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TYCHONIS BRAHE DANI
OPERA OMNIA

AUSPICIIS SOCIETATIS LINGUÆ ET LITTERARUM DANICARUM
(DET DANSKE SPROG- OG LITTERATUR-SELSKAB)

TYCHONIS BRAHE DANI OPERA OMNIA

EDIDIT

I. L. E. DREYER
TOMUS XII



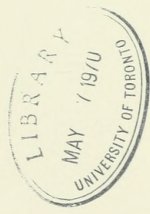
HAUNIÆ MCMXXV
IN LIBRARIA GYLDENDALIANA
TYPIS NIELSEN & LYDICHE (AXEL SIMMELKIÆR)

TYCHONIS BRAHE DANI
OPERA OMNIA

EDIT
J. L. E. DREYER
TOMUS XII



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HAUSER MUSEUM
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TYCHONIS BRAHE DANI THESAURUS OBSERVATIONUM

AD FIDEM CODICUM

PRIMUM INTEGRUM EDIDIT

I. L. E. DREYER

SUMPTIBUS INSTITUTI CARLSBERGICI

TOMUS III

HAUNIÆ MCMXXV
IN LIBRARIA GYLDENDALIANA

TYPIS NIELSEN & LYDICHE (AXEL SIMMELKIÆR)

OBSERVATIONES ANNI 1590.

OBSERVATIONES SOLIS.

DIE 15 JANUARIJ.

| | | |
|---------------------|-----------|---------------------|
| Altit. ☉ merid. | { nou. 15 | 9 $\frac{1}{2}$ |
| per Tychon. | { vet. 15 | 9 $\frac{1}{2}$ |
| per Chalybeum | | 15 9 $\frac{1}{2}$ |
| per Volubilem | | 15 9 $\frac{1}{2}$ |
| Decl. ☉ per Armill. | | 18 55 $\frac{1}{2}$ |
| | alt. | 18 55 |

Erat mediocriter ferenum.

DIE 20 JANUARIJ.

| | | |
|--------------------------|-----------|---------------------|
| Altit. ☉ merid. | { nou. 16 | 27 $\frac{1}{2}$ |
| per Tychon. | { vet. 16 | 27 $\frac{1}{2}$ |
| per Volub. | | 16 26 $\frac{1}{2}$ |
| per Chalyb. | | 16 27 $\frac{1}{2}$ |
| Declin. per Armill. max. | | 17 36 $\frac{1}{2}$ |
| | | 17 37 $\frac{1}{2}$ |

Erat mediocriter ferenum.

DIE 24 JANUARIJ.

| | | |
|-----------------------|------|---------------------|
| Altit. ☉ merid. | { 17 | 36 $\frac{1}{2}$ |
| per Tychon. | { 17 | 36 $\frac{1}{2}$ |
| per Chalyb. | | 17 36 $\frac{1}{2}$ |
| per Volub. | | 17 36 $\frac{1}{2}$ |
| Declin. ☉ per Armill. | | 16 29 30'' |
| | | 16 29 40 |

Erat bene ferenum.

DIE 26 JANUARIJ.

| | | |
|-----------------------|-----------|---------------------|
| Altit. ☉ merid. | { 18 | 11 $\frac{1}{2}$ |
| per Tychon. | { vet. 18 | 11 $\frac{1}{2}$ |
| per Chalyb. | | 18 13 |
| per Volub. | | 18 12 $\frac{1}{2}$ |
| Declin. ☉ per Armill. | | 15 53 $\frac{1}{2}$ |
| | | 15 53 $\frac{1}{2}$ |

Erat mediocriter ferenum.

DIE 30 JANUARIJ¹.

| | | |
|---------------------|----|------------------|
| Alt. ☉ merid. | | |
| per Tychon. | 19 | 26 $\frac{3}{4}$ |
| per Volub. | 19 | 28 $\frac{1}{2}$ |
| per Chalyb. | 19 | 27 $\frac{3}{4}$ |
| Declin. per Armill. | 14 | 38 $\frac{1}{2}$ |
| | 14 | 38 $\frac{1}{2}$ |

Erat mediocriter ferenum.

DIE 5 FEBRUARIJ.

| | | |
|-------------------------|-----------|---------------------|
| Alt. ☉ merid. | | |
| per Volub. | 21 | 26 $\frac{1}{2}$ |
| per Chalyb. | 21 | 26 $\frac{1}{2}$ |
| per Mural. | 21 | 25 $\frac{1}{2}$ |
| | | 21 26 |
| Decl. ☉ per Arm. æquat. | 12 | 39 $\frac{1}{2}$ |
| | alt. pin. | 12 39 $\frac{1}{2}$ |

Erat bene ferenum.

DIE 6 FEBRUARIJ.

| | | |
|---------------------|----|---------------------|
| Alt. ☉ merid. | 21 | 47 $\frac{1}{2}$ |
| per Tychon. | 21 | 46 $\frac{1}{2}$ |
| per Chalyb. | 21 | 47 $\frac{1}{2}$ |
| per Volub. | 21 | 48 |
| Declin. per Armill. | 12 | 19 |
| | | 12 18 $\frac{1}{2}$ |

Erat bene ferenum.

DIE 8 FEBRUARIJ.

| | | |
|---------------------|------|---------------------|
| Alt. ☉ merid. | | |
| per Chalyb. | 22 | 29 $\frac{1}{2}$ |
| per Volub. | 22 | 29 $\frac{1}{2}$ |
| per Tychon. | 22 | 28 $\frac{1}{2}$ |
| | alt. | 22 28 $\frac{1}{2}$ |
| Declin. per Armill. | 11 | 37 |
| | alt. | 11 36 $\frac{1}{2}$ |

Erat satis ferenum.

DIE 17 FEBRUARIJ.

| | | |
|---------------------|----|--------------------|
| Alt. ☉ merid. | 25 | 45 |
| per Tychon. | 25 | 45 $\frac{1}{2}$ |
| per Chalyb. | 25 | 45 40 |
| per Volub. | 25 | 45 $\frac{1}{2}$ |
| Declin. per Armill. | 8 | 20 |
| | | 8 20 $\frac{1}{2}$ |

Erat satis ferenum.

DIE 28 FEBRUARIJ.

Horologium monstrabat in Meridie H. 11 59 $\frac{1}{2}$ '. Ergo saltem dimidio scrupulo tardius ibat, qui error illi acciderat ab hora 9 antemeridiana.

| | | |
|---------------|----|------------------|
| Alt. ☉ merid. | 29 | 59 $\frac{1}{2}$ |
| per Tychon. | 29 | 59 $\frac{1}{2}$ |
| per Volub. | 29 | 58 $\frac{1}{2}$ |
| per Chalyb. | 29 | 59 $\frac{1}{2}$ |

¹ E codice V.

Declin. ☉ per Armill. mai. 4 5½
auftrina, vtroque
Erat satis serenum.

DIE 1 MARTIJ.

Horologium corrigebatur in Meridie.

Alt. ☉ merid.
per Q. Chalyb. 30 22½
per Q. Volub. 30 22½
per Q. Tychon. 30 22½
30 21½
Declin. ☉ per Armill. 3 42½ M.
3 42½

DIE 5 MARTIJ.

| Hora post merid. | Erat ☉ occid. |
|------------------|---------------|
| 2 51' 35" | 43° 0' |
| 2 55 33 | 44 0 |
| 2 59½ | 45 0 |
| 3 7 35 | 47 0 |

DIE 11 MARTIJ.

Alt. ☉ merid.
per Chalyb. 34 18½
per Volub. 34 18½
Declin. ☉ 0 13½
per Armill. maiores 0 13½
Erat bene serenum.
Altit. limitata 34 18 35
Refr. subtr. 42
Altit. libera a refr. 34 17 53
Parall. add. 2 28
Vera altit. 34 20 21
Vera declinatio 0 15 6

| Resp. locus ☉ | Nofiræ ephem. | Mæftlin. | Cyprian. |
|------------------|------------------|----------|------------|
| 0° 38' ✓ | 0° 38' 52" | 0° 7' 0" | 0° 53' 29" |

DIE 13 MARTIJ.

Alt. ☉ merid.
per Volub. 35 5 25
per Chalyb. 35 5 35
per Mural. 35 5 10
35 5 20
H. 11 56' Erat decl. ☉ 1 0½
Repetita alt. 1 0½
12 0 Erat decl. ☉ 1 0½
1 0½
Erat bene serenum.

DIE 14 MARTIJ.

Horologium corrigebatur in meridie.

Altit. ☉ merid. 35 29½
per Mural. 35 29½
per Chalyb. 35 29
per Volub. 35 28½
Declin. Borea. 1 23½
1 24

Erat mediocriter serenum.

DIE 15 MARTIJ.

H. 11 M. 50 Declin. vno pin. 1 47½

| | | |
|----|----|--------------|
| 11 | 58 | altero 1 47½ |
| | | vno 1 47½ |
| 12 | 0 | altero 1 47½ |
| | | vno 1 47½ |
| | | altero 1 47½ |

Altit. ☉ per Volub. 35 51 55
per Chalyb. 35 52 40
per Mural. 35 53
35 52½

35 52 40 fide Chalybeo

34 5 15

1 47 25

DIE 16 MARTIJ.

H. 12 7½' Erat ☉ orient. 1° 46' ad vmbra

12 14½ Erat ☉ occid. 0 10½ per pinacidia, hoc exactius

Non erat satis serenum.

DIE 17 MARTIJ.

11 54 Declin. ☉ vno pinnac. 2 34½

altero 2 34½

11 57 2 34½

2 34½

12 0 2 34½

2 35

Horologium in Meridie iusto celerius mouebatur M. 14 proxime, qui error illi e duobus diebus imputandus venit.

Per Chalyb. 36 39 30

per Volub. 36 38 50

per Mural. vno 36 39 45

alt. 36 39 50

DIE 18 MARTIJ.

| | |
|------------------|--------------------|
| Declinatio | 2 58 |
| altero | 2 58 $\frac{1}{2}$ |
| Alt. per Chalyb. | 37 2 $\frac{1}{2}$ |
| per Volub. | 37 3 $\frac{1}{2}$ |
| per Tychon. | 37 2 $\frac{1}{2}$ |
| alt. | 37 3 |

Non erat satis ferenum.

DIE 19 MARTIJ.

Horologium 28 $\frac{1}{2}$ ' citius mouebatur iusto in Meridie, qui error tunc corrigebatur.

| | |
|---------------|--------------------|
| Alt. merid. ☉ | |
| per Volub. | 37 26 5 |
| per Chalyb. | 37 26 |
| Declin. ☉ | 3 21 $\frac{1}{2}$ |
| | 3 21 $\frac{1}{2}$ |

Non satis erat ferenum.

DIE 20 MARTIJ.

| | |
|-------------------------------|---------------------|
| Alt. ☉ merid. | 37 50 |
| per Tychon. | 37 50 $\frac{1}{2}$ |
| per Volub. | 37 50 $\frac{1}{2}$ |
| per Chalyb. | 37 50 $\frac{1}{2}$ |
| Decl. ☉ per Armill. mai., vno | 3 44 $\frac{1}{2}$ |
| alt. | 3 44 $\frac{1}{2}$ |

Erat mediocriter ferenum.

DIE 21 MARTIJ.

| | |
|---------------|---------------------|
| Alt. ☉ merid. | |
| per Volub. | 38 12 $\frac{1}{2}$ |
| per Chalyb. | 38 12 $\frac{1}{2}$ |
| per Mural. | 38 12 $\frac{1}{2}$ |
| | 38 13 |

Declin. per Armill.

4 7 $\frac{1}{2}$
4 8

Horologium mouebatur 21 Minutis celerius.

DIE 25 MARTIJ.

N.B. Horologium in Meridie monstrabat 1' 38" qui error tunc corrigebatur, sublati etiam 5 globulis pro nimia celeritate.

| | |
|---------------------|----------------------|
| Alt. ☉ merid. | |
| per Chalyb. | 39 45 $\frac{1}{12}$ |
| per Volub. | 39 44 $\frac{1}{2}$ |
| per Mural. | 39 45 |
| | 39 44 $\frac{1}{12}$ |
| Decl. ☉ per Armill. | 5 40 $\frac{1}{2}$ |
| | 5 40 |

DIE 26 MARTIJ.

Horologium corrigebatur in Meridie.

| | |
|---------------|--------------------|
| Decl. ☉ | 6 2 $\frac{1}{2}$ |
| per Armill. | 6 2 |
| Alt. ☉ merid. | |
| per Chalyb. | 40 7 $\frac{1}{2}$ |
| per Volub. | 40 7 $\frac{1}{2}$ |
| per Mural. | 40 8 $\frac{1}{2}$ |
| | 40 8 25" |

Non erat satis bene ferenum.

DIE 28 MARTIJ.

Horologium mouebatur iusto celerius 5 $\frac{1}{2}$ ', qui error in Meridie corrigebatur, et eximebantur 3 globuli.

| | |
|---------------------|---------------------|
| Alt. ☉ merid. | 40 54 |
| per Mural. | 40 53 $\frac{1}{2}$ |
| per Volub. | 40 51 $\frac{1}{2}$ |
| per Chalyb. | 40 52 $\frac{1}{2}$ |
| Declin. per Armill. | 6 48 $\frac{1}{2}$ |
| | 6 48 $\frac{1}{2}$ |

Erat bene ferenum.

DIE 29 MARTIJ.

| | |
|---------------|---------------------|
| Alt. ☉ merid. | |
| per Chalyb. | 41 15 $\frac{1}{2}$ |
| per Volub. | 41 15 |
| per Mural. | 41 15 $\frac{1}{2}$ |
| | 41 15 $\frac{1}{2}$ |

Decl. ☉
Horologium mouebatur 16 $\frac{1}{2}$ minutis iusto tardius, qui error corrigebatur.
Erat satis ferenum.

DIE 30 MARTIJ.

Horologio correcto in Meridie adiecti sunt duo globuli, eo quod 6 $\frac{1}{2}$ ' iusto celerius mouebatur.

| | |
|---------------|----------------------|
| Alt. ☉ merid. | |
| per Volub. | 41 37 $\frac{1}{2}$ |
| per Chalyb. | 41 37 $\frac{1}{2}$ |
| per Mural. | 41 37 |
| | 41 37 $\frac{1}{12}$ |

Declin. per Armill.

7 32
7 32 $\frac{1}{2}$

Erat bene ferenum.

DIE 3 APRILIS.

| | |
|--------------------|--------------------|
| Alt. ☉ per Chalyb. | 43 4 $\frac{1}{2}$ |
| per Volub. | 43 4 $\frac{1}{2}$ |
| per Tychon. | 43 6 |
| | 43 6 $\frac{1}{2}$ |

Declin. ☉ per Armillas 9 0 $\frac{1}{2}$
 9 0
 Erat bene ferenum.
 Horologium in Meridie corripiebatur.

DIE 12 APRILIS.

Alt. ☉ merid.
 per Volub. 46 14 $\frac{1}{2}$
 per Chalyb. 46 14 $\frac{1}{2}$
 per Mural. 46 15
 Declin. per Armillas 12 10 $\frac{1}{2}$
 12 11

Non erat fatis ferenum.

DIE 13 APRILIS.

Alt. ☉ merid.
 per Chalyb. 46 34 $\frac{1}{2}$
 per Volub. 46 34 $\frac{1}{2}$
 per Mural. 46 35 $\frac{1}{2}$
 46 35
 Declin. ☉ per Armill. 12 29 $\frac{1}{2}$
 12 30 $\frac{1}{2}$

Non erat bene ferenum.

DIE 14 APRILIS.

Alt. ☉ Merid. 46 55 $\frac{1}{2}$
 per Mural. 46 55
 per Chalyb. 46 53 55
 per Volub. 46 53 40
 Declin. ☉ per Armill. 12 49 $\frac{1}{2}$
 12 50

DIE 15 APRILIS.

Alt. ☉ merid.
 per Chalyb. 47 13 $\frac{1}{2}$
 per Volub. 47 13 $\frac{1}{2}$
 per Mural. 47 15
 47 14 $\frac{1}{2}$
 Declin. ☉ per Armill. 13 9 $\frac{1}{2}$
 13 9 $\frac{1}{2}$

Erat mediocriter ferenum.

DIE 16 APRILIS.

Alt. merid.
 per Chalyb. 47 34 $\frac{1}{2}$
 per Volub. 47 35

Declin. ☉ 13 29 $\frac{1}{2}$
 13 29

Erat fatis ferenum.

DIE 17 APRILIS.

Alt. ☉ merid.
 per Chalyb. 47 52 $\frac{3}{4}$
 per Volub. 47 52 $\frac{3}{4}$
 Declin. per Armill. max. 13 47 $\frac{1}{2}$
 13 48

Erat fatis ferenum.

DIE 18 APRILIS.

Alt. ☉ merid.
 per Volub. 48 11 $\frac{3}{4}$
 per Chalyb. 48 11 $\frac{3}{4}$
 per Mural. 48 12 $\frac{1}{2}$
 48 12 $\frac{1}{2}$
 Declin. per Armill. max. 14 7 $\frac{1}{2}$
 14 7 $\frac{1}{2}$

Erat bene ferenum.

DIE 20 APRILIS.

Alt. ☉ merid.
 per Chalyb. 48 49 $\frac{1}{2}$
 per Volub. 48 49 $\frac{1}{2}$
 Declin. per Armill. max. 14 44 $\frac{1}{2}$
 Erat fatis ferenum. vtroq. pinnac.

DIE 22 APRILIS.

Alt. ☉ merid. 49 25
 per Mural. 49 25 $\frac{1}{2}$
 per Chalyb. 49 24 $\frac{1}{2}$
 per Volub. 49 24 $\frac{1}{2}$
 Declin. per Arm., vtroque 15 21 $\frac{1}{2}$
 Erat fatis ferenum.

DIE 23 APRILIS.

Alt. ☉ merid.
 per Chalyb. 49 43
 per Volub. 49 43 $\frac{1}{2}$
 per Mural. 49 44
 49 43 $\frac{3}{4}$
 Declin. ☉ per Armill. 15 39
 15 39 $\frac{1}{2}$
 Erat fatis ferenum.

DIE 24 APRILIS.

| | |
|-----------------------|--------|
| Alt. ☉ merid. | |
| per Volub. | 50 1½ |
| per Chalyb. | 50 1 |
| per Mural. | 50 1½ |
| | 50 1½ |
| Declin. ☉ per Armill. | 15 56½ |
| | 15 56½ |

Erat satis bene ferenum.

DIE 26 APRILIS.

| | |
|---------------------|--------|
| Alt. ☉ merid. | |
| per Volub. | 50 35½ |
| per Chalyb. | 50 35½ |
| Declin. per Armill. | 16 30 |
| | 16 30½ |

Erat mediocriter ferenum.

DIE 27 APRILIS.

| | |
|---------------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 50 51½ |
| per Volub. | 50 51½ |
| per Mural. | 50 52 |
| | 50 52½ |
| Declin. per Armill. | 16 47 |
| | 16 47½ |

DIE 29 APRILIS.

| | |
|-----------------------|--------|
| Alt. ☉ merid. | |
| per Volub. | 51 25½ |
| per Chalyb. | 51 25½ |
| Declin. ☉ per Armill. | 17 20½ |
| | 17 20½ |

DIE 30 APRILIS.

| | |
|---------------------|--------|
| Alt. ☉ mer. | |
| per Volub. | 51 40½ |
| per Chalyb. | 51 40½ |
| Declin. per Armill. | 17 35½ |
| | 17 35½ |

DIE PRIMO MAIJ.

| | |
|--------------------------|--------|
| Alt. ☉ merid. | |
| per Volub. | 51 55½ |
| per Chalyb. | 51 56 |
| per Mural. | 51 56½ |
| | 51 56½ |
| Declin. per Armill. max. | 17 51½ |
| | 17 51½ |

Erat satis ferenum.

DIE 3 MAIJ.

| | |
|--------------------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 52 26½ |
| per Volub. | 52 27½ |
| per Mural. | 52 27 |
| | 52 27 |
| Declin. per Armill. max. | 18 21½ |
| | 18 22 |

DIE 8 MAIJ.

| | |
|-----------------------|----------|
| Alt. ☉ Merid. | |
| per Chalyb. | 53 36 45 |
| per Volub. | 53 37 0 |
| per Mural. | 53 37 20 |
| | 53 37 30 |
| Declin. ☉ per Armill. | 19 31½ |
| | 19 31½ |

Erat satis ferenum.

DIE 9 MAIJ.

| | |
|-----------------------|--------|
| Alt. ☉ Merid. | 53 50½ |
| per Mural. | 53 50½ |
| per Chalyb. | 53 50½ |
| per Volub. | 53 51 |
| Declin. ☉ per Armill. | 19 45 |
| | 19 45½ |

Erat satis ferenum.

DIE 11 MAIJ.

| | |
|-----------------------|--------|
| Alt. ☉ merid. | |
| per Volub. | 54 15½ |
| per Chalyb. | 54 15½ |
| Declin. ☉ per Armill. | 20 10½ |
| | 20 11 |

Erat mediocriter ferenum.

DIE 15 MAIJ.

| | |
|-----------------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 55 1½ |
| per Volub. | 55 1½ |
| per Mural. | 55 2 |
| | 55 1½ |
| Declin. ☉ per Armill. | 20 57½ |
| | 20 57½ |

Erat mediocriter ferenum.

DIE 17 MAIJ.

| | |
|-----------------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 55 22½ |
| per Volub. | 55 22½ |
| Declin. ☉ per Armill. | 21 18½ |
| | 21 18 |

Non erat satis ferenum.

DIE 19 MAIJ.

| | |
|---------------------|---------------------------------|
| Alt. ☉ merid. | |
| per Chalyb. | 55 51 ¹ ₂ |
| per Volub. | 55 50 ¹ ₂ |
| per Mural. | 55 51 ¹ ₂ |
| | 55 51 ¹ ₂ |
| Declin. per Armill. | 21 46 ¹ ₂ |
| | 21 47 ¹ ₂ |

Non erat fatis ferenum.

DIE 26 MAIJ.

| | |
|-----------------------|---------------------------------|
| Alt. ☉ merid. | |
| per Chalyb. | 56 38 ¹ ₂ |
| per Volub. | 56 38 ¹ ₂ |
| per Mural. | 56 38 ¹ ₂ |
| | 56 38 ¹ ₂ |
| Declin. ☉ per Armill. | 22 34 ¹ ₂ |
| | 22 34 ¹ ₂ |

Erat mediocriter ferenum.

DIE 30 MAIJ.

| | |
|---------------------|---------------------------------|
| Alt. ☉ merid. | |
| per Volub. | 57 2 ¹ ₂ |
| per Chalyb. | 57 2 ¹ ₂ |
| Declin. per Armill. | 22 57 ¹ ₂ |
| | 22 57 ¹ ₂ |

Erat mediocriter ferenum.

DIE 31 MAIJ.

| | |
|--------------------|--------------------------------|
| Alt. ☉ merid. | |
| per Chalyb. | 57 8 |
| per Volub. | 57 7 ¹ ₂ |
| Erat bene ferenum. | |

DIE 1 JUNIJ.

| | |
|----------------------|---------------------------------|
| Alt. ☉ merid. | |
| per Chalyb. | 57 11 ¹ ₂ |
| per Volub. | 57 11 ¹ ₂ |
| per Mural. | 57 12 |
| | 57 11 ¹ ₂ |
| Declin. per Armillas | 23 8 |
| | 23 8 ¹ ₂ |

Erat fatis ferenum.

DIE 2 JUNIJ.

| | |
|-----------------------|---------------------------------|
| Alt. ☉ merid. | |
| per Chalyb. | 57 17 |
| per Volub. | 57 16 ¹ ₂ |
| per Mural. | 57 16 ¹ ₂ |
| | 57 16 ¹ ₂ |
| Declin. ☉ per Armill. | 23 11 ¹ ₂ |
| | 23 11 |

Erat mediocriter ferenum.

DIE 5 JUNIJ.

| | |
|---------------------|---------------------------------|
| Alt. ☉ merid. | |
| per Chalyb. | 57 26 ¹ ₂ |
| per Volub. | 57 26 ¹ ₂ |
| per Mural. | 57 27 |
| | 57 26 ¹ ₂ |
| Declin. per Armill. | 23 21 ¹ ₂ |
| | 23 21 |

Erat fatis ferenum.

DIE 7 JUNIJ.

| | |
|---------------------|---------------------------------|
| Alt. ☉ merid. | |
| per Volub. | 57 30 ¹ ₂ |
| per Chalyb. | 57 30 ¹ ₂ |
| Declin. per Armill. | 23 26 |
| | 23 26 ¹ ₂ |

Erat mediocriter ferenum.

DIE 16 JUNIJ.

| | |
|---------------------|---------------------------------|
| Alt. ☉ merid. | |
| per Volub. | 57 31 ¹ ₂ |
| per Chalyb. | 57 30 ¹ ₂ |
| per Mural. | 57 31 ¹ ₂ |
| | 57 31 ¹ ₂ |
| Declin. per Armill. | 23 26 |
| | 23 26 ¹ ₂ |

Erat mediocriter ferenum.

DIE 18 JUNIJ.

| | |
|---------------------|---------------------------------|
| Alt. ☉ merid. | |
| per Chalyb. | 57 26 ¹ ₂ |
| per Volub. | 57 26 |
| per Mural. | 57 26 ¹ ₂ |
| Declin. per Armill. | 23 21 |
| | 23 20 ¹ ₂ |

Non erat fatis ferenum.

DIE 19 JUNIJ.

| | |
|---------------------|---------------------------------|
| Alt. ☉ merid. | |
| per Chalyb. | 57 24 ¹ ₂ |
| per Volub. | 57 21 ¹ ₂ |
| per Mural. | 57 24 |
| Declin. per Armill. | 23 19 ¹ ₂ |
| | 23 19 ¹ ₂ |

Non erat fatis ferenum.

DIE 20 JUNIJ.

| | |
|---------------|---------------------------------|
| Alt. ☉ merid. | |
| per Chalyb. | 57 21 ¹ ₂ |
| per Volub. | 57 20 |

¹ Sic in codice E.

Declin. per Armill. 23 15½
23 15½

Non erat fatis ferenum.

DIE 22 JUNIJ.

Alt. ☉ merid. 57 12½
per Volub. 57 12½
per Chalyb. 23 7½
Declin. ☉ per Armill. 23 8

Erat mediocriter ferenum.

DIE 23 JUNIJ.

Alt. ☉ merid. 57 6½
per Volub. 57 7½
per Chalyb. 23 3½
Decl. per Armill. 23 4

Erat mediocriter ferenum.

DIE 24 JUNIJ.

Alt. ☉ merid. 57 3½
per Volub. 57 3
per Chalyb. 22 57½
Declin. per Armill. 22 57

Erat mediocriter ferenum.

DIE 25 JUNIJ.

Alt. ☉ merid. 56 57½
per Volub. 56 58½
per Chalyb. 56 58½
per Mural. 56 58½
Declin. per Armill. 22 52½
22 53½

Erat mediocriter ferenum.

DIE 26 JUNIJ.

Alt. ☉ merid. 56 51½
per Volub. 56 52½
per Chalyb. 56 52½
per Mural. 56 52½
Declin. per Armill. 22 48
22 48½

Non erat fatis ferenum.

DIE 27 JUNIJ.

Alt. ☉ merid. 56 46 0
per Chalyb.

per Volub. 56 45 30
per Mural. 56 46½

Declin. per Armill. 22 41½
22 41½

DIE 28 JUNIJ.

Alt. ☉ merid. 56 40½
per Chalyb. 56 37½ } non bona
per Volub. 56 41½
per Mural. 56 41½

Declin. 22 35
22 35½

Erat fatis ferenum.

DIE 29 JUNIJ.

Alt. ☉ merid. 56 31½
per Volub. 56 32½
per Chalyb. 56 33½
per Mural. 56 33½
Declin. per Armill. 22 27½
22 27

Erat mediocriter ferenum.

DIE 1 JULIJ.

Alt. ☉ merid. 56 17½
per Chalyb. 56 17
per Volub. 22 13
Declin. per Armill. 22 13½

Erat fatis ferenum.

DIE 3 JULIJ.

Alt. ☉ merid. 56 2
per Mural. 56 1½
per Volub. 56 1½
per Chalyb. 56 2½
Declin. ☉ per Armill. 21 57½
21 57½

Erat mediocriter ferenum.

DIE 9 JULIJ.

Alt. ☉ merid. 55 3½
per Chalyb. 55 3½
per Volub. 55 4½
per Mural., vtroque 20 59
Declin. per Armill. 20 58½

Erat fatis ferenum.

DIE 10 JULIJ.

| | |
|---------------------|--------|
| Alt. ☉ Merid. | |
| per Volub. | 54 52 |
| per Chalyb. | 54 52½ |
| Declin. per Armill. | 20 47 |
| | 20 46½ |

Non erat satis serenum propter nubes.

DIE 13 JULIJ.

| | |
|---------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 54 17½ |
| per Volub. | 54 17 |
| per Mural. | 54 18½ |
| | 54 18 |

| | |
|---------------------|--------|
| Declin. per Armill. | 20 12½ |
| | 20 12½ |

Erat satis serenum.

DIE 14 JULIJ.

| | |
|-----------------------|--------|
| Alt. ☉ merid. | 54 6 |
| per Tychon. | 54 5½ |
| per Chalyb. | 54 6½ |
| per Volub. | 54 4½ |
| Declin. ☉ per Armill. | 19 59½ |
| | 20 0½ |

Erat satis serenum.

OBSERVATIO ECLIPSEOS ☉^{is} FACTA ANNO 1590 DIE 21 JULIJ¹
ante meridiem.

Horologium in meridie huius diei corrigebatur.

Horologio indicante 6^h 37½' erat ☉ orientalis 9° 20' a nonaginta numerando.

Incipit nunc Eclipsis obfervatio.

| | | |
|--------------|--|----------|
| { H. 6 51½' | Erat ☉ orient. | 76° 30' |
| { Resp. 6 53 | Altit. ☉ per Volub. | 21 29 |
| | Fuit igitur initium | H. 6 50' |
| | Incipiebat tunc ☉ ad occasum obfcurari | |

vel potius paulo ante



| | | |
|----------------------------|----------------|-------|
| { H. 6 56½ | Erat ☉ orient. | 75 47 |
| { Resp. 6 58 <i>melius</i> | Altit. ☉ | 23 11 |



| | | |
|---------|-----------|--------|
| H. 7 4½ | ☉ orient. | 73 47 |
| | Altit. ☉ | 24 16½ |



| | | |
|------|---------------------------------------|-------|
| 7 14 | Erat tunc ☉ orient. | 71 30 |
| | Altit. ☉ | 25 20 |
| | Quasi quarta pars ☉ a luna tegebatur. | |



| | | |
|---------|------------------------------------|--------|
| { 7 35½ | Tertia ferme pars ☉ a ☾ tegebatur. | |
| { 7 35½ | Erat tunc ☉ orient. | 66 9 |
| | Altit. ☉ | 28 34½ |



¹ Sic in codice E, manu Joh. Aurifabri. At in codd. V. et K. sic incipit obfervatio: »Sequitur obfervatio Eclipsis ☉, quæ contigit 21 Menfis Julij ante Meridiem Anno 1590. Hæc Eclipsis obfervabatur ab octo Infpectoribus, qui de quantitate eius, ad fingulas obfervationes, acie oculorum in ☉ directâ, radiisque solaribus in Canalem orichalcicum oblongum, ad circellum intromiffis, idem fenferunt & pronuntiarunt.«

- 7 56 $\frac{1}{2}$ Tertia quasi pars ☉ tegebatur.
 Erat tunc ☉ orient. 61 0 $\frac{2}{3}$
 Altit. ☉ 31 22 $\frac{1}{2}$
- 8 4 Erat ☉ orient. 59 25 $\frac{1}{2}$
 Altit. ☉ 32 14 $\frac{1}{2}$
 Hic videbatur ☉ iterum lumine crescere.
- 8 12 Restabat quarta pars ☉ eclipsata.
 Eratque ☉ tunc orient. 57 5
 Altit. ☉ 33 36
- 8 20 $\frac{1}{2}$ Restabat quasi quinta pars ☉ obscurata, & cor-
 nu ☉ vtrumque erat quoad visum in eadem al-
 titudine siue æquilibrio.
 ☉ orient. 54 53 $\frac{1}{2}$
 Altit. ☉ 34 44 $\frac{1}{2}$
- 8 32 $\frac{3}{4}$ Sexta pars ☉ videbatur adhuc eclipsata.
 ☉ orient. 51 54
 Altit. ☉ 36 12
- 8 42 Quasi septima pars ☉ latebat.
 ☉ orient. 49 37
 Altit. ☉ 37 22
- 8 50 $\frac{1}{2}$ Restabat quasi octaua pars ☉ obscurata.
 ☉ orient. 47 34 $\frac{1}{2}$
 Altit. ☉ 38 25
 Azimuth ☉ a meridie ad ortum 63 3
- 8 55 $\frac{1}{2}$ Erat ☉ talis, qualis primo in Eclipsi videbatur,
 cum obseruaretur.
 ☉ orient. 46 13 $\frac{1}{2}$
 Altit. ☉ 39 5
 Azimuth ☉ 61 40
- 9 0 Totus recuperavit lumen.
 ☉ orient. 45 10 $\frac{1}{2}$
 Altit. ☉ 39 35
 Azimuth ☉ 60 40



Ex his colligitur, inceptiſſe hanc Eclipſin ☉ H. 6 M. 50 & deſiſſe H. 9 M. 0. Duravit itaque per horas 2 M. 10. Et eclipſabatur ſaltem de ☉ tertia pars, ad ſummum 4 digiti. Ideoque in tabulis duplo plus ponentibus vtpote digitos ferme 9 nimium aberratur. Atque hæc ſatis præciſe ſe ita habent, quibus tuto licet fidere, erat enim appriſſe ferenum.

Medium huius Eclipſis fuit circa 7^h 55^m. Hinc de Parallaxibus (rationari licebit. Vel quære potius ipſum medium ex initio & fine, per ductum (ad eclipticam.

Imo conſiderando quod H. 7 M. 35 & H. 7 M. 55 tertia pars deſijt, vtroque potuit medium eſſe inter hæc H. 7 M. 45.

Examinatio antecedentis ☉^{lis} Eclipſeos facta ad reſtitutionem (noſtram Anno 97¹.

Omnibus penſitatis & quod Parallaxis longitudinis (maior circa initium quam finem, vt itaque medium ex initio & fine ſatis ſcrupuloſe alias haberi nequit.

Ponitur medium D. 21 H. 8 0 a. m. Altitudo (vera 9 31

Locus verus 7 27 ☊ Longitudo vera (6 49

Parallaxis longit. (a ☉ 38 Vera latitudo (noſtra 0 15 ½ B.

Anomaliam (coæquata 317 quaſi.

Reſp. Parallaxis (a ☉ in circulo altitudinis 46 ½'.

Reſp. Parallaxis longitudinis (36', latitudinis 31'.

Semidiameter ☉^{lis} 15' 5'', (12' 15'', agg. S. 27 ½.

Ergo viſa latitudo M. 12^m 0. Reſp. Digiti Eclip. 4 ½

Obſervatio dat 4.0 ſaltem.

Sequitur nunc obſervatiuncula per D. Pegelium Roſtochij in eadem ☉ Eclipſi facta hucque a D. Henrico Brucæo tranſmiſſa².

Initium (ſcribebat Pegelius) Eclipſis quadrante poſt horam 6. Finis quadrante aut amplius ante 9. Digiti Ecliptici 8.

Lunæ Diameter in charta non minor Solis Diametro erat (adhibita dimenſione) licet aſpectu ſimplici etiam in charta videretur Luna minor.

[Henricus Brucæus Philoſophiæ et Medicinæ Doctör, Profeſſor Roſtochienſis præinſertam Pegelij obſervatiunculam huc Vraniburgum tranſmiſit, ſchedulæque in fine inferuit hæc quæ ſequentur³.]

Habuit hanc obſervationem in Cubiculo excipiens radios ſolares per foramen, cuius meminit alibi Reinoldus.

DIE 22 JULIJ.

| | |
|---------------------|---------|
| Alt. ☉ merid. | |
| per Chalyb. | 52 15 ½ |
| per Volub. | 52 15 |
| per Mural. | 52 15 ½ |
| | 52 15 ½ |
| Declin. per Armill. | 18 9 ½ |
| ſubterraneas | 18 10 |
| Erat ſatis ferenum. | |

¹ E codd. V. et K.

² E codice V.

³ Lineis inducta.

DIE 23 JULIJ.

| | |
|---------------------|--------------------|
| Alt. ☉ merid. | |
| per Chalyb. | 51 59 ½ |
| per Volub. | 51 58 ½ |
| per Mural. | 52 0 ½ |
| | vtroque pinnacidio |
| Declin. per Armill. | 17 54 ½ |
| | 17 55 |
| Erat ſatis ferenum. | |

DIE 24 JULIJ, MANE¹.

Circa horam primam M. 46½ corri-
gebatur Horologium, eoque postea in-
dicante horam 5 M. 56½ erat ☉ orient.
89° 5' in Æquatore, id est 3' 40" ultra
horam 6.

Hæc correctio Horologij fiebat ad
1 alæ Pegasi.

DIE 28 JULIJ.

| | |
|---------------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 50 38½ |
| per Volub. | 50 38½ |
| Declin. per Armill. | 16 33½ |
| | 16 33½ |

Erat mediocriter ferenum.

DIE 2 AUGUSTI.

| | |
|---------------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 49 11½ |
| per Volub. | 49 11½ |
| per Mural. | 49 12 |
| | 49 11½ |
| Declin. per Armill. | 15 6½ |
| | 15 6½ |

Erat bene ferenum.

DIE 3 AUGUSTI.

| | |
|---------------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 48 53½ |
| per Volub. | 48 52½ |
| per Mural. | 48 54½ |
| | 48 55 |
| Declin. per Armill. | 14 47½ |
| | 14 48½ |

Non erat fatis ferenum.

DIE 5 AUGUSTI.

| | |
|---------------------|---------|
| Alt. ☉ merid. | |
| per Chalyb. | 48 17 0 |
| per Volub. | 48 15½ |
| per Mural. | 48 17½ |
| | 48 17½ |
| Declin. per Armill. | 14 11½ |
| | 14 11½ |

Erat fatis ferenum.

DIE 10 AUGUSTI.

| | |
|---------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 46 40½ |

| | |
|------------|--------|
| per Volub. | 46 40½ |
| per Mural. | 46 41 |

| | |
|---------------------------|--------|
| Declin. per Armill. subt. | 12 34½ |
| | 12 34 |

Erat mediocriter ferenum.

DIE 13 AUGUSTI.

Crepusculum vespertinum non am-
plius restare poteramus discernere.
Sed cælum erat eo in loco nubibus
quibusdam intermixtum. Tunc erat
lucida Vulturis volantis a meridie ad
occasum 20½ ferme graduum.

DIE 14 AUGUSTI.

| | |
|--------------------------|--------|
| Alt. ☉ merid. per Volub. | 45 19½ |
| Declin. per Armillas | 11 13½ |
| | 11 14 |

Erat fatis ferenum.

DIE 15 AUGUSTI.

| | |
|---------------------|---------|
| Alt. ☉ merid. | |
| per Chalyb. | 44 59 |
| per Volub. | 44 59½ |
| per Mural. | 45 0½ |
| | 45 4½ |
| | incertæ |
| Declin. per Armill. | 10 54 |
| | 10 53½ |

Erat mediocriter ferenum.

DIE 16 AUGUSTI.

| | |
|-----------------------|----------|
| Alt. ☉ merid. | |
| per Volub. | 44 17½ |
| per Chalyb. | 44 17½ |
| per Mural. | 44 17 35 |
| | 44 17 25 |
| Declin. ☉ per Armill. | 10 12 |
| subterr. | 10 12½ |
| Erat fatis ferenum. | |

DIE 1 SEPTEMBRIS.

| | |
|---------------------|--------------------|
| Alt. ☉ merid. | |
| per Volub. | 38 45 |
| per Chalyb. | 38 45½ |
| per Mural. | 38 45½ |
| | vtroque pinnacidio |
| Declin. per Armill. | vno 4 40½ |
| | alt. 4 39½ |
| Erat bene ferenum. | |

¹ E codd. V. et K.

DIE 5 SEPTEMBRIS.

| | |
|------------------------|---|
| Alt. ☉ merid. | |
| per Chalyb. | 37 13 40 |
| per Volub. | 37 13 15 |
| per Mural. | 37 13 45 |
| Decl. ☉ per Armill. | 3 7 |
| subter. | 3 6 $\frac{3}{4}$ |
| Altit. ☉ obseruata | 37 13 40 |
| Refractio auferenda | 0 23 |
| | 37 13 17 |
| Parallax addenda | 2 22 |
| Altitudo vera | 37 15 39 |
| Vera declinatio | 3 10 9 |
| Resp. Longitudo ☉ | 22 4 10 III^p |
| Locus ☉ in meridie ex | |
| Decl. vera | Ephem. Tych. Mæflino Leouitio |
| 22 2 20 III^p | 22 2 46 III^p 21 56 $\frac{3}{4}$ 22 2 $\frac{3}{4}$ |

DIE 6 SEPTEMBRIS.

| | |
|------------------------------|---|
| Alt. ☉ merid. | |
| per Chalyb. | 36 50 $\frac{1}{2}$ |
| per Volub. | 36 50 |
| per Mural. | 36 50 $\frac{1}{2}$ |
| | 36 50 35 |
| Declin. ☉ | 2 45bis |
| Erat fatis serenum. | |
| Locus ☉ in meridie ad eundem | |
| 6 diem Septembris, ex | |
| Decl. vera | Ephem. Tych. Mæfl. Cypriano |
| 23 0 40 III^p | 23 1 26 III^p 22 56 48 23 1 25 |

DIE 8 SEPTEMBRIS.

| | |
|-----------------------------------|---|
| Alt. ☉ merid. | |
| per Chalyb. | 36 4 |
| per Volub. | 36 3 $\frac{3}{4}$ |
| Declin. per Armill. | 1 57 $\frac{1}{2}$ |
| | 1 57 $\frac{3}{4}$ |
| Non erat fatis serenum. | |
| Declin. ex altit. Merid. | 1 58 $\frac{1}{2}$ |
| Subtrahenda pro refract. | 30'' |
| | 1 58 0 |
| Adde pro parallaxi | 2 25 |
| Vera declinatio | 2 0 25 |
| Locus ☉ in Meridie ad eundem diem | |
| 8 Septembris ex | |
| Decl. vera | Ephem. Tych. Mæflino Cyprian. |
| 24 58 0 III^p | 24 58 52 24 52 49 $\frac{1}{2}$ 24 59 4 |

DIE 8 SEPTEMBRIS.

Obferuabatur crepusculum, inter-
ferfis nubibus. Cum erat Vultur 8° 48 $\frac{1}{4}$,
videbatur adhuc vestigij minimum ali-
quod crepusculi ex hac ratione quod
circa meridianum ad occidentem ra-
dij folares magis resplendebant quam
ad ortum. Cum erat Vultur 8° 50 $\frac{1}{2}$, nul-
lum crepusculi vestigium apparebat.

