1865phe.pr

N 48

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General record of work
done with the East Equatorial
1869 Nov. 25 — 1872 Oct. 14.

There are other records belonging to the same period in books N17 N 18, N19, a small memorandum book of measures of coincidence and zero, and possibly elsewhere, besides numerous observations of double stars on separate sheets, many of which are pasted into a scrap-book.

The general records contained in this package were collected and arranged as within
July 4, 1877.

KG.11365.329.5

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1

No. of Night. 20 Date. 1869 Nov 25. Thurs. Time of Opening. 7:20

Observers. C. S. P. E. P. A. Rec. C. S. P.

Sky Fair. Wind gentle from North.

Age of Moon 22 Temp. 34° — 32° Corr. of Chron. — 4s

Working of Instruments. Motion of clock pendulum not quite perfectly kept up. And at last the clock would not work.

Visitors.

Work Done. C stands for list of Doubles found here 1866–69.

AZ +2° 32 noticed to be red.

Looked for E. P. A's triple of 1868 Nov 17 near Arg Z +2°. 32. Not found.

Looked also near AZ +3° 32′. Not found. Must have been an asteroid. Found at last s.p. +2°. 32. Measured this triple mistaken for this and compared p.o. with AZ +2° 32′ True Triple found, described & compared with AZ +2° 32. C No 10. not found. Examined C. 15. Got place of it and measured it. Examined C 26. Found C 34

Aurora. p. B. at time of opening.

Shooting Stars.

Other incidents.

Time of Closing. 10:15 Reason. Clouded up.

Remarks.

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2

No. of Night. 21 Date. 1869 Nov 28 th Time of Opening. 7 30

Observers. J.W. - C.S.P - E.P.A. Rec. C.S.P. E.W.A.

Sky Fair, little wind -

Age of Moon 24.5 Temp. 33° Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Sweeping for Winnecke's Not seen. 6 34 obs

Observed double star C.32.

Found three nebulae described and identified with H 91. 98. 103

Aurora.

8:06 Telesc. meteor of 8 mag. seen by J.W.

Shooting Stars. At 6h 38½m (EPA) saw a meteor in the NW first seen nearly west of γ Ursæ Maj and disappeared nearby

Other incidents. below it at 1° distance moving very slowly without any tail it was almost exactly like a star or rather like a planet the light being nearly like that of Venus with the exception of a greenish tinge about the brightness of a 1st mag * as a little more brighter than α Lyrae

Time of Closing. 10:15 Reason. Clouds

Remarks.

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3

No. of Night. 22. Date. 1869 Dec 3 Time of Opening. $7^h\ 30^m$

Observers. T.M – C.S.P – E.P.A. Rec. E P A & C.S.P.

Sky Moderately fair. rather hazy

Age of Moon 0d Temp. 27.5 – 26 Corr. of Chron. ± 0s

Working of Instruments.

Visitors.

Work Done. Wm=C

Wm=C 12 ~~meas~~. W6 17 found two hazy fiducials Wm 2 meas. O A 1008? meas

Aurora.

Shooting Stars. 11 mgs at $1^h 30^m$ seen by C.S.P.

Other incidents.

Time of Closing. 10:00 Reason. Seeing extremely bad.

Remarks.

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4

No. of Night. 23 Date. 1869 Dec 7 Time of Opening. 6h 45m

Observers. E. F. N. C. S. P. J. W. Rec. EPA & CSP

Sky

Age of Moon 4d Temp. 24° – 18 Corr. of Chron. –1s

Working of Instruments. Clock did not work very well

Visitors.

Work Done.

looked at Venus two unsteady for obs. Win 6 two faint for obs
Win 13 obs Win 14 obs Win 18 obs 2 double ~~stars~~ α 0h 19.7m +3° 7'
found by CSP Win 27 measured.
Win 26 examined
Win 28 measured
Win 34 measured
Win 37 looked for Not found.
Win 38 Examined

Aurora.

Shooting Stars. 8:45 very slow meteor 9m mag in field.

Other incidents.

Time of Closing. 11:00 Reason. Very cold. Observers chilled through

Remarks.

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5

No. of Night. 24 Date. 1869 Dec 8 Time of Opening. 8h 30m

Observers. C. S. G. — E. R. A. Rec. EBA & CSG

Sky Brilliant

Age of Moon 5 Temp. 23 — 15 Corr. of Chron. −7s

Working of Instruments.

Visitors.

Work Done.

looked for x found by G E A Oct 17 1868 not found
Looked for W. M d's star of 1867 Dec 10 not found
Several doubles found.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 11:45 Reason. Late.

Remarks. Seeing wretched.

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6

No. of Night. 25 Date. 1869 Dec 10 Time of Opening. 8h

Observers. G S P E P C A Rec. E P A

Sky

Age of Moon 7 Temp. 22° -16 Corr. of Chron. -24

Working of Instruments. clock runs badly

Visitors.

Work Done.

Wm 3 looked at comp two faint to see Wm 5 looked for not found
A 3 + 4° 25 noticed to be double measured Wm 8 meas Wm 16 not comp
found Wm 17 meas

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 10 45 Reason.

Remarks.

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7

No. of Night. Date. Time of Opening.

Observers. Rec.

Sky

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. Reason.

Remarks.

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8

No. of Night. 24 Date. 1869 Dec 13 Time of Opening. 8:45

Observers. E.W. & C.S.P. Rec. C.S.P.

Sky Cleared off about 8:30

Age of Moon 11 Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 10:15 Reason. Clouded up immediately after opening & so remained till the dome was shut.

~~Remarks.~~

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9

No. of Night. 27 Date. 1869 Dec. 17. Friday Time of Opening. 8:30

Observers. C.S.P. Rec. C.S.P.

Sky Covered with thin clouds which are forming rapidly

Age of Moon 15 Temp. 37°–35° Corr. of Chron. −22ˢ

Working of Instruments.

Visitors.

Work Done.

Set for Win 57. Invisible through clouds.

Double star found. R.A. 2ʰ19ᵐ52ˢ Dec. −15°53′ Dist 10″ comp. p. Nings 7 & 9

Coincidence measured

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 9:45 Reason. Clouds. All up by moon.

Remarks. Clouded up entirely & thick just as work was beginning.

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10

No. of Night. 29 Date. 1869 Dec 20 Monday Time of Opening. 8h 50m

Observers. C. S. P. – E. P. A. Rec. C. S. P.

Sky Light clouds and haze.

Age of Moon 18d Temp. 32 – 28 Corr. of Chron. ± 0s

Working of Instruments. Clock would barely carry Telescope. At last not at all

Visitors.

Work Done.

Wm 64 measured. Wm 57 measured

Coincidence measured

Zero of pos. measured

Wm 57 measured

Wm 70 looked for, not found

Wm 71 looked for not found

Wm 72 Examined. Not separated

Sirius looking well. Comp suspected. Not seen well enough to measure

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 11h 45m Reason. Late.

