

KG

11365

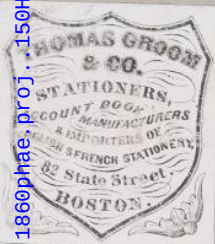
150

G.7

Siderial and Mean Time
Clocks and
Chronometers
July 1860 to Sept 2/3 1862

Sold by T. Groom & Co., Stationers, Irish Building, 82 State St., Boston.

1860phae proj. 150H



KG 11365.150

KG-11365.150



1860 July ¹⁷/₁₈ 1860 JulyB. and S. fast 2^m 3.8
[See Transit Book]

B. and S.	236
2 48 52.6	2 48 10
49 2.6	20
12.5	30
	424
2 59 26.7	2 56 0
34.8	8
42.5	16
	Hutton
3 1 1.8	19 14 0
5.8	4
9.8	8

These Chronometers were used for observing the solar eclipse.
See Transit Book of this date.

B. and S.	2 49 2.6
fast	2 3.8
Sw. Time	2 46 58.8
236	2 48 20
236 fast	+ 1 21.2
B. and S.	2 59 34.7
fast	2 3.8
Sw. Time	2 57 30.9
424	2 56 8
424 slow	- 1 22.9

B. and S.	3 1 5.8
fast	2 3.8
Sw. Time	2 59 2.0
July 18	7 46 50.3
19	12 11.7
	47.2
19	12 58.9
Hutton	19 14 4
Hutton fast	+ 1 5.1

July 19 1860 17^h 30^m 31^s.73
BFG = EC 17 27 19.24
fast 3 12.49

July 24 M.C. = 19^m
 236 = 3^m

22^m

161 20^s . 50

1 24 . 46

12 56 . 04

50 46 . 86

General time given = 3^m
 General time at min 19 = 7

Interval from min. in Gen Time 4^m
 converted into m s = 4^m

3 7 50 . 82

7 7^m 5 . 29

23

59 59 . 100

True m time at comparison
 M.C. equalled

19

22^m 54 71

19

22

M.C. = 19^m

58^m

30^s

236 = 3^m

40^m

56 . 50

236 feet

1

24 . 46

Lib. True time

= 3^m

39

32 . 04

7

50

46 . 80

19

48

45 . 21

3

15 . 57

19

50

29 64

19

5

July 20 $MC = 19^h 58^m 30^s$
 $236 = 3 \quad 50 \quad 56.50$
 $236 \text{ foot} \quad 1 \quad 24.146$
 True Sidereal time at comparison $3 \quad 49 \quad 32.104$
 Sidereal time mean noon $7 \quad 50 \quad 46.183$
 $19 \quad 58 \quad 45.21$
 $3 \quad 15.157$
 $19 \quad 55 \quad 29.64$
 $19 \quad 58 \quad 30$
 $MC \text{ foot of } \beta. \quad 3^m \quad 00 \quad .36$
 $MC \text{ " " } \beta. \quad 2^m \quad 44 \quad .36$

July 24 M.C. = 6^h
 236 = 15^m

236 fast

True sidereal time at comp. 15^m

Sidereal time mean noon 8

Int. from mean mid. t = 6

Converted into m. t. = 6

5 L^m 30^s 1.00

4 33.50

1 28.20

3 5.30

10 29.60

52 35.70

51 28.106

True time at comp = 6

M.C. = 6

M.C. part of C.

5-1 28.106

5-4 30

3^m 1^s .59

M.C. part of Boston 2 441.89

236 = 14^m 12^m 5

True time = 14 10 31.80

236 fast = 1 28.20

True time = 14^m 11^m 43^s .70

424 = 14 10

424 slow = 1 43.70

By Band L 17 11 13.67

fast 2 37.12

Int. time 17 8 36.55

236 10 5.00

236 fast. +1 28.45

July 28 M.C. = 8^h 13 30
 236 = 16 39 7
 236 fast 1 32.37
 True Sid. time at comp 16 37 34.63
 Sid. time at m.m. 8 26 15.55
 Internal from mean noon 8 11 28.78
 Converter into mean time = 8 1 20.50
 8 10 8.28
 8 13 0.00
 Mistake (?) 2 51.72

424 slow $27^s.67$

July 31 M.C. = 18^h 12^m
 236 = 2 47 40.50
 236 fast = 1 1 35.31
 True Sid. at comp = 2 46 5.19
 Sid. time m.m. = 8 34 8.96
 Int. from m.m. 18 11 56.23
 Converter into m.t. = 18 8 57.34
 M.C. = 18 12
 M.C. fast of 6 = 3 2^s.66
 16
 M.C. fast of Boston = 2^m 46^s.66

B & G = 1^m 46^m 0^s.60
 424 = 2 00 0.00
 424 fast of B & G 13 59.40
 B & G slow 15 19.29
 424 slow 1^m 19.89

August 2

$M C$	$=$	7^m	34	
236	$=$	16	19	47
236 fast	$=$		1	37 .93
True time at comp	$=$	16	18	9 .07
Grid time at m. n	$=$	6	45	58 .63
Int. from mean noon Grid. t.	$=$	7	32	10 .44
converted into m t	$=$	7	30	56 .36
$M C$	$=$	7	34	
$M C$ fast of C.	$=$		3	3 .64
				16
$M C$ fast of Boston		2	47	.64

B & G (true time)	$=$	15^h	39^m	29^s	.07
424	$=$	15	37		
424 slow			2	29	.07

August 3	$M C$	$=$	4^h	8^m	
Whittemore's watch	$=$	4	4^m	56^s	
Watch slow of $M C$	$=$		3	4	
$M C$ fast			3	3	.63
					.37

August 5-6

M.C.	=	17 ^h	39 ^m	30 ^s
236	=	2 ^m	98	47 .50
236 f	=		1	39 .55
True time at comp	=	2	37	7 .95
Lid. time at m.n	=	8	57	48 .30
Int. from m.n	=	17	39	19 .65
Converted into m.n.	=	-	2	53 .55
		17	36	26 .10
M.C.	=	17	39	30
M.C. fast of C.	=		3	3 .90
M.C. fast of Boston	=		2	47 .90

B.V.G. true time	=	2 ^h	1 ^m	47 ^s	.35
424	=	1	59		
424 slow	=		2	47	.35

Aug. 9-10

M.C.	=	22 ^h	54 ^m	
236	=	8	9	56 ^s .50
236 fast	=		1	41 .21
		8	8	15 .29
Lid. time m.n	=	9	13	34 .52
		22	54	40 .77
			3	45 .21
		22	50	55 .56
		22	54	
23 M.C. fast of C.	=		3	4 .44
M.C. fast of B.	=	2 ^m	48 ^s	.44

T.P.T.	=	7 ^h	35	20 .99
424	=	7 ^h	32	
424 slow	=		3	20 .99

Aug. 15

M.C. = 7^h 16^m

236	= 16	53	3.50
236 fast	= 1	41	43.12
True time at com.	= 16	51	20.38
G. J. M. R.	= 9	37	13.86
Int. from M.R.	= 7	14	6.52
M. J.	=	1	11.12
True time	= 7	12	55.40
M.C.	= 7	16	
M.C. fast	=	3	4.60
		16	
M.C. fast of B.		2	48.60

J. G. J. = 16^h 11^m 13^s .38

424 = 16

7^m

236 slow

4^m

13

.38

Aug. 15, 1860

EC slow 14^m 52.32 w-EC = 17^h 5^m

M.C. 8	1	20	8	2	0	EC	17	16	00
236 17	38	30.1	17	39	10.2	236	17	32	35.6
	1	43.28					17	30	52.32
17	36	46.82				236 fast		1	43.28
9	37	13.86							
7	59	32.96							
	1	18.56				9	36	27.12	
7	58	14.40							46.74
8	1	20.00				9	37	13.86	
M.C. fast	3	5.60							
		16							
M.C. fast of B.	2	49.60							

Aug. 16

$$M. b = 6^m \quad 55^m$$

$$236 = 16 \quad 35 \quad 56 \quad 150$$

$$236 f = 1 \quad 41 \quad 43 \quad 131$$

$$16 \quad 34 \quad 13 \quad 119$$

$$9 \quad 40 \quad 10 \quad 141$$

$$6 \quad 53 \quad 2 \quad 138$$

$$1 \quad 7 \quad 166$$

$$6 \quad 51 \quad 54 \quad 172$$

$$6 \quad 54 \quad 59 \quad 100$$

$$M. C. \text{ part of } b \quad 3 \quad 5 \quad 128$$

$$M. C. \text{ part of } B. \quad 2^{sm} \quad 16_s \quad 49 \quad 128$$

$$B \text{ \& } g \text{ slow} = 14^m \quad 49^s \quad 49$$

$$7.19$$

$$5.28$$

$$9) 1.91 (+0.21)$$

$$J. J. = 16^m \quad 10^m \quad 21^s \quad 139$$

$$424 = 16 \quad 6$$

$$424 S. = 4 \quad 21 \quad 139$$

$$\text{Hourly rate of } 424 = -13337$$

August 25

$$M. b = 7^m \quad 3^m \quad 5$$

$$236 = 17 \quad 19 \quad 129$$

$$236 f = 1 \quad 47 \quad 182$$

$$17 \quad 17 \quad 41 \quad 118$$

$$10 \quad 16 \quad 39 \quad 140$$

$$7 \quad 1 \quad 1 \quad 78$$

$$1 \quad 8 \quad 197$$

$$6 \quad 59 \quad 52 \quad 181$$

$$M. b. \text{ part of } b. \quad 7 \quad 3 \quad 7 \quad 119$$

$$3 \quad 8 \quad 81$$

$$4.5) 1.62 (+0.36)$$

Aug 29/30, 1860

B.S.S. slow 13 56.37

M.C.	17	22	00
236	3	55	58.1
		1	50.63
	3	54	7.47
	10	22	25.62
	17	21	41.85
		2	50.66
	17	18	51.19
	17	22	0.00
Mc fare		3	8.81
			16.00

Mc fare of B 2 52.81

daily rate + 0.36 from H.P.T. of Aug 25.

