41 47 53.51 |
| (8) - D $\frac{\kappa'}{100}$ | | | | | | | | | | | | +2.66 | |
| a_1 | | | | | | | | | | | | | |
| κ | | 7.5 | | 47 20.7 24.2 27.2 24.03 | 47 44.7 | 48.3 | 51.8 | 53.0 | 58.8 | 25 86 | 47 51.72 | 20 | 47 51.72 + 4.22 - 1.05 47 54.89 - 1.37 47 53.52 |
| (8) - D $\frac{\kappa'}{100}$ | | | | | | | | | | | | +3.17 | |
| a_2 | | | | | | | | | | | | | |
| 48 24 48 5.9 κ | 54 20 16.9 | 8.8 8.4 | | 48 20.0 22.7 25.8 22.83 | 48 35.2 | 38.7 | 42.3 | 45.7 | 49.3 | 21 12 | 48 42.24 | 20 | 48 42.24 + 3.51 - 90 48 44.85 - 1.38 48 43.47 |
| (8) - D $\frac{\kappa'}{100}$ | | | | | | | | | | | | +2.61 | |
| a_1 | | | | | | | | | | | | | |
| κ | | 8.3 | | 48 22.0 24.7 28.1 24.93 | 48 34.5 | 38.1 | 41.7 | 45.1 | 48.7 | 20 81 | 48 41.62 | 20 | 48 41.62 + 4.22 - 1.09 48 44.75 - 1.35 48 43.40 |
| (8) - D $\frac{\kappa'}{100}$ | | | | | | | | | | | | +3.13 | |
| a_2 | | | | | | | | | | | | | |
| 49 33 49 26.2 κ | 54 58 53.0 | 9.0 9.0 | | 49 18.0 21.8 24.2 21.33 | 49 32.8 | 56.5 | 0.1 | 3.6 | 7.3 | 03 60 | 00.6 | 20 | 50 2.06 + 3.51 - 92 50 2.75 - 1.37 50 1.28 |
| (8) - D $\frac{\kappa'}{100}$ | | | | | | | | | | | | +2.59 | |
| a_1 | | | | | | | | | | | | | |
| κ | | 8.9 | | 49 38.3 1.9 5.2 1.80 | 49 52.3 | 56.0 | 59.7 | 3.4 | 6.9 | 29 83 | 49 59.66 | 20 | 49 59.66 + 4.22 - 1.12 50 2.76 - 1.33 50 1.43 |
| (8) - D $\frac{\kappa'}{100}$ | | | | | | | | | | | | +3.10 | |
| a_2 | | | | | | | | | | | | | |

| | | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|----|------------|------------------|----------|------|---------|------|--------------------|--------------------|--------------|--------|--------------|-----------|
| 0 | | +25.10 | 0' 0.9 | 3.1 | 4.0 | 40 | 42 | 46.35 | | 40 | 53 46' 14.41 | |
| 1 | | 1.39967 | | | | | 53 | 46 | 41.25 | | 21.59 | |
| 5 | d | 9.90676 | 9.77147 | | | | | | | | -16 | +12.11 |
| 6 | | 1.42879 | 1.29350 | | | | | | | | -0 | 14.38 |
| 7 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | +11.82 | |
| 9 | | -1.70 | | | | | | | | | +45 | |
| 16 | δ_1 | -13.26 | 45 35.59 | | 45 59.1 | 110 | | | | | -23.60 | |
| 22 | | | | | | | | | | | 46 12.37 | |
| 25 | | | | | | | | | | | | |
| 3 | d | +21.96 | 0 2.8 | 6.1 | 8.9 | 0 | 42 | 43.90 | | 40 | 53 46' 14.91 | |
| 4 | | 1.34163 | | | | | 53 | 46 | 38.39 | | 21.19 | |
| 9 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | -13 | +12.18 |
| 29 | | -1.70 | | | | | | | | | -2 | 14.65 |
| 36 | δ_2 | -13.26 | 45 35.59 | | 45 58.9 | 18 | | | | | +11.88 | |
| 46 | | | | | | | | | | | +45 | |
| 51 | | | | | | | | | | | -23.70 | |
| 52 | | | | | | | | | | | 46 12.14 | |
| 5 | d | +24.33 | 3 42.9 | 44.9 | 7.8 | 3 | 41 | 44.45 | | 15 | 52 7' 33.89 | |
| 11 | | 1.38614 | | | | | 52 | 7 | 59.35 | | 39.56 | |
| 2 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | -16 | +9.56 |
| 5 | | -1.79 | | | | | | | | | -78 | 11.83 |
| 7 | δ_1 | -13.31 | 46 22.49 | | 7 14.6 | 18 | | | | | +10.10 | |
| 8 | | | | | | | | | | | +40 | |
| 48 | | | | | | | | | | | -23.50 | |
| 52 | | | | | | | | | | | 7 27.89 | |
| 50 | d | +20.21 | 3 44.8 | 46.8 | 11.6 | 3 | 4 | 2.65 | | 15 | 52 7' 35.99 | |
| 10 | | 1.30557 | | | | | 52 | 7 | 57.14 | | 40.20 | |
| 4 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | -11 | +9.61 |
| 16 | | -1.79 | | | | | | | | | -78 | 12.08 |
| 26 | δ_2 | -13.31 | 46 22.47 | | 7 15.9 | 149 | | | | | +10.10 | |
| 6 | | | | | | | | | | | +40 | |
| 5 | | | | | | | | | | | -23.60 | |
| 2 | | | | | | | | | | | 7 29.18 | |
| 1 | d | +18.73 | 4 17.2 | 19.0 | 16.2 | 4 | 33 | 30.25 | | 45 | 53 37' 5.16 | |
| 2 | | 1.27254 | | | | | 53 | 37 | 25.15 | | 10.42 | |
| 1 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | -9 | +11.14 |
| 1 | | -1.72 | | | | | | | | | -90 | 13.41 |
| 2 | δ_1 | -13.41 | 47 51.79 | | 36 46.6 | 149 | | | | | +11.68 | |
| 2 | | | | | | | | | | | +45 | |
| 5 | | | | | | | | | | | -23.80 | |
| 9 | | | | | | | | | | | 37 5.23 | |
| 2 | d | +27.69 | 4 9.2 | 10.7 | 19.9 | 4 | 33 | 38.40 | | 45 | 53 37' 3.34 | |
| 5 | | 1.44232 | | | | | 53 | 37 | 32.89 | | 11.13 | |
| 9 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | -20 | +11.10 |
| 2 | | -1.72 | | | | | | | | | -87 | 13.57 |
| 2 | δ_2 | -13.41 | 47 51.80 | | 36 47.5 | 6 | | | | | +11.67 | |
| 4 | | | | | | | | | | | +45 | |
| 1 | | | | | | | | | | | -23.80 | |
| 1 | | | | | | | | | | | 37 0.90 | |
| 4 | d | +19.41 | 4 27.1 | 28.1 | 15.2 | 4 | 18 | 20.75 | | 0 | 54 21' 54.74 | |
| 1 | | 1.28803 | | | | | 54 | 22 | 15.65 | | 22 0.66 | |
| 5 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | -9 | +11.92 |
| 8 | | -1.69 | | | | | | | | | -95 | 14.19 |
| 17 | δ_1 | -13.46 | 48 41.78 | | 21 37.5 | 6 | | | | | +12.46 | |
| 62 | | | | | | | | | | | +50 | |
| 22 | | | | | | | | | | | -23.90 | |
| 09 | | | | | | | | | | | 21 50.95 | |
| 15 | d | +16.69 | 4 27.2 | 29.5 | 16.7 | 4 | 18 | 20.00 | | 0 | 54 21' 56.51 | |
| 35 | | 1.22246 | | | | | 54 | 22 | 14.49 | | 22 1.60 | |
| 40 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | -7 | +12.00 |
| 06 | | -1.69 | | | | | | | | | -95 | 14.47 |
| 51 | δ_2 | -13.46 | 48 41.71 | | 21 38.6 | 26 | | | | | +12.47 | |
| 51 | | | | | | | | | | | +50 | |
| 52 | | | | | | | | | | | -24.00 | |
| 15 | | | | | | | | | | | 21 52.07 | |
| 37 | d | +38.73 | 1 20.7 | 21.6 | 2.3 | 1 | 56 | 27.20 | | 25 | 54 59' 40.05 | |
| 28 | | 1.58805 | | | | | 55 | 0 | 22.10 | | 52.66 | |
| 66 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | -38 | +12.98 |
| 12 | | -1.66 | | | | | | | | | -28 | 15.25 |
| 33 | δ_1 | -13.55 | 49 59.62 | | 59 30.4 | 26 | | | | | +13.14 | |
| 43 | | | | | | | | | | | +50 | |
| 22 | | | | | | | | | | | -24.00 | |
| 16 | d | +2.14 | 1 52.9 | 54.9 | 7.8 | 1 | 55 | 55.45 | | 25 | 54 59' 52.26 | |
| 33 | | 0.33041 | | | | | 54 | 59 | 49.44 | | 51.57 | |
| 43 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | -0 | +13.31 |
| 2 | | -1.66 | | | | | | | | | -40 | 15.78 |
| 2 | δ_2 | -13.55 | 49 59.77 | | 59 29.7 | 26 | | | | | +13.14 | |
| | | | | | | | | | | | +50 | |
| | | | | | | | | | | | -24.10 | |
| | | | | | | | | | | | 59 43.25 | |

Date₁ = 1876 Oct. 18Observer
RecorderDate₂ = Oct. 19Observer
Recorder

| Star. | α | δ | Mag. | T_s | T_m | T_e | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T |
|-------|----------|--------------------------------|------|-------|---------|---------|-------|-------|-------|------|-------|---------------|-----|
| 51 | 5 | 54 6' | 8.0 | 20 | 50 32.4 | 51 0.1 | 2.8 | 7.3 | 10.8 | 14.3 | 363 | 51 7.26 | 20 |
| | | 50 32.1 | 8.1 | | 35.3 | | | | | | | +3.51 | |
| | | κ | | | 89.0 | | | | | | | -8.8 | |
| | | (8) - D) $\frac{\kappa'}{100}$ | | | 35.57 | | | | | | | +2.63 | |
| | | a_1 | | | | | | | | | | 51 9.89 | |
| | | | | | | | | | | | | -1.44 | |
| | | | | | | | | | | | | 51 8.45 | |
| | | | | | | | | | | | | | |
| | | | 8.3 | 50 | 45.8 | 50 59.6 | 3.0 | 6.4 | 10.0 | 13.6 | 33 26 | 51 6.52 | 20 |
| | | | | | 48.1 | | | | | | | +4.22 | |
| | | κ | | | 51.3 | | | | | | | -1.08 | |
| | | (8) - D) $\frac{\kappa'}{100}$ | | | 48.73 | | | | | | | +3.14 | |
| | | a_2 | | | | | | | | | | 51 9.66 | |
| | | | | | | | | | | | | -1.40 | |
| | | | | | | | | | | | | 51 8.26 | |
| | | | | | | | | | | | | | |
| 52 | 40 | 53 27 | 9.0 | 52 | 13.2 | 52 41.3 | 44.7 | 48.1 | 57.9 | 53.3 | 2413 | 52 48.26 | 20 |
| | | 52 11.9 | 9.0 | | 16.4 | | | | | | | +3.51 | |
| | | κ | | | 20.1 | | | | | | | -8.6 | |
| | | (8) - D) $\frac{\kappa'}{100}$ | | | 16.57 | | | | | | | +2.65 | |
| | | a_1 | | | | | | | | | | 52 50.91 | |
| | | | | | | | | | | | | -1.48 | |
| | | | | | | | | | | | | 52 49.43 | |
| | | | | | | | | | | | | | |
| | | | 9.1 | 52 | 25.0 | 52 40.7 | 44.0 | 47.5 | 50.7 | 54.6 | 23 75 | 52 47.50 | 20 |
| | | | | | 28.1 | | | | 51.9 | | | +4.22 | |
| | | κ | | | 31.2 | | | | | | | -1.05 | |
| | | (8) - D) $\frac{\kappa'}{100}$ | | | 28.10 | | | | | | | +3.17 | |
| | | a_2 | | | | | | | | | | 52 50.67 | |
| | | | | | | | | | | | | -1.44 | |
| | | | | | | | | | | | | 52 50.23 | |
| | | | | | | | | | | | | | |
| 54 | 13 | 54 59 | 5.8 | 54 | 2.1 | 54 10.9 | 14.4 | 17.9 | 21.6 | 25.2 | 9 00 | 54 18.00 | 20 |
| | | 53 43.6 | 6.8 | | 6.1 | | | | | | | +3.51 | |
| | | κ | | | 9.0 | | | | | | | -9.2 | |
| | | (8) - D) $\frac{\kappa'}{100}$ | | | 6.07 | | | | | | | +2.59 | |
| | | a_1 | | | | | | | | | | 54 20.59 | |
| | | | | | | | | | | | | -1.41 | |
| | | | | | | | | | | | | 54 19.18 | |
| | | | | | | | | | | | | | |
| | | | 7.0 | 53 | 47.4 | 54 10.0 | 13.6 | 17.1 | 20.8 | 24.5 | 8 60 | 54 17.20 | 20 |
| | | | | | 57.7 | | | | | | | +4.22 | |
| | | κ | | | 57.5 | | | | | | | -1.12 | |
| | | (8) - D) $\frac{\kappa'}{100}$ | | | 57.20 | | | | | | | +3.10 | |
| | | a_2 | | | | | | | | | | 54 20.30 | |
| | | | | | | | | | | | | -1.38 | |
| | | | | | | | | | | | | 54 18.92 | |
| | | | | | | | | | | | | | |
| 55 | 31 | 52 9 | 9.0 | 55 | 9.3 | 55 33.0 | 36.3 | 39.8 | 43.2 | 46.5 | 19 88 | 55 39.76 | 20 |
| | | 53 2.0 | 8.8 | | 13.0 | | | | | | | +3.51 | |
| | | κ | | | 16.2 | | | | | | | -8.2 | |
| | | (8) - D) $\frac{\kappa'}{100}$ | | | 12.83 | | | | | | | +3.69 | |
| | | a_1 | | | | | | | | | | 55 42.45 | |
| | | | | | | | | | | | | -1.56 | |
| | | | | | | | | | | | | 55 40.89 | |
| | | | | | | | | | | | | | |
| | | | 8.8 | 55 | 9.0 | 55 32.4 | 35.5 | 39.1 | 42.5 | 45.8 | 19 53 | 55 39.06 | 20 |
| | | | | | 12.4 | | | | | | | +4.23 | |
| | | κ | | | 15.2 | | | | | | | -1.00 | |
| | | (8) - D) $\frac{\kappa'}{100}$ | | | 12.20 | | | | | | | +3.23 | |
| | | a_2 | | | | | | | | | | 55 42.29 | |
| | | | | | | | | | | | | -1.53 | |
| | | | | | | | | | | | | 55 40.76 | |
| | | | | | | | | | | | | | |
| 56 | 59 | 52 41 | 8.9 | 56 | 39.5 | 57 0.9 | 4.2 | 8.0 | 11.1 | 14.5 | 3 87 | 57 7.74 | 20 |
| | | 56 30.6 | 8.8 | | 42.9 | | | | | | | +3.51 | |
| | | κ | | | 45.1 | | | | | | | -8.3 | |
| | | (8) - D) $\frac{\kappa'}{100}$ | | | 42.50 | | | | | | | +2.68 | |
| | | a_1 | | | | | | | | | | 57 10.46 | |
| | | | | | | | | | | | | -1.56 | |
| | | | | | | | | | | | | 57 8.86 | |
| | | | | | | | | | | | | | |
| | | | 9.0 | 56 | 31.7 | 57 0.1 | 3.7 | 7.0 | 10.3 | 13.8 | 3 49 | 57 6.98 | 20 |
| | | | | | 34.4 | | | | | | | +4.23 | |
| | | κ | | | 37.5 | | | | | | | -1.01 | |
| | | (8) - D) $\frac{\kappa'}{100}$ | | | 34.53 | | | | | | | +3.22 | |
| | | a_2 | | | | | | | | | | 57 10.20 | |
| | | | | | | | | | | | | -1.52 | |
| | | | | | | | | | | | | 57 8.64 | |
| | | | | | | | | | | | | | |