Remarks.

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No. of Night. 30 Date. 1869 Dec 23 Time of Opening. 8h 30m

Observers. C. S. P. Rec. C. S. P.

Sky Fair, Stars not very bright but look steady to the naked eye.

Age of Moon Temp. 32° Corr. of Chron.

Working of Instruments.

Visitors. Dr. John Dalton. Dr. Charles Dalton and Mrs. Dalton

Work Done.

Great nebula examined. Sixth star seen. Not at its planest.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 11:45 Reason.

Remarks.

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12

No. of Night. 31 Date. 1869 Dec 24 Time of Opening. 7:30

Observers. J.W._C.S.P_E.P.A. Rec. C.S.P.

Sky Clear. Stars not v. bright to naked eye. Look as if v steady

Age of Moon 22 Temp. 30° ± Corr. of Chron. +2ˢ

Working of Instruments.

Visitors.

Work Done.

Comet III 1869 - Searched for not found.

Double star by E.P.A. 9 Mag. Dist. 7" R.A. 2ʰ 9ᵐ 03ˢ Dec +28° 50' Not in Struve

Great nebula in Orion examined with comet seeking eye piece

Comet III 1869 Found by C.S.P. Observed in two sets.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 11:45 Reason. Late.

Remarks.

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13

No. of Night. 32 Date. 1869 Dec 30 Time of Opening. 8:30

Observers. E. P. A. - C. S. P. Rec. C. S. P.

Sky Cleared off for a short time pretty well

Age of Moon 28 Temp. 43° ± Corr. of Chron. +6ˢ

Working of Instruments.

Visitors.

Work Done.

Found Comet III 1869 Measured it.

Looked for nebula at place where comet was seen on 24th. None there

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 10:45 Reason. Clouds.

Remarks.

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14

No. of Night. 33 Date. 1869 dec 31 Time of Opening. 7:15

Observers. J.W. – C.S.P. – Rec. C.S.P.

Sky Clear not brilliant

Age of Moon 29 Temp. 36° Corr. of Chron. + 3s

Working of Instruments.

Visitors.

Work Done.

4 examined.

D. III. 1869. Found.

Chron. corrected by η Taur.

Work about alcove – eyepieces reversed

D III. 1869. Measured by large circles with comparison star

Found a nebula following this. Suspected to be another comet

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. Reason.

Remarks.

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15

No. of Night. 34 Date. 1870 Jan 3 Time of Opening. 6:45

Observers. C. S. P. Rec. C. S. P.

Sky ~~Fair~~

Age of Moon 3 Temp. 37° Corr. of Chron. −4ˢ

Working of Instruments. Clock is irregular.

Visitors. W. P. Montague Esq - Mr. Cocliss & Mr. Francis of Lowell.

Work Done.

♀ examined. Satellite not seen.

Aurora spectrum contains the usual line.

Great nebula. General appearance examined. 5ᵗʰ Star easily seen with comet-seeking eyepiece.

Ⅲ 1869 Observed as nebula. Comp. with 59 Arietis.

♃ examined.

Win 66 examined. No comp. seen. Seeing bad.

Win 68 found and measured. Beautiful ~~pair~~ triplet.

Aurora. Pretty faint at time of opening. Afterwards became bright.

Shooting Stars.

Other incidents.

Time of Closing. 12:15 Reason.

Remarks.

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46

1870 no doubt; see p. 18

No. of Night. 35 Date. 1869 Jan 7 Friday Time of Opening. 7:30

Observers. J.W. – C.S.P. – E.P.A. Rec. C.S.P.

Sky Light clouds

Age of Moon 6 Temp. 20° Corr. of Chron. −29ˢ

Working of Instruments. Clock irregular. Gas froze up during evening

Visitors. Hon. E.B. Bigelow – Mr. Littles – Mr. Little Jr. – Rev. Mr. G.E. Ellis Rev. Mr. Henry of Belfast, Ireland.

Work Done.

Sirius examined. Comp seen with difficulty. Not fit to measure.

Wir 75 found. Declination measured. Pair measured

Zero measured

Coinc. measured

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 10:75 Reason. Clouds.

Remarks.

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17

1870 no doubt; see p. 18

No. of Night. 36 Date. 1869 Jan 9 Time of Opening. 7:30

Observers. J.W. – E.P.A. – C.S.P. Rec. C.S.P.

Sky Light clouds

Age of Moon 8 Temp. 10° Corr. of Chron. −43ˢ Then −4ˢ

Working of Instruments.

Visitors.

Work Done.

Wm 62½ Obs.

New Double found & measured. Following Wm 62½.

New Double found 2ʰ 40ᵐ 56ˢ (without corr) Same dec. as last.

Set chronometer back 39ˢ

Sirius measured

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 10:30 Reason. Clouds

Remarks.

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18

No. of Night. 39 Date. 1869 June 11 Time of Opening. 7:00

Observers. C. S. P. — N. S. Rec. C. S. P.

Sky Light clouds covering sky.

Age of Moon 10 Temp. Corr. of Chron.

Working of Instruments.

Visitors. T. S. Perry Esq. & Four Law-students. — Many others —

Work Done.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 9:30 Reason. Clouds.

Remarks. Law school all the evening.

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19

No. of Night. 38 Date. 1870 Jan 19 Time of Opening. 8:15

Observers. C.S.P. – Y.W Rec. C.S.P.

Sky Fair.

Age of Moon 18 Temp. 32° Corr. of Chron.

Working of Instruments. Clock at its work.

Visitors. Prof. Young.

Work Done.

Sirius Comp measured
ζ Cancri measured

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. Reason.

Remarks.

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No. of Night. 39 Date. 1870 Jan 21 Time of Opening. 7:55

Observers. C.S.P. — [illegible] Rec. C.S.P.

Sky Fair

Age of Moon 20 Temp. 29° Corr. of Chron. ± 0°

Working of Instruments. Clock & Chronograph as usual

Visitors. Prof. Young

Work Done.

Sirius. Comp. seen but not well enough to measure owing to bad seeing.

Chron. set.

Min 7th measured

Min 79. Looked for. Not found. σ Orionis is very near there.

Min 81 Found to be triple. Measured A,B and A,C

Sirius measured.

Disk of Sirius measured with different powers. 1".3 with 2".7 & 4" Powers & more with higher ones

Concr. A & B measured.

Aurora. At 9h 30m Faint

Shooting Stars.

Other incidents.

Time of Closing. 12:15 Reason.

Remarks.

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No. of Night. 40 Date. 1870 Jan 28. Friday Time of Opening. 7: 30

Observers. C. S. P. – T. W. Rec. C. S. P.

Sky Fair, air still, sky not too brilliant

Age of Moon 27 Temp. 34° Corr. of Chron. (set) – 1ˢ

Working of Instruments.

Visitors. George M. Blodgett Esq.

Work Done.