B.S.S.	3	32	00
236	3	47	47.0
236 fare		1	50.63

Aug. 30

B.S.S. slow 13 53.59

M.C.	8	49	0
236	19	25	30.6
		1	50.91
	19	23	39.69
	10	36	22.18
	8	47	17.57
		1	26.38
	8	45	51.13
	8	49	0.00
Mc fare		3	8.87
			16
Mc fare,		2	52.87

B.S.S.	19	7	0
236	19	22	44.5
236 fare		1	50.91

Sept. 3. 1860

B&S slow 13 28.28

MC	8	34	00
236	19	26	15.3
		1	53.72
	19	24	21.58
	10	52	8.09
	8	32	13.19
		1	23.91
	8	30	49.28
	8	34	0.00
MC fare		3	10.72
			16.00
MC fare of B	2		54.72
	2		52.87
	4)		1.85 (+ 0.46)

B&S	19	8	00
236	19	23	22.1
236 fare		1	53.72
	10	51	21.65
			46.74
	10	52	08.39

Sept. 6

B&S slow 14 25.28

MC	7	49	00
236	18	52	57.8
		1	55.52
	18	51	2.26
	11	3	58.05
	7	47	4.21
		1	16.52
	7	45	47.69
	7	49	0.00
MC fare		3	12.31
			16.00
MC fare of B	2		56.31
	2		54.72
	3)		1.59 (+ 0.52)

B&S	18	40	00
236	18	56	20.8
236		1	55.52
	11	3	11.21
			46.74
	11	3	58.05

Sept. 10

236 fast 1 57.31

MC	8	9	00		
236	19	28	47.0		
		1	57.31	11	18 57.53
	19	26	49.69		46.74
	11	19	44.23	11	19 44.23
	8	7	5.46		
		1	19.90		
	8	5	45.56		
	8	9	0.00		
Mc faro		3	14.44		
			16		
Mc far of B		2	58.44		
		2	56.31		
			4) 2.13 (+ 0.53)		

Sept 11

MC	=	23 ^m	42	
236	=	11	4	20.50
236 fast	=		1	57.44
True Sid. time at com.	=	11	2	29.02
Sid. time m n	=	11	19	44.27
Interval from m n	23		42	58.75
			3	52.97
	23		38	45.78
	23		42	14.22
Mc fast of Camb.	=	3		14.22

Sept. 13 1860

236 far 1 59.6

MC 8	4	20
236 19	35	56.6
	1	59.6
19	13	57.0
11	31	33.93
8	2	23.07
	1	19.03
8	1	4.64
8	4	20.00

11	30	47.19
		46.74
11	31	33.93

MC far	3	15.96
		16.00

MC far 70	2	59.96
	2	58.44

$$5) 1.52 (+ 0.51)$$

Sept 18.

236 far 1 59.7

MC 8	12	0.
236 20	3	18.2
	1	59.7
20	1	18.5
11	31	16.69
8	10	1.81
	1	20.28
8	8	41.53
8	12	0.00

11	30	29.95
		46.74
11	31	16.69

MC far	3	18.47
		16.00

MC far Boston	3	2.47
	2	59.96

$$5) 2.51 (+ 0.50)$$

Sept 21. 1860

236 far 2 ^u 1.77

Mc	5	33	00
236	17	35	42.2
		2	1.77
	17	33	40.43
	12	3	6.35
	5	30	34.08
		0	54.16
	5	29	39.92
	5	33	0.00

Mc far 3 20.08
16

Mc far of B 3 4.08
3 2.47

3) 1.61 (+0.54)

Sept 25

236 far 2 ^u 4.76

Mc	7	36	00
236	19	54	48.7
		2	4.76
	19	52	43.94
	12	18	52.57
	7	33	51.37
		1	14.35
	7	32	37.02
	7	36	0.00

Mc far 3 22.98
16.00

Mc far of B 3 6.98
3 4.08

4) 2.90 (+0.72)

Sept. 27/28, 1868

clouded up

MC 18 33 00
236 7 1 29.5-

Sept 28

236 far 2^m 6.62

MC 5 28 00
236 17 58 17.1
2 6.62
17 56 10.48
12 30 42.23
5- 25- 28.25-
53.32
5- 24 34.93
5- 28 0.00

Mc far 3 25.07
16.00

Mc far of B 3 9.07
3 6.98
3) 2.09 (+0.697)

Oct 2/3.

236 far 2^r 12.50

MC 19 59 00
236 6 47 10.3
2 12.50
6 44 57.80
12 41 28.44
17 58 29.36
2 56.68
17 55- 32.68
17 59 0.00

12 45 41.70
46.74
12 46 28.44

Mc far 3 27.32
16.00

Mc far of B 3 11.32
3 9.07
5) 2.25 (+0.45)

Oct 12,

236 ² ⁵ ² 28.3

MC 8 8 0.0

21 34 10.2

2 28.3

21 31 41.9

13 25 53.97

8 5 47.93

1 19.35

8 4 28.34

8 8 0.00

Mc far 3 31.66

16

Mc far of B. 3 15.66

3 11.32

9.5-) 4.34 (+0.46)

Oct 23/24

(New Clock) SC far 0 39.66

MC 18 45 00

236 8 56 27.7

2 38.56

8 53 49.14

14 9 16.07

18 44 33.07

3 4.23

18 41 28.84

18 45 0.00

Mc far 3 31.16

16.00

Mc far of B. 3 15.16

SC 8 52 8.6

236 8 54 7.5

1 58.9

0 39.66

236 far 2 38.56

14 8 29.33

46.74

14 9 16.07

Oct 24. 1866

EC fare 26.22

MC	9	2	00
236	23	15	49.25
		2	39.28
23	13		9.87
14	13		12.62
8	59		57.25
	1		28.46
8	58		28.77
9	2		0.00

MC fare	3	31.23
		16.00

MC fare of B	3	15.23
	3	15.16

$$\frac{3}{4}) 0.07 (+ 0.09)$$

EC	23	9	56.94
236	28	12	10.00
		2	13.06
		0	26.22
236 fare	2		39.28

Oct. 29.

EC slow 3.46

MC	6	13	00
236	20	46	10.4
		2	45.04
20	43		25.36
14	32		55.40
6	10		29.96
	1		0.70
6	9		29.26
6	13		0.00

MC fare	3	30.74
		16.

MC fare of B	3	14.74
	3	15.23

$$5) 0.49 (- 0.10)$$

EC	20	38	29.0
236	20	41	17.1
		2	48.5
			3.46
236 fare	2		45.04

1860 Oct 30 19^h Set back M.C 3 minutes.

Oct 31.

MC 9 31 00
 236 0 15 39.2
 2 47.11
 0 12 52.09
 14 40 48.51
 9 32 3.58
 1 33.72
 9 30 29.86
 9 31 0.00

Mc fast 30.14

Mc fast of B 16.00
 14.14

EC slow 1.77

EC 0 9 21.12
 236 0 12 10.00
 2 48.88
 1.77
 236 fast 2 47.11

Nov. 4/5

MC 17 48 00
 236 8 49 51.5
 2 50.21
 8 47 1.29
 14 56 34.73
 17 58 26.56
 2 55.37
 17 47 31.09
 17 48 0.00

Mc fast 28.81
 16.00

Mc fast of B 12.81
 14.14

4.5 - 1.33 (- 0.30)

EC fast 5.01

EC 8 42 22.3
 236 8 45 7.1
 2 45.2
 5.01
 2 50.21

Nov. 6. 1860

MC	4	49	00
236	19	56	39.3
		2	52.59
19		53	46.71
15		4	27.84
4		49	18.87
		0	47.40
4		48	31.47
4		49	0.00

MC fast 28.53
16.00

MC fast f B 12.53
12.81

1.1-) 0.28 (- 0.20

ΣC fast 6.95

ΣC	19	50	24.36
236	19	53	10.00
		2	45.64
			6.95
236 fast	2	52.59	

EC fast Nov. 8/9 12.65
6.95

2.5) 5.70 (+ 2.28

Nov. 9.

MC	6	55	00
236	22	14	54.3
		2	57.96
22		11	56.34
15		16	17.51
6		55	38.83
		1	8.09
6		54	30.74
6		55	0.00

MC fast 29.26
16.00

MC fast f B 13.26
12.53

3) 0.73 (+ 0.24

ΣC fast 13.02

ΣC	21	40	25.06
236	21	43	10.00
		2	44.94
			13.02
236 fast	2	57.96	

Nov. 13. 1860

MC 7 53 00

236 23 28 59.0

3 8.16

23 25 50.84

15 32 3.73

7 53 47.11

1 17.62

7 52 29.49

7 53 0.

Ml. fast 30.51

16.00

Ml. fast of B. 14.51

13.26

4) 1.25 (+ 0.31)

 ΣC 19.56 fast. ΣC 23 28 00

236 23 30 48.6

2 48.6

19.56

236 fast 3 8.16

Nov 16.

 ΣC fast 24.64

MC 3 22 0

236 19 9 10.4

3 14.22

19 5 56.18

15 43 53.40

3 22 2.78

30.32

3 21 29.68

3 22 0.00

Ml. fast 30.32

16.00

Ml. fast of B. 14.32

14.51

3) 0.19 (- 0.06)

 $\Sigma C = 19$ 3 20.42

236 19 6 10.00

2 49.58

24.64

236 fast 3 14.22

Nov 19/20

EC 31.35 far

MC 19	52	0
236 11	54	49.7
	3	21.53
11	57	28.17
15	55	43.07
19	55	45.10
	3	15.90
19	52	29.20
19	53	0.00
Mc far		30.80
		16.00
Mc far of B		14.80
		<u>14.32</u>
		3.15) 0.48 (+0.14)

EC 11	48	19.82
236 11	51	10.00
	2	50.18
		<u>31.35</u>
236 far	3	21.53

Nov 28

EC far 48.73

MC 4	59	00
236 21		
MC 5	0	0
236 21	35	4.5
	3	35.5
21	31	29.0
16	31	12.09
5	0	16.91
		49.19
4	59	27.72
5	0	0.00
Mc far		32.28
		16.00
Mc far of B		16.28
		<u>14.80</u>
		8.15) 1.48 (+0.175)

EC 21	20	18.23
21	23	5.00
	2	46.77
		48.73
236 far	3	35.50

Nov. 29/30. 1860

 ΣC fast 52.22

Mc	18	41	0
236	11	22	18.55
		3	38.32
	11	18	40.23
	16	35	8.65
	18	43	31.58
		3	4.06
	18	40	27.52
	18	41	0.00

Mc fast 32.48
16

Mc fast of B 16.48
16.28

1.5) 0.20 (+0.13)

ΣC	11	15	18.9
236	11	18	5.0
		2	46.1
			52.22
236 fast	3		38.32

Dec 6.

