

KG
11366
v.593

Zone Observations & Reductions.

C 31

From ^{June 20} April 21, 1875 to ^{Sept-14} ~~June 27~~, 1875

631 ^h 17 ^u 41 ^s 518 51 Aug 7

932

932

932

2568
895
70 628 757 665
161 889 773 689
2568
2568

Continued from 630

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 = 1875, June 20
n = -51Observer W.A.R.
Recorder J.F.M.Date₂ = 1875, June 21
n = -48Observer W.A.R.
Recorder J.F.M.

2

1875phae.p

Star.	α	δ	Mag.	T_s	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
14	22	53 54 30	8.2	14	22	41.3	23	47	8.3	11.8	13.3	19.0	23
	22	28.1 54 30	8.5			44.7							23
	κ	34.9				47.3							23
	(δ) - D	κ'_{100}				44.4				- 0.24			23
	α_1												23
			8.3	22	44.0	23	49	8.4	12.0	13.3	19.0	33	23
	κ					47.0							33
	(δ) - D	κ'_{100}				47.0				- 0.23			23
	α_2												23
			9.0	23	50.2	24	45	8.0	11.4	14.9	18.5	24	24
	23	27.9 53 21	9.1			53.2							24
	κ	25.7				53.6							24
	(δ) - D	κ'_{100}				53.0				- 0.23			24
	α_1												24
			9.1	23	48.0	24	45	8.0	11.2	14.8	18.4	24	24
	κ												24
	(δ) - D	κ'_{100}								- 0.21			24
	α_2												24
			9.3	26	7.3	26	26.7	30.0	33.1	36.5	40.0	36	36
	25	48.8 51 22	9.5			10.3							36
	κ	26.5				13.3							36
	(δ) - D	κ'_{100}				10.3				- 0.17			26
	α_1												26
			9.4	26	0.7	26	27.0	30.1	33.4	36.5	39.6	26	26
	κ					3.6							26
	(δ) - D	κ'_{100}				6.7				- 0.15			26
	α_2					3.7							26
			9.8	27	12.6	27	31.7	34.9	38.2	41.5	44.7	27	27
	26	50.3 50 52	8.9			13.6							27
	κ	56.5				17.8							27
	(δ) - D	κ'_{100}				15.3				- 0.15			27
	α_1												27
			8.6	27	14.4	27	31.6	34.9	38.2	41.4	44.8	27	27
	κ					18.2							27
	(δ) - D	κ'_{100}				20.7				- 0.15			27
	α_2					17.8							27
			9.0	28	2.6	28	9.5	12.6	16.0	19.3	22.6	28	28
	27	33.8 27.9	8.4										28
	κ												28
	(δ) - D	κ'_{100}								- 0.17			28
	α_1												28
			8.7	28	0.6	28	9.5	12.7	16.0	19.4	22.7	28	28
	κ												28
	(δ) - D	κ'_{100}								- 0.15			28
	α_2												28

June 20 -16' 6.48 -1.15
 " 21 -16 5.90 -1.16

Runs

3

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	8'
d	+27.5 1.43933 9.76413 1.32898 _m	2	8.9	33.9	42.8 2' 21.40 37	45 26.95 54 29 20.47 -21.33			85-	54 28 59.14 - 19 - 35 + 12.12 + 35 - 2.10 29 9.17	+12.13
(8) - D $\frac{d'}{100}$											
δ_1											
d	+24.9 1.39620 9.76413 1.28585 _m	2	11.1	37.1	48.2 2 24.10 37	45 24.25 54 29 18.35 - 17.31			35-	28 59.04 - 16 - 38 + 11.97 + 60 - 2.30 29 8.77	+12.03
(8) - D $\frac{d'}{100}$											
δ_2											
d	+18.5 1.26717 9.77609 1.16878 _m	1	27.1	50.9	78.0 1 39.00 46	36 9.35 53 20 2.87 -14.75			45-	53 19 48.12 - 8 - 25 + 10.94 + 43 - 1.85 19 57.31	+11.04
(8) - D $\frac{d'}{100}$											
δ_1											
d	+28.4 1.45332 9.77609 1.35473 _m	1	18.9	44.9	63.8 1 31.90 46	36 16.45 53 20 10.45 -22.64			45-	19 47.81 - 21 - 24 + 10.80 + 53 - 2.00 19 56.69	+10.88
(8) - D $\frac{d'}{100}$											
δ_2											
d	+23.0 1.36173 9.77558 1.28283 _m	0	11.4	37.7	49.1 0 24.55 45	37 23.80 51 21 17.32 -17.18			45-	51 20 58.14 - 14 - 6 + 8.92 + 37 - 1.40 21 5.83	+9.079
(8) - D $\frac{d'}{100}$											
δ_1											
d	+29.6 1.47129 9.77558 1.39239 _m	0	7.2	33.8	41.0 0 20.50 45	37 27.85 51 21 21.95 -24.68			45-	20 57.27 - 23 - 5 + 8.81 + 47 - 1.53 21 4.72	+9.00
(8) - D $\frac{d'}{100}$											
δ_2											
d	+22.9 1.35984 9.80012 1.28548 _m	3	50.5	18.2	120.7 4 28.5 14	8 48.50 50 52 39.02 -17.30			10	50 52 19.72 - 14 - 61 + 8.44 + 34 - 1.25 52 26.50	+8.03
(8) - D $\frac{d'}{100}$											
δ_1											
d	+20.4 1.30963 9.80012 1.23527 _m	3	50.0	18.9	131.9 4 59.5 14	8 42.40 50 52 36.50 -17.19			10	52 19.31 - 11 - 65 + 8.33 + 44 - 1.40 52 25.92	+8.01
(8) - D $\frac{d'}{100}$											
δ_2											
d	+12.4 1.09342 9.77526 1.01420 _m	3	35.1	0.3	95.4 3 47.70 43	39 0.65 51 22 54.17 -10.83			40	51 22 43.84 - 4 - 57 + 8.95 + 37 - 1.30 22 51.25	+8.71
(8) - D $\frac{d'}{100}$											
δ_1											
d	+15.5 1.19033 9.77526 1.11111 _m	3	33.5	5.9	93.4 3 46.70 43	39 1.65 51 22 55.75 -12.92			40	22 42.83 - 6 - 60 + 8.84 + 47 - 1.50 22 49.98	+8.65
(8) - D $\frac{d'}{100}$											
δ_2											

Date₁ = 1875, June 20Observer W.A.R.
Recorder J.F.M.Date₂ = 1875, June 21Observer W.A.R.
Recorder J.F.M.

Star.	α	δ	Mag.	T_a	T_m	T_s	T_r	T_g	T_h	Sum	Mean	Red. to T_m	T
14	29	45 50 46	9.5	14	29 20.3	29 49.7	53.0	56.3	59.6	2.8	29	56.28	
	κ	11.5 58.5	9.4		25.2							+ 0.489	
					29.2							- 6.2	
	(δ - D) $\frac{\kappa'}{100}$				24.9					- 0.15	29	56.12	
	a_1										29	- 2.68	
											29	53.45	
			9.5		29 24.0	29 48.7	53.2	56.2	59.4	2.9	29	56.28	
	κ				27.6							+ 0.47	
					30.6							- 5.8	
	(δ - D) $\frac{\kappa'}{100}$				27.4					- 0.03	29	56.15	
	a_2										29	- 2.66	
											29	53.49	
			8.9		30 27.2	30 41.4	45.0	48.4	52.0	53.3	30	48.46	
	κ	6.5 54 05	9.0		30.9							+ 0.489	
					32.6							- 7.0	
	(δ - D) $\frac{\kappa'}{100}$				30.6					- 0.24	30	48.21	
	a_1										30	- 2.80	
											30	45.42	
			8.9		30 29.2	30 41.4	44.9	48.4	51.9	53.5	30	48.44	
	κ				32.0							+ 0.47	
					32.7							- 6.6	
	(δ - D) $\frac{\kappa'}{100}$				32.3					- 0.22	30	48.22	
	a_2										30	- 2.78	
											30	45.44	
			8.9		31 36.0	31 52.2	56.7	0.2	3.6	7.1	32	0.16	
	κ	18.2 50.7	8.9		40.2							+ 0.489	
					43.7							- 6.9	
	(δ - D) $\frac{\kappa'}{100}$				40.0					- 0.23	31	59.92	
	a_1										31	- 2.80	
											31	57.13	
			8.7		31 28.3	31 53.2	56.7	0.2	3.7	7.2	32	0.20	
	κ				32.7							+ 0.47	
					36.0							- 6.5	
	(δ - D) $\frac{\kappa'}{100}$				32.9					- 0.21	31	59.99	
	a_2				12.4						31	- 2.78	
					15.4						31	57.21	
					12.5								
			8.7		33 29.4	33 50.5	54.0	57.4	1.0	4.4	33	57.44	
	κ	17.1 40.4	8.4		33.0							+ 0.489	
					35.7							- 6.9	
	(δ - D) $\frac{\kappa'}{100}$				32.5					- 0.23	33	57.20	
	a_1										33	- 2.80	
											33	54.41	
			8.4		33 20.5	33 50.5	53.9	57.4	0.9	4.3	33	57.40	
	κ				33.6							+ 0.47	
					36.5							- 6.5	
	(δ - D) $\frac{\kappa'}{100}$				33.8					- 0.21	33	57.19	
	a_2										33	- 2.78	
											33	54.41	
			8.7		34 32.0	34 50.5	53.8	57.5	1.0	4.4	34	57.44	
	κ	16.1 33.2	8.8		35.0							+ 0.48	
					38.3							- 6.9	
	(δ - D) $\frac{\kappa'}{100}$				35.1					- 0.24	34	57.20	
	a_1										34	- 2.81	
											34	54.39	
			8.7		34 31.6	34 50.3	53.8	57.3	0.8	4.3	34	57.30	
	κ				35.1							+ 0.47	
					38.1							- 6.6	
	(δ - D) $\frac{\kappa'}{100}$				34.9					- 0.21	34	57.09	
	a_2										34	- 2.79	
											34	54.30	

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+31.4 1.49693 9.80120 1.42365 _m	1	1.4	26.8	28.2 1 14.10 21	1 34.25 50 45 27.77 -26.52			20	50 45 1.25 -27 -15 +8.32 +34 -1.10 45 8.39	+8.24
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+28.9 1.46090 9.80120 1.58762 _m	1	2.8	28.3	31.1 1 15.55 21	1 32.80 50 45 26.90 -24.41			20	45 2.49 -23 -16 +8.21 +43 -1.30 45 9.44 56.99	+8.25
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+17.9 1.25285 9.77009 1.14846 _m	1	17.8	43.8	61.6 1 30.80 11	11 17.55 53 55 11.07 -17.07 14.08			10	53 54 56.00 -8 -19 +11.54 +49 -1.60 55 7.15	+11.76
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+16.1 1.20683 9.77009 1.10244 _m	1	19.4	45.9	65.3 1 32.65 11	11 15.70 53 55 9.80 -12.66			10	54 57.14 -7 -21 +11.40 +59 -1.50 55 7.05	+11.71
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+20.2 1.30505 9.77181 1.20268 _m	2	42.0 45.6	6.7 11.6	116.8 6 3 20 58.00	1 50.05 53 45 43.57 -15.75			20	53 45 27.62 -11 -15 +11.38 +48 -1.60 45 37.72	+11.60
((8) - D) $\frac{d'}{100}$											
δ_1											
d	-12.3 1.08991 9.77181 0.98724 _m	1	10.7	37.6	48.3 1 24.15 21	1 24.20 53 45 18.30 +9.71			20	45 28.01 -4 -18 +11.22 +58 -1.70 45 37.89	+11.58
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+24.9 1.39620 9.77353 1.29525 _m	1	11.5	38.8	47.3 1 23.65 31	51 24.70 53 35 18.22 -19.74			30	53 34 58.48 -16 -18 +11.21 +46 -1.40 35 8.41	+11.33
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+23.9 1.37840 9.77353 1.27745 _m	1	12.0	37.0	49.0 1 24.50 31	51 23.85 53 35 17.95 -18.94			30	34 59.01 -15 -18 +11.06 +56 -1.60 35 8.70	+11.29
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+22.3 1.34880 9.77130 1.24512 _m	2	43.1	7.4	110.5 2 55.25 17	4 53.10 53 48 46.62 -17.58			15	53 48 29.04 -13 -44 +11.43 +48 -1.40 48 38.98	+11.34
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+22.4 1.35025 9.77130 1.24707 _m	2	43.1	8.1	111.2 2 55.60 17	4 52.75 53 48 46.85 -17.66			15	48 29.19 -13 -47 +11.28 +58 -1.53 48 38.90	+11.26
((8) - D) $\frac{d'}{100}$											
δ_2											

Date₁ = 1875, June 20Observer W.A.R.
Recorder J. F. M.Date₂ = 1875, June 21Observer W.A.R.
Recorder J. F. M.

6

Star.	α	δ	Mag.	T_s	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
14	37	13 53	12	8.4	14	36	50.8	37	13.9	17.2	20.7	24.3	27.6
	κ	36	38.8	16.1	8.2		54.7						
							54.8						
							54.4						
	(S) - D	$\frac{\kappa'}{100}$											
	a_1												
	κ												
	(S) - D	$\frac{\kappa'}{100}$											
	a_2												
	39	23 54	20	7.0	38	52.0	39	22.8	26.4	30.3	33.6	36.3	39
	κ	38	49.3	24.6	7.0		53.3						
							53.0						
							55.2						
	(S) - D	$\frac{\kappa'}{100}$											
	a_1												
	κ												
	(S) - D	$\frac{\kappa'}{100}$											
	a_2												
	40	22 54	52	9.0	39	58.4	40	20.4	24.1	27.6	31.3	34.9	40
	κ	39	48.0	56.9	8.8		1.1						
							4.1						
							61.2						
	(S) - D	$\frac{\kappa'}{100}$											
	a_1												
	κ												
	(S) - D	$\frac{\kappa'}{100}$											
	a_2												
	43	47 54	15	9.0	43	22.6	43	46.3	48.6	52.3	56.0	59.6	43
	κ	43	15.2	19.1	9.0		25.8						
							28.3						
							25.6						
	(S) - D	$\frac{\kappa'}{100}$											
	a_1												
	κ												
	(S) - D	$\frac{\kappa'}{100}$											
	a_2												
	42	27	42	27.0	30.4	34.0	37.5	41.1					
	κ												
	(S) - D	$\frac{\kappa'}{100}$											
	a_2												

Single Observations

June 21 a_1

14	31	1 54	00	8.9	14	31	28.3	31	3.4	7.2	10.7	14.1	17.7	31	10.62
	κ	30	27.1	4.0	9.2		32.7								+ 0.47
							36.0								- 6.6
							33.3								- 3
	(S) - D	$\frac{\kappa'}{100}$													- 2.78
	a_2														7.62

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+26.3 1.41996 9.77761 1.32309 _m	0	24.0	49.1	73.1 0 36.55	27 11.80 53 11 8.32 -21.04			J-S-53	10 44.28 - 18 - 9 +10.79 + 42 - 1.15 10 54.07	+10.94
((δ) - D) $\frac{d'}{100}$											
δ_1											
d	+26.3 1.41996 9.77761 1.32309 _m	0	24.0	50.0	74.0 0 37.00	27 11.35 53 11 8.45 -21.04			J-S-	10 44.41 - 18 - 10 +10.66 + 52 - 1.30 10 54.01	+10.90
((δ) - D) $\frac{d'}{100}$											
δ_2											
d	+34.6 1.53908 9.76590 1.43050 _m	1	46.9	11.6	118.5 1 46 59.25	35 49.10 54 19 42.62 -26.95			45-	54 19 15.67 - 31 - 30 +11.99 + 53 - 1.20 19 26.38	+11.91
((δ) - D) $\frac{d'}{100}$											
δ_1											
d	+26.8 1.42813 9.76590 1.31955 _m	1	53.5	18.1	131.6 2 47 58.0	35 42.55 54 19 36.65 -20.87			45-	19 15.78 - 19 - 33 +11.81 + 53 - 1.40 19 26.27	+11.89
((δ) - D) $\frac{d'}{100}$											
δ_2											
d	+26.5 1.42325 9.76021 1.30898 _m	0	8.2	34.4	42.6 0 15 21.30	7 27.05 54 51 20.57 -20.37			15-	54 51 0.20 - 18 - 5 +12.54 + 59 - 1.30 51 11.80	+12.90
((δ) - D) $\frac{d'}{100}$											
δ_1											
d	+30.3 1.48144 9.76021 1.36717 _m	0	6.0	31.8	37.8 0 15 18.90	7 29.45 54 51 20.58 -23.27			15-	51 0.26 - 24 - 5 +12.35 + 59 - 1.45 51 11.47	+12.66
((δ) - D) $\frac{d'}{100}$											
δ_2											
d	+26.8 1.42813 9.76677 1.32042 _m	2	30.5	88.9	84.4 2 52 42.20	30 6.15 54 13 59.67 -20.91			J 0	64 13 38.76 - 19 - 40 +11.90 + 52 - 1.00 13 49.59	+11.83
((δ) - D) $\frac{d'}{100}$											
δ_1											
d	+27.4 1.43775 9.76677 1.33004 _m	2	2.5	26.4	28.9 2 52 14.45	30 23.90 54 14 28.00 -21.38			50	13 36.62 14 - 19 - 35 +11.70 + 60 - 1.15 14 13 7.23	+11.76
((δ) - D) $\frac{d'}{100}$											
δ_2											
d	-21.7 1.33646 9.76939 1.23137 _m	2	42.0	6.9	108.9 2 7 54.45	14 53.90 53 58 48.00 -17.04			J-53	58 30.96 - 12 - 47 +11.48 + 60 - 1.80 58 40.63 59 14.73	+11.49
((δ) - D) $\frac{d'}{100}$											
δ_2											

Date₁ = June 24
n = -0.62Observer H. A. R.
Recorder J. F. M.Date₂ = June 28
n = -0.58Observer H. A. R.
Recorder J. F. M.

8

Star.	α	δ	Mag.	T_z	T_m	T_s	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
20	3-9	54	9	7.5	14	20	38.8	21	0.6	4.2	7.8	11.3	14.8
κ	20	23.1	13.8	6.8			36.8						
							37.4						
(S) - D							36.7						
a_1													
κ				7.8	20	37.0	21	15	4.8	8.5	12.0	15.5	
							41.0						
(S) - D							43.5						
a_2							40.5						
κ													
(S) - D													
a_1													
κ													
(S) - D													
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June, 24 -16' 6.41 -16
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Runs

9

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'	
d	+31.0 1.49136 9.76765 1.38453m	2	47	39.1	35.8 57	25 30.45 54 9 24.04 -24.24			55	8 59.80 - 25 - 36 +11.36 + 60 - 2.80 9 8.35 8 59.34 9 14.34 - 20 - 39 +11.48 + 61 - 3.35 9 7.49	✓ +11.35	
(8) - D $\frac{d'}{100}$												
δ_1			[32.1]		2 19.15 57	25 44.20 25 29.20 54 9 36.23 54 9 21.23 -21.27 -21.89			55		✓ +11.50	
d	+28.0 1.44716 9.76765 1.34033m	2	62	2.1	8.3 57							
(8) - D $\frac{d'}{100}$												
δ_2												
d	+32.1 1.50651 9.77061 1.40264m	4	89	35.2	44.1 14	8 26.30 53 52 19.89 -25.27			10	53	51 54.62 - 27 - 70 +11.08 + 59 - 2.60 52 2.72	+10.70
(8) - D $\frac{d'}{100}$												
δ_1												
d	+10.8 1.03342 9.77061 0.92955m	4	28.2	50.9	76.1 14	8 10.30 53 52 2.33 - 8.50			10	57	53.83 - 3 - 78 +11.21 + 59 - 3.20 52 16.2	+10.99
(8) - D $\frac{d'}{100}$												
δ_2												
d	+22.1 1.34439 9.77181 1.24172m	0	417	97	111.4 20	1 52.65 53 45 46.24 -17.45			20	53	45 28.79 - 13 - 15 +10.98 + 589 - 2.20 45 37.88	+11.29
(8) - D $\frac{d'}{100}$												
δ_1												
d	-5.0 0.69897m 9.77181 0.59630	1	1.2	26.8	28.0 21	1 34.35 53 45 26.38 + 3.95			20	45	30.33 - 1 - 20 +11.10 + 59 - 2.80 45 39.01	+11.48
(8) - D $\frac{d'}{100}$												
δ_2												
d	+20.8 1.31806 9.78609 1.22967m	0	485	15.0	123.5 46	34 46.60 52 20 40.19 # 16.77			45	52	20 23.22 - 12 - 16 + 9.07 + 52 - 1.80 20 31.23	+9.81
(8) - D $\frac{d'}{100}$												
δ_1												
d	+1.3 0.11394 9.78609 0.02555m	1	1.9	28.3	30.2 46	36 03.25 52 20 25.28 - 10.67 1.06			45	20	24.22 - 0 - 20 + 9.68 + 52 - 2.45 20 31.77	+10.00
(8) - D $\frac{d'}{100}$												
δ_2												
d	-28.2 1.45025m 9.76307 1.33884	1	59	32.3	38.2 31	51 29.25 54 35 22.84 + 21.82			30	54	35 44.66 - 21 - 21 +11.81 + 60 - 2.20 35 54.45	+11.99
(8) - D $\frac{d'}{100}$												
δ_1												
d	-170 1.23045m 9.76307 1.11904	0	47	21.3	136.0 31	51 40.35 54 35 32.38 + 13.15			30	35	45.53 - 4 - 19 +11.94 + 63 - 2.80 35 55.02	+12.29
(8) - D $\frac{d'}{100}$												
δ_2												

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+24.2 1.38382 9.77199 1.28133m	1	53.4	19.9	133.3	21	6.5	0 41.70 53 44 35.29 -19.11	20	53 44 16.18 -15 -34 +10.95 +59 -1.60 44 25.63	+11.05
((8) - D) $\frac{a'}{100}$											
δ_1											
d	+19.4 1.28780 9.77199 1.18531m	1	56.1	20.9	137.0	22	8.50	0 39.85 53 44 31.88 -15.02	20	44 16.56 -9 -36 +11.09 +59 -2.25 44 25.54	+11.23
((8) - D) $\frac{a'}{100}$											
δ_2											
d	+29.9 1.47567 9.76129 1.36248m	1	12.5	40.1	52.6	21	26.30	1 22.05 54 45 15.64 -25.04	20	54 44 52.60 -24 -23 +11.98 +60 -1.70 45 3.01	+12.11
((8) - D) $\frac{a'}{100}$											
δ_1											
d	+29.0 1.46240 9.76129 1.34921m	1	12.0	39.1	51.1	21	25.53	1 22.80 54 45 14.83 -22.35	20	44 52.48 -22 -24 +12.12 +64 -2.35 45 2.43	+12.30
((8) - D) $\frac{a'}{100}$											
δ_2											
d	+24.3 1.38561 9.76870 1.27983m	2	54.8	19.3	134.1	3	70.5	19 41.30 54 3 34.89 -19.05	0	54 3 15.84 -15 -50 +11.29 +60 -1.20 3 25.88	+11.24
((8) - D) $\frac{a'}{100}$											
δ_1											
d	+15.1 1.17898 9.76870 1.07320m	3	1.2	26.0	272.3	4	136.0	19 34.75 54 3 26.78 -11.84	0	3 14.94 -6 -54 +11.42 +60 -1.90 3 24.46	+11.42
((8) - D) $\frac{a'}{100}$											
δ_2											
d	+33.8 1.52892 9.78576 1.44020m	3	42.4	8.5	110.9	3	53.45	38 52.90 52 22 46.99 -27.56	40	52 22 18.93 -31 -63 +9.63 +52 -0.80 22 27.34	+9.21
((8) - D) $\frac{a'}{100}$											
δ_1											
d	+16.1 1.41464 9.78576 1.32792m	3	56.1	26.5	137.6	4	8.50	38 39.55 52 22 31.58 -21.28 13.15	40	22 10.30 18.45 -7 -70 +9.75 +52 -1.53 22 26.40	+9.50
((8) - D) $\frac{a'}{100}$											
δ_2											
d	+19.7 1.29447 9.80290 1.22289m	1	50.5	18.0	128.5	2	42.5	50 44.10 50 34 37.69 -16.71	30	50 34 20.98 -11 -33 +7.88 +41 +0.00 34 28.83	+7.85
((8) - D) $\frac{a'}{100}$											
δ_1											
d	+15.7 1.19590 9.80290 1.12432m	1	51.5	19.4	130.9	2	54.5	50 42.90 50 34 34.93 -13.02	30	34 21.61 -7 -36 +7.96 +41 -0.80 34 28.75	+7.94
((8) - D) $\frac{a'}{100}$											
δ_2											

Date ₁	Star	α	δ	Mag.	T_s	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
June 24	415													
Observer	H. A. R.													
Recorder	J. F. M.													
June 24	7	31	50	23	7.9	15	7	20.4	7	33.0	38.1	41.5	44.6	42.9
κ	7	0.5		27.0	7.4			22.7						
								25.5					- 0.56	
$(\delta) - D$								22.8						
a_1														
κ					7.5		7	32.6	7	35.7	38.8	42.1	45.5	48.7
								36.0						
								38.8					- 1.29	
$(\delta) - D$								38.1						
a_2														
8	8	57	50	16	7.0	8	37.9	9	0.6	3.8	7.0	10.2	13.6	
κ	8	26.8		19.5	7.2			41.0						
								43.4					- 0.55	
$(\delta) - D$								40.8						
a_1														
κ					7.0		8	30.2	9	1.4	4.5	7.7	11.1	14.2
								32.7						
								36.0					- 1.28	
$(\delta) - D$								32.9						
a_2														
10	9	01	50	44	8.0	9	33.2	10	4.6	8.0	11.2	14.5	17.7	
κ	9	30.5		48.1	7.5			36.4						
								39.0					- 0.55	
$(\delta) - D$								36.2						
a_1														
κ					7.9		9	49.7	10	5.4	8.6	12.9	16.7	
								52.2						
								53.6					- 1.29	
$(\delta) - D$								52.5						
a_2														
11	10	16	50	12	8.8	10	53.3	11	20.1	23.3	26.6	29.8	33.1	
κ	10	44.9		16.1	8.5			56.0						
								58.2					- 0.54	
$(\delta) - D$								55.8						
a_1														
κ					8.9		11	1.8	11	20.7	24.0	27.3	30.5	33.7
								4.8						
								7.5					- 1.28	
$(\delta) - D$								4.7						
a_2														
June 24	14	31	01	54	0	9.2	14	30	46.0	31	8.0	7.6	11.0	14.4
κ	30	27.1		4.0	9.2			48.5						
								52.2					- 0.69	
$(\delta) - D$								49.3						
June 24	14	32	50	33	9.4	14	32	45.7	32	52.1	2.4	5.7	8.9	12.3
a_1	32	33		32.4	9.2			48.0						
								51.6					- 0.58	
$(\delta) - D$								48.6						
June 28	14	57	26	53	58	9.0	14	51	16.0	51	37.4	40.9	44.4	47.9
κ	51	3.4	54	28	9.3			18.3						
								22.3					- 1.41	
$(\delta) - D$								19.2						
a_2														
Single Observations														
31	31	11.02												
		+ 0.19												
		- 0.85												
31	31	10.33												
		- 2.72												
31	31	7.61												
		- 0.19												
33	33	5.10												
		- 2.61												
33	33	2.49												
		- 0.58												
51	51	42.99												
		- 2.79												
51	51	40.20												

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+18.5 1.26717 9.80473 1.19742m	3	58.0	191	132.1 44	6.05	38 42.30 22 58.89 -15.76		40	50 22 20.13 - 10 - 65 + 7.68 + 39 + 0.10 22 27.55	+7.32
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+9.1 0.95904 9.80473 0.88929m	3	57.9	26.0	145.9 44	12 17.95	38 35.40 22 14.43 - 7.75		40	22 19.68 - 2 - 71 + 7.76 + 39 - 0.70 22 26.40	+7.42
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+26.2 1.41830 9.80595 1.34977m	1	38.9	6.0	104.9 51	52.45	30 55.90 14 49.49 - 22.38		50	50 14 27.11 - 18 - 30 + 7.55 + 37 + 0.20 14 34.75	+7.44
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+34.8 1.64158 9.80595 1.47305m	1	29.1	56.9	86.0 51	43.00	31 55.35 14 57.38 - 29.72		50	14 27.46 - 32 - 29 + 7.63 + 37 - 0.60 14 39.45	+7.39
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+35.0 1.54407 9.80136 1.47095m	2	33.7	0.0	93.7 22	46.85	0 15.50 43 55.09 - 29.58		20	50 43 25.51 - 33 - 45 + 8.03 + 43 + 0.15 43 33.34	+7.68
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+19.2 1.28330 9.80136 1.21018m	2	45.4	12.9	118.3 22	59.15	59 49.20 43 41.23 - 16.23		20	43 25.00 - 10 - 51 + 8.11 + 43 - 0.65 43 32.28	+7.93
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+30.8 1.48855 9.80610 1.42017m	3	21.5	48.4	69.9 53	34.95 35.22	29 13.40 13 6.99 - 26.31		50	50 12 40.68 - 25 - 57 + 7.52 + 37 + 0.30 12 47.75	+7.07
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+22.5 1.35218 9.80610 1.28380m	3	26.7	53.1	79.8 53	39.90	29 8.45 13 0.48 - 19.22		50	12 41.26 - 13 - 61 + 7.61 + 37 - 0.50 12 48.00	+7.24
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+22.1 1.34439 9.76939 1.23930m	2	4.3	00.8	35.8 7	17.90	15 30.45 59 24.04 - 17.35		50	50 59 6.69 - 13 - 36 + 11.29 + 11.29 + 60 - 2.30 59 15.68	+7.17
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+17.1 1.25300 9.80320 1.16172m	4	9.4	35.8	45.2 54	22.60	48 25.75 32 19.34 - 14.51		80	59 15.68 - 32 - 10.70	+7.17
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+25.2 1.40140 9.76957 1.29649m	3	20.0	45.8	65.5 8	32.75	14 15.60 58 7.63 - 17.79		50	50 57 47.84 - 17 - 59 + 11.85 + 60 - 1.30 57 57.73	+11.19
$((\delta) - D) \frac{d'}{100}$											
δ_2											

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Aug. 7 -16' 12.87 -12
 " 9 -16 12.50 -12

Runs

15

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+18.6 1.26951 9.77963 1.18060 _m	1	520	165	128.5 2 4.25	15 44.10 52 59 31.23 -15.16			5	52 59 16.07 - 9 - 25 +10.35 + 50 - 5.15 59 24.3	✓ +10.51
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+30.5 1.48400 9.77963 1.39539 _m	1	411	760	97.1 6 53.55	15 59.80 52 59 47.30 -24.85			5	59 17.45 - 25 - 22 +10.36 + 50 - 54.0 27.44 24.46	✓ +10.39
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+36.5 1.56229 9.77009 1.46384 _m	1	59	31.1	37.0 11 18.50	11 29.85 53 55 16.98 -29.10			10	53 54 47.88 - 35 - 16 +11.27 + 59 - 5.20 54 54.03	+11.35
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+30.8 1.48805 9.77009 1.39010 _m	1	103	35.6	45.9 11 22.95	11 28.40 53 55 12.90 -24.55			10	54 48.35 - 25 - 17 +11.28 + 59 - 5.50 54 54.30	+11.45
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+29.3 1.46687 9.77887 1.39720 _m	0	548	214	136.2 6 8.10	16 40.25 51 0 27.38 -24.96			5	51 0 2.42 - 23 - 13 +8.37 + 45 - 4.95 0 59.3	+8.46
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+26.7 1.42651 9.77887 1.35684 _m	0	372	225	139.7 6 9.85	16 38.50 51 0 26.00 -22.74			5	0 3.26 - 19 - 14 +8.38 + 45 - 5.25 0 6.51	+8.50
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+15.6 1.13354 9.80777 12.07277 _m	3	874	24	99.8 3 4.90	18 58.45 50 2 45.58 - 11.82			0	50 2 33.76 - 5 - 46 +7.44 + 40 - 4.90 2 36.19	+7.38
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+20.6 1.31387 9.80777 1.25310 _m	8	310	53.1	86.1 3 4.305	19 5.30 50 2 52.80 -17.91			0	2 34.89 - 12 - 44 + 44 + 7.46 + 40 - 5.20 2 36.99	+7.30
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+24.85 +9.3 0.96848 9.77778 13.146 1.30544 1.35620 9.77788 13.146 1.30544	0	50.7	15.7	126.4 1 56 3.20	26 45.15 53 10 32.28 -7.33 +20.00 18.90			53	53 10 24.73 - 2 - 13 +10.54 + 52 - 5.20 10 30.44 56.19 15.593	✓ +10.91 per. #
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+10.4 1.01703 9.77778 0.92627 _m	0	25.4	50.8	76.2 0 55 3.810	27 10.25 53 10 57.75 -8.44			5-5	10 49.51 - 3 - 8 +10.53 + 52 - 5.32 10 54.77	+10.96
$((\delta) - D) \frac{d'}{100}$											
δ_2											

Date₁ = 1875. Aug. 7Observer
RecorderDate₂ = 1875. Aug. 9Observer
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
29	2	50 29	8.8	17	28 36.9	29 9.3	12.4	15.7	18.9	23.1	29	15.68	
28	39.3	27.7	8.9									- 3.87	
κ										- 4.62		- 7.3	
(S) - D) $\frac{\kappa'}{100}$											29	18.80	
a_1												11.06	
												- 2.23	
											29	8.83	
κ			8.8		28 42.3	29 9.9	12.6	15.9	19.2	22.6	29	16.04	
					46.7							- 4.43	
(S) - D) $\frac{\kappa'}{100}$					52.0					- 5.20		- 7.5	
a_2					46.3						29	10.84	
												- 2.18	
											29	8.66	
30	4	50 37	9.3		29 45.8	30 10.6	13.7	16.8	20.0	23.5	30	16.92	
29	40.4	37.6	9.4									- 3.87	
κ										- 4.62		- 7.3	
(S) - D) $\frac{\kappa'}{100}$											30	12.30	
a_1												- 2.23	
											30	10.07	
κ			9.4		29 54.1	30 10.8	14.1	17.1	20.5	23.7	30	17.24	
					57.6							- 4.43	
(S) - D) $\frac{\kappa'}{100}$					1.3					- 5.20		- 7.5	
a_2					57.7						30	12.04	
												- 2.18	
											30	9.86	
32	21	52 13	8.7		32 6.4	32 27.0	30.4	33.6	37.0	40.6	32	33.72	
31	07.7	14.5	8.8		10.2							- 3.87	
κ					13.1					- 4.66		- 7.7	
(S) - D) $\frac{\kappa'}{100}$					9.9						32	29.06	
a_1												- 2.24	
											32	26.82	
κ			8.8		32 7.4	32 27.3	30.8	34.3	37.6	41.0	32	34.20	
					11.0							- 4.43	
(S) - D) $\frac{\kappa'}{100}$					13.4					- 5.24		- 7.9	
a_2					10.6						32	28.96	
												- 2.18	
											32	26.78	
34	3	51 44	8.7		33 46.4	34 8.7	12.0	15.3	18.7	22.0	34	16.34	
33	40.1	46.1	8.8		49.6							- 3.87	
κ					52.1					- 4.64		- 7.5	
(S) - D) $\frac{\kappa'}{100}$					49.4						34	10.70	
a_1												- 2.24	
											34	8.46	
κ			9.0		33 41.3	34 9.3	12.6	15.9	19.0	22.5	34	15.88	
					44.2							- 4.43	
(S) - D) $\frac{\kappa'}{100}$					47.2					- 5.23		- 7.8	
a_2					44.2						34	10.63	
												- 2.19	
											34	8.44	
36	9	54 10	9.0		35 54.3	36 11.0	14.5	18.0	21.6	25.2	36	18.11	
35	45.6	10.2	9.0		59.0							- 3.87	
κ					2.3					- 4.73		- 8.3	
(S) - D) $\frac{\kappa'}{100}$					58.5						36	13.33	
a_1												- 2.25	
											36	11.08	
κ			9.1		35 53.7	36 11.2	14.8	18.4	22.1	25.7	36	18.44	
					57.4							- 4.40	
(S) - D) $\frac{\kappa'}{100}$					1.3					- 5.31		- 8.0	
a_2					57.5						36	13.13	
												- 2.19	
											36	10.94	