Win 2 scrutinized carefully with powers 6. & 7 by C.S.P. No duplicity detected. Not conclusive

Win 7b Examined Duplicity of A not made out. Seeing at the very worst.

ϑ Orionis examined. 6ᵗʰ star conspicuous not withstanding great tremulousness of stars

Sirius examined. On this star the tremulousness is less evident. Companion perfectly plain Measured

Castor measured

Uranus satellite measured: diameters measured.

Σ 1516 measured

Near double – Comp. of Σ 1516 Found by C.S.P. measured

Aurora. Moderate at 7: 30.

Shooting Stars.

Other incidents.

Time of Closing. 11: 45 Reason.

Remarks.

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22

No. of Night. 44 Date. 1870 Feb 1st Tuesday Time of Opening. 8h

Observers. C.S.P. J.W. Rec. C.S.P.

Sky Bright – High NW wind

Age of Moon 1 Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Castor measured

38 Gemin. = Σ982 measured

Sirius examined comp. not seen

Σ 1157 measured

P.VIII. 13 = Σ 1202 measured

ε Hydrae = Σ1273 examined, not separated.

Σ 1377 = P.IX. 161 Examined. Not separated

Aurora. Bright (Spectroscope has no slit)

Shooting Stars.

Other incidents.

Time of Closing. 10½ Reason. Seeing very bad

Remarks.

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23

No. of Night. 42 Date. 1870 Feb 10 Thursday Time of Opening. 8:30

Observers. C. S. P. Rec. C. S. P.

Sky Floating clouds. Seeing poor.

Age of Moon 10 Temp. 29° – 25° Corr. of Chron.

Working of Instruments. Clock rather troublesome.

Visitors. A telegraphic operator

Work Done.

Sirius examined. measured.
Coincidence measured.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 10:15 Reason. Clouds

Remarks.

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24

No. of Night. 43 Date. 1870 Feb 12. Saturday Time of Opening. 7:45

Observers. C.S.P. E.P.A. Rec. C.S.P.

Sky Fair N.Westerly Clouds. Very hard blow.

Age of Moon 12 Temp. 34° Corr. of Chron. +1ˢ (see F)

Working of Instruments. Gas in alcove went out. Telescope gas also went out.

Visitors.

Work Done.

Sirius examined Satellite not visible!

3 Doubles discovered

Double discovered by W.H. 1869 Jan 31. 6ʰ 37ᵐ 40ˢ looked for not found.

Mi 83 measured

Zero of position measured.

First star found tonight measured.

Third " " "

Second " " " "

3 more doubles discovered. Two measured.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 11ʰ Reason. Gas out.

Remarks.

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No. of Night. 44 Date. 1870 Feb 13 Sunday Time of Opening. 7:30

Observers. C. S. P. – E. P. A. Rec. C. S. P.

Sky Fair. Cold snap just coming on apparently. Seeing very poor.

Age of Moon 13 Temp. Corr. of Chron.

Working of Instruments. Gas in alcove not burning.

Visitors. Mr. Tutor Perry and a young friend

Work Done.

Sirius measured.

Five doubles found.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. Reason.

Remarks.

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No. of Night. 45 Date. 1870 Feb 16. Wednesday Time of Opening. 7:30

Observers. A.S. – C.S.P. Rec. C.S.P.

Sky Fair – nearly calm. N.W. Hazy.

Age of Moon 16 Temp. 31° – 26° Corr. of Chron. + 1s

Working of Instruments.

Visitors.

Work Done.

Jupiter examined. Belts measured.
Coincidences measured.
Sirius measured
Nin 82 looked for. Not found.
Swept for doubles. Found 4. Afterward 2 more.
Identified our 1870. No 21. 20. 22.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 11:15 Reason. Bad seeing

Remarks.

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No. of Night. 46 Date. 1870 Feb 19 Time of Opening. 7:45

Observers. C. S. P. T. W. A. S. Rec. C. S. P

Sky Fair. Northwest brisk wind

Age of Moon 19 Temp. 30° Corr. of Chron. ± 0ˢ

Working of Instruments.

Visitors.

Work Done.

Sirius examined with aperture of 3 inches. Afterwards with full aperture. Comp not seen

Neb h 1493 examined

Neb h 1564 examined

Neb h 1565 measured with circles & comp. star.

Neb h 1567 measured with circles & comp. stars

Neb h 1594 searched for. No nebula nor cluster of any account near.

Neb h 1620 looked for not found, moon having risen

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 10:45 Reason. Moon risen. Seeing very bad.

Remarks. Micrometer off since last open.

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No. of Night. 47 Date. 1870 Feb 20 Sunday Time of Opening. 7h 30

Observers. E.C.A. — C.S.P. Rec. C.S.P.

Sky Fair

Age of Moon 20 Temp. 35° Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Great nebula in Orion examined.
Zero of position measured
Coincidence measured
Examined Sirius. Comp not seen

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 8:45 Reason. Clouded up.

Remarks.

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No. of Night. 48 Date. 1870 Feb 24 Time of Opening. 8:00

Observers. E.P.N. – T.M. Rec. C.S.P.

Sky Fair – Cold snap.

Age of Moon Temp. 15° Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Measures of micrometer screw. For temp. coeff. cont

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 10 Reason. Cold & Seeing v. bad

Remarks.

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No. of Night. 49 Date. 1870 Feb 22 Time of Opening. 7:30

Observers. C.S.P – E.P.A. Rec. C.S.P

Sky Cloudy

Age of Moon Temp. 18° Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Observations for instrumental coefficients

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 10:30 Reason. Cloud set up entirely

Remarks.

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No. of Night. 50 Date. 1870 Feb 23 Time of Opening. 7:00

Observers. C. S. P. E. T. A. Rec. C. S. P.

Sky Rather thick

Age of Moon 23 Temp. 25° Corr. of Chron. 14m 41s

Working of Instruments.

Visitors.

Work Done.

Observed for instrumental constants

Min III examined. Duplicity not detected.

Min 110 Looked for. Not found.

2 New doubles found

Min 116 Looked for not found

Aurora. Moderate

Shooting Stars.

Other incidents. Zodiacal Light v. bright

Time of Closing. 11:15 Reason.

Remarks. ~~Fine~~

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No. of Night. 57 Date. 1870 Feb 25 Time of Opening. 7 15

Observers. E. P. A _ C S P. Rec. C. S. P.

Sky Fair _ Cloud coming up slowly from W

Age of Moon 25 Temp. 18° Corr. of Chron. −1ᵐ 19ˢ

Working of Instruments.

Visitors.

Work Done.

Two doubles discovered

Sirius measured

Triple discovered μ Can. Maj. Σ has it double

Σ 1516 A & B measured Twice

Σ 1516 A & C " "

Σ 1537 measured twice

Aurora.

Shooting Stars.

Other incidents. Zodiacal light very bright behind a bank of cloud causing its edge to be bordered with light

Time of Closing. 11:45 Reason.