 ΣC fast 1 3.72

Mc	8	59	00
236	2	6	29.8
		3	50.82
	2	2	38.98
	17	2	44.55
	8	59	54.43
		1	28.45
	8	58	25.98
	8	59	0.00

Mc fast 34.02
16.00

Mc fast of B 18.02
16.48

6.5) 1.54 (+0.23)

ΣC	2	6	12.9
236	2	9	0.6
		2	47.1
		1	3.72
236 fast	3		50.82

Dec. 11. 1860

 $\Sigma C \text{ fast } 1^m 12.9^s$

MC 3 57 00
 236 21 28 30.7
 4 10.8
 21 19 29.9
 17 22 27.34
 3 57 2.56
 38.84
 3 56 23.72
 3 57 0.00

MC fast 36.28
 16.00

MC fast of B 20.28
 18.02

5) 2.26 (+0.45)

EC 21 18 17.1
 236 21 21 5.0
 2 47.9
 1 12.9
 236 fast 4 0.8

Dec 14.

 $\Sigma C \text{ fast } 1^m 19.1^s$

MC 6 13 00
 236 23 51 47.4
 4 7.3
 23 47 40.1
 17 34 47.02
 6 13 23.08
 1 1.17
 6 12 21.91
 6 13 0.00

MC fast 38.09
 16

MC fast of B 22.09
 20.28

3) 1.81 (+0.60)

EC 23 51 0
 236 23 53 48.2
 2 48.2
 1 19.1
 236 fast 4 7.3

Dec 18

MC	4	50	00
236	22	44	12.6
		4	1.37
	22	40	11.23
	17	50	3.25
	4	50	7.98
		0	47.53
	4	49	20.45
	4	50	0.00

Mc fant 39.55

16.

Mc fant of B 23.45

22.09

4) 1.36 (+0.34)

EC fant 1 28.67

EC 22 38 32.3

236 22 41 5.0

2 32.7

1 28.67

236 fant 4 1.37

Dec 21

MC	6	10	0
236	0	16	18.3
		4	5.73
	0	12	12.57
	18	1	52.93
	6	10	19.64
		1	0.67
	6	9	18.97
	6	10	0.00

Mc fant 41.03

16

Mc fant of B 25.03

23.45

3) 1.58 (+0.53)

EC fant 1 37.03

EC 0 9 36.3

236 0 12 5.0

2 28.7

1 37.03

236 fant 4 5.73

Dec 24, 1860

MC 3 30 00
236 21 47 44.8

Dec 28 1860

MC 8 15 0
236 21 48 32.1
4 14.95
21 44 17.15
18 29 28.83
3 14 48.32
0 31.91
3 14 16.41
3 15 0.00

MC fare 43.59
16.00

MC fare of B 27.59
25.03

7/ 2.56 (+0.39)

Dec 31st 1860.

MC 9.50.12
236- 41.36.28.7
fare 41.17.6
4 32 11.1
18 41 18.51
9 50 52.59
1 36.80

9 49 15.79

MC fare 44.21
16.00

MC fare of B. 28.21

EC fare 1 55.75

EC 21 48 45.8
236 21 46 5.0
2 19.2
1 55.75
236 fare 4 14.95

23

Jan 8. 1860

EC, slow 1 52.46

MC	6	51	00
236	2	8	39.9
		4	27.84
	2	4	12.06
19	12		50.97
6	51		21.09
		1	7.39
6	50		13.70
6	51		0.00

MC fan 46.30
16.00

MC fan of B 30.30
28.21

8/2.09 (+0.26)

EC	1	59	44.7
236	2	6	5.0
		6	20.3
		1	52.46
236 fan	4		27.84

Jan 19

EC fan 5.66

MC	6	13	00
236	2	14	3.5
		4	41.69
	2	9	21.81
19		56	13.10
6		13	8.71
		1	1.13
6		12	7.58
6		13	0.00

MC fan 52.42
16.

MC fan of B 36.42
30.30

11/6.12 (+0.56)

EC	2	1	28.97
236	2	6	5.00
		4	36.03
			5.66
236 fan	4		41.69

Jan. 21. 1861

MC	8	32	00
236	4	41	22.2
		4	44.6
	4	36	37.6
20	4		6.22
8	32		31.38
	1		23.96
8	31		7.42
8	32		0.00

MC fare
52.58
16.00

MC fare of B.
36.58
30.30

13) 6.28 (+0.48)

EC fare 13.20

EC	4	29	33.6
236	4	34	5.0
		4	31.4
			13.2
236 fare	4		44.6

Jan. 19 MC fare of B 36.42
36.58

2) 0.16 (+0.08)

Jan 28

MC	8	1	00
236	4	38	0.8
236 fare		4	53.0
	4	33	7.8
20	31		42.12
8	1		25.68
	1		18.87
8	0		6.81
8	1		0.00

MC fare
53.19
16

MC fare of B
37.19
36.58

7) 0.61 (+0.09)

EC fare 37.84
at 4^h 29^m A.D. time

Jan 31

MC 7 18 00
236 4 1 44.2

Feb. 1 1861

MC 5 21 00
236 2 8 21.9
236 slow 5.1
2 8 27.0
20 47 28.34
5 20 58.66
0 52.58
5 20 6.08
5 21 0.00

MC fast 53.92
16.00

MC fast of B 37.92
37.19

4) 0.73 (+0.18)

Stars obs with Chron 236

2 4 00
236 2 8 21.9

Feb 5

MC 8 27 00
236 5 30 43.2
236 slow 1.0
5 30 44.2
21 3 14.56
8 27 29.64
1 23.14
8 26 6.50
8 27 0.00

MC fast 53.50
16.00

MC fast of B 37.50
37.92

4) 0.42 (-0.10)

Stars obs with 236

MC 8 38 0
236 5 40 45.0
1
5 41 46.0
21 3 14.56
8 38 31.44
1 24.95
8 7 6.49

MC fast 53.51

Feb. 12. 1861.

Plan for with 236

Mc 7 25 00
 236 4 56 12.3
 236 fare 3.1
 4 56 9.2
 21 30 50.45
 7 25 18.75
 1 12.95
 7 24 5.80
 Mc fare 0 54.20
 16.00
 Mc fare of B 38.20
 38.50
 7) 0.70 (+0.10)

Feb 18

EC fare 1 46.62

Mc 7 3 00
 236 4 57 54.8
 9.4
 4 57 45.4
 21 54 29.78
 7 3 15.62
 1 9.34
 7 2 6.28
 7 3 0.00
 Mc fare 53.72
 16
 Mc fare of B 37.72
 38.20
 6) 0.48 (-0.08)

Feb. 25

MC	7	28	00
202 ~~236~~	5	52	3.2
202 <i>far</i>		1	37.1
	5	50	26.1
	22	22	05.66
	7	28	20.44
		1	13.46
	7	27	6.98
	7	28	0.00
MC <i>far</i>			53.02
			16.00
MC <i>far</i> of B			37.02
			37.72
			7) 0.70 (-0.10)

EC *far* 2^m 0.4

EC	5	56	00
202	5	55	36.7
			23.3
		2	0.4
202 <i>far</i>		1	37.1

Feb. 28

MC	8	1	00
236	6	35	42.0
236 <i>far</i>			19.27
	6	35	22.73
	22	33	55.32
	8	1	27.41
		1	18.87
	8	0	8.54
	8	1	0.00
MC <i>far</i>			51.46
			16.00
MC <i>far</i> of B			35.46
			37.02
			3) 1.56 (-0.52)

EC *far* 2 9.22

Mar. 4

EC Jan 2 13.85
2 13.85

MC 7 53 00

196 6 42 21.2

196 stars 48.2

6 43 9.4

22 49 41.54

7 53 27.86

1 17.78

7 52 10.08

7 53 0.00

MC Jan 49.92

16.00

MC Jan of B 33.92

35.46

4) 1.54 (-0.39)

Mar 8

EC Jan 2 22.86

MC 5 27 00

236 4 33 3.8

236 Jan 32.3

4 32 31.5

23 5 27.75

5 27 3.75

53.58

5 26 10.17

5 27 0.00

MC Jan 49.83

16.00

MC Jan of B 33.83

33.92

4) 0.09 (-0.02)

Mar 11

Stars got with 236

MC 5	53	00
236 5	11	3.5-
236 fast		37.5-
5	10	26.0
23	17	17.41
5	53	8.59
		57.85-
5	52	10.74
5	53	0.00
MC fast		49.26
		16.00
MC fast of B		33.26
		<u>33.83</u>
		3) 0.57 (-0.19)

March 16

EC fast 2 36.24

MC 5	37	0	EC 5	14	0.0
236 5	14	48.5-	236 5	12	5.0
		41.24			1 55.0
5	14	7.26			2 36.24
23	37	0.17	236 fast		41.24
5	37	7.09			
		55.23			
5	38	11.86			
MC fast		48.14			
		16.00			
MC fast of B		32.14			
		33.26			
		5) 1.12 (-0.22)			

March 20.

EC fan 2 42,80

MC 4 40 00

236 4 33 28.5

44.5

4 32 44.0

23 52 46.38

4 39 57.62

0 45.86

4 39 11.76

MC of Camb. 48.24

16.00

MC fast of B 32.24

32.14

4 10.10 (+0.02)

EC 4 32 3.3

236 4 30 5.0

1 58.3

2 42.8

236 fast 44.5

March 23

EC fan 2 47.18

MC 5 18 00

236 5 23 28.8

48.81

5 22 39.99

0 4 36.04

5 18 3.95

0 52.11

5 17 11.84

MC fast of Camb 48.16

16.

MC fast of B 32.16

32.24

3 1.08 (-0.03)

EC 5 22 3.37

236 5 20 5.00

1 58.37

2 47.18

236 fast 48.81

March 25

EC fare 2 50.36

MC 5 8 0

236 5 21 17.15

45.36

5 20 32.14

0 12 29.15

5 8 2.99

50.47

5 7 12.52

MC fare 47.48

16.

MC fare of B 31.48

32.16

2) 0.68 (- 0.34)

EC 5 22 10.0

236 5 20 5.0

2 5.0

2 50.36

236 fare 45.36

236 was left up in the dome
over Sunday and Monday until
5 o'clock p.m.

Mar 29

EC fare 2 57.64

MC 5 00 00

236 5 29 9.7

50.21

5 28 19.49

0 28 15.36

5 0 4.13

0 49.16

4 59 14.97

MC fare 45.03

16.

