1875phae.proj.15968

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v.592

Zone Reductions

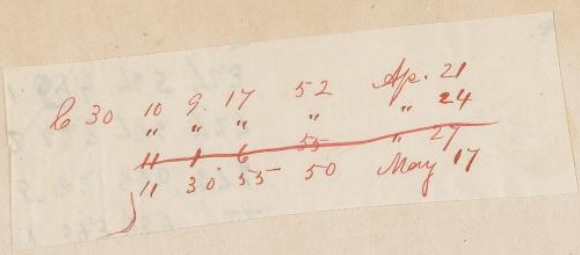
C. D. 30

From Mch 24 to June 21 1875

Charles W. Sever, University Bookstore, Cambridge.

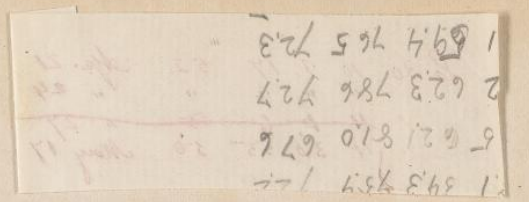
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1875phae.proj.1596R

Continued from C. ~~28~~ 29

1

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											

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897

Single Observations.

Date$_1$ = 1875, Apr. 21 — Observer W.A.R. — Recorder J.F.M.

n = +.05

Date$_2$ = — Observer — Recorder

2

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
7	7 44	50 59	8.3	10 7 36.4	7 56.1	57.2	2.5	5.6	9.0	8	2.48		
6	42.1	51 3.6	8.2	38.8							+ 0.63		
κ				42.2							+ 6		
((δ) — D) $\frac{\kappa'}{100}$				39.8					+ 0.67		− 2		
α_1										8	3.15		
											− 2.33		
Apr. 21											0.82		
9	17	52 55	8.4	10 9 0.8	9 29.3	27.7	31.1	34.5	38.0	9	31.12		
8	10.1	53 0.8	8.0	38							+ 0.63		
κ				6.4							+ 7		
((δ) — D) $\frac{\kappa'}{100}$				8.7					+ 0.68		− 2		
α_2										9	31.80		
Apr. 21											− 2.45		
											29.35		
10	24	54 08	8.7	10 10 17.6	10 33.8	37.2	40.6	44.3	48.0	10	40.78		
9	19.6	12.8	9.0	21.1							+ 0.63		
κ				24.0							+ 7		
((δ) — D) $\frac{\kappa'}{100}$				20.9					+ 0.67		− 3		
α_1										10	41.45		
											−2.53		
											38.92		
κ													
((δ) — D) $\frac{\kappa'}{100}$													
α_2													
κ													
((δ) — D) $\frac{\kappa'}{100}$													
α_1													
κ													
((δ) — D) $\frac{\kappa'}{100}$													
α_2													
κ													
((δ) — D) $\frac{\kappa'}{100}$													
α_1													
κ													
((δ) — D) $\frac{\kappa'}{100}$													
α_2													
κ													
((δ) — D) $\frac{\kappa'}{100}$													
α_1													
κ													
((δ) — D) $\frac{\kappa'}{100}$													
α_2													

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1875phaeproj.15966

1875 Apr. 21 -16' 7.59 —.13

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
d	+23.4	4	17.5	262	437 4′ 21.″85	13 26.50			8	50 56 59.23	
	1.36922				9	50 57 18.91				− 14	+8.787
	9.79934					−17.68				− 56	
	1.29408 n									+ 9.07	
((δ) — D) $\frac{d'}{100}$										+ 40	
										− 9.70	
δ_1										56 58.30	
d	+27.4	2	42.4	49.1	915 2	45.75	10 2.60			10	52 53 32.94	
	1.43775				12	52 53 55.01				− 20	+1111
	9.78063					−22.07				− 35	
	1.34390 n									+ 11.16	
((δ) — D) $\frac{d'}{100}$										+ 50	
										−10.10	
δ_2										53 33.95	
d	+19.9	4	9.5	177 272	4	13.60	(2.3) 53 34.75			28	54 7 11.59	
	1.29885				29	54 87 27.16 ✓				555	− 10	+12.35
	9.76800				59	− 15.57					− 55	
	1.19237										+12.50	
((δ) — D) $\frac{d'}{100}$											+ 50	
											−10.50	
δ_1											7 13.44	
d												
((δ) — D) $\frac{d'}{100}$												
δ_2												
d												
((δ) — D) $\frac{d'}{100}$												
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												
d												
((δ) — D) $\frac{d'}{100}$												
δ_1												
d												
((δ) — D) $\frac{d'}{100}$												
δ_2												

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Date$_1$ = Observer / Recorder — Date$_2$ = Observer / Recorder — 4 — Ru

Star. α	δ	Mag.	T_δ	T_m	T_e	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												
κ												
$((\delta) - D)\frac{\kappa'}{100}$												
α_1												
κ												
$((\delta) - D)\frac{\kappa'}{100}$												
α_2												

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1875phaeproj.15968

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											

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399 — 450 — 8

Date$_1$ = 1875, Apr. 24 — Observer / Recorder — Date$_2$ = Apr. 25 — Observer / Recorder — Ru

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
10	12	13 53 32	9.6	8 10 12 7.6	12 20.3	24.0	27.5	31.0	34.5	12	m s 27.46		
	11	7.4	9.5	10.2							+ 0.96		
	κ			13.5							− 22		
				10.4					+ 0.71		− 3		
	((δ) − D) $\frac{\kappa'}{100}$									12	28.17		
	a_1										− 2.44		
											25.73		
			9.2	12 0.6	12 20.4	24.0	27.4	30.9	34.3	12	27.40		
				4.2							+ 0.88		
	κ			7.3							− 22		
				4.0					+ 0.63		− 3		
	((δ) − D) $\frac{\kappa'}{100}$									12	28.03		
	a_2										− 2.42		
											25.61		
	13	15 54 46	9.0	13 7.2	13 22.5	26.2	29.7	33.3	36.9	13	29.72		
	12	10.4	9.4	10.2							+ 0.96		
	κ			12.9							− 22		
				10.1					+ 0.71		− 3		
	((δ) − D) $\frac{\kappa'}{100}$									13	30.43		
	a_1										− 2.52		
											27.91		
			9.0	13 5.6	13 22.8	26.4	30.0	33.4	37.0	13	29.92		
				9.7							+ 0.88		
	κ			12.2							− 22		
				9.2					+ 0.63		− 3		
	((δ) − D) $\frac{\kappa'}{100}$									13	30.55		
	a_2										− 2.49		
											28.06		
	14	25 54 39	9.3	14 21.2	14 43.4	47.7	50.9	54.4	58.4	14	51.00		
	13	29.8	9.2	23.3							+ 0.96		
	κ			28.7							− 22		
				25.1					+ 0.71		− 3		
	((δ) − D) $\frac{\kappa'}{100}$									14	51.71		
	a_1										− 2.52		
											49.19		
			9.2	14 12.2	14 43.6	47.3	50.9	54.5	58.0	14	50.88		
				16.0							+ 0.88		
	κ			19.1							− 22		
				15.8					+ 0.63		− 3		
	((δ) − D) $\frac{\kappa'}{100}$									14	51.49		
	a_2										− 2.50		
											48.99		
	15	58 49 48	8.8	15 38.5	16 3.7	6.8	10.1	13.2	16.7	16	10.10		
	14	52.2 49 50.2	8.2	42.0							+ 0.96		
	κ			44.0							− 19		
				41.5					+ 0.75		− 2		
	((δ) − D) $\frac{\kappa'}{100}$									16	10.85		
	a_1										− 2.28		
											8.57		
			8.0	15 39.7	16 3.9	7.1	10.3	13.4	16.7	16	10.28		
				43.6							+ 0.88		
	κ			45.2							− 19		
				42.6					+ 0.67		− 2		
	((δ) − D) $\frac{\kappa'}{100}$									16	10.95		
	a_2										− 2.27		
											8.68		
	17	55 53 18	8.8	17 45.6	17 59.8	3.4	6.9	10.4	13.8	18	6.86		
	16	49.2 22.0	7.5								+ 0.96		
	κ								+ 0.72		− 21		
											− 3	18	7.58
	((δ) − D) $\frac{\kappa'}{100}$		9.0	17 46.8	17 59.8	3.4	6.9	10.4	13.8	18	6.86		− 2.47
	a_1										+ 0.96		5.11
									+ 0.72		− 21		
											− 3	18	7.58
			8.8	17 44.2	17 59.8	3.2	6.7	10.3	13.5	18	6.70		− 2.47
											+ 0.88		5.11
	κ								+ 0.64		− 21		
											− 3	18	7.34
	((δ) − D) $\frac{\kappa'}{100}$		9.0	17 45.4	18 0.1	3.5	7.0	10.6	13.9	18	7.02		− 2.45
	a_2										+ 0.88		4.89
									+ 0.64		− 21		
											− 3	18	7.56
													− 2.45
													5.21

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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′
	+17.1	0 19.9	36.7	56.6	0′ 28″.30	47 20.05			35	53 30 59.09	
d	1.23300				35	53 31 12.98				− 8	+1.79
	9.77~~387~~					−13.58				− 6	
((δ) − D) $\frac{d'}{100}$	1.13274 m									+ 11.43	
										+ 50	
δ₁										− 10.45	
										31 0.43	
	+23.4	0 15.8	30.8	46.6	0′ 23″.30	47 25.05			35	58.91	
d	1.36922				35	53 31 14.68				− 14	+1.78
	9.77422					−18.58				− 4	
((δ) − D) $\frac{d'}{100}$	1.26896 m									+ 11.46	
										+ 50	
δ₂										− 10.60	
										31 0.09	
	+19.6	2 3.1	19.4	22.5	2 11.25	0 37.10			20	54 44 14.61	
d	1.29226				22	54 44 29.72				− 10	+1.291
	9.76146					−15.11				− 26	
((δ) − D) $\frac{d'}{100}$	1.17924 m									+12.70	
										+ 57	
δ₁										− 10.70	
										44 16.82	
	+20.7	2 2.7	18.2	20.9	2 10.45	0 37.90			20	14.38	
d	1.31597				22	54 44 30.34				− 11	+1.294
	9.76146					−15.96				− 26	
((δ) − D) $\frac{d'}{100}$	1.20295 m									+12.74	
										+ 57	
δ₂										− 10.90	
										44 16.42	
	+25.9	3 39.8	58.4	95.2	3 47.60	54 0.75			28	54 37 33.35	
d	1.41330				28	54 37 53.37				− 18	+1.952
	9.76271					−20.02				− 45	
((δ) − D) $\frac{d'}{100}$	1.30153 m									+12.59	
										+ 56	
δ₁										−10.60	
										37 35.27	
	+35.1	3 33.1	47.7	80.8	3 40.40	54 7.95			28	33.26	
d	1.54531				28	54 38 0.39				− 32	+1.244
	9.76271					−27.13				− 44	
((δ) − D) $\frac{d'}{100}$	1.43354 m									+12.64	
										+ 56	
δ₂										−10.70	
										37 35.00	
	+28.6	2 21.3	39.8	61.1	2 30.55	0 17.80			26	49 43 45.74	
d	1.45637				22	49 44 10.42				− 22	+.731
	9.81047					−24.68				− 30	
((δ) − D) $\frac{d'}{100}$	1.39236 m									+7.49	
										+ 34	
δ₁										− 9.15	
										43 43.90	
	+27.7	2 23.5	41.0	64.5	2 32.25	0 16.10			20	44.64	
d	1.44248				22	49 44 8.54				− 21	+.735
	9.81047					−23.90				− 30	
((δ) − D) $\frac{d'}{100}$	1.37847 m									+7.52	
										+ 34	
δ₂										− 9.30	
										43 42.69	
	+21.3	0 5-3.5	10.9	124.4	1 2.20	31 46.15			50	53 15 21.75	22.71
d	1.32838				51	53 15 38.77	15 21.75		22.71	− 12	− 10
	9.77694					−17.02	+1.141		+1.143	− 12	− 12
((δ) − D) $\frac{d'}{100}$	1.23084 m					−16.06				+11.15	+11.15
	+20.1									+ 50	+ 50
δ₁	1.30020									−10.00	−10.00
	9.77694									15 23.16	15 24.14
	1.20566 m										
	+22.5	0 5-3.1	8.1	121.2	1 0.60	31 47.75			5-0	22.22	22.93
d	1.35218				51	53 15 40.19	2222		2293	− 13	− 13
	9.77694					−17.97	+1.144		+1.144	− 12	− 12
((δ) − D) $\frac{d'}{100}$	1.25464 m					−17.26				+11.19	+11.19
	+21.6									+ 50	+ 50
δ₂	1.33445									−10.15	−10.15
	9.77694									15 23.51	15 24.22
	1.23691 m										

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399

Date$_1$ = 1875, Apr. 24 Observer Recorder

400

Date$_2$ = 1875, Apr. 25 Observer Recorder

10

Ru

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
19	19 28 58	18	9.0	10 19 12.6	19 37.0	40.6	44.0	47.3	50.6	19	43.90		
18	22.8	22.3	9.0	13.7							+ 0.96		
κ				18.6							− 21		
((δ) − D) $\frac{\kappa'}{100}$				15.5					+ 0.72		− 3		
a_1										19	44.62		
											− 2.49		
											42.13		
			8.8	19 11.2	19 37.2	40.4	44.0	47.5	51.0	19	44.02		
				14.8							+ 0.88		
κ				17.8							− 21		
((δ) − D) $\frac{\kappa'}{100}$				14.6					+ 0.64		− 3		
a_2										19	44.66		
									23.6		− 2.47		
											42.19		
21	2 53	17	8.8	20 57.7	21 4.9	9.7	13.3	16.7	20.4	21	16.74		
19	57.5	22.6	8.9	54.8							+ 0.96		
κ				58.0							− 21		
((δ) − D) $\frac{\kappa'}{100}$				54.8					+ 0.72		− 3		
a_1										21	17.46		
											− 2.50		
											14.96		
			8.9	20 43.2	21 9.8	13.3	16.8	20.2	23.8	21	16.78		
				46.7							+ 0.89		
κ				49.3							− 21		
((δ) − D) $\frac{\kappa'}{100}$				46.4					+ 0.65		− 3		
a_2										21	17.43		
											− 2.48		
											14.95		
22	15 51	10	6.4	22 2.7	22 24.9	28.0	31.2	34.7	38.0	22	31.36		
21	15.0	18.7	6.2	5.9							+ 0.96		
κ				9.0							− 20		
((δ) − D) $\frac{\kappa'}{100}$				5.9					+ 0.74		− 2		
a_1										22	32.10		
											− 2.40		
											29.70		
			6.8	22 9.7	22 24.7	27.9	31.2	34.5	37.8	22	31.22		
				11.9							+ 0.89		
κ				14.4							− 20		
((δ) − D) $\frac{\kappa'}{100}$				12.0					+ 0.67		− 2		
a_2										22	31.89		
											− 2.38		
											29.51		
23	5 52	28	8.6	22 57.8	23 12.0	15.3	18.9	22.2	25.7	23	1888		
22	1.7	38.8	8.3	10							+ 0.96		
κ				3.7							− 21		
((δ) − D) $\frac{\kappa'}{100}$				6.0					+ 0.73		− 2		
a_1										23	19.59		
											− 2.47		
											17.12		
			8.5	23 5.0	23 11.9	15.3	18.7	22.2	25.6	23	18.74		
				8.0							+ 0.89		
κ				10.7							− 21		
((δ) − D) $\frac{\kappa'}{100}$				7.9					+ 0.66		− 2		
a_2										23	19.40		
											− 2.45		
											16.95		
24	45 54	18	8.3	24 33.8	24 52.6	56.1	59.7	3.1	6.8	24	59.66		
23	40.8	19.9	8.3	37.5							+ 0.96		
κ				39.5							− 22		
((δ) − D) $\frac{\kappa'}{100}$				36.9					+ 0.71		− 3		
a_1										25	0.37		
										24	− 2.59		
											57.78		
			8.0	24 35.4	24 52.6	56.2	59.6	3.0	6.7	24	59.62		
				38.8							+ 0.89		
κ				41.7							− 22		
((δ) − D) $\frac{\kappa'}{100}$				38.7					+ 0.64		− 3		
a_2										25	0.26		
										24	− 2.56		
											57.70		

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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′
	+28.4	0	57.6	14.0	131.6	1′	5.80	31 42.55		S-0	53 15 12.48	
	1.45332				57	53 15 35.17					− 21	+11.31
d	9.77694						−22.69				− 13	
	1.35578m										+11.15	
$((\delta) - D)\frac{d'}{100}$											+ 50	
											− 9.90	
δ_1											15 13.89	
	+29.4	0	57.2	13.4	130.6	1	5.30	31 43.05		S-0	12.00	
	1.46835				51	53 15 35.49					− 23	+11.33
d	9.77694						−28.49				− 13	
	1.37081m										+11.19	
$((\delta) - D)\frac{d'}{100}$											+ 50	
											−10.00	
δ_2											15 13.33	
	+21.9	0	55.0	11.8	126.8	1	3.40	31 44.95		S-0	53 15 20.08	
	1.34044				51	53 15 37.57					− 13	+11.40
d	9.77694						−17.49				− 13	
	1.24290m										+11.16	
$((\delta) - D)\frac{d'}{100}$											+ 50	
											− 9.80	
δ_1											15 21.68	
	+30.4	0	47.0	2.9	109.9	0	54.95	31 52.40		S-0	21.56	
	1.48287				50	53 15 45.84					− 24	+11.34
d	9.77694						−24.28				− 11	
	1.38533m										+11.19	
$((\delta) - D)\frac{d'}{100}$											+ 50	
											− 9.90	
δ_2											15 23.00	
	+25.5	3	38.7	54.9	93.6	3	46.80	29 1.55		S-0	51 12 32.84	
	1.40654				53	51 12 54.17					− 17	+8.82
d	9.79699						−21.33				− 45	
	1.32905m										+ 9.03	
$((\delta) - D)\frac{d'}{100}$											+ 41	
											− 9.10	
δ_1											12 32.56	
	+19.2	3	43.1	59.9	103.0	3	51.50	28 56.85		S-0	33.23	
	1.28330				53	51 12 49.29					− 10	+8.91
d	9.79699						−16.06				− 46	
	1.20581m										+ 9.06	
$((\delta) - D)\frac{d'}{100}$											+ 41	
											− 9.20	
δ_2											12 32.94	
	+ 18.1	4	24.2	40.4	64.6	4	32.30	43 16.05		S-	52 26 53.94	
	1.25768				39	52 27 8.67					− 8	+10.17
d	9.78494						−14.73				− 53	
	1.16814m										+10.31	
$((\delta) - D)\frac{d'}{100}$											+ 47	
											− 9.40	
δ_1											26 54.71	
	+10.8	4	31.4	46.1	77.5	4	38.75	43 9.60		S-	53.25	
	1.03342				39	52 27 2.04					− 3	+10.25
d	9.78494						− 8.79				− 54	
	0.94388m										+10.35	
$((\delta) - D)\frac{d'}{100}$											+ 47	
											− 9.50	
δ_2											26 54.00	
	+22.88	2	32.7	49.3	82.0	2	41.00	30 7.35		S-0	54 13 42.18	
	1.35793				52	54 13 59.97					− 14	+12.24
d	9.76677						−17.79				− 32	
	1.25022m										+12.18	
$((\delta) - D)\frac{d'}{100}$											+ 52	
											− 9.65	
δ_1											13 44.77	
	+20.9	2	34.9	50.1	85.0	2	42.50	30 5.85		S-0	41.98	
	1.32015				52	54 13 58.29					− 11	+12.32
d	9.76677						−16.31				− 32	
	1.21244m										+12.23	
$((\delta) - D)\frac{d'}{100}$											+ 52	
											− 9.90	
δ_2											13 44.40	

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Ru

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
25	43	84 09	6.0	10 25 22.4	25 47.2	50.8	54.6	58.0	1.6	25	m s 54.44		
24	38.0	144	6.8	25.4							+ 0.96		
κ				28.7							- 22		
				25.5					+ 0.71		- 3		
((δ) — D) $\frac{\kappa'}{100}$										25	55.16		
											- 2.59		
α_1											52.56		
			6.5	25 22.8	25 47.3	50.9	54.3	57.8	1.3	25	54.32		
				25.4							+ 0.89		
κ				28.4							- 22		
				25.3					+ 0.64		- 3		
((δ) — D) $\frac{\kappa'}{100}$										25	54.96		
											- 2.57		
α_2											52.39		
26	45	82 48	8.9	26 39.7	26 52.8	56.4	59.6	3.0	6.6	26	59.68		
25	42.0	83.6	8.5	42.2							+ 0.96		
κ				44.6							- 21		
				42.2					+ 0.73		- 2		
((δ) — D) $\frac{\kappa'}{100}$										27	0.41		
											- 2.53		
α_1											57.88		
			8.8	26 37.5	26 53.0	56.2	59.6	3.1	6.4	26	57.66		
				40.9							+ 0.89		
κ				43.4							- 21		
				40.6					+ 0.66		- 2		
((δ) — D) $\frac{\kappa'}{100}$										27	0.32		
											- 2.50		
α_2											57.82		
28	3	81 89	9.0	27 54.0	28 11.5	14.7	18.3	21.5	24.8	28	18.16		
27	0.3	82 4.2	9.0	57.0							+ 0.96		
κ				1.1							- 21		
				57.4					+ 0.73		- 2		
((δ) — D) $\frac{\kappa'}{100}$										28	18.89		
											- 2.49		
α_1											16.40		
			9.0	27 48.6	28 11.5	15.0	18.2	21.7	25.0	28	18.28		
				52.5							+ 0.89		
κ				53.0							- 21		
				52.0					+ 0.66		- 2		
((δ) — D) $\frac{\kappa'}{100}$										28	18.94		
											- 2.47		
α_2											16.47		
29	22	81 15	8.8	29 18.9	29 36.9	40.3	43.4	46.8	50.0	29	43.48		
28	23.0	19.5	8.4	22.6							+ 0.96		
κ				25.4							- 20		
				22.3					+ 0.74		- 2		
((δ) — D) $\frac{\kappa'}{100}$										29	44.22		
											- 2.46		
α_1											41.76		
			8.7	29 15.6	29 37.0	40.3	43.6	46.8	50.1	29	43.58		
				19.1							+ 0.89		
κ				21.6							- 20		
				18.8					+ 0.67		- 2		
((δ) — D) $\frac{\kappa'}{100}$										29	44.23		
											- 2.44		
α_2											41.79		
30	49	82 10	9.7	30 35.0	30 56.7	0.1	3.6	6.9	10.4	31	3.54		
29	46.4	15.7	9.4	37.5							+ 0.96		
κ				38.8							- 21		
				37.4					+ 0.73		- 2		
((δ) — D) $\frac{\kappa'}{100}$										31	4.27		
											- 2.52		
α_1											1.75		
			9.4	30 44.2	30 56.9	0.3	3.7	7.1	10.4	31	3.68		
				47.9							+ 0.89		
κ				51.3							- 21		
				47.8					+ 0.66		- 2		
((δ) — D) $\frac{\kappa'}{100}$										31	4.34		
											- 2.50		
α_2											1.84		

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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′
	+28.9	3 - 44.6	0.9	105.5	2 / 57	52.75	24 55.60		8.8	54 8 25.61	
d	1.46090						54 8 48.22			- 22	+12.02
	9.76782						-22.61			- 34	
((δ) — D) $\frac{d'}{100}$	1.35424 m									+12.07	
										+ 51	
δ_1										- 9.65	
										8 27.98	
	+28.8	2 44.7	39.8	104.5	2 / 57	52.25	24 56.10		8.8	26.01	
d	1.45939						54 8 48.54			- 22	+12.07
	9.76782						-22.53			- 34	
((δ) — D) $\frac{d'}{100}$	1.35213 m									+12.12	
										+ 51	
δ_2										- 9.80	
										8 28.28	
	+17.5	3 9.2	24.8	34.0	3 / 18	17.00	4 31.35		1.5	52 48 9.84	
d	1.24304						52 48 23.97			- 8	+10.68
	9.78147						-14.13			- 39	
((δ) — D) $\frac{d'}{100}$	1.15003 m									+10.67	
										+ 48	
δ_1										- 9.20	
										48 11.32	
	+19.1	3 7.9	23.2	31.1	3 / 18	15.55	4 32.80		1.5	9.82	
d	1.28103						52 48 25.24			- 10	+10.69
	9.78147						-15.42			- 39	
((δ) — D) $\frac{d'}{100}$	1.18802 m									+10.70	
										+ 48	
δ_2										- 9.30	
										48 11.21	
	+20.8	3 33.4	10.2	12.36	4 / 9	1.80	13 46.55		3	57 57 22.05	
d	1.31806						57 57 39.17			- 12	+9.63
	9.78983						-17.12			- 48	
((δ) — D) $\frac{d'}{100}$	1.23341 m									+9.78	
										+ 45	
δ_1										-8.90	
										57 22.78	
	+26.3	3 48.5	3.0	111.5	3 / 8	55.75	18 52.60		4	23.39	
d	1.41996						51 57 45.04			- 18	+9.63
	9.78999						-21.65			- 47	
((δ) — D) $\frac{d'}{100}$	1.33547 m									+9.83	
										+ 45	
δ_2										- 9.00	
										57 24.02	
	+21.2	4 20.5	39.0	59.8	4 / 54	29.90	28 18.45		8.0	51 11 53.33	
d	1.32634						51 12 11.07			- 12	+8.77
	9.79699						-17.74			- 53	
((δ) — D) $\frac{d'}{100}$	1.24885 m									+9.01	
										+ 41	
δ_1										- 8.60	
										11 53.50	
	+24.8	4 18.4	34.9	53.3	4 / 54	26.65	28 21.70		8.0	53.39	
d	1.39445						51 12 14.14			- 16	+8.69
	9.79699						-20.75			- 52	
((δ) — D) $\frac{d'}{100}$	1.31696 m									+ 8.96	
										+ 41	
δ_2										- 8.70	
										11 53.38	
	+26.1	2 3.8	19.9	23.7	2 / 57	11.85	25 36.50		0.5	52 9 7.74	
d	1.41664						52 9 29.12			- 18	+10.01
	9.78788						-21.38			- 26	
((δ) — D) $\frac{d'}{100}$	1.32994 m									+9.99	
										+ 46	
δ_1										- 8.70	
										9 9.05	
	+15.9	3 12.4	37.9	40.3	2 / 57	20.15	25 28.20		7.5	7.61	
d	1.20140						52 9 20.64			- 7	+10.13
	9.78788						-13.00			- 28	
((δ) — D) $\frac{d'}{100}$	1.11480 m									+10.04	
										+ 46	
δ_2										- 8.90	
										9 8.86	

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Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
32	6 50 17		9.6	10 31 58.6	32 16.8	20.2	23.4	26.5	30.0	32	23.38		
31	7.6 21.5		9.3	2.6							+ 0.96		
κ				5.3					+ 0.75		- 19		
((δ) — D) $\frac{\kappa'}{100}$				6.22						32	- 2		
a_1											24.13		
											- 2.43		
											21.70		
			9.5	31 38.3	32 16.9	20.3	23.4	26.7	29.8	32	23.42		
				1.3							+ 0.89		
κ				3.7					+ 0.78		- 19		
((δ) — D) $\frac{\kappa'}{100}$				6.1.1						32	- 2		
a_2											24.10		
											- 2.41		
											21.69		
33	24	5 3 38	7.0	33 0.9	33 30.5	33.8	37.3	40.8	44.3	33	37.34		
32	19.8	43.5	7.0	8.8							+ 0.96		
κ				6.6					+ 0.71		- 22		
((δ) — D) $\frac{\kappa'}{100}$				3.8						33	- 3		
a_1											38.05		
											- 2.62		
											35.43		
			6.5	33 8.5	33 30.5	34.0	37.4	40.8	44.4	33	37.42		
				11.5							+ 0.89		
κ				14.0					+ 0.64		- 22		
((δ) — D) $\frac{\kappa'}{100}$				11.3						33	- 3		
a_2											38.06		
											- 2.60		
											35.46		
35	21	5 2 5 9	9.2	35 20.1	35 27.4	30.6	33.7	37.4	40.9	35	34.00		
34	17.6	5 3 3.6	9.2	22.6							+ 0.96		
κ				25.6					+ 0.72		- 21		
((δ) — D) $\frac{\kappa'}{100}$				22.8						35	- 3		
a_1											34.72		
											- 2.60		
											32.12		
			9.0	35 1.9	35 27.2	30.7	34.1	37.5	41.0	35	34.10		
				5.3							+ 0.89		
κ				8.0					+ 0.65		- 21		
((δ) — D) $\frac{\kappa'}{100}$				5.1						35	- 3		
a_2											34.75		
											- 2.58		
											32.17		
36	44	5 0 5 0	9.3	36 35.2	36 54.0	57.2	0.5	3.7	6.9	37	0.46		
35	43.4	54.9	9.2	37.8							+ 0.96		
κ				41.4					+ 0.75		- 19		
((δ) — D) $\frac{\kappa'}{100}$				38.1						37	- 2		
a_1											1.21		
											- 2.49		
											58.72		
			9.2	36 31.7	36 54.0	57.2	0.6	3.7	7.0	37	0.50		
				35.5							+ 0.89		
κ				39.1					+ 0.68		- 19		
((δ) — D) $\frac{\kappa'}{100}$				35.4						37	- 2		
a_2											1.18		
											- 2.47		
											58.71		
37	55	5 0 10	8.8	37 47.3	38 3.3	6.7	9.7	13.1	16.3	38	9.82		
36	56.2	14.6	8.5	50.6							+ 0.96		
κ				53.8					+ 0.75		- 19		
((δ) — D) $\frac{\kappa'}{100}$				50.6						38	- 2		
a_1											10.57		
											- 2.46		
											8.11		
			9.0	37 33.2	38 3.4	6.7	10.0	13.1	16.5	38	9.94		
				36.2							+ 0.89		
κ				38.7					+ 0.68		- 19		
((δ) — D) $\frac{\kappa'}{100}$				36.0						38	- 2		
a_2											10.62		
											- 2.45		
											8.17		

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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′
	+21.2	0	81.1	9.0	120.1	1′ 51	0.05	31 48.30		50	50 15 22.82	
d	1.32634							50 15 40.92			− 12	+8.15
	9.80580							−18.10			− 12	
((δ) − D) $\frac{d'}{100}$	1.25766$_n$										+ 8.03	
											+ 36	
δ_1											− 8.10	
											15 22.87	
	+22.3	0	49.8	6.7	116.2	0 50	58.10	31 50.25		50	23.65	
d	1.34830							50 15 42.69			− 13	+8.17
	9.80580							−19.04			− 12	
((δ) − D) $\frac{d'}{100}$	1.27962$_n$										+ 8.06	
											+ 36	
δ_2											− 8.25	
											15 23.57	
	+33.5	3	48.2	4.0	112.2	3 28	58.10	53 52.25		25	53 37 18.34	
d	1.52504							53 37 44.87			− 29	+11.28
	9.77319							−26.53			− 47	
((δ) − D) $\frac{d'}{100}$	1.42375$_n$										+11.54	
											+ 50	
δ_1											− 8.70	
											37 20.72	
	+26.1	3	55.2	9.5	124.7	4 29	2.35	53 46.00		28	17.77	
d	1.41664							53 37 38.44			− 18	+11.42
	9.77319							−20.67			− 48	
((δ) − D) $\frac{d'}{100}$	1.31535$_n$										+11.58	
											+ 50	
δ_2											− 9.05	
											37 20.14	
	+11.2	3	2.4	1.84	21.8	3 8	10.90	14 37.45		8	52 58 21.06	
d	1.04922							52 58 30.07			− 3	+10.94
	9.77980							− 9.01			− 38	
((δ) − D) $\frac{d'}{100}$	0.95454$_n$										+10.85	
											+ 50	
δ_1											− 8.60	
											58 23.40	
	+29.0	2	48.6	2.4	111.0	2 7	55.50	14 52.85		8	21.97	
d	1.46240							52 58 45.29			− 22	+10.82
	9.77980							−23.32			− 35	
((δ) − D) $\frac{d'}{100}$	1.36772$_n$										+10.89	
											+ 50	
δ_2											− 8.75	
											58 24.04	
	+22.4	2	36.9	53.1	90.0	2 17	45.00	5 3.35		15	50 48 37.07	
d	1.35025							50 48 56.97			− 13	+8.53
	9.80058							−18.90			− 33	
((δ) − D) $\frac{d'}{100}$	1.27635$_n$										+ 8.61	
											+ 38	
δ_1											− 7.80	
											48 37.80	
	+25.1	2	35.0	50.7	85.7	2 17	42.85	5 5.50		15	36.77	
d	1.39967							50 48 57.74			− 17	+8.53
	9.80058							−21.17			− 32	
((δ) − D) $\frac{d'}{100}$	1.32577$_n$										+ 8.64	
											+ 38	
δ_2											− 8.05	
											48 37.25	
	+19.2	3	7.9	24.7	32.6	3 58	16.30	24 32.05		8 5	50 8 8.24	
d	1.28330							50 8 24.67			− 10	+7.78
	9.80686							−16.43			− 39	
((δ) − D) $\frac{d'}{100}$	1.21568$_n$										+ 7.97	
											+ 36	
δ_1											− 7.60	
											8 8.42	
	+33.9	2	56.0	12.8	128.8	3 68	4.40	24 43.95		85	7.38	
d	1.53020							50 8 36.39			− 31	+7.62
	9.80686							−29.01			− 37	
((δ) − D) $\frac{d'}{100}$	1.46258$_n$										+ 7.94	
											+ 36	
δ_2											− 7.80	
											8 7.20	

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Ru

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
											m s		
38	30	54 29	8.4	10 38 35.7	38 41.2	44.7	48.3	51.8	53.3	38	48.26		
37	27.0	33.6	8.5	38.0							+ 0.96		
κ				42.5							− 22		
				38.5					+ 0.71		− 3		
((δ) − D) $\frac{\kappa'}{100}$										38	48.97		
											− 2.70		
a_1											46.27		
			8.6	38 35.4	38 41.1	44.6	48.2	51.8	53.3	38	48.20		
				38.0							+ 0.89		
κ				40.3							− 22		
				37.9					+ 0.64		− 3		
((δ) − D) $\frac{\kappa'}{100}$										38	48.84		
											− 2.69		
a_2											46.15		
40	15	50 37	9.1	39 18.9	40 25.7	28.3	31.8	35.0	38.3	40	31.76		
39	16.6	41.7	9.5	40							+ 0.96		
κ											− 19		
									+ 0.75		− 2		
((δ) − D) $\frac{\kappa'}{100}$										40	32.51		
											− 2.51		
a_1											30.00		
			9.6	40 8.8	40 25.5	28.5	31.9	35.2	38.6	40	31.94		
				12.2							+ 0.89		
κ				15.0							− 19		
				12.0					+ 0.68		− 2		
((δ) − D) $\frac{\kappa'}{100}$										40	32.62		
											− 2.49		
a_2											30.13		
41	20	54 34	9.3	41 6.2	41 27.4	31.0	34.4	38.0	41.4	41	34.44		
40	18.1	39.4	9.4	9.3							+ 0.96		
κ				12.2							− 22		
				7.2					+ 0.71		− 3		
((δ) − D) $\frac{\kappa'}{100}$										41	35.15		
											− 2.75		
a_1											32.40		
			9.1	41 8.3	41 27.3	31.0	34.5	38.0	41.5	41	34.46		
				12.3							+ 0.89		
κ				15.4							− 22		
				11.9					+ 0.64		− 3		
((δ) − D) $\frac{\kappa'}{100}$										41	35.10		
											− 2.72		
a_2											32.38		
42	41	52 58	8.2	42 26.2	42 46.8	50.3	53.6	57.0	0.5	42	53.64		
41	37.3	53 2.9	7.7	29.2							+ 0.96		
κ				32.5							− 21		
				29.3					+ 0.72		− 3		
((δ) − D) $\frac{\kappa'}{100}$										42	54.16		
											− 2.65		
a_1											51.71		
			8.0	42 16.3	42 47.0	50.4	53.7	57.1	0.5	42	53.74		
				20.0							+ 0.89		
κ				22.6							− 21		
				19.6					+ 0.65		− 3		
((δ) − D) $\frac{\kappa'}{100}$										42	54.39		
											− 2.63		
a_2											51.76		
43	34	50 06	8.8	43 27.8	43 46.0	49.4	52.8	56.2	58.9	43	52.48		
42	36.8	11.1	9.1	31.2							+ 0.96		
κ				33.7							− 19		
				30.9					+ 0.75		− 2		
((δ) − D) $\frac{\kappa'}{100}$										43	53.23		
											− 2.51		
a_1											50.72		
			9.0	43 18.0	43 46.7	49.4	52.6	55.8	59.1	43	52.62		
				21.6							+ 0.89		
κ				24.3							− 19		
				21.3					+ 0.68		− 2		
((δ) − D) $\frac{\kappa'}{100}$										43	53.30		
											− 2.49		
a_2											50.81		

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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′
	+9.8	4	5.93	15.3	134.6	5′	7.30	42 41.05			38	54 26 26.06	
	0.99123					40		54 26 33.67				− 3	+12.29
d	9.76466							− 7.61				− 61	
	0.88141$_n$											+12.39	
$((\delta) - D)\frac{d'}{100}$												+ 54	
												− 8.70	
δ_1												26 29.65	
	+10.3	4	5.72	12.9	130.1	5	5.35	42 43.30			35	27.74	
	1.01284					40		54 26 35.74				− 3	+12.35
d	9.76466							− 8.00				− 61	
	0.90302$_n$											+12.45	
$((\delta) - D)\frac{d'}{100}$												+ 54	
												− 8.85	
δ_2												26 31.24	
	+11.9	0	5.82	16.1	134.3	1	7.15	51 41.20			30	50 35 23.73	
	1.07555					31		50 35 33.82				− 4	+8.38
d	9.80274							− 10.09				− 13	
	1.00381$_n$											+8.37	
$((\delta) - D)\frac{d'}{100}$												+ 38	
												− 7.60	
δ_1												35 24.71	
	+19.9	0	5.25	10.1	122.6	1	1.30	51 47.05			30	22.62	
	1.29885					31		50 35 39.49				− 11	T8.56
d	9.80274							− 16.87				− 12	
	1.22711$_n$											+ 8.41	
$((\delta) - D)\frac{d'}{100}$												+ 38	
												− 7.70	
δ_2												35 23.48	
	+25.2	3	12.0	26.9	38.9	3	19.45	49 28.90			30	54 33 2.01	
	1.40140					33		54 33 21.52				− 17	+12.50
d	9.76342							− 19.51				− 40	
	1.29034$_n$											+12.57	
$((\delta) - D)\frac{d'}{100}$												+ 56	
												− 8.50	
δ_1												33 6.01	
	+22.6	3	12.9	27.8	40.7	3	20.35	49 28.00			30	1.69	
	1.35411					33		54 33 20.44				− 13	+12.61
d	9.76342							− 18.75				− 40	
	1.27305$_n$											+12.58	
$((\delta) - D)\frac{d'}{100}$												+ 56	
												− 8.70	
δ_2												33 5.60	
	+24.3	0	38.9	49.9	83.8	0	41.90	12 6.45			10	52 55 39.51	
	1.38561					10		52 55 59.07				− 15	+11.09
d	9.78013							− 19.56				− 8	
	1.29126$_n$											+10.82	
$((\delta) - D)\frac{d'}{100}$												+ 50	
												− 8.00	
δ_1												55 42.60	
	+34.1	0	26.7	42.4	69.1	0	34.55	12 13.80			10	38.80	
	1.53275					10		52 56 6.24				− 30	+10.99
d	9.78013							− 27.44				− 7	
	1.43840$_n$											+10.86	
$((\delta) - D)\frac{d'}{100}$												+ 50	
												− 8.15	
δ_2												55 41.64	
	+21.6	1	14.0	30.9	44.9	1	22.45	21 25.90			0	50 5 0.02	
	1.33445							50 5 18.52				− 13	+7.93
d	9.80731							− 18.50				− 16	
	1.26728$_n$											+7.87	
$((\delta) - D)\frac{d'}{100}$												+ 35	
												− 7.15	
δ_1												5 0.80	
	+31.3	1	6.0	22.1	28.1	1	14.05	21 34.30			0	4 59.93	
	1.49554							50 5 26.74				− 27	+7.83
d	9.80731							− 26.81				− 15	
	1.42837$_n$											+7.90	
$((\delta) - D)\frac{d'}{100}$												+ 35	
												− 7.30	
δ_2												5 0.46	

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399 400 18

Date$_1$ = Apr. 24 Observer / Recorder Date$_2$ = Apr. 25 Observer / Recorder Run

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
16	44 16 50 49 90		10	44 14.5	44 26.8	30.1	33.4	36.6	39.9	44	m s 33.36		
	43 18.5 54.3 8.9			17.8							+ 0.94		
	κ			21.3					+ 0.75		− 19		
	((δ) − D) $\frac{\kappa'}{100}$			17.9							− 2		
										44	34.11		
	a_1										− 2.55		
											31.56		
			8.7	44 15.3	44 26.8	30.1	33.3	36.7	40.0	44	33.38		
				18.2							+ 0.90		
	κ			21.5					+ 0.69		− 19		
	((δ) − D) $\frac{\kappa'}{100}$			18.3							− 2		
										44	34.07		
	a_2										− 2.53		
											31.54		
	45 55 49 55		7.5	45 37.0	46 3.5	6.6	9.7	13.0	16.1	46	9.78		
	44 37.8 50 0.2		7.5	33.2							+ 0.96		
	κ			33.7					+ 0.75		− 19		
	((δ) − D) $\frac{\kappa'}{100}$			32.3							− 2		
										46	10.53		
	a_1										− 2.51		
											8.02		
			7.0	45 ~~27.2~~	46 3.5	6.7	9.9	13.0	16.4	46	9.90		
				30.3							+ 0.90		
	κ			~~33.9~~					+ 0.69		− 19		
	((δ) − D) $\frac{\kappa'}{100}$			49.9							− 2		
				52.0						46	10.59		
	a_2			54.7							− 2.49		
				52.2							8.10		
	47 0 5 3 04		8.7	46 37.0	47 6.3	9.8	13.4	16.7	20.1	47	13.26		
	45 57.9 9.4		8.8	53.3							+ 0.97		
	κ			57.1					+ 0.73		− 21		
	((δ) − D) $\frac{\kappa'}{100}$			53.8							− 3		
										47	13.99		
	a_1										− 2.69		
											11.30		
			8.7	46 38.4	47 6.6	10.1	13.5	17.0	20.5	47	13.54		
				42.6							+ 0.90		
	κ			46.3					+ 0.66		− 21		
	((δ) − D) $\frac{\kappa'}{100}$			42.8							− 3		
										47	14.20		
	a_2										− 2.67		
											11.53		
	48 28 5 U 19		9.4	48 22.6	48 38.0	41.2	44.3	47.6	50.7	48	44.36		
	47 30.6 24.5		9.4	26.1							+ 0.97		
	κ			29.0					+ 0.76		− 19		
	((δ) − D) $\frac{\kappa'}{100}$			25.9							− 2		
										48	45.12		
	a_1										− 2.55		
											42.57		
			9.4	48 18.7	48 38.2	41.4	44.5	47.7	50.9	48	44.54		
				22.5							+ 0.90		
	κ			24.7					+ 0.69		− 19		
	((δ) − D) $\frac{\kappa'}{100}$			22.0 ~~21.7~~							− 2		
										48	45.23		
	a_2										− 2.53		
											42.70		
	49 36 5 3 35		9.2	49 30.0	49 45.7	49.0	52.4	56.0	55.2	49	-52.44		
	48 34.4 40.6		9.0	33.1							+ 0.97		
	κ			37.3					+ 0.72		− 22		
	((δ) − D) $\frac{\kappa'}{100}$			33.5							− 3		
										49	53.16		
	a_1										− 2.75		
											50.41		
			9.0	49 23.8	49 45.5	49.0	52.5	56.0	59.4	49	-52.48		
				26.6							+ 0.90		
	κ			29.2					+ 0.65		− 22		
	((δ) − D) $\frac{\kappa'}{100}$										− 3		
										49	53.13		
	a_2										− 2.72		
											50.41		