Remarks.

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No. of Night. 52 Date. 1870 March 2 Time of Opening. 8:30

Observers. C.S.P. E.P. Seaver Rec. C.S.P.

Sky Fair

Age of Moon Temp. 26° Corr. of Chron. +0ˢ

Working of Instruments.

Visitors.

Work Done.

γ Cancri measured twice

Σ 1365 measured

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 10:45 Reason. Cloud

Remarks.

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No. of Night. 53 Date. 1870 March 3 Time of Opening. 7:15

Observers. E.P.A. C.S.P. Rec. C.S.P

Sky Fair. NW cloud

Age of Moon 2 Temp. 23° Corr. of Chron. −1ˢ

Working of Instruments.

Visitors. W. R. Stark

Work Done.

Sirius examined comp not seen

Min 91. 86. 84 examined

Two doubles found

θ Orionis examined

Min 88 doubled ~~examined~~ not found

Min 110 " " Found mags 7½. 7½. 10". Pos. 200° measured

Neb h 1620 not found

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 14:30 Reason. Bad seeing

Remarks.

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No. of Night. 54 Date. 1870 March 8 Time of Opening. 9 15

Observers. J W Rec. E Pod

Sky

Age of Moon 7 Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Sirius measured comp very bright red,
* fol Procyon 44° 14½' 3 measured
coincidence measured.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 11 Reason.

Remarks.

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No. of Night. 5-8 Date. 1870 March 9 Time of Opening. 7

Observers. Rec.

Sky

Age of Moon 8 Temp. Corr. of Chron. $-1^m\ 32^s$

Working of Instruments.

Visitors.

Work Done.

Sirius examined and measured
3 Argus examined too poor seeing to do anything
double * found by J W measured & Pos determined
3 more doubles found by J W and pos determined

Aurora. brilliant streamers at 11 P.M.

Shooting Stars.

Other incidents.

Time of Closing. Reason.

Remarks.

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No. of Night. 56 Date. 1870 March 14 Time of Opening. 9:45

Observers. C.S.P. E.P.A. Rec. C.S.P.

Sky Film of cloud all over, nearly.

Age of Moon 13 Temp. 32° Corr. of Chron. −2m 55s

Working of Instruments.

Visitors.

Work Done.

Zero of position measured
ζ Cancri measured
Sirius examined. Comp not seen
Swept for doubles
Double found and measured
Star following Procyon measured Force
Coincidence measured

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 16h 45m Reason.

Remarks.

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No. of Night. 57 Date. 1870 March 15 Time of Opening. 7:00

Observers. E. S. A. — C. S. P. Rec. C. S. P.

Sky Fair — Slight fog

Age of Moon 14 Temp. 33° Corr. of Chron. $-5^{m}\frac{1}{2}^{s}$

Working of Instruments.

Visitors.

Work Done.

Sirius measured 3 times

ω Leonis examined. measured

8 Sextantis examined

P IX.161 examined. Comp not seen.

ε Hydrae twice measured

ω Leonis measured

P IX 161 reëxamined Comp seen both too ff. to measure.

Coincidences measured

Aurora.

Shooting Stars. 3 telescopic meteors in rapid succession at $9^{h}5^{m}$ another at $9^{h}10^{m}$

Other incidents.

Time of Closing. 11:45 Reason.

Remarks.

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No. of Night. 58 Date. 1870 March 19 Time of Opening. 8

Observers. E. P. A. C. S. P. Rec. C. S. P

Sky Fair

Age of Moon Temp. 34½° Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Sirius examined with different powers & measured
α Leonis examined. Twice measured
Zeno measured.
Σ 1457 measured

Aurora. Bright

Shooting Stars.

Other incidents.

Time of Closing. 11:30 Reason.

Remarks.

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No. of Night. 59 Date. 1870 March 22 Time of Opening. 6:45

Observers. C.S.P. E.P.A. Rec. C.S.P.

Sky Fair. Then cloudy

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors. Mr. Buckingham of England & son and Messrs Clark.

Work Done.

Sirius measured
γ Cancri measured

Aurora.

Shooting Stars.

Other incidents. Zodiacal Light & bright

Time of Closing. 10:30 Reason. Clouds,

Remarks.

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No. of Night. 60 Date. 1870 March 24 Time of Opening. 7:15

Observers. E.P.A C.S.P. Rec. C S P

Sky Fair

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Sirius examined

Many nebulae (See Book)

Aurora. Faint

Shooting Stars.

Other incidents.

Time of Closing. Reason.

Remarks.

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No. of Night. 61 Date. 1870 March 25 Time of Opening. 7:15

Observers. E.P.A. – C.S.P. Rec. C.S.P.

Sky Fair

Age of Moon 24 Temp. Corr. of Chron. – 42^s

Working of Instruments.

Visitors.

Work Done.

Sirius examined. Measured twice
ζ Hydrae measured twice
P IX 161 measured twice
γ Leonis measured twice.
Zero of position measured
Coincidences measured twice.

Aurora. Some streamers

Shooting Stars.

Other incidents. Lwd. Light ✓B.

Time of Closing. 10:45 Reason. Bad seeing

Remarks.

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No. of Night. 62 Date. 1870 March 26 Time of Opening. 7 30

Observers. D W E P A. Rec. E. P. A.

Sky some clouds

Age of Moon 25 Temp. 33. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Sirius measured. -
ε Hydrae Measured
δ Serpentis examined elongation suspected

Aurora. bright patches

Shooting Stars.

Other incidents.

Time of Closing. 9 30 Reason. clouded up.

Remarks.

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No. of Night. 63 Date. 1870 Mch 31 Time of Opening. 7 30

Observers. D. W. E. P. A. 6 S P. Rec. E P A

Sky some haze

Age of Moon 0 Temp. Corr. of Chron.

Working of Instruments. very bright ghosts even on faint * s

Visitors.

Work Done.

Sirius examined comp. seen *measd twice
ε Hydrae examined, faint companion of Clark seen
ω Leonis meas twice
ζ 1457 meas twice
Pl X III 127 meas twice.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 12h Reason.

Remarks.

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No. of Night. 64 Date. 1870 April 1 Time of Opening. 7:15

Observers. E. P. A. — C. S. P. Rec. C. S. P.

Sky Very hazy —

Age of Moon Temp. Corr. of Chron.

Working of Instruments. Web broken out of micrometer

Visitors.

Work Done.

ξ Majoris Ursae.

Aurora. Faint

Shooting Stars.

Other incidents.

Time of Closing. 8:45 Reason. Micrometer hors de combat

Remarks.

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No. of Night. 65 Date. 1870 April 8 Time of Opening. 7:00

Observers. C.S.P. E.P.A. T.W. Rec. C.S.P.

Sky Fair. fine seeing

Age of Moon 8 Temp. 44° Corr. of Chron.

Working of Instruments. Moveable wire of micrometer sags.