DIE 9 SEPTEMBRIS.

| | |
|---------------------------|-------------------------------|
| Alt. ☉ merid. | |
| per Chalyb. | 35 40 $\frac{1}{2}$ |
| per Volub. | 35 39 $\frac{1}{2}$ |
| per Mural. | 35 40 $\frac{3}{4}$ |
| | 35 40 $\frac{1}{2}$ |
| Declin. ☉ | 1 33 $\frac{1}{2}$ |
| per Armillas | 1 33 $\frac{3}{4}$ |
| Erat mediocriter serenum. | |
| Ad eundem 9 diem Septemb. | |
| Alt. limitata ☉ | 35 40 0 |
| Refractio auferenda | 33 |
| Parallax. addenda | 2 26 |
| | 35 41 53 |
| Declinatio vera | 1 36 23 |
| Locus ☉ in Zodiaci ex | |
| Declin. vera | Ephem. Tych. Mæflino Cypriano |
| 25 58 17 III^p | 25 57 38 25 51 50 25 57 56 |

DIE 10 SEPTEMBRIS.

| | |
|---------------------------|------------------------------------|
| Alt. ☉ merid. | |
| per Chalyb. | 35 17 |
| per Volub. | 35 16 $\frac{1}{2}$ |
| per Mural. | 35 16 $\frac{3}{4}$ |
| | 35 17 |
| Declin. per Arm. max. | 1 11 |
| vtrouque pinn. | |
| Erat mediocriter serenum. | |
| Ad eundem 10 Septemb. | |
| Altitudo ☉ | 35 17 0 |
| Refractio subtrahenda | 34 |
| Parallax. addenda | 2 26 |
| Altitudo vera | 35 18 52 |
| Vera declinatio | 1 13 22 |
| Hinc resp. Longitudo ☉ | 26 56 $\frac{1}{2}$ III^p |
| Ex | |
| Ephem. Tych. noua | Mæflino Cypriano |
| 26 56 27 III^p | 26 49 49 26 56 49 |

DIE 12 SEPTEBRIS.

| | |
|---------------|----------|
| Alt. ☉ merid. | |
| per Chalyb. | 34 30 0 |
| per Volub. | 34 30 30 |
| per Mural. | 34 30½ |
| | 34 30½ |

| | |
|--------------------------|---------|
| Declin. per Armill. max. | 0 25 0 |
| | 0 24 10 |

Erat fatis ferenum.

Ad eundem 12 Septemb.

| | |
|-----------------------|----------|
| Altit. ☉ limitata | 34 30 0 |
| Refractio subtrahenda | 40 |
| Parallax. addenda | 2 28 |
| | 34 31 48 |
| Declinatio vera | 0 26 18 |

Locus ☉ ex

| | | | |
|--------------|--------------|----------|----------|
| Declin. vera | Ephem. Tych. | Mæflino | Cypriano |
| 28 54 31½ | 28 54 11 | 28 47 50 | 28 54 40 |

DIE 18 SEPTEBRIS.

| | |
|---------------|---------------|
| Alt. ☉ merid. | |
| per Chalyb. | 32 8½ |
| per Volub. | 32 8½ |
| per Mural. | 32 8½ |
| | vtroque pinn. |

| | |
|--------------------------------|-----|
| Declin. ☉ per Armil. æquator., | |
| vtroque pinnacidio 1 | 57½ |

Erat fatis ferenum.

| | |
|-----------------------|----------|
| Altit. ☉ Merid. | 32 8 45 |
| Refractio subtrahenda | 1 3 |
| Parallax. addenda | 2 32 |
| | 32 10 14 |

| | |
|-----------------|---------|
| Declinatio vera | 1 55 16 |
| Resp. Longitudo | 4 49 5½ |

| | | |
|-------------------|---------|----------|
| Ex Ephem. Tychon. | Mæflino | Cypriano |
| 4 48 10½ | 4 40 50 | 4 49 24 |

DIE 19 SEPTEBRIS.

| | |
|------------------------------|---------------|
| Alt. ☉ merid. | |
| per Chalyb. | 31 45½ |
| per Volub. | 31 45½ |
| per Mural., | vtroq. 31 45½ |
| Decl. per Arm., vtroq. pinn. | 2 20½ |

Mediocriter erat ferenum.

Ad eundem 19 diem Septemb.

| | |
|-----------------------|----------|
| Alt. ☉ | 31 45 30 |
| Refractio subtrahenda | 1 10 |
| Parall. addenda | 2 33 |

| | |
|-----------------|----------|
| Vera altitudo | 31 46 53 |
| Vera declinatio | 2 18 37 |
| Inde Longitudo | 5 47 47 |

| | | |
|----------------|---------|-----------|
| Ephem. Tychon. | Mæflino | Leovittio |
| 5 47 19½ | 5 39 50 | 5 48 40 |

DIE 21 SEPTEBRIS.

| | |
|------------------------------|--------|
| Cum erat lucida Vult. occid. | 9 10 |
| apparebat adhuc crepusculum. | |
| Apparebat adhuc vestigium | |
| crepusculi, luc. Vult. occ. | 9 50 |
| Nullum crepusculi vestigium | |
| restabat, luc. Vult. occ. | 12 17½ |

DIE 23 SEPTEBRIS.

| | |
|---------------|--------|
| Alt. ☉ Merid. | |
| per Chalyb. | 30 12½ |
| per Volub. | 30 12½ |
| per Mural. | 30 12 |
| | 30 12½ |

| | |
|-----------|-------|
| Declin. ☉ | 3 55 |
| | 3 54½ |

Erat mediocriter ferenum.

| | |
|-----------------|----------|
| Altitudo media | 30 12 30 |
| Refractio subt. | 1 20 |
| Parall. add. | 2 35 |
| | 30 13 45 |

| | |
|-----------------|----------|
| Vera declinatio | 3 51 45 |
| Resp. Longitudo | 9 42 57½ |

Ad eundem diem in Meridie

| | | |
|-----------------|---------|---------|
| Tychonis Ephem. | Mæflin. | Leouit. |
| 9 45 12½ | 9 36 50 | 9 46 20 |

DIE 25 SEPTEBRIS.

| | |
|---------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 29 25½ |
| per Volub. | 29 26½ |
| per Mural. | 29 26 |
| | 29 25½ |

| | |
|---------------------|-------|
| Declin. per Armill. | 4 40½ |
| | 4 40½ |

Erat fatis ferenum.

DIE 6 OCTOBRIS.

| | |
|---------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 25 15½ |
| per Volub. | 25 15½ |
| Declinatio | 8 51½ |
| | 8 51½ |

DIE 7 OCTOBRIS.

| | |
|-----------------------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 24 54 |
| per Volub. | 24 53½ |
| per Mural. | 24 53 |
| | 24 52½ |
| Decl. per Arm., vtroq. pin. | 6 45 |

DIE 8 OCTOBRIS.

| | |
|-----------------------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 24 32 |
| per Volub. | 24 32½ |
| per Mural. | 24 31½ |
| vno tantum pinnacid. (nouo) | |
| Declin. ☉ per Armill. | 9 35½ |
| | 9 36 |
| Erat fatis ferenum. | |

DIE 9 OCTOBRIS.

| | |
|------------------------------------|-------|
| Alt. ☉ Merid. | |
| per Chalyb. | 24 9½ |
| per Volub. | 24 9½ |
| per Mural. | 24 9½ |
| | 24 9½ |
| Declin. ☉ per Armill. ¹ | 9 57 |
| vtrouque pinnacidio | |
| Erat fatis ferenum. | |

DIE 10 OCTOBRIS.

| | Declinatio ☉ | | ☉ orient. |
|-----------|--------------|--------|-----------|
| | vno | altero | |
| H. 8 15½' | 10 12 | 10 12½ | 55 18 |
| 8 27½ | 10 13 | 10 14 | 52 21½ |
| 8 44½ | 10 13 | 10 14 | 48 20 |
| 9 11 | 10 15 | 10 14½ | 41 47 |
| 9 24 25 | 10 15½ | 10 15½ | 38 40 |
| 9 40 50 | 10 15½ | 10 16 | 34 32 |
| 9 50 20 | 10 15½ | 10 16½ | 32 10 |
| 10 14 40 | 10 16½ | 10 16½ | 26 19 |

| | |
|-------------------------------|--------|
| Solis Altit. Merid. | |
| per Chalyb. | 23 48 |
| per Volub. | 23 48½ |
| per Mural. | 23 47½ |
| Declin. per Armill. vno pinn. | 10 19½ |
| altero 10 | 18½ |

*N. B. Horologium in hoc Meridie
2 minutis iusto celerius mouebatur,
quod vitium illi ab Hora sexta Matu-
tina adfuit, tunc enim ad stellas veri-
ficabatur.*

¹ Cf. infra inter obfervationes Veneris.

DIE 15 OCTOBRIS.

| | |
|--------------------------|-------|
| Alt. ☉ Merid. | |
| per Chalyb. | 22 1½ |
| per Volub. | 22 2 |
| per Mural. | 22 1 |
| | 22 1½ |
| Declin. per Arm. maiores | 12 4½ |
| | 12 5 |

Non erat fatis ferenum.

DIE 30 OCTOBRIS.

| | |
|---------------------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 17 14½ |
| per Volub. | 17 15½ |
| per Armill. | 16 51 |
| meliori pinnacid. | 16 51½ |
| Erat mediocriter ferenum. | |

DIE 31 OCTOBRIS.

| | |
|-----------------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 16 58½ |
| per Volub. | 16 59 |
| Declin. ☉ per Armill. | 17 8½ |
| | 17 8½ |

Erat mediocriter ferenum.

DIE 14 NOUEMBRIS.

| | |
|-----------------------|--------|
| Alt. ☉ merid. | |
| per Volub. | 13 34 |
| per Chalyb. | 13 34½ |
| Declin. ☉ per Armill. | 20 34½ |
| | 20 34½ |

Erat mediocriter ferenum.

Locus ☉ in Zodiaco ad idem tempus.

| | |
|--------------------|----------|
| Alt. Merid. ☉ | 13 34 |
| Refractio subtrah. | 8 14 |
| Parallaxis adden. | 2 49 |
| | 13 28 35 |
| Declinatio vera | 20 36 55 |

Resp. Longitudo ex

| Obferuatione | Ephem. noſt. Mæſſino | Cypriano |
|--------------|----------------------|------------|
| 1 53 53 x | 1 54 0 | 1 35 2 1 6 |

DIE 4 DECEMBRIS.

| | |
|---------------------------|--------|
| Alt. ☉ merid. per Chalyb. | 10 54 |
| per Volub. | 10 54½ |
| Declin. per Armill. | 23 13 |
| | 23 12½ |

Non erat fatis ferenum.

DIE 6 DECEMBRIS.

| | |
|------------------------|---------------------|
| Alt. ☉ merid. | |
| per Volub. | 10 48 $\frac{3}{4}$ |
| per Chalyb. | 10 48 $\frac{3}{4}$ |
| per nouum Sext. | 10 48 $\frac{3}{4}$ |
| Decl. per Armill. max. | 23 17 $\frac{3}{4}$ |
| | 23 17 $\frac{3}{4}$ |

Erat fatis ferenum.

Locus ☉ sub Zodiaco ad idem
tempus.

| | |
|---|---------------------|
| Alt. Merid. | 10 48 $\frac{3}{4}$ |
| Refraçtio fubtrah. | 9 40 |
| Parallaxis in diftantia minima a terra addenda | 3 3 |
| | 10 42 3 |
| Vera declinatio | 23 23 27 |

DIE 10 DECEMBRIS.

| | |
|---------------------|----------------------|
| Alt. ☉ merid. | |
| per Volub. | 10 42 $\frac{3}{4}$ |
| per Chalyb. | 10 43 $\frac{3}{4}$ |
| per nou. orich. | 10 42 $\frac{3}{4}$ |
| per Mural. | 10 39 $\frac{3}{4}$ |
| | veteri pinnacid. bis |
| Declin. per Armill. | 23 25 $\frac{3}{4}$ |
| | 23 25 $\frac{3}{4}$ |

Non erat fatis ferenum.

| | |
|--------------------|----------|
| Altit. media | 10 43 |
| Refraçtio fubtrah. | 9 39 |
| Parallaxis addenda | 3 3 |
| | 10 36 24 |
| Vera declinatio | 23 28 51 |

DIE 18 DECEMBRIS.

| | |
|--|----------------|
| Tempus in horologio. Mane. | |
| H. 7 15 $\frac{1}{2}$ Tunc erat Spica 11 $\frac{1}{2}$ | |
| | occident. 8 41 |
| 8 35 Oriebatur ☉ | |

| | |
|---------------------------|---------------------|
| Alt. ☉ merid. | |
| per Volub. | 10 52 $\frac{1}{2}$ |
| per Chalyb. | 10 51 $\frac{1}{2}$ |
| per Mural., veteri pinn. | 10 50 |
| Decl. per Armill. maiores | 23 15 $\frac{1}{2}$ |
| | 23 15 $\frac{1}{2}$ |

Erat fatis ferenum.

Horologium mouebatur in hoc meridie 1 minuto iusto celerius, qui error corrigebatur.

DIE 20 DECEMBRIS.

| | |
|---------------------|---------------------|
| Alt. ☉ merid. | |
| per Chalyb. | 10 58 |
| per Volub. | 10 58 $\frac{1}{2}$ |
| Decl. ☉ per Armill. | 23 7 $\frac{1}{2}$ |
| | 23 7 $\frac{1}{2}$ |

Erat fatis ferenum.

Horologium mouebatur 58 minutis iusto celerius, qui error illi ab hefterno Meridie accefferat.

Nota autem quod horologium ante hunc Meridiem, paululum quieuerat, per minuta 3 vel 4 circiter Eximebatur aliquid ponderis.

DIE 23 DECEMBRIS.

| | |
|-----------------------|---------------------|
| Alt. ☉ merid. | |
| per Chalyb. | 11 11 |
| per Volub. | 11 11 $\frac{1}{2}$ |
| per Mural. | 11 10 $\frac{1}{2}$ |
| Declin. ☉ per Armill. | 22 55 $\frac{1}{2}$ |
| | 22 55 $\frac{1}{2}$ |

Erat fatis ferenum.

Horologium mouebatur iusto celerius 24 $\frac{1}{2}$ ', hefterno Vespere aliquid ponderis eximebamus, & nunc etiam.

DIE 28 DECEMBRIS.

Corrigebatur Horologium in Meridie ad ☉. Pro obferuandis autem Altitudine & Declinatione non erat fatis ferenum.

OBSERVATIONES LUNÆ.

DIE 4 FEBRUARIJ, VESPERI.

Hora 8 M. 50¹ ☾ in 90 Gradu.

Observabatur diameter ☾ per Armillas eratque

31' vno pinn.

31¹/₂ altero.

N. B. Hora 8 corrigebatur Horologium ad Aldeboram.

H. 8 M. 5¹/₂ Declin. superioris limbi ☾19 54¹/₂²

inferioris

19 22¹/₂

Diameter

31¹/₂

8 10' 30" Repetita declin. cum appropinquaret 90 gradui.

Superioris limbi

19 53¹/₂

Inferioris

19 23¹/₂

Diameter

30 10

8 18¹/₂ Inter occid. limb. ☾

31 10

8 20¹/₂ & Aldeboram31 11¹/₂8 21¹/₂ Repetita dift.31 12¹/₂8 23¹/₂31 12¹/₂8 28¹/₂ Erat Alt. super. limbi

☾ per Chalybeum

53 57 10

Inferioris limbi per Chal.

53 26 30

Superioris limbi per Vol.

53 57 40

Inferioris limbi per Vol.

53 26 20

8 40¹/₂ Inter occid. limb.

15 59

8 42¹/₂ ☾ & inferius

16 1

8 43¹/₂ caput II

16 0

8 45¹/₂15 58¹/₂

8 47

15 59

8 48¹/₂

15 58

8 49¹/₂

15 56

8 50¹/₂ Inter occid. limb.

31 21

8 51¹/₂ ☾ & oculum ☾31 21¹/₂

8 52 35 Decl. super. limb. ☾

19 54

inferioris

19 22

8 55 20 Inter occ. limb. &

31 24

oc. ☾

31 24

8 56¹/₂ Repetita31 25¹/₂

8 57

15 54¹/₂

8 59 15 Inter occ. limb. ☾

15 55

9 0 5 & inferius caput II

15 54¹/₂

9 0 50

19 55¹/₂

Declin. super. limbi ☾

19 27

inferioris limbi

DIE 5 FEBRUARIJ.

H. 9 M. 57 ☾ in 90 Gradu *vel potius tendens eo.*

DIE 28 FEBRUARIJ, P. M.

| Tempus | ☉ occ. | ☾ occ. limb. orient. | Alt. sup. cornu ☾ | Alt. ☉ per Chal. |
|----------------------------------|-----------------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| 2 25 ¹ / ₂ | 36 13 ¹ / ₂ | 22 30 | 43 7 ¹ / ₂ | 23 7 ¹ / ₂ |
| 2 30 0 | 37 15 | 21 23 ¹ / ₂ | 43 28 ¹ / ₂ | 22 42 ¹ / ₂ |
| 2 32 55 | 37 59 | 20 42 ¹ / ₂ | 43 38 ¹ / ₂ | 22 26 ¹ / ₂ |
| | | Decl. | | |
| 2 33 40 | | sup. 12 30 | | |
| | | inf. 12 1 | | |
| 2 37 55 | 39 9 ¹ / ₂ | 19 28 | | 22 0 |
| 2 39 40 | | sup. 12 31 | | |
| | | inf. 12 2 ¹ / ₂ | | |

DIE 1 MARTIJ, P. M.

| Tempus | Alt. ☉ | ☉ occid. | Occ. limb. ☾ orient. | Dift. æquat. | Decl. ☾ super. | Decl. ☾ infer. | Alt. sup. cornu ☾ per Volub. |
|----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| 3 34 45 | 15 53 ¹ / ₂ | 54 15 | 17 23 ¹ / ₂ | 71 38 ¹ / ₂ | 16 0 | 15 28 ¹ / ₂ | 48 10 ¹ / ₂ |
| 3 40 35 | 15 8 ¹ / ₂ | 55 41 | 15 56 | 71 37 | | | 48 21 ¹ / ₂ |
| 3 43 ¹ / ₂ | 14 48 ¹ / ₂ | 56 27 | 15 11 ¹ / ₂ | 71 38 ¹ / ₂ | 15 59 ¹ / ₂ | 15 28 ¹ / ₂ | 48 31 ¹ / ₂ |
| 3 46 ¹ / ₂ | 14 24 ¹ / ₂ | 57 20 | 14 21 ¹ / ₂ | 71 41 ¹ / ₂ | | | 48 39 ¹ / ₂ |
| 3 49 ¹ / ₂ | 14 4 | 58 4 | 13 40 ¹ / ₂ | 71 44 ¹ / ₂ | 16 0 ¹ / ₂ | 15 29 | 49 48 |
| 4 16 | 10 49 | 64 43 ¹ / ₂ | 7 6 ¹ / ₂ | 71 50 | | | |
| 4 18 ¹ / ₂ | 10 20 | 65 20 | 6 30 | 71 50 | | | |
| 4 21 ¹ / ₂ | | | | | 16 3 ¹ / ₂ | 15 33 | |
| 4 23 0 | 9 42 ¹ / ₂ | | | | | | |

Declinatio ☉ 3 36¹/₂ vtroque pinnacido.¹ 50 in 45 corr. codex V.² Adscriptum est in margine: »Aurif«.

DIE 3 MARTIJ, P. M.

¶ erat hoc tempore circa 90 Gradum
& obseruabatur a ♀¹

| H. M. | Inter occ. limb. (¶ & ♀) | Decl. (¶) | Alt. sup. limb. (¶) |
|-------|-----------------------------|--------------|------------------------|
| 5 32½ | 52 21½ | sup. 19 45½ | |
| 5 33 | corr. | inf. 19 13½ | |
| 5 35 | | | 52 25 |
| 5 35½ | 52 23½ | sup. 19 45 | |
| | | inf. 19 13 | |
| | 52 25 | sup. 19 45 | 52 41½ |
| 5 41 | | inf. 19 13 | |
| | Azim. occ. | | |
| | limb. 19 35 | ♀ occ. 43 32 | |

DIE 6 JULIJ, MANE.

Obseruabantur sequentia circa ¶ iam
iam infra nostrum Finitorem Eclipsin
ingressuram.

Tempus Horologii ad ☉ correctum.
3^h 10^m 14^s Accipiebat Aurifaber altitu-
dinem centri ¶ per radium astro-
nomicum quasi 0° 40'.

3 12 5 Incipiebat ☉ oriri, & cum me-
dius extabat supra Horizontem,
stringebat inferior limbus ¶ Fini-
torem. Et quamuis ¶ propter re-
fractionem nondum videbatureße
in vera oppositione, apparebat ta-
men adhuc plena & in nulla sui
parte offuscata.

DIE 8 OCTOBRIS.

Obseruatio ¶ circa 90 Gradum.

| Inter orient. limb. | Decl. | Tunc erat luc. |
|---------------------|------------|----------------------|
| (¶ & Aldeb. | inf. cornu | super. hum. Or. occ. |
| 27 0½ | 20 7 | 20 39 dubia 27 5½ |
| 27 1 | 20 11½ | 20 44 28 7 |

Viceversa

| Inter or. limb. | Decl. | Tunc erat luc. |
|-----------------|------------|----------------------|
| (¶ & cor ♀) | inf. cornu | super. hum. Or. occ. |
| 53 4½ | 20 13 | 20 43½ 29 52 |
| 53 5 | 20 15½ | 20 45 31 7 |

DIE 9 OCTOBRIS, MANE.

H. 17 M. 40 ¶ circa 90 gradum.

Transitus canis minoris per meridi-
anum H. 17 M. 44.

¹ In codd. V. et K adscriptum est: »Postea tempus transitus ¶ per 90 Grad. supputatum est H. 6 M. 35, vt
error hic fuerit in his horis».

| Dist. inter luc. ped. | Declin. | Tunc erat |
|---------------------------------|---------------|--------------------|
| Erichtonij & orient. limbum (¶) | infer. super. | Canis minor occid. |
| 28 12 | 20 34 | 3 46 |
| 28 12 | | 21 8 4 48 |
| 28 18 | 20 31 | 21 6 6 7½ |
| 28 19 | 20 35 | 21 7 8 1½ |

N. B. ¶ erat hic circa maximam re-
motionem Epicyclorum.

Declin. superioris cornu ¶ 21 5½

inferioris cornu ¶ 20 36

♀ orientalis 48 31

Quando ♀ abeßet a Meridiano ver-
sus ortum 47 31, obseruabatur ¶ circa
90 Gradum per Armillas Zodiacales
verificatas, idque posito loco ♀ in pri-
mo gradu ¶ exacte completo. Vide-
batur limbus ¶ orient. in 23 32 ☉.

Declin. super. cornu 21 6½

inferioris 20 36

Quando in Meridiano erat 13½ ♀ &
eßet ♀ orient. 46 57, videbatur ¶ eo-
dem modo in 23 33 ☉.

Quando in Meridiano erat 15 0 ♀,
♀ 44 55 orient.,

Declin. superioris cornu 21 3½

inferioris 20 36½

DIE 10 OCTOBRIS, MANE.

¶ erat in Meridiano vel circa ½ gra-
dum prætergressa, cum Canis minor
eßet occid. 10 31

Altit. superioris cornu ¶ 54 24

inferioris 53 53

Declinatio 19 49

20 20

Postea obseruabatur ¶ appropinqu-
ans 90 Gradui & existens iuxta re-
motionem maximam vtriusque epi-
cycli, in hunc qui sequitur modum.
Accipiebatur autem vbique orienta-
lis limbus ¶ in distantia a ♀ & in de-
clinatione vtrumque cornu ¶.

| Tempus | Dist. ♀ a | Inter ♀ & | Decl. cornu |
|--------|-------------|---------------|---------------|
| Horo- | Mer. versus | or. limb. (¶) | infer. super. |
| logij | ort. æquat. | per Sext. | |
| 6 27½ | 53 17½ | 57 7½ | 19 49½ 20 20 |
| 6 32½ | 53 6 | 57 7 | 19 49½ 20 19 |
| 6 36 | 51 5 | 57 6 | 19 49½ 20 18½ |

6 39 50 23 57 5 19 49 20 19
 6 43½ 49 18 57 3 19 49 20 18
 6 46½ 48 29 57 1 19 48½ 20 17
 6 52 47 1 56 58½ 19 49½ 20 15

Q erat latis alta, vt refractione careret, & ¶ iuxta Meridianum vel vltra. Potest Q locus ex obseruatione accipi.

6 56 46 4 56 57 19 48½ 20 14½
 7 1½ 44 36 56 56½ 20 14
 7 4 43 39 56 54½
 7 8½ 42 54 56 53½
 7 13½ 41 36½ 56 51½ 20 14
 7 17½ 40 32 56 50½ 19 48 20 14
 7 37 35 29 56 41½ 19 47½ 20 12
 7 42½ 33 48½ 56 40 19 47 20 11
 7 45½ 33 24 56 38 19 47 20 11½
 7 48½ 32 51 56 36½
 7 50 32 3 56 34½ 19 46½ 20 10½
 7 54 31 27 56 33½
 7 57½ 30 17 56 32 19 45½ 20 10½
 8 0 29 11 56 31½ 19 46 20 10½

Postea non obseruabatur ¶ a Q amplius, eo quod nimium esset extra 90 gradum. ¶ hoc die iuxta 90 gradum H. 7 M. 32 vt puto.

N. B. Hæ obseruationes omnes a Q in ¶ fuerunt satis exactæ, ipsemet aderam, & fuit pulchra serenitas, funda te in his pro ¶. Sed horologium

per sua tempora ex diff. Q æquatoria verificandum.

Circa hæc ipsa tempora cum ¶ esset in 90 gradu, obseruabatur eius distantia Zodiacalis a Q per Armillas Zodiacales, & ponebatur vbique locus Q in 24 0 11½. Si quid tamen addendum vel demendum sit, id ex obseruatione eius matutina prius annotata¹ colligi potest & lunæ applicari.

Orientalis limbus ¶ ,posito loco Q in 24 0 11½.

| H. M. | Long. or. limb. | Q or. | Declinatio ¶ infer. | super. |
|-------|-----------------|--------|---------------------|--------|
| 7 27 | 27 56½ | 38 6 | 19 48 | 20 12½ |
| 7 29½ | 27 56½ | 37 30½ | 19 48½ | 20 12 |
| 7 32 | vt prius 27 6½ | 36 48 | 19 47½ | 20 11½ |
| 7 34½ | vt prius 27 7½ | | 19 47½ | 20 11½ |

Poteris his etiam vti obseruationibus & conferre cum antecedentibus per Sextantem factis, ita tamen vt locus Q prius rectificetur ex obseruatione matutina iuxta horam 5½ facta & huc applicata, habito refractionum & parallaxium respectu, atque hinc limitare locum limbi ¶ orientalis, ¶ addendo vel subtrahendo, prout opus erit, & redigendo postea omnia ad centrum.

DIE 28 OCTOBRIS.

¶ iuxta 90 gradum. N. B. Transitus Luc. Vult. per Mer. erat H. 4 Min. 40½, hinc corrige Horologium.

| Tempus H. M. S. | Diff. inter occ. limb. ¶ & præced. hum. ☿ | Declinatio sup. cornu | infer. | Alt. sup. cornu ¶ per Quad. min. | Pro corrigendo horologio erat tunc Lucid. Vult. occid. |
|-----------------|---|-----------------------|--------|----------------------------------|--|
| 5 36 20 | 35 39½ | 7 52 | 8 24 | 15 40 | 14 2 |
| 5 42 45 | 35 35 | 7 51 | 8 21 | 16 25 | Scheat Peg. or. 12 32 |
| | Diff. a luc. in cauda ☿, postea duarum | | | | Luc. Vult. occ. |
| 5 49 45 | 33 11 | 7 50 | 8 20 | 17 0 | 17 23 |
| 5 52 55 | 33 12 | 7 49½ | 8 19½ | 17 25 | 18 14 |
| 5 55 35 | 33 13 | 7 48½ | 8 19 | 17 40 | 18 54 |

Postea obseruabatur ¶ idem lymbus occid. a lucida supra caput V in hunc qui sequitur modum.

| | | | | | |
|----------------|-------|-------|-------|-------|-------|
| 6 2 (3½ corr.) | 43 29 | 7 49 | 8 18½ | 18 10 | 20 30 |
| 6 8 20 | 43 22 | 7 48½ | 8 17 | 18 40 | 22 11 |

¹ Vide infra inter obseruationes Veneris.

Erat tunc prope 90°.

| | | | | | |
|---------|--------|-------|-------|-------|-------|
| 6 12 45 | 43 20 | 7 45½ | 8 16 | 19 0 | 23 13 |
| 6 16 40 | 43 19½ | 7 45½ | 8 14½ | 19 30 | 24 15 |

Postea obseruabatur ☾ a lucida in cauda ♀.

| | | | | | |
|---------|--------|-------|-------|-------|-------|
| 6 21 50 | 33 20 | 7 45 | 8 14 | 20 0 | 25 25 |
| 6 24 50 | 33 22½ | 7 43½ | 8 14 | 20 10 | 26 9 |
| 6 28 15 | 33 23½ | 7 43 | 8 13½ | 20 30 | 27 1 |
| 6 31 5 | 33 25½ | 7 42½ | 8 12 | 20 45 | 27 41 |

☾ in 90 gradu ab Ascendente puncto Eclipticæ H. 6 M. 4.

DIE 29 OCTOBRIS, VESPERI.

Horologium corrigebatur hic ad 1^{am} alæ Pegafi.

| H. M. | Temp. corr. | Interluc. in cauda ♂ & occ. limbi. ☾ | Declinatio sup. cornu | infer. | Altit. super. cornu | 1 alæ Peg. or. pro cor. horol. |
|-------|-------------|---|--------------------------|--------|------------------------|-----------------------------------|
| 6 44½ | | 48 10 | 2 25 | 2 55½ | 19 41½ | |
| 6 48 | 6 28 | 48 10½ | 2 23 | 2 54½ | 20 15 | 20 45 |
| 6 52 | 6 32 | 48 11½ | 2 21½ | 2 54 | 20 36½ | 19 45½ |

Postea obseruabatur ☾ a lucida ♀.

| | | | | | | |
|-------|-------|-------|-------|-------|-------|-------------------------|
| 6 56½ | 6 37 | 30 8 | 2 21 | 2 53 | | 18 37 |
| 6 59½ | | 30 6½ | 2 21 | 2 51½ | | 17 56½ |
| 7 2½ | | 30 6 | 2 20½ | 2 49½ | 21 43 | 17 18 |
| 7 6½ | | 30 4½ | 2 20 | 2 49½ | 22 11 | 16 8 |
| 7 10½ | 6 49½ | 30 3 | 2 19½ | 2 48½ | 22 30 | Luc. Vult. occ. 33 8 |

☾ iterum obseruabatur a lucida caudæ ♀.

| | | | | | | |
|-------|------|-------|------|-------|------|-------|
| 7 15½ | 6 55 | 48 25 | 2 18 | 2 47½ | 23 3 | 34 25 |
|-------|------|-------|------|-------|------|-------|

☾ in 90 gradu ab Ascendente puncto Eclipticæ H. 6 M. 57.

Posito loco Vulturis in 26 0 ♀ videbatur ☾ vt sequitur.

| | | | |
|------|--------------------|-------|--------------------------------------|
| 6 52 | long. ☾ occ. limbi | 5 48 | } Per Armillas Zodiacales en platei. |
| 6 55 | | 5 45½ | |
| 7 0 | | 5 52 | |
| 7 3½ | | 5 54 | |

DIE 23 DECEMBRIS, VESPERI.

H. 3 20' post merid. huius diei erat locus ☾ in 90 ab Horizonte gradu.

| Declinatio super cornu | | | Alt. super. cornu ☾ per Volub. | |
|---------------------------|-------|-------|--------------------------------------|--|
| infer. | | | | |
| 3 35½ | 0 42 | 1 13 | | |
| 3 45½ | 0 38½ | 1 14 | 28 38 | |
| 3 51½ | 0 36½ | 1 11½ | 29 5 | |
| 3 58½ | 0 35½ | 1 10 | 29 39 | |
| 4 4½ | 0 34½ | 1 9½ | 30 7 | |
| 4 19½ | 1 9 | | 31 10 | |

| Inter occ. limb. ☾ & Ald. | | |
|------------------------------|-------|-------------|
| 4 47½ | 0 56 | 51 51 32 39 |
| 4 56½ | 0 55 | 51 51 33 0 |
| | 0 54½ | |

Pro corrigendo Horologio, H. 5 M. 8
erat oculus ☿ orient. 57 40.

| | | |
|-------|-----------------------|-------|
| 5 13½ | Inter occ. limbum ☾ & | |
| | Aldeb. | 51 43 |
| | Declin. infer. limbi | 0 50 |
| | Altit. ☾ | 33 31 |

¹ Lineis inducila.

| | | |
|------|---|--------|
| 5 39 | Occid. limb. ¶ meridianum transijt. Alt. merid. sup. cornu per Volub. | 33 53½ |
| | infer. per Chalyb. | 33 25 |
| 5 47 | Dift. occ. limb. ab oc. ☿ | 51 28 |

DIE 28 DECEMBRIS, VESPERI.

Tempore correcto Horologij ad stel-
las.

H. 8 55' Videbatur ♄ & ¶ quasi in vno
verticali.

| Horol. ad- huc bene movebatur | Inter ¶ & Aldeb. | Declinatio inf. | Declinatio sup. | Pro Ho- rol. Can. min. or. |
|-------------------------------------|---------------------|--------------------|--------------------|----------------------------------|
| 10 9 55 | 20 16½ | 19 55 | 20 29 | 28 43½ |
| 10 12½ | 20 17 | | | 28 6 |
| 10 15½ | 20 18 | 19 57 | 20 29 | 27 30 |
| 10 18½ | | | | 26 30 |

Propter futuram ante biduum Eclip-
sin lunarem obseruabatur ¶ circa 90
gradum.

Ex hisce præcedentibus obseruationibus per Triangulares supputationes in-
uentæ sunt Ascensionēs rectæ, item longitudines & latitudines ¶ ad diuerfa,
quæ assignantur, tempora, vt sequitur.

| H. M. S. | Dift. centri ¶ ab inf. cap. II | Decl. centri ¶ | Afc. R. | Long. ¶ | Latit. ¶ |
|----------|-----------------------------------|-------------------|-----------|-------------|------------|
| 10 21 30 | 24 59 | 20 11 | 84 13 7 | 24 33 58 II | 3 14 M. |
| 10 32 0 | 24 54½ | 20 12½ | 84 17½ | 24 38 24 II | |
| | Viceversa ab | Ex Mesthl. Ephem. | 24 55½ II | | |
| | Aldebora | E Cypriano | 24 45½ II | | 2 28½ M. |
| 10 38 | 20 44½ | 20 13 | 84 24½ | 24 44½ II | 3 12½ M. |
| 10 42½ | 20 45½ | 20 13½ | 84 25 23 | 24 45 37 | 3 11 52 M. |

DIE 29 DECEMBRIS, VESPERI.

Transitura erat lucidus humerus Ori-
onis per Meridianum H. 10 M. 14. Ad
hoc tempus corrigebatur horologium,
quod a vespertina correctione (vide
die 28 huius mensis apud ♄ obseruatio-
nes) numerando 44' 2" iusto tardius
moueabatur.

Tempus correctum

| | | |
|-----------|---|------------------------------|
| H. 11 14½ | Transibat ¶ per Meridianum occ. limbo habens altit. per Chalyb. | super. 55 32½ infer. 55 2 |
|-----------|---|------------------------------|

| Tempora sunt correcta | Dift. occ. limb. ¶ ab inf. cap. II | Declinatio sup. cor. ¶ | Declinatio infer. | Pro horol. corr. Seq. hum. Orio. occ. |
|-----------------------------|--|------------------------------|----------------------|--|
| 10 21½ | 25 14 | 20 27½ | 19 56 | 0 47 |
| 10 22½ | Tranfibat ¶ per Mer. habens Alt. per Volub. | sup. 54 29½ inf. 53 59½ | | |
| | per Chalyb. | sup. 54 35 inf. 53 58½ | | |
| 10 29½ | 25 10½ | 20 27½ | 19 58 | 2 52 |
| 10 32½ | 25 9 | | | 3 32 |
| | N. B. Fuit ¶ in nonagesimo gradu iuxta supputationem H. 10 M. 32. | | | |

Viceversa

| Inter occ. limb. ¶ & Aldeb. | Declin. | Seq. hum. Orion. |
|--------------------------------|---------|---------------------|
| 10 37½ | 20 29½ | 19 57 |
| 10 39½ | 20 30 | 4 52 |
| 10 42½ | 20 31½ | 19 59 |
| 10 46½ | 20 32½ | 6 58 |

Viceversa

| Inter occ. limb. ¶ & inf. cap. II | Declin. | Seq. hum. |
|--------------------------------------|---------|-----------|
| 10 49½ | 25 0½ | 20 27½ |
| 10 52 35 | 24 59½ | 19 58½ |
| | | 7 42 |
| | | 8 33 |

per Volub. super. 55 30½
infer. 55 1½

Declin. tunc erat
super. limbi 21 26
inferioris limbi 20 59

H. 11 40 Erat ¶ in 90 gradu.

11 42½ Erat decl. ¶
super. limbi 21 27½
inferioris limbi 20 55½

Tunc erat altit. superior.
limbi ¶ per Chalyb. 55 9

ECLIPSIS ☾ DIE 30 DECEMBRIS.

Vesperī inter nubes.

H. 6 M. 5 Vmbra terræ paululum erat centrum præter-
gressa, qualis ferme adiacens figura est.

Altit. superioris cornu ☾ tunc erat

Declin. eiusdem super. cornu

20 25

21 2½



H. 6 12' Fuit pars lunæ quasi ad duas tertias in
vmbra, prout appositā figura monstrat.

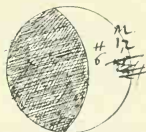
Altit. super. cornu ☾ tunc erat

H. 6 39½' Erat Aldeb. orient.

Transitus Aldeboræ per Meridianum 8^h 53' 25".

20 35

30 1



6 48 Apparebat magnitudo Eclipsis propemo-
dum vt hic videre est.

6 48½ Erat lucidus pes Orionis

Transitus luc. ped. Orionis per Mer. 9^h 31' 43".

38 40



6 50 Altit. infer. cornu ☾

Idem proxime vt prius, sed paulo serenius.

24 55



6 59 luna adhuc quasi quarta parte illuminata.
Erat Altit. inferioris limbi

26 10



7 4 Paulo minor quarta parte lucida.

Altit. infer. limbi ☾

26 44



7 11 Altit. inferioris cornu ¶
 7 14 Medium ¶ pro horologio
 Altit. infer. cornu

27 43½
 69 51
 28 10



7 15½ Medium lucentis particulæ ¶ pro tempore
 69 46 in Æquat. ad ortum a meridie.
 Altit. inferioris cornu
 Paulo minor lucida pars.

28 25



Circa hæc fere tempora quasi ad oculum fuit media Eclipsis, quantum inter nubes densiores vix sese dissipantes discernere licuit, fueruntque omnes hæc obseruationes inter nubes rarissime transparentes habitæ, ea tamen qua fieri poterat diligentia, modo momenta horologij¹ ad fixarum transitus & ¶ altitudines atque a Meridiano distantias æquatorias interim obseruata iuste verificentur, atque omnia debito modo limitentur. Oportet vero obseruationis ante biduum in ¶ factæ examinationem denuo instituere. Neque enim locus ¶ tunc ex calculo per obseruationem deductus huic motui Lunæ in Eclipsi adhibito solari verificato satis quadrare videtur, nisi forte tam in tempore hic annotato ex horologio, vti etiam suspicor, euident lateat error, tum etiam antecedens calculus ex obseruatione ¶ antebiduana non rite sit peractus, quorum oportet periculum facere.



H. 7 31½ Media pars partis lucentis ¶ in Æquatore 65 40

Ad figuram nonam

Altit. infer. cornu ¶ per Volub.

30 44

Azimuth

82 0



H. 7 36½ Media pars particulæ lucentis ¶

Ad figuram decimam

in Æquatore 64 36½

Altit. infer. cornu ¶

31 18

H. 7 38 Media pars particulæ lucentis ¶

Ad eandem decimam figuram

in Æquatore 64 17

Altit. infer. cornu

31 29



H. 7 44½ Media pars particulæ lucentis ¶

Ad vndecimam figuram

in Æquatore 62 29

Luna quasi dimidia recepit lumen.

¹ Adscriptum est in margine eadem manu (quæ est Johannis Aurifabri): »Hæc non debent inscribi ad mundum nisi examinata«.

H. 7 49½ Media pars particulæ lucentis in æquatore
ad ortum a meridie 61 18

Ad 12^{am} figuram



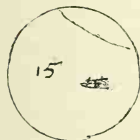
H. 8 0 Medium partis ̄ lucentis in Æquatore 58 31

Ad 13^{am} figuram

Hic videbatur ̄ quasi ad ⅓ iterum illuminata.

H. 8 7½ Medium partis ̄ lucentis in Æquatore 56 55

Ad 14^{am} figuram



H. 8 14½ Medium partis lucentis in Æquat. 55 6

Ad 15^{am} fig.

Restabat adhuc quasi sexta pars obscurata.

H. 8 19 Dist. æquat. orientalis limbi

54 10

Ad 16^{am} figuram



H. 8 22½ Dist. æquat. orient. limbi ̄

53 16

Ad 17 fig.

H. 8 26 Dist. æquat. orient. limbi ̄

52 3½

Ad fig. 18



H. 8 26½ Humerus Orionis seq. orient. 23 4,
dubia, quia trabs erat impedimento.



H. 8 27½ Dist. orient. limbi ̄ in æquat.

52 0

Ad fig. 19

8 29½

8 39 36 corr.

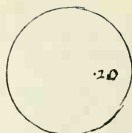
} Hum. sequens Orionis orient. 22 31

Azimuth 26° 36' stellæ alicuius in Orione. Putatur esse lucidus humerus Orionis, si non fuit h. H. 10 9' 40" transitus per Merid.

H. 8 31 $\frac{3}{4}$ Circa hoc tempus tota ☾ rotunda videbatur & recepit lumen. Attamen non prorufus, vt mihi apparuit.

Diftantia orient. limbi ☾ in æquat.

50 55



H. 8 34 Denuo factō experimento exquisitè rotunda videbatur ☾.
Verior examinatio.

H. 8 34 $\frac{3}{4}$ } Humerus sequens Orionis orient. 20 41

8 46 56 corr. } Puta lucidum humerum Orionis. Pro horologio.

8 36 Prorufus nulla omnibus aspicientibus fuit ☾ ecliptatio, sed tota rotunda apparuit.

8 42 $\frac{1}{2}$ } Lucidus pes Orionis fuit orient. 9 29

8 53 47 corr. } Transitus per merid. 9^h 31'.

8 43, correcte 8^h 54', Lucidus humerus Orionis orient. 18 58

8 59 9 10 $\frac{3}{4}$ Lucidus pes Orionis 5 16

9 1 $\frac{1}{2}$ 9 12 $\frac{1}{2}$ 4 42

9 9 $\frac{1}{2}$ Medium ☾ in æquatoria distantia orient. 41 10

pro tempore verificando.

Eodem instanti Altit. limbi superioris

43 51 $\frac{1}{2}$

N.B. Horologium a Meridie proceßit, nec interea, sed tunc saltem correctum.

Circa finem huius Eclipsis nubes hic fuere transparentiores, adeo vt totum lumen recuperarit luna, quando sequens Orionis humerus abfuit a Meridiano partibus 21 versus ortum, hinc tempora cætera verifica, collatis tamen singulis, potius huic fidendo.