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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′
	+15.5	2	21.2	39.3	60.5	2	30.25	5	18.10		15	50 48 57.65	
	1.19033					17		50 49	10.72			− 6	+865
d	9.80058								−12.07			− 30	
	1.11643 m											+ 8.62	
$((\delta) - D)\frac{d'}{100}$												+ 39	
												− 7.30	
δ_1												48 59.00	
	+15.1	2	21.4	39.0	60.4	2	30.20	5	18.15		15	57.85	
	1.17898					17		50 49	10.59			− 6	+868
d	9.80058								−12.74			− 30	
	1.10508 m											+ 8.65	
$((\delta) - D)\frac{d'}{100}$												+ 39	
												− 7.40	
δ_2												48 59.13	
	+16.5	2	38.0	54.0	92.0	2	46.00	10	2.35		10	49 53 40.78	
	1.21748					12		49 53	54.97			− 7	+763
d	9.80897								−14.19			− 33	
	1.15197 m											+ 7.68	
$((\delta) - D)\frac{d'}{100}$												+ 35	
												− 6.90	
δ_1												53 41.51	
			36.2				44.20	10	4.15			41.37	
	+17.7	2	~~38.8~~	54.2	8.7	2	~~34.80~~	~~7~~	~~54.00~~		10	~~31.22~~	
	1.24797					12		49 53	~~44.44~~ 52.89			− 9	+764
d	9.80897								−15.22			− 33	
	1.18246 m											+ 7.71	
$((\delta) - D)\frac{d'}{100}$												+ 35	
												− 7.05	
δ_2												53 41.96	
	+19.5	3	50.0	5.2	115.2	3	57.60	18	50.75		0	53 2 27.71	
	1.29003							53 2	43.37			− 10	+1087
d	9.77913								−15.66			− 47	
	1.19468 m											+10.94	
$((\delta) - D)\frac{d'}{100}$												+ 50	
												− 7.70	
δ_1												2 30.88	
	+30.7	3	41.8	58.6	97.4	3	48.70	18	59.65		0	27.44	
	1.48714							53 2	52.09			− 25	+1079
d	9.77913								−24.65			− 45	
	1.39179 m											+10.99	
$((\delta) - D)\frac{d'}{100}$												+ 50	
												− 7.80	
δ_2												2 30.43	
	+18.5	3	3.9	21.0	24.9	3	12.45	34	35.90		45	50 18 12.74	
	1.26717					48		50 18	28.52			− 10	+798
d	9.80534								−15.78			− 38	
	1.19803 m											+ 8.09	
$((\delta) - D)\frac{d'}{100}$												+ 37	
												− 6.80	
δ_1												18 13.92	
	+22.5	3	0.2	16.8	17.0	3	8.50	34	39.85		45	13.10	
	1.35218					48		50 18	32.29			− 14	+~~797~~ 7.97
d	9.80534								−19.19			− 38	
	1.28304 m											+ 8.12	
$((\delta) - D)\frac{d'}{100}$												+ 37	
												− 7.00	
δ_2												18 14.07	
	+18.9	1	56.1	12.4	128.5	2	4.25	50	44.10		30	53 34 21.74	
	1.27646					32		53 34	36.72			− 9	+1166
d	9.77053								−14.98			− 25	
	1.17551 m											+11.50	
$((\delta) - D)\frac{d'}{100}$												+ 50	
												− 7.60	
δ_1							~~5645~~					34 ~~21.80~~ 22.70	
	+27.3	1	46.8	60	107.9	1	~~5395~~	50	54.40		30	~~25.20~~	
	1.43616					31		53 34	46.84			− 20	+1163
d	9.77353								−21.64			− 23	
	1.33521 m											+11.56	
$((\delta) - D)\frac{d'}{100}$												+ 50	
												− 7.80	
δ_2												34 ~~28.53~~ 26.53	

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399 400 20

Date$_1$ = 1875, Apr. 24 Observer / Recorder

Date$_2$ = 1875, Apr. 25 Observer / Recorder

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
1	50 27	53 07	8.0	10 30 26.2	50 35.0	38.4	42.0	45.3	48.4	52	4492		
	49 25.8	11.8	8.4	29.6							+ 0.97		
	κ			31.7					+ 0.73		− 21		
	((δ) − D) $\frac{\kappa'}{100}$			29.2							− 3		
	a_1									50	42.65		
											− 2.72		
											39.93		
			8.4	50 15.0	50 35.2	38.6	41.9	45.4	48.9	52	4200		
				17.5							+ 0.90		
	κ			20.0					+ 0.66		− 21		
	((δ) − D) $\frac{\kappa'}{100}$			17.5							− 3		
	a_2									50	42.66		
											− 2.70		
											39.96		
	51 27	50 04	9.3	51 19.0	51 37.9	40.8	44.1	47.3	50.6	51	4414		
	50 24.8	9.1	9.2	22.4							+ 0.97		
	κ			25.4					+ 0.76		− 19		
	((δ) − D) $\frac{\kappa'}{100}$			22.3							− 2		
	a_1									51	44.90		
											− 2.56		
											42.34		
			8.9	51 13.3	51 37.7	41.2	44.4	47.6	50.7	51	44.32		
				18.2							+ 0.90		
	κ			20.9					+ 0.69		− 19		
	((δ) − D) $\frac{\kappa'}{100}$			18.2							− 2		
	a_2									51	45.01		
											− 2.54		
											42.47		
	52 19	50 56	9.7	52 34.5	52 28.8	32.3	36.0	39.0	41.7	52	35.56		
	51 22.5	51 0.8	9.4								+ 0.97		
	κ								+ 0.75		− 20		
	((δ) − D) $\frac{\kappa'}{100}$										− 2		
	a_1									52	36.31	2.61	
											~~6.10~~		
											33.70		
			9.6	52 23.3 52				38.8	41.9	52	35.~~38~~		
				26.0				35.5	35.3		+ 0.90		
	κ			28.3					+ 0.68		− 20		
	((δ) − D) $\frac{\kappa'}{100}$			25.8							− 2		
	a_2									52	36.~~02~~ 08	2.59	
											~~5.90~~		
											33.~~97~~ 33.49		
	53 27	50 16	9.5	53 30.7	53 37.3	40.6	44.0	47.1	50.3	53	43.86		
	52 30.7	21.0	9.3	33.4							+ 0.97		
	κ			35.7					+ 0.76		− 19		
	((δ) − D) $\frac{\kappa'}{100}$			33.3							− 2		
	a_1									53	44.62		
											− 2.58		
											42.04		
			9.1	53 30.3	53 37.8	40.8	44.0	47.1	50.5	53	44.~~04~~		
				33.4							+ 0.90		
	κ			36.3					+ 0.69		− 19		
	((δ) − D) $\frac{\kappa'}{100}$			33.3							− 2		
	a_2									53	44.73		
											− 2.56		
											42.17		
	54 10	50 18	8.6	54 8.3	54 19.5	22.5	25.6	29.0	32.1	54	25.74		
	53 13.9	23.5	9.1	11.3							+ 0.97		
	κ			14.1					+ 0.76		− 19		
	((δ) − D) $\frac{\kappa'}{100}$			11.2							− 2		
	a_1									54	26.50		
											− 2.59		
											23.91		
			8.6	54 6.2	54 19.4	22.6	25.8	29.0	32.3	54	25.82		
				9.4							+ 0.90		
	κ			12.6					+ 0.69		− 19		
	((δ) − D) $\frac{\kappa'}{100}$			9.4							− 2		
	a_2									54	26.51		
											− 2.57		
											23.94		

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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	+12.7	0 146	31.2	45.8	0 22.90	22 25.45			0	53 6 7.89	
	1.10380					53 6 18.07				− 5	+1140
	9.77846					−10.18				− 4	
	1.00778 m									+10.99	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−7.40	
δ_1										6 11.89	
d	+24.5	0 6.3	21.9	28.2	0 14.10	22 34.25			0	7.05	
	1.38917					53 6 26.69				− 15	+1139
	9.77846					− 19.64				− 3	
	1.29315 m									+11.07	
((δ) − D) $\frac{d'}{100}$										+ 50	
										− 7.60	
δ_2										6 10.84	
d	+21.8	2 16.7	33.9	50.6	2 25.30	20 23.05			0	50 3 56.99	
	1.33846					50 4 15.67				− 13	+776
	9.80746					− 18.68				− 29	
	1.27144 m									+7.83	
((δ) − D) $\frac{d'}{100}$										+ 35	
										− 6.50	
δ_1										3 58.25	
d	+26.1	2 13.2	28.7	41.9	2 20.95	20 27.40			0	57.47	
	1.41664					50 4 19.84				− 18	+777
	9.80746					−22.37				− 28	
	1.34962 m									+7.88	
((δ) − D) $\frac{d'}{100}$										+ 35	
										− 6.70	
δ_2										3 58.54	
d	+1.1	0 48.1	4.9	113.0	0 56.50	11 51.85			10	50 55 ~~55.27~~	
	0.04139				10	50 55 44.47				− 0	+902
	9.79950					− ~~9.26~~				− 11	
	9.96641 m					− 0.93				+ 8.74	
((δ) − D) $\frac{d'}{100}$										+ 39	
										− 6.70	
δ_1	~~+1.01~~				.15					55 ~~45.54~~ 45.86	
+96	~~+1.5~~	0 42.0	8.7.1	99.7	0 49.85	v 121 58.47			10	55 ~~43.10~~ 43.01	
0.98227	0.97772				10	55 ~~51.09~~				− 3	+905
9.77950	9.77950					− 7.79				− 10	
0.90729	0.90274 m					8.08				+ 8.78	
((δ) − D) $\frac{d'}{100}$										+ 40	
										− 6.80	
δ_2										55 45.~~35~~ 22	
d	+10.6	2 38.1	54.2	92.3	2 46.15	30 2.20			5-0	50 13 45.77	
	1.02531				52	50 13 54.82				− 3	+802
	9.80595					− 9.05				− 33	
	0.95678 m									+ 8.02	
((δ) − D) $\frac{d'}{100}$										+ 36	
										− 6.40	
δ_1										13 47.39	
d	+10.~~7~~	2 37.1	52.9	90.0	2 45.00	30 3.35			5-0	46.65	
	1.02938				52	50 13 55.79				− 3	+806
	9.80595					− 9.14				− 33	
	0.96085 m									+ 8.06	
((δ) − D) $\frac{d'}{100}$										+ 36	
										− 6.55	
δ_2										13 48.16	
d	+14.5	4 32.7	48.8	81.5	4 40.75	33 7.60			4/5-	50 16 47.85	
	1.16137				49	50 17 0.22				− 6	+781
	9.80550					−12.37				− 56	
	1.09239 m									+ 8.07	
((δ) − D) $\frac{d'}{100}$										+ 36	
										− 6.40	
δ_1										16 49.26	
d	+16.4	4 30.9	46.9	77.8	4 38.90	33 9.45			4 5-	47.90	
	1.21484				49	50 17 1.89				− 7	+784
	9.80550					−13.99				− 56	
	1.14586 m									+ 8.11	
((δ) − D) $\frac{d'}{100}$										+ 36	
										− 6.50	
δ_2										16 49.24	

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Date$_2$ = 1875, Apr. 25 — Observer / Recorder

22

Run

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
1	55 31	52 5-9	8.3	10 55 8.6	55 35.6	38.9	42.3	45.7	49.2	55	42.34		
	54 29.6	53 4.2	8.0	13.9							+ 0.97		
	κ			17.1							− 21		
	((δ) − D) $\frac{\kappa'}{100}$			13.5					+ 0.73		− 3		
	α_1									55	43.07		
											− 2.75		
											40.32		
			8.5	55 11.7	55 35.6	38.9	42.8	45.7	49.2	55	42.34		
				13.0							+ 0.90		
	κ			17.6							− 21		
	((δ) − D) $\frac{\kappa'}{100}$			14.8					+ 0.66		− 3		
	α_2									55	43.00		
											− 2.73		
											40.27		
	56 36	53 03	9.0	56 23.9	56 42.3	45.7	49.0	52.6	56.0	56	49.12		
	55 38.1	7.7	9.1	27.4							+ 0.97		
	κ			30.4							− 21		
	((δ) − D) $\frac{\kappa'}{100}$			27.3					+ 0.73		− 3		
	α_1									56	49.85		
											− 2.76		
											47.09		
			9.0	56 17.0	56 42.5	45.8	49.4	52.9	56.2	56	49.36		
				19.6							+ 0.90		
	κ			22.8							− 21		
	((δ) − D) $\frac{\kappa'}{100}$			19.8					+ 0.66		− 3		
	α_2									56	50.02		
											− 2.74		
											47.28		
	58 22	52 33	9.0	58 2.2	58 28.5	31.9	35.1	38.8	42.0	58	35.26		
	57 22.2	38.2	9.0	5.0							+ 0.97		
	κ			7.7							− 21		
	((δ) − D) $\frac{\kappa'}{100}$			5.0					+ 0.74		− 2		
	α_1									58	36.00		
											− 2.74		
											33.26		
			9.0	58 13.8	58 28.6	31.9	35.3	38.7	42.2	58	35.34		
				19.0							+ 0.90		
	κ			22.1							− 21		
	((δ) − D) $\frac{\kappa'}{100}$			19.0					+ 0.67		− 2		
	α_2									58	36.01		
											− 2.72		
											33.29		
	58 58	52 04	8.5	59 25.1	59 3.4	6.7	10.3	13.7	16.8	59	10.18		
	57 58.7	9.1	8.6	28.6							+ 0.97		
	κ			32.0							− 21		
	((δ) − D) $\frac{\kappa'}{100}$			28.6					+ 0.74		− 2		
	α_1									59	10.92		
											− 2.72		
											8.20		
			8.0	59 0.0	59 3.7	6.9	10.2	13.6	17.0	59	10.28		
				2.6							+ 0.90		
	κ			6.3							− 21		
	((δ) − D) $\frac{\kappa'}{100}$			3.0					+ 0.67		− 2		
	α_2									59	10.95		
											− 2.70		
											8.25		
11	0 12	49 53	8.0	58 56.2	0 19.9	23.3	26.4	29.6	32.9	0	26.42		
	59 15.6	57.8	8.4	58.3							+ 0.97		
	κ			0.9							− 19		
	((δ) − D) $\frac{\kappa'}{100}$			58.3					+ 0.76		− 2		
	α_1									0	27.18		
											− 2.61		
											24.57		
			8.1	58 57.8	0 20.2	23.3	26.4	29.7	33.0	0	26.52		
				1.6							+ 0.90		
	κ			8.4							− 19		
	((δ) − D) $\frac{\kappa'}{100}$			60.9					+ 0.69		− 2		
	α_2									0	27.21		
											− 2.59		
											24.62		

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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	+28.8	4	0.2	14.8	150	4 / 9	750	13 41.85		S-	52 57 11.30	
	1.45939							52 57 34.47			− 22	+1063
	9.77997							−23.17			− 49	
	1.36488m										+10.84	
((δ) − D) $\frac{d'}{100}$											+ 50	
											− 7.00	
δ_1											57 14.93	
d	+27.5	4	1.8	15.7	17.5	4 / 9	8.75	13 39.60		S-	9.92	
	1.43933							52 57 32.04			− 20	+1080 71
	9.77997							−22.12			− 49	
	1.34482m										+10.80	
((δ) − D) $\frac{d'}{100}$											+ 50	
											− 7.15	
δ_2											57 13.48	
											22.60	
d	+21.8	0	58.0	8.7	121.7	1 / 6	0.85	16 47.50		S-	53 0 18.07	
	1.33846							53 0 40.12			− 13	+1113
	9.77946							−22.85			− 12	
	1.34344m							− 17.52			+10.88	
((δ) − D) $\frac{d'}{100}$											+ 50	
											− 6.90	
δ_1											0 26.83	
d	+29.6	0	47.1	1.0	108.1	0 / 5	5405	16 54.30		S-	22.96	
	1.47129							53 0 46.74			− 23	+1113
	9.77946							−23.78			− 11	
	1.37627m										+10.97	
((δ) − D) $\frac{d'}{100}$											+ 50	
											− 7.05	
δ_2											0 27.04	
d	+30.3	4	26.1	41.8	67.9	4 / 34	33.95	48 14.40		30	52 31 42.41	
	1.48144							52 32 7.02			− 24	+1010
	9.78412							−24.61			− 55	
	1.39118m										+10.41	
((δ) − D) $\frac{d'}{100}$											+ 48	
											− 6.60	
δ_1											31 45.91	
d	+16.3	4	38.0	5.30	91.0	4 / 34	4.550	48 2.85		30	42.05	
	1.21219							52 31 55.29			− 7	+1031
	9.78412							−13.24			− 57	
	1.12183m										+10.47	
((δ) − D) $\frac{d'}{100}$											+ 48	
											− 6.80	
δ_2											31 45.56	
d	−18.4	4	3.1	18.4	21.5	4	10.75	18 37.60		0	52 2 45.33	
	1.26482m							52 2 30.22			− 7	+974
	9.78886							+15.11			− 50	
	1.17920										+ 9.88	
((δ) − D) $\frac{d'}{100}$											+ 45	
											− 6.40	
δ_1											2 48.67	
d	+7.3	3	42.9	8.7.7	100.6	3	50.30	18 58.05		0	44.49	
	0.86332							52 2 50.49			− 2	+993
	9.78886							− 6.00			+ 46	
	0.77770m										+ 9.96	
((δ) − D) $\frac{d'}{100}$											+ 45	
											− 6.60	
δ_2											2 47.82	
d	+28.1	0	1.1	24.0	21.1	0 / 15	1055 / 10.35	7 38.00		15-	49 51 6.43	
	1.44871							49 51 30.62			− 21	+772
	9.80942							−24.19			− 2	
	1.38365m										+7.61	
((δ) − D) $\frac{d'}{100}$											+ 34	
											− 5.80	
δ_1											51 8.35	
d	+25.6	0	2.9	24.1	24.0	0 / 15	1200	7 36.35		15-	6.75	
	1.40824							49 51 28.79			− 18	+781
	9.80942							−22.04			− 2	
	1.34318m										+7.67	
((δ) − D) $\frac{d'}{100}$											+ 34	
											− 5.95	
δ_2											51 8.61	

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Run

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
1	18 54 15	9.0	11	1 17.6	1 27.3	30.7	34.3	37.7	41.3	1	m s 34.26		
0	18.1	20.8	9.0	20.1							+ 0.97		
κ				23.0							− 22		
				20.2					+ 0.72		− 3		
((δ) − D) $\frac{\kappa'}{100}$										1	34.98		
α_1											− 2.87		
											32.11		
			9.0	1 7.4	1 27.3	30.9	34.4	37.9	41.5	1	34.40		
κ				11.6							+ 0.90		
				15.0							− 22		
				11.3					+ 0.65		− 3		
((δ) − D) $\frac{\kappa'}{100}$										1	35.05		
α_2											− 2.85		
											32.20		
2	20 54 48	6.5	2 8.4	2 24.0	27.4	30.8	34.4	38.0	2	30.92		
1	19.6	58.3	7.1	11.6							+ 0.97		
κ				14.0							− 22		
				11.3					+ 0.72		− 3		
((δ) − D) $\frac{\kappa'}{100}$										2	31.64		
α_1											− 2.91		
											28.73		
			6.4	2 2.7	2 24.0	27.4	31.0	34.6	38.1	2	31.02		
κ				6.2							+ 0.90		
				5.2							− 22		
				6.0					+ 0.65		− 3		
((δ) − D) $\frac{\kappa'}{100}$										2	31.67		
α_2											− 2.89		
											28.78		
3	15 50 6	8.6	3 6.0	3 24.0	27.4	30.7	33.9	37.1	3	30.62		
2	19.5	10.9	8.7	8.6							+ 0.97		
κ				10.8							− 19		
				~~24.0~~					+ 0.76		− 2		
				~~27.3~~						3	31.38		
((δ) − D) $\frac{\kappa'}{100}$				~~30.2~~							− 2.64		
α_1				8.5							28.74		
			8.3	2 58.0	3 24.4	27.6	30.7	33.9	37.3	3	30.78		
κ				1.2							+ 0.90		
				3.9							− 19		
				6.1.0					+ 0.69		− 2		
((δ) − D) $\frac{\kappa'}{100}$										3	31.47		
α_2											− 2.62		
											28.85		
4	46 51 47	9.4	4 39.2	4 42.5	45.8	49.2	52.7	56.8	4	49.20		
3	~~50.8~~ 52.6	9.0									+ 0.97		
κ	3.54										− 20		
									+ 0.75		− 2		
((δ) − D) $\frac{\kappa'}{100}$										4	49.95		
α_1											− 2.73		
											47.22		
			9.4	4 24.2	4 42.6	46.0	49.2	52.6	56.1	4	49.30		
κ				27.0							+ 0.90		
				29.6							− 20		
				26.9					+ 0.68		− 2		
((δ) − D) $\frac{\kappa'}{100}$										4	49.98		
α_2											− 2.71		
											47.27		
5	50 50 09	8.5	5 41.0	5 59.0	2.2	5.4	8.6	11.8	6	5.40		
4	53.0	14.5	8.8	43.4							+ 0.97		
κ				45.1							− 19		
				43.2					+ 0.76		− 2		
((δ) − D) $\frac{\kappa'}{100}$										6	6.16		
α_1											− 2.65		
											3.51		
			8.7	5 32.3	5 59.1	2.2	5.3	8.6	11.9	6	5.42		
κ				35.9							+ 0.90		
				38.2							− 19		
				35.5					+ 0.69		− 2		
((δ) − D) $\frac{\kappa'}{100}$										6	6.11		
α_2											− 2.63		
											3.48		

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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′
	+14.1	2	19.4	34.8	57.2	2′ 27″.0	30 21.25		8U	54 14 2.87	
d	1.14922				52	54 14 13.87				− 5	+12.37
	9.76677					−11.00				− 29	
((δ) − D) $\frac{d'}{100}$	1.04151 m									+12.19	
										+ 52	
δ_1										− 6.70	
										14 8.54	
	+23.1	2	13.3	26.8	40.1	2 2005	30 27.30		3U	1.71	
d	1.36361				52	54 14 19.74				− 14	+12.37
	9.76677					−18.03				− 28	
((δ) − D) $\frac{d'}{100}$	1.25590 m									+12.27	
										+ 52	
δ_2										− 7.00	
										14 7.08	
	+19.6	4	22.7	39.1	61.8	4 3090	3 17.45		15-	54 46 54.98	
d	1.29226				19	54 47 10.07				− 10	+12.72
	9.76093					−15.09				− 54	
((δ) − D) $\frac{d'}{100}$	1.17871 m									+12.78	
										+ 58	
δ_1										− 6.75	
										46 0.95	
	+25.0	4	19.0	33.8	52.8	4 2640	3 21.95		15-	55.14	
d	1.39794				19	54 14 14.39				− 16	+12.74
	9.76093					−19.25				− 53	
((δ) − D) $\frac{d'}{100}$	1.28439 m									+12.85	
										+ 58	
δ_2										− 7.00	
										46 0.88	
	+22.1	3	0.1	16.5	16.6	3 830	19 40.05		0	50 3 13.72	
d	1.34439					50 3 32.67				− 13	+767
	9.80762					−18.95				− 38	
((δ) − D) $\frac{d'}{100}$	1.27753 m									+ 7.83	
										+ 35	
δ_1										− 560	
										3 15.79	
	+29.7	2	54.2	10.4	124.6	3 230	19 46.05		0	13.03	
d	1.47276					50 3 38.49				− 24	+762
	9.80762					−25.46				− 36	
((δ) − D) $\frac{d'}{100}$	1.40590 m									+ 7.87	
										+ 35	
δ_2										− 575	
										3 14.90	
	+10.0	2	40.7	86.4	97.1	2 4855	59 59.80		20	51 43 44.15	
d	1.00000		–		22	51 43 52.42				− 3	+963
	9.79192					− 8.27				− 33	
((δ) − D) $\frac{d'}{100}$	0.91744 m									+ 9.57	
										+ 44	
δ_1										− 590	
										43 47.90	
	+22.4	2	29.5	48.8	75.3	2 3765	0 10.70		2U	44.62	
d	1.35025				22	51 44 3.14				− 13	+962
	9.79192					−18.52				− 31	
((δ) − D) $\frac{d'}{100}$	1.26769 m									+ 9.62	
										+ 44	
δ_2										− 6.05	
										43 48.19	
	+22.2	2	53.3	10.9	124.2	3 210	24 46.25		5-5-	50 8 19.87	
d	1.34635				58	50 8 38.87				− 13	+779
	9.80686					−19.00				− 36	
((δ) − D) $\frac{d'}{100}$	1.27873 m									+ 7.92	
										+ 36	
δ_1										− 540	
										8 22.26	
	+29.9	2	47.6	3.1	110.7	2 5535	24 53.00		5-5-	19.75	
d	1.47567				57	50 8 45.34				− 24	+773
	9.80686					−25.59				− 35	
((δ) − D) $\frac{d'}{100}$	1.40805 m									+ 7.96	
										+ 36	
δ_2										− 550	
										8 21.98	

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Date$_1$ = 1875, April 27 — Observer W.A.R. — Recorder J.F.M.

Date$_2$ = 1875, May 3 — Observer W.A.R. — Recorder J.F.M.

Star.	α	δ	Mag.	T_s	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
12	12 54 51		6.2	10 12 9.2	12 19.7	23.3	26.7	30.4	33.9	12	26.80		
11	7.7	56.3	6.5	12.4							− 0.97		
κ				15.7							+ 1.04		
				12.2							− 27		
((δ) − D) $\frac{\kappa'}{100}$									+ 0.74		− 3		
										12	27.54		
c_1											− 2.44		
											25.10		
			6.0	11 54.7	12 20.0	23.4	27.0	30.6	34.3	12	27.02		
				37.5							+ 0.78		
κ				0.6							− 33		
				57.6									
((δ) − D) $\frac{\kappa'}{100}$									+ 0.42		− 3		
										12	27.48		
a_2											− 2.29		
											25.19		
13	15 54 46		9.4	13 19.2	13 22.6	26.1	29.8	33.3	36.8	13	29.72		
12	10.4	50.6	9.4	21.3							+ 0.97		
κ				24.9							+ 1.04		
				21.8							− 27		
((δ) − D) $\frac{\kappa'}{100}$									+ 0.74		− 3		
										13	30.46		
a_1											− 2.45		
											28.01		
			9.4	13 13.4	13 22.8	26.4	30.0	33.4	37.0	13	29.92		
				16.0							+ 0.78		
κ				19.3							− 32		
				16.2									
((δ) − D) $\frac{\kappa'}{100}$									+ 0.43		− 3		
										13	30.35		
a_2											− 2.30		
											28.05		
14	25 54 39		9.2	14 26.3	14 43.6	47.0	50.6	54.2	57.8	14	50.64		
13	29.8	43.8	9.2	23.3							+ 0.97		
κ				25.8							+ 1.04		
				23.1							− 27		
((δ) − D) $\frac{\kappa'}{100}$									+ 0.74		− 3		
										14	51.38		
a_1											− 2.45		
											48.93		
			9.4	14 20.7	14 43.1	47.3	50.9	54.4	58.0	14	50.90		
				24.0							+ 0.78		
κ				26.9							− 32		
				23.9									
((δ) − D) $\frac{\kappa'}{100}$									+ 0.43		− 3		
										14	51.33		
a_2											− 2.30		
											49.03		
15	39 53 42		9.3	15 23.6	15 46.6	50.5	53.8	57.3	0.4	15	53.78	2	
14	33.4	47.4	9.3	27.6							+ 0.97		
κ				30.1							+ 1.04		
				27.1							− 26		
((δ) − D) $\frac{\kappa'}{100}$									+ 0.75		− 3		
										15	54.47		
a_1											− 2.41		
											52.06		
			9.5	15 22.9	15 47.0	50.4	54.0	57.4	0.9	15	53.94		
				25.6							+ 0.78		
κ				~~28.6~~							− 31		
				~~27.0~~									
((δ) − D) $\frac{\kappa'}{100}$				25.3					+ 0.44		− 3		
										15	54.38		
a_2											− 2.27		
											52.11		
17	55 53 18		8.8	17 37.0	17 59.6	29	6.3	9.8	13.4	18	6.40		
16	49.2	22.0	7.5								+ 1.04		
κ									+ 0.76		− 25		
											− 3	18	7.16
((δ) − D) $\frac{\kappa'}{100}$			9.0	17 38.8	18 0.2	3.4	6.7	10.3	13.8	18	6.88		− 2.41
											+ 1.04		4.75
a_1									+ 0.76		− 25		
											− 3	18	7.64
			8.7	17 40.1	17 59.9	3.1	6.6	10.0	13.7	18	6.66		− 2.41
											+ 0.78		5.23
κ									+ 0.44		− 31		
											− 3	18	7.10
((δ) − D) $\frac{\kappa'}{100}$			9.0	17 41.7	18 0.3	3.5	7.0	10.3	14.0	18	7.02		− 2.27
											+ 0.78		4.83
a_2									+ 0.44		− 31		
											− 3	18	7.46
													− 2.27
													5.19

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1875phaeqproj.15966

Apr. 27 −16′ 8.″02 −.12
May 3 −16 8.14 −.11
Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′	
	+14.6	0	4.7	2.8	110.5	0′	5.525	6 53.10		15	54 50 33.85	
	1.16435				15	54 50 46.08				− 6		+1334
d	9.76039					−11.23				− 11		
	1.05026m									+12.93		
((δ) − D) $\frac{d'}{100}$										+ 58		
										−11.20		
δ_1										50 35.99		
	+29.5	0	34.9	50.4	85.3	0	4.265	7 5.70		15	34.87	
	1.46982				15	54 50 57.56					− 22	1 +1302
d	9.76039					−22.69					− 7	
	1.35573m										+12.73	
((δ) − D) $\frac{d'}{100}$											+ 58	
											−11.90	
δ_2											50 35.99	
	+7.9	2	12.8	27.1	39.9	2	1.995	0 28.40		20	54 44 14.29	
	0.89763				22	54 44 20.38					− 2	+1309
d	9.76146					− 6.09					− 28	
	0.78461m										+12.82	
((δ) − D) $\frac{d'}{100}$											+ 57	
											−11.10	
δ_1											44 16.28	
	+13.7	2	6.7	21.1	27.8	2	1.390	0 34.45		20	z 15.75	
	1.13672				22	54 44 26.31					− 5	+ +1286
d	9.76146					−10.56					− 27.5	
	1.02370m										+12.57	
((δ) − D) $\frac{d'}{100}$											+ 57	
											−11.75	
δ_2											44 16.86	
	+27.5	3	38.3	53.1	91.43	3	4.570	54 2.65		25−	54 37 33.38	
	1.43933				28	54 37 54.63					− 20	1
d	9.76253					−21.25					− 45	+1262
	1.32738m										+12.71	
((δ) − D) $\frac{d'}{100}$											+ 56	
											−11.00	
δ_1											37 35.00	
	+27.0	3	28.0	53.3	90.3	3	4.515	54 3.20		25−	34.20	
	1.43136				28	54 37 55.06					− 19	
d	9.76253					−20.86					− 46	1 +1245
	1.31941m										+12.49	
((δ) − D) $\frac{d'}{100}$											+ 56	
											−11.65	
δ_2											37 35.00	
	+26.6	1	5.7	19.9	25.6	1	1.280	56 35.55		25−	53 40 6.44	✓
	1.42488				26	53 40 27.53					− 19	
d	9.77268					−21.09					− 14	+1184
	1.32408m										+11.67	
((δ) − D) $\frac{d'}{100}$											+ 50	
											−10.70	
δ_1	286				+.34						40 7.58	
	+~~24.3~~	1	3.2	17.2	20.41	1	1.020	56 38.15		25−	~~10.79~~	
1.45637	~~1.38561~~				26	53 40 30.01					− 15	+1168
9.77268	9.77268					~~−19.22~~					− 1~~8~~3	
1.35457	1.28381m					22.62					+11.49	
((δ) − D) $\frac{d'}{100}$											+ 47	
											−11.35	
δ_2											~~40 11.25~~ 7.38	
	+29.4	0	46.9	1.4	108.3	0	5.415	31 54.20		50	53 15 22.69	23.73 ~~+7.92~~
	1.46835				50	53 15 46.18		15 2269		2373	− 23	− 21
d	9.77694					−23.49		+1140		+1142	− 11	− 11
	1.37081m					~~−28.26~~					+11.24	+ 11.24
((δ) − D) $\frac{d'}{100}$	+28.1					−22.45					+ 50	+ 50
	1.44871										−10.40	−10.40
δ_1	9.77694										15 23.69	15 24.75
	1.45117m											+1142
	+26.6	0	48.0	2.7	110.7	0	5.535	31 53.00		50	23.61	24.65
	1.42488				50	53 15 44.86		2361		2465	− 19	− 17
d	9.77694					−21.25		+1118		+1120	− 10	− 10
	1.32734m					−20.21					+ 11.05	+ 11.05
((δ) − D) $\frac{d'}{100}$	+25.3										+ 42	+ 42
	1.40312										−11.10	−11.10
δ_2	9.77694										15 23.69	15 24.75
	1.30558m											+1118

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1875phae.proj.1596R

401 402 28

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Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
1	19	52 53 27	9.3	10 19 35.9	19 58.6	2.2	5.4	9.1	12.7	20	m 560		
	18	47.2 31.9	9.4	39.2							+ 1.04		
	κ			42.9					+ 0.75		- 26		
	((δ) — D) $\frac{\kappa'}{100}$			39.3						20	- 3		
	α_1										6.35		
											- 2.43		
											3.92		
			9.2	19 38.6	19 59.1	2.5	6.0	9.4	12.9	20	5.98		
				42.2							+ 0.78		
	κ			45.7					+ 0.44		- 31		
	((δ) — D) $\frac{\kappa'}{100}$			42.2						20	- 3		
	α_2										6.42		
											- 2.29		
											4.13		
	21	18 53 10	9.2	21 8.2	21 26.3	29.6	33.1	36.5	40.0	21	3810		
	20	13.7 14.7	9.1	6.0							+ 1.04		
	κ			9.1					+ 0.76		- 25		
	((δ) — D) $\frac{\kappa'}{100}$			6.1						21	- 3		
	α_1										33.86		
											- 2.43		
											31.43		
			9.2	21 13.5	21 26.6	29.9	33.3	36.7	40.4	21	33.38		
				17.5							+ 0.78		
	κ			20.6					+ 0.44		- 31		
	((δ) — D) $\frac{\kappa'}{100}$			17.2						21	- 3		
	α_2										33.82		
											- 2.29		
											31.53		
	22	14 54 22	8.7	22 4.0	22 20.7	24.0	27.6	31.2	34.7	22	27.64		
	21	8.9 27.2	9.0	4.6							+ 1.04		
	κ			8.5					+ 0.75		- 26		
	((δ) — D) $\frac{\kappa'}{100}$			4.7						22	- 3		
	α_1										28.39		
											- 2.60		
											25.89		
			9.0	22 4.7	22 20.8	24.2	27.7	31.3	34.8	22	2776		
				8.0							+ 0.78		
	κ			1.0					+ 0.43		- 32		
	((δ) — D) $\frac{\kappa'}{100}$			7.9						22	- 3		
	α_2										28.19		
											- 2.36		
											25.83		
	23	5 52 28	8.2	22 57.7	23 11.7	15.1	18.6	21.9	25.3	23	1852		
	22	1.7 33.5	8.3	2.8							+ 1.04		
	κ			5.7					+ 0.77		- 25		
	((δ) — D) $\frac{\kappa'}{100}$			02.7						23	- 2		
	α_1										19.29		
											- 2.41		
											16.88		
			8.3	22 56.0	23 12.0	15.4	18.8	22.2	25.6	23	1880		
				59.1							+ 0.78		
	κ			1.7					+ 0.46		- 30		
	((δ) — D) $\frac{\kappa'}{100}$			58.9						23	- 2		
	α_2										19.26		
											- 2.27		
											16.99		
	24	55 54 20	9.5	24 46.4	25 3.1	6.6	10.2	13.7	17.4	25	10.20		
	23	50.2 25.2	9.2	50.1							+ 1.04		
	κ			53.0					+ 0.75		- 26		
	((δ) — D) $\frac{\kappa'}{100}$			49.8						25	- 3		
	α_1										10.95		
											- 2.53		
											8.42		
			9.0	24 45.0	25 3.4	7.0	10.4	14.0	17.5	25	10.46		
				48.5							+ 0.78		
	κ			51.2					+ 0.43		- 32		
	((δ) — D) $\frac{\kappa'}{100}$			48.2						25	- 3		
	α_2										10.89		
											- 2.38		
											8.51		

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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	+26.3	0 285	38.7	62.2	0 31.10	42 17.25			40	53 25 48.31	
	1.41996				40	53 26 9.23				− 18	+11.69
((δ) − D) $\frac{d'}{100}$	9.77507					−20.92				− 6	
	1.32055 m									+11.43	
δ_1										+ 50	
										−10.30	
										25 49.70	
d	+23.8	0 24.0	38.0	62.0	0 31.00	42 17.35			40	50.28	
	1.37658				40	53 26 9.21				− 15	+11.27
((δ) − D) $\frac{d'}{100}$	9.77507					−18.93				− 6	
	1.27717 m									+11.04	
δ_2										+ 44	
										−11.00	
										25 50.55	
d	+27.0	2 24.3	39.1	63.4	2 31.70	25 16.65			58-	53 8 47.01	
	1.43136				57	53 9 8.63				− 19	+11.14
((δ) − D) $\frac{d'}{100}$	9.77795					−21.62				− 30	
	1.33483 m									+11.13	
δ_1										+ 60	
										−10.10	
										8 48.05	
d	+16.2	2 32.1	46.4	78.5	2 39.25	25 9.10			55-	47.99	
	1.20952				57	53 9 0.96				− 7	+11.99
((δ) − D) $\frac{d'}{100}$	9.77795					−12.97				− 34	
	1.11299 m									+11.94	
δ_2										+ 41	
										−10.80	
										8 49.18	
d	+22.9	0 49.7	4.0	113.7	0 56.85	36 51.50			45-	54 20 25.65	
	1.35984				45	54 20 43.48				− 14	+12.70
((δ) − D) $\frac{d'}{100}$	9.76572					−17.83				− 11	
	1.25108 m									+12.42	
δ_1										+ 53	
										−10.40	
										20 27.95	
d	+19.9	0 5-0.2	5-6	115.8	0 57.90	36 50.45			45-	26.82	
	1.29885				45	54 20 42.31				− 10	+12.49
((δ) − D) $\frac{d'}{100}$	9.76572					−15.49				− 10	
	1.19009 m									+12.16	
δ_2										+ 53	
										−11.10	
										20 28.21	
d	+15.8	4 24.6	41.1	67.7	4 33.85	43 14.50			35-	52 26 53.62	
	1.19866				39	52 27 6.48				− 7	+10.27
((δ) − D) $\frac{d'}{100}$	9.78494					−12.86				− 54	
	1.10912 m									+10.41	
δ_1										+ 47	
										− 9.80	
										26 54.09	
d	+19.9	4 22.7	36.2	58.9	4 29.45	43 18.90			35-	54.57	
	1.29885				39	52 27 10.76				− 10	+10.02
((δ) − D) $\frac{d'}{100}$	9.78494					−16.19				− 55	
	1.20931 m									49	
δ_2										+10.21	
										+ 40	
										−10.50	
										26 54.09	
d	+20.4	1 41.1	56.5	97.6	1 48.80	35 59.55			45-	54 19 35.64	
	1.30963				46	54 19 51.53				− 10	+12.61
((δ) − D) $\frac{d'}{100}$	9.76590					−15.89				− 22	
	1.20105 m									+12.40	
δ_1										+ 53	
										−10.20	
										19 38.05	
d	+22.3	1 39.4	5-3.4	92.8	1 46.40	36 1.95			45-	36.44	
	1.34830				46	54 19 53.81				− 13	+12.37
((δ) − D) $\frac{d'}{100}$	9.76590					−17.37				− 19	
	1.23972 m									+12.16	
δ_2										+ 53	
										−10.90	
										19 37.91	

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401

Date$_1$ = Apr. 27 — Observer / Recorder

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Date$_2$ = May. 3 — Observer / Recorder

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Run

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
1	26 ~~25~~ 24	20 49 45 ~~30.4 49 50.2~~ 55.0 54.7	7.0 6.9	10 25 44.4 47.4 45.6 47.1	26 3.3	6.3	8.5	12.8	15.9 + 0.80	26	9.53 + 1.04 − 22 − 2. 26 10.36 −2.30 8.06		
	κ												
	((δ) — D) $\frac{\kappa'}{100}$												
	c_1												
	25 30.4	~~54 38~~ 49 50.2	6.6	26 16.8 18.6 22.0 19.5	26 38.1	41.2	44.3	47.6	50.7 + 0.49	26	44.38 + 0.78 − 27 − 2 26 44.87 − 2.17 42.70		
	κ												
	((δ) — D) $\frac{\kappa'}{100}$												
	a_2												
	27 26 14.2	19 54 38 42.8	8.6 9.1	27 8.7 11.9 13.3 12.0	27 24.7	28.3	31.9	35.3	39.1 + 0.74	27	31.90 + 1.04 − 27 − 3 27 32.64 − 2.56 30.08		
	κ												
	((δ) — D) $\frac{\kappa'}{100}$												
	a_1												
			8.7	27 18.0 21.2 23.8 21.0	27 24.9	28.6	32.0	35.3	39.2 + 0.43	27	32.04 + 0.78 − 32 − 3 27 32.47 − 2.42 30.05		
	κ												
	((δ) — D) $\frac{\kappa'}{100}$												
	a_2												
	28 27 18.0	21 52 46 51.6	6.6 6.9	28 16.0 18.4 20.3 18.2	28 28.0	31.3	34.7	38.1	41.6 + 0.77	28	34.74 + 1.04 − 25 − 2 28 35.51 − 2.47 33.04		
	κ												
	((δ) — D) $\frac{\kappa'}{100}$												
	a_1												
			7.7	28 7.3 10.0 13.0 10.1	28 28.1	31.6	34.8	38.3	41.8 + 0.46	28	34.94 + 0.78 − 30 − 2 28 35.40 − 2.33 33.07		
	κ												
	((δ) — D) $\frac{\kappa'}{100}$												
	a_2												
	30 28 5.7.8	1 53 8.3 57.7	8.5 8.8	29 50.2 53.7 56.7 53.5	30 7.7	11.3	14.7	18.2	21.6 + 0.75	30	14.70 + 1.04 − 26 − 3 30 16.45 − 2.54 12.91		
	κ												
	((δ) — D) $\frac{\kappa'}{100}$												
	a_1												
			8.7	29 41.6 43.6 46.8 44.0	30 8.0	11.4	15.0	18.3	22.0 + 0.43	30	14.94 + 0.78 − 32 − 3 30 15.37 − 2.40 12.97		
	κ												
	((δ) — D) $\frac{\kappa'}{100}$												
	a_2												
	31 30 4.8	10 54 20 24.5	5.5 6.0	30 53.1 57.0 03 56.8	31 14.4	17.8	21.5	25.0	28.6 + 0.74	31	21.46 + 1.04 − 27 − 3 31 22.20 − 2.58 19.62		
	κ												
	((δ) — D) $\frac{\kappa'}{100}$												
	a_1												
			5.8	30 52.4 53.0 58.1 55.2	31 14.6	18.1	21.6	25.3	28.8 + 0.44	31	21.68 + 0.79 − 32 − 3 31 22.12 − 2.44 19.68		
	κ												
	((δ) — D) $\frac{\kappa'}{100}$												
	a_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	+22.5	1	42.8	59.0	101.8	1	50.90	5 57.45			15	49.300	
	1.35218					16		49 49.43				− 11	
	9.89032							−19.41				− 22	+7.64
((δ) − D) $\frac{d'}{100}$	1255²											+ 7.63	
	1.28802											+ 34	
δ_1												− 8.90	
												49 28.76?	
d	+24.9	1	1.8	17.1	18.9	1	9.45	1 38.90			20	45 9.28	
	1.39620					21		45 30.76				− 07	
	9.81032							−21.48				− 13	+7.69
((δ) − D) $\frac{d'}{100}$	1252											+ 7.65	
	.33204											+ 24	
δ_2												− 9.50	
												45 7.47?	
d	+19.9	0	27.1	43.5	70.6	0	35.30	52 13.05			80	54 35 49.64	
	1.29885					30		54 36 5.03				− 10	+1308
	9.76289							−15.39				− 7	
((δ) − D) $\frac{d'}{100}$	1.18726m											+12.69	
												+ 56	
δ_1												−10.10	
												35 52.62	
d	+11.0	0	33.0	47.9	80.9	0	40.45	52 7.90			30	51.25	
	1.04139					30		54 35 59.76				− 3	+1290
	9.76289							− 8.51				− 7	
((δ) − D) $\frac{d'}{100}$	0.92970m											+12.44	
												+ 56	
δ_2												−10.80	
												35 53.35	
d	+16.5	1	2.8	17.0	19.8	1	9.90	1 38.45			20	52 45 17.10	
	1.21748					21		52 45 30.43				− 7	+1098
	9.78197							−13.03				− 14	
((δ) − D) $\frac{d'}{100}$	1.12497m											+10.70	
												+ 49	
δ_1												− 9.50	
												45 18.58	
d	+24.8	0	8.49	9.6	124.5	1	2.25	1 46.10			20	17.92	
	1.39445					21		52 45 37.96				− 16	+1065
	9.78197							−20.04				− 11	
((δ) − D) $\frac{d'}{100}$	1.30194m											+10.52	
												+ 40	
δ_2												−10.20	
												45 18.37	
d	+21.42	4	45.1	59.4	104.5	4	5.225	7 56.10			10	53 51 31.39	
	1.32634					14		53 51 48.08				− 12	+1170
	9.77061							−16.69				− 58	
((δ) − D) $\frac{d'}{100}$	1.22247m											+11.50	
												+ 50	
δ_1												−9.70	
												51 23.39	
d	+30.9	4	37.5	51.1	88.6	4	4.430	8 4.05			10	31.58	
	1.48996					14		53 51 55.91				− 25	+1140
	9.77061							−24.33				− 52	
((δ) − D) $\frac{d'}{100}$	1.38609m											+11.68	
												+ 49	
δ_2												−10.40	
												51 32.58	
d	+24.7	2	3.6	18.0	21.6	2	10.80	35 37.55			45	54 19 10.29	
	1.39270					47		54 19 29.53				− 16	+1250
	9.76590							−19.24				− 26	
((δ) − D) $\frac{d'}{100}$	1.28412m											+12.39	
												+ 53	
δ_1												− 9.70	
												19 13.09	
d	+26.5	2	1.7	16.0	17.7	2	8.85	35 39.50			45	10.72	
	1.42325					47		54 19 31.36				− 18	+1225
	9.76590							−20.64				− 24	
((δ) − D) $\frac{d'}{100}$	1.31467m											+12.14	
												+ 53	
δ_2												−10.50	
												19 12.47	