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+34.8.8 1.58883 9.80366 1.52395m	2	4.9	30.3	35.2 2' 17.60 37	45 30.75 50 29 17.88 -33.42			25	50 28 44.46 - 40 - 27 + 7.87 + 42 - 4.95 28 47.13	+7.62
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+29.7 1.47276 9.80366 1.40788m	2	13.7	28.1	51.8 2 25.90 37	45 22.45 50 29 9.95 -25.58			25	28 44.37 - 23 - 29 + 7.90 + 42 - 5.30 28 46.87	+7.80
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+31.1 1.49276 9.80244 1.42666m	4	12.6	28.3	50.9 4 25.45 29	53 22.90 50 37 10.03 -26.71			25	50 36 43.32 - 26 - 53 + 8.00 + 43 - 4.95 36 46.01	+7.64
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+19.5 1.29003 9.80244 1.22393m	4	21.7	45.9	67.6 4 33.80 29	53 14.55 50 37 2.05 -16.75			25	36 45.30 - 10 - 55 + 8.02 + 43 - 5.30 36 47.80	+7.80
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+23.8 1.07658 9.78707 1.29511m	1	41.2	6.3	107.5 1 53.75 57	50 54.60 52 14 41.73 -19.73			50	52 14 22.08 - 15 - 21 + 9.60 + 50 - 5.10 14 26.64	+9.74
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+24.6 1.39094 9.78707 1.30947m	1	41.8	6.2	108.0 1 54.00 51	50 54.35 52 14 41.85 -20.39 19.56			50	14 24.44 - 15 - 21 + 9.64 + 50 - 5.43 14 25.79	22.29 +9.78 26.62
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+25.9 1.41330 9.79176 1.33652m	0.5	44.4	10.9	115.3 0 57.65 20	1 50.70 51 45 37.83 -21.70			20	51 45 16.13 - 18 - 11 + 9.13 + 49 - 5.03 45 20.41	+9.33
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+31.7 1.50106 9.79176 1.42428m	0	40.7	6.1	106.8 0 53.40 20	1 54.95 51 45 42.45 -26.56			20	45 18.89 - 27 - 11 + 9.16 + 49 - 5.40 45 19.76	+9.27
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+19.6 1.29226 9.76747 1.19119m	1	1.9	26.5	28.4 1 14.20 56	26 34.15 54 10 21.28 -15.53			33	54 10 5.75 - 10 - 15 + 11.54 + 60 - 5.25 10 12.39	+11.89
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+20.9 1.32015 9.76747 1.21908m	1	1.9	25.0	26.9 1 13.45 56	26 34.90 54 10 22.40 -16.56			33	10 5.84 - 11 - 15 + 11.88 + 60 - 5.60 10 12.17	+11.93
((8) - D) $\frac{d'}{100}$											
δ_2											

Date₁ = 1875, Aug. 7Observer
RecorderDate₂ = 1875, Aug. 9Observer
Recorder

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Star.	α	δ	Mag.	T_s	T_m	T_e	T_r	T_z	T_h	Sum	Mean	Red. to T_m	T
17	37	21 54 27	8.3	17 37	37 220	26.4	30.0	33.5	37.0	37	29.8		
	36	58.5	27.9	9.0	7.0						-3.87		
	κ				10.0						-84		
	(δ - D)				6.9				-4.74	37	25.24		
	a_1									37	-2.25		
										37	22.99		
			9.0	37 4.9	37 234	26.8	30.5	34.0	37.8	37	30.50		
	κ			8.1							-4.43		
	(δ - D)			12.0					-5.33	37	-87		
	a_2			8.3						37	-3		
										37	25.17		
										37	-2.20		
										37	22.97		
	39	20 52 5	7.5	38 59.5	39 23.5	26.8	30.1	33.5	37.0	39	30.18		
	38	57.0	7.3	7.9	2.9						-3.87		
	κ				5.1						-77		
	(δ - D)				62.4				-4.66	39	-2		
	a_1									39	25.52		
										39	-2.26		
										39	23.26		
			7.9	39 6.1	39 240	27.3	30.7	34.0	37.4	39	30.68		
	κ			9.4							-4.43		
	(δ - D)			13.0					-5.24	39	-79		
	a_2			9.5						39	-2		
										39	25.44		
										39	-2.21		
										39	23.23		
	41	21 52 46	9.1	41 1.5	41 26.1	29.4	32.7	36.2	39.8	41	32.84		
	40	58.6	48.3	9.0	4.6						-3.87		
	κ				7.6						-78		
	(δ - D)				4.6				-4.67	41	-2		
	a_1									41	28.17		
										41	-2.27		
										41	25.90		
			8.9	41 9.0	41 26.5	30.0	33.3	36.9	40.3	41	33.40		
	κ			12.0							-4.43		
	(δ - D)			14.3					-5.26	41	-81		
	a_2			11.8						41	-2		
										41	28.14		
										41	-2.22		
										41	25.92		
	42	15 51 58	8.5	42 7.6	42 19.2	22.6	25.9	29.3	32.7	42	26.94		
	41	57.8	54.4		10.6						-3.87		
	κ	6 52 03			13.5						-77		
	(δ - D)				10.6				-4.66	42	-2		
	a_1									42	21.28		
										42	-2.27		
										42	19.01		
			8.5	42 6.5	42 19.6	23.1	26.4	29.8	33.2	42	26.42		
	κ			9.5							-4.43		
	(δ - D)			12.2					-5.24	42	-79		
	a_2			9.4						42	-2		
										42	21.18		
										42	-2.22		
										42	18.96		
	44	2 54 16	8.6	44 8.6	44 4.3	7.7	11.3	14.9	18.6	44	11.36		
	43	39.3	16.5	9.0	12.0						-3.87		
	κ				15.4						-82		
	(δ - D)				12.0				-4.72	44	-6.67	44 6.64	
	a_1				45.2	44 18.9	23.4	26.0	29.4	44	-2.27	44 4.37	
		54 14.0			48.3						-3.87		
					57.0						-82		
					48.2				-4.72	44	-3	44 21.24	
			8.7	44 12.5	44 4.8	8.4	11.8	15.8	19.0	44	11.96	-2.27	
	κ										-4.43	18.97	
	(δ - D)								-5.31	44	-85		
	a_2									44	-3	44 6.65	
			8.8	43 44.8	44 19.5	23.1	26.4	30.1	33.6	44	26.54	-2.22	
				48.0							-4.43	44 4.43	
				50.5					-5.31	44	-85		
				47.8						44	-3	44 21.28	
										44	-2.22		
										44	19.01		

Runs

19

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	8'
d	+23.1 1.346361 9.76466 1.25973 _m	4	67.1	16.0	127.1 5' 35.5"	42 44.80 54 26 31.73 -18.19			35	54 26 13.74 - 14 - 61 +11.80 + 60 - 5.25 26 20.14	+11.65
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+22.2 1.34635 9.76466 1.24247 _m	4	63.4	16.7	130.1 5' 50.5"	42 43.30 54 26 30.80 -17.48			35	26 13.32 - 13 - 61 +11.84 + 60 - 5.60 26 19.42	+11.70
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+27.8 1.44404 9.78821 1.36371 _m	4	20.5	45.7	65.9 59	23 15.40 52 7 2.53 -25.10			55	52 6 29.43 - 20 - 55 +9.48 + 50 - 5.70 6 43.56	+9.23
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+21.2 1.32634 9.78821 1.24601 _m	4	26.3	50.1	76.4 59	23 10.15 52 6 57.65 -17.62			55	6 40.03 - 12 - 56 +9.62 + 50 - 5.45 6 43.92	+9.34
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+28.2 1.45025 9.78163 1.36334 _m	3	38.1	2.2	100 90.3 3 18	50.15 52 47 45.33 -23.09	3 58.20 52 47 45.33 -23.09		15	52 47 22.24 - 21 - 46 +10.16 + 50 - 5.15 47 27.12 ₀₈	+9.99
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+21.6 1.33445 9.78163 1.24160 _m 1.24754 _m	3	44.1	7.2	111.3 3 18	53.65 52 47 40.20 -17.44 68	3 58.20 52 47 40.20 -17.44 68		15	47 22.76 - 13 - 47 +10.17 + 50 - 5.32 47 27.09	+10.07
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+15.3 1.18469 9.78934 1.10549 _m	1	23.4	48.4	72.3 6	36.15 51 59 59.33 -12.75	16 12.20 51 59 59.33 -12.75		5	51 59 46.58 - 6 - 19 +9.36 + 50 - 5.10 59 51.09	+9.61
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+17.0 1.23045 9.78934 1.15126 _m	1	23.4	47.1	70.5 6	35.25 52 0 0.60 -14.17	16 13.10 52 0 0.60 -14.17		5	59 46.93 - 8 - 19 +9.57 + 50 - 5.45 59 50.63	+9.65
((8) - D) $\frac{d'}{100}$											
δ_2											
d	-0.6 9.77813 _m 9.76695 9.67654 +37.8 1.57749 9.76695 1.47590 _m	2	40.3	4.0	104.3 52	52.15 54 13 43.33 + 0.48	29 56.20 54 13 43.33 + 0.48		50	54 13 43.33 - 0 - 35 +11.60 + 60 - 5.25 13 50.41	+11.48
((8) - D) $\frac{d'}{100}$											
δ_1											
d	-0.5 9.69897 _m 9.76695 9.59738 +38.7 1.58771 9.76695 1.48612 _m	2	40.5	2.2	102.7 52	51.35 54 13 44.50 + 0.40	29 57.00 54 13 44.50 + 0.40		50	13 44.70 - 0 - 34 +11.65 + 60 - 5.60 13 51.21	+11.54
((8) - D) $\frac{d'}{100}$											
δ_2											

Date₁ = 1875, Aug. 7

Observer
Recorder

Date₂ = 1875, Aug. 9

Observer _____
Recorder _____

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18750ae.5

Star.	α	δ	Mag.	T_s	T_m	T_e	T_r	T_g	T_h	Sum	Mean	Red. to T_m	T											
	45	38	54	19	9.1	19	45	16.4	45	40.0	43.5	47.0	52.7	54.2	45	47.08	-3.87	-83	-3	45	42.35	-2.28	45	40.07
	κ																							
(8) - D																								
α_1																								

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	8'
d	+27.1 1.43277 9.76590 1.33033 _m	2	128	380	508 2' 2540 47	35 22.95 54 19 10.08 -21.40			45	54 18 48.68 - 19 - 29 +11.69 + 60 - 5.25 18 55.24	+11.81
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+30.1 1.47807 9.76590 1.37593 _m	2	108	345	453 2 2265 47	35 25.70 54 19 13.20 -22.76			45	18 49.44 - 23 - 29 +11.73 + 60 - 5.60 18 55.65	+11.81
(8) - D) $\frac{d'}{100}$											
δ_2											
d	+21.4 1.33041 9.77507 1.23694 _m	4	304	152	125.6 5 280 40	42 45.55 53 26 32.68 -17.26			85	53 26 15.42 - 12 - 60 +10.81 + 54 - 5.20 26 20.85	+10.63
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+16.6 1.22011 9.77507 1.12664 _m	4	338	183	134.1 5 705 40	42 41.30 53 26 28.80 -13.39			85	26 15.41 - 8 - 61 +10.86 + 54 - 5.55 26 20.57	+10.71
(8) - D) $\frac{d'}{100}$											
δ_2											
d	+18.4 1.26482 9.76957 1.16585 _m	2	320	19	98.9 2 4945 7	14 58.90 53 58 46.03 -14.65			5	53 58 31.38 - 8 - 34 +11.37 + 60 - 5.20 58 37.73	+11.55
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+31.0 1.49106 9.76957 1.39239 _m	2	285	570	79.5 2 3975 7	15 8.60 53 58 56.10 -24.68			5	58 31.42 - 25 - 32 +11.43 + 60 - 5.60 58 37.28	+11.46
(8) - D) $\frac{d'}{100}$											
δ_2											
d	+34.7 1.54033 9.76852 1.44031 _m	1	548	192	134.0 2 700	20 41.35 54 4 28.48 -27.56			0	54 4 0.92 - 31 - 25 +11.45 + 60 - 5.20 4 7.21	+11.49
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+15.1 1.17878 9.76852 1.07896 _m	2	113	345	45.8 2 2290	20 25.45 54 4 12.95 -11.99			0	4 0.96 - 6 - 28 +11.51 + 60 - 5.60 4 7.13	+11.77
(8) - D) $\frac{d'}{100}$											
δ_2											
d	+27.1 1.43227 9.76218 1.32661 _m	0	291	549	84.0 0 4200 25	57 6.35 54 40 53.48 -21.21			25	54 40 32.27 - 19 - 8 +12.07 + 60 - 5.25 40 39.42	+12.40
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+26.6 1.42488 9.76218 1.31852 _m	0	289	537	82.6 0 4130 25	57 7.05 54 40 54.56 -20.82			25	40 33.73 - 19 - 8 +12.13 + 60 - 5.65 40 40.54	+12.46
(8) - D) $\frac{d'}{100}$											
δ_2											

Date₁ = 1875, Aug. 7

Observer
Recorder

Date₂ = 1875, Aug. 9

Observer _____
Recorder _____

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[illegible]

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	8'
d	+14.3 1.15534 9.79063 1.07743 _m	4	30.4	54.1	845 14	4225	8 6.10 51 51 53.23 -11.95		10	51 51 41.28 - 5 - 56 + 9.26 + 49 - 5.10 51 45.32	+9.14
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+33.6 1.52684 9.79063 1.44843 _m	0	1.6	24.8	26.4 15	1320	7 35.15 51 51 22.65 -28.08		15	50 54.57 - 30 - 3 + 9.27 + 49 - 54.5 50 58.55	+9.43
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+30.0 1.47712 9.76003 1.36861 _m	3	23.9	48.5	72.4 13	3620	9 12.15 54 52 59.28 -23.37		10	54 52 35.91 - 23 - 43 + 12.28 + 60 - 5.25 54 42.88	+12.22
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+30.2 1.48001 9.76003 1.37150 _m	3	24.1	47.0	71.1 13	3553	9 12.80 54 53 0.30 -23.52		10	52 36.78 - 23 - 43 + 12.35 + 60 - 5.65 52 43.42	+12.29
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+23.5 1.37107 9.76677 1.26930 _m	2	34.1	58.1	92.2 52	4610	30 2.25 54 13 49.38 -18.59		50	54 13 30.79 - 14 - 33 + 11.59 + 60 - 5.20 13 37.31	+11.72
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+23.7 1.37475 9.76677 1.27298 _m	2	32.0	54.9	86.9 52	4345	30 4.90 54 13 52.40 -18.75		50	13 33.65 - 15 - 33 + 11.68 + 60 - 5.60 13 39.85	+11.80
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+23.9 1.37840 9.79383 1.30369 _m	3	37.0	21.8	138.8 54	9.40	48 38.95 51 52 26.08 -20.12		80	51 32 5.96 - 15 - 50 + 8.91 + 48 - 5.05 32 9.65	+8.74
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+23.8 1.37658 9.77711 1.28515 _m	1	34.0	67.4	91.4 51	4570	31 2.65 53 14 50.15 -19.28		50	53 14 30.87 - 15 - 21 + 10.61 + 52 - 5.60 14 36.04	+10.77
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+18.7 1.27184 9.79447 1.19777 _m	2	38.8	28.5	142.3 58	1.15	44 37.20 51 28 24.70 -15.77		35	51 28 8.93 - 10 - 38 + 8.85 + 47 - 5.30 28 12.47	+8.84
$((\delta) - D) \frac{d'}{100}$											
δ_1											

Date₁ = 1875, Aug. 9Observer W.A.R.
Recorder J.F.M.Date₂ =Observer
Recorder

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Ru

1875phae.p

Star.	α	δ	Mag.	T_b	T_m	T_e	T_r	T_g	T_h	Sum	Mean	Red. to T_m	T
1	9 8 κ	8 44.5 12.9	52 11 8.7 9.0	17 8 59.5 3.0 6.4	9 12.1	15.4	18.7	22.0	25.7	9 18.78 - 4.44 - 7.9 - 2 9 13.53 - 2.11 9 11.42			
	(δ) - D	$\frac{\kappa'}{100}$		3.00 2.9					- 5.25				
	a_1												
10	17 9 κ	54 17 53.6	18 18.8 8.8 8.9	9 48.8 52.5 55.0	10 2.11	25.0	28.2	31.7	35.4	10 28.28 - 4.44 - 8.6 - 3 10 22.95 - 2.10 10 20.85			
	(δ) - D	$\frac{\kappa'}{100}$		52.1					- 5.33				
	a_2												
11	23 10 κ	54 28 55.8 23.3	28 9.0 9.1	11 2.6 5.4 8.3	11 26.6	30.4	33.6	37.2	40.7	11 33.70 - 4.44 - 8.7 - 3 11 28.36 - 2.11 11 26.25			
	(δ) - D	$\frac{\kappa'}{100}$		5.4					- 5.34				
	a_1												
47	16 46 κ	54 13 5.2 14.0	6.3 6.5	46 14.7 16.8	46 29.9	33.4	—	40.4	44.2	46 36.98 - 4.43 - 8.5 - 3 46 31.67 - 2.23 46 29.44			
	(δ) - D	$\frac{\kappa'}{100}$		15.7					- 5.31				
	a_2												
	κ												
	(δ) - D	$\frac{\kappa'}{100}$											
	a_1												
	κ												
	(δ) - D	$\frac{\kappa'}{100}$											
	a_2												
	κ												
	(δ) - D	$\frac{\kappa'}{100}$											
	a_1												
	κ												
	(δ) - D	$\frac{\kappa'}{100}$											
	a_2												
	κ												
	(δ) - D	$\frac{\kappa'}{100}$											
	a_1												
	κ												
	(δ) - D	$\frac{\kappa'}{100}$											
	a_2												

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+15.8 1.17866 9.78756 1.11768 _m	0	61	37.4	0' 18.70	27 29.65 52 11 17.15 -13.11			53	52 11 4.04 - 7 - 4 + 9.57 + 50 - 5.40 11 8.60	+9.96
((\delta) - D) $\frac{d'}{100}$											
δ_1											
d	+36.2 1.55871 9.76642 1.45659 _m	0	0.6	25.3	0 13.05	32 35.30 54 16 22.80 -28.61			50	54 15 54.19 - 35 - 3 + 11.64 + 60 - 560 16 0.45	+11.86
((\delta) - D) $\frac{d'}{100}$											
δ_2											
d	+28.3 1.45179 9.76654 1.34879 _m	4	30.5	32.9	83.4 44 44.20	38 6.65 54 21 54.15 -22.33			40	54 21 31.82 - 21 - 56 + 11.75 + 60 - 560 21 37.80	+11.58
((\delta) - D) $\frac{d'}{100}$											
δ_1											
d	+21.3 1.52808 9.76677 1.22661 _m	2	23.6	46.8	70.4 52 85.20	30 13.15 54 14 0.65 -16.85			50	54 13 43.80 - 12 - 31 + 11.67 + 60 - 560 13 50.04	+11.84
((\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											

1419

Date₁ = 1875, Aug. 10
n = -0.62Observer W.A.R.
Recorder J.J.M.Date₂ = Aug. 25
Aug. 26
n = -0.08
n = -0.62Observer W.A.R.
Recorder J.J.M.

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Star.	α	δ	Mag.	T_s	T_m	T_a	T_r	T_g	T_h	Sum	Mean	Red. to T_m	T
1875 phase 10													
Aug. 10	27	51	49.50	8.8	17	27	37.3	28	0.0	2.9	6.3	9.4	12.7
	27	28.3	50.9	8.8			39.8						
	κ						42.9						
	(δ) - D	κ'					40.0						
	α_1												
	(δ) - D	κ'											
	α_2												
	(δ) - D	κ'											
	α_1												
	(δ) - D	κ'											
	α_2												
	(δ) - D	κ'											
	α_1												
	(δ) - D	κ'											
	α_2												
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	(δ) - D	κ'											
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	(δ) - D	κ'											
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	(δ) - D	κ'											
	α_2												
	(δ) - D	κ'											
	α_1												
	(δ) - D</												

Aug. 10 -16' 12.55 -12
 25 -16 15.88 -11
 26 -16 15.47 -11

Runs "

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	T _m - T	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	8'
d	+26.3 1.41926 9.80972 1.36114 _m	2	4.2	28.0	32.2 21 16.10	5 32.25 49 49 19.70 -22.97			15	49 48 56.73 - 19 - 27 + 7.23 + 40 - 5.40 48 58.50	+7.17
((8) - D) $\frac{d'}{100}$											
δ_1											
d		2	4.9	27.5	32.4 21 16.20	5 32.15			15		
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+15.5 1.17033 9.75769 1.07948 _m	1	23.5	47.2	70.7 1 35.35	21 13.00 55 5 0.45 -12.01			0	55 4 48.44 - 6 - 19 +12.49 + 60 - 5.80 4 56.48 49.14 4 55.48	+12.84
((8) - D) $\frac{d'}{100}$											
δ_1											
d	-17.5 1.24304 9.75769 1.12625 _m	1	43.4	8.0	113.4 1 56.70	20 51.65 55 4 35.77 +13.37			0	4 27.40 - 7 - 21 +12.91 + 60 - 7.90 4 54.47	+13.23
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+27.2 1.43457 9.75769 1.31778 _m	1	11.7	28.5	43.2 1 22.60	21 25.75 55 5 10.28 -20.79			0	4 47.49 - 19 - 15 +12.85 + 60 - 8.00 4 54.60	+13.11
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+24.3 1.38561 9.80822 1.32529 _m	1	43.8	9.5	113.3 1 56.65	15 51.70 49 59 39.15 -21.15			5	49 59 18.00 - 16 - 23 + 7.40 + 40 - 5.40 59 20.01	+7.41
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+16.4 1.21484 9.80822 1.14858 _m	1	46.9	8.7	116.6 1 58.30	15 50.05 49 59 34.17 -14.08			5	59 20.09 - 7 - 22 + 7.65 + 35 - 7.50 59 20.30	+7.71
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+19.6 1.29226 9.80822 1.22600 _m	1	46.1	8.8	114.9 1 57.45	15 50.90 49 59 36.43 -16.83			5	59 18.60 - 11 - 22 + 7.61 + 30 - 7.60 59 18.58	+7.58
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+22.7 1.35603 9.80942 1.29691 _m	0	21.7	43.8	67.5 0 33.75 15	7 14.60 49 51 2.05 -19.81			15	49 50 42.24 - 14 - 7 + 7.27 + 40 - 5.40 50 44.30	+7.46
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+10.6 1.02531 9.80942 0.96025 _m	0	29.5	52.1	81.6 0 40.80 15	7 7.55 49 50 52.08 - 9.13			15	50 42.95 - 3 - 8 + 7.47 + 30 - 7.60 50 43.01	+7.66
((8) - D) $\frac{d'}{100}$											
δ_2											

Date₁ = 1875, Aug. 10Observer
RecorderDate₂ = 1875, Aug. 25Observer
Recorder

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Star.	α	δ	Mag.	T_s	T_m	T_a	T_r	T_g	T_h	Sum	Mean	Red. to T_m	T
Aug. 10	37	32 53 21	8.5	17	27 21.2	37 44.0	47.3	50.9	54.4	57.8	37	52.88	
	36	9.5	21.8	8.9	24.0							- 4.66	
	37 ^K	18.1	53 24.2		26.7							- 84	
	(δ) - D	$\frac{\kappa'}{100}$			24.0	23.9				- 5.53	37	45.38	
	a_1										37	- 2.17	
Aug. 25			8.4	27	34.9	37 53.3	56.8	0.0	3.6	7.0	38	0.14	
	κ				38.0							- 14.14	
	(δ) - D	$\frac{\kappa'}{100}$			42.2					- 15.09	37	45.05	
	a_2				38.34						37	- 1.73	
Aug. 26			8.5	27	48.7	37 54.0	57.5	0.8	4.1	7.0	38	0.78	
	κ				57.6							- 14.783	
	(δ) - D	$\frac{\kappa'}{100}$			54.7					- 15.60	37	45.20	
	a_1				51.7						37	- 1.70	
Aug. 10	39	16 53 30	8.9	38	56.0	39 19.9	23.2	26.6	30.3	33.6	39	26.72	
	38	54.1	31.1	8.5	58.5							- 4.66	
	κ				17							- 84	
	(δ) - D	$\frac{\kappa'}{100}$			58.7					- 5.53	39	21.19	
	a_2										39	- 2.18	
Aug. 25			9.0	39	59	39 28.7	32.4	35.8	39.0	42.8	39	19.01	
	κ				9.8							- 14.14	
	(δ) - D	$\frac{\kappa'}{100}$			13.5					- 15.09	39	20.65	
	a_1				9.7						39	- 1.74	
Aug. 26			9.0	39	15.5	39 29.8	32.7	36.1	39.7	43.2	39	18.91	
	κ				20.1							- 14.783	
	(δ) - D	$\frac{\kappa'}{100}$			23.2					- 15.60	39	20.71	
	a_2				19.6						39	- 1.70	
Aug. 10	40	16 49 56	8.4	39	52.0	40 23.4	26.6	29.8	33.1	36.3	40	19.00	
	39	52.7	56.1	8.3	53.1							- 4.66	
	κ				58.4							- 74	
	(δ) - D	$\frac{\kappa'}{100}$			55.2					- 5.42	40	24.42	
	a_1										40	- 2.19	
Aug. 25			8.7	40	65	40 32.7	35.8	39.0	42.3	45.4	40	22.23	
	κ				9.2							- 14.14	
	(δ) - D	$\frac{\kappa'}{100}$			11.7					- 14.97	40	24.07	
	a_2				9.1						40	- 1.80	
Aug. 26			8.8	40	17.1	40 33.1	36.2	39.4	42.7	46.0	40	22.27	
	κ				19.9							- 14.783	
	(δ) - D	$\frac{\kappa'}{100}$			22.7					- 15.49	40	24.00	
	a_1				19.9						40	- 1.77	
Aug. 10	42	2 50 18	9.1	41	46.7	42 10.5	13.8	16.2	20.4	23.6	42	17.08	
	41	58.8	19.0	8.9	49.6							- 4.66	
	κ				53.1							- 74	
	(δ) - D	$\frac{\kappa'}{100}$			49.8					- 5.42	42	11.66	
	a_2										42	- 2.20	
											42	9.46	

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+26.9 1.42975 9.77541 1.33662 _m	2	117	348	46.5 2 2325	40 25.10 53 24 12.55 -21.71			40	53 23 50.84 - 19 - 29 +10.80 + 54 - 5.70 23 56.00	+10.86
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+21.7 1.33646 9.77541 1.23739 _m	2	122	385	45.7 2 2285	40 25.50 53 24 9.62 -17.27			40	23 52.38 - 12 - 26 +11.15 + 49 - 7.90 23 55.71	+11.26
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+9.1 0.95904 9.77541 0.85997 _m	2	23.1	448	67.9 2 3395	40 14.40 53 23 58.93 - 7.24			40	23 51.69 - 2 - 29 +11.10 + 44 - 8.00 23 54.92	+11.23
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+28.0 1.44714 9.77439 1.35301 _m	0	37.7	14.1	125.8 1 290	46 45.45 53 30 32.90 -22.54			85	53 30 10.36 - 21 - 12 +10.91 + 55 - 5.70 30 15.79	+11.13
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+26.0 1.44497 9.77439 1.31488 _m	0	48.6	10.3	118.9 0 5945	46 48.90 53 30 33.02 -20.65			85	30 12.37 - 18 - 11 +11.26 + 50 - 7.90 30 15.94	+11.47
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+16.7 1.22272 9.77439 1.12263 _m	0	58.6	19.5	138.1 1 905	46 39.30 53 30 23.83 -13.26			85	30 10.57 - 7 - 10 +11.21 + 45 - 8.00 30 14.06	+11.49
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+34.6 1.53908 9.80867 1.47921 _m	4	57.4	15.4	126.8 5 340	12 44.95 49 56 32.40 -30.14			5	49 56 2.26 - 32 - 61 +7.86 + 40 - 54.0 56 3.69	+6.83
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+29.9 1.47567 9.80867 1.40986 _m	4	50.2	18.0	123.2 5 160	12 46.75 49 56 30.87 -25.69			5	56 5.18 - 24 - 55 +7.87 + 38 - 7.60 56 4.73	+7.15
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+19.6 1.29226 9.80867 1.22645 _m	0	1.5	34.4	25.9 0 1295	12 35.40 49 56 19.93 -16.84			10	56 3.09 - 11 - 2 +7.56 + 30 - 7.70 56 3.12	+7.73
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+27.3 1.43616 9.80519 1.37281 _m	2	15.0	42.3	60.3 2 3015	35 18.20 50 19 5.65 -23.59			45	50 18 42.06 - 20 - 30 +7.73 + 42 - 5.50 18 44.21	+7.65
$((\delta) - D) \frac{d'}{100}$											
δ_2											

Date₁ = 1875, Aug. 10Observer
RecorderDate₂ = 1875, Aug. 25
Aug. 26Observer
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
Aug. 25	42	2 50 18	9.0	17 41	44.2	42 20	23.1	26.4	29.7	32.7	42	26.38	
	41	38.8	19.0	8.9	46.3							-14.14	
	κ				48.2							-8.2	
	(δ - D)	$\frac{\kappa'}{100}$			46.3					-14.98	42	11.40	
	a_1										42	-1.80	
											42	9.60	
Aug. 26			9.3	42	36	42 20.8	23.9	26.9	30.1	32.3	42	27.00	
	κ											-14.783	
	(δ - D)	$\frac{\kappa'}{100}$								-15.49	42	11.52	
	a_2										42	-1.77	
											42	9.74	
Aug. 10	43	28 53 32	8.5	43 7.9	43 32.7	36.0	39.6	43.1	46.5	43	39.58		
	43	5.5	32.4	8.4	11.3							-4.66	
	κ				14.3							-8.4	
	(δ - D)	$\frac{\kappa'}{100}$			11.1					-5.53	43	34.05	
	a_1										43	-2.20	
											43	31.85	
Aug. 25			8.6	43 10.8	43 41.8	45.3	49.0	52.3	55.7	43	48.82		
	κ				14.5							-14.14	
	(δ - D)	$\frac{\kappa'}{100}$			18.3					-15.09	43	33.73	
	a_2				14.6						43	-1.75	
											43	31.98	
Aug. 26			8.4	43 14.0	43 42.5	46.0	49.3	52.7	56.6	43	49.42		
	κ				17.3							-14.783	
	(δ - D)	$\frac{\kappa'}{100}$			20.5					-15.60	43	33.83	
	a_1				17.3						43	-1.72	
											43	32.10	
Aug. 10	44	37 53 41	9.0	44 19.5	44 39.6	43.0	46.5	50.0	53.6	44	46.54		
	44	13.5	40.6	9.0	22.3							-4.66	
	κ				25.2							-8.4	
	(δ - D)	$\frac{\kappa'}{100}$			22.3					-5.53	44	41.01	
	a_2										44	-2.20	
											44	38.81	
Aug. 25			9.0	44 24.5	44 48.5	52.0	55.6	59.1	62.8	44	55.60		
	κ				27.5							-14.14	
	(δ - D)	$\frac{\kappa'}{100}$			30.4					-15.09	44	40.51	
	a_1				27.5						44	-1.76	
											44	38.75	
Aug. 26			9.0	44 28.6	44 49.3	52.6	56.2	59.6	62	44	56.18		
	κ				32.5							-14.783	
	(δ - D)	$\frac{\kappa'}{100}$			36.0					-15.60	44	40.59	
	a_2				32.8						44	-1.72	
											44	38.86	
Aug. 10	45	53 55 2	8.7	45 18.2	45 52.1	56.6	59.2	62	65	45	59.48		
	45	29.6	3.2	8.3	22.1							-4.66	
	κ				25.4							-8.8	
	(δ - D)	$\frac{\kappa'}{100}$			21.9					-5.57	45	53.91	
	a_1										45	-2.20	
											45	51.71	
Aug. 25			8.0	45 41.1	46 1.1	50	8.4	11.9	15.8	46	8.44		
	κ				44.6							-14.14	
	(δ - D)	$\frac{\kappa'}{100}$			47.6					-15.14	45	53.30	
	a_2				44.4						45	-1.74	
											45	51.56	

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+40.1 1.60314 9.80517 1.53385m	2 13	244	257	2 47	1285	35 35.50 50 19 19.62 -34.19		45	50 18 45.43 - 43 - 24 + 7.99 + 36 - 7.70 18 45.41	+7.68
((8) - D) $\frac{d'}{100}$											
δ_1			41.2	58.2	29.10						
d	+23.4 1.36922 9.80519 1.29993m	2 17.0	142	81.2	8 47	15.60	35 32.75 50 19 17.28 -19.95	35 19.25 19 3.78 -19.95	45	18 43.83 54.33 - 14 - 27 + 7.94 + 31 - 7.80 18 43.87	+7.84
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+28.5 1.45484 9.77405 1.36035m	4 16.8	380	55.8	4 34	27.90	48 20.45 53 32 7.90 -22.93		30	50 31 44.97 - 22 - 54 +10.95 + 55 - 5.75 31 49.96	+10.74
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+34.2 1.53403 9.77405 1.43360m	4 26	284	360	4 34	18.00	48 30.35 53 32 14.47 -22.14		30	31 47.33 - 31 - 47 +11.27 + 50 - 8.00 31 50.32	+10.99
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+32.1 1.50651 9.77387 1.40590m	2 28	281	37.9	3 34	18.95	48 29.40 53 32 13.93 -25.46		30	32 48.47 - 27 - 36 +11.26 + 45 - 8.10 32 51.45	V minute wrong +11.08
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+24.2 1.38382 9.77250 1.28778m	2 0.0	223	22.3	0 26	11.5	58 37.20 53 44 24.65 0-19.40		25	53 40 5.25 - 15 - 2 +11.10 + 57 - 5.80 40 10.95	V minute wrong +11.50
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+28.1 1.44821 9.77268 1.34691m	0 57.3	139	125.2	1 26	2.60	56 45.75 53 40 24.87 -22.23		25	40 92.64 - 21 - 11 +11.44 + 52 - 8.00 40 6.28 11.28	+11.64
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+23.8 1.37658 9.77268 1.27478m	0 57.2	181	185.3	1 26	7.65	56 40.70 53 40 25.23 -18.83		25	40 6.40 - 15 - 12 +11.38 + 47 - 8.20 40 9.78	+11.58
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+37.6 1.57519 9.75823 1.46488m	4 14.1	87.6	51.7	4	25.85	18 22.50 55 2 9.95 -29.17		0	55 1 40.78 - 36 - 53 +12.46 + 60 - 5.80 1 47.15	+12.17
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+24.0 1.38021 9.75823 1.26396m	4 20.9	43.2	64.1	4	32.05	18 16.30 55 2 0.42 -18.36		0	1 42.06 - 15 - 50 +12.87 + 60 - 8.20 1 46.68	+12.82
((8) - D) $\frac{d'}{100}$											
δ_2											