H. 9 14 $\frac{1}{2}$ (Corr. 9 26' 36'') Lucidus humerus Orionis orient. 10 46

9 15 $\frac{3}{4}$ (Corr. 9 27 54) 10 26 $\frac{1}{2}$ melior

Transitus¹ lucidi humeri Orionis per Merid. H. 10 10'. Erat igitur H. 8 46 $\frac{1}{2}$ ' cum abeßet a merid. versus ortum 21°, addendo $\frac{1}{2}$ pro correctione circuli.

Nota finis huius deliquij iuxta abfistentem obseruata fuit in tempore correcto 8^h 42 $\frac{3}{4}$ ^M, iuxta propriam animadversionem 8^h 45^M, Medium 8 44, hoc vt ere.

Eclipsis ☾ Anno 1590. Die 30 Decembris, iuxta varias rationes.

| | Alphonfi H M | Purbachij H M | Copernici H M | Mætlini H M | Noßtras H M |
|---------------|-----------------------|-----------------------------------|--------------------------|----------------|---------------------|
| Initium | 6 51 | 5 54 | 4 53 | 5 14 | 6 25 |
| Medium | 8 28 | 7 30 | 6 32 | 6 56 | 8 0 |
| Finis | 10 5 | 9 6 | 8 11 | 8 38 | 9 40 |
| Dimid. durat. | 1 37 | 1 36 | 1 39 | 1 42 | 1 35 fin. 1 40 |
| Tota durat. | 3 14 | 3 12 | 3 18 | 3 24 | 3 15 |
| Digit. Eclip. | 10 5 | 10 1 | 9 38 | 10 39 | 9 50 |
| Loca lu- ☉ | 19 29 $\frac{7}{8}$ | 19 27 $\frac{1}{2}$ $\frac{7}{8}$ | 18 37 22 $\frac{7}{8}$ | | 19 11 $\frac{1}{2}$ |
| minarium ☾ | 19 29 $\frac{69}{80}$ | 19 27 $\frac{69}{80}$ | 18 37 22 $\frac{69}{80}$ | | 19 11 $\frac{1}{2}$ |

Omnia ad nostrum Meridianum redacta in long. P. 36 M. 45. Æquatio temporis si adhibenda fuerit, est insensibilis.

¹ Hinc usque ad verba »hoc vt ere«, e folis codd. V. et K.

Inquiritio temporum ad fingulas animadversiones ex obferuationibus in Eclipfi Lunari A° 90
DIE 30 DECEMBRIS.

| Obferuatio- num nu- merus | Tempus pro locis (æ) minis landis | | Longi- tudo vera (æ) 50 | | Pa- rali: longi: | | Pa- rali: lat. | | Latitudo (æ) vera M. | | Altitudo (æ) obfer. cornu fup. | | Diftantia (æ) aquat. orient. | | Alc. recta M. C. ex globo | | Tempus refpon- dens | | Tempus fixis ad ling. obl. | | Tempus in Hor. | | Tempus verifi- catum | |
|---------------------------------|--|----|-------------------------------|----|------------------------|----|----------------------|----|-------------------------|----|--------------------------------------|----|------------------------------------|----|---------------------------------|-----|---------------------------|-----|-------------------------------------|-----|----------------------|-----|----------------------------|----|
| | H. | M. | P. | M. | M. | P. | M. | M. | P. | M. | P. | M. | P. | M. | P. | M. | H. | M. | H. | M. | H. | M. | H. | M. |
| I | 6 | 20 | 18 | 43 | 32 | 19 | 15 | 45 | 0 | 30 | 1 | 15 | 20 | 25 | 26 | 25 | 6 | 22½ | 6 | 14 | 6 | 5 | | |
| II | 6 | 26 | 18 | 47 | 32 | 19 | 19 | 45 | 0 | 30 | 1 | 15 | 20 | 35 | 26 | 52 | 6 | 24½ | 6 | 21 | 6 | 12 | | |
| III | 7 | 3 | 19 | 8 | 32 | 19 | 40 | 44 | 0 | 30 | 1 | 14 | inf. | | | | | | 6 | 57 | 6 | 48 | | |
| IV | 7 | 5 | 19 | 9 | 32 | 19 | 41 | 44 | 0 | 30 | 1 | 14 | 24 | 55 | 35 | 59 | 7 | 1 | 6 | 59½ | 6 | 50 | | |
| V | 7 | 12 | 19 | 12 | 31 | 19 | 44 | 44 | 0 | 30 | 1 | 14 | 26 | 10 | 38 | 14½ | 7 | 10 | 7 | 8½ | 6 | 59 | | |
| VI | 7 | 16 | 19 | 14 | 31 | 19 | 45 | 43 | 0 | 30 | 1 | 13 | | | | | | | 7 | 13½ | 7 | 4 | | |
| VII | 7 | 24 | 19 | 18 | 31 | 19 | 49 | 43 | 0 | 30 | 1 | 13 | 27 | 43 | 41 | 7½ | 7 | 21½ | 7 | 20½ | 7 | 11 | | |
| VIII | 7 | 28 | 19 | 20 | 30 | 19 | 51 | 43 | 0 | 30 | 1 | 12 | 28 | 25 | 42 | 20½ | 7 | 26½ | 7 | 25 | 7 | 15 | | |
| IX | 7 | 44 | 19 | 28 | 30 | 19 | 58 | 42 | 0 | 30 | 1 | 12 | 30 | 44 | 46 | 30 | 7 | 43 | 7 | 41½ | 7 | 31½ | | |
| X | 7 | 48 | 19 | 30 | 30 | 20 | 0 | 42 | 0 | 30 | 1 | 12 | 31 | 18 | 47 | 35 | 7 | 47½ | 7 | 46 | 7 | 36½ | | |
| XI | 7 | 56 | 19 | 40 | 29 | 20 | 10 | 42 | 0 | 30 | 1 | 11 | 31 | 29 | 48 | 7 | 7 | 54 | 7 | 54½ | 7 | 38 | | |
| XII | 8 | 2 | 19 | 43 | 29 | 20 | 12 | 42 | 0 | 30 | 1 | 11 | | | pars illum. Alc. R. 111 47 | | 7 | 59 | 7 | 59½ | 7 | 49½ | | |
| XIII | 8 | 12 | 19 | 48 | 28 | 20 | 17 | 41 | 0 | 30 | 1 | 11 | | | 61 18 111 47 | | 8 | 10½ | 8 | 9½ | 8 | 0 | | |
| XIV | 8 | 20 | 19 | 52 | 28 | 20 | 20 | 41 | 0 | 30 | 1 | 11 | | | 58 31 111 58½ | | 8 | 17½ | 8 | 17½ | 8 | 7½ | | |
| XV | 8 | 26 | 19 | 56 | 28 | 20 | 24 | 41 | 0 | 30 | 1 | 11 | | | 56 55 112 0 | | 8 | 24½ | 8 | 24½ | 8 | 14½ | | |
| XVI | 8 | 32 | 20 | 0 | 27 | 20 | 28 | 41 | 0 | 30 | 1 | 11 | | | 55 6 112 3 | | 8 | 29 | 8 | 29 | 8 | 19 | | |
| XVII | 8 | 35 | 20 | 1 | 27 | 20 | 28 | 41 | 0 | 30 | 1 | 11 | | | or limb. 54 10 112 18 | | 8 | 30 | 8 | 29 | 8 | 19 | | |
| XVIII | 8 | 38 | 20 | 2 | 26 | 20 | 29 | 40 | 0 | 30 | 1 | 10 | | | 53 16 112 18 | | 8 | 33 | 8 | 32½ | 8 | 22½ | | |
| XIX | 8 | 40 | 20 | 3 | 26 | 20 | 29 | 40 | 0 | 30 | 1 | 10 | | | 52 3 112 21 | | 8 | 38 | 8 | 36½ | 8 | 26 | | |
| XX | 8 | 45 | 20 | 5 | 25 | 20 | 30 | 40 | 0 | 30 | 1 | 10 | | | 52 0 112 20½ | | 8 | 38½ | 8 | 37½ | 8 | 27½ | | |
| | 9 | 20 | 20 | 25 | 20 | 20 | 45 | 35 | 0 | 30 | 1 | 5 | | | 50 55 112 23 | | 8 | 43 | 8 | 42 | 8 | 31½ | | |
| | | | | | | | | | | | | | | | Centrum 41 10 112 26 | | 9 | 22 | 9 | 21 | 9 | 9½ | | |

Hinc vera tempora funt elicienda.
in diftantia æquatoriis tum obferuationibus (æ) tum fixarum per illum circulum factis¹.

¹ Hæc ultima verba e codd. V. et K.

LOCA LUNÆ.

Pro loco ☾ DIE 4 FEBRUARIJ¹.

| | | | |
|---|-------------------|---------------|------------------------|
| H. 8 M. 50 | Dist. centri ☾ ab | { Aldeb. | 31 35 |
| | | { inf. ☿ | 15 43 |
| | Declin. ☾ | | 19 37 |
| Ang. diff. asc. ab | | { Aldeb. | 32 55½ |
| | | { inf. cap. ☿ | 13 56 |
| Asc. R. | | { Aldeb. | 63 7½ |
| | | { inf. cap. ☿ | 110 1½ |
| Hinc pone Asc. R. ☾ | | | 96 2½ |
| adhærendo Ald. quod illa melius cum ☾ disposita erat. | | | |
| | | | Resp. Longitudo 5 42 ☿ |
| Subtrahe pro latit. | | | 6½ |
| Pone locum ☾ | | | 5 35 ☿ |

DIE 4 FEBRUARIJ².

| | | | |
|-----------------------|---|---------------|-------------------|
| H. 9 0' 50" | Inter occid. limb. ☾ & inf. cap. ☿ | 15° 54' 10" | |
| | Decl. sup. limbi 19 57, inferioris | 19 25½ | |
| | Hinc Decl. centri 19 41 B. | | |
| | Ang. diff. asc. 13 52, Asc. R. ☾ 96° 11', | | Lat. 3° 40' 48" M |
| | | | Long. 5 50 ☾ |
| 8 51 30 | Inter occ. limb. ☾ & oculum ☿ | 31° 21' 45" | |
| | Distantia centralis | 31 37 45 | |
| | Decl. centri ☾ 19 38 B. | | |
| | Ang. diff. 32 58, Asc. R. ☾ 96° 5', | | Lat. 3 46 15 M. |
| | | | Long. 5 45 30 ☾ |
| 8 28 10 | Distantia centr. 31° 29' 20", Decl. vt prius. | | |
| | Ang. diff. 32 50, Asc. R. ☾ 95° 57' | | Lat. 3 46 30 M. |
| | | | Long. 5 37 ☾ |
| Pro examine temporis. | | ☉ add. t. | 26 2 ⅓ |
| | Asc. R. ☾ 95 57 | eius Asc. R. | 328 17 51 |
| | Dist. ☾ a Mer. 2 3 v. ort. | Asc. R. temp. | 127 2 30 |
| | Asc. R. M. C. 93 54 | Asc. R. M. C. | 95 20 21 |
| | 1 26 quod æquivalet 4', quibus horol. deficiebat. | | |

DIE 1 MARTIJ¹.

| | | | |
|---|---|------|-----------------|
| ☾ iuxta nonagesimum H. 4 0'. | | | |
| H. 3 52½' | Dist. centri ☾ a ☉ 72° 0' 0". Vera long. ☉ | | ☿ 20 53½ |
| | Alt. ☉ g. 14, refr. 8' 0", parall. 3' 0", relictum ex | | |
| | refractione 5' add. in circ. alt., resp. in long | | 4 |
| | Vifa long. ☉ | | ☿ 20 57½ |
| | Asc. R. ☉ 351° 42', ergo Asc. R. ☾ 63 42 0, | | Decl. 15 44½ B. |
| | Resp. Longit. | | 4 38 20 ☿ |
| | | Lat. | 5 29½ M. |
| Vera long. ☾ in proprio circulo, arcus incl. 5' 20 subtr. | | | 4 33 0 ☿ |
| Hæc diligenter examinata sunt, vt fidere possis. | | | |

¹ E codd. V. et K.² E codice M.

DIE 3 MARTIJ¹.

Supputatio pro apparente loco ☿ ex obseruationibus, cum uidelicet apud nonagesimum gradum eſet, H. 6 M. 34.

H. 5 M. 33 Diſt. centri ☉ a ♀ 52 37, aſumta ſemidiam. 15½.

Decl. B. ♀ 17° 32' Decl. centri ☿ 19 29

Afc. R. ♀ 35 22 37

Reſp. Long. ☿ 1° 1 40 69

Afc. R. ☿ 91 4 12

Lat. 4 2 0 M.

DIE 8 OCTOBRIS².

H. 6 2' 30" A. M., cum luc. humerus Orionis eſet occid.

29° 52'

Decl. centri ☉ 20 28 15, Diſt. centralis a corde ☿ 53 19 45

Ang. diff. afc. 55 37, Decl. cordis ☿ 13 56 21.

Afc. R. ☿ 91 0 15

Lat. 3° 3' M.

Long. 0 57 69

Eodem die, cum luc. hum. Orionis eſet occ. 31 7

Decl. centri ☿ 20 30 20, Diſt. centr. 53 20 15

Ang. diff. afc. 55 40, Afc. R. ☿ 90 56 15,

Lat. 3 1 M.

Long. 0 52 45 69

DIE 9 OCTOBRIS, MANE¹.

H. 5 59½' Diſt. centri ☿ a luc. pede Erichonij 27 57

Decl. centri ☿ B. 20 53, Decl. luc. pedis 28 10

Afc. R. luc. pedis 75 7, Afc. R. ☿ 104 52½, Long. 13 53 0 69

Lat. 1 55 25 M.

9 Oct. H. 6 13 53 69 Oritur 16 03³

10 Oct. H. 7 26 56 69 Oritur 27 27

Horarum 25 13 3, pars 3½ 31' 19"

Diurnus 12 31 41 a fixis

Aufer diurnum ☉ 1 0 0, Diurnus ☿ a ☉ 11° 31' 41".

Luna ſupra 270 Anomalia & in quadratura. Reſpondet Horarius 28' 49".

DIE 10 OCTOBRIS, A. M.

H. 7 M. 0¹ Inter orient. limb. ☿ & ♀ 56 57. Diameter ☿ aſumitur 15'.

Diſt. centri ☿ a ♀ 57 12, Declin. centri lim. 20 2 B.

Afc. R. ♀ 175 11½, Declin. ♀ 3 44 B.

Ergo Afc. R. centri ☿ 118 56, reſp. Long. 26 55 53 69

Lat. 0 49½ M.

H. 6 31' 40" Cum ♀ a mer. verſus ort. diſtaret 53° 17' 30"

Diſt. centralis a ♀ 57 22 45, Decl. centri ☿ 20 4½ S.

♀ diurnus hoc die apud Maginum eſt 73'. Prius autem hora 5 48' 10" inuentus eſt locus ♀ in 23° 0' 40" 11½. Pro differentia igitur temporis 43' 30" additis ad locum ♀ 2' 12" prodiit locus ♀ ad tempus obſeruati-
onis 23° 2' 52" 11½, cui reſpondet

Afc. R. ♀ 175° 9' 16" cum Decl. 3° 44' 28" B.

Ang. diff. afc. 56 32 40, Afc. R. ☿ 118 36 36,

Lat. 0° 49½' M.

Long. 26 43 48 69

¹ E codd. V. et K.

² E cod. M.

³ Alia manu. Defunt in cod. V.

⁴ Quæ ſequuntur e codice M.

⁵ Sic in codice M, ſed debet eſſe 24°. Afc. R. et Decl. recte ſe habent.

H.7 5¹corr. Dift. cent. 57 11 40, Decl. centri 19 58,
Afc. R ♀ 175 10 35, Decl. ♀ 3°44' B.
Ang. diff. 56 20 50, Afc. R. ♂ 118 49 45

Lat. 0°50'37" M.
Long. 26 56 39 ☉

H.8 4¹ Dift. cent. 56°46', Decl. centri 19°58'15",
Afc. R. ♀ 175 13 21, Decl. 3 42 50 B,
Ang. diff. 55 54 20, Afc. R. ♂ 119 19

Lat. 0°48' M.
Long. 27 24 ☉

DIE 28 OCTOBRIS¹.

Circa nonagesimum gradum.

H.5 57¹ Dift. centri ♂ a lucida caudæ ☿ 33°29'
Decl. centri ♂ 8°5'M., Decl. caudæ ☿ 17 53½
Ascensio Recta caudæ ☿ 321 6 30
Angulus diff. ascenf. 32 55 32
Ergo Ascensio Recta ♂ 354 2 0
6 3 Dift. centri ♂ a lucida ♀ 43 9
Decl. centri ♂ 8°4'M., Decl. luc. ♀ 21 30 B.
Ascensio Recta lucidæ ♀ 26 4 30
Angulus diff. ascenf. 32 1 33
Ergo Ascensio Recta ♂ 354 3 0

H.6 completo Ascensio R. ♂ 354°2½' Resp. Longit. 21°19'23" ☿
Declinatio M. 8 4½ Latit. 5 2 6 M.

DIE 29 OCTOBRIS.

H.6 M.32¹ Dift. centri ♂ a cauda ☿ 48 27
Decl. centri ♂ 2°37'45" M.,
Ang. diff. ascenf. 46 55 50
Ascensio Recta ♂ 8 2 20
6 37¹ Dift. centri ♂ a lucida ♀ 29 52
Decl. centri ♂ 2°37', Ang. diff. Ascenf. 18 0 22
Ascensio Recta ♂ 8 4 8
6 34½¹ Afc. R. limitata 8° 3'10" Resp. Longit. 6°20' 0" ♀
Declin. M. 2 37 20 Latit. 5 36 48 M.
Parallaxis altit. 59', resp. par. long. 4'. Erat ♂ a 90 grad. 22 M.
H.632corr- Dift. centri ♂ a cauda ☿ 48°27'30"
recta². Decl. centri 2°37'45" M., Dift. æquat. 46 56 20
Ascensio R. ♂ 8 3 50 Latit. 5°37'25" M.
Longit. 6 21 35 ♀
6 50 Dift. centri ♂ a luc. ♀ 29 48 30
corr. Decl. centri 2°34', Diff. ascenf. 17 58 51
Ascensio R. ♂ 8 5 39 Latit. 5 34 48 M.
Longit. 6 27 18 ♀
6 55 Dift. centralis a luc. caudæ ☿ 48°39'50"
corr. Decl. centri 2°32'50", Dift. æquat. 47 7 49
Ascensio R. ♂ 8 15 19 Latit. 5 34 M.
Longit. 6 26 ♀

¹ E codd. V. et K.

² E cod. M.

DIE 23 DECEMBRIS, VESPERI¹.

Pro corrigendo Horologio. H. 5 8' erat oculus ☿ orient. 57°40'

| | | | |
|--------------------------|------------|---------------|------------|
| Afc. R. oculi ☿ ad d. t. | 63° 7' 51" | Locus ☉ | 11 54 57 ♌ |
| Dift. a mer. verf. ort. | 57 40 | Eius Afc. R. | 282 57 41 |
| Afc. R. M. C. ex Aldeb. | 5 27 51 | Afc. R. temp. | 77 0 0 |
| | | Afc. R. M. C. | 359 57 41 |

Differentia in T. mutand. 5°30' 10'', quæ respondent 22' horarijs quibus horologium tardius mouebatur.

H. 4 47' 30'' vel 5 9' 30'' corr.

| | | | |
|-------------------------------------|------------------|------------|--|
| Dift. cent. ☿ ab Aldeb. | 51°35' | | |
| Decl. centri 0°40' M., Dift. æquat. | 49 34 27 | | |
| Decl. oc. ☿ 15 36 30'' B, Afc. R. ☿ | 13 33 33, Latit. | 5°59' M. | |
| | Longit. | 12 12 30 ♍ | |

4 56¹, H. 5 18' 30'' corr. Dift. cent.

| | | | |
|---------------------------------------|--------|---------|------------|
| Dift. cent. ☿ | 51°35' | | |
| Decl. centri 0°38' 45'', Diff. æquat. | 49 35, | Latit. | 5 57 50 M. |
| Afc. R. ☿ | 13 33, | Longit. | 12 13 ♍ |

DIE 28 DECEMBRIS².

Pro corrigendo Horologio. H. 10 9' 55'' dift. Can. min. a mer. v. ort. 28°43'30''

Locus ☉ 17°14' 32'' ♌.

| | | | |
|---------------------------|----------|-----------------------|-----------|
| Can. min. Afc. R. add. t. | 109 29 | Afc. R. | 288 42 4 |
| Dift. eius a mer. | 28 43 30 | Afc. R. temp. | 152 43 45 |
| Afc. R. ex Cane | 80 45 30 | Afc. R. M. C. ex fole | 81 25 49 |

Diff. in T. mutanda 40' 19'' quæ respondent 2' 41'', quibus horologium celestius ibat.

| | | | |
|--|---------------------|------------------|---------------|
| H. 10 21' 30'' Dift. centri ☿ a cap. inf. ♐ | 24 58 20 | | |
| Decl. centri 20 11 40, Decl. inf. cap. ♐ | 28 56 12 B. | | |
| Dift. æq. | 25 47 55, Afc. R. ☿ | 84 15 41, Latit. | 3°13' 21'' M. |
| | | Longit. | 24 36 ♐ |
| 10 29 50 Dift. centri 24°56', Decl. centri | 20°12' 45'' | | |
| Dift. æquat. 25 45 41, Afc. R. ☿ | 84 17 55, Latit. | 3 12 25 M. | |
| | Longit. | 24 38 35 ♐ | |
| 10 37 50 Vice verfa, Dift. centri ab Ald. | 20 45 | | |
| Decl. centri 20 12 30, Dift. æquat. | 21 17 | | |
| Afc. R. ☿ | 84 24 57, Latit. | 3 9 27 M. | |
| | Longit. | 24 44 ♐ | |
| 10 42 36 Dift. ead. 20 45 45, Decl. c. | 20 13 30 | | |
| Dift. æquat. 21 18 12, Afc. R. | 84 26, Latit. | 3 12 M. | |
| | Longit. | 24 46 ♐ | |
| 10 49 30 Vice verfa. Dift. centri ab inf. cap. ♐ | 24°45' 45'' | | |
| Decl. centri 20 13 15, Dift. æq. | 25 34 | | |
| Afc. R. ☿ | 84 29 36, Latit. | 3 12 18 M. | |
| | Longit. | 24 49 30 ♐ | |

¹ E codice M.² E codice M. cf. supra p. 20.

OBSERVATIONES SATURNI.

DIE 19 JANUARIJ.

Vesperī obseruabatur ♄ Diameter
per maximas Armillas.

2½' vtroque pinn.
Repetita 2½'
2½'

DIE 20 JANUARIJ.

Vesperī obseruabat Aurifaber Dia-
metrum ♄ vt sequitur¹.

2' 30"
2 15
2½ repetita vno pinnacido.

DIE 23 JANUARIJ.

Obseruabatur iterum Diameter ♄.

Per Quadrantem Volub. iuxta
Meridianum 2½' *dubia*
Per alterum Chalybeum
Quadrantem 2½'
Per Armillas Æquatorias 2½'
Repetita 2½'
Pone ♄ in Media dist. 2 15

DIE 23 JANUARIJ.

Circa horam septimam transiit ♄
per Meridianum, habens altitudinem
per Chalyb. 54 8
per Volub. 54 8½

H. 9 19' 51" Erat infimus pes II
a meridie ad occasum 3 4½

Hinc potest verificari Horologium.
Dist. tunc ♄ a lucido pede II 26 21
9 25 7 Dist. ♄ a luc. pede II 26 21

Obseruatio ♄ viceversa

9 27 34 Dist. inter ♄ &
lucidam Pleiadum 14 19½
Eadem distantia 14 19½
Canis minor orient. 8 2

Ad correctionem infimi pedis II 11"
17' 46". Sed quoad Canem minorem
eſet hic tempus H. 10 M. 28 fere².

DIE 4 FEBRUARIJ, VESPERI.

Tempora assignata sunt correcta
H. 7 34½' Inter ♄ & lucid. V 37 13
7 36½ 37 13
7 37½ 37 13½
7 43 Inter ♄ & inf. cap. II 40 47½
7 45½ Repetita 40 48
7 47½ 40 48
7 49½ Declin. ♄ 20 9

Erat ♄ hic circa Meridianum cum
obseruaretur.

DIE 8 FEBRUARIJ.

H. 7 48½' Inter ♄ & lucid. V 37 18½
7 50 25" Eadem dist. repet. 37 19½
Decl. ♄ tunc erat 20 9
altero 20 8½ B.
7 52½ Eadem dist. repet. 37 18½
Viceversa
7 56 15 Inter ♄ & infer. 40 46
8 1½ caput II 40 45½
8 3½ Declin. ♄ 20 8½
alt. 20 8½
8 7½ Inter ♄ &
inf. caput II 40 44½
8 9½ Eadem dist. repet. 40 44½

☾ splendor impediēbat præcisionem.

DIE 12 FEBRUARIJ, VESPERI.

Altit. meridia ♄
per Volub. 54 16
per Chalyb. 54 15½
8^h 32' 55" Inter ♄ & lucid. V 37 23½
8 35½ 37 23
8 38½ 37 23½
8 42 Inter ♄ & inf. 40 39^{dub.}
8 45½ cap. II 40 38
8 46½ 40 38
8 49½ 40 37½
Tunc erat declin. ♄ 20 10½
alt. 20 10½

¹ Adscriptum est in codd. V. et K: »per maximas Armillas».

² Hanc annotationem intelligere non possumus. Intervallum temporis inter H. 9 19' 51" et 9 27 34 debet
esse circiter decem minutorum, quia prior stella est 31 Geminorum.

Pro longitudine & latitudine ꝥ.
Anno 1590 die 23 Januarij H. 9 M. 19
S. 51 vesperi fuit ꝥ

Longitudo 7° 24' 55" II
Latitudo 1 35 23 M.
Tychnicus calculus.

Ad idem tempus Calculus

| Mæthlinianus | Prutenicus | Alphonfinus |
|-----------------|--------------------|-------------|
| Long. 7° 8' 37" | Stadianus 7° 8' 0" | 10° 7' 37" |
| Lat. 2 17 59 | 2 18 59 | 1 42 37 |

Calculus pro loco ꝥ ex obseruationibus. Die 4 Februarij.

| | |
|---------------------------|------------|
| H. 7½ Dift. ꝥ a luc. V | 37 13 |
| Decl. ꝥ | 20 8 B. |
| Resp. Ascensio R. ꝥ | 65 57 57 |
| Circa idem tempus dift. ꝥ | |
| ab inf. cap. II | 40 48 |
| Hinc Asc. R. ꝥ | 65 58 28 |
| Asc. R. limitata | 65 58 12 |
| Resp. Longitudo | 7 30 50 II |

Eodem Anno 90 die 8 Februarij.

H. 7 50' 25" Vesperi fuit
ꝥ Long. 7° 35' 26" II Ex Tychnicis
Lat. 1 31 17 M. obseruationib.

Ad idem tempus Calculus

| Mæthlinianus | Prutenicus | Alphonfinus |
|------------------|------------|-------------|
| Long. 7° 13' 20" | 7 16 20 | 10 6 19 |
| Lat. 2 9 0 | 2 22 12 | 1 36 0 |

Eodem anno 1590 12 Februarij.

H. 8 M. 39 Vesperi fuit
ꝥ Long. 7° 39' 39" II Ex Tychnicis
Lat. 1 30 11 M. obseruationib.

Ad idem tempus Calculus

| Mæthlinianus | Prutenicus | Alphonfinus |
|------------------|------------|-------------|
| Long. 7° 18' 43" | 7° 20' 21" | 10° 10' 21" |
| Lat. 2 7 30 | 2 7 30 | 1 34 39 |

DIE 19 JULIJ, MANE.

Obferuabatur ꝥ vt sequitur.

| Alt. ꝥ | Alt. Aldeb. | Inter ꝥ & Aldeb. | Luc. Vult. occ. |
|--------|-------------|-----------------------|--------------------|
| 13 26 | 19 26½ | 20 25 | 50 51 |
| 13 55½ | Paulo post | 20 25 | |
| 14 26½ | | Inter ꝥ & Capellam | 53 41 |
| 15 42 | Decl. ꝥ | 22 13vtr. 25 19½ | 55 50 |
| | | 22 13½ | 56 45 |
| | | 22 13½ alt. | |

Locus ꝥ ad diem 19 Julij.

H. 2 M. 23 50" Mane

ex obseruati- ꝥ Long. 24° 2' 35" II
one nostra ꝥ Latit. 1 10 58 M.
Iuxta Mæthlinum ad idem tempus

Long. 24 11 3 II
Lat. 1 37 17 M.

Ex Cypriano ꝥ Long. 26 48 8 II
calculo ꝥ Lat. 1 6 20 M.

DIE 24 JULIJ, MANE.

Horologium corrigebatur ad l alæ
Pegasi.

H. 1 46½ Inter ꝥ & Aldeb. 20 58½ non
valet

Alt. ꝥ per Volub. 10 21½

1 54½ Inter ꝥ & Aldeb. 20 56½

1 55½ Inter ꝥ & Aldeb. 20 58½ non
valet

Alt. ꝥ per Volub. 11 36

2 0½ Inter ꝥ & Aldeb. 20 56½

Declin. ꝥ vno 22 17½
alt. 22 18

ꝥ erat hic fere in ꝥ cum ꝥ.

2 6 Inter ꝥ & Aldeb. 20 56½

Declin. ꝥ,
vno pinn. bis 22 17½

Alt. ꝥ 13 0

2 14½ Inter ꝥ & sup. cap. II 22 45½

Alt. ꝥ 14 13

Declin. ꝥ vno ꝥ 22 17½
pinnac. ꝥ 22 17½

Tunc erat Alt. super. cap. II circiter 12 0.

2 21½ Inter sup. cap. II & ꝥ 22 46

Decl. super. cap. II 32 45

2 30 Inter sup. cap. II & ꝥ 22 45

Alt. ꝥ 16½

Alt. cap. sup. II 14 fere

Declin. ꝥ 22 16½

22 14 0

Non potuit propter Auroram præcise obseruari.

Circa tertiam horam ꝥ Decl. 22 12½
22 13

Fortasse hæc declinatio melior est,
et ceteræ erroneæ propter refractionem. Pinnacidia Armillarum in hac
obseruatione non consentiebant inter

1 E codd. V. et K.

fe. Eodem mane, cum Horologium indicabat $5^h 56^m$, erat \odot orient. $89^\circ 5'$, id est $3' 40''$ ultra horam sextam.

DIE 4 AUGUSTI.

| Declin. η | Inter ocul. γ & η | Alt. η | Oculus γ orient. |
|---|-------------------------------|-------------------|-------------------------|
| 22 $16\frac{1}{2}$ | 22 19 | 22 $2\frac{1}{2}$ | 24 12 |
| 22 $15\frac{1}{2}$ | 22 $18\frac{1}{2}$ | 22 $2\frac{1}{2}$ | 55 $55\frac{1}{2}$ |
| | Inter η & super. cap. II | | |
| 22 $15\frac{1}{2}$ | 22 $18\frac{1}{2}$ | 21 48 | 54 $20\frac{1}{2}$ |
| Horologio verificato H. 3 M. 2 $\frac{1}{2}$ matut. | | | |
| 22 $14\frac{1}{2}$ | 22 18 | 21 48 | 52 55 |

Supputatio loci η ad diem 4 Augusti
H 3 M. 2 $\frac{1}{2}$ A. M.

| | |
|------------------------|------------------------------|
| Ex obseruatione nostra | Long. 25 42 II |
| | Latit. 1 $9\frac{1}{2}$ M. |
| Ex Mæsthlinio | Long. 25 57 $\frac{1}{2}$ II |
| | Latit. 1 42 M. |

DIE 30 AUGUSTI, VESPERI.

| | | |
|---|-----------------------------|--------------------|
| H. 12 $16\frac{3}{4}$ | Inter η & sup. cap. II | 20 7 |
| | Declinatio η | 22 $21\frac{1}{2}$ |
| | Altit. η | 22 $19\frac{1}{2}$ |
| Pro corrigendo horologio | | |
| | Lucida Vult. occid. | 52 20 |
| Erat tunc superius caput II in consimili fere altitudine cum η . | | |
| H. 12 $20\frac{3}{4}$ | Inter η & sup. cap. II | 20 $7\frac{1}{2}$ |
| 12 27 | Inter η & sup. cap. II | 20 8 |
| Horol.) | | |
| verif. Declin. η | | 22 21 |
| 12 30 | | 22 18 |
| 12 $29\frac{3}{4}$ | Inter η & sup. cap. II | 20 $8\frac{1}{2}$ |
| | Altit. η | 17 10 |
| 12 35 | Declin. η | 22 $20\frac{3}{4}$ |
| | | 22 $17\frac{1}{2}$ |

Locus η ad diem 30 Augusti H. 12 M. 30.

| Ex obseruatione nostra ¹ | Ex calculo Mæsthliniano | Ex calculo Alphonsino |
|-------------------------------------|-------------------------|-----------------------|
| Long. 27 $41\frac{1}{2}$ II | 27 $55\frac{1}{2}$ II | 0 $40\frac{1}{2}$ 69 |
| Lat. 1 $10\frac{1}{2}$ M. | 1 49 M. | 1 13 M. |

¹ Adscriptum est: »Ex tabula nostra vet. supput.«.

² Adscriptum est, sed lineis inducitur: »Mane vt puto«. Codex V. habet: »P. M. N.«

³ E codd. V. & K.

DIE 1 SEPTEMBRIS².

| | | |
|---------------------|----------------------------------|--------------------|
| H. 4 M. 2 vel 16 2. | Inter η & superius caput II | 20 5 |
| | Tunc erat Aldeb. orient. | 13 17 |
| 5 0 | Distabat η a sup. cap. II | 20 4 |
| | Decl. η tunc erat | 22 $19\frac{1}{2}$ |
| | | alt. 22 18 |

Viceversa

| | | |
|---|-----------------------|-------------------|
| 5 $8\frac{3}{4}$ | Inter η & Aldeb. | 24 $7\frac{3}{4}$ |
| | | inter nubes |
| | Declin. η | 22 20 |
| | | 22 18 |
| 5 $10\frac{1}{2}$ | Eadem dist. repetita | 24 $6\frac{1}{2}$ |
| η erat hic satis alte eleuatus, ita vt refractio non fuerit impedimento. | | |

Locus η DIE 2 SEPTEMBRIS, MANE³.

| | |
|------------------------------------|----------|
| H. 4 Afc. R. η a sup. cap. II | 87 38 0 |
| H. 4 M. 8 ab Aldebora | 87 40 40 |

Hæ obseruationes factæ sunt inter nubes, ideoque minus consentiunt. Limitatis autem obseruationibus resp. Ascensio Recta Hora exacte 4

| | |
|-----------|------------------------|
| | 87° 39' 30'' |
| Decl. B. | 22 18 30 |
| Longitudo | 27 49 $\frac{3}{4}$ II |
| Latitudo | 1 $11\frac{1}{2}$ M. |

Pone declinationem $22^\circ 19\frac{1}{2}'$ & prouenit latitudo $1^\circ 11'$ M.

DIE 7 SEPTEMBRIS, VESPERI.

| Alt. η | Inter η & Aldeb. | Declin. η | Tunc erat luc. Vult. occid. |
|-------------|-----------------------|--------------------|-----------------------------|
| 13 31 | 24 $22\frac{1}{2}$ | 22 $21\frac{1}{2}$ | 22 20 |
| 15 5 | 24 $22\frac{1}{2}$ | | 56 1 |
| | | | 59 0 $\frac{1}{2}$ |

Viceversa

| Inter η & cap. sup. II | Os Peg. occid. |
|---|--------------------|
| 20 45 | 19 $46\frac{3}{4}$ |
| 22 $21\frac{1}{2}$ | 22 $20\frac{1}{2}$ |
| 22 $20\frac{1}{2}$ | 31 55 |
| Circa hoc tempus erant η & superius caput II in consimili fere altitudine. | |
| | 19 $46\frac{3}{4}$ |
| | 33 37 |

| | |
|--|-------------|
| Eodem die 7 Sept. H. vespertina 11 47½ | |
| Ascensio Recta h | 87° 58' 10" |
| Declinatio B. | 22 19 30 |
| Resp. Longitudo | 28 7 10 II |
| Latitudo | 1 10 47 M. |
| E Cypriano | Ex Mæthlino |
| Longit. 1° 4' 30" 69 | 28° 19' II |
| Latit. 1 15 M. | 1 11 20" M. |

DIE 6 OCTOBRIS, MANE.

| | |
|---------------------------|--------|
| Inter lucidam V & h | 20 28 |
| Tunc erat lucid. V occid. | 62 35 |
| Inter lucid. V & h | 20 29 |
| Tunc erat lucid. V occid. | 62 50½ |
| Declin. h | 22 12½ |
| | 22 13 |
| Tunc erat lucid. V occid. | 70 50 |

DIE 26 NOUEMBRIS, VESPERI.

Horologium corrigebatur H. 7 M. 0
 Secund. 22 ad transitum extremæ alæ
 Pegasi per Meridianum. In æquatore
 autem ante dictum transitum resta-
 bant adhuc quasi 3 minuta.

Obferuabatur h vt sequitur.

| Tempus | Diff. inter h & Aldeb. | Declinatio h | Extr. alæ Pegasi occ. |
|---------|---------------------------|--------------|--------------------------|
| 8 27½ | 22 19 | 22 15 | 22 16 22 52½ |
| 8 36 | 22 19 | 22 15 | 22 15½ 26 6½ |
| 8 40½ | 22 19 | | 26 18½ |
| | Inter h & inf. cap. II | | |
| 8 47 25 | 22 53 | 22 15½ | 22 15½ 28 5½ |
| 8 54½ | 22 53½ | | 29 59 |
| 8 59½ | 22 53 25" | 22 15½ | 22 16 |

DIE 27 NOUEMBRIS, VESPERI.

h ab Aldeb. 22 14½ Decl. 22 17½
 Cauda Ceti Borea occ. 12½

DIE 4 DECEMBRIS, VESPERI.

NB. h iuxta ☉ ☿. h in perigæo suo
 & apogæo solari.

Horologium corrigebatur ad transi-
 tum extremæ alæ Pegasi per Meridi-
 anum H. 6 M. 25.

| Tempus | Diff. inter h & Aldeb. | Decl. | Alt. h |
|---------------------------|---------------------------|--------|--------|
| 7 7 35 | 21 39½ | 22 15½ | 26 5 |
| 7 14½ | 21 39½ | 22 15 | 27 2½ |
| Tunc diff. h a προποδε II | 0 52 | | |

| Inter seq. cornu ☿ & h | Declinatio | Pro corr. Horol. Extr. alæ Peg. occ. |
|---------------------------|---------------------|---|
| 7 22½ | 6 22 22 16 22 14½ | 14 50 |
| 7 27½ | 6 22½ 22 15½ 22 14½ | 16 0 |

| Inter h & 10 II in fin. genu super. II | | | |
|---|-------------|--------|----------------|
| 7 53 25 | 9 23½ | 22 14½ | 22 15½ 22 25 |
| 7 57½ | 9 25 melior | | melior f 23 29 |
| 8 3 | 9 25 22 14½ | 22 15½ | 24 52 |

Hic mouebatur horol. iusto tardius
 vno minuto, quod corrigebatur.

| Inter h & inf. cap. II | | | |
|---------------------------|--------|--------|------------------------|
| 8 28 | 23 30½ | 22 15½ | 22 14½ 31 1 |
| | | | Luc. mand. Ceti or. |
| 8 37½ | 23 30½ | 22 16 | 22 14½ 8 45 |
| 8 42½ | 23 31 | | 7 25 |

| Inter h & Aldeb. | | |
|------------------|--------------|------|
| 8 46 35 | 21 41½ | 6 18 |
| 8 50½ | 21 41 22 14½ | 5 14 |
| 8 54½ | 21 41 | 4 20 |

| 9 13½ Luc. mand. Ceti transibat per Merid. | | |
|---|-------------------------|-------|
| | Luc. pes Or. orient. | |
| 10 34½ | 23 30 22 14 priori | 11 55 |
| 10 39½ | 23 30½ pinn. | 10 38 |

| Inter h & Aldeb. | | | |
|------------------|--------|-------|-------------|
| 10 42½ | 21 42 | 22 14 | 22 15 19 26 |
| 10 47½ | 21 41½ | | 18 13 |

Eodem die 4 Decembris, Vespere
 vltcrius obferuabatur h.

H. 12 4' Transibat h per Meridianum
 habens altit.

| | |
|-------------------------|--------|
| per Chalyb. | 56 19 |
| per Volubilem | 55 18½ |
| Dexter hum. Orion. occ. | 1 39 |
| Declin h | 22 15 |
| | 22 14½ |

| | |
|-------------------------------|--------|
| 12 11½ Inter h & inf. cap. II | 23 31 |
| Dext. hum. Orion. occ. | 3 39 |
| 12 15½ Inter h & inf. cap. II | 23 31½ |
| Dext. hum. Or. occ. | 4 39 |
| 12 18½ Inter h & oculum ☿ | 21 41 |
| Dext. hum. Or. occ. | 5 19 |
| 12 21½ Inter h & oculum ☿ | 21 40½ |
| Declinatio h | 22 14½ |
| | 22 14 |

Dext. hum. Orion. occ. 6 15

Nota bene. Præcedentes & sequentes obſervationes ſunt bonæ pro h̄ exiſtente Acronychio, idque iuxta Perigæum ſui Eccentrici & Apogæum Solare, quare duplici ratione hæ obſervationes ſunt imprimis vtiles & ſunt fatiſ certæ, quibus tuto fidere liceat. Examinetur ſaltem locus eius viceverſa ab vtraque fixa.

DIE 5 DECEMBRIS, VESPERI.

| | | |
|----------|-------------------------------|---------------------|
| H. 12 0' | Tunc erat altit. meridiana h̄ | |
| | per Chalyb. | 56 19 $\frac{1}{2}$ |
| | per Volub. | 56 18 $\frac{1}{2}$ |
| | Declin. h̄ | 22 13 $\frac{3}{4}$ |
| | | 22 14 $\frac{1}{2}$ |

Dexter humer. Orion. occ. 1 32

Plura propter obuolantes nubes & propter nebulas obſeruari non poterunt.

DIE 6 DECEMBRIS, VESPERI.

Obſeruabatur h̄ vt ſequitur.