Runs

+2.27

85

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|--------------------------|--|----------|---------|---------|-------|--------------------|--|--------------|--|-----------------|-----------|
| d | +31.69 1.50092 9.90869 1.53197m | 3' 57.9 | 52.9 | 4.8 18' | 52.40 | 3' | 55.95 55.95 50.85 -34.04 -24.61 | 15 | 54 7' 16.81 26.24 -26 -82 +12.22 +50 -24.00 7 16.15 | +11.64 13.91 | |
| (8) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | -1.72 -13.60 | 51 6.73 | 7 2.6 | | 19 | | | | | | |
| d | +17.79 1.25018 9.90869 1.28123m | 4 11 | 2.0 | 3.1 19 | 155 | 3 | 46.80 41.29 -19.14 -13.82 | 15 | 54 7 22.18 27.47 -8 -84 +12.26 +50 -24.10 7 17.68 | +11.84 14.31 | |
| (8) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | -1.72 -13.60 | 51 6.54 | 7 4.1 | | 58 | | | | | | |
| d | +31.69 1.50092 9.90499 1.52827m | 3 18.2 | 19.9 | 18.1 3 | 1905 | 24 | 29.30 24.20 -33.75 -25.00 | 55 | 53 27 56.15 59.20 -26 -69 +11.53 +45 -24.00 27 48.50 | +11.03 13.30 | |
| (8) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | -1.76 -13.72 | 52 47.67 | 27 34.8 | | 58 | | | | | | |
| d | +19.40 1.28780 9.90499 1.31515m | 3 27.0 | 29.9 | 16.9 3 | 2845 | 24 | 19.90 14.39 -20.66 -15.31 | 55 | 53 27 53.73 59.08 -7 -74 +11.53 +45 -24.10 27 48.64 | +11.19 13.66 | |
| (8) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | -1.76 -13.72 | 52 47.53 | 27 34.9 | | 25 | | | | | | |
| d | +11.93 1.07664 9.91345 1.11245m | 0 58.9 | 59.9 | 18.8 0 | 5940 | 56 | 48.95 43.85 -12.96 -9.07 | 25 | 55 0 30.89 34.78 -4 -21 +13.17 +55 -24.10 0 26.42 | +13.47 15.74 | |
| (8) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | -1.69 -13.82 | 54 17.49 | 0 12.6 | | 25 | | | | | | |
| d | +26.00 1.41499 9.91345 1.45078m | 0 46.2 | 49.2 | 15.4 0 | 4770 | 57 | 0.65 53.14 -28.23 -19.76 | 25 | 55 0 26.91 35.38 -17 -17 +13.17 +55 -24.10 0 26.42 | +13.43 15.90 | |
| (8) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | -1.69 -13.82 | 54 17.23 | 0 13.3 | | 16 | | | | | | |
| d | +26.93 1.43024 9.89752 1.45012m | 1 30.5 | 32.9 | 3.4 1 | 3170 | 6 | 16.65 11.65 -28.19 -21.89 | 15 | 52 9 43.36 47.66 -19 -32 +10.15 +40 -24.10 9 37.87 | +10.04 12.31 | |
| (8) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | -1.83 -13.91 | 55 39.06 | 9 24.0 | | 16 | | | | | | |
| d | +26.86 1.42911 9.89752 1.44899m | 1 29.5 | 32.6 | 6.2 1 | 3105 | 6 | 17.30 11.79 -28.12 -21.84 | 15 | 52 9 43.64 49.95 -19 -32 +10.18 +40 -24.10 9 38.29 | +10.07 12.54 | |
| (8) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | -1.83 -13.91 | 55 38.93 | 9 24.4 | | 43 | | | | | | |
| d | +25.24 1.40209 9.90072 1.42517m | 3 27.4 | 30.1 | 57.5 3 | 2875 | 39 | 19.60 14.50 -20.62 -20.27 | 40 | 52 42 47.88 54.23 -17 -74 +10.73 +40 -24.30 42 42.42 | +10.22 12.49 | |
| (8) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | -1.82 -14.00 | 57 7.04 | 42 28.4 | | 43 | | | | | | |
| d | +32.45 1.51121 9.90072 1.53429m | 3 22.0 | 24.4 | 6.4 3 | 2320 | 39 | 25.15 19.64 -34.22 -26.05 | 40 | 52 42 45.42 53.59 -28 -71 +10.786 +40 -24.40 42 41.83 | +10.17 12.64 | |
| (8) - D $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | -1.82 -14.00 | 57 6.86 | 42 27.8 | | | | | | | | |

Date₁ = 1876 Oct. 18Observer
RecorderDate₂ = Oct. 14Observer _____
Recorder _____

1876phae1.pr

| Star. | α | δ | Mag. | T_0 | T_m | T_e | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T |
|-------|---|------------------------------------|------------|-------|----------------------------------|---------|-------|-------|-------|------|------------------|---------------|--|
| 21 | $58^\circ 52'$ $58^\circ 31.2'$ K | $52^\circ 16'$ 12.7 | 8.5 8.6 | 20 | 58 37.7 41.6 43.9 40.87 | 59 2.2 | 5.6 | 9.2 | 12.6 | 13.8 | 454 59 9.08 | 20 | 59 9.08 + 3.51 - 8.2 59 11.77 - 1.60 59 10.17 |
| | $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | +2.69 | |
| | a_1 | | | | | | | | | | | | |
| | K | | 8.8 | 58 | 26.5 29.7 32.8 29.67 | 59 1.6 | 5.0 | 8.4 | 11.7 | 13.2 | 419 59 8.38 | 20 | 59 8.38 + 4.23 - 1.00 59 11.61 - 1.56 59 10.05 |
| | $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | +3.23 | |
| | a_2 | | | | | | | | | | | | |
| 20 | $59^\circ 52'$ $59^\circ 28.9'$ K | $53^\circ 26'$ 23.0 18.5 | 8.0 8.3 | 20 | 59 43.0 43.00 | 59 4.84 | 51.8 | 53.2 | 58.7 | 24 | 2765 59 55.30 | 20 | 59 55.30 + 3.51 - 8.6 59 57.95 - 1.55 + 3.51 - 8.6 59 55.00 + 4.13 |
| | $((\delta) - D) \frac{\kappa'}{100}$ | | 8.1 | 59 | 38.8 38.80 | 59 5.46 | 58.0 | 1.5 | 4.9 | 8.4 | 740 148 | 21 | 0 1.48 + 3.51 - 8.6 59 55.00 + 4.13 |
| | a_1 | 53 23.0 | | | | | | | | | | +2.65 | |
| | K | | 8.8 | 59 | 42.9 42.90 | 59 4.77 | 51.1 | 54.9 | 58.4 | 2.2 | 2743 59 54.86 | 20 | 59 54.86 + 4.23 - 1.05 59 58.04 - 1.52 + 4.23 - 1.05 59 58.04 + 4.16 |
| | $((\delta) - D) \frac{\kappa'}{100}$ | | 8.6 | 59 | 37.9 37.90 | 59 5.41 | 57.6 | 1.0 | 4.5 | 7.7 | 490 0.98 | 21 | 0 0.98 + 4.23 - 1.05 59 58.04 + 4.16 |
| | a_2 | | | | | | | | | | | +3.18 | |
| 21 | $2^\circ 8'$ $1^\circ 27.9'$ K | $53^\circ 56'$ 52.1 | 8.7 8.5 | 21 | 1 48.4 51.2 54.8 51.47 | 2 7.0 | 10.6 | 13.9 | 17.6 | 21.0 | 701 2 14.02 | 21 | 2 14.02 + 3.52 - 8.8 2 16.66 - 1.55 2 15.11 |
| | $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | +2.64 | |
| | a_1 | | | | | | | | | | | | |
| | K | | 9.0 | 1 | 44.7 47.3 47.9 47.30 | 2 6.4 | 9.9 | 13.4 | 16.8 | 20.4 | 669 2 13.38 | 21 | 2 13.38 + 4.23 - 1.08 2 16.53 - 1.52 2 15.01 |
| | $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | +3.15 | |
| | a_2 | | | | | | | | | | | | |
| 2 | 34° $3^\circ 8.7'$ K | $54^\circ 18'$ 14.9 | 8.9 9.0 | 3 | 16.3 18.6 23.0 19.63 | 3 35.7 | 38.9 | 42.7 | 46.2 | 49.7 | 2132 3 42.64 | 21 | 3 42.64 + 3.52 - 8.8 3 45.28 - 1.56 3 43.72 |
| | $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | +2.64 | |
| | a_1 | | | | | | | | | | | | |
| | K | | 9.0 | 3 | 5.5 8.6 12.8 8.97 | 3 33.0 | 38.7 | 42.3 | 45.9 | 49.3 | 2112 3 42.24 | 21 | 3 42.24 + 4.23 - 1.08 3 45.39 - 1.52 3 43.84 |
| | $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | +3.15 | |
| | a_2 | | | | | | | | | | | | |
| 6 | 12° $5^\circ 41.5'$ K | $51^\circ 54'$ 52.0 | 8.2 7.8 | 6 | 60 9.0 13.5 9.50 | 6 14.3 | 17.7 | 20.8 | 24.3 | 27.7 | 1048 6 20.96 | 21 | 6 20.96 + 3.52 - 8.2 6 23.66 - 1.69 6 21.97 |
| | $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | +2.70 | |
| | a_1 | | | | | | | | | | | | |
| | K | | 8.0 | 5 | 42.2 47.2 49.3 46.23 | 6 13.6 | 16.9 | 20.2 | 23.6 | 27.1 | 1014 6 20.28 | 21 | 6 20.28 + 4.23 - 1.01 6 23.50 - 1.66 6 21.84 |
| | $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | +3.22 | |
| | a_2 | | | | | | | | | | | | |

Runs

+2.27

87

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|------------|---|---|----------------------------|-------|----------|--------------------|------------------------------------|----------------|--------|--|---|
| | +28.21 1.45040 9.89830 1.47106 | 3' 41.1 9.78642 1.35918 | 43.1 | 4.3 | 3' 42.10 | 52 14' 18" | 6.25 1.15 -29.58 -22.57 | | 5 | 52 17' 31.57 38.28 -21 -78 +10.27 +40 -24.40 17 25.83 | |
| d | | | | | | | | | | | |
| (8) - D | | | | | | | | | | | |
| δ_1 | -1.84 -14.12 | 59 8.33 | 17 11.7 | | | | | | | | +9.64 11.95 |
| | +38.71 1.58482 9.89830 1.60848 | 3 30.5 9.78642 1.49660 | 32.9 | 3.4 | 3 31.70 | 52 14' 18" | 16.65 11.14 -40.60 -31.38 | | 5 | 52 17' 30.57 39.76 -39 -74 +10.27 +40 -24.50 17 27.32 | |
| d | | | | | | | | | | | |
| (8) - D | | | | | | | | | | | |
| δ_2 | -1.84 -14.12 | 59 8.21 | 17 13.2 | | | | | | | | +9.59 12.06 |
| | +12.30 1.08991 9.90509 1.11736 | 3 2.9 9.77456 1.98683 | 3.9 | 6.8 | 3 34.0 | 53 28' | 44.95 39.85 -13.10 -9.70 | 53 28 30.15 | 55 | 53 28 30.15 30.15 -4 -64 +11.53 +45 -24.50 17 27.32 | 28 21.96 -14 -64 +11.53 +45 -24.50 28 109.3 |
| d | | | | | | | | | | | |
| (8) - D | | | | | | | | | | | |
| δ_1 | -1.80 -14.18 | 59 54.60 1.35564 9.90509 1.38309 | 28 5.0 0.78 27.56858 | 5.1 | 3 25.5 | 53 28' | 44.95 39.85 -24.16 -17.89 | 53 28 30.15 | 55 | 53 28 30.15 30.15 -4 -64 +11.53 +45 -24.50 28 109.3 | 28 21.96 -14 -64 +11.53 +45 -24.50 28 109.3 |
| d | | | | | | | | | | | |
| (8) - D | | | | | | | | | | | |
| δ_2 | -1.80 -14.18 | 59 54.72 1.36324 9.90509 1.49069 | 28 5.9 0.84 27.57029 | 5.1 | 3 25.5 | 53 28' | 44.95 39.85 -24.16 -17.89 | 53 28 30.15 | 55 | 53 28 30.15 30.15 -4 -64 +11.53 +45 -24.50 28 109.3 | 28 21.96 -14 -64 +11.53 +45 -24.50 28 109.3 |
| d | | | | | | | | | | | |
| (8) - D | | | | | | | | | | | |
| δ_1 | -1.79 -14.32 | 2 13.32 56 43.7 | | | | | | | | | |
| | +26.08 1.41631 9.90768 1.44635 | 4 12.2 9.76974 1.30841 | 14.1 | 6.3 | 4 13.15 | 53 57' | 35.20 29.69 -24.45 -20.82 | 25 53 57 1.94 | 25 | 53 57 1.94 8.91 -14 -90 +12.05 +50 -24.70 56 57.99 | +14.51 13.78 |
| d | | | | | | | | | | | |
| (8) - D | | | | | | | | | | | |
| δ_2 | -1.79 -14.32 | 2 13.22 56 43.7 | | | | | | | | | |
| | +23.01 1.36192 9.90984 1.39415 | 1 8.1 9.76534 1.24982 | 9.9 | 18.0 | 1 9.00 | 52 16' | 39.35 34.25 -24.78 -17.78 | 5 54 20 9.17 | 5 | 54 20 9.17 16.47 -14 -23 +12.45 +50 -24.80 20 6.52 | +12.58 148.5 |
| d | | | | | | | | | | | |
| (8) - D | | | | | | | | | | | |
| δ_1 | -1.78 -14.41 | 3 41.94 19 52.1 | | | | | | | | | |
| | +33.24 1.52265 9.90984 1.55428 | 0 58.8 9.76534 1.40995 | 1.9 | 120.7 | 1 0.35 | 54 16' | 48.00 42.49 -25.83 -25.70 | 5 54 20 6.66 | 5 | 54 20 6.66 16.79 -29 -21 +12.50 +50 -24.90 20 6.86 | +12.50 14.97 |
| d | | | | | | | | | | | |
| (8) - D | | | | | | | | | | | |
| δ_2 | -1.78 -14.41 | 3 42.09 19 52.4 | | | | | | | | | |
| | +11.46 1.05318 9.89614 1.07768 | 0 53.9 9.78999 1.09715 | 56.9 | 108 0 | 55 40 | 51 55' | 52.95 47.85 -4.96 -9.36 | 30 51 55 35.89 | 30 | 51 55 35.89 35.89 -4 -17 +9.87 +40 -24.70 55 26.12 | +10.06 12.33 |
| d | | | | | | | | | | | |
| (8) - D | | | | | | | | | | | |
| δ_1 | -1.90 -14.57 | 6 20.07 55 11.6 | | | | | | | | | |
| | +34.05 1.53212 9.89614 1.55062 | 0 33.9 9.78999 1.44447 | 37.9 | 118 0 | 35.80 | 51 56' | 12.45 6.94 -35.63 -24.83 | 30 51 55 31.11 | 30 | 51 55 31.11 39.11 -31 -13 +9.96 +40 -24.80 55 26.70 | +9.92 12.37 |
| d | | | | | | | | | | | |
| (8) - D | | | | | | | | | | | |
| δ_2 | -1.90 -14.57 | 6 19.94 55 12.1 | | | | | | | | | |