Date₁ = 1875, Aug. 10Observer
RecorderDate₂ = 1875 Aug 25 421
Aug. 26Observer
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				
Aug. 25	45	53	55	2	8.5	17	45	29.2	46	19	5.2	8.9	12.5	16.1	46	89.2	
	45	29.6	3.2	8.3				36.0								-14.723	
	κ							37.6								-8.8	
	(δ) - D	$\frac{\kappa'}{100}$											-15.64			-3	
	α_1														45	53.29	
																-1.71	
															45	51.57	
Aug. 10	47	16	54	13	6.5		46	23.7	46	30.0	33.6	37.1	40.7	44.2	46	371.2	
	46	8.2	14.0	6.5				26.8								-4.66	
	κ							29.3								-8.5	
	(δ) - D	$\frac{\kappa'}{100}$											-5.54			-3	
	α_2														46	31.58	
																-2.20	
															46	29.38	
Aug. 25					6.0		46	34.2	46	39.0	42.8	46.4	50.0	53.3	46	463.0	
	κ															-14.14	
	(δ) - D	$\frac{\kappa'}{100}$											-15.10			-9.5	
	α_1															-3	
															46	31.18	
																-1.76	
															46	29.44	
Aug. 26					6.0		46	27.7	46	39.8	43.2	46.7	50.3	53.9	46	467.8	
	κ							30.5								-14.723	
	(δ) - D	$\frac{\kappa'}{100}$						33.7								-8.5	
	α_2												-15.61			-3	
															46	31.18	
																-1.72	
															46	29.45	
Aug. 10	47	48	54	46	8.8		47	20.1	47	49.6	53.2	56.7	0.4	4.1	47	56.80	
	47	23.0	46.8	8.8				22.7								-4.66	
	κ							26.0								-8.7	
	(δ) - D	$\frac{\kappa'}{100}$											-5.56			-3	
	α_1														47	57.24	
																-2.21	
															47	49.03	
Aug. 25					8.5		47	27.2	47	58.7	2.4	6.0	9.4	13.1	48	59.2	
	κ							30.9								-14.14	
	(δ) - D	$\frac{\kappa'}{100}$						36.9					-15.12			-9.5	
	α_2															-3	
															47	50.80	
																-1.75	
															47	49.05	
Aug. 26					8.7		47	37.2	47	58.0	2.6	6.2	10.0	13.6	48	6.28	
	κ							40.2								-14.723	
	(δ) - D	$\frac{\kappa'}{100}$						43.3								-8.7	
	α_1												-15.63			-3	
															47	50.66	
																-1.72	
															47	48.93	
Aug. 10	48	30	49	55	9.0		48	27.8	48	40.7	43.7	47.0	50.3	53.4	48	47.02	
	48	6.8	55.7	8.3				30.6								-4.66	
	κ							33.2								-7.4	
	(δ) - D	$\frac{\kappa'}{100}$											-5.42			-2	
	α_2														48	41.60	
																-2.22	
															48	39.38	
Aug. 25					8.7		48	27.8	48	49.6	53.0	56.3	59.3	2.6	48	56.86	
	κ							30.4								-14.14	
	(δ) - D	$\frac{\kappa'}{100}$						33.4								-8.1	
	α_1												-14.97			-2	
															48	41.19	
																-1.83	
															48	39.36	
Aug. 26					8.6		48	38.0	48	50.3	53.6	56.6	59.9	2.0	48	56.88	
	κ							40.0								-14.724	
	(δ) - D	$\frac{\kappa'}{100}$						42.0								-7.4	
	α_2												-15.50			-2	
															48	41.20	
																-1.80	
															48	39.38	

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+34.6 1.63708 9.75823 1.42283 _m	4	130	338	46.8 4	23.40	18 24.95 55 2 9.48 -26.47		0	1 43.01 - 31 - 48 +12.80 + 60 - 8.80 1 47.32	+12.61
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+10.6 1.02621 9.76677 0.92354 _m	2	88.1	53.1	88.2 2	44.10	30 4.25 54 13 51.70 - 8.39		50	54 13 43.51 - 3 - 33 +11.65 + 60 - 5.80 13 49.40	+11.89
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+12.1 1.08279 9.76677 0.97508 _m	2	262	48.1	74.3 2	37.15	30 11.20 54 13 55.32 - 9.44		50	13 45.88 - 4 - 29 +12.03 + 56 - 8.10 13 50.04	+12.26
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+16.2 1.20752 9.76677 1.10181 _m	2	24.9	45.9	70.8 2	35.40	30 12.95 54 13 57.48 - 12.64		50	13 44.84 - 7 - 29 +11.97 + 51 - 8.20 13 48.76	+12.12
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+33.9 1.53020 9.76129 1.42295 _m	0	28.6	48.9	74.5 0	37.25	2 11.10 54 45 58.55 - 26.48		20	54 45 32.07 - 30 - 7 +12.19 + 60 - 5.80 45 38.69	+12.42
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+34.3 1.53529 9.76129 1.42210 _m	0	22.6	45.1	67.7 0	33.85	2 14.50 54 45 58.62 - 26.43		20	45 32.19 - 31 - 6 +12.59 + 59 - 8.20 45 36.80	+12.81
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+26.1 1.41664 9.76129 1.30345 _m	0	28.2	50.4	78.6 0	39.30	2 9.05 54 45 53.58 - 20.11		20	45 33.47 - 18 - 7 +12.53 + 57 - 8.80 45 38.02	+12.85
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+16.5 1.21748 9.80882 1.15776 _m	1	26.3	37.4	77.7 1	38.85	10 9.50 49 54 56.95 - 14.38		10	49 54 42.52 - 7 - 19 + 7.34 + 40 - 5.80 54 44.55	+7.48
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+25.3 1.40312 9.80882 1.33746 _m	1	13.0	38.4	53.4 1	26.70	10 21.65 49 55 51.92 - 21.75		10	54 44.02 - 17 - 15 + 7.57 + 35 - 7.80 54 43.82	+7.60
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+16.7 1.22272 9.80882 1.15706 _m	1	12.8	43.2	63.0 1	31.50	11 16.85 49 55 11.38 - 14.36		10	54 47.02 - 8 - 16 + 7.54 + 30 - 7.90 54 46.72	+7.60
((8) - D) $\frac{d'}{100}$											
δ_2											

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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
Aug. 10	49	40 55	4	8.8	17	49 9.3	49 39.2	42.8	46.5	50.1	53.8	49	46.48
	49	16.8	5.2	8.5		12.4							4.66
	κ					15.2							88
	(δ) - D	$\frac{\kappa'}{100}$				12.3					- 5.57	49	40.91
	a_1											49	38.70
Aug. 25				8.8		49 31.8	49 48.4	57.9	53.6	59.2	-2.8	49	55.62
	κ					35.0							-14.14
	(δ) - D	$\frac{\kappa'}{100}$				38.0					- 15.14	49	40.48
	a_2					34.9						49	38.72
Aug. 26				8.7		49 31.3	49 48.9	52.4	56.1	52.7	2.2	49	56.06
	κ					34.7							-14.78
	(δ) - D	$\frac{\kappa'}{100}$				38.3					- 15.65	49	40.43
	a_1					34.4						49	38.68
Aug. 10	50	37 52 23	8.2		50 22.9	50 40.9	44.6	47.4	51.4	54.8		50	47.68
	50	13.9	8.0		25.6	44	44.2	47.6	52.1	54.6			4.66
	κ				28.5								81
	(δ) - D	$\frac{\kappa'}{100}$			25.7						- 5.49	50	42.19
	a_2											50	39.97
Aug. 26				8.0		50 28.2	50 50.6	54.0	57.3	0.9	4.2	50	57.40
	κ					32.5							-14.78
	(δ) - D	$\frac{\kappa'}{100}$				35.6					- 15.57	50	41.85
	a_1					32.4						50	40.06
Aug. 10	51	38 53 59	9.1		51 31.2	51 44.6	47.9	51.4	54.8	58.5		51	57.44
	51	15.4	9.0										4.66
	κ										- 5.54	51	45.90
	(δ) - D	$\frac{\kappa'}{100}$										51	43.69
	a_2											51	43.69
Aug. 25				9.0		51 26.0	51 53.8	56.9	0.4	4.3	7.5	52	0.68
	κ					29.7							-14.14
	(δ) - D	$\frac{\kappa'}{100}$				31.9					15-16, 11	51	45.47
	a_1					29.2						51	43.69
Aug. 26				9.2		51 45.0	51 54.1	57.5	6.0	4.4	8.1	52	1.02
	κ					48.4							-14.78
	(δ) - D	$\frac{\kappa'}{100}$				51.7					- 15.62	51	45.41
	a_2					48.4						51	43.65
Aug. 10	52	33 53 40	9.0		52 14.2	52 35.0	38.5	42.0	45.5	49.1		52	42.02
	52	10.4	8.9		16.5								4.66
	κ				19.8						- 5.53	52	36.49
	(δ) - D	$\frac{\kappa'}{100}$			16.8							52	34.26
	a_1											52	34.26
Aug. 25				8.8		52 29.5	52 44.3	48.0	54.1	54.8	58.1	52	51.26
	κ					34.2							-14.14
	(δ) - D	$\frac{\kappa'}{100}$				36.6					- 15.09	52	36.14
	a_2					33.4						52	34.38

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+34.2 1.53403 9.75769 1.42318m	1	213	44.3	66.6	1	53.30	21 15.05 55 5 2.50 -26.50	0	53 4 36.00 - 30 - 19 +12.52 + 60 - 5.90 4 42.73	+12.63
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+20.7 1.31597 9.75769 1.19918m	1	266	48.2	74.8	1	37.40	21 10.95 55 4 55.07 - 15.82	0	4 39.25 - 11 - 18 +12.92 + 60 - 8.30 4 44.18	+44.18 +13.23
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+21.3 1.32808 9.75769 1.21159m	1	286	50.0	79.1	1	39.55	21 8.80 55 4 55.33 - 16.28	0	4 37.05 - 11 - 18 +12.87 + 60 - 8.40 4 41.83	+13.18
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+22.0 1.34242 9.78543 1.25931m	1	361	58.9	95.0	1	47.00	41 0.85 52 24 48.30 - 18.17	40	52 24 30.13 - 13 - 21 +9.82 + 50 - 5.70 24 34.41	+9.98
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+25.0 1.39794 9.78543 1.30889m	1	307	51.2	81.9	1	40.95	41 7.40 52 24 51.93 - 20.36	40	24 31.57 - 17 - 19 +10.10 + 40 - 8.20 24 33.57	+10.14
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+20.2 1.30535 9.76957 1.20638m	2	367	58.9	95.6	2	47.80	15 0.55 53 58 48.00 - 16.08	5	53 58 31.92 - 10 - 33 +11.41 + 60 - 5.80 58 37.70	+11.58
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+31.4 1.419693 9.76957 1.39202m	2	229	44.6	67.5	2	33.75	15 14.60 53 58 58.72 - 24.66	5	58 34.06 - 26 - 28 +11.76 + 55 - 8.20 58 37.63	+11.77
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+12.6 1.10037 9.76957 0.99528m	2	228	40.0	94.9	2	48.40	14 58.45 53 58 42.78 - 9.89	5	58 33.09 - 5 - 31 +11.71 + 60 - 8.40 58 36.54	+11.85
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+25.2 1.40140 9.77164 1.30450m	4	410	4.1	105.1	4	52.55	2 55.80 53 46 43.25 - 20.16	15	53 46 23.09 - 17 - 58 +11.19 + 58 - 5.80 46 28.31	+11.02
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+17.9 1.25285 9.77164 1.15001m	4	414	4.4	105.8	4	52.90	2 55.45 53 46 39.57 - 14.12	15	46 25.45 - 8 - 54 +11.53 + 53 - 8.20 46 28.69	+11.44
((8) - D) $\frac{d'}{100}$											
δ_2											

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Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+17.0 1.23045 9.77164 1.12761m	4 442	4.9	109.1	4 54.55	53 2 53.80 46 38.33 -18.42			15	53 46 24.91 8 +11.35 -54 +11.49 +48 -8.30 46 27.96	
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+22.6 1.35411 9.78592 1.27149m	4 441	7.7	111.8	4 55.90	52 37 52.45 21 39.90 -18.68			40	52 21 21.22 -14 +9.55 -59 +9.78 +50 -5.70 21 25.07	
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+7.7 0.88649 9.78592 0.79793m	4 489	12.5	131.4	5 27.0	52 37 47.65 21 31.77 -6.28			40	21 25.49 -2 +9.95 -55 +10.07 +45 -8.20 21 28.24 27.24	
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+31.9 1.50379 9.78592 1.41523m	4 804	5.05	80.9	4 40.45	52 38 7.90 21 52.43 -26.02			40	21 26.41 -27 +9.64 -52 +10.03 +40 -8.30 21 27.75	
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+24.0 1.38021 9.75733 1.26900m	3 36.0	17.9	133.9	4 6.95	55 23 41.40 7 28.85 -18.58			53	55 7 10.27 -15 +12.51 -49 +12.53 +60 -5.90 7 16.88	
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+19.8 1.29667 9.75733 1.17952m	3 53.7	14.9	128.6	4 4.80	55 23 44.05 7 28.17 -15.12			53	7 13.05 -10 +13.02 -45 +12.97 +60 -8.40 7 17.67	
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+27.0 1.43136 9.75733 1.31421m	3 80.4	10.4	120.8	4 0.40	55 23 47.95 7 32.48 -20.62			53	7 11.86 -19 +12.87 -44 +12.90 +60 -8.50 7 16.23	
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+27.3 1.43616 9.79699 1.36461m	4 21.7	43.3	67.2	4 33.60	51 28 14.75 12 2.20 -23.15			50	51 11 39.05 -20 +8.34 -53 +8.63 +46 -5.60 11 41.79	
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+26.0 1.41497 9.79699 1.03748m	4 16.9	40.4	57.3	4 28.65	51 28 19.70 12 3.82 -21.75			50	11 42.07 -18 +8.64 -49 +8.90 +41 -8.10 11 42.61	
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+15.4 1.18752 9.79699 1.11003m	4 27.1	49.3	76.4	4 38.20	51 28 10.15 11 54.68 -12.88			50	11 41.80 -6 +8.65 -51 +8.86 +36 -8.20 11 42.25	
$((\delta) - D) \frac{d'}{100}$											
δ_2											

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Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+18.0 1.25527 9.77026 1.15699 _m	2 23.1	46.2	693 3 12	54.65	10 13.70 53 54 1.15 -14.35			10	53 53 46.80 - 8 +11.52 - 31 +11.62 + 59 - 5.80 53 52.52	
$(\delta) - D) \frac{d'}{100}$											
δ_1											
d	+12.9 1.11059 9.77026 1.00637 _m	2 22.5	44.9	674 2 12	33.70	10 14.65 53 53 58.77 -10.15			10	53 48.62 - 5 +11.90 - 28 +11.69 + 54 - 8.30 53 52.22	
$(\delta) - D) \frac{d'}{100}$											
δ_2											
d	+11.0 1.04139 9.77026 0.93717 _m	2 23.7	46.7	718 2 12	35.90	10 12.45 53 53 56.98 - 8.65			10	53 48.33 - 3 +11.81 - 29 +11.64 + 49 - 8.40 53 51.74	
$(\delta) - D) \frac{d'}{100}$											
δ_1											
d	+14.0 1.14613 9.80957 1.08716 _m	0 38.3	22.0	140.3 1 16	10.15	6 38.20 49 50 28.65 -12.22			15	49 50 13.43 - 5 +7.48 - 14 + 7.27 + 40 - 5.50 50 15.41	
$(\delta) - D) \frac{d'}{100}$											
δ_2											
d	+14.0 1.14613 9.80957 1.08122 _m	0 32.3	15.7	129.0 1 16	4.00 4.50	6 44.35 49 50 28.47 -12.06			15	50 16.41 - 5 +7.68 - 12 + 7.50 + 35 - 8.00 50 16.09	
$(\delta) - D) \frac{d'}{100}$											
δ_1											
d	+12.2 1.08636 9.80957 0.92145 _m	0 36.4	7.8	135.2 1 16	7.60	6 40.75 49 50 25.28 - 8.35			15	50 16.93 - 4 +7.61 - 12 + 7.47 + 30 - 8.20 50 16.34	
$(\delta) - D) \frac{d'}{100}$											
δ_2											
d	+24.1 1.38202 9.80852 1.32200 _m	4 8.6	25.7	29.0 4 9	14.50	10 33.85 49 57 21.30 -20.99			5	49 57 0.31 - 15 +7.13 - 57 + 7.39 + 40 - 5.50 57 1.94	
$(\delta) - D) \frac{d'}{100}$											
δ_1											
d	+26.3 1.41996 9.80852 1.35400 _m	8 33.3	18.6	134.1 4 9	7.05	13 41.30 49 57 26.42 -22.59			5	57 2.83 - 19 +7.33 - 45 + 7.62 + 35 - 8.10 57 2.06	
$(\delta) - D) \frac{d'}{100}$											
δ_2											
d	+30.2 1.48001 9.80852 1.41405 _m	8 54.2	16.6	129.8 4 9	4.90	13 43.45 49 57 27.98 -25.94			5	57 2.04 - 24 +7.20 - 45 + 7.59 + 30 - 8.20 57 1.04	
$(\delta) - D) \frac{d'}{100}$											
δ_1											
d	+30.4 1.48287 9.75678 1.37111 _m	0 40.0	2.9	102.9 0 55	51.45	26 56.90 55 10 44.35 -23.50			55	55 10 20.85 - 24 +12.88 - 10 +12.62 + 60 - 5.90 10 27.83	
$(\delta) - D) \frac{d'}{100}$											
δ_2											

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Date₁ = 1875 Aug. 10Observer W.A.R.
Recorder J.F.M.Date₂ = 1875 Aug. 25
Aug. 26

420

Observer W.A.R.
Recorder J.F.M.

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Star.	α	δ	Mag.	T_s	T_m	T_o	T_r	T_g	T_h	Sum	Mean	Red. to T_m	T
1	11	55 9	9.0	18 0	48.4	1 21.0	24.0	27.8	30.9	34.8	1	27.70	
0	47.9	10.0	9.0		52.3							-14.15	
κ					55.9							-97	
(8) - D					52.2						1	12.55	
α_1												-1.81	
											1	10.74	
4 Aug. 26			8.9	0	47.0	1 20.6	24.4	28.2	31.4	35.5	1	28.08	
κ					50.7							-14.784	
(8) - D					53.6							-88	
α_2											1	12.44	
												-3	
											1	1.77	
											1	10.66	
4 Aug. 10	2	42	50 21	8.4	2 22.6	2 49.0	52.3	55.5	58.8	2.1	2	55.74	
2	19.5	20.6	8.3		23.8							-4.66	
κ					28.3							-75	
(8) - D					25.6							-2	
α_1											2	50.11	
												-2.27	
											2	47.84	
4 Aug. 25			8.5	2	37.7	2 58.1	1.6	4.7	8.0	11.1	3	47.0	
κ					41.5							-14.15	
(8) - D					44.4							-82	
α_2											2	49.71	
												-1.89	
											2	47.82	
4 Aug. 26			8.8	2	27.0	2 52.0	2.1	5.4	8.6	12.0	3	54.2	
κ					29.8							-14.734	
(8) - D					29.8							-75	
α_1											2	49.92	
												-1.86	
											2	48.05	
4 Aug. 10	3	25	49 59	8.8	3 17.1	3 33.5	36.5	39.8	43.1	46.2	3	39.82	
3	1.9	59.6	8.6		20.2							-4.66	
κ					22.7							-74	
(8) - D					20.0							-2	
α_2											3	34.40	
												-2.27	
											3	32.18	
4 Aug. 25			8.6	3	32.1	3 42.6	46.0	49.0	52.3	55.6	3	49.10	
κ					35.4							-14.15	
(8) - D					39.1							-81	
α_1											3	34.12	
												-2	
											3	1.90	
											3	32.22	
4 Aug. 26	3	19.7	50 26.9	8.8	3 31.6	3 54.5	5.0	6.1	9.6	12.8	4	6.20	
3					34.8							-14.74	
κ					37.9							-74	
(8) - D					34.78							-2	
α_2											3	50.70	
												-1.87	
											3	48.83	
4 Aug. 10	4	49	54 34	9.1	4 38.2	4 51.7	55.1	58.8	2.3	5.8	4	58.44	
4	26.9	34.2	9.3		40.7							-4.66	
κ					44.3							-87	
(8) - D					41.1							-3	
α_1											4	53.18	
												-2.27	
											4	50.91	
4 Aug. 25			9.2	4	41.8	5 0.7	4.0	8.0	11.5	15.2	5	78.8	
κ					46.2							-14.15	
(8) - D					48.8							-95	
α_2											4	52.75	
												-1.83	
											4	50.92	

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+35.5 1.55023 9.75678 1.43253m	0	21.9	540	85.9 0' 42.95	27 5.40 55 10 49.52 -27.07			53	10 22.45 - 32 - 8 +13.02 + 60 - 8.50 10 27.17	+13.22
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+37.7 1.57634 9.75678 1.45864m	0	20.5	576	82.10 55 41.85	27 7.30 55 10 51.80 -28.75			53	10 23.08 - 36 - 8 +12.86 + 60 - 8.60 10 27.60	+13.12
(8) - D) $\frac{d'}{100}$											
δ_2											
d	+29.9 1.47567 9.80504 1.41217m	1	28.8	542	84.0 46 42.00	36 6.35 20 19 53.80 -25.83			45	50 19 27.97 - 24 - 20 + 7.75 + 42 - 5.60 19 30.10	+7.73
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+23.5 1.37107 9.80504 1.30163m	1	28.9	536	82.67 46 41.25	36 7.10 50 19 51.22 -20.03			45	19 31.19 - 14 - 19 + 8.01 + 37 - 8.20 19 31.04	+8.05
(8) - D) $\frac{d'}{100}$											
δ_2											
d	+35.6 1.55145 9.80504 1.48201m	1	20.6	444	65.0 46 32.50	36 15.85 50 20 0.38 -30.24			45	19 30.04 - 34 - 17 + 7.97 + 32 - 8.30 19 29.52	+7.78
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+19.8 1.29667 9.80807 1.23620m	1	27.0	498	76.8 46 38.40	16 9.95 49 59 57.40 -17.20			5	49 59 40.17 - 11 - 20 + 7.44 + 40 - 5.60 59 42.10	+7.53
(8) - D) $\frac{d'}{100}$											
δ_2											
d	+13.6 1.13354 9.80807 1.06713m	1	27.7	493	77.0 46 38.50	16 9.85 49 59 53.97 -11.67			5	59 42.30 - 5 - 19 + 7.67 + 35 - 8.20 59 41.88	+7.78
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+31.4 1.49673 9.81299 1.43544m	3	64.7	163	130.2 39 51.0	43 43.25 49 27 27.78 -27.25			85	49 27 0.53 - 27 - 48.5 + 7.06 + 30 - 8.20 26 59.87	+7.54
(8) - D) $\frac{d'}{100}$											
δ_2											
d	+17.6 1.24537 9.76324 1.14021m	1	58.6	217	140.3 32 10.15	50 38.20 54 34 26.65 -13.81			30	54 34 11.84 - 8 - 26 +12.00 + 60 - 5.80 34 18.30	+12.26
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+22.3 1.34830 9.76324 1.23706m	1	47.7	100	117.7 31 58.85	50 49.50 54 34 33.62 -17.26			30	34 16.36 - 13 - 22 +12.39 + 58 - 8.50 34 20.48	+12.62
(8) - D) $\frac{d'}{100}$											
δ_2											

Date₁ = 1875, Aug. 10Observer W.A.R.
Recorder J.F.M.Date₂ = 1875, Aug. 25Observer W.A.R.
Recorder J.F.M.

1875phae pr

Star.	α	δ	Mag.	T_s	T_m	T_a	T_r	T_g	T_h	Sum	Mean	Red. to T_m	T				
Aug. 26	4	49	54	34	9.3	18	4	52.5	5	14	4.7	8.6	12.1	15.8	5	8.62	
	κ	26.9	34.2	9.3												-14.74	
	$((\delta) - D) \frac{\kappa'}{100}$															-87	
	a_1															-3	
																4	52.88
																-1.80	
																4	51.08
Aug. 10	6	6	51	18	8.4	5	57.0	6	13.6	17.0	20.2	23.6	27.0	6	20.28		
	κ	43.3	20.3	8.6			53.3									-4.66	
	$((\delta) - D) \frac{\kappa'}{100}$						56.0									-77	
	a_2						53.4									-5	
																6	14.83
																-2.27	
																6	12.56
Aug. 25					9.0	5	56.6	6	23.1	26.2	29.8	32.8	36.4	6	29.66		
	κ						0.1									-14.15	
	$((\delta) - D) \frac{\kappa'}{100}$						3.4									-85	
	a_1															-2	
																6	14.64
																-1.89	
																6	12.75
Aug. 26					8.8	5	57.1	6	23.7	27.0	30.3	32.5	36.8	6	30.26		
	κ						0.5									-14.745	
	$((\delta) - D) \frac{\kappa'}{100}$						2.2									-77	
	a_2															-2	
																6	14.73
																-1.86	
																6	12.86

Single Observations

Aug. 10	5	54	54	26	8.3	17	5	51.3	5	56.2	59.7	3.2	6.8	10.5	6	3.28		
	5	29.7		26.3	8.5											-4.67		
	κ															-87		
	$((\delta) - D) \frac{\kappa'}{100}$															-3		
	a_3															5	57.71	
																-2.06		
																5	55.65	
Aug. 10	7	35	54	39	8.8	10	7	29.8	7	34.7	38.3	41.9	45.3	48.8	7	41.80		
	7	44		40.4	9.0			31.6								-4.67		
	κ	8.6		41.0				33.7								-87		
	$((\delta) - D) \frac{\kappa'}{100}$				9.0			31.7								-3		
	a_1	11.1	54	40.4				12.5	7	36.4	40.0	43.6	47.0	50.6	7	43.52	7	36.23
																-4.67	7	34.16
																-87		
																-3		
Aug. 10	8	20	49	54	6.0	8	15.0	8	30.0	33.3	36.5	39.7	43.0	8	36.80			
	7	58.6		55.6	6.2		18.5									-4.67		
	κ						21.2									-74		
	$((\delta) - D) \frac{\kappa'}{100}$						18.2									-2		
	a_2															8	31.07	
																-2.08		
																8	28.99	
Aug. 10	10	7	49	53	9.2	9	48.9	10	16.7	20.0	23.1	26.3	29.5	10	23.12			
	9	46.5		54.5	9.3		53.0									-4.67		
	κ						55.9									-74		
	$((\delta) - D) \frac{\kappa'}{100}$						52.9									-2		
	a_1															10	17.69	
																-2.09		
																10	15.60	
Aug. 10	11	50	53	58	9.3	11	36.7	11	53.6	57.0	0.6	4.0	7.5	12	0.54			
	11	26.9		59.7	9.2		40.0									-4.67		
	κ						43.1									-85		
	$((\delta) - D) \frac{\kappa'}{100}$						39.9									-3		
	a_2															11	54.99	
																-2.08		
																11	52.91	

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+16.0 1.20412 9.76324 1.09288m	1	53.6	132.5	2' 32	6.25	50 42.10 34 26.63 -12.88		30	34 14.28 - 7 +12.59 - 23 +12.33 + 56 - 8.70 34 18.14	
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+26.9 1.42975 9.79573 1.38694m	0	38.9	101.8	0 45	50.90	36 57.45 20 44.90 -22.75		45	51 20 22.15 - 19 +8.94 - 10 + 8.76 + 47 - 5.70 20 25.39	
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+29.7 1.47276 9.79573 1.39401m	0	28.9	83.0	0 45	4.50	37 6.85 20 50.97 -24.77		45	20 26.20 - 23 +9.14 - 8 +9.03 + 42 - 8.30 20 27.04	
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+30.0 1.47712 9.79573 1.39837m	0	32.1	86.6	0 45	43.30	37 5.05 20 49.68 -25.02		45	20 24.56 - 24 +9.05 - 8 +9.00 + 37 - 8.50 20 25.11	
((8) - D) $\frac{d'}{100}$											
δ_2											
d		1	12.8	35.9					40		
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+12.0 1.07718 9.76484 0.97548m	1	12.8	48.7	1 41	24.85	41 24.00 25 11.45 -9.45		40	54 25 2.00 - 4 +12.17 - 17 +11.78 + 60 - 5.70 25 8.47	
((8) - D) $\frac{d'}{100}$											
δ_2											
+10.1 50432 26.23d6 89815m	+29.3 1.44687 9.76236 1.34069m	2	14.4	38.6	53.0 27	26.50	55 21.85 34 39 9.30 -22.95 -7.91		25	54 39 4.52 38 4.06 - 3 28 12.4 - 29 29 +12.05 + 60 - 5.70 39 52.79 39 6.68 38 51.43	+12.32 11
((8) - D) $\frac{d'}{100}$	+11.8 1.07188 9.76236 0.96570m	2	14.4	38.6	53.0 27	26.50	55 21.85 34 39 9.30 -9.24 -24.28		25	54 39 4.52 38 4.06 - 3 28 12.4 - 29 29 +12.05 + 60 - 5.70 39 52.79 39 6.68 38 51.43	
d	+18.3 1.26245 9.80897 1.20288m	2	22.9	48.6	71.5 12	35.75	10 12.60 49 54 0.05 -15.95		10	49 54 44.10 - 9 +7.31 + 31 + 7.01 + 40 - 5.30 54.3 46.11	
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+30.2 1.48001 9.80912 1.42059m	3	1.9	24.3	27.4 13	13.70	9 34.65 49 53 22.10 -26.34		10	49 52 55.76 - 25 +7.05 - 39 + 7.29 + 40 - 5.30 52 57.51	
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+20.6 1.31387 9.76957 1.21490m	2	38.7	136.2	3 8	8.10	14 40.25 53 58 27.70 -16.40		5	53 58 11.30 - 11 +11.46 - 38 +11.35 + 60 - 5.70 58 17.06	
((8) - D) $\frac{d'}{100}$											
δ_2											

Date₁ = 1875, Aug. 10Observer W.A.R.
Recorder J.F.No.Date₂ =Observer
Recorder

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Single Observations

1875phase

Star.	α	δ	Mag.	T_s	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T				
Aug. 10	13	30	49	51	7.5	17	13	18.9	13	38.9	42.0	43.3	48.6	52.7	13	45.30	
	κ	7.0	52.1	7.2				22.3								- 4.67	
								24.5								- 7.4	
	(S) - D	κ'_{100}														- 2.10	
	a_1																
Aug. 10	22	30	49	54	9.1		22	18.7	22	38.1	41.3	44.5	48.1	52.0	22	44.60	
	κ	6.6	52.9	9.0				21.3								- 4.67	
								24.0								- 7.4	
	(S) - D	κ'_{100}														- 2.13	
	a_2																
Aug. 10	24	11	49	51	8.4		24	1.0	24	19.3	22.4	25.5	28.7	32.1	24	25.60	
	κ	48.0	51.9	8.2				3.8								- 4.67	
								6.9								- 7.4	
	(S) - D	κ'_{100}														- 2.14	
	a_1																
Aug. 10	26	1	53	20	9.5		25	53.4	26	20.4	24.0	27.3	30.6		26	23.80	
	κ	38.1	20.8	9.3				57.7								- 4.67	
								1.1								- 8.4	
	(S) - D	κ'_{100}														- 3	
	a_2																
Aug. 10	34	3	55	2	9.2		33	54.3	34	3.9	7.3	10.9	14.6	18.2	34	10.98	
	κ	38.5	2.6	9.2				56.9								- 4.66	
								0.5								- 8.8	
	(S) - D	κ'_{100}														- 3	
	a_1																
	κ																
	(S) - D	κ'_{100}															
	a_2																
	κ																
	(S) - D	κ'_{100}															
	a_1																
	κ																
	(S) - D	κ'_{100}															
	a_2																

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+23.4 1.36922 9.80972 1.31040 _m	1 31.0	55.8	86.8	1' 43.40 16	6 4.95 49 49 52.40 -20.44			15	49 49 51.96 - 14 - 21 + 7.24 + 40 - 5.30 49 33.95	+7.29
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+23.2 1.36549 9.80897 1.30592 _m	2 16.3	40.7	57.0	2 28.50 12	10 19.85 49 54 7.30 -20.23			10	49 53 47.07 - 14 - 30 + 7.31 + 40 - 5.40 53 48.94	+7.27
(8) - D) $\frac{d'}{100}$											
δ_2											
d	+21.7 1.33646 9.80942 1.27734 _m	0 12.0	87.2	49.2	0 24.60 15	7 23.75 49 51 11.20 -18.94			15	49 50 52.26 - 13 - 5 + 7.26 + 40 - 5.40 50 54.34	+7.48
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+26.5 1.42325 9.77694 1.33165 _m	0 45.6	8.8	114.4	0 57.20 50	31 51.15 53 15 38.60 -21.46			50	53 15 17.14 - 17 - 11 + 10.66 + 53 - 5.70 15 22.33	+10.89
(8) - D) $\frac{d'}{100}$											
δ_2											
d	+13.8 1.13988 9.75805 1.02939 _m	3 22.6	52.1	81.7	3 40.85	19 7.50 55 2 54.95 -10.70			0	55 2 44.25 - 5 - 44 + 12.46 + 60 - 5.80 2 51.02	+12.57
(8) - D) $\frac{d'}{100}$											
δ_1											
d											
(8) - D) $\frac{d'}{100}$											
δ_2											
d											
(8) - D) $\frac{d'}{100}$											
δ_1											
d											
(8) - D) $\frac{d'}{100}$											
δ_2											

422
Date₁ = 1875, Aug. 28
h = -55

Observer W.A.R.
Recorder J. J. Mo.

423
Date₂ = 1875, Aug. 29
h = -57

Observer W.A.R.
Recorder J. J. Mo.