MC fare of B 29.03

31.48

4) 2.45 (- 0.61)

EC 5 23 12.43

236 5 21 5.00

2 7.43

2 57.64

236 fare 50.21

Apr. 3. 1861

EC fare 3 7.01

MC 7 41 00
 236 8 30 28.6
 58.28
 8 29 30.32
 0 47 58.13
 7 41 32.19
 1 15.61
 7 40 16.58

Mc fare

Mc fast of B

43.42
 16
 27.42
 29.03
 5-) 1.61 (- 0.32

EC 8 30 13.73
 236 8 28 5.00
 2 8.73
 3 7.01
 236 fare 58.28

Apr. 8

EC fare 3 15.32

MC 4 50 00
 236 5 58 49.6
 1 3.32
 5 57 46.28
 1 7 40.89
 4 50 5.39
 47.52
 4 49 17.87
 4 50 0.10

Mc fare

Mc fare of B

42.13
 16
 26.13
 27.42
 5-) 1.29 (- 0.26

EC 5 57 17.00
 236 5 55 5.00
 2 12.0
 3 15.32
 236 fare 1 3.32

Corrections of the New Clock. (Jody. Escap.)

Oct 23. 1860 to Apr. 8. 1861

Date, Sid Time	Clock Corr.		Date Sid Time	Clock Corr.	
1860, Oct 23, 8 ^d 5 ^h 2 ^m	- 0	39.66	1861 Jan 28, 4 ^d 29 ^m	- 0	37.84 + 3.52
" 24, 23 10	- 0	26.22	Feb 9. 18 32	- 0	51.89
" 29, 20 38	+ 0	3.46	" 14. 6 40	- 1	38.40
" 30, 1 53	+ 0	2.68	" 18, 5 0	- 1	46.62 + 3.28
" 31, 0 9	+ 0	1.77	" 21, 7 0	- 1	52.10
Nov 1, 0 56	+ 0	0.50	" 25, 5 56	- 2	0.40 + 2.00
" 4, 8 42	- 0	5.01	" 28, 6 38	- 2	9.22
" 6, 19 50	- 0	6.95	Mar. 2, 14 19	- 2	10.80
" 7, 0 5	- 0	9.13	" 4, 6 36	- 2	13.85 + 1.92
" 9, 21 40	- 0	13.02	" 8, 4 30	- 2	22.86
" 13, 23 28	- 0	19.56	" 16, 5 14	- 2	36.24 + 1.87
" 16, 19 3	- 0	24.64	" 20, 4 32	- 2	42.80
" 19, 11 48	- 0	31.35	" 23, 5 22	- 2	47.18 + 1.56
" 22, 0 1	- 0	37.04	" 25, 5 22	- 2	50.36 + 1.59
" 24, 19 5	- 0	40.79	" 29, 5 23	- 2	57.64 + 1.82
" 28, 21 20	- 0	48.73	Apr. 3, 8 30	- 3	7.01
" 29, 11 15	- 0	52.22	" 8, 5 57	- 3	15.32 + 1.77
Dec 1, 23 10	- 0	55.53	20 6.44	3,	35.69 + 1.69
" 6, 2 6	- 0	3.72	23 7.42	3,	40.54 + 1.62
" 11, 21 18	- 1	12.40	26 10 34	3,	46.03 + 1.77
" 14, 23 51	- 1	19.10	29 11.11	3,	51.68 + 1.88
" 18, 22 39	- 1	28.67	May 3 11.52	3,	58.67 + 1.75
" 21, 0 10	- 1	37.03	7, 11.03	4,	05.79 + 1.78
" 24, 1 55	- 1	45.68	15 7.46	4,	20.32 + 1.82
" 28, 21 44	- 1	55.75	21, 13 55	4,	33.00 + 2.00
" Ft. Clock Stopped Dec 28			27, 14.50	4,	44.36 + 1.89
1861, Jan. 1, 5 5	+ 2	16.30			
" 4, 14 24	+ 2	4.79			
" 8, 2 0	+ 1	52.46			
" 12, 2 0 clock gaining multiples of 2.					
" 19 2 1	- 0	5.66			
" 21 4 30	- 0	13.20 +			
" 23 5 48	- 0	20.37			

Apr. 20. 1861

MC 4 49 00
 236 6 45 32.8
 1 25.19
 6 44 7.61
 1 54 59.54
 4 49 8.07
 47.37
 4 48 20.70

Mc fare 39.30
 16.

Mc fare of B 23.30
 26.13
 12) 2.83 (-24

EC fare 3 35.69

EC 6 44 15.5
 236 6 42 5.0
 2 10.5
 3 31.69
 236 fare 1 25.19

Apr. 23

MC 5 35 0
 236 7 43 36.8
 1 31.54
 7 42 5.26
 2 6 49.21
 5 35 16.05
 0 54.93
 5 34 21.12

MC fare 38.88
 16

Mc fare of Boat 22.88
 23.30
 3) 0.42 (-0.14

EC fare 3' 40.54

EC 7 42 14.0
 236 7 40 5.0
 2 9.0
 236 fare 1 31.54

Apr. 26,

 $\Sigma C \text{ far } 3 \quad 46.03$

MC 8	14	00
236 10	35	0.4
	1	38.13
10	33	22.27
2	18	38.87
8	14	43.40
	1	21.05
8	13	22.35
8	14	0.00

MC far
37.65

MC far of B
21.65

22.88

3) 11.23 (-0.41)

ΣC	10	34	12.9
236	10	32	5.0
		2	7.9
		3	46.03
236 far	1	38.13	

Apr. 29

 $\Sigma C \text{ far } 3 \quad 51.68$

MC 8	38	00
236 11	11	1.25
	1	44.88
11	9	16.37
2	30	28.53
8	38	47.84
	1	24.99
8	37	22.85

MC far
37.15

MC far of B
21.15

21.65

3) 0.50 (-0.17)

ΣC	11	11	11.8
236	11	9	5.0
		2	6.8
		3	51.68
236 far	1	44.88	

May 3, 1861

 ΣC fast 3 58.67

MC 9	4	0
236 11	52	59.0

	1	51.17
--	---	-------

11	51	7.83
----	----	------

2	46	14.75
---	----	-------

9	4	53.08
---	---	-------

	1	29.27
--	---	-------

9	3	23.81
---	---	-------

9	4	0.00
---	---	------

MC fast		36.19
---------	--	-------

		16.
--	--	-----

MC fast of B		20.19
--------------	--	-------

		21.15
--	--	-------

4	10.96	(- 0.24)
---	-------	----------

ΣC 11	52	12.5
---------------	----	------

236 11	50	5.0
--------	----	-----

	2	7.5
--	---	-----

	3	58.67
--	---	-------

236 fast	1	51.17
----------	---	-------

May 7.

 ΣC fast 4 5.79

MC 8	1	00
------	---	----

236 11	5	44.9
--------	---	------

	2	0.79
--	---	------

11	3	44.11
----	---	-------

3	2	5.98
---	---	------

8	1	43.13
---	---	-------

	1	18.92
--	---	-------

8	0	24.21
---	---	-------

MC fast		35.79
---------	--	-------

		16.00
--	--	-------

MC fast of B		19.79
--------------	--	-------

		20.19
--	--	-------

4	10.40	(- 0.10)
---	-------	----------

ΣC 11	3	10.0
---------------	---	------

236 11	1	5.0
--------	---	-----

	2	5.0
--	---	-----

	4	5.79
--	---	------

236 fast	2	0.79
----------	---	------

May 15. 1861.

MC	4	11	0
236	7	47	0.6
		2	19.22
	7	44	41.38
	3	33	33.42
	4	11	7.96
		0	41.14
	4	10	26.82
	4	11	0.

MC fast 33.18
16.

MC fast of Boston 17.18
19.79

8) 2.61 (- 0.33

EC fast- 4^m 20.32

EC	7	46	6.1
236	7	44	5.0
		2	1.1
		4	20.32
236 fast		2	19.22

EC fast

MC	8	55	00
236	12	37	27.8
			6.4
	12	37	21.4
	3	41	26.54
	8	55	54.86
		1	27.80
	8	54	27.06

MC fast 32.94
16

MC fast of B 16.94
17.88

2) 0.24 (- 0.12

EC
236

May 21. 1861

EC fare 48 33.00

MC	9	56	00
202	13	57	2.8
		2	42.6
	13	54	20.2
	3	57	12.76
	9	57	7.44
		1	37.82
	9	55	29.62
Mc fare			30.38
		16	
Mc fare of B			14.38
			17.18
		6	2.80 (-47)

EC	13	55	55.4
202	13	54	5.0
		1	50.4
		4	33.0

May 27

EC fare 4 44.36

MC	10	27	00
236	14	49	38.5
			31.96
	14	49	6.54
	4	20	52.11
	10	28	14.43
		1	42.92
	10	26	31.51
MC fare			28.49
		16	
Mc fare of Boston			12.49
			14.38
		6	1.89 (-0.31)

EC	14	50	17.4
236	14	46	5.0
		4	12.4
		4	44.36
236 fare			31.96

June 5 1861

MC 8 32 80.0

236 13 30 40.1

236 fast 55.9

13 29 45.2

4 56 21.13

8 33 24.07

1 24.11

8 31 59.96

MC fast 30.04

16.