Date₁ = 1876 Oct. 18Observer
RecorderDate₂ = Oct. 19Observer
Recorder

| Star. | α | δ | Mag. | T_0 | T_m | T_e | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T |
|----------|-----------------------|----------|-------|-------|---------|-------|-------|-------|-------|--------|----------|---------------|----------|
| 20 7 35 | 51 30 | 8.5 | 21 7 | 7.7 | 7 26.9 | 40.2 | 433 | 46.9 | 50.1 | 21 747 | 4348 | 21 | 7 43.48 |
| κ | 4.1 | 25.8 | 8.4 | 10.7 | 13.1 | | | | | | | +2.71 | - 3.52 |
| (6) - D | $\frac{\kappa'}{100}$ | | | 10.50 | | | | | | | | | - 81 |
| a_1 | | | | | | | | | | | | | 7 46.19 |
| | | | | | | | | | | | | | - 1.72 |
| | | | | | | | | | | | | | 7 44.47 |
| κ | | | | | | | | | | | | | - 1.9 |
| (6) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | - 14 |
| a_2 | | | | | | | | | | | | | |
| 20 9 38 | 50 15 | 8.6 | 20 9 | 49.2 | 9 39.7 | 42.8 | 46.0 | 49.2 | 52.6 | 23 03 | 9 4606 | 20 | 9 46.06 |
| κ | 10.8 | 12.2 | 8.4 | 22.9 | 25.7 | | | | | | | +3.74 | + 3.57 |
| (6) - D | $\frac{\kappa'}{100}$ | | | 22.60 | | | | | | | | | - 77 |
| a_1 | | | | | | | | | | | | | 9 48.80 |
| | | | | | | | | | | | | | - 1.21 |
| | | | | | | | | | | | | | 9 47.59 |
| κ | | | | | | | | | | | | | - 1.7 |
| (6) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | - 10 |
| a_2 | | | | | | | | | | | | | |
| 21 0 52 | 52 26 | 9.8 | 21 0 | 54.8 | 0 53.4 | 56.5 | - | 2.4 | 6.8 | 1 002 | | 21 | 1 0.02 |
| κ | 21.7 | 21.7 | 9.5 | 54.80 | | | | | | | | +3.68 | + 4.23 |
| (6) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | - 3.53 |
| a_1 | | | | | | | | | | | | | 1 3.42 |
| | | | | | | | | | | | | | - 1.70 |
| | | | | | | | | | | | | | 1 1.00 |
| κ | | | | | | | | | | | | | - 1.8 |
| (6) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | - 14 |
| a_2 | | | | | | | | | | | | | |
| 21 4 28 | 52 47 | 10.0 | 21 4 | 37.1 | 4 28.9 | 32.3 | 36.2 | 40.0 | 43.0 | 18 04 | 4 3608 | 21 | 4 36.08 |
| κ | 57.7 | 43.4 | 9.5 | 37.10 | | | | | | | | +3.69 | + 3.52 |
| (6) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | - 83 |
| a_1 | | | | | | | | | | | | | 4 38.77 |
| | | | | | | | | | | | | | - 1.63 |
| | | | | | | | | | | | | | 4 37.14 |
| κ | | | | | | | | | | | | | - 1.5 |
| (6) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | - 14 |
| a_2 | | | | | | | | | | | | | |
| 20 10 59 | 54 21 | 8.8 | 20 10 | 51.2 | 10 53.3 | 59.0 | 2.5 | 5.9 | 9.5 | 12 21 | 11 244 | 20 | 11 24.48 |
| κ | 32.8 | 18.3 | 8.8 | 54.3 | 58.2 | | | | | | | +3.12 | + 4.21 |
| (6) - D | $\frac{\kappa'}{100}$ | | | 54.57 | | | | | | | | | - 109 |
| a_1 | | | | | | | | | | | | | 11 5.56 |
| | | | | | | | | | | | | | - 0.94 |
| | | | | | | | | | | | | | 11 4.62 |
| κ | | | | | | | | | | | | | - 1.5 |
| (6) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | - 10 |
| a_2 | | | | | | | | | | | | | |
| 20 17 40 | 50 57 | 8.8 | 20 17 | 15.8 | 17 19.8 | 23.1 | 26.4 | 29.6 | 33.0 | 13 19 | 17 2638 | 20 | 17 26.38 |
| κ | | | | 17.8 | 20.6 | | | | | | | +3.24 | + 4.21 |
| (6) - D | $\frac{\kappa'}{100}$ | | | 18.07 | | | | | | | | | - 97 |
| a_1 | | | | | | | | | | | | | 17 29.62 |
| | | | | | | | | | | | | | - 20 |
| | | | | | | | | | | | | | 17 28.42 |
| κ | | | | | | | | | | | | | - 1.7 |
| (6) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | - 12 |
| a_2 | | | | | | | | | | | | | |
| 20 32 31 | 50 42 | 8.3 | 20 32 | 31 | 32 32.3 | 35.7 | 39.0 | 42.2 | 45.4 | 19 46 | 32 38.92 | 20 | 32 38.92 |
| κ | 2.6 | 38.4 | 8.4 | 6.2 | 8.7 | | | | | | | +3.28 | + 4.22 |
| (6) - D | $\frac{\kappa'}{100}$ | | | 6.00 | | | | | | | | | - 94 |
| a_1 | | | | | | | | | | | | | 32 42.20 |
| | | | | | | | | | | | | | - 1.37 |
| | | | | | | | | | | | | | 32 40.83 |
| κ | | | | | | | | | | | | | - 1.7 |
| (6) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | - 12 |
| a_2 | | | | | | | | | | | | | |
| 20 34 22 | 50 39 | 8.4 | 20 34 | 22.8 | 34 35 | 6.8 | 10.3 | 13.4 | 16.8 | 5 08 | 34 1016 | 20 | 34 10.16 |
| κ | 34.0 | 20.4 | 8.8 | 27.1 | 30.6 | | | | | | | +3.28 | + 4.22 |
| (6) - D | $\frac{\kappa'}{100}$ | | | 26.83 | | | | | | | | | - 94 |
| a_1 | | | | | | | | | | | | | 34 13.44 |
| | | | | | | | | | | | | | - 1.38 |
| | | | | | | | | | | | | | 34 12.06 |
| κ | | | | | | | | | | | | | - 1.8 |
| (6) - D | $\frac{\kappa'}{100}$ | | | | | | | | | | | | - 12 |
| a_2 | | | | | | | | | | | | | |

Runs

+2.27

89

+2.47

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | 8' |
|-----|--------------------------|----------|------|---------|---------|--------------------|--------------------|--------------|--------|--------------|--------|
| 1 | +32.98 | 0 7.8 | 10.1 | 179 | 55 8.95 | 27 | 39.40 | | 55 | 57 31' 0.04 | |
| 2 | 1.51825 | | | | | 51 | 31 | | | 7.11 | |
| 3 | 9.89375 | 9.79383 | | | | | -34.23 | | | -27 | +7.56 |
| 4 | 1.53436 | 4.43444 | | | | | -27.19 | | | -2 | 11.83 |
| 5 | (8) - D $\frac{d'}{100}$ | | | | | | | | | +9.47 | |
| 6 | -1.92 δ_1 | 7 42.55 | | 30 39.5 | | | | | | +40 | |
| 7 | -14.65 | | | | | | | | | -24.80 | |
| 8 | | | | | 55 | | | | | 30 58.14 | |
| 9 | +41.37 | 4 57.6 | 2.4 | 1200 | 5 0.00 | 27 | 48.35 | | 50 | 57 38' 54.91 | |
| 10 | 1.61669 | | | | | 51 | 31 | | | 8.73 | |
| 11 | 9.89375 | 9.79383 | | | | | -48.93 | | | -46 | +8.37 |
| 12 | 1.63280 | 4.153288 | | | | | -34.11 | | | -105 | 10.84 |
| 13 | (8) - D $\frac{d'}{100}$ | | | | | | | | | +7.48 | |
| 14 | -1.92 δ_2 | 7 42.38 | | 30 40.0 | | | | | | +40 | |
| 15 | -14.65 | | | | 10 ✓ | | | | | -24.90 | |
| 16 | | | | | 55 | | | | | 30 54.67 | |
| 17 | +23.46 | 0 57.1 | 54.8 | 590 | 5295 | 6 | 55.40 | | 15 | 50 10' 26.42 | |
| 18 | 1.37033 | | | | | 50 | 10 | | | 30.39 | |
| 19 | 9.88542 | 9.80641 | | | | | -33.88 | | | -14 | +7.99 |
| 20 | 1.37811 | 4.129910 | | | | | -19.91 | | | -19 | 10.26 |
| 21 | (8) - D $\frac{d'}{100}$ | | | | | | | | | +8.02 | |
| 22 | -1.72 δ_1 | 9 45.87 | | 15 9.3 | | | | | | +30 | |
| 23 | -10.75 | | | | 59 | | | | | -20.60 | |
| 24 | | | | | 4 | 4835 | 23 | 5.00 | 55 | 50 26' 52.52 | |
| 25 | +7.22 | 4 42.4 | 44.3 | 67 | 4 | 50 | 26 | | | 52 | 53.51 |
| 26 | 0.85854 | | | | | | 59.90 | | | -2 | +7.62 |
| 27 | 9.88709 | 9.80397 | | | | | -14.38 | | | -99 | 9.89 |
| 28 | 0.86799 | 0.78457 | | | | | -6.09 | | | +8.33 | |
| 29 | (8) - D $\frac{d'}{100}$ | | | | | | | | | +30 | |
| 30 | -1.85 δ_2 | 0 59.15 | | 26 26.8 | | | | | | -24.30 | |
| 31 | -14.24 | | | | 38 | | | | | 26 37.70 | 4104 |
| 32 | | | | | | | | | | | |
| 33 | -1.02 | 3 2.6 | 4.4 | 203 | 350 | 52 | 44 | 44.85 | 35 | 52 48' 40.63 | |
| 34 | 0.00860 | | | | | | 48 | 39.75 | | 40.57 | |
| 35 | 9.90130 | 9.78130 | | | | | +1.08 | | | -65 | +10.59 |
| 36 | 0.03226 | 9.91226 | | | | | +0.82 | | | +10.84 | 12.86 |
| 37 | (8) - D $\frac{d'}{100}$ | | | | | | | | | +40 | |
| 38 | -1.85 δ_1 | 4 35.08 | | 48 14.3 | | | | | | -24.70 | |
| 39 | -14.46 | | | | | | | | | 48 28.73 | |
| 40 | | | | | | | | | | | |
| 41 | +7.87 | 4 26.8 | 29.5 | 1634 | 3810 | 18 | 20.20 | | 0 | 54 22' 6.21 | |
| 42 | 0.89597 | | | | | 54 | 22 | 14.69 | | 8.61 | |
| 43 | 9.90996 | 9.76537 | | | | | -5.48 | | | -1 | +14.93 |
| 44 | 0.92829 | 0.78370 | | | | | -6.08 | | | -95 | 14.40 |
| 45 | (8) - D $\frac{d'}{100}$ | | | | | | | | | +12.83 | |
| 46 | -1.50 δ_2 | 10 3.12 | | 21 51.0 | | | | | | +40 | |
| 47 | -10.85 | | | | 26 | | | | | -21.20 | |
| 48 | | | | | | | | | | 22 1.81 | |
| 49 | +8.31 | 1 14.9 | 19.1 | 140 | 1 17.00 | 56 | 31.35 | | 25 | 51 00' 14.28 | |
| 50 | 0.91960 | | | | | 51 | 0 | 25.84 | | 18.91 | |
| 51 | 9.89050 | 9.79887 | | | | | -8.56 | | | -2 | +8.99 |
| 52 | 0.93246 | 0.84083 | | | | | -6.93 | | | -27 | 11.46 |
| 53 | (8) - D $\frac{d'}{100}$ | | | | | | | | | +8.83 | |
| 54 | -1.79 δ_1 | | | | 43 | | | | | +35 | |
| 55 | -12.39 | | | | | | | | | -21.40 | |
| 56 | | | | | | | | | | 0 8.97 | |
| 57 | | | | | | | | | | | |
| 58 | +32.92 | 3 0.1 | 36 | 373 | 3 185 | 39 | 16.50 | | 40 | 50 43' 42.1 | |
| 59 | 1.51746 | | | | | 50 | 43 | 10.99 | | 13.37 | |
| 60 | 9.88886 | 9.80136 | | | | | -33.78 | | | -30 | +8.06 |
| 61 | 1.52868 | 4.144118 | | | | | -27.62 | | | -63 | 10.53 |
| 62 | (8) - D $\frac{d'}{100}$ | | | | | | | | | +8.64 | |
| 63 | -1.79 δ_2 | 32 39.04 | | 42 49.0 | | | | | | +35 | |
| 64 | -12.39 | | | | 46 | | | | | -22.50 | |
| 65 | | | | | | | | | | 43 7.40 | |
| 66 | +43.33 | 1 23.9 | 28.1 | 120 | 1 26.00 | 36 | 22.35 | | 45 | 50 40' 33.93 | |
| 67 | 1.22194 | | | | | 50 | 40 | 16.84 | | 30.84 | |
| 68 | 9.88844 | 9.80197 | | | | | +14.09 | | | -8 | +8.57 |
| 69 | 1.23274 | 1.14627 | | | | | +14.60 | | | -29 | 11.04 |
| 70 | (8) - D $\frac{d'}{100}$ | | | | | | | | | +8.57 | |
| 71 | -1.80 δ_1 | 34 10.26 | | 40 6.8 | | | | | | +35 | |
| 72 | -12.50 | | | | | | | | | -22.60 | |
| 73 | | | | | | | | | | 40 19.28 | |
| 74 | | | | | | | | | | | |
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Date₁ = 1876 Oct. 24
y = -89