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401

Date$_1$ = Apr. 27 — Observer / Recorder

402

Date$_2$ = May. 3 — Observer / Recorder

32

Ru

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
1	33	11 49 ~~45~~	8.0	10 33 37	33 16.3	19.7	23.5	27.1	30.6	33	23.44		
	32	6.7 54 16	8.0	6.8							+ 1.04		
	κ	23.3		9.4							− 26		
	((δ) − D) $\frac{\kappa'}{100}$			66					+ 0.75		− 3		
	α_1									33	24.19		
											− 2.59		
											21.60		
			7.4	32 34.6	33 16.7	20.1	23.6	27.1	30.8	33	23.66		
	κ			58.7							+ 0.79		
	((δ) − D) $\frac{\kappa'}{100}$			1.6					+ 0.44		− 32		
	α_2			58.3						33	24.10		
											− 2.46		
											21.64		
	34	31 ~~54 38~~	9.1	34 26.4	34 27.8	41.4	44.0	48.7	52.3	34	45.04		
	33	27.8 54 47	9.2	28.8							+ 1.04		
	κ	51.9		32.3							− 27		
	((δ) − D) $\frac{\kappa'}{100}$			29.5					+ 0.74		− 3		
	α_1									34	45.78		
											− 2.63		
											43.15		
			9.1	34 12.0	34 38.2	41.8	45.3	49.0	52.6	34	45.38		
	κ			14.9							+ 0.79		
	((δ) − D) $\frac{\kappa'}{100}$			18.0					+ 0.44		− 32		
	α_2			15.0						34	45.82		
											− 2.49		
											43.33		
	35	52 ~~52 46~~	9.2	35 38.5	35 38.4	2.0	5.3	9.0	12.5	36	5.44		
	34	48.8 53 49	9.4	41.3							+ 1.04		
	κ	52.9		44.0							− 26		
	((δ) − D) $\frac{\kappa'}{100}$			41.3					+ 0.75		− 3		
	α_1									36	6.19		
											− 2.59		
											3.60		
			9.2	35 38.7	35 38.7	2.2	5.6	9.3	12.7	36	5.70		
	κ			43.5							+ 0.79		
	((δ) − D) $\frac{\kappa'}{100}$			46.0					+ 0.45		− 31		
	α_2			48.1						36	6.15		
											− 2.45		
											3.70		
	36	36 ~~53 53~~	7.8	36 27.4	36 41.1	44.4	47.8	51.3	54.7	36	47.86		
	35	32.5 53 05	7.5	31.2							+ 1.04		
	κ	10.3		33.3							− 25		
	((δ) − D) $\frac{\kappa'}{100}$			30.6					+ 0.76		− 3		
	α_1									36	48.62		
											− 2.55		
											46.07		
					6h. f.								
	κ												
	((δ) − D) $\frac{\kappa'}{100}$												
	α_2												
	38	9 ~~54 20~~	9.0	37 42.1	38 3.2	6.3	9.5	12.8	16.1	38	9.58		
	~~37~~	~~10.8~~ 50 06	8.0	44.9							+ 1.04		
	36	56.2 ~~11~~		48.7							− 23		
	κ	14.6		45.2					+ 0.79		− 2		
	((δ) − D) $\frac{\kappa'}{100}$									38	10.37		
	α_1										− 2.41		
											7.96		
			9.0	37 48.5	38 3.6	6.6	9.7	13.0	16.2	38	9.89		
	κ			57.4							+ 0.79		
	((δ) − D) $\frac{\kappa'}{100}$			54.2					+ 0.50		− 27		
	α_2			51.5						38	10.32		
											− 2.29		
											8.03		

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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′
	+16.8	4	37.9	3.27	90.6	4′	45.30	33 3.05			45-	54 16 41.93	
	1.22531					49		54 16 55.03				− 7	+1225
d	9.76625							−13.10				− 57	
	1.11708n											+12.36	
$((\delta) - D)\frac{d'}{100}$												+ 53	
												−9.55	
δ_1												16 44.63	
	+25.4	4	29.3	4.30	72.8	4	36.15	33 12.20			45-	44.26	
	1.40483					49		54 17 4.06				− 17	+1196
d	9.76625							−19.80				− 50	
	1.29660n											+12.10	
$((\delta) - D)\frac{d'}{100}$												+ 53	
												−10.30	
δ_2												16 45.92	
	+15.5	2	37	18.6	22.3	2	11.15	0 37.20			20	54 44 17.23	
	1.19033					22		54 44 29.18				− 7	+1308
d	9.76146							−11.95				− 26	
	1.07731n											+12.84	
$((\delta) - D)\frac{d'}{100}$												+ 57	
												−9.55	
δ_1												44 20.76	
	+30.4	1	32.1	4.8	114.9	1	57.45	0 50.90			20	19.33	
	1.48287					21		54 44 42.76				− 24	+1269
d	9.76146							−28.43				− 21	
	1.36985n											+12.57	
$((\delta) - D)\frac{d'}{100}$												+ 57	
												−10.30	
δ_2												44 21.72	
	+24.1	3	28.1	4.21	70.2	3	35.10	4 13.25			15-	53 47 46.23	
	1.38202					18		53 48 5.23				− 15	+1176
d	9.77130							−19.00				− 43	
	1.27884n											+11.84	
$((\delta) - D)\frac{d'}{100}$												+ 50	
												−9.20	
δ_1												47 48.79	
	+22.6	3	27.0	4.11	68.1	3	34.05	4 14.30			15-	48.34	
	1.35411					18		53 48 6.16				− 14	+1135
d	9.77130							−17.82				− 39	
	1.25093n											+11.60	
$((\delta) - D)\frac{d'}{100}$												+ 48	
												−10.00	
δ_2												47 49.89	
	+17.3	2	29.5	4.42	73.7	2	36.85	20 11.50			0	53 3 49.60	
	1.23805							53 4 3.48				− 8	+1118
d	9.77879							−13.88				− 31	
	1.14236n											+11.07	
$((\delta) - D)\frac{d'}{100}$												+ 50	
												−9.00	
δ_1												3 41.78	
d													
$((\delta) - D)\frac{d'}{100}$													
δ_2													
	+24.4	3	5.0	20-	25.0	3	12.50	24 35.85			55-	50 8 6.95	
	1.38759					588		50 8 27.83				− 16	+780
d	9.80686							−20.88				− 38	
	1.31977n											+7.98	
$((\delta) - D)\frac{d'}{100}$												+ 36	
												−8.00	
δ_1												8 6.75	
	+18.3	3	8.5	21.7	30.2	3	15.10	24 33.25			55-	9.45	
	1.26245					58		50 8 25.11				− 9	+762
d	9.80686							−15.66				− 36	
	1.19483n											+7.81	
$((\delta) - D)\frac{d'}{100}$												+ 26	
												−8.00	
δ_2												8 8.27	

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401

Date$_1$ = Apr. 27 Observer Recorder

402

Date$_2$ = May. 3 Observer Recorder

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Ru

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
40	11 54 40	96	10	39 37.6	40 17.9	21.3	24.9	28.6	32.1	40	24.96		
39	8.3 45.7	9.4		0.7							+ 1.04		
κ				3.9							− 27		
((δ) − D) $\frac{\kappa'}{100}$				60.7					+ 0.74		− 3		
α_1										40	25.70		
											− 2.68		
											23.02		
		9.2		39 53.2	40 18.0	21.7	25.3	28.9	32.4	40	25.26		
				38.4							+ 0.79		
κ				2.0							− 32		
((δ) − D) $\frac{\kappa'}{100}$				58.5					+ 0.44		− 3		
α_2										40	25.70		
											− 2.54		
											23.16		
41	20 54 34	9.4		41 4.3	41 27.4	30.7	34.4	37.9	41.5	41	34.38		
40	18.1 39.4	9.4		8.4							+ 1.04		
κ				12.0							− 27		
((δ) − D) $\frac{\kappa'}{100}$				8.2					+ 0.74		− 3		
α_1										41	35.12		
											− 2.68		
											32.44		
		9.2		41 6.7	41 27.3	30.9	34.3	38.0	41.5	41	34.44		
				10.7							+ 0.79		
κ				13.8							− 32		
((δ) − D) $\frac{\kappa'}{100}$				10.4					+ 0.44		− 3		
α_2										41	34.84		
											− 2.54		
											32.30		
42	41 52 56	8.0		42 23.0	42 46.8	50.1	53.5	57.0	0.4	42	53.56		
41	37.3 53 2.9	7.7		27.4							+ 1.04		
κ				30.3							− 25		
((δ) − D) $\frac{\kappa'}{100}$				27.0					+ 0.77		− 2		
α_1										42	54.33		
											− 2.59		
											51.74		
		8.2		42 20.0	42 46.9	50.3	53.7	57.1	0.6	42	53.72		
				22.7							+ 0.79		
κ				25.4							− 31		
((δ) − D) $\frac{\kappa'}{100}$				22.7					+ 0.46		− 2		
α_2										42	54.18		
											− 2.46		
											51.72		
43	22 54 33	8.7		43 21.4	43 ~~24~~ 28.3	31.9	35.7	39.2	42.7	43	~~35.54~~		
42	18.8 38.5	8.9		24.1							+ 1.05		
κ				27.6							− 27		
((δ) − D) $\frac{\kappa'}{100}$				24.4					+ 0.75		− 3		
α_1										43	36.29		
											− 2.63		
											33.66		
		8.4		43 18.6	43 28.6	32.3	35.8	39.4	43.0	43	36.82		
				22.0							+ 0.79		
κ				24.5							− 32		
((δ) − D) $\frac{\kappa'}{100}$				21.7					+ 0.44		− 3		
α_2										43	36.26		
											− 2.55		
											33.71		
44	22 51 ~~54~~ 48					Cld. f.							
43	25.0 ~~58.6~~ 53.6	8.9											
κ													
((δ) − D) $\frac{\kappa'}{100}$													
α_1													
		9.0		44 22.0	44 39.2	42.6	45.7	49.2	52.6	44	46.86		
				24.1							+ 0.79		
κ				27.5							− 30		
((δ) − D) $\frac{\kappa'}{100}$				24.5					+ 0.47		− 2		
α_2										44	46.33		
											− 2.42		
											43.91		

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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	+24.3	1	57.3	54	116.7	1	58.35	55 50.00		25	54 39 23.21	
	1.38561					26		54 39 41.98			− 15	+1293
$((\delta) - D)\frac{d'}{100}$	9.76236							−18.77			− 24	
	1.27349m										+12.76	
δ_1											+ 56	
											− 9.10	
											39 2708	
d	+26.8	1	47.3	1.8	109.1	1	54.55	55 53.80		25	25.16	
	1.42813					26		54 39 45.66			− 19	+1265
$((\delta) - D)\frac{d'}{100}$	9.76236							−20.70			− 21	
	1.31601m										+12.49	
δ_2											+ 56	
											− 9.95	
											39 2786	
d	+26.2	3	10.6	24.8	35.4	3	17.70	49 30.65		30	54 33 2.34	
	1.41830					33		54 33 22.63			− 18	+1264
$((\delta) - D)\frac{d'}{100}$	9.76342							−20.29			− 39	
	1.30724m										+12.65	
δ_1											+ 56	
											− 9.00	
											33 5.98	
d	+24.0	3	9.8	~~23.8~~ 23.0	32.8	3	16.40	49 31.95		30	5.23	
	1.38021					33		54 33 23.81			− 15	+1243
$((\delta) - D)\frac{d'}{100}$	9.76342							−18.58			− 36	
	1.26915m										+12.38	
δ_2											+ 56	
											− 9.80	
											33 7.86	
d	+26.6	0	32.8	48.2	81.0	0	40.50	12 7.85		10	52 55 38.42	
	1.42488					10		52 56 59.83			− 19	+1115
$((\delta) - D)\frac{d'}{100}$	9.78013							−21.41			− 8	
	1.33053m										+10.92	
δ_1											+ 50	
											− 8.40	
											55 41.17	
d	+31.0	0	27.1	41.7	68.8	0	34.40	12 13.95		10	40.86	
	1.49136					10		52 56 5.81			− 25	+1079
$((\delta) - D)\frac{d'}{100}$	9.78013							−24.95			− 6	
	1.39701m										+10.70	
δ_2											+ 40	
											− 9.20	
											55 4245	
d	+11.1	4	54.4	74	118.8	4	59.40	47 48.95		30	54 31 32.33	
	1.04532					34		54 31 40.93			− 3	+1266
$((\delta) - D)\frac{d'}{100}$	9.76378							− 8.60			− 60	
	0.93462m										+12.74	
δ_1											+ 55	
											− 8.80	
											31 3619	
d	+14.1	4	46.2	~~59.2~~ 47	105.4	4	52.70	47 55.65		30	36.58	
	1.14922					34		54 31 47.51			− 5	+1232
$((\delta) - D)\frac{d'}{100}$	9.76378							−10.93			− 53	
	1.03852m										+12.35	
δ_2											+ 55	
											− 9.65	
											31 3925	
d												
$((\delta) - D)\frac{d'}{100}$												
δ_1												
d	+21.4	8	26.0	40.1	66.1	3	33.05	4 15.30		15	51 47 49.49	
	1.33041					18		51 48 7.16			− 12	+939
$((\delta) - D)\frac{d'}{100}$	9.79128							−17.67			− 39	
	1.24721m										+7.51	
δ_2											+ 39	
											− 8.80	
											47 5008	

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Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
45	46	18 53 30	8.8	10 46 10.7	46 24.2	27.7	31.2	34.6	38.1	46	m s 31.16		
	45	15.4	9.0	13.6							+ 1.05		
K		24.8		16.6					+ 0.76		− 26		
				13.6							− 3		
((δ) − D) $\frac{\kappa'}{100}$										46	31.92		
											− 2.65		
a_1											29.27		
			8.7	46 24.4	46 24.4	28.0	31.4	35.2	38.4	46	31.44		
				5.3							+ 0.79		
K				8.6					+ 0.45		− 31		
				5.4							− 3		
((δ) − D) $\frac{\kappa'}{100}$										46	31.89		
											− 2.52		
a_2											29.37		
	46	58 5 4 16	8.0	46 58.7	47 6.7	10.1	13.7	17.2	20.7	47	13.68		
45	57.1	20.9	8.5	1.6							+ 1.05		
K				4.6					+ 0.76		− 26		
				61.6							− 3		
((δ) − D) $\frac{\kappa'}{100}$										47	14.44		
											− 2.70		
a_1											11.74		
			8.4	46 57.2	47 6.9	10.4	14.0	17.6	21.0	47	13.98		
				04							+ 0.79		
K				3.2					+ 0.44		− 32		
				60.3							− 3		
((δ) − D) $\frac{\kappa'}{100}$										47	14.42		
											− 2.56		
a_2											11.86		
	49	0 53 30	8.5	48 37.9	48 5.8	9.3	12.7	16.2	19.7	49	12.74		
47	58.2	53.2	8.5	40.7							+ 1.05		
K				43.5					+ 0.76		− 26		
				40.7							− 3		
((δ) − D) $\frac{\kappa'}{100}$										49	13.50		
											− 2.69		
a_1											10.81		
			8.0	48 50.1	49 6.0	9.3	13.0	16.5	20.0	49	12.96		
				53.1							+ 0.79		
K				53.4					+ 0.44		− 32		
				52.9							− 3		
((δ) − D) $\frac{\kappa'}{100}$										49	13.40		
											− 2.56		
a_2											10.84		
	50	23 5 2 9	8.0	50 17.5	50 30.0	33.2	36.6	39.8	43.3	50	36.58		
49	22.0	14.8	7.8	20.3							+ 1.05		
K		11		22.7					+ 0.79		− 24		
				20.2							− 2		
((δ) − D) $\frac{\kappa'}{100}$										50	37.37		
											− 2.60		
a_1											34.77		
			8.0	50 10	50 30.1	33.3	36.8	40.2	43.7	50	36.82		
				4.2							+ 0.79		
K				6.2					+ 0.47		− 30		
				3.8							− 2		
((δ) − D) $\frac{\kappa'}{100}$										50	37.29		
											− 2.48		
a_2											34.81		
	52	12 5 1 36	8.8	51 29.3	51 43.7	47.0	50.3	53.6	57.1	51	50.34		
50	14.9	41.1	7.6	31.7							+ 1.05		
K	36.8	51 46.2		33.2					+ 0.79		− 24		
				32.1							− 2		
((δ) − D) $\frac{\kappa'}{100}$										51	51.13		
											− 2.59		
a_1											48.54		
			9.0	51 23.7	51 43.8	47.1	50.5	53.9	57.1	51	50.48		
				27.0							+ 0.79		
K				38.0					+ 0.48		− 29		
				26.9							− 2		
((δ) − D) $\frac{\kappa'}{100}$										51	50.96		
											− 2.46		
a_2											48.50		

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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′
	+17.6	2	11.8	26.0	37.8	2′ 18.90	45 29.45			35-	53 29 7.45	
	1.24551					37	53 29 21.43				− 8	+11.64
d	9.77456						−13.98				− 28	
	1.14559m										+11.50	
((δ) − D) $\frac{d'}{100}$											+ 50	
											− 8.30	
δ_1											29 10.79	
	+26.0	2	2.9	16.4	19.3	2 9.65	45 38.70			35-	9.90	
	1.41497					37	53 29 30.56				− 18	+11.31
d	9.77456						−20.66				− 24	
	1.31505m										+11.28	
((δ) − D) $\frac{d'}{100}$											+ 45	
											− 9.20	
δ_2											29 12.01	
	+8.1 (12)	1	51.7	6.9	118.6	1 57.30	30 49.05			50	54 14 31.59	
	1.08279					51	54 14 41.03				− 4	+12.57
d	9.76677						− 9.44				− 24	
	0.97508m										+12.33	
((δ) − D) $\frac{d'}{100}$											+ 52	
											− 8.40	
δ_1											14 35.76	
	+13.7	1	48.8	2.1	110.6	1 55.30	30 53.05			50	34.22	
	1.13672					51	54 14 44.91				− 5	+12.32
d	9.76670						−10.69				− 21	
	1.02894m										+12.06	
((δ) − D) $\frac{d'}{100}$											+ 52	
											− 9.30	
δ_2											14 37.24	
	+32.0	2	25.9	41.2	67.1	2 33.55	5 14.80			15-	53 48 41.56	
	1.50515					17	53 49 6.78				− 27	+11.78
d	9.77112						−25.22				− 34	
	1.40179m										+11.86	
((δ) − D) $\frac{d'}{100}$											+ 50	
											− 8.20	
δ_1											48 45.14	
	+20.1	2	33.9	47.1	81.0	2 40.50	5 7.85			15-	43.87	
	1.30320					17	53 48 59.71				− 10	+11.70
d	9.77112						−15.84				− 29	
	1.19984m										+11.61	
((δ) − D) $\frac{d'}{100}$											+ 48	
											− 9.10	
δ_2											48 46.47	
	+16.4	3	49.0	4.3	113.3	3 56.65	23 51.70			35-	52 7 30.23	
	1.21484					[58]	52 37 43.68				− 7	+10.00
d	9.78821						−13.45				− 47	
	1.12857m										+10.08	
((δ) − D) $\frac{d'}{100}$											+ 46	
											− 7.65	
δ_1											7 32.58	
	+33.0	3	34.1	47.5	81.6	3 40.80	24 7.55			5-8-	32.36	
	1.51851					58	52 7 59.41				− 29	+9.57
d	9.78821						−27.05				− 40	
	1.43224m										+ 9.86	
((δ) − D) $\frac{d'}{100}$											+ 40	
											− 8.50	
δ_2											7 33.43	
	+18.2	2	4.5	19.5	24.0	2 12.00	55 36.35			25-	51 39 13.25	
	1.26007					27	51 39 28.03				− 7	+9.66
d	9.79272						−15.08				− 26	
	1.17831m										+ 9.58	
((δ) − D) $\frac{d'}{100}$											+ 43	
											− 7.45	
δ_1											39 15.46	
	+23.6	1	5.8.6	12.5-	131.1	2 15.55	55 42.80			25-	15.11	
	1.37291					27	51 39 34.66				− 15	+9.37
d	9.79272						−19.55				− 23	
	1.29115m										+ 9.37	
((δ) − D) $\frac{d'}{100}$											+ 38	
											− 8.30	
δ_2											39 16.18	

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Date$_1$ = Apr. 27 Observer / Recorder Date$_2$ = May 3 Observer / Recorder

Run

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
1	53 44	50 11	9.5	10 53 21.4	53 37.3	40.5	43.9	47.1	50.2	53	43.80		
	52 46.8	62.	9.1	24.1							+ 1.05		
	κ 30.1	2.0		27.3					+ 0.80		− 23		
				24.3							− 2		
	((δ) − D) $\frac{\kappa'}{100}$									53	44.60		
											− 2.52		
	α_1										42.08		
			9.3	53 21.2	53 37.4	40.7	43.9	47.3	50.4	53	43.94		
				24.0							+ 0.79		
	κ			26.9					+ 0.50		− 27		
				24.0							− 2		
	((δ) − D) $\frac{\kappa'}{100}$									53	44.44		
											− 2.40		
	α_2										42.04		
	54 55	53 54	7.5	54 40.2	55 0.7	4.0	7.4	11.0	14.3	55	7.48		
	53 53.9	59.2	8.0	44.7							+ 1.05		
	κ			46.9					+ 0.76		− 26		
				43.9							− 3		
	((δ) − D) $\frac{\kappa'}{100}$									55	8.24		
											− 2.74		
	α_1										5.50		
			8.0	54 38.2	55 0.6	4.0	7.7	11.1	14.7	55	7.62		
				42.1							+ 0.79		
	κ			45.0					+ 0.44		− 32		
				41.8							− 3		
	((δ) − D) $\frac{\kappa'}{100}$									55	8.06		
											− 2.61		
	α_2										5.45		
	55 31	52 59	8.3	55 30.6	55 35.5	38.6	42.1	45.6	49.0	56	42.16		
	54 24.6	53 42	8.0	38.2							+ 1.05		
	κ			35.7					+ 0.74		− 25		
				33.2							− 3		
	((δ) − D) $\frac{\kappa'}{100}$									55	42.93		
											− 2.69		
	α_1										40.24		
			8.4	55 27.6	55 35.4	38.9	42.3	45.7	49.0	56	42.26		
				29.6							+ 0.79		
	κ			33.0					+ 0.45		− 31		
				30.1							− 3		
	((δ) − D) $\frac{\kappa'}{100}$									55	42.71		
											− 2.56		
	α_2										40.15		
	56 36	53 03	8.9	56 29.3	56 42.3	45.7	49.1	52.6	56.1	56	49.16		
	55 35.1	7.7	9.1	32.2							+ 1.05		
	κ			36.1					+ 0.77		− 25		
				32.5							− 3		
	((δ) − D) $\frac{\kappa'}{100}$										49.93		
											− 2.70		
	α_1										47.23		
			9.1	56 18.5	56 42.3	45.7	49.3	52.6	56.2	56	49.22		
				22.3							+ 0.79		
	κ			26.0					+ 0.45		− 31		
				22.6							− 3		
	((δ) − D) $\frac{\kappa'}{100}$									56	49.67		
											− 2.57		
	α_2										47.10		
	58 25	53 01	7.0	57 43.2	58 7.7	33.8	37.0	40.6	43.7	58	37.06		
	57 24.3	6.5	7.2	58 7.1	45.7	30.2					+ 1.05		
	κ			10.7	48.6				+ 0.77		− 25		
				13.2							− 3		
	((δ) − D) $\frac{\kappa'}{100}$			10.5						58	37.83		
											− 2.71		
	α_1										35.12		
			7.0	58 10.5	58 30.3	33.8	37.2	40.7	44.2	58	37.24		
				13.7							+ 0.79		
	κ			16.3					+ 0.45		− 31		
				13.5							− 3		
	((δ) − D) $\frac{\kappa'}{100}$									58	37.69		
											− 2.59		
	α_2										35.10		

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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′
	+19.5	2	29.0	44.5	73.5	2′ 36.75	30 11.60		50	50 13 46.93	
	1.29003				52	50 14 3.58				− 10	+8.04
d	9.80595						−16.65			− 31	
	1.22150 m									+ 8.09	
((δ) − D) $\frac{d'}{100}$										+ 36	
										− 6.90	
δ_1										13 48.07	
	+19.9	2	26.5	42.3	68.8	2 34.40	30 13.95		50	48.82	
	1.29885				52	50 14 5.81				− 11	+7.78
d	9.80595						−16.99			− 28	
	1.23032 m									+ 7.91	
((δ) − D) $\frac{d'}{100}$										+ 26	
										− 7.75	
δ_2										13 48.85	
	+43.6	3	30.0	44.4	74.4	3 37.20	9 11.15		10	53 52 44.56	
	1.37291				13	53 53 3.13				− 15	+11.86
d	9.77043						−18.57			− 43	
	1.26886 m									+11.94	
((δ) − D) $\frac{d'}{100}$										+ 50	
										− 7.75	
δ_1										52 48.67	
	+25.8	3	26.8	40.4	67.2	3 33.60	9 14.75		10	46.31	
	1.41162				13	53 53 6.61				− 17	+11.60
d	9.77043						−20.30			− 39	
	1.30757 m									+11.67	
((δ) − D) $\frac{d'}{100}$										+ 49	
										− 8.65	
δ_2										52 49.26	
	+ 9.0	4	17.1	31.2	48.3	4 24.15	13 24.20		5	52 57 8.94	
	0.95424				9	52 57 16.18				− 2	+10.90
d	9.77997						− 7.24			− 53	
	0.85973 m									+10.95	
((δ) − D) $\frac{d'}{100}$										+ 50	
										− 7.45	
δ_1										57 12.39	
	+12.2	4	12.4	25.5	37.9	4 18.95	13 29.40		5	11.44	
	1.08636				9	52 57 21.26				− 4	+10.59
d	9.77997						− 9.82			− 47	
	0.99185 m									+10.70	
((δ) − D) $\frac{d'}{100}$										+ 40	
										− 8.35	
δ_2										57 13.68	
	+16.7	0	58.1	12.2	130.3	1 5.15	16 43.20		5	53 0 22.07	
	1.22272				6	53 0 35.18				− 8	+11.29
d	9.77946						−13.11			− 13	
	1.12770 m									+11.00	
((δ) − D) $\frac{d'}{100}$										+ 50	
										− 7.40	
δ_1										0 25.96	
	+26.6	0	47.9	1.7	109.6	0 54.80	16 53.55		5	24.04	
	1.42488				5	53 0 45.41				− 19	+10.86
d	9.77946						−21.37			− 10	
	1.32986 m									+10.75	
((δ) − D) $\frac{d'}{100}$										+ 40	
										− 8.30	
δ_2										0 26.60	
	+ 26.6	1	13.2	27.5	40.7	1 20.35	16 28.00		5	52 59 59.61	
	1.42488				6	53 0 [illegible]				− 19	+11.15
d	9.77946						−21.37			− 16	
	1.32986 m									+11.00	
((δ) − D) $\frac{d'}{100}$										+ 50	
										− 7.20	
δ_1										0 3.56	
	+25.7	1	14.1	27.0	41.1	1 20.55	16 27.80		5	0 0.62	
	1.37475				6	53 0 19.66				− 15	+10.85
d	9.77946						−19.04			− 15	
	1.27973 m									+10.75	
((δ) − D) $\frac{d'}{100}$										+ 40	
										− 8.15	
δ_2										0 3.32	

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Date$_1$ = Apr. 27 — Observer / Recorder

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Run

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
1	0 15 54 14		9.4	11 0 5.6	0 24.5	27.7	31.0	34.4	37.7	0	31.06		
	59 18.8	18.9	9.4	7.9							+ 1.05		
	κ			10.6					+ 0.79		− 24		
	((δ) − D) $\frac{\kappa'}{100}$			8.0						0	− 2		
	a_1										31.85		
											− 2.62		
											29.23		
			9.5	10 5.9 5.7	0 24.8	28.1	31.4	34.7	38.0	0	31.40		
				5.8							+ 0.79		
	κ			2.6					+ 0.88		− 29		
	((δ) − D) $\frac{\kappa'}{100}$			5.8						0	− 2		
	a_2										31.88		
											− 2.51		
											29.37		
1	6 58 19		8.8	1 8.8	1 11.5	15.1	18.5	21.9	25.4	1	18.48		
0	6.1 8 24.8		8.9	11.1							+ 1.05		
	κ			14.6					+ 0.75		− 27		
	((δ) − D) $\frac{\kappa'}{100}$			11.5						1	− 3		
	a_1										19.23		
											− 2.74		
											16.3549		
			8.7	1 4.2	1 11.9	15.2	18.7	22.1	25.6	1	18.70		
				2.0							+ 0.79		
	κ			2.7					+ 0.43		− 33		
	((δ) − D) $\frac{\kappa'}{100}$			7.0						1	− 3		
	a_2										19.13		
											− 2.7462		
											16.3951		
2	58 49 46		9.8	23 16.4 3 9.4		12.8	16.2	19.2	22.2	3	15.96		
2	2.4 49 51.6		9.5								+ 1.05		
	κ								+ 0.81		− 22		
	((δ) − D) $\frac{\kappa'}{100}$									3	− 2		
	a_1										1677		
											− 2.57		
											14.20		
			10.0	3 3.0	3 9.8	12.9	16.0	19.0	22.8	3	15.96		
				8.0							+ 0.79		
	κ			11.0					+ 0.50		− 27		
	((δ) − D) $\frac{\kappa'}{100}$			8.0						3	− 2		
	a_2										16.48		
											− 2.46		
											14.02		
3	54 50 47		9.1	4 0.4	4 3.9	7.1	10.3	13.4	16.8	4	10.30		
2	59.4 51.8		9.4								+ 1.05		
	κ								+ 0.80		− 23		
	((δ) − D) $\frac{\kappa'}{100}$									4	− 2		
	a_1										11.10		
											− 2.62		
											8.48		
			8.9	3 59.0	4 4.2	7.6	10.6	13.7	17.0	4	10.62		
				2.0							+ 0.79		
	κ			5.0					+ 0.49		− 28		
	((δ) − D) $\frac{\kappa'}{100}$			6.2.0						4	− 2		
	a_2										11.11		
											− 2.51		
											8.60		
5	14 50 43		9.2	4 59.4	5 2.2.4	25.9	29.1	32.5	35.7 8.	5	29.86		
4	18.8 47.8		9.3	2.3							+ 1.05		
	κ			4.7					+ 0.80		− 23		
	((δ) − D) $\frac{\kappa'}{100}$			6.2.1						5	− 2		
	a_1										29.96		
											− 2.63		
											27.33		
			9.0	5 0.6	5 22.8	26.0	29.3	32.6	35.9	5	29.32		
				4.0							+ 0.79		
	κ			7.1					+ 0.49		− 28		
	((δ) − D) $\frac{\kappa'}{100}$			3.9						5	− 2		
	a_2										29.81		
											− 2.52		
											27.29		

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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′
	+23.1	3 48.8	5.98	103.6	3 51.80	28 56.55			50	51 12 29.21	
	1.36361				53	51 12 48.53				− 14	+8.92
d	9.79699						−19.32			− 46	
	1.28612$_n$									+ 9.11	
$((\delta) - D)\frac{d'}{100}$										+ 41	
										− 6.60	
δ_1										12 31.53	
	+31.6	3 35.7	4.99	85.8	3 42.90	29 5.45			50	32.06	
	1.49969				53	51 12 57.31				− 27	+8.62
d	9.77699						−25.25			− 40	
	1.40220$_n$									+8.98	
$((\delta) - D)\frac{d'}{100}$										+ 36	
										−7.50	
δ_2										12 33.18	
	+7.0	3 16.5	30.9	47.4	3 23.70	34 24.65			45	~~55~~ 53 18 11.~~37~~05	
	0.84510				48	~~55~~ 18 16.63				− 2	~~+13.67~~+11.38
d	9.75532 7643					53 − 5.32 ~~58~~				− 41	
	~~0.72595$_n$~~									+11.31 ~~+13.47~~	
$((\delta) - D)\frac{d'}{100}$	0.74705$_n$									+ 63 50	
										− 7.~~60~~ 20	
δ_1										18 ~~17.38~~ 15.28	
	+11.7	3 10.0	2.34	33.4	3 16.70	34 31.65			45	14.~~62~~ 17	
	1.06819				48	~~55~~ 18 23.51				− 4	~~+13.37~~ +11.17
d	9.75533 7643					− ~~8.89~~				− 36	
	~~0.74904$_n$~~					9.34				+11.07 ~~+13.14~~	
$((\delta) - D)\frac{d'}{100}$	0.97014$_n$									+ ~~63.50~~	
										~~−8.55~~ 8.14	
δ_2										18 ~~17.44~~ 17.20	
	−0.6	0 55.2	11.8	127.0	1 3.50	1 44.85			20	49 45 37.35	
	9.77815$_n$				21	49 45 36.83				− 0	+7.83
d	9.81017						+ 0.52			− 13	
	9.71384									+ 7.62	
$((\delta) - D)\frac{d'}{100}$										+ 34	
										− 6.00	
δ_1										45 39.18 ?	
	+8.0	0 44.7	5.57	103.6	0 51.80	1 56.55			20	41.51	
	0.90309				20	49 45 48.41				− 2	+7.55
d	9.81017						− 6.90			− 9	
	0.83878$_n$									+ 7.43	
$((\delta) - D)\frac{d'}{100}$										+ 23	
										−6.90	
δ_2										45 42.16	
	+9.9	2 1.0	1.65	17.5	2 8.75	0 39.60			20	50 44 23.21	
	0.99564				22	50 44 ~~31.58~~ 31.51				− 3	+8.72
d	9.80136						− 8.37			− 26	
	0.92252$_n$									+ 8.62	
$((\delta) - D)\frac{d'}{100}$										+ 39	
										−6.20	
δ_1										44 25.73	
	+8.6	2 1.5	1.59	17.4	2 8.70	0 39.65			~~20~~	24.24	
	0.93430				22	50 44 31.51				− 2	+8.49
d	9.80136						− 7.27			− 23	
	0.86138$_n$									+ 8.42	
$((\delta) - D)\frac{d'}{100}$										+ 32	
										− 7.10	
δ_2										44 25.63	
	+27.3	4 5.47	10.6	125.3	5 2.65	57 45.70			20	50 41 14.89	
	1.43616				25	50 41 37.68				− 20	+8.15
d	9.80182						−23.09			− 60	
	1.36350$_n$									+ 8.57	
$((\delta) - D)\frac{d'}{100}$										+ 38	
										− 6.10	
δ_1										41 16.44	
	+25.4	4 3.57	10.9	126.6	5 3.30	57 45.05			20	15.43	
	1.40483				25	50 41 36.91				− 17	+7.97
d	9.80182						−21.48			− 56	
	1.33217$_n$									+ 8.38	
$((\delta) - D)\frac{d'}{100}$										+ 32	
										− 7.00	
δ_2										41 16.40	

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Date$_1$ = Apr. 27 Observer / Recorder

Date$_2$ = May. 3 Observer / Recorder

Run

Star. α	δ	Mag.	T_s	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
11 6 14 58 34	8.0	11 5 57.6	6 18.3	21.9	25.3	28.7	32.3	6	25.30		
5 14.3 39.2	7.7	1.3							+ 1.05		
κ		3.7							− 26		
		6.0.9					+ 0.76		− 3		
((δ) — D) $\frac{\kappa'}{100}$								6	26.06		
									− 2.80		
α_1									23.26		
	7.8	6 8.2	6 18.4	21.9	25.4	29.0	32.4	6	25.42		
		10.7							+ 0.79		
κ		13.8							− 31		
		11.2					+ 0.45		− 3		
((δ) — D) $\frac{\kappa'}{100}$								6	25.87		
									− 2.67		
α_2									23.20		
7 11 53 38	7.4	6 57.5	7 16.2	19.8	23.2	26.7	30.2	7	23.22		
6 12.9 43.7	7.2	2.4							+ 1.05		
κ		4.8							− 26		
		6.2.2					+ 0.76		− 3		
((δ) — D) $\frac{\kappa'}{100}$								7	23.98		
									− 2.81		
α_1									21.17		
	7.8	7 2.1	7 16.4	20.0	23.4	27.0	30.5	7	23.46		
		4.3							+ 0.79		
κ		7.9							− 31		
		4.8					+ 0.45		− 3		
((δ) — D) $\frac{\kappa'}{100}$								7	23.91		
									− 2.68		
α_2									21.23		
8 41 53 28	8.8	8 24.1	8 46.6	50.0	53.3	56.9	0.4	8	53.44		
7 42.7 33.6	6.5	26.8							+ 1.05		
κ		29.2							− 26		
		26.7					+ 0.76		− 3		
((δ) — D) $\frac{\kappa'}{100}$								8	54.20	−2.81	
	6.8	8 10.0	8 46.9	50.3	53.4	57.2	0.7	8	53.74		51.39
α_1		13.3							+ 1.05		
		16.3					+ 0.76		− 2.6		
		13.2						8	− 3		
									54.50	−2.81	
	6.8	8 27.0	8 46.8	50.2	53.6	57.3	0.8	8	53.72		51.69
		30.7					0.7		+ 0.80		
κ		33.3							− 31		
		30.3					+ 0.46		− 3		
((δ) — D) $\frac{\kappa'}{100}$	7.0	8 11.5	8 47.1	50.5	53.9	57.6	0.9	8	54.18	−2.69	
		14.3						8	54.00		51.49
α_2		18.0							+ 0.80		
		14.7					+ 0.46		− 31		
								8	− 3		
									54.46	−2.69	
9 40 50 40	9.0	9 32.3	9 49	53.3	56.4	—	—	9	56.50		51.77
8 45.3 44.8	8.7	35.7	50.0		56.6				+ 1.05		
κ		38.6			56.5				− 23		
		35.5					+ 0.80		− 2		
((δ) — D) $\frac{\kappa'}{100}$								9	57.30		
									− 2.65		
α_1									54.65		
	8.9	9 27.5	9 50.2	53.4	56.6	59.8	3.0	9	56.60		
		30.7							+ 0.80		
κ		33.4							− 28		
		30.5					+ 0.50		− 2		
((δ) — D) $\frac{\kappa'}{100}$								9	57.10		
									− 2.54		
α_2									54.56		
				30.3							
10 28 50 16	9.0	10 22.7	10 26.9	^ 33.3	36.6	39.9		10	33.40		
9 22.6 21.4	9.0	25.7							+ 1.05		
κ		29.5							− 23		
		26.0					+ 0.80		− 2		
((δ) — D) $\frac{\kappa'}{100}$								10	34.20		
									− 2.63		
α_1									31.57		
	9.2	10 20.5	10 27.0	30.3	33.7	36.9	40.0	10	33.58		
		23.0							+ 0.80		
κ		26.0							− 28		
		23.2					+ 0.50		− 2		
((δ) — D) $\frac{\kappa'}{100}$								10	34.08		
									− 2.52		
α_2									31.56		

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1875phaeproj.15066

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′	
	+24.4	4 26.9	40.3	67.2	4 33.60	48 14.75			0	53 31 47.37		
	1.38739				[34]	53 .32 6.73				− 15	+	+11.36
d	9.77405					−19.36				− 55		
	1.28696m									+11.56		
$((\delta) - D)\frac{d'}{100}$										+ 50		
										− 6.70		
δ_1										31 52.03		
	+14.2	4 38.3	48.0	81.3	4 40.65	48 7.70			30	48.29		
	1.15229				34	53 31 69.56				− 5		+11.20
d	9.77405					−11.27				− 51		
	1.05186m									+11.31		
$((\delta) - D)\frac{d'}{100}$										+ 45		
										− 7.70		
δ_2										31 51.79		
	+21.0	3 39.2	53.5	92.7	3 46.35	54 2.00			25	53 37 38.35		
	1.32222				28	53 37 54.98				− 12		+11.56
d	9.77302					−16.63				− 45		
	1.22076m									+11.63		
$((\delta) - D)\frac{d'}{100}$										+ 50		
										− 6.70		
δ_1										37 43.21		
	+18.7	3 40.2	53.1	93.3	3 46.65	54 1.70			25	38.76		
	1.27184				28	53 37 53.56				− 9		+11.37
d	9.77302					−14.80				− 41		
	1.17038m									+11.41		
$((\delta) - D)\frac{d'}{100}$										+ 46		
										− 7.60		
δ_2										37 42.53		
	+26.7	3 5.70	11.2	128.2	4 4.10	43 44.25			35	53 27 15.00	4.02	
	1.42651				39	53 27 36.23	27 1500		4.02	− 19	− 43	+11.26
d	9.77490					−21.23	+11.26		+11.02	− 49	− 49	
	1.32693m					−32.21				+11.44	+ 11.44	
$((\delta) - D)\frac{d'}{100}$										+ 50	+ 50	
	+40.5									− 6.50	− 6.50	
δ_1	1.60746									27 19.76	27 8.54	
	9.77490	1.50788m										
	+23.4	2 56.9	10.8	127.4	4 3.70	43 44.65			35	17.90	5.26	
	1.36922				39	53 27 36.51	1790		5.26	− 14	− 41	+11.08
d	9.77490					−18.61	+11.08		+10.81	− 45	− 45	
	1.26964m					−31.25				+11.22	+ 11.22	
$((\delta) - D)\frac{d'}{100}$	+39.3									+ 45	+ 45	
	1.59439									− 7.50	− 7.50	
δ_2	9.77490									27 21.48	27 8.57	
	1.49481m											
	+21.0	3 2.1	17.9	20.0	3 10.00	54 38.35			25	50 38 12.55		
	1.32222				28	50 38 30.33				− 12	+ 8.42	
d	9.80228					−17.78				− 38		
	1.25002m									+ 8.50		
$((\delta) - D)\frac{d'}{100}$										+ 38		
										− 5.70		
δ_1										38 15.27		
	+26.1	2 5.7.0	12.1	129.1	3 4.55	54 43.80			25	38 13.56		
	1.41664				28	50 38 35.66				− 18		+8.11
d	9.80228					−22.10				− 34		
	1.34444m									+ 8.32		
$((\delta) - D)\frac{d'}{100}$										+ 31		
										− 6.65		
δ_2										38 15.02		
	+7.4	1 85.3	5.1.3	86.6	1 43.30	31 5.05			10	50 14 50.86		
	0.86923				51	50 14 57.03				− 2		+8.25
d	9.80580					− 6.17				− 21		
	0.79055m									+ 8.12		
$((\delta) - D)\frac{d'}{100}$										+ 06		
										− 5.50		
δ_1										14 53.41		
	+10.4	1 30.5	4 86.8	7.6	1 8 33.80	31 9.55			5.0	2 58.53		
	1.01703				51	50 15 16.41				− 3		+7.99
d	9.80580					− 8.88				− 18		
	0.94835m									+ 7.93		
$((\delta) - D)\frac{d'}{100}$										+ 27		
										− 6.50		
δ_2										14 54.02		