NB. h̄ Acronychus in ſuo Perigæo. Horologium corrigebatur ad extremam alæ Pegafi tranſeuntem per Meridianum H. 6 17 $\frac{1}{4}$.

| Tempus | Diff. inter h̄ & Aldeb. | Decl. h̄ | Altit. per Volub. | Pro horol. Extr. alæ Peg. or. |
|--------------------|-------------------------|-----------------------|---------------------|-------------------------------|
| 5 47 45 | 21 34 $\frac{1}{2}$ | 22 15 $\frac{1}{2}$ | 16 6 $\frac{1}{2}$ | 7 18 |
| | | 22 15 | | |
| 5 52 $\frac{1}{2}$ | 21 34 $\frac{1}{2}$ | 22 16 | 16 44 $\frac{1}{2}$ | 6 2 |
| | | 22 15 $\frac{1}{2}$ | | |
| 5 58 $\frac{3}{4}$ | 21 33 $\frac{3}{4}$ | 22 15 | 17 35 | 4 31 |
| | | 22 16 | | |
| 6 6 $\frac{1}{2}$ | 21 33 $\frac{1}{2}$ | 22 14 $\frac{3}{4}$ | 18 38 $\frac{1}{2}$ | 2 38 |
| | | 22 16 | | |
| 6 37 $\frac{1}{2}$ | 21 33 | 22 16 | | 4 48 |
| | | 22 15 | | |
| h̄ obſeruabatur | | viceverſa a calce II. | | |
| 6 52 25 | 4 17 | 22 15 $\frac{1}{2}$ | 24 58 | 8 51 |
| | | 22 15 | | |
| 6 55 $\frac{1}{2}$ | | | 25 23 | 9 39 |
| 6 57 55 | 4 15 | | 25 47 | |
| 7 0 | | 22 15 $\frac{3}{4}$ | | |
| | | 22 14 $\frac{3}{4}$ | | |
| 7 25 $\frac{1}{2}$ | 4 24 | | | |
| 7 26 $\frac{3}{4}$ | 4 25 | 22 15 $\frac{1}{2}$ | | 17 28 |
| | | 22 15 | | |
| 7 29 $\frac{3}{4}$ | 4 25 | 22 15 | | 18 11 |
| | | 22 15 $\frac{1}{2}$ | | |

| | Inter h̄ & inf. cap. II | Declinatio h̄ | |
|--------------------|-------------------------|---------------------|-------|
| 7 35 $\frac{1}{2}$ | 23 39 | 22 15 | 22 15 |
| 7 38 $\frac{1}{2}$ | 23 39 $\frac{1}{2}$ | 22 15 | vno |
| 7 47 55 | 23 40 $\frac{1}{2}$ | 22 15 $\frac{1}{2}$ | vno |

| | Inter h̄ & Aldeb. | |
|--------------------|---------------------|---------------------|
| 8 26 $\frac{1}{2}$ | 21 33 | 22 15 $\frac{1}{2}$ |
| 8 35 | 21 33 $\frac{1}{2}$ | |
| 8 40 $\frac{1}{2}$ | 21 33 $\frac{1}{2}$ | |

| | Inter h̄ & inf. cap. II | |
|--------------------|-------------------------|--|
| 8 43 $\frac{1}{2}$ | 23 39 $\frac{1}{2}$ | |
| 8 54 $\frac{1}{2}$ | 23 38 $\frac{3}{4}$ | |

| | Inter h̄ & Aldeb. | | Aldeb. occ. |
|---------------------|---------------------|---------------------|---------------------|
| 11 29 $\frac{1}{2}$ | | 22 15 $\frac{1}{2}$ | 22 15 $\frac{1}{2}$ |
| 11 33 $\frac{3}{4}$ | 21 30 | | |
| 11 36 | 21 30 $\frac{3}{4}$ | | |
| 11 39 $\frac{1}{2}$ | 21 30 $\frac{1}{2}$ | | |
| 11 44 $\frac{1}{2}$ | 21 30 $\frac{3}{4}$ | | |

| | h̄ ab inf. cap. II | |
|---------------------|-------------------------|---------------------|
| 11 52 $\frac{1}{2}$ | 23 40 $\frac{1}{2}$ | 22 15 $\frac{1}{2}$ |
| 11 54 $\frac{1}{2}$ | 23 41 | |
| 12 4 $\frac{1}{2}$ | Alt. merid. h̄ | |
| | per Chalyb. | 56 18 $\frac{3}{4}$ |
| | per Volub. | 56 18 $\frac{1}{2}$ |
| | | Aldeb. occ. |
| | Decl. h̄ | 22 13 $\frac{3}{4}$ |
| 12 17 $\frac{1}{2}$ | Inter h̄ & inf. cap. II | 22 14 |
| | 23 40 $\frac{3}{4}$ | |

DIE 9 DECEMBRIS, VESPERI.

Obſeruabatur h̄ vt ſequitur.

| Tempus | Diff. inter h̄ & Aldeb. | Declinatio h̄ | Pro horol. Ocul. or. |
|--------------------------|-------------------------|---------------------|----------------------|
| 7 4 $\frac{3}{4}$ | 21 18 $\frac{1}{2}$ | 22 15 | 22 14 $\frac{1}{2}$ |
| 7 7 | 21 18 | | |
| | | | 38 43 |
| | | | 37 50 |
| | | | Ext. alæ Peg. occ. |
| 7 42 | 21 17 $\frac{3}{4}$ | 22 14 $\frac{1}{2}$ | 22 14 $\frac{3}{4}$ |
| Corrigebatur horologium. | | | |
| 7 58 | 21 18 $\frac{1}{2}$ | 22 15 | |
| | | | 28 50 |
| | | | Prima alæ Peg. occ. |
| 9 13 $\frac{1}{2}$ | 21 17 $\frac{1}{2}$ | 22 15 $\frac{1}{2}$ | 22 15 |
| | | | 49 37 |
| | | | Dext. hum. Or. or. |
| 9 18 $\frac{3}{4}$ | 21 17 | | 34 39 |

Viceverſa

| | Diff. h̄ ab inf. cap. II | |
|--------------------|--------------------------|--|
| 9 23 $\frac{1}{2}$ | 23 54 $\frac{1}{2}$ | |
| 9 26 $\frac{1}{2}$ | 23 54 | |
| 9 29 $\frac{1}{2}$ | 23 54 $\frac{1}{2}$ | |

DIE 10 DECEMBRIS, VESPERI.

Transitus Aldeb. per Merid. H. 10 M. 19 $\frac{1}{2}$

| | Diff. h ab Aldeb. | Decl. h | Alt. h | Aldeb. or. |
|--------------------|----------------------|---------------------|--------|------------|
| 6 44 | 21 12 $\frac{3}{4}$ | | 27 50 | 50 47 |
| 6 48 $\frac{1}{2}$ | 21 12 $\frac{3}{4}$ | 22 15 $\frac{1}{2}$ | | 49 31 |
| | | 22 14 $\frac{1}{2}$ | | |

Ad hoc tempus Chasmata apparere incipiebant.

| | | | | |
|------|-------|---------------------|--|-------|
| 6 56 | 21 13 | 22 15 $\frac{1}{2}$ | | 47 41 |
| | | 22 14 $\frac{1}{2}$ | | |

7 1 $\frac{1}{2}$ 21 13 46 10

Definebant chasmata.

| | | | | |
|--------------------|---------------------|--|--|-------|
| 7 16 $\frac{1}{2}$ | 21 12 $\frac{3}{4}$ | | | 44 35 |
|--------------------|---------------------|--|--|-------|

Horam paulo ante septimam Chasmata insolitæ apparentiæ, rubei scilicet ac sanguinei instar coloris in Oriente infra h conspiciebantur. Quæ per $\frac{1}{2}$ horæ durantiâ initium infra pedes sequentis II ducebant & per h perque Aldeboram descendendo sub Pleiadibus tandem dispauerunt.

N. B. Hæc non vt alia Chasmata celeri violentaque discurfione, nunc huc nunc illuc mouebantur, licet interdum maiora interdum vero minora apparebant. Media quantitas inter inferiores pedes II & h comprehensa fuit.

DIE 16 DECEMBRIS.

Vesperī obseruabatur h, altitudo eius a nulla refractione impediabatur.

| Tempus | Diff. inter h & Aldeb. | Declinatio | Pro horol. corrigeno Sinit. hum. Orion. or. |
|--------------------|------------------------------|----------------|--|
| 7 39 30 | 20 44 | 22 13 vno pin. | 42 10 |
| | | | Seq. hum. Or. or. |
| 7 45 $\frac{1}{2}$ | 20 43 $\frac{1}{2}$ | | 48 11 |
| 7 49 $\frac{1}{2}$ | 20 44 $\frac{1}{2}$ | | 47 9 |

Viceversa, inter h & inf. cap. II

| | | | |
|--------------------|---------------------|---|--------------------|
| 7 53 $\frac{1}{2}$ | 24 25 $\frac{1}{2}$ | alt. pin. 22 14 | 46 11 |
| 7 57 $\frac{1}{2}$ | 24 25 $\frac{1}{2}$ | | 45 4 |
| 8 1 | 22 13 $\frac{3}{4}$ | vno | |
| | Inter h & Aldeb. | | |
| 8 36 | 20 44 $\frac{1}{2}$ | 22 14 $\frac{1}{2}$ 22 13 $\frac{1}{2}$ | 39 9 $\frac{1}{2}$ |

DIE 17 DECEMBRIS, VESPERI.

| Tempus | Diff. inter h & Aldeb. | Declinatio h | Dext. hum. Or. orient. |
|--------------------|---------------------------|---------------------|---------------------------|
| 7 17 $\frac{1}{2}$ | 20 38 $\frac{1}{2}$ | 22 14 $\frac{1}{2}$ | 22 13 $\frac{1}{2}$ 58 33 |
| 7 25 $\frac{1}{2}$ | 20 39 $\frac{1}{2}$ | melior | 56 35 |
| 7 30 $\frac{1}{2}$ | 20 39 $\frac{1}{2}$ | | 55 15 |
| | Inter h & inf. cap. II | | |
| 7 34 $\frac{1}{2}$ | 24 31 $\frac{1}{2}$ | 22 14 $\frac{1}{2}$ | 22 13 $\frac{1}{2}$ |
| 7 37 $\frac{1}{2}$ | 24 30 $\frac{1}{2}$ | | 53 27 |
| 7 41 $\frac{1}{2}$ | 24 30 $\frac{1}{2}$ | | 52 40 |

DIE 18 DECEMBRIS.

Vesperī obseruabatur h vt sequitur. Horologium corrigebatur in Meridie.

| | Diff. inter & inf. cap. II | Decl. h | Alt. h | Dext. hum. Or. orient. |
|-------------------|-------------------------------|---------------------|--------|---------------------------|
| 7 5 $\frac{1}{2}$ | 24 34 $\frac{1}{2}$ | 22 14 $\frac{1}{2}$ | 34 58 | |
| | | 22 13 $\frac{1}{2}$ | | |

Tunc erat inf. cap. II alt. 24 32

| | | | |
|-------------------|---------------------|---------------------|------------------|
| 7 8 $\frac{1}{2}$ | 24 34 $\frac{1}{2}$ | | 59 $\frac{1}{2}$ |
| 7 12 | 24 34 $\frac{1}{2}$ | 35 42 $\frac{1}{2}$ | 58 7 |

Viceversa

| | Inter h & Aldeb. | | | |
|--------------------|---------------------|---------------------|------|-------|
| 7 15 $\frac{1}{2}$ | 20 34 $\frac{1}{2}$ | 22 15 | 36 4 | 57 23 |
| | | 22 13 $\frac{1}{2}$ | | |

| | | | | |
|--------------------|---------------------|--|-------|------|
| 7 19 | 20 34 $\frac{1}{2}$ | | 36 30 | 8 44 |
| 7 24 $\frac{1}{2}$ | 20 23 $\frac{1}{2}$ | | 36 57 | 7 23 |

incerta propter nubes

| | | | | |
|--------------------|---------------------|-------|-------|-------------------------|
| 7 41 $\frac{1}{2}$ | 20 34 $\frac{1}{2}$ | 22 15 | 39 20 | 3 17 |
| | | 22 14 | | Luc. mand. Ceti occ. |
| 7 48 $\frac{1}{2}$ | 20 34 $\frac{1}{2}$ | | | 6 41 |

| | | | | |
|------|-----------------------------|---------------------|-------|-------------------------|
| | h rursus ab inf. cap. II | | | Luc. pes inf. II or. |
| 7 57 | 24 35 | 22 14 | 41 45 | 57 43 |
| | | 22 13 $\frac{1}{2}$ | | |

DIE 19 DECEMBRIS, VESPERI.

N. B. Horologium corrigebatur hora 12 M. 6 post Meridiem & tunc mouebatur 58^m plus iusto, qui error accessit a proxime præterlapso Meridie.

| Tempus | Diff. h ab Aldeb. | Decl. h | Alt. h | Seq. hum. Orion. or. |
|---------------------|----------------------|---------------------|--------|-------------------------|
| 9 59 25 | 20 30 | 22 15 | 53 27 | 19 23 |
| | | 22 14 | | |
| 10 9 25 | 20 29 $\frac{1}{2}$ | | | 17 1 |
| 10 15 35 | 20 29 $\frac{1}{2}$ | 22 14 $\frac{1}{2}$ | | 15 37 |
| | | 22 14 | | |
| 10 19 $\frac{1}{2}$ | 20 29 $\frac{1}{2}$ | | | 14 37 |

¹ Non respondet intervallo temporis a 7^h 57 $\frac{1}{2}$ ^m. Fortasse legendum est 36° 9'.

Viceverfa

| | Inter h & inf. cap. II | Alt. h | Can. minor orient. |
|-----------------------------|--|-----------|-----------------------|
| 10 22 $\frac{1}{2}$ | 24 38 | | 40 14 |
| 10 26 $\frac{1}{2}$ | 24 38 $\frac{1}{2}$ | | 39 19 |
| 10 29 $\frac{1}{2}$ | 24 38 $\frac{1}{2}$ | | 38 33 |
| 10 32 $\frac{1}{2}$ | 24 38 | 55 3 | 37 53 $\frac{1}{2}$ |
| 11 24 | Tranfibat h per Merid. | | 25 49 |
| | habens alt. per Volub. 56 18 $\frac{3}{4}$ | | |
| 11 34 35 | 24 38 $\frac{1}{2}$ | | 22 57 $\frac{1}{2}$ |
| 11 40 $\frac{1}{2}$ | 24 39 | | 21 39 |
| 11 45 $\frac{3}{4}$ | 24 38 $\frac{3}{4}$ | | 20 31 |
| | Transitus Canis minoris per Merid. | | |
| H. 12 M. 41 $\frac{1}{2}$. | | | |

DIE 20 DECEMBRIS, VESPERI.

| Tempus Horol. | Inter h & Aldeb. | Decl. h | Alt. h per Q. min. | Seq. hum. Or. orient. |
|--------------------|--|---------------------|-----------------------|--------------------------|
| 5 47 $\frac{3}{4}$ | 20 24 $\frac{1}{2}$ | 22 14 | 27 30 | 73 20 |
| | | 22 13 $\frac{1}{2}$ | | |
| 5 53 $\frac{1}{2}$ | 20 24 $\frac{1}{2}$ | 22 14 | 28 30 | 71 46 |
| 6 0 $\frac{1}{2}$ | 20 25 | 22 14 $\frac{1}{2}$ | | 70 2 |
| | | 22 13 | | |
| 6 5 $\frac{1}{2}$ | 20 25 | | 30 0 | 67 55 |
| | Inter h & inf. cap. II | | | |
| 8 4 | 24 43 | 22 13 $\frac{1}{2}$ | 46 30 | 37 30 |
| | | 22 13 | | |
| | Alt. inf. cap. II tunc erat 38 $\frac{1}{2}$ | | | |
| 8 9 $\frac{1}{2}$ | 24 43 $\frac{1}{2}$ | | | 35 58 |
| 8 14 $\frac{1}{2}$ | 24 43 $\frac{1}{2}$ | | | 34 43 |
| 8 30 $\frac{1}{2}$ | 24 44 | | | 30 30 |
| 8 34 $\frac{1}{2}$ | 24 43 $\frac{1}{2}$ | 22 13 | | 29 28 |
| | | 22 13 | | |

Viceverfa

| | Inter h & Aldeb. | Can. min. orient. |
|---------------------|------------------------|----------------------|
| 9 2 $\frac{1}{2}$ | 20 25 | 22 0 |
| 9 5 $\frac{1}{2}$ | 20 24 $\frac{1}{2}$ | Alt. h 21 27 |
| 9 37 $\frac{3}{4}$ | 20 24 $\frac{1}{2}$ | 55 40 39 6 |
| | Inter h & inf. cap. II | |
| 9 49 $\frac{1}{2}$ | 24 43 | 36 5 |
| 10 11 $\frac{1}{2}$ | 24 43 | 4 8 |

DIE 21 DECEMBRIS, VESPERI.

| Tempus Horol. | Inter h & Aldeb. | Decl. h | Alt. h | Seq. hum. Orion. or. |
|--------------------|---------------------|---------------------|--------|-------------------------|
| 6 24 $\frac{3}{4}$ | 20 20 $\frac{1}{2}$ | 22 14 $\frac{1}{2}$ | 33 40 | 62 23 |
| | | 22 13 $\frac{1}{2}$ | | |
| 6 30 $\frac{3}{4}$ | 20 20 $\frac{1}{2}$ | 22 12 $\frac{1}{2}$ | 34 32 | 60 44 |
| | | 22 12 | | |
| 6 41 $\frac{1}{2}$ | 20 21 | | 36 2 | 57 59 |
| 6 53 $\frac{1}{2}$ | 20 20 $\frac{1}{2}$ | 22 13 | 37 35 | 55 3 $\frac{1}{2}$ |
| | | 22 13 $\frac{1}{2}$ | | |

Viceverfa

| | Inter h & inf. cap. II | Præced hum. Or. or. |
|--------------------|---------------------------------|-----------------------------|
| 7 4 $\frac{1}{2}$ | 24 49 | 39 5 44 38 $\frac{1}{2}$ |
| | | Seq. hum. Or. or. |
| 7 22 $\frac{1}{2}$ | 24 50 | 47 55 |
| 7 24 $\frac{1}{2}$ | 24 48 | 22 13 $\frac{1}{2}$ 47 3 |
| | inter nubes 22 12 $\frac{1}{2}$ | |

DIE 22 DECEMBRIS, VESPERI.

| Temp. Hor. corr. | Inter h & Aldeb. | Decl. h | Alt. h | Dext. hum. Or. or. |
|---------------------|------------------------|---|--------|-----------------------|
| 7 1 | 20 15 | 22 14 | 37 7 | 56 4 |
| | | 22 13 | | |
| 7 7 | 20 15 $\frac{1}{2}$ | 22 13 $\frac{1}{2}$ * * vno eodemque meliori pinnac. | | 54 35 |
| 8 50 $\frac{1}{2}$ | 20 15 $\frac{1}{2}$ | | | 29 40 |
| 8 53 $\frac{1}{2}$ | 20 15 $\frac{1}{2}$ | 22 13 $\frac{1}{2}$ | | 28 55 |
| | | 22 12 $\frac{1}{2}$ | | |
| 8 55 $\frac{1}{2}$ | 20 15 $\frac{1}{2}$ | 22 12 | 50 21 | 28 20 |
| | Inter h & inf. cap. II | | | |
| 9 2 25 | 24 52 $\frac{1}{2}$ | | | 26 45 |
| 9 4 45 | 24 52 $\frac{1}{2}$ | | | 26 11 |
| 9 6 $\frac{1}{2}$ | 24 52 $\frac{1}{2}$ | 22 13 melior 22 12 | | 25 45 |
| 9 10 $\frac{1}{2}$ | 24 52 $\frac{1}{2}$ | | | 24 46 |

N. B. Dexter humerus Orionis tranfibat per Meridianum Hora 10 M. 44 $\frac{3}{4}$.
Ad hunc transitum corrigebatur horologium.

DIE 28 DECEMBRIS, VESPERI.

N. B. Horologio indicante Horam 5 M. 46 erat lucida mandibulæ Ceti orient. 20 47, tranfutura per Meridianum Hora 7 M. 27, mouebatur igitur Horologium iusto tardius 17' 52'', qui error illi acceperat a Meridie huius diej 28 Decembris. Rectificabatur ergo Hora 6 M. 3 52'' ad transitum lucid. mand. Ceti per merid.

| Tempus | Inter h & Aldeb. | Decl. h | Alt. h per Q. min. | Seq. hum. Or. orient. |
|--------------------|---------------------|---------------------|-----------------------|--------------------------|
| 6 29 25 | 19 47 $\frac{1}{2}$ | | | 57 10 |
| 6 34 $\frac{1}{2}$ | 19 48 $\frac{1}{2}$ | 22 13 | 37 50 | 55 57 $\frac{1}{2}$ |
| 6 40 $\frac{1}{2}$ | 19 49 | 22 12 $\frac{1}{2}$ | 38 47 | 54 14 |
| | | 22 12 $\frac{1}{2}$ | | |
| 6 42 $\frac{3}{4}$ | 19 48 $\frac{3}{4}$ | | 39 0 | 53 41 |

| Inter η & inf. cap. Π | | Luc. mand. orient. | | per Volub. | 56 16 $\frac{1}{2}$ |
|---|---------------------|-----------------------|------------|-----------------------|---------------------|
| 6 49 $\frac{1}{2}$ | 25 16 $\frac{1}{2}$ | 22 12 $\frac{1}{2}$ | 9 8 | per Chalyb. | 56 17 |
| 6 53 $\frac{1}{2}$ | 25 16 $\frac{1}{2}$ | vno pin. f | 40 40 8 8 | Declin. per Armillas, | |
| 6 59 $\frac{1}{2}$ | 25 16 $\frac{1}{2}$ | | 41 40 6 37 | vno pinnacidio | 22 11 $\frac{1}{2}$ |
| H. 8 M. 55 cernebatur η & ζ quasi in | | | | | |
| vno verticali. | | | | | |
| H. 10 18 $\frac{1}{2}$ Transibat η per Merid. ha- | | | | | |
| bens Altitud. | | | | | |
| DIE 30 DECEMBRIS. | | | | | |
| 9 15 $\frac{1}{2}$ Luc. hum. Orion. orient. 10 26 $\frac{1}{2}$ | | | | | |
| 9 53 Transitus η per Merid. | | | | | |
| habens altit. per Volub. 56 16 $\frac{1}{2}$ | | | | | |

COLLECTIO MOTUUM η ¹

ad tres infra nominatos dies Decembris, vt hinc inde tam motus diurnus, quam tempus ϕ cum simplicis \odot rite constaret.

N.B. Operatio falsitatis suspicione caret, quandoquidem postea ex præsупposito η loco eadem omnino distantia ad fixas resulent.

| Decembris | H. M. | Ascensio Recta | Declinatio | Longitudo | Latitudo |
|-----------|--------------------|----------------|------------|---------------------|------------|
| Die 6 | 8 35 | 84 50 50 | 22 13 0 | 25 13 50 Π | 1 13 20 M. |
| 9 | 9 21 | 84 33 24 | 22 13 0 | 24 57 $\frac{1}{2}$ | 1 12 45 |
| 19 | 9 58 $\frac{1}{2}$ | 83 41 15 | 22 13 15 | 24 9 30 | 1 20 30 |

Ex his elicitor tempus ϕ apparentis η cum medio motu \odot mense Decembri Die 6 H. 12 M. 6, quo tempore fuit Locus simplicis \odot 25° 13' 3" \times ^r. Locus appa-rens η 25° 13' 3" Π , Motus diurnus η 5' 20". Copernici calculus habet 25° 4' Π .

Pro loco η die 4 Decembris circa ϕ cum \odot ^{1a}.

| | | | |
|----------------------------------|------------------------|---|---------------------|
| Hora 12 M. 12 Dist. inter η | | Hora 12 M. 18 Dist. η ab Aldeb. 21 41 | |
| & inferius caput Π | 23 31 | Decl. Aldeb. | 15 37 0 |
| Decl. η ex alt. merid. | 22 13 $\frac{1}{2}$ B. | Asc. R. Aldeb. | 63 8 0 |
| Decl. infer. cap. Π | 28 57 10 | Ergo hinc Asc. R. η | 84 59 45 |
| Asc. R. eiusdem | 110 2 40 | H. 12 $\frac{1}{2}$ Asc. R. η limitata | 84 59 50 |
| Ergo hinc Asc. R. η | 84 59 50 | Declin. B. | 22 13 $\frac{1}{2}$ |

Resp. Longitudo 25 22 0 Π , Latitudo 1 13 $\frac{1}{2}$ M.

Examinato vltimo tempore ϕ η cum medio \odot adhibito etiam huius diei loco η inuenimus illud fuisse die 6 Decembris H. 11 M. 48, et tunc η fuit in 25 12 Π .

Repetitio. Potest in antecedente esse distantia ab Aldebora 21 40 $\frac{1}{2}$, igitur η Ascensio Recta ab hac $\frac{1}{2}$ minor.

η Asc. ab Aldeb. 84 59 15 Ascen. limit. 84 59 37

ab inf. Π 84 59 58 Resp. Longit. 25 21 45 Π

His si addideris 10' pro motu diurno intra biduum sequens prodibit long. η ad tempus ϕ cum Sole.

Long. η ⁿⁱ hinc ad tempus ϕ cum Sole circa mediam noctem sequentem diem 6 Dec., in ϕ cum \odot η 25 11 45 Π .

Limitatio pro obseruationibus η ⁿⁱ quando erat iuxta ϕ \odot hoc anno non longe a suo Perigæo, vt exacte constare queat eius motus.

I. Ipso die 6, quando fiebat ϕ ad simpl. \odot , accipiatur circa mediam noctem eius distantia hoc modo. Ab Aldebora 21 30 $\frac{1}{2}$. Ab inf. cap. Π 23 41. Hinc pro-uenit

| | | | |
|--|----------|----------------------------------|---------------|
| Asc. R. η ⁿⁱ ab Aldeb. | 84 47 35 | Asc. lim. | 84 47 50 |
| ab inf. cap. Π | 84 48 5 | Resp. long. η ⁿⁱ | 25 11 2 Π |

¹ E codd. V. et K.

| | | | |
|-----------------------------|----------|-----------------------|-----------|
| II. Ad diem 9 Decemb. H. 9½ | | Dist. h ab Aldeb. | 21 17 0 |
| Hinc Ang. diff. asc. | 21 25 7, | Dist. ab inf. cap. II | 23 54½, |
| hinc Ang. diff. asc. | 25 29 50 | | |
| Ergo Asc. R. h ab Aldeb. | 84 32 44 | | |
| ab inf. cap. II | 84 33 7 | Declinatio h B. | 22 13 |
| Afc. R. limitata | 84 32 55 | Resp. Long. | 24 57 13. |

Revocato hoc h motu ad momentum ♂ cum ☉^{le} per motum diurnum (vide licet 5 M.), prodit locus eius tunc temporis 25 11 43 II. Quod cum priori loco conuenit quam proxime.

Loca h circa ♂ Solis quadrupliciter inuenta.

- I. 25 12 ex die 4
- II. 25 11½ limitatius ad idem
- III. 25 11 0 limitate ad 6 diem
- IIII. 25 11 43 limitate ad 9 diem

Ex his omnibus subtiliter limitatis et acceptis die 6 ijs distantijs, quæ circa meridianum fiebant ijsdemque accurate limitatis, colligo si horum omnium medium accipiatur, fuisse h in 25 11½ II quando Soli opponebatur, quod cum verificato calculo satis conuenit, vixque minor esse potest sed potius aliquantulo maior si modo quid apponendum fuerit.

| | | | |
|--------------------------------|-------|-----------------------|-------|
| Limitatum Maius | 11 45 | Vera longit. limit. | 11 22 |
| Limitatum Minus | 11 0 | Hinc subtrahe ob lat. | 1 37 |
| Verus locus temp. ♂ 25 9 45 II | | | |

Inquisitio loci h ad 7 VII^{bris} cum eſet circa ☐^{am} ☉ orient.

| | | | |
|-------------------------------|----------|------------------------------|----------|
| Hora 11 M. 48 Dist. h | | Hora 11 M. 52 Dist. h a ſup. | |
| ab Aldeb. | 24 22½ | cap. II | 19 46 40 |
| Declin. h | 22 20 | Decl. ſup. cap. II | 32 41 |
| Declin. Aldeb. | 15 37 | Ang. diff. asc. | 19 5 25 |
| Afc. R. Aldeb. | 63 7 45 | Afc. R. ſup. cap. | 107 3 35 |
| Angulus | 24 49 10 | Ergo hinc Afc. R. h | 87 58 10 |
| Itaque Afc. R. h ab Aldeb. | 87 56 55 | Hora 11 M. 50 Afc. R. limit. | 87 57 30 |
| Resp. Longitudo 28° 6' 40" II | | | |
| Latitudo 1 10 20 M. | | | |

Si ponatur asc. r. ab Aldebora 87 57 45, quæ ex distantia 24 23 reperitur, resp. Longitudo 28° 6' 53".

Apodixis calculi inuenti loci h ad diem 12 Feb. ex obſeruationibus, cum circa ☐^{ram} occid. a ☉ eſet.

| | | | |
|-----------------------------|----------|------------------------------------|---------|
| H. 8 M. 33 Dist. h a luc. V | 37 23½ | H. 8 M. 45 Dist. h ab inf. cap. II | 40 38 |
| Decl. h ex alt. merid. | 20 10 B. | Decl. inf. cap. II | 28 57 0 |
| Decl. lucid. V | 21 30 | Afc. R. inf. cap. | 110 2 0 |
| Afc. R. luc. V | 26 4 10 | Igitur hinc Afc. R. h | 66 10 0 |
| Ergo Afc. R. h | 66 9 40 | | |

Hora 8 M. 40 Afcenſio R. limitata 66° 9' 50", Declin. B. 20° 10' 0"

Resp. Longitudo 7° 41' 53" II
Latitudo 1 31 31 M.

OBSERVATIONES IOUIS.

DIE 5 JANUARIJ, MANE.

Erat Altit. $\frac{1}{2}$ Merid. per Chalyb. 28 $34\frac{1}{2}$
 Erat tunc Spica transgressa
 Meridiem in \mathcal{A} equatore 0 $32\frac{1}{2}$

DIE 16 JANUARIJ, MANE.

Pro visibilibus stellarum diametris.
 Obseruabat Ioannes Aurifaber per
 Armillas Declinationum maiores, acci-
 piendo primum Iouis superiorem
 circumferentiam, postea inferiorem,
 & inuenit discrimen vtriusque:

I M. 2 $15''$ II M. 2 $30''$

Sed Aurora iam illucescebat, & luna
 $\frac{1}{2}$ appropinquabat, quare forte ad-
 huc paulo amplior apparuiſet, si hæc
 impedimenta abfuiſſent.

DIE 18 JANUARIJ, MANE.

Obseruabat rursus Aurifaber diame-
 trum $\frac{1}{2}$ per Armillas.

I 2' 0'' Repetita 2' 30''

II 2 15 alt. pin. 2 20 alt. pin.

DIE 20 JANUARIJ, MANE.

Obseruabat Aurifaber $\frac{1}{2}$ diametrum
 vt ſequitur.

I 3' 0''

3 15

II Repetita 3 30

3 0

III Repetita 3 30

3 20

DIE 24 JANUARIJ, MANE.

H. 4 26' 24'' Erat Spica $\frac{1}{2}$ in \mathcal{A} equatore
 ad occidentem 20 51
 Tunc erat Alt. $\frac{1}{2}$
 per Volub. 26 $13\frac{1}{2}$
 & diſtabat $\frac{1}{2}$ a cauda \mathcal{O} 33 $24\frac{1}{2}$
 4 10 $\frac{1}{2}$ Erat Spica $\frac{1}{2}$ occid. 21 $17\frac{1}{2}$
 Tunc diſtabat $\frac{1}{2}$
 a cauda \mathcal{O} 33 25
 4 15 $\frac{1}{2}$ Erat Spica $\frac{1}{2}$ occid. 22 38
 Tunc diſtabat $\frac{1}{2}$
 a lance \mathcal{O} Boreali 26 $44\frac{1}{2}$

4 18 $\frac{1}{2}$ Erat Spica $\frac{1}{2}$ occid. 23 $37\frac{1}{2}$ Tunc diſtabat $\frac{1}{2}$ a Boreali lance \mathcal{O} 26 $44\frac{1}{2}$ Altit. $\frac{1}{2}$ per Volub. 25 $19\frac{1}{2}$ Declinatio $\frac{1}{2}$ per Armill. 5 38Tunc erat Spica $\frac{1}{2}$ occid. 24 25Obſeruabat Aurifaber diametrum $\frac{1}{2}$ per Armillas $3\frac{1}{2}'$ altero pinnacid. $3\frac{1}{2}$

DIE 29 JANUARIJ, VESPERI.

Pro Refractione indaganda

| Tempus | Azim. $\frac{1}{2}$ orient. | Altit. $\frac{1}{2}$ | Declinatio vno alt. |
|-------------------|--------------------------------|----------------------|-----------------------------------|
| | 100 18 | 1 4 | 7 $16\frac{1}{2}$ |
| | 99 26 | 2 16 | 7 $12\frac{1}{2}$ |
| 7 $19\frac{1}{2}$ | 98 25 | 2 $53\frac{1}{2}$ | 7 11 |
| 7 $22\frac{1}{2}$ | | | 7 $9\frac{1}{2}$ |
| 7 23 | | | 7 10 |
| 7 26 | 97 9 | 3 44 | 7 $9\frac{1}{2}$ 7 9 |
| 7 30 | 96 25 | 4 $13\frac{1}{2}$ | 7 8 7 $7\frac{1}{2}$ |
| 7 $35\frac{1}{2}$ | 95 20 | 4 52 | 7 $6\frac{1}{2}$ 7 7 |
| 7 $40\frac{1}{2}$ | 94 24 | 5 $31\frac{1}{2}$ | 7 $5\frac{1}{2}$ 7 6 |
| | 93 36 | 6 $1\frac{1}{2}$ | 7 $5\frac{1}{2}$ 7 $5\frac{1}{2}$ |
| 7 $50\frac{1}{2}$ | 91 44 | 7 $17\frac{1}{2}$ | 7 $4\frac{1}{2}$ |
| 7 $57\frac{1}{2}$ | 90 56 | 7 $46\frac{1}{2}$ | 7 $3\frac{1}{2}$ 7 $4\frac{1}{2}$ |
| 8 $2\frac{1}{2}$ | 90 1 | 8 $23\frac{1}{2}$ | 7 $3\frac{1}{2}$ 7 4 |
| 8 $6\frac{1}{2}$ | 89 19 | 8 54 | 7 $2\frac{1}{2}$ 7 $3\frac{1}{2}$ |
| 8 $13\frac{1}{2}$ | 87 58 | 9 $49\frac{1}{2}$ | 7 3 7 $3\frac{1}{2}$ |
| P. M. N. | | | |
| 1 $43\frac{1}{2}$ | 5 20 | 40 57 | 7 0 6 $59\frac{1}{2}$ |
| 1 $46\frac{1}{2}$ | 4 14 | 41 0 $\frac{1}{2}$ | 7 0 7 0 $\frac{1}{2}$ |
| 1 $56\frac{1}{2}$ | 2 16 | 41 $1\frac{1}{2}$ | 7 0 |
| | 1 17 | 41 3 | 7 0 7 0 |

DIE 30 JANUARIJ, MANE.

H. 1 M. 46 $\frac{1}{2}$ Inter $\frac{1}{2}$ & cor \mathcal{O}
 per Sext. 21 $36\frac{1}{2}$
 1 50 Eadem Diſtantia 21 37
 1 52 Eadem Diſt. 21 37
 Declin. $\frac{1}{2}$ 7 0 7 0 $\frac{1}{2}$
 Altitudo 41 0
 1 54 Inter $\frac{1}{2}$ & Spicam $\frac{1}{2}$ 32 $33\frac{1}{2}$
 1 54 $\frac{1}{2}$ Eadem diſt. 32 $32\frac{1}{2}$
 1 56 Ead. diſt., per Sext. 32 33
 Declin. $\frac{1}{2}$ 7 0 vtroque
 Altit. $\frac{1}{2}$ 41 3

DIE 30 JANUARIJ, VESPERI.

Obferuabatur η vterius vt fequitur
pro refractione.

| H. M. | Azim. η | Alt. η | Declin. η |
|--------------------|--------------|--------------------|--------------------|
| 7 8 $\frac{1}{2}$ | 101 0 | 1 19 $\frac{1}{2}$ | 7 20 $\frac{1}{2}$ |
| 7 12 $\frac{1}{2}$ | 100 11 | 1 49 | 7 18 |
| 7 18 | 99 6 | 2 17 | 7 14 |
| 7 21 | 98 26 | 2 54 | 7 13 $\frac{1}{2}$ |
| 7 29 | 96 50 | 3 56 | 7 10 |
| 7 32 $\frac{1}{2}$ | 96 7 | 4 26 | 7 9 $\frac{1}{2}$ |
| 7 36 $\frac{1}{2}$ | 95 20 | 4 55 $\frac{1}{2}$ | 7 9 |

DIE 6 FEBRUARIJ, MANE.

| | | |
|--|---|---------------------|
| H. 6 | 8 $\frac{1}{2}$ ' Inter η & lucid. | |
| | in auftrali ala \cap | 13 5 |
| 6 14 $\frac{1}{2}$ | Eadem dift. | 13 3 $\frac{1}{2}$ |
| 6 25 $\frac{1}{2}$ | Inter η & borealem lancem Ω | 27 2 $\frac{1}{2}$ |
| 6 29 | Eadem dift. | 27 2 |
| 6 39 $\frac{1}{2}$ | Erat Spica \cap occ. | 41 25 |
| 6 42' 35" | Declin. η Aufst. | 5 27 $\frac{1}{2}$ |
| | Erat tunc Spica occid. | 42 18 $\frac{1}{2}$ |
| Hinc poteft horologium verificari, nimis cito enim mouebatur. | | |
| | Diameter η per Armillas 3 $\frac{1}{2}$ '. | |

DIE 25 FEBRUARIJ.

| | | |
|--------------------|--|---------------------|
| H. 4 | 49 $\frac{1}{2}$ ' Difftabat η | |
| | a Boreali lance Ω | 28 17 $\frac{1}{2}$ |
| | Tunc erat Spica \cap occid. | 51 1 $\frac{1}{2}$ |
| 4 50 $\frac{1}{2}$ | Erat Spica \cap occid. | 51 $\frac{1}{2}$ |
| | Tunc difftabat η | |
| | a Boreali lance Ω | 28 17 $\frac{1}{2}$ |
| 4 53' 15" | Erat Spica \cap occid. | 51 47 |
| | Tunc difftabat η | |
| | a Boreali lance Ω | 28 17 $\frac{1}{2}$ |
| 4 56 $\frac{1}{2}$ | Difftabat η a cauda Ω | 31 43 $\frac{1}{2}$ |
| 4 57 $\frac{1}{2}$ | | 31 43 $\frac{1}{2}$ |
| 4 59 $\frac{1}{2}$ | Declinatio η 4 50 $\frac{1}{2}$ alt. pinnac. | 4 50 $\frac{1}{2}$ |
| 4 59 $\frac{1}{2}$ | Inter η & caudam Ω | 31 44 |
| 5 3 | | 31 43 $\frac{1}{2}$ |

DIE 10 MARTIJ, VESPERI.

| Tempus | Difftabat η a corde Ω | Declin. η | Alt. η per Vol. | Pro Horol. Spica or. |
|--------------------|--------------------------------------|--------------------|-------------------------|-------------------------|
| 11 2 $\frac{1}{2}$ | 50 28 | 4 15 $\frac{1}{2}$ | 24 25 | 33 51 $\frac{1}{2}$ |
| | | 4 16 | | |
| 11 9 | 50 27 $\frac{1}{2}$ | | | 32 14 $\frac{1}{2}$ |

| | | | | |
|---------------------|---------------------|--------------------|---------------------|-------|
| 11 13 $\frac{1}{2}$ | 50 27 $\frac{1}{2}$ | 4 16 $\frac{1}{2}$ | 25 13 | 31 15 |
| | | 4 16 $\frac{1}{2}$ | | |
| 11 18 $\frac{1}{2}$ | 50 28 | 4 16 | 25 38 $\frac{1}{2}$ | 29 56 |
| | | 4 16 $\frac{1}{2}$ | | |

DIE 15 MARTIJ, VESPERI.

| Tempus | Dift. inter η & cor Ω | Declin. merid. η | Altit. per Volub. |
|----------------------------------|--------------------------------------|--------------------------|----------------------|
| 10 17 | 49 49 $\frac{1}{2}$ | 4 1 $\frac{1}{2}$ | 4 2 |
| 10 21 $\frac{1}{2}$ | 49 49 | 4 1 $\frac{1}{2}$ | 4 2 $\frac{1}{2}$ |
| 10 26 $\frac{1}{2}$ ¹ | 49 49 $\frac{1}{2}$ | | 24 5 $\frac{1}{2}$ |
| Canis minor occid. 50 33 | | | |
| 10 28 $\frac{1}{2}$ ¹ | 49 49 $\frac{1}{2}$ | 4 2 | 4 2 $\frac{1}{2}$ |

DIE 18 MARTIJ, VESPERI.

Obferuabatur η vt fequitur.

| Tempus | Inter η & Regulum | Decl. η | Altit. η per Volub. | Luc. Hy- drae occ. |
|---------------------|---------------------------|--------------------|-----------------------------|-----------------------|
| 10 2 | 49 27 | 3 51 $\frac{1}{2}$ | 22 35 $\frac{1}{2}$ | 18 0 $\frac{1}{2}$ |
| | | 3 51 $\frac{1}{2}$ | | |
| 10 5 $\frac{1}{2}$ | 49 26 $\frac{1}{2}$ | 3 51 $\frac{1}{2}$ | 22 54 $\frac{1}{2}$ | 18 48 |
| | | 3 51 $\frac{1}{2}$ | | |
| 10 8 $\frac{1}{2}$ | 49 26 $\frac{1}{2}$ | | 23 12 $\frac{1}{2}$ | 19 37 |
| | Inter η & Spicam | | | |
| 10 13 $\frac{1}{2}$ | 5 48 $\frac{1}{2}$ | | 23 36 $\frac{1}{2}$ | 20 48 |
| 10 15 $\frac{1}{2}$ | 5 47 $\frac{1}{2}$ | 3 51 $\frac{1}{2}$ | 23 50 | 21 22 $\frac{1}{2}$ |
| vtroque | | | | |

DIE 21 MARTIJ.

Post mediam noctem.

| | |
|-----------------------------|--------------------------------|
| H. 12 M. 18 $\frac{1}{2}$. | Erat Spica \cap orient. 3 12 |
| | & tranfibat η tunc |
| | per Meridianum habens Alt. |
| | per Volub. |
| | per Chalyb. |
| | 30 21 $\frac{1}{2}$ |
| | 30 21 $\frac{1}{2}$ |

| | Inter η & cor Ω | Declinatio η | Pro Horol. Spica or. |
|---------------------|--|--------------------|-------------------------|
| 12 30 $\frac{1}{2}$ | 49 4 $\frac{1}{2}$ | 3 43 $\frac{1}{2}$ | 0 24 |
| | | 3 43 $\frac{1}{2}$ | occid. |
| 12 33 $\frac{1}{2}$ | 49 4 | | 0 20 |
| 12 35 $\frac{1}{2}$ | 49 4 $\frac{1}{2}$ | | 0 52 $\frac{1}{2}$ |
| | Inter η & super. lancem Ω | | |
| 12 39 $\frac{1}{2}$ | 31 5 | 3 43 $\frac{1}{2}$ | 3 44 |
| 12 43 $\frac{1}{2}$ | 31 5 $\frac{1}{2}$ | | 2 27 |
| 12 46 | 31 5 $\frac{1}{2}$ | | 3 15 |
| 1 0 $\frac{1}{2}$ | | 3 43 $\frac{1}{2}$ | 3 43 $\frac{1}{2}$ |
| | | | 6 20 |

¹ In codice E 10 26 $\frac{1}{2}$ et 10 28 $\frac{1}{2}$ lineis inducta funt et utrique adfcriptum eft 10 16 18.

