

KG
11366
v. 644

Chronograph Record.
Ar 1874
From 1874 Aug. 22 to 1875 Jan. 19
Charles W. Sever, University Bookstore, Cambridge.

Aug 22 1874

2nd R. obs. Lib. & Home.

J. F. Meads.

2057 = 1038

Aug 23 1874

Nov = 1069

2 = 1070

N.R. obs. Gb. & zone
J. B. M. recd.

Aug 24 1894

W. R. Br. Gb. & one
of I m. recs.

not = 1071

/

Aug 25 1884

W.R. Dr. G.B.

I.R. M. Secos,

Nov = 1072

Aug 26 1874

N. S. R. Obs. G. B. & Home

W7 = 1073

Aug 27 1894
W. A. R. - ds. 16.
P. 1000

107-1034

S. B. M. recd.

Aug 31 1874

W. H. R. den Lib. & Rore

J. R. M. recd.

W. H. = 1075

Sept. 1 1874

Fix R. obs. Gb. & zone

I. P. mixed.

not = 1076

1874phae. proj. 16486
Sept. 2 #74

N.H. obs. G.B. & home.

S.F. Muccl.

Vol 1-1077

Sept 6 1874

W. R. L. ds. Gb.

S. P. M. u. c. s.

107-1078

Note. Arranged the Chronograph
 sheets in order of dates and num-
 bers and in packages by years.
 The following notes are made.

No. 638 and 639 ~~are~~ missing
 they contain one or two time stars
 each. No 653 is gone and prob-
 ably contains a note. It may be one
 of the sheets printed date. Re! for this

No 658 missing contains one time star
 No 672 missing. It being the last of 4
 sheets, ~~probably~~ contains only a very few
 observations. ~~Perhaps as ever is number~~
 of time stars.

674. No Observations.

692-3 Error in Numbering

No 709 Feb. 13 1873 is missing
See if this is one of the sheets without
date.

Nos. 854 to 1162 inclusive contain
the observations for longitude between
N.E.C. and West-Point. The sheets
were sent to West-Point to be read. They
are rolled up in a separate package.
No. 1169, Error in numbering.

871 to 879 inclusive also contain the
observations for longitude between N.E.C.
and West-Point. They are in the roll
mentioned above.

220. Missing

233 Missing. Probably contains only a
few timetables.

281 Missing. Can't account for it -

284 Error in numbering.

353 " " "

Sept 7 1874

Nov - 1079

Mr H. J. G. and Bone

J. P. M. ucd

Sept. 9 1834

W. H. St. L. & Son

J. B. Macos.

Wol - 1080

Sept 10 1874

W. B. D. S. B.

J. F. M. u. c. l. s.

207 - 1081



Sept. 12 1874

24 Rds. Sk.

J. R. Mudds,

Vol. - 1082

Sept. 13 1874

W. A. S. L. S.

J. L. M. u. c. z.

No 1-1083

Trouble in circuit -
stopped now.

Sept. 16

J. V. R. takes his vacation

Oct-1 1874

W. A. R. returning from his vacation.
W. A. R. has. for time

Oct-3 1870

W. H. Rolan. Lib. & Home,
A. P. M. woods,

Nov = 1084
? = 1085

1879 Oct. 5

W.A.R. Obs. G.C.

W.A.R. rec. till 19 46

J.F.M. rec. from 19 46

Vol = 1687

Oct-6 1874

W H Cole Lib. & Rec.

W7-1078

J R M. recd.

Oct 10 1874

W. H. P. Dr. G. b. & home

no 1 = 1089

J. F. M. ucds.

Oct-11 1874

NOT = 1090

2 = 1091

W. R. Ols. G. b. & more

I. H. M. u. o. d. s. ,

Oct 12 1874

wt = 1092

2 = 1093

wt R. As. Gb. & zone.

J. F. Mudd.

OCT-14 1874

J. R. M. des. future

ms-1094

Oct-15-1874.