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1875phae.proj.15968

401

Date$_1$ = 1875, Apr. 27 — Observer / Recorder

402

Date$_2$ = 1875, May 3. — Observer / Recorder

44

Run

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
1.11	11 43 52 40		8.4	11 11 35.8	11 48.4	57.7	55.1	58.6	1.8	11	53.12		
	10 44.6	5.8	8.4	40.3							+ 1.05		
	κ			42.8							− 24		
	((δ) − D) $\frac{\kappa'}{100}$			39.6					+ 0.79		− 2		
										11	53.91		
	α_1										− 2.74		
											53.17		
			8.5	11 24.4	11 48.7	52.0	55.3	58.7	2.0	11	55.34		
				28.0							+ 0.80		
	κ			30.7							− 30		
	((δ) − D) $\frac{\kappa'}{100}$			27.7					+ 0.48		− 2		
										11	55.82		
	α_2										− 2.63		
											53.19		
	12 24	50 11	8.4	12 19.2	12 32.1	35.4	38.6	41.8	45.0	12	38.58		
	11 28.6	16.5	8.6	22.3							+ 1.05		
	κ			24.6							− 23		
	((δ) − D) $\frac{\kappa'}{100}$			22.0					+ 0.80		− 2		
										12	39.38		
	α_1										− 2.64		
											36.74		
			8.5	12 16.3	12 32.2	35.6	38.7	41.9	45.3	12	38.74		
				19.2							+ 0.80		
	κ			21.7							− 27		
	((δ) − D) $\frac{\kappa'}{100}$			19.1					+ 0.51		− 2		
										12	39.25		
	α_2										− 2.54		
											36.71		
	13 46	52 28	7.0	13 29.8	13 50.4	53.8	57.2	0.5	4.1	13	57.24		
	12 47.6	33.4	7.2	32.7							+ 1.05		
	κ			33.7							− 25		
	((δ) − D) $\frac{\kappa'}{100}$			32.5					+ 0.78		− 2		
										13	56.02		
	α_1										− 2.78		
											55.24		
			7.2	13 29.0	13 50.7	54.1	57.4	0.8	4.1	13	57.42		
				33.0							+ 0.80		
	κ			33.3							− 30		
	((δ) − D) $\frac{\kappa'}{100}$			32.5					+ 0.48		− 2		
										13	57.90		
	α_2										− 2.66		
											55.24		
	14 45	51 24	9.0	14 35.1	14 54.4	54.7	58.3	1.4	4.8	14	58.82		
	13 49.9	29.3	9.0	37.7							+ 1.05		
	κ			41.0							− 24		
	((δ) − D) $\frac{\kappa'}{100}$			37.9					+ 0.79		− 2		
										14	58.91		
	α_1										− 2.73		
											56.18		
			9.0	14 34.0	14 57.6	53.0	58.3	1.6	5.0	14	58.30		
				37.1							+ 0.80		
	κ			40.0							− 29		
	((δ) − D) $\frac{\kappa'}{100}$			37.0					+ 0.49		− 2		
										14	58.79		
	α_2										− 2.61		
											56.18		
	16 38	52 48	7.0	16 7.0	16 42.7	46.0	49.4	52.7	56.3	16	49.42		
	15 39.5	30.1	7.3	10.7							+ 1.05		
	κ			12.8							− 25		
	((δ) − D) $\frac{\kappa'}{100}$			10.2					+ 0.78		− 2		
										16	50.20		
	α_1										− 2.81		
											47.39		
			8.0	16 22.1	16 42.8	46.1	49.6	53.0	56.9	16	49.60		
				25.4							+ 0.80		
	κ			28.0							− 30		
	((δ) − D) $\frac{\kappa'}{100}$			25.2					+ 0.48		− 2		
										16	50.08		
	α_2										− 2.71		
											47.37		

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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′
	+16.8	2	14.0	28.9	42.9	2′ 21″.45	15 26.90		5-	51 59 6.44	
	1.19033				7	51½ 59 18.88				− 7	+10.04
d	9.78950						−10.12			− 28	
	1.10535m						12.74			+9.94	
										+ 45	
((δ) − D) $\frac{d'}{100}$										−5.90	
										59 [illegible]	
δ_1										10.28	
	+27.6	2	2.8	16.3	19.1	2	15 38.80		5-	7.96	
	1.44091				7	51 59 30.66				− 20	+9.66
d	9.78950						−22.70			− 24	
	1.35593m									+9.70	
										+ 40	
((δ) − D) $\frac{d'}{100}$										−6.90	
										59 10.72	
δ_2											
	+16.6	4	39.1	15.9	135.0	5 7.50	27 40.85		5-0	50 11 18.64	
	1.22011				55	50 11 32.83				− 8	+7.72
d	9.80641						−14.19			− 61	
	1.15204m									+8.05	
										+ 36	
((δ) − D) $\frac{d'}{100}$										−5.40	
										11 20.96	
δ_1											
	+19.6	4	5.45	10.9	125.4	5 2.70	27 45.65		5-0	20.75	
	1.29226				55	50 11 37.51				− 11	+7.46
d	9.80641						−16.76			− 55	
	1.22419m									+7.85	
										+ 27	
((δ) − D) $\frac{d'}{100}$										−6.30	
										11 21.91	
δ_2											
	+24.7	4	21.5	36.4	57.9	4 28.95	43 19.40		3S-	52 26 51.28	
	1.39270				39	52 27 11.38				− 16	+10.22
d	9.78494						−20.10			− 54	
	1.30316m									+10.45	
										+ 47	
((δ) − D) $\frac{d'}{100}$										−5.80	
										26 55.10	
δ_1											
	+24.9	4	20.4	32.9	53.3	4 26.65	43 21.70		3S-	53.30	
	1.39620				39	52 27 13.56				− 17	+9.91
d	9.78494						−20.26			− 49	
	1.30666m									+10.17	
										+ 40	
((δ) − D) $\frac{d'}{100}$										−6.80	
										26 56.41	
δ_2											
	+20.2	3	5.83	12.9	132.2	4 6.10	38 42.25		40	51 22 17.39	
	1.30535				44	51 22 34.23				− 11	+9.12
d	9.79542						−16.84			− 49	
	1.22629m									+ 9.30	
										+ 42	
((δ) − D) $\frac{d'}{100}$										−5.50	
										22 21.01	
δ_1											
	+21.3	3	35.1	9.9	125.0	4 2.50	38 45.85		40	19.96	
	1.32838				44	51 22 32.71				− 12	+8.86
d	9.79542						−17.75			− 45	
	1.24932m									+ 9.06	
										+ 37	
((δ) − D) $\frac{d'}{100}$										−6.45	
										22 22.37	
δ_2											
	+39.2	2	30.7	45.5	76.2	2 38.10	0 10.25		10	52 43 30.54	
	1.59329				22	52 44 2.23				− 40	+10.52
d	9.78213						−31.69			− 31	
	1.50094m									+10.74	
										+ 49	
((δ) − D) $\frac{d'}{100}$										−5.55	
										43 35.51	
δ_1											
	+24.4	2	40.6	53.9	94.5	2 47.25	0 1.10		20	33.23	
	1.38709				22	52 43 52.96				− 16	+10.09
d	9.78213						−19.73			− 30	
	1.29504m									+10.15	
										+ 40	
((δ) − D) $\frac{d'}{100}$										−6.70	
										43 36.62	
δ_2											

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1875phae.proj.1596R

Date$_1$ = 1875, May 4 — Observer / Recorder — Date$_2$ = 1875, May 5 — Observer / Recorder

n_1 = −.24 — n_2 = −.37 — c = −.20

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
10	25	35 13 53	9.0	10 25 31.0	25 42.6	44.9	48.4	37.8	53.6	25	48.46		
	24	30.3 58.3	8.6	34.4							+ 0.71		
	κ			38.3					+ 0.35		− 32		
	((δ) − D) $\frac{\kappa'}{100}$			34.6							− 3		
	α_1									25	48.81		
											− 2.34		
											46.47		
			8.8	25 32.0	25 41.9	45.4	48.8	52.5	53.8	25	48.88		
				35.3							+ 0.64		
	κ			37.6							− 51		
	((δ) − D) $\frac{\kappa'}{100}$			35.0					− 0.24		− 34		
	α_2										− 3		
										25	48.64		
											− 2.32		
											46.32		
	26	32 53 48	8.0	26 24.4	26 40.7	44.4	47.6	51.3	54.9	26	47.78		
	25	27.8 53.3	9.0	27.4							+ 0.71		
	κ			31.0							− 32		
	((δ) − D) $\frac{\kappa'}{100}$			27.6					+ 0.36		− 3		
	α_1									26	48.14		
											− 2.35	49	
											46.81		
			9.0	26 34.2	26 41.3	44.6	48.4	37.8	53.3	26	48.28		
				36.9							+ 0.64		
	κ			40.1							− 50		
	((δ) − D) $\frac{\kappa'}{100}$			37.1					− 0.23		− 34		
	α_2										− 3		
										26	48.05		
											− 2.32		
											45.73		
	~~37~~ 36	53 01	8.0	36 19.2	36 41.2	44.8	48.4	37.8	53.7	36	48.26		
	35 36	32.5 10.3	7.5	22.1							+ 0.71		
	κ			24.4							− 32		
	((δ) − D) $\frac{\kappa'}{100}$			21.9					+ 0.36		− 3		
	α_1									36	48.62		
											− 2.39		
											46.23		
			8.4	36 18.7	36 42.0	45.3	48.6	52.2	53.7	36	48.76		
				21.9							+ 0.64		
	κ			24.2							− 49		
	((δ) − D) $\frac{\kappa'}{100}$			21.6					− 0.21		− 33		
	α_2										− 3		
										36	48.55		
											− 2.37		
											46.18		
	43	22 37 33	8.8	43 16.0	43 28.5	32.2	35.9	39.3	42.9	43	35.76		
	42	19.8 38.5	8.9	18.9							+ 0.72		
	κ			21.4							− 34		
	((δ) − D) $\frac{\kappa'}{100}$			18.8					+ 0.35		− 3		
	α_1									43	36.11		
											− 2.53		
											33.58		
			9.0	43 ~~19.6~~	43 29.3	32.8	36.3	40.0	43.6	43	36.40		
				42.3							+ 0.64		
	κ			45.1							− 52		
	((δ) − D) $\frac{\kappa'}{100}$			48.4					− 0.26		− 35		
	α_2			45.3							− 3		
										43	36.14		
											− 2.50		
											33.64		
	44	52 53 12	6.8	44 40	44 8.5	12.0	15.1	18.6	22.0	44	15.24		
	~~43~~	49.5 16.7	6.0	6.4							+ 0.72	44 15.61	
	κ			9.0					+ 0.37		− 32	− 2.46	
	((δ) − D) $\frac{\kappa'}{100}$			6.5							− 3	13.15	
	43 49.5			41 16.7	44 5.6	0.0	3.3	6.9	10.4	44	15.61	− 2.46	
	α_1			15.4						45	3.49		
				23.3					+ 0.37		+ 0.72	45 3.81	
				19.8							− 32	− 2.47	
										45	− 3.81	− 2.47 1.34	
			7.5	48 12.8	44 37.2	0.5	3.9	7.4	10.9	45	3.94		
				15.4							+ 0.64		
	κ			18.0							− 49		
	((δ) − D) $\frac{\kappa'}{100}$			15.4					− 0.21		− 33		
	α_2										− 3		
										45	3.77		
											− 2.45		
											1.32		

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1875phae.proj.15968

May 4 -16 8.40 -.11
" 5 -16 7.37 -.11

Runs

47

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+13.9	4 46.8	58.1	104.9	4 52.45	7 55.90			10	53 51 36.56	
	1.14301				14	53 51 47.50				− 5	+11.79
d	9.77061					−10.94				− 53	
	1.03914m									+11.88	
$((\delta) - D)\frac{d'}{100}$										+ 49	
										−10.85	
δ_1										51 37.50	
	+13.9	4 46.2	0.6	106.8	4 53.40	7 54.95			10	36.64	
	1.14301				14	53 51 47.58				− 5	+11.55
d	9.77061					−10.94				− 53	
	1.03914m									+11.64	
$((\delta) - D)\frac{d'}{100}$										+ 49	
										−10.90	
δ_2										51 37.29	
	+20.2	4 9.5	21.6	31.1	4 15.55	3 32.80			15	53 47 8.47	
	1.30535				19	53 47 24.40				− 10	+11.70
d	9.77147					−15.93				− 47	
	1.20234m									+11.79	
$((\delta) - D)\frac{d'}{100}$										+ 48	
										−10.75	
δ_1										47 9.42	
	+11.2	4 16.0	29.5	45.5	4 22.75	3 25.60			15	9.39	
	1.04922				19	53 47 18.23				− 3	+11.52
d	9.77147					− 8.84				− 48	
	0.94621m									+11.55	
$((\delta) - D)\frac{d'}{100}$										+ 48	
										−10.85	
δ_2										47 10.06	
	+26.4	2 21.4	34.0	55.4	2 27.70	20 20.65			0	53 3 51.07	
	1.42160					53 4 12.25				− 18	+11.00
d	9.77879					−21.18				− 27	
	1.32591m									+11.04	
$((\delta) - D)\frac{d'}{100}$										+ 41	
										− 9.90	
δ_1										3 52.17	
	+27.2	2 20.1	33.1	55.2	2 27.60	20 20.75			0	51.56	
	1.43457					53 4 13.38				− 20	+10.75
d	9.77879					−21.82				− 27	
	1.33888m									+10.81	
$((\delta) - D)\frac{d'}{100}$										+ 41	
										− 10.00	
δ_2										3 52.31	
	+17.0	4 46.2	36.8	103.0	4 57.50	47 56.85			30	54 31 35.28	
	1.23045				34	54 31 48.45				− 7	+12.54
d	9.76360					−13.17				− 53	
	1.11957m									+12.59	
$((\delta) - D)\frac{d'}{100}$										+ 55	
										− 9.80	
δ_1										31 38.02	
	− 8.9	0 3.7	20.4	36.1	0 13.05	47 35.30			31	34.83	
	0.94939m				35	54 31 27.93				− 2	+12.86
d	9.76360					+ 6.90				− 3	
	0.83851									+12.36	
$((\delta) - D)\frac{d'}{100}$										+ 55	
										− 9.90	
δ_2										31 37.79	
	+ 8.7	1 44.9	54.7	100.6	1 50.30	25 58.05	94269	55	53	9 42.69	10 2.78
	0.93952				36	57 9 49.65	+1.34	2.78		− 2	− 7
d	9.77778					− 6.96		+1130		− 20	− 20
	0.84282m					+13.13				+ 11.15	+11.15
	−16.4									+ 41	+ 42
$((\delta) - D)\frac{d'}{100}$	1.21484m									− 9.40	− 9.40
	9.77778									9 44.63	10 4.68
δ_1	1.11814										
	−11.4	1 39.0	54.2	93.2	1 46.60	26 1.75		55	53		3.50
	1.05690m				36	57 9 54.38		3.50			− 3
d	9.77778					+ 9.12		+1113			− 19
	0.96220										+10.93
$((\delta) - D)\frac{d'}{100}$											+ 42
											− 9.40
δ_2											10 5.23

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Date$_1$ = 1875, May 4 403 — Observer — Recorder — May 13 n = −.32 — Date$_2$ = May 5 404 — Observer — Recorder — 48 — Run

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
10	47 45	00 53 04 57.9 9.4	8.8 8.8	10 46 57.5 54.0 56.4 54.0	47 6.3	10.1	13.5	17.0	20.4	47	m s 13.50		
	κ								+ 0.37		+ 0.72		
	((δ) − D) $\frac{\kappa'}{100}$										− .32		
	α_1										− 3		
										47	13.87		
											− 2.48		
											11.39		
			8.8	7 —	47 6.3	10.7 14.1	14.0 14.0	17.4 14.0	21.0 14.2	47	13.88 14.08		
	κ										+ 0.64		
	((δ) − D) $\frac{\kappa'}{100}$								− 0.21		− .49		
	α_2										− .33		
											− 3		
										47	13.67 87		
											− 2.46		
											11.21 41		
	48 47	58 54 23 57.5 28.2	9.0 8.8	48 41.1 44.6 47.1 44.3	44 9.0	12.4	16.0	19.5	23.3	49	16.04		
	κ										+ 0.72		
	((δ) − D) $\frac{\kappa'}{100}$								+ 0.35		− .34		
	α_1										− 3		
										49	16.39		
											− 2.56		
											13.83		
			8.7	48 42.7 46.0 45.0 45.9	49 9.4	12.9	16.4	20.0	23.7	49	16.48		
	κ										+ 0.64		
	((δ) − D) $\frac{\kappa'}{100}$								− 0.25		− .52		
May 4	α_2										− .34		
											− 3		
										49	16.23		
											− 2.54		
											13.69		
11	0 59	12 53 45 11.5 50.4	9.2 8.6	11 0 8.6 11.3 14.4 11.4	0 17.2	21.0	24.1	27.6	31.4	0	24.26		
	κ										+ 0.72		
	((δ) − D) $\frac{\kappa'}{100}$								+ 0.37		− .32		
May 5	α_1										− 3		
										0	24.63		
											− 2.60 63		
											22.01		
			8.5	10 59 54.7 57.8 1.0 57.8	0 18.0	21.2	24.6	28.1	31.8	0	24.714		
	κ										+ 0.65		
	((δ) − D) $\frac{\kappa'}{100}$								− 0.22		− .50		
May 13	α_2										− .34		
											− 3		
										0	24.52		
											− 2.60 70		
											21.92		
			9.0	59 57.0 54.3 56.7 54.0	0 16.3	19.9	23.4	26.8	30.3	0	23.34		
	κ										+ 1.60		
	((δ) − D) $\frac{\kappa'}{100}$								+ 1.14		− .43		
4	α_1										− 3		
										0	24.48		
											− 2.77 38		
											22.10		
11	1 0	32 54 50 31.9 53.6	8.8 8.2	1 14.1 17.7 20.8 17.5	1 36.3	39.8	43.4	47.0	50.5	1	43.40		
	κ										+ 0.72		
	((δ) − D) $\frac{\kappa'}{100}$								+ 0.35		− .34		
5	α_2										− 3		
										1	43.75		
											− 2.69		
											41.06		
			8.2	1 10.3 13.4 16.0 18.2	1 37.0	40.1	44.0	47.6	51.1	1	43.98		
	κ										+ 0.65		
	((δ) − D) $\frac{\kappa'}{100}$								− 0.25		− .52		
13	α_1										− .35		
											− 3		
										1	43.71		
											− 2.67		
											41.04		
			8.5	1 12.7 16.3 18.8 15.9	1 35.3	38.8	42.4	46.1	49.7	1	42.46		
	κ										+ 1.60		
	((δ) − D) $\frac{\kappa'}{100}$								+ 1.12		− .45		
	α_2										− 3		
										1	43.58		
											− 2.48		
											41.10		

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May 13 -16' 5.79 -,10.

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ'
	+19.5	3 42.9	32.8	109.7	3' 36.85	18 53.50			0	53 2 29.45	
	1.29003					53 2 45.10				− 9	+10.90
d	9.77896					−15.65				− 43	
	1.19451n									+11.02	
((δ) − D) $\frac{d'}{100}$										+ 40	
										− 9.20	
δ_1										2 31.16	
		3 [34.4] + 7.1		120.5	4 0.25	18 48.10 ✓			0		
						2 40.73				−	
d										− 44	
										+10.80	
((δ) − D) $\frac{d'}{100}$										+ 40	
										− 9.30	
δ_2		[26.1]		40.44	32.00					+ 43.28 8	
	+31.7	4 36.1	37.9	+540	5 17.00	37 31.35	38 16.35		40	54 20 58.28 ✓	
	1.50106				45	54 21 22.95	22 [illegible]	5		− 26	+12.17
d	9.76554					−24.67	−24.67			− 50	
	1.39212n									+12.40	
((δ) − D) $\frac{d'}{100}$										+ 53	
										− 9.30	
δ_1										21 46.14 5	
	+30.6	4 27.0	40.9	67.9	4 33.95	38 14.40			40	21 43.22 ✓	
	1.48572				44	54 22 7.03				− 24	+11.97
d	9.76554					−23.81				− 50	
	1.37678n									+12.18	
((δ) − D) $\frac{d'}{100}$										+ 53	
										− 9.45	
δ_2										21 45.74	
	+12.9	2 49.1	0.7	109.8	2 54.90	59 53.45			20	53 43 34.86	
	1.11059				22	53 43 45.05				− 5	+11.86
d	9.77199					−10.19				− 32	
	1.00810n									+11.76	
((δ) − D) $\frac{d'}{100}$										+ 47	
										− 6.50 8.30	
δ_1										43 38.42	
	+26.9	2 37.4	50.1	87.5	2 43.75	0 4.60			20	35.98	
	1.42975				22	53 43 57.23				− 19	+11.52
d	9.77199					−21.25				− 30	
	1.32726n									+11.54	
((δ) − D) $\frac{d'}{100}$										+ 47	
										3 − 7.75 8.50	
δ_2										48 39.00	
	+29.3	2 34.9	37.7	86.6	2 43.30	0 5.05			20	36.12	
	1.46687				22	53 43 59.26				− 23	+11.51
d	9.77199					−23.14				− 27	
	1.36438n									+11.54	
((δ) − D) $\frac{d'}{100}$										+ 47	
										3 − 6.65 9.30	
δ_1										48 38.13	
	+25.9	1 37.0	50.1	87.1	1 43.55	6 4.80			15	54 49 36.48	
	1.41330				16	54 49 56.40				− 17	+13.15
d	9.76039					−19.92				− 19	
	1.29921n									+12.93	
((δ) − D) $\frac{d'}{100}$										+ 58	
										− 8.50	
δ_2										49 41.13	
	+30.8	1 32.8	47.2	80.0	1 40.00	6 8.35			15	37.30	
	1.48855				16	54 50 0.98				− 25	+12.85
d	9.76039					−23.68				− 18	
	1.37446n									+12.70	
((δ) − D) $\frac{d'}{100}$										+ 58	
										− 8.70	
δ_1										49 41.45	
	+26.6	1 36.0	52.8	88.8	1 44.40	6 3.95			15	37.31	
	1.42488				16	54 49 58.16				− 17	+12.94
d	9.76039					−20.45				− 17	
	1.31079n									+12.70	
((δ) − D) $\frac{d'}{100}$										+ 58	
										− 9.70	
δ_2										49 40.95	

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Date$_1$ = May 4 403 — Observer / Recorder — Date$_2$ = May 5 / May 13 404 405 — Observer / Recorder — 50 — Ru

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
4											δ		
1	2 20	54 48	7.0	11 2 16.0	2 24.0	27.4	31.0	34.6	38.2	2	31.04		
	1 19.6	53.3	7.1	18.5							+ 0.72		
	κ			21.6					+ 0.35		− 34		
	((δ) − D) $\frac{\kappa'}{100}$			18.7							− 3		
	α_1									2	31.39		
											− 2.70		
											28.69		
5													
			7.0	2 6.9	2 24.6	28.1	31.7	35.1	38.0	2	31.70		
	κ			8.3							+ 0.65		
	((δ) − D) $\frac{\kappa'}{100}$			13.0					− 0.25		− 52		
	α_2			9.7							− 35		
											− 3		
										2	31.45		
13											− 2.68		
											28.77		
			7.5	2 4.5	2 23.0	26.6	30.1	33.8	37.3	2	30.86		
	κ			7.5							+ 1.60		
	((δ) − D) $\frac{\kappa'}{100}$			11.2					+ 1.12		− 45		
	α_1			7.7							− 3		
										2	31.28		
4											− 2.49		
											28.79		
	3 57	53 44	9.0	3 45.2	4 2.6	6.2	9.8	13.2	16.7	4	9.70		
	2 57.3	44.9	8.5	48.3							+ 0.72		
	κ			57.3					+ 0.37		− 032		
	((δ) − D) $\frac{\kappa'}{100}$			48.3							− 3		
	α_2									4	10.07		
											− 2.65		
5											7.42		
			8.4	3 46.0	4 3.5	7.0	10.5	14.0	17.3	4	10.46		
	κ			49.0							+ 0.65		
	((δ) − D) $\frac{\kappa'}{100}$			57.7					− 0.28		− 50		
	α_1			48.9							− 34		
											− 3		
										4	10.24		
13											− 2.63		
											7.61		
			9.0	3 46.8	4 2.0	5.4	9.0	12.4	16.0	4	8.96		
	κ			49.8							+ 1.60		
	((δ) − D) $\frac{\kappa'}{100}$			53.1					+ 1.14		− 43		
	α_2			49.9							− 3		
										4	10.10		
4											− 2.44		
											7.66		
	4 50	54 37	9.5	4 45.6	4 53.4	59.1	2.6	6.1	9.6	5	2.56		
	3 50.0	42.7	9.4	49.2							+ 0.72		
	κ			57.8					+ 0.35		− 34		
	((δ) − D) $\frac{\kappa'}{100}$			48.9							− 3		
	α_1									5	2.91		
											− 2.71		
5											0.20		
			9.2	4 43.2	4 53.8	58.3	3.0	6.6	10.1	5	2.96		
	κ			46.1							+ 0.65		
	((δ) − D) $\frac{\kappa'}{100}$			49.9					± 0.25		− 52		
	α_2			46.4							− 35	5 2.71	
											− 3	− 2.69	
4											3.26		
										5	2.71	0.02	
											− 2.69		
	5 40	54 04	8.3	5 37.0	5 46.3	49.8	53.3	56.9	0.5	5	53.36		
	4 40.3	40.0	8.0	40.2							+ 0.72		
	κ			43.5					+ 0.36		− 33		
	((δ) − D) $\frac{\kappa'}{100}$			40.2							− 3		
	α_1									5	53.72		
5											− 2.68		
											51.04		
			8.3	5 35.3	5 47.0	50.3	54.0	57.5	1.0	5	53.96		
	κ			38.1							+ 0.65		
	((δ) − D) $\frac{\kappa'}{100}$			40.4					− 0.23		− 51		
	α_2			37.9							− 34		
											− 3		
										5	53.73		
											− 2.65		
											51.08		

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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′
	+12.3	4′ 27.9	40.3	68.2	19′ 34.10	3 14.25			15	54 46 56.38	
	1.08991					54 47 5.85				− 4	+12.92
d	9.76093					− 9.47				− 50	
	0.97636n									+12.88	
$((\delta) - D)\frac{d'}{100}$										+ 58	
										− 8.50	
δ_1										47 0.80	
	+22.0	4 20.2	33.1	53.3	19 26.65	3 21.70			15	46 57.39	
	1.34242					54 47 14.33				− 13	+12.62
d	9.76093					− 16.94				− 48	
	1.22887n									+12.65	
$((\delta) - D)\frac{d'}{100}$										+ 58	
										− 8.60	
δ_2										47 1.41	
	+22.5	4 19.8	36.8	56.6	19 28.30	3 20.05			15	46 56.94	
	1.35218					54 47 14.26				− 13	+12.65
d	9.76093					− 17.32				− 45	
	1.23863n									+12.65	
$((\delta) - D)\frac{d'}{100}$										+ 58	
										− 9.60	
δ_1										46 59.99	
	+21.4	1 54.7	7.1	121.8	22 0.90	0 47.45			20	53 44 22.15	
	1.33041					53 44 39.05				− 12	+11.89
d	9.77199					− 16.90				− 22	
	1.22792n									+11.76	
$((\delta) - D)\frac{d'}{100}$										+ 47	
										− 8.05	
δ_2										44 25.99	
	+21.6	1 54.7	8.8	123.5	22 1.75	0 46.60			20	44 22.17	
	1.33445					53 44 39.23				− 12	+11.67
d	9.77199					− 17.06				− 22	
	1.23196n									+11.54	
$((\delta) - D)\frac{d'}{100}$										+ 47	
										− 8.20	
δ_1										44 25.41	
	+19.1	1 55.6	12.3	127.9	22 3.95	0 44.40			20	44 43.52	
	1.28103					53 44 38.61				− 9	+11.74
d	9.77199					− 15.09				− 20	
	1.17854n									+11.56	
$((\delta) - D)\frac{d'}{100}$										+ 47	
										− 9.20	
δ_2										44 ~~43~~ 06	
	+13.7	4 54.1	7.4	121.5	30 0.75	52 47.60			25	54 36 28.61	
	1.13672					54 36 39.20				− 5	+12.64
d	9.76289					− 10.59				− 55	
	1.02513n									+12.68	
$((\delta) - D)\frac{d'}{100}$										+ 56	
										− 8.20	
δ_1										36 33.05	
	+18.6 (6)	4 51.0	3.6	114.6	29 57.30	52 51.05			25	36 30.84	
	1.22011					54 36 43.68				− 7	+12.41
d	9.76280					− 12.84				− 55	
	1.10843n									+12.47	
$((\delta) - D)\frac{d'}{100}$										+ 56	
										− 8.40	
δ_2										36 34.85	
	+13.2	3 25.7	37.5	63.2	3 31.60	19 16.75			0	54 2 58.00	
	1.12057					54 3 8.35				− 5	+12.16
d	9.76870					− 10.35				− 39	
	1.01479n									+12.10	
$((\delta) - D)\frac{d'}{100}$										+ 50	
										− 8.00	
δ_1										3 2.16	
	+16.1	3 23.1	36.9	60.0	3 30.00	19 18.35			0	2 58.36	
	1.20683					54 3 10.98				− 7	+11.91
d	9.76870					− 12.62				− 39	
	1.10105n									+11.87	
$((\delta) - D)\frac{d'}{100}$										+ 50	
										− 8.15	
δ_2										3 2.12	

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403

Date$_1$ = May 4 — Observer — Recorder

404

Date$_2$ = May 5 / May 13 — Observer — Recorder

405

52

R

	Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
4		5 40	54 04	8.8	11 5 25.2	5 45.5	49.0	52.5	56.0	57.6	5	52.52		
		4 40.3	10.0	8.0	28.1							+ 1.60		
		κ			31.4							− 44		
					28.2					+ 1.13		− 3		
		((δ) — D) $\frac{\kappa'}{100}$									5	53.65		
												− 2.47		
		a_1										51.18		
4														
11		6 14	53 34	7.2	6 37.2	6 18.5	22.1	25.5	29.0	32.4	6	25.50		
		5 14.3	39.2	7.7	40.1							+ 0.73		
		κ			44.7							− 32		
					40.1					+ 0.38		− 3		
		((δ) — D) $\frac{\kappa'}{100}$									6	25.88		
												− 2.65		
		a_2										23.23		
5														
				7.0	6 38.7	6 17.2	22.7	26.0	29.4	33.0	6	26.06		
					42.0							+ 0.65		
		κ			44.9							− 50		
					41.9					− 0.22		− 34		
		((δ) — D) $\frac{\kappa'}{100}$										− 3		
											6	25.84		
		a_1										− 2.63		
13												23.21		
				8.5	6 16.6	6 17.4	21.3	24.6	28.0	31.6	6	24.58		
												+ 1.60		
		κ										− 43		
										+ 0.14		− 3		
		((δ) — D) $\frac{\kappa'}{100}$									6	25.72		
												− 2.45		
		a_2										23.27		
4														
		7 11	53 38	8.9	7 14.8	7 16.6	20.3	23.6	~~26.8~~ 26.8	30.3	7	23.52		
		6 12.9	43.7	7.2	17.0							+ 0.73		
		κ			18.7							− 32		
					17.2					+ 0.38		− 3		
		((δ) — D) $\frac{\kappa'}{100}$									7	23.90		
												− 2.67		
		a_1										21.23		
5								24.0	27.5	31.0				
				7.5	7 83.0	—	—	~~22.6~~	26.0	29.4	7	~~22.53~~	24.03	
					38.2			~~23.5~~				+ 0.65		
		κ			41.5			~~24.5~~				− 50		
					38.2					− 0.22		− 34		
		((δ) — D) $\frac{\kappa'}{100}$										− 3		
											7	~~23.31~~	23.81	
		a_2										− 2.64		
13												~~19.67~~ 2 21.7		
				8.3	7 14.6	7 15.7	19.2	22.5	26.1	29.6	7	22.62		
												+ 1.60		
		κ										− 43		
										+ 1.14		− 3		
		((δ) — D) $\frac{\kappa'}{100}$									7	23.76		
												− 2.46		
		a_1										21.30		
4														
		8 41	53 28	7.0	8 18.7	8 47.5	57.0	57.0	57.6	1.1	8	54.24		
		7 42.7	83.6	6.5	22.1							+ 0.73		
		κ			24.9							− 32		
					21.9					+ 0.38		− 3		
		((δ) — D) $\frac{\kappa'}{100}$									8	54.62		
												− 2.67		
		a_2										51.96		
5														
				6.8	8 12.0	8 47.8	57.2	57.6	58.0	1.7	8	54.66		
					15.7							+ 0.65		
		κ			16.6							− 50		
					14.6					− 0.21		− 33		
		((δ) — D) $\frac{\kappa'}{100}$										− 3		
											8	54.45		
		a_1										− 2.65		
13												51.80		
				7.0	8 18.1	8 46.3	49.6	53.0	~~57.6~~ 57.6	59.9	8	53.08		
					21.5							+ 1.60		
		κ			24.0							− 43		
					21.2					+ 1.14		− 3		
		((δ) — D) $\frac{\kappa'}{100}$									8	54.22		
												− 2.47		
		a_2										51.75		

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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	+24.3	3	16.3	32.0	48.3	3′ 24.15	19 24.20		0	2 59.36	
	1.385561					34 3 18.41				− 15	+1189
	9.76870					− 19.05				− 34	
	1.27983m									+11.88	
((δ) − D) $\frac{d'}{100}$										+ 50	
										− 9.20	
δ_1										3 2.05	
d	−15.2	4	58.8	11.9	130.7	35 5.35	47 43.00		30	53 31 46.67	
	1.18184m					53 31 34.60				− 6	+1137
	9.77422					+ 12.07				− 56	
	1.08158									+11.54	
((δ) − D) $\frac{d'}{100}$										+ 45	
										− 7.80	
δ_2										31 50.24	
d	−15.8	4	59.4	13.2	132.6	35 6.30	47 42.05		30	53 31 47.22	
	1.19866m					53 31 34.68				− 7	+1116
	9.77422					+ 12.54				− 56	
	1.09840									+11.34	
((δ) − D) $\frac{d'}{100}$										+ 45	
										− 8.00	
δ_1										31 50.38	
d	+8.0	4	38.5	55.1	93.6	34 46.80	48 1.55		30	31 49.41	
	0.90309					53 31 55.76				− 2	+1129
	9.77405					− 6.35				− 48	
	0.80266m									+11.34	
((δ) − D) $\frac{d'}{100}$										+ 45	
										− 9.00	
δ_2										31 51.70	
d	+6.3	3	57.9	3.2	115.1	28 57.55	53 50.80		25	53 37 37.41	
	0.79934					53 37 42.40				− 1	+1167
	9.77302					− 4.99				− 43	
	0.69788m									+11.65	
((δ) − D) $\frac{d'}{100}$										+ 46	
										− 7.80	
δ_1										37 41.28	
−14.2	−15.7	4	7.2	20.3	27.5	29 13.75	53 34.60		25	37 37.66	
1.15229	1.19590m					53 37 27.23				− 7	+1137
9.77319	9.77319					+ 12.63				− 46	
105100	1.09461					11.25				+11.44	
((δ) − D) $\frac{d'}{100}$										+ 46	
										− 7.95	
δ_2										37 43.08 41.90	
d	+8.0	3	48.8	6.0	114.8	28 57.40	53 50.95		25	37 38.83	
	0.90309					53 37 45.16				− 2	+1148
	9.77302					− 6.33				− 40	
	0.80163m									+11.44	
((δ) − D) $\frac{d'}{100}$										+ 46	
										− 9.00	
δ_1										37 41.31	
d	+32.3	4	3.9	15.2	19.8	39 9.90	43 38.45		35	53 27 4.37	
	1.50920					53 27 30.05				− 27	+1118
	9.77490					−25.68				− 46	
	1.40962m									+11.46	
((δ) − D) $\frac{d'}{100}$										+ 45	
										− 7.60	
δ_2										27 7.95	
d	+40.1	3	57.2	10.4	127.6	39 3.80	43 44.55		35	27 5.30	
	1.60314					53 27 37.18				− 42	+1083
	9.77490					−31.88				− 45	
	1.50356m									+11.25	
((δ) − D) $\frac{d'}{100}$										+ 45	
										− 7.80	
δ_1										27 8.33	
d	+31.9	3	3.1	19.7	22.8	38 11.40	44 36.95		35	# [illegible] & above	28 5.81
	1.50379					53 28 31.16			521		− 27
	9.77473					−25.35			+1113		− 32
	1.40404m										+11.27
((δ) − D) $\frac{d'}{100}$											+ 45
											− 8.80
δ_2											28 8.14

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Date$_1$ = 1875, May 5 Observer Recorder

Date$_2$ = May 13 Observer Recorder

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
10	9 25 50 11		6.0	11 9 20.5	9 35.0	38.0	41.2	44.5	47.7	9	m s 41.28		
	8 30.5	16.0	6.0	23.5							+ 0.65		
	κ			26.1							- 44		
				23.4							- 31		
	((δ) — D) $\frac{\kappa'}{100}$								- 0.12		- 2		
										9	41.16		
	α_1										- 2.48		
											38.68		
			6.0	9 14.8	9 33.3	36.5	39.8	43.0	46.2	9	39.76		
				17.6							+ 1.61		
	κ			20.2							- 38		
				17.5							- 2		
	((δ) — D) $\frac{\kappa'}{100}$								+ 1.21				
										9	40.97		
	α_2										- 2.32		
											38.65		
	10 28 50 16		9.1	10 10.5	10 27.6	31.0	34.2	37.5	40.7	10	34.20		
	9 22.6	21.4	9.0	14.1							+ 0.65		
	κ			17.0							- 44		
				18.9							- 31		
	((δ) — D) $\frac{\kappa'}{100}$								- 0.12		- 2		
										10	34.08		
	α_1										- 2.49		
											31.59		
			9.4	10 47.4	10 [illegible]64	28.6	33.1	36.0	39.3	10	32.88		
				30.4							+ 1.61		
	κ			34.6							- 38		
				30.8							- 2		
	((δ) — D) $\frac{\kappa'}{100}$								+ 1.21				
										10	34.09		
	α_2										- 2.33		
											31.76		
	12 20 50 40		9.5	12 18.6	12 28.3	31.6	34.8	38.0	41.3	12	34.80		
	11 24.7	44.9	9.4	16.8							+ 0.65		
	κ			20.0							- 45		
				16.8							- 31		
	((δ) — D) $\frac{\kappa'}{100}$								- 0.13		- 2		
										12	34.67		
	α_1										- 2.52		
											32.15		
10	54.9	50 45.4	8.0	11 40.0	11 57.8	1.0	4.3	7.6	10.8	12	4.30		
	κ			42.8							+ 1.61		
				45.7							- 39		
	((δ) — D) $\frac{\kappa'}{100}$			42.8					+ 1.20		- 2		
										12	5.50		
	α_2										- 2.35		
											3.15		
	22 03 50 58		9.0	21 43.0	22 10.5	13.7	16.9	20.0	23.4	22	16.90		
	21 8.4	3.6	8.7	46.5							+ 0.65		
	κ			49.5							- 46		
				46.3							- 31		
	((δ) — D) $\frac{\kappa'}{100}$								- 0.14		- 2		
										22	16.76		
	α_1										- 2.60		
											14.16		
			8.5	21 38.9	22 9.0	12.2	15.4	18.7	22.0	22	15.46		
				41.6							+ 1.61		
	κ			44.0							- 39		
				41.5							- 2		
	((δ) — D) $\frac{\kappa'}{100}$								+ 1.20				
										22	16.66		
	α_2										- 2.44		
											14.22		
	22 39 54 51		9.0	22 39.0	22 45.3	49.0	52.6	56.1	59.7	22	52.54		
	21 41.4	56.7	8.8								+ 0.65		
	κ										- 52		
											- 35		
	((δ) — D) $\frac{\kappa'}{100}$								- 0.25		- 3		
										22	52.29		
	α_1										- 2.83		
											49.46		
			8.5	22 37.5	22 43.8	47.3	51.0	54.5	58.3	22	50.98		
				39.6							+ 1.61		
	κ			42.6							- 45		
				39.7							- 3		
	((δ) — D) $\frac{\kappa'}{100}$								+ 1.13				
										22	52.11		
	α_2										- 2.65		
											49.46		

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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′
	+17.9	1	50.1	5.2	115.3	56	57.65	25 50.70			55	50 9 28.02	
	1.25285							50 9 43.33				− 9	+7.82
d	9.80671							− 15.31				− 21	
	1.18508n											+ 7.86	
$((\delta) - D)\frac{d'}{100}$												+ 26	
												− 6.90	
δ_1												9 28.94	
	+22.3	1	44.5	4.1	108.6	56	54.30	25 54.05			55	9 29.18	
	1.34830							50 9 48.26				− 13	+7.79
d	9.80671							− 19.08				− 19	
	1.28053n											+ 7.85	
$((\delta) - D)\frac{d'}{100}$												+ 26	
												− 7.90	
δ_2												9 29.07	
	+20.3	1	22.8	38.9	61.7	51	30.85	31 17.50			50	50 14 52.80	
	1.30750							50 15 10.13				− 11	+7.93
d	9.80580							− 17.33				− 17	
	1.23882n											+ 7.95	
$((\delta) - D)\frac{d'}{100}$												+ 26	
												− 6.80	
δ_1												14 53.93	
	−17.9	1	54.5	13.8	128.3	52	4.15	30 44.20			50	14 53.69	
	1.25285							50 14 38.41				− 9	+7.91
d	9.80580							+ 15.28				− 21	
	1.18417											+ 7.95	
$((\delta) - D)\frac{d'}{100}$												+ 26	
												− 7.85	
δ_2												14 53.75	
	+18.0	2	57.0	11.5	128.5	28	4.25	54 44.10			25	50 38 21.49	✓
	1.25527							50 38 36.73				− 9	+8.20
d	9.80228							− 15.24				− 34	
	1.18307n											+ 8.35	
$((\delta) - D)\frac{d'}{100}$												+ 28	
												− 6.80	
δ_1												38 22.89	
	+21.5	1	48.3	7.2	115.5	26	57.75	55 50.60			25	39 26.61	✓
	1.33244							50 39 44.81				− 12	+8.34
d	9.80213							− 18.20				− 19	
	1.26009n											+ 8.37	
$((\delta) - D)\frac{d'}{100}$												+ 28	
												− 7.85	
δ_2												39 27.10	
	+30.6	4	9.5	23.2	32.7	9	16.35	13 32.00			5	50 56 58.89	
	1.48572							50 57 24.63				− 25	+8.26
d	9.79934							− 25.74				− 47	
	1.41058n											+ 8.68	
$((\delta) - D)\frac{d'}{100}$												+ 30	
												− 6.10	
δ_1												57 1.05	
	+34.0	4	4.2	22.8	27.0	9	13.50	13 34.85			5	57 0.46	
	1.53148							50 57 29.06				− 31	+8.24
d	9.79934							− 28.60				− 42	
	1.45634n											+ 8.67	
$((\delta) - D)\frac{d'}{100}$												+ 30	
												− 7.20	
δ_2												57 1.50	
	+13.5	1	12.5	26.2	38.7	16	19.35	6 29.00			15	54 50 11.25	
	1.13033							54 50 21.63				− 5	+13.10
d	9.76039							− 10.38				− 15	
	1.01624n											+ 12.72	
$((\delta) - D)\frac{d'}{100}$												+ 58	
												− 7.05	
δ_1												50 17.30	
	+11.1	1	13.5	31.4	44.9	16	22.45	6 25.90			15	50 11.57	
	1.04532							54 50 20.11				− 3	+13.12
d	9.76039							− 8.54				− 14	
	0.93123n											+ 12.71	
$((\delta) - D)\frac{d'}{100}$												+ 58	
												− 8.20	
δ_2												50 16.49	

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404

Date$_1$ = May 5 Observer Recorder

405

Date$_2$ = May 13 Observer Recorder

56

Run

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
11	23 23 / 22 25.0	53° 20′ / 25.1	8.8 / 8.8	23 36.0 / 39.0 / 42.0 / 39.0	23 27.1	30.8	34.3	37.6	41.3	23	34.22 / + 0.65 / − .50 / − .33 / − .3		
κ									− 0.21	23	34.01 / − 2.74		
((δ) − D) $\frac{\kappa'}{100}$											31.27		
a_1													
κ			8.5	23 44.1 / 46.3 / 49.4 / 46.7	23 25.9	29.3	32.5	36.0	39.5	23	32.64 / +1.61 / − .43 / − .3		
((δ) − D) $\frac{\kappa'}{100}$									+ 1.15	23	33.79 / − 2.57		
a_2											31.22		
27 26	5 / 7.5	54 29 / 34.7	8.5 / 8.3	26 45.3 / 49.2 / 47.5 / 48.7	27 10.4	13.9	17.5	21.0	24.5	27	17.46 / + 0.65 / − .52 / − .34 / − .3		
κ									* 0.24	27	17.22 / − 2.84		
((δ) − D) $\frac{\kappa'}{100}$											14.38		
a_1													
κ			6.5	26 49.6 / 52.8 / 53.7 / 52.5	27 8.7	12.3	15.9	19.3	23.0	27	15.84 / + 1.61 / − .45 / − .3		
((δ) − D) $\frac{\kappa'}{100}$									+ 1.13	27	16.97 / − 2.66		
a_2											14.31		
28 27	37 / 40.9	54 36 / 42.0	8.8 / 8.4	28 15.0 / 18.5 / 21.5 / 18.3	28 42.0	45.5	49.0	52.6	56.3	28	49.08 / + 0.65 / − .52 / − .33	X07	
κ									− 0.25	28	48.83 / − 2.86	5	
((δ) − D) $\frac{\kappa'}{100}$											45.98	9	
a_1													
κ			8.7?	28 18.7 / 17.0 / 20.0 / 16.9	28 40.3	44.0	47.3	51.0	54.6	28	47.44 / + 1.61 / − .45 / − .3		
((δ) − D) $\frac{\kappa'}{100}$									+ 1.13	28	48.57 / − 2.68		
a_2											45.89		
29 28	50 / 54.3	53 07 / 12.8	9.2 / 9.2	29 37.0 / 40.0 / 44.0 / 40.3	29 57.0	0.3	3.5	7.0	10.6	30	3.68 / + 0.6 / − .49 / − .33 / − .3		
κ									− 0.20	30	3.48 / − 2.77		
((δ) − D) $\frac{\kappa'}{100}$											0.71		
a_1													
κ			9.0	29 25.4 / 29.1 / 32.3 / 28.9	29 ~~41.3~~ 53.3	~~44.8~~ 58.6	2.0	5.6	9.1	30	2.12 / + 1.61 / − .42 / − .3		
((δ) − D) $\frac{\kappa'}{100}$									+ 1.16	30	3.28 / − 2.61		
a_2											0.67		
32 31	22 / 26.9	53 28 / 33.3	10.0 / 9.4	32 14.4 / 16.6 / 15.5 / 16.8	32 29.5	32.8	36.5	40.0	43.2	32	36.40 / + 0.65 / − .50 / − .33 / − .3		
κ									− 0.21	32	36.19 / − 2.80		
((δ) − D) $\frac{\kappa'}{100}$											33.39		
a_1													
κ			9.3	32 17.2 / 20.7 / 23.9 / 21.3	31 57.6	54.6	58.0	2.4	6.0	31	58.92 / + 1.61 / − .43 / − .3		
((δ) − D) $\frac{\kappa'}{100}$									+ 1.15	32	0.87 / − 2.65		
a_2											57.42		