Observer
Recorder

Date₂ = Oct. 25
n = -79

Observer _____
Recorder _____

90

1876phae

| Star. | δ | Mag. | T_s | T_m | T_a | T_f | T_e | T_h | Sum | Mean | Red. to T_m | T |
|---|-----------------------------|------|----------------------------------|-----------------|-------|-------|-------|-------|--------------------|------|---|-----|
| 45 32 44 56.6 κ (8) - D) $\frac{\kappa'}{100}$ a_1 | 53° 38' 33.8 8.0 | 21 | 45 08 4.3 7.0 4.03 | 45 31.4 34.8 | 38.3 | 41.7 | 45.3 | 1915 | 45 38.30 + 5.22 | 21 | 45 38.30 + 6.42 - 1.20 45 43.52 - 1.90 45 41.62 | |
| 45 24.3 27.7 31.5 27.83 κ (8) - D) $\frac{\kappa'}{100}$ a_2 | 7.2 | 45 | 45 24.3 27.7 31.5 27.83 | 45 31.2 34.5 | 38.0 | 41.3 | 44.7 | 1897 | 45 37.94 + 5.72 | 21 | 45 37.94 + 6.79 - 1.07 45 43.66 - 1.87 45 41.79 | |
| 47 48 47 12.6 κ (8) - D) $\frac{\kappa'}{100}$ a_1 | 53 52 48.0 7.8 8.7 | 47 | 47 33.1 36.1 39.1 36.10 | 47 46.0 49.7 | 58.1 | 56.8 | 0.3 | 2669 | 47 53.38 + 5.19 | 21 | 47 53.38 + 6.42 - 1.23 47 58.57 - 1.92 47 56.65 | |
| 47 10.2 18.5 16.3 13.33 κ (8) - D) $\frac{\kappa'}{100}$ a_2 | 8.9 | 47 | 47 10.2 18.5 16.3 13.33 | 47 45.8 49.3 | 52.8 | 52.3 | 58.6 | 2638 | 47 52.76 + 5.70 | 21 | 47 52.76 + 6.79 - 1.09 47 58.46 - 1.89 47 56.57 | |
| 49 27 48 57.7 κ (8) - D) $\frac{\kappa'}{100}$ a_1 | 53 41 36.7 8.9 8.9 | 48 | 48 52.7 56.1 58.7 53.83 | 49 2.8 6.0 | 9.5 | 13.0 | 16.6 | 479 | 49 9.58 + 5.22 | 21 | 49 9.58 + 6.42 - 1.20 49 14.80 | |
| 49 37.0 54.9 58.3 54.73 κ (8) - D) $\frac{\kappa'}{100}$ a_2 | 53 36.9 8.5 | 49 | 49 37.0 54.9 58.3 54.73 | 49 25.0 28.5 | 32.0 | 35.6 | 38.9 | 1600 | 49 32.00 + 5.22 | 21 | 49 32.00 + 6.42 - 1.20 49 37.22 - 1.95 | |
| 49 47.7 49.0 50.4 49.03 κ (8) - D) $\frac{\kappa'}{100}$ a_2 | 9.0 | 48 | 48 47.7 49.0 50.4 49.03 | 49 2.0 5.4 | 9.0 | 12.4 | 15.7 | 445 | 49 8.90 + 5.72 | 21 | 49 8.90 + 6.79 - 1.07 49 14.68 + 6.79 - 1.07 49 37.20 | |
| 49 45.3 45.7 51.0 48.33 κ (8) - D) $\frac{\kappa'}{100}$ a_2 | 8.7 | 49 | 49 45.3 45.7 51.0 48.33 | 49 24.3 27.9 | 31.4 | 35.3 | 38.5 | 1574 | 49 31.48 + 5.72 | 21 | 49 31.48 + 6.79 - 1.07 49 37.20 - 1.92 | |
| 50 44 50 5.6 κ (8) - D) $\frac{\kappa'}{100}$ a_1 | 53 34 29.1 8.0 | 50 | 50 26.3 30.1 32.7 29.70 | 50 39.5 43.0 | 46.4 | 49.8 | 52.4 | 2321 | 50 46.42 + 5.22 | 21 | 50 46.42 + 6.42 - 1.20 50 51.64 - 1.97 50 49.67 | |
| 50 17.6 20.3 28.6 20.50 κ (8) - D) $\frac{\kappa'}{100}$ a_2 | 8.0 | 50 | 50 17.6 20.3 28.6 20.50 | 50 38.9 42.3 | 46.0 | 48.2 | 52.9 | 2293 | 50 45.88 + 5.72 | 21 | 50 45.88 + 6.79 - 1.07 50 51.58 - 1.94 50 49.64 | |
| 52 13 51 37.8 κ (8) - D) $\frac{\kappa'}{100}$ a_1 | 52 51 46.4 8.7 8.7 | 51 | 51 53.1 58.3 0.3 57.23 | 52 11.3 14.8 | 18.1 | 21.6 | 23.0 | 908 | 52 18.16 + 5.25 | 21 | 52 18.16 + 6.42 - 1.17 52 23.41 - 2.01 52 21.40 | |
| 52 40.6 44.4 46.9 43.97 κ (8) - D) $\frac{\kappa'}{100}$ a_2 | 8.8 | 51 | 51 40.6 44.4 46.9 43.97 | 52 10.8 14.4 | 17.8 | 21.2 | 24.5 | 887 | 52 17.74 + 5.74 | 21 | 52 17.74 + 6.79 - 1.05 52 23.48 - 1.99 52 21.49 | |

Oct 24 + 3' 52.665339 2.22 + 2.96
 25 + 3 51.11 - 2.22 + 3.22

+2.96

91

Runs

| | T _m - T | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | 8' |
|------|--------------------|----------|---------|-------|-----------|--------------------|--------------------|--------------|--------|--------------|--------------|
| 0 | +34.27 | 1 13.1 | 17.9 | 13.0 | 46 16.50 | 36 31.85 | | | 45 | 53 39' 44.92 | |
| 2 | 1.53404 | | | | | 53 40 24.54 | | 24.24 | | 57.33 | |
| 0 | 9.90611 | 9.77268 | | | | -36.59 | | -26.91 | | -31 | +11.19 |
| 2 | 1.56338 | 1.42995 | | | | | | | | -29 | 14.15 |
| 2 | (δ) - D) d' | | | | | | | | | +11.34 | |
| 2 | δ ₁ | 45 39.55 | 39 27.0 | | | | | | | +45 | |
| 4 | -2.07 | | | | | | | | | -27.80 | |
| 7 | -16.91 | | | | | | | | | 39 43.68 | |
| 4 | +10.11 | 1 33.9 | 39.1 | 13.0 | 1 36.50 | 36 11.85 | | | 45 | 53 39 52.18 | |
| 7 | 1.00432 | | | | | 53 40 2.96 | | | | 55.03 | |
| 6 | 9.90611 | 9.77268 | | | | -10.78 | | | | -3 | +11.65 |
| 6 | 1.03279 | 1.08993 | | | | -7.93 | | | | -35 | 14.84 |
| 9 | (δ) - D) d' | | | | | | | | | +11.58 | |
| 9 | δ ₂ | 45 39.72 | 39 25.3 | | | | | | | +45 | |
| 8 | -2.07 | | | | | | | | | -27.90 | |
| 42 | -16.91 | | | | | | | | | 53 42.07 | |
| 3 | +17.08 | 2 55.5 | 28.6 | 14.41 | 3 27.05 | 40 36.30 | | | 30 | 53 53 10.17 | ✓ |
| 3 | 1.23249 | | | | | 53 54 15.96 | | 28.69 | | 54 0.08 | |
| 7 | 9.90781 | 9.77896 | | | | -16.29 | | -12.61 | | -7 | +11.29 |
| 7 | 1.26216 | 1.13381 | | | | 50 21.30 | | | | -70 | 14.25 |
| 2 | (δ) - D) d' | | | | | 54 13.69 | | | | +11.56 | |
| 5 | δ ₁ | 47 54.58 | 53 29.6 | | | -13.61 | | | | +50 | |
| 5 | -2.07 | | | | | | | | | -27.90 | |
| 76 | -16.81 | | | | | | | | | 53 46.43 | ✓ |
| 7 | +39.43 | 2 7.1 | 11.9 | 19.0 | 2 9.50 | 50 38.85 | | | 30 | 53 53 59.17 | |
| 7 | 1.59583 | | | | | 53 54 29.96 | | | | -41 | +11.68 |
| 9 | 9.90741 | 9.77026 | | | | -30.79 | | | | -46 | 14.70 |
| 46 | 1.62560 | 1.48845 | | | | | | | | +11.85 | |
| 8 | (δ) - D) d' | | | | | | | | | +50 | |
| 8 | δ ₂ | 47 54.50 | 53 29.0 | | | | | | | -28.10 | |
| 8 | -2.07 | | | | | | | | | 53 45.77 | |
| 20 | -16.89 | | | | | | | | | 53 42 31.12 | 43 3.37 |
| 0 | +13.45 | 3 53.8 | 56.6 | 10.4 | 3 53.20 | 38 53.15 | | | 40 | 53 42 31.12 | 43 3.37 |
| 0 | 1.13830 | | | | | 53 42 45.61 | | 45.54 | | 35.00 | -14 |
| 0 | 9.90639 | 9.77216 | | | | -44.69 | | +10.54 | | -5 | -86 |
| 0 | 1.12237 | 1.03282 | | | | | | | | -86 | +11.37 |
| 0 | (δ) - D) d' | | | | | | | | | +11.37 | +45 |
| 42 | δ ₁ | 3 53.8 | 56.6 | 10.4 | 3 55.20 | 38 53.15 | | | 40 | +45 | -28.00 |
| 42 | 1.35660 | | | | | 53 42 45.54 | | 45.54 | | -28.00 | 48.2 49.15 |
| 20 | 9.90639 | 9.77216 | | | | -24.29 | | +17.83 | | 42 2.87 | |
| 20 | 1.38535 | 1.25112 | | | | | | | | 42 2.87 | |
| 90 | +19.87 | 3 47.6 | 53.8 | 10.1 | 4 3 50.70 | 38 57.65 | | | 40 | 53 42 27.53 | 6.76 93 1.98 |
| 9 | 1.29820 | | | | | 53 42 48.76 | | | | 33.17 | -7 |
| 9 | 9.90639 | 9.77216 | | | | -21.23 | | | | -10 | -84 |
| 68 | 1.37685 | 1.19272 | | | | -15.59 | | | | -84 | +11.62 |
| 48 | (δ) - D) d' | | | | | | | | | +11.62 | +45 |
| 48 | δ ₁ | 3 47.6 | 53.8 | 10.1 | 4 3 50.70 | 38 57.65 | | | 40 | +45 | -28.10 |
| 48 | 1.22660 | | | | | 53 42 48.76 | | | | -28.10 | 42 48.26 |
| 7 | 9.90639 | 9.77216 | | | | +18.00 | | | | 42 19.42 | |
| 7 | 1.25535 | 1.12112 | | | | +13.22 | | | | 42 19.42 | |
| 42 | +16.72 | 0 46.1 | 49.5 | 15.6 | 0 47.80 | 32 0.55 | | | 50 | 53 35 35.37 | |
| 42 | 1.22324 | | | | | 53 35 53.24 | | 52.94 | | 39.79 | |
| 20 | 9.90574 | 9.77336 | | | | -17.84 | | -13.15 | | -7 | +11.47 |
| 64 | 1.25134 | 1.11896 | | | | | | | | -18 | 14.43 |
| 77 | (δ) - D) d' | | | | | | | | | +11.27 | |
| 67 | δ ₁ | 50 47.57 | 35 9.3 | | | | | | | +45 | |
| 67 | -2.10 | | | | | | | | | -28.00 | |
| 67 | -16.95 | | | | | | | | | 35 26.22 | |
| 5.86 | +25.36 | 0 37.0 | 43.9 | 8.0 | 9 0 40.45 | 32 4.90 | | | 50 | 53 35 31.96 | |
| 6.79 | 1.40415 | | | | | 53 35 55.01 | | | | 39.06 | |
| 107 | 9.90574 | 9.77336 | | | | -27.05 | | | | -17 | +11.64 |
| 58 | 1.43225 | 1.29987 | | | | -19.95 | | | | -16 | 14.86 |
| 94 | (δ) - D) d' | | | | | | | | | +11.51 | |
| 64 | δ ₂ | 50 47.54 | 35 8.8 | | | | | | | +45 | |
| 64 | -2.10 | | | | | | | | | -28.20 | |
| 64 | -16.95 | | | | | | | | | 35 25.72 | |
| 8.16 | +20.93 | 3 49.5 | 52.9 | 10.2 | 4 3 57.20 | 48 57.15 | | | 30 | 52 46 24.71 | |
| 342 | 1.32077 | | | | | 52 52 42.84 | | 49.54 | | 52 32.80 | |
| 17 | 9.90130 | 9.78063 | | | | -22.10 | | -16.74 | | -11 | +4.95 |
| 41 | 1.34443 | 1.22376 | | | | | | | | -84 | 12.91 |
| 01 | (δ) - D) d' | | | | | | | | | +10.50 | |
| 40 | δ ₁ | 52 19.26 | 52 0.7 | | | | | | | +40 | |
| 40 | -2.14 | | | | | | | | | -28.00 | |
| 40 | -17.02 | | | | | | | | | 52 19.71 | |
| 7.74 | +33.77 | 3 39.0 | 43.6 | 8.2 | 3 41.30 | 40 7.05 | | | 30 | 52 2 22.39 | |
| 6.79 | 1.52853 | | | | | 52 52 58.16 | | | | 52 31.78 | |
| 105 | 9.90263 | 9.77043 | | | | -35.74 | | | | -29 | +10.06 |
| 5.48 | 1.55352 | 1.42132 | | | | -26.38 | | | | -81 | 13.28 |
| 1.99 | (δ) - D) d' | | | | | | | | | +10.78 | |
| 1.49 | δ ₂ | 52 19.35 | 51 59.8 | | | | | | | +40 | |
| 1.49 | -2.14 | | | | | | | | | -28.20 | |
| 1.49 | -17.02 | | | | | | | | | 52 16.86 | |