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Star.	α	δ	Mag.	T_a	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
17	54	20 53 28	8.0	17 54 33.0	54 31.7	35.3	38.8	42.3	45.6	54	38.74		
	53	56.9	8.0		35.8						-16.16		
	κ				38.2						-74		
	(8) - D	κ'_{100}			35.7				-16.93	64	21.81		
	a_1									54	-1.71		
											20.10		
			8.5	54 17.5	54 32.7	36.1	38.6	43.0	46.7	54	38.62		
	κ				21.0						-17.11		
	(8) - D	κ'_{100}			23.4				-17.91		-77		
	a_2				20.6					54	-3		
											21.71		
											-1.67		
										54	20.04		
	55	13 52 12	7.5	55 15.4	55 28.6	31.8	35.3	38.7	42.0	55	38.28		
	54	50.4	6.8		18.6						-16.16		
	κ				21.8						-70		
	(8) - D	κ'_{100}			18.6				-16.88	55	-2		
	a_1									55	18.40		
											-1.73		
											16.67		
			7.8	55 6.3	55 29.5	32.7	36.0	39.6	53.1	55	38.18		
	κ				9.5						-17.11		
	(8) - D	κ'_{100}			11.8				-17.86		-73		
	a_2				9.2					55	-2		
											18.32		
											-1.70		
										55	16.62		
	57	15 53 16	9.1	57 16.6	57 30.7	34.1	37.6	40.8	44.5	57	37.54		
	56	57.8	8.9		20.0						-16.17		
	κ				23.7						-74		
	(8) - D	κ'_{100}			20.1				-16.94		-3		
	a_1									57	20.60		
											-1.72		
										57	18.88		
			9.2	57 9.4	57 31.7	35.2	38.4	42.0	45.5	57	38.56		
	κ				12.1						-17.11		
	(8) - D	κ'_{100}			13.3				-17.91		-77		
	a_2				12.5					57	-3		
											20.65		
											-1.69		
										57	18.96		
	58	10 53 38	7.8	58 7.2	58 24.2	27.5	31.0	34.6	38.1	58	31.08		
	57	47.4	7.8		9.4						-16.17		
	κ				13.6						-74		
	(8) - D	κ'_{100}			10.1				-16.94		-3		
	a_1									58	14.14		
											-1.72		
										58	12.42		
			8.3	58 14.0	58 25.1	28.6	32.0	35.4	39.0	58	32.02		
	κ				17.1						-17.11		
	(8) - D	κ'_{100}			18.1				-17.91		-77		
	a_2				16.7					58	-3		
											14.11		
											-1.69		
										58	12.42		
	59	3 51 9	9.0	59 58.2	59 19.5	22.8	26.0	29.3	32.5	59	26.02		
	58	39.8	8.9		2.7						-16.17		
	κ				6.0						-68		
	(8) - D	κ'_{100}			63.6				-16.87		-2		
	a_1									59	9.15		
											-1.77		
										59	7.38		
			9.0	59 3.3	59 20.4	23.7	26.9	30.3	33.6	59	26.98		
	κ				5.7						-17.11		
	(8) - D	κ'_{100}			8.0				-17.83		-70		
	a_2				5.7					59	-2		
											9.15		
											-1.74		
										59	4.41		

Aug. 28 -16' 15.05 -11
 " 29 -16 14.62 -11

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Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+3.0 0.47712 9.77490 0.37754 _m	3	59.4	1396	4' 9.80	43 38.55 53 27 23.50 -23.85 -2.39			36-	53 24 59.45 27 21.11 0 -46 +11.03 +45 -86.0 27 23.53	+11.02
((8) - D) $\frac{a'}{100}$											
δ_1											
d	+19.0 1.27875 9.77490 1.17917 _m	3	46.4	1148	3 57.40	43 50.95 53 27 36.33 -15.11			36-	27 21.22 9 -44 +10.83 +47 -87.0 27 23.29	+10.77
((8) - D) $\frac{a'}{100}$											
δ_2											
d	+16.7 1.22272 9.78707 1.13531 _m	2	25.7	72.5	2 36.25	30 12.10 52 13 57.05 -13.66			50	52 13 43.39 8 -29 +9.78 +40 -8.50 13 44.70	+9.81
((8) - D) $\frac{a'}{100}$											
δ_1											
d	+27.0 1.43104 9.78707 1.34395 _m	2	16.9	57.5	2 28.75	30 19.60 52 14 4.98 -22.08			50	13 42.90 -12 -27 +9.64 +41 -86.0 13 43.86	+9.56
((8) - D) $\frac{a'}{100}$											
δ_2											
d	+17.4 1.24055 9.77677 1.14284 _m	4	40.3	101.6	4 50.80	32 57.55 53 16 42.50 -13.89			46-	53 16 28.61 -8 -53 +10.84 +43 -8.70 16 30.57	+10.66
((8) - D) $\frac{a'}{100}$											
δ_1											
d	+26.1 1.41664 9.77677 1.31893 _m	4	32.0	85.8	4 42.90	33 54.45 53 16 50.83 -20.84			46-	16 29.99 -18 -52 +10.66 +46 -8.80 16 31.61	+10.42
((8) - D) $\frac{a'}{100}$											
δ_2											
d	+21.0 1.32222 9.77302 1.22076 _m	3	20.7	62.1	3 30.05	54 17.30 53 38 2.25 -16.63			26-	53 37 45.62 -12 -39 +11.22 +46 -8.70 37 48.09	+11.17
((8) - D) $\frac{a'}{100}$											
δ_1											
d	+15.3 1.18469 9.77302 1.08323 _m	3	24.2	70.3	3 35.15	54 13.20 53 37 58.58 -12.11			25-	37 46.47 -6 -40 +11.02 +48 -8.80 37 48.71	+11.04
((8) - D) $\frac{a'}{100}$											
δ_2											
d	+23.4 1.26922 9.77731 1.29205 _m	0	50.9	123.8	1 16.5	26 46.70 57 10 31.65 -19.59			55-	51 10 12.06 -14 -11 +8.74 +36 -8.60 10 12.31	+8.85
((8) - D) $\frac{a'}{100}$											
δ_1											
d	+21.3 1.32838 9.77731 1.25121 _m	0	51.0	125.3	1 26.5	26 45.70 57 10 31.08 -17.83			55-	10 13.25 -12 -11 +8.56 +40 -8.70 10 13.28	+8.73
((8) - D) $\frac{a'}{100}$											
δ_2											

Date₁ = 1875, Aug. 28Observer
RecorderDate₂ = 1875, Aug. 29Observer
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
1	0 43 52 34	8.6	18	0 13.1	0 31.6	34.9	38.3	41.9	45.5	0	38.44		
	0 21.5	8.5		17.0							-16.17		
	59 ^k 52.2	34.9		20.4							-7.2		
	(8) - D ₁₀₀			16.8							-2		
	0 21.5	52 35.8	8.8	53.1	1 2.7	6.0	9.4	12.8	16.1	1	9.40	0 21.53	
	a_1			57.6							-16.17	0 19.78	
				57.8							-7.2		
				57.8							-2	0 52.49	
			8.7	0 40.8	0 32.6	36.0	39.6	42.9	46.3	0	39.52	-1.75	
	κ			45.0							-17.12	0 50.74	
	(8) - D ₁₀₀			48.1							-7.4		
	a_2		8.9	0 24.5	1 3.9	6.8	10.3	14.2	17.4	1	10.52	0 21.64	
				26.4							-17.12	0 19.92	
				30.0							-7.4		
				27.0							-2	0 52.64	
	2 13 53 44	9.3	2	27.2	2 24.7	28.2	31.7	35.3	38.6	2	31.70	-1.72	
	1 50.4	43.7	9.1								-16.17	0 50.92	
	κ										-7.4		
	(8) - D ₁₀₀										-3		
	a_1									2	14.76		
											-1.74		
										2	13.02		
			9.1	2 29.2	2 26.2	29.2	32.8	36.3	39.8	2	32.86		
	κ			13.0							-17.12		
	(8) - D ₁₀₀			16.9							-7.7		
	a_2			13.2							-3		
										2	14.94		
											-1.71		
										2	13.23		
	3 9 52 20	9.1	3	12.3	3 26.6	30.3	33.4	36.7	40.1	3	33.42		
	2 46.6	19.5	9.0	16.0							-16.17		
	κ			19.5							-7.2		
	(8) - D ₁₀₀										-2		
	a_1			15.9							-16.91		
										3	16.51		
											-1.77		
										3	14.74		
			9.2	3 12.8	3 27.8	31.0	34.6	37.8	41.3	3	34.50		
	κ			13.0							-17.12		
	(8) - D ₁₀₀			18.0							-7.4		
	a_2			14.6							-2		
										3	16.62		
											-1.74		
										3	14.88		
	4 42 53 10	8.1	4	40.0	4 57.0	0.4	3.8	7.3	10.8	5	3.88		
	4 19.1	10.2	7.8	43.1							-16.17		
	κ			45.8							-7.3		
	(8) - D ₁₀₀										-3		
	a_1			43.0	42.9						-16.93		
										4	46.93		
											-1.76		
										4	45.17		
			8.3	4 35.5	4 58.0	1.3	4.8	8.1	11.7	5	4.78		
	κ			38.3							-17.12		
	(8) - D ₁₀₀			40.7							-7.6		
	a_2			38.2							-3		
										4	46.87		
											-1.73		
										4	45.14		
	6 38 51 12	8.8	5	49.4	6 12.0	15.0	18.3	21.5	25.1	6	18.38		
	6 15.2	11.9	8.5	53.3							-16.17		
	κ			56.7							-6.8		
	(8) - D ₁₀₀			53.1							-2		
	a_1		8.7	6 43.7	6 58.6	1.6	5.1	8.3	11.7	7	5.06	6 15.7	
				46.3							-16.17	5 59.71	
				50.0							-6.8		
				46.7							-2	6 48.19	
			9.0	5 48.0	6 13.0	16.1	19.5	22.8	26.0	6	19.48	-1.80	
	κ			52.6							-17.12	6 46.39	
	(8) - D ₁₀₀			53.3							-7.0		
	a_2		8.7	6 37.0	6 52.5	2.7	6.0	9.4	12.8	7	6.08	6 16.4	
				53.4							-17.12	5 59.87	
				56.6							-7.0		
				53.8							-2	6 48.24	
											-1.77		
												6 46.49	

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	s'
	+21.6 1.33445 9.78346 1.24343 m (8) - D) $\frac{d'}{100}$ + 11.6 1.06446 9.78362 0.86360 m	0 13.8	35.1	48.9	0' 24.45	52 23.90 52 36 8.85 + 15.73 - 17.52			30	52 35 51.33 26 24.58 - 13 + 1039 - 4 - 12 + 10.16 + 40 - 8.70 35 53.02	35 14.14 24 38.78 4 + 10.40 + 10.16 + 40 - 8.70 35 15.84
d	0.71600 m 9.78346 0.62498	0 34.6	57.2	91.8	0 45.90	52 35 47.83 + 4.22			30	35 52.05 - 1 + 1033 - 8 - 50 + 9.99 + 43 - 8.80 35 53.58	35 12.54 - 50 + 9.99 + 43 - 8.80 35 13.58
(8) - D) $\frac{d'}{100}$	+ 43.5 1.63849 9.78362 1.54763 m	0 34.6	57.2	91.8	0 45.90	52 35 47.83 - 35.29			30	+ 9.99 + 43 - 8.80 35 53.58	+ 9.99 + 43 - 8.80 35 13.58
δ_2											
d	- 5.5 0.74036 m 9.77216 0.53804	3 34.7	44.5	79.2	3 39.60	59 8.75 53 42 53.70 + 4.35			30	53 42 53.70 - 1 - 40 + 11.31 + 47 - 8.80 43 0.62	41.37
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+ 19.7 1.29447 9.77216 1.19215 m	3 12.9	33.9	26.8	3 13.40	59 34.95 53 43 20.33 - 15.57			20	42 59.76 - 10 - 35 + 11.10 + 48 - 8.90 43 0.99	+ 11.13
(8) - D) $\frac{d'}{100}$											
δ_2											
d	+ 17.5 1.24304 9.78609 1.15465 m	0 52.5	14.5	127.0	1 46 3.50	36 44.85 52 20 29.80 - 14.28			45	52 20 15.52 - 8 - 12 + 9.89 + 40 - 8.80 20 16.81	+ 10.09
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+ 19.9 1.29885 9.78609 1.21046 m	0 49.8	13.1	122.9	1 46 1.45	36 46.90 52 20 32.28 - 16.24			45	20 16.04 - 11 - 11 + 9.72 + 42 - 8.90 20 17.06	+ 9.92
(8) - D) $\frac{d'}{100}$											
δ_2											
d	+ 20.9 1.32015 9.77778 1.22345 m	1 14.0	35.7	49.7	1 56 2.485	26 23.50 53 10 8.45 - 16.73			55	53 9 51.72 - 12 - 15 + 10.74 + 41 - 8.80 9 53.80	+ 10.88
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+ 26.6 1.42488 9.77778 1.32818 m	1 9.7	30.9	40.6	1 56 20.30	26 28.05 53 10 13.40 - 21.29			55	9 52.14 - 19 - 15 + 10.06 + 46 - 8.80 9 53.82	+ 10.68
(8) - D) $\frac{d'}{100}$											
δ_2											
d	+ 25.9 1.40312 9.79715 1.32579 m	0 10.2	32.5	42.7	0 55 21.35	27 27.00 51 11 11.95 - 21.17			55	51 10 50.78 - 17 + 888 - 4 - 33 + 8.73 + 36 - 8.70 10 50.86	13 19.21 - 9 + 8.73 + 36 - 8.70 13 19.18
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+ 18.4 1.26482 9.79684 1.18718 m	2 47.9	9.5	117.4	2 58.70	29 49.65 51 13 32.46 - 15.39			50	+ 36 - 8.70 10 50.86	+ 36 - 8.70 13 19.18
(8) - D) $\frac{d'}{100}$											
δ_2											
d	+ 28.9 1.46090 9.79715 1.38357 m	0 7.1	29.9	37.0	0 55 18.50	27 29.85 51 11 15.23 - 24.19			55	10 51.04 - 22 + 879 - 3 - 34 + 8.58 + 40 - 8.80 10 50.97	13 18.74 - 4 + 8.58 + 40 - 8.80 13 18.54
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+ 12.3 1.08991 9.79684 1.01227 m	2 53.2	16.2	129.4	3 47.0	29 43.68 51 13 29.03 - 10.29			50	+ 40 - 8.80 10 50.97	+ 40 - 8.80 13 18.54
(8) - D) $\frac{d'}{100}$											
δ_2											

422
Date₁ = 1875, Aug. 28

Observer
Recorder

423
Date₂ = 1875, Aug. 29

Observer
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
9	4 52 17	6.3	18	8 58.7	9 19.3	22.5	26.0	29.4	32.8	9	26.00		
8	41.2	16.7	7.4	2.2							-16.18		
κ				4.0							-7.0		
(8) - D	$\frac{\kappa'}{100}$			61.6					-16.90	9	9.10		
a_1										9	-1.80		
										9	7.30		
6.9			8	57.0	9 20.1	23.5	26.8	30.3	33.7	9	26.88		
κ				53.8							-17.12		
(8) - D	$\frac{\kappa'}{100}$			56.4					-17.87	9	9.01		
a_2				53.7						9	-1.77		
										9	7.24		
10	27 58 39	8.9	10	24.3	10 41.8	45.2	49.0	52.6	55.8	10	48.88		
10	4.7	39.5	8.8	28.3							-16.18		
κ				31.2							-7.4		
(8) - D	$\frac{\kappa'}{100}$			27.9					-16.95	10	31.93		
a_1										10	-1.78		
										10	30.15		
9.0			10	13.2	10 46.3	49.8	53.3	56.8		10	49.88		
κ				17.2							-17.12		
(8) - D	$\frac{\kappa'}{100}$			20.0					-17.92	10	31.92		
a_2				16.8						10	-1.74		
										10	30.18		
12	42 51 34	8.3	12	43.6	12 58.7	2.0	5.7	8.7	12.2	13	54.0		
12	19.3	33.8	7.7	46.2							-16.18		
κ				48.0							-6.9		
(8) - D	$\frac{\kappa'}{100}$			45.9					-16.59	12	48.51		
a_1										12	-1.82		
										12	46.69		
8.2			12	40.5	12 59.7	2.9	6.1	9.5	13.0	13	62.4		
κ				44.0							-17.12		
(8) - D	$\frac{\kappa'}{100}$			46.2					-17.86	12	48.38		
a_2				43.6						12	-1.80		
										12	46.58		
13	47 51 10	6.0	13	37.0	14 4.7	8.0	11.3	14.5	17.9	14	112.8		
13	24.7	10.2	7.6	39.4							-16.18		
κ				41.4							-6.8		
(8) - D	$\frac{\kappa'}{100}$			39.3					-16.88	13	54.40		
a_1										13	-1.84		
										13	52.58		
7.5			13	40.2	14 5.7	9.0	12.2	15.7	19.0	14	123.2		
κ				43.3							-17.12		
(8) - D	$\frac{\kappa'}{100}$			45.5					-17.84	13	54.48		
a_2				43.0						13	-1.81		
										13	52.67		
15	31 53 33	9.0	15	27.7	15 47.1	50.5	54.0	57.5	1.0	15	54.02		
15	9.6	32.7	8.6	31.0							-16.18		
κ				34.7							-7.4		
(8) - D	$\frac{\kappa'}{100}$			31.1					-16.95	15	37.07		
a_1										15	-1.80		
										15	35.27		
9.0			15	29.0	15 48.1	57.6	55.3	58.6	2.3	15	55.18		
κ				31.7							-17.12		
(8) - D	$\frac{\kappa'}{100}$			35.5					-17.92	15	37.26		
a_2				32.0						15	-1.77		
										15	35.49		

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+24.4 1.38739 9.78658 1.29949 _m	4	5.1	30.1	4 13.05	53 53.30 52 17 18.25 -19.93			45	52 16 58.32 - 16 + 47 + 9.84 + 40 - 8.90 16 59.03	+9.61
((8) - D) $\frac{\delta'}{100}$											
δ_1											
d	+33.2 1.52114 9.78658 1.43320 _m	3	5.0	135.9	4 795	53 40.40 52 17 25.78 -27.12			45	16 58.46 - 30 - 45 + 9.68 + 41 - 9.00 16 59.00	+9.34
((8) - D) $\frac{\delta'}{100}$											
δ_2											
d	+21.0 1.32222 9.77268 1.22042 _m	1	19.4	60.4	1 26	56 18.15 53 40 3.10 -16.61			28	53 39 46.47 - 12 - 16 + 11.27 + 46 - 9.00 39 48.94	+11.45
((8) - D) $\frac{\delta'}{100}$											
δ_1											
d	+33.0 1.51851 9.77268 1.41671 _m	1	9.3	39.6	1 26	56 28.55 53 40 13.93 -26.10			28	37 47.83 - 28 - 14 + 11.07 + 48 - 9.20 39 49.76	+11.13
((8) - D) $\frac{\delta'}{100}$											
δ_2											
d	+19.5 1.29003 9.79335 1.20890 _m	1	12.1	46.6	1 31	51 25.05 51 35 10.00 -16.18			30	51 34 53.82 - 10 - 15 + 9.14 + 38 - 8.90 34 54.19	+9.27
((8) - D) $\frac{\delta'}{100}$											
δ_1											
d	+22.6 1.35411 9.79335 1.27298 _m	1	9.7	41.6	1 31	51 27.55 51 35 12.93 -18.75			30	34 54.18 - 14 - 14 + 9.00 + 40 - 9.00 34 54.30	+9.12
((8) - D) $\frac{\delta'}{100}$											
δ_2											
d	+32.0 1.50515 9.79715 1.42782 _m	4	56.9	136.1	5 55	27 40.30 51 11 25.25 -26.78			50	51 10 58.47 - 27 - 56 + 8.74 + 36 - 8.90 10 57.84	+8.27
((8) - D) $\frac{\delta'}{100}$											
δ_1											
d	+29.3 1.46687 9.79715 1.38954 _m	4	60.2	142.0	5 55	27 37.35 51 11 22.73 -24.52			50	10 58.21 - 23 - 56 + 8.60 + 40 - 9.00 10 57.42	+8.21
((8) - D) $\frac{\delta'}{100}$											
δ_2											
d	+22.9 1.05984 9.77370 1.24906 _m	2	19.3	59.7	2 32	50 18.50 53 34 3.45 -18.16			30	53 33 45.27 - 14 - 27 + 11.16 + 46 - 2.10 33 47.40	+11.21
((8) - D) $\frac{\delta'}{100}$											
δ_1											
d	+23.1 1.06361 9.77370 1.26283 _m	2	18.4	59.3	2 32	50 18.70 53 34 4.08 -18.32			30	33 45.76 - 14 - 27 + 16.97 + 48 - 9.30 33 47.50	+12.04
((8) - D) $\frac{\delta'}{100}$											
δ_2											

Date₁ = 1875. Aug. 28Observer
RecorderDate₂ = 1875. Aug. 29Observer
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
16	29 52 36	6.7	18	16 21.4	16 44.0	47.4	57.0	54.4	57.8	16	57.92		
16	6.2	35.8	7.5	24.6							-16.18		
κ				28.3							-72		
(S) - D				25.1						-16.92	16	34.00	
a_1											-1.82		
											16	32.18	
			6.8	16 24.5	16 45.0	48.5	57.8	55.3	58.7	16	57.88		
κ				27.7							-17.12		
(S) - D				30.3						-17.88	16	33.98	
a_2				27.5							-1.80		
											16	32.18	
17	15 52 51	9.0	17	23.0	17 31.8	35.4	38.8	42.1	45.5	17	38.44		
16	52.1	58.4	9.0	26.0							-16.18		
κ				28.6							-72		
(S) - D				36.2						-16.92	17	21.80	
a_1											-1.82		
											17	20.00	19.98
			9.1	17 20.2	17 32.9	36.4	39.4	43.0	46.3	17	39.60		
κ				24.2							-17.12		
(S) - D				26.7						-17.88	17	21.72	
a_2				23.7							-1.80		
											17	19.92	
19	0 52 39	9.0	19	2.0	19 17.2	20.5	24.0	27.4	30.7	19	23.96		
18	37.4	38.9	9.0	4.8							-16.19		
κ				8.6							-72		
(S) - D				5.1						-16.93	19	7.03	
a_1											-1.84		
											19	5.19	
			9.2	18 58.8	19 18.4	21.8	25.3	28.5	32.0	19	28.20		
κ				3.3							-17.12		
(S) - D				6.4						-17.88	19	7.32	
a_2				19 3.2							-1.81		
											19	5.51	
21	19 52 59	8.8	21	16.4	21 35.1	38.6	42.0	45.5	48.7	21	41.98		
20	56.9	58.6	8.6	20.3							-16.19		
κ				23.6							-73		
(S) - D				20.1						-16.95	21	25.03	
a_1											-1.84		
											21	23.19	
			8.8	21 7.3	21 36.3	39.6	43.0	46.4	50.0	21	43.06		
κ				11.1							-17.12		
(S) - D				14.4						-17.91	21	25.15	
a_2				10.9							-1.81		
											21	23.34	
22	21 50 17	8.9	22	16.0	22 40.5	43.8	47.0	50.3	53.5	22	47.02		
21	58.1	17.0	9.0	19.2							-16.19		
κ				22.2							-66		
(S) - D				19.1						-16.87	22	30.15	
a_1											-1.89		
											22	28.26	
			9.1	22 12.5	22 41.5	44.8	48.0	51.3	54.7	22	48.08		
κ				14.5							-17.12		
(S) - D				17.2						-17.82	22	30.26	
a_2				14.7							-1.86		
											22	28.40	

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+25.8 1.41162 9.78346 1.32060 _m	0	104	32.4	42.8 0' 21.40	52 26.95 36 11.70 -20.92			30	52 35 50.98 - 18 - 3 +10.17 + 40 - 9.10 35 52.24	+10.36
((δ) - D) $\frac{d'}{100}$											
δ_1											
d	+24.4 1.38739 9.78346 1.29637 _m	0	130	34.2	47.2 0 23.60	52 24.75 36 10.13 -17.79			30	35 50.34 - 16 - 4 +10.00 + 43 - 9.20 35 51.37	+10.23
((δ) - D) $\frac{d'}{100}$											
δ_2											
d	+12.5 1.09691 9.78097 1.00340 _m	0	191	39.1	56.2 0 28.10	52 7 20.25 51 5.20 -10.08			15	52 50 55.12 - 4 - 5 +10.93 + 40 - 9.10 50 56.76	+10.74
((δ) - D) $\frac{d'}{100}$											
δ_1											
d	+15.9 1.20140 9.78097 1.10789 _m	0	130	36.4	49.7 0 24.85	52 7 23.50 51 8.88 -12.82			15	50 56.06 - 7 - 4 +10.25 + 49 - 9.20 50 57.44	+10.58
((δ) - D) $\frac{d'}{100}$											
δ_2											
d	+18.9 1.27646 9.78296 1.18494 _m	1	348	58.5	96.3 1 48.15	56 0.20 39 45.15 -15.31			25	52 39 29.84 - 9 - 20 +10.23 + 40 - 9.20 39 30.98	+10.34
((δ) - D) $\frac{d'}{100}$											
δ_1											
d	+22.0 1.34242 9.78296 1.25090 _m	1	328	54.9	87.7 1 43.85	56 4.50 39 47.88 -17.82			25	39 32.06 - 13 - 19 +10.08 + 43 - 9.30 39 32.95	+10.19
((δ) - D) $\frac{d'}{100}$											
δ_2											
d	+21.9 1.34044 9.77963 1.24559 _m	2	184	39.8	58.2 2 29.10	15 19.25 52 59 4.20 -17.60			5	52 58 46.60 - 13 - 27 +10.56 + 40 - 9.20 58 47.96	+10.56
((δ) - D) $\frac{d'}{100}$											
δ_1											
d	+32.2 1.50786 9.77963 1.41301 _m	2	98	31.1	40.9 2 20.45	15 27.90 52 59 13.28 -25.88			5	58 47.40 - 27 - 25 +10.40 + 45 - 9.40 58 48.33	+10.33
((δ) - D) $\frac{d'}{100}$											
δ_2											
d	+27.9 1.44560 9.80534 1.37646 _m	3	131	36.0	49.1 3 24.55	34 23.80 50 18 8.75 -23.80			45	50 17 44.95 - 21 - 37 +7.85 + 31 - 9.00 17 43.53	+7.58
((δ) - D) $\frac{d'}{100}$											
δ_1											
d	+33.4 1.52325 9.80534 1.45461 _m	3	89	31.2	40.1 3 24.70	34 28.30 50 18 13.68 -28.48			45	17 45.20 - 30 - 36 +7.72 + 36 - 9.20 17 43.42	+7.42
((δ) - D) $\frac{d'}{100}$											
δ_2											

Date₁ = 1875, Aug. 28Observer
RecorderDate₂ = 1875, Aug. 29Observer
Recorder

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Star.	α	δ	Mag.	T_s	T_m	T_a	T_r	T_g	T_h	Sum	Mean	Red. to T_m	T
1875phae	24	29 51 40	8.7	18 24 34.2	24 46.7	48.9	53.3	56.8	0.1	24	53.36		
	κ	6.5	39.3	37.3							-16.19		
				40.4							-6.9		
(8) - D	κ'			37.3							24	36.46	
α_1											-1.88		
											24	34.58	
			8.3	24 25.0	24 48.0	57.2	54.5	57.8	1.3	24	54.58		
κ				28.1							-17.12		
(8) - D	κ'			31.1							-7.2		
α_2				28.1							-2		
											24	36.70	
											-1.85		
											24	34.85	
	26	21 53 56	9.5	26 41.0	27 0.0	3.2	6.8	10.5	13.6	27	6.82		
κ	25	58.1	55.8	44.0							-16.19		
(8) - D	κ'			46.6							-7.6		
α_1				43.9							-3		
											26	49.84	
											-1.83		
											26	47.99	
			9.6	26 35.3	27 1.4	4.5	8.2	11.7	14.9	27	8.14		
κ											-17.12		
(8) - D	κ'										-7.8		
α_2											-3		
											26	50.21	
											-1.82		
											26	48.39	
	27	13 55 4	9.2	27 54.1	27 40.3	44.0	47.6	57.5	54.7	27	47.62		
κ	26	48.4	3.2	57.6							-16.19		
(8) - D	κ'			4.0							-7.9		
α_1				59.2							-3		
											27	30.61	
											-1.83		
											28.78		
			9.1	27 44	27 41.0	44.8	48.0	52.3	53.8	27	48.88		
κ				59.2							-17.12		
(8) - D	κ'										-8.1		
α_2											-3		
											26	59.16	
											30.62		
											-1.80		
											27	28.82	
	32	23 54 6	7.8	32 11.0	32 36.9	37.5	42.0	46.5	50.1	32	43.02		
κ	31	59.5	5.8	13.4							-16.20		
(8) - D	κ'			17.2							-7.6		
α_1				13.89							-3		
											32	26.03	
											-1.88		
											32	24.15	
			8.0	32 24.8	32 37.0	40.4	43.8	47.3	57.0	32	43.90		
κ				18.2	28.3						-17.13		
(8) - D	κ'			21.5	25.6						-7.9		
α_2				24.7							-3		
				21.5							32	25.95	
											-1.85		
											32	24.10	
	43	52 52 50	5.9	44 18	44 7.9	11.0	14.1	17.8	21.3	44	14.42		
κ	43	29.7	49.2	4.7							-16.21		
(8) - D	κ'			8.13							-7.3		
α_1				4.9							-2		
											43	57.46	
											-1.95		
											43	55.51	
			6.0	43 39.4	44 9.6	11.9	15.3	18.8	22.1	44	15.54		
κ				42.3							-17.13		
(8) - D	κ'			45.3							-7.6		
α_2				42.3							-2		
											43	57.63	
											-1.92		
											43	55.71	

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+16.1 1.20683 9.79272 1.12507m	3	309	57.4	82.3 2' 41.5"	55 7.20 51 38 52.15 -13.34			23-	51 38 38.81 - 7 - 30 + 9.30 + 38 - 9.20 38 38.92	+9.31
((δ) - D) $\frac{d'}{100}$											
δ_1											
d	+26.5 1.42325 9.79272 1.34149m	3	309	43.4	64.3 2' 32.5"	55 16.20 51 39 15.8 -21.95			23-	38 39.63 - 18 - 27 + 9.07 + 40 - 2.30 38 39.35	+9.02
((δ) - D) $\frac{d'}{100}$											
δ_2											
d	+22.9 1.35984 9.76835 1.25371m	0	493	11.4	120.6 1' 03.0"	21 48.05 54 5 33.00 -17.94			0	54 5 15.06 - 14 - 11 + 11.70 + 51 - 9.40 5 17.62	+11.96
((δ) - D) $\frac{d'}{100}$											
δ_1											
d	+32.8 1.51587 9.76835 1.40974m	0	380	59.8	97.8 0' 48.90"	21 59.45 54 5 44.83 -25.69			0	5 19.14 - 28 - 7 + 11.50 + 51 - 9.60 5 21.88	+11.64
((δ) - D) $\frac{d'}{100}$											
δ_2											
d	-11.6 1.06446m 9.75805 0.94803	3	64	29.3	33.7 3' 16.85"	19 31.50 54 3 16.45 + 8.87			0	55 3 25.32 - 4 - 386 + 12.71 + 60 - 9.50 3 28.73	+12.91
((δ) - D) $\frac{d'}{100}$											
δ_1											
d	-10.6 1.02581m 9.75805 0.90888	3	48	35.0	29.8 3' 14.90"	19 33.45 55 3 18.83 + 8.11			0	3 26.94 - 3 - 35 + 12.48 + 60 - 9.60 3 30.04	+12.70
((δ) - D) $\frac{d'}{100}$											
δ_2											
d	+29.1 1.46389 9.76817 1.35758m	4	416	23	104.1 4' 52.05"	22 56.30 54 6 41.25 -22.78			53-	54 6 18.47 - 22 - 54 + 11.72 + 51 - 9.50 6 20.44	+11.47
((δ) - D) $\frac{d'}{100}$											
δ_1											
d	+22.4 1.35025 9.76817 1.24394m	4	499	9.9	115.8 4' 57.90"	22 50.45 54 6 35.83 -17.53			53-	6 18.30 - 18 - 54 + 11.52 + 51 - 9.70 6 19.96	+11.36
((δ) - D) $\frac{d'}{100}$											
δ_2											
d	+9.5 0.97772 9.78097 0.88421m	0	112	32.8	44.0 0' 22.00"	7 26.35 52 51 11.30 - 7.66			13-	52 51 3.64 - 2 - 4 + 10.43 + 40 - 9.70 51 4.73	+10.79
((δ) - D) $\frac{d'}{100}$											
δ_1											
d	+33.2 1.52114 9.78097 1.42763m	4	528	14.2	127.0 5' 36.0"	7 44.85 52 51 30.20 -26.77			10	51 3.46 - 29 - 53 + 10.27 + 44 - 9.90 51 3.43	+9.87
((δ) - D) $\frac{d'}{100}$											
δ_2											

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+9.8 0.99123 9.77896 0.89571 _m	2	41.0	1.2	102.2	2' 51.10	19 57.25 53 3 42.20 - 7.87		0	53 3 34.33 - 2 - 32 + 2.70 + 10.40 - 9.70 3 34.69 35.39	+10.76
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+30.5 1.48450 9.77896 1.38878 _m	2	21.5	43.8	65.3	2 32.65	20 15.70 53 4 1.08 - 24.48		0	3 36.60 - 28 - 28 + 10.50 + 45 - 9.70 3 34.12 37.12	+10.42
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+17.1 1.23300 9.78428 1.14280 _m	4	50.0	10.1	120.1	5 00.5	47 48.30 52 31 33.25 - 13.89		30	52 31 19.36 - 8 - 53 + 10.12 + 40 - 9.70 31 19.55	+9.89
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+32.1 1.50651 9.78428 1.41631 _m	4	36.5	59.9	94.4	4 47.20	48 11.5 52 31 46.53 - 26.08		30	31 20.45 - 27 - 53 + 9.94 + 43 - 9.70 31 20.12	+9.57
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+23.4 1.36922 9.79208 1.28682 _m	2	41.2	1.5	102.7	2 51.35	59 57.00 51 43 41.95 - 17.36		20	51 43 22.59 - 14 - 31 + 9.81 + 39 - 9.70 43 22.14	+9.25
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+41.1 1.61384 9.79208 1.53144 _m	2	26.0	49.9	73.9	2 36.95	0 11.40 51 43 57.78 - 54.00		20	43 23.78 - 45 - 29 + 9.15 + 40 - 9.70 43 22.69	+8.81
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+21.2 1.32634 9.79778 1.24964 _m	4	19.9	41.1	61.0	4 30.50	23 17.85 51 7 2.80 - 17.77		53	51 6 45.00 - 12 - 49 + 8.69 + 36 - 9.70 6 42.77 43.77	+8.44
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+34.4 1.50656 9.79778 1.45986 _m	4	9.3	39.5	38.8	4 19.40	23 28.95 51 7 14.33 - 28.83		53	6 45.50 - 32 - 47 + 8.63 + 40 - 9.70 6 43.76	+8.16
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+6.9 0.83885 9.79699 0.76136 _m	4	8.3	39.1	37.4	4 18.70	28 29.65 51 12 14.60 - 5.77		50	51 12 8.83 - 1 - 47 + 8.78 + 36 - 9.70 12 4.79	+8.66
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	-11.0 1.04109 _m 9.79715 0.96406	0	59.0	20.1	139.1	1 9.55	26 38.80 51 10 24.18 + 9.21		53	10 33.39 - 3 - 12 + 8.63 + 40 - 9.70 10 32.37	+8.88
$((\delta) - D) \frac{d'}{100}$											
δ_2											

Date₁ = 1875. Aug 28Observer W.A.R.
Recorder J.T.M.Date₂ = 1875. Aug 29Observer W.A.R.
Recorder J.T.M.

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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
1	51	18 51 43	9.0	18 57 19.6	51 33.2	38.4	41.8	45.1	48.4	57	44.78		
	50	55.1	42.4	8.9	22.7						-16.21		
	κ				25.1						-6.9		
	(8) - D	$\frac{\kappa'}{100}$			22.5				-16.92	57	24.86		
	α_1									57	22.86		
			9.1	57 25.6	51 36.0	39.7	42.7	46.2	49.4	57	42.80		
	κ			28.8							-17.13		
	(8) - D	$\frac{\kappa'}{100}$		33.3					-17.87	57	24.93		
	α_2			29.2						57	22.95		
	52	50 52 29	9.2	52 56.2	53 6.8	8.9	13.2	16.6	19.9	58	13.28		
	52	27.1	28.9	9.0	1.6						-16.22		
	κ			4.6							-7.2		
	(8) - D	$\frac{\kappa'}{100}$		60.8					-16.96	52	56.32		
	α_1									52	56.32		
			9.0	52 48.1	53 7.5	10.7	14.3	17.6	20.9	58	14.20		
	κ			52.2							-17.13		
	(8) - D	$\frac{\kappa'}{100}$		53.0					-17.89	52	56.31		
	α_2			57.8						52	54.34		
	55	8.9	51 40	9.2	54 39.0	55 19.5	22.9	26.3	29.3	58	26.16		
	55	16.3	38.7	9.0	2.6						-16.22		
	κ			3.3							-6.9		
	(8) - D	$\frac{\kappa'}{100}$		2.3					-16.93	55	9.23		
	α_1									55	7.21		
			8.0	55 43.4	55 38.7	2.0	5.3	8.4	12.0	56	5.28		
	κ			48.3							-17.14		
	(8) - D	$\frac{\kappa'}{100}$		57.4					-17.88	58	47.40		
	α_2			47.8						55	45.40		
	58	12 53 6	8.8	57 48.0	58 6.5	9.7	13.4	16.5	20.1	58	13.24		
	57	47.0	5.1	8.9	30.3						-16.22		
	κ			53.2							-7.3		
	(8) - D	$\frac{\kappa'}{100}$		57.5					-16.98	58	35.02	57 56.26	
	α_1		9.0	58 29.5	58 28.3	32.0	34.9	38.4	41.5	58	35.02	57 54.85	
									-16.98	58	17.95	58 18.04	
			9.0	57 39.1	58 7.5	10.8	14.1	17.7	21.0	58	14.22	58 16.03	
	κ			42.2							-17.14	58 15.98	
	(8) - D	$\frac{\kappa'}{100}$		43.6					-17.93	58	36.88	57 56.69	
	α_2		8.7	58 26.3	58 29.0	32.5	36.1	39.3	42.5	58	36.88	57 54.71	
									-17.93	58	17.95	58 17.95	
	59	44 50 3	5.7	59 12.1	59 23.1	26.4	29.8	33.0	36.3	59	29.72	58 15.98	
	59	21.6	2.1	8.9	16.0						-16.23	58 15.98	
	κ			19.2							-6.6		
	(8) - D	$\frac{\kappa'}{100}$		15.8					-16.91	59	12.81		
	α_1									59	10.75		
			8.8	59 42.5	59 5.7	8.0	12.2	15.6	19.0	0	12.30		
	κ			46.2							-17.14		
	(8) - D	$\frac{\kappa'}{100}$		49.1					-17.84	59	54.46		
	α_2			45.93						59	52.42		

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'	
d	+19.3 1.28556 9.79192 1.20300m	2	149	51.7	2' 2585	0 22.50 51 44 7.45 -15.96			20	51 43 51.49 - 10 - 26 + 9.32 + 39 - 9.86 43 51.04	+9.35	
$((\delta) - D) \frac{d'}{100}$												
δ_1												
d	+13.6 1.13354 9.79192 1.05098m	2	196	62.0	2 31.00	0 17.05 51 44 2.73 -11.24			20	43 51.49 - 5 - 27 + 9.16 + 40 - 10.00 43 50.73	+9.24	
$((\delta) - D) \frac{d'}{100}$												
δ_2												
d	+12.5 1.09691 9.78445 1.00688m	0	435	106.2	0 53.10	46 53.25 52 30 40.20 -10.16			35	52 30 30.04 - 4 - 10 + 10.11 + 40 - 9.70 30 30.51	+10.37	
$((\delta) - D) \frac{d'}{100}$												
δ_1												
d	+22.4 1.35025 9.78445 1.26022m	0	361	93.0	0 46.50	47 1.85 52 30 47.23 -18.21			35	30 29.02 - 13 - 9 + 9.93 + 43 - 14.00 30 29.16	+10.14	
$((\delta) - D) \frac{d'}{100}$												
δ_2												
d	+23.9 1.37840 9.79256 1.29648m	2	314	83.8	2 44.90	57 6.45 57 40 51.40 -19.79			25	51 31.61 - 15 - 30 + 9.20 + 38 - 9.70 38 30.84	+9.13	
$((\delta) - D) \frac{d'}{100}$												
δ_1												
d	+17.5 1.24304 9.79256 1.16112m	0	450	112.8	0 56.40	56 51.95 51 40 37.03 -14.49			25	40 22.84 - 8 - 10 + 9.10 + 40 - 10.10 40 22.06	+9.32	
$((\delta) - D) \frac{d'}{100}$												
δ_2												
d	+22.7 1.35603 9.77829 1.25984m	4	45	279	4 18.95	23 34.40 53 7 19.35 -18.19			53	53 7 1.16 - 14 - 46 + 10.74 + 41 - 10.00 7 1.71	6 46.96 40.55 26.64 - 5.5 + 10.74 + 41 - 10.00 6 27.5323	+10.59
$((\delta) - D) \frac{d'}{100}$												
δ_1												
d	+5.5 0.74086 9.77846 0.64434m	4	523	124.5	5 22.5	22 46.10 53 6 31.05 -44.09 4.41			53	7 1.55 - 27 - 45 + 10.53 + 46 - 10.20 7 1.84	6 28.08 +10.29 - 54 + 10.53 + 46 - 10.20 6 28.32	+10.44
$((\delta) - D) \frac{d'}{100}$												
δ_2												
d	+32.19 1.50920 9.77829 1.41301m	3	560	138.2	4 66.0	23 41.75 53 7 27.10 -25.58			53	7 1.55 - 27 - 45 + 10.53 + 46 - 10.20 7 1.84	6 28.08 +10.29 - 54 + 10.53 + 46 - 10.20 6 28.32	+10.44
$((\delta) - D) \frac{d'}{100}$												
δ_1												
d	+9.6 0.98227 9.77846 0.88625m	4	474	115.9	4 57.95	22 50.40 53 6 35.78 - 7.70			53	7 1.55 - 27 - 45 + 10.53 + 46 - 10.20 7 1.84	6 28.08 +10.29 - 54 + 10.53 + 46 - 10.20 6 28.32	+10.44
$((\delta) - D) \frac{d'}{100}$												
δ_2												
d	+13.9 1.14301 9.80731 1.07584m	2	219	64.4	2 32.20	21 16.15 50 5 1.10 -11.91			0	50 4 49.19 - 5 - 16 + 7.67 + 30 - 9.50 34 47.15	+7.76	
$((\delta) - D) \frac{d'}{100}$												
δ_1												
d	+26.4 1.42160 9.80762 1.35474m	2	279	76.8	2 58.40	20 9.95 50 3 55.33 -22.63			0	3 32.70 - 19 - 27 + 7.53 + 35 - 10.00 3 30.10	+7.40	
$((\delta) - D) \frac{d'}{100}$												
δ_2												

Date₁ = 1875, Aug. 28Observer W.A.R.
Recorder J.T.M.Date₂ = 1875, Aug. 29Observer W.A.R.
Recorder J.T.M.