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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′
	−4.8	3	6.3	19.2	25.5	48 12.75	34 35.60		45	53 18 32.06	
	0.68124 n						53 18 28.23			− 1	+1120
d	9.77643						+ 3.83			− 35	
	0.58319									+11.13	
$((\delta) - D)\frac{d'}{100}$										+ 43	
										− 6.60	
δ_1										18 36.66	
	−14.1	3	12.1	28.9	41.0	48 20.50	34 27.85		45	18 33.31	
	1.14922 n						53 18 22.06			− 5	+11.18
d	9.77643						+ 11.25			− 33	
	1.05117									+11.13	
$((\delta) - D)\frac{d'}{100}$										+ 43	
										− 7.80	
δ_2										18 36.69	
	+28.8	3	18.0	30.0	48.0	38 24.00	44 24.35		35	54 27 54.63	
	1.45939						54 28 16.98			− 21	+12.29
d	9.76431						− 22.35			− 38	
	1.34922 n									+12.33	
$((\delta) - D)\frac{d'}{100}$										+ 55	
										− 6.60	
δ_1										28 0.32	
	+23.3	3	20.9	38.2	59.1	38 29.55	44 18.80		35	27 54.93	
	1.36736						54 28 13.01			− 14	+12.39
d	9.76431						− 18.08			− 35	
	1.25719 n									+12.33	
$((\delta) - D)\frac{d'}{100}$										+ 53	
										− 7.80	
δ_2										27 39.52	
	+30.8	1	23.4	37.0	60.4	31 30.20	51 18.15		30	54 34 46.95	
	1.48855						54 35 10.78			− 25	+12.59
d	9.76307						− 23.83			− 17	
	1.37714 n									+12.45	
$((\delta) - D)\frac{d'}{100}$										+ 56	
										− 6.50	
δ_1										34 53.04	
	+30.5	1	22.1	40.2	62.3	31 31.15	51 17.20		30	34 47.81	
	1.48430						54 35 11.41			− 24	+12.62
d	9.76307						− 23.60			− 15	
	1.37289 n									+12.45	
$((\delta) - D)\frac{d'}{100}$										+ 56	
										− 7.75	
δ_2										34 52.68	
	+23.4	0	57.2	11.0	128.2	1 4.10	21 44.25		0	53 5 18.11	
	1.36922						53 5 36.88			− 14	+11.04
d	9.77862						− 18.77			− 12	
	1.27336 n									+10.89	
$((\delta) - D)\frac{d'}{100}$										+ 41	
										− 6.05	
δ_1										5 23.10	
	+33.2	0	46.6	4.9	111.5	0 55.75	21 52.60		0	5 20.18	
	1.52114						53 5 46.81			− 29	+1092
d	9.77862						− 26.63			− 9	
	1.42528 n									+10.89	
$((\delta) - D)\frac{d'}{100}$										+ 41	
										− 7.30	
δ_2										5 23.80	
	+19.6	4	35.9	48.4	84.3	39 42.15	43 6.20		35	53 26 43.25	
	1.29226						53 26 58.83			− 10	+11.09
d	9.77490						− 15.58			− 52	
	1.19268 n									+11.27	
$((\delta) - D)\frac{d'}{100}$										+ 44	
										− 5.90	
δ_1										26 48.44	
	~~+37.6~~	3	5.9	22.3	28.2	38 14.10	44 34.25		35	28 46.27	
	− 22.4						53 28 28.46			− 13	+1128
d	1.35025 n						+ 17.81			− 32	
	9.77490									+11.29	
$((\delta) - D)\frac{d'}{100}$	1.25067									+ 44	
										− 7.20	
δ_2										26 50.35	

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Date$_1$ = May 5 (464) Observer / Recorder — Date$_2$ = May 13 (465) Observer / Recorder — Run

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
	38 46	54 29	9.2	11 38 32.5	38 57.9	53.4	57.6	2.3	5.9	38	58.82		
	37 50.6	35.2	8.3	34.0							+ 0.65		
	κ			32.0							− 52		
	((δ) − D) $\frac{\kappa'}{100}$			34.5					− 0.24		− 34		
											− 3		
	a_1									38	58.58		
											− 2.92		
											55.66		
			8.0	39 11.4	38 50.0	53.5	57.2	0.6	4.2	38	57.10		
				14.4							+ 1.61		
	κ			18.1							− 45		
	((δ) − D) $\frac{\kappa'}{100}$			14.6					+ 1.13		− 3		
										38	58.23		
	a_2										− 2.75		
											55.48		
	κ												
	((δ) − D) $\frac{\kappa'}{100}$												
	a_1												
May 4													
10	27 8	53 04	9.2	10 27 12.3	27 14.5	18.0	21.6	24.8	28.4	27	21.46		
	26 38	9.1	9.0	15.1							+ 0.71		
	κ			17.0							− 32		
	((δ) − D) $\frac{\kappa'}{100}$			14.8					+ 0.36		− 3		
										27	21.82		
	a_2										− 2.31		
											19.51		
4													
10	44 00	52 45	9.4	44 4.0	44 8.4	11.9	15.2	18.6	22.0	44	15.22		
	42 56.0	50.4	9.0	6.5							+ 0.72		
	κ			9.0							− 31		
	((δ) − D) $\frac{\kappa'}{100}$			6.5					+ 0.39		− 2		
										44	15.61		
	a_1										− 2.44		
											13.17		
4													
10	46 9	50 37	9.0	46 1.0	46 19.2	22.7	25.8	29.1	32.3	46	25.84		
	45 14.5	42.0	8.8	4.4							+ 0.72		
	κ			7.6							− 29 ✓		
	((δ) − D) $\frac{\kappa'}{100}$			4.3					+ 0.41		− 2		
										46	26.25		
	a_2										~~− 2.38~~		− 2.35
											~~23.90~~ 23.90		
4 10	46 9	50 37	9.0										
10	~~58~~	~~56~~ 53	~~54~~ 9.3	45 57.4	46 19.7	Chief.	—	—	—	~~46~~	~~26.68~~ 20		
	~~57~~	~~53.2~~	~~59.2~~ 8.8	0.3							+ 0.64		
May 5	45 κ	11.5	42.0	2.9					− 0.16		− 45		
	((δ) − D) $\frac{\kappa'}{100}$										− 32		
				46 0.2							− 03		
	a_1									46	26.~~48~~ 04		
											− 2.32		
May 13										46	23.72		~~24.14~~
11	34 40	54 52	9.4	11 34 18.1	34 44.9	48.7	52.3	53.6	58.1	34	52.12		
	33 44.3	57.4	9.5	22.8							+ 1.61		
	κ			26.3							− 45		
	((δ) − D) $\frac{\kappa'}{100}$			22.4					+ 1.13		− 3		
										34	53.25		
	a_2										− 2.74		
13											50.51		
11	38 11	54 46	8.8	11 37 56.8	38 15.6	19.1	22.6	26.2	29.7	38	22.64		
	37 16.0	57.0	9.2	0.0							+ 1.61		
	κ			2.8							− 45		
	((δ) − D) $\frac{\kappa'}{100}$			59.9					+ 1.13		− 3		
										38	23.77		
	a_1										− 2.75		
											21.02		
	κ												
	((δ) − D) $\frac{\kappa'}{100}$												
	a_2												

Single Observations

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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′
	+24.3	2	32.5	45.8	78.3	37′ 39.″15	45 9.20		35	54 28 42.98	
	1.385561					54 29 1.83				− 15	+12.50
d	9.76413					−18.85				− 29	
	1.27526m									+12.39	
$((\delta) - D)\frac{d'}{100}$										+ 55	
										− 5.70	
δ_1										28 49.78	
	−17.5	3	3.1	19.9	23.0	38 11.50	44 36.85		35	28 44.63	
	1.24304m					54 28 31.06				− 7	+12.52
d	9.76413					+ 13.57				− 32	
	1.13269									+12.36	
$((\delta) - D)\frac{d'}{100}$										+ 55	
										− 7.00	
δ_2										28 50.15	
d											
$((\delta) - D)\frac{d'}{100}$											
δ_1											
	+ 6.7	3	36.6	47.9	84.5	3 42.25	19 6.10		0	53 2 52.32	
	0.82607					53 2 57.70				− 1	+11.01
d	9.77896					− 5.38				− 40	
	0.73055m									+11.02	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										−10.50	
δ_2										2 52.83	
	+ 8.7	1	23.1	35.9	59.0	21 29.50	1 18.85		20	52 45 3.42	
	0.93952					52 45 10.45				− 2	+10.92
d	9.78197					− 7.03				− 17	
	0.84701m									+10.71	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										− 9.30	
δ_1										45 5.04	
						52					57.88
	+21.5	0	17.0	30.7	47.7	30 23.85	22 24.50		0	54 35 57.09	
	1.33244	1.33244	1.33244			54 36 16.10			30	50 − 13	+8.03 +8.58
d	9.80116	9.79793	9.80259			50 − 18.51				− 4	7.06
	1.26512	1.25589	1.26095m				02			+ 7.95	+8.45
$((\delta) - D)\frac{d'}{100}$						− 18.22				+ 16	+ 30
										− 8.40	−8.55
δ_2										35 57.52	
										50.41	35 57.91
	+26.40	3	1.8	13.4	30	21.00	52 27.35		10	50 35 57.61	95
1.41497	1.42160	0	12.5	29.5			36 19.98		0	− 18	+8.37
9.80259	9.80259						− 22.37		30	− .04	
1.34308m	1.34961m						.03			+8.29	
$((\delta) - D)\frac{d'}{100}$										+ .30	
										−8.89	
δ_1										35 56.24	
										57.63	
	+29.7	0	29.4	47.2	76.6	15 38.30	7 10.05		15	54 50 41.43	
	1.47276					54 51 4.26				− 23	+13.04
d	9.76021					−22.83				− 6	
	1.35849m									+12.75	
$((\delta) - D)\frac{d'}{100}$										+ 58	
										− 7.35	
δ_2										50 47.12	
	+22.7	3	10.5	27.4	37.9	23 18.95	59 29.40		20	54 43 6.10	# ?
	1.35603					54 43 23.61				− 14	+12.71
d	9.76164					−17.57				− 33	
	1.24319m									+12.61	
$((\delta) - D)\frac{d'}{100}$										+ 57	
										− 7.05	
δ_1										43 11.76	
d_1											
$((\delta) - D)\frac{d'}{100}$											
δ_2											

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406

Date$_1$ = 1875, May 17 n = .32 — Observer — Recorder

407

Date$_2$ = 1875, May 22 n = -.43 — Observer — Recorder

60

Run

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
	36 54	53 07	7.0	11 36 32.9	36 59.0	2.3	5.7	9.0	12.9	37	5.78		
	35 58.4	12.8	7.0	35.9	36						+ 1.94		
	κ			38.1							- .42		
	((δ) — D) $\frac{\kappa'}{100}$			35.6					+ 1.49	37	- .03		
	a_1										7.27		
											- 2.57		
											4.70		
			8.0	36 35.8	36 58.5	1.9	5.3	8.8	12.3	37	5.36		
				38.4							+ 2.47		
	κ			41.6							- .57		
	((δ) — D) $\frac{\kappa'}{100}$			38.9					+ 1.87	37	- .03		
	a_2										7.23		
											- 2.46		
											4.77		
	53 16	52 19	8.8	52 56.4	53 19.0	22.4	25.8	29.2	32.5	53	25.78		
	52 22.7	24.3	8.9	55.3							+ 1.95		
	κ			2.0							- .41		
	((δ) — D) $\frac{\kappa'}{100}$			59.2					+ 1.52	53	- .02		
	a_1										27.30		
											- 2.64		
											24.686		
			8.8	52 55.8	53 18.6	22.0	25.3	28.8	32.2	53	25.42		
				55.1							+ 2.48		
	κ			2.0							- .55		
	((δ) — D) $\frac{\kappa'}{100}$			59.0					+ 1.91	53	- .02		
	a_2										27.33		
											- 2.54		
											24.79		
	55 23	54 39	9.1	55 9.1	55 25.0	28.7	32.1	35.7	39.6	55	32.22		
	54 28.8	48.5	9.2	12.1							+ 1.95		
	κ			15.2							- .45		
	((δ) — D) $\frac{\kappa'}{100}$			12.1					+ 1.47	55	- .03		
	a_1										33.69		
											- 2.78		
											30.91		
			9.1	55 1.0	55 24.7	28.3	32.0	35.6	39.1	55	31.94		
				5.3							+ 2.48		
	κ			8.2							- .60		
	((δ) — D) $\frac{\kappa'}{100}$			4.8					+ 1.85	55	- .03		
	a_2										33.79		
											- 2.67		
											31.12		
	59 17	54 37	8.8	59 1.6	59 21.8	25.6	29.1	32.4	36.1	59	29.04		
	58 23.2	43.0	9.0	5.3							+ 1.95		
	κ			8.6							- .45		
	((δ) — D) $\frac{\kappa'}{100}$			5.2					+ 1.47	59	- .03		
	a_1										30.51		
											- 2.80		
											27.71		
			8.7	59 22.1	59 21.8	25.2	28.7	32.3	36.0	59	28.80		
											+ 2.48		
	κ										- .60		
	((δ) — D) $\frac{\kappa'}{100}$								+ 1.85	59	- .03		
	a_2										30.65		
											- 2.69		
											27.96		
12	0 22	52 28	9.8	12 0 1.2	0 26.9	30.2	33.5	37.0	40.4	0	33.60		
	59 30.0	38.2	9.0	4.7							+ 1.95		
	κ			7.1							- .42		
	((δ) — D) $\frac{\kappa'}{100}$			4.3					+ 1.51	0	- .02		
	a_1										35.11		
											- 2.69		
											32.42		
			8.8	0 1.40	0 26.4	29.7	33.1	36.6	40.1	0	33.18		
				17.0							+ 2.48		
	κ			20.0							- .56		
	((δ) — D) $\frac{\kappa'}{100}$			17.0					+ 1.90	0	- .02		
	a_2										35.08		
											- 2.69		
											32.49		

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May 17 −16′ 6.86 −.10
" 22 −16 5.70 −.10
80

61

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+30.2	0 54.6	12.8	127.1	1′ 35.″5	21 44.80			0	53 5 13.72	
d	1.48001					53 5 37.94				− 24	+1095
	9.77862					−24.22				− 11	
$((\delta) - D)\frac{d'}{100}$	1.38415n									+10.99	
										+ 31	
δ_1										− 7.30	
										5 17.37	
										− 0.70	
	+26.5	0 55.1	16.5	131.6	1 5.80	21 42.55			0	16.20	
d	1.42325					53 5 37.45				− 18	+1048
	9.77862					−21.25				− 11	
$((\delta) - D)\frac{d'}{100}$	1.32739n									+10.46	
										+ 31	
δ_2										− 7.90	
										5 18.08	
	+26.6	2 89.2	5.5-9	95.1	2 47 4.755	35 0.80			45	52 18 32.23	
d	1.42488					52 18 53.94				− 19	+10.03
	9.78625					−21.71				− 28	
$((\delta) - D)\frac{d'}{100}$	1.33665n									+10.20	
										+ 30	
δ_1										− 5.95	
										18 36.31	
	+26.4	2 86.1	7.9	94.0	2 47 47.00	35 1.35			45	34.70	
d	1.42160					52 18 56.25				− 18	+9.53
	9.78625					−21.53				− 28	
$((\delta) - D)\frac{d'}{100}$	1.33337n									+9.69	
										+ 30	
δ_2										− 6.60	
										18 36.93	
										8.99	Ex min′
	+20.1	0 8.0	25.9	33.9	0 30 16.95	52 31.40			30	54 36 4.97	✓
d	1.30020					54 36 24.54				− 10	+12.59
	9.76289					−15.54				− 3	
$((\delta) - D)\frac{d'}{100}$	1.29161n									+12.62	
										+ 40	
δ_1										− 6.30	
										36 4.58	Ex min′
										15.	
	+27.1	4 5 0.4	22.1	22.5	4 29 30 11.25	53 37.10			25	36 11.04	✓
d	1.43297					54 37 32.00				− 19	11.80
	9.76289					−20.96				− 42	
$((\delta) - D)\frac{d'}{100}$	1.32138n									+12.01	
										+ 40	
δ_2										− 7.00	
										36 15.14	
	+23.8	4 29.0	4.8-9	74.7	4 29 37.35	53 11.00			25	54 36 45.74	
d	1.37658					54 37 4.14				− 15	+12.43
	9.76271					−18.40				− 46	
$((\delta) - D)\frac{d'}{100}$	1.26481n									+12.64	
										+ 40	
δ_1										− 6.10	
										36 52.07	
	+6.7	4 P. 40.4	2.4	102.8	4 29 51.40	52 56.95			25	46.67	
d	0.82607					54 36 51.85				− 1	+11.91
	9.76271					− 5.18				− 49	
$((\delta) - D)\frac{d'}{100}$	0.71430n									+12.01	
										+ 40	
δ_2										− 6.80	
										36 51.08	
	+29.3	0 21.7	4.0	61.7	0 40 30.85	42 17.50			40	52 25 46.79	
d	1.46687					52 26 10.64				− 23	+10.35
	9.78510					−23.85				− 5	
$((\delta) - D)\frac{d'}{100}$	1.37749n									+10.33	
										+ 30	
δ_1										− 5.45	
										25 50.66 58.69	
	+16.2	0 29.9	5.2-6	82.5	0 40 41.25	42 7.10			40	48.81	
d	1.20952					52 26 2.00				− 7	+1000
	9.78510					−13.19				− 1	
$((\delta) - D)\frac{d'}{100}$	1.12014n									+ 9.84	
										+ 30	
δ_2										− 6.20	
										25 51.91	

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406

Date$_1$ = May 17 — Observer / Recorder

407

Date$_2$ = May 22 — Observer / Recorder

62

Run

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
1	1 53	54 8-9	8.6	12 1 31.5	1 56.0	59.3	2.8	6.1	9.6	2	2.76		
	1 0.3	52 4.7	9.0	35.7							+ 1.95		
	κ			37.4					+ 1.52		- 41		
	((δ) — D) $\frac{\kappa'}{100}$			34.7							- 2		
										2	4.28		
	α_1										- 2.68		
											1.60		
			8.7	1 28.0	1 55.7	59.1	2.4	5.7	9.1	2	2.40		
				31.0							+ 2.48		
	κ			34.0					+ 1.91		- 55		
	((δ) — D) $\frac{\kappa'}{100}$			31.0							- 2		
										2	4.31		
	α_2										- 2.58		
											1.73		
	2 59	51 44	9.4	2 41.3	3 3.0	6.5	9.8	13.0	16.5	3	9.66 76		
	2 7.2	50.1	9.4	45.0							+ 1.95		
	κ			48.0					+ 1.53		- 40		
	((δ) — D) $\frac{\kappa'}{100}$			44.8							- 2		
										3	11.19		
	α_1										- 2.67		
											8.52 62		
			9.4	2 43.4	3 3.0	6.1	9.5	12.7	16.1	3	9.48		
				46.4							+ 2.48		
	κ			38.3					+ 1.92		- 54		
	((δ) — D) $\frac{\kappa'}{100}$			46.7							- 2		
										3	11.40		
	α_2										- 2.57		
											8.83		
	3 45	54 10	9.2	3 37.1	3 48.6	53.1	56.7	0.3	3.7	3	56.68		
	2 53.4	15.5	9.1	40.5							+ 1.95		
	κ			44.1					+ 1.48		- 44		
	((δ) — D) $\frac{\kappa'}{100}$			40.4							- 3		
										3	58.16		
	α_1										- 2.80		
								59			55.36		
			9.3	3 32.0	3 49.4	52.8	56.4	0.8	3.4	3	56.88		
				35.0							+ 2.48		
	κ			39.0					+ 1.86		- 59		
	((δ) — D) $\frac{\kappa'}{100}$			35.3							- 3		
										3	58.42		
	α_2										- 2.70		
											55.72 52		
	4 33	54 38	8.8	4 22.0	4 35.7	39.0	42.7	46.2	50.0	4	42.72		
	3 41.4	43.7	8.3	25.3							+ 1.95		
	κ			28.2					+ 1.47		- 45		
	((δ) — D) $\frac{\kappa'}{100}$			25.2							- 3		
										4	44.19		
	α_1										- 2.83		
											41.36		
			8.0	4 25.8	4 35.3	38.9	42.4	46.0	49.7	4	42.46		
				28.2							+ 2.48		
	κ			31.9					+ 1.85		- 60		
	((δ) — D) $\frac{\kappa'}{100}$			28.6							- 3		
										4	44.31		
	α_2										- 2.73		
											41.58		
	5 16	54 03	9.3	5 1.7	5 16.3	19.5	23.0	26.6	30.1	5	28.10		
	4 24.5	8.5	9.2	4.3							+ 1.95		
	κ			7.7					+ 1.48		- 44		
	((δ) — D) $\frac{\kappa'}{100}$			4.6							- 3		
										5	24.58		
	α_1										- 2.80		
											21.78		
			9.0	5 8.5	5 14.4	18.1	22.7	26.2	29.7	5	22.66		
				11.2	15.6						+ 2.49		
	κ			14.5					+ 1.87		- 59		
	((δ) — D) $\frac{\kappa'}{100}$			11.4							- 3		
										5	24.53		
	α_2										- 2.70		
											21.83		

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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′
	+28.1	B	12.4	29.9	42.3	3	21.15	14 27.20		8−	51 57 57.22	
	1.44871					8		51 58 20.34			− 21	+9.60
d	9.78967							−23.12			− 34	
	1.36390n										+9.85	
$((\delta) - D)\frac{d'}{100}$											+ 30	
											− 5.20	
δ_1											58 1.62	
											− 0.70	
	+31.4	3	7.0	27.9	34.9	3	17.45	14 30.90		8−	59.97	
	1.49693					8		51 58 25.80			− 26	+9.12
d	9.78967							−25.83			− 33	
	1.41212n										+9.~~74~~ 41	
$((\delta) - D)\frac{d'}{100}$											+ 30	
											− 5.95	
δ_2											58 2.44	
	+24.9	2	50.4	8.5	118.9	2	59.45	59 48.90		20	51 43 21.44	
	1.39620					22		51 43 42.04			− 17	+9.42
d	9.79208							−20.60			− 30	
	1.31380n										+9.59	
$((\delta) - D)\frac{d'}{100}$											+ 30	
											− 5.10	
δ_1											43 25.76	
	+22.8	2	50.9	12.4	123.3	3	1.65	59 46.70		20	22.74	
	1.35790					23		51 43 41.60			− 14	+8.99
d	9.79208							−18.86			− 30	
	1.27553n										+ 9.14	
$((\delta) - D)\frac{d'}{100}$											+ 29	
											− 5.80	
δ_2											43 25.23	
	+16.1	4	8.7	20.4	24.1	4	12.05	23 36.30		55−	54 7 16.84	
	1.20683					59		54 7 29.44			− 7	+12.00
d	9.76800							−12.60			− 42	
	1.10035n										+12.09	
$((\delta) - D)\frac{d'}{100}$											+ 40	
											− 5.60	
δ_1											7 23.24	
											40	
	+21.~~1~~ 1	3	57.7	19.0	136.7	4	8.35	23 40.00		55−	18.~~23~~	
	1.32838					59		54 7 34.90			− 12	+11.40
d	9.76800							−16.~~67~~ 56			− 41	
	1.22190n										+11.53	
$((\delta) - D)\frac{d'}{100}$											+ 40	
											− 6.35	
δ_2											7 22.~~58~~ 77	
	+17.5	0	21.9	49.8	81.7	0	40.85	52 7.50		80	54 35 47.11	
	1.24304					30		54 36 0.64			− 7	+12.89
d	9.76289							−13.53			− 7	
	1.13145n										+12.63	
$((\delta) - D)\frac{d'}{100}$											+ 40	
											− 5.70	
δ_1											35 54.30	
	+13.9	0	32.7	54.0	86.7	0	43.35	52 5.00		80	49.15	
	1.14301					30		54 35 59.90			− 5	+12.31
d	9.76289							− 10.75			− 7	
	1.03142n										+12.03	
$((\delta) - D)\frac{d'}{100}$											+ 40	
											− 6.40	
δ_2											35 ~~55.46~~ 54.36	
	+18.5	4	8.1	24.0	32.1	4	16.05	18 32.30		0	54 2 10.93	
	1.26717							54 2 25.44			− 8	+11.92
d	9.76887							−14.51			− 43	
	1.16156n										+12.03	
$((\delta) - D)\frac{d'}{100}$											+ 40	
											− 5.50	
δ_1											2 17.35	
	+11.3	4	11.1	80.2	41.3	4	20.65	18 27.70		0	13.11	
	1.05308							54 2 22.60			− 3	+11.39
d	9.76887							− 9.49			− 43	
	0.97747n										+11.45	
$((\delta) - D)\frac{d'}{100}$											+ 40	
											− 6.20	
δ_2											2 17.60	

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Date$_1$ = May 17 Observer / Recorder

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Date$_2$ = May 22 Observer / Recorder

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Run

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
1 2	6 22 ~~84~~ ~~03~~		7.7	12 6 1.1	6 25.2	28.7	31.9	35.4	39.0	6	32.04		
	5 30.5 52 40		8.0	4.7							+ 1.96		
	κ 44.9			7.3					+ 1.52		− 42		
	((δ) − D) $\frac{\kappa'}{100}$			4.4							− 2		
	α_1									6	33.56		
											− 2.74		
											30.82		
			7.0	6 7.0	6 24.8	28.2	31.7	35.7	39.5	6	31.66		
				9.7							+ 2.49		
	κ			12.6							− 56		
	((δ) − D) $\frac{\kappa'}{100}$			9.8					+ 1.91		− 2		
	α_2									6	33.57		
											− 2.63		
											30.94		
	7 12 ~~52~~ ~~40~~		9.0	6 50.6	7 12.9	16.2	20.0	23.4	27.0	7	19.90		
	6 κ 20.2 53 ~~57~~		9.0	53.3							+ 1.96		
	54 2.2			56.7							− 44		
	((δ) − D) $\frac{\kappa'}{100}$			53.5					+ 1.49		− ~~3~~ 3		
	α_1									7	21.39		
											− 2.81		
											18.58		
			9.0	7 1.8	7 12.2	15.9	19.3	22.8	26.3	7	19.30		
				4.1							+ 2.49		
	κ			7.1							− 59		
	((δ) − D) $\frac{\kappa'}{100}$			4.3					+ 1.87		− 3		
	α_2									7	21.17		
											− 2.71		
											18.46		
	8 42 ~~57~~ ~~56~~		9.1	8 21.1	8 44.2	47.7	51.1	54.6	58.4	8	57.20		
	7 κ 50.9 54 03		9.0	24.9							+ 1.96		
	8.7			27.1							− 44		
	((δ) − D) $\frac{\kappa'}{100}$			24.4					+ 1.49		− 3		
	α_1									8	52.69		
											− 2.83		
											49.86		
			9.2	8 27.4	8 43.4	47.2	50.8	54.2	57.8	8	50.72		
				31.0							+ 2.49		
	κ			34.2							− 59		
	((δ) − D) $\frac{\kappa'}{100}$			30.9					+ 1.87		− 3		
	α_2									8	52.59		
											− 2.72		
											49.87		
	9 29 ~~54~~ ~~03~~		8.9	9 11.5	9 27.7	33.3	36.8	40.3	44.0	9	36.82		
	8 38.0 54 34		9.0	14.4							+ 1.96		
	κ 39.6			17.8							− 45		
	((δ) − D) $\frac{\kappa'}{100}$			14.6					+ 1.48		− 3		
	α_1									9	38.30		
											− 2.86		
											35.44		
			9.0	9 17.3	9 29.3	32.7	36.3	39.8	43.6	9	36.34		
				20.3							+ 2.49		
	κ			23.9							− 60		
	((δ) − D) $\frac{\kappa'}{100}$			20.5					+ 1.86		− 3		
	α_2									9	38.20		
											− 2.76		
											35.44		
	11 7 ~~54~~ ~~34~~		9.2	10 42.0	11 10.6	14.0	17.5	21.1	24.7	11	17.58		
	10 16.4 08		9.3	46.0							+ 1.96		
	κ 13.4			49.0							− 44		
	((δ) − D) $\frac{\kappa'}{100}$			45.1					+ 1.49		− 3		
	α_1									11	19.04		
											− 2.85		
											16.22		
			9.5	10 43.7	11 10.1	13.6	17.2	20.7	24.2	11	17.16		
				47.2							+ 2.49		
	κ			50.9							− 59		
	((δ) − D) $\frac{\kappa'}{100}$			47.2					+ 1.87		− 3		
	α_2									11	19.03		
											− 2.74		
											16.29		

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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′
	+27.6	3 75	246	32.1	3 11		54 32.30		2s	52 38 3.08	
	1.44091				28 1605		52 38 25.44			− 20	+10.31
d	9.78313						− 22.36			− 33	
	1.34956n									+10.54	
$((\delta) - D)\frac{d'}{100}$										+ 30	
										− 505	
δ_1										38 8.34	
										− 0.70	
	+21.9	3 10.1	29.7	40.0	3 2000		54 28.35		2s	5.50	
	1.34044				28		52 38 23.25			− 13	+9.89
d	9.78313						−17.75			− 33	
	1.24909n									+10.05	
$((\delta) - D)\frac{d'}{100}$										+ 30	
										− 580	
δ_2										38 8.89	
	+26.4	0 46.0	8.0	109.0	0 54.50		11 53.85		10	53 55 26.23	
	1.42160				10		53 55 46.99			− 18	+12.04
d	9.77009						−20.76			− 9	
	1.31721n									+11.92	
$((\delta) - D)\frac{d'}{100}$										+ 39	
										− 530	
δ_1										55 32.97	
	+15.0	0 52.0	13.8	12.58	1 290		11 45.45		10	28.55	
	1.17609				11		53 55 40.55			− 6	+11.58
d	9.77009						−11.80			− 10	
	1.07170n									+11.05	
$((\delta) - D)\frac{d'}{100}$										+ 39	
										− 605	
δ_2										55 ~~33.38~~ ~~3268~~ 33.38	
	+26.8	0 188	87.9	56.7	0 2835		17 20.00		s	54 0 52.18	
	1.42813				5		54 1 13.14			− 19	+12.16
d	9.76904						− 21.02			− 5	
	1.32269n									+12.00	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										− 520	
δ_1										0 ~~38.28~~ 59.08	
	+19.8	0 22.5	48.4	6.79	0 3395		17 14.40		s	53.77	
	1.29667				5		54 1 9.30			− 10	+11.67
d	9.76904						−15.53			− 6	
	1.19123n									+11.43	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										− 600	
δ_2										0 58.74	
	+22.2	3 29.3	47.1	76.4	3 3820		49 10.15		30	54 02 46.10	
	1.34635				33		54 33 3.29			− 13	+12.49
d	9.76342						−17.19			− 06	
	1.23529n									+12.58	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										− 530	
δ_1										32 53.29	
	+15.8	3 31.9	5.2.9	84.8	3 4240		49 5.95		30	48.62	
	1.19866				33		54 33 0.86			− 7	+11.94
d	9.76342						−12.23			− 37	
	1.08758n									+11.98	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										− 610	
δ_2										32 53.76	
	+31.9	0 1.4	18.9	20.3	0 1015		22 38.20		0	54 6 6.37	
	1.50379						54 6 31.34			− 27	+12.22
d	9.76817						−24.97			− 2	
	1.39748n									+12.11	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										− 505	
δ_1										6 13.54	
	+29.9	4 Sgp	20.8	140.0	5 1000		22 38.85		5s	9.84	
	1.47567				0		54 6 33.25			− 23	+11.20
d	9.76817						−23.41			− 60	
	1.36936n									+11.53	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										− 580	
δ_2										6 14.54	

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Date$_1$ = May 17 | Observer / Recorder | Date$_2$ = May 22 | Observer / Recorder

Star.	α	δ	Mag.	T_δ	T_m	T_o	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
1142	12 23 53 40		9.6	12 11.8	12 26.9	30.6	33.7	37.7	40.9	12 33.90			
	11 32.4 46.0		9.5	14.0						+ 1.96			
	κ			17.2					+ 1.50	− 43			
	((δ) − D) $\frac{\kappa'}{100}$			14.3						− 3			
	c_1									12 35.40			
										− 2.83			
										32.57			
			9.7	12 2.8	12 26.8	30.4	~~33.4~~ 33.7	37.1	40.2	12 ~~33.64~~			
				5.3						+ 2.49			
	κ			9.3					+ 1.88	− 58			
	((δ) − D) $\frac{\kappa'}{100}$			5.9						− 3			
	a_2									12 35.52			
										− 2.73			
										32.79			
	13 22 52 18		9.4	13 7.0	13 25.6	28.8	32.6	35.8	39.5	13 32.46			
	12 31.2 23.3		9.4	10.6						+ 1.96			
	κ			18.1					+ 1.53	− 41			
	((δ) − D) $\frac{\kappa'}{100}$			10.2						− 2			
	a_1									13 33.99			
										− 2.76			
										31.23			
			9.5	13 6.4	13 25.4	28.6	32.1	35.4	38.8	13 32.06			
				9.2						+ 2.49			
	κ			11.4					+ 1.92	− 55			
	((δ) − D) $\frac{\kappa'}{100}$			9.0						− 2			
	a_2									13 33.98			
										− 2.66			
										31.32			
	14 00 54 37		8.0	14 1.4	14 0.8	4.1	7.6	11.2	14.9	14 7.72			
	13 8.8 42.5		8.3	4.3						+ 1.96			
	κ			6.8					+ 1.48	− 45			
	((δ) − D) $\frac{\kappa'}{100}$			4.2						− 3			
	a_1									14 9.20			
										− 2.89			
										6.31			
			8.0	13 33.2	14 0.3	3.8	7.2	10.9	14.4	14 7.32			
										+ 2.49			
	κ								+ 1.86	− 60			
	((δ) − D) $\frac{\kappa'}{100}$									− 3			
	a_2									14 9.18			
										− 2.79			
										6.39			
	15 21 54 34		9.0	15 1.7	15 22.4	25.9	29.5	33.1	36.7	15 29.52			
	14 30.4 39.2		9.1	4.1						+ 1.96			
	κ			8.0					+ 1.48	− 45			
	((δ) − D) $\frac{\kappa'}{100}$			4.6						− 3			
	a_1									15 31.00			
										− 2.90			
										28.10			
			9.1	15 2.2	15 22.0	25.3	29.2	32.7	36.4	15 29.16			
				5.2						+ 2.49			
	κ			7.8					+ 1.86	− 60			
	((δ) − D) $\frac{\kappa'}{100}$			5.1						− 3			
	a_2									15 31.02			
										− 2.79			
										28.23			
	16 35 50 44		9.0	16 17.0	16 39.0	42.2	45.4	48.8	52.1	16 45.50			
	15 44.9 50.5		8.8	20.0						+ 1.96			
	κ			23.0					+ 1.55	− 39			
	((δ) − D) $\frac{\kappa'}{100}$			21.6						− 2			
	a_1									16 47.05			
										− 2.69			
										44.36			
			8.8		Ch. f.								
	κ												
	((δ) − D) $\frac{\kappa'}{100}$												
	a_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′
	+19.6	1	59.8	17.1	136.9	2	8.45	55 39.90		25	53 39 17.53	
	1.29226				27	53 39 33.04				− 10	+1169
d	9.77285					−15.51				− 21	
	1.19063m									+11.64	
$((\delta) - D)\frac{d'}{100}$										+ 36	
										−4.90	
δ_1										39 24.32	
										− 0.70	
	+27.7	1	58.0	12.9	126.9	2	2.95	55 45.40		25	18.38
	1.44248				27	53 39 40.30				− 20	+1105
d	9.77285					−21.92				− 20	
	1.34085m									+11.09	
$((\delta) - D)\frac{d'}{100}$										+ 36	
										−5.65	
δ_2										39 23.08	
	+22.3	4	44.9	0.8	105.7	4	52.85	32 55.50		45	52 16 30.42
	1.34880				49	52 16 48.64				− 13	+970
d	9.78674					−18.22				− 49	
	1.26052m									+10.62	
$((\delta) - D)\frac{d'}{100}$										+ 30	
										−4.60	
δ_1										16 35.52	
	+23.1	4	41.7	3.0	104.7	4	52.35	32 56.00		45	32.03
	1.36361				49	52 16 50.90				− 14	+938
d	9.78674					−18.87				− 49	
	1.27587m									+9.71	
$((\delta) - D)\frac{d'}{100}$										+ 30	
										−5.25	
δ_2										16 35.46	
	+3.5	2	18.5	32.5	48.0	2	24.00	50 24.35		30	54 34 14.78
	0.54407				32	54 34 17.49				− 1	+1275
d	9.76324					−2.71				− 24	
	0.43283m									+12.60	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										−5.00	
δ_1										34 22.53	
	+12.1	2	6.4	27.5	33.9	2	16.95	50 31.40		30	16.93
	1.08279				32	54 34 26.30				− 4	+1215
d	9.76324					= 9.37				− 23	
	0.97155m									+12.02	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										−5.75	
δ_2										34 22.63	
	+24.9	4	87.1	52.0	90.1	4	45.05	48 3.30		30	54 31 37.15
	1.39620				34	54 31 56.44				− 16	+1233
d	9.76360					−19.29				− 47	
	1.28532m									+12.56	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										−4.80	
δ_1										31 44.18	
	+24.1	4	86.0	56.0	92.0	4	46.00	48 2.35		30	38.58
	1.38202				34	54 31 57.25				− 15	+1275
d	9.76360					−18.67				− 48	
	1.27114m									+12.98	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										−5.60	
δ_2										31 45.03	
	~~+25~~										
	~~+40.5~~	1	54.1	12.9	127.0	2	3.50	0 44.85		20	50 44 ~~+23~~ 17	16.44
	~~1.63849~~ 1.40654				22	50 44 37.99				− ~~51~~ 21	+874 45
d	9.80136 9.80186					−~~36.76~~ −21.55				− 21	
	~~1.56537m~~ 1.33342m									+8.56	
$((\delta) - D)\frac{d'}{100}$										+ ~~27~~	
										−3.80	
δ_1										44 ~~5.97~~	
										~~20.75~~ 21.09	
		1	51.0	12.9	123.9	2	1.95			20	
					2						
d										−	
$((\delta) - D)\frac{d'}{100}$											
δ_2											

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Date$_1$ = May 17 Observer / Recorder

Date$_2$ = May 22 Observer / Recorder

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
17	17 27 52 58	94	12	17 24.3	17 33.8	37.1	40.5	44.1	47.3	17	m s 40.56		
16	36.9 58 2.1	9.4		27.0							+ 1.96		
κ				31.1							− 42		
((δ) − D) $\frac{\kappa'}{100}$				27.5					+ 1.52		− 2		
c_1										17	42.08		
											− 2.82		
											39.26		
		9.2		17 20.0	17 33.3	36.8	40.2	43.5	47.0	17	40.16		
κ				23.2							+ 2.49		
((δ) − D) $\frac{\kappa'}{100}$				27.3					+ 1.90		− 57		
c_2				23.5						17	− 2		
											42.06		
											− 2.72		
											39.34		
18	9 54 25	9.2		18 10.8	18 18.0	16.5	20.1	23.7	27.3	18	20.12		
17	18.9 30.2	9.2									+ 1.96		
κ											− 45		
((δ) − D) $\frac{\kappa'}{100}$									+ 1.48		− 3		
a_1										18	21.60		
											− 2.91		
											18.69		
		9.0		18 9.3	18 12.8	16.2	19.7	23.3	26.9	18	19.78		
				11.7							+ 2.49		
κ				13.4							− 60		
((δ) − D) $\frac{\kappa'}{100}$				12.0					+ 1.86		− 3		
a_2										18	21.64		
											− 2.80		
											18.84		
19	25 53 35	9.0		19 5.1	19 26.5	30.0	33.5	37.0	40.4	19	33.48		
18	34.9 41.1	9.0		8.2							+ 1.96		
κ				11.7							− 43		
((δ) − D) $\frac{\kappa'}{100}$				8.3					+ 1.60		− 3		
a_1										19	34.98		
											− 2.87		
											32.11		
	51 54	9.0		19 3.4	19 26.1	29.6	33.0	36.6	40.0	19	33.06		
κ				8.7							+ 2.49		
((δ) − D) $\frac{\kappa'}{100}$				12.4					+ 1.88		− 58		
a_2				8.8						19	− 3		
											34.94		
											− 2.77		
											32.17		
20	48 57 54	7.5		20 17.0	20 43.0	46.4	49.7	53.1	56.6	20	49.76		
19	57.1 59.5	7.3		20.4							+ 1.96		
κ				28.0							− 41		
((δ) − D) $\frac{\kappa'}{100}$				20.1					+ 1.53		− 2		
a_1										20	51.29		
											− 2.78		
											48.51		
		7.5		20 20.4	20 42.6	46.0	49.3	52.7	56.1	20	49.34		
				23.7							+ 2.49		
κ				26.5							− 55		
((δ) − D) $\frac{\kappa'}{100}$				23.5					+ 1.92		− 2		
a_2										20	51.26		
											− 2.68		
											48.58		
21	34 54 32	9.7		21 29.6	21 38.0	41.8	45.3	48.7	52.4	21	45.24		
20	45.2 37.9	9.5		31.0							+ 1.96		
κ				33.2							− 45		
((δ) − D) $\frac{\kappa'}{100}$				31.3					+ 1.48		− 3		
a_1										21	46.72		
											− 2.93		
											43.79		
		9.6		21 23.5	21 37.8	41.2	45.0	48.3	51.7	21	44.80		
				26.8							+ 2.49		
κ				30.3							− 60		
((δ) − D) $\frac{\kappa'}{100}$				26.9					+ 1.86		− 3		
a_2										21	46.66		
											− 2.83		
											43.83		

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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′
	+13.1	0 40.4	57.9	983	0′ 49.″15	11 59.20			10	52 55 41.80	
	1.11727			10		52 55 52.34				− 5	+11.04
d	9.78013					−10.54				− 8	
	1.02292m									+10.87	
$((\delta) - D)\frac{d'}{100}$										+ 30	
										− 4.30	
δ_1										55 48.54	
										− 0.70	
	+16.7	0 35.9	57.1	93.00	46.50	12 1.85			10	43.30	
	1.22272			10		52 55 56.75				− 8	+10.51
d	9.78013					−13.45				− 8	
	1.12837m									+10.37	
$((\delta) - D)\frac{d'}{100}$										+ 30	
										− 5.10	
δ_2										55 48.01	
	+ 9.3	3 31.3	48.3	79.6	3 37.80	39 8.55			40	54 22 54.46	
	0.96548			43		54 23 1.69				− 2	+12.44
d	9.76519					− 7.23				− 36	
	0.85919m									+12.42	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										− 4.60	
δ_1										23 2.30	
	+ 7.8	3 31.4	52.2	83.6	3 41.80	39 6.85 7.25			40	22 55.38	
	0.89209			43		54 23 1.45				− 2	+11.83
d	9.76519					− 6.07				− 37	
	0.78280m									+11.84	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										− 5.40	
δ_2										23 1.85	
	+25.2	2 12.0	28.0	40.0	2 20.00	50 28.35			30	53 34 1.51	
	1.40140			32		53 34 21.49				− 17	+11.51
d	9.77370					−19.98				− 23	
	1.30062m									+11.53	
$((\delta) - D)\frac{d'}{100}$										+ 36	
										− 4.30	
δ_1										34 8.72	
	+24.3	2 9.9	30.2	40.1	2 20.05	50 28.00			30	3.93	
	1.38561			32		53 34 23.20				− 15	+10.99
d	9.77370					−19.27				− 23	
	1.28483m									+11.01	
$((\delta) - D)\frac{d'}{100}$										+ 36	
										− 5.10	
δ_2										34 9.12	
	+29.7	2 21.3	38.9	60.2	2 30.10	10 18.25			10	51 53 46.92	
	1.47276			12		51 54 11.89				− 23	+961
d	9.79031					−24.47				− 25	
	1.38859m									+9.79	
$((\delta) - D)\frac{d'}{100}$										+ 30	
										− 3.80	
δ_1										53 52.73	
	+25.8	2 22.0	44.3	66.3	2 33.15	10 15.20			10	48.85	
	1.41162			12		51 54 10.10				− 18	+9.80
d	9.79031					−21.25				− 26	
	1.32745m									+9.85	
$((\delta) - D)\frac{d'}{100}$										+ 29	
										− 4.65	
δ_2										53 52.70	
	+13.9	0 13.0	30.7	43.7	0 21.85	47 26.50			85	54 31 8.87	
	1.14301			35		54 31 19.64				− 5	+12.87
d	9.26378					−10.77				− 4	
	1.03231m									+12.56	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										− 4.30	
δ_1										31 16.41	
	+17.9	0 7.7	29.4	37.1	0 18.55	47 29.80			35	10.83	
	1.25285			35		54 31 24.70				− 8	+12.26
d	9.76378					−13.87				− 3	
	1.14215m									+11.97	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										− 5.20	
δ_2										31 17.19	