MC fast of B 14.04

8 56 00

13 54 14.9

55.9

13 53 19.0

4 56 21.13

8 56 57.87

1 27.97

8 55 29.90

30.10

Something wrong

June 7. 1861

MC 8 47 00

236 13 53 11.2

57.65

13 52 13.55

5 4 14.24

8 47 59.31

1 26.50

8 46 32.81

MC fast 27.19

16

MC fast of B 11.19

12.49

11) 1.30 (- 0.12

EC fast 5 2.72

EC 13 55 10.07

236 13 51 5.00

4 5.07

5 2.72

236 fast 0 57.65

June 12. 1861

 ΣC fast 5^m 15.54

MC	9	38	00	MC	10	3	00	ΣC	15	6	6.6
236	15	4	12.4	236	15	29	16.6	236	15	2	5.0
		1	13.9			1	13.9			4	1.6
	15	2	58.5		15	28	2.7			5	15.5
	5	23	57.03		5	23	57.03	236 fast	1	13.9	
	9	39	1.47		10	4	5.67				
		1	34.86			1	38.97				
	9	37	26.61		10	2	26.70				
MC fast			33.39				33.30				
			16								
MC fast of B			17.39								

June 17

 ΣC fast 5 22.45

MC	8	35	00	ΣC	14	27	2.5
236	14	20	54.6	236	14	23	5.0
		1	24.95			3	57.5
	14	19	29.65			5	22.45
	5	43	39.82	236 fast	1	24.95	
	8	35	49.83				
		1	24.51				
	8	34	25.32				
MC fast			34.68				
MC			16				
MC fast of B			18.68				
			17.39				
			5) 1.29 (+0.26)				

June 20

MC	11	21	00
196	17	18	5.9
			20.1
	17	17	45.8
	5	5.1	29.5-0
	11	22	16.3
		1	51.77
	11	20	24.53

Mc fare

35.47

16

Mc fare of B

19.47

18.68

3) 0.79 (+0.26)

EC 5 27.1

EC	17	26	00
196	17	20	53.0
		5	7.0
		5	27.1
			20.1

June 28

MC	9	5	00
236	15	34	47.8
		1	52.67
	15	32	55.13
	6	27	1.96
	9	5	53.17
		1	29.43
	9	4	23.74

Mc fare

36.26

16

Mc fare of B

20.26

19.47

8) 0.79 (+0.10)

EC fare 5 35.47

EC	15	35	47.8
236	15	32	5.0
		3	42.8
		5	35.47
236 fare		1	52.67

July 2, 1861

MC 8 6 00
 236 14 51 34.9
 2 4.21
 14 49 30.69
 6 42 48.19
 8 6 42.50
 1 19.73
 8 5 22.77

MC fast 37.23
 16

MC fast of B 21.23
 20.26

4) 0.97 (+0.24)

EC fast 5 38.71

EC 15 4 00
 236 15 0 25.5-
 3 34.5-
 5 38.71

236 fast 2 4.21

July 5

MC 8 20 00
 236 15 18 35.6
 2 12.52
 15 16 23.08
 6 54 37.87
 8 21 45.21
 1 22.20
 8 20 23.01

MC fast 36.99

MC fast of B 20.99
 21.23

3) 0.24 (-0.08)

EC fast 5 41.42

EC 5 17 33.9
 236 15 14 5.0
 3 28.9
 5 41.42
 236 fast 2 12.52

July 10

Mc 9 11 00
 23 196 16 26 57.7
 43.41

16 26 14.29

7 14 20.66

9 11 53.63

1 30.41

9 10 23.22

Mc fast 36.78

Mc fast of B 16

20.78

20.99

5) 0.21 (-0.04)

EC fast 5 44.81

16 40 00

16 34 58.6

~~5 44.8~~

5 1.4

5 44.81

196 fast 43.41

July 15

Mc 8 0 0

23 6 15 37 22.5

2 36.69

15 34 48.81

7 34 3.45

8 0 42.36

1 18.75

7 59 23.61

Mc fast 36.39

16

Mc fast of B 20.39

20.78

5) 0.39 (-0.08)

EC fast 5 48.19

EC 15 37 0.01

23 6 15 33 48.5

3 11.5

5 48.19

23 6 fast 2 36.69

July 20

EC fare 5 51.88

MC 8	18	00
236 16	15	19.8
	2	47.88
16	12	31.92
7	53	46.23
8	18	45.65
	1	21.71
8	17	23.98
MC fare		36.02
		16
MC fare of B		20.02
		<u>20.35</u>
		5) 0.37 (-0.09)

EC 16	16	9.0
236 16	13	5.0
	3	4.0
236 fare	2	47.88

July 26

EC fare 5 54.7

MC 8	19	00
236 16	31	14.5
	3	3.9
16	28	10.6
8	17	25.57
8	10	45.03
	1	20.40
8	9	24.63
MC fare		35.37
		16
MC fare of B		19.37
		<u>20.02</u>
		6) 0.65 (-0.11)

EC	16	28	53.8
236	16	26	5.0
		2	50.8
		5	54.7
236 fare		3	3.9

EC run down

July 30

MC 9 8 00

236 17 43 15.8

3 11.2

17 40 4.6

8 33 11.8

9 6 52.8

1 29.59

mcfare 9 5 23.21

2 36.79

Again MC 9 17 00

236 17 52 17.2

3 11.2

17 49 6.0

8 33 11.8

9 15 54.2

1 31.07

mcfare 9 14 23.13

2 36.87

July 30/31

MC 18 0 0

236 2 36 43.5

3 11.84

2 33 31.66

8 33 11.80

18 0 19.86

2 56.99

17 57 22.87

mcfare 2 37.13

16.00

2, 21.13

EC fare 41.20

EC 17 31 35.0

236 17 34 5.0

2 30.0

41.2

236 fare 3 11.2

EC fare 41.34

EC 2 37 00

236 2 39 30.5

2 30.5

41.34

2 11.84

Can find no mistake in the
work of this page

Aug 2. 1861

EC fast 42.50

MC 8 51 00

236 17 38 4.4

3 14.1

17 34 50.3

8 45 1.47

8 49 48.83

1 26.80

8 48 22.03

MC fast 2 37.97

16

MC fast of B 2 21.97

2 21.13

2.5 10.84 (+0.84)

90

EC 17 38 00

236 17 40 31.6

~~42~~

2 31.6

42.5

236 fast 3 14.1

Aug 4.

EC fast 42.59

MC 8 19 00

236 17 14 45.1

15.69

17 14 29.41

8 52 54.58

8 21 34.83

1 22.17

8 20 12.66

~~MC fast~~

MC slow 1 12.66

16.

MC slow 1 28.66

EC 17 12 31.9

236 17 12 5.0

26.9

42.59

236 fast 15.69

Aug 15, 1861

MC	8	41	00
236	18	16	22.9
			20.87
	18	16	2.03
	9	36	16.69
	8	39	45.34
		1	25.15
	8	38	20.19
Mc fast		2	39.81
			16.00
Mc fast of B	2		23.81

 ΣC fast 47.77

ΣC	18	22	0
236	18	21	33.1
			26.9
			47.77
236 fast			20.87

Aug 20.

MC	8	10	0.0
236	18	5	2.9
			24.39
	18	4	38.51
	9	55	59.46
	8	8	39.05
		1	20.05
	8	7	19.00
Mc fast		2	41.00
			16
Mc fast of B	2		25.00
	2		23.81
			5) 1.19 (+0.26)

 ΣC fast 48.79

ΣC	18	3	0.0
236	18	2	35.6
			24.4
			48.79
236 fast			24.39

Aug 23 1861

EC fare 51.47

MC 8 35 00
 236 18 42 0.9
 30.87

18 41 30.03

10 7 49.13

8 33 43.90

1 24.15

8 32 19.71

Mc fare 2 40.21
 16

2 24.21

2 25.00

3) 9.71 (- 0.21

EC 18 39 0
 236 18 38 39.4
 20.6

51.47

236 fare 30.87

Aug 28.
 MC 8 22 14.0
 236 18 49 5.0
 fare 39.78
 18 48 25.22
 10 27 31.90
 8 20 53.32
 1 22.57
 8 19 30.75
 Mcf. 2 47.25
 16.
 fare of Boston 2 31.25
 24.25

5) 7.00 (11.40

EC 14.3 fare of 236.
 39.78
 EC. 54.08 fare

Sept 4. 1861

MC 8	31	0
236 19	24	59.05
		20.53
19	24	38.52
10	55	7.77
8	29	30.75
	1	23.47
8	28	7.28
MC fast	2	52.72
		16.00
MC fast of B	2	36.72
	2	31.25
		7) 5.47 (+0.78)

EC fast 59.13

EC 19	24	0
236 19	23	21.4
		38.6
		59.13
236 fast		20.53

236 ran down Sept 2.

Sept 6.

MC = 8	20	00
236 = 19	21	00.4
		22.7
19	21	27.7
11	3	0.88
8	18	26.82
	1	21.66
8	17	5.16
MC fast	2	54.84
		16.00
MC fast of B	2	38.84
	2	36.72
		2) 2.12 (+1.06)

EC fast 1 00.50

EC 19	25	00
236 19	24	22.2
		37.8
	1	0.5
236 fast		22.7

Sept 12th 1861is it the 12th ^{11th} yes, the 12thEC fare 0^m 55.95-

Mc 5 1 00

236 16 28 34.8

30.15-

16 28 4.65-

11 26 40.20

5 07 24.45-

0 00 49.38

5- 0 35.07

Mc fare 24.93

16

Mc fare of B 8.93

EC 16 31 00

236 16 30 34.2

25.8

-55.95-

236 fare 30.15-

Sept 16, 1861

not able to fill the corr of EC

Mc 7 21 0

236 19 4 42.5-

236 fare 35.20

19 4 7.30

11 42 26.41

7 21 40.89

1 12.36

7 20 28.53

Mc fare 31.47

16.

Mc fare of B 15.47

8.93

6 16.54 (+1.09)

Sept 19.

MC	7	20	00
236	19	15	34.1
236 fare			39.8
	19	14	54.3
	11	54	16.07
	7	20	38.23
		1	12.19
	7	19	26.04
MC fare		0	33.96
			16
MC fare of B	0		17.96
			15.47
	3)	2.49	(+ 0.83

Sept 23

MC	8	42	0
236	20	53	34.0
			44.9
	20	52	49.1
	12	10	2.28
	8	42	46.82
		1	25.64
	8	41	21.18
MC fare			38.82
			16
MC fare of B			22.82
			17.96
	4)	4.86	(+ 1.21

Sept 26, 1861

MC 8 24 0

236 20 47 25.5
51.3

20 46 34.2

12 21 51.94

8 24 42.26

1 22.68

8 23 19.58

Mcfast 40.42

16.

Mcfast of B 24.42

22.82

4) 1.60 (+0.40)

Σcfast 1 8.60

EC 20 49 00.0

236 20 48 42.7

17.3

68.6

236 fast 51.3

Sept $\frac{29}{30}$ 1861

236 and El had run down.

236 11 30 32

ml. 22 53 16

fast 42.

22 52 34

3 45.5

22 56 19.5

12 33 41.6

Tid Time 11 30 1.1

236. 11 30 32.0

236 fast 30.9

El 11 35 30

236 11 36 7.2

El slow of 236 37.2

El slow 6.3

Oct 1, 1861.