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Star.	α	δ	Mag.	T_a	T_m	T_s	T_r	T_g	T_h	Sum	Mean	Red. to T_m	T
1875phae	0	31 50	4	9.0	19 0 34.1	0 52.0	53.0	58.3	1.4	4.8	0	58.30	
κ	0	8.2	2.5	8.9	37.2							-16.23	
					40.8							-66	
					37.3					-16.91		-2	
$(\delta) - D) \frac{\kappa'}{100}$										0	41.39		
α_1										0	39.33		
κ			9.0										
$(\delta) - D) \frac{\kappa'}{100}$			8.8										
α_2													
κ													
$(\delta) - D) \frac{\kappa'}{100}$													
α_1													
κ													
$(\delta) - D) \frac{\kappa'}{100}$													
α_2													
Single Observations.													
Aug. 28	7	53 51	38	9.5	18 7 54.0	8 11.0	138	17.0	20.4	23.9	8	17.22	
κ	7	30.8	57.8	9.2	57.0							-16.18	
					59.7							-69	
$(\delta) - D) \frac{\kappa'}{100}$					56.9					-76.59		-2	
α_1										8	0.33		
										7	58.53		
Aug. 28	28	28 52	21	7.9	28 34.9	28 44.2	47.7	37.0	34.5	37.8	28	51.04	
κ	28	5.1	26.3	8.4	37.6							-16.19	
					40.5							-72	
$(\delta) - D) \frac{\kappa'}{100}$					37.6					-16.91		-2	
α_2										28	34.17		
										28	32.25		
Aug. 28	30	1 55	5	8.9	29 48.0	30 10.9	14.5	18.0	22.0	25.3	30	18.18	
κ	29	36.8	2.7	8.9	32.8							-16.19	
					36.0							-79	
$(\delta) - D) \frac{\kappa'}{100}$					53.6					-17.01		-3	
α_1										30	1.17		
										29	59.32		
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

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	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+20.9 1.32015 9.80746 1.25313 _m	1	43.5	5.1	108.6	1	54.30	20 54.05 50 4 39.00 -17.91	0	50 4 21.09 - 12 + 21 + 7.65 + 30 - 9.90 4 18.81	+7.62
$((\delta) - D) \frac{d'}{100}$											
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	+20.3 1.30750 9.79288 1.22590 _m	3	3.5	24.5	28.0	3	14.00	54 34.35 57 38 19.30 -16.82	25	51 38 2.48 - 11 - 35 + 9.18 + 38 - 8.80 38 2.78	+9.10
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+13.2 1.12385 9.78592 1.03529 _m	0	0.1	21.1	21.2	0	10.60	57 37.75 52 21 22.70 -10.84	45	52 21 11.86 - .57 - 2 + 9.73 + 40 - 9.20 21 12.92	+10.26
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+25.6 1.40824 9.75805 1.29181 _m	3	47.9	9.3	118.4	2	58.20	19 49.65 55 3 34.60 -19.58	0	55 3 15.02 - 17 - 33 + 12.72 + 60 - 9.50 3 18.39	+12.82
$((\delta) - D) \frac{d'}{100}$											
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 = 1875, Aug 30
n = -0.68Observer W.A.R.
Recorder J.T.M.Date₂ = 1875, Aug 31
n = -0.64Observer W.A.R.
Recorder J.T.M.

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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
1	8	5 51 42	9.2	18 7	45.9	8	5.0	8.0	11.4	14.9	18.2	8	11.50
	7	42.9	42.3	7.0	49.0					18.80		8	11.50
		15.2			47.4							2	
	(8) - D	κ'_{100}		6.5	59.7	8	22.7	26.2	29.5	32.7	36.1	8	29.44
	7	42.9	51 42.3		1.3							7	52.70
	α_1				60.5							7	51.74
												2	
												8	10.64
				9.3	57.6	8	5.8	9.0	12.3	15.4	18.8	8	12.26
	κ				49.0							8	18.87
	(8) - D	κ'_{100}		7.0	58.45	8	23.7	27.0	30.3	33.6	37.0	8	34.32
	α_2											8	18.87
												2	
												8	10.63
	9	27 52 41	8.0	9	13.3	9	43.8	47.0	50.5	53.8	57.3	9	52.45
	9	4.9	41.4	7.3	16.8							8	17.93
	κ				19.0							8	8.92
	(8) - D	κ'_{100}			16.4							9	31.64
	α_1											9	1.73
												9	29.91
				7.0	19.7	9	44.7	47.9	51.3	54.9	58.3	9	51.42
	κ				23.3							9	18.87
	(8) - D	κ'_{100}			25.8							9	31.70
	α_2				23.9							9	1.70
												9	30.00
	11	1 52 29	8.8	10	54.9	11	17.6	20.8	24.0	27.5	31.2	11	24.22
	10	52.2	8.3		58.8							11	17.94
	κ	73.7	22.4		1.3							11	8.9
	(8) - D	κ'_{100}			58.3							11	53.7
	α_1											11	1.74
												11	3.63
	10	13.5	52 27.4	8.8	10	38.4	10	54.3	57.5	1.0	4.4	11	1.02
	κ				33.0							11	18.87
	(8) - D	κ'_{100}			35.0							11	8.3
	10	38.2	52 25.9	8.7	11	15.0	11	18.2	21.5	25.0	28.5	11	35.00
	α_2				17.3							11	18.87
					21.1							11	8.3
					17.5							11	5.28
	12	43 51 44	9.5	12	37.2	12	2.9	6.2	9.6	12.9	16.4	13	9.60
	12	20.9	44.0	9.5	39.4							11	17.94
	κ				41.8							11	8.5
	(8) - D	κ'_{100}			39.4							12	50.79
	α_1											12	1.76
												12	49.03
				9.3	32.8	13	3.7	6.9	10.5	13.7	17.0	13	11.36
	κ				35.3							13	18.87
	(8) - D	κ'_{100}			37.3							12	50.67
	α_2				35.2							12	1.73
												12	48.94
	13	12 50 10	8.8	13	28.4	13	35.0	38.7	41.8	45.1	48.5	13	44.82
	12	49.3	10.1	8.3	31.1							13	17.94
	κ				34.0							13	8.1
	(8) - D	κ'_{100}			31.2							13	23.05
	α_1											13	1.80
												13	21.25
				8.8	31.4	13	36.0	39.2	42.6	45.9	49.0	13	42.54
	κ											13	18.87
	(8) - D	κ'_{100}										13	22.88
	α_2											13	1.76
												13	21.12

Aug. 30 -16' 14.93 -11
31 -16 12.80 -11

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Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	8'
	+24.1 1.38202 9.79208 <u>1.29962m</u>	3	20.5	43.9	64.4 3' 32.20	59 16.15 51 43 1.22 -19.93			20	51 42 41.29 - 15 19.02 - 38 - 38 + 9.11 + 9.11 + 4.54 + 4.54 - 9.00 - 9.00 42 41.31 42 37.27 42 41.31 42 37.27	+8.95
d	+28.9 1.46090 9.79208 <u>1.37850m</u>	3	20.5	43.9	64.4 3 32.20	59 16.15 51 43 1.22 -23.90			20		
((8) - D) $\frac{d'}{100}$	+14.7 1.16732 9.79208 <u>1.08492m</u>	3	20.0	42.9	62.9 3 31.45	59 16.90 17.10 51 43 4.14 .30 -12.16 20.52			20	42 51.94 42 37.71 - 6 19.04 - 27 - 38 - 38 + 9.24 + 9.24 + 44 + 44 - 9.20 - 9.20 42 51.78 42 37.54 42 51.78 42 37.54	+9.03
δ_1	+34.1 1.53275 9.78263 <u>1.44090m</u>	4	46.5	9.9	114.4 4 57.20	57 51.15 52 41 36.22 -27.60			20	52 41 8.62 - 31 - 53 +10.08 + 49 - 9.20 41 9.13	+9.71
d	+28.5 1.45484 9.78263 <u>1.36299m</u>	4	53.3	14.9	128.2 5 4.10	57 44.25 52 41 31.45 -23.07			20	41 8.38 - 21 +9.95 - 55 +10.22 + 49 - 9.30 41 9.03	
((8) - D) $\frac{d'}{100}$	+25.9 1.41330 9.78461 <u>1.32343m</u>	2	5.9	27.6	33.5 2 16.75	45 31.60 52 29 17.67 -21.06			25	52 28 56.66 - 18 +9.94 - 25 + 9.90 + 47 - 9.20 28 57.35	
δ_1	+28.8 1.45939 9.78494 <u>1.36985m</u>	3	33.1	53.9	87.0 3 43.50	44 4.85 52 27 52.05 -23.43			35	27 28.62 28 54.85 - 22 +9.82 - 1 +10.16 - 41 - 28 + 9.98 + 9.98 + 47 + 47 - 9.30 - 9.30 27 29.14 28 55.71	
d	+7.5 0.87506 9.78461 <u>0.78519m</u>	2	23.8	44.4	69.2 2 34.60	45 13.75 52 29 0.95 - 6.10			35		
((8) - D) $\frac{d'}{100}$	+30.1 1.47857 9.79192 <u>1.39601m</u>	1	31.8	54.9	86.7 1 43.35	1 5.00 51 44 50.07 -24.89			20	51 44 25.18 - 24 +9.15 - 19 + 9.14 + 44 - 9.20 44 25.13	
δ_1	+35.2 1.54654 9.79192 <u>1.46398m</u>	1	33.2	54.7	86.9 1 43.45	1 4.90 51 44 52.10 -29.11			20	44 22.99 - 34 +9.17 - 19 + 9.26 + 44 - 9.30 44 22.86	
d	+10.6 1.02532 9.80641 <u>0.95724m</u>	4	46.3	9.0	115.3 4 57.65	27 50.70 50 11 35.77 -87.06			50	50 11 26.71 - 3 +7.40 - 53 +7.62 + 36 - 9.10 11 25.01	
((8) - D) $\frac{d'}{100}$	+11.1 1.04532 9.80641 <u>0.97725m</u>	4	48.5	11.9	120.4 5 0.20	27 48.15 50 11 35.35 - 9.49			50	11 26.86 - 3 +7.51 - 53 +7.73 + 36 - 9.20 11 24.17	
δ_2											

Date₁ = 1875, Aug. 30

424

Observer
Recorder

Date₂ = 1875, Aug. 31

425

Observer
Recorder

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[illegible]

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+17.6 1.24551 9.76164 1.13267m	3	33.5	54.1	87.6 3 23	59 4.55 54 42 47.62 -13.57			20	54 42 36.05 - 8 - 41 +12.16 + 57 - 9.40 42 38.88	+12.23
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+26.1 1.41664 9.76164 1.30380m	3	39.0	49.9	78.9 3 23	59 8.90 54 42 56.10 -20.13			20	42 35.97 - 18 - 40 +12.30 + 57 - 9.66 42 38.66	+12.29
(8) - D) $\frac{d'}{100}$											
δ_2											
d	+22.8 1.35793 9.76607 1.24952m	2	36.0	56.7	92.7 2 47	35 2.00 54 18 47.07 - 17.76			45	54 18 29.31 - 14 - 31 +11.72 + 53 - 9.40 18 31.71	+11.80
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+29.1 1.46389 9.76607 1.35548m	2	34.1	54.9	89.0 2 47	35 3.85 54 18 51.05 -22.67			45	18 28.38 - 22 - 30 +11.87 + 53 - 9.60 18 30.66	+11.88
(8) - D) $\frac{d'}{100}$											
δ_2											
d	+22.8 1.35793 9.79918 1.28263m	3	1.9	24.0	35.9 3 8	14 35.40 50 58 20.47 - 19.17			5	50 58 1.30 - 14 - 35 + 8.38 + 40 - 9.20 58 0.39	+8.29
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+20.4 1.30963 9.79918 1.23433m	3	4.0	28.0	35.0 3 8	14 30.85 50 58 18.05 -17.15			5	58 0.90 - 11 - 36 + 8.50 + 40 - 9.40 57 59.93	+8.43
(8) - D) $\frac{d'}{100}$											
δ_2											
d	+15.3 1.18469 9.76484 1.07505m	1	30.5	51.3	81.8 1 41	41 7.45 54 24 52.52 -11.89			40	54 24 40.63 - 6 - 19 +11.83 + 54 - 9.50 24 43.25	+12.12
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+13.0 1.11394 9.76484 1.00430m	1	36.1	56.4	92.5 1 41	41 2.10 54 24 49.30 - 10.10			40	24 39.20 - 5 - 20 +12.00 + 54 - 9.60 24 41.89	+12.29
(8) - D) $\frac{d'}{100}$											
δ_2											
d	+26.8 1.42813 9.79918 1.35283m	3	0.2	22.0	22.2 3 8	14 37.25 50 58 22.32 - 22.53			5	50 57 59.79 - 19 - 35 + 8.38 + 40 - 9.30 57 57.73	+8.24
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+25.1 1.39967 9.79918 1.32437m	3	5.5	26.5	32.0 3 8	14 32.35 50 58 19.65 - 21.10			5	57 58.45 - 17 - 36 + 8.50 + 40 - 9.40 57 57.42	+8.37
(8) - D) $\frac{d'}{100}$											
δ_2											

Date₁ = 1875, Aug. 30Observer
RecorderDate₂ = 1875, Aug. 31Observer
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
19 19 K	55 32.6	54 44.2	8.8 8.7	18 19	57.8 53.4 57.0	20 11.9	14.4	17.7	21.4	25.1	20 17.90 -17.74 -9.5 -3 19 58.98 -1.74 19 57.24		
((S) - D)					53.8					-18.92			
a_1													
				8.5	19 56.4 5.0 3.0	20 11.6	16.4	18.7	22.5	26.0	20 18.84 -18.87 -9.0 -3 19 59.04 -1.71 19 57.33		
K											-19.80		
((S) - D)					57.9								
a_2													
20 20 K	40 17.9	54 12.8	8.5 8.2	20	44.6 47.9 53.3	20 57.1	0.8	4.5	7.8	11.4	21 42.8 -17.95 -9.4 -3 20 45.36 -1.76 20 43.60		
((S) - D)					48.6						-18.92		
a_1													
				8.0	20 43.7 46.4 49.7	20 58.0	1.6	5.3	8.7	12.2	21 5.16 -18.88 -8.8 -3 20 45.37 -1.72 20 43.65		
K											-19.79		
((S) - D)					46.6								
a_2													
22 21 K	4 41.6	51 31.2	8.7 8.8	21	58.3 0.8 3.7	22 24.0	27.4	30.8	34.4	37.4	22 30.80 -17.95 -8.5 -2 22 11.98 -1.81 22 10.17		
((S) - D)					60.9						-18.82		
a_1													
				8.4	21 57.9 1.3 5.0	22 24.9	28.3	31.6	34.9	38.3	22 31.60 -18.88 -8.0 -2 22 11.90 -1.78 22 10.12		
K											-19.70		
((S) - D)					61.4								
a_2													
22 22 K	47 24.4	50 4.2	8.5 8.9	22	53.9 56.9 59.4	23 9.5	12.5	15.8	19.0	22.3	23 15.82 -17.95 -8.1 -2 22 57.04 -1.84 22 54.20	55.20	
((S) - D)					56.7						-18.78		
a_1													
				8.8	22 57.9 0.6 4.3	23 9.9	13.3	16.6	19.7	23.0	23 16.50 -18.88 -7.7 -2 22 56.83 -1.81 22 55.02		
K											-19.67		
((S) - D)					60.9								
a_2													
23 23 K	40 17.1	52 57.2	8.8 9.1	23	43.0 45.8 48.2	23 58.0	0.9	4.2	7.7	11.0	24 4.16 -17.95 -9.0 -2 23 45.29 -1.79 23 43.50		
((S) - D)					45.7						-18.87		
a_1													
				9.0	23 50.5	23 58.3	1.5	5.4	8.6	12.0	24 5.16 -18.88 -8.5 -2 23 45.41 -1.76 23 43.65		
K											-19.75		
((S) - D)													
a_2													

Runs

	T _m - T	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	8'
d	+24.1 1.38202 9.76146 1.26900 _m	2	7.9	37.6	2 22	18.80	0 29.55 54 44 14.62 -18.58		20	54 43 56.04 - 15 - 25 +12.16 + 57 - 9.60 43 58.77	+12.33
(δ) - D) $\frac{d'}{100}$											
δ ₁											
d	+18.9 1.27646 9.76146 1.16344 _m	2	15.8	38.2	2 22	27.00	0 21.35 54 44 8.55 -14.57		20	43 53.98 - 9 - 27 +12.32 + 57 - 9.70 43 56.81	+12.53
(δ) - D) $\frac{d'}{100}$											
δ ₂											
d	+15.7 1.19590 9.76695 1.08837 _m	3	11.7	34.2	3 33	22.95	29 25.40 54 13 10.47 -12.26		50	54 12 58.21 - 7 - 37 + 11.63 + 52 - 9.60 13 0.32	+11.71
(δ) - D) $\frac{d'}{100}$											
δ ₁											
d	+18.6 1.26951 9.76695 1.16198 _m	3	13.9	34.9	3 33	24.40	29 23.95 54 13 11.15 -14.52		50	12 56.63 - 9 - 37 + 11.50 + 52 - 9.70 12 58.79	+11.86
(δ) - D) $\frac{d'}{100}$											
δ ₂											
d	+29.9 1.47567 9.79383 1.39502 _m	3	52.0	13.7	4 34	28.5	48 45.50 51 32 30.57 -24.83		30	51 32 5.74 - 24 - 44 + 8.95 + 43 - 9.40 32 50.4	+8.70
(δ) - D) $\frac{d'}{100}$											
δ ₁											
d	+30.2 1.48001 9.79383 1.39936 _m	3	54.8	16.8	4 34	56.5	48 42.70 51 32 29.90 -25.08		30	32 4.82 - 25 - 45 + 8.87 + 43 - 9.60 32 3.82	+8.60
(δ) - D) $\frac{d'}{100}$											
δ ₂											
d	+19.1 1.28103 9.80731 1.21386 _m	1	6.7	29.0	1 1	17.85	21 30.50 50 5 15.57 -16.36		0	50 4 59.21 - 10 - 14 + 7.53 + 35 - 9.30 4 57.55	+7.64
(δ) - D) $\frac{d'}{100}$											
δ ₁											
d	+15.6 1.19312 9.80731 1.12595 _m	1	12.7	36.3	1 1	24.50	21 23.85 50 5 11.05 -13.36		0	4 57.69 - 7 - 15 + 7.61 + 35 - 9.50 4 55.93	+7.74
(δ) - D) $\frac{d'}{100}$											
δ ₂											
d	+18.5 1.26717 9.77980 1.17249 _m	3	14.8	35.9	3 8	25.35	14 23.00 52 58 8.07 -14.87		5	52 57 53.20 - 8 - 37 +10.39 + 50 - 9.60 57 54.04	+10.44
(δ) - D) $\frac{d'}{100}$											
δ ₁											
d	+14.7 1.16732 9.77980 1.07264 _m	3	20.8	43.1	3 8	31.95	14 16.40 52 58 3.60 -11.82		5	57 57.78 - 6 - 38 +10.52 + 50 - 9.70 57 52.66	+10.58
(δ) - D) $\frac{d'}{100}$											
δ ₂											

Date₁ = 1875, Aug. 30Observer
RecorderDate₂ = 1875, Aug. 31Observer
Recorder

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Star.	α	δ	Mag.	T_{δ}	T_m	T_a	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
24	57	50	38	8.7	25	12.2	25	21.7	25.0	28.3	31.5	34.8	
24	34.5	38.0	9.2			14.7							
κ						18.8							
$((\delta) - D) \frac{\kappa'}{100}$						15.2				-18.80			
a_1													
				8.7	24	56.9	25	22.6	25.7	29.0	32.6	35.8	
κ						59.3							
$((\delta) - D) \frac{\kappa'}{100}$						1.7							
a_2					25	43.2				-19.68			
						46.0							
						49.9							
						46.4							
26	21	50	30	9.0	26	9.4	26	41.9	45.5	48.6	51.9	54.8	
25	58.6	27.9	9.0			12.8							
κ						15.4							
$((\delta) - D) \frac{\kappa'}{100}$						12.5				-18.81			
a_1													
				8.6	26	25.0	26	42.8	45.9	49.0	52.4	55.7	
κ						27.6							
$((\delta) - D) \frac{\kappa'}{100}$						31.0				-19.68			
a_2						27.9							
39	55	58	36	8.4	39	46.8	40	11.9	15.6	19.0	22.6	26.0	
39	32.7	38.8	8.8			49.6							
κ						52.3							
$((\delta) - D) \frac{\kappa'}{100}$						49.5				-18.92			
a_1													
				9.0	39	42.7	40	13.0	16.5	20.0	23.4	26.8	
κ						46.3							
$((\delta) - D) \frac{\kappa'}{100}$						49.2				-19.78			
a_2						46.1							
41	17	53	9	8.8	41	8.8	41	33.0	36.7	40.0	43.4	47.2	
40	54.0	7.8	8.8			15.0							
κ						17.1							
$((\delta) - D) \frac{\kappa'}{100}$						13.6				-18.91			
a_1													
				8.8									
κ													
$((\delta) - D) \frac{\kappa'}{100}$													
a_2													
42	15	52	47	8.3	42	19.0	42	32.6	36.0	39.3	42.8	46.3	
41	52.2	46.7	9.0			22.3							
κ						24.8							
$((\delta) - D) \frac{\kappa'}{100}$						22.0				-18.89			
a_1													
				8.8	42	6.8	42	33.7	36.9	40.3	43.7	47.3	
κ						10.5							
$((\delta) - D) \frac{\kappa'}{100}$						14.0				-19.74			
a_2						10.3							

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+13.1 1.11727 9.80213 1.04492m	2	8.7	30.9	39.6 21 1480	55 28.55 50 39 13.62 -11.07			25-	50 39 2.53 - 5 - 25 + 8.08 + 38 - 9.40 39 1.29	+8.16
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+29.8 - 17.3 1.28805 9.80213 1.16570	2	37.8	59.2	97.0 2 4800	54 59.85 50 38 47.05 +14.65			25-	37 1.70 - 8 - 31 + 8.18 + 38 - 7.60 39 0.27	+8.17
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+36.0 1.55630 9.80336 1.48518m	4	57.1	19.0	136.1 5 805	47 40.00 50 31 25.37 -30.56			30	50 30 54.81 - 33 - 56 + 7.94 + 37 - 9.40 30 52.81	+7.40
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+21.3 1.32838 9.80336 1.25726m	0	11.2	33.8	45.0 0 2200	47 25.85 50 31 13.05 -18.08			30-	30 54.97 - 12 - 4 + 8.04 + 37 - 9.60 30 53.62	+8.25
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+29.5 1.46982 9.77319 1.36853m	4	33.1	44.0	67.1 4 3355	53 14.80 53 36 59.87 -22.36			25-	53 36 36.51 - 23 - 50 +11.04 + 50 -10.00 36 37.32	+10.81
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+33.8 1.52872 9.77219 1.42763m	4	22.4	43.7	66.1 4 3305	53 15.30 53 37 2.50 -26.77			25-	36 35.73 - 30 - 50 +11.19 + 50 -10.20 36 36.42	+10.89
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+26.5 1.42325 9.77775 1.32672m	2	7.7	28.9	36.6 2 1830	25 30.05 53 9 15.12 -21.22			55-	53 8 53.90 - 18 - 25 +10.68 + 50 -10.00 8 54.65	+10.75
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d		2	8.8	29.7	38.5 2 1925	25 29.10			55-		
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+17.4 1.24055 9.78147 1.14754m	2	56.3	18.1	134.4 3 720	4 41.15 52 48 26.22 -14.04			15-	52 48 12.18 - 8 - 34 +10.23 + 48 -10.00 48 12.34	+10.29
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+30.1 1.47857 9.78147 1.38556m	2	48.9	11.1	120.0 3 800	4 48.35 52 48 35.55 -24.00			15-	48 11.25 - 24 - 33 +10.37 + 48 -10.10 48 11.43	+10.28
$((\delta) - D) \frac{d'}{100}$											
δ_2											

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+31.8 1.50243 9.79367 1.42162m	3	233	68.8	2' 34.40	50 12.95 51 33 59.02 -26.40			30	51 33 37.62 - 27 - 28 + 9.01 + 43 - 9.90 33 32.61	+8.89
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+31.2 1.49415 9.79367 1.41334m	2	249	72.0	2 36.00	50 12.35 51 33 59.55 -25.90			30	33 33.65 - 26 - 29 + 9.12 + 43 - 10.10 33 32.55	+9.00
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+16.4 1.21484 9.77147 1.11180m	3	43.1	106.3	3 53.10	3 55.25 53 47 40.32 -12.94			15	53 47 27.38 - 7 - 43 + 11.22 + 50 - 10.10 47 28.50	+11.22
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+15.7 1.19590 9.77147 1.09289m	3	44.8	111.7	3 58.85	3 52.50 53 47 39.62 -12.38			15	47 27.24 - 7 - 43 + 11.37 + 50 - 10.30 47 28.31	+11.37
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+29.8 1.47422 9.80182 1.40156m	0	19.1	61.7	0 30.85	57 17.50 50 41 2.57 -25.21			25	50 40 37.36 - 24 - 5 + 8.13 + 38 - 9.90 40 35.68	+8.22
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+28.4 1.45032 9.80182 1.38066m	0	22.9	69.6	0 34.80	57 13.55 50 41 0.75 -24.03			25	40 36.50 36.72 - 22 - 6 + 8.23 + 38 - 10.10 40 34.95	+8.33
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+33.2 1.52114 9.79887 1.44553m	1	0.5	23.5	1 11.75	16 36.60 51 0 21.67 -27.90			5	50 59 53.77 - 30 - 13 + 8.44 + 40 - 10.20 59 52.18	+8.41
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+27.8 1.44404 9.79887 1.36843m	1	7.1	37.1	1 18.55	16 29.80 51 0 17.00 -23.06			5	59 53.64 - 20 - 14 + 8.55 + 40 - 10.20 59 52.05	+8.61
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+34.6 1.53908 9.79699 1.46159m	3	43.0	109.4	3 54.70	28 53.65 51 12 38.72 -28.95			50	51 12 9.77 - 32 - 43 + 8.64 + 41 - 10.10 12 7.97	+8.30
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+43.9 1.64246 9.79699 1.56497m	3	38.1	96.9	3 48.45	28 59.90 51 12 47.10 -26.73			50	12 10.37 - 52 - 42 + 8.75 + 41 - 10.20 12 8.39	+8.22
$((\delta) - D) \frac{d'}{100}$											
δ_2											

Date₁ = 1875. Aug. 30Observer
RecorderDate₂ = 1875. Aug. 31Observer
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
1575phae	50	1 50 33	4.5	18 49 59.2	50 22.2	25.3	28.5	31.7	35.0	50	28.54		
	49	36.4	32.0	5.2	1.3						-17.99		
	κ			4.3							-82		
	(δ) - D)	$\frac{\kappa'}{100}$		61.7						-18.83	50	9.71	
	a_1										-1.96	50	7.75
	κ		4.5	50 1.0	50 22.9	26.0	29.5	32.6	35.9	50	29.38		
	(δ) - D)	$\frac{\kappa'}{100}$		4.0							-18.89		
	a_2			6.6						-19.69	50	9.69	
	(δ) - D)	$\frac{\kappa'}{100}$		3.9							-1.93	50	7.76
	a_1												
	51	9 50 25	8.3	51 15.9	51 31.4	34.5	37.7	41.0	44.4	51	37.80		
	50	46.9	24.1	8.8	18.3						-17.99		
	κ			24.7							-82		
	(δ) - D)	$\frac{\kappa'}{100}$		18.3						-18.83	51	18.97	
	a_1										-1.97	51	17.00
	κ		8.2	51 53.8	51 32.3	35.4	38.6	41.8	45.3	51	38.68		
	(δ) - D)	$\frac{\kappa'}{100}$		58.3							-18.89		
	a_2			0.6						-19.69	51	18.99	
	(δ) - D)	$\frac{\kappa'}{100}$		58.2							-1.94	51	17.05
	a_1												
	52	35 50 23	8.5	52 31.0	52 57.3	0.4	3.7	6.9	15.2	53	3.70		
	52	12.4	22.3	8.6	34.4						-18.00		
	κ			37.9							-82		
	(δ) - D)	$\frac{\kappa'}{100}$		34.4						-18.84	52	44.86	
	a_1										-1.97	52	42.89
	κ		8.7	52 25.9	52 57.9	1.0	4.4	7.7	11.0	53	4.40		
	(δ) - D)	$\frac{\kappa'}{100}$		30.0							-18.89		
	a_2			32.3						-19.69	52	44.71	
	(δ) - D)	$\frac{\kappa'}{100}$		29.4							-1.96	52	42.76
	a_1												
	53	47 53 52	8.9	53 47.0	54 6.0	9.6	13.0	16.4	20.0	54	13.00		
	53	24.2	50.5	9.5	50.6						-18.00		
	κ			53.5							-92		
	(δ) - D)	$\frac{\kappa'}{100}$		50.5						-18.95	53	54.05	
	a_1										-1.93	53	52.12
	κ		9.0	53 34.0	54 6.9	10.4	14.0	17.3	20.8	54	13.88		
	(δ) - D)	$\frac{\kappa'}{100}$		36.6							-18.89		
	a_2			39.7						-19.78	53	54.10	
	(δ) - D)	$\frac{\kappa'}{100}$		36.7							-1.90	53	52.19.20
	a_1												
	54	31 50 53	8.3	54 40.3	54 51.8	55.0	58.4	1.6	5.0	54	58.36		
	54	8.3	51.7	8.8	43.4						-18.00		
	κ			45.6							-82		
	(δ) - D)	$\frac{\kappa'}{100}$		43.1						-18.84	54	39.52	
	a_1										-1.98	54	37.54
	κ		7.9	54 35.5	54 52.5	55.9	59.1	2.3	5.7	54	59.10		
	(δ) - D)	$\frac{\kappa'}{100}$									-18.90		
	a_2									-19.70	54	39.40	
	(δ) - D)	$\frac{\kappa'}{100}$									-1.95	54	37.48 ⁵

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+26.8 1.42813 9.80305 1.35670m	2	445	111.6	2' 55.80 32	49 52.55 50 33 37.62 -22.74			30	50 33 14.88 - 19 - 32 + 7.99 + 38 -10.20 33 12.74	+7.86
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+25.5 1.40654 9.80305 1.33511m	2	490	120.1	3 00.5 33	49 48.30 50 33 35.50 -21.63			30	33 13.87 - 17 - 33 + 8.10 + 38 -10.20 33 11.65	+7.98
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+19.5 1.29003 9.80428 1.21983m	0	413	105.0	0 52.50 40	41 55.85 50 25 40.92 -16.59			40	50 25 24.33 - 10 - 10 + 7.86 + 37 -10.10 25 22.26	+8.03
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+40.5 1.60746 9.80428 1.53726m	0	256	74.1	0 37.05 40	42 11.30 50 25 58.50 -24.46			40	25 24.04 - 44 - 7 + 7.97 + 37 -10.20 25 21.67	+7.83
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+29.3 1.46687 9.80443 1.39682m	2	224	66.3	2 33.15 42	40 15.20 50 24 0.27 -24.94			40	50 23 35.23 - 23 - 28 + 7.84 + 37 -10.10 23 32.93	+7.70
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+35.0 1.54407 9.80443 1.47402m	2	182	58.7	2 29.85 42	40 18.50 50 24 5.70 -29.77			40	23 35.91 - 33 - 27 + 7.95 + 37 -10.20 23 33.43	+7.72
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+22.5 1.85218 9.77026 1.24796m	2	67	34.2	2 17.10 12	10 31.25 53 54 16.32 -17.70			10	53 53 58.62 - 14 - 27 +11.34 + 50 -10.30 53 59.75	+11.43
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+37.1 1.56937 9.77026 1.46515m	1	379	137.3	2 8.65 12	10 39.70 53 54 26.90 -27.18			10	53 57.72 - 36 - 25 +11.50 + 50 -10.50 53 58.61	+11.39
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+15.3 1.18469 9.79996 1.11017m	2	425	108.2	2 54.10 12	9 54.25 50 53 39.32 -12.89			10	50 53 26.43 - 6 - 34 + 8.33 + 40 -1.23 53 24.56	+8.33
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+23.6 1.37291 9.79996 1.29839m	2	380	98.9	2 49.45 12	9 58.70 50 53 46.10 -19.88			10	53 26.22 - 15 - 33 + 8.44 + 40 -10.30 53 24.28	+8.36
$((\delta) - D) \frac{d'}{100}$											
δ_2											

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Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+12.2 1.08636 9.78013 0.99201 _m	0	55.0	131.9	181 595	121 42.40 52 56 27.47 -9.82			10	52 58 17.65 - 4 10.69 - 12 +10.35 + 50 -1030	56 8.90 - 13 - 8 +10.87 + 30 -1080
(8) - D	-22.4 1.35025 9.78013 1.25590	0	31.9	85.1	0 10	12 5.80 52 55 50.87 +18.03			10		
δ_1	+19.0 1.27875 9.78013 1.18440 _m	0	52.2	126.3	1 11	11 45.20 52 55 32.40 -15.29			10	55 17.11 - 9 10.80 - 11 +10.50 + 50 -1058	56 37.36 - 2 - 53 +10.50 + 50 -1050
d	+9.0 0.95424 9.78013 0.85989 _m	4	40.5	101.9	4 9	12 57.40 52 56 44.60 - 7.24			5		
(8) - D	+14.6 1.16435 9.78048 1.09476 _m	4	42.2	105.6	4 44	37 55.55 50 21 40.62 -12.44			40	50 21 28.18 - 6 - 54 +7.80 + 37 -1020	
δ_1	+11.4 1.05690 9.78048 0.98731 _m	4	47.1	116.9	4 44	37 49.90 50 21 37.10 - 7.71			40	21 27.39 - 3 - 55 +7.91 + 37 -1040	
d	+29.7 1.47270 9.77694 1.37522 _m	0	40.4	101.2	0 50	31 57.75 53 15 42.82 -25.73			50	53 15 19.09 - 23 - 9 +10.67 + 60 -1040	
(8) - D	+33.4 1.52375 9.77694 1.42621 _m	0	39.0	99.9	0 50	31 58.40 53 15 45.60 -26.68			50	15 18.92 - 29 - 9 +10.84 + 50 -1060	
δ_2	+75.8 1.19866 9.79099 1.11817 _m	0	95	41.7	0 35	47 27.50 51 31 12.57 -13.13			35	51 30 59.44 - 7 - 3 +8.97 + 43 -1030	
d	+9.1 0.95904 9.79099 0.87855 _m	0	18.1	59.9	0 35	47 18.40 51 31 6.60 -7.56			35	30 59.04 - 2 - 5 +9.10 + 43 -1050	
(8) - D	+27.9 1.44560 9.78027 1.36209 _m	0	5.5	32.4	0 15	7 32.15 52 51 17.22 -23.02			15	52 50 54.20 - 21 - 3 +10.30 + 49 -1040	
δ_1	+40.4 1.60638 9.78097 1.51287 _m	4	57.2	136.3	5 15	7 40.20 52 51 27.40 -32.57			10	50 54.83 - 43 - 56 +10.43 + 49 -1060	

Date₁ = 1875. Aug. 30Observer W.A.R.
Recorder J.F.M.Date₂ = 1875. Aug. 31Observer W.A.R.
Recorder J.F.M.