496

Date₁ = 1876 Oct. 24Observer
RecorderDate₂ = Oct. 25Observer
Recorder

92

| Star. | α | δ | Mag. | T_s | T_m | T_o | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T |
|------------|-----------|----------|------|----------|---------|---------|-------|-------|-------|--------|----------|---------------|-------------|
| 53 | 17 | 51 56 | 9.0 | 21 53 | 147 | 53 28.7 | 27.0 | 30.1 | 28.5 | 37.0 | 15 13 | 53.3026 | 21 53 30.26 |
| 52 | 47.9 | 52.0 | 8.9 | | 17.1 | | | | | | | +5.28 | + 6.42 |
| κ | | | | | 19.9 | | | | | | | | - 1.14 |
| (8) - D | κ' | | | | 17.3 | | | | | | | | 53 35.54 |
| α_1 | | | | | | | | | | | | | 53 33.48 |
| | | | 9.0 | 52 50.6 | 53 28.3 | 26.4 | 29.8 | 28.2 | 36.5 | 14 9.2 | 53.2984 | 21 53 29.84 | + 6.79 |
| κ | | | | 52.60 | | | | | | | | +5.78 | - 1.01 |
| (8) - D | κ' | | | | | | | | | | | | 53 35.62 |
| α_2 | | | | | | | | | | | | | - 2.03 |
| | | | | | | | | | | | | | 53 33.59 |
| 54 | 11 | 53 37 | 8.2 | 54 7.7 | 54 8.6 | 11.7 | 13.3 | 18.6 | 22.2 | 7 6.4 | 54.1528 | 21 54 15.28 | + 6.42 |
| 53 | 34.2 | 32.9 | 8.5 | | 10.5 | | | | | | | +5.22 | - 1.20 |
| κ | | | | | 12.3 | | | | | | | | 54 20.50 |
| (8) - D | κ' | | | | 10.17 | | | | | | | | - 2.01 |
| α_1 | | | | | | | | | | | | | 54 18.49 |
| | | | 7.8 | 53 54.7 | 54 7.6 | 11.4 | 14.9 | 18.2 | 21.7 | 7 3.8 | 54.1476 | 21 54 14.76 | + 6.79 |
| κ | | | | 57.9 | | | | | | | | +5.72 | - 1.07 |
| (8) - D | κ' | | | 0.1 | | | | | | | | | 54 20.48 |
| α_2 | | | | 57.57 | | | | | | | | | - 1.98 |
| | | | | | | | | | | | | | 54 18.50 |
| 56 | 1 | 53 33 | 9.1 | 55 18.5 | 55 4.2 | 7.7 | 11.0 | 14.4 | 17.9 | 5 5.2 | 55.1104 | 21 55 11.04 | + 6.42 |
| 55 | 24.0 | 28.3 | 9.0 | 4.8 | 55.50 | | | | | | | +5.22 | - 1.20 |
| 54 | 30.0 | 29.2 | | 1.0 | | | | 14.24 | | 56 | 9.05 | | 55 16.26 |
| κ | | | | 8.9 | | | | 14.24 | | | | | - 2.02 |
| (8) - D | κ' | | | 5.55 | 58.8 | 55 59.2 | 2.4 | 5.8 | 8.2 | 12.7 | 29.3 | 56 58.6 | 21 56 58.6 |
| α_1 | | | | 59.50 | | | | | | | | +5.22 | + 6.42 |
| | | | | | | | | | | | | | - 1.20 |
| | | | | | | | | | | | | | 55 11.05 |
| 54 | 30.0 | | 9.0 | 53 10.2 | 53 8.7 | 7.2 | 10.7 | 14.1 | 17.6 | 5 3.3 | 55.1066 | 21 55 10.66 | + 6.79 |
| κ | | | | 12.9 | | | | | | | | +5.72 | - 1.07 |
| (8) - D | κ' | | | 16.3 | | | | 14.38 | | 56 | 29.73 | | 55 16.38 |
| α_2 | | | | 13.23 | | | | | | | | | - 2.00 |
| | | | 8.8 | 53 58.7 | 56 18.9 | 22.6 | 26.1 | 29.5 | 33.0 | 13 0.1 | 56 26.02 | 21 56 26.02 | + 6.79 |
| | | | | 1.9 | | | | | | | | +5.72 | - 1.07 |
| | | | | 4.4 | | | | | | | | | 57 31.74 |
| 57 | 5 | 52 19 | 8.9 | 56 48.5 | 57 3.8 | 7.2 | 10.8 | 14.2 | 17.3 | | | | 57 10.66 |
| 56 | 28.0 | 14.7 | 9.0 | 50.5 | | | | | | | | +5.28 | + 6.42 |
| κ | | | | 52.8 | | | | | | | | | - 1.14 |
| (8) - D | κ' | | | 50.60 | | | | | | | | | 57 15.94 |
| α_1 | | | | | | | | | | | | | - 2.09 |
| | | | | | | | | | | | | | 57 13.85 |
| | | | 9.0 | 56 59.1 | 57 8.5 | 7.0 | 10.3 | 13.5 | 17.0 | 5 1.3 | 58.1026 | 21 57 10.26 | + 6.79 |
| κ | | | | 2.2 | | | | | | | | +5.77 | - 1.02 |
| (8) - D | κ' | | | 6.0 | | | | | | | | | 57 16.03 |
| α_2 | | | | 24.3 | | | | | | | | | - 2.06 |
| | | | | | | | | | | | | | 57 13.97 |
| 22 | 3 33 | 51 42 | 9.0 | 22 3 8.8 | 3 82.7 | 35.9 | 39.4 | 42.9 | 46.2 | 19 7.1 | 3 39.42 | 22 3 39.42 | + 6.42 |
| 2 | 53.9 | 37.5 | 8.9 | | 12.0 | | | | | | | +5.30 | - 1.12 |
| κ | | | | | 15.2 | | | | | | | | 3 44.72 |
| (8) - D | κ' | | | | 12.00 | | | | | | | | - 2.19 |
| α_1 | | | | | | | | | | | | | 3 42.53 |
| | | | 8.8 | 3 18.3 | 3 82.2 | 35.5 | 38.8 | 42.2 | 45.6 | 19 4.3 | 3 38.86 | 22 3 38.86 | + 6.79 |
| κ | | | | 21.5 | | | | | | | | +5.79 | - 1.00 |
| (8) - D | κ' | | | 25.0 | | | | | | | | | 3 44.65 |
| α_2 | | | | 21.60 | | | | | | | | | - 2.16 |
| | | | | | | | | | | | | | 3 42.49 |

Runs

+2.96

93

+3.22

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | 8' |
|----|------------------|------------------|------|---------|-------|--------------------|--------------------|--------------|--------|---------------|--------|
| 6 | +13.03 | 3' 26.8 | 30.9 | 57.7 | 28.1 | 54 | 19.50 | | 25 | 51° 54' 58.56 | |
| 2 | 1.11494 | | | | 28.85 | 57 | 58 | 11.89 | | 58 | 1.25 |
| 4 | 9.89633 | 9.78967 | | | | | -13.60 | -10.64 | | -5 | +9.14 |
| 6 | 1.13363 | 1.02697 | | | | | | | | -77 | 12.13 |
| 8 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +9.59 | |
| | -2.18 δ_1 | 53 31.30 | | 57 28.3 | | | | | | +40 | |
| | -17.08 | | | | 28 | | | | | -28.00 | |
| 4 | +39.24 | 3 4.0 | 8.9 | 12.9 | 3 | 54 | 41.90 | | 25 | 51 57 52.04 | |
| 79 | 1.59373 | | | | 645 | 51 | 68 | 33.01 | | 68 | 0.98 |
| 1 | 9.89643 | 9.78950 | | | | | -40.97 | | | -41 | +9.12 |
| 2 | 1.61252 | 1.50559 | | | | | -32.03 | | | -68 | 12.34 |
| 3 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +9.81 | |
| 9 | -2.18 δ_2 | 53 31.41 | | 57 28.0 | | | | | | +40 | |
| | -17.08 | | | | 47 | | | | | -28.20 | |
| 28 | +5.11 | 2 1.4 | 4.4 | 5.8 | 2 | 35 | 45.45 | | 45 | 53 39 32.65 | |
| 42 | 0.90842 | | | | 290 | 53 | 39 | 37.84 | | 39 | 33.53 |
| 20 | 9.90611 | 9.77268 | | | | | -5.46 | -4.01 | | -1 | +11.32 |
| 50 | 0.73689 | 0.60346 | | | | | | | | -44 | 14.28 |
| 01 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +11.32 | |
| 49 | -2.12 δ_1 | 54 16.37 | | 39 2.8 | | | | | | +45 | |
| | -17.11 | | | | 46 | | | | | -28.20 | |
| 76 | 117.19 | 1 50.9 | 56.6 | 7.5 | 1 | 35 | 54.60 | | 45 | 53 39 32.36 | |
| 79 | 1.23528 | | | | 5870 | 53 | 39 | 45.71 | | 39 | 32.21 |
| 07 | 9.90611 | 9.77268 | | | | | -18.35 | | | -7 | +11.54 |
| 48 | 1.26375 | 1.13032 | | | | | -13.50 | | | -42 | 14.76 |
| 8 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +11.58 | |
| 50 | -2.12 δ_2 | 54 16.38 | | 39 1.6 | | | | | | +45 | |
| | -17.11 | | | | 51 | | | | | -28.30 | |
| 4 | +5.42 | 1 8.5 | 11.1 | 12.6 | 1 | 31 | 38.55 | | 50 | 53 35 34.45 | |
| 12 | 0.73400 | | | | 280 | 53 | 35 | 31.27 | | 35 | 34.25 |
| 20 | 9.77353 | 9.77336 | | | | | -19.46 | | | -145 | +11.03 |
| 26 | 1.28912 | 1.15674 | | | | | | | | -40 | 14.24 |
| 02 | 1.28912 | 1.15674 | | | | | | | | -24 | |
| 2 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +11.27 | |
| 0 | -2.14 δ_1 | 54 16.38 | | 39 1.6 | | | | | | +45 | |
| | -17.19 | | | | 51 | | | | | -28.30 | |
| 6 | +5.42 | 1 8.5 | 11.1 | 12.6 | 1 | 31 | 38.55 | | 50 | 53 35 34.45 | |
| 12 | 0.73400 | | | | 280 | 53 | 35 | 31.27 | | 35 | 34.25 |
| 20 | 9.77353 | 9.77336 | | | | | -19.46 | | | -145 | +11.03 |
| 26 | 1.28912 | 1.15674 | | | | | | | | -40 | 14.24 |
| 02 | 1.28912 | 1.15674 | | | | | | | | -24 | |
| 2 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +11.27 | |
| 0 | -2.14 δ_1 | 54 16.38 | | 39 1.6 | | | | | | +45 | |
| | -17.19 | | | | 51 | | | | | -28.30 | |
| 6 | +5.42 | 1 8.5 | 11.1 | 12.6 | 1 | 31 | 38.55 | | 50 | 53 35 34.45 | |
| 12 | 0.73400 | | | | 280 | 53 | 35 | 31.27 | | 35 | 34.25 |
| 20 | 9.77353 | 9.77336 | | | | | -19.46 | | | -145 | +11.03 |
| 26 | 1.28912 | 1.15674 | | | | | | | | -40 | 14.24 |
| 02 | 1.28912 | 1.15674 | | | | | | | | -24 | |
| 2 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +11.27 | |
| 0 | -2.14 δ_1 | 54 16.38 | | 39 1.6 | | | | | | +45 | |
| | -17.19 | | | | 51 | | | | | -28.30 | |
| 6 | +5.42 | 1 8.5 | 11.1 | 12.6 | 1 | 31 | 38.55 | | 50 | 53 35 34.45 | |
| 12 | 0.73400 | | | | 280 | 53 | 35 | 31.27 | | 35 | 34.25 |
| 20 | 9.77353 | 9.77336 | | | | | -19.46 | | | -145 | +11.03 |
| 26 | 1.28912 | 1.15674 | | | | | | | | -40 | 14.24 |
| 02 | 1.28912 | 1.15674 | | | | | | | | -24 | |
| 2 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +11.27 | |
| 0 | -2.14 δ_1 | 54 16.38 | | 39 1.6 | | | | | | +45 | |
| | -17.19 | | | | 51 | | | | | -28.30 | |
| 6 | +5.42 | 1 8.5 | 11.1 | 12.6 | 1 | 31 | 38.55 | | 50 | 53 35 34.45 | |
| 12 | 0.73400 | | | | 280 | 53 | 35 | 31.27 | | 35 | 34.25 |
| 20 | 9.77353 | 9.77336 | | | | | -19.46 | | | -145 | +11.03 |
| 26 | 1.28912 | 1.15674 | | | | | | | | -40 | 14.24 |
| 02 | 1.28912 | 1.15674 | | | | | | | | -24 | |
| 2 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +11.27 | |
| 0 | -2.14 δ_1 | 54 16.38 | | 39 1.6 | | | | | | +45 | |
| | -17.19 | | | | 51 | | | | | -28.30 | |
| 6 | +5.42 | 1 8.5 | 11.1 | 12.6 | 1 | 31 | 38.55 | | 50 | 53 35 34.45 | |
| 12 | 0.73400 | | | | 280 | 53 | 35 | 31.27 | | 35 | 34.25 |
| 20 | 9.77353 | 9.77336 | | | | | -19.46 | | | -145 | +11.03 |
| 26 | 1.28912 | 1.15674 | | | | | | | | -40 | 14.24 |
| 02 | 1.28912 | 1.15674 | | | | | | | | -24 | |
| 2 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +11.27 | |
| 0 | -2.14 δ_1 | 54 16.38 | | 39 1.6 | | | | | | +45 | |
| | -17.19 | | | | 51 | | | | | -28.30 | |
| 6 | +5.42 | 1 8.5 | 11.1 | 12.6 | 1 | 31 | 38.55 | | 50 | 53 35 34.45 | |
| 12 | 0.73400 | | | | 280 | 53 | 35 | 31.27 | | 35 | 34.25 |
| 20 | 9.77353 | 9.77336 | | | | | -19.46 | | | -145 | +11.03 |
| 26 | 1.28912 | 1.15674 | | | | | | | | -40 | 14.24 |
| 02 | 1.28912 | 1.15674 | | | | | | | | -24 | |
| 2 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +11.27 | |
| 0 | -2.14 δ_1 | 54 16.38 | | 39 1.6 | | | | | | +45 | |
| | -17.19 | | | | 51 | | | | | -28.30 | |
| 6 | +5.42 | 1 8.5 | 11.1 | 12.6 | 1 | 31 | 38.55 | | 50 | 53 35 34.45 | |
| 12 | 0.73400 | | | | 280 | 53 | 35 | 31.27 | | 35 | 34.25 |
| 20 | 9.77353 | 9.77336 | | | | | -19.46 | | | -145 | +11.03 |
| 26 | 1.28912 | 1.15674 | | | | | | | | -40 | 14.24 |
| 02 | 1.28912 | 1.15674 | | | | | | | | -24 | |
| 2 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +11.27 | |
| 0 | -2.14 δ_1 | 54 16.38 | | 39 1.6 | | | | | | +45 | |
| | -17.19 | | | | 51 | | | | | -28.30 | |
| 6 | +5.42 | 1 8.5 | 11.1 | 12.6 | 1 | 31 | 38.55 | | 50 | 53 35 34.45 | |
| 12 | 0.73400 | | | | 280 | 53 | 35 | 31.27 | | 35 | 34.25 |
| 20 | 9.77353 | 9.77336 | | | | | -19.46 | | | -145 | +11.03 |
| 26 | 1.28912 | 1.15674 | | | | | | | | -40 | 14.24 |
| 02 | 1.28912 | 1.15674 | | | | | | | | -24 | |
| 2 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +11.27 | |
| 0 | -2.14 δ_1 | 54 16.38 | | 39 1.6 | | | | | | +45 | |
| | -17.19 | | | | 51 | | | | | -28.30 | |
| 6 | +5.42 | 1 8.5 | 11.1 | 12.6 | 1 | 31 | 38.55 | | 50 | 53 35 34.45 | |
| 12 | 0.73400 | | | | 280 | 53 | 35 | 31.27 | | 35 | 34.25 |
| 20 | 9.77353 | 9.77336 | | | | | -19.46 | | | -145 | +11.03 |
| 26 | 1.28912 | 1.15674 | | | | | | | | -40 | 14.24 |
| 02 | 1.28912 | 1.15674 | | | | | | | | -24 | |
| 2 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +11.27 | |
| 0 | -2.14 δ_1 | 54 16.38 | | 39 1.6 | | | | | | +45 | |
| | -17.19 | | | | 51 | | | | | -28.30 | |
| 6 | +5.42 | 1 8.5 | 11.1 | 12.6 | 1 | 31 | 38.55 | | 50 | 53 35 34.45 | |
| 12 | 0.73400 | | | | 280 | 53 | 35 | 31.27 | | 35 | 34.25 |
| 20 | 9.77353 | 9.77336 | | | | | -19.46 | | | -145 | +11.03 |
| 26 | 1.28912 | 1.15674 | | | | | | | | -40 | 14.24 |
| 02 | 1.28912 | 1.15674 | | | | | | | | -24 | |
| 2 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +11.27 | |
| 0 | -2.14 δ_1 | 54 16.38 | | 39 1.6 | | | | | | +45 | |
| | -17.19 | | | | 51 | | | | | -28.30 | |
| 6 | +5.42 | 1 8.5 | 11.1 | 12.6 | 1 | 31 | 38.55 | | 50 | 53 35 34.45 | |
| 12 | 0.73400 | | | | 280 | 53 | 35 | 31.27 | | 35 | 34.25 |
| 20 | 9.77353 | 9.77336 | | | | | -19.46 | | | -145 | +11.03 |
| 26 | 1.28912 | 1.15674 | | | | | | | | -40 | 14.24 |
| 02 | 1.28912 | 1.15674 | | | | | | | | -24 | |
| 2 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +11.27 | |
| 0 | -2.14 δ_1 | 54 16.38 | | 39 1.6 | | | | | | +45 | |
| | -17.19 | | | | 51 | | | | | -28.30 | |
| 6 | +5.42 | 1 8.5 | 11.1 | 12.6 | 1 | 31 | 38.55 | | 50 | 53 35 34.45 | |
| 12 | 0.73400 | | | | 280 | 53 | 35 | 31.27 | | 35 | 34.25 |
| 20 | 9.77353 | 9.77336 | | | | | -19.46 | | | -145 | +11.03 |
| 26 | 1.28912 | 1.15674 | | | | | | | | -40 | 14.24 |
| 02 | 1.28912 | 1.15674 | | | | | | | | -24 | |
| 2 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +11.27 | |
| 0 | -2.14 δ_1 | 54 16.38 | | 39 1.6 | | | | | | +45 | |
| | -17.19 | | | | 51 | | | | | -28.30 | |
| 6 | +5.42 | 1 8.5 | 11.1 | 12.6 | 1 | 31 | 38.55 | | 50 | 53 35 34.45 | |
| 12 | 0.73400 | | | | 280 | 53 | 35 | 31.27 | | 35 | 34.25 |
| 20 | 9.77353 | 9.77336 | | | | | -19.46 | | | -145 | +11.03 |
| 26 | 1.28912 | 1.15674 | | | | | | | | -40 | 14.24 |
| 02 | 1.28912 | 1.15674 | | | | | | | | -24 | |
| 2 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +11.27 | |
| 0 | -2.14 δ_1 | 54 16.38 | | 39 1.6 | | | | | | +45 | |
| | -17.19 | | | | 51 | | | | | -28.30 | |
| 6 | +5.42 | 1 8.5 | 11.1 | 12.6 | 1 | 31 | 38.55 | | 50 | 53 35 34.45 | |
| 12 | 0.73400 | | | | 280 | 53 | 35 | 31.27 | | 35 | 34.25 |