Visitors.

Work Done.

Sirius measured

Fixed wires adjusted.

Zero measured

Cobwebs fixed but not well

δ Sextantis measured twice

Σ 1457 measured twice

α Leonis measured twice

Σ 1426 measured twice

constellations al cervus et amnis for doubles one found of 1"

Aurora. Faint arch. 9 P.M.

Shooting Stars.

Other incidents.

Time of Closing. Reason.

Remarks. 11:45

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No. of Night. 66 Date. 1870 April 9 Time of Opening. 7:00

Observers. J.W. C.S.P. Rec. C.S.P.

Sky Fair

Age of Moon 9 Temp. Corr. of Chron.

Working of Instruments. Movable wire micrometer loose.

Visitors. Rev. T.T. Ellis & 4 young gentlemen

Work Done.

Sirius measured
δ Sextantis meas twice
ω Leonis " "
3 Corvi meas.
New double
Coinc. meas.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 11 Reason.

Remarks.

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No. of Night. 67 Date. 187 April 12 Time of Opening. 7 ' 30

Observers. E P A Rec. E P A

Sky clear at first in West cloudy East

Age of Moon 13 Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

rings measured

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 8 30 Reason. clouded up

Remarks.

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No. of Night. Date. Time

Observers.

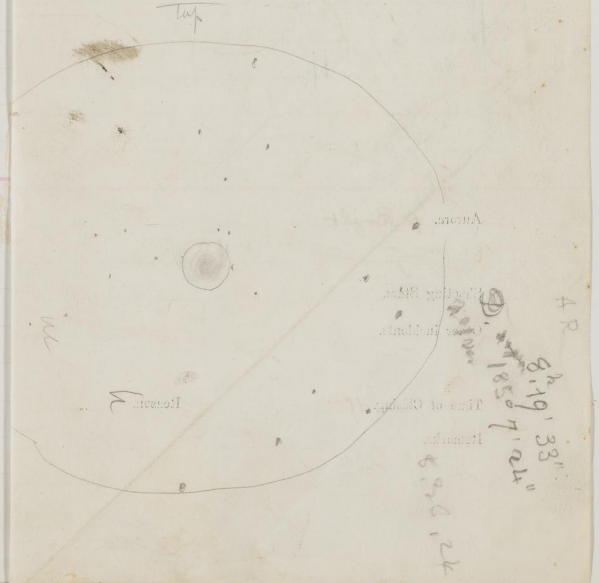
Sky

Age of Moon Temp. Corr. o

Working of Instruments.

Visitors.

Work Done.



Aurora.

Shooting Stars.

Other incidents.

Time of Closing. Reason.

Remarks.

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50

No. of Night. 4 Date. 1871 March 22 Time of Opening. 8 P.M.

Observers. C.S.P. – H.G. – W.A.R. Rec. C.S.P.

Sky Clear Wind NW

Age of Moon New Temp. 37.0 Corr. of Chron. 0 ±.

Working of Instruments. Finder not on

Visitors.

Work Done.

Sirius measured.

Felicitas obs.

Aurora. Pretty Bright

Shooting Stars.

Other incidents.

Time of Closing. 12h 30m Reason.

Remarks.

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No. of Night. 5 Date. 18/19 April 7 Time of Opening. 8:00

Observers. C.S.P. W.H. Rec. C.S.P.

Sky Clear –

Age of Moon 17.9 Temp. 41° Corr. of Chron.

Working of Instruments. Clock goes badly. Lamps out of order. Finder not in adjustment Micrometer Cross at first eye piece N36 very dusty No 5 not to be found, Chair moves very hard, Field illumination defective.

Visitors. Miss Kate Fay Miss Rosa Fay

Work Done.

Six Stars measured (with Micrometer)

W. X. Sq P measured

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 11 P.M. Reason. —

Remarks.

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No. of Night. 6 Date. 1871 April 8. Sat. Time of Opening. 7:45

Observers. C.S.P. Rec. C.S.P.

Sky Hazy.

Age of Moon 18.9 Temp. Corr. of Chron. +1s

Working of Instruments.

Visitors.

Work Done.

Examined W 1 X 72 but owing to bad seeing could not separate it,

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 9:45 Reason. Bad Seeing.

Remarks.

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16 40 28 − 12 44

9 28½

6 40

2 48½

9 28½

6 50

2 38½

9 21½

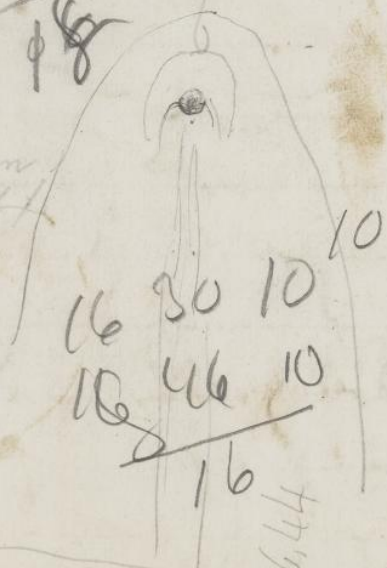
16 40 28

18 28 28

1 48 00

15h 46m

60.25



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1869phaec.proj.:3301

No. of Night. Date. May 2 1871 Time of Opening. 8.30

Observers. C. S. Pierce. Rec. H. G.

Sky Partially covered with cumuli - hazy - lots of clouds - light cirrus

Age of Moon 13.1 Temp. Corr. of Chron. 0

Working of Instruments. Good. Clock runs poorly.

Visitors.

Work Done.

Corrected Chronometer by Obsns on ζ Virginis.
Measured 44 Bootis ± Cor. Bor.

Aurora. None.

Shooting Stars. None.

Other incidents.

Time of Closing. 10 Reason. Clouded up

Remarks.

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54

No. of Night. Date. May 10-1871- Time of Opening. 8.15-

Observers. C. S. P- Rec. H. G-

Sky Seeing very good-

Age of Moon Temp. 44- Corr. of Chron.

Working of Instruments. Finder out of adjustment-

Visitors.

Work Done.

Obsd- Swift's Comet-

Measured 84 Virginis-

Coronae 1-

δ Serpentis-

Found a double 5+8.21 follows ζ 1658 about 3m- 8½ " 10 mags-

Measured ζ 1658-

Aurora. Complete arch low down in north- steady, white-

Shooting Stars.

Other incidents.

Time of Closing. ~~11.30~~ 12.0 Reason. Tired

Remarks.

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No. of Night. Date. May 11. 1871 - Time of Opening. 8. 30 -

Observers. H. G. Rec. ARC.

Sky

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Measured 44 Boötis -

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 11 - 0 Reason.

Remarks.

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No. of Night. Date. May 12. 1871 — Time of Opening. 8. 15

Observers. C. S. P. Rec. H. G.

Sky Hazy —

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors. Messrs Choate, companion —

Work Done.