DIE 25 MARTIJ.

| Tempus | Inter ♀ & Cor ♂ | Decl. ♀ | Alt. ♀ | Luc. Hydræ occ. |
|--------|-------------------------|---------|--------|-----------------|
| 10 14½ | 48 33 | 3 30½ | 24 5 | 20 5 |
| | | 3 31 | | |
| 10 18½ | 48 32 | | | 21 16 |
| 10 22 | 48 32½ | 3 31½ | | 21 57 |
| | | 3 31½ | | |
| 10 26½ | 48 32½ | | 25 3 | 23 3 |
| | Inter ♀ & vmbilicum III | | | |
| 10 34½ | 7 58½ | 3 31½ | | 24 50 |
| | | 3 31½ | | |
| 10 38½ | 7 59½ | | | 25 56 |
| 10 42½ | 8 0 | 3 31½ | 26 10 | |
| | | 3 31½ | | 26 37 |

DIE 26 MARTIJ, VESPERI.

| Tempus | Inter ♀ & cor ♂ | Decl. ♀ | Alt. ♀ | Cor ♂ occ. |
|--------|-----------------|---------|--------|------------|
| 8 48½ | 48 25½ | 3 29 | 20 48 | 1 53 |
| | | 3 28½ | | |
| 8 54½ | 48 23 | | 21 26½ | 3 30 |

incerta propter nubes

DIE 27 MARTIJ.

Vesperi obseruabatur ♀ vt sequitur.

| Tempus | Diff. inter ♀ & cor ♂ | Decl. ♀ aut. | Alt. per Volub. | Pro Horol. Luc. Hyd. occ. |
|--------|-----------------------|--------------|-----------------|---------------------------|
| 10 4 | 48 17 | 3 25½ | 26 50 | 28 46 |
| | | 3 26 | | |
| 10 7 | 48 17½ | | 27 4½ | Cor ♂ occ. |
| 10 10½ | 48 17 | 3 25½ | 27 18 | 20 36½ |
| | Inter ♀ vmbilicum III | 3 25½ | | |
| 10 14½ | 8 1½ | | 27 34 | 21 41 |
| 10 19 | 8 2½ | 3 25½ | 27 50 | 22 48 |
| | | 3 25½ | | |
| 10 21½ | 8 2 | | 27 57½ | 23 17 |
| 10 22½ | 8 2½ | 3 25½ | 27 58½ | 23 41 |
| | | 3 25½ | | |

DIE 28 MARTIJ, VESPERI.

| ♀ a corde ♂ | Declin. ♀ | Luc. Hyd. occ. |
|-------------|-----------------|----------------|
| 9 22½ | 48 9 | 3 21½ 3 22 |
| 9 27½ | 48 9 | 22 32 |
| 9 30½ | | 23 45 |
| | 3 21½ vtroq. | |
| | Alt. per Volub. | 25 38½ |
| 9 33 | 48 9½ | 26 10 25 11 |

Inter ♀ & vmbilicum III

Declin. ♀

| | | | | |
|-------|------|-------|-------|-------|
| 9 39 | 8 7½ | 3 21½ | 3 21½ | 26 40 |
| 9 41½ | 8 9 | | | 27 22 |
| 9 45 | 8 8 | 3 21½ | 3 21½ | 28 12 |
| 9 47½ | 8 8½ | | | 28 46 |

DIE 17 APRILIS.

Vesperi obseruabatur ♀ vt sequitur.

| Inter ♀ & cor ♂ | Decl. ♀ | Alt. ♀ | Spica III orient. |
|-----------------|----------------------|-----------------|-------------------|
| 10 33 | 2 29½ | | |
| Temp. corr. | 2 30 | | |
| 10 10'19" | 45 47 | 31 32½ | 8 27 |
| 10 11 42 | 45 47½ | | 8 7 |
| 10 14 23 | 45 47½ | Declin. ♀ 2 29½ | 7 26 |
| 10 21 35 | Inter ♀ & Spicam III | | 5 38 |
| 10 22 45 | 8 53½ | | 5 23 |
| 10 24 19 | 8 54 | | |

DIE 11 JULIJ.

Vesperi obseruabatur ♀.

Transitus Vulturis per Meridianum Hora 11 28½.

Horolog. verificatum Hora 9 M. 51½.

| Inter ♀ & Arcturum | Alt. ♀ per Volub. | Decl. ♀ M. per Armill. | Luc. Vult. orient. |
|--------------------|-------------------|------------------------|--------------------|
| 30 27 | 4 14 | 3 7½, 3 8 alt. | 24½ |
| 30 26½ | 3 45 | 3 6½ vno | 23 24 |
| 30 26 | 3½ | 3 4½ vno | 22 42 |
| 30 25½ | 2 57 | 3 3½ vtroq. | 21 57 |

DIE 14 NOUEMBRIS, MANE.

| Inter ♀ & Spicam III | Declinatio ♀ | Alt. ♀ | Cor ♂ occ. |
|----------------------|--------------|--------|--------------|
| 17 29 | 12 18½ | 12 17 | 8 5 11 45½ |
| 17 30 | 12 18½ | 12 19 | 8 53 13 39 |
| 17 29½ | 12 17½ | | 9 20 14 46 |
| 17 30 | 12 18½ | 12 19½ | 11 45 20 28½ |

DIE 25 NOUEMBRIS, MANE.

| Inter ♀ & Spicam III | Declinatio ♀ | Alt. ♀ | Cor ♂ occ. |
|----------------------|---------------------------|--------|------------|
| 19 43 | 16 44 Aufst. ¹ | 13 25 | 29 11 |
| 19 44 | 16 44 | 16 44½ | 14 0 30 27 |

N.B. Non vsque adeo fidendum est his obseruationibus, propter Auroram & recurrentes nubes.

¹ Sic in codice. Iuxta tabulas Neugebaueri declinatio erat — 12° 59'.

DIE 27 NOUEMBRIS.

Mane obseruabatur ☿.

H. 4 53 tranſitus cordis ☿ per Merid.
 N. B. Horologium vna fere hora tardius iuſto mouebatur.

| Tempus | Diff. inter ☿ & Spicam | Decl. | Alt. | Pro horol. cor ☿ occ. |
|---------|---------------------------|--------|--------|--------------------------|
| 6 15 | 20 25 | 13 11 | 13 10 | 28 50 |
| | | 13 11½ | | |
| 6 18 55 | 20 25½ | 13 11 | 13 34 | 29 53 |
| 6 22½ | 20 25 | 13 10½ | 13 54½ | 30 54 |

DIE 18 DECEMBRIS.

Mane obseruabatur ☿.

| Tempus in horol. | Diff. inter ☿ & Spicam | Decl. ☿ | Alt. | Pro horol. Spica occ. |
|---------------------|---------------------------|------------|-------|--------------------------|
| 7 1½ | 23 54½ | 14 22 M. | 18 3 | 5 14 |
| | | vno pinn. | | |
| 7 9½ | 23 55½ | 14 22½ | 18 22 | 7 10 |
| | | eodem pin. | | |
| 7 15½ | 23 55 | 14 21½ | 18 35 | 8 41 |
| | | alt. pinn. | | |

8 14½ Tranſiit ☿ Meridianum ha-
 bens altitud.
 per Chalyb. 19 46
 per Volub. 19 44½
 Declinatio eius 14 23
 14 22½

H. 8 M. 35 oriebat̃ur ☉.

DIE 19 DECEMBRIS, MANE. Pro

| Tempus in horol. | Diff. inter ☿ & fin. gen. Oph. | Decl. ☿ | Alt. ☿ | horol. Spica occ. |
|---------------------|--------------------------------------|-----------|-----------|-------------------------|
| 7 39 | 23 43½ | 14 25½ | 18 30 | 8 17 |
| 7 42½ | 23 44 | 14 25½ | | 9 3 |
| | | 14 25 | | |
| 7 45½ | 23 43 | 14 25½ | | 9 45 |
| | | 14 25½ | | |
| 7 48½ | 23 44 | | | 10 26 |
| | | Viceverſa | | |
| 7 52 25 | Inter ☿ & Spicam | 14 25½ | 18 53 | 11 13 |
| | | 14 25½ | | |
| 7 56½ | 24 3 | | | 12 22 |
| 7 59 45 | 24 3½ | 14 25½ | | |
| | | 14 26 | | |

| | | | |
|------|-------|--------|-------|
| 8 2 | 24 3½ | | 13 35 |
| 8 13 | 24 3½ | 19 22 | 16 0 |
| 8 16 | 24 4 | 14 25½ | 16 45 |
| | | 14 26½ | |

8 47 45 Tranſibat ☿
 per Meridianum habens Alt.
 per Chalyb. 19 40½
 per Volub. 19 40½
 vel potius 40½

DIE 20 DECEMBRIS, MANE.

| Inter ☿ & fin. gen. Oph. | Decl. ☿ | Alt. ☿ | Spica occ. |
|-----------------------------|---------|--------|---------------|
| 7 47½ | 23 35 | 14 28½ | 18 3 |
| 7 51 | 23 34½ | 14 28½ | 18 14 |
| 7 54½ | 23 34½ | | 18 21 |
| | | | 7 40 |

Viceverſa

| Inter ☿ & Spicam | Decl. ☿ | Alt. ☿ | Spica occ. |
|------------------|----------------------------|-----------|---------------|
| 7 57½ | 24 13½ | 14 28 | 8 30 |
| | | alt. pin. | |
| 8 1½ | 24 14½ | 14 28 | 18 33 |
| 8 5½ | 24 14½ | | 10 15 |
| 8 13½ | 24 14½ | | 18 56 |
| | | | 12 9 |
| 9 4 | Tranſibat ☿ | | |
| | per Merid. habens Altitud. | | |
| | per Chalybeum | | 19 38½ |
| | per Volubilem | | 19 38½ |

DIE 28 DECEMBRIS, MANE.

| Inter ☿ & dext. gen. Oph. | Decl. ☿ | Pro horol. Spica occ. |
|------------------------------|--|--------------------------|
| 7 17 25 | 29 20½ | 14 50½ |
| 7 19½ | 29 20½ | 18 57½ |
| 7 21½ | 29 20½ | 14 50½ |
| | | 18 1½ |
| Inter ☿ & Spicam | | |
| 7 32½ | 25 29½ | 21 0 |
| 7 35½ | 25 28½ | 14 50 |
| 7 37½ | 25 29½ | 22 11 |
| 7 40 | 25 29 | 22 51 |
| 7 49½ | Tranſibat ☿ | |
| | per Meridianum habens Alt. | |
| | per Chalyb. | 19 17 |
| | per Volub. | 19 15½ |
| | Tunc erat Declinatio ☿ 14 50½ vtroque pinn.; Spica ☿ occid. | 25 31 |

PRO LONGITUDINE & LATITUDINE ☿.

DIE 24 JANUARIJ.

Calculus Tychonicus

Hora 4 M. 26 S. 24 Mane fuit ☿

Longitudo 17° 45' 40" ☿
 Latitudo 1 28 7 B.

Ad idem tempus Calculus

| Mæſſlinianus | Prutenicus | Stadianus | Alphonſinus |
|--------------|------------|-----------|-------------|
| 17° 51' 0" | 17° 50' 0" | 16 4 0 | |
| 1 40 7 | 1 40 12 | 1 45 0 | |

DIE 15 MARTIJ.

| | | | | | | |
|--|---------------------------|--|--|-------------------------|------------|-------------|
| H. 10 16' 18" Vesperi fuit $\frac{1}{2}$ | | | | Ad idem tempus Calculus | | |
| Longitudo | 13° 55' 55" $\frac{1}{2}$ | | | Mæthlinianus | Prutenicus | Alphonſinus |
| Latitudo | 1 36 15 B. | | | 14° 18' 57" | 14 20 54 | 12 10 1 |
| ex Tychnico | | | | 1 59 6 | 1 59 8 | 2 3 0 |

DIE 21 MARTIJ

ante $\frac{1}{2}$ cum \odot .

| | | | |
|--|-----------|---|------------------------|
| H. 12½ Diff. $\frac{1}{2}$ a corde \odot | 49 4½ | Resp. Longitudo | 13 11 35 $\frac{1}{2}$ |
| Decl. $\frac{1}{2}$ ex alt. Merid. | 3 44 0 | Latitudo | 1 37 15 B. |
| Ang. diff. ascens. fupp. | 46 9 43 | Hinc colligitur $\frac{1}{2}$ cum Simplicii | |
| | 146 36 10 | \odot his fuiſſe D. 25 Martij, | |
| Ergo Aſcenſio R. $\frac{1}{2}$ | 192 45 53 | H. 6 M. 46 Long. $\frac{1}{2}$ in | 12 40½ $\frac{1}{2}$ |
| Declinatio M. | 3 44 0 | Lat. B. | 1 37 25 |
| habita ratione parallaxeos $\frac{1}{2}$. | | | |

DIE 25 MARTIJ.

Calculus obſeruati φαινόμενον $\frac{1}{2}$ cum eſſet in $\frac{1}{2}$ \odot .

| | | | |
|--|---------------------|-------------------------------------|-----------|
| H. 9½ Diff. $\frac{1}{2}$ a corde \odot | 48 32½ | Cordis \odot | |
| ab vmbilico $\frac{1}{2}$ | 7 58 50 | Aſc. R. 146 36 10 Decl. 13 56 30 B. | |
| Declin. $\frac{1}{2}$ limit. | 3 31 50 M. | Vmbilicillo 198 24 30 | 1 32 0 B. |
| Angulus aſc. r. ſupputatus, a corde \odot | 45 40 15, ab vmbil. | 6 10 17 | |
| Aſcenſio Rectæ $\frac{1}{2}$ | 192 16 25 | 192 14 13 | |
| Aſc. R. limitata, adhærendo potius Regulo | | 192 16 0 | |
| Resp. Longitudo 12° 39½' $\frac{1}{2}$, Latitudo 1° 36½' B. | | | |

DIE 17 APRILIS.

| | | | | | | |
|----------------------------------|--------------------------|--|--|-------------------------|-------------|-------------|
| H. 10 16' 32" fuit $\frac{1}{2}$ | | | | Ad idem tempus Calculus | | |
| Longitudo | 9° 54' 25" $\frac{1}{2}$ | | | Mæthlinianus | Prutenicus | Alphonſinus |
| Latitudo | 1 34 15 M. | | | 10° 26' 26" | 10° 11' 26" | 8° 8' 26" |
| ex Tychnicis obſervationibus | | | | 1 56 12 | 1 58 48 | 2 59 35 |

DIE 11 JULIJ.

| | | | | | | |
|--------------------------------------|---------------------------|--|--|-------------------------|------------|-------------|
| H. 9 51½' Vesperi erat $\frac{1}{2}$ | | | | Ad idem tempus Calculus | | |
| Longitudo | 11° 19' 39" $\frac{1}{2}$ | | | Mæthlinianus | Prutenicus | Alphonſinus |
| Latitudo | 1 19 33 B. | | | 11° 6' 55" | 11° 9' 27" | 9° 27' 22" |
| ex obſervatione noſtra | | | | 1 25 44½ | 1 26 9 | 1 25 26 |

Supputatio Aſcenſionis rectæ $\frac{1}{2}$ ad diem 18 Decembris mane
pro inquisitione motus $\frac{1}{2}$ ad eundem diem².

| | | | |
|---------------------------------------|--------|------------------------------|-----------|
| H. 7½ Diſtantia $\frac{1}{2}$ a Spica | 23 55 | Aſcenſio R. Spicæ | 195 56 5 |
| Declinatio $\frac{1}{2}$ | 14 20½ | Igitur Aſc. R. $\frac{1}{2}$ | 219 44 50 |
| Declinatio Spicæ M. | 8 58 0 | Nam Ang. diff. aſcens. | 23 48 45 |

¹ Codices E, V, K hoc quoque præbent: »Ex ephemeride Mæthlini ad idem temporis momentum Long. 11° 6' 55" $\frac{1}{2}$, Lat. 1° 26' 0" B.« Sed 1 26 0 eſt latitudo ad meridiem Tubingenſem.

² E codd. V. et K.

OBSERVATIONES MARTIS.

DIE 23 JANUARIJ.

| | | |
|-----------------|----------------------------|--------|
| H. 5 M. 48 | Erat præced. hum. | |
| | Orionis orient. | 30 24½ |
| Tunc distabat ♂ | | |
| | a prima alæ Peg. | 21 1 |
| | Alt. ♂ per Quadr. min. 18½ | |
| 5 51½ | Inter ♂ & 1 alæ Peg. | 21 0½ |
| | Altitudo ♂ 18½ | |
| | Luc. pes Orionis orient. | 27 10 |
| 5 55 35 | Inter ♂ & 1 alæ Peg. | 21 0½ |
| | Altit. ♂ 17½ | |
| | Præced. hum. Orion. or. | 28 11 |
| | Erat tunc ♂ Decl. Merid. | 2 40½ |
| | altero pinnacidio 2 | 40½ |
| 6 2½ | Inter ♂ & lucid. ♀ | 38 38 |
| | Altitudo ♂ 16½ | |
| | Tunc erat præc. hum. | |
| | Orion. or. | 26 11 |
| H. 6½ | Repetebatur declin. ♂ | 2 39 |
| | alt. pin. 2 | 39½ |
| 6 6½¹ | Inter ♂ & lucid. ♀ | 38 38 |
| | Altitudo ♂ 16½ | |
| | Præced. humer. Orion. | 25 9½ |

DIE 26 JANUARIJ.

Obferuatio diametri ♂

per Aurifabrum facta 1' fere

DIE 4 MARTIJ, VESPERI.

Obferuabatur ♂ vt sequitur.

| Tempus | Diff. inter ♂ & Aldeb. | Decl. ♂ B. | Alt. ♂ | Azim. ♂ occ. |
|--------|------------------------|------------|----------------|--------------|
| 7 5½ | 40 0½ | 9 26 | 14 4½ | 86 0 |
| | | 9 26½ | Can. mai. | 4 21 |
| 7 9½ | 39 59½ | 9 26 | occ. | 5 16½ |
| | | 9 26½ | | Az. ♂ |
| 7 10½ | | | 13 30½ | 87 0 |
| 7 12½ | 40 0½ | 9 28½ | 12 56½ | 88 0 |
| | | 9 29 | Can. mai. occ. | 6 4 |

Horologium ab antecedente Meridie
vsque in Meridiem huius diei 4 Martij
mouebatur 0 M. 40" iusto celerius.

Erat apprise serenum & tranquillum.

¹ 6½ cod. V.

² Adscriptum est in codicibus V. et K: Refp. H. 6 M. 7.

DIE 6 OCTOBRIS, MANE.

| Inter ♂ & lucid. Hydræ | Alt. ♂ per Chal. | Declin. ♂ | Luc. ♀ occid. |
|------------------------|------------------|-----------|---------------|
| 34 33½ | | | 64 55 |
| 34 33½ | | | 65 13 |
| | 12 29 | 6 14 | 65 58 |
| Inter ♂ & caudam ♀ | Viceversa | | |
| 11 5½ | | | 68 38 |
| 11 5½ | | | 68 55 |
| | 14 29 | 6 13 | 69 30 |

DIE 10 OCTOBRIS.

Horol. ad oculum ♀ correctum est.

| Inter ♂ & cor ♀ | Decl. ♂ | Alt. ♂ | Can. min. occ. |
|-----------------|---------|--------|----------------|
| 5 51 | 25 43½ | 5 12 | 2 53 |
| | | 5 13 | |
| 5 54½ | 25 43½ | 5 11½ | 3 42 |
| | | 5 12 | |
| 5 58 | 25 44 | | 4 35 |

DIE 31 OCTOBRIS.

| Inter ♂ & cor ♀ | Declin. ♂ | Alt. ♂ | Cor ♀ orient. |
|--------------------|-----------|--------|---------------|
| 38 50 | 0 1 | 23 2 | 9 17² |
| 38 49½ | 0 1½ | | 7 19 |
| Inter ♂ & Arcturum | | | |
| 33 9½ | 0 1½ | | 6 7½ |
| 33 8½ | 0 2½ | | 5 14 |

DIE 25 NOUEMBRIS.

Obferuabatur ♂.

| Inter ♂ & 7 ♀ in ala postrema lucid. | Decl. ♂ | Alt. ♂ | Tempus in æquat. Cor ♀ occ. |
|--------------------------------------|---------|--|-----------------------------|
| 13 51 | 5 59½ | Altus & ab omni refractione vindicatus | 26 27 |
| 13 51½ | 6 0 | | 27 58½ |
| | 5 59 | | |

N. B. Vtcrius propter nubeculas obferuari non poterat.

DIE 18 DECEMBRIS, MANE.

| Tempus in horologio | Decl. ♂ M. | Alt. ♂ | Inter ♂ & Spicam | Spica ♀ occ. |
|---------------------|------------|--------|------------------|--------------|
| 7 20½ | 11 4½ | 22 35 | | 9 53 |
| | 11 5 | | | |

7 26 $\frac{1}{2}$ 11 5 $\frac{1}{2}$ 22 58 14 22 $\frac{3}{4}$ 11 30
 11 5 $\frac{1}{2}$
 7 31 $\frac{1}{2}$ 14 22 $\frac{1}{2}$ 12 44
 7 38 erat Alt. ♂ Merid.
 per Volub. 23 2
 per Chalyb. 23 2 $\frac{1}{2}$
 Tunc erat Spica ♀ occid. 14 21

DIE 19 DECEMBRIS, MANE.

Spica ♀ tranſibat per Meridianum
 horologio indicante Horam 7 M. 2 $\frac{3}{4}$.

| Tempus in horol. | Inter ♂ & Spicam | Declin. ♂ | Alt. ♂ | Spica occid. |
|---------------------|---------------------|---------------------|--------|-----------------|
| 7 10 $\frac{1}{2}$ | 15 0 | 11 17 | 21 25 | 1 44 |
| 7 13 35 | 15 0 $\frac{1}{2}$ | 11 17 $\frac{1}{2}$ | 22 2 | 2 23 |
| | | 11 18 $\frac{1}{2}$ | | |

7 17 14 59 $\frac{1}{2}$ 3 6

| Tempus in horol. | Inter ♂ & bor. lanc. ☾ | Declinatio | Alt. ♂ | Spica occid. |
|---------------------|---------------------------|---------------------|---------------------|-----------------|
| 7 19 25 | 13 3 $\frac{1}{2}$ | 11 18 | 11 18 $\frac{1}{2}$ | 3 43 |
| 7 22 $\frac{1}{2}$ | 13 4 $\frac{1}{2}$ | | | 4 33 |
| 7 25 $\frac{1}{2}$ | 13 4 $\frac{1}{2}$ | 11 18 $\frac{1}{2}$ | 11 18 $\frac{1}{2}$ | 5 3 |

| Tempus in horol. | Inter ♂ & mer. lanc. ☿ | Declinatio | Alt. ♂ | Spica occid. |
|---------------------|---------------------------|---------------------|---------------------|-----------------|
| 7 31 | 6 36 $\frac{1}{2}$ | | | 6 15 |
| 7 33 $\frac{1}{2}$ | 6 37 $\frac{1}{2}$ | 11 18 $\frac{1}{2}$ | 11 18 $\frac{1}{2}$ | |
| 7 36 $\frac{1}{2}$ | 6 36 $\frac{1}{2}$ | | | 7 35 |

8 8 $\frac{1}{2}$ Tranſibat ♂
 per Merid. habens Alt.
 per Volub. 22 49 $\frac{1}{2}$
 per Chalyb. 22 49 $\frac{1}{2}$
 Declinatio ♂
 11 18
 11 18 $\frac{1}{2}$

DIE 20 DECEMBRIS, MANE.

| Tempus | Inter ♂ & Spicam | Decl. ♂ | Alt. ♂ | Spica occ. |
|--------------------|---------------------|---------|--------|---------------|
| 7 32 $\frac{1}{2}$ | 15 33 | 11 30 | 21 47 | 2 42 |
| 7 35 $\frac{1}{2}$ | 15 33 | | 21 51 | 3 15 |
| 7 37 $\frac{1}{2}$ | 15 33 $\frac{1}{2}$ | | 22 0 | |

Viceverſa

| Tempus | Inter ♂ & lancem ☾ | Decl. ♂ | Alt. ♂ | Spica occ. |
|--------------------|--------------------|---------------------|--------|---------------|
| 7 40 $\frac{1}{2}$ | 5 35 $\frac{1}{2}$ | 11 39 | 22 2 | 4 34 |
| | | 11 39 $\frac{1}{2}$ | | |
| 7 42 $\frac{1}{2}$ | 5 36 | 11 39 $\frac{1}{2}$ | 22 3 | 5 10 |
| | | 11 39 $\frac{1}{2}$ | | |

8 28 $\frac{1}{2}$ Tranſibat ♂
 per Merid. habens Alt.
 per Volub. 22 36 $\frac{1}{2}$
 per Chalyb. 22 36 $\frac{1}{2}$

DIE 28 DECEMBRIS, MANE.

| Horologio indicante | Inter ♂ & Spicam | Decl. ♂ | Alt. ♂ | Spica occ. |
|------------------------|---------------------|--------------------|--------|---------------------|
| 6 59 $\frac{1}{2}$ | 20 16 | 13 6 | 20 42 | 12 33 $\frac{1}{2}$ |
| | | 13 5 $\frac{1}{2}$ | | |

| Tempus | Alt. ♂ | Spica occ. |
|--------|---------------------|---------------|
| 7 2 25 | 20 15 $\frac{1}{2}$ | 13 6 |
| 7 5 | 20 15 | 13 46 |

| Tempus | Inter ♂ & dext. genu Ophiuchi | Alt. ♂ | Spica occ. |
|--------------------|----------------------------------|--------------------|---------------|
| 7 10 $\frac{1}{2}$ | 34 35 | 13 5 $\frac{1}{2}$ | 15 12 |
| | | 13 5 $\frac{1}{2}$ | |

| Tempus | Alt. ♂ | Spica occ. |
|--------------------|--|------------------------------------|
| 7 12 $\frac{1}{2}$ | 34 33 | 15 42 |
| 7 15 $\frac{1}{2}$ | 34 34 | 16 24 |
| 7 29 $\frac{1}{2}$ | Tranſibat ♂ per Merid. habens Alt. per Chalyb. per Volub. | 20 6 21 1 21 0 $\frac{1}{2}$ |

Calculus² pro loco ♂ ad diem 4 MARTIJ pro minima latitudine.

Ex diftantia ab Aldebora 40° 0' et declinatione viſa 9° 26'

(Supp. Af. R. Aldeb. 63° 8' 10")

prouenit Aſcenſio recta ♂ 22° 35' 10".

Longitudo viſa 24 22 $\frac{1}{2}$ V

Latitudo 0 3 $\frac{1}{2}$ M.

Differentia Refractionis & Parallaxis ſubtrahenda Long. 1' 20", add. Lat. 1' 4".

Ergo H. 7 M. 6 vera Long. 24° 21 $\frac{1}{2}$ ' V, Latit. 0° 4 $\frac{1}{2}$ M.

DIE 6 OCTOBRIS

pro cognoscenda latitudine ♂ in Apogæo Eccentri exiſtentis vno ſigno a ☉.

Mane hora 4 M. 50 Diſt. ♂ a corde Hydræ 34 33 $\frac{1}{2}$ N.B. Confer cum
 cauda ♄ 11 5 $\frac{1}{2}$ obſer. anni

Decl. ♂ B. 6 14 88 $\frac{1}{2}$ d. 23 VII $\frac{1}{2}$

¹ In cod. V. hæc addidit Kepler: »Videtur augenda 2 vel 3 ſcrupulis, vt proportio motus diurni reſpondeat».

² E. codd. V. et K.

³ Debet eſſe anni 86.

Cordis Hydræ Asc. R. 136 53 30, Decl. 6 54½ M., Ang. diff. asc. 32 1 55
 Caudæ ☿ 172 1 10 16 52½ B. 3 11 22
 Vnde Asc. R. ♂ limit. 168 52 37 Resp. Long. 17°20'9", Lat. 1°19' 6" B,
 pone veram 1°18' 0". Posita distantia ♂ quæ antea fuit a cauda ☿ 11 5½ cum stellæ
 latitudine atque longitudinis vtriusque differentia prouenit ♂ Lat. 1°17' 50".
 Refractio ♂ in circulo altit. 13½ 3 45
 Dist. ♂ a terra in femid. 2756, resp. Parallaxis 1 13
 Differentia 2 32
 Resp. Refr. lat. 1 26

Pro latitudine caudæ ☿ præcise cognoscenda anno 1584 compl. decl. 16 54 0.
 Ergo ad initium 1590 Declin. 16 52½. Resp. exquifite latitudo caudæ ☿ 12 18 11.
 Ergo obseruata latitudo ♂ 1°18' B., vera latitudo 1°16½' B. subducta tum paral-
 laxi tum refractione. Pone latitudinem ♂ 1°16' exacte.

OBSERUATIONES VENERIS.

DIE 19 JANUARIJ.

Vesperī obseruabantur diametri stel-
 larum per Aurifabrum.

Obseruatio diametri ♀

| | | | |
|-----|----------|-------------------|------------|
| I | 3½ | vno pin., 3½ alt. | } Non bene |
| II | 3½ | 3½ | |
| III | 3½ | 3½ | } ferenum |
| IV | 3½ | 3½ | |
| V | Repetita | 4 vtroque pin. | } Bene |
| VI | | 4½ vno pin. | |
| VII | | 3½ vno pin. | |

DIE 23 JANUARIJ.

| | Inter ♀ & lucid. γ | Alt. ♀ per Q. min. | Decl. ♀ M. | Humer. Orion. or. |
|---------|-----------------------|-----------------------|---------------|----------------------|
| 6 10 55 | 35 28½ | 18½ | | |
| 6 13 35 | 35 29 | 18 | | 23 0 |
| 6 16 | 35 28½ | 17½ | | 22 25 |

Viceversa

| | Inter ♀ & l alae Peg. | | |
|-------------------------------|-----------------------|------|-----------|
| 6 19½ | 21 52½ | 17 | 21 32 |
| 6 21½ | 21 52½ | 17 | 1 1 20 31 |
| | | 1 0½ | |
| 6 24 | 21 52½ | 16½ | 19 43½ |
| Diameter ♀ per Alhidada 930 1 | | | |
| Repetita per Armill. 4 | | | |
| 3½ | | | |
| 4 | | | |

N.B. Ex obseruatione per Alhidada
 prouenit diameter ♀ ex prima obser-
 uatione hoc vespere facta 3' 42".

DIE 26 JANUARIJ.

Obseruatio diametri ♀ per Aurifa-
 brum facta 3½' per Armillas.
 4 0"

DIE 28 JANUARIJ

Per Aurifabrum.

| | |
|------------|-------|
| Diameter ♀ | I 3½ |
| | II 4½ |
| | III 4 |
| | IV 4 |
| | V 3½ |

DIE 4 FEBRUARIJ, VESPERI.

| | | |
|-------|-----------------------------|-------|
| 7 19½ | Inter ♀ & | 53 5½ |
| 7 26½ | Aldeboram | 53 5½ |
| 7 32½ | | 53 5½ |
| 7 37½ | | 53 5½ |
| 7 41½ | | 53 5 |
| 7 51½ | Declinatio ♀ 5 26½, Alt. 11 | 55 |

DIE 7 FEBRUARIJ, VESPERI.

Tempora sunt correcta.

| | | |
|----------|---------------------------|--------|
| H. 6 34½ | Altit. ♀ per min. Q. | 23 20 |
| | Inter ♀ & caput Androm. | 25 15½ |
| 6 35½ | Inter ♀ & | 25 16 |
| 6 37½ | caput Andromedæ | 25 16½ |
| 6 39 55 | Altitudo ♀ | 23 0 |
| | Distabat tunc ♀ ab Aldeb. | 49 56½ |
| 6 41½ | Dist. ♀ ab Aldeb. | 49 56½ |
| 6 42½ | | 49 56 |

Erat tunc Declinatio ♀ B.

vtroque pinnacidio 6 42½

DIE 8 FEBRUARIJ, VESPERI.

Tempora sunt hic correcta.

| | | |
|----------|------------------------|--------|
| H. 7 13½ | Inter ♀ & | 25 26 |
| 7 16 25 | caput Andromedæ | 25 25½ |
| 7 18½ | Eadem dist. repet. | 25 26 |
| 7 21½ | Declin. ♀ B. vno pinn. | 7 14½ |

Viceversa

| | | |
|---------|-------------------|--------|
| 7 23 25 | Inter ♀ & Aldeb. | 48 51 |
| | Erat tunc. Alt. ♀ | |
| | per Chalyb. | 17 48 |
| 7 26½ | Inter ♀ & Aldeb. | 48 51½ |
| 7 28½ | | 48 51 |

Erat tunc Altit. ♀

per Chalyb. 17 9

Declinatio ♀ ad idem tempus 7 14½

DIE 12 FEBRUARIJ, VESPERI.

Tempora sunt correcta.

| | | |
|---------|------------------------|--------|
| H. 6 6½ | Inter ♀ & | 26 29½ |
| 6 9½ | caput Andromedæ | 26 30 |
| | Tunc erat Declin. ♀ B. | 9 10½ |
| | | 9 10½ |
| 6 14½ | Eadem dist. repetita | 26 29½ |
| 6 17½ | | 26 29½ |
| 6 23½ | Inter ♀ & oculum ☾ | 44 44 |

Tunc erat ♀ Altit.

per Chalyb. 27 38½

Declin. ♀ tunc erat 9 10½ vtroq. pin.

6 26½ Inter ♀ & oculum ☾ 44 44½

Altit. ♀ ad idem tempus 27 16½

6 28 35 Inter ♀ & Aldeb. 44 45

6 30 55 Eadem dist. repet. 44 45

6 33 55 44 44

Altit. ♀ ad idem tempus 26 47

6 34 55 Inter ♀ & Aldeb. 44 44

Declin. ♀ ad idem tempus 9 11

vtroque pinnacidio.

Vtere hic distantia inter ♀ &

Aldeboram 44 44½

Diameter ♀ per Armillas

3½

4 bis

4½

DIE 18 FEBRUARIJ, VESPERI.

Tempora sunt correcta.

H. 6 43½ Inter ♀ & 29 0

6 45½ caput Andromedæ 29 0½

6 47½ 29 0½

6 50½ Declinatio ♀ 12 3

12 3½

6 57 Inter ♀ & 38 39½

7 1½ Aldeboram 38 40

7 3½ 38 39½

7 10½ 38 39½

Tunc erat Altit. ♀

per Chalyb. 23 30½

7 30½ Declinatio ♀ 12 4½

7 33 15 Declinatio ♀ 12 4

♀ Diameter 4½².

DIE 23 FEBRUARIJ.

Tempora sunt correcta ad Aldeboram.

H. 7 24½ Inter Aldeboram 33 50½

7 27½ & ♀ 33 50½

7 29½ Inter eandem & ♀ 33 50½

7 34½ Declinatio ♀ B. 14 19½

14 19

N. B. ♀ hic circa maximam remotionem a ☉.

Diameter ♀. *Christiernus obseruauit*².

I 5½

II 5

III 5½

DIE 24 FEBRUARIJ.

N. B. ♀ erat hic circa maximam remotionem a ☉.

Horologium corrigebatur.

H. 6 32½ Inter ♀ & Aldeboram 32 56½

Altitudo ♀ 30 56

6 33½ Declinatio ♀ 14 42½

alt. pin. 14 42

6 36 Distantia repetita 32 55½

Altitudo ♀

tunc erat 30 20

6 37 15 Inter ♀ & Aldebor. 32 55½

Altit. ♀ tunc erat 30 8

6 38½ Declin. ♀ vtroq. pin. 14 42½

6 41½ Inter ♀ & Aldeb. 32 55½

Altit. ♀ tunc erat 29 31½

¹ In margine adscriptum.

² In codice V.: »Obſervabat Chriſtiernus Ripenſis«.

| | | |
|-------|-----------------------|--------|
| 6 45 | Inter ♀ & luc. ✓ | 7 18½ |
| | Alt. ♀ tunc erat 29 0 | |
| 6 46½ | Inter ♀ & lucid. ✓ | 7 18½ |
| | Declin. ♀ vno pin. | 14 42½ |

DIE 25 FEBRUARIJ, VESPERI.

H. 6½ Horologium corrigebatur.

| | | |
|--------------|-----------------------|-------|
| Tempus | | |
| H. 6 35' 40" | Inter ♀ & Aldeb. 32 0 | |
| | Declin. ♀ | 15 9 |
| | alt. pin. 15 9½ | |
| | Alt. ♀ | 30 45 |

DIE 28 FEBRUARIJ P. M.

Horologium in Meridie corrigebatur.
Apprime serenum & tranquillum.

| Tempus | Inter ♀ & ☉ | Declin. ♀ B. | Alt. ♀ per Volub. | Alt. ☉ per Chal. |
|--------|----------------|-----------------|----------------------|---------------------|
| 1 0½ | | 16 18½ | | |
| 1 23½ | 46 8 | | | |
| 1 32½ | 46 9 | | 48 8 | |

Hic mouebatur horologium vno
 minuto celerius, quod subtrahendum
 venit.

| | | | | |
|---------|--------------------------------------|------------------|---------------|--|
| 1 46 45 | 46 10½ | | 26 8½ | |
| 1 48½ | | 16 20½ non valet | | |
| 1 50 35 | | 16 18½ | | |
| 1 52 35 | 46 10½ | | 25 49½ | |
| 1 55½ | 46 10½ | | 49 15 25 32½ | |
| 1 58½ | 46 10½ | | 49 17½ 25 20 | |
| 2 0 40 | | 16 19½ | | |
| 2 4 0 | 46 10½ | | 49 32½ 24 54½ | |
| 2 6 45 | 46 10½ | | 49 38½ 24 41½ | |
| 2 9 0 | | 16 20½ | | |
| 2 11 40 | 46 9½ | | 49 49 24 17 | |
| 2 17 55 | 46 10 | | 49 57½ 23 46½ | |
| 2 48 0 | <i>Fuit ♀ in Meridie habens Alt.</i> | | | |
| | <i>per Volub. 50 23½</i> | | | |
| | <i>Fuit tunc ☉</i> | | | |
| | <i>a Meridie occ. 41 50</i> | | | |
| 2 48 35 | <i>per Chalybeum 50 24</i> | | | |
| | <i>Erat tunc ☉ occ. 41 52</i> | | | |
| | <i>Declin. ♀ 16 20 vno</i> | | | |
| | <i>16 20½ alt.</i> | | | |

N. B. ♀ iuxta Meridianum.

2 55 40 Decl. ♀ 16 20½ vtroque.

Circa hoc tempus corrigebatur
 horologium vno minuto plus citius
 monstrans.

Postea obseruabatur ♀ post meridi-
 em vergens ad occasum vt sequitur.

| | ♀ a ☉ | Decl. ♀ | Alt. ♀ per Volub. | Alt. ☉ per Chal. |
|---------|-------|------------|----------------------|---------------------|
| 3 2 45 | 46 9½ | | | 19 31 |
| 3 6 10 | 46 9½ | | | 19 13½ |
| 3 7 0 | | 16 20½ | | |
| | | 16 20½ | | |
| 3 11 0 | 46 9 | | 50 10½ | 18 38½ |
| 3 28½ | 46 8½ | | 49 45½ | 16 54½ |
| 3 30½ | | 16 20½ | | |
| | | 16 21 | | |
| 3 34 50 | 46 8 | | 49 31½ | 16 11½ |
| 3 40½ | 46 8½ | | 49 18 | 15 30 |
| 3 41½ | | 16 20½ | | |
| 3 42 45 | | ☉ 4 6 M. | | |
| 3 47½ | 46 8½ | | | 14 45½ |
| 3 52½ | 46 9½ | | 48 41½ | 14 8½ |

Pro horologio corrigendo.

3 54 Tunc erat ☉ occ. 57 30

3 55 35 Erat ☉ occid. 58 0

4 0 5 59 0

*Horologium hic 4 minutis iusto ci-
 tius ibat, sed non emendabatur, sub-
 latis faltem duobus globulis.*

| | ♀ a ☉ | Declin. | Alt. ♀ per Vol. | Alt. ☉ per Q. min. azim. |
|--------|-------|---------|--------------------|-----------------------------------|
| 4 3 0 | 46 8 | | | 12 40 |
| 4 5 25 | | ☉ 4 0½ | 47 57 | |
| | | 4 0 | | |
| 4 11½ | 46 7 | | 47 30 | 11 50 |
| 4 15½ | 46 7½ | | 47 16 | 11 20 |
| 4 17 0 | | ♀ 16 21 | | |
| 4 18½ | | ☉ 4 0 | | |
| 4 30 0 | 46 7½ | | 46 11 | 9 30 |
| 4 34½ | 46 7½ | | 45 49 | 8 56 |
| 4 36½ | | ♀ 16 21 | | |
| | | 16 21½ | | |
| 4 38½ | | ☉ 3 58½ | | |
| | | 3 58½ | | |
| 4 43 0 | 46 7½ | | 45 4½ | 7 46 |
| 4 45½ | 46 6½ | | | 7 27 |
| 4 46½ | | 16 21½ | | |
| | | 16 21½ | | |

4 47½ Sol occid. 70 49½ pro horologio
 emendando. Ergo 4 minutis iusto ce-
 lerius mouebatur, qui tunc tempo-
 ris emendabatur, venitque ab hora
 tertia error.

| | | | | | | | | | | |
|---|------------------|----|-----------------------------|------------------|----|------------------|------------------|------------------|----|------------------|
| 4 | 52 $\frac{1}{2}$ | | | ⊙ | 3 | 57 | 44 | 30 | 7 | 0 |
| 5 | 2 | 0 | 46 | 5 | | | 43 | 34 $\frac{1}{2}$ | 5 | 44 |
| 5 | 6 | 0 | 46 | 3 | | | 43 | 12 | 5 | 15 |
| 5 | 7 | 25 | | | | 16 | 21 $\frac{3}{4}$ | | | |
| | | | | | | 16 | 21 $\frac{1}{2}$ | | | |
| 5 | 9 | 5 | Decl. | ⊙ | 3 | 54 $\frac{1}{2}$ | | | | |
| | | | | | 3 | 55 | alt. | pin. | | |
| 6 | 10 | 53 | Can. maior orient. | | 15 | 11 | | | | |
| 6 | 11 | 57 | | | 14 | 54 | | | | |
| 6 | 13 | 20 | | | 14 | 32 | | | | |
| 6 | 22 | | Oculus ♀ occid. | | 20 | 51 $\frac{1}{2}$ | | | | |
| | | | Inter ♀ & Aldeb. | Decl. | ♀ | Alt. ♀ | Azim. | | | |
| | | | | | | per Chal. | | | | |
| 6 | 22 | | 29 | 18 $\frac{1}{2}$ | 16 | 23 $\frac{1}{2}$ | 34 | 29 $\frac{1}{2}$ | | |
| | | | | | 16 | 23 $\frac{3}{4}$ | | | | |
| 6 | 24 $\frac{5}{8}$ | | 29 | 19 | | | 34 | 5 | | |
| 6 | 31 | | 29 | 18 $\frac{1}{2}$ | 16 | 20 $\frac{1}{2}$ | 33 | 20 | 71 | 2 |
| | | | | | 16 | 20 $\frac{3}{4}$ | | | | |
| 6 | 34 $\frac{1}{2}$ | | 29 | 18 $\frac{1}{2}$ | 16 | 20 | 32 | 49 | | |
| 6 | 40 $\frac{1}{2}$ | | 29 | 19 | 16 | 20 $\frac{1}{2}$ | 32 | 2 | | |
| 6 | 42 $\frac{1}{2}$ | | | | 16 | 20 $\frac{3}{4}$ | 31 | 48 | 71 | 12 $\frac{1}{2}$ |
| | | | | | | Per ♀ min. | | | | |
| 8 | 7 | | 29 | 16 $\frac{1}{2}$ | | 20 | 21 $\frac{1}{2}$ | 89 | 31 | |
| 8 | 9 $\frac{1}{2}$ | | Canis minor a meridiano pro | | | | | | | |
| | | | horol., occ. | 1 | 35 | | | | | |
| 8 | 11 $\frac{1}{2}$ | | | | 2 | 7 | | | | |
| 8 | 16 | | | | 3 | 5 | | | | |
| 8 | 11 $\frac{1}{2}$ | | 29 | 16 | 16 | 26 $\frac{1}{2}$ | 19 | 41 | 90 | 31 |
| 8 | 16 | | 29 | 15 $\frac{1}{2}$ | 16 | 26 $\frac{1}{2}$ | 19 | 4 $\frac{1}{2}$ | 91 | 22 |
| | | | | | 16 | 26 $\frac{3}{4}$ | | | | |

DIE 1 MARTIJ, P. MERID.