W. D. L. S. G. B. & S. M.

Nov = 1095

2 = 1096

J. R. M. u. c. d. s.

OCT-1874

M.R. de. 56.

J.F. M. 100

107-1097

Oct-19 1874

W. R. obs. G. & zone

J. B. Macdonald.

107-1098

Oct-20 1874

W.R. de Gb. & home

J. F. Macdon

wt = 1099

Oct 21 1874

W. R. P. obs. 4.6, & more
J. F. M. recd.

101 = 1100

2 = 1101

Oct 22 1874

W. R. obs. G. B. & more
S. R. M records.

W1 = 1102

2 = 1103

Oct 26 1874
R. P. M. Reed, G. B. & Son

Nov = 1102
2 = 1105

Oct 2 ~~D~~ 1874
W. R. My. G. b. & home
No 1 = 1104
2 = 1105

Oct 27 1874
W. R. Vols. Gle
J. F. Meadows,
No 1 = 110 6

Oct. 28 1874
W. R. Ohlrich,
J. F. Meade,
No. 1107

Oct-31 1874

W. R. des. Sp. Line

W. R. des (112) with the
equator

No 1 = 1108

Nov 2 1874

W. A. R. obs. (112)

W. A. R. obs. 46,

I. F. M. obs.

Nov 1 = 1109

2 = 1110

Nov 3 1874

Mr R. S. P. 112

J. P. R. G. G.

J. R. M. R. S.

Nov 1 = 1111

2 = 1112

Nov 4 1874

Ms. Res. lib. & mss.

J. R. M. u. d. s.

M1 = 1113

2 = 1114

Nov 5-1874

W. P. B. & Co.

J. F. M. & Co.

Nov = 11/15

The Bond and Sons,
having put a new escapement
on the East Clock, it was
this day set-up and regulated
to sun sidereal time.

The South Clock will be used
for observations as hitherto but
it will be compared on the chro-
nograph before and after obser-
vations of G. B. & zone. The comp-
arison will be found in the
Time Book.

1874, Nov. 7

M.A.R. obs. G. C. + Zone

M.A.R. rec. till 21 40

for F.M. rec. from 21 40

$M7 = 1116$

$2 = 1117$

Mr Bond & sons having
put a new escapement on the east-
clock it was started this date reg-
ulated to sidereal time.

1874, Nov. 8

W. A. R obs. G. C.

W. A. R. rec till 21^h 31^m

J. F. M. rec. from 21 31

Nov = 11/18

2 = 11/19

Apr 9 1894

W. H. Rols, G. S. & son
S. F. Muedy,

W7 = 11.20

Found out that the El.
^{the 2nd}
 leave out - & second as well
 as the 6th — — — — —

Nov. 10 1874.

W. R. S. L. G. & Home
J. R. M. reads,

$N = 1121$

$\gamma = 1122$

Note of the
The east-Clock not proving satisfactory
The clock was overhauled this date.
The break circuit was arranged so as
to put in the 59th second instead of
leaving out the 60th second.

The beginning of the minute is therefore
the first break after the interpolated
break.

Nov 11 1874

N. A. R. Oles. Gl. & H. R.

J. F. M. R. Oles.

W1 = 1123

2 = 1124

Nov. 12 1874

W. A. B. Oles 26, & 27
J. E. Mreeds,

Nov 1 = 1125

Ch. said for all but 5 or 6 stars of
the zone.

Nov. 14

Mr Bond & Long, cleaned the
 South Clock ^{teeth to the escapement wheel.}
 Round the ~~parts~~ reydined
 Set S.b. about 11° slow.

Nov 16 1894

Mr R. C. G. & Son.

J. F. M. v. d. z.

Nov 1 - 1126

2 - 1127

1874 Nov. 18

W.A.R. obs. G.C. + Gane

W.A.R. rec. till 22³

J. F. M. rec from 22³

Nov = 1128

2 = 1129

No 15174

W. R. de la

J. B. Muelz

2401 = 1130

Nov. 21 1874

W.R. des. G. b. & some.