Measured 49 Serpentis (Σ 2021.)
α Herculis (Σ 2140.)
ζ Herculis. (Σ 2161)
μ Draconis (Σ 2130)
ε Lyrae. (Σ 2382.)

Examined ζ Herculis but could not detect the least elongation.

Aurora. None —

Shooting Stars.

Other incidents.

Time of Closing. 10 1/4 Reason.

Remarks.

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57
1

No. of Night. Date. May 13-1871— Time of Opening. 8.0—

Observers. A.R.L.— Rec. H.G.—

Sky Seeing very poor.

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors. Mr. John Dixwell & family—

Work Done.

Measured L Gem—

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 10,30 Reason. Poor Seeing—

Remarks.

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58

No. of Night. Date. May 15 - 1871 - Time of Opening. 9.0

Observers. C. S. R + A. Rde - Rec. H. G.

Sky Seeing fair to middling - Grew worse later -

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Measured Σ 1476 Sought for Σ 1658 but failed to find it -

P XIII 238. (Σ 1788)

P. XIV. 70 - Σ 1837 -

10 Hydrae -

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 11.30 - Reason. Poor seeing —

Remarks.

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No. of Night. Date. May 18. 1871. Time of Opening. 7.30 -

Observers. C. S. P. Rec. H. G.

Sky - Seeing poor -

Age of Moon Temp. Corr. of Chron. + 6 sec -

Working of Instruments.

Visitors.

Work Done.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. Reason.

Remarks.

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No. of Night. Date. May 24. 1871 Time of Opening. 8. 0

Observers. C. S. P. H. L. A. R. C. Rec. ———

Sky — Tolerable.

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Preparations

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. Reason.

Remarks.

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61

No. of Night. Date. June 2. 1871 – Time of Opening. 8.0

Observers. C. S. P. Rec. H. G.

Sky Seeing poor.

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Adjusted finder.
Examined P. XIII 238, but could not separate it.
Measured 84 Virginis – Position only –

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 10 – 0 Reason. Poor seeing.
+ Mr. Pierce's eyes troubling him.

Remarks.

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62

No. of Night. Date. June 5. Time of Opening. 8.30.

Observers. C. S. P. Rec. H. G.

Sky

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Measured P XIII, 238. Examined Can Vin 181

49 Serpentis ≤ 2021. but could not separate

ζ Herculis. it.

≤ 1785.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 11.15. Reason. Poor Seeing.

Remarks.

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63

No. of Night. Date. June 12. Time of Opening. 8-0

Observers. G. S. P. Rec. H. G.

Sky Fair. Wind south

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Measured a Cor. Bor.
to Draconis.
ζ Herculis
ε 1785.

Examined P XIV 70, but seeing was so bad that could not separate it.
ζ Herculis, ditto.
Draco. 203. could not measure, but estimated distance and direction (see blank.)

Aurora. faint

Shooting Stars.

Other incidents.

Time of Closing. 10.45 Reason. Seeing poor.

Remarks. Obs. of little value

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1869phae.proj..330P

No. of Night. Date. 1871 June 13 Time of Opening. 9

Observers. C. S. P. Rec. C. S. P.

Sky Just cleared off from storm

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 9:30 Reason. Bad seeing

Remarks.

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No. of Night. Date. June 19-1871- Time of Opening. 8. 15-

Observers. C. S. P. & H. G. Rec. H. G.

Sky Seeing very fine.

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Measured Σ 2173. Discovered & measured a double,
73g Ophiuchi. Arg. Z+2°, 3345-
Coronae 1- Examined Saturn with 6th power.
Dusky ring very distinct. Separation
of rings very fine. Outer ring, now nearly
as dark as planet than inner ring.
Outer ring clearly divided. Bands
on planet clearly seen.

Aurora.

With 3rd power same seen yet more
clearly, especially the division of the
outer ring. Dusky ring much more
distinct.

Shooting Stars.

Other incidents.

H. G. with 4th power, saw plainly
division of outer ring into two.

Time of Closing. 12. 30. Reason.

Remarks.

Clouded up.

With 4th power. C. S. P. notices a shad-
ing on inner edge of inner ring. Might be
confounded with dusky ring, but is distinct
from it.
North pole of planet apparently
bluish dark different tone from rest over-

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Bands about equator.

A curious effect, prob. of diffraction, occurs when division between rings crosses body of planet. Appears like little horns—

Finest rim of Saturn C.S.P. Las ever had

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No. of Night. Date. Time of Opening.

Observers. Rec.

Sky

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. Reason.

Remarks.

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67

No. of Night. Date. July 5. 1871 – Time of Opening. 8.0

Observers. C. S. P. Rec. H. G.

Sky

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

measured Zero of Position –
λ Ophiuchi.
70 p Ophiuchi –

Examined ζ Herculis – Could separate it, but could not measure it.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 9.30 – Reason.

Remarks.

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68

No. of Night. Date. July 7- Time of Opening. 8.30

Observers. C. S. P. Rec. H. G.

Sky

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Adjusted finder. Regulated Clock on Equatorial.
Measured 70 Ophiuchi
36 do-
Σ 2541-

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 10.30 Reason. Bad Seeing.

Remarks.

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69

No. of Night. Date. Aug 28 Time of Opening. 7 3/4

Observers. C. & F. Rec.

Sky Mod clear

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. Reason.

Remarks.

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70

No. of Night. Date. Aug 31 Time of Opening.

Observers. Rec.

Sky

Age of Moon 15 Temp. Corr. of Chron. + 9 seconds

Working of Instruments. Clock very irregular

Visitors.

Work Done.

Micrometer put on

ζ # Herculis examined, duplicity not detected

τ Aquilæ measured

Σ 2396

ζ Sagittarii examined, duplicity not detected

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 9½ Reason. Clock stopped

Remarks.

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71

No. of Night. Date. Sept. 1 1871 Time of Opening. 8 1/2

Observers. C. S. P. Rec. J. F. M.

Sky

Age of Moon Temp. Corr. of Chron.

Working of Instruments. Clock too irregular for use

Visitors.

Work Done.

ζ Sagittarii duplicity not seen

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 9 1/2 Reason. On account of Clock.

Remarks.

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72

No. of Night. Date. Sept. 6 '71 Time of Opening. 9

Observers. C. F. P. Rec. J. F. M.

Sky Clear.

Age of Moon Temp. Corr. of Chron.

Working of Instruments. Clock not working.

Visitors.

Work Done.

Aurora. Bright

Shooting Stars.

Other incidents.

Time of Closing. 9¼ Reason. Clock does not work.

Remarks.

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No. of Night. Date. Sept 13, 71 Time of Opening.

Observers. Rec.

Sky

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Looked for the fire on Mt. Washington. Saw a Nebulae slight over the horison. Our angle 4 min. before meridian. Bright about 8.30, brightes again at 8.40. Afterwards found out that, that light was below the horison.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 9.30 Reason.