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Date$_1$ = May 17 — Observer / Recorder

407

Date$_2$ = May 22 — Observer / Recorder

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Ru

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
23	1	58 58 1st	9.5	12 22 33.2	22 46.2	49.9	53.3	56.3	59.1	22	52.96		
22	12.0	54 37	8.8	36.0							+ 1.96		
κ				39.5							− 44		
				36.2					+ 1.49		− 3	22	54.45
((δ) − D) $\frac{\kappa'}{100}$			8.3	2nd δ 22 52.9	23 2.4	6.0	9.5	13.2	16.6	23	9.54		− 2.91
											+ 1.96		51.54 2
a_1									+ 1.49		− 44		
											− 3	23	11.03
			9.5	22 31.5	22 46.0	48.4	52.8	56.6	59.7	22	52.90		− 2.91
				34.3							+ 2.49		8.12
κ				37.6					+ 1.87		− 59		
				34.5							− 3	22	54.77
((δ) − D) $\frac{\kappa'}{100}$			8.3	22 15.6	23 2.1	5.5	9.0	12.7	16.2	23	9.10		− 2.81
				18.0							+ 2.49		51.96 2
a_2				21.7					+ 1.87		− 59		
				18.4							− 3	23	10.97
24	5	52 44	9.2	23 57.3	24 7.2	10.5	13.9	17.2	20.6	24	1288.		− 2.81
23	13.2	49.8	9.0	54.7							+ 1.96		8.16
κ				57.6							− 42		
				54.5					+ 1.52		− 2		
((δ) − D) $\frac{\kappa'}{100}$										24	15.40		
											− 2.84		
a_1											12.56		
			9.4	23 44.2	24 6.7	10.0	13.4	16.7	20.3	24	13.42		
				47.3							+ 2.50		
κ				50.3							− 56		
				47.3					+ 1.92		− 2		
((δ) − D) $\frac{\kappa'}{100}$										24	15.34		
											− 2.75		
a_2											12.59		
											2		
25	28	50 17	9.6	25 18.7	25 33.7	37.1	40.4	43.6	46.6	25	40.48		
24	40.7	22.6	9.3	18.1							+ 1.97		
κ				20.1							− 38		
				18.0					+ 1.57		− 2		
((δ) − D) $\frac{\kappa'}{100}$										25	41.85		
											− 2.71		
a_1											39.14		
			9.8	25 18.2	25 33.1	36.3	39.7	43.0	46.1	25	39.64		
				16.0							+ 2.50		
κ				18.7							− 37		
				16.0					+ 1.97		− 2		
((δ) − D) $\frac{\kappa'}{100}$										25	41.61		
											− 2.63		
a_2											38.98		
27	13	49 59	8.4	26 57.6	27 17.0	20.0	—	—	—	27	23.15		
26	24.8	50 5.9	7.7	57.1	16.7		23.2				+ 1.97		
κ				58.9			23.1				− 38		
				57.2					+ 1.57		− 2		
((δ) − D) $\frac{\kappa'}{100}$										27	24.72		
											− 2.71		
a_1											22.01		
			8.0	26 37.0	27 16.4	19.6	22.7	26.0	29.2	27	22.78		
				34.0							+ 2.50		
κ				36.6							− 51		
				35.9					+ 1.97		− 2		
((δ) − D) $\frac{\kappa'}{100}$										27	24.75		
											− 2.63		
a_2											22.12		
				Single Observations									
κ													
((δ) − D) $\frac{\kappa'}{100}$													
May 17 a_1													
11	30	55 50 20	7.5	11 30 57.7	31 0.1	3.1	6.5	− 9.8	13.0	31	6.80		
30	13.8	50 25.9	6.4	53.0							+ 1.94		
κ				57.6							− 39		
				54.8					+ 1.53		− 2		
((δ) − D) $\frac{\kappa'}{100}$										31	8.03		
											− 2.41		
a_2											5.62		

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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′	
	+0.1	4	6.9	23.8	30.4	4′	7.520	13 33.15			5	53 57 26.21	57 0.13	
	9.00000					9		53 57 26.29	57 26.21		0.13	0	− 29	+11.92
d	9.76974							− 0.08	+11.92		+11.63	− 43	− 43	
	8.89526m							−26.16				+11.95	+11.95	
((δ) − D) $\frac{d'}{100}$	+7.3											+ 40	+ 40	
	1.52244											− 4.10	− 4.10	
δ_1	9.76974											57 34.03	57 7.66	
	1.41770m											− 0.70	− 0.70	
	+18.4	3	49.7	10.8	120.5	4	0.25	✓ 13 48.10			5	57 28.54	57 3.16	
	1.26482					9		53 57 43.00	57 28.54		3.16	− 8	− 66	+11.32
d	9.76974							− 14.46	+11.32		+10.74	− 40	− 40	
	1.16008m							− 39.84				+ 11.40	+ 11.40	
((δ) − D) $\frac{d'}{100}$	+50.7											+ 40	+ 40	
	1.70501											− 5.00	− 5.00	
δ_2	9.76974											57 34.16	57 8.20	
	1.60027m													
	+19.4	3	3.5	19.3	22.8	3	1.140	59 36.95			20	52 43 14.40		
	1.28780					23		52 43 30.09				− 10		+10.53
d	9.78230							− 15.69				− 32		
	1.19562m											+ 10.65		
((δ) − D) $\frac{d'}{100}$												+ 30		
												− 3.70		
δ_1												43 21.23		
	+26.1	2	58.6	14.9	128.5	3	4.25	59 44.10			20	17.89		
	1.41664					23		52 43 39.00				− 18		+9.96
d	9.78230							− 21.11				− 31		
	1.32446m											+ 10.15		
((δ) − D) $\frac{d'}{100}$												+ 30		
												− 4.60		
δ_2												43 22.55		
	+22.3	0	19.0	38.2	57.2	0	28.60	32 19.75			50	50 15 53.86		
	1.34830					50		50 16 12.89				− 13		+8.13
d	9.80565							− 19.03				− 5		
	1.27947m											+ 8.08		
((δ) − D) $\frac{d'}{100}$												+ 23		
												− 3.10		
δ_1												15 58.89		
	+23.6	0	16.8	40.0	56.8	0	28.25	32 20.10			50	54.86		
	1.37291					50		50 16 15.00				− 15		+7.73
d	9.80565							− 20.14				− 5		
	1.30408m											+ 7.72		
((δ) − D) $\frac{d'}{100}$												+ 21		
												− 3.90		
δ_2												15 57.99		
	+26.0	1	39.1	57.6	96.7	1	48.35	✓ 16 00.00			5	49 57 50.82		
	1.41497					6		49 57 53.14				− 18		+7.65
d	9.80822							− 22.32				− 18		
	1.34871m											+ 7.81		
((δ) − D) $\frac{d'}{100}$												+ 20		
												− 2.90		
δ_1												59 35.57		
	+28.9	1	34.1	56.0	90.1	1	45.05	16 3.30			6	~~47~~ 59 33.39		
	1.46090					6		49 59 58.20				− 23		+7.16
d	9.80822							− 24.81				− 17		
	1.39464m											+ 7.46		
((δ) − D) $\frac{d'}{100}$												+ 20		
												− 3.70		
δ_2												59 36.25		
d														
((δ) − D) $\frac{d'}{100}$														
δ_1														
	+11.7	1	17.4	36.2	53.6	1	26.80	46 21.55			35	50 30 4.71		
	1.06819					36		50 30 14.69				− 3		+8.38
d	9.80531							− 9.98				− 14		
	0.99902m											+8.30		
((δ) − D) $\frac{d'}{100}$												+ 25		
												− 7.00		
δ_2												30 6.09		

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Single Observations

Date$_1$ = May 17 — Observer — Recorder

Date$_2$ = — Observer — Recorder

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Ru

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
11	37	51 58 40	9.0	11 37 40.5	37 53.3	56.6	0.1	3.0	6.3	37	59.86		
	36	~~46.0~~ ~~45.3~~	9.1	43.6							+ 1.94		
	κ	54.4 41.9		46.3							− 39		
	((δ) − D) $\frac{\kappa'}{100}$			48.5					+ 1.53		− 2		
										38	1.39		
	a_1										− 2.46		
										37	58.93		
17													
11	38	38 54 38	8.2	38 38.7	38 24.8	28.3	32.1	35.4	39.0	38	31.92		
	37	~~43.0~~ ~~43.0~~	9.0	37.1							+ 1.94		
	κ	26.5 45.5		40.2							− 45		
	((δ) − D) $\frac{\kappa'}{100}$			37.0					+ 1.46		− 3		
										38	33.38		
	a_2										− 2.166		
											30.72		
17													
11	40	10 54 00	9.0	39 48.4	40 13.0	18.6	22.1	25.3	29.1	40	22.06		
	39	16.7 5.3	8.3	52.7							+ 1.94		
	κ			53.2	48						− 44		
	((δ) − D) $\frac{\kappa'}{100}$			52.3					+ 1.47		− 3		
										40	23.53		
	a_1										− 2.64		
											20.89		
17													
11	41	50 53 56	9.6	41 27.1	41 58.2	56.9	0.5	4.1	7.9	42	0.52		
	40	54.7 54 1.6	9.5	31.1							+ 1.94		
	κ			34.1							− 44		
	((δ) − D) $\frac{\kappa'}{100}$			30.8					+ 1.47		− 3		
										42	1.99		
	a_2										− 2.65		
											59.34		
17													
11	51	6 50 46	9.5	51 6.9	51 8.4	12.0	15.5	18.9	22.0	51	15.86		
	50	11.9 51.3	9.0								+ 1.95		
	κ										− 39		
									+ 1.54		− 2	51 16.90	
	((δ) − D) $\frac{\kappa'}{100}$			50 27.3	51 9.4	12.6	16.0	18.3	22.5	51	15.96		− 2.55
				28.6							+ 1.93		14.35
	a_1			30.1							− 39		
				28.7					+ 1.54		− 2	57 17.50	
17													
11	58	0 51 47	9.6	57 39.2	58 33.7	6.6	9.8	13.0	16.7	58	9.90		− 2.55
	57	7.0 52.3	9.5	42.4	34						+ 1.95		14.95
	κ			46.0							− 40		
	((δ) − D) $\frac{\kappa'}{100}$			42.5					+ 1.53		− 2		
										58	11.43		
	a_2										− 2.63		
											8.80		
	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												

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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′	
	+16.4	0 33.9	5-3.7	87.6	6	4″380	52 4.55		30	50 35 43.79		
	1.21484				30		50 35 57.69			− 7		+852
d	9.80259						−13.90			− 7		
	1.14295m									+ 8.40		
$((\delta) - D)\frac{d'}{100}$										+ 26		
										− 6.60		
δ_1										35 45 71		
	− 5.1	3 16.0	27.1	37.1	3	1855	54 29.80		215-	54 38 ~~19.00~~	2688	
	0.70757m				28		54 38 22.94			− 1		+12 68
d	9.76253						4 3.94			− 33		
	0.59562						†			+12.62		
$((\delta) - D)\frac{d'}{100}$										+ 40		
										− 7.55		
δ_2										38 ~~24.13~~	32.01	
	~~+33.2~~											
	~~+29.8~~	2 17.4	35.2	52.6	2	26.30	15 22.05		5-	53 58 ~~51.79~~	49.12	
	~~1.47424~~	1.52114			7		53 59 15.19			− 23		+1188
d	9.76939	9.76939					~~−23.40~~			− 24		
	~~1.24363~~ 1.41605m						− 26.07			+11.95		
$((\delta) - D)\frac{d'}{100}$										+ 40		
										− 7.30		
δ_1										58 ~~56.37~~	53.70	
	+29.7	1 17.4	35.2	52.6	1	26.30	11 22.05		10	53 54 51.84		
	1.47276				11		53 55 15.19			− 23		+11.90
d	9.77009						-23.35			− 14		
	1.36837m									+11.88		
$((\delta) - D)\frac{d'}{100}$										+ 39		
										− 7.13		
δ_2										54 56.59		
	+8.5	1 8.7	28	29.5	1	14.75	1 33.60		20	50 45 19.56	44 46.78	
	0.92942				21		50 45 26.74	45 1956	46.78	− 2	− 60	+869
d	9.80120						− 7.18	+8.69	+8.11	− 12	− 12	
	0.85614m						-39.96			+ 8.56	+ 8.56	
$((\delta) - D)\frac{d'}{100}$	+47.3									+ 27	+ 27	
	1.67486									− 5.70	− 5.70	
δ_1	9.80120									45 22.55	44 49.19	
	~~1.48158~~m											
	+27.4	0 33.2	5-0.7	83.9	0	41.95	2 6.40		20	51 45 36.90		
	1.43775				20		51 45 59.54			− 20		+966
d	9.79160						-22.64			− 7		
	1.35487m									+ 9.63		
$((\delta) - D)\frac{d'}{100}$										+ 80		
										− 5.50		
δ_2										45 41.06		
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												

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468 469 74

Date$_1$ = May 23 Observer
n = −.49 Recorder

Date$_2$ = May 26 Observer
n = −.55 Recorder

Ru

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
	59	6 53 38	8.0	11 58 39.5	59 7.3	10.8	14.1	17.7	21.4	59	14.26		
	58 12.1	40.9	7.7	42.2							+ 2.83		
	κ			46.0					+ 2.14		− .66		
	((δ) − D) $\frac{\kappa'}{100}$			42.6							− .3		
	a_1									59	16.40		
											− 2.62		
											13.78		
				58 42.8	59 6.7	10.3	13.7	17.4	20.7	59	13.76		
				44.0							+ 3.25		
	κ			46.8					+ 2.48		− .74		
	((δ) − D) $\frac{\kappa'}{100}$			44.5							− .3		
	a_2									59	16.24		
											− 2.55		
											13.69		
12	0	22 52 27	9.0	12 0 33.5	0 26.3	29.5	33.0	36.4	39.6	0	32.96		
	59 30.0	33.2	9.0	37.4							+ 2.83		
	κ			2.3					+ 2.17		− .64		
	((δ) − D) $\frac{\kappa'}{100}$			58.1							− .2		
	a_1									0	35.13		
											− 2.57		
											32.56		
			9.2	12 0 19.6	0 25.7	29.0	32.5	35.9	39.3	0	32.88		
				22.7							+ 3.25		
	κ			25.6					+ 2.51		− .72		
	((δ) − D) $\frac{\kappa'}{100}$			22.4							− .2		
	a_2									0	34.99		
											− 2.50		
											32.49		
	1	53 57 59	9.0	12 1 28.0	1 55.3	58.7	2.1	5.6	8.8	2	2.10		
	1 0.3	52 4.7	9.0	32.9							+ 2.83		
	κ			36.0					+ 2.18		− .63		
	((δ) − D) $\frac{\kappa'}{100}$			32.3							− .2		
	a_1									2	4.28		
											− 2.56		
											1.72		
			9.0	1 35.4	1 33.0	38.4	1.7	5.0	8.3	2	1.68		
				37.7							+ 3.25		
	κ			40.4					+ 2.53		− .70		
	((δ) − D) $\frac{\kappa'}{100}$			37.9							− .2		
	a_2									2	4.21		
											− 2.50		
											1.71		
	2	52 54 07	8.0	2 37.0	2 33.0	38.6	2.0	5.6	9.0	3	2.04		
	2 0.4	12.5	7.0	40.2							+ 2.83		
	κ			43.4					+ 2.13		− .67		
	((δ) − D) $\frac{\kappa'}{100}$			40.2							− .3		
	a_1									3	4.17		
											− 2.67		
											1.50		
			8.0	2 33.7	2 33.7	38.2	1.7	5.3	8.6	3	1.70		
				36.2							+ 3.25		
	κ			32.6					+ 2.46		− .76		
	((δ) − D) $\frac{\kappa'}{100}$			36.5							− .3		
	a_2									3	4.16		
											− 2.60		
											1.56		
	6	0 53 31	9.0	5 43.5	6 2.8	6.6	9.9	13.3	16.9	6	9.90		
	5 9.4	36.4	9.0	48.1							+ 2.83		
	κ			37.6					+ 2.14		− .66		
	((δ) − D) $\frac{\kappa'}{100}$			48.4							− .3		
	a_1									6	12.04		
											− 2.66		
											9.38		
			9.0	5 32.5	6 2.7	6.2	9.6	13.1	16.6	6	9.64		
				36.1							+ 3.25		
	κ			39.0					+ 2.48		− .74		
	((δ) − D) $\frac{\kappa'}{100}$			35.9							− .3		
	a_2									6	12.12		
											− 2.59		
											9.53		

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May 23 −16′ 5.″08 −.10
26 −16 3.65 −.10

Runs

	$T_m - T$		A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+31.7	1	5.74	20.5	137.9	2′ 8.″95	50 39.40			30	53 34 9.18	
	1.50106					32	53 34 34.32				− 26	+11.08
d	9.77370						− 25.14				− 21	
	1.40028n										+11.19	
$((\delta) - D)\frac{d'}{100}$											+ 36	
											− 6.70	
δ_1											34 13.56	
	+29.3	1	5.88	23.4	142.2	2 16.″10	50 37.25			30	10.37	
	1.46687					32	53 34 33.60				− 23	+10.97
d	9.77370						− 23.23				− 22	
	1.36609n										+11.06	
$((\delta) - D)\frac{d'}{100}$											+ 36	
											− 7.00	
δ_2											34 14.34	
	+34.9	0	15.7	40.8	56.5	0 28.″25	42 20.10			40	52 25 46.61	
	1.54283					40	52 26 15.02				− 32	+9.96
d	9.78510						− 28.41				− 5	
	1.45345n										+10.03	
$((\delta) - D)\frac{d'}{100}$											+ 30	
											− 6.30	
δ_1											25 50.27	
	+10.1	0	35.9	1.1	97.0	0 48.″50	41 59.85			40	47.98	
	1.00432					40	52 25 56.20				− 3	+10.09
d	9.78510						− 8.22				− 8	
	0.91494n										+9.90	
$((\delta) - D)\frac{d'}{100}$											+ 30	
											− 6.70	
δ_2											25 51.37	
	+29.8	3	9.1	31.4	40.5	3 20.″25	14 28.10			5	51 57 58.51	
	1.47422					8	51 58 23.02				− 23	+9.30
d	9.78967						− 24.51				− 33	
	1.38941n										+9.56	
$((\delta) - D)\frac{d'}{100}$											+ 30	
											− 6.10	
δ_1						x1″					58 1.71	
	+23.8	3	14.4	37.4	53.8	3 26.″90	14 23.45			5	57.22	
	1.37658					8	51 58 17.80				− 15	+9.26
d	9.78967						−19.58				− 34	
	1.29177n										+9.45	
$((\delta) - D)\frac{d'}{100}$											+ 30	
											− 6.50	
δ_2											57 59.98	
	+21.8	0	4.1	4.8	105.9	0 52.″95	21 56.40			0	54 5 33.25	
	1.33846						54 5 50.32				− 12	+11.92
d	9.76835						−17.07				− 9	
	1.23238n										+11.73	
$((\delta) - D)\frac{d'}{100}$											+ 40	
											− 6.50	
δ_1											5 38.67	
	+25.2	0	38.2	4.9	103.1	0 51.″55	21 56.80			0	33.41	
	1.40140						54 5 53.15				− 17	+11.73
d	9.76835						−19.74				− 9	
	1.29527n										+11.59	
$((\delta) - D)\frac{d'}{100}$											+ 40	
											− 6.90	
δ_2											5 38.24	
	+21.5	1	53.7	16.0	129.7	2 4.″85	45 43.50			35	53 29 21.~~40~~34	
	1.33244					37	53 29 38.48 2				− 12	+11.13
d	9.77456						−17.08				− 21	
	1.23252n										+11.11	
$((\delta) - D)\frac{d'}{100}$											+ 35	
											− 6.20	
δ_1											29 2~~6.33~~.27	
	+33.7	1	43.0	8.0	111.0	1 55.″50	45 52.85			35	22.43	
	1.52763					36	53 29 49.20				− 29	+10.86
d	9.77456						−26.77				− 19	
	1.42771n										+10.99	
$((\delta) - D)\frac{d'}{100}$											+ 35	
											− 6.60	
δ_2											29 26.69	

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408

Date$_1$ = May 23 — Observer — Recorder

409

Date$_2$ = May 26 — Observer — Recorder

76

Ru

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
10	6 54 52 01		9.0	12 6 37.0	6 56.2	57.5	2.9	6.3	9.5	7	2.88		
6	2.2	7.0	8.7	39.8							+ 2.83		
κ				42.8							− 63		
				39.9					+ 2.18		− 2		
((δ) − D) $\frac{\kappa'}{100}$										7	5.06		
a_1											− 2.59		
											2.47		
			9.0	6 43.2	6 53.7	57.3	2.6	5.8	9.3	7	2.54		
κ				45.5							+ 3.25		
				48.8							− 70		
				45.8					+ 2.53		− 2		
((δ) − D) $\frac{\kappa'}{100}$										7	5.07		
a_2											− 2.53		
											2.54		
8	10 52 42		8.5	8 ~~60.7~~	8 12.7	16.2	19.4	23.0	26.4	8	19.54		
7	19.0	48.0	8.3	~~60.4~~							+ 2.83		
κ				~~57.4~~							− 64		
				46.3					+ 2.17		− 2		
((δ) − D) $\frac{\kappa'}{100}$				48.4						8	21.71		
a_1				52.4							− 2.63		
				49.1							19.08		
			8.3	7 48.4	8 12.3	16.7	19.1	22.6	26.0	8	19.14		
κ				51.3							+ 3.25		
				54.0							− 72		
				51.2					+ 2.51		− 2		
((δ) − D) $\frac{\kappa'}{100}$										8	21.65		
a_2											− 2.57		
											19.08		
8	58 54 15		9.1	8 50.3	9 0.6	4.2	7.6	11.0	14.7	9	7.62		
8	6.9	20.5	9.4	53.3							+ 2.83		
κ				57.1							− 67		
				53.6					+ 2.13		− 3		
((δ) − D) $\frac{\kappa'}{100}$										9	9.75		
a_1											− 2.71		
											7.04		
			9.5	8 52.0	9 0.1	~~3.9~~	7.6	10.8	14.2	9	7.32		
κ				54.5							+ 3.25		
				57.8							− 76		
				54.8					+ 2.46		− 3		
((δ) − D) $\frac{\kappa'}{100}$										9	9.78		
a_2											− 2.65		
											7.13		
11	7 54 08		9.3	10 37.0	11 9.7	13.4	16.8	20.3	23.8	11	16.80		
10	16.4	13.4	9.3	40.0							+ 2.83		
κ				43.1							− 67		
				40.0					+ 2.13		− 3		
((δ) − D) $\frac{\kappa'}{100}$										11	18.93		
a_1											− 2.72		
											16.21		
			9.8	10 53.7	11 9.3	13.0	16.4	19.8	23.3	11	16.36		
κ				59.0							+ 3.25		
				2.2							− 76		
				59.0					+ 2.46		− 3		
((δ) − D) $\frac{\kappa'}{100}$										11	18.82		
a_2											− 2.66		
											16.16		
12	56 53 16		7.9	12 38.9	12 58.0	1.4	4.7	8.4	11.8	13	4.90		
12	5.6	21.2	8.5	42.0							+ 2.84		
κ				45.0							− 65		
				42.0					+ 2.16		− 3		
((δ) − D) $\frac{\kappa'}{100}$										13	7.06		
a_1											− 2.69		
											4.37		
			8.1	12 29.3	12 57.6	1.1	4.7	8.0	11.4	13	4.56		
κ				32.2							+ 3.25		
				35.0							− 73		
				32.2					+ 2.49		− 3		
((δ) − D) $\frac{\kappa'}{100}$										13	7.05		
a_2											− 2.62		
											4.43		

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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	+23.0	0	50.8	14.5	125.3	1′ 2.65″	16 45.70		5	52 0 21.71	
	1.36173				1 6	52 0 40.62				− 14	+9.65
	9.78934						−18.91			− 10	
$((\delta) - D)\frac{d'}{100}$	1.27659n									+ 9.59	
										+ 30	
δ_1										− 5.70	
										0 25.66	
d	+16.7	0	55.1	21.7	136.8	1 8.40	16 39.95		5	22.57	
	1.22272				1 6	52 0 36.30				− 8	+9.59
	9.78934						−13.73			− 11	
$((\delta) - D)\frac{d'}{100}$	1.13758n									+ 9.48	
										+ 30	
δ_2										− 6.15	
										0 26.01	
d	+30.4	0	36.5	0.0	96.5	0 48.25	57 0.10		25	52 40 30.41	
	1.48287				0 25	52 40 55.02				− 25	+10.27
	9.78280						−24.61			− 8	
$((\delta) - D)\frac{d'}{100}$	1.39119n									+10.30	
										+ 30	
δ_1										− 5.80	
										40 34.88	
d	+27.9	0	38.2	8.7	101.9	0 50.95	56 57.40		26	31.16	
	1.44560				0 25	52 40 53.75				− 21	+18.18
	9.78280						−22.59			− 8	
$((\delta) - D)\frac{d'}{100}$	1.35392n									+10.17	
										+ 30	
δ_2										− 6.25	
										40 35.09	
d	+14.0	2	32.0	54.8	86.8	2 43.40	30 4.95		50	54 13 48.95	
	1.14613				2 52	54 13 59.87				− 5	+11.96
	9.76677						−10.92			− 27	
$((\delta) - D)\frac{d'}{100}$	1.03842n									+11.88	
										+ 40	
δ_1										− 6.10	
										13 54.81	
d	+12.5	2	32.1	56.8	88.9	2 44.45	30 3.90		50	50.49	
	1.09691				2 52	54 14 0.25				− 5	+11.82
	9.76677						− 9.76			− 27	
$((\delta) - D)\frac{d'}{100}$	0.98920n									+11.74	
										+ 40	
δ_2										− 6.50	
										13 55.81	
d	+36.8	4	54.5	18.5	133.0	5 6.50	22 41.85		55	54 6 7.96	
	1.56585				5 0	54 6 36.77				− 35	+11.28
	9.76817						−28.81			− 57	
$((\delta) - D)\frac{d'}{100}$	1.45954n									+11.74	
										+ 40	
δ_1										− 6.50	
										6 13.24	
d	+17.4	0	10.2	36.7	46.9	0 23.45	22 24.90		0	7.63	
	1.24055				0 0	54 6 21.25				− 7	+11.90
	9.76817						−13.62			− 4	
$((\delta) - D)\frac{d'}{100}$	1.13424n									+11.61	
										+ 40	
δ_2										− 6.40	
										6 13.13	
d	+22.9	2	30.0	52.8	82.8	2 41.40	30 6.95		50	53 17 43.57	
	1.35984				2 52	53 14 1.87				− 14	+10.79
	9.77711						−18.30			− 27	
$((\delta) - D)\frac{d'}{100}$	1.26247n									+10.88	
										+ 32	
δ_1										− 5.60	
										14 48.76	
d	+32.4	2	22.8	47.1	69.9	2 34.95	30 13.40		50	43.86	
	1.51055				2 52	53 14 9.75				− 27	+10.54
	9.77711						−25.89			− 26	
$((\delta) - D)\frac{d'}{100}$	1.41318n									+10.75	
										+ 32	
δ_2										− 6.05	
										13 48.35	

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405 409 78

Date$_1$ = May 23 Observer / Recorder Date$_2$ = May 26 Observer / Recorder Ru

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
13	14 47 54 3		8.3	12 13 45.8	14 10.4	13.5	16.6	19.9	23.0	14	76.68		
	13 35.8	8.5	8.3	48.2					+ 2.14		+ 2.84		
	κ			57.3							− .67		
				48.4							− 3	14	18.82
	((δ) — D) $\frac{\kappa'}{100}$			14 45.3	14 47.5	37.5	54.6	58.0	1.6	14	54.64	− 2.73	
				48.2							+ 2.84	16.09	
				51.3					+ 2.14		− .67		
	α_1			48.3							− 3	14	56.78
			8.0	14 27.3	14 47.3	50.7	54.2	57.6	1.6	14	54.18	− 2.74	
				31.1					1.1		+ 3.25	54.04	
	κ			33.9							− .76		
				30.8					+ 2.46		− 3		
	((δ) — D) $\frac{\kappa'}{100}$									14	56.64		
											− 2.67		
	α_2										53.97		
14	15 21 54 34		9.5	15 18.0	15 21.6	25.2	28.6	32.2	35.7	15	28.66		
	14 30.4	39.2	9.1	17.4							+ 2.84		
	κ			19.5							− .69		
				17.3					+ 2.12		− 3		
	((δ) — D) $\frac{\kappa'}{100}$									15	30.78		
											− 2.77		
	α_1										28.01		
			9.3	15 15.7	15 21.2	24.8	28.3	32.0	35.4	15	28.34		
	κ										+ 3.25		
											− .77		
									+ 2.45		− 3		
	((δ) — D) $\frac{\kappa'}{100}$									15	30.79		
											− 2.70		
	α_2										28.09		
15	16 30 54 0	4	9.0	16 17.5	16 31.2	34.7	38.1	41.7	45.3	16	38.20		
	15 40.4	10.1	9.2	20.0							+ 2.84		
	κ			22.7							− .67		
				20.4					+ 2.14		− 3		
	((δ) — D) $\frac{\kappa'}{100}$									16	40.34		
											− 2.75		
	α_1										37.59		
			9.2	16 18.2	16 30.9	34.4	38.0	41.5	45.0	16	37.96		
				21.4					46		+ 3.25		
	κ			24.9							− .76		
				21.5					+ 2.52		− 3		
	((δ) — D) $\frac{\kappa'}{100}$									16	40.42		
											− 2.69		
	α_2										37.73		
16	17 27 52 5.8		9.4	17 17.2	17 32.8	36.1	39.7	43.0	46.5	17	39.62		
	16 36.4	3.1	9.4	20.1							+ 2.84		
	κ			28.8							− .65		
				20.4					+ 2.17		− 2		
	((δ) — D) $\frac{\kappa'}{100}$									17	41.79		
											− 2.70		
	α_1										39.09		
			9.1	17 19.4	17 32.5	35.9	39.5	42.7	46.2	17	39.36		
				21.4							+ 3.25		
	κ			26.1							− .73		
				22.5					+ 2.50		− 2		
	((δ) — D) $\frac{\kappa'}{100}$									17	41.86		
											− 2.63		
	α_2										39.23		
17	18 44 53 34		9.4	18 19.6	18 46.5	50.0	53.4	57.0	0.5	18	68.48		
	17 34.0	39.5	9.5	23.0							+ 2.84		
	κ			26.5							− .66		
				23.0					+ 2.15		− 3		
	((δ) — D) $\frac{\kappa'}{100}$							56.5	59.7	18	55.63		
											− 2.73		
	α_1										52.90		
			9.1	18 42.6	18 46.2	50.0	53.4	56.5	59.7	18	53.36 48.16		
								59.1			+ 3.25		
	κ										− .74		
									+ 2.48		− 3		
	((δ) — D) $\frac{\kappa'}{100}$									18	55.84		
											− 2.67		
	α_2										53.17 52.97		

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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′	
	+28.3	0 52.0	13.9	123.9	1 ′ 1.95	16 46.40			8-	54 0 19.11	36.38	
	1.45179				6	54 0 41.32	0 19.11		36.38	− 21	− 1	+11.82
d	9.76922					− 22.21	+11.72		+11.92	− 10	− 10	
	1.34653 m					− 4.94				+ 11.63	+ 11.63	
	+ 6.3									+ 40	+ 40	
	0.79934									− 5.75	− 5.70	
δ_1	9.76922									0 25.08	0 42.60	
	0.69408 m											
	+23.4	0 35.2	11	96.3	0 48.15	17 0.20			8-	38.61		
	1.36922				5	54 0 56.55				− 14		+11.69
d	9.76904					− 17.94				− 8		
	1.25378 m									+ 11.57		
										+ 40		
										− 6.10		
δ_2										0 44.20		
	+11.4	4 45.2	8.9	114.1	4 57.05	47 51.30			30	54 31 37.39		
	1.05690				34	54 31 46.22				− 3		+12.06
d	9.76360					− 8.83				− 50		
	0.94602 m									+12.19		
										+ 40		
										− 5.80		
δ_1										31 43.65		
	+12.6	4 43.6	11.0	114.6	4 57.30	47 51.05			30	37.64		
	1.10037				34	54 31 47.40				− 5		+11.91
d	9.76360					− 9.76				− 50		
	0.98949 m									+12.06		
										+ 40		
										− 6.20		
δ_2										31 43.35		
	+17.8	3 45.6	9.0	114.6	3 57.30	18 51.05			0	54 2 32.01		
	1.25042					54 2 45.97				− 8		+11.59
d	9.76887					− 13.96				− 40		
	1.14481 m									+11.67		
										+ 40		
										− 5.60		
δ_1										2 38.80		
	+16.5	3 48.9	10.9	116.8	3 58.40	18 49.95			0	33.36		
	1,21748					54 2 46.30				− 7		+11.50
d	9.76887					− 12.94				− 40		
	1.11187 m									+11.57		
										+ 40		
										− 6.00		
δ_2										2 38.86		
	+19.2	0 ~~360~~ 38.7	~~+5~~ 36.8	90.5	0 45.25	12 3.10			10	52 55 42.57		
	1.28330				10	52 55 58.02				− 9		+10.69
d	9.78013					− 15.45				− 7		
	1.18895 m									+10.55		
										+ 30		
										− 5.20		
δ_1										55 48.06		
	+16.9	0 36.0	1.5-	97.5	0 48.75	11 59.60			10	42.32		
	1.22789				10	52 55 55.95				− 8		+10.58
d	9.78013					− 13.63				− 8		
	1.13454 m									+10.44		
										+ 30		
										− 5.65		
δ_2										55 47.25		
	+30.5	3 25.2	47.9	73.1	3 36.55	49 11.80			30	53 32 42.47		
	1.48430				33	53 33 6.72				− 24		+10.93
d	9.77387					− 24.25				− 36		
	1.38469 m									+11.18		
										+ 35		
										− 5.30		
δ_1										32 48.10		
	+10.8	3 38.1	2.1	100.2	3 50.10	48 58.25			30	46.04		
	1.03342				33	53 32 54.60				− 3		+11.00
d	9.77387					− 8.56				− 38		
	0.93281 m									+11.06		
										+ 35		
										− 5.70		
δ_2										32 51.34		

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Date$_1$ = May 23 — Observer / Recorder

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Date$_2$ = May 26 — Observer / Recorder

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Run

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
20	8 52	0 4	9.3	12 19 47.0	20 7.0	10.3	13.7	17.0	20.4	20	13.68		
19	17.2	8.7	9.4	30.3							+ 2.84		
κ				32.3							− 63		
				40.0					+ 2.19		− 2		
((δ) − D) $\frac{\kappa'}{100}$										20	15.87		
a_1											− 2.67		
											13.20		
			9.0	19 58.7	20 6.4	10.0	13.5	16.6	19.9	20	13.32		
κ				1.9							+ 3.25		
				4.6							− 70		
				61.7					+ 2.53		− 2		
((δ) − D) $\frac{\kappa'}{100}$										20	15.85		
a_2											− 2.61		
											13.24		
30	26 57	5 1	9.4	30 1.2	30 28.5	31.9	35.0	38.2	41.6	30	35.04		
29	37.4	56.6	9.4	4.2							+ 2.84		
κ				7.7							− 59	61	
				4.4					+ 2.21		− 2		
((δ) − D) $\frac{\kappa'}{100}$										30	37.27	5	
a_1											− 2.67		
											34.58		
			9.3	30 16.0	30 28.3	31.4	34.7	38.1	41.2	30	34.74		
κ				19.0							+ 3.26		
				22.1							− 70	68	
				19.0					+ 2.56		− 2		
((δ) − D) $\frac{\kappa'}{100}$										30	37.28	30	
a_2											− 2.61		
											34.69		
31	39 50	5 6	9.4	31 17.0	31 29.2	42.6	45.4	48.9	52.3	31	45.74		
30	37.0	3.2	9.4	20.6							+ 2.84		
κ	57			24.5							− 60		
				20.7					+ 2.22		− 2		
((δ) − D) $\frac{\kappa'}{100}$										31	47.96		
a_1											− 2.68		
											45.28		
			9.1	31 19.7	31 28.4	42.3	45.3	48.8	51.8	31	45.36		
κ				22.8							+ 3.26		
				25.8							− 68		
				22.8					+ 2.56		− 2		
((δ) − D) $\frac{\kappa'}{100}$										31	47.92		
a_2											− 2.63		
											45.29		
32	39 51	3 5	9.0	32 22.6	32 41.7	45.3	48.7	51.8	55.1	32	48.56		
31	37.1	40.2	8.4	26.7							+ 2.84		
κ				29.5							− 62		
				26.3					+ 2.20		− 2		
((δ) − D) $\frac{\kappa'}{100}$										32	50.76		
a_1											− 2.72		
											48.04		
			8.8	32 22.7	32 41.4	44.8	48.2	51.4	54.8	32	48.16		
κ				25.0							+ 3.26		
				27.4							− 69		
				25.1					+ 2.55		− 2		
((δ) − D) $\frac{\kappa'}{100}$										32	50.71		
a_2											− 2.66		
											48.05		
33	53 52	2 6	7.5	33 37.2	33 53.7	58.2	1.6	4.9	8.3	34	1.60		
33	5.9	31.7	7.8	39.7							+2.84		
κ				42.9							− 64		
				39.9					+ 2.18		− 2		
((δ) − D) $\frac{\kappa'}{100}$										34	3.78		
a_1											− 2.77		
											1.01		
			7.0	33 29.0	33 54.4	58.8	1.2	4.6	8.0	34	1.20		
κ				32.6							+3.26		
				34.7							− 72		
				32.1					+ 2.52		− 2		
((δ) − D) $\frac{\kappa'}{100}$										34	3.72		
a_2											− 2.71		
											1.01		

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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	+23.8	0 326	564	890	0′ 44″50	17 3.85			5-	52 0 39.21	
	1.37658				5	52 0 58.77				− 15	+9.69
	9.78918					− 19.56				− 7	
((δ) − D) $\frac{d'}{100}$	1.29128m									+ 9.61	
										+ 30	
δ_1										− 4.85	
										0 44.25	
d	+11.6	0 42.5	89	111.4	0 55.70	16 52.65			5-	39.47	
	1.06446				5	52 0 49.00				− 4	+9.66
	9.78918					− 9.53				− 9	
((δ) − D) $\frac{d'}{100}$	0.97916m									+ 9.49	
										+ 30	
δ_2										− 5.30	
										0 43.83	
d	+30.6	0 8.2	34.0	42.2	0 21.10	7 27.25			15-	50 50 56.38	
	1.48572				15	50 51 22.17				− 25	+8.40
	9.80027					− 25.79				− 4	
((δ) − D) $\frac{d'}{100}$	1.41151m									+ 8.45	
										+ 24	
δ_1										− 5.45 3.80	
										51 0.98	
d	+15.7	0 21.4	48.9	70.3	0 35.15	7 13.20			15-	56.32	
	1.19590				15	50 51 9.55				− 7	+8.46
	9.80027					− 13.23				− 6	
((δ) − D) $\frac{d'}{100}$	1.12169m									+ 8.35	
										+ 24	
δ_2										− 4.30	
										51 0.48	
d	+25.0	3 8.3	26.9	30.2	3 15.10	14 33.25			5-	50 58 7.15	
	1.39794				8	50 58 28.17				− 17	+8.33
	9.79918					− 21.02				− 32	
((δ) − D) $\frac{d'}{100}$	1.32264m									+ 8.57	
										+ 25	
δ_1										− 5.20 3.80	
										58 11.68	
d	+22.6	3 6.4	33.0	39.4	3 17.70	14 28.65			5-	6.00	
	1.35411				8	50 58 25.00				− 14	+8.26
	9.79918					− 19.00				− 33	
((δ) − D) $\frac{d'}{100}$	1.27881m									+8.48	
										+ 25	
δ_2										− 4.30	
										58 9.96	
d	+22.3	2 41.0	4.8	105.8	2 52.90	49 55.45			80	51 33 31.86	
	1.34830				32	57 33 50.37				− 13	+9.03
	9.79367					− 18.51				− 29	
((δ) − D) $\frac{d'}{100}$	1.26749m									+9.17	
										+ 28	
δ_1										− 5.30 3.90	
										33 36.99	
d	+23.1	2 38.8	4.9	103.7	2 51.85	49 56.50			80	33.68	
	1.36361				32	57 33 52.85				− 14	+8.90
	9.79367					− 19.17				− 29	
((δ) − D) $\frac{d'}{100}$	1.28270m									+9.05	
										+ 28	
δ_2										− 4.30	
										33 38.28	
d	+21.7	1 36.9	5.9	96.8	1 48.40	40 59.95			40	52 24 37.20	
	1.33646				41	52 24 54.87				− 13	+10.03
	9.78527					− 17.67				− 18	
((δ) − D) $\frac{d'}{100}$	1.24725m									+10.04	
										+ 30	
δ_1										− 5.40 4.00	
										24 43.23	
d	+29.1	1 29.5	5.1	84.6	1 42.30	41 6.05			40	38.70	
	1.46389				41	52 25 2.40				− 22	+9.83
	9.78527					− 23.70				− 17	
((δ) − D) $\frac{d'}{100}$	1.37468m									+9.92	
										+ 30	
δ_2										− 4.40	
										24 44.13	

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Run

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
											m s		
1	34	36 52 11	8.6	12 34 23.5	34 37.0	40.2	43.7	47.2	50.5	34	43.72		
	33	48.1 16.5	8.3	26.4							+ 2.84		
	K			30.0							− 63		
				26.6					+ 2.19		− 2.		
	((δ) − D) $\frac{\kappa'}{100}$									34	45.91		
	a_1										− 2.76		
											43.15		
			8.7	34 25.4	34 36.7	40.0	43.3	46.7	50.1	34	43.36		
				28.4							+ 3.26		
	K			31.5							− 70		
				28.4					+ 2.54		− 2.		
	((δ) − D) $\frac{\kappa'}{100}$									34	45.90		
	a_2										− 2.70		
											43.20		
2	35	31 50 00	4.0	35 16.1	35 32.2	35.3	38.7	46.9	45.1	35	38.68		
	34	43.6 5.5	6.5	18.7							+ 2.84		
	K			22.1							− 58		
				19.0					+ 2.24		− 2		
	((δ) − D) $\frac{\kappa'}{100}$									35	40.92		
	a_1										− 2.65		
											38.27		
			7.0	35 40.0	35 31.9	35.0	38.3	41.7	44.8	35	38.34		
				42.9							+ 3.26		
	K			45.2							− 66		
				42.7					+ 2.58		− 2		
	((δ) − D) $\frac{\kappa'}{100}$									35	40.92		
	a_2										− 2.60		
											38.32		
3	36	58 53 56	9.6	36 42.0	36 5	8.4	6.9	10.3	13.9	37	6.96		
	36	10.5 5.4 1.6	9.3	44.6	37 0.3						+2.84		
	K			48.8							− 67		
				45.1					+ 2.14		− 3		
	((δ) − D) $\frac{\kappa'}{100}$									37	9.10		
	a_1										− 2.86		
											6.24		
			9.3	36 43.0	36 59.4	8.0	6.5	10.1	13.5	37	6.50		
				46.6							+3.26		
	K			50.1							− 76		
				46.6					+ 2.47		− 3		
	((δ) − D) $\frac{\kappa'}{100}$									37	8.97		
	a_2										− 2.80		
											6.17		
4	38	26 52 28	6.8	38 0.0	38 28.0	31.4	34.7	38.3	41.7	38	34.82		
	37	39.2 33.6	7.2	4.0							+ 2.84		
	K			6.1							− 64		
				3.4					+ 2.18		− 2		
	((δ) − D) $\frac{\kappa'}{100}$									38	37.00		
	a_1										− 2.79		
											34.21		
			6.7	38 3.1	38 27.7	31.0	34.3	37.7	41.1	38	34.36		
				3.7							+ 3.26		
	K			8.3							− 72		
				3.8					+ 2.52		− 2		
	((δ) − D) $\frac{\kappa'}{100}$									38	36.88		
	a_2										− 2.73		
											34.15		
5	39	17 52 27	8.4	39 4.7	39 17.4	20.5	23.9	27.2	30.7	39	23.94		
	38	30.1 32.2	9.0	8.1							+ 2.84		
	K			11.0							− 64		
				7.9					+ 2.18		− 2		
	((δ) − D) $\frac{\kappa'}{100}$									39	26.12		
	a_1										− 2.79		
											23.33		
			8.8	38 57.3	39 16.8	20.1	23.5	26.9	30.3	39	23.52		
				2.5							+ 3.26		
	K			6.1							− 72		
				6.4					+ 2.52		− 2		
	((δ) − D) $\frac{\kappa'}{100}$									39	26.04		
	a_2										− 2.74		
											23.30		