EC slow 5:25-

MC 9 16 00

236 21 58 58.0

34.55-

21 58 23.45-

12 41 34.70

9 16 48.75-

1 31.22

9 15 17.53

Mc fast 0 42.47

16

Mc fast of B 26.47

24.42

5) 2.05 (-0.41)

EC 22 2 00

236 22 2 39.8

39.8

5.21-

236 fast 34.55-

Oct 9/10

Mc 2 32 26

236 11 26 3.5

Mc 4 19 36

236 13 13 31.5

Mc 5 22 7

236 14 16 13

107.2 18

6.5 10.5

14 16 13

48.4

14 13 24.6

13 17 3.7

0 56 20.7

9.2

0 56 11.7

Mc fast 4 23 55.3

Oct 10 3 50 PM

Mc 8 13 00

236 07 7 34.6

Oct. 14. a.m.

EC fast - 3.12
EC gain + 0.62 daily

MC	23	43	0
236	8	52	14.8
			53.62

EC	8	53	0
236	8	58	50.5
			50.5

8	51	21.18
13	28	53.34
19	22	27.84
	3	10.44

236	fast	3.12
		53.62
		34.55
		19.07

19	19	17.40
MC fast	4	23
	4	23

236	gaining	+1.41 daily
-----	---------	-------------

MC	42.60
	55.3
	12.7
MC losing	-3.1 daily

MC fast of 236 26.6

The rate of MC was attuned this date & set near to time the seeds not change

Oct. 15th

236 14 32 58.5

46. 0 44 0.

Oct-18

MC	7	33	00	56.2
236	21	22	56.2	

		1	1.7
21	21	54.5	
13	48	36.11	
7	33	18.39	
	1	14.26	

7	32	4.13
MC fast		55.87
MC fast of Bob	0	39.87

55.9
42.5
4.5) 13.3 (+2.13)

Oct 21

EC fast 8.39

MC 8	1	00
236 22	2	46.3
	1	6.89
22	1	39.41
40	0	25.77
8	1	13.64
	1	18.84
9	59	54.8
MC fast	1	5.2
MC fast of B		49.2
		39.9
		379.3 (+ 3.1)

EC	22	4	0
236	22	4	58.5
			8.39
236 fast		1	6.89

Rate of MC was altered at 9 P.M. 21st

Oct 24

EC fast 11.63

MC 4	51	00
236 19	4	8.4
	1	10.13
19	2	58.27
14	12	15.43
4	50	42.84
	0	47.63
4	49	55.21
MC fast	1	4.89
MC fast of B	0	48.89
		49.20
		10.31 (+ 0.10)

EC	19	6	00
236	19	6	58.5
			11.63
236 fast		1	10.13

Oct 28, 1861

Mc 6 25 00

236 20 54 15.6

236 far 1 15.0

20 53 0.6

14 28 1.65-

6 24 58.95-

+ 1 3.07

6 23 55.88

Mc fast + 1 4.12
16.00Mc far of Bost. 48.12
48.89

4) 0.77 (-0.19

Nov 1

Mc 6 48 0

236 21 33 11.2

236 far 1 20.6

21 31 51.2

14 43 47.87

6 48 3.33

1 6.85-

6 46 56.48

Mc far 1 3.52

16

Mc far of Bost 47.52
48.12

4) 0.60 (-0.15

Nov 5/6. 1861

 $\Sigma C \text{ far } 30.52$

MC 19 3 50

236 10 6 7.0

1 26.72

10 4 40.28

14 59 34.09

19 5 6.19

3 7.60

19 1 58.59

Mc far 1 1.41

16

Mc far of B 45.41

47.52

4.5) 2.11 (-0.47)

 $\Sigma C 10 7 00$

236 10 57 56.2

80.52

236 far 1 26.72

Nov. 11

 $\Sigma C \text{ far } 40.40$

MC 6 35 10

236 21 58 28.1

236 far 8.9

21 58 19.2

15 23 13.42

6 35 5.78

1 4.73

6 34 1.05

Mc far 58.95

16.0

Mc far of Bond 42.95

45.41

5.1) 2.46 (-0.45)

 $\Sigma C 21 50 0$

236 21 49 28.5

31.5

40.4

Nov 14. 1861

MC 8 51 00
 236 0 26 43.3
 10.28

0 26 33.02
 15 35 3.09
 8 54 29.93
 1 27.07
 8 50 2.86

MC fan 57.14

MC fan of B 41.14
 42.91-

3) 1.81 (-0.60)

EC fan 46.18

EC 0 25 0
 236 0 24 24.1
 35.9
 46.18
 236 fan 10.28

Nov. 19 A.M.

EC fast 47.0

MC 18 42 00
 236 10 35 17.1
 17.3
 10 34 59.8
 15 50 49.32
 18 44 10.48
 3 4.17

18 41 6.31

MC fast 53.69
 16

MC fast of B 37.69
 41.14

4.5) 3.45 (-0.77)

EC 10 49 00
 236 10 39 30.3
 29.7
 47.0
 236 fan 17.3

Nov. 22 1861

EC fare: 48.55

MC = 6 56 00
236 = 23 3 15.9
23.75

EC = 23 6 00
236 = 23 5 85.2
24.8

23 2 52.15
16 6 35.54
6 56 16.61
1 8.20
6 55 8.41

236 fare 23.75

Mc fare 51.59
16

Mc fare of Bond 35.59
37.69
3) 2.10 (- 0.70

Nov 26

EC fare 49.32

MC 7 49 00
236 0 12 21.5
31.82

EC 0 15 00
236 0 14 42.5
17.5

0 11 49.68
16 22 21.77
7 49 27.91
1 16.91

236 fare 31.82

7 48 11.00
Mc fare 49.00
16

Mc fare of Bond 33.00
35.59
4) 2.59 (- 0.65

Dec. 2. 1861

EC fan 48.92

MC 5 58 00
236 22 44 59.1

44.62

22 44 14.48

16 46 1.12

5 58 13.36

0 58.69

5 57 14.67

Mcfast 45.33

16

Mcfast of Boot. 29.33
33.00

6) 3.67 (-0.61

EC 22 48 00

236 22 46 55.7

4.3

48.92

236 fast 44.62

Dec 5

EC fan 46.70

MC 8 38 00

236 1 37 25.2

53.0

1 36 32.2

16 57 50.79

8 38 41.41

1 25.00

8 37 16.41

Mcfast 43.59

16.00

Mcfast of B 27.59
29.33

3) 1.74 (-0.58

EC 1 40 00

236 1 40 6.3

46.70

236 fan 53.00

Dec 9. 1861

EC fare 44.07

MC	9	24	00
236	2	39	33.9
		1	3.67
	2	38	30.23
	17	13	37.02
	9	24	53.21
		1	32.54
	9	23	20.67
Mc fare			39.33
			16
Mc fare of Bond			23.33
			27.59
			4) 4.26 (-1.06)

EC	2	40	00
236	2	40	19.6
			44.07
236 fare		1	3.67

Dec 9/10

MC	18	55	00
236	12	12	9.3
236 fare		1	4.6
	12	11	4.7
	17	13	37.0
	18	57	27.7
		3	6.3
	18	54	21.4
Mc fare			38.6
			16
			22.6
			23.3
			- 0.7

I find no error in last night's work, but a star with 236 this morning A.M.

Dec 16

MC 6 32 00
 236 0 15 5.3
 1 21.08
 0 13 44.22
 17 41 12.93
 6 32 31.29
 1 4.30
 6 31 26.99

Mefan

33.01

Mefan of Bon

16.00

17.01

23.33

$$7 \overline{) 6.32} (-0.90$$

ECfan 41.28

EC 0 17 00
 236 0 17 39.8
 41.28
 236 fan - 1 21.08

Dec 20

MC 4 35 00
 236 22 34 12.2
 57.4
 22 33 14.8
 17 57 59.16
 4 35 15.64
 0 45.09
 4 34 30.53

Mefan

29.47

16.

Mefan of Bon

13.47

17.01

$$4 \overline{) 3.54} (-0.885$$

ECfan 40.60

EC 22 36 00
 236 22 36 16.8
 40.6
 236 fan 57.4

Dec 30. 1861

EC far 37.0

MC	7	12	00
236	1	50	29.1-
		1	18.6
	1	49	10.9
18	36		24.74
7	12		46.16
	1		10.40
7	11		35.76

EC	1	53	00
236	1	53	41.6
			37.0
236 far	1		18.6

MC fast 24.24
 16.
 MC far of B 8.24
 13.47
 10) -5.23 (-0.52

Jan 7/8

EC fast 30.54

MC	20	30	10
236	15	42	20.2
236 far		1	32.74
	15	40	47.46
	19	7	57.20
	20	32	50.26
		3	21.97
20	29		28.29

EC	15	44	10
236	15	44	56.2
			36.54

EC is gaining seconds

MC	7	2	0
236	2	16	5.0

Comparison of New Clock with 236

Jan. 13

Comparison to be made at 2 o'clock p.m.

Jan. 13.	NC	21	48	0	Thurs.	Jan. 30	NC	_____
	236	21	32	4.5	31.5		236	_____
14	NC	21	58	0	24.0			
	236	21	41	41.5				
15	NC	21	52	0	25.0			
	236	21	35	17.2				
17	NC	22	27	0	27			
	236	22	9	32.7				
20	NC	23	0	0	31			
	236	22	41	27.0				
21	NC	23	37	0	28			
	236	23	18	4.0				
22	NC	dead						
	236							
23	NC	24	9	0	30			
	236	23	33	44.2				
24	NC	24	20	0	30			
	236	23	44	22.0				
25	NC	2	6	0	29			
	236	1	29	58.5				
27	NC	dead						
	236							
28	NC	—						

Jan 13. 5th Sid 10.7 + instr. correction
~~4.5~~ feet.

Jan 13/14

El 16 56 40
 236 58 8.7

236 17 1 24.5
 ML 21 25 1

El. 16 56 40
 11.0
 Sid 16 56 29.0
 19 31 36.5
 21 24 52.5

236 f. of El. 1 28.7
 El f. 10.7
 236 feet 1 39.4

17 1 24.5
 16 59 48.1
 19 31 36.5
 21 28 8.6
 3 31.0

4 Tim 21 24 37.6

ML 21 25 1
 feet 23.4
16.

feet of Boston 7.4

Jan. 15/16 1862

MC 19 5 0
 236 14 48 58.1
 236 Jan 1 43.7
 14 47 14.4
 19 39 29.7
 19 7 44.7
 3 8.0
 19 4 36.7

McJan 23.3
 16.0

McJan of Berl. 7.3

Jan 16

MC 8 11 0
 236 3 57 8.3
 236 Jan 1 46.7
 3 55 21.6
 19 43 26.22
 8 11 55.38
 1 20.59
 8 10 34.41

McJan 25.59
 16.