Remarks.

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74

No. of Night. Date. Sept 18 '71 Time of Opening. 7.30

Observers. C. S. P. T. W Rec. J. F. M.

Sky

Age of Moon 4 days Temp. Corr. of Chron.

Working of Instruments. Clock does well

Visitors. Dr. Grey & a large party

Work Done.

Σ 2847 observed
Enke's ☄ long searched for not found

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. ~~10~~ 11 Reason.

Remarks.

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No. of Night. Date. Sept 21, 71 Time of Opening. 8

Observers. C. S. P. Rec. J. F. M.

Sky

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Pegasi 20 measured
12 Aquarii measured

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 10 Reason.

Remarks.

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No. of Night. Date. Sept 28 '71 Time of Opening. 8.45

Observers. E. S. P Rec. J. F. M

Sky

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Σ 2799 measured

Σ 2729 examined duplicity not detected

Σ 2812 = 29 Pegasi examined seeing to poor for measuring

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 10 3/4 Reason.

Remarks.

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No. of Night. Date. Sept 29. '71 Time of Opening. 9¼

Observers. C. S. P Rec. J. F. M

Sky

Age of Moon 15 Temp. 44 Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Point at Σ 2847 seeing to bad for measurement. Zero position taken.
Σ 2925 measured.
ζ Aquarii measured.
Σ 2995 measured.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 11 Reason.

Remarks.

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No. of Night. Date 1871 Sept. 30 Time of Opening. 8 1/4

Observers. C. S. P Rec. J. F. M.

Sky

Age of Moon Temp. 48 Corr. of Chron.

Working of Instruments.

Visitors. Mr George Searle

Work Done.

Searched enke comet

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 9 1/4 Reason. on account of clouds

Remarks.

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79

No. of Night. 1 Date. 1871 Nov. 5 Time of Opening. 7.45

Observers. C. S. P Rec. J. H. M.

Sky

Age of Moon Temp. 31 Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Observed Encke Comet

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 11 Reason.

Remarks.

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80

No. of Night. 2 Date. Nov 6, 1871 Time of Opening. 9.

Observers. C. S. P. J. W. Rec. J. F. M.

Sky

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Measured zero of position & Coincidence
Search for Tuttle's ☄ by J. W. but it was too near ☾

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 2:30 Reason.

Remarks. Coincidence changed in the beginning of the evening

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81

No. of Night. 3 Date. 1871, Nov. 9 Time of Opening. 7.45

Observers. C. S. P. Rec. J. H. M.

Sky

Age of Moon Temp. 38.5 Corr. of Chron.

Working of Instruments. Owing to the clumsy arrangement of weights the clock was perpetually stopping. Clock otherwise performing [illegible].

Visitors. Dr. Green and a Lady. They greatly admired the ~~Eagle~~ Small field of the telescope.

Work Done.

μ Cygni

Σ 2695

Σ 3056 measured

Spectrum of aurora observed.

Aurora. Pretty bright at time of opening. Brighter arch at 9h 1. At 9h 15 v. bright. About 10½ broke out most extraordinary red aurora ever seen here.

Shooting Stars.

Other incidents.

Time of Closing. 11:15 P.M. Reason.

Remarks.

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82

No. of Night. 4 Date. 1871 Nov. 12 Time of Opening. 8, 15

Observers. E. S. P. Rec. J. H. M.

Sky

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Aurora.

Shooting Stars.

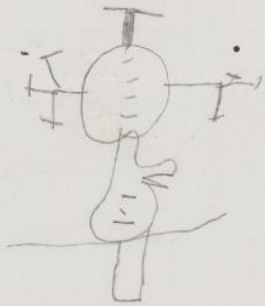
Other incidents.

Time of Closing. Reason.

Remarks. Took off Micrometer in the beginning of the evening

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83

No. of Night. 5 Date. Nov 17, 1871 Time of Opening. 7. 45

Observers. C. S. P. Rec. J. F. M

Sky

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Examined Enke's comet with spectroscope & tried some new modes of observing

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 9. 30 Reason.

Remarks.

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84

No. of Night. 6 Date. Nov. 18. 1871 Time of Opening. 8

Observers. C.S.P Rec. J.H.M.

Sky

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Examined comet & Orion Nebulae with spectroscope

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 10.15 Reason.

Remarks.

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No. of Night. 7 Date. Dec. 2, 1871 Time of Opening. 1h 10m Sidereal time

Observers. A. S Rec. J. K. M.

Sky

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 1h 40m Side. time Reason.

Remarks. Showed visitors clusters of Perseus.

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No. of Night. 8 Date. Jan. 2, 1872 Time of Opening. 8.

Observers. C. S. P. Rec. J. H. M.

Sky

Age of Moon Temp. Corr. of Chron.

Working of Instruments. Object glass very dirty several spts of dirt about the centre and grease for about an inch around the edge. Sixth magnitudes stars ~~have~~ give large and rather bright ghosts and it seems as if the definition ~~must~~ be a good deal affected. C. S. P. has never seen such ghosts before. The object glass of the finder is so dirty that it can hardly be seen through C. S. P. cleaned the finder with a camel's hair brush, which greatly improved seeing with the finder. C. S. P. went over the big glass lightly with a camel's hair brush but, dirt seemed rather adherent & the grease of course could not be removed the definition was somewhat improved by this but not very much and the ghosts remained unusually bad Jupiter produces a reflection of a disk of light 4/3 the diameter of the field of the first power with a sharp edge. There is also another bright halo close about the planet C. S. P. has never seen anything of this sort before with this Telescope no such appearance existed in November at least it was not noticed examined the pink color of the midle band and found it remarkably distinct. There is a similar halo around Sirius. Examined Sirius companion not seen. Orionis

Work Done.

Shooting Stars.

Other incidents.

Time of Closing. ~~9.15~~ 9, 45 Reason. ~~because it~~ clouded up.

Remarks.

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No. of Night. 9 Date. 1872 Jan. 6. Time of Opening. 8. 15

Observers. C. L. P. Rec. J. F. M.

Sky

Age of Moon Temp. 28 Corr. of Chron.

Working of Instruments.

Visitors. Mr. Durant, Prof. Horsford & Ladies.

Work Done.

Examined Sirius companion not seen.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 9.30 Reason. seeing very bad.

Remarks.

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No. of Night. 10 Date. 1872 Jan. 8. Time of Opening. 8,45

Observers. C. S. P. Rec. J. E. McC.

Sky

Age of Moon Temp. 20,5. at 11.30 16,9 Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Examined Sirius, companion not seen. Measured θ Orionis and Sirius Examined α Leonis seeing too bad for it to be measured

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 12 Reason.

Remarks. Put on large micrometer

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No. of Night. 11 Date. 1872 Jan. 9. Time of Opening. 8

Observers. C. S. P. Rec. J. F. M.

Sky

Age of Moon Temp. 29.7 Corr. of Chron. – 9 sec.