J. R. M. u. d. s.

Nov 1 = 1831

Nov. 22 1874

W. R. Ch. N. G.

J. E. M. reads,

Nov 25 1874

Nov. 24 1874

2nd HR. by G. B. & now

J. R. M. recd.

1001 = 1133

1002 = 1134

Nov 26 1874

Mr R. D. B. & home
J. E. Mearns,

Nov = 1135

² = 1136

Nov 29 1874
228 Bels. 46.
J. B. M. 1137

Nov. 30 1874

Nov. 18. 4h. x zone,
J. R. Micey
Nov = 1138

Dec 1874

W. R. ds. Gb. & zone

I. B. Meads.

(W) = 1139

Z = 1140

1874 Dec 3

M. A. R. obs. G. C. & Zone
J. 7. m rec'ds

No 1 = 114

Juno Companion Stars. *Art. No. 20.*

2002

<i>h</i>	<i>Δ</i>	<i>s'</i>	<i>for 1000</i>	<i>Δ</i>	<i>Δ</i>
2	43	17	—	6	4
2	44	41	—	6	4
2	50	14	—	5	46
2	54	11	—	6	1
2	54	59	—	5	55
2	56	52	—	5	49
2	59	24	—	5	17
3	0	23	—	4	50
3	1	19	—	4	34
3	3	20	—	4	14
3	4	25	—	2	58
3	4	27	—	3	19
3	4	31	—	3	5
3	5	3	—	2	40
3	6	0	—	2	49
3	7	50	—	2	36
3	8	24	—	2	21
3	8	36	—	2	1
3	9	15	—	1	48
3	10	8	—	1	37
3	11	0	—	1	15
3	11	15	—	0	20

2

3	12	15	-	-	-	-	+	0	1
3	12	33	-	-	-	-	-	0	2
3	13	38	-	-	-	-	-	0	11

Dec 8 1874

W. R. Dr. bl.

J. R. Madsen

Nov - 1142

Dec 9 1874

W. & R. obs. 46.

Attempted now. too cloudy,

I. E. M. recds.

1101-1143

Dec. 10 1874

W.R. des. G. & home

A. B. Inverness

Nov - 1144

Dec 12 1874

W. R. de. Lib. none and
Companion Star for same.

J. R. Muccl. vol 1145

No 2 = 1146

Dec 14 1874

W.R. de Gb.

V.R. M reads.

No food seeing for now.

Wet 1147

Dec 15-1874

W. S. R. Obs. G. H.

J. E. M. reads.

too bad seeing for now.

(Nov = 1148

Dec 16 1874

H.R. obs. Gb. & zone,

S.F. Mucos.

Nov 1 = 1149

2 = 1150

Dec. 21/87

W.A. R. obs. G.B. and J. no Comp.
stars. In bad seeing for some
J. F. Meeds.

Vol = 1157

2 = 1152

Dec. 23 1874

N.S. Roles. G. L. and
 Attempts. None and Sun
 Comp. Stars. Pairing in account
 of ~~Chronograph~~ Chronograph and Clouds.

J.R. M. u. d. s.

147 = 1153

Set the clock in coincidence
 with the N. B. took off all the
 weights at 11^h 28^m M.T. (Dec 23.96)

Dec 29 1874

J. E. M. des for time

not = 1154

N. b. = 49^s slow of N. b. at-
 11^h 16^m M. T. (= 24.96)

Dec 25

N. b. = 100^s at 9^h 12^m

Dec. 26

N.C. = 161 slow of U.S.B.
 at $7^{\text{h}} 33^{\text{m}}$ A.M.
 (19)

Dec. 27.4

N.B. = 193^{s} slow of M.C. at $8^{\text{h}} 55^{\text{m}}$ M.T.

Dec. 28.9

N.B. = 232 slow of N.B. at $11^{\text{h}} 23^{\text{m}}$ A.M.