McJan of Boston 9.59

EE Jan 17.18

EE 3 58 0
 236 3 59 29.5
 17.2

1862 Jan 23

MC 8 22 00
 236 4 36 1.7
 236 fast 0 2 0.7
 4 34 1.0
 20 11 2.12
 8 22 58.88
 1 22.40
 8 21 36.48

Mean 23.5-
 16.0

Mean of Bon 7.5-

MC 9 22 00
 236 5- 36 11.7
 2 0.7
 5 34 11.0
 20 11 2.1
 9 23 8.9
 1 32.3
 9 21 36.6

Mean 23.4
 16.0

Mean of Bon 7.4

Jan 27

MC 7 56 00
 236 4 25- 51.3
 2 8.8
 4 23 42.5-
 20 26 48.35-
 7 56 54.15
 1 18.13

Mean 7 55 36.02
 23.98
 16

Mean of Bon 7.98
 7.30

4) 2.48 (+0.12)

EC fast 39.30

EC 4 31 00
 236 4 32 29.5-
 39.3
 236 fast 2 8.8

1862 Jan 3d.

E.C. far 5-1.40

Me 5 8 00
 236 1 53 12.4
 236 far 2 11.6
 1 51 0.8
 20 42 34.57
 5 8 26.23
 0 50.53
 5 7 35.70

Me far 24.30
 16

Me far of B 8.30
7.98

4) 0.32 (+0.08)

E.C. 1 5-0 00
 236, 1 5-1 20.2
 5-1.4

Feb. 5

E.C. far 1 7.30

Me 10 39 00
 236 7 44 45.2
 2 7.2
 7 42 38.0
 21 2 17.35
 10 40 20.65
 1 44.90
 10 38 35.75

Me far 24.25
 16.

Me far of B 8.25
8.30

5) - 0.05 (- 0.01)

E.C. 7 46 00
 236 7 46 59.9
 1 7.3
 236 far 2 7.2

Feb. 8. 1862

Me	7	57	00
236	5	14	9.3
		2	8.87
	5	12	0.43
	21	14	7.02
	7	57	53.41
		1	18.29
	7	56	35.12
Me far			24.88
Me	8	15	16.00
Me far of Bort			18.88
			<u>8.25</u>
			3) 0.63 (+0.21)

EC far 1 14.87

EC	5	15	00
236	5	15	54.0
			54.0
		1	14.87
236 far		2	8.87

Feb. 10

Me	8	30	0
236	5	55	7.6
		2	9.1
	5	52	58.5
	21	22	0.1
	8	30	58.4
		1	23.7
	8	29	34.7
Me far			25.3
			16
Me far of Bort.			9.3
			<u>8.9</u>
			2) 0.4 (+0.20)

1862 Feb. 14

Mc 7 54 0

236 5 34 48.6

2 11.9

5 32 36.9

21 37 46.34

7 54 50.56

1 17.79

7 53 32.77

Mc fan 27.23

16.

Mc fan of Bon 11.23

9.3

4 11.9 (+0.47)

Feb. 19

EC fan 1 50.5

Mc 1 15 0

236 23 14 25.4

236 fan 2 14.0

23 12 11.4

21 57 29.11

1 14 42.29

0 12.24

1 14 30.05

Mc fan 0 29.95

16.00

Mc fan of B 0 13.95

11.23

5 2.72 (+0.54)

EC 23 17 00

236 23 17 23.5

Feb. 21

Mc 7 56 0
 236 6 4 26.8
 236 fast 2 17.21
 6 2 9.59
 22 5 22.22
 7 56 47.37
 1 18.11

Mc fast 7 55 29.26
 30.74
 16

Mc fast of Bond 14.74
 13.95

2) 0.79 (+0.39)

EC fast 1 58.57

EC 6 7 00
 236 6 7 18.7

Feb. 25

Mc 7 34 0
 236 5 58 12.0
 236 fast 2 22.08
 5 55 49.92
 22 21 8.43
 7 34 41.49
 1 14.49
 7 33 27.00
 33.00
 16.

Mc fast 17.00
 14.74

4) 2.26 (+0.56)

EC fast 2 14.38

EC 6 0 00
 236 6 0 7.7

Mar 3. Mx

Me	18	17	00
236	17	2	42.2
236	fan	2	28.1

17	0	14.1
22	40	51.2
18	19	22.9
	3	0.1
18	16	22.8

Mcfast	37.2
	16.0

Mcfast of Bord	21.2
	<u>17.0</u>

5.5) 4.2 (+0.77)

EC	17	5	00
236	17	4	56.7

Mar. 7

EC fan 2 44.51

Me	9	5	0
236	8	8	50.6
236	fan	2	27.2
	8	6	23.4

23	0	33.97
9	5	49.43
	1	29.42

9	4	20.01
Mcfast		39.99
		16

Mcfast of Bord.	23.99
	<u>21.20</u>

4.5) 2.79 (+0.62)

EC	8	11	0
236	8	10	42.7
			17.3

Mar. 11. am

ECfact 2 53.70

Mc	18	7	0
236	17	22	2.3
236 fact			21.4
	17	21	40.9
	23	12	23.63
	18	9	17.27
		2	58.45
	18	6	18.82

EC	17	26	0
236	17	23	27.7
		2	32.3
		2	53.70

Mc fact

41.18

Mc fact of Bond

16

25.18

23.99

3.5) 1.19 (+0.34)

Mar. 18

Mc	7	58	0
236	7	43	19.5
			34.6
	7	42	44.9
	23	43	56.05
	7	58	48.85
		1	18.44
	7	57	30.41

Mc fact

29.59

16

Mc fact of B

13.59

Mc run down March 16

Mar. 24, 1862

MC 4 6 0
 236 4 14 26.4
 43.05
 4 13 43.35
 0 7 35.36
 4 6 7.99
 0 40.32
 4 5 27.67

MC fast 32.33
16

MC fast of Bost. 16.33
13.59

6) 2.74 (+ 0.46

EC slow 32.65

EC 4 16 00
 236 4 17 15.7
 1 15.7
 32.65
 236 fan 43.05

Mar. 27.

MC 8 51 00
 236 9 16 6.2
 51.7
 9 15 14.5
 0 23 21.58
 8 51 52.92
 1 27.14
 8 50 25.78

MC fan 34.22
16

MC fan of Bost 18.22
16.33

3) 1.89 (+ 0.63

EC 9 18 0
 236 9 19 13.7
 1 13.7
 EC slow 22.0
 236 fan 51.7

Apr. 4. 1862

EC slow ^s 4.91

Mc	3	41	0
236	4	32	2.0
236 fan		1	5.59
	4	31	56.41
	0	50	57.44
	3	40	58.97
		0	36.20
	3	40	22.77

Mc fan 37.23
16

Mc fan of Boul 21.23
18.22

7.7) 3.01 (+0.39)

EC	4	34	0
236	4	35	10.5
		1	10.5
			4.91

Apr. 7

Mc	5	38	0
236	6	42	14.1
		1	10.6
	6	41	3.9
	1	2	47.11
	5	38	16.79
		0	55.09
	5	37	21.70

Mc fan 38.30
16.00

Mc fan of Boul 22.30
21.23

3) 1.07 (+0.36)

Apr. 9

Apr. 9

Mc 4 41 0

236 5 53 0.8

1 14.4

5 51 46.4

1 10 40.21

4 41 6.12

0 46.25

4 40 28.14

Mc fan 39.86

16

Mc fan of B 23.86

22.39

2) 1.58

Mc 9 34 0

236 10 46 49.3

1 14.6

10 45 34.7

1 10 40.21

9 34 54.49

1 34.18

9 33 20.31

Mc fan 39.69

16

Mc fan of Bost. 23.69

22.30

2) 1.39

+ 0.69

Ber.

Apr. 11.

Mc 8 45 0

236=10 5 37.1

1 18.1

10 4 19.0

1 18 33.34

8 45 45.66

1 26.13

8 44 19.53

Mc fan 40.47

16

Mc fan of B 24.47

23.69

2) 0.78

+ 0.39

Apr. 15

Me 8 29 0
236 10 5 27.5

1 27.2

10 4 0.3

1 34 19.53

8 29 40.77

1 23.50

8 28 17.27

Mean 42.73

16.

Mean of Bord 26.73

24.47

4) 2.26 (+0.56)

Apr. 18

Me 8 49 0

236 10 37 27.2

1 34.76

10 35 52.44

1 46 9.19

8 49 43.25

1 26.78

8 48 16.47

Mean 43.53

16

Mean of Bord 27.53

26.73

3) 480 (+0.27)

Ecfar 29.46

Ec 10 39 0

236 10 40 5.3

29.46

Apr. 22. 1862

MC 7 39 0

236 9 43 8.8

236 far 1 43.7

9 41 25.1

2 1 55.41

7 39 29.69

1 15.27

7 38 14.42

Mc far 45.58

16

Mc far of B. 29.58

27.53

4) 2.05 (+0.51)

Apr. 29

2c far 57.37

MC 8 46 0

236 11 16 2.3

236 slow 6.33

11 16 8.63

2 29 31.29

8 46 37.34

1 26.27

8 45 9.07

Mc far 50.93

16.

Mc far of Bon 34.93?

29.58

7) 5.35 (+0.76?)

EC 11 21 0

236 11 19 56.3

1 3.7

EC 57.37

236 slow 6.33

May 6

MC	8	1	0
236	10	58	45.3
236	10	58	11.1
	10	58	34.2
	2	57	7.18
	8	07	27.02
		1	18.87
	8	00	18.15

MC fare

51.85-

16.

MC fare of Bond

35.85-

34.93

7) 0.92 (+ 0.13)

EC fare 12.9

EC	11	1	0
236	11	0	58.2
			1.8
			12.9

This Corr. of EC depends on one star
observed on one wire only. Clouds came
on.