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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
2	17	52	43	8.4	19	2	13.7	2	33.4	36.7	46.2	43.5	47.0
1	32.4	41.9	8.9				17.5						
κ							19.9						
$((\delta) - D) \frac{\kappa'}{100}$							17.0			- 18.92			
a_1													
κ				8.5	2	53	2	34.2	37.5	40.9	44.5	48.0	
$((\delta) - D) \frac{\kappa'}{100}$							8.4						
a_2							11.2			- 19.75			
κ													
$((\delta) - D) \frac{\kappa'}{100}$													
a_1													
3	0	54	30	8.5									
2	37.4	20.0	8.3										
κ													
$((\delta) - D) \frac{\kappa'}{100}$													
a_2													
κ													
$((\delta) - D) \frac{\kappa'}{100}$													
a_1													
4	4.2	53	10	8.0									
4	19.1	10.2	7.8										
κ													
$((\delta) - D) \frac{\kappa'}{100}$													
a_1													
κ													
$((\delta) - D) \frac{\kappa'}{100}$													
a_1													
κ													
$((\delta) - D) \frac{\kappa'}{100}$													
a_2													
κ													
$((\delta) - D) \frac{\kappa'}{100}$													
a_2													
κ													
$((\delta) - D) \frac{\kappa'}{100}$													
a_1													
κ													
$((\delta) - D) \frac{\kappa'}{100}$													
a_2													
κ													
$((\delta) - D) \frac{\kappa'}{100}$													
a_1													
κ													
$((\delta) - D) \frac{\kappa'}{100}$													
a_2													

Single Observations

Aug. 30
1875Aug. 30
1875

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+23.2 1.36549 9.78213 1.27314	2	18.1	57.3	28.65	0	19.70		20	52 43 46.02	
$((\delta) - D) \frac{d'}{100}$					22	52 44	4.77			- 14	+10.26
δ_1							-18.75			- 27	
										+10.18	
										+ 49	
										-10.40	
										43 45.88	
d	+32.7 1.51455 9.78213 1.42220	2	12.5	47.1	23.55	0	24.80		20	43 45.56	
$((\delta) - D) \frac{d'}{100}$					22	52 44	12.00			- 28	+10.26
δ_2							-26.44			- 26	
										+10.31	
										+ 49	
										-10.60	
										43 45.22	
d											
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d		1	10.7	43.8	21.90	46	26.45		35		
$((\delta) - D) \frac{d'}{100}$			33.1	36							
δ_2											
d		1	2.5	28.6	14.30	26	34.05		55		
$((\delta) - D) \frac{d'}{100}$			36.1	56							
δ_1											
d		4	36.8	92.9	46.45	38	1.90		40		
$((\delta) - D) \frac{d'}{100}$			56.1	44							
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 = 1875, Sept. 1
n = -1.62Observer W.A.R.
Recorder J.T.M.Date₂ = 1875, Sept. 4
n = -1.60Observer W.A.R.
Recorder J.T.M.

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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
17	53 49 59	9.0	18	18	11.7	18 10.3	13.5	16.6	19.8	22.9	18	16.62	
17	53 49 59	8.8	18	18	15.2							-19.60	
					18.0							-74	
(8) - D					14.9					-20.36		-2	
α_1											17	56.26	
											17	-1.76	
											17	53.50	54.50
α_2													
18	53 49 59	8.5	18	18	10.6	18 18.0	21.3	24.5	27.5	31.0	18	24.44	
18	53 49 59		18	18	13.4							-22.21	
					16.2							-72	
(8) - D					13.4					-22.95		-2	
α_2											18	1.49	
											17	-1.67	
											17	59.82	
19	11 52 18	9.0	23	19	1.0	19 31.4	35.0	38.5	42.2	45.3	19	38.54	
18	488	18.0	9	19	5.0	19 32.2	35.8	39.2	42.8	45.3		-19.60	
18	488			19	5.3							-79	
(8) - D					5.9					-20.41		-2	19 18.13
α_1					19 5.0	19 32.2	35.8	39.2	42.8	45.8	19	39.16	
					5.3							-19.60	
					1.0							-79	19 17.31
					5.7					-20.41		-2	19 18.75
α_2					19 3.0	19 34.0	37.4	41.0	44.5	47.6	19	40.70	
					7.0							-22.21	
					10.0					-23.00		-77	19 17.03
(8) - D					8.9	19 34.4	38.0	41.4	45.0	48.1	19	-2	19 17.90
α_2					19 5.8	19 34.4	38.0	41.4	45.0	48.1	19	41.35	
					0.2							-22.21	
					3.6					-23.00		-77	19 16.27
					6.2						19	-2	19 18.38
21	52 49 57	9.3	21	33.4	21 38.4	41.6	44.7	48.2	51.4	21	44.86	-6.30	
21	29.2	56.2	9.2									-19.60	
21	29.2											-74	19 16.75
(8) - D										-20.36		-2	
α_1											21	24.50	
											21	-78	
											21	22.72	
22	52 49 57	9.0	21	52.4	22 19.4	22.7	25.8	29.0	32.3	22	25.84	-22.21	
22	52.4			53.0								-72	
				53.5						-22.95		-2	
(8) - D					53.0	52.9					22	2.89	
α_2											22	-1.69	
											22	1.20	
23	35 52 40	8.7	23	35.6	23 53.9	54.2	0.8	4.2	7.7	24	0.76	-19.60	
23	12.2	29.2	8.6	38.6								-81	
23	12.2			41.4								-2	
(8) - D					38.5					-20.43			
α_1											23	40.33	
											23	-1.74	
											23	38.59	
23	35 52 40	8.7	23	39.8	23 56.6	59.9	3.4	6.8	10.3	24	3.40	-22.21	
23	39.8			42.5								-78	
				45.1						-23.01		-2	
(8) - D					42.5						23	40.39	
α_2											23	-1.64	
											23	38.75	
24	29 54 48	7.5	24	27.0	24 45.3	49.0	32.6	56.0	59.8	24	52.58	-19.60	
24	6.9	47.8	7.2	30.1								-81	
24	6.9			33.0								-2	
(8) - D					30.0					-20.50			
α_1											24	32.08	
											24	-1.70	
											24	30.38	
24	29 54 48	7.4	24	27.4	24 47.9	51.5	55.0	58.4	2.3	24	55.08	-22.21	
24	27.4			30.6								-84	
				33.5						-23.08		-3	
(8) - D					30.5						24	32.00	
α_2											24	-1.60	
											24	30.40	

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
Sept. 1	-16'	13.32	-11								
" 4	-16	14.38	-11								
d	+1.7	1 23.1	46.7	69.8	1 34.90	16 13.45	50 0.13	0	0	58.67	✓ see stroke
($\delta - D$) $\frac{d'}{100}$	0.23045 9.80807 0.16404m				6	50 1.46			✓	50 58.67 50 0 -17 +7.67 +35 49.59-9.40 50 59 57.02	+7.75
δ_1											
d	+11.0	1 4.9	29.2	34.1	1 17.05	16 31.30	50 0 16.92	5	50	0 7.48	✓ +7.45
($\delta - D$) $\frac{d'}{100}$	1.04139 9.80807 0.97498m				6	-7.44				-3 -14 +7.27 +35 -9.80	
δ_2											
d	+19.6	3 56.9	17.9	134.8	4 7.40	33 40.95	52 17 27.63	45	52	17 43.63	16 56.44
($\delta - D$) $\frac{d'}{100}$	1.29226m 9.78642 1.20420 +38.2m				49	+16.00-31.19				17 27.89 17 10 +9.86 39 +9.52 2H 17 46 -4.05	
δ_1	1.58206 9.78642 1.49400m	3 35.0	46.9	71.9	3 25.95	34 12.40	52 17 59.08	45	52	17 46 +9.70 +9.90 +46 +46 -9.70 -9.70	
d	-19.38	3 56.9	18.9	135.8	4 7.90	33 40.45	52 17 26.07	45	52	17 43.63	16 56.26
($\delta - D$) $\frac{d'}{100}$	1.28556m 9.78642 1.19750 +34.7	3 32.9	44.7	67.6	3 33.80	+15.76 -28.33 2H				17 31.84 17 10 9.43 31 +9.28 2H 17 46 +9.52 +9.52 2H +46 +46 -10.00 -10.00	
δ_2	1.54033 9.78642 1.45227m				48	-28.33 +15.76 1H				18 15.42 17 40.26 16 31.12 16 56.96	
d	+11.5	3 13.9	37.2	51.1	3 25.65	14 22.80	49 58 9.48	5	49	56 59.60	✓ +7.50
($\delta - D$) $\frac{d'}{100}$	1.06070 9.80852 0.99474m				8	-7.88				-3 +37 +7.55 +35 -9.60 57 57.50	
δ_1											
d	+32.8	4 22.8	45.8	68.6	4 34.20	13 14.05	49 56 59.67	5	56	31.49	✓ +6.79
($\delta - D$) $\frac{d'}{100}$	1.51587 9.80852 1.44991m				9	-28.18				-29 -50 +7.23 +35 -9.90 56 28.38	
δ_2											
d	+22.3	1 23.6	44.2	66.8	1 33.40	56 14.95	52 40 1.63	25	52	39 43.57	+10.45
($\delta - D$) $\frac{d'}{100}$	1.34830 9.78280 1.25662m				26	-18.06				-13 -17 +10.27 +48 -9.80 39 44.22	
δ_1											
d	+20.9	1 22.0	44.0	66.0	1 33.00	56 15.35	52 40 0.97	25	52	39 44.05	+10.08
($\delta - D$) $\frac{d'}{100}$	1.32015 9.78280 1.22847m				26	-16.92				-12 -17 +9.89 +48 -10.20 39 43.93	
δ_2											
d	+22.6	2 49.3	11.1	120.6	3 0.30	4 48.05	54 48 34.73	15	54	48 17.34	+12.58
($\delta - D$) $\frac{d'}{100}$	1.35411 9.76075 1.27038m				18	-17.37				-14 -33 +12.47 +58 -10.00 48 19.92	
δ_1											
d	+24.6	2 44.7	9.9	112.6	3 56.80	4 52.05	54 48 37.67	15	48	18.74	+12.09
($\delta - D$) $\frac{d'}{100}$	1.39074 9.76075 1.27721m				17	-18.93				-16 -32 +11.99 +58 -10.00 48 20.43	
δ_2											

Date₁ = 1875, Sept. 1Observer
RecorderDate₂ = 1875, Sept. 4Observer
Recorder

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1875phae.

Star.	α	δ	Mag.	T_s	T_m	T_e	T_r	T_g	T_h	Sum	Mean	Red. to T_m	T				
1	25	32	54	57	9.1	18	25	23.1	25	49.0	52.6	56.1	59.7	3.3	25	56.14	
	25	9.7	57.2	9.2				26.6								- 19.60	
	κ							30.1								- 8.8	
	(S) - D	κ'						26.6				- 20.51			25	35.63	
	α_1														25	33.94	
					9.1		26	45.5	25	51.5	55.2	58.8	2.2	6.0	25	58.74	
	κ							44.8								- 22.21	
	(S) - D	κ'						25	27.6			- 23.09			25	35.65	
	α_2							31.0								- 1.60	
								34.7							25	34.05	
								37.1									
	26	40	55	5	8.8		26	45.5	27	4.3	8.0	11.6	15.4	18.8	27	11.62	
	26	26.2	5.3	9.1				48.0								- 19.60	
	κ							51.9								- 8.8	
	(S) - D	κ'						48.5				- 20.51			26	51.11	
	α_1														26	49.41	
					9.0		26	41.2	27	6.8	10.5	14.0	17.8	21.2	27	14.06	
	κ							44.7								- 22.21	
	(S) - D	κ'						44.5				- 23.10			26	50.96	
	α_2															- 1.60	
															26	49.36	
	27	13	55	4	9.2		27	51.7	27	43.8	47.4	51.0	54.8	58.3	27	51.06	
	26	48.7	8.2	9.0												- 19.60	
	κ															- 8.8	
	(S) - D	κ'										- 20.51			27	30.55	
	α_1															- 1.70	
															27	28.85	
	26	48.7	55	32	8.4		27	41.7	27	28.7	32.0	35.7	39.2	43.0	27	35.72	
	κ							44.8								- 22.21	
	(S) - D	κ'						48.0				- 23.10			27	12.62	
	α_2							44.8								- 1.60	
															27	11.02	
	28	13	53	6	9.2		28	41.0	28	32.0	35.6	39.0	42.7	46.0	28	39.06	
	27	49.6	6.5	9.1				43.9								- 19.61	
	κ							47.3								- 8.2	
	(S) - D	κ'						44.0				- 20.46			28	18.60	
	α_1															- 1.75	
															28	16.88	
					9.0		28	24.1	28	34.5	38.0	41.4	44.8	48.3	28	41.40	
	κ							38.0								- 22.21	
	(S) - D	κ'						33.0				- 23.04			28	18.36	
	α_2							30.0								- 1.66	
															28	16.70	
	29	5	54	42	8.7		29	10.7	29	21.5	24.9	28.5	32.0	35.7	29	35.52	
	28	42.3	41.4	9.0				13.7								- 19.61	
	κ							16.7								- 8.7	
	(S) - D	κ'						13.7				- 20.51			29	8.01	
	α_1															- 1.72	
															29	6.29	
					9.1		29	14.0	29	23.9	27.4	31.0	34.5	38.1	29	30.98	
	κ							16.8								- 22.21	
	(S) - D	κ'						20.2				- 23.08			29	7.90	
	α_2							17.0								- 1.62	
															29	6.28	

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	8'
d	+29.5 6.46982 9.75895 1.35429 _m	3	212	43.0	64.2 3 32.10 8	14 16.25 54 58 2.93 -22.61			5-	54 57 40.32 - 22 - 39 +12.64 + 60 -10.00 57 42.95	+12.63
(8) - D $\frac{d'}{100}$											
δ_1											
d	+27.6 1.44091 9.75895 1.32538 _m	3	202	43.1	63.3 3 31.65 8	14 16.70 54 58 2.32 -21.15			5-	57 41.17 - 20 - 38 +12.16 + 60 -10.40 57 42.95	+12.18
(8) - D $\frac{d'}{100}$											
δ_2											
d	+23.1 1.36361 9.75769 1.24682 _m	0	595	21.1	140.6 1 10.30 1	21 38.05 55 5 24.73 [6] 17.65			0	55 56 7.08 - 14 - 13 +12.78 + 60 -10.10 6 10.09	+13.11 no stroke
(8) - D $\frac{d'}{100}$											
δ_1											
d	+29.6 1.47129 9.75769 1.35450 _m	4	516	14.2	125.8 5 2.90 0	22 45.45 55 6 31.07 -22.62			55	6 8.43 - 23 - 55 +12.29 + 60 -10.50 6 10.06	+12.11
(8) - D $\frac{d'}{100}$											
δ_2											
d	-0.6 9.77815 _m 9.75805 9.66172	2	586	19.9	138.5 3 9.25	19 39.10 55 3 25.78 + 0.46			0	55 3 26.24 - 0 - 34 +12.73 + 60 -10.10 3 29.13	+12.99
(8) - D $\frac{d'}{100}$											
δ_1											
d	-9.1 0.95904 _m 9.75805 0.84261	2	463	8.9	115.2 2 57.60	19 50.75 55 3 36.37 + 6.26			0	3 43.33 - 2 - 33 +12.26 + 60 -10.50 3 45.34	+12.51
(8) - D $\frac{d'}{100}$											
δ_2											
d	-49. 0.69020 _m 9.77879 0.59451	2	30	24.5	275 2 13.75	20 34.60 53 4 21.28 + 3.93			0	53 4 25.27 - 1 - 24 +10.70 + 50 -10.00 4 26.16	+10.95
(8) - D $\frac{d'}{100}$											
δ_1											
d	+11.4 1.05690 9.77879 0.96121 _m	1	473	10.8	118.1 1 58.05	20 49.30 53 4 34.92 - 9.15			0	4 25.77 - 3 - 22 +10.27 + 50 -10.40 4 25.89	+10.52
(8) - D $\frac{d'}{100}$											
δ_2											
d	+14.8 1.17026 9.76182 1.05760 _m	4	133	34.2	46.5 4 23.25 24	58 25.10 54 42 11.78 -11.42			20	54 42 0.36 - 6 - 48 +12.37 + 57 -10.16 42 2.66	+12.40
(8) - D $\frac{d'}{100}$											
δ_1											
d	+14.0 1.14613 9.76182 1.03347 _m	4	106	33.0	43.6 4 21.50 24	58 26.55 54 42 12.17 -10.80			20	42 1.37 - 5 - 48 +11.89 + 57 -10.50 42 2.80	+11.93
(8) - D $\frac{d'}{100}$											
δ_2											

Date₁ = 1875, Sept. 1Observer
RecorderDate₂ = 1875, Sept. 4Observer
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
153	30 29 κ	1 55 5	8.6 8.9 3.7	15 30 4.8 7.8 4.4	30 14.3	19.9	21.4	25.2	28.7	30 30 29	21.50 -19.61 -88 -3 0.98 -1.72 59.26		
	(8) - D $\frac{\kappa'}{100}$												
	α_1												
	κ		8.7	30 4.8 7.2 10.6 7.5	30 16.7	20.3	24.1	27.6	31.1	30 30 29	23.96 -22.21 -86 -3 0.86 -1.62 59.24		
	(8) - D $\frac{\kappa'}{100}$												
	α_2												
	31 80 κ	12 49 51	8.0 8.4 50.2	31 9.3 10.8 12.3 9.9	31 35.9	39.0	42.0	45.3	48.7	31 31 31	42.18 -19.61 -74 -2 21.81 -1.83 19.98		
	(8) - D $\frac{\kappa'}{100}$												
	α_1												
	κ		8.2	31 10.4 14.5 17.5 14.2	31 38.3	41.5	44.7	47.9	51.2	31 31 31	44.72 -22.21 -72 -2 21.77 -1.74 20.03		
	(8) - D $\frac{\kappa'}{100}$												
	α_2												
	43 43 κ	59 54 9	9.0 9.3 8.4	43 29.7 32.0 34.4 32.0 17.8	44 5.7	9.3	12.6	16.7	19.7	44 44 44	12.80 -19.62 -85 -3 26.06 -19.62 -85 -3 52.30 -1.81 50.49		
	(8) - D $\frac{\kappa'}{100}$												
	α_1												
	κ		9.0	43 32.8 36.3 40.9 36.7	44 8.3	11.8	15.3	19.0	22.2	44 44 44	15.32 -22.22 -83 -3 28.50 -22.22 -83 -3 52.24 -1.72 50.52		
	(8) - D $\frac{\kappa'}{100}$												
	α_2												
	45 44 κ	2 53 52	9.0 9.3 50.7	45 2.2 5.2 8.0 5.1	45 20.7	24.0	27.4	31.0	34.4	45 45 45	27.50 -19.62 -84 -3 7.01 -1.82 5.22 19		
	(8) - D $\frac{\kappa'}{100}$												
	α_1												
	κ		8.9	45 4.7 9.0 11.5 8.4	45 23.2	26.6	30.0	33.7	37.2	45 45 45	30.14 -22.22 -81 -3 7.08 -1.73 5.35		
	(8) - D $\frac{\kappa'}{100}$												
	α_2												
	46 46 κ	56 54 19	8.4 8.7 18.2	46 39.3 42.5 45.9 42.6	47 13.4	17.0	20.7	24.2	27.8	47 47 47	20.62 -19.62 -85 -3 0.12 -1.82 58.30		
	(8) - D $\frac{\kappa'}{100}$												
	α_1												
	κ		8.5	46 50.3 53.3 56.6 53.4	47 16.0	19.6	23.0	26.7	30.3	47 47 47	23.12 -22.23 -83 -3 0.03 -1.73 58.30		
	(8) - 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	8'
d	+17.1 1.23200 9.76875 1.11657m	2 54.9	17.0	131.9	3 5.95	19 42.40 55 3 29.08 -13.08			0	55 3 16.00 - 7 +12.92 - 34 +12.73 + 60 -10.20 3 18.72	
(8) - D $\frac{d'}{100}$											
δ_1											
d	+16.5 1.21748 9.76875 1.10105m	2 54.1	15.9	130.0	3 5.00	19 43.35 55 3 28.97 -12.62			0	3 16.35 - 7 +12.44 - 34 +12.25 + 60 -10.60 3 18.19	
(8) - D $\frac{d'}{100}$											
δ_2											
d	+32.0 1.50920 9.80942 1.44414m	4 55.9 41	29.4	125.3	5 2.65 14 57.65	7 45.70 49 51 32.38 -27.80			10	49 51 4.58 - 29 - 35 +7.43 + 35 -9.80 51 8.72 5 5.48 - 25 - 53 +7.13 + 35 -10.20 51 8.96	✓ Micro. C should be 19.4 which would give 51 9.58
(8) - D $\frac{d'}{100}$											
δ_1											
d	+30.5 1.48400 9.80492 1.41474m	4 55.1 4	9.9	115.0	14 57.50 57.50	7 50.85 49 51 36.47 -25.97			10	51 5.48 - 25 - 53 +7.13 + 35 -10.20 51 8.96	✓ +6.68
(8) - D $\frac{d'}{100}$											
δ_2											
d	+40.8 1.61066 9.76782 1.50400m +8.3 0.91908 9.76782 0.81242m	2 29.2	48.9	76.1	2 38.05 57	25 10.30 54 8 56.98 -31.92 - 6.49			53	54 8 25.06 - 43 - 29 +11.80 + 51 -10.50 8 26.15 8 50.49 - 2 +12.00 - 29 +11.80 + 51 -10.50 8 57.99	
(8) - D $\frac{d'}{100}$											
δ_1											
d	+38.6 1.58659 9.76782 1.47993m +4.4 0.64045 9.76782 0.53679m	2 26.2	48.3	74.5	2 37.25 57	25 11.10 54 8 56.72 -30.19 - 3.44			53	8 26.53 - 39 - 29 +11.33 + 51 -10.90 8 26.79 8 53.28 - 1 - 29 +11.33 + 51 -10.90 8 53.92	+11.54
(8) - D $\frac{d'}{100}$											
δ_2											
d	+22.4 1.35025 9.77061 1.24638m	4 5.8	26.7	32.5	4 16.25 14	8 32.10 53 52 18.78 -17.64			10	53 52 1.14 - 13 - 47 +11.52 + 50 -10.50 52 2.06	+11.42
(8) - D $\frac{d'}{100}$											
δ_1											
d	+21.7 1.33646 9.77061 1.23259m	4 3.9	24.9	28.6	4 14.30 14	8 34.05 53 52 19.67 -17.08			10	52 2.59 - 12 - 46 +11.09 + 50 -10.90 52 2.70	+11.01
(8) - D $\frac{d'}{100}$											
δ_2											
d	-22.0 1.34242m 9.76590 1.23384	2 9.9	29.0	36.9	2 18.45 47	35 29.90 54 19 16.58 +17.13			43	54 19 33.71 - 13 - 25 +12.00 + 53 -10.50 19 35.36	+12.15
(8) - D $\frac{d'}{100}$											
δ_1											
d	+29.7 1.47276 9.76590 1.36418m	1 24.9	46.7	71.6	1 35.80 46	36 12.55 54 19 58.17 -23.13			43	19 35.04 - 23 - 18 +11.53 + 53 -11.00 19 35.69	+11.65
(8) - D $\frac{d'}{100}$											
δ_2											

Date₁ = 1875. Sept. 1Observer
RecorderDate₂ = 1875. Sept. 4Observer
Recorder

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Run

Star.	α	δ	Mag.	T_s	T_m	T_o	T_r	T_g	T_h	Sum	Mean	Red. to T_m	T
47	41	54 9	7.0	18	48 186	47 59.3	2.9	6.1	9.8	13.5	48	6.32	
47	18.9	8.7	7.5		21.6							-17.62	
					25.6					-20.50		-85	
(δ) - D	κ'				21.9						47	45.82	
α_1											47	-1.83	
											47	43.99	
			7.0		47 57.2	48 1.8	5.3	8.9	12.3	15.9	48	8.84	
κ					54.6							-22.23	
(δ) - D	κ'				57.2					-23.09		-83	
α_2					54.3						47	45.75	
											47	-1.73	
											47	44.02	
48	51	54 57	8.8	48	49.2	49 9.6	13.2	16.7	20.2	23.9	49	16.72	
48	28.8	56.0	8.6		52.3							-19.62	
(δ) - D	κ'				55.9					-20.53		-88	
α_1					52.5						48	56.19	
											48	-1.82	
											48	54.38	
			8.5		48 52.3	49 12.0	15.7	19.2	22.8	26.3	49	19.24	
κ					55.4							-22.23	
(δ) - D	κ'				58.8					-23.12		-86	
α_2					55.5						48	56.12	
											48	-1.72	
											48	54.40	
50	17	54 43	8.0	50	1.8	50 34.4	38.0	41.6	44.6	48.0	50	41.32	
49	54.8	42.5	8.5		4.0							-19.62	
(δ) - D	κ'				8.3					-20.52		-87	
α_1					4.7						50	52.00	50 20.80
			8.0		50 22.0	50 45.2	48.4	51.9	55.3	58.9	50	-19.62	50 18.97
	4.8	54 42.6			24.6					-20.52		-84	
					27.4						50	31.48	
					24.7						50	-1.83	
			8.4		50 4.2	50 36.8	40.3	44.0	47.0	50.8	50	43.78	
κ					6.7							-22.23	50 29.65
(δ) - D	κ'				10.2					-23.10		-84	
α_2					7.00						50	20.68	
			8.5		50 25.3	47.5	51.3	54.2	57.8	6.3		-22.23	50 18.94
					28.4					-23.10		-84	
					31.3						50	31.32	
					28.3						50	-1.74	
51	56	54 55	8.3	51	51.9	52 13.4	16.9	20.5	24.1	27.7	52	20.52	
51	33.8	54.1	8.8		54.0							-19.62	50 29.58
(δ) - D	κ'				57.0					-20.54		-88	
α_1					54.0						51	59.94	
											51	-1.84	
											51	58.14	
			8.7		51 51.5	52 15.8	19.4	23.0	26.6	30.3	52	23.02	
κ					55.1							-22.23	
(δ) - D	κ'				58.3					-23.12		-86	
α_2					55.0						51	59.90	
					54.9						51	-1.74	
											51	58.16	
53	25	55 8	8.7	53	15.5	53 42.6	46.0	49.6	53.2	56.9	53	49.66	
53	2.5	7.0	8.8		18.6							-19.62	
(δ) - D	κ'				21.6					-20.54		-88	
α_1					18.6						53	29.12	
											53	-1.84	
											53	27.28	
			8.8		53 15.5	53 45.3	4			59.6	53	52.45	
κ					18.6			52.5				-22.23	
(δ) - D	κ'				21.5			52.4		-23.12		-86	
α_2					18.5						53	29.33	
											53	-1.74	
											53	27.59	

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'	
d	-15.6 7.19312 9.76765 1.08629	2 243	46.0	703	2' 3675 57	25 13.20 54 8 59.88 +12.20			53-	54 9 12.08 - 7 - 29 +11.82 + 52 -10.60 9 13.46	+11.98	
(δ) - D $\frac{d'}{100}$												
δ_1												
d	+14.5 1.16137 9.76765 1.05454m	1 58.2	20.1	138.3	2 915 57	25 39.20 54 9 24.82 -11.84			53-	9 13.48 - 5 - 23 +11.35 + 52 -11.00 9 14.07	+11.59	
(δ) - D $\frac{d'}{100}$												
δ_2												
d	+24.2 1.38382 9.75913 1.26847m	3 54.0	15.2	139.2	4 460 9	13 43.75 54 57 30.43 -18.56			5-	54 57 11.87 - 15 - 45 +12.64 + 60 -10.70 57 13.81	+12.64	
(δ) - D $\frac{d'}{100}$												
δ_1												
d	+23.7 1.37475 9.75913 1.25940m	3 51.6	13.0	124.6	4 230 9	13 46.05 54 57 31.67 -18.17			5-	57 13.80 - 15 - 44 +12.15 + 60 -11.10 57 14.56	+12.16	
(δ) - D $\frac{d'}{100}$												
δ_2												
d	+36.6 1.56348 9.76146 1.45046m	2 4.0	25.5	29.5	2 14.75 22	0 33.60 54 44 20.28 -28.21			2.0	54 43 52.07 - 35 - 24 +12.41 + 57 -10.60 43 53.86	43 59.24 19 - 24 +12.41 + 57 -10.60 44 1.19	+12.55
(δ) - D $\frac{d'}{100}$												
δ_1												
d	+27.3 1.43616 9.76146 1.32314m	2 4.0	25.5	29.5	2 14.75 22	0 33.60 54 44 20.28 -21.04			2.0			
(δ) - D $\frac{d'}{100}$												
δ_2												
d	+36.8 1.56585 9.76146 1.45283m	2 1.5	23.4	24.9	2 12.45 22	0 35.90 54 44 21.52 -28.37			2.0	43 53.15 - 35 - 24 +11.93 + 57 -11.10 43 53.96	44 1.40 - 18 - 24 +11.93 + 57 -11.10 44 2.38	+12.08
(δ) - D $\frac{d'}{100}$												
δ_1												
d	+26.1 1.41664 9.76146 1.30362m	2 1.5	23.4	24.9	2 12.45 22	0 35.90 54 44 21.52 -20.12			2.0			
(δ) - D $\frac{d'}{100}$												
δ_2												
d	+26.5 1.42325 9.75931 1.30808m	0 3.1	24.5	27.6	0 13.80 10	12 34.55 54 56 21.23 -20.33			1.0	54 56 0.70 - 18 - 2 +12.62 + 57 -10.70 56 3.21	+13.01	
(δ) - D $\frac{d'}{100}$												
δ_1												
d	+28.0 1.44716 9.75931 1.33199m	4 59.1	20.2	139.3	5 9.65 10	12 38.70 54 56 24.32 -21.48			5-	54 2.84 - 20 - 57 +12.13 + 57 -11.20 56 3.59	+11.95	
(δ) - D $\frac{d'}{100}$												
δ_2												
d	+31.1 1.49226 9.75714 1.37542m	3 21.5	42.1	63.6	3 31.80 58	24 16.55 55 8 3.23 -23.74			53-	55 7 39.99 - 25 - 39 +12.84 + 60 -10.70 7 41.59	+12.80	
(δ) - D $\frac{d'}{100}$												
δ_1												
d	+34.0 1.53148 9.75714 1.41414m	3 15.9	23.5	53.4	3 26.70 58	24 21.65 55 8 7.27 -25.95			53-	7 41.32 - 30 - 38 +12.34 + 60 -11.20 7 42.38	+12.26	
(δ) - D $\frac{d'}{100}$												
δ_2												

Date₁ = 1875. Sept. 1

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Observer
Recorder

Date₂ = 1875, Sept. 4

Observer
Recorder

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Runs

[illegible]

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+31.4 1.49693 9.75841 1.38086m	4	26.9	47.4	74.3	4' 37.5	18 11.20 55 1 57.88 -24.04		0	55	+32.84 -25 -51 +12.73 +60 -10.80 1 3.561
(δ) - D) $\frac{d'}{100}$											+12.57
δ_1											
d	+23.3 1.36736 9.75841 1.25129m	4	29.1	50.5	79.6	4 39.80	18 8.55 55 1 54.17 -17.84		0	1	+36.33 -14 -51 +12.24 +60 -11.30 1 3.722
(δ) - D) $\frac{d'}{100}$											+12.19
δ_2											
d	+26.0 1.41497 9.77592 1.31641m	0	1.8	22.7	24.5	0 12.25	37 36.10 53 21 22.78 -20.72		45	53	21 2.06 -18 -2 +11.01 +50 -10.70 21 2.67
(δ) - D) $\frac{d'}{100}$											+11.31
δ_1											
d	+28.3 1.45179 9.75592 1.33323m	4	57.6	18.5	136.1	5 50.5	37 40.30 53 21 25.92 -21.54		40	21	4.38 -21 -56 +10.58 +50 -11.20 21 3.49
(δ) - D) $\frac{d'}{100}$											+10.31
δ_2											
d	+0.4 9.60206 9.76182 9.48940m -17.1 1.23300m 9.76218 1.12070	4	37.7	58.3	95.9	4 47.95	58 0.40 54 41 47.08 -0.34		20	54	41 45.79 -4 -53 +12.39 +57 -10.80 41 45.22 48.40
(δ) - D) $\frac{d'}{100}$											+12.66
δ_1											
d	+6.4 0.80618 9.76182 0.69352m +13.0 1.11394 9.76218 1.00164m	4	36.9	57.3	82.2	4 41.10	58 7.25 54 41 52.87 -4.94		20	41	47.93 -1 -52 +11.91 +57 -11.30 41 48.58
(δ) - D) $\frac{d'}{100}$											+12.25
δ_2											
d	+37.4 1.57287 9.77946 1.47785m	0	38.9	59.9	98.8	0 49.40	16 58.95 53 0 45.63 -30.05		5	43	0 15.58 -37 -9 +9.62 +45 -10.70 0 14.49
(δ) - D) $\frac{d'}{100}$											+9.61
δ_1											
d	+34.8 1.54158 9.77946 1.44656m	0	38.9	0.8	99.7	0 49.85	16 58.50 53 0 44.12 -27.96		5	0	16.16 -32 -9 +9.25 +45 -11.20 0 14.25
(δ) - D) $\frac{d'}{100}$											+9.29
δ_2											
d	-12.1 1.08279m 9.80186 1.00967 +14.9 1.17319 9.80182 1.10053m	2	35.1	56.7	91.8	2 45.90	0 2.45 50 43 49.13 +10.22		20	50	43 57.35 -4 -30 +8.32 +39 -10.60 43 57.12
(δ) - D) $\frac{d'}{100}$											+8.11
δ_1											
d	+10.9 1.03243 9.80186 0.96431m +20.6 1.21387 9.80182 1.24121m	2	13.2	34.2	46.4	2 28.20	0 25.15 50 44 10.77 -9.21		20	44	1.56 -3 -26 +8.01 +39 -11.20 43 58.47
(δ) - D) $\frac{d'}{100}$											+7.76
δ_2											