H. 1 29⁴ Declin. ♀ 16 44
 1 40¹ 16 43¹
 1 40 corrigebatur horologium exacte
 ad Solem.
 2 45¹ ☉ occid. 41 47. Tranſiit ♀ per
 meridianum habens altit.
 per Chalybeum 50 49
 per Volubilem 50 49¹
 Tunc erat Decl. ♀ vno 16 45
 alt. 16 44¹

| | Inter ♀ & ☉ | Declin. ♀ | Alt. ♀ per Volub. | Alt. ☉ per Chal. |
|----------------------|----------------|--------------------|----------------------|---------------------|
| 2 53 0 | 46 8 | | 50 48 | |
| 2 56 ¹ 46 | 7 | 16 44 ¹ | 50 45 ¹ | |

H. 3 mouebatur horol. 2 Minutis tar-
 dius, ergo addebantur ponderi
 duo globuli¹.

| | | | | | | | | |
|---------------------|-------|-------------------|---------|---------|-----|-----------|-----|-------------------|
| 3 | 2½ | 46 | 6½ | | 50 | 39½ | 19 | 32 |
| 3 | 5½ | 46 | 7½ | | 50 | 38 | 19 | 10 |
| 3 | 9½ | 46 | 6½ | 16 | 44½ | 50 | 32 | 18 44½ |
| 3 | 21 25 | 46 | 6½ | | 50 | 13½ | 17 | 28 |
| 3 | 25½ | 46 | 7 | 16 | 44½ | 50 | 6½ | 17 1 |
| | | | | 16 | 45 | | | |
| 3 | 30½ | | | Decl. ☉ | 3 | 38½ | 49 | 51½ |
| | | | | 3 | 38 | | | Per Q. min. azim. |
| 4 | 1½ | 46 | 6 | | | 48 | 15½ | 12 30 |
| 4 | 5½ | 46 | 5½ | | | | | 12 1 |
| 4 | 7½ | 46 | 5½ | 3 | 37 | 47 | 44½ | 11 43½ |
| | | | | 3 | 36½ | | | |
| | | | | Decl. ☉ | 16 | 45½ | | |
| | | | | 16 | 46 | | | |
| 4 | 30½ | 46 | 5½ | | | 45 50½ | | 8 43½ |
| | | | | | | incerta) | | |
| 4 | 37½ | 46 | 4½ | | | 45 16½ | | 7 53 |
| 4 | 42½ | 46 | 3½ | 16 | 47½ | 44 | 49½ | 7 10 |
| | | | | 16 | 47½ | | | |
| 4 | 45½ | | | Decl. ☉ | 3 | 34 | | |
| | | | | 3 | 34½ | | | |
| 4 | 55½ | 46 | 2 | | | 43 | 32½ | 5 30 |
| | | | | | | | | Per Radium |
| 4 | 58½ | 46 | 1 | | | 43 | 11½ | 4 45 |
| 5 | 1 | 46 | 0 | Decl. ☉ | 16 | 47 | 42 | 57½ |
| 5 | 2½ | | | 16 | 46 | 46 | | |
| | | | | 16 | 46½ | | | |
| 5 | 8½ | 45 | 58 | | | 42 | 9 | 3 42 |
| 5 | 12½ | 45 | 56½ | | | 41 | 42½ | 3 7 |
| 5 | 13½ | | | 16 | 47½ | | | |
| | | | | 16 | 48 | | | |
| 5 | 15½ | | | | | | | 2 38 |
| 5 | 17½ | 45 | 55 | | | 41 | 7½ | 2 26 |
| 5 | 21½ | 45 | 51 | | | 40 | 30½ | 1 58 |
| 5 | 22½ | | | 16 | 47½ | | | 1 42 |
| | | | | 16 | 48 | | | |
| | | | | Decl. ☉ | 3 | 22 | | |
| 5 | 24 | | | | | 40 | 2 | 1 14 |
| 5 | 27 | | | | | | | |
| Post occasum Solis. | | | | | | | | |
| | | Inter ☉ & Aldebe. | Decl. ☉ | | | Alt. ☉ | | Azim. ☉ occ. |
| 6 | 15½ | 28 | 24½ | 16 | 47½ | | | 68 9½ |
| | | | | 16 | 48 | | | |
| 6 | 17½ | 28 | 25 | 16 | 47 | 33 | 45½ | |
| | | | | 16 | 47½ | | | |
| 6 | 19 | 28 | 25 | 16 | 47½ | 33 | 28½ | |
| | | | | 16 | 48 | | | |

¹ In margine adscriptum

Fuit clarus humerus Orionis or. 4 $\frac{1}{2}$ gr.

6 21 $\frac{1}{2}$ 28 25 $\frac{1}{2}$ 16 48 $\frac{1}{2}$ 33 12 69 58
7 49 $\frac{1}{2}$ 28 23 $\frac{1}{2}$ 16 50 20 56 $\frac{1}{2}$ 89 23

Cor \odot or. 35 $\frac{1}{2}$ 16 50 $\frac{1}{2}$

7 52 $\frac{1}{2}$ 28 22 $\frac{1}{2}$ 16 50 20 30 90 0

Cor \odot or. 34 56 16 50 $\frac{1}{2}$ bona

7 57 $\frac{1}{2}$ 28 23 16 50 $\frac{1}{2}$ 19 46 $\frac{1}{2}$ 91 3

Cor \odot or. 33 41 16 50 $\frac{1}{2}$

8 1 $\frac{1}{2}$ 28 22 $\frac{1}{2}$ 16 50 $\frac{1}{2}$ 19 12 $\frac{1}{2}$ 91 52

Cor \odot or. 32 40 vtroq.

N. B. Ego tempora ex corde \odot obseruauit.

10 1 $\frac{1}{2}$ 17 3 6 0

17 3 $\frac{1}{2}$ bona

10 5 $\frac{1}{2}$ 28 12 $\frac{1}{2}$ 17 3 $\frac{1}{2}$ Luc. \checkmark

17 3 $\frac{1}{2}$ Decl. 21 44
nam habet
eandem cum
 \odot altitud.

10 12 $\frac{1}{2}$ 28 9 17 3 $\frac{1}{2}$ 3 45

10 18 $\frac{1}{2}$ 28 6 $\frac{1}{2}$ 17 3 $\frac{1}{2}$ 1 12 $\frac{1}{2}$ 120 3

bona

Venus in 90 gradu habebat declina-

tionem per Armillas 16 50

subterraneas 16 50 $\frac{1}{2}$

Declinatio \odot ex Altitud. & Azimutho
per operationem inuenta 16 $^{\circ}$ 51' 33".

DIE 2 MARTIJ.

*Die sequente p. M. obseruabatur \odot
denuo in declinatione, cum eßet pau-
lo vltra Meridiem.*

| Tempus | Declinatio \odot B. vno alt. | Altitud. \odot | Azim. \odot |
|--------|-----------------------------------|--------------------|---------------|
| 3 4 | 17 8 $\frac{1}{2}$ | 17 8 $\frac{1}{2}$ | |
| 3 33 | 17 9 | 17 10 | |

Abfuit \odot versus occasum quasi 15 gr.

3 38 $\frac{1}{2}$ 50 0 19 30

3 41 $\frac{1}{2}$ 49 51 $\frac{1}{2}$ 20 30

3 44 $\frac{1}{2}$ 17 9 17 9 $\frac{1}{2}$ 49 42 21 30

Postea obseruabatur \odot iterum vesperi eodem 2 Martij.

| Tempus | Diff. inter \odot & Ald. | Declinatio \odot | Altitud. \odot | Azim. \odot | Can. mai. or. |
|--------------------|----------------------------|---------------------|---------------------|---------------------|--------------------|
| 6 24 $\frac{1}{2}$ | 27 32 $\frac{1}{2}$ | 17 11 $\frac{1}{2}$ | 17 12 | | 8 5 |
| 6 28 | 27 32 $\frac{1}{2}$ | | | 33 28 $\frac{1}{2}$ | 7 25 |
| 6 31 $\frac{1}{2}$ | 27 34 | 17 13 | 17 12 $\frac{1}{2}$ | | 6 28 |
| 6 32 | | | | 32 53 $\frac{1}{2}$ | 6 12 $\frac{1}{2}$ |
| 7 53 $\frac{1}{2}$ | 27 29 $\frac{1}{2}$ | | | 21 49 | 89 0 |
| 7 58 55 | | 17 15 $\frac{1}{2}$ | 17 16 | 21 0 $\frac{1}{2}$ | 90 0 |
| 8 3 $\frac{1}{2}$ | 27 29 $\frac{1}{2}$ | 17 16 $\frac{1}{2}$ | 17 17 | 20 22 $\frac{1}{2}$ | 91 0 |
| 8 8 $\frac{1}{2}$ | 27 29 | 17 17 | 17 17 $\frac{1}{2}$ | 19 41 | 92 0 |

Can. mai. occid.

3 52 $\frac{1}{2}$ \odot occ. 58 8

3 55 pro Ho- 58 44

3 56 rologio 59 0

4 0 60 0

*Ergo horologium recte se habet
a Meridie.*

48 33 $\frac{1}{2}$ 28 30

48 22 29 30

48 10 30 30

47 56 31 30

47 30 33 30

Diff. \odot Decl. \odot Altitud. \odot

4 21 20 & \odot 17 10

17 9 $\frac{1}{2}$

4 28 46 1 $\frac{1}{2}$ 17 10 $\frac{1}{2}$ 46 45 9 47

17 10 $\frac{1}{2}$

4 33 $\frac{1}{2}$ 46 1 46 21 $\frac{1}{2}$ 9 18

4 36 $\frac{1}{2}$ 46 1 17 10 $\frac{1}{2}$ 46 5 8 52

17 11

4 42 $\frac{1}{2}$ 46 0 $\frac{1}{2}$ 45 31 $\frac{1}{2}$ 8 1

4 47 $\frac{1}{2}$ 46 0 17 11 $\frac{1}{2}$ 45 5 7 26

17 11 $\frac{1}{2}$

4 53 $\frac{1}{2}$ 45 58 $\frac{1}{2}$ 44 32 6 39

4 55 $\frac{1}{2}$ 45 58 $\frac{1}{2}$ 17 11 $\frac{1}{2}$ 44 18 $\frac{1}{2}$

17 11 $\frac{1}{2}$

4 58 $\frac{1}{2}$ Tunc erat declin. \odot 3 8 $\frac{1}{2}$ vtr. pin

5 2 45 58 $\frac{1}{2}$ 43 40 5 32

5 6 45 58 17 11 $\frac{1}{2}$ 43 14 $\frac{1}{2}$ 4 59

vtroque

5 8 $\frac{1}{2}$ Tunc erat declin. \odot 3 6 $\frac{1}{2}$

3 6

5 12 $\frac{1}{2}$ 45 55 $\frac{1}{2}$ 42 35 4 10

5 16 45 55 $\frac{1}{2}$ 17 12 42 10 $\frac{1}{2}$ 3 34

17 11 $\frac{1}{2}$

5 19 $\frac{1}{2}$ Declin. \odot 3 3

5 22 $\frac{1}{2}$ 45 54 41 27 2 46

5 25 $\frac{1}{2}$ 45 52 $\frac{1}{2}$ 17 11 $\frac{1}{2}$ 41 5 $\frac{1}{2}$ 2 24

17 12

5 30 $\frac{1}{2}$ 45 47 $\frac{1}{2}$ 40 35 $\frac{1}{2}$ 1 48

Tunc erat Azim. \odot 55 13 occ.

Horologium in Meridie sequente 8 Minutis iusto tardius.

N.B. Ex his obseruationibus ♀ circa Meridianum habitis & in 90 gradu perdeclinationis & altitudinis variationem, adhibito motu diurno, potes de Parallaxi eius ratiocinari præter ea, quæ fixarum loca probant.

Venus in 90 gradu. Declinatio eius per Armillas 17 15½

Declinatio ex Altit. & Azimutho 17 16½

Die sequente qui erat 3 MARTIJ

♀ tranſibat Meridianum H. 2 47, quando ☉ fuit occ. 41 40½. ♀ Altitudo merid.

per Volub. 51 35½

per Chalyb. 51 35½

Pone hic altitudinem meridianam, bon. 51 35½

H. 2 53½ Declin. ♀ 17 31½, 17 32

2 55½ 17 31½, 17 32

N.B. Non est tamen fidendum declinationi per Armillas prope Meridianum ſumptæ, eo quod Sol pinnacidium inferius illuſtraret nimium, ſed potius altitudini ex meridianæ eleuatione deſumptæ.

Eodem die 3 Martij poſt meridiem.

| | Inter ♀ & ☉ | Declinatio ♀ | Alt. ♀ | ☉ occ. | |
|---------|-------------|------------------|--------|-----------------------------|-------------------|
| 3 15½ | 46 0 | | 51 25 | 48 50 | |
| 3 18½ | 45 59½ | | 51 9 | | |
| 3 20½ | 46 0 | | 51 6 | 50 10 | |
| 3 24 35 | 45 59½ | | 50 56½ | 51 3 bona | |
| 3 26½ | | 17 32 | 17 32½ | | |
| 3 36 25 | | | | 54 0 non erat fatiſ ferenum | |
| 3 40½ | | | | 55 0 | |
| 3 45½ | 46 0 | | 50 4 | | |
| 3 48½ | 45 59½ | | 49 56½ | 57 5 | |
| 3 50 25 | | 17 33 | | | |
| 3 55½ | 45 58½ | | 49 30 | | Alt. ☉ Decl. ☉ |
| 4 0½ | 45 59½ | | 49 6½ | | per Q. min. azim. |
| 4 5½ | 45 58½ | | 48 50½ | 13 16 | |
| 4 7½ | | 17 34 | | 61 51 | |
| 4 9½ | | | | | 2 48 vtr. pin. |
| 4 11½ | 45 57½ | | 48 25½ | 62 48½ | 12 30 |
| 4 15½ | 45 57½ | | 48 8½ | 63 56 | 11 53 |
| 4 17 35 | | 17 34½ | 17 34½ | | |
| 4 19 | | | | | 2 48½ vtr. pin. |
| 4 26 45 | 45 57½ | | 47 12½ | 66 39 | 10 27 |
| 4 29½ | 45 57 | | 47 2½ | | 10 6 |
| 4 30½ | | 17 34 | 17 33½ | | 2 45 |
| | | | | | 2 45½ |
| 4 37½ | 45 57½ | Azim. ♀ | 46 17 | 69 25 | 8 53 |
| 4 40½ | 45 57 | 41 0 | 46 5 | 70 7½ | 8 30 |
| 4 42 25 | | 17 34½ vtr. pin. | | | |
| 4 43½ | | 42 0 | 45 43½ | | |
| 4 47½ | 45 56½ | 43 0 | 45 22½ | 71 47 | 7 37 |
| 4 50½ | | 44 0 | 45 6½ | | |
| 4 50 55 | 45 55½ | | | | 7 10 |

| | | | | | | |
|--------------------|---------------------|---------------------|-------|---------------------|-------|--------------------|
| 4 53 $\frac{1}{2}$ | | 17 34 | | | | 2 44 $\frac{1}{2}$ |
| | | 17 34 $\frac{1}{2}$ | | | | 2 45 |
| 4 58 | 45 55 | | 46 0 | 44 18 $\frac{1}{2}$ | | 6 14 $\frac{1}{2}$ |
| 5 1 | 45 54 | | 47 0 | 44 2 $\frac{1}{2}$ | | 5 48 |
| 5 2 35 | | 17 34 $\frac{1}{2}$ | | | 75 40 | |
| | | 17 35 $\frac{1}{2}$ | | | | |
| 5 5 | | | | | | 2 42 $\frac{1}{2}$ |
| | | | | | | 2 42 $\frac{3}{4}$ |
| 5 7 $\frac{1}{2}$ | | | 49 0 | 43 20 $\frac{1}{2}$ | | |
| 5 8 $\frac{3}{4}$ | 45 43 $\frac{1}{2}$ | | | | | 4 35 |
| 5 10 $\frac{1}{2}$ | | | 50 0 | 43 1 $\frac{1}{2}$ | | |
| 5 10 $\frac{3}{4}$ | | | | | 77 38 | |
| 5 13 $\frac{3}{4}$ | 45 51 | | | | | 4 3 |
| 5 15 $\frac{1}{2}$ | | | 51 30 | 42 30 | | |
| 5 16 $\frac{1}{2}$ | | 17 35 | | | | |
| | | 17 35 $\frac{1}{2}$ | | | | |
| 5 17 $\frac{1}{2}$ | | | | | | 2 41 $\frac{1}{2}$ |
| 5 24 | | | 54 0 | 41 31 $\frac{1}{2}$ | | |

Eodem 3 Martij, Vesper.

| | Diff. ♀ ab Aldeb. | Declinatio ♀ | Alt. ♀ | Can. mai. or. | |
|--------------------|---------------------|---------------------|---------------------|---------------------|--------------------|
| 6 31 $\frac{2}{3}$ | 26 44 | | | | |
| 6 32 15 | | 17 35 | 17 35 $\frac{1}{2}$ | 32 51 $\frac{1}{2}$ | |
| 6 34 $\frac{1}{2}$ | 26 44 | 17 36 | 17 36 | | |
| 6 37 | 26 42 | 17 36 $\frac{1}{2}$ | | | 3 50 |
| 6 38 $\frac{1}{2}$ | 26 42 $\frac{1}{2}$ | 17 36 | | | |
| | | | Alt. ♀ | Azim. ♀ | Can. min. occ. |
| 7 51 $\frac{2}{3}$ | | | 22 5 | 89 0 | 2 15 $\frac{1}{2}$ |
| 7 56 $\frac{2}{3}$ | | | 21 27 $\frac{1}{2}$ | 90 0 | 3 25 |
| 8 1 $\frac{1}{2}$ | | | 20 46 | 91 0 | 4 40 |

*N.B. ♀ circa
90 gradum.*

N.B. Ego contuli transitum ♀ per meridianum vna cum declinatione eius tunc cum declinatione iuxta 90 gradum, quando eleuabatur quasi partibus 20, & vtrobique inueni ♀ declinationem correspondere mutationi eius ab vno meridie in alterum, ita vt Parallaxis sit prorsus insensibilis, cum tamen iuxta Ptolemaicam Hypothesin debeat esse Minutorum quasi 4 latis perceptibilis. Sed potes hæc postea diligentius examinare.

DIE 4 MARTIJ.

N.B. Horologium in Meridie diej 4. Martij 0' 40'' iusto celerius mouebatur, idque a Meridie proxime antecedenti.

H. 2 M. 46 $\frac{1}{2}$ fuit ♀ in meridie habens altit.

per Volub.

51 59 $\frac{1}{2}$

per Chalyb.

51 59 $\frac{3}{4}$

Declinatio ♀ tunc erat 17 55 vno

17 54 altero pin.

1. B. ego continuo trahens q
 & nomen una cu doli
 natus my foni & a Com
 Inducit myla qo gaudet
 qado nraabitur qasi paraly. 20
 & Utrabq. mmy & dach. 20
 non correspondens militarij
 my ab uno nraabit in alteru
 ha ut paratay su proctus
 Infinitus | cum foni Inge
 malorum Hypotay dila. no.
 mmy qasi & fons & Caput.
 13 potes fere pafsa dila. 20
 Examina

| Tempus | Dift. inter ♀ & ☉ | Declinatio ♀ | | Alt. ♀ | Azim. ♀ | Alt. ☉ per Q. min. azim. | Sol occid. |
|---------|-------------------|---------------|--------|--------|---------|-----------------------------|------------|
| 3 19½ | 45 55 | 17 55½ | 17 56½ | 51 27½ | | 18 55 | |
| 3 23½ | 45 55½ | | | 51 22½ | | 18 25 | 51 1 |
| 3 32 35 | 45 55½ | | | 51 1 | | 17 23 | 53 11½ |
| 3 37½ | 45 54½ | | | 50 46 | | 16 48 | 54 29½ |
| 3 43 | 45 54½ | 17 56½ | | 50 32½ | | 16 11 | 55 46½ |
| 3 51 25 | | | | 50 8½ | 24 30 | | |
| 3 51½ | 45 55½ | | | | | 15 7 | 58 2 |
| 3 56½ | 45 54½ | | | | | 14 33 | 59 6 |
| 3 56½ | | 17 56½ | 17 57 | 49 42 | 26 30 | | |
| 4 1 | | | | 49 28 | 28 0 | | |
| 4 3½ | 45 55 | | | | | 13 42 | 60 50 |
| 4 5½ | | | | 49 8½ | 29 30 | | |
| 4 9½ | 45 54 | 17 57½ | | | | 12 55 | |
| 4 12½ | | | | 48 39½ | 32 0 | 12 25 | 63 17½ |
| 4 13 15 | 45 53½ | | | | | 11 19 | 65 30 |
| 4 21½ | 45 54 | | | | | | |
| 4 24½ | | 17 58 vtroque | | 47 47½ | 36 0 | | |
| 4 29 35 | 45 52½ | | | 47 16 | 38 0 | 10 17 | |
| 4 30½ | | | | | | 9 56 | 68 7 |
| 4 32½ | 45 52½ | | | | | | |
| 4 34½ | | 17 58 | 17 58 | 46 51½ | 39 30 | | |
| 4 39 5 | 45 51½ | | | 46 28 | 41 | 9 2 | 69 51 |
| 4 45 | 45 51½ | | | | | 8 16 | 71 17 |
| 4 47 35 | | | | 45 41½ | 43 30 | | |
| 4 51 5 | 45 51 | 17 57½ | 17 58 | | | 7 26 | 72 45 |
| 4 55 35 | | | | 44 55½ | 46 0 | | |
| 4 58½ | 45 50 | | | | | 6 24 | 74 42 |
| 5 0 15 | | | | 44 25 | 47 30 | | |
| 5 7½ | 45 49½ | 17 58 | 17 58½ | | | 5 10 | 76 58 |
| 5 9½ | | | | 43 29½ | 50 0 | | |
| 5 15½ | | | | 42 45 | 52 0 | | |
| 5 19½ | 45 47½ | | | | | 3 36 | |
| 5 20½ | | | | 42 6½ | 53 30 | | |

Post ☉ occasum. Post cenam obseruabatur iterum ♀

| Tempus | Inter ♀ & Aldeb. | Declinatio ♀ | | Alt. ♀ | Azim. ♀ | Canis mai. or. |
|--------|------------------|--------------|------------|--------|-------------------|----------------|
| 6 8 | | 18 0 | 17 59½ | 36 28½ | 66 0 | 9 2 |
| 6 12½ | | | | 35 57 | 67 0 | 7 1 |
| 6 20½ | | | | 34 51½ | 69 0 | 6 10 |
| 6 23½ | 25 53½ | | | | | 6 0 |
| 6 24½ | | 18 0 | 18 0½ | 34 19 | 70 0 | 4 47½ |
| 6 29½ | 25 53½ | | | | | 3 55½ |
| 6 32½ | | | | 33 15 | 72 0 | 8 32 occ. |
| 7 23 | 25 50 | | | | | 5 57½ |
| 7 54½ | | 18 1½ | 18 2 | 21 55½ | Fuit ♀ in 90 0 | Can. min. occ. |
| 7 56½ | | 18 2 | 18 2½ bona | | | |
| 8 1½ | 25 50 | 18 2 | 18 2 | | | 5 41 |
| 8 4½ | | | | 20 30½ | 92 0 | 6 22 |
| 8 5 55 | 25 50½ | 18 2 vtroque | | | | 6 43 |

*B. Declinatio ♀ per Armillas 18 2 correctis Armillis.
ex altit. & Azimuth 18 0½*

DIE 6 MARTIJ, VESPERI.

| | Altit. ♀ | Azim. ♀ | Can. min. occ. |
|-------|----------|---------|----------------|
| 7 53½ | 22 48½ | 90 0 | 5 12 |

DIE 10 MARTIJ, VESPERI.

| Tempus | Diff. inter ♀ & Aldeb. | Declinatio ♀ B. | Altit. ♀ | Azim. ♀ | Can. min. orient. |
|---------|------------------------|-----------------|----------|---------|-------------------|
| 7 21½ | 21 14 | 20 10 vtroque | 29 35½ | 82 31 | 1 35½ |
| 7 24½ | 21 13½ | 20 10½ 20 11 | 29 10 | 83 6 | 0 46½ |
| 7 30½ | 21 13½ | 20 10½ 20 11 | 28 21½ | 84 19 | 0 40 |
| 7 38 | 21 14 | 20 10½ 20 11 | 27 20½ | 85 53 | 2 25 |
| 7 43½ | 21 13½ | 20 11½ 20 10½ | 26 39½ | 86 57 | 3 42 |
| 7 59 25 | | 20 11 20 11½ | 24 33½ | 90 0 | 7 26 |

per Volub.

DIE 11 MARTIJ, POST MERIDIEM
obferuabatur ♀ iterum vt fequitur.

| Tempus | Diff. inter ♀ & ☉ | Declinatio ♀ B. | Alt. ♀ per Volub. | Altit. ☉ | |
|---------------|--|-----------------|-------------------|----------|---------------------------------|
| 11 14½ | | 20 21½ 20 22½ | | | per ☉. min. azim. |
| 12 29½ | 45 11½ | | 46 17½ | 34 5 | |
| 12 33½ | 45 11½ | | 46 45 | 34 1 | |
| 12 37½ | 45 12½ | | 47 9 | 33 55 | |
| 12 41 35 | 45 12 | 20 22 20 23 | 47 35½ | 33 50 | |
| 12 50½ | 45 11 | | 48 25 | 33 43 | |
| 12 58½ | | | | | ☉ occid. 14 15 pro horol. |
| 1 1 45 | 45 10½ | | 49 24 | 32 59 | |
| 1 9½ | 45 10½ | 20 22½ 20 23 | 50 5½ | 32 35 | |
| 1 14½ | | | | | 18 15 |
| 2 28½ | 45 10½ | | 54 15½ | 27 15 | |
| 2 33½ | 45 10½ | | 54 20 | 26 37 | |
| 2 42½ | 45 10 | 20 25 20 25½ | 54 28 | 25 40 | |
| 2 48½ | Transfluit ♀ per Merid. habens altitudinem per Chalybeum corr. per Volubilem | | 54 29½ | | |
| 2 45 | | | 54 30 | | |
| Tunc temporis | | 20 25 20 25½ | | 25 13 | 41 15 |
| 2 57½ | 45 9 | | 54 28½ | 24 18 | |
| 3 2½ | 45 8½ | | 54 21 | 23 42 | |
| 3 7½ | 45 9½ | | 54 19 | 23 11 | |
| 3 14½ | 45 10 | | 54 9 | 22 23 | |
| 3 19½ | 45 9½ | | 54 2 | 21 51 | 48 58 |
| 3 29½ | 45 8½ | 20 26½ bis | 53 40 | 20 40 | 51 25 |
| 3 43 | 45 9½ | | 53 3½ | 19 10 | 54 36½ |
| 4 4 | 45 8½ | 20 27½ vno | 51 53 | 16 34 | 59 52½ |
| 4 12½ | 45 7½ | | 51 17 | 15 33 | 61 51½ |
| 4 17½ | 45 8½ | | 50 55 | 14 55 | 63 6 |

Eodem die vesperi.

| | Inter ♀ & Aldeb. | Declinatio ♀ | Altit. ♀ | Azim. ♀ | Can. mai. occ. |
|----------------------------|---|-----------------|----------|---------|------------------------|
| 6 58½ | | | | | 6 50½ |
| 6 59 45 | | | | | 7 9 |
| 7 0½ | | | | | 7 12 |
| 7 4 | 20 35 | 20 30½ vno pin. | 31 53 | | 8 13 |
| 7 10½ | 20 33½ | 20 30 | 20 30½ | 31 0 | 9 49 |
| 7 15½ | 20 33½ | 20 30½ | 20 30 | 30 15½ | 11 5 |
| 7 23½ | 20 33 | 20 30½ | 20 30½ | 29 10½ | 13 5 |
| 7 27½ | 20 33½ | 20 30½ bis | 28 40½ | 84 30 | Can. min. occ. 1 35 |
| 7 54 25 | } <i>Transluit ♀ per 90 gradum exacte</i> | | | | |
| 7 50½ ¹ corr. } | 20 31½ 20 31½ 24 58½ per Chal. | | | | 6 34 |

Denuo pro horologio sequentia obseruabantur, quia antea non erat fatis
ferenum vbi Canis minor obseruabatur.

| | |
|------|---------------------------------|
| 8 2½ | Erat Canis minor occid. 10° 2½' |
| 8 3½ | 10 12½ |
| 8 4½ | 10 28 |

DIE 13 MARTIJ, POST MERIDIEM.

| | Inter ♀ & ☉ | Declinatio ♀ | Altit. ♀ | Altit. ☉ | |
|---------|-------------|--------------|----------|----------|------------------------------------|
| 3 17½ | | 21 4½ | 21 5 | 54 55½ | 24 2 |
| 3 22½ | 44 50½ | | | 54 51 | 23 33 |
| 3 27½ | 44 50 | 21 5 | 21 5½ | 54 46½ | 23 3 |
| 3 37½ | 44 49½ | | | 54 28½ | 21 57 |
| 3 44½ | 44 47 | 21 5 | 21 5½ | 54 15½ | 21 15½ |
| 3 56½ | 44 51 | | | 53 45 | 19 58 |
| 4 1½ | | | | | ☉ occid. pro horologio 55 30 |
| 4 6½ | 44 49½ | 21 5½ | | 53 13 | 18 54 |
| 4 17½ | 44 48½ | | | 52 37½ | 17 35 |
| 4 30½ | 44 48½ | 21 5 | 21 5½ | 51 43 | 16 0 |
| 4 45½ | 44 48½ | | | 50 35 | 14 5 |
| 5 3½ | 44 49 | 21 5½ | 21 6 | 48 51 | 11 56 |
| 5 17½ | 44 47 | | | 47 35 | 10 2 |
| 5 31½ | 44 46 | | | 46 10 | 8 10 |
| 5 36½ | | 21 6½ | 21 6 | | |
| 5 47 50 | 44 44½ | | | 44 15 | 5 59 |
| 5 58½ | 44 42½ | 21 7½ | 21 8 | 43 13 | 4 51 |
| 6 8 | 44 40 | 21 7½ | 21 8 | 42 5½ | 3 18 |

DIE 14 MARTIJ, POST MERIDIEM.

| Tempus | Dist. ♀ a ☉ | Declinatio ♀ | Altit. ♀ | Altit. ☉ |
|--------|-------------|--------------|----------|----------|
| 1 40 | | 21 20 | 21 19½ | |
| 1 43½ | 44 42 | | 48 47½ | 34 50 |
| 1 47 | 44 42 | 21 20½ | 49 8 | 34 43 |
| 1 49½ | 44 42½ | | 49 22½ | 34 37 |

¹ Lineis inducā.

DIE 15 MARTIJ, POST MERIDIEM.

| Tempus | Dift. ♀ a ☉ | Declinatio ♀ | Alt. ♀ | Azim. ♀ | Altit. ☉ per Volub. |
|---------------------------|----------------------------|-----------------------------|---------------------|--|------------------------|
| 0 16 | | 21 37 $\frac{1}{2}$ | | | |
| 0 29 $\frac{1}{2}$ | 44 28 $\frac{3}{4}$ | | | | 35 31 $\frac{1}{2}$ |
| 0 34 $\frac{1}{2}$ | 44 29 $\frac{1}{4}$ | 21 39 $\frac{1}{2}$ | 21 39 $\frac{1}{2}$ | | 35 26 $\frac{1}{2}$ |
| 0 37 $\frac{1}{2}$ | | | | | 35 20 $\frac{1}{2}$ |
| 1 49 $\frac{1}{2}$ | 44 28 $\frac{3}{4}$ | 21 38 $\frac{3}{4}$ vno | | | 31 39 |
| 1 56 $\frac{1}{2}$ | 44 28 $\frac{3}{4}$ | alt. 21 39 $\frac{1}{2}$ | | | 31 8 $\frac{1}{2}$ |
| 2 2 $\frac{1}{2}$ | 44 28 | 21 40 $\frac{1}{2}$ vno | | | 30 37 |
| 2 7 $\frac{1}{2}$ | 44 28 $\frac{1}{2}$ | 21 40 $\frac{1}{2}$ | | | 30 14 |
| 2 13 | 44 29 $\frac{1}{2}$ | 21 41 | | | 29 42 $\frac{1}{2}$ |
| 2 19 $\frac{1}{2}$ | 44 29 | 21 41 | | | 29 8 $\frac{1}{2}$ |
| | | | | | Per Q. min. az. |
| 2 29 | 44 29 $\frac{1}{4}$ | | | | 28 15 |
| 2 30 | | | 55 40 $\frac{1}{2}$ | 6 0 or. | |
| 2 37 5 | 44 27 $\frac{3}{4}$ | | 55 43 | 3 0 | 27 27 ☉ occid. |
| 2 44 $\frac{3}{4}$ |) repetita | 21 40 $\frac{1}{2}$ | 21 41 | Tranfluit ♀ per Meridianum 40 48 $\frac{1}{2}$ | |
| 2 43 $\frac{1}{2}$ corr.] | | 21 41 $\frac{1}{2}$ | 21 41 $\frac{1}{2}$ | 55 43 $\frac{1}{2}$ per Chalyb. | |
| | | | | 55 44 $\frac{1}{2}$ per Volub. | |
| 2 59 $\frac{1}{2}$ | 44 28 $\frac{1}{2}$ | | 55 38 $\frac{1}{2}$ | | 25 5 |
| 3 12 $\frac{1}{2}$ | 44 27 $\frac{3}{4}$ | | 55 20 | | 23 40 |
| 3 22 | 44 27 $\frac{3}{4}$ | 21 41 $\frac{1}{2}$ | 55 2 $\frac{1}{2}$ | | 22 32 |
| 3 31 $\frac{1}{2}$ | | | 54 41 $\frac{1}{2}$ | 19 0 | |
| 3 40 | 44 27 $\frac{1}{2}$ | | 54 15 | | 20 20 |
| 3 47 $\frac{1}{2}$ | 44 27 | 21 42 $\frac{1}{2}$ | 53 50 $\frac{1}{2}$ | | 19 25 |
| 3 59 $\frac{1}{2}$ | 44 27 $\frac{1}{2}$ | | 53 3 | | 17 57 $\frac{1}{2}$ |
| 4 3 $\frac{1}{2}$ | 44 26 $\frac{1}{2}$ | 21 42 $\frac{1}{2}$ | | | 17 22 60 34 |
| 4 8 $\frac{1}{2}$ | | | 52 25 $\frac{1}{2}$ | 33 0 | |
| 4 16 $\frac{1}{2}$ | 44 26 | | 51 46 $\frac{1}{2}$ | | 15 40 |
| 4 22 $\frac{1}{2}$ | | | 51 15 $\frac{1}{2}$ | 38 0 | |
| 4 24 $\frac{1}{2}$ | 44 25 $\frac{1}{2}$ | 21 42 $\frac{1}{2}$ | | | 14 40 |
| 4 27 $\frac{1}{2}$ | Decl. ☉ 1 54 $\frac{1}{2}$ | 1 54 $\frac{1}{2}$ | | | 14 13 |
| 4 41 $\frac{1}{2}$ | 44 25 $\frac{1}{2}$ | | | | 12 29 |
| 4 44 | | | 49 21 $\frac{1}{2}$ | 45 0 | 70 28 |
| 4 54 $\frac{1}{2}$ | 44 24 $\frac{1}{2}$ | 21 42 $\frac{1}{2}$ vtroque | 48 13 | | 10 49 |
| 4 57 $\frac{1}{2}$ | ☉ 1 57 | | | | 10 24 |
| 5 18 | 44 24 $\frac{1}{2}$ | | 45 43 | | 7 31 |

Eodem die vesperi.

| | Inter ♀ & Aldeb. | Declinatio ♀ | Alt. ♀ | Azim. ♀ | Can. mai. occ |
|---------------------------|---|---------------------------------|---------------------|---------------------|---------------------------|
| 6 57 $\frac{1}{2}$ | 17 57 $\frac{1}{2}$ | 21 44 $\frac{3}{4}$ | 21 45 | 32 55 | 80 15 11 16 $\frac{1}{2}$ |
| 7 0 $\frac{1}{2}$ | 17 56 $\frac{1}{2}$ | 21 45 | 21 45 $\frac{1}{2}$ | 32 33 $\frac{1}{2}$ | 80 49 12 10 |
| 7 4 $\frac{1}{2}$ | 17 56 $\frac{1}{2}$ | 21 45 | 21 45 $\frac{1}{2}$ | | 12 56 |
| 7 6 $\frac{1}{2}$ | | | 31 48 $\frac{1}{2}$ | 82 0 | |
| 7 11 $\frac{1}{2}$ | 17 56 $\frac{1}{2}$ | 21 45 | 21 45 $\frac{1}{2}$ | | 14 45 $\frac{1}{2}$ |
| 7 14 $\frac{1}{2}$ | | | 30 32 | 84 0 | |
| 7 44 $\frac{1}{2}$ |) Erat ♀ in 90 gradu habens altitudinem | | | | Can. min. occ. |
| 7 40 $\frac{1}{2}$ corr.] | | 26 33 per Volub. 10 9 | | | |
| | | 26 33 $\frac{1}{2}$ per Chalyb. | | | |

Tunc erat Decl. ♀ 21 46 $\frac{1}{2}$ 21 46 $\frac{1}{2}$

| Inter ♀ & lucid. Y | | | | | Tunc erat alt. luc. Y per Q. min. azim. | | |
|--------------------|---------------------|---------------------|---------------------|---------------------|---|---------------------|-------|
| 7 54 $\frac{1}{2}$ | 17 51 | 21 46 $\frac{1}{2}$ | vno pin. | | 12 40 | | |
| 7 58 $\frac{3}{4}$ | | | | | | | |
| 8 1 $\frac{1}{2}$ | 17 50 $\frac{1}{2}$ | 21 46 $\frac{1}{2}$ | 21 46 $\frac{1}{2}$ | 24 32 $\frac{1}{2}$ | 93 0 | 14 20 | 12 30 |
| 8 4 $\frac{3}{4}$ | | 21 46 $\frac{1}{2}$ | 21 46 $\frac{1}{2}$ | | | 15 15 $\frac{1}{2}$ | 12 0 |
| 8 13 | 17 54 $\frac{1}{2}$ | 21 46 $\frac{1}{2}$ | 21 46 $\frac{1}{2}$ | 22 30 | | 17 18 | |
| 8 16 $\frac{3}{4}$ | 17 55 | | | 22 6 | | | |
| 8 19 $\frac{3}{4}$ | 17 55 | 21 46 $\frac{1}{2}$ | 21 46 $\frac{1}{2}$ | 21 40 | | | |

DIE 16 MARTIJ, VESPERI.