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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′
	+17.1	1	17.0	40.1	57.1	1′ 28.55	26 19.80			5-5-	52 10 0.72	
	1.23300				1 56		52 10 14.72				− 8	+9.86
d	9.78772						−14.00				− 15	
	1.14624n										+9.79	
$((\delta) - D)\frac{d'}{100}$											+ 30	
											−5.30	3.90
δ_1											10 6.68	
	+15.0	1	18.1	44.1	62.2	1′ 31.10	26 17.25			5-5-	1.32	
	1.17609				1 56		52 10 13.60				− 6	+9.77
d	9.78772						−12.28				− 15	
	1.08933n										+9.68	
$((\delta) - D)\frac{d'}{100}$											+ 30	
											−4.80	
δ_2											10 6.79	
	+19.7	2	46.1	10.9	117.0	2′ 58.50	14 49.85			5-	49 58 27.86	
	1.29447				2 7		49 58 44.77				− 11	+7.36
d	9.80822						−16.91				− 30	
	1.22821n										+7.57	
$((\delta) - D)\frac{d'}{100}$											+ 20	
											−4.70	3.30
δ_1											58 31.92	
	−4.4	3	7.5	33.4	40.9	3′ 20.45	14 27.90			5-	28.03	
	0.64345n				3 8		49 58 24.25				− 1	+7.34
d	9.80822						+ 3.78				− 33	
	0.57719										+7.48	
$((\delta) - D)\frac{d'}{100}$											+ 20	
											−3.75	
δ_2											58 31.62	
	+21.9	1	23.5	46.9	70.4	1′ 35.20	11 13.15			10	53 54 50.85	
	1.34044				1 11		53 55 8.07				− 13	+11.68
d	9.77009						−17.22				− 16	
	1.23605n										+11.58	
$((\delta) - D)\frac{d'}{100}$											+ 39	
											−5.50	4.10
δ_1											54 58.43	
	+19.9	1	24.9	50.4	75.3	1′ 37.65	11 10.70			10	51.40	
	1.29885				1 11		53 55 7.05				− 10	+11.61
d	9.77009						−15.65				− 16	
	1.19446n										+11.48	
$((\delta) - D)\frac{d'}{100}$											+ 39	
											−4.585	
δ_2											54 58.46	
	+31.4	4	12.2	34.6	46.8	2′ 23.40	43 24.95			35-	52 26 54.38	
	1.49693				4 39		52 27 19.87				− 26	+9.67
d	9.78494						−25.49				− 44	
	1.40639n										+10.07	
$((\delta) - D)\frac{d'}{100}$											+ 30	
											−5.10	3.70
δ_1											27 0.35	
	+28.6	4	14.7	40.2	54.9	2′ 27.45	43 20.90			35-	53.98	
	1.45637				4 39		52 27 17.25				− 22	+9.62
d	9.78494						−23.27				− 44	
	1.36683n										+9.98	
$((\delta) - D)\frac{d'}{100}$											+ 30	
											−4.10	
δ_2											26 59.50	
	+16.0	1	5.69	19.5	136.4	2′ 8.20	40 40.15			40	52 24 22.03	
	1.20412				2 42		52 24 35.07				− 7	+10.04
d	9.78543						−13.04				− 21	
	1.11507n										+10.02	
$((\delta) - D)\frac{d'}{100}$											+ 30	
											−3.60	
δ_1											24 28.47	
	+20.9	1	5.28	17.3	130.1	2′ 5.05	40 43.30			40	22.62	
	1.32015				2 42		52 24 39.65				− 12	+10.00
d	9.78543						−17.03				− 21	
	1.23110n										+10.03	
$((\delta) - D)\frac{d'}{100}$											+ 30	
											−4.10	
δ_2											24 28.52	

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Runs

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
1.2	40 41 34 30	7.9	12 41 7.0	40 42.5	44.0	47.6	47.3	54.7		40	m s 47.62		
	39 52.7	8.3	10.1								+ 2.84		
	κ		15.0								− 69		
			10.7						+ 2.12		− 3		
	((δ) − D) $\frac{\kappa'}{100}$									40	50.14		
											− 2.92		
	α_1										47.22 4682		
		8.5	40 11.0	40 40.1	43.7	47.3	50.9	54.4		40	47.28		
			14.2								+ 3.26		
	κ		16.6								− 77		
			13.9						+ 2.46		− 3		
	((δ) − D) $\frac{\kappa'}{100}$									40	49.74		
											− 2.85		
	α_2										46.89		
	41 34 53 34	8.0	41 28.6	41 33.0	36.6	40.0	43.5	47.0		41	40.02		
	40 47.2	7.3	31.0								+ 2.84		
	κ		33.5								− 66		
			31.0						+ 2.15		− 3		
	((δ) − D) $\frac{\kappa'}{100}$									41	42.17		
											− 2.86		
	α_1										39.31		
		7.0	41 21.4	41 32.7	36.3	39.7	43.1	46.8		41	39.72		
			24.5								+ 3.26		
	κ		27.0								− 74		
			24.3						+ 2.49		− 3		
	((δ) − D) $\frac{\kappa'}{100}$									41	42.21		
											− 2.80		
	α_2										39.41		
	42 26 53 09	6.7	42 16.6	42 26.5	30.0	33.6	37.0	40.3		42	33.48		
	41 39.1	6.5	18.7								+ 2.84		
	κ		22.4								− 65		
			19.2						+ 2.16		− 3		
	((δ) − D) $\frac{\kappa'}{100}$									42	35.64		
											− 2.85		
	α_1										32.79		
		6.5	42 15.8	42 26.3	29.7	33.0	36.4	39.8		42	33.04		
			18.9								+ 3.26		
	κ		21.7								− 73		
			18.8						+ 2.50		− 3		
	((δ) − D) $\frac{\kappa'}{100}$									42	35.54		
											− 2.79		
	α_2										32.75		
	43 49 54 41	9.0	43 23.8	43 47.0	50.6	54.0	57.6	1.3		43	54.10		
	43 1.2	9.0	27.2								+ 2.85		
	κ		30.3								− 69		
			27.1						+ 2.13		− 3		
	((δ) − D) $\frac{\kappa'}{100}$									43	56.23		
											− 2.94		
	α_1										53.29		
		8.7	43 23.2	43 46.5	50.0	53.5	57.1	0.7		43	53.58		
			27.1								+ 3.26		
	κ		30.0								− 77		
			26.8						+ 2.46		− 3		
	((δ) − D) $\frac{\kappa'}{100}$									43	56.02		
											− 2.88		
	α_2										53.14		
	44 56 51 04	9.4	44 39.3	44 49.4	2.6	5.9	9.3	12.6		45	5.98		
	44 9.8	9.2	43.2								+ 2.85		
	κ		45.9								− 61		
			42.8						+ 2.22		− 2		
	((δ) − D) $\frac{\kappa'}{100}$									45	8.18		
											− 2.75		
	α_1										5.43		
		9.2	44 41.4	44 58.7	2.3	5.5	8.8	12.0		45	5.46		
			44.4								+3.26		
	κ		47.8								− 68		
			44.5						+ 2.56		− 2		
	((δ) − D) $\frac{\kappa'}{100}$									45	8.02		
											− 2.70		
	α_2										5.32		

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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′
	~~+37.3~~	2	58.0	16.1	1291	3	4.55	44 43.80			35-	54 28 56.03	
	+37.3					38		54 28 38.72				− 14	+12.12
d	1.35603							+17.61				− 31	
	9.76413								31			+12.17	
	1.24568											+ 40	
((δ) − D) $\frac{d'}{100}$												−3.95	
δ_1												29 4.70	
	+33.4	2	8.3	34.6	42.9	2	21.45	45 26.90			35-	57.34	
						37		54 29 23.25				− 29	+1193
d	1.52375							−25.91				− 24	
	9.76413											+12.06	
	1.41340											+ 40	
((δ) − D) $\frac{d'}{100}$												−4.40	
δ_2												29 4.87	
	+9.0	3	52.7	13.7	126.4	4	3.20	48 45.15			30	53 32 32.93	
						34		53 32 40.07				− 2	+11.13
d	0.95424							− 7.14				− 41	
	9.77387											+11.21	
	0.85363											+ 35	
((δ) − D) $\frac{d'}{100}$												−3.70	
δ_1												32 40.36	
	+15.4	3	45.7	11.5	117.2	3	58.60	48 49.75			30	33.88	
						33		53 32 46.10				− 6	+11.00
d	1.18752							−12.22				− 39	
	9.77387											+11.10	
	1.08691											+ 35	
((δ) − D) $\frac{d'}{100}$												−4.15	
δ_2												32 40.73	
	+14.3	3	18.1	41.8	59.9	3	29.95	24 18.40			55-	53 8 1.86	
						38		53 8 10.32				− 5	+10.70
d	1.15534							−11.46				− 35	
	9.77812											+10.79	
	1.05908											+ 31	
((δ) − D) $\frac{d'}{100}$												−3.50	
δ_1												8 9.06	
	+14.2	3	18.0	43.4	61.4	3	30.70	24 17.65			55-	2.63	
						38		53 8 14.00				− 5	+10.58
d	1.15229							−11.37				− 35	
	9.77812											+10.67	
	1.05593											+ 31	
((δ) − D) $\frac{d'}{100}$												−4.00	
δ_2												8 9.21	
	+27.0	2	21.0	43.9	63.9	2	31.95	55 16.40			25-	54 38 50.46	
						27		54 39 11.32				− 19	+12.30
d	1.43136							−20.86				− 25	
	9.76236											+12.34	
	1.31924											+ 40	
((δ) − D) $\frac{d'}{100}$												−3.70	
δ_1												38 59.06	
	+26.8	2	20.2	46.0	66.2	2	33.10	55 15.25			25-	50.89	
						27		54 39 11.60				− 19	+12.18
d	1.42813							−20.71				− 26	
	9.76236											+12.23	
	1.31601											+ 40	
((δ) − D) $\frac{d'}{100}$												−4.25	
δ_2												38 58.82	
	+23.2	3	28.0	57.0	79.0	3	39.50	19 8.85			0	57 2 44.30	
								51 3 3.77				− 14	+8.41
d	1.36549							−19.47				− 36	
	9.79840											+ 8.66	
	1.28941											+ 25	
((δ) − D) $\frac{d'}{100}$												−2.85	
δ_1												2 49.86	
	+21.0	3	28.5	58.0	83.5	3	41.75	19 6.60			0	45.33	
								51 3 2.95				− 12	+8.33
d	1.32222							−17.62				− 37	
	9.79840											+ 8.57	
	1.24614											+ 25	
((δ) − D) $\frac{d'}{100}$												−3.35	
δ_2												2 50.21	

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Date$_1$ = May 23 Observer Recorder

409

Date$_2$ = May 26 Observer Recorder

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Run

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
1	47	1 51 54	9.0	12 46 38.1	47 2.9	6.3	9.6	13.0	16.2	47	9.60		
	4.6	14.4 59.5	8.8	41.2							+ 2.85		
				44.2							− 63		
				41.2					+ 2.20		− 2		
										47	11.80		
											− 2.81		
											8.99		
			9.0	46 40.6	47 2.5	5.9	9.1	12.5	16.1	47	9.22		
				44.3							+ 3.26		
				47.0							− 70		
				44.0					+ 2.54		− 2		
										47	11.76		
											− 2.75		
											9.01		
	47	45 54 18	8.2	47 41.2	47 46.5	50.0	53.4	57.0	0.6	47	53.50		
	4.6	59.1 23.8	8.4								+ 2.85		
											− 68		
									+ 2.14		− 3		
										47	55.64		
											− 2.94		
											52.70		
			8.3	47 33.4	47 46.9	49.7	53.3	56.8	0.4	47	53.24		
				26.3							+ 3.26		
				39.2							− 76		
				36.3					+ 2.47		− 3		
										47	55.71		
											− 2.88		
											52.83		
	48	53 58 11	9.6	48 42.3	48 54.9	58.2	1.6	5.3	8.6	49	1.72		
	4.8	6.7 16.7	9.5								+ 2.85		
											− 65		
									+ 2.17		− 3		
										49	3.89		
											− 2.88		
											1.01		
			9.6	48 43.0	48 57.2	57.8	1.4	4.6	8.2	49	1.24		
				46.1							+ 3.26		
				49.1							− 73		
				46.1					+ 2.50		− 3		
										49	3.74		
											− 2.83		
											0.91		
	50	2 53 26	8.5	49 36.0	50 3.6	7.0	10.5	14.0	17.5	50	10.52		
	4.9	16.3 31.8	7.5	39.5							+ 2.85		
				42.5							− 66		
				39.3					+ 2.16		− 3		
										50	12.68		
											− 2.90		
											9.78		
			8.3	49 36.6	50 3.1	6.6	10.3	13.8	17.2	50	10.20		
				39.6							+ 3.26		
				42.1							− 74		
				39.4					+ 2.49		− 3		
										50	12.69		
											− 2.84		
											9.85		
	50	48 51 46	9.0	50 38.4	50 53.4	56.6	59.9	3.4		50	56.66		
	5.0	1.6 52.0	8.9	41.2							+ 2.85		
				44.6							− 62		
				41.4					+ 2.21		− 2		
										50	58.87		
											− 2.82		
											56.05		
			9.3	50 48.3	50 49.7	53.0	56.3	59.6	3.0	50	56.32		
				37.0							+ 3.26		
				37.0							− 69		
				51.1					+ 2.55		− 2		
										50	58.87		
											− 2.76		
											56.11		

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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′
	+28.4	3 19.7	43.4	63.1	3′ 31.55	9 16.80			10	51 52 48.31	
d	1.45532				3	57 53 11.72				− 21	+924
	9.79047					−23.41				− 35	
((δ) − D) $\frac{d'}{100}$	1.36931n									+9.57	
										+ 29	
δ_1										−2.90	
										52 54.65	
	+25.2	3 20.9	47.0	67.9	3 33.95	9 14.40			10	49.98	
d	1.40140				13	57 53 10.75				− 17	+918
	9.79047					−20.77				− 36	
((δ) − D) $\frac{d'}{100}$	1.31739n									+9.42	
										+ 29	
δ_2										−3.40	
							1805			52 55.76	
	+12.3	4 18.4	~~23.1~~	40.5	4 ~~2025~~	33 ~~18.10~~			45−	54 17 ~~10.43~~	3.38
d	1.08991		42.2		49 3030	54 17 ~~23.07~~	12.97			− 4	+1190
	9.76625					− 9.59				− 43	
((δ) − D) $\frac{d'}{100}$	0.98168n									+11.97	
										+ 40	
δ_1										−3.40	
							22			17 ~~2493~~ 2	
										11. 17 11.88	
	+16.9	4 13.0	~~28.8~~	41.8	4 ~~2090~~	33 ~~27~~ 45			45.	~~10.03~~ 5.63	
d	1.22789		3		49 2590	54 17 ~~28.80~~	1880			− 7	+1176
	9.76625					− 13.17				− 43	
((δ) − D) $\frac{d'}{100}$	1.11966n									+11.86	
										+ 40	
δ_2										−3.90	
										17 ~~1849~~	
										1349	
	+19.4	1 8.6	30.7	39.3	1 1965	26 28.70			50	63 10 8.09	
d	1.28780				[56]	53 10 23.62				− 9	+1092
	9.77778					−15.53				− 13	
((δ) − D) $\frac{d'}{100}$	1.19110n									+10.82	
										+ 32	
δ_1										−3.05	
										10 15.96	
	+15.1	1 12.0	38.7	50.7	1 2535	26 23.00			55−	7.26	
d	1.17898				56	53 10 19.35				− 6	+1084
	9.77778					−12.09				− 14	
((δ) − D) $\frac{d'}{100}$	1.08228n									+10.72	
										+ 32	
δ_2										−3.53	
										10 14.55	
	+31.2	1 0.5	28.8	24.3	1 1215	41 36.20			40	53 25 6.29	
d	1.49415				41	53 25 31.12				− 25	+1105
	9.77524					−24.83				− 12	
((δ) − D) $\frac{d'}{100}$	1.39491n									+11.08	
										+ 34	
δ_1										−3.00	
										25 14.34	
	+30.8	1 0.6	28.8	26.4	1 1320	41 35.15			40	6.99	
d	1.48855				41	53 25 31.50				− 25	+1094
	9.77524					−24.57				− 12	
((δ) − D) $\frac{d'}{100}$	1.38931n									+10.97	
										+ 34	
δ_2										−3.50	
										25 14.43	
	+15.3	1 0.8	24.9	25.7	1 1285	1 35.50			20	51 45 17.77	
d	1.18469				21	51 45 30.42				− 6	+948
	9.79176					−12.65				− 12	
((δ) − D) $\frac{d'}{100}$	1.10197n									+ 9.37	
										+ 29	
δ_1										−2.60	
										45 24.65	
	+ 5.2	1 9.1	25.3	44.4	1 2220	1 26.15			20	18.20	
d	0.71600				21	51 45 22.50				− 1	+943
	9.79176					− 4.30				− 14	
((δ) − D) $\frac{d'}{100}$	0.63328n									+ 9.29	
										+ 29	
δ_2										−3.20	
										45 24.43	

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Date$_1$ = May 23 Observer / Recorder Date$_2$ = May 26 Observer / Recorder

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
1	52 8	80 30	9.1	12 51 52.7	52 11.4	14.8	18.0	21.2	24.6	52	18.04		
	51 22.0	35.0	9.0	53.3							+ 2.85		
	κ			58.4							− .59		
	((δ) − D) $\frac{\kappa'}{100}$			55.5					+ 2.24		− 2		
	α_1									52	20.28		
											− 2.76		
											17.52		
			9.2	51 48.6	52 11.0	14.4	17.6	20.9	24.1	52	17.60		
	κ			51.4							+ 3.26		
	((δ) − D) $\frac{\kappa'}{100}$			54.5					+ 2.57		− 1.67		
	α_2			51.5							− 2.		
										52	20.17		
											− 2.71		
											17.46		
	52 52	52 49 58	9.4	52 48.6	52 54.8	58.0	1.3	4.4	7.8	53	1.28		
	52 6.3	50 3.2	9.3	47.0							+ 2.85		
	κ			49.3							− .58		
	((δ) − D) $\frac{\kappa'}{100}$			46.4					+ 2.25		− 2		
	α_1									53	3.53		
											− 2.73		
											0.80		
			9.3	52 49.3	52 54.6	57.7	0.9	3.6	7.4	53	0.84		
	κ			32.4							+3.26		
	((δ) − D) $\frac{\kappa'}{100}$			33.0					+ 2.58		− .66		
	α_2			52.2							− 2		
										53	3.42		
											− 2.68		
											0.74		
	κ												
	((δ) − D) $\frac{\kappa'}{100}$												
	α_1												

Single Observations

May 23

12	13	89 50 03	9.4	12 12 38.9	12 58.0	1.4	4.9	8.4	11.8	13	4.80		
	13 16.7		9.5	42.0							+ 2.84		
	κ			45.0							− .58		
	((δ) − D) $\frac{\kappa'}{100}$			42.0					+ 2.24		− 2		
	α_2									13	7.44		
											− 2.53		
											4.61		
	κ												
	((δ) − D) $\frac{\kappa'}{100}$												
	α_1												
	κ												
	((δ) − D) $\frac{\kappa'}{100}$												
	α_2												
	κ												
	((δ) − D) $\frac{\kappa'}{100}$												
	α_1												
	κ												
	((δ) − D) $\frac{\kappa'}{100}$												
	α_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′
	+22.5	2 28.0	52.8	80.8	2′ 40″.40	45 7.95			35	50 28 43.76	
	1.35218			37		50 29 2.87				− 13	+7.92
d	9.80366					−19.11				− 27	
	1.28136m									+ 8.10	
$((\delta) - D)\frac{d'}{100}$										+ 22	
										− 2.20	
δ_1										28 49.48	
	+26.1	2 24.1	50.8	74.9	2 37.45	45 10.90			35	45.08	
	1.41664			37		50 29 7.25				− 18	+7.79
d	9.80366					−22.17				− 26	
	1.34582m									+ 8.01	
$((\delta) - D)\frac{d'}{100}$										+ 22	
										− 2.75	
δ_2										28 50.12	
	+14.7	4 42.9	6.8	109.7	4 54.85	12 53.50			35	49 56 35.79	
	1.16732			9		49 56 48.42				− 6	+7.21
d	9.80852					−12.63				− 49	
	1.10136m									+ 7.56	
$((\delta) - D)\frac{d'}{100}$										+ 20	
										− 2.20	
δ_1										56 40.80	
	+ 8.6	4 47.8	15.3	123.1	5 1.55	12 46.80			35	35.76	
	0.93450			10		49 56 43.15				− 2	+7.16
d	9.80845					− 7.39				− 50	
	0.86847m									+ 7.48	
$((\delta) - D)\frac{d'}{100}$										+ 20	
										− 2.55	
δ_2										56 40.37	
d											
$((\delta) - D)\frac{d'}{100}$											
δ_1											
	+22.9	4 9.7	33.9	43.6	4 21.80	18 26.55			0	50 2 1.83	
	1.35984					50 2 21.47				− 14	+7.23
d	9.80777					−19.64				− 44	
	1.29313m									+ 7.61	
$((\delta) - D)\frac{d'}{100}$										+ 20	
										− 4.85	
δ_2										2 4.21	
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											

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Date$_1$ = 1875, May 27 — Observer W. A. R. — Recorder J. F. M. — Date$_2$ = — Observer — Recorder — 90

n = 6.52

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
31	59 49	56	9.2	12 32 0.6	32 2.3	5.6	8.7	11.8	15.2	32	8.72		
31	10.8	1.2	9.0	3.8							+3.31		
κ				7.6					+2.67		− 62		
((δ) − D) $\frac{\kappa'}{100}$				4.0							− 2		
										32	11.39		
α_1											− 2.56		
											8.83		
32	32 51	83	9.0	32 39.2	32 41.6	44.7	48.1	51.3	54.8	32	48.10		
31	~~13.7~~	~~28.4~~	9.2	42.4							+3.31		
κ	51.1	40.2		46.0					+2.64		− 65		
((δ) − D) $\frac{\kappa'}{100}$	51			42.5							− 2		
										32	50.74		
α_2											− 2.684		
											48.10		
33	46 54	42	9.2	33 36.0	33 49.0	52.5	53.8	57.2	2.4	33	58.78		
32	58.5	47.3	9.2	38.6							+3.31		
κ				41.2					+2.63		− ~~73~~ 66		
((δ) − D) $\frac{\kappa'}{100}$				38.4							− 32		
										33	58.33		
α_1											− 2.~~85~~ 65		
											55.76		
35	41 50	23	9.3	35 [illegible]	35 45.0	48.1	51.3	54.6	57.8	35	51.86		
34	54.0	28.6	9.4	[illegible]							+3.31		
κ				29.5					+2.64		− 63		
((δ) − D) $\frac{\kappa'}{100}$				94.5							− 2		
										35	54.02		
α_2											− 2.~~85~~ 60		
											51.42		
36	58 53	86	9.3	36 35.2	36 54.4	3.0	6.4	9.9	13.4	37	6.42		
36	10.5	1.6	9.3	38.2							+3.31		
κ	54			40.9					+2.56		− 72		
((δ) − D) $\frac{\kappa'}{100}$				38.1							− 3		
										37	8.98		
α_1											− 2.~~57~~ 78		
											6.20		
38	5 54	30	9.0	37 37.0	38 3.2	6.7	10.3	13.6	17.1	38	10.18		
37	17.3	36.7	8.8	39.6							+ 3.31		
κ				42.1					+2.58		− 73		
((δ) − D) $\frac{\kappa'}{100}$				39.6							− 3		
										38	12.73		
α_2											− 2.~~84~~ 82		
											9.91		
50	2 53	26	8.8	49 36.2	50 8.3	6.7	9.8	13.7	17.2	50	10.14		
49	16.3	31.8	7.5	39.2							+ 3.31		
κ				41.4					+2.58		− 70		
((δ) − D) $\frac{\kappa'}{100}$				38.9							− 3		
										50	12.72		
α_1											− 2.82		
											9.90		
52	3 53	05	9.0	51 42.0	52 3.0	8.6	12.0	15.4	19.1	52	12.02		
51	18.2	13.4	8.8	45.0							+ 3.31		
κ				48.9					+2.59		− 69		
((δ) − D) $\frac{\kappa'}{100}$				45.3							− 3		
										52	14.61		
α_2											− 2.82		
											11.79		
52	50 50	32	9.4	52 40.7	52 54.8	57.8	1.2	4.5	7.9	53	1.24		
52	4.6	37.3	9.4								+3.31		
κ									+2.66		− 63		
((δ) − D) $\frac{\kappa'}{100}$											− 2		
										53	3.90		
α_1											− 2.69		
											1.21		
53	56 53	35	8.8	53 22.0	53 53.5	58.9	2.4	5.8	9.2	54	2.36		
53	10.8	40.4	8.8	36.0							+3.31		
κ				39.6					+2.58		− 70		
((δ) − D) $\frac{\kappa'}{100}$				36.0							− 3		
										54	4.94		
α_2											− 2.85		
											2.09		

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May 27 −16′ 3.65 −.11

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
d	+4.7	2 16.1	43.2	59.3	2′ 29.65	10 18.70			10	49 54 10.81	
	0.67210				12	49 54 14.85				− 1	+7.37
	9.80897					− 4.04				− 28	
	0.60659m									+ 7.46	
((δ) − D) $\frac{d'}{100}$										+ 2.80	
										− 4.15	
δ_1										54 14.03	
d	+5.6	2 54.0	19.9	133.9	3 6.95	49 41.40			30	51 33 32.90	
	0.74819				33	49 33 37.55				− 1	+9.07
	9.79351					− 4.65				− 34	
	0.66722m									+ 9.14	
((δ) − D) $\frac{d'}{100}$										+ 28	
										− 4.45	
δ_2										33 37.52	
d	+17.2	0 10.5	38.9	49.4	0 24.70	57 23.65			28	51 41 10.60	
	1.23553	1.23553			25	51 41 19.80				− 7	+1262
	9.76200	9.79240				− 13.28				− 5	9.44
	1.12305m	1.15345m				14.24				+ 12.34	
((δ) − D) $\frac{d'}{100}$										+ 4.40	
										− 4.45	
δ_1										41 10.60	
	+21.9	+25.4 4	40.0	7.2	107.2 4	53.60	37 54.75			40	50 21 29.27	32.25
	1.34044	1.40483			44.		50 21 50.90				− 17	+7.43
	9.80473	9.80473					− 21.63				− 54	
	1.27069	1.33508m					− 18.65				+ 7.92	
((δ) − D) $\frac{d'}{100}$											+ 22	
											− 3.45	
δ_2										21 32.70	35.68
d	+28.3	1 16.7	43.1	59.8	1 29.90	11 18.45			10	53 54 52.35	
	1.45179				11	53 55 14.60				− 21	+11.56
	9.77009					− 22.25				− 17	
	1.34740m									+ 11.55	
((δ) − D) $\frac{d'}{100}$										+ 39	
										− 5.10	
δ_1										54 54.21	
d	+30.6	1 41.3	2.2	108.2	1 54.10	45 54.25			35	54 29 26.67	
	1.48572		6.9		36	54 29 50.40				− 24	+12.09
	9.76413					− 23.73				− 21	
	1.37537m									+ 12.14	
((δ) − D) $\frac{d'}{100}$										+ 40	
										− 4.80	
δ_2										29 33.96	
d	+31.2	2 5.35	18.9	26.3	1 13.15	41 35.25			40	53 25 6.52	
	1.49415	1 1.1	25.2		41	53 25 31.35				− 26	+11.02
	9.77524					− 24.83				− 13	
	1.39491m									+ 11.07	
((δ) − D) $\frac{d'}{100}$										+ 34	
										− 3.70	
δ_1										25 13.84	
d	+26.7	4 5.89	25.1	132.4	3 6.20	19 42.15			0	53 3 16.87	
	1.42651	2 3.35	18.9			53 3 38.30				− 19	+10.46
	9.77876					− 21.43				− 34	
	1.20099m									+ 10.69	
((δ) − D) $\frac{d'}{100}$										+ 30	
										− 3.50	
δ_2										3 23.83	
d	+20.5	4 58.9	25.1	144.0	5 12.00	47 36.35			80	50 31 15.10	
	1.31175				35	50 31 32.50				− 12	+7.66
	9.80336					− 17.40				− 57	
	1.24063m									+ 8.12	
((δ) − D) $\frac{d'}{100}$										+ 23	
										− 2.85	
δ_1										31 19.91	
d	+26.4	3 13.5	38.0	51.5	3 25.75	49 22.60			80	53 32 57.81	
	1.42160				33	53 33 18.75				− 18	+11.00
	9.77387					− 20.94				− 38	
	1.32099m									+ 11.20	
((δ) − D) $\frac{d'}{100}$										+ 36	
										− 3.45	
δ_2										33 5.36	

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Date$_1$ = 1875, May 27 Observer W.A.R. Recorder J.T.M. Date$_2$ = Observer Recorder

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Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
12	55	26 53 14	7.8	12 54 56.0	55 25.2	28.7	31.9	35.4	39.0	55	32.04		
	54	40.6 19.3	7.0	59.3							+ 3.31		
	κ			1.9							− 70		
	((δ) − D) $\frac{\kappa'}{100}$			59.1					+ 2.58		− 3		
	a_1									55	34.62		
											− 2.84		
											31.78		
	57	33 52 24	8.7	57 19.2	57 34.5	38.0	41.4	44.7	48.3	57	41.38		
	56	47.7 29.3	8.3	23.0							+ 3.31		
	κ			25.3							− 68		
	((δ) − D) $\frac{\kappa'}{100}$			22.5					+ 2.61		− 2		
	a_2									57	43.99		
											− 2.81		
											41.18		
	58	39 58 46	8.0	58 14.7	58 41.2	44.4	47.6	50.9	54.2	58	47.66		
	57	34.2 51.0	7.8	17.4							+ 3.31		
	κ			20.0							− 63		
	((δ) − D) $\frac{\kappa'}{100}$			17.4					+ 2.64		− 2		
	a_1									58	50.32		
											− 2.73		
											47.59		
13	0	15 53 10	8.8	59 57.5	0 15.8	19.2	22.6	26.0	29.6	0	22.64		
	59	30.3 15.3	8.5	59.8							+ 3.31		
	κ			4.1							− 69		
	((δ) − D) $\frac{\kappa'}{100}$			60.5					+ 2.59		− 3		
	a_2									0	25.23		
											− 2.86		
											22.37		
	1	19 52 42	9.2	13 1 8.3	1 23.8	27.4	30.7	34.0	37.6	1	30.70		
	0	38.7 47.5	9.0	6.4							+ 3.31		
	κ			9.2							− 68		
	((δ) − D) $\frac{\kappa'}{100}$			6.3					+ 2.61		− 2		
	a_1									1	33.31		
											− 2.84		
											30.47		
	2	14 52 29	7.8	2 8.6	2 27.1	20.4	23.9	27.2	30.6	2	23.84		
	1	29.2 34.1	7.5	6.5							+ 3.31		
	κ			10.0							− 68		
	((δ) − D) $\frac{\kappa'}{100}$			6.7					+ 2.61		− 2		
	a_2									2	26.45		
											− 2.83		
											23.62		
	4	4 52 ~~05~~ 50	9.2	4 8.6	3 57.2	0.9	4.1	7.6		4	0.80		
	3	18.8 56.0	8.1								+ 3.31		
	κ										− 69		
	((δ) − D) $\frac{\kappa'}{100}$								+ 2.60		− 2		
	a_1									4	3.42		
											− 2.81		
											0.59		
	4	55 52 19	9.4	4 48.7	4 56.9	0.3	3.4	7.0	10.4	5	2.60		
	4	10.1 24.3	9.1	51.3							+ 3.31		
	κ			53.8							− 67		
	((δ) − D) $\frac{\kappa'}{100}$			51.3					+ 2.62		− 2		
	a_2									5	6.22		
											− 2.83		
											3.39		
	7	23 52 35	6.9	7 8.3	7 23.6	26.8	30.3	33.6	37.0	7	30.26		
	6	38.9 40.2	7.1	11.8							+ 3.31		
	κ			14.7							− 68		
	((δ) − D) $\frac{\kappa'}{100}$			11.6					+ 2.61		− 2		
	a_1									7	32.87		
											− 2.86		
											30.01		
	8	0 53 33	9.2	7 56.3	8 1.0	4.6	7.8	11.4	14.9	8	7.94		
	7	16.1 38.3	8.9								+ 3.31		
	κ										− 70		
	((δ) − D) $\frac{\kappa'}{100}$								+ 2.58		− 3		
	a_2									8	10.52		
											− 2.71		
											7.61		

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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	+32.9	3	35.1	59.9	95.0	3′ 47.50	29 0.85			50	12 30.69	
	1.51720					53	52 12 57.00				− 28	+10.51
	9.77744						−26.31				− 41	
((δ) − D) $\frac{d'}{100}$	1.42016n										+10.88	
											+ 32	
											− 3.30	
δ_1											12 37.90	
d	+18.9	3	34.7	59.5	94.2	3 47.10	39 1.25			40	52 22 42.00	
	1.27646					43	52 22 57.40				− 10	+9.81
	9.78560						−15.40				− 41	
((δ) − D) $\frac{d'}{100}$	1.18758n										+10.02	
											+ 30	
											− 2.90	
δ_2											22 48.91	
d	+30.3	1	41.6	7.8	109.1	1 54.55	0 53.80			20	50 44 24.35	
	1.48144					21	50 44 49.95				− 25	+8.11
	9.80136						−25.60				− 21	
((δ) − D) $\frac{d'}{100}$	1.40832n										+8.33	
											+ 24	
											− 2.50	
δ_1											44 29.96	
d	+22.1	2	32.9	57.4	90.3	2 45.15	25 3.20			55	53 8 42.65	
	1.34439					57.	53 8 ~~38.35~~ 39.35				− 13	+10.68
	9.77795						−17.70				− 30	
((δ) − D) $\frac{d'}{100}$	1.24786n										+10.81	
											+ 30	
											− 2.90	
δ_2											8 48.43	
d	+24.4	X 0	8.8	23.5	14.23	31 11.15	~~56~~ ~~55~~ 37.20			25	52 ~~39~~ 40 13.59	
	1.38739					27	52 ~~39~~ 40 33.35				− 16	+10.20
	9.78296					26	−19.76				− 24	
((δ) − D) $\frac{d'}{100}$	1.29587n										+10.30	
											+ 30	
											− 2.70	
δ_1											~~39~~ 40 21.09	
d	+17.1	3	34.8	18.7	133.5	4 6.75	43 41.60			35	52 27 23.84	
	1.23300					39	52 27 37.75				− 8	+9.85
	9.78494						−13.91				− 45	
((δ) − D) $\frac{d'}{100}$	1.14346n										+10.08	
											+ 30	
											− 2.60	
δ_2											27 31.09	
d	−2.8	D	8.7	30.5	36.2	0 18.10	17 30.25			5	52 1 49.41	
	0.44716n					5	52 1 26.40				− 0	+9.92
	9.78918						+23.01				− 3	
((δ) − D) $\frac{d'}{100}$	0.36186										+ 9.65	
											+ 30	
											− 2.40	
δ_1											1 56.93	
d	+12.3	3	50.9	16.1	126.0	4 8.00	33 45.35			45	52 17 31.45	
	1.08991					49	52 17 41.50				− 4	+9.76
	9.78658						−10.05				− 44	
((δ) − D) $\frac{d'}{100}$	1.00201n										+ 9.94	
											+ 30	
											− 2.60	
δ_2											17 38.61	
d	+18.7	2	37.9	2.8	100.7	2 50.35	49 58.00			30	52 33 38.63	
	1.27184					32	52 33 54.15				− 10	+10.14
	9.78079						−15.52				− 31	
((δ) − D) $\frac{d'}{100}$	1.19115n										+10.25	
											+ 30	
											− 2.30	
δ_1											33 46.47	
d	+11.6	0	4.6	29.2	33.8	0 16.90	47 31.45			35	53 31 18.39	
	1.06446					55	53 31 27.60				− 4	+11.49
	9.77422						− 9.21				− 3	
((δ) − D) $\frac{d'}{100}$	0.96420n										+11.21	
											+ 35	
											− 2.45	
δ_2											31 27.43	

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Date$_1$ = 1875 May 27 Observer W.A.R. Recorder J.T.M. Date$_2$ = Observer Recorder

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Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
1	9 1	52 17	9.1	13 8 57.4	9 5.0	8.3	11.7	15.0	18.4	9	11.68		
	8 16.9	22.7	8.8	57.4					+2.62		+3.31		
	κ			58.0							− 67		
	((δ) − D) $\frac{\kappa'}{100}$			54.6							− 2		
										9	14.30		
	α_1										− 2.85		
											11.45		
9	53	52 57	8.6	9 39.1	9 55.5	58.9	2.3	5.7	9.3	10	2.34		
9.	8.6	53 2.9	8.3	41.7					+2.59		+3.31		
	κ			44.5							− 72	689	
	((δ) − D) $\frac{\kappa'}{100}$			41.8							− 3		
										10	4.9 23		
	α_2										− 2.9 40	3.4	
										10	2.03		
16	5 54	02	9.2	15 38.6	16 4.2	7.8	11.1	14.7	18.3	16	11.22		
15	21.0	7.7	9.1	37.0					+2.56		+3.31		
	κ			40.2							− 72		
	((δ) − D) $\frac{\kappa'}{100}$			36.9							− 3		
										16	13.78		
	α_1										− 2.98		
											10.80		
17	32 49	56	9.2	17 17.2	17 36.9	39.1	42.1	45.4	48.7	17	42.26		
16	49.5	1.8	9.4	20.0					+2.67		+3.31		
	κ			23.7							− 62		
	((δ) − D) $\frac{\kappa'}{100}$			20.3							− 2		
										17	44.93		
	α_2										− 2.77		
											42.16		
19	15 50	40	9.0	18 56.2	19 13.8	19.0	22.1	25.7	29.0	19	22.32		
18	31.9	45.0	9.0	59.0					+2.65		+3.30		
	κ			1.7							− 63		
	((δ) − D) $\frac{\kappa'}{100}$			59.0							− 2		
										19	24.97		
	α_1										− 2.82		
											22.15		
19	50 54	00	8.4	19 44.0	19 57.4	59.7	3.6	2.0	5.5	19	58.52		
19	7.7	4.7	8.3						+2.58		+3.30		
	κ										− 72		
	((δ) − D) $\frac{\kappa'}{100}$										− 3		
										20	1.07		
	α_2										− 2.99		
										19	58.08		
23	16 49	59	8.5	23 2.0	22 57.2	0.4	—	6.4	10.0	23	3.50		
22	33.5	50	9.3						+2.66		+3.30		
	κ	14.4	7.2								− 62		
	((δ) − D) $\frac{\kappa'}{100}$										− 2	23	6.16
	22 33.2	50 4.8	9.2	23 32.9	23 16.1	19.1	22	25.3	29.0	23	22.37		− 2.80
	α_1			33.5					+2.66		+3.30		33.36
				39.7							− 62		
				36.0							− 2	23	25.03
24	22 50	51	8.4	24 9.1	24 22.8	25.8	29.1	32.3	35.6	24	29.12		− 2.80
23	39.9	56.4	8.5	11.6					+2.65		+3.30		22.23
	κ			14.3							− 63		
	((δ) − D) $\frac{\kappa'}{100}$			11.7							− 2		
										24	31.77		
	α_2										− 2.84		
											28.93		
26	21 53	36	9.4	25 52.0	26 20.3	23.6	27.0	30.4	34.0	26	27.06		
25	38.5	41.0	9.3	54.3					+2.57		+3.30		
	κ			58.0							− 70		
	((δ) − D) $\frac{\kappa'}{100}$			54.8							− 3		
										26	29.63		
	α_1										− 3.00		
											26.63		
	κ												
	((δ) − D) $\frac{\kappa'}{100}$												
	α_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	+17.1	0 222	49.2	71.4	0′ 35″70	352 12.65			50	52 135 54.94	Eudoxie
	1.23300	1.23300			50	52 136 8.80				− 8	+10.06
	9.78346	9.78674				−13.86				− 6	
	1.14198n	1.14626n					97			+ 9.96	
										+ 10.26	
((δ) − D) $\frac{d'}{100}$										+ 30	
										− 2.10	
δ_1										16 2.79	
d	+20.5	4 50.1	15.1	125.2	5′ 2.60	12 45.75			5−	52 56 25.77	
	1.31175	1.31175			10	52 56 41.90				− 10	+11.35
	9.76991	9.77997				−16.11				− 55	12.28
	1.20718n	1.21724n					49			+ 10.68	
((δ) − D) $\frac{d'}{100}$										+ 3.90	
										− 2.10	Eudoxie
δ_2										56 33.49	
d	+34.3	0 28.4	58.2	87.6	0 40.80	17 7.55			5−	54 0 36.79	
	1.53529				5	54 1 3.70				− 31	+11.73
	9.76904					−26.91				− 7	
	1.42985n									+ 11.71	
((δ) − D) $\frac{d'}{100}$										+ 40	
										− 2.00	
δ_1					1″					0 46.52	
d	+22.0	0 45.3	12.3	117.6	0 58.80	11 49.55			10	49 55 27.79	
	1.34242				10	49 55 46.70				− 13	+7.50
	9.80882					−18.91				− 10	
	1.27676n									+ 7.53	
((δ) − D) $\frac{d'}{100}$										+ 20	
										− 1.00	
δ_2										55 34.29	
d	+23.3	2 49.8	15.6	125.4	3 2.70	54 45.65			25−	50 38 22.07	
	1.36736				28	50 38 41.80				− 14	+8.02
	9.80228					−19.73				− 33	
	1.29516n									+ 8.26	
((δ) − D) $\frac{d'}{100}$										+ 23	
										− 1.00	
δ_1										38 29.09	
d	+14.5	4 22.7	47.2	69.9	4 34.95	13 13.40			5−	53 56 58.16	
	1.16137				9	53 57 9.55				− 5	+11.30
	9.76974					−11.39				− 50	
	1.05663n									+11.66	
((δ) − D) $\frac{d'}{100}$										+ 39	
										− 1.70	
δ_2										57 7.96	
d	+1.5	1 20.8	47.0	67.8	1 33.90	16 14.45			5−	50 0 9.31	59 49.67
	0.17609				6	50 0 10.60	0,931		49.67	− 0	− 5
	9.80807					− 1.29	+7.65		+7.54	− 17	− 23
	0.10968n									+7.62	+7.62
((δ) − D) $\frac{d'}{100}$	−13.6	1 54.0	19.0	133.0	2 6.50	15 41.85			5−	+ 20	+ 20
	1.13354n				7	50 59 38.00				− 0.60	− 0.60
δ_1	9.80807					+11.67				0 16.36	59 56.61
	1.06713										
d	+17.4	1 28.9	56.1	85.0	1 42.50	6 5.85			15−	50 49 47.33	3
	1.24055				16	50 50 2.00				− 8	+8.44
	9.80043					−14.67				− 18	
	1.16650n									+ 8.46	
((δ) − D) $\frac{d'}{100}$										+ 24	
										− 0.70	
δ_2										49 55.07	
d	+32.3	1 30.6	51.3	85.9	1 42.95	51 5.40			30	53 34 35.94	
	1.50920				31	53 55 1.55				− 27	+11.21
	9.77370					−25.61				− 18	
	1.40842n									+11.30	
((δ) − D) $\frac{d'}{100}$										+ 36	
										− 1.10	
δ_1										34 46.05	
d											
((δ) − D) $\frac{d'}{100}$											
δ_2											

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411

Date$_1$ = 1875, June 14 η = -.45 | Observer W.A.R. | Recorder J.F.M.

412

Date$_2$ = 1875, June 15 η = -.44 | Observer W.A.R. | Recorder J.F.M.