Date₁ = 1876 Oct. 24Observer
RecorderDate₂ = Oct. 25Observer
Recorder

94

| Star. | α | δ | Mag. | T_s | T_m | T_e | T_f | T_g | T_h | Sum | Mean | Red. to T_m | T |
|--------------------------|----------|--------------------|-------|-------------------------------|---------|-------|-------|-------|-------|-------|----------|---------------|--|
| 11 14 10 36.0 K | 54° 11' | 8.0 8.2 6.6 | 22 10 | 48.4 57.6 54.7 57.37 | 11 12.4 | 15.8 | 18.4 | 22.9 | 26.4 | 9 69 | 11 19.38 | 22 | 11 19.38 + 6.43 - 1.23 24.58 - 2.21 22.37 |
| (8) - D) κ'_{100} | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| K | | 8.0 | 10 | 41.6 44.4 46.4 44.13 | 11 11.9 | 15.4 | 18.9 | 22.4 | 26.0 | 9 46 | 11 18.92 | 22 | 11 18.92 + 6.79 - 1.09 24.62 - 2.19 22.43 |
| (8) - D) κ'_{100} | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 12 13 11 37.8 K | 54 10 | 8.8 8.8 6.8 | 11 | 44.9 48.1 57.1 45.03 | 12 15.0 | 18.5 | 21.8 | 25.6 | 28.9 | 10 98 | 12 21.96 | 22 | 12 21.96 + 6.43 - 1.23 27.16 - 2.22 24.94 |
| (8) - D) κ'_{100} | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| K | | 8.8 | 11 | 34.5 57.4 6.3 57.40 | 12 14.3 | 18.0 | 21.4 | 24.9 | 28.6 | 10 73 | 12 21.44 | 22 | 12 21.44 + 6.79 - 1.09 27.14 - 2.20 24.94 |
| (8) - D) κ'_{100} | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 13 65 12 17.6 K | 54 38 | 9.3 9.5 23.0 | 13 | 82.0 85.4 89.1 85.58 | 13 54.5 | 57.9 | 16 | 5.2 | 87 | 79 | 14 158 | 22 | 14 158 + 6.43 - 1.25 6.76 - 2.23 4.53 |
| (8) - D) κ'_{100} | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| K | | 9.3 | 13 | 153 18.6 21.7 18.60 | 13 54.0 | 57.5 | 11 | 4.6 | 8.4 | 56 | 14 112 | 22 | 14 112 + 6.79 - 1.11 6.80 - 2.21 4.59 |
| (8) - D) κ'_{100} | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 16 41 15 23 K | 54 12 | 7.0 8.0 7.5 | 15 | 20.6 24.4 27.4 24.13 | 15 41.0 | 44.6 | 48.5 | 57.7 | 55.1 | 24 09 | 15 48.18 | 22 | 15 48.18 + 6.43 - 1.23 53.38 - 2.27 51.11 |
| (8) - D) κ'_{100} | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| K | | 6.9 | 14 | 38.8 2.0 4.1 1.63 | 15 40.5 | 44.1 | 47.4 | 57.0 | 54.5 | 23 75 | 15 47.50 | 22 | 15 47.50 + 6.79 - 1.09 53.20 - 2.25 50.95 |
| (8) - D) κ'_{100} | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |
| 16 31 15 53.6 K | 54 35 | 8.2 8.8 30.6 | 16 | 19.4 22.9 26.4 20.90 | 16 30.8 | 34.4 | 38.0 | 41.6 | 45.0 | 18 98 | 16 37.96 | 22 | 16 37.96 + 6.43 - 1.25 43.14 - 2.27 40.87 |
| (8) - D) κ'_{100} | | | | | | | | | | | | | |
| a_1 | | | | | | | | | | | | | |
| K | | 9.0 | 16 | 12.8 16.9 19.1 16.27 | 16 30.3 | 33.8 | 37.4 | 41.0 | 44.6 | 18 72 | 16 37.44 | 22 | 16 37.44 + 6.79 - 1.11 43.12 - 2.24 40.88 |
| (8) - D) κ'_{100} | | | | | | | | | | | | | |
| a_2 | | | | | | | | | | | | | |

Runs

+2.96

95

+3.22

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|---|------------------|------------------|---------|------|-----------|--------------------|--------------------|--------------|--------|--------------|-----------|
| 8 | +27.81 | 3' 35.9 | 38.9 | 14.8 | 13' 8.740 | 9' | 10.95 | | 10 | 54 12' 33.71 | |
| 3 | 1.44420 | | | | | 54 13 | 3.34 | | | 41.79 | |
| 3 | 9.90915 | 9.76695 | | | | | -29.70 | -21.55 | | -20 | +14.42 |
| 8 | 1.47571 | 1.33351 | | | | | | | | -77 | 14.38 |
| 3 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +1191 | |
| 3 | -2.23 δ_1 | 11 20.14 | 12 9.3 | | | | | | | +50 | |
| 3 | -17.84 | | | | | | | | | -29.00 | |
| 3 | | | | | | | | | | 12 27.17 | |
| 3 | +34.79 | 3 28.1 | 33.5 | 6.6 | 3 30.80 | 9 | 17.55 | | 10 | 54 12 31.25 | |
| 3 | 1.54145 | | | | | 54 13 | 8.66 | | | 41.60 | |
| 3 | 9.90915 | 9.76695 | | | | | -37.41 | | | -31 | +14.59 |
| 3 | 1.57296 | 1.43076 | | | | | -27.06 | | | -77 | 14.81 |
| 3 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +1217 | |
| 3 | -2.23 δ_2 | 11 20.20 | 12 9.5 | | | | | | | +50 | |
| 3 | -17.84 | | | | | | | | | -29.10 | |
| 3 | | | | | | | | | | 12 28.31 | |
| 3 | +33.83 | 3 46.0 | 47.9 | 13.9 | 3 46.95 | 109 | 1.40 | | 10 | 54 12 17.58 | |
| 3 | 1.53058 | | | | | 54 12 | 53.79 | | | 27.49 | |
| 3 | 9.90915 | 9.76695 | | | | | -36.48 | -26.30 | | -34 | +14.23 |
| 3 | 1.56209 | 1.41989 | | | | | | | | -84 | 14.19 |
| 3 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +1191 | |
| 3 | -2.23 δ_1 | 12 22.71 | 11 54.8 | | | | | | | +50 | |
| 3 | -17.88 | | | | | | | | | -29.00 | |
| 3 | | | | | | | | | | 12 12.68 | |
| 3 | +24.04 | 3 52.5 | 57.7 | 10.2 | 3 55.70 | 8 | 53.25 | | 10 | 54 12 18.57 | |
| 3 | 1.38093 | | | | | 54 12 | 44.36 | | | 25.73 | |
| 3 | 9.90915 | 9.76695 | | | | | -25.85 | | | -15 | +14.64 |
| 3 | 1.41244 | 1.27024 | | | | | -18.63 | | | -86 | 14.86 |
| 3 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +1215 | |
| 3 | -2.23 δ_2 | 12 22.71 | 11 53.5 | | | | | | | +50 | |
| 3 | -17.88 | | | | | | | | | -29.20 | |
| 3 | | | | | | | | | | 12 11.39 | |
| 3 | +26.08 | 1 38.3 | 40.9 | 7.2 | 1 39.60 | 36 | 8.75 | | 45 | 54 39 33.21 | |
| 3 | 1.41631 | | | | | 54 40 | 1.11 | | | 41.15 | |
| 3 | 9.91158 | 9.76218 | | | | | -26.20 | -19.99 | | -18 | +12.36 |
| 3 | 1.45025 | 1.30085 | | | | | | | | -35 | 15.32 |
| 3 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +12.39 | |
| 3 | -2.23 δ_1 | 14 2.30 | 39 9.4 | | | | | | | +50 | |
| 3 | -17.95 | | | | | | | | | -29.10 | |
| 3 | | | | | | | | | | 39 27.37 | |
| 3 | +42.52 | 1 23.2 | 29.8 | 13.0 | 1 26.50 | 36 | 21.85 | | 45 | 54 39 26.98 | |
| 3 | 1.62859 | | | | | 54 40 | 12.96 | | | 40.37 | |
| 3 | 9.91158 | 9.76218 | | | | | -45.98 | | | -47 | +12.36 |
| 3 | 1.66253 | 1.51313 | | | | | -32.59 | | | -31 | 15.58 |
| 3 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +12.64 | |
| 3 | -2.23 δ_2 | 14 2.36 | 39 8.7 | | | | | | | +50 | |
| 3 | -17.95 | | | | | | | | | -29.30 | |
| 3 | | | | | | | | | | 39 26.65 | |
| 3 | +24.05 | 2 58.4 | 53.5 | 3.9 | 2 59.95 | 9 | 56.40 | | 10 | 54 13 23.19 | |
| 3 | 1.38112 | | | | | 54 13 | 47.06 | 48.79 | | 30.12 | |
| 3 | 9.90924 | 9.76677 | | | | | -25.87 | -18.67 | | -15 | +14.64 |
| 3 | 1.41242 | 1.27025 | | | | | | | | -64 | 14.60 |
| 3 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +1193 | |
| 3 | -2.26 δ_1 | 15 48.85 | 12 57.5 | | | | | | | +50 | |
| 3 | -18.02 | | | | | | | | | -29.20 | |
| 3 | | | | | | | | | | 13 15.52 | |
| 3 | +45.87 | 2 30.9 | 36.3 | 7.3 | 2 33.60 | 10 | 14.75 | | 10 | 54 13 16.53 | |
| 3 | 1.66153 | | | | | 54 14 | 5.86 | | | 30.33 | |
| 3 | 9.90924 | 9.76677 | | | | | -44.33 | | | -54 | +14.57 |
| 3 | 1.69313 | 1.55066 | | | | | -35.53 | | | -57 | 14.79 |
| 3 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +1218 | |
| 3 | -2.26 δ_2 | 15 48.69 | 12 57.8 | | | | | | | +50 | |
| 3 | -18.02 | | | | | | | | | -29.30 | |
| 3 | | | | | | | | | | 13 15.82 | |
| 3 | +15.06 | 3 59.1 | 2.2 | 12.1 | 3 4 0.65 | 33 | 47.70 | | 45 | 54 37 24.88 | |
| 3 | 1.17482 | | | | | 54 37 | 40.26 | 40.09 | | 28.57 | |
| 3 | 9.91141 | 9.76253 | | | | | -16.28 | -11.58 | | -6 | +14.90 |
| 3 | 1.21159 | 1.06271 | | | | | | | | -88 | 14.86 |
| 3 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +12.34 | |
| 3 | -2.25 δ_1 | 16 38.62 | 36 56.1 | | | | | | | +50 | |
| 3 | -18.05 | | | | | | | | | -29.20 | |
| 3 | | | | | | | | | | 37 14.17 | |
| 3 | +21.17 | 3 53.6 | 58.9 | 12.5 | 3 56.25 | 33 | 52.10 | | 45 | 54 37 20.33 | |
| 3 | 1.32572 | | | | | 54 37 | 43.21 | | | 26.97 | |
| 3 | 9.91141 | 9.76253 | | | | | -22.88 | | | -12 | +12.13 |
| 3 | 1.35949 | 1.21061 | | | | | -16.24 | | | -86 | 15.35 |
| 3 | (8) - D | $\frac{d'}{100}$ | | | | | | | | +12.61 | |
| 3 | -2.25 δ_2 | 16 38.63 | 36 54.9 | | | | | | | +50 | |
| 3 | -18.05 | | | | | | | | | -29.40 | |
| 3 | | | | | | | | | | 37 14.97 | |