Nota. Hoc die hora 12 14 $\frac{5}{6}$, horologio sic indicante, erat ☉ occ. 0° 10 $\frac{1}{2}$ '.

| | Diff. ♀ ab Aldeb. | Decl. ♀ | Alt. ♀ per Q. min. az. | Lucid. Hydræ occ. | 2 38 $\frac{2}{3}$ | 43 48 $\frac{1}{2}$ | 56 36 | 28 17 |
|--------------------|----------------------|--------------------|------------------------------|-------------------------|--|-----------------------|---------------------|---------------------|
| | | | | | 2 43 $\frac{1}{2}$ | } 22 31 $\frac{3}{4}$ | ☉ occid. | 40 20 $\frac{1}{2}$ |
| | | | | | 2 41 | | 22"corr. | 22 32 $\frac{1}{2}$ |
| 9 11 $\frac{1}{2}$ | | 22 4 | | 0 4 | Alt. ♀ Merid. per Volub. 56 36 $\frac{1}{2}$ | | | |
| | | 22 5 | | | per Chalyb. 56 35 $\frac{3}{4}$ Alt. ☉ | | | |
| 9 31 $\frac{1}{2}$ | | 22 4 $\frac{1}{2}$ | | | 2 54 | 43 48 | 56 33 | 26 47 |
| | | 22 5 $\frac{1}{2}$ | | | 3 3 $\frac{3}{4}$ | 43 47 $\frac{1}{2}$ | 56 22 $\frac{1}{2}$ | 25 45 |
| 9 51 | 17 16 $\frac{1}{2}$ | 22 6 $\frac{1}{2}$ | 12 20 | | 3 12 $\frac{2}{3}$ | 43 46 $\frac{1}{2}$ | 22 31 $\frac{3}{4}$ | 56 12 $\frac{1}{2}$ |
| | | 22 8 | | | | | 22 32 | 24 44 |
| 9 55 $\frac{3}{4}$ | 17 17 $\frac{1}{2}$ | 22 7 | 11 45 | | 3 20 $\frac{1}{2}$ | 43 47 $\frac{1}{4}$ | 55 57 $\frac{3}{4}$ | 23 53 |
| | | 22 7 $\frac{1}{2}$ | | | 3 23 $\frac{1}{2}$ | | ☉ occ. | 50 0 |
| 9 57 $\frac{1}{2}$ | 17 17 | | | 11 19 | 3 25 $\frac{1}{2}$ | | 55 44 | 50 30 |

DIE 18 MARTIJ.

| Tempus | Diff. inter ♀ & ☉ | Decl. ♀ | Alt. ♀ per Volub. | Alt. ☉ per Q. min. az. |
|---------------------|----------------------|------------|----------------------|------------------------------|
| 12 10 $\frac{1}{2}$ | | 22 30 | | |
| | | 22 31 | | |
| 12 20 $\frac{1}{2}$ | 43 50 | | 48 8 $\frac{1}{2}$ | 36 50 |
| 12 23 $\frac{1}{2}$ | 43 50 $\frac{1}{2}$ | | 48 20 $\frac{1}{2}$ | 36 48 |

Eodem die vesperi

| | Inter ocul. ♀ & ♀ | Decl. ♀ | Alt. ♀ | Can. mai. occ. |
|---------------------------------------|----------------------|------------|-----------|-------------------|
| 7 17½ | 16 14½ | 22 34 | 31 26 | 17 25 |
| 7 19½ | 16 14½ | 22 33½ | | 17 57 |
| 7 22 | 16 14½ | 22 34 | 30 49 | 18 34½ |
| 7 25½ | 16 14½ | 22 34½ | 30 20½ | 19 24 |
| 7 35½ Az. | ♀ 88 0, | | | |
| | per Vol. | 28 59½ | 21 50½ | |
| | per Chalyb. | 28 59½ | | |
| 7 40½ | 89 0, | | | |
| | per Vol. | 28 18½ | Can. min. | |
| | per Chalyb. | 28 18½ | 10 24 | |
| 7 45 | | 22 34½ | 11 34 | |
| 7 31½ corr.) | | 22 35 | | |
| Tunc erat ♀ in 90 gradu habens altit. | | | | |
| | | per Vol. | 27 39 | |
| 7 50 5 Azim. | | per Chal. | 27 38½ | |
| | 91 0 | per Vol. | 26 58½ | Can. min. |
| 7 55½ | 92 0 | per Chal. | 26 58½ | 12 59 |
| | | per Vol. | 26 16½ | 14 4 |
| | | per Chal. | 26 16½ | |

DIE 19 MARTIJ P. M.

| Tempus | Diff. inter ♀ & ☉ | Decl. ♀ | Alt. ♀ | per Q. min. azim. |
|--------|------------------------------|------------|-----------|----------------------|
| 2 9½ | | 22 47½ | | |
| | | 22 48 | | |
| 2 25 | 43 34½ | | 56 42 | 30 17 |
| 2 27½ | 43 34 | | 56 42½ | 30 5 |
| 2 31½ | 43 33½ | | 56 46½ | |
| 2 37½ | | 22 47½ | | |
| | | 22 48½ | | |
| 2 39½ | 43 33 | | 56 51½ | 28 51 |
| 2 41½ | 43 33½ | | 56 52 | 28 42 |
| 2 43½ | Transfuit ♀ | | | |
| | per meridianum habens altit. | | | |
| | per Vol. | 56 52 | | |
| | per Chalyb. | 56 51½ | | |

Tunc erat Decl. 22 48½ ☉ occid. 40 16

| | | | | |
|-------|--------|--------|--------|-------|
| 2 49½ | 43 33½ | | 56 51½ | 27 51 |
| 2 52½ | 43 33½ | | 56 49½ | 27 31 |
| 2 57 | 43 33 | | 56 48½ | 27 3 |
| 3 0½ | 43 32½ | | 56 43 | 26 43 |
| 3 10½ | 43 33½ | | 56 29 | |
| 3 25½ | 43 32½ | 22 49 | 55 58½ | |
| | | 22 48½ | | |

| | | | |
|-------|--------|--------|--------|
| 3 42½ | 43 32 | | 21 44 |
| 3 49 | 43 30 | 22 49 | 54 47 |
| | | | 20 59 |
| 4 0 | 43 31½ | vno | 54 3 |
| 4 12 | 43 30 | | 53 11 |
| 4 20½ | 43 30½ | 22 49½ | 52 26½ |
| | | 22 49½ | 16 59 |
| 4 32½ | 43 30½ | 22 48½ | 51 22 |
| | | 22 48½ | 15 23 |
| 4 46½ | 43 29½ | | 49 58 |
| 4 59 | | 22 48½ | 13 30 |
| | | 22 49 | |
| 5 10 | 43 29 | 22 50 | 47 27 |
| | | 22 49½ | 10 21 |
| 5 20½ | 43 28½ | | 46 15 |
| 5 27½ | 43 27 | 22 49½ | 8 54 |
| | | 22 49½ | 7 45 |

Eodem die 19 vesperi.

| Tempus | Inter ♀ & Aldebor. | Decl. ♀ | Alt. ♀ | Can. min. occ. |
|-----------------|-----------------------|------------|-------------|-------------------|
| 7 22½ | 15 44½ | | 30 23½ | |
| 7 25½ | 15 45 | 22 50½ | 30 | 8 28 |
| | | vtrouque | | |
| 7 28½ | 15 44½ | | | 9 16 |
| 7 35½ Azim. | 89 0, Vol. | 28 39½ | | 10 54 |
| | Chalyb. | 28 39½ | | |
| 7 40½ |) Fuit ♀ in 90 Gradu | | | |
| 7 30½ corr.) | habens Altit. | | | |
| | per Volub. | 27 58½ | | |
| | per Chalyb. | 27 57½ | | |
| Tunc erat Decl. | | | | 22 50½ |
| | | | | 12 19 |
| | | | 22 51 | |
| 7 45½ Azim. | 91 0, Chal. | 27 18½ | | 13 23 |
| | Volub. | 27 17½ | | |
| 7 52½ | | 26 10 | | 15 6 |
| | ♀ a luc. Y | | Alt. luc. Y | |
| 7 54½ | 20 36½ | | 12½ | 15 35½ |
| 7 56 | | 22 51½ | | |
| | | 22 50½ | | |
| 7 57 | 20 35½ | | | |
| 7 58½ | 20 36 | | 12 0 | 16 30½ |

DIE 21 MARTIJ, P. M.

| Tempus | Diff. inter ♀ & ☉ | Decl. ♀ | Alt. ♀ | Alt. ☉ |
|--------|----------------------|------------|-----------|-----------|
| 2 2½ | 42 59½ | | 57 6 | 31 50 |
| 2 21½ | 42 59 | 23 19 | 57 12 | 31 30 |
| | | vtrouque | | |
| 2 36½ | 42 59½ | | 57 19 | 30 45 |
| 2 39½ | 42 59 | | 57 21½ | |

| | | | | |
|-------------------------------------|------------------------------|-----------|--------|--------------------|
| Pro horologio, ☉ occ. 37 46½ | | | | |
| 2 44½ | | | | 38 56½ |
| 2 45 | | | 57 22½ | |
| 2 48½ | } Erat ♀ in Mer. habens alt. | | | |
| 2 39½ corr. | | per Chal. | 57 22½ | |
| | | per Vol. | 57 23½ | |
| Tunc erat Decl. 23 19½ ☉ occ. 39 49 | | | | |
| | | 23 19½ | | Alt. ☉ per Q. min. |
| 2 57½ | 42 58½ | | 57 19 | 28 40 |
| | | | | ☉ occ. |
| 3 0½ | 42 58½ | | 57 18½ | 42 48½ |
| | | | | Alt. ☉ |
| 3 48 | 42 58½ | | 55 42½ | 23 10 |
| 3 53½ | 42 58 | 23 20 | 55 32 | 22 30 |
| | | 23 20 | | |
| 4 4½ | 42 57 | | 54 47 | 21 5 |
| 4 14½ | 42 57 | | 54 4 | 19 50 |
| 4 23½ | 42 57½ | | 53 22½ | 18 40 |
| 4 30½ | 42 56½ | | 52 44½ | 17 40 |
| 4 41 | 42 56½ | | 51 51 | 16 20 |
| 4 53 | 42 56 | 23 20 | 50 43 | 14 45 |
| | | 23 19½ | | |
| 4 56 | 42 55 | | 49 3 | 12 30 |
| 4 56½ | Pro horologio ☉ occ. 74 5 | | | |

Circa hæc tempora¹ non adeo findendum horologio, quia interdum quiescebat, interdum autem mouebatur.

| | | | | |
|--------|------------------------------|--------|---------|----------------|
| 5 4½ | 42 53½ | | 48 0 | 11 15 |
| 5 8½ | | 23 20 | | |
| 5 11½ | Pro horologio ☉ occid. 77 30 | | | |
| 5 18½ | 42 53½ | | | 9 30 |
| 5 22½ | 42 53 | | 45 59 | 9 20 |
| 5 35 | 42 52½ | 23 20½ | 44 33½ | 7 45 |
| | | 23 20½ | | |
| 5 38½ | Pro horologio ☉ occid. 83 45 | | | |
| 5 52½ | 42 51 | 23 21 | 42 32 | 5 10 |
| | | 23 20½ | | Can. min. occ. |
| | | | 23 21½ | 29 47 |
| | | | 23 20½ | Volub. |
| 7 13½ | | 23 21½ | 29 12 | 12 2 |
| | Azim. ☉ | | Chalyb. | |
| | 89 0 | 23 21 | 29 12½ | |
| 7 18 5 | } Erat ☉ in 90 28 37½ | | | |
| 7 30½ | corr. } habens alt. 28 37½ | | | |

| | | | | |
|-------------------------------------|------|----------|--------|-------|
| Erat apprime serenum & tranquillum. | | | | |
| 7 23½ | 91 0 | | 27 55½ | 14 20 |
| | | | 27 55½ | |
| 7 28½ | 92 0 | 23 21 | 27 13 | 15 33 |
| | | vstroque | | |

N. B. Confer Altitudinem Meridianam cum his circa 90 gradum atque hinc erue Parallaxin ☉. Nam refractione caret in ista altitudine citima iuxta 90 gradum².

| | Inter ☉ & lucid. γ | Decl. ☉ | Alt. luc. γ | |
|-------|------------------------------------|-----------------------|----------------|------|
| 7 28½ | 21 52½ | | 11 55 | |
| 7 36½ | 21 52½ | | 11 20 | |
| 7 48½ | 21 50 | | 10 10 | |
| 7 50½ | 21 51 | 23 21½ | 9 40 | |
| | | 23 21½ | | |
| | Inter ☉ & Aldeb. | Alt. ☉ per min. Quad. | Luc. Hydræ or. | |
| 7 56½ | 14 48 | 23 22 | 23 40 | 5 4 |
| | vstroque | | | |
| 8 1½ | 14 48½ | 23 21½ | 22 47 | 4 7 |
| | | 23 22 | | |
| 8 19 | Distabat ☉ a lucida inter Pleiades | | | 1 15 |

DIE 22 MARTIJ, VESPERI.

Hora 6½ quiescebat horologium quod tunc in motum restituebatur.

| | | | | | |
|---------------------------------|-----------------------|----------|--------|--|-------|
| 6 37½ | Erat canis maior occ. | | | | 20 7 |
| 6 38½ | | | | | 20 28 |
| 6 47 | Declin. ☉ | 23 35 | | | 22 16 |
| | | 23 34½ | | | |
| 6 53½ | Alt. ☉ per Chalyb. | 30 14½ | 23 52 | | |
| | per Volub. | 30 15 | | | |
| | Az. ☉ 88 0, Decl. | 23 34½ | | | |
| | | 23 34½ | | | |
| 6 59 | Alt. ☉ per Chalyb. | 29 34½ | 25 4 | | |
| | per Volub. | 29 35 | | | |
| | Az. 89 0 | | | | |
| 7 4 | Declin. ☉ | 23 35½ | 26 16½ | | |
| | | 23 35 | | | |
| Tunc erat ☉ in nonagesimo gradu | | | | | |
| | Alt. per Chalyb. | 28 55½ | | | |
| | per Volub. | 28 55½ | | | |
| 7 9½ | Az. 91 0, Volub. | 28 13½ | 27 29 | | |
| | Chalyb. | 28 13 25 | | | |

¹ Id est inter H. 3.48 et 4.56, in margine adscriptum.

² Manu Joannis Aurifabri confcripta. Cfr. annotationem Tychonis ad finem diei 3 Martij, supra p. 52.

7 14 $\frac{1}{2}$ 92 0 Chalyb. 27 33 $\frac{1}{2}$ 28 40 $\frac{1}{2}$
 Volub. 27 32 $\frac{1}{2}$
 Decl. ♀ 23 35 $\frac{1}{2}$
 23 35

N. B. Circa Horam 8 $\frac{1}{2}$ erat ♀ præter-
 greſſa priores in occidentali parte Ple-
 iadum verſus Boream, diſtititque fere
 a lucida earundem verſus Zenith in
 tantum, quantum lucida remouetur
 ab extrema in cuspide verſus ortum.

DIE 24 MARTIJ, VESPERI.

N. B. Horologium corrigebatur hoc
 die Hora 4 $\frac{1}{2}$ fere poſt Meridiem ad ☉
 & eximebantur 6 globuli.

| | Declin. ♀ | Altit. | Azim. | Can. min. occid. |
|--------------------|--------------------|---------------------|-----------|---------------------|
| 7 34 $\frac{1}{2}$ | 24 2 | 30 9 $\frac{1}{2}$ | Vol. 89 0 | 13 20 |
| | 24 1 $\frac{1}{2}$ | 30 9 $\frac{1}{2}$ | Chal. | |
| 7 39 $\frac{1}{2}$ | ♀ in nonageſimo | | | |
| | 24 1 $\frac{1}{2}$ | 29 30 $\frac{1}{2}$ | Vol. | 14 30 |
| | 24 2 $\frac{1}{2}$ | 29 30 | Chal. | |
| 7 44 $\frac{1}{2}$ | 24 1 $\frac{1}{2}$ | 28 48 $\frac{1}{2}$ | Vol. 91 0 | 15 44 |
| | 24 2 $\frac{1}{2}$ | 28 49 $\frac{1}{2}$ | Chal. | |

Hoc vespere circiter Horam octa-
 uam diſtabat ♀ a Pleiadibus verſus Ze-
 nith ad tantam diſtantiam (quo ad vi-
 ſum) quæ eſt inter vtramque cuspideſ
 Pleiadum, & dimidio fere remotius re-
 ſpiciens infra ſe cuspides illas vtrinque
 quaſi perpendiculariter.

DIE 25 MARTIJ, P. M.

| Tempus | Diſt. inter ♀ & ☉ | Decl. ♀ | Alt. ♀ | Alt. ☉ |
|---------------------|----------------------|---------------------|---------------------|--------|
| 12 45 | | 24 11 $\frac{1}{2}$ | | |
| | | 24 11 $\frac{1}{2}$ | | |
| 12 57 $\frac{1}{2}$ | | | | 39 5 |
| 1 1 $\frac{1}{2}$ | 41 42 | | | |
| 1 4 $\frac{1}{2}$ | 41 44 | | 53 45 | |
| 5 8 $\frac{1}{2}$ | 41 35 | 24 14 | 50 6 | 18 10 |
| | | 24 14 $\frac{1}{2}$ | | |
| 5 15 $\frac{1}{2}$ | 41 37 | | 49 17 $\frac{1}{2}$ | 17 0 |
| 5 19 $\frac{1}{2}$ | 41 36 | | 48 48 | |
| 5 25 $\frac{1}{2}$ | | 24 13 $\frac{1}{2}$ | | |
| | | 24 14 $\frac{1}{2}$ | | |
| 5 30 | 41 35 | | 47 37 $\frac{1}{2}$ | 13 10 |
| | | ☉ occ. 77 | 9 | |
| 5 34 $\frac{1}{2}$ | 41 35 | | | 11 20 |
| | | ☉ occ. 78 | 9 $\frac{1}{2}$ | |

5 38 $\frac{1}{2}$ 41 34 $\frac{1}{2}$ 46 49 11 5
 5 43 $\frac{1}{2}$ 24 14
 24 14 $\frac{1}{2}$

Eodem die Vesper

7 48 35 Altit. ♀ 30 25 $\frac{1}{2}$ per Chalyb.
 30 25 per Volub.
 Decl. ♀ 24 14 $\frac{1}{2}$
 24 14 $\frac{1}{2}$

Azim. 89 0, Canis min. occ. 13 45 $\frac{1}{2}$
 7 53 $\frac{1}{2}$ Erat ♀ in 90 gradu habens Alt-
 per Chalyb. 29 46
 per Volub. 29 46 $\frac{1}{2}$

Declin. ♀ 24 14 $\frac{1}{2}$ Can. min. occ.
 24 15 14 55
 7 59 $\frac{1}{2}$ Declin. ♀ 24 15 vtroq. pin.
 Alt. ♀ 29 5 $\frac{1}{2}$ per Chalyb.
 29 5 $\frac{1}{2}$ per Volub.

Azim. ♀ 91 0, Can. min. occ. 16 8 $\frac{1}{2}$
 Inter ♀ & Aldeb. Decl. ♀ Luc. Hy- Can. min.
 8 6 $\frac{1}{2}$ 13 20 $\frac{1}{2}$ 24 15 dræ or. occid.
 24 15 17 49

8 8 $\frac{1}{2}$ 13 20 8 56 Alt. ♀
 8 11 13 20 $\frac{1}{2}$ 24 15 $\frac{1}{2}$ 8 25 $\frac{1}{2}$ 27 26
 vtroque

N. B. Hoc vespere diſtabat ♀ ſupra
 Pleiades ad illam diſtantiam fere, quæ
 eſt inter Aldeboram & lucidam Hya-
 dum, verſus Zenith ſive Boream.

DIE 26 MARTIJ.

| Tempus | Diſt. inter ♀ & ☉ | Decl. ♀ | Alt. ♀ |
|---------------------|----------------------|---------------------|----------------------------|
| 12 9 | | 24 23 $\frac{1}{2}$ | |
| | | 24 24 $\frac{1}{2}$ | |
| 12 13 $\frac{1}{2}$ | 41 17 | | |
| 12 16 $\frac{1}{2}$ | 41 18 | | 49 55 |
| 12 21 $\frac{1}{2}$ | 41 18 $\frac{1}{2}$ | | 50 3 $\frac{1}{2}$ |
| 12 23 | | 24 24 $\frac{1}{2}$ | 50 15 |
| | | 24 25 | |
| 12 26 $\frac{1}{2}$ | 41 17 $\frac{1}{2}$ | | 50 33 $\frac{1}{2}$ |
| 12 29 $\frac{1}{2}$ | 41 17 $\frac{1}{2}$ | | 50 51 |
| 1 55 | 41 16 $\frac{1}{2}$ | | |
| 2 4 | 41 16 $\frac{1}{2}$ | 24 25 | 57 42 $\frac{1}{2}$ |
| | | 24 25 $\frac{1}{2}$ | |
| 2 11 $\frac{1}{2}$ | 41 16 $\frac{1}{2}$ | | Alt. ☉ 34 $\frac{1}{2}$ |
| 2 17 $\frac{1}{2}$ | 41 16 $\frac{1}{2}$ | | 34 0 |

N. B. H. 2 $\frac{1}{2}$ corrigebatur horologium,
 mouebatur enim tardius iuſto a Meri-
 die circiter 9 Minuta.

2 33 $\frac{3}{4}$ Tranfuit ☉
per Merid. habens Altit.
per Chalyb. 58 29 $\frac{1}{2}$
per Volub. 58 29 $\frac{3}{4}$
per Muraem 58 30 $\frac{1}{4}$
58 30 $\frac{1}{2}$

Declin. eius tunc temporis per
Armillas 24 24 $\frac{1}{2}$

| Tempus | Diff. ☉ a ☉ | Decl. ☉ | Alt. ☉ | Alt. ☉ per Q. min. |
|--------------------|---------------------|---------------------|---------------------|-----------------------|
| 2 43 | 41 15 $\frac{5}{8}$ | | | |
| 2 46 | 41 15 $\frac{1}{2}$ | | 58 23 $\frac{3}{4}$ | |
| 2 47 $\frac{1}{2}$ | 41 15 $\frac{1}{4}$ | | | 30 30 |
| 2 49 $\frac{1}{2}$ | 41 15 $\frac{1}{8}$ | 24 25 $\frac{1}{2}$ | | 29 30 |
| | | 24 25 | | |
| 5 44 $\frac{3}{4}$ | 41 7 $\frac{1}{2}$ | | 42 23 | 6 50 |
| 5 50 $\frac{1}{2}$ | 41 5 $\frac{1}{2}$ | | 41 55 $\frac{1}{2}$ | 5 50 |
| 5 54 | 41 6 | | 41 24 | 5 10 |
| 6 0 $\frac{1}{2}$ | 41 4 $\frac{3}{4}$ | | 40 31 | 4 20 |
| 6 7 | 41 3 | 24 26 $\frac{1}{4}$ | 39 37 | 3 20 |

| Tempus | Declin. | Alt. ☉ Volub. Chalyb. | Azim. ☉ | Can. min. occ. |
|------------------------|---------------------|-----------------------------|------------|--------------------|
| 7 10 $\frac{1}{2}$ | | 30 41 $\frac{1}{2}$ | 89 0 | 14 10 |
| | | 30 40 $\frac{1}{2}$ | | |
| 7 15 $\frac{1}{2}$ | 24 26 $\frac{1}{2}$ | 30 1 $\frac{1}{2}$ | 90 0 | 15 22 |
| corr. 21 $\frac{1}{2}$ | 24 27 | 30 1 $\frac{1}{4}$ | | |
| 7 20 | 24 26 $\frac{3}{4}$ | 29 19 $\frac{1}{2}$ | 91 0 | 16 33 |
| | 24 27 $\frac{1}{4}$ | 29 19 $\frac{3}{4}$ | | |
| 7 24 $\frac{1}{2}$ | | 28 38 | 92 0 | Luc. Hyd. or. |
| | | 28 37 $\frac{3}{4}$ | | 9 23 |
| 7 29 $\frac{3}{4}$ | 24 27 | 27 58 | 93 0 | 8 20 $\frac{1}{2}$ |
| | 24 27 $\frac{1}{4}$ | 27 57 $\frac{3}{4}$ | | |

DIE 27 MARTIJ P. M.

| Tempus | Diff. inter ☉ & ☉ | Decl. ☉ | Alt. ☉ | Alt. ☉ |
|--------------------|---------------------------------|--------------|---------------------|--------|
| 1 58 | | 24 36 | 58 1 $\frac{3}{4}$ | |
| 2 3 $\frac{3}{4}$ | 40 51 $\frac{3}{4}$ | | 58 9 $\frac{1}{4}$ | 34 55 |
| 2 8 | 40 52 | | 58 18 | 34 35 |
| 2 13 | 40 51 | | 58 24 | 34 10 |
| 2 15 | | 24 37 vtroq. | | |
| 2 20 $\frac{1}{2}$ | 40 50 $\frac{5}{8}$ | | 58 32 $\frac{1}{2}$ | 33 40 |
| 2 23 $\frac{5}{8}$ | 40 50 $\frac{3}{8}$ | | | 33 5 |
| 2 26 $\frac{1}{2}$ | Pro horologio ☉ occ. | | 35 55 | |
| 2 28 $\frac{3}{4}$ | 40 51 | | | 32 50 |
| 2 35 $\frac{1}{2}$ | Tunc erat ☉ in Mer. habens Alt. | | | |
| | per Volub. | | 58 40 $\frac{1}{2}$ | |
| | per Chalyb. | | 58 40 | |

per Mural., vno 58 42 $\frac{3}{4}$

alt. 58 42 $\frac{3}{4}$

Decl. 24 37 $\frac{1}{2}$
24 37 ☉ occ. 38 7
Alt. ☉

| | | | | |
|--------------------|----------------------------------|---|------------|--|
| 2 50 $\frac{1}{2}$ | 40 50 $\frac{3}{4}$ | | | |
| 2 56 $\frac{1}{2}$ | | ☉ occ. 43 22 | | |
| 2 57 $\frac{1}{2}$ | 40 50 $\frac{1}{4}$ | | 30 0 | |
| 3 2 $\frac{1}{2}$ | 40 50 | 24 36 $\frac{5}{8}$ | 29 30 | |
| | | 24 36 $\frac{3}{8}$ | | |
| 3 17 $\frac{1}{2}$ | 40 50 $\frac{3}{4}$ | | 28 5 | |
| 3 24 $\frac{3}{4}$ | | | 27 0 | |
| 3 25 $\frac{3}{4}$ | ☉ occ. 50 31 | Alt. ☉ | | |
| 3 34 $\frac{3}{4}$ | | 56 44 | 25 55 | |
| 3 35 $\frac{5}{8}$ | 40 49 $\frac{1}{2}$ | 56 49 | | |
| 3 47 $\frac{3}{4}$ | 40 50 $\frac{1}{2}$ | | 24 20 | |
| 3 53 | 40 49 $\frac{1}{4}$ | | 23 40 | |
| 3 54 $\frac{3}{4}$ | | 24 36 $\frac{1}{2}$ Pro horol. | | |
| | | 24 36 $\frac{1}{4}$ ☉ occ. 57 46 $\frac{1}{2}$ | | |
| 4 1 $\frac{1}{2}$ | 40 49 $\frac{1}{4}$ | 55 2 | 22 35 | |
| 4 6 $\frac{3}{4}$ | 40 48 $\frac{3}{4}$ | 54 37 $\frac{1}{2}$ | 22 0 | |
| 4 12 $\frac{1}{2}$ | 40 48 | 54 8 | 21 20 | |
| 4 21 $\frac{1}{2}$ | 40 48 $\frac{1}{4}$ | 53 11 $\frac{3}{4}$ | 20 5 | |
| 4 34 | 40 48 $\frac{3}{4}$ | 52 3 | 18 15 | |
| 4 54 $\frac{1}{2}$ | | 24 36 $\frac{3}{4}$ ☉ occ. | | |
| | | 24 37 $\frac{1}{2}$ 72 38 | | |
| 5 3 | 40 46 $\frac{3}{4}$ | | 14 20 | |
| 5 9 $\frac{3}{4}$ | 40 47 | | 13 25 | |
| 5 14 $\frac{3}{4}$ | 40 46 | 24 37 47 25 | | |
| | | 24 38 | | |
| 5 22 $\frac{3}{4}$ | 40 44 $\frac{3}{4}$ | 24 37 46 29 | 11 40 | |
| 5 26 $\frac{3}{4}$ | 40 43 $\frac{3}{4}$ | 24 37 $\frac{1}{2}$ 46 2 $\frac{1}{2}$ | 11 0 | |
| | | 24 37 $\frac{1}{4}$ | | |
| 5 30 $\frac{1}{2}$ | 40 44 | | 45 30 10 5 | |
| | | ☉ occ. 81 40 | | |
| 7 18 $\frac{3}{4}$ | | 30 53 per Chal. | | |
| | | 30 52 $\frac{3}{4}$ per Vol. | | |
| 7 22 $\frac{3}{4}$ | Tunc erat ☉ in 90 gradu habens | | | |
| | Decl. & Alt. 24 38 $\frac{3}{4}$ | 30 11 $\frac{3}{4}$ per Vol. | | |
| | | 24 38 $\frac{1}{4}$ 30 12 per Chal. | | |
| | Canis minor occ. | | 15 41 | |
| 7 27 $\frac{3}{4}$ | Azim. 91 0, | | | |
| | Canis minor occ. 17 2 | | | |
| | | 29 35 per Vol. | | |
| | | 29 35 per Chal. | | |
| 7 32 $\frac{1}{2}$ | Azim. 24 38 $\frac{5}{8}$ | 28 53 $\frac{1}{2}$ per Vol. | | |
| | 92 0 | 24 38 $\frac{3}{8}$ 28 53 $\frac{3}{4}$ per Chal. | | |
| 7 37 $\frac{1}{2}$ | 93 0 | 28 11 $\frac{3}{4}$ per Vol. | | |
| | | 28 13 per Chal. | | |
| | | Luc. Hydræ or. 7 47 | | |

| | Inter ♀ & inf. cap. II | Decl. ♀ | Luc. Hy- dræ or. |
|-------|---------------------------|------------|-----------------------------|
| 7 50 | 50 12 | 24 39 | 4 46 |
| | | 24 38½ | |
| 7 52½ | 50 11½ | | 3 58 |
| 7 59½ | 50 11 | 24 39½ | 2 29 |
| | | 24 38½ | |
| 8 4½ | 50 11 | 24 39 | 1 5 |
| | | 24 38½ | |
| | | | Alt. ♀ per Q. min. 24 40 |

DIE 28 MARTIJ P. M.

| Tempus | Diff. inter ♀ & ☉ | Decl. ♀ | Alt. ♀ | Alt. ☉ |
|--------|---|---------|------------|--------|
| 12 8½ | | 24 47 | | |
| | | 24 48 | | |
| 12 13½ | 40 29 | | per Volub. | |
| 12 19½ | 40 29½ | | 50 47 | 40 40 |
| 12 23½ | 40 29 | | 51 3 | |
| 12 26 | 40 28½ | 24 47½ | 51 17½ | |
| | | 24 47½ | per Chal. | |
| 2 2½ | 40 28 | | 58 25 | 35 20 |
| 2 7½ | 40 27½ | 24 47½ | | |
| 2 8½ | ☉ occ. 32 0 | | | |
| 2 13½ | 40 27 | | 58 39½ | 34 35 |
| 2 19 | 40 28 | | 58 46 | 35 55 |
| 2 31½ | Transfuit ♀ per Mer. habens Alt. per Volub. | | 58 51 | |
| | per Chalybeum | | 58 51½ | |
| | per Muralem | | 58 52½ | |
| | | | 58 52½ | |

Declinatio ♀ tunc temporis per Armillas 24 48½ B.

| | | | | |
|-------|-------------------------|--------------|-------------------------------|-------|
| | | 24 48 | | |
| 2 46½ | 40 26½ | | 58 45 | 31 10 |
| 2 54½ | 40 25 | | | 30 15 |
| 2 56½ | Pro horol. ☉ occ. 44 12 | | | |
| 2 59½ | 40 25 | ☉ occ. 44 55 | | 29 45 |
| 3 1 | | 24 48 | | |
| | | 24 48½ | | |
| 3 44½ | 40 22½ | 24 48 | | 24 5 |
| | | 24 48½ | | |
| 3 51½ | | ☉ occ. 58 9 | | |
| 3 52½ | 40 22 | | 55 24 | 23 5 |
| 4 5 | 40 21½ | | 54 20 | 21 30 |
| 4 7 | Pro horol. ☉ occ. 62 6 | | | |
| 4 12½ | | 24 49½ | | |
| | | 24 49 | | |
| 4 21½ | 40 21½ | | 52 42½ | 19 10 |
| 4 25 | 40 22 | | | |
| 4 30½ | | 24 48 | Declin. vltra | |
| | | | 24° 48' non erat hoc tempore. | |

| | | | | |
|-----------------------------------|----------------------------|--------|--------|-----------------------|
| 7 6 | | 24 49½ | 31 8½ | per Chal. |
| | | 24 50 | 31 9½ | per Vol. |
| | | | | Canis minor occ. 15 3 |
| 7 10½ | ☉ erat in 90 Gradu ha- | | | |
| 7 18½ | corr.) bens Altit. 30 29½ | | | per Chal. |
| | | | 30 29½ | per Vol. |
| Tunc temporis erat Decl. (24 49½) | | | | Can. min. occ. 16 25 |
| 7 15½ | Azim. 24 50 | | 29 48½ | per Chal. |
| | 91 0 | 24 49½ | 29 48½ | per Vol. |
| 7 20 25 | Azim. 29 6½ | | | per Chal. |
| | 92 0 | | 29 7½ | per Vol. |
| 7 25 | | 24 50 | 28 27 | per Chal. |
| | | 24 49½ | 28 27½ | per Vol. |
| | | | | Canis minor occ. 20 4 |
| 7 32½ | 49 39 | 24 50½ | | Luc. Hydræ |
| | | 24 49½ | | or. 8 42 |
| 7 33½ | 49 38½ | | | |
| 7 37½ | 49 39 | 24 50½ | 25 40 | 4 21½ |
| | | 24 49½ | | |

DIE 29 MARTIJ P. M.

| Tempus | Diff. inter ♀ & ☉ | Decl. ♀ | Alt. ♀ | per Vol. |
|---------|------------------------------|---------|-----------|-----------------------------|
| 12 9½ | | 24 58½ | | |
| | | 24 58½ | | |
| 12 23 | 40 3½ | | 51 26½ | |
| 12 26½ | 40 2½ | | 51 46½ | |
| 12 30 | 40 2½ | | 52 8½ | |
| 12 32½ | 40 2½ | 24 58½ | 52 25½ | |
| | | 24 58 | | |
| 2 13 | | 24 58½ | | |
| 2 20½ | | 24 58½ | | |
| | | 24 58 | | |
| 2 30½ | Transfuit ♀ Meridian. habens | | | |
| 2 29½ | Altit. 59 2 | | per Chal. | |
| corr.) | | 59 2 | per Vol. | |
| | | 24 58½ | 59 3½ | per Mu- |
| | | 24 58 | 59 3½ | ralem |
| | | | | Fuit tunc ☉ occ. 37 27½ |
| | | | | Alt. ☉ per Q. min. 32 50 |
| 2 36 | 40 0 | | | |
| 2 42½ | 39 59 | 24 58 | 58 56½ | 31 45 |
| | | 24 58½ | | |
| 2 47 | 39 58 | | 58 53½ | 31 25 |
| 3 2½ | 39 58½ | | 58 30 | 29 40 |
| 3 9 | 39 59 | | 58 15 | 28 55 |
| 3 29½ | 39 57½ | | 57 14½ | 26 30 |
| 3 40 | 39 57 | 24 58 | 56 36½ | 25 20 |
| | | 24 58½ | | |

| | | | | |
|------------------------------------|----------------------------|----------------------|---------------|----------------|
| 3 42½ | 39 58 | | 56 7 | 24 30 |
| 4 2½ | 39 57 | | | 22 30 |
| 4 16 | 39 57½ | 24 58 | | 20 55 |
| | | 24 58½ | | |
| 4 19½ | 39 57½ | | | 20 25 |
| 4 23½ | 39 57½ | | 52 57 | 19 50 |
| 4 26 | 39 57½ | | 52 41 | 19 30 |
| 4 28½ | | 24 59½ | ○ verus occ. | |
| | | 24 59½ | | 66 21 |
| 7 12½ | } corr. f | 24 59½ | 31 22½ | per Vol. |
| 7 16½ | | 24 59½ | 31 22½ | per Chal. |
| Azim. ♀ 89 0, Can. mai. occ. 28 2 | | | | |
| 7 17½ | Erat ♀ in nonagesimo gradu | | | |
| | | Alt. 30 41½ per Vol. | | |
| Eodem tem- | 25 0 | 30 42 | per Chal. | |
| pore erat Decl. | 24 59½ | Can. mai. 29 12 | | |
| 7 22 | 25 0 | 30 1 | per Vol. | |
| | 24 59½ | 30 0½ | per Chal. | |
| Azim. ♀ 91 0, Can. mai. occ. 30 27 | | | | |
| 7 26½ | | | 29 21½ | |
| Azim. ♀ 92 0 | | | 29 20½ | 31 38 |
| 7 31½ | | 25 0½ | Volub. | |
| | | | 28 39 | |
| | Azim. | | Chalyb. | |
| | 93 0 | 25 0 | 28 38½ | 32 50 |
| | Inter ♀ & inf. cap. II | | | Can. min. occ. |
| 7 40½ | 49 9½ | | per minim. Q. | 22 35 |
| 7 42½ | 49 8½ | 25 0 | 26 50 | 23 10 |
| | | 24 59½ | | |
| 7 45½ | 49 8½ | 25 0½ | 26 25 | 23 47½ |
| | | 25 0½ | | |

DIE 30 MARTIJ P. M.

| Tempus | Diff. inter ♀ & ○ | Decl. ♀ | Alt. ♀ |
|---------------------|---------------------|--------------------|---------------------|
| 12 7 $\frac{1}{2}$ | | 25 6 $\frac{1}{2}$ | |
| 12 16 $\frac{1}{2}$ | 39 33 | | 50 53 $\frac{1}{2}$ |
| 12 18 | 39 33 $\frac{1}{2}$ | | 51 4 $\frac{1}{2}$ |
| 12 19 $\frac{1}{2}$ | 39 33 | | 51 13 |
| 12 20 $\frac{1}{2}$ | 39 32 $\frac{1}{2}$ | | |
| 12 22 $\frac{1}{2}$ | 39 32 $\frac{1}{2}$ | 25 6 $\frac{1}{2}$ | |
| | | 25 6 $\frac{1}{2}$ | Alt. ○ |
| | | | per min. Q. |
| 2 14 $\frac{1}{2}$ | 39 31 $\frac{1}{2}$ | | 59 6 $\frac{1}{2}$ |
| 2 16 $\frac{1}{2}$ | 39 31 $\frac{1}{2}$ | | 35 20 |
| 2 18 $\frac{1}{2}$ | | 25 8 | 35 5 |
| | | 25 7 $\frac{1}{2}$ | |

| | | | |
|--|------------------------|---------------------|----------------------------|
| 2 28 $\frac{1}{2}$ Tranfibat ♀ | | | |
| per Merid. habens Alt. | | | |
| per Chalyb. | | 59 11 $\frac{1}{2}$ | |
| per Volub. | | 59 11 $\frac{1}{2}$ | |
| per Mural. | | 59 13 | |
| | | 59 12 $\frac{1}{2}$ | |
| Decl. | | 25 7 $\frac{1}{2}$ | ○ occid. |
| per Armill. | | 25 8 | 37 2 $\frac{1}{2}$ |
| 2 41 $\frac{1}{2}$ | 39 31 | | Alt. ○ |
| 2 44 | 39 30 $\frac{1}{2}$ | | 32 10 |
| 2 48 $\frac{1}{2}$ | 39 30 $\frac{1}{2}$ | | 31 50 |
| 2 51 $\frac{1}{2}$ | | ○ occ. 42 39 | |
| 2 52 $\frac{1}{2}$ | 39 29 $\frac{1}{2}$ | 25 8 $\frac{1}{2}$ | 31 0 |
| | Azim. ♀ | 25 8 $\frac{1}{2}$ | Alt. ♀ |
| 7 14 $\frac{1}{2}$ | 89 0 | 25 10 | 31 34 $\frac{1}{2}$ Volub. |
| | | 25 9 | 31 34 $\frac{1}{2}$ Chal. |
| 7 19 $\frac{1}{2}$ } Erat ♀ in nonagesimo gradu | | | |
| 7 13 $\frac{1}{2}$ corr. f } 25 10 30 54 Chalyb. | | | |
| Can. mai. occ. | | | |
| | 29 36 | 25 9 | 30 53 $\frac{1}{2}$ Volub. |
| | | | Azim. ♀ |
| 7 24 | 30 47 | 25 9 $\frac{1}{2}$ | 30 13 $\frac{1}{2}$ 91 0 |
| | | 25 9 $\frac{1}{2}$ | 30 12 $\frac{1}{2}$ |
| 7 29 | 31 59 | 25 9 $\frac{1}{2}$ | 29 32 $\frac{1}{2}$ 92 0 |
| | | | 29 32 $\frac{1}{2}$ |
| 7 34 | 33 16 | | 28 49 $\frac{1}{2}$ 93 0 |
| | | | 28 50 |
| | Inter ♀ & inf. cap. II | | Can. min. occ. |
| 7 41 | 48 38 $\frac{1}{2}$ | 22 21 | |
| 7 44 | 48 39 | 23 5 | 27 28 $\frac{1}{2}$ 95 0 |
| 7 47 $\frac{1}{2}$ | 48 38 $\frac{1}{2}$ | 23 56 $\frac{1}{2}$ | |
| 7 49 $\frac{1}{2}$ | 48 38 $\frac{1}{2}$ | 24 20 | 26 46 $\frac{1}{2}$ 96 0 |
| 7 52 $\frac{1}{2}$ | 48 38 $\frac{1}{2}$ | 25 8 | |
| 7 54 $\frac{1}{2}$ | 48 38 $\frac{1}{2}$ | 25 37 | 26 9 $\frac{1}{2}$ 97 0 |
| 7 44 | Decl. ♀ | 25 9 $\frac{1}{2}$ | 25 9 $\frac{1}{2}$ |
| 7 54 $\frac{1}{2}$ | | 25 10 | 25 9 $\frac{1}{2}$ |

DIE 3 APRILIS¹ P. M.

Obferuabatur iterum ♀ vt fequitur.

| Tempus | Diff. inter ♀ & ○ | Decl. ♀ | Alt. ♀ |
|---------------------|---------------------|---------------------|---------------------|
| 12 7 | | 25 39 $\frac{1}{2}$ | per Volub. |
| | | 25 40 | |
| 12 13 | 37 22 | | |
| 12 14 $\frac{1}{2}$ | 37 22 $\frac{1}{2}$ | | 52 8 $\frac{1}{2}$ |
| 12 17 $\frac{1}{2}$ | 37 22 $\frac{1}{2}$ | | 52 25 |
| 12 19 $\frac{1}{2}$ | 37 22 | | 52 34 $\frac{1}{2}$ |

¹ Codd. E et V præbent Die 3 Martij, fed 3 in 31 correxist V (manu posteriori); 31 K.

DIE 14 APRILIS P. M.

H. 1 49 Tranſiuit Q

per Meridianum habens Alt.

per Chalyb. 60 9 $\frac{1}{2}$ per Volub. 60 10 $\frac{1}{2}$ per Mural. 60 11 60 10 $\frac{1}{2}$

Declin. per Armillas 26 5

26 4 $\frac{1}{2}$

bis repetita vtroque pinn.

| Tempus | Inter Q & O | Pro horol. O occid. | Alt. Q per Vol. | Alt. O per Q. min. |
|--------------------|---------------------|------------------------|---------------------|-----------------------|
| 2 5 $\frac{1}{2}$ | 28 43 $\frac{1}{2}$ | 31 23 | | 40 50 |
| 2 8 $\frac{1}{2}$ | 28 43 $\frac{1}{2}$ | Decl. Q | | 40 35 |
| 2 14 $\frac{1}{2}$ | 28 43 $\frac{1}{2}$ | 26 5 $\frac{1}{2}$ | 59 48 $\frac{1}{2}$ | 40 5 |
| | | 26 5 | | |
| 2 24 | 28 43 $\frac{1}{2}$ | | 59 26 | 39 10 |
| 2 29 | 28 43 | | 59 12 | 38 35 |
| 2 31 $\frac{1}{2}$ | 28 42 $\frac{3}{4}$ | | | 38 0 |
| 2 34 $\frac{1}{2}$ | 28 42 $\frac{1}{2}$ | 26 5 $\frac{1}{2}$ | | 37 40 |

DIE 15 APRILIS P. M.

H. M. Inter Q & O Declinatio Q

0 7 27 49 $\frac{1}{2}$ 26 3 26 2 $\frac{1}{2}$ 0 19 $\frac{1}{2}$ 27 490 21 $\frac{1}{2}$ 27 48 $\frac{1}{2}$

0 26 27 48

0 29 $\frac{1}{2}$ 27 48 $\frac{1}{2}$ 26 2 $\frac{1}{2}$ 26 2 $\frac{1}{2}$ 1 47 $\frac{1}{2}$ Tranſibat Q

per Merid. habens Altitud.

per Volub. 60 8 $\frac{1}{2}$ O occid.per Chalyb. 60 8 $\frac{1}{2}$ 26 12per Mural. 60 8 Decl. 26 2 $\frac{1}{2}$ 60 8 $\frac{1}{2}$ 26 2 $\frac{1}{2}$

| Tempus | Inter Q & O | Decl. Q | Alt. Q per Volub. | Alt. O per Chal. |
|--------------------|---------------------|--------------------|----------------------------|---------------------|
| 1 59 $\frac{1}{2}$ | 27 43 $\frac{1}{2}$ | | | 41 46 $\frac{1}{2}$ |
| 2 1 $\frac{1}{2}$ | 27 44 | | 60 0 $\frac{1}{2}$ | 41 36 |
| 2 5 $\frac{1}{2}$ | 27 43 $\frac{1}{2}$ | | 59 55 | 41 14 |
| 2 12 $\frac{1}{2}$ | 27 44 $\frac{1}{2}$ | | 59 47 | 40 34 $\frac{1}{2}$ |
| 2 15 | 27 44 | | 59 35 | 40 1 $\frac{1}{2}$ |
| 2 19 $\frac{1}{2}$ | | 26 2 $\frac{1}{2}$ | O occ. 34 0 | |
| | | 26 2 $\frac{1}{2}$ | O occ. 34 25 $\frac{1}{2}$ | |

N. B. Horologium hic aliquandiu
quieuerat. Horologium corrigebatur.26 2 $\frac{1}{2}$ O occ. 67 4426 1 $\frac{1}{2}$

| | | | |
|--------------------|---------------------|--------------|--------------------|
| 4 32 $\frac{1}{2}$ | | O occ. 68 31 | |
| 4 41 $\frac{1}{2}$ | 27 35 $\frac{1}{2}$ | 46 20 | 21 55 |
| 4 45 $\frac{1}{2}$ | 27 35 $\frac{1}{2}$ | 45 50 | 21 45 |
| 4 48 $\frac{1}{2}$ | 27 35 $\frac{1}{2}$ | 45 29 | 21 5 $\frac{1}{2}$ |

4 51 $\frac{1}{2}$ 27 35 $\frac{1}{2}$ vel 35 $\frac{1}{2}$ 20 37 $\frac{1}{2}$ 4 56 $\frac{1}{2}$ 27 35 44 22 19 57 $\frac{1}{2}$ 6 26 $\frac{1}{2}$ Azim. Q 26 3 32 42 $\frac{1}{2}$ per Chal.89 0 26 2 $\frac{1}{2}$ 32 41 $\frac{1}{2}$ per Vol.