Date₁ = 1875, Sept. 1Observer
RecorderDate₂ = 1875, Sept. 4Observer
Recorder

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Star.	α	δ	Mag.	T_s	T_m	T_o	T_r	T_g	T_h	Sum	Mean	Red. to T_m	T
19	2 3	53 13	5.8	19 152.3	2 22.0	25.5	29.0	32.4	35.8	2	28.94		
	1	29.7	11.7	54.9							-19.64		
	κ			57.7							-8.2		
	(8) - D			55.0					-20.49	2	8.45		
	α_1									2	1.92		
										2	6.53		
			6.0	2 88.5	2 24.6	28.1	31.5	35.0	38.4	2	31.52		
	κ			11.4							-22.23		
	(8) - D			14.1							-80		
	α_2			11.3					-23.06	2	3		
										2	8.46		
										2	1.83		
										2	6.63		
	4 26	50 45	8.9	4 27.6	4 49.8	53.0	56.4	59.5	2.9	4	58.32		
	4	2.9	43.4	38.4							-19.64		
	κ		8.8	38.2							-75		
	(8) - D			30.4					-20.41	4	2		
	α_1									4	35.91		
										4	1.98		
										4	33.93		
			9.1	4 39.6	4 52.3	55.8	58.9	2.0	5.5	4	58.90		
	κ			42.6							-22.24		
	(8) - D			46.5							-73		
	α_2			42.9					-22.99	4	2		
										4	35.91		
										4	1.89		
										4	34.02		
	5 26	52 13	4.5	5 24.3	5 45.8	49.2	52.7	55.9	59.4	5	52.60		
	5	2.9	11.6	27.4							-19.64		
	κ		6.2	30.2							-79		
	(8) - D			27.3					-20.45	5	2		
	α_1									5	32.15		
										5	1.95		
										5	30.20		
			5.5	5 24.6	5 48.4	51.7	55.0	58.5	1.9	5	55.10		
	κ			27.3							-22.24		
	(8) - D			30.3							-77		
	α_2			27.4					-28.03	5	2		
										5	32.07		
										5	1.87		
										5	30.20		
	6 19	52 5	9.0	6 15.8	6 41.4	44.4	48.0	51.4	54.9	6	48.08		
	5	53.6	3.8	18.8							-19.64		
	κ		9.2	21.0							-79		
	(8) - D			18.5					-20.45	6	2		
	α_1									6	27.63		
										6	1.96		
										6	25.67		
			9.0	6 23.8	6 43.8	49.2	50.6	53.9	57.3	6	52.56		
	κ			26.7							-22.24		
	(8) - D			29.7							-74.7		
	α_2			26.7					-23.03	6	2		
										6	27.583		
										6	1.88		
										6	25.65		
1	7 53	54 15	8.4	7 38.3	8 10.3	13.7	17.1	20.9	24.4	8	17.28		
1	7	22.1	13.9	42.0							-19.64		
	κ		8.3	44.6							-85		
	(8) - D			41.6					-20.52	7	3		
	α_1									7	56.76		
										7	1.93		
										7	54.83		
			8.4	7 52.3	8 12.8	16.2	19.8	23.2	26.9	8	17.78		
	κ			55.0							-22.24		
	(8) - D			57.7							-83		
	α_2			55.0					-23.10	7	3		
										7	56.68		
										7	1.84		
										7	54.84		

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	8'
d	+33.9 1.53020 9.77744 1.43316m	3	37.5	57.9	95.4 53	29 0.65 53 12 47.33 -27.11			50	53 12 20.22 - 30 - 42 +10.85 + 50 -10.90 12 17.95	+10.63
(8) - D $\frac{d'}{100}$											
δ_1											
d	+20.2 1.30535 9.77744 1.20831m	8	46.4	7.2	113.6 53	28 51.55 53 12 37.17 -16.16			50	12 21.01 - 11 - 43 +10.42 + 50 -11.40 12 17.99	+10.40 ✓
(8) - D $\frac{d'}{100}$											
δ_2											
d	+25.9 1.41330 9.50120 1.34002m	0	51.2	13.7	124.9 21	1 45.90 50 45 48.58 -21.88			20	50 44 48.74 - 18 - 11 +8.82 + 39 -10.80 45 8.32	+8.42 ✓
(8) - D $\frac{d'}{100}$											
δ_1											
d	+16.0 1.20412 9.50120 1.13084m	0	57.7	19.9	137.6 21	1 59.55 50 45 25.17 -13.52			20	45 11.65 - 7 - 12 +8.03 + 39 -11.80 45 8.58	+8.23 ✓
(8) - D $\frac{d'}{100}$											
δ_2											
d	+25.3 1.40312 9.78707 1.31571m	2	24.9	46.1	71.0 52	30 12.85 52 13 59.53 -20.69			50	52 13 38.84 - 17 - 29 +9.65 + 46 -10.90 13 37.79	+9.85
(8) - D $\frac{d'}{100}$											
δ_1											
d	+27.7 1.41248 9.78707 1.35507m	2	21.4	43.1	64.5 52	30 16.10 52 14 1.72 -22.65			50	13 39.07 - 20 - 28 +9.47 + 46 -11.40 13 37.12	+9.45
(8) - D $\frac{d'}{100}$											
δ_2											
d	+29.6 1.47129 9.78837 1.38518m	0	14.1	36.1	50.2 52	22 23.25 52 6 9.93 -24.28			0	52 5 45.65 - 23 - 4 +9.72 + 45 -10.90 5 44.65	+9.90
(8) - D $\frac{d'}{100}$											
δ_1											
d	+23.9 1.37840 9.78837 1.29229m	0	15.1	39.1	54.2 52	22 21.25 52 6 6.87 -19.60			0	5 47.27 - 15 - 5 +9.34 + 45 -11.40 5 45.46	+9.59
(8) - D $\frac{d'}{100}$											
δ_2											
d	+35.7 1.55267 9.76642 1.44461m	4	45.1	7.3	112.4 49	32 52.15 54 16 38.83 -27.84			45	54 16 10.99 - 33 - 54 +11.94 + 53 -11.00 16 11.59	+11.60
(8) - D $\frac{d'}{100}$											
δ_1											
d	+24.8 1.39445 9.76642 1.28639m	4	52.0	14.1	126.1 50	32 45.30 54 16 30.92 -19.33			45	16 11.59 - 16 - 56 +11.48 + 53 -11.60 16 11.28	+11.29
(8) - D $\frac{d'}{100}$											
δ_2											

426

Date₁ = 1875, Sept. 1Observer
RecorderDate₂ = 1875, Sept. 4Observer
Recorder

90

Run

Star.	α	δ	Mag.	T_a	T_m	T_e	T_r	T_s	T_h	Sum	Mean	Red. to T_m	T
17	8	82 54 59	8.5	19 8	37.6	8 47.3	52.7	56.2	5.0	3.4	8	56.32	
	8	8.6	8.5		39.8							-19.64	
	κ				43.1							-88	
					40.2					-20.55		-3	
	$((\delta) - D)$	$\frac{\kappa'}{100}$									8	35.77	
	a_1										8	-1.72	
											8	33.85	
			8.6	8 46.4	8 57.8	63.3	58.9	2.4	6.0	8	58.88		
	κ										-22.24		
										-23.13		-86	
	$((\delta) - D)$	$\frac{\kappa'}{100}$									8	35.75	
	a_2										8	-1.83	
											8	33.92	
	10	22 54 53	9.0	10 37.4	10 39.5	48.0	46.3	57.3	53.6	10	46.48		
	9	58.6	8.1								-19.64		
	κ									-20.55		-88	
											-3		
	$((\delta) - D)$	$\frac{\kappa'}{100}$									10	25.93	
	a_1		9.0	10 39.05	10 50.6	54.3	58.1	1.7	5.7	10	58.08	-1.94	
											-19.64	10 23.49	
										-20.55		-88	
											-3		
			8.9	10 8.2	10 41.8	48.3	48.7	52.5	56.0	10	48.86	1.94	
	κ										-22.24	10 35.59	
										-23.13		-86	
	$((\delta) - D)$	$\frac{\kappa'}{100}$									10	25.73	
	a_2		9.0	10. 10.85	10 49.8	53.4	57.0	0.6	4.3	10	57.02	-1.84	
		10 5.2	54 51.7								-22.24	10 23.89	
										-23.13		-86	
											-3		
											10	33.89	
	11	54 50 17	8.9	11 55.6	12 16.5	17.7	22.9	25.9	29.4	12	22.88	-1.84	
	11	20.3	8.8								-19.64	10 32.05	
	κ										-74		
										-20.40		-2	
	$((\delta) - D)$	$\frac{\kappa'}{100}$									12	2.48	
	a_1										-2.02		
											12	0.46	
			9.0	11 49.8	13 19.0	22.3	25.4	28.6	31.9	12	25.44		
	κ										-22.24		
										-22.98		-72	
	$((\delta) - D)$	$\frac{\kappa'}{100}$									12	2.46	
	a_2										-1.94		
											12	0.52	
	13	10 50 17	9.1	13 59.0	13 33.0	36.3	39.7	43.0	46.2	13	39.64		
	12	46.8	9.0								-19.65		
	κ										-74		
										-20.41		-2	
	$((\delta) - D)$	$\frac{\kappa'}{100}$									13	19.23	
	a_1										-2.02		
											13	17.21	
			9.1	13 10.0	13 35.7	39.1	42.4	45.4	48.7	13	42.26		
	κ										-22.24		
										-22.98		-72	
	$((\delta) - D)$	$\frac{\kappa'}{100}$									13	19.28	
	a_2										-1.94		
											13	17.34	
	14	19 51 7	7.8	14 2.7	14 41.7	44.9	48.2	51.5	54.8	14	48.22		
	13	53.8	7.4								-19.65		
	κ										-77		
										-20.44		-2	
	$((\delta) - D)$	$\frac{\kappa'}{100}$									14	27.78	
	a_1										-2.02		
											14	25.76	
			7.0	14 16.6	14 44.3	47.5	50.8	54.0	57.4	14	50.80		
	κ										-22.24		
										-23.00		-74	
	$((\delta) - D)$	$\frac{\kappa'}{100}$									14	27.80	
	a_2										-1.94		
											14	25.86	

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'	
d	+16.1 1.20683 9.75859 1.09094m	1	22.1	43.2	65.3 1' 52.65 6	16 15.70 55 0 2.38 -12.33			5-	54 59 50.05 - 1.7 - 16 + 13.27 + 12.72 + 60 - 11.10 59 52.04	+13.09	
(8) - D $\frac{d'}{100}$												
δ_1												
d	+12.5 1.09691 9.75859 0.98102m	1	22.1	44.3	66.4 1 33.20 6	16 15.15 55 0 0.77 -9.57			5-	59 51.20 - 4 - 17 + 12.21 + 60 - 11.60 59 52.20	+12.60	
(8) - D $\frac{d'}{100}$												
δ_2												
d	+9.1 0.95904 9.75767 0.84423m	2	12.0	33.5	45.5 2 22.75 12	10 25.60 54 54 12.28 - 6.99			10	54 54 5.29 - 2 - 26 + 12.61 + 60 - 11.10 54 7.11	53 57.63 - 7 - 26 + 12.61 + 59 - 11.10 53 59.38	+12.85
(8) - D $\frac{d'}{100}$												
δ_1												
d	+19.1 1.28103 9.75967 1.16622m	2	12.0	33.5	45.5 2 22.75 12	10 25.60 54 54 12.28 - 14.65			10	54 54 5.29 - 2 - 26 + 12.61 + 60 - 11.10 54 7.11	53 57.63 - 7 - 26 + 12.61 + 59 - 11.10 53 59.38	+12.85
(8) - D $\frac{d'}{100}$												
δ_2												
d	+40.7 1.60959 9.75967 1.49478m	1	45.1	6.9	112.0 1 56.00 11	10 52.35 54 54 37.97 - 31.24			10	54 6.73 - 42 - 21 + 12.12 + 59 - 11.70 54 7.11	54 2.50 - 55 - 21 + 12.12 + 59 - 11.70 54 2.75	+11.95
(8) - D $\frac{d'}{100}$												
δ_1												
d	+46.2 1.66464 9.75967 1.54983m	1	45.1	6.9	112.0 1 56.00 11	10 52.35 54 54 37.97 - 35.47			10	54 6.73 - 42 - 21 + 12.12 + 59 - 11.70 54 7.11	54 2.50 - 55 - 21 + 12.12 + 59 - 11.70 54 2.75	+11.95
(8) - D $\frac{d'}{100}$												
δ_2												
d	+24.1 1.38202 9.80534 1.31288m	2	49.1	10.3	127.4 2 58.70 487	34 44.65 50 18 31.33 - 20.55	34 49.65 18 36.33 - 20.55		45-	50 18 15.78 - 15 - 33 + 7.90 + 36 - 10.90 18 12.66	18 16.70 - 29 - 31 + 7.58 + 36 - 11.50 18 12.54	+7.78
(8) - D $\frac{d'}{100}$												
δ_1												
d	+32.5 1.51188 9.80504 1.44274m	2	38.0	1.1	99.1 2 49.55 47	34 58.80 50 18 44.42 - 27.72			45-	18 16.70 - 29 - 31 + 7.58 + 36 - 11.50 18 12.54	18 16.70 - 29 - 31 + 7.58 + 36 - 11.50 18 12.54	+7.34
(8) - D $\frac{d'}{100}$												
δ_2												
d	+37.5 1.57403 9.80534 1.50489m	2	55.5	17.8	133.3 3 66.5 48	34 41.70 50 18 28.38 - 31.88			45-	50 17 56.50 - 38 - 34 + 7.90 + 36 - 10.90 17 53.14	50 17 56.50 - 38 - 34 + 7.90 + 36 - 10.90 17 53.14	+7.54
(8) - D $\frac{d'}{100}$												
δ_1												
d	+28.4 1.45332 9.80534 1.38418m	3	0.5	23.8	24.3 3 12.15 48	34 36.20 50 18 21.82 - 24.22			45-	17 57.60 - 22 - 35 + 7.58 + 36 - 11.50 17 53.47	17 57.60 - 22 - 35 + 7.58 + 36 - 11.50 17 53.47	+7.37
(8) - D $\frac{d'}{100}$												
δ_2												
d	+42.5 1.62839 9.77778 1.55169m	3	35.9	56.9	92.6 3 46.30 58	24 2.05 51 7 48.73 - 35.62			55-	51 7 13.11 - 48 - 41 + 8.72 + 41 - 11.00 7 10.35	51 7 13.11 - 48 - 41 + 8.72 + 41 - 11.00 7 10.35	+8.24
(8) - D $\frac{d'}{100}$												
δ_1												
d	+31.6 1.47969 9.77778 1.42299m	3	44.8	6.4	110.9 3 55.45 58	23 52.90 51 7 38.52 - 26.48			55-	7 12.04 - 27 - 43 + 8.38 + 41 - 11.60 7 8.53	7 12.04 - 27 - 43 + 8.38 + 41 - 11.60 7 8.53	+8.09
(8) - D $\frac{d'}{100}$												
δ_2												

426

Date₁ = 1875, Sept. 1

Observer *W. A. R.*
Recorder *J. F. M.*

Date₂ = 1875, Sept. 4

Observer *W. A. R.*
Recorder *J. F. M.*

92

Run

[illegible]

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+13.0 1.11394 9.78180 <u>1.02126m</u>	4	57.4	136.6	5 20	8.30 52 46 26.73 -10.50	2 40.05 -10.50		15	52 46 16.23 - 5 - 56 +10.40 + 49 -11.10 46 15.91	+10.28
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+20.1 1.30320 9.78180 <u>1.21052m</u>	4	50.7	122.2	5 20	11.0 52 46 32.87 -16.24	2 47.25 -16.24		15	46 16.63 - 11 - 56 +10.00 + 49 -11.70 46 14.75	+9.82
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+31.3 1.49554 9.78636 <u>1.34742m</u> 417	4	36.1	93.1	4 49	46.55 51 16 48.48 -27.25 26.15	33 18.0 -27.25		45	51 16 22.33 - 26 - 53 +8.88 + 41 -11.10 16 19.73	+8.50
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+35.3 1.54777 9.78636 <u>1.46965m</u>	4	30.0	81.6	4 49	40.80 51 16 53.17 -29.49	33 7.55 -29.49		45	16 23.68 - 34 - 52 +8.53 + 41 -11.60 16 20.16	+8.08
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+17.7 1.24797 9.76324 <u>1.13673m</u>	1	43.9	110.1	1 31	55.05 54 34 39.98 -13.70	50 53.30 -13.70		30	54 34 26.28 - 8 - 21 +12.26 + 56 -11.20 34 27.61	+12.53
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+22.1 1.34439 9.76324 <u>1.23315m</u>	1	36.9	96.0	1 31	48.00 54 34 45.97 -17.11	51 0.35 -17.11		30	34 28.86 - 13 - 20 +11.79 + 56 -11.80 34 29.08	+12.02
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+8.9 0.94939 9.80897 <u>0.88388m</u>	2	16.5	57.7	2 12	28.85 49 54 5.12 -7.45	10 19.50 -7.45		10	49 53 57.47 - 2 - 27 +7.18 + 35 -9.90 53 54.81	+7.24
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d											
$((\delta) - D) \frac{d'}{100}$											
δ_2											

1875phae.prog.15

428

ate₁ = 1875, Sept. 5
 $n = -1.60$

Observer W.A.R.
Recorder J.F.M.

429

Date₂ = 1875, Sept. 7
 $n = -1.58$

Observer W.A.R.
Recorder J.F.M.

94

Run

Star.	α	δ	Mag.	T_a	T_m	T_e	T_r	T_g	T_h	Sum	Mean	Red. to T_m	T
17	53 49	59	9.1	18	17 56.6	18 14.0	17.0	20.1	23.6	27.6	18	20.46	
κ	30.2	59.2	8.8		0.1							-23.29	
					4.8							-72	
(δ) - D	$\frac{\kappa'}{100}$				60.5							-24.03	
α_1											17	56.43	
											17	54.79	
κ			8.9		17 57.8	18 20.8	23.9	27.0	30.3	33.8	18	27.16	
					0.5							-25.08	
(δ) - D	$\frac{\kappa'}{100}$				4.0							-69	
α_2					60.8							-25.79	
κ											18	1.37	
(δ) - D	$\frac{\kappa'}{100}$										17	59.79	
α_2													
20	2 49 54	8.0	20 0.9	20 28.0	31.0	34.3	37.4	40.7	20	34.28	20	10.25	
κ	38.7	53.6	8.0		3.5							-23.29	
					5.5							-72	
(δ) - D	$\frac{\kappa'}{100}$				3.3							-24.03	
α_1											20	8.59	
κ			8.2		20 24.3	20 29.3	32.7	35.9	39.0	42.4	20	35.86	
					25.7							-25.08	
(δ) - D	$\frac{\kappa'}{100}$				27.0							-69	
α_2					25.7							-25.79	
κ											20	10.07	
(δ) - D	$\frac{\kappa'}{100}$										20	8.48	
α_2													
21	19 52 59	8.7	21 12.8	21 41.8	45.5	49.0	52.4	55.8	21	48.90	21	48.90	
κ	56.9	58.6	8.6		15.5							-23.29	
					19.0							-80	
(δ) - D	$\frac{\kappa'}{100}$				18.8							-24.11	
α_1											21	24.79	
											21	23.20	
κ			8.8		21 19.7	21 48.5	47.0	50.6	54.1	57.5	21	50.54	
					22.6							-25.08	
(δ) - D	$\frac{\kappa'}{100}$				25.4							-77	
α_2					22.6							-25.87	
κ											21	24.67	
(δ) - D	$\frac{\kappa'}{100}$										21	23.15	
α_2													
23	11 53 23	9.0	23 10.4	23 34.0	37.9	41.0	45.0	48.7	23	41.32	23	41.32	
κ	48.6	22.6	9.0		12.8							-23.29	
					15.9							-24.13	
(δ) - D	$\frac{\kappa'}{100}$				13.0							-3	
α_1			8.9		23 27.2	23 47.7	51.9	54.6	57.9	1.4	23	54.50	23 17.19
					27.5							-23.29	23 15.60
					31.9							-81	
(δ) - D	$\frac{\kappa'}{100}$				29.5							-24.13	
α_1												-3	23 30.37
κ			9.0		23 51.4	23 36.0	39.4	42.8	46.6	49.9	23	42.94	23 17.05
					8.1							-25.08	23 28.78
(δ) - D	$\frac{\kappa'}{100}$				11.0							-78	
α_2			8.9		23 37.0	23 48.6	52.6	56.3	59.8	3.2	23	56.10	23 17.05
												-25.08	23 15.63
												-78	
												-3	23 30.21
κ											23	7.36	23 17.05
(δ) - D	$\frac{\kappa'}{100}$											-25.08	23 28.69
α_1												-72	
												-2	
												-24.03	
(δ) - D	$\frac{\kappa'}{100}$										42	48.33	
α_1												-77	
											42	41.56	
κ			8.9		42 42.4	43 10.0	13.1	16.6	19.8	23.0	43	16.50	
					45.7							-25.08	
(δ) - D	$\frac{\kappa'}{100}$				48.4							-69	
α_2					45.5							-25.79	
κ											42	50.71	
(δ) - D	$\frac{\kappa'}{100}$											-1.71	
α_2											42	49.00	

Sept. 5 -16' 13.07 -11
 " 7 -16 13.92 -12

Runs

95

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'	
d	+20.0 1.30103 9.80807 1.23462 _m	1	69	29.8	367 1 6 1885	16 30.00 50 0 16.63 -17.16			25	49 59 59.47 ✓ - 11 +7.46 - 14 + 7.36 + 3.5 - 9.20 59 57.03		
((δ) - D) $\frac{d'}{100}$												
δ_1												
d	+26.4 1.42160 9.80807 1.35519 _m	0	57.6	15.1	1267 1 6 335	16 45.00 50 0 31.08 -22.64			5	0 8.42 ✓ - 19 +7.56 - 13 + 7.53 + 3.5 - 10.20 50 0 5.78		
((δ) - D) $\frac{d'}{100}$												
δ_2												
d	+31.0 1.49136 9.80897 1.42585 _m	1	58.9	21.8	1407 2 12 1085	10 38.00 49 54 24.63 -26.64			10	49 53 57.97 - 26 +7.11 - 24 + 7.42 + 3.5 - 10.00 53 55.08		
((δ) - D) $\frac{d'}{100}$												
δ_1												
d	+10.2 1.00862 9.80897 0.94311 _m	2	15.7	39.4	551 2 12 2755	10 20.80 49 54 6.88 - 8.77			10	53 58.11 - 3 +7.45 - 30 + 7.43 + 3.5 - 10.20 53 55.36 ✓		
((δ) - D) $\frac{d'}{100}$												
δ_2												
d	+33.1 1.51983 9.77963 1.42498 _m	2	9.0	31.1	401 2 7 2005	15 28.30 52 59 14.93 - 26.61			5	52 58 48.32 - 28 +10.27 - 25 + 10.30 + 50 - 10.30 58 48.29		
((δ) - D) $\frac{d'}{100}$												
δ_1												
d	+27.7 1.44248 9.77963 1.34763 _m	2	13.0	35.0	480 2 7 2400	15 24.35 52 59 10.43 - 22.26			5	58 48.17 - 20 +10.56 - 29 + 10.55 + 50 - 10.50 58 48.23		
((δ) - D) $\frac{d'}{100}$												
δ_2												
d	+28.3 1.45179 9.77558 1.35289 _m	2	57.8	17.7	1352 3 43 760	39 40.75 53 23 27.38 - 22.54			40	53 23 4.84 23 39.03 - 21 +10.67 - 16 +10.77 - 34 - 29 + 10.72 + 10.72 + 50 + 50 - 10.40 - 10.40 23 5.11 23 39.40		
((δ) - D) $\frac{d'}{100}$												
δ_1												
d	+25.0 1.39794 9.77558 1.29904 _m	2	25.3	46.8	721 2 42 3605	40 12.00 53 23 58.93 - 19.90			40			
((δ) - D) $\frac{d'}{100}$												
δ_2												
d	+34.7 1.54033 9.77558 1.44143 _m	2	58.7	11.8	1225 3 43 125	59 47.10 53 23 33.18 - 27.63			40	23 5.55 23 42.00 - 31 +10.78 - 9 +11.04 - 36 - 32 + 10.95 + 10.95 + 50 + 50 - 10.60 - 10.60 23 5.73 23 42.44 ?		
((δ) - D) $\frac{d'}{100}$												
δ_1												
d	+19.1 1.28103 9.77558 1.18113 _m	2	27.3	49.2	765 2 42 3825	40 10.10 53 23 57.18 - 15.18			40			
((δ) - D) $\frac{d'}{100}$												
δ_2												
d	+16.1 1.20683 9.81047 1.14282 _m	2	14.1	39.4	515 2 22 2575	0 22.60 49 44 9.23 - 13.89			20	49 43 55.34 ✓ - 7 +7.16 - 26 + 7.14 + 3.5 - 10.70 43 51.80		
((δ) - D) $\frac{d'}{100}$												
δ_1												
d	+31.0 1.49136 9.80927 1.42515 _m	3	51.9	14.4	1263 4 14 315	8 45.20 49 52 31.28 - 26.62			10	52 4.66 ✓ - 26 +7.02 - 49 + 7.42 + 3.5 - 11.00 52 0.68		
((δ) - D) $\frac{d'}{100}$												
δ_2												

Date₁ = 1875, Sept. 5Observer W.A.R.
Recorder J.F.M.Date₂ = 1875, Sept. 7Observer W.A.R.
Recorder J.F.M.

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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
43	59	54 9	8.5	18	43 58.3	43 36.7	40.3	43.9	47.3	519	43	19.67	
κ	26.8	8.4	9.3		1.3							1.68	
(8) - D			9.0		44 40.0	44 22.6	26.0	29.5	33.0	36.6	44	17.99	
α_1					4.8							5.39	
43	25.6	54 8.2	9.2		44 2.8	44 11.0	14.4	18.0	21.5	25.4	44	3.71	
κ					4.8							5.215	
(8) - D			9.1		44 52.4	44 24.4	27.6	31.1	35.0	38.3	44	5.053	
α_2					5.7							5.37	
45	34	49 56	8.9		45 59.9	46 1.2	4.6	7.8	11.0	14.2	46	3.75	
κ	11.1	53.3	9.0		32.4							1.62	
(8) - D					35.4							5.37	
α_1					32.6							1.62	
45			8.9		45 27.0	46 3.0	6.1	9.5	13.0	16.0	46	3.75	
κ					25.4							1.62	
(8) - D					32.6							5.37	
α_2					29.8							1.62	
46	38	54 19	8.8		46 57.7	47 17.2	20.7	24.2	27.8	31.5	47	3.75	
κ	22.3	18.2	8.7		54.3							1.62	
(8) - D					58.6							5.37	
α_1					54.9							1.62	
46			8.6		46 57.0	47 18.9	22.3	26.0	29.4	33.1	47	3.75	
κ					52.3							1.62	
(8) - D					55.8							5.37	
α_2					52.7							1.62	
49	33	34 10	8.8		49 38.3	49 55.2	58.8	2.4	5.9	9.4	50	3.75	
κ	10.6	9.4	8.7		41.3							1.62	
(8) - D					45.5							5.37	
α_1					41.5							1.62	
49			8.3		49 32.4	49 56.9	0.5	4.0	7.5	11.2	50	3.75	
κ					35.6							1.62	
(8) - D					39.3							5.37	
α_2					35.8							1.62	
50	42	54 46	8.5		50 42.2	51 25	6.0	9.4	13.0	16.9	51	3.75	
κ	19.1	45.3	8.7		45.4							1.62	
(8) - D					48.2							5.37	
α_1					45.3							1.62	
50			8.2		50 43.6	51 4.1	7.6	11.2	14.9	18.4	51	3.75	
κ					47.8							1.62	
(8) - D					50.8							5.37	
α_2					47.5							1.62	

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	-17.7 1.24797 9.76712 1.14061	4	36.0	91.0	4 45.50	28 2.85 54 11 49.48 +13.81			50	54 12 3.29 - 8 - 53 +11.47	53.28 - 5 - 32 +11.71
(8) - D $\frac{\delta'}{100}$	-13.3 1.12385 9.76765 1.01702	2	41.4	104.2	2 52.10	24 66.25 54 8 42.88 +10.40			53-	+11.56 + 52 -11.00 12 3.76	+11.56 + 52 -11.10 8 53.89
δ_1	+12.4 1.09342 9.76765 0.98659	2	49.1	120.4	3 0.20	24 48.15 54 8 34.23 - 9.70			55-	8 24.53 - 4 - 36 +11.75	8 54.39 - 15 - 36 +11.75
(8) - D $\frac{\delta'}{100}$	-24.5 1.38917 9.76765 1.28234	2	49.1	120.4	3 58 0.20	24 48.15 54 8 35.23 +17.16			55-	+ 51 -11.30 8 25.09	+ 51 -16.30 8 54.84
δ_2	+35.2 1.54654 9.80852 1.48058	4	19.0	56.5	4 28.25	13 20.10 49 57 6.73 -20.24			5-	49 56 36.49 - 33 - 49 + 7.35 + 35 -10.80 56 32.57	+6.88
d	+38.7 1.59879 9.80852 1.55283	4	18.0	48.7	4 24.35	13 24.00 49 57 10.08 -34.11			5-	56 35.97 - 42 - 53 + 7.50 + 35 -11.10 56 31.77	+6.90
(8) - D $\frac{\delta'}{100}$	+29.4 1.46835 9.76590 1.35977	1	26.5	74.1	1 46 37.05	36 11.00 54 19 57.93 -22.90			46-	54 19 35.03 - 22 - 18 +11.70 + 53 -11.20 19 35.66	+11.83
δ_1	+33.2 1.52114 9.76590 1.41256	1	33.0	67.1	1 46 33.55	36 14.80 54 20 0.88 -25.85			45	19 35.03 - 29 - 19 +11.95 + 53 -11.40 19 35.63	+12.00
d	+20.8 1.31806 9.76747 1.21105	0	40.6	104.2	0 55 21.35	26 57.00 54 10 43.63 -16.26			55-	54 10 27.37 - 11 - 10 +11.55 + 52 -11.20 10 27.83	+11.86 28.03
(8) - D $\frac{\delta'}{100}$	+28.2 1.45025 9.76747 1.34324	0	32.8	88.8	0 55 44.40	27 3.95 54 10 50.03 -22.04			55-	10 27.79 - 21 - 9 +11.79 + 52 -11.50 10 28.50	+12.01
δ_2	+24.3 1.38561 9.76111 1.27224	4	42.5	106.2	4 19 53.10	2 55.25 54 46 41.88 -18.72			15-	54 46 23.16 - 15 - 54 +12.16 + 58 -11.30 46 23.90	+12.04
d	+23.8 1.37658 9.76111 1.26321	4	42.8	108.3	4 19 54.15	2 54.20 54 46 40.28 -18.33			15-	46 21.95 - 15 - 59 +12.41 + 58 -11.60 46 22.60	+12.05
(8) - D $\frac{\delta'}{100}$											
δ_3											

Date₁ = 1875, Sept. 5Observer
RecorderDate₂ = 1875, Sept. 7Observer
Recorder

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Star.	α	δ	Mag.	T_a	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
52	48	54	30	8.7	18	52	43.9	53	11.4	14.8	18.5	21.5	25.6
52	23.8	29.7	9.2		46.8								
κ					49.6								
(S) - D	κ'				46.8								
a_1													
52	48	54	30	8.8	52	46.0	53	12.9	16.5	19.9	23.6	27.0	
κ					49.0								
(S) - D	κ'				51.6								
a_2													
53	27	54	31	8.6	54	1.5	53	9.5	57.2	54.9	58.4	2.6	
53	4.1	20.7	9.0		4.8								
κ					8.7								
(S) - D	κ'				5.0								
a_1													
53	27	54	31	9.0	53	59.2	53	49.2	52.9	56.9	0.0	3.5	
κ					2.0								
(S) - D	κ'				6.3								
a_2													
54	25	55	1	8.5	54	58.5	54	46.2	49.7	53.3	56.9	0.6	
54	1.9	0.0	8.6		2.3								
κ					4.9								
(S) - D	κ'				6.19								
a_1													
54	25	55	1	8.2	54	41.2	54	47.6	51.3	54.8	58.4	2.2	
κ													
(S) - D	κ'												
a_2													
19	2	4	53	9.0	19	1	55.4	2	24.5	28.0	31.4	34.7	38.0
1	40.7	1.8	8.9		58.0								
κ					1.2								
(S) - D	κ'				58.2								
a_1													
19	2	4	53	8.9	1	53.2	2	26.6	29.7	33.0	36.4	40.0	
κ					56.6								
(S) - D	κ'				54.3								
a_2													
3	5	53	6	8.9	3	9.5	3	30.2	33.7	36.9	40.3	44.0	
2	41.7	5.0	8.8		13.0								
κ					15.6								
(S) - D	κ'				12.7								
a_1													
3	5	53	6	9.0	3	13.7	3	32.0	35.4	39.0	42.3	45.6	
κ					76.6								
(S) - D	κ'				19.8								
a_2													

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	8'
d	+31.6 1.49769 9.76395 1.38916 _m	1 1.7	22.9	24.6	1 12.30	46 36.05 54 30 22.68 -24.50			35-	54 29 58.18 - 26 - 13 +11.88 + 55 -11.40 29 58.82	+12.04
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+31.1 1.49276 9.76395 1.38223 _m	1 0.8	22.5	23.3	1 11.65	46 36.70 54 30 22.78 -24.11			35-	29 58.67 - 25 - 14 +12.14 + 55 -11.60 29 59.37	+12.30
(8) - D) $\frac{d'}{100}$											
δ_2											
d	-10.1 1.00432 _m 9.76342 0.89326	3 4.78	9.0	116.8	3 58.40	48 49.95 54 32 36.58 + 7.82			30	54 32 44.40 - 3 - 44 +11.93 + 55 -11.40 32 45.01	+12.01
(8) - D) $\frac{d'}{100}$											
δ_1											
d	-6.0 0.77815 _m 9.76342 0.66709	3 4.41	4.3	108.4	3 54.20	48 54.15 54 32 40.23 + 4.65			30	32 44.88 - 1 - 47 +12.19 + 55 -11.70 32 45.44	+12.26
(8) - D) $\frac{d'}{100}$											
δ_2											
d	-8.6 0.93450 _m 9.75823 0.81825	4 55.1	17.1	132.2	5 6.10	17 42.25 55 1 28.88 + 6.58			0	55 1 35.46 - 2 - 56 +12.44 + 60 -11.40 1 36.52	+12.46
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+13.7 1.13672 9.75823 1.02047 _m	4 39.0	60.1	99.1	4 49.55	17 58.80 55 1 44.88 -10.48			0	1 34.40 - 5 - 58 +12.68 + 60 -11.70 1 35.35	+12.65
(8) - D) $\frac{d'}{100}$											
δ_2											
d	+33.1 1.51983 9.77778 1.42313 _m	1 9.1	29.9	39.0	1 19.50	26 28.85 53 10 15.48 -26.49			55-	53 9 48.99 - 28 - 14 +10.52 + 50 -11.60 9 47.99	+10.60
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+36.7 1.56467 9.77778 1.46797 _m	1 5.2	27.1	32.3	1 16.15	26 32.20 53 10 18.28 -29.37			55-	9 48.91 - 35 - 15 +10.76 + 50 -11.90 9 47.77	+10.76
(8) - D) $\frac{d'}{100}$											
δ_2											
d	+24.3 1.38561 9.77812 1.28925 _m	2 58.8	19.6	138.4	3 9.20	24 39.15 53 8 25.78 -19.46			53-	53 8 6.32 - 15 - 34 +10.48 + 50 -11.60 8 5.21	+10.49
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+22.2 1.34635 9.77812 1.24999 _m	2 58.9	20.8	139.7	3 9.85	24 38.50 53 8 24.58 -17.78			53-	8 6.80 - 13 - 38 +10.73 + 50 -11.90 8 5.62	+10.72
(8) - D) $\frac{d'}{100}$											
δ_2											