Date₁ = 1876 Oct. 24Observer
RecorderDate₂ = Oct. 25Observer
Recorder

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| Star. | α | δ | Mag. | T_0 | T_m | T_e | T_f | T_g | T_h | Sum | Mean | Red. to T_m | T |
|--------------------------------|-----------------|------------|----------------------------------|--------------------------|---------|-------|-------|-------|-------|------|----------|---------------|--|
| 17 22 16 44.2 κ | 54.9 4.3 | 8.7 8.7 | 22 17 | 7.2 9.6 123 970 | 17 21.9 | 26.0 | 28.3 | 32.4 | 36.1 | 1457 | 17 29.14 | 22 | 17 29.14 + 6.43 - 1.23 17 34.34 - 2.29 17 32.05 |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| α_1 | | | | | | | | | | | | | |
| κ | | 8.7 | 17 11.8 15.1 17.8 1490 | 17 21.6 | 25.0 | 28.6 | 32.2 | 35.7 | 39.1 | 1431 | 17 28.62 | 22 | 17 28.62 + 6.79 - 1.09 17 34.32 - 2.27 17 32.05 |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | |
| 18 37 17 52.0 κ | 54 36 31.1 | 9.2 9.2 | 18 10.1 14.2 17.4 1390 | 18 36.5 | 40.0 | 43.6 | 47.2 | 50.7 | 54.2 | 2180 | 18 43.60 | 22 | 18 43.60 + 6.43 - 1.25 18 48.78 - 2.30 18 46.48 |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| α_1 | | | | | | | | | | | | | |
| κ | | 9.0 | 18 4.0 7.1 10.0 703 | 18 36.0 | 39.7 | 43.1 | 46.6 | 50.3 | 53.7 | 2157 | 18 43.14 | 22 | 18 43.14 + 6.79 - 1.11 18 48.82 - 2.27 18 46.55 |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | |
| 19 34 18 56.1 κ | 54 13 8.0 | 8.0 8.4 | 19 12.7 17.9 20.7 1710 | 19 32.9 | 37.5 | 41.0 | 44.5 | 48.0 | 51.5 | 2049 | 19 40.98 | 22 | 19 40.98 + 6.43 - 1.23 19 46.18 - 2.32 19 43.86 |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| α_1 | | | | | | | | | | | | | |
| κ | | 8.5 | 19 11.8 14.6 17.6 1467 | 19 33.4 | 37.0 | 40.4 | 44.0 | 47.5 | 51.0 | 2023 | 19 40.46 | 22 | 19 40.46 + 6.79 - 1.09 19 46.16 - 2.30 19 43.86 |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | |
| 20 52 20 13.2 κ | 55 2 54 56.7 | 8.8 8.5 | 20 88.6 86.8 89.7 3670 | 20 50.9 | 54.4 | 58.0 | 61.8 | 65.3 | 68.8 | 2904 | 20 58.08 | 22 | 20 58.08 + 6.43 - 1.27 21 3.24 - 2.31 21 0.93 |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| α_1 | | | | | | | | | | | | | |
| κ | | 8.7 | 20 15.7 18.4 21.6 1837 | 20 50.4 | 53.9 | 57.6 | 61.3 | 65.0 | 68.7 | 2882 | 20 57.64 | 22 | 20 57.64 + 6.79 - 1.13 21 3.30 - 2.29 21 1.01 |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | |
| 22 11 21 32.3 κ | 53 30 44.8 | 9.0 9.0 | 21 49.3 51.7 53.5 52.17 | 22 10.6 | 13.9 | 17.0 | 21.0 | 24.8 | 28.5 | 879 | 22 17.58 | 22 | 22 17.58 + 6.43 - 1.23 22 22.78 - 2.36 22 20.42 |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| α_1 | | | | | | | | | | | | | |
| κ | | 8.8 | 21 40.0 43.3 46.4 4323 | 22 10.0 | 13.7 | 17.0 | 20.4 | 24.0 | 27.5 | 851 | 22 17.02 | 22 | 22 17.02 + 6.79 - 1.08 22 22.73 - 2.34 22 20.39 |
| (8) - D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | |

Runs

+2.96

97

+3.22

| | | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|----|------------|------------------|----------|------|---------|------|--------------------|--------------------|--------------|--------|--------------|-----------|
| 14 | | +19.44 | 0' 41.3 | 43.9 | 5.2 | 15 | 4260 | 5.75 | | 15 | 54 10' 47.52 | |
| 43 | | 1.28870 | | | | | 54 10 | 58.14 | | | 43.06 | |
| 23 | d | 9.90896 | 9.76730 | | | | | -20.89 | -15.08 | | - 9 | +12.14 |
| 34 | | 1.32002 | 1.19836 | | | | | | | | - 15 | 15.10 |
| 29 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | + 11.88 | |
| 05 | δ_1 | -2.27 | 17 29.78 | | 10 10.9 | 15 | | | | | + 50 | |
| | | -18.08 | | | | | | | | | -29.20 | |
| 2 | | | | | | | | | | | 10 28.96 | |
| 79 | | +13.72 | 0 43.2 | 48.3 | 11.5 | 0 | 4575 | 2.60 | | 15 | 54 10' 38.96 | |
| 9 | | 1.13735 | | | | | 54 10 | 53.71 | | | 43.07 | |
| 32 | d | 9.90896 | 9.76730 | | | | | -14.75 | -10.64 | | - 5 | +12.43 |
| 27 | | 1.16867 | 1.02701 | | | | | | | | - 15 | 15.65 |
| 05 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | +12.13 | |
| | δ_2 | -2.27 | 17 29.78 | | 10 11.2 | 48 | | | | | + 50 | |
| | | -18.08 | | | | | | | | | -29.40 | |
| 0 | | | | | | | | | | | 10 29.32 | |
| 3 | | +29.70 | 3 33.3 | 35.6 | 8.9 | 3 | 3445 | 13.90 | | 45 | 54 37' 34.46 | |
| 5 | | 1.47276 | | | | | 54 38 | 6.56 | 6.29 | | 43.50 | |
| 78 | d | 9.91141 | 9.76253 | | | | | -32.10 | -22.79 | | - 23 | +14.85 |
| 0 | | 1.50653 | 1.35765 | | | | | | | | - 79 | 14.81 |
| 48 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | +12.37 | |
| | δ_1 | -2.27 | 18 44.21 | | 37 10.9 | 48 | | | | | + 50 | |
| | | -18.13 | | | | | | | | | -29.30 | |
| 4 | | +36.11 | 3 27.3 | 31.9 | 59.2 | 3 | 3960 | 18.75 | | 45 | 54 37' 30.83 | |
| 79 | | 1.55763 | | | | | 54 38 | 9.86 | | | 42.16 | |
| 1 | d | 9.91141 | 9.76253 | | | | | -39.03 | -27.70 | | - 34 | +12.01 |
| 32 | | 1.59140 | 1.44252 | | | | | | | | - 77 | 15.23 |
| 27 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | +12.62 | |
| 55 | δ_2 | -2.27 | 18 44.28 | | 37 9.9 | 11 | | | | | + 50 | |
| | | -18.13 | | | | | | | | | -29.40 | |
| 98 | | +23.88 | 1 44.2 | 47.6 | 11.8 | 1 | 4590 | 2.45 | | 10 | 54 14' 29.42 | |
| 43 | | 1.37803 | | | | | 54 14 | 55.77 | 54.84 | | 36.35 | |
| 23 | d | 9.90933 | 9.76660 | | | | | -25.69 | -18.49 | | - 15 | +11.95 |
| 18 | | 1.40972 | 1.26699 | | | | | | | | - 37 | 14.91 |
| 32 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | +11.77 | |
| 86 | δ_1 | -2.29 | 19 41.57 | | 14 3.5 | 11 | | | | | + 50 | |
| | | -18.16 | | | | | | | | | -29.30 | |
| 16 | | +25.79 | 1 44.4 | 47.5 | 8.9 | 1 | 4445 | 3.90 | | 10 | 54 14' 27.27 | |
| 79 | | 1.41145 | | | | | 54 14 | 55.01 | | | 34.94 | |
| 9 | d | 9.90933 | 9.76660 | | | | | -27.71 | -26.07 | | - 17 | +12.18 |
| 16 | | 1.44814 | 1.30041 | | | | | | | | - 37 | 15.40 |
| 30 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | +12.22 | |
| 86 | δ_2 | -2.29 | 19 41.57 | | 14 2.8 | 23 | | | | | + 50 | |
| | | -18.16 | | | | | | | | | -29.40 | |
| 08 | | +21.38 | 3 9.9 | 12.9 | 22.8 | 3 | 1140 | 36.95 | | 20 | 55 3' 8.38 | |
| 43 | | 1.33001 | | | | | 55 3 | 27.71 | 29.34 | | 13.11 | |
| 27 | d | 9.91363 | 9.75805 | | | | | -25.23 | -16.23 | | - 11 | +12.57 |
| 24 | | 1.36600 | 1.21042 | | | | | | | | - 70 | 15.45 |
| 31 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | +12.80 | |
| 93 | δ_1 | -2.27 | 20 58.66 | | 40.9 | 22 | | | | | + 50 | |
| | | -18.21 | | | | | | | | | -29.40 | |
| 4 | | +39.07 | 2 55.1 | 0.2 | 11.5 | 2 | 5765 | 50.70 | | 20 | 55 23' 59.16 | |
| 79 | | 1.59184 | | | | | 55 3 | 41.81 | | | 12.16 | |
| 3 | d | 9.91372 | 9.75787 | | | | | -42.45 | -29.65 | | - 37 | +12.52 |
| 0 | | 1.62792 | 1.47207 | | | | | | | | - 66 | 15.74 |
| 9 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | +13.07 | |
| 71 | δ_2 | -2.27 | 20 58.74 | | 2 40.1 | 34 | | | | | + 50 | |
| | | -18.21 | | | | | | | | | -29.60 | |
| 58 | | +25.41 | 4 52.0 | 55.4 | 7.4 | 4 | 5870 | 54.65 | | 30 | 53 51' 20.11 | |
| 43 | | 1.40500 | | | | | 53 51 | 47.31 | 47.04 | | 27.18 | |
| 23 | d | 9.90722 | 9.77061 | | | | | -27.20 | -19.86 | | - 17 | +10.51 |
| 78 | | 1.43458 | 1.29797 | | | | | | | | - 108 | 13.77 |
| 36 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | +11.56 | |
| 12 | δ_1 | -2.32 | 22 18.10 | | 50 53.3 | 34 | | | | | + 50 | |
| | | -18.25 | | | | | | | | | -29.40 | |
| 02 | | +33.79 | 4 44.9 | 48.7 | 13.6 | 4 | 4680 | 155 | | 30 | 53 57' 16.44 | |
| 79 | | 1.52879 | | | | | 53 57 | 52.66 | | | 26.25 | |
| 08 | d | 9.90722 | 9.77061 | | | | | -36.17 | -26.41 | | - 29 | +10.95 |
| 73 | | 1.55837 | 1.42176 | | | | | | | | - 106 | 14.17 |
| 34 | (8) - D | $\frac{d'}{100}$ | | | | | | | | | +11.80 | |
| 39 | δ_2 | -2.32 | 22 18.07 | | 50 52.7 | | | | | | + 50 | |
| | | -18.25 | | | | | | | | | -29.50 | |
| | | | | | | | | | | | 51 14.92 | |

Date₁ = 1876 Oct. 24Observer
RecorderDate₂ = Oct. 25Observer
Recorder

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| Star. | α | δ | Mag. | T_0 | T_m | T_a | T_f | T_g | T_h | Sum | Mean | Red. to T_m | T |
|----------|-----------------------|----------|------|-------|-------|---------|---------|-------|-------|-------|-------|---------------|---|
| 24 | 21 | 53 35 | 7.0 | 22 23 | 55.4 | 24 21.5 | 25.0 | 28.4 | 81.9 | 85.5 | 7.24 | 28.46 | |
| 23 | 41.8 | 30.1 | 6.6 | | 58.5 | | | | | +5.23 | +6.43 | -1.20 | |
| κ | | | | | 2.0 | | | | | | 24 | 33.69 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 51.63 | | | | | | 24 | -2.40 | |
| a_1 | | | | | | | | | | | 24 | 31.29 | |
| 24 | 21 | 53 35 | 6.0 | 23 | 52.6 | 24 21.0 | 24.4 | 27.8 | 81.2 | 84.7 | 24 | 27.82 | |
| κ | | | | | 56.0 | | | | | +5.72 | +6.79 | -1.07 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 58.4 | | | | | | 24 | 33.54 | |
| a_2 | | | | | 53.87 | | | | | | 24 | -2.57 | |
| 25 | 41 | 53 38 | 8.9 | 25 | 14.3 | 25 38.9 | 43.2 | 46.6 | 50.1 | 53.5 | 25 | 46.72 | |
| 25 | 1.0 | 32.9 | 8.4 | | 18.5 | | | | | +5.23 | +6.43 | -1.20 | |
| κ | | | | | 21.5 | | | | | | 25 | 51.95 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 18.10 | | | | | | 25 | -2.41 | |
| a_1 | | | | | | | | | | | 25 | 49.54 | |
| 25 | 41 | 53 38 | 8.4 | 25 | 3.9 | 25 38.3 | 42.7 | 46.3 | 48.8 | 53.2 | 25 | 46.26 | |
| κ | | | | | 7.6 | | | | | +5.72 | +6.79 | -1.07 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 10.1 | | | | | | 25 | 51.98 | |
| a_2 | | | | | 7.20 | | | | | | 25 | -2.39 | |
| 27 | 56 | 53 29 | 9.0 | 27 | 25.7 | 27 57.3 | 0.6 | 4.1 | 7.6 | 11.0 | 28 | 4.12 | |
| 27 | 16.1 | 24.3 | 9.0 | | 28.8 | | | | | +5.23 | +6.43 | -1.20 | |
| κ | | | | | 32.4 | | | | | | 28 | 9.35 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 26.97 | | | | | | 28 | -2.44 | |
| a_1 | | | | | | | | | | | 28 | 6.91 | |
| 27 | 56 | 53 29 | 8.8 | 27 | 29.2 | 27 56.9 | 0.2 | 3.5 | 7.2 | 10.5 | 28 | 3.66 | |
| κ | | | | | 32.5 | | | | | +5.72 | +6.79 | -1.07 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 35.3 | | | | | | 28 | 9.38 | |
| a_2 | | | | | 32.33 | | | | | | 28 | -2.42 | |
| 21 | 38 | 52 25 | 8.3 | 21 | 38 | 44.0 | 38 1.9 | 5.3 | 8.6 | 12.0 | 38 | 8.66 | |
| 27 | 28.7 | 20.7 | 7.9 | | 16.7 | | | | | +5.26 | +6.42 | -1.16 | |
| κ | | | | | 20.0 | | | | | | 38 | 13.92 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 17.10 | | | | | | 38 | -1.86 | |
| a_1 | | | | | | | | | | | 38 | 12.086 | |
| 21 | 40 | 54 47 | 8.3 | 21 | 39 | 44.4 | 40 2.7 | 6.3 | 9.8 | 13.3 | 40 | 9.82 | |
| 39 | 32.9 | 42.9 | 7.7 | | 48.0 | | | | | +5.17 | +6.42 | -1.25 | |
| κ | | | | | 50.1 | | | | | | 40 | 14.99 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 47.50 | | | | | | 40 | -1.79 | |
| a_2 | | | | | | | | | | | 40 | 13.20 | |
| 21 | 40 | 56 | 9.4 | 21 | 40 | 46.1 | 40 56.3 | 59.6 | 2.9 | 6.2 | 41 | 2.92 | |
| 40 | 21.9 | 33.8 | 9.4 | | 49.4 | | | | | +5.26 | +6.42 | -1.16 | |
| κ | | | | | 53.3 | | | | | | 41 | 8.18 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 49.60 | | | | | | 41 | -1.89 | |
| a_1 | | | | | | | | | | | 41 | 3.34 | |
| 21 | 42 | 54 27 | 8.3 | 21 | 42 | 26.4 | 42 31.1 | 34.5 | 28.0 | 41.6 | 42 | 38.08 | |
| 42 | 14.3 | 22.4 | 8.9 | | 28.5 | | | | | +5.17 | +6.42 | -1.25 | |
| κ | | | | | 32.2 | | | | | | 42 | 43.25 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 29.03 | | | | | | 42 | 53.70 | |
| a_2 | | | | | 54.2 | | | | | +5.17 | +6.42 | -1.26 | |
| 42 | 14.5 | 54 22.9 | 8.7 | 42 | 50.6 | 42 46.6 | 50.0 | 53.8 | 57.2 | | 42 | 58.87 | |
| κ | | | | | 54.7 | | | | | | 42 | -1.84 | |
| (8) - D | $\frac{\kappa'}{100}$ | | | | 54.77 | | | | | | 42 | 57.03 | |