96

Ru

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
33	34 13 52	27	6.2	13 38 45.0	34 18.9	17.2	21.6	23.9	27.4	34	20.58 60		
	33 31.6	32.1	6.8	47.7							+ 1.70		
	κ			50.3							− 59		
	((δ) — D) $\frac{\kappa'}{100}$			47.7					+ 1.09		− 2		
	a_1									34	21.89		
											− 2.63		
											19.06		
			7.0	33 50.7	34 14.0	17.4	20.8	24.2	27.6	34	20.80		
				53.2							+ 1.45		
	κ			55.9							− 57		
	((δ) — D) $\frac{\kappa'}{100}$			53.3					+ 0.86		− 2		
	a_2									34	21.66		
											− 2.61		
											19.05		
34	35 26 58	5.2	6.8	35 [illegible] 29.1	32.6	36.1	39.7	43.3		35	36.16		
	34 47.2	57.1	9.1	6.3							+ 1.70		
	κ			9.6							− 62		
	((δ) — D) $\frac{\kappa'}{100}$			6.4					+ 1.05		− 3		
	a_1									35	37.21		
											− 2.69		
											34.52		
			7.2	34 [illegible] 33 29.3	33.0	36.3	39.8	43.4		35	36.36		
				2.3							+ 1.45		
	κ			8.3							− 60		
	((δ) — D) $\frac{\kappa'}{100}$			6.4					+ 0.82		− 3		
	a_2									35	37.18		
											− 2.67		
											34.51		
35	36 11 54	0.1	9.0	36 37.0	36 11.0	14.4	17.8	21.4	25.0	36	17.92		
	35 29.0	6.9	9.0	39.1							+ 1.70		
	κ			43.1							− 62		
	((δ) — D) $\frac{\kappa'}{100}$			40.0					+ 1.06		− 3		
	a_1									36	18.97		
											− 2.71		
											16.26		
			9.2	36 [illegible] 36 11.3	14.8	18.1	21.8	25.4		36	18.28		
				[illegible]							+ 1.45		
	κ			48.0							− 61		
	((δ) — D) $\frac{\kappa'}{100}$			57.0					+ 0.81		− 3		
	a_2			54.8						36	19.09		
				51.3							− 2.69		
											16.40		
36	38 30 54	23	8.8	38 6.4	38 29.4	33.0	36.6	40.0	43.5	38	36.50		
	37 49.0	28.4	8.6	9.3							+ 1.70		
	κ			12.3							− 63		
	((δ) — D) $\frac{\kappa'}{100}$			9.3					+ 1.04		− 3		
	a_1									38	37.54		
											− 2.74		
											34.80		
			8.8	38 9.4	38 29.7	33.3	36.8	40.2	43.8	38	36.76		
				12.7							+ 1.45		
	κ			15.4							− 62		
	((δ) — D) $\frac{\kappa'}{100}$			12.5					+ 0.80		− 3		
	a_2									38	37.56		
											− 2.71		
											34.85		
37	39 23 54	18	8.4	39 7.0	39 24.7	28.4	31.8	35.4	39.0	39	31.88		
	38 43.3	22.8	8.5	10.6							+ 1.70		
	κ			13.4							− 62		
	((δ) — D) $\frac{\kappa'}{100}$			10.3					+ 1.05		− 3		
	a_1									39	32.91		
											− 2.74		
											30.17		
			8.5	39 4.5	39 25.1	28.7	32.2	35.7	39.2	39	32.18		
				7.1							+ 1.45		
	κ			10.0							− 61		
	((δ) — D) $\frac{\kappa'}{100}$			7.2					+ 0.81		− 3		
	a_2									39	32.99	272	
											− [illegible]		
											30.27		

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June 14 −16′ 7.″23 −.14
" 15 −16 ~~6.68~~ 7.48 −.14

Runs

	$T_m - T$		A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+33 ~~29~~ 31	4	58.0	14.5	124.5	5′ 2.″25	42 46.10			35	52 26 ~~2.11~~ 1.93	
	1.51983					40	52 26 38.87				− 29	+945
d	9.78510						−26.97	76			− 70	
	1.43045n										+10.04	
((δ) − D) $\frac{d'}{100}$											+ 40	
											− 3.45	
δ_1											26 ~~17.93~~ 17.11	
											− 0.80	
	+27.5	4	53.0	16.9	129.9	5 4.95	42 43.40			35	14.33	
	1.43933					40	52 26 36.72				− 20	+943
d	9.78510						−22.39				− 71	
	1.34995n										+9.94	
((δ) − D) $\frac{d'}{100}$											+ 40	
											− 3.60	
δ_2											26 19.36	
	+29.8	1	43.0	6.0	109.0	1 54.50	5 53.85			~~10~~ 15	53 49 20.13	✓
	1.47422					16	53 ~~54~~ 49 46.62			15	− 23	+1146
d	9.77112						−23.49				− 27	
	1.37086n										+11.48	
((δ) − D) $\frac{d'}{100}$											+ 48	
											− 3.65	
δ_1											49 30.94	
	+34.0	1	38.7	2.9	101.6	1 50.80	5 57.55			15	24.07	
	1.53148					16	53 49 50.87				− 30	+1127
d	9.77112						− 26.80				− 27	
	1.42812n										+11.36	
((δ) − D) $\frac{d'}{100}$											+ 48	
											− 3.80	
δ_2											49 ~~39.74~~ 38.04	
	−22.1	1	8.4	27.1	30.5	1 15.25	16 33.10			5	54 0 43.21	
	1.34489n					6	54 0 25.87				− 13	+1186
d	9.76904						+17.34				− 18	
	1.23895										+11.67	
((δ) − D) $\frac{d'}{100}$											+ 50	
											− 3.65	
δ_1											0 51.42	
	−32.0	1	11.5	85.9	47.4	1 23.70	16 24.65			5	43.86	
	1.57851n					6	54 0 17.97				− 28	+1158
d	9.76904						+25.89				− 19	
	1.41307										+11.55	
((δ) − D) $\frac{d'}{100}$											+ 50	
											− 3.80	
δ_2											0 50.84	
	+27.2	3	6.8	28.7	35.5	3 17.75	39 30.60			40	54 23 2.22	
	1.43457					43	54 23 23.37				− 19	+1196
d	9.76519						− 21.15				− 46	
	1.32528n										+12.07	
((δ) − D) $\frac{d'}{100}$											+ 54	
											− 3.60	
δ_1											23 10.58	
	+24.3	3	8.2	30.9	39.1	3 19.55	39 28.80			40	3.23	
	1.38561					43	54 23 22.12				− 15	+1186
d	9.76519						− 18.89				− 46	
	1.27632n										+11.93	
((δ) − D) $\frac{d'}{100}$											+ 54	
											− 3.75	
δ_2											23 10.54	
	+21.6	4	22.7	45.9	68.6	4 34.30	33 14.05			48	54 16 49.98	
	1.33445					49	54 17 6.82				− 12	+1174
d	9.76625						−16.84				− 64	
	1.22622n										+11.97	
((δ) − D) $\frac{d'}{100}$											+ 53	
											− 3.50	
δ_1											16 58.22	
	+25.0	4	18.1	42.5	60.6	4 30.30	33 18.05			48	51.88	
	1.39794					49	54 17 11.37				− 16	+1137
d	9.76625						−19.49				− 63	
	1.28971n										+11.83	
((δ) − D) $\frac{d'}{100}$											+ 53	
											− 3.70	
δ_2											16 58.95	

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Date$_1$ = 1875, June 14 Observer W.A.R. Recorder J.F.M.

412

Date$_2$ = 1875, June 15 Observer W.A.R. Recorder J.F.M.

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
1	42 30	49 5-8	2.0	13 42 14	42 31.8	35.0	38.2	41.4	44.7	42	m s 38.22		
	41 498	5-0 3.1	2.0	4.3							+ 1.70		
	κ			7.2					+ 1.14		− 54		
	((δ) − D) $\frac{\kappa'}{100}$			4,3							− 2		
										42	39.36		
	a_1										− 2,58		
											36.78		
			2.0	42 3.8	42 32.1	35.3	38.4	41.7	45.0	42	38.50		
				6.7							+ 1.45		
	κ			8.9					+ 0.91		− 52		
	((δ) − D) $\frac{\kappa'}{100}$			6.5							− 2		
										42	39.41		
	a_2										− 2,56		
											36.85		
	42 54	50 5-2	8.0	43 8.0	42 56.7	0.0	3.1	6.6	9.8	43	3.24		
	42 15.9	5-2	7.5	9.8							+ 1.70		
	κ			13.3					+ 1.13		− 55		
	((δ) − D) $\frac{\kappa'}{100}$			11.0							− 2		
				12,1						43	4.37		
	a_1										− 2,61		
											1.76		
			7.8	43 8.3	42 57.1	0.3	3.6	6.9	10.2	43	3.62		
				11.5							+ 1.45		
	κ			14.0					+ 0.89		− 54		
	((δ) − D) $\frac{\kappa'}{100}$			11,3							− 2		
										43	4.51		
	a_2										− 2.59		
											1.92		
	43 47	53 5-3	8.4	43 47.8	43 50.7	54.1	57.7	1.1	4.7	43	57.66		
	43 8.6	5-3	8.5	50.7							+ 1.70		
	κ			54.0					+ 1,05		− 62		
	((δ) − D) $\frac{\kappa'}{100}$										− 3		
										43	58.71		
	a_1										− 2.74		
											55.97		
			8.4	43 41.0	43 37.1	54.5	58.0	1.6	5.0	43	58.04		
				44.3							+ 1.45		
	κ			46.9					+ 0.82		− 60		
	((δ) − D) $\frac{\kappa'}{100}$			44.1							− 3		
										43	58.86		
	a_2										− 2.72		
											56.14		
	46 59	52 14	8.9	46 38.6	47 5.1	8.5	12.0	15.3	18.6	47	11.90		
	46 21.5	19.4	8.8	41.9							+ 1.70		
	κ			44.1					+ 1.11		− 57		
	((δ) − D) $\frac{\kappa'}{100}$			41.5							− 2		
										47	13.01		
	a_1										− 2.68		
											10.33		
			9.0	46 40.8	47 3.6	8.0	12.2	15.6	19.0	47	12.28		
				43.7							+ 1.45		
	κ			46.2					+ 0.87		− 56		
	((δ) − D) $\frac{\kappa'}{100}$			43.6							− 2		
										47	13.15		
	a_2										− 2.66		
											10.49		
	48 10	54 22	8.3	47 37.2	48 10.8	14.3	17.7	21.3	24.9	48	17.80		
	47 31.5	27.3	8.3	38.8							+ 1.71		
	κ			56.6					+ 1.05		− 63		
	((δ) − D) $\frac{\kappa'}{100}$			38.9							− 3		
										48	18.85		
	a_1										− 2.78		
											16.07		
			7.9	47 48.3	48 11.1	14.6	18.1	21.7	25.1	48	18.12		
				32.0							+ 1.45		
	κ			54.3					+ 0.80		− 62		
	((δ) − D) $\frac{\kappa'}{100}$			51.5							− 3		
										48	18.92		
	a_2										− 2.76		
											16.16		

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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′
	+3.39	4 47.5	140	121.5	5 0.75	12 47.60			8−	49 56 11.24	
	1.53020			10	49 56 40.37					− 31	+6.82
d	9.80867					−29.13				− 70	
	1.46439 n									+ 7.53	
((δ) − D) $\frac{d'}{100}$										+ 30	
										− 2.50	
δ_1										56 15.56	
										− 0.80	
	+32.0	4 49.7	18.3	125.0	5 2.50	12 45.85			8−	11.67	
	1.50515			10	49 56 39.17					− 28	+6.76
d	9.80867					−27.50				− 70	
	1.43934 n									+ 7.44	
((δ) − D) $\frac{d'}{100}$										+ 30	
										− 2.60	
δ_2										56 15.03	
	−8.9	4 38.1	22.6	140.7	5 10.35	7 38.00			10	50 51 38.27	
	0.94939 n			15	50 51 30.77					− 2	+8.06
d	9.80012					+ 7.50				− 73	
	0.87503									+ 8.47	
((δ) − D) $\frac{d'}{100}$										+ 34	
										− 2.65	
δ_1										51 43.68	
	−7.7	4 56.9	21.9	138.8	5 9.40	7 38.95			10	40.44	37.96
	0.88649 n			15	50 51 32.27					− 2	+7.98
d	9.80012					+ 8.17				− 72	
	0.91213					6.49				+ 8.38	
((δ) − D) $\frac{d'}{100}$	8									+ 34	
										− 2.80	
δ_2										51 44.82	43.14
	+9.9	3 23.1	46.0	69.1	3 34.55	9 13.80			10	52 52 58.78	
	0.99564			13	53 53 6.57					− 3	+11.51
d	9.77043					− 7.79				− 50	
	0.89159 n									+11.55	
((δ) − D) $\frac{d'}{100}$										+ 49	
										− 3.20	
δ_1										53 7.09	
	+13.9	3 19.0	43.5	62.5	3 31.25	9 17.10		1.062	10	53 048 52 54.68	
	1.14301			13	53 53 11.42					− 5	+11.38
d	9.77043					−10.94				− 58	
	1.03896 n									49	
((δ) − D) $\frac{d'}{100}$										+11.43	
										+ 49	
δ_2										− 3.33	
										53 7.71	6.71
	+30.4	2 21.5	45.9	67.4	2 33.70	30 14.65			50	52 13 42.56	
	1.48287			52	52 14 7.42					− 24	+9.65
d	9.78707					−24.86				− 36	
	1.39546 n									+9.85	
((δ) − D) $\frac{d'}{100}$										+ 40	
										− 2.70	
δ_1										13 49.51	
	+28.7	2 23.2	48.1	71.3	2 35.65	30 12.70			50	42.55	
	1.45788			52	52 14 6.02					− 22	+9.57
d	9.78707					−23.47				− 36	
	1.37047 n									+9.75	
((δ) − D) $\frac{d'}{100}$										+ 40	
										− 2.80	
δ_2										13 48.42	
	+23.9	4 18.8	41.7	60.5	4 30.25	38 18.10			40	54 21 52.28	
	1.37840			44	54 22 10.87					− 15	+11.82
d	9.76537					−18.59				− 63	
	1.26929 n									+12.06	
((δ) − D) $\frac{d'}{100}$										+ 54	
										− 3.05	
δ_1										22 1.85 85	
	+26.6	4 16.6	40.2	56.8	4 28.40	38 19.95			40	52.58	
	1.42488			44	54 22 13.27					− 19	+11.64
d	9.76537					−20.69				− 63	
	1.31577 n									+11.92	
((δ) − D) $\frac{d'}{100}$										+ 54	
										− 3.20	
δ_2										22 0.22	

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411

Date$_1$ = 1875, June 14 Observer W.A.R. Recorder J.F.M.

412

Date$_2$ = 1875, June 15 Observer W.A.R. Recorder J.F.M.

100

Run

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
1	49 10	S4 2.1	6.0	13 48 41.8	49 8.7	13.1	16.7	20.1	23.6	49	16.64		
	48 31.5	26.3	6.0	44.9							+ 1.71		
κ				47.8					+ 1.06		− 62		
((δ) − D) $\frac{\kappa'}{100}$				44.8							− 3		
a_1										49	17.70		
											− 2.78		
											14.92		
			6.0	48 46.7	49 9.9	13.4	16.9	20.3	24.0	49	16.90		
κ				49.5							+ 1.45		
((δ) − D) $\frac{\kappa'}{100}$				32.2					+ 0.81		− 68		
a_2				49.5							− 3		
										49	17.74		
											− 2.76		
											14.98		
	50 14	S3 1.4	9.2	49 54.3	50 13.4	18.9	22.3	25.7	29.2	50	22.30		
κ	49 38.8	19.0	9.0	57.9							+ 1.71		
((δ) − D) $\frac{\kappa'}{100}$				0.7					+ 1.08		− 60		
a_1				57.6						50	23.38		
											− 2.74		
											20.64		
			9.0	50 8.0	50 13.9	18.3	22.7	26.2	29.6	50	22.74		
κ				10.2							+ 1.45		
((δ) − D) $\frac{\kappa'}{100}$				13.8					+ 0.83		− 59		
a_2				10.7							− 3		
										50	23.57		
											− 2.72		
											20.85		
	51 26	S3 0.3	9.0	51 9.2	51 24.6	30.2	33.5	37.0	40.5	51	33.56		
κ	50 48.0	8.3	9.2	12.5							+ 1.71		
((δ) − D) $\frac{\kappa'}{100}$				13.5					+ 1.08		− 60		
a_1				12.7							− 3		
										51	34.64		
											− ~~7.30~~ 2.73		
											31.91		
			8.9	51 5.7	51 27.0	30.4	33.7	37.3	40.7	51	33.82		
κ				9.5							+ 1.45		
((δ) − D) $\frac{\kappa'}{100}$				12.0					+ 0.84		− 58		
a_2				9.1							− 3		
										51	34.66		
											− 2.71		
											31.95		
	53 05	S4 3.3	8.0	52 2.2	52 14.3	17.7	21.3	24.9	28.4	52	21.32		
κ	52 26.3	37.6	6.8	4.8							+ 1.71		
((δ) − D) $\frac{\kappa'}{100}$			7.0	7.3	53 3.0	8.5	12.0	15.6	+ 1.05		− 63	52	22.37
one 10m lot 4				52 40.3					19.1	53	12.04		− 2.80
a_1				42.8							+ 1.71		19.57
				46.1					+ 1.05		− 63	53	13.09
one 10m lot 4			8.0	52 4.7	52 14.4	18.1	21.7	25.3	28.8	52	21.66		− 2.80
κ				8.2							+ 1.46		10.29
((δ) − D) $\frac{\kappa'}{100}$				10.9					+ 0.81		− 62	52	22.47
13 52 26.3			7.0	7.9	53 5.2	8.8	12.4	15.9	19.5	53	12.36		− 2.78
a_2				52 44.4							+ 1.46		19.69
				47.3					+ 0.81		− 62		
				47.4							− 3	53	13.17
	53 58	S4 1.2	7.7	53 47.5	53 58.3	1.7	5.6	8.7	12.4	54	5.34		− 2.78
κ	53 18.7	17.0	7.7	50.6							+1.71		10.39
((δ) − D) $\frac{\kappa'}{100}$				53.8					+ 1.06		− 62		
a_1				50.6							− 3		
										54	6.40		
											− 2.79		
											3.61		
			7.4	53 43.0	53 58.6	2.0	5.5	9.0	12.6	54	5.54		
κ				45.3							+ 1.46		
((δ) − D) $\frac{\kappa'}{100}$				48.5					+ 0.82		− 61		
a_2				45.6							− 3		
										54	6.36		
											− 2.78		
											3.58		

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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′	
	+31.8	~~4~~	~~+88~~	~~41.7~~					45-	54 20 29.76		
	1.50243	0	35.1	5-8.1	93.2 0′ 4660	37 1.75				− 26		+12.19
d	9.76572				45-	54 20 54.52				− 11		
	1.39367n					−24.76				+12.03		
((δ) − D) $\frac{d'}{100}$										+ 53		
										−3.00		
δ_1										20 38.95		
										− 0.80		
	+27.4	0	37.5	2.0	99.5 0 4975	36 58.60			45-	30.59		
	1.43775				45	54 20 51.92				− 19		+12.13
d	9.76572					−21.33				− 11		
	1.32899n									+11.90		
((δ) − D) $\frac{d'}{100}$										+ 53		
										−3.10		
δ_2										20 38.82		
	+24.7	8	19.0	42.1	61.1 3 3055	29 17.80			50	53 12 50.82		
	1.39270				53	53 13 10.57				− 16		+10.66
d	9.77728					−19.75				− 49		
	1.29550n									+10.89		
((δ) − D) $\frac{d'}{100}$										+ 42		
										−2.70		
δ_1										12 58.78		
	+12.0	3	29.0	51.9	80.9 3 4045	29 7.90			50	52.63		
	1.07918				53	53 13 1.22				− 4		+10.62
d	9.77728					−8.59				− 52		
	0.98198n									+10.76		
((δ) − D) $\frac{d'}{100}$										+ 42		
										−2.85		
δ_2										12 59.60		
	+21.2	3	35.0	58.0	93.0 3 4650	19 1.85			0	53 2 37.61		
	1.32634					53 2 54.62				− 12		+10.46
d	9.77896					−17.01				− 53		
	1.23082n									+10.71		
((δ) − D) $\frac{d'}{100}$										+ 40		
										−2.60		
δ_1										2 45.47		
	+24.7	3	31.0	54.9	85.9 3 4295	19 5.40			0	38.90		
	1.39270					53 2 58.72				− 16		+10.31
d	9.77896					−19.82				− 52		
	1.29718n									+10.59		
((δ) − D) $\frac{d'}{100}$										+ 40		
										−2.75		
δ_2										2 45.66		
	+16.5	1	10.2	33.1	43.3 1 2165	46 26.70			35-	54 30 6.68	31 2.42	
	1.21748				36	54 30 19.47	30 668		242	− 7	− 22	+12.49
d	9.76395					−12.79	+249		+1.50	− 20	− 4	
	1.10695n									+12.21	+12.21	
((δ) − D) $\frac{d'}{100}$	+28.9	0	4.5	28.1	32.6 0 1630	47 32.05			36-	+ 55	+ 55	
	1.46090				35	54 31 24.82				−2.80	− 2.80	
δ_1	9.76378					−22.40				30 16.37	31 12.12	
	1.35020n											
	+13.8	1	11.8	36.1	47.9 1 2395	46 24.40			35-	7.02	2.94	
	1.13988				36	54 30 17.72	702		294	− 5	− 16	+12.37
d	9.76395					−10.70	+237		+1.42	− 20	− 4	
	1.02935n									+12.07	+12.07	
((δ) − D) $\frac{d'}{100}$	+25.0	0	6.7	32.0	38.7 0 1935	47 29.00			35-	+ 55	+ 55	
	1.39794				35	54 31 22.32				−3.00	− 2.95	
δ_2	9.76378					−19.38				30 15.59	31 11.61	
	1.28724n											
	+14.7	0	12.0	36.9	48.9 0 2445	27 23.90			55-	54 11 5.18		
	1.16732				55-	54 11 16.67				− 6		+12.28
d	9.76730					−11.49				− 6		
	1.06014n									+11.88		
((δ) − D) $\frac{d'}{100}$										+ 52		
										−2.65		
δ_1										11 14.81		
	19.9	0	6.9	32.5	39.4 0 1970	27 28.65			55-	6.42		
	1.29885				55-	54 11 21.97				− 10		+12.12
d	9.76730					−15.55				− 4		
	1.19167n									+11.74		
((δ) − D) $\frac{d'}{100}$										+ 52		
										−2.86		
δ_2										11 14.89		

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411

Date$_1$ = 1875, June 14 Observer W.A.R. Recorder J.F.M.

412

Date$_2$ = 1875, June 15 Observer W.A.R. Recorder J.F.M.

102

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
1	54 43 54 45		8.2	13 54 36.0	54 41.7	44.9	48.4	52.0	55.6	54	48.52		
	54 4.0 30.3		9.0	38.9							+ 1.71		
	κ			42.0							− 68	3	
	((δ) − D) $\frac{\kappa'}{100}$			39.0					+ 1.05		− 3		
	α_1									54	49.58	4	
											− 2.82		
											46.75		
			8.7	54 32.7	54 41.7	45.7	48.8	52.4	56.0	54	48.80		
				35.6							+ 1.46		
	κ			38.7							− 62		
	((δ) − D) $\frac{\kappa'}{100}$			35.7					+ 0.81		− 3		
	α_2									54	49.61		
											− 2.80		
											46.81		
	56 0 54 22		8.0	55 40.1	55 57.4	1.0	4.5	8.0	11.6	56	4.50		
	55 20.0 27.3		8.9	43.6							+ 1.71		
	κ			45.8							− 68	3	
	((δ) − D) $\frac{\kappa'}{100}$			43.2					+ 1.05		− 3		
	α_1									56	5.56	5	
											− 2.81		
											2.74		
			7.9	55 32.0	55 57.6	1.2	4.6	8.3	11.9	56	4.72		
				34.7							+ 1.46		
	κ			38.1							− 62		
	((δ) − D) $\frac{\kappa'}{100}$			35.0					+ 0.81		− 3		
	α_2									56	5.53		
											− 2.79		
											2.74		
	57 17 52 32		9.4	57 1.8	57 20.0	23.1	26.4	30.0	33.1	57	26.52		
	56 39.9 36.8		9.5	4.1							+ 1.71		
	κ			7.4							− 59		
	((δ) − D) $\frac{\kappa'}{100}$			4.4					+ 1.10		− 2		
	α_1									57	27.62		
											− 2.74		
											24.88		
			9.8	57 7.0	57 20.2	23.5	27.0	30.5	34.0	57	27.04		
	κ			2.7							+ 1.46		
	((δ) − D) $\frac{\kappa'}{100}$			13.2					+ 0.87		− 57		
	α_2			10.0							− 2		
										57	27.91		
											− 2.72		
											25.19		
	59 52 07 57		9.0	59 29.6	59 56.5	0.0	3.3	6.7	10.2	0	3.34		
	59 14.7 52 2.3		8.9	32.5							+ 1.71		
	κ			34.4							− 58		
	((δ) − D) $\frac{\kappa'}{100}$			32.2					+ 1.11		− 2		
	α_1									0	4.45		
											− 2.72		
											1.73		
			9.0	59 34.5	59 56.9	0.2	3.6	7.0	10.3	0	.360		
	κ			38.0							+ 1.46		
	((δ) − D) $\frac{\kappa'}{100}$			41.7					+ 0.88		− 56		
	α_2			38.1							− 2		
										0	4.48		
											− 2.70		
											1.78		
	κ												
	((δ) − D) $\frac{\kappa'}{100}$												
	α_1												
	κ												
	((δ) − D) $\frac{\kappa'}{100}$												
	α_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	+9.5	2	8.6	31.9	40.5	2′ 20.25	0 28.10		20	54 44 13.54	
	0.97772				22	54 44 20.87	− 3			− 32	+12.68
	9.76146					− 7.33				+12.45	
$((\delta) - D)\frac{d'}{100}$	0.86470m									+ 58	
										− 2.70	
δ_1										44 23.52	
										− 0.80	
d	+13.1	2	4.9	28.6	33.5	2 16.75	0 31.60		20	14.82	
	1.11727				22	54 44 24.92				− 5	+12.51
	9.76146					− 10.10				− 32	
$((\delta) - D)\frac{d'}{100}$	1.00426m									+12.80	
										+ 58	
δ_2										− 2.90	
										44 23.63	
d	+21.3	3	45.0	8.9	113.9	3 56.95	38 51.40		40	54 22 27.60	
	1.32838				43	54 22 44.17				− 12	+11.94
	9.76537					− 16.57				− 53	
$((\delta) - D)\frac{d'}{100}$	1.21927m									+12.07	
										+ 54	
δ_1										− 2.60	
										22 36.94	
d	+29.7	3	38.0	0.9	98.9	3 49.45	38 58.90		40	29.12	
	1.47276				43	54 22 52.22				− 23	+11.71
	9.76537					− 23.10				− 53	
$((\delta) - D)\frac{d'}{100}$	1.36365m									+11.93	
										+ 54	
δ_2										− 2.75	
										22 37.28	
d	+22.1	0	28.5	52.1	80.6	0 40.30	47 8.05		35	52 30 42.87	
	1.34439				35	52 31 0.82				− 13	+10.34
	9.78428					− 17.95				− 10	
$((\delta) - D)\frac{d'}{100}$	1.25419m									+10.17	
										+ 40	
δ_1										− 2.15	
										30 51.06	
d	+17.0	0	29.9	55.5	85.4	0 42.70	47 5.65		35	45.16	
	1.23045				35	52 30 58.97				− 8	+10.29
	9.78428					− 13.81				− 10	
$((\delta) - D)\frac{d'}{100}$	1.14025m									+10.07	
										+ 40	
δ_2										− 2.30	
										30 52.35	
d	+31.1	4	9.7	31.2	40.9	4 20.45	13 27.90		8	51 56 55.08	
	1.49276				9	51 57 20.67				− 25	+9.13
	9.78983					− 25.59				− 60	
$((\delta) - D)\frac{d'}{100}$	1.40811m									+ 9.58	
										+ 4.50	
δ_1										− 1.90	
										57 2.31	
d	+25.5	4	13.1	37.1	50.2	4 25.10	13 23.25		5	55.59	
	1.40654				9	51 57 16.57				− 17	+9.11
	9.78983					− 20.98				− 62	
$((\delta) - D)\frac{d'}{100}$	1.32189m									+ 9.50	
										+ 4.50	
δ_2										− 2.05	
										57 7.85	
d											
$((\delta) - D)\frac{d'}{100}$											
δ_1											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_2											

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413

Date$_1$ = 1875, June 20 $n = -.51$ | Observer W.A.R. | Recorder J.F.M.

414

Date$_2$ = 1875, June 21 $n = -.48$ | Observer W.A.R. | Recorder J.F.M.

104

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
1	2	53.53	28	8.6	14 2 28.7	2 53.1	56.6	59.9	3.3	6.8	2	m s 58.94	
2	2	15.0	26.9	8.0	32.2							+ 0.49 52	
	κ				35.3							− 69	
	((δ) − D) $\frac{\kappa'}{100}$				32.1				− 0.20			− 3	
	α_1									2		59.7×4	
												− 2.66	
												57.08	
			8.8		2 32.6	2 52.9	56.5	0.0	3.3	6.7	2	59.88	
					35.9							+ 0.45	
	κ				38.7							− 66	
	((δ) − D) $\frac{\kappa'}{100}$				35.1				− 0.24			− 3	
	α_2									2		59.64	
												− 2.65	
												56.99	
3	4	47	14	9.0	4 27.5	4 48.7	52.0	53.2	58.4	1.6	4	55.18	
4	4	9.0	18.7	9.0	30.6							+ 0.49 52	
	κ				33.3							− 61	
	((δ) − D) $\frac{\kappa'}{100}$				30.5				− 0.11			− 2	
	α_1									4		55.04	
												− 2.57	
												52.50	
			9.0		4 29.2	4 48.7	52.0	53.2	58.4	1.6	4	55.18	
					32.1							+ 0.45	
	κ				34.3							− 57	
	((δ) − D) $\frac{\kappa'}{100}$				31.9				− 0.14			− 2	
	α_2									4		55.04	
												− 2.55	
												52.49	
4	6	54	21	9.0	6 28.5	6 56.4	59.9	3.3	6.9	10.2	7	3.84	
6	6	16.0	25.5	8.8	31.8							+ 0.49 51	
	κ				34.6							− 69	
	((δ) − D) $\frac{\kappa'}{100}$				31.6				− 0.21			− 3	
	α_1									7		3.1×3	
												− 2.68	
												0.45	
			8.8		6 32.3	56.5	59.9	3.4	6.9	10.4	7	3.42	
					35.0							+ 0.45	
	κ				37.4							− 65	
	((δ) − D) $\frac{\kappa'}{100}$				34.9				− 0.23			− 3	
	α_2									7		3.19	
												− 2.66	
												0.53	
5	8	18	19	8.0	7 52.4	8 19.6	23.0	26.2	29.5	32.8	8	26.22	
7	7	40.8	24.3	7.5	37.8							+ 0.49 51	
	κ				57.6							− 63	
	((δ) − D) $\frac{\kappa'}{100}$				54.9				− 0.14			− 2	
	α_1									8		26.06	
												− 2.62	
												23.46	
			7.8		7 55.4	8 19.6	23.0	26.2	29.5	32.8	8	26.22	
					37.5							+ 0.45	
	κ				1.0							− 59	
	((δ) − D) $\frac{\kappa'}{100}$				58.4				− 0.16			− 2	
	α_2									8		26.06	
												− 2.60	
												23.46	
6	9	3	53	8.5	8 53.3	9 6.3	9.8	13.1	16.5	19.9	9	13.12	
8	8	26.5	58.3	8.3	57.0							+ 0.49 51	
	κ				59.4							− 65	
	((δ) − D) $\frac{\kappa'}{100}$				56.6				− 0.16			− 2	
	α_1									9		12.94	
												− 2.64	
												10.32	
			8.0		8 58.6	9 6.6	9.8	13.2	16.4	19.9	9	13.14	
					56.2							+ 0.45	
	κ				58.9							− 61	
	((δ) − D) $\frac{\kappa'}{100}$				56.2				− 0.18			− 2	
	α_2									9		12.96	
												− 2.62	
												10.34	

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June 20 −16′ 6.48 −.15
" 21 −16 5.90 −.16

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
d	+27.8	0	21.0	475	0 34.25	37 14.10			45	53 20 45.47	
	1.44404				45	53 21 7.62				− 20	+1107
	9.77592					−22.15				− 8	
((δ) − D) $\frac{d'}{100}$	1.34648n									+10.92	
										+ 43	
δ_1										− 2.80	
										20 53.64	
d	+24.2	0	24.9	58.3	0 37.60	37 10.75			45	45.56	
	1.38382				45	53 21 4.85				− 15	+1108
	9.77592					−19.29				− 10	
((δ) − D) $\frac{d'}{100}$	1.28526n									+10.80	
										+ ~~53~~ 53	
δ_2										− 3.10	
										20 53.54	
d	+24.7	8	7.2	342	3 20.70	29 27.65			50	50 13 0.07	
	1.39270				53	50 13 21.17				− 16	+740
	9.80610					−21.10				− 50	
((δ) − D) $\frac{d'}{100}$	1.32432n									+7.75	
										+ 31	
δ_1										− 2.25	
										13 5.22	
d	+23.3	3	8.3	35.2	3 21.75	29 26.60			50	0.79	
	1.36736				53	50 13 20.70				− 14	+736
	9.80610					−19.91				− 54	
((δ) − D) $\frac{d'}{100}$	1.29898n									+7.67	
										+ 37	
δ_2										− 2.40	
										13 5.75	
d	+31.7	1	29.1	58.1	1 41.10	36 7.25			45	53 19 35.49	
	1.50186				46	53 20 0.77				− 26	+1083
	9.77626					−25.28				− 25	
((δ) − D) $\frac{d'}{100}$	1.40284n									+10.91	
										+ 43	
δ_1										− 2.75	
										19 43.57	
d	+28.5	1	31.4	56.2	1 43.80	v 36 4.55			45	19 35.92	
	1.45484				46	53 19 58.65				− 22	+10.81
	9.77626					− 22.73				− 28	
((δ) − D) $\frac{d'}{100}$	1.35662n									+10.78	
										+ 53	
δ_2										−2.90	
										19 43.83	
d	+31.3	3	18.9	40.8	3 27.20	34 21.15			45	51 17 48.54	
	1.49554				48	51 18 14.67				− 26	+842
	9.79605					−26.13				− 52	
((δ) − D) $\frac{d'}{100}$	1.41711n									+ 8.84	
										+ 36	
δ_1										−2.30	
										17 54.66	
d	+27.8	3	17.1	43.6	3 30.35	34 18.00			45	48.89	
	1.44404				48	57 18 12.10				− 20	+845
	9.79605					−23.21				− 56	
((δ) − D) $\frac{d'}{100}$	1.36561n									+ 8.75	
										+ 46	
δ_2										−2.45	
										17 54.89	
d	+16.5	8	30.6	55.2	3 42.90	9 5.45			10	51 52 45.37	
	1.21748				13	57 52 58.97				− 7	+921
	9.79047					−13.60				− 55	
((δ) − D) $\frac{d'}{100}$	1.13347n									+9.44	
										+ 39	
δ_1										− 2.35	
										52 52.23	
d	+16.9	3	29.9	55.8	3 42.85	9 5.50			10	45.67	
	1.22789				13	57 52 59.60				− 8	+916
	9.79047					−13.90				− 59	
((δ) − D) $\frac{d'}{100}$	1.14388n									+ 9.34	
										+ 49	
δ_2										− 2.50	
										52 52.33	

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Date$_1$ = 1875, June 20 — Observer W.A.R. — Recorder J.F.M.

Date$_2$ = 1875, June 21 — Observer W.A.R. — Recorder J.F.M.

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Run

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
11	11 40	51 57	5.0	14 11 18.8	11 40.4	43.8	47.1	50.5	54.0	11	47.16		
11	3.5	52 2.3	4.5	21.0							+ 0.49 51		
κ				24.6							− 65		
				21.3						− 0.26	− 2	47.00	
((δ) − D) $\frac{\kappa'}{100}$			9.0	12 0.5	11 42.8	46.1	49.5	52.8	56.2	11	48.48	− 2.65	
11	5.5	52 2.9		3.3							+ 0.49 51	46.98	
α_1				5.7							− 65	44.35	
				3.2						− 0.26	− 2	2	
			5.0	10 58.4	11 40.4	44.0	47.3	50.5	53.7	11	47.18	− 2.65	
				15							+ 0.46	46.67	
κ				4.2							− 61		
				6.14						− 0.17	− 2	47.01	
((δ) − D) $\frac{\kappa'}{100}$			8.8	11 41.2	11 42.7	46.1	49.4	52.8	56.2	11	49.44	− 2.63	
											+ 0.46	44.38	
α_2											− 61		
										− 0.17	− 2	49.27	
12	48	51 54	7.0	12 20.9	12 50.5	54.0	57.3	0.7	4.0	12	57.30	− 2.63	
12	12.3	58.8	6.8	24.7							+ 0.44 51	46.64	
κ				27.0							− 65		
				24.2						− 0.16	− 2		
((δ) − D) $\frac{\kappa'}{100}$										12	57.12		
											− 2.66		
α_1											54.48		
			6.2	12 24.7	12 50.6	53.9	57.2	0.6	4.0	12	57.26		
				27.8							+ 0.46		
κ				30.7							− 61		
				27.7						− 0.17	− 2		
((δ) − D) $\frac{\kappa'}{100}$										12	57.09		
											− 2.64		
α_2											54.45		
15	4	52 5.9	9.0	14 37.9	15 5.3	8.7	12.2	15.6	19.0	15	12.16		
14	27.2	53 8.9	8.9	40.7							+ 0.48 51		
κ				43.6							− 68		
				40.5						− 0.20	− 3		
((δ) − D) $\frac{\kappa'}{100}$										15	11.93		
											− 2.71		
α_1											9.25		
			8.9	14 36.0	15 5.3	8.7	12.1	15.6	19.1	15	12.16		
				39.4							+ 0.46		
κ				42.4							− 64		
				39.4						− 0.21	− 3		
((δ) − D) $\frac{\kappa'}{100}$										15	11.95		
											− 2.69		
α_2											9.26		
17	12 54	30	8.5	16 40.5	17 11.3	15.0	18.7	22.0	25.7	17	18.54		
16	36.2	33.5	8.0								+ 0.48 60		
κ											− 78		
										− 0.24	− 3	17 18.28	
((δ) − D) $\frac{\kappa'}{100}$			8.8	16 45.1	17 13.1	16.6	20.2	23.8	27.4	17	20.22	− 2.77	
											+ 0.48 50	15.51	
α_1											− 78		
										− 0.24	− 3	17 19.96	
			8.5	16 47.4	17 11.5	15.0	18.6	22.3	25.8	17	18.64	− 2.77	
											+ 0.46	17.21	
κ											− 67		
										− 0.24	− 3	17 18.40	
((δ) − D) $\frac{\kappa'}{100}$			8.8	16 57.4	17 13.1	16.6	20.3	23.9	27.3	17	20.24	− 2.75	
											+ 0.46	15.65	
α_2											− 67		
										− 0.24	− 3	17 20.00	
20	30	52 43	8.9	20 7.5	20 32.7	36.0	39.5	42.9	46.4	20	39.50	− 2.76	
19	53.8	47.6	8.9	11.2							+ 0.48 60	17.25	
κ				13.6							− 66		
				10.8						− 0.18	− 2		
((δ) − D) $\frac{\kappa'}{100}$										20	39.30		
											− 2.72		
α_1											36.60		
			9.2	20 9.5	20 32.7	36.0	39.5	42.8	46.2	20	39.44		
				12.0							+ 0.46		
κ				14.7							− 62		
				12.1						− 0.18	− 2		
((δ) − D) $\frac{\kappa'}{100}$										20	39.26		
											− 2.70		
α_2											36.56		

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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′	
	+25.7	4	36.1	0.7	96.8	4′	48″40	12 59.95			5-	51 56 32.31	57 4.75	
	1.40993					9		51 56 53.47	56 32.31		4.75	− 8	− 5	+8.99
d	9.78999							−21.16	+9.09		+9.12	− 72	− 72	
	1.32544n											+ 9.49	+ 9.49	
	− 1.37	4	36.1	.0.7	96.8	4	48.40	12 59.95			5-	+ 40	+ 40	
((δ) − D) $\frac{d'}{100}$	1.13672n					9		51 56 53.47				− 2.20	− 2.20	
	9.78999							+11.28				56 39.20	57 11.67	
δ_1	1.05223													
	+45.8	4	18.0	43.2	61.2	4	3060	13 17.75			5-	34.15	5.10	
	1.66087					9		51 57 11.85	34.15		5.10	− 55	− 2	+8.63
d	9.78999							−37.70	+8.63		+9.16	− 72	− 72	
	1.57638n											+ 9.41	+ 9.41	
	+ 8.2	4	18.0	43.2	61.2	4	3060	13 17.75			5-	+ 49	+ 49	
((δ) − D) $\frac{d'}{100}$	0.91381					9		51 57 11.85				− 2.40	− 2.40	
	9.78999							− 6.75				56 40.38	57 11.86	
δ_2	0.82932n													
	+33.1	3	0.5-	24.9	25.4	3	1270	9 35.65			10	51 53 1.89		
	1.51983					13		57 53 29.17				− 29		+9.07
d	9.79047							−27.28				− 48		
	1.43582n											+ 9.44		
												+ 40		
((δ) − D) $\frac{d'}{100}$												− 2.20		
												53 8.76		
δ_1														
	+29.6	3	2.9	27.9	30.8	3	1540	9 32.95			10	2.66		
	1.47129					13		57 53 27.05				− 23		+9.08
d	9.79047							−24.39				− 53		
	1.38728n											+9.35		
												+ 49		
((δ) − D) $\frac{d'}{100}$												− 2.30		
												53 9.44		
δ_2														
	+31.7	2	36.5-	0.6	97.1	2	48.55	14 59.80			5-	52 58 27.83		
	1.50107					7		52 58 53.32				− 26		+10.26
d	9.77980							−25.49				− 42		
	1.40638n											+10.54		
												+ 40		
((δ) − D) $\frac{d'}{100}$												− 2.25		
												58 35.84		
δ_1														
	+32.8	2	34.0	0.1	94.1	2	47.05	15 1.30			5-	29.03		
	1.51587					7		52 58 55.40				− 28		+10.20
d	9.77980							−26.37				− 45		
	1.42119n											+10.43		
												+ 50		
((δ) − D) $\frac{d'}{100}$												− 2.40		
												58 36.83		
δ_2														
	+38.0	3	1.7	25.0	26.7	3	1335	454 35.00			35-	54 27 39.03	28 1.22	
	1.57978					38		54 28 28.52	27 59.03		12.2	− 38	− 32	+11.78
d	9.76431							−29.49	+11.78		+11.84	− 48	− 48	
	1.46961n							−27.30				+12.09	+12.09	
	+35.1											+ 55	+ 55	
((δ) − D) $\frac{d'}{100}$	1.54531											− 2.40	− 2.40	
	9.76431											28 8.41	28 10.66	
δ_1	1.43614n													
	+31.2	3	8.9	30.7	36.6	3	1830	44 30.05			35-	59.94	2.04	
	1.49415					38		54 28 24.15	59.94		20.4	− 25	− 21	+11.76
d	9.76431							− 24.21	+11.76		+11.80	− 53	− 53	
	1.38398n							− 22.11				+11.94	+11.94	
	+28.5											+ 60	+ 60	
((δ) − D) $\frac{d'}{100}$	1.45484											− 2.60	− 2.60	
	9.76401											28 9.10	28 11.24	
δ_2	1.34467n													
	+28.7	4	8.9	26.9	30.8	4	1540	58 32.95			20	52 42 3.25		
	1.45788					24		52 42 26.47				− 22		+9.82
d	9.78246							−23.22				− 64		
	1.36586n											+10.28		
												+ 40		
((δ) − D) $\frac{d'}{100}$												− 1.90		
												42 11.17		
δ_1														
	+27.3	4	4.8	28.9	33.7	4	16.85	58 31.50			20	3.51		
	1.43616					24		52 42 25.60				− 20		+9.77
d	9.78246							−22.09				− 69		
	1.34414n											+10.16		
												+ 50		
((δ) − D) $\frac{d'}{100}$												− 2.10		
												42 11.18		
δ_2														

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Continued in 6.31

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Date$_2$ = Observer / Recorder

Star. α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
κ												
$((\delta) - D)\frac{\kappa'}{100}$												
c_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												
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												
κ												
$((\delta) - D)\frac{\kappa'}{100}$												
a_1												
κ												
$((\delta) - D)\frac{\kappa'}{100}$												
a_2												

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