Put on 18 cubes at $11^{\text{h}} 23^{\text{m}}$ A.M.

Dec. 29.9 at $11^{\text{h}} 23^{\text{m}}$ N.B. = 267^{s} slow

of N.B. and this notwithstanding the addition
 of 18 cubes. The N.B. is evidently
 not sensitive to additive weight.

Dec. 27/1874

W.R. ds. 2/3, & attempts none.
J. F. M. v. d. s.
W7 = 1155

Dec. 29.

Set N. 6. with N. 6.
17 cubes on the pendulum

Jan 1 1875

W. R. Oles. Harvard Univ Comp. Star.

S. P. M. Acad.

Nov - 11.56

Jan. 9 1877 -

W. F. R. R. G. L.

W. F. R. R. G. L.

no 1 - 1157

Jan 10 1875

Not = 1158

2 = 1159

W. R. v. G. B. Rome & Mrs. C. M. P. H.

W. R. v. G. B. Rome & Mrs. C. M. P. H.

Jan 11 1875

No 1 = 1160

2 = 1161

W. R. des. C. C.

W. R. recd.

Jan 12 1895

Not = 1162

W. H. R., obs. H.

W. H. R. recd.

Jan 14 1875

Reversed.

The fixed circle is now West i.e. after reversal.

Before reversal examined for inclination of vertical threads, there having been no disturbance of the diaphragm since Jan 15 1874

Found that the inclination had changed from some unknown cause, about $10'$ to $12'$

Hereafter the perpendicularity of the threads will be examined at least once a week. ~~The only harm this change will~~
~~do, ~~will be in~~ this change will give a~~
careful examination of the inclination derived from the observations. The value of the observations however will not be affected since the errors of inclination are eliminated by ~~the~~ the preceding and following observations for $\sqrt{}$.

(Jan 14 1875)

After universal took out the glass
diaphragm and cleaned it. Adjusted
carefully in inclination after putting back.

Adjusted the microscopes to read
alike at 5° , the instrument pointing
N. the north Collimator.

~~As the microscopes~~

Note made after the conclusion of the
observations of Jan 14

Microscope head. It seems to be a little
loose. ^{Was careful to use only the forward motion}
~~The focus of the circle divisions seem~~
~~to be a little different. There seems to be~~
a little difference between the ^{focus} ~~circle~~
of the circle divisions, in day and night
reading.

After this date the Venus mic. be read
on 5° (from $55' 45''$) when the Telescope points
on the North Collimator.

Jan 14 1875

H. R. obs. G. B. zone and
Juno Companion Stars.

H. R. Reads,

No 1 = 1163

2 = 1164

The reversing found that the east-pivot-
(before reversal) had some the segmental bearing
about half an inch in width near the center
the metal of the bearing being collected on the
pivots. The bearing does not seem to be damaged
whether the pivot is, can only be found by subsequent-
discussion. It is quite uncertain how this can
have occurred. Oil in the bearings was not wanting
and was ~~very~~ ^{freely} distributed over the whole
segmental surface. As the cases have been kept
carefully closed, it is not easy to see how any thing
could have fallen upon the pivots, this being the most
natural explanation.

Jan 16 1875

W.A.R. obs. G.G. zone. and Sun's Comp.

Star.

W.A.R. recds.

Vol = 1165

2 = 1166

Jan. 17 1875

W. A. Rols. G. B. and attempts

none. Currey failed

W. A. R. reads.

Adjusted microscopes for focusing
and illumination before beginning work.

Set-microscope G to read about 10"
more than B.

Not = 1167

It is possible that the collimation errors
have been read wrong Jan 14 & 16. The
south collimator may have been .47062
instead of .46938. Or, the change of 10 dis.
may have resulted from not-screwing down
the thread plate.

~~Took out the tube and examined~~
~~the plate.~~

Jan 1875

W.R. obs. Gb.

W.R. veds.

Nov = 1168

Jan 19 1875
W & R Dr. G.
W & R Accd.,
No 7 = 1169