Single Observations

| | $T_m - T_S$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|---------------------------|---|----------|---------|------|-------------|---|--------------------|-----------------|--------|--------|-----------|
| d | +29.83 1.474165 9.90583 1.50284m | 4 18.7 | 21.2 | 39.9 | 49 4' 17.8 | 33 28.40 53 37 21.06 -31.83 | 20.79 -23.45 | 45 53 36' 47.23 | | +3.22 | |
| (8) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -2.34 δ_1 | | 24 28.95 | 36 23.2 | | | | | | | | |
| -18.34 | | | | | | | | | | | |
| d | +32.15 1.50718 9.90583 1.53537m | 4 15.4 | 20.0 | 35.4 | 49 4' 17.70 | 33 30.65 53 37 21.76 -31.31 -25.28 | | 45 53 36' 47.45 | | +10.59 | |
| (8) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -2.34 δ_1 | | 24 28.83 | 36 22.5 | | | | | | | | |
| -18.34 | | | | | | | | | | | |
| d | +28.62 1.45667 9.90614 1.48514m | 1 15.5 | 18.6 | 14.1 | 46 1' 17.05 | 36 31.30 53 40 23.46 -30.56 | 23.69 -22.47 | 45 53 39' 53.10 | | +10.78 | |
| (8) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -2.35 δ_1 | | 25 47.19 | 39 27.6 | | | | | | | | |
| -18.38 | | | | | | | | | | | |
| d | +39.06 1.59173 9.90620 1.62029m | 1 6.4 | 11.1 | 17.3 | 46 1' 8.75 | 36 39.60 53 40 30.71 -44.41 -30.66 | | 45 53 39' 49.00 | | +11.29 | |
| (8) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -2.35 δ_1 | | 25 47.24 | 39 26.7 | | | | | | | | |
| -18.38 | | | | | | | | | | | |
| d | +35.15 1.54593 9.90527 1.57356m | 0 36.0 | 39.9 | 15.9 | 55 0' 37.95 | 27 10.40 53 31 2.46 -37.46 | 2.79 -27.70 | 53 53 30' 25.60 | | +11.40 | |
| (8) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -2.37 δ_1 | | 28 4.54 | 30 1.2 | | | | | | | | |
| -18.46 | | | | | | | | | | | |
| d | +31.33 1.49596 9.90527 1.52359m | 0 35.4 | 41.8 | 77.2 | 55 0' 38.60 | 27 9.75 53 31 0.86 -33.39 -24.69 | | 53 53 30' 27.47 | | +11.20 | |
| (8) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -2.37 δ_1 | | 28 4.59 | 30 2.7 | | | | | | | | |
| -18.46 | | | | | | | | | | | |
| d | +31.33 1.49596 9.90527 1.52359m | 0 10.6 | 14.5 | 5.1 | 52 0' 12.55 | 22 35.80 52 26 28.46 +8.87 | 28.19 +6.82 | 0 52 26' 19.59 | | +11.51 | |
| (8) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -2.06 δ_1 | | 38 10.02 | 26 4.5 | | | | | | | | |
| -16.34 | | | | | | | | | | | |
| d | +22.32 1.34869 9.91239 1.38344m | 2 32.4 | 34.9 | 7.3 | 37 2' 33.65 | 45 14.70 52 49 57.36 -24.18 | 7.09 -17.05 | 35 54 48' 43.18 | | +12.20 | |
| (8) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -1.99 δ_1 | | 40 11.21 | 48 21.3 | | | | | | | | |
| -16.44 | | | | | | | | | | | |
| d | +13.32 1.12450 9.90043 1.14729m | 1 40.9 | 44.2 | 5.1 | 46 1' 42.55 | 36 5.80 52 39 55.46 -14.04 | 58.19 -10.41 | 45 52 39' 47.12 | | +12.33 | |
| (8) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -2.07 δ_1 | | 41 4.22 | 39 16.7 | | | | | | | | |
| -16.48 | | | | | | | | | | | |
| d | +9.05 0.95665 9.91060 0.98961m | 2 31.9 | 34.5 | 6.4 | 54 2' 33.20 | 25 15.15 52 29 7.54 -9.76 | 7.54 -6.97 | 55 54 28' 56.05 | | +12.33 | |
| (8) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| -2.02 δ_1 | | 42 39.40 | 28 31.4 | | | | | | | | |
| -16.57 | | | | | | | | | | | |

496

Date₁ = 1876 Oct. 24Observer
RecorderDate₂ = Oct. 25Observer
Recorder

100

| Star. | α | δ | Mag. | T_0 | T_m | T_e | T_f | T_g | T_h | Sum | Mean | Red. to T_m | T |
|---------------|-------------------------------------|------------------------|------------|-------|-------------------------------|---------|-------|-------|-------|---------------|------|--|---|
| Oct. 24 1 | 43 49 43 14.2 K | 53 31 26.5 | 8.7 8.8 | 21 43 | 24.0 26.7 8.0 26.90 | 43 47.2 | 50.7 | 54.2 | 57.5 | 1.0 +5.22 | 43 | 54.82 +6.42 -1.20 54.34 -1.89 54.45 | |
| | $(\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | α_1 | | | | | | | | | | | | |
| Oct. 24 22 | 5 38 5 0.3 K | 52 45 42.4 | 8.9 9.0 | 22 5 | 11.3 15.5 18.1 14.97 | 5 37.0 | 40.4 | 43.8 | 47.4 | 50.8 +5.26 | 5 | 43.88 +6.42 -1.16 49.14 -2.82 19.95 46.28 46.96 | |
| | $(\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | α_2 | | | | | | | | | | | | |
| Oct. 24 22 | 7 40 7 2.0 K | 54 28 23.1 | 6.5 7.0 | 22 7 | 58 8.2 10.3 8.10 | 7 38.1 | 41.7 | 45.3 | 48.9 | 52.4 +5.17 | 7 | 45.28 +6.42 -1.25 50.45 -2.42 48.03 | |
| | $(\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | α_1 | | | | | | | | | | | | |
| Oct. 24 22 | 8 34 7 56.8 K | 54 40 23.6 | 7.0 8.0 | 22 8 | 10.8 14.2 17.8 14.27 | 8 32.0 | 33.8 | 32.4 | 43.0 | 46.6 +5.17 | 8 | 39.86 +6.42 -1.25 44.53 -2.42 42.11 | |
| | $(\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | α_2 | | | | | | | | | | | | |
| Oct. 24 22 | 9 41 9 3.2 K | 54 48 48.3 0.1 | 9.0 9.2 | 22 9 | 9.3 12.3 15.4 12.33 | 9 32.4 | 43.0 | 46.5 | 50.2 | 53.8 +5.16 | 9 | 46.58 +6.42 -1.26 51.74 -2.44 49.30 | |
| | $(\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | α_1 | | | | | | | | | | | | |
| Oct. 25 21 | 34 53 24 19.3 32 42.8 K | 53.6 1.5 52.55.7 | 8.0 8.4 | 21 33 | 57.6 6.3 4.1 0.67 | 34 14.7 | 18.1 | 21.4 | 25.0 | 28.4 +5.74 | 34 | 21.52 +6.79 -1.05 27.26 -1.78 25.50 | |
| | $(\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | α_2 | | | | | | | | | | | | |
| | κ | | | | | | | | | | | | |
| | $(\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | α_1 | | | | | | | | | | | | |
| | κ | | | | | | | | | | | | |
| | $(\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | α_2 | | | | | | | | | | | | |
| | κ | | | | | | | | | | | | |
| | $(\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | α_1 | | | | | | | | | | | | |
| | κ | | | | | | | | | | | | |
| | $(\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | α_2 | | | | | | | | | | | | |

Runs

+2.96

101

+3.22

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|------------------------------------|--|--------------------|------|-----------------|---------|--------------------|--------------------|-------------------------------------|--------|---|-----------------|
| d | +27.22 1.413489 9.90546 1.46271 | 3 39.0 | 42.3 | 81.3 | 38.4065 | 29' | 7.70 | 53 38 | 50 | 53 32' 31.34" | |
| (δ) - D) $\frac{d'}{100}$ | 9.90546 1.46271 | 9.77387 1.33112 | | | | | | 0.09 -29.02 -21.44 | | 38.65 -17 +81 +1122 +45 -2770 32 24.58 | +10.67 136.3 |
| δ_1 | -2.06 -16.62 | 43 55.39 | | 32 8.0 | 39 | | | | | | |
| d | +28.91 1.416105 9.90120 1.48461 | 4 8.6 | 11.0 | 19.6 | 4 9.80 | 43 | 38.55 | 52 47 | 35 | 52 47' 0.69" | |
| (δ) - D) $\frac{d'}{100}$ | 9.90120 1.48461 | 9.78147 1.36488 | | | | | | 30.94 31.27 -23.17 -30.52 | | 7.77 -22 -90 +1043 +40 -28.40 46 28.59 | +9.71 12.67 |
| δ_2 | -2.23 -17.61 | 5 44.72 | | 34.3 46 10.9 | 56 | | | | | | |
| d | +37.18 1.54031 9.91069 1.62336 | 1 48.5 | 51.1 | 99.6 | 1 49.80 | 25 | 58.545 | 52 29 | 55 | 54 29' 4.74" | |
| (δ) - D) $\frac{d'}{100}$ | 9.91069 1.62336 | 9.76395 1.45662 | | | | | | 50.934 51.20 -42.01 -28.62 | | 32.77 -37 -40 +12.21 +28.70 29 16.31 | +14.94 149.0 |
| δ_1 | -2.19 -17.70 | 7 46.10 | | 28 50.6 | 44 | | | | | | |
| d | +25.09 1.39950 9.91185 1.43371 | 4 5.8 | 8.2 | 14.0 | 4 7.00 | 38 | 41.35 | 52 42 | 40 | 54 42' 6.66" | |
| (δ) - D) $\frac{d'}{100}$ | 9.91185 1.43371 | 9.76164 1.28350 | | | | | | 33.74 34.08 -27.15 -19.21 | | 14.53 -16 -90 +12.43 +50 28.70 29 16.31 | +11.87 14.83 |
| δ_2 | -2.19 -17.73 | 8 40.18 | | 41 42.7 | 36 | | | | | | |
| d | +34.25 1.53466 9.91248 1.56950 | 1 30.8 | 34.4 | 5.2 | 1 32.60 | 46 | 15.75 | 52 50 | 35 | 54 49' 31.30" | |
| (δ) - D) $\frac{d'}{100}$ | 9.91248 1.56950 | 9.76039 1.41741 | | | | | | 8.14 8.41 -37.11 -26.15 | | 41.99 -30 -33 +12.57 +50 28.70 29 16.31 | +12.44 15.40 |
| δ_1 | -2.20 -17.78 | 9 47.38 | | 49 10.7 | 24 | | | | | | |
| d | +20.85 1.31911 9.90254 1.34401 | 4 55.6 | 61.1 | 116.7 | 4 58.35 | 57 | 50.00 | 53 1 | 20 | 53 1' 14.03" | |
| (δ) - D) $\frac{d'}{100}$ | 9.90254 1.34401 | 9.77913 1.22060 | | | | | | 41.11 -22.08 -16.62 | | 24.49 -11 -110 +1092 +40 -27.20 1 10.52 | +10.11 130% |
| δ_2 | -2.02 -16.14 | 34 23.48 | | 0 54.4 | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| (δ) - D) $\frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | | | | | | | | | |

Chp 2

| Date ₁ = | | Observer Recorder | | Date ₂ = | | Observer Recorder | | | | | | | |
|--|----------|----------------------|------|---------------------|-------|----------------------|-------|-------|-------|-----|------|---------------|---|
| Star. | α | δ | Mag. | T_{δ} | T_m | T_e | T_r | T_g | T_h | Sum | Mean | Red. to T_m | T |
| κ $((\delta) - D) \frac{\kappa'}{100}$ α_1 | | | | | | | | | | | | | |
| κ $((\delta) - D) \frac{\kappa'}{100}$ α_2 | | | | | | | | | | | | | |
| κ $((\delta) - D) \frac{\kappa'}{100}$ α_1 | | | | | | | | | | | | | |
| κ $((\delta) - D) \frac{\kappa'}{100}$ α_2 | | | | | | | | | | | | | |
| κ $((\delta) - D) \frac{\kappa'}{100}$ α_1 | | | | | | | | | | | | | |
| κ $((\delta) - D) \frac{\kappa'}{100}$ α_2 | | | | | | | | | | | | | |
| κ $((\delta) - D) \frac{\kappa'}{100}$ α_1 | | | | | | | | | | | | | |
| κ $((\delta) - D) \frac{\kappa'}{100}$ α_2 | | | | | | | | | | | | | |
| κ $((\delta) - D) \frac{\kappa'}{100}$ α_1 | | | | | | | | | | | | | |
| κ $((\delta) - D) \frac{\kappa'}{100}$ α_2 | | | | | | | | | | | | | |
| κ $((\delta) - D) \frac{\kappa'}{100}$ α_1 | | | | | | | | | | | | | |
| κ $((\delta) - D) \frac{\kappa'}{100}$ α_2 | | | | | | | | | | | | | |
| κ $((\delta) - D) \frac{\kappa'}{100}$ α_1 | | | | | | | | | | | | | |
| κ $((\delta) - D) \frac{\kappa'}{100}$ α_2 | | | | | | | | | | | | | |
| κ $((\delta) - D) \frac{\kappa'}{100}$ α_1 | | | | | | | | | | | | | |
| κ $((\delta) - D) \frac{\kappa'}{100}$ α_2 | | | | | | | | | | | | | |

Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|---------------------------------|-----------|---|---|-----|------|--------------------|--------------------|--------------|--------|---|-----------|
| d | | | | | | | | | | | |
| $((\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_1 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D) \frac{d'}{100}$ | | | | | | | | | | | |
| δ_2 | | | | | | | | | | | |

Date₁ =

Observer

Recorder

Date₂ =

Observer

Recorder

| Star. | α | δ | Mag. | T_{δ} | T_m | T_a | T_f | T_g | T_h | Sum | Mean | Red. to T_m | T |
|--------------------------------------|----------|----------|------|--------------|-------|-------|-------|-------|-------|-----|------|---------------|---|
| κ | | | | | | | | | | | | | |
| $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| α_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| α_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| α_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| α_1 | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| $((\delta) - D) \frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| α_2 | | | | | | | | | | | | | |

2
92
98
80
90
65
425

pages
24 90 92

1876phms-proj-1601R