Working of Instruments.

Visitors.

Work Done.

Examined 32 Orionis, seeing not good enough to measure it. Observed 3 Orionis, Observed J 643, Observed A.Z – 1° 935 and A.Z. – 1° 937 A.C.B & A.Z. – 1° 937 A.C.C & 31 Orionis

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 11 Reason.

Remarks.

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No. of Night. 12 Date. 1872 Jan 18 Time of Opening. 8.15

Observers. C. S. P. Rec. J. K. M.

Sky

Age of Moon Temp. 24 Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Examined Sirius, companion not seen.

Looked up several stars in Sir 7th's List of Queries See Miscellaneous Obs.

Aurora. 10

Shooting Stars.

Other incidents.

Time of Closing. 10 1/2 Reason. Recorder sick

Remarks.

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91

No. of Night. 13 Date. 1872. Jan. 25. Time of Opening. 8:15

Observers. C. S. P. Rec. J. H. M.

Sky

Age of Moon Temp. 19 Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Observed Sirius.

Observed Σ 850.

Observed Pr Σ 850 a little north.

Observed Σ 854

Observed Σ 1029

Observed Σ 1043

Observed Σ 1074

Lead pencil had to be

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. Reason.

Remarks. Lead pencil had to be used because the ink froze so quick

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92

No. of Night. 15 Date. 1872 Jan. 29 Time of Opening. 8.15

Observers. C.S.P Rec. J.F.M

Sky

Age of Moon Temp. 15 Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Examined Sirius. Companion not seen. Put on Micrometer. measured zero & position. coincidence of wires focused with great care et cetera. adjusted index & hour. Looked at Σ 1029 and could not separate it

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 10.30 Reason.

Remarks.

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93

No. of Night. 16 Date. 1872 Jan. 30 Time of Opening. 8.45

Observers. C. S. P. Rec. J. H. M.

Sky

Age of Moon Temp. 16 Corr. of Chron.

Working of Instruments. clock moving irregularly and giving some trouble.

Visitors.

Work Done.

Ocular comet seeker adjusted and tested

Aurora. Bright arch at time of opening with one streamer. At 9.40 very bright without streamers.

Shooting Stars.

Other incidents.

Time of Closing. 10-30 Reason.

Remarks.

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94

No. of Night. 17 Date. Feb 24 Time of Opening.

Observers. C. S. P. — Y. W. — Rec.

Sky

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Work on Jupiter by Mr. Trouvelot.

Aurora. Bright red in zenith Examined by Y. W & C S P. No line seen in red though 5 other lines were seen in faint aurora (green) at north.

Shooting Stars.

Other incidents.

Time of Closing. Reason.

Remarks. Jupiter examined by Mr. Trouvelot.

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95

No. of Night. 15 Date. Feb. 5 Time of Opening. 8.30

Observers. E.S.P Rec. J. F. N

Sky

Age of Moon Temp. 33 Growing warm Corr. of Chron.

Working of Instruments. Clock irregular

Visitors.

Work Done.

Measured Virius & 15 Monoscerotis,

Aurora. pretty faint

Shooting Stars.

Other incidents.

Time of Closing. 10 Reason. Moisture on the glass

Remarks.

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No. of Night. 19 Date. 1872 Feb. 8 Time of Opening. 8.15

Observers. C.S.P. Rec. J.J.M.

Sky

Age of Moon Temp. 27 Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Measured Sirius. Examined Σ 1074 but being elongated it could not be measured. Measured Σ 1029.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 9.30 Reason. Clouded up

Remarks.

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No. of Night. 20 Date. 1872 Feb. 15. Time of Opening. 11.

Observers. C S P Rec. J. H. M.

Sky

Age of Moon Temp. 21 Corr. of Chron.

Working of Instruments. Clock very irregular.

Visitors.

Work Done.

Examined Sirius Companion not seen on account of bad seeing

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 11, 15 Reason.

Remarks. C. S. P using Photometer Mr. Truesdell & Mr. S Haler using the Equatorial

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No. of Night. 21 Date. 1872 Time of Opening.

Observers. C.S.P Rec. J.F.N

Sky

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors. Mr. Marcou and a large party of Ladies

Work Done.

Examined Pisces

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 11.15 Reason.

Remarks.

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No. of Night. 22 Date. 1872 Feb-19 Time of Opening. 8.

Observers. Rec.

Sky

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors. Prof. Barnard & Others

Work Done.

Measured Sirius.

Examined moon & found Mics. power 156 the best for it.

Took off micrometer. Examined moon & Jupiter with plain eye pieces

Σ1216 separated completely.

Put on micrometer again to measure this star but C.S.P brushed all the wires out.

Aurora. Pretty bright

Shooting Stars.

Other incidents.

Time of Closing. 10.30 Reason. Obs. went to little Dome

Remarks.

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No. of Night. Date. Time of Opening.

Observers. Rec.

Sky

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. Reason.

Remarks.

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101

No. of Night. Date. oct. 4th 1872 Time of Opening. 6.30

Observers. P. J. Rec.

Sky clear

Age of Moon 2 Days Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

observed Venus, give all colors of the spectrum

observed Moon, seeing pretty good

observed Saturn with powers 3. 4 & 5, Equatorial band colored pale pinkish
cloudy white bands on each side. Dusky ring divided on the anse towards median
ring. I am satisfied that there is a shading on outer ring immediately near the
division between median and outer rings — seeing pretty good but comes bad towards
9.30 — observed α Cygni good definition

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. 10.00 Reason.

Remarks.

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No. of Night. October Date. 9th Time of Opening.

Observers. L. G. Rec. 7.00

Sky clear

Age of Moon 1st quarter Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Drawn Moon crater Cassini, seeing fair
observed Saturn, seeing fair, planet very cloudy, like
Jupiter, but less distinct, equatorial band pinkish.
principal division on rings very well marked, Dusky ring very
broad on the ansae, power applied 401 R 688

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. Reason.

Remarks.

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No. of Night. Date. oct. 14th Time of Opening. 6.30

Observers. L. J. Rec.

Sky partly cloudy

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

observed the Moon, but seeing to bad to allow any work to be done about 6.45. observed a red cloud in the N.W. which soon proved to be due to an aurora. There was beautiful, Rays not very deep and having in it some vermillion. Taken spectrum which consisted of seven bands, of which 5 were nebulous, 2 well defined and sharp. the green and red. The extreme one was probably in the indigo. at about 8.30 the aurora was not any more visible

Aurora. fine red aurora, Taken spectrum, red band as well defined as green

Shooting Stars.

Other incidents.

Time of Closing. Reason.

Remarks.

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No. of Night. Date. Time of Opening.

Observers. Rec.

Sky

Age of Moon Temp. Corr. of Chron.

Working of Instruments.

Visitors.

Work Done.

Aurora.

Shooting Stars.

Other incidents.

Time of Closing. Reason.

Remarks.

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