May 7

MC	17	20	0
236	20	19	18.1
			12.5
	20	19	5.6
	2	57	7.18
	17	21	58.42
		2	50.70
	17	19	7.72

MC fare

52.38

16

MC fare of Bond

36.28

35.85-

EC fare 14.20

EC	20	22	0
236	20	21	58.3
			1.7
			14.20
236	20		12.50

May 11/2

ECfast

MC 18 8 0
236 21 31 19.0

EC 21 34 0
236 21 33 59.7

Too much haze to get a star

May 14

ECfast 31.03

MC 4 16 0
236 7 44 58.2
236fast 31.23
7 44 26.97
3 28 39.62
4 15 47.35
0 41.40
4 15 5.95

EC 7 43 0
236 7 43 0.2

Mcfast

54.05
16

Mcfast of Boot

38.05
36.28

7.5) 1.77 (0.24

May 16

ECfast 36.37

MC 9 2 0
236 12 39 42.9
36.97

EC 12 43 0
236 12 43 0.6

12 39 5.93
3 36 32.73
9 2 33.20
1 28.39
9 1 4.81

MCfast

55.19
16.

Mcfast of Boot

39.19
38.05

2.25) 1.14 (0.50

May 18/19 19th am

EC fan 41.90

Mc 17 29 0

EC 21 18 0

236 21 16 4.5

236 21 18 1.9

236 fan 43.80

21 15 20.70

3 44 25.85

17 32 34.85

2 52.16

17 28 2.69

Mc fan 57.31

16

Mc fan of Bond 41.31

39.19

2.1-2.12 (+0.80)

May 20

EC fan 45.60

Mc 9 0 0

EC 12 56 0

236 12 53 37.2

12 56 2.7

48.3

12 52 48.9

3 52 18.96

9 0 29.04

1 28.55

9 59. 0.49

Mc fan 59.50

16

Mc fan of Bond 43.57

41.31

) 2.20 (+1.47)

May 23, 1862

EC fare 52.76

Mc 5 57 0

EC 10 4 0

236 10 2 2.6

236 10 4 3.1

55.76

10 1 6.84

4 4 8.63

5 56 58.21

0 58.48

5 55 59.73

Mc fare 1 0.27

16

Mc fare of Bord 44.27

43.51

3) 0.76 (+0.25)

May 28

EC slow 55.03

Mc 9 28 0

EC 13 55 0

236 13 53 29.6

236 13 57 3.8

1 98.77

2 3.8

13 52 20.83

55.03

4 23 51.41

1 98.77

9 28 29.42

1 33.13

9 26 56.29

Mc fare 1 3.71

16

Mc fare of Bord. 47.71

44.27

5) 3.44 (40.68)

June 5. 1862

EC slow 34.67

Me 8 56 0

EC 13 57 0

236 13 53 11.2

236 13 59 6.1

1 31.43

2 6.1

13 51 39.77

236 fast 1 31.43

47 55 23.87

8 56 15.90

1 27.85

8 54 48.05

Mc fan

1 11.95

16

Mc fast of Bost.

55.95

47.71

8) 8.24 (+1.03)

June 10

EC slow 21.56

Me 8 42 0

EC 13 59 0

236 13 59 0.2

236 14 1 6.7

1 45.14

2 6.7

13 57 15.06

236 fan 1 45.14

5 15 6.66

8 42 8.40

1 25.54

8 40 42.86

Mc fan

1 17.14

16

Mc fast of Bost

1 1.14

55.95

5) 5.19 (+1.04)

1862. June 17

EC slow 3.72

MC 50 0
236 13 34 42.4

2 6.48

13 32 33.92

5 42 42.56

7 49 33.36

1 16.98

7 48 36.38

Mc fast 1 23.62

16

Mc fast of B 1 7.62

1 1.14

7) 6.48 (+0.93)

EC 13 34 0

236 13 36 10.2

2 10.2

3.72

236 fast 2 6.48

June 19

EC fast 1.51

Mc 8 23 0

236 14 15 45.0

2 12.61

14 13 32.39

5 50 35.68

8 22 56.71

1 22.39

8 21 34.32

Mc fast 1 25.68

16

Mc fast of B 1 9.68

1 7.62

2) 2.06 (+1.03)

EC 14 15 0

236 14 17 11.1

July 1. A.M.

Mc	17	3	0
236	23	40	54.2
236 fast		2	47.7
	23	38	6.50
	6	33	57.81
	17	4	8.69
		2	47.88
	17	1	20.91

Mc fast	1	39.09
		16
Mc fast of B	1	23.09
	1	9.68
	12)	13.41 (+1.12)

EC fast-

EC	23	41	0
236	23	43	17.2

July 8 7 30 P.M.

Mr. Lyman's watch
fast + 31.1

July 10

Mc	9	45	0
236	17	1	18.5
		3	9.9
	16	58	8.6
	7	13	23.39
	9	44	45.21
		1	35.80
	9	43	9.41
Mc fast	1	50.59	
		16	
Mc fast of Bal	1	34.59	
	1	23.09	
	9.5)	11.50 (+1.21)	

July 18

Mc 8	23	0
236 16	10	45.7
236 fan	3	27.4
16	7	18.30
7	44	55.85
8	22	22.45
	1	22.30
8	21	0.15
Mc fan	1	59.85
	16	
Mc fan of Box	1	43.85
	1	34.59
	8	9.26 (+ 1.18)

July 22

22	18	15
6	24	10.
	3	37.2
6	20	32.8
8	0	42.06
22	19	50.72
	3	39.51
22	16	14.21
	2	3.79
	16	
	1	47.79
4.6		3.94 / 0.85

July 29 AM

Mc 19	31	0
236 3	56	25.8
236 fan		4.6
3	56	21.8
8	24	21.4
19	32	0.4
	3	12.0
19	28	48.4
Mc fan	2	11.6
		16.0
Mc fan of B	1	55.6
	1	47.79
	7	7.81 (+ 1.12)

Aug 1st PM.

Mc.	5	16	0	(not good)
236	14	14	36	
Mc	5	18	34	(better)
236	14	17	10.5	

Aug 6. + Boston

14 9 32.46
 Core. band +0.50
 2/32-48] -0.14
 cut -0.20
 14 9 32.62
 9 24.50
 fact. 8.12

14 11 6.6 15.0 + 8.
 11.5 30.0

Chs. fact. +8.45 of EL
 " 16.47 of Lintine

236 14 17 10.5
 +16.57
 14 16 53.93 Lintine
 8 59 50.42
 5 17 3.51
 57.94
 5 16 11.57
 18 34.00
 2 22.43 fact
 16.

2 6.43 fact of Boston
 1 55.6

28.81
 722
 841 / 10.83 / +1.29
 841
 242
 168

Aug. 16

ML 8 26 23
 236. 18 3 4.5
 34.64
 236 18 2 29.86
 7 39 15.98
 8 23 13.89
 1 22.44
 8 21 51.45

ML. f. 2 31.55
 16

fact of Boston 2 15.55
 6.43
 10 / 9.12
 +0.91

20th

236 14 3 42.0
 ML. 4 9 50.0
 45.20
 Lintine 14 2 56.80
 9 55 2.18
 4 7 54.62
 40.61
 4 7 14.01
 2 35.99
 16

fact of B. 2 19.59
 2 12.55

3,8 / 4.44 (+0.16)

From Aug. 6-20 +0.98

EL fact 35.72 at 17th 28
 8.06
 Chs. fact of EL 1.15 at 17 59
 236 fact 34.63 " "

EL fact 44.59 at 14 9
 Chs. 0.61 fact of EL
 236 fact 45.20

1062 Aug. 21.

mlc 3 32 10
 236 13 29 54.5

[4]

cl. fast. 46.78 at 13 46
 Aug 24 56.64 7 36

9.72 3 17 50

~~2.44~~

mlc 3 34 25 } This comparison bad
 236 13 32 19 }

mlc 3 38 10
 236 13 35 54.5

236 fast of Ec. 0.24

Ec fast 46.96

236 fast. 47.20

E.

236- 13 29 52.50 13 35 54.50
 fast. 47.20 47.20

live time 13 29 7.30 13 35 7.30

9 56 58.74

3 40 8.56 3 36 8.56

34.43 35.41

MT Kambi 3 29 34.13 3 35 33.15

mlc. 3 32 10 3 36 10

2 36.87 2 36.85

mlc. fast 2 36.86

16.

fast of Boston. 2 20.86

1862 Aug 24
25

Mb. 21 24 19

236 7 39 52

55.14

Let time 7 38 56.86

~~55 55.74~~~~21 24 54.12~~

10 10 48.40

21 28 8.46

3 31.03

Mb. 21 24 37.43

del f. of Lamb. 2 41.57

16

fast of Boston 2 25.57

El fast 56.70

236 slow of El 1.56

236 fast 55.14

1862 Aug 27. th Chro. ²³⁶ ran down. Wound and set it nearly to sit. timeEl nearly down: wound it: set it back 2^m

Mb 3 46 35

236 14 14 49

Mb 3 49 24

236 14 17 38.5

El slow (13 42)

(14 9)

13 56

236 fast of El

236 slow

53.46

53.34

53.58

46.95

6.42

Rate of El 2.33

21 14 14.55.32

10 30 31.17

3 44 24.15

36.76

14 17 44.82

3 47 13.65

37.13

del Lamb. 3 43 47.39

Mb 3 46 35

3 46 36.42

3 49 24

del fast 2 47.60

16

fast of Boston 2 31.60

Rate 1.42

1862 Aug Sept 2. PM

Chron 236 set in motion, and put slow,

ML	$\frac{20}{8}$	7 26	CL slow,	236 f. of El
236	18	54 18.5	17 27 43.94 .14	17 35 19.76
slow		24.02	19 14 43.71 .03	18 58 19.78
fast	18	54 42.52	Daily rate 2.29 El	20, 18 54 19.75
	10	46 17.38		43.77
	8	8 20.14		236 slow 24.02
		1 20.02		
ML time	8	7 5.12		
		24.00		
ML fast		20.88		
		16.		
f. of Boston		4.88		

ML is 12^h wrong for astronomical time.

Sept 2/3 AM

ML	$\frac{8}{20}$	48 26	Transit of Procyon by 236
236	7	37 33.5	Mean of wires 7 31 43.36
slow		23.22	Corr inst + 0.45
Std L.	7	37 46.72	7 31 43.81
	10	46 17.28	APR 32 7.04
	20	57 29.34	236 slow 22.23
		3 25.03	
	20	48 4.31	
ML		24.00	
ML fast		21.69	
		16.	
fast of Boston		5.69	

1860phae, pre-j, 150H