Date₁ = 1875. Sept. 5Observer
RecorderDate₂ = 1875. Sept. 7Observer
Recorder

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Ru

Star.	α	δ	Mag.	T_s	T_m	T_e	T_r	T_g	T_h	Sum	Mean	Red. to T_m	T
4	12	51 51	9.0	19 4	13.0	4	33.9	37.5	40.7	43.9	47.5	4	40.70
κ	48.2	49.3	8.9		15.7								-23.29
					18.6								-77
(δ) - D	$\frac{\kappa'}{100}$				15.8						-24.08		-2
a_1												4	16.62
													-1.84
												4	14.78
													3
			9.0	4	16.6	4	35.6	39.0	42.4	45.6	49.0	4	42.12
κ					25.0								-25.09
					23.2								-74
(δ) - D	$\frac{\kappa'}{100}$				19.9						-25.85		-2
a_2												4	16.47
													-1.78
												4	14.69
4	54	50 6	8.0	5	7.6	5	38.4	41.8	44.6	47.9	51.3	5	44.70
κ	30.7	4.7	9.2		10.2								-23.29
	48.3	1.5			12.9								-72
(δ) - D	$\frac{\kappa'}{100}$				10.2						-24.03		-2
a_1												5	20.67
													-1.88
												5	18.79
4	30.7	50 4.7	8.2	5	10.2	5	23.0	26.4	29.6	32.8	36.0	5	29.53
κ													-25.09
													-69
(δ) - D	$\frac{\kappa'}{100}$										-25.80		-2
a_2												5	3.76
													-1.82
												5	1.94
7	46	49 52	8.5	7	46.5	8	13.5	16.8	19.9	23.2	26.7	8	20.02
κ	22.5	60.8	8.3		49.0								-23.29
					51.8								-72
(δ) - D	$\frac{\kappa'}{100}$				49.1						-24.03		-2
a_1												7	55.99
													-1.90
												7	54.09
			8.3	7	48.3	8	16.3	18.5	21.8	24.9	28.1	8	21.72
κ					57.3								-25.09
					54.2								-64
(δ) - D	$\frac{\kappa'}{100}$				51.3						-25.80		-2
a_2												7	55.92
													-1.84
												7	54.08
8	21	52 53	9.0	8	53.9	8	44.9	48.3	51.8	55.4	58.8	8	51.84
κ	57.5	57.6	8.8		57.3								-23.29
					1.4								-80
(δ) - D	$\frac{\kappa'}{100}$				57.5						-24.11		-2
a_1												8	27.73
													-1.84
												8	25.89
			8.8	8	42.8	8	46.8	50.0	53.6	56.9	60.3	8	53.58
κ													-25.09
													-77
(δ) - D	$\frac{\kappa'}{100}$										-25.88		-2
a_2												8	27.68
													-1.78
												8	25.90
9	46	55 5	8.3	10	6.9	10	34.0	37.8	41.3	45.0	48.8	10	41.38
κ	22.4	4.2	7.8		9.7								-23.29
	50.6	54 55.6			13.0								-86
(δ) - D	$\frac{\kappa'}{100}$				9.9						-24.18		-3
a_1												10	17.20
													-1.81
												10	15.39
9	23.4	55 4.2	7.7	9	49.7	10	8.4	12.3	16.0	19.7	23.3	10	16.00
κ					53.0								-25.09
					55.8								-83
(δ) - D	$\frac{\kappa'}{100}$				52.8						-25.95		-3
a_2												9	50.05
													-1.74
												9	48.31

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	s'
d	+24.9 1.39620 9.79079 1.31251m	0	144	37.9	52.0 0 15	26.15	7 22.20 51 51 8.83 -20.54		15-	51 50 48.29 - 17 + 9.47 + 9.24 + 44 - 11.50 50 46.26	
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+22.4 1.35025 9.79079 1.26656m	0	160	39.2	55.2 0 15	27.60	7 20.75 51 51 6.83 -18.47		15-	50 48.36 - 13 + 9.67 + 9.42 + 44 - 11.80 50 46.23	
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+34.5 1.50782 9.80762 1.47096m	2	28.1	50.0	78.1 2	39.05	20 9.30 50 3 55.93 -29.58		0	50 3 26.38 - 32 + 7.21 + 7.47 + 35 - 11.40 3 22.16	
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+19.4 1.28780 9.80701 1.22033m	4	14.7	37.1	57.8 4 59	25.90	23 22.45 50 7 8.63 -16.61		55	6 51.92 - 10 + 7.39 + 7.67 + 35 - 11.80 6 47.51	
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+30.9 1.48996 9.80912 1.42460m	3	19.0	41.8	60.8 3 13	30.40	9 17.95 49 53 4.58 -26.58		10	49 52 38.00 - 26 + 7.01 + 7.54 + 35 - 11.50 52 33.51	
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+30.4 1.48287 9.80912 1.41751m	3	18.2	41.6	59.8 3 13	29.90	9 18.45 49 53 4.53 -26.15		10	52 38.38 - 25 + 7.14 + 7.46 + 35 - 11.80 52 33.72	
((8) - D) $\frac{d'}{100}$											
δ_2											
d	-5.7 0.75687m 9.78047 0.65186m	2	47.8	8.9	116.7 2 12	58.85	9 50.00 52 53 36.63 + 4.49		10	52 53 32.14 41.12 - 33 + 10.29 + 49 - 11.70 53 39.86	
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+10.8 1.03342 9.78047 0.93941m	2	30.8	52.9	83.7 2 12	41.85	10 6.50 52 53 52.58 - 8.70		10	53 43.88 - 3 + 10.64 + 10.50 + 49 - 12.00 53 42.52	
((8) - D) $\frac{d'}{100}$											
δ_2											
d	+31.5 1.49831 9.75895 1.38278m	3	12.8	83.8	46.6 3 8	23.30	14 25.05 54 58 11.68 -24.14		5	54 57 47.54 - 25 + 12.37 + 12.89 + 60 - 11.80 57 48.11	
((8) - D) $\frac{d'}{100}$											
δ_1											
d	+23.2 1.36349 9.75751 1.24852m	0	12.0	36.1	48.1 0	24.05	22 24.30 55 6 10.38 -17.72		0	55 5 52.66 - 14 + 13.18 + 12.77 + 60 - 12.20 55 5 53.64	
((8) - D) $\frac{d'}{100}$											
δ_2											

Date₁ = 1875, Sept. 5Observer
RecorderDate₂ = 1875, Sept. 7Observer
Recorder

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Star.	α	δ	Mag.	T_a	T_m	T_o	T_r	T_g	T_h	Sum	Mean	Red. to T_m	T
11	12	51	11	9.0	19	11	15.7	11	19.0	22.4	25.7	29.0	32.3
10	22.7	2.0	8.8				19.5						
							20.8						
(S) - D	$\frac{\kappa'}{100}$												
α_1													
11	25.68												
10	23.29												
	74												
	2												
11	16.3												
10	1.89												
	59.74												
11	27.40												
10	25.09												
	72												
	2												
11	1.57												
10	1.83												
	59.74												
12	28.4												
12	31.8												
	35.0												
(S) - D	$\frac{\kappa'}{100}$												
α_1													
12	26.0												
12	30.0												
	33.0												
(S) - D	$\frac{\kappa'}{100}$												
α_2													
13	46												
13	22.9												
	58.5												
(S) - D	$\frac{\kappa'}{100}$												
α_1													
13	44.8												
13	47.6												
	51.8												
(S) - D	$\frac{\kappa'}{100}$												
α_1													
13	47.5												
13	50.9												
	54.0												
(S) - D	$\frac{\kappa'}{100}$												
α_2													
14	42.2												
14	45.3												
	48.4												
(S) - D	$\frac{\kappa'}{100}$												
α_1													
14	45.4												
14	48.8												
	51.7												
(S) - D	$\frac{\kappa'}{100}$												
α_2													
15	33.0												
15	35.8												
	39.0												
(S) - D	$\frac{\kappa'}{100}$												
α_1													
15	32.8												
15	36.2												
	38.6												
(S) - 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	+7.9 0.89763 9.79715 0.82030 _m	0	37.0	59.9	96.9 55	48.45	26 59.90 51 10 46.53 - 6.61		55	51 10 37.92 - 2 - 9 + 8.69 + 41 - 1170 10 37.11	+8.89
((δ) - D) $\frac{d'}{100}$											
δ_1											
d	+27.8 1.44404 9.79715 1.36671 _m	0	18.1	42.2	60.3 55	30.15	27 18.20 51 11 4.28 - 23.28		55	10 41.00 - 20 - 6 + 8.77 + 41 - 12.00 10 37.92	+8.92
((δ) - D) $\frac{d'}{100}$											
δ_2											
d	+28.7 1.45788 9.75713 1.34253 _m	4	3.1	23.7	26.8 9	1340	13 34.95 54 57 21.58 - 22.01		5	54 56 59.57 - 21 - 46 + 12.87 + 59 - 11.90 56 59.96	+12.29
((δ) - D) $\frac{d'}{100}$											
δ_1											
d	+32.0 1.50515 9.75713 1.38780 _m	3	59.5	20.6	140.1 9	1005	13 38.30 54 57 24.38 - 24.54		5	56 59.84 - 26 - 50 + 12.62 + 59 - 12.30 56 59.99	+12.45
((δ) - D) $\frac{d'}{100}$											
δ_2											
d	+30.6 1.48572 9.78718 1.39942 _m	0	21.1	43.2	64.3 5	32.15	17 16.20 52 1 2.83 - 25.09		5	52 0 37.74 - 25 - 6 + 9.43 + 45 - 11.90 0 35.41	+9.57
((δ) - D) $\frac{d'}{100}$											
δ_1											
d	+29.5 1.46782 9.78718 1.38452 _m	0	20.2	43.0	63.2 5	3.60	17 16.75 52 1 2.83 - 24.24		5	0 38.59 - 23 - 6 + 9.61 + 45 - 12.20 0 36.16	+9.77
((δ) - D) $\frac{d'}{100}$											
δ_2											
d	+13.2 1.12057 9.78718 1.09461 _m	2	5.8	25.9	31.7 2	15.85	20 32.50 54 4 19.13 - 11.61		0	54 4 7.52 - 5 - 24 + 11.50 + 51 - 11.90 4 9.34	+11.72
((δ) - D) $\frac{d'}{100}$											
δ_1											
d	+11.7 1.06819 9.76852 0.96223 _m	2	5.2	27.1	32.3 2	16.15	20 32.20 54 4 18.28 - 9.17		0	4 9.11 - 4 - 27 + 11.72 + 51 - 12.30 4 8.73	+11.92
((δ) - D) $\frac{d'}{100}$											
δ_2											
d	+29.2 1.46538 9.78718 1.38008 _m	4	55.2	17.6	132.8 5	640	17 41.95 52 1 28.58 - 23.99		0	52 1 4.59 - 23 - 56 + 9.44 + 45 - 12.00 1 1.69	+9.10
((δ) - D) $\frac{d'}{100}$											
δ_1											
d	+30.9 1.48796 9.78718 1.40466 _m	4	53.8	16.7	130.5 5	525	17 43.10 52 1 29.18 - 25.39		0	1 3.79 - 25 - 61 + 9.5962 + 45 - 12.40 1 0.70	+9.21
((δ) - D) $\frac{d'}{100}$											
δ_2											

Date₁ = 1875, Sept. 5Observer
RecorderDate₂ = 1875, Sept. 7Observer
Recorder

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Ru

Star.	α	δ	Mag.	T_s	T_m	T_o	T_r	T_g	T_h	Sum	Mean	Red. to T_m	T
16	43 51 51	9.0	19	16 44.8	17 7.8	11.3	14.5	17.8	21.3	17	14.54		
16	18.7	48.9	9.0	49.3	52.5						-23.29		
											-77		
(δ) - D	$\frac{\kappa'}{100}$				48.8						-24.08		
a_1										16	50.46		
										16	-1.91		
										16	48.55		
			9.2	16 43.5	17 9.3	12.9	16.2	19.4	22.8	17	16.12		
κ				46.8	49.4						-25.09		
(δ) - D	$\frac{\kappa'}{100}$				46.6						-74		
a_2											-2		
										16	50.27		
										16	-1.85		
										16	50.42	48.42	
17	43 54 34	9.1	19	50.8	18 5.2	-8.5	12.0	15.8	19.3	18	12.88		
17	18.9	32.3	9.3	54.0	56.9						-23.29		
(δ) - D	$\frac{\kappa'}{100}$				53.9						-84		
a_1											-3		
										17	47.62	48.02	
										17	-1.80		
										17	45.76	46.16	
			9.8	17 47.9	18 6.5	10.3	13.8	17.6	20.9	18	13.82		
κ				50.4	54.0						-25.09		
(δ) - D	$\frac{\kappa'}{100}$				50.8						-81		
a_2											-3		
										17	47.89		
										17	-1.80		
										17	46.09		
19	59 50 0	6.5	19	57.8	20 26.8	29.8	33.0	36.4	39.5	20	33.10		
19	36.5	49 59.5	6.6	6.5	3.0						-23.29		
(δ) - D	$\frac{\kappa'}{100}$				60.4						-72		
a_1											-2		
										20	9.07		
										20	-1.96		
										20	7.11		
			6.9	20 23.5	20 28.3	31.7	34.8	38.0	41.3	20	34.82		
κ											-25.09		
(δ) - D	$\frac{\kappa'}{100}$										-69		
a_2											-2		
										20	9.02		
										20	-1.91		
										20	7.11		
21	7 49 58	6.7	21	5.3	21 35.6	38.8	42.0	45.1	48.5	21	42.00		
20	44.2	57.0	7.5	7.8	10.2						-23.29		
(δ) - D	$\frac{\kappa'}{100}$				7.8						-72		
a_1											-2		
										21	17.97		
										21	-1.96		
										21	16.01		
			7.0	21 11.3	21 37.2	40.4	43.9	47.0	50.0	21	43.70		
κ				13.4	17.2						-25.09		
(δ) - D	$\frac{\kappa'}{100}$				14.1						-69		
a_2											-2		
										21	17.90		
										21	-1.91		
										21	15.99		
22	37 50 38	8.9	22	39.8	23 4.2	7.4	10.9	13.8	17.3	23	10.72		
22	18.8	36.6	8.8	42.5	44.8						-23.29		
(δ) - D	$\frac{\kappa'}{100}$				42.4						-73		
a_1											-2		
										22	46.68		
										22	-1.96		
										22	44.72		
			9.0	22 42.2	23 5.8	9.1	12.3	15.7	19.0	23	12.38		
κ				45.8	48.5						-25.09		
(δ) - D	$\frac{\kappa'}{100}$				45.8						-70		
a_2											-2		
										22	46.57		
										22	-1.91		
										22	44.66		

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+25.7 1.40993 9.79063 1.32608 _m	4	190	40.5	59.5 4 29.75	51 8 18.60 52 5.23 -21.19			10	51 51 44.04 - 18 - 49 + 9.26 + 44 - 12.00 51 41.07	+9.03
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+29.5 1.46982 9.79063 1.38597 _m	4	140	36.9	50.9 4 25.45	51 8 22.90 52 8.98 -24.32			10	51 44.66 - 23 - 53 + 9.45 + 44 - 12.20 51 41.59	+9.13
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+11.3 +17.7 1.25285 9.76324 1.14161 _m	1	408	2.9	103.7 1 51.85	50 56.50 54 34 43.13 - 12.56 14.16			30	54 34 28.97 - 8 - 20 + 12.00 + 56 - 12.00 34 29.25	+12.28
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+23.0 1.36173 9.76324 1.25049 _m	1	368	58.0	94.8 1 47.40	54 51 0.95 34 47.03 - 17.80			30	34 29.23 - 14 - 21 + 12.23 + 56 - 12.40 34 29.27	+12.44
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+32.7 1.51455 9.80777 1.44784 _m	4	103	31.2	41.7 4 20.85	50 18 27.50 2 14.13 - 21.04			0	50 1 46.09 - 27 - 47 + 7.47 + 35 - 11.90 1 41.25	+7.06
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+11.3 1.05308 9.80777 0.98637 _m	4	303	50.8	80.8 4 40.40	50 18 7.95 1 54.03 - 9.67			0	1 44.34 - 3 - 56 + 7.60 + 35 - 12.20 1 39.50	+7.36
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+34.2 1.53403 9.80807 1.46762 _m	1	6.1	26.9	33.0 1 16.50	50 16 31.85 0 18.48 - 29.35			5-	49 59 49.13 - 32 - 14 + 7.43 + 35 - 11.90 59 44.55	+7.32
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+29.6 1.47129 9.80807 1.40488 _m	1	7.6	30.4	38.0 1 19.00	50 16 29.35 0 15.43 - 25.40			5-	59 50.03 - 24 - 16 + 7.57 + 35 - 12.20 59 45.35	+7.52
$((\delta) - D) \frac{d'}{100}$											
δ_2											
d	+28.3 1.45129 9.80213 1.37944 _m	1	55.2	16.9	132.1 2 66.05	55 42.30 50 39 28.93 - 23.96			25-	50 39 4.77 - 22 - 23 + 8.08 + 38 - 12.00 39 0.98	+8.01
$((\delta) - D) \frac{d'}{100}$											
δ_1											
d	+26.6 1.42488 9.80213 1.35253 _m	1	55.1	17.8	132.9 2 66.45	55 41.90 50 39 27.98 - 22.52			25-	59 5.46 - 19 - 25 + 8.22 + 38 - 12.30 39 1.32	+8.16
$((\delta) - D) \frac{d'}{100}$											
δ_2											

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Date₁ = 1875, Sept. 5

Observer
Recorder

429
Date₂ = 1875, Sept. 7

Observer
Recorder

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Star.	α	δ	Mag.	T_s	T_m	T_o	T_r	T_g	T_h	Sum	Mean	Red. to T_m	T
24	13 50 10	8.4	19	24 36	24 220	25.1	28.4	31.6	34.9	24	28.40		
23	48 2 50 7.9	8.9		6.8							-23.29		
κ	31.5	6.3		9.3							-7.2		
(δ) - D	$\frac{\kappa'}{100}$			6.3							-24.03		
a_1										24	4.37		
										24	-1.98		
										24	2.39		
23	31.5 50 6.3	7.8		24 44	24 236	26.8	30.0	33.4	36.6	24	30.08		
κ				7.2							-25.09		
(δ) - D	$\frac{\kappa'}{100}$			7.2							-25.80		
23	48 2 50 7.9	8.9		24 42.5	24 420	45.0	48.2	51.6	54.7	24	48.30	24 4.28	
a_2				44.6							-25.09	24 1.93	
				45.1							-25.80	24 2.35	
				45.1							-2	24 22.50	
25	27 53 42	7.3		25 29.8	25 496	53.0	56.3	59.7	63.0	25	58.50	-1.93	
25	3.4 40.3	7.8		32.8							-23.29	24 20.57	
κ				34.9							-8.1		
(δ) - D	$\frac{\kappa'}{100}$			32.5							-24.13		
a_1										25	32.37		
										25	-1.92		
										25	30.45		
				7.7	25 29.8	25 51.3	54.7	58.4	61.8	25	58.30		
κ				32.7							-25.09		
(δ) - D	$\frac{\kappa'}{100}$			35.6							-7.8		
a_2											-25.90		
										25	32.40		
										25	-1.86		
										25	30.54		
27	1 53 43	8.0		26 56.7	27 246	28.2	31.6	35.2	38.5	27	31.62		
26	37.9 40.8	8.1		59.7							-23.29		
κ				2.5							-8.1		
(δ) - D	$\frac{\kappa'}{100}$			59.6							-24.13		
a_1										27	7.49		
										27	-1.93		
										27	5.56		
				8.0	26 59.3	27 264	29.8	33.3	36.7	27	33.30		
κ				5.3							-25.09		
(δ) - D	$\frac{\kappa'}{100}$			5.3							-7.8		
a_2											-25.90		
										27	7.40		
										27	-1.87		
										27	5.53		
28	2 53 46	8.4		27 53.9	28 220	26.5	29.0	32.6	36.0	28	29.02		
27	38.2 44.9	8.5		56.0							-23.29		
κ				59.3							-8.1		
(δ) - D	$\frac{\kappa'}{100}$			56.4							-24.13		
a_1										28	4.89		
										28	-1.93		
										28	2.96		
				8.6	28 23	28 238	27.4	30.8	34.2	28	30.84		
κ				5.3							-25.09		
(δ) - D	$\frac{\kappa'}{100}$			8.2							-7.8		
a_2											-25.90		
										28	4.94		
										28	-1.88		
										28	3.06		
29	7 53 56	8.6		28 54.4	28 59.9	3.4	7.0	10.4	14.0	29	6.94		
28	42.8 54.8	9.0		52.6							-23.29		
κ											-8.2		
(δ) - D	$\frac{\kappa'}{100}$										-24.14		
28	43.5 53 54.8	8.3		29 25.5	29 300	33.8	37.0	40.6	44.0	29	37.06	28 4.280	
a_1				27.7							-23.29	28 1.93	
				32.2							-8.2	28 40.87	
				32.5							-3	29 12.92	
				8.7	28 56.7	29 1.6	5.2	8.7	12.3	29	8.70	-1.93	
κ											-25.09	29 10.99	
(δ) - D	$\frac{\kappa'}{100}$										-8.0	28 42.78	
a_2											-3	28 1.88	
				8.4	29 26.0	29 315	35.0	38.7	42.0	29	38.60	28 40.5090	
											-25.09	29 12.68	
											-8.0	29 1.88	
											-3	29 10.80	

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	8'
d	+22.1 1.34439 9.80671 1.27662 _m	2	5.0	26.8	318 2' 57 1590	25 32.45 50 9 19.08 -18.91			55-	50 9 0.17 -13 -25 +7.60 +36 -12.00 8 55.75	+7.58
((δ) - D) $\frac{d'}{100}$											
δ ₁											
d	+22.9 1.35784 9.80671 1.29207 _m	2	2.9	25.3	281 2' 57 1405	25 34.30 50 9 20.38 -19.59			55-	9 0.79 -13 -27 +7.73 +36 -12.30 8 56.18	9 12.44 0 16 +7.73 +36 -12.30 10 8.07
((δ) - D) $\frac{d'}{100}$											
δ ₂											
d	+3.2 0.50515 9.80671 0.43738 _m	1	7.6	30.9	385 1' 56 1925	25 29.10 50 9 15.18 -27.38 2.74			55		
((δ) - D) $\frac{d'}{100}$											
δ ₁											
d	+24.0 1.38021 9.77216 1.27789 _m	3	30.4	40.5	609 3 23 3045	57 17.90 53 43 4.53 -18.96			20	53 42 45.57 -15 -38 +11.18 +50 -12.20 42 44.49 46.05	+11.12
((δ) - D) $\frac{d'}{100}$											
δ ₁											
d	+25.6 1.40824 9.77216 1.30592 _m	3	17.8	38.5	563 3 23 2870	57 20.20 53 43 6.28 -16.07 -20.23			20	42 50.21 -17 -42 +11.36 +50 -12.60 42 44.72	+11.27
((δ) - D) $\frac{d'}{100}$											
δ ₂											
d	+32.0 1.50515 9.77216 1.42283 _m	3	9.7	28.9	686 3 23 1930	57 29.05 53 43 15.68 -26.47			20	53 42 49.21 -27 -36 +11.18 +50 -12.30 42 47.93	+11.02
((δ) - D) $\frac{d'}{100}$											
δ ₁											
d	+31.0 1.49134 9.77216 1.38904 _m	3	9.0	30.1	391 3 23 1955	57 28.80 53 43 14.88 -24.47			20	42 47.39 -25 -40 +11.36 +50 -12.60 42 48.00	+11.21
((δ) - D) $\frac{d'}{100}$											
δ ₂											
d	+32.6 1.57322 9.77164 1.41038 _m	0	18.0	34.9	479 0 20 2395	2 24.40 53 46 19.03 -25.73			20	53 45 45.30 -28 -4 +11.56 +50 -12.30 45 44.88	+11.38
((δ) - D) $\frac{d'}{100}$											
δ ₁											
d	+25.5 1.40654 9.77164 1.30370 _m	0	17.5	40.6	581 0 20 2905	2 19.30 53 46 5.38 -20.12			20	45 45.26 -17 -6 +11.41 +50 -12.60 45 44.34	+11.68
((δ) - D) $\frac{d'}{100}$											
δ ₂											
d	+12.5 1.09691 9.77009 0.99252 _m	0	30.2	52.8	830 0 10 4150	12 6.85 53 55 53.48 -9.83			10	53 55 43.65 -4 -8 +11.32 +50 -12.30 55 43.10	57 36.57 2 42 +11.38 +50 -12.30 57 35.70
((δ) - D) $\frac{d'}{100}$											
δ ₁											
d	+8.6 0.93450 9.76974 0.82977 _m	3	4.5	1.8	1033 3 8 5165	13 56.70 53 57 43.33 -6.76			5-		
((δ) - D) $\frac{d'}{100}$											
δ ₁											
d	+12.0 1.07918 9.77009 0.97479 _m	0	28.2	51.4	796 0 10 3950	12 8.55 53 58 54.63 -9.44			10	55 45.19 -4 -8 +11.58 +50 -12.70 55 44.45	57 36.13 4 46 +11.58 +50 -12.70 57 35.01
((δ) - D) $\frac{d'}{100}$											
δ ₂											

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Date₁ = 1875, Sept. 5

Observer *W. A. R.*
Recorder *J. F. M.*

Date₂ = 1875, Sept. 7

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Observer *W.A.R.*
Recorder *J.F.M.*

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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

29	53 33	9.0	19	30	31.2	30	9.0	12.6	15.9	19.5	23.0	30	16.00
28	43.5	8.0			34.8								-23.29
29	23.2				38.4								-8.1
(S) - D	$\frac{\kappa'}{100}$				34.7								-24.13
α_1													29 51.84
κ													-1.94
(S) - D	$\frac{\kappa'}{100}$												29 49.93
α_2													30 17.84
9.0			30	—	30	10.7	14.2	17.8	21.0	25.0	30	17.84	-25.09
κ													-7.8
(S) - D	$\frac{\kappa'}{100}$												-25.90
α_2													29 51.54
30	46 53 11	8.6	30	54.6	31	9.9	11.3	14.7	18.3	21.8	31	148.0	-1.89
30	21.5	8.9		57.2									29 49.65
κ				0.3									50.65
(S) - D	$\frac{\kappa'}{100}$			57.4									30 50.68
α_1													-1.96
8.9			30	57.4	31	9.9	13.0	16.5	19.9	23.5	31	16.48	30 48.74
κ				0.7									-25.09
(S) - D	$\frac{\kappa'}{100}$			4.3									-7.7
α_2				60.9									-3
													30 50.59
													-1.90
													30 48.69

Single Observations

Sept 5

5	33 52 44	8.1	19	6	11.8	5	86.0	59.4	2.9	6.3	9.5	6	2.82
5	9.0	42.4	7.9		14.8								-23.29
κ					18.5								-7.8
(S) - D	$\frac{\kappa'}{100}$				15.0								-24.09
α_1													5 38.73
κ													-1.83
(S) - D	$\frac{\kappa'}{100}$												5 36.90
α_2													48 56.96

Sept 7

48	56 53 55	9.3			48	49.4	53.2	56.6	1.0	4.3	48	56.96	-25.08
48	8.1	54.1	8.3										-8.0
κ													-3
(S) - D	$\frac{\kappa'}{100}$												48 31.05
α_1													-1.65
48													48 29.43
κ													
(S) - D	$\frac{\kappa'}{100}$												
α_2													
κ													
(S) - D	$\frac{\kappa'}{100}$												
α_1													
κ													
(S) - 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	-18.7	3	11.6	31.9	435 3' 21.75	49 26.60			30	53 33 28.06	
(δ) - D) $\frac{d'}{100}$	1.27184m 9.77387 1.17123				33	53 33 13.23 +14.83				- 9 - 37 +10.99 + 50 -12.40 33 26.69	+11.03
δ_1											
d		3	1.0	21.8	228 3 11.40	49 36.95			30		
(δ) - D) $\frac{d'}{100}$					33	53 33 22.03				- 38 +11.19 + 50 -12.28	
δ_2											
d	+17.4	4	37.7	58.0	957 4 47.85	28 0.50			50	53 11 33.21	
(δ) - D) $\frac{d'}{100}$	1.24055 9.77761 1.14368m				54	53 11 47.13 -13.92				- 8 - 53 +10.64 + 50 -12.30 11 31.44	+10.53
δ_1											
d	+15.6	4	37.4	57.9	953 4 47.65	28 0.70			50	11 34.30	
(δ) - D) $\frac{d'}{100}$	1.19312 9.77761 1.09625m				54	53 11 46.78 -12.48				- 7 - 58 +10.83 + 50 -12.70 11 32.28	+10.68
δ_2											
d											
(δ) - D) $\frac{d'}{100}$											
δ_1											
d	-12.2	2	18.8	40.4	572 2 27.60	0 18.75			20	52 44 14.97	
(δ) - D) $\frac{d'}{100}$	1.08636m 9.76991 0.98179				22	52 44 5.38 + 9.59				- 4 - 27 +10.13 + 49 -11.60 44 13.68	+10.31
δ_2											
d		0	18.6	41.9	2205 10 32.25	12 18.10			10		
(δ) - D) $\frac{d'}{100}$					10	53 56 4.18				- 6 +11.36 + 54 -11.50	
δ_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 = 1875, Sept. 8
u = -0.56Observer W.A.R.
Recorder J. F. M.Date₂ = 1875, Sept. 14
u = -0.49Observer W.A.R.
Recorder J. F. M.

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Star.	α	δ	Mag.	T_s	T_m	T_o	T_r	T_g	T_h	Sum	Mean	Red. to T_m	T
2	13 55 3	8.3	19 2	131	2 36.0	39.6	43.0	46.8	50.4	2	43.16		
1	50.4	25	8.2		16.8						-25.71		
κ					19.0						-80		
(8) - D					16.2						-3		
a_1											16.62		
											-1.66		
											14.96		
8.5				2	31.0	2 39.6	43.2	46.7	50.3	2	46.74		
κ					33.1						-29.55		
(8) - D					33.4						-70		
a_2					32.8						-3		
											16.46		
											-1.46		
											15.00		
3	24 53 35	8.8	3	31.8	3 44.0	47.3	50.7	54.1	58.0	3	54.25		
3	0.3	8.8		34.7		54.2	54.5	54.1	54.5		-25.71		
κ				37.8							-76		
(8) - D				34.8							-3		
a_1				4	10	3 59.3	2.7	6.2	9.6	4	6.20		
	10.7	53 35.6	8.8	1.9							-25.71		
				1.5							-76		
											-3		
											39.70		
											-1.71		
											37.99		
9.0				3	25.5	3 51.0	54.2	58.0	1.9	3	57.98		
κ					29.4						-29.55		
(8) - D					28.9						-66		
a_2					29.0						-3		
											3		
											27.74		
											-1.51		
											26.23		
8.7				3	59.5	4 2.6	6.3	9.9	13.3	4	9.74		
κ											-29.55		
(8) - D											-66		
a_2											-3		
											3		
											39.50		
											-1.51		
											37.99		
4	22 54 11	8.5	4	46.5	4 46.0	49.4	52.8	56.3	59.9	4	52.88		
3	58.4	9.6	8.5								-25.71		
κ											-71		
(8) - D											-3		
a_1											26.37		
											-1.70		
											24.67		
8.7				4	46.9	4 49.3	53.0	56.2	59.9	4	56.30		
κ					58.3						-29.55		
(8) - D					53.9						-67		
a_2					50.3						-3		
											4		
											26.05		
											-1.50		
											24.55		
5	18 52 35	9.3	5	37.0	5 37.0	40.7	44.1	47.7	51.1	5	44.12		
4	34.2	33.4	9.3	54.5	40.7						-25.71		
κ				57.4	44.1						-73		
(8) - D				0.9							-2		
a_1				57.6							17.66		
											-1.74		
											15.92		
9.5				5	41.6	5 47.5	50.9	54.3	57.7	5	54.34		
κ											-29.55		
(8) - D											-64		
a_2											-2		
											24.13		
											-1.56		
											22.57		
6	15 54 53	8.4	6	33.5	6 37.9	41.5	44.9	48.6	52.3	6	45.04		
5	57.8	57.8	7.8	36.5							-25.71		
κ				39.6							-80		
(8) - D				36.5							-3		
a_1											18.50		
											-1.69		
											16.81		
8.8				6	28.3	6 41.4	45.0	48.5	52.0	6	48.50		
κ					32.3						-29.55		
(8) - D					35.2						-3		
a_2											18.22		
											-1.49		
											16.78		

Runs

Sept. 8 -16' 13.78 -1.12
 " 14 -16' 14.35 -1.12

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	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
d	+27.0 1.40106 9.75787 1.31475m	1	529	14.0	1269 2	545	20 44.90 55 4 31.12 -20.64		0	55 4 10.48 - 19 - 25 +12.46 + 60 -1210 4 71.20	+12.82
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+13.9 1.14201 9.75787 1.02640m	2	3.1	22.9	260 2	1300	20 35.35 55 4 21.00 -10.63		0	4 10.37 - 5 - 27 +12.89 + 60 -13.00 4 1054 1479	+13.17
(8) - D) $\frac{d'}{100}$											
δ_2											
d	+16.0 1.20412 9.77336 1.10300m	4	540	14.6	1286 5	430	52 44.05 53 36 30.27 27.47 -12.68		25-	53 36 77.54 37 8.22 - 7 - 61 +11.15 + 50 -1210 36 76.46 37 7.23	+11.11
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+29.0 1.46240 9.77336 1.36128m	4	462	6.9	113.1 4	56.55	52 51.80 53 36 37.45 -22.98		25-	36 14.47 37 9.02 - 22 - 59 +11.35 + 50 -1290 36 12.61 37 7.48	+11.31
(8) - D) $\frac{d'}{100}$											
δ_2											
d	+10.2 1.00860 9.77319 0.90731m	4	8.5	25.3	33.8 4	16.90	53 31.45 53 37 17.10 - 8.08		25-	37 7.48 - 51 +11.35 + 50 -1290 36 12.61 37 7.48	
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+6.4 0.80618 9.76712 0.69882m	4	429	4.6	107.4 4	53.70	27 54.65 54 11 40.87 - 5.00		50	54 11 35.87 - 1 - 59 +11.77 + 52 -1210 11 35.46	+11.69
(8) - D) $\frac{d'}{100}$											
δ_2											
d	+6.0 0.77815 9.76712 0.67079m	4	431	3.6	106.7 4	53.35	27 55.00 54 11 40.65 - 4.91		50	11 35.74 - 1 - 59 +11.98 + 52 -1300 11 34.64	+11.90
(8) - D) $\frac{d'}{100}$											
δ_2											
d	-13.5 1.13033m 9.78296 1.03881	3	8.7	24.9	28.6 3	1430	54 34.05 52 38 20.27 +10.93		25-	52 38 31.20 - 5 - 39 +10.18 + 48 -1210 38 129.32	+10.22
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+12.7 1.10380 9.78362 1.01294m	0	550	15.8	130.8 1	5.40	51 42.95 52 35 28.60 -10.30		30	35 18.30 - 5 - 13 +10.80 + 48 -1290 35 16.00	+10.60
(8) - D) $\frac{d'}{100}$											
δ_2											
d	+8.5 0.92742 9.75967 0.81461m	2	28.4	49.0	77.4 2	3870	10 9.65 54 53 58.87 - 6.33		10	54 53 49.34 - 2 - 32 +12.47 + 59 -1226 53 49.88	+12.74
(8) - D) $\frac{d'}{100}$											
δ_1											
d	+16.6 1.22011 9.75967 1.10540m	2	23.9	42.9	66.6 2	3330	10 15.05 54 54 0.60 -12.75		10	53 47.85 - 7 - 31 +12.72 + 59 -13.10 53 47.68	+12.93
(8) - D) $\frac{d'}{100}$											
δ_2											

chk

Observer *Continued in C. 32*
Recorder

Date₂ =

Observer
Recorder

Date₁ =

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													