6 32 Erat Q in 90 Gradu

26 2 $\frac{1}{2}$ 32 0 $\frac{1}{2}$ per Chal.26 1 $\frac{1}{2}$ 32 0 per Vol.

6 37 Azim. Q 31 20 per Chal.

91 0 31 19 $\frac{1}{2}$ per Vol.6 41 $\frac{1}{2}$ Azim. 26 2 $\frac{1}{2}$ 30 42 per Chal.92 0 26 3 $\frac{1}{2}$ 30 41 $\frac{1}{2}$ per Vol.

Sequitur obſeruatio Q ad ſtellas.

Diſt. Q a Decl. Q Alt. Q Spica III

Mer. cap. II orient.

8 36 $\frac{1}{2}$ 26 2 15 17 $\frac{1}{2}$ 37 5526 1 $\frac{1}{2}$ 8 39 $\frac{1}{2}$ 45 12 14 57 35 08 43 $\frac{1}{2}$ 45 11 $\frac{1}{2}$ 26 2 14 28 34 4 $\frac{1}{2}$ 26 2 $\frac{1}{2}$ 8 46 $\frac{1}{2}$ 45 12 14 3 $\frac{1}{2}$ 33 168 49 $\frac{1}{2}$ 45 12 13 45 32 328 52 $\frac{1}{2}$ 45 12 $\frac{1}{2}$ 26 2 $\frac{1}{2}$ 13 21 31 4926 2 $\frac{1}{2}$

DIE 17 APRILIS.

H. 1 46* Tranſibat Q

per Meridianum habens Alt.

per Chalyb. 59 58 $\frac{1}{2}$ per Volub. 59 58 $\frac{1}{2}$

Declinatio Q tunc erat 25 55

25 56

*N. B. Tempus hic non eſt certum
quia paulo poſt interuallum denota-
tum ex horologio in hoc Meridie cor-
recto.

Eodem die veſperi.

9 27 $\frac{1}{2}$ Inter Q &

inferius caput II 45 25

Altitudo Q 10 34

9 29 Diſtantia 45 25 $\frac{1}{2}$ Declinatio Q 25 53 $\frac{1}{2}$ 25 53 $\frac{1}{2}$ 9 32 $\frac{1}{2}$ Erat luc. Hydræ occid. 33 20 $\frac{1}{2}$

DIE 20 APRILIS.

Inter Q Declin. Q

& O

1 53 22 9 $\frac{1}{2}$ 25 32

25 33

2 4 $\frac{1}{2}$ 22 9 non erat bona.

2 7 22 8 O occid. 30 46

2 9½ 22 6
 2 15½ 22 7½ 25 32½ 32 50
 25 33
 2 24½ 22 4½
 2 27 22 4½ 25 33 vno
 6 10½ Erat ♀ in 90 Gradu occidentis,

Alt. 31 23½ per Chal.

31 23½ per Vol.

Decl. tum temporis per Armillas

25 32 vno tantum

pinnac.

Sed difficulter conspiciebatur.

6 20½ Declin. ♀ 25 32½ Alt. 30 1 per

Azim. ♀ 92 0 25 31 Chal.

DIE 6 JULIJ, MANE.

Tempus horologii ad ☉ correctum.

2 52' 2" Erat Az. ♀ 94 30, Alt. 18 55

3 2 25 92 32 20 10

Declin. ♀ 18 7½

3 16 4 Erat ♀ in 90 habens Alt. 21 49

per Vol., Declin. ♀ erat tunc 18 7½

Tempora sunt hic correctā.

Diff. inter Decl. ♀ Alt. ♀ Alt. ☉ per
 ♀ & ☉ per Volub. Q. min.

4 40 8 18 8 31 40

4 52 36 45 25½ incerta 33 45 9 40

4 57 35 45 28 10 20½

5 1½ 45 28½ 34 38 10 40

5 4½ 18 7½

5 41 31 Erat ♀ orientalis 45 35 pro

corrigeno horologio

5 59 34 45 31 17 30

6 0 Tunc erat in Æquatore ad ☉,

Hora præcise sexta.

6 2 56 Inter ♀ & ☉ 45 33

Alt. ♀ 41 38, ☉ orient. 89 16¹

6 7 41 Declinatio ♀ 18 8½, ☉ or. 88 7

6 14 55 Alt. ☉ 19 10, ☉ orient. 86 25

6 16 Hic corrigebatur Horologium

ad ascriptum tempus in Æqua-

tore ad ☉ obseruatum 86 0.

DIE 9 JULIJ, MANE.

Obseruabatur ♀ in 90 Gradu habens

Altitudinem per Vol. 22 22

Declinationem per Arm. 18 28½

18 28

♀ erat in Æquatore orient. 83 11½

Nullæ stellæ apparebant circa illud
 tempus præter Capellam, sed non po-
 terat obseruari propter recurrentes
 nubes & auroram.

DIE 10 JULIJ, MANE.

Diff. inter Decl. ♀ Alt. ♀ Pro horol.
 ☉ & Aldebor. per Volub. Luc. Vult.
 occ.

7 19½ 9 19½ 36 11

7 20½ 10 25 38 6

Inter ♀ &
 lucid. Y

41 21½ 18 37 11 28½ 40 23

41 19½ 18 35 12 10 41 34

41 21½ 18 35½ 12 40 42 32

Inter ♀ &
 Capellam

26 58½ 18 36 14 38½ 46 3

26 58½ 18 35 15 9 47 4

Non potuit a stellis vltior fieri ob-
 seruatio propter auroram.

Horologium indicabat Horam 3 43'

18" (☉ eodem momento exoriente) erat

♀ in 90 gradu,

Alt. per Volubilem 22 35

Declin. 18 36½

18 36

Tempora Inter ♀ Alt. ☉
 sunt correctā & ☉ per Q. min.

4 29 51 45 37 5 20

4 33 22 29 52

4 36 12 45 38 6 10

4 37 21 30 24

4 39 2 18 37

18 36

4 43 48 45 38½ 7 5

4 45 37 31 35

4 51 2 45 39 18 36½

18 36 7 55

5 3 25 45 39½ 9 25

5 5 52 34 27

6 7½ Tunc erat ☉ orientalis 88 5 pro

corrigeno horologio. Cælum nu-

bibus obducebatur.

Paulo post iterum obseruabatur ♀ vt

sequitur. Tempora sunt hic correctā.

¹ Codex habet 90 44.

| | | | |
|----------------|-----------|--------|------------------------|
| 7 29 12 45 41½ | 18 37 | 29 40 | ⊙ orient. in æquat. |
| | 18 36 | | 67 42 |
| 7 43 | 45 42 | 31 50 | 64 15 |
| 7 48 0 45 42½ | | 32 25 | 63 0 |
| 7 54 24 45 41½ | 18 36 | 33 15 | 61 24 |
| 8 45 0 Alt. ♀ | per Chal. | 52 40½ | |
| in Merid. | per Vol. | 52 40 | |
| | 18 37 | 48 45 | |
| | 18 37½ | | |
| 8 53 52 45 41 | | 46 43 | |
| 45 41½ | | 45 32¹ | |
| 8 57 32 45 41½ | | 45 37 | |

DIE 13 JULIJ, MANE.

| Inter ♀ & oculum | Declin. ♀ | Alt. ♀ | Luc. Vult. occ. |
|------------------------|-----------|-----------|--------------------|
| 9 58 | 19 7 | 9 26 | 38 31 |
| N. B. Hic altit. oculi | 11° fere | vifa est. | |
| 10 1 | 19 4 | | 40 18 |
| 10 3½ | 19 5 | 11 44 | 42 48 |
| 10 4 | 19 4 | | 44 14 |

| Inter ♀ & luc. Y | | | |
|------------------|-------|--------|-------|
| 43 57 | 19 4 | 13 38½ | 46 17 |
| 43 58 | 19 3½ | 14 27½ | 47 48 |

| Inter ♀ & Capellam | | | |
|--------------------|-------|--------|-------|
| 26 38½ | 19 4 | 16 56½ | 52 26 |
| H. 3 6½ | 26 38 | 18 27 | |

Horologio indicante 3^h 50^m erat ♀ in 90 gradu habens altitudinem per Volubilem 23 7½

| Inter ♀ & ⊙ | Decl. ♀ | Alt. ⊙ | Tempus in æquat. ad ⊙ |
|---------------|---------|--------|-----------------------------|
| 3 57 | 19 3½ | per ♀. | |
| | 19 3½ | min. | |
| | 19 2½ | | |
| 5 19 | | | |
| 5 40½ | 45 42 | 13 50 | |
| 5 43 4 45 44 | | | |
| 5 46 5 45 45½ | | 14 50 | |
| 5 51 7 45 46½ | | 15 20 | |
| 5 58½ | 45 43½ | 16 20 | |
| 6 6 | 19 3½ | 88½ | |
| 6 17 | | 18 40 | |
| 6 21½ | 45 44 | 19 0 | |
| 6 27½ | 45 45½ | 19 30 | |
| 6 32½ | 45 48 | | |
| 6 35½ | 45 44½ | | |

6 44½ Pro corrigendo horologio 81 30
♀ circa hoc tempus non poterat vlt-
terius obseruari propter resplenden-
tiam radiorum ⊙ & rariufculas nubes.

¹ Sic in codice.

DIE 15 JULIJ, MANE.

Obferuabatur ♀ vt fequitur.

| Inter Aldeb. & ♀ | Alt. ♀ per Volub. | Luc. Vult. occ. in æquat. |
|------------------------|--------------------------------|------------------------------|
| 9 54 | 14 35½ | 49 50 |
| H. M. | 15 15½ | 51 2 |
| 2 43 | 9 54½ | 15 37 |
| | 15 37 | 51 38 |
| Inter ♀ & Capellam | | |
| 26 18 | 17 0 | 54 11 |
| 26 17½ | 17 23½ | 54 55 |
| 26 18 | 17 48 | 55 47 |
| 5 48½ | tempus ex horolog. corrigendo. | |
| Tunc erat Declinatio ♀ | 19 22½ | |
| | 19 22 | |

6 24½ Erat ♀ in 90 Gradu
habens Altitudinem
per Volubilem 23 31½
Declinatio ♀ tunc erat/ 19 22
per Armillas 19 21

DIE 19 JULIJ, MANE.

| | |
|--------------------------------|--------|
| Inter ♀ & Aldebora | 15 50½ |
| Tunc erat lucida Vulturis occ. | 53 41 |
| Inter ♀ & Capellam | 26 19½ |
| | 26 20 |

Declinatio ♀ 19 52
19 53

Tunc erat Lucida Vult. occ. 58 50½
Inter ♀ & Capellam 26 18½ incerta
Decl. ♀ poſtea 19 51½

19 53½
Tunc erat Aldebora orient. 70 21
♀ in 90 gradu, Altitudo 24 9
Declinatio ♀ 19 52½
Tunc erat ♀ ad ortum 76 2

DIE 3 AUGUSTI, MANE.

Tempus horologii
H. 3 M. 3½ Alt. ♀ in 90 gradu
per Vol. 25 38½
per Chal. 25 39½ per ſuperiorem
pinnacidiꝝ rimulam tantum
Declin. ♀ 21 3½, 21 0½
3 10½ Tunc erat ♀ orient. 73 8
pro corrigendo horologio.
3 35½ ⊙ oriens ſupra noſtrum Hori-
zontem totus conſpiciebatur.
6 15 Erat ⊙ orient. 87 0 pro corri-
gendo horologio.

DIE 4 AUGUSTI, MANE.
Observabatur ♀ vt sequitur.

| Inter ♀ & oculum ☽ | Declinatio ♀ | Alt. ♀ | Aldeb. orient. |
|-----------------------------------|--------------------|--------------------|-------------------|
| 32 14 $\frac{1}{2}$ | 21 2 $\frac{3}{4}$ | 21 4 $\frac{1}{2}$ | 20 18 51 10 |
| 32 15 | 21 4 $\frac{1}{2}$ | 21 2 $\frac{1}{2}$ | 48 29 |
| ♀ in 90 gradu habens altitudinem | | | |
| per Volubilem 25 38 $\frac{1}{2}$ | | | |
| per Chalybeum 25 38 $\frac{1}{2}$ | | | |
| | 21 2 | 21 4 $\frac{1}{2}$ | 48 12 |

DIE 1 SEPTEMBRIS, MANE.
Horologio indicante H. 4 49' distabat

| | |
|---------------------|--------------------|
| ♀ a Cane minori | 23 8 $\frac{1}{2}$ |
| Tunc erat Declin. ♀ | 18 4 $\frac{1}{2}$ |
| | 18 6 $\frac{1}{2}$ |

| | |
|--------------------------|---------------------------------|
| 4 52 $\frac{1}{2}$ | Inter ♀ & Canicula 23 8 |
| 3 58 $\frac{3}{4}$ corr. | |
| | Tunc erat |
| | ocul. ☽ or. 14 39 $\frac{1}{2}$ |

Propter refractionem erat Altitudo ♀

| | | |
|--------------------|---------------------|------------------|
| 5 20 $\frac{1}{2}$ | 23 28 | Azim. ♀ |
| 5 25 $\frac{1}{2}$ | 24 16 $\frac{1}{2}$ | 93 20 verf. occ. |

DIE 6 OCTOBRIS.

| Inter ♀ & caudam ☽ | Declinatio ♀ | Alt. ♀ | Luc. ♀ occ. |
|-----------------------|--------------|--------------------|---------------------|
| 11 21 $\frac{1}{2}$ | | | 72 20 |
| 11 21 $\frac{1}{2}$ | | | 72 35 |
| | 5 36 | 5 36 $\frac{1}{2}$ | 14 57 $\frac{1}{2}$ |
| | | | 72 53 |

| Inter ♀ & Luc. Hydræ | Viceversa |
|-------------------------|--------------------|
| 35 51 $\frac{1}{2}$ | 74 22 |
| 35 51 $\frac{1}{2}$ | 74 40 |
| | 5 35 $\frac{3}{4}$ |
| | 5 36 |
| | 16 4 $\frac{1}{2}$ |
| | 75 1 |

DIE 9 OCTOBRIS.

| Tempus | Diff. inter ☽ & ♀ | Decl. ☽ | Alt. ☽ | ☽ orient. |
|---------------------|----------------------|--------------------|------------------|---------------------|
| 10 47 $\frac{1}{2}$ | 32 38 | 9 55 $\frac{1}{2}$ | 22 $\frac{1}{2}$ | |
| | 32 37 $\frac{1}{2}$ | 9 56 $\frac{1}{2}$ | 22 53 | 15 32 $\frac{1}{2}$ |
| Decl. ♀ | 32 38 | 9 56 $\frac{1}{2}$ | 23 3 | 14 38 |
| 4 6 | 32 38 | 9 56 $\frac{1}{2}$ | 23 16 | 13 26 |
| 4 5 $\frac{1}{2}$ | | 9 56 $\frac{1}{2}$ | | |
| | 32 37 $\frac{1}{2}$ | 9 56 $\frac{1}{2}$ | 23 22 | 12 36 |
| | | 9 57 | | |
| | 32 37 | 9 56 $\frac{1}{2}$ | 23 26 | 12 3 $\frac{1}{2}$ |
| | | 9 56 $\frac{1}{2}$ | | |
| 4 4 $\frac{1}{2}$ | 32 36 $\frac{3}{4}$ | | 23 32 | 11 10 |
| 4 4 | | | | |

H. M. Circa Meridiem

| | | |
|---------------------|-------|--------------------|
| 12 8 $\frac{1}{2}$ | 32 37 | ☽ occid. |
| 12 13 $\frac{1}{2}$ | 32 36 | 2 6 $\frac{1}{2}$ |
| | | 3 26 $\frac{1}{2}$ |

¹ Vide supra p. 18 inter observaciones lune.

Paulo post ultimum tempus notatum
observata Declin. ♀ per Armillas 4° 4'.

DIE 10 OCTOBRIS, MANE.

Horologium ad ocul. ☽ correctum est.

| Tempus in horol. | Inter ♀ & cor ☽ | Decl. ♀ | Alt. ♀ per Min. Quad. | Can. min. occ. |
|---------------------|---------------------|--------------------|-----------------------------|-------------------|
| 5 39 $\frac{1}{2}$ | 29 54 | 3 48 | | 0 13 |
| | | 3 47 $\frac{1}{2}$ | | |
| 5 45 | 29 54 $\frac{1}{2}$ | | 17 | 1 24 |
| 5 48 $\frac{1}{2}$ | 29 54 | 3 45 $\frac{1}{2}$ | vtroq. | 2 9 |
| 5 51 | | | | 2 53 |

Postea ♀ a Sole observabatur vt sequitur, postquam ☽ paulo esset eleuation.

| Tempus | Diff. æquat. ☽ or. | Diff. ♀ & Solis per Sext. | Alt. ☽ | Decl. ♀ |
|--------------------|-----------------------|---------------------------------|--------|--------------------|
| 8 5 $\frac{1}{2}$ | 57 41 | 32 20 $\frac{1}{2}$ | 8 33 | |
| 8 10 | 56 48 | 32 21 | 9 3 | 3 46 |
| | | | | 3 45 |
| 8 15 $\frac{1}{2}$ | 55 18 | 32 21 $\frac{1}{2}$ | 9 42 | |
| 8 22 $\frac{1}{2}$ | 53 50 | 32 20 $\frac{1}{2}$ | 10 25 | 3 46 $\frac{1}{2}$ |
| | | | | 3 45 |
| 8 27 $\frac{1}{2}$ | 52 21 $\frac{1}{2}$ | 32 22 | 10 58 | |
| 8 37 $\frac{1}{2}$ | 50 2 | 32 21 $\frac{1}{2}$ | 12 3 | 3 41 |
| | | | | 3 41 |
| 8 44 $\frac{1}{2}$ | 48 20 | 32 22 $\frac{1}{2}$ | 12 45 | |
| 8 52 $\frac{1}{2}$ | 46 7 | 32 20 $\frac{1}{2}$ | 13 36 | |
| 9 0 $\frac{1}{2}$ | 44 13 | 32 25 | 14 29 | |
| 9 11 | 41 47 | 32 20 $\frac{1}{2}$ | 15 21 | |
| 9 21 | | | | 3 41 $\frac{1}{2}$ |
| 9 24 25 | 38 40 | 32 21 $\frac{1}{2}$ | 16 34 | |
| 9 40 50 | 34 32 | 32 32 | 17 54 | 3 41 $\frac{1}{2}$ |
| | | | | 3 40 $\frac{1}{2}$ |
| 9 50 20 | 32 10 | 32 24 | 18 40 | |

10 1 $\frac{1}{2}$ 29 26 Transiit ♀

Merid. habens Alt.

| | | | |
|----------|---------------------------------|---------------------|-------|
| | per Volub. 37 44 $\frac{1}{2}$ | | 3 40 |
| | per Chalyb. 37 45 $\frac{1}{2}$ | | 3 41 |
| 10 14 40 | 26 19 | 32 23 $\frac{1}{2}$ | 20 15 |
| 10 19 20 | 25 25 | 32 23 $\frac{1}{2}$ | 20 36 |

DIE 31 OCTOBRIS, MANE.

| Tempus Cor ☽ or. | Inter ♀ & cor ☽ | Declinatio ♀ | Alt. ♀ |
|---------------------|---------------------|--------------------|--------------------|
| 3 20 | 55 46 | 6 11 $\frac{1}{2}$ | 6 12 $\frac{1}{2}$ |
| 2 32 | 55 46 $\frac{1}{2}$ | 6 12 $\frac{1}{2}$ | 6 11 |
| | | | 13 28 |

Viceversa

| Tempus | Diff. ab Arct. | Declinatio ♀ | Alt. ♀ |
|--------|---------------------|--------------------|--------------------|
| 1 21 | 29 19 | 6 10 $\frac{1}{2}$ | 6 12 $\frac{1}{2}$ |
| 0 29 | 29 19 $\frac{1}{2}$ | 6 10 | 14 22 |
| occid. | | | |
| 0 35 | 29 19 | 6 12 | 14 53 |

DIE 14 NOUEMBRIS, MANE.

| Tempus | Inter ♀ & Corꝝ/occ. | Spicam | Declinatio ♀ | Alt. ♀ |
|--------|---------------------|--------|--------------|--------|
| 16 8 | 19 32½ | 12 29½ | 12 30½ | 8 50 |
| 17 10 | 19 32½ | 12 29½ | 12 30½ | 9 16 |
| 18 20 | 19 33½ | 12 29½ | 12 30½ | 9 50 |
| 19 14½ | 19 34 | 12 30 | 12 30½ | 10 10 |

Resp. H. 7 M. 6.

DIE 18 DECEMBRIS.

| Tempus | Inter ♀ & ♀ | Declin. ♀ | Alt. ♀ | Pro horol. ♀ or. |
|--------|-------------|-----------|--------|------------------|
| 7 53½ | 38 6 | 22 29½ | 3 11 | |
| 7 58½ | 38 7 | 22 33½ | 3 23 | 4 13 |
| | | 22 34½ | | |
| 8 2 | 38 7 | 22 32½ | 3 41 | 3 14 |
| 8 3½ | 38 6½ | 22 32½ | 3 57 | 2 44 |
| | | 22 33 | | |

Atque hinc potest verificari locus ♀ris habito respectu refractionis iuxta Horizontem, erat enim prope Solem. Locus autem ♀ vnde capiebatur¹, poterit corrigi ex obseruationibus ♀ eadem die factis [quas] suo loco habes.

DIE 19 DECEMBRIS.

Horologio indicante H. 7 M. 2½ transibat Spica ♀ per Meridianum.

| Tempus | ♀ a ♀ | Decl. ♀ | Alt. ♀ | Pro horol. ♀ or. |
|---------------|--------|---------|--------|------------------|
| 8 23 55 39 9½ | 22 35½ | 2 23 | 5 18 | |
| | | 22 36 | | |

| | | | | |
|-------|--------|--------|------|------|
| 8 26 | 39 9½ | 2 35 | | |
| 8 29½ | 39 10½ | 2 51 | 4 8 | |
| 8 33½ | 39 11½ | 22 37½ | 3 12 | 3 17 |
| | | 22 39 | | |
| 8 37½ | 39 12½ | 22 40½ | 4 0 | 2 18 |
| | | 22 39½ | | |
| 8 55½ | 39 13½ | 22 41 | 5 5 | |
| | | 22 40½ | | |

Postea non poterat ♀ amplius obseruari ob ☉ iam iam exorientem, diuerfitas autem in distantia a ♀ quæ eueniebat non vitio obseruationis sed propter refractionem fese successeiue alterantem contigit, quare hæc refractionis alia ratione corrigenda venit, vt verus locus pateat, adhibita etiam parallaxi.

Sol visus est oriri hora 8 minuto 12 in horologio.

DIE 20 DECEMBRIS, MANE.

Spica ♀ transibat Merid. horologio indicante H. 7 M. 1½, inde corriges tempus Horologii.

| ♀ a ♀ | Decl. ♀ | Alt. ♀ |
|-------|---------|--------|
| 8 51 | 40 15½ | 22 42 |
| 8 55½ | 40 15½ | 22 42 |
| 8 59½ | 40 16 | 22 40 |
| | | 22 41 |

Altitudines & Declinationes ♀ in Meridie & gradu 90.

MENSE MARTIO ANNI 1590².

| Dies | H. M. | Alt. ♀ merid. | Declin. ♀ ex alt. mer. | Decl. ♀ per Arm. | H. M. | Alt. ♀ in 90 | Declin. ♀ ex alt. in 90 | Decl. ♀ per Arm. |
|------|---------|---------------|------------------------|------------------|-------|--------------|-------------------------|------------------|
| 4 | 2 46½ | 51 59 35 | 17 54½ | 17 54½ | 7 55½ | 21 55½ | 18 0½ | 18 1½ |
| 11 | 2 45 | 54 29 35 | 20 24½ | 20 25 | 7 50½ | 24 58½ | 20 27 55 | 20 31½ |
| 15 | 2 43½ | 55 44½ | 21 39 35 | 21 40½ | 7 40½ | 26 33½ | 21 43½ | 21 46½ |
| 18 | 2 41 22 | 56 36½ | 22 30 55 | 22 31½ | 7 32½ | 27 39 | 22 36½ | 22 35 |
| 19 | 2 41 4 | 56 52 | 22 46½ | 22 48 | 7 31½ | 27 58 | 22 51½ | 22 51 |
| 21 | 2 39½ | 57 23½ | 23 18½ | 23 19½ | 7 30½ | 28 37½ | 23 22½ | 23 21½ |
| 26 | 2 33½ | 58 30 | 24 24½ | 24 24½ | 7 21½ | 30 1½ | 24 28½ | 24 27½ |
| 27 | 2 32½ | | | | 7 18½ | 30 12 | 24 37½ | 24 38½ |
| 28 | 2 31½ | | | | 7 18½ | 30 29½ | 24 50½ | 24 50 |
| 29 | 2 29½ | | | | 7 16½ | 30 42 | 25 0½ | 25 0 |
| 30 | 2 28½ | | | | 7 13½ | 30 54 | 25 10½ | 25 10 |

¹ Cfr. supra p. 43.

² Cf. supra p. 52 ad finem diei 3 Martii et p. 60 ad finem d. 21.

LOCA VENERIS.

Inquisitio motus ♀ ad diem 28 FEBRUARIJ¹.

| | | | | | |
|---------|--------------------|-----------|-------|------------------------------|-----------|
| H. 2 0' | Diff. ♀ a Sole | 46° 10½' | H. 7½ | Diff. ♀ ab Aldeb. | 29° 16½' |
| | Altitudo ☉ 25° | | | Declin. ♀ | 16 24½ B. |
| | Declinatio ♀ | 16 18 | | Declin. Aldeb. | 15 37 B. |
| | Declin. ☉ vifa | 4 4½ M. | | Ang. Diff. ascenf. | 30 28 10 |
| | Ang. diff. ascenf. | 41 55 6 | | Ergo Asc. R. ♀ | 32 39 10 |
| | Afc. R. ☉ vifa | 350 38 40 | | Nam Afc. R. Aldeb. est | 63 7 20 |
| | Ergo Afc. Recta ♀ | 32 33½ | | Resp. Longitudo ♀ | 6 1 0½ |
| | Resp. Longitudo ♀ | 5 54½ ☾ | | Latitudo | 3 0 0B. |
| | Latitudo | 2 56½ B. | | Alt. ♀ 20°, Parall. Long. 3½ | |
| | | | | Latit. 2 53 add. | |

N.B. Habenda est ratio parallaxeos ♀ in vtraque obseruatione et Longitudini vtrinque visæ applicanda, prout cis vltraque 90 grad. ♀ fuerit, sicque motus interuallo temporis rectius congruit.

Adde parallaxin posteriois obseruationis.

DIE 3 MARTIJ.

| | | | | |
|-------------|---------------------------------|--|-----------------------|------------|
| H. 3 M. 16½ | Diff. inter ♀ et ☉ | 46° 0', Declin. ♀ | 17° 30' B., Declin. ☉ | 2° 51' M |
| | Afcensio Recta ☉ | 353° 26' 22'', Locus ☉ | 22° 51' 4'' ☾. | |
| | Ergo Afcensio Recta ♀ | 35° 17', Decl. B. | 17 30. | |
| | Eodem die ² H. 6 37' | ☾ Afc. R. 63 7, Declin. 15 39 30 B. | | |
| | Diffantia æquat. 27 48 30, | Afc. R. ♀ 35 18 30, | Resp. Long. | 8° 49' ☾ |
| | | | Latit. | 3 17 43 S. |
| | H. 6 38' 50'' | Diff. æquat. 27 50 30, Afc. R. 35 16 30, | Resp. Long. | 8 47 15 ☾ |
| | | | Latit. | 3 18 S. |

Inquisitio loci ♀ iuxta stationem ex obseruationibus

DIEJ 14 & 15 APRILIS³.

| | | | | |
|--------------------|-----------------------------|----------|---------------------------------|---------------------|
| Die 14, H. 2 M. 10 | Diff. ♀ a ☉ | 28 43½ | Resp. Longitudo ♀ | 2 12½ II |
| | Declin. obseruata ♀ | 26 4 45 | Latitudo | 5 31½ |
| | Declin. vifa Solis | 12 51 45 | Altit. ♀ 60° fere, Parall. alt. | 4' 5'' ⁴ |
| | Ang. diff. ascenf. | 27 9 45 | Long. 1' 10'', Lat. 3' 45'' | |
| | Afc. R. vifa ☉ ¹ | 31 43 0 | Resp. vera Long. | 2 13½ II |
| | Ergo Afc. R. vifa ♀ | 58 52 45 | Lat. | 5 35½ B. |
| Die 15, H. 2½ | Diff. ♀ a ☉ | 27 44 | Resp. Longitudo ♀ | 2 8 II |
| | Decl. ♀ | 26 3 0 | Latitudo | 5 39 35 B. |
| | Decl. vifa ☉ | 13 9 0 | Alt. ♀ 60 circiter | |
| | Afc. R. vifa ☉ | 32 39 20 | Vera Longitudo | 2 9½ II |
| | Ang. diff. ascenf. | 26 9 50 | Latitudo | 5 34 0 B. |
| | Ergo Afc. R. ♀ | 58 49 10 | | |

¹ E codd. V. et K.² E codice M.³ E codd. V. & K.⁴ Adscriptum est in margine: »Diffantia ♀ a terra circa hos dies 425 semidiamet. terræ».

Eodem die 15 Aprilis H. 8 M. 30
 Dist. ♀ ab inf. cap. II 45 12
 Declinatio ♀ 26 2
 Decl. inf. cap. II 28 57
 Ascens. R. huius 110 1 50
 Ang. diff. ascens. 51 14 45
 Igitur Asc. R. ♀ 58 47 5

Resp. Longitudo 2 6 30 II
 Latitudo 5 32 0 B.
 Alt. ♀ 15°, resp. Parallaxis 7' 40"
 iuxta Copernicum
 Refractio 3 0
 Differentia 4 40
 Resp. Par. Long. 3' 20" add.,
 Lat. 3' 10" add.
 Longitudo 2 9½ II
 Latitudo 5 35 B.

Hinc inter alia ratiocinari licet parallaxin ♀ etiam minorem esse quam Theoria Copernicea supponit, dum a 2½ H. in 8½, si parallaxis secundum Copernicum adhibeatur, plane stationaria stella ♀ erit, cum tamen proportio motus diurni vnum ad minimum minutum iuxta intervallum temporis exigat. Sed vide obseruationes & fac ibi periculum.

Supputatio loci ♀ ad diem 6 JULIJ mane¹.

H. 6 0' Distantia ♀ a ☉ 45° 31'
 Declinatio ☉ visa 21 36 0
 Decl. ♀ 18 7 B.
 Long. ☉ 23 3½ ☉ visa, Alt. ☉ 17½
 Ang. diff. ascens. 48 26 20 subtr.
 Asc. R. ☉ visa 114 52 10
 Asc. R. ♀ 66 25 0
 Resp. Longitudo ♀ 7 37½ II
 Latitudo 3 35½ M.
 Resp. refractio extra parallaxin Altit. ♀ 41°, Parallaxis 2' 40"
 Long. 1' 45" subtr., Lat. 2½' add. Resp. in Long. 1' 10" subtr., Lat. 2' 25" add.

DIE 15 JULIJ, MANE¹.

H. 2 M. 43 Ascensio R. ♀ 72 44½
 Resp. Longitudo 13 43 3 II
 Latitudo 3 10½ M.
 Alt. ♀ 15½, resp. Refract. 2' 45"
 Parall. 4 0
 Differentia 1 15
 Resp. in Long. 0' 25" subtr.
 Lat. 1 10 add.
 Vera Longitudo 13° 42½' II
 Latitudo 3 9½ M.

Supputatio pro Longitudine & Latitudine ♀ ex obseruatione DIEJ PRIMI SEPTEMBRIS

matutina ad Horam 3 Minutum 58½².

| | Ex propria obseruatione | Ex Coperniceo calculo | Ex Alphonsino calculo |
|-----------|-------------------------|-----------------------|-----------------------|
| Longitudo | 7 48½ ☉* | 7 0 ☉ | 7 50 ☉ |
| Latitudo | 0 18½ M. | 0 22 M. | 0 51 M. |

* Ex tabula nostra veteri sunt hæ longit. & lat. deductæ.

DIE 10 OCTOBRIS, MANE¹.

H. 5 M. 48½ Distabat ♀ a corde ☉ 29 54
 Absumitur in dist. 29 55
 pro Refr. emend.
 Declin. ♀ 3 45
 Declin. cordis ☉ 13 57
 Asc. R. cordis ☉ 146 37 10
 Ergo Asc. R. ♀ 175 8 0
 Declinatio 3 45

¹ E codd. V. et K.

² E codice E.

Inquisitio loci ♀ A° 90 DIE 14 NOUEMBRIS mane¹.

| | | | |
|---------------------------|-----------|--------------------------------|-----------|
| H. 7 M. 6 Dift. ♀ a Spica | 19 34 | Ang. diff. ascenf. | 19 35 55 |
| Declinatio ♀ | 12 30 M. | Ascenf. R. Spicæ | 195 56 0 |
| Decl. Spicæ | 8 58 M. | Ergo Asc. R. ♀ | 215 31 55 |
| Resp. Longitudo ♀ | 7 22 0 11 | Altit. ♀ 10°, resp. parallaxis | 2 10 |
| Latitudo | 1 36½ B. | refractio | 5 30 |

differentia 3 20

Diff. in Long. 2' 20" add.

Vera obseruata

Lat. 2 30 subtr.

Long. 7° 24½ 11

Lat. 1 35½ B.

Inquisitio loci ♀ ad diem 18 DECEMBRIS mane¹.

| | | | |
|----------------------|--------|-----------------------|-----------|
| H. 8 0' Dift. ♀ a ♄ | 38 7 | Angulus diff. ascenf. | 39 19 48 |
| Declinatio ♀ | 22 32½ | Ascensio R. ♄ | 219 45½ |
| Declinatio ♄ | 14 20½ | Idcirco Asc. R. ♀ | 259 5 3 |
| Altit. ♀ 3½ | | Resp. Longitudo | 19 55½ x |
| Parall. altit. 2' 0" | | Latitudo | 0 36 0 B. |
| Refractio | 11 40 | | |
| | 9 40 | | |

Vera ♀ Longitudo 20 0 5 x

Resp. in Long. 4 30 add., Lat. 8 30 subtr.

Latitudo 0 27½ B.

OBSERVATIONES MERCURIJ.

DIE 28 FEBRUARIJ.

Obseruabatur ♀ in altitudine quasi 2½ graduum per Radium, a D. Tychone accepta, sed nimis festinanter nec satis bene.

Declinatio eius 2 16½.

DIE 1 MARTIJ, VESPERI.

Obseruabatur ♀.

| Tempus | Dift. inter ♀ & luc. ♀ | Altit. ♀ per Q. min. azim. | Declin. | Bor. ♀ |
|---------|---------------------------|-------------------------------|---------|--------|
| 6 25½ | 27 16 | 6 18½ | | |
| 6 27½ | 27 18 | 5 30 | 3 6 | 3 6½ |
| 6 29 | 27 15½ | 5 8 | 3 6½ | |
| 6 30 45 | 27 16 | 4 57½ | | |
| 6 32½ | 27 15 | 4 35 | | |
| 6 34½ | 27 15 | 4 28 | 3 6½ | 3 6 |
| 6 36½ | 27 15½ | 4 8 | 3 6½ | |
| 6 38½ | 27 14½ | 3 56 | 3 6½ | 3 6½ |
| 6 43½ | 27 13 | 3 25 | 3 7 | 3 6½ |
| 6 46½ | 27 11 | 2 56 | 3 7 | 3 7½ |
| 6 49½ | 27 9 | 2 17 | 3 7½ | 3 8 |
| 6 52 | 27 7½ | 2 10 | 3 7 | 3 7½ |
| 6 55 | 27 3½ | 1 32 | 3 7½ | 3 8 |
| 6 58 | 27 2½ | 1 14 | 3 8 | 3 8½ |

Pro horolog. obseruauit vltimo, quod Canis maior in hoc vltimo tempore fuerit ante Meridianum P. 0 M. 50².

N. B. ♀ admodum apparenter videbatur, instar stellarum primæ magnitudinis, adeo vt eam, quæ est in dextro humero Orionis, magnitudine visibili repræsentaret. Si itaque ♀ Diametrum visibilem feceris 2½', non inconuenienter se habebit.

DIE 2 MARTIJ, VESPERI.

| Tempus | Dift. inter ♀ & luc. ♀ | Decl. ♀ | Alt. ♀ per min. azim. | Pro ho- rol. Can. mai. or. |
|--------|---------------------------|--------------|--------------------------|----------------------------------|
| 6 35 | 25 40 | 3 59 | 6 23 | 5 26 |
| 6 37½ | 25 38½ | | 6 4 | 5 1½ |
| | | | Azim. ♀ 88 | 5 |
| 6 39½ | 25 37 | 4 0 | 5 50 | 4 26 |
| | | 3 59½ | | |
| 6 43½ | 25 37 | | 5 15 | 3 27 |
| 6 45½ | 25 36½ | 4 1 | 4 50 | 3 2 |
| 6 48½ | 25 35½ | vtroq. pinn. | 4 30 | 2 7 |
| 6 49½ | 25 34½ | 4 2 | 4 27 | 1 50 |
| 7 0½ | | | Canis mai. occ. | 0 45 |

¹ E. codd. V. et K.² Adscriptum est in codd. V et K: »Resp. 6 41, subtrahe itaque vbique 17'⁴.

*Horologium in Meridie sequente
8 M. iusto tardius monstrabat, fed ad-
hibe & fixas pro tempore.*

DIE 3 MARTIJ, VESPERI.

| Tempus | Dift. ☿ & ocul. ☿ | Declin. ☿ | Alt. ☿ | Pro horol. Can. mai. occ. |
|--------------------|----------------------|--------------------|--------|---------------------------------|
| 6 41 | 54 57 | 4 49 $\frac{1}{2}$ | | |
| | | 4 50 | | |
| 6 44 $\frac{1}{2}$ | 54 57 $\frac{1}{2}$ | 4 50 | 5 46 | |
| | | 4 49 $\frac{1}{2}$ | | |
| 6 48 35 | 54 57 $\frac{1}{2}$ | 4 51 | 5 15 | |
| | | 4 51 $\frac{1}{2}$ | | |
| 7 0 35 | 54 52 $\frac{1}{2}$ | 4 54 $\frac{1}{2}$ | 3 35 | 2 8 |
| | <i>dubia)</i> | | | |
| 7 5 $\frac{1}{2}$ | 54 52 | | 2 54 | 3 25 $\frac{1}{2}$ |
| 7 9 | 54 49 $\frac{1}{2}$ | 4 58 | 2 24 | 4 11 |
| | | 4 57 $\frac{1}{2}$ | | |
| 7 13 $\frac{1}{2}$ | 54 46 $\frac{3}{4}$ | 5 0 $\frac{1}{2}$ | 1 37 | 5 25 |

DIE 4 MARTIJ, VESPERI.

Obferuabatur ☿ vt fequitur.

N.B. Horologium mouebatur hoc die
iusto celerius 0' 40'' idque a Meridie
proxime antecedenti.

| Tempus | Dift. ☿ ab Aldeb. | Decl. ☿ | Alt. ☿ | Pro horol. Can. mai. or. |
|--------------------|----------------------|--------------------|--------------------|--------------------------------|
| 6 34 $\frac{1}{2}$ | 53 26 | 5 35 | 8 1 $\frac{1}{2}$ | 3 27 |
| | | 5 35 $\frac{1}{2}$ | | |
| 6 38 $\frac{1}{2}$ | 53 26 $\frac{1}{2}$ | 5 35 $\frac{1}{2}$ | 7 36 $\frac{1}{2}$ | 2 35 |
| | | 5 36 | | |
| 6 42 $\frac{1}{2}$ | 53 25 $\frac{1}{2}$ | | | 1 24 $\frac{1}{2}$ |
| 6 43 $\frac{1}{2}$ | | 5 37 $\frac{1}{2}$ | 6 49 $\frac{1}{2}$ | |
| | | 5 37 | Azim. 90° | |
| 6 48 5 | 53 25 | 5 40 | 6 3 | 0 4 |
| | | 5 40 $\frac{1}{2}$ | Per Q. min. | occid. |
| 6 51 $\frac{1}{2}$ | 53 24 $\frac{1}{2}$ | 5 40 | 5 32 | 0 47 |
| | | 5 39 $\frac{1}{2}$ | | |
| 6 59 $\frac{1}{2}$ | 53 23 $\frac{1}{2}$ | | 4 32 | 2 44 |
| 7 0 $\frac{1}{2}$ | | 5 41 | vtroque | |
| 7 16 $\frac{1}{2}$ | 53 17 $\frac{1}{2}$ | 5 45 | 2 17 | 7 7 |
| | | 5 45 $\frac{1}{2}$ | | |

DIE 6 MARTIJ.

| Inter ☿ & Aldeb. | Decl. B. | Alt. ☿ per Volub. | Can. mai. or. |
|---------------------|----------|----------------------|------------------|
| 6 39 | 50 39 | 9 10 | 0 43 |
| | | Azim. ☿ 89 10 | |

| | | | | |
|--------------------|---------------------|--------------------|---------------------------|---------------------|
| 6 43 $\frac{1}{2}$ | 50 39 $\frac{1}{2}$ | | | occid. 0 17 |
| 6 43 $\frac{1}{2}$ | | 7 7 $\frac{1}{2}$ | 8 34 | 0 27 |
| | | 7 6 $\frac{1}{2}$ | Azim. 90 | 0 |
| 6 51 $\frac{1}{2}$ | 50 38 | 7 7 $\frac{1}{2}$ | 7 35 $\frac{1}{2}$ | 2 20 |
| | | 7 8 | Azim. 91 | 34 |
| | | | Alt. per Q. min. azim. | |
| 6 56 $\frac{1}{2}$ | 50 37 | 7 8 | 6 46 | 3 41 $\frac{1}{2}$ |
| | | 7 8 $\frac{1}{2}$ | | |
| 7 0 $\frac{1}{2}$ | 50 36 $\frac{1}{2}$ | 7 8 $\frac{1}{2}$ | 6 10 | 4 38 |
| | | 7 9 | | |
| 7 12 $\frac{1}{2}$ | 50 34 | 7 10 $\frac{1}{2}$ | 4 46 | 7 42 |
| | | 7 11 $\frac{1}{2}$ | | |
| 7 15 $\frac{1}{2}$ | 50 34 | | 4 6 | 8 27 |
| 7 20 $\frac{1}{2}$ | 50 31 $\frac{1}{2}$ | 7 14 | 3 30 | 9 43 |
| | | 7 13 $\frac{1}{2}$ | | |
| 7 30 | 50 29 $\frac{1}{2}$ | 7 19 | 2 14 | 12 5 $\frac{1}{2}$ |
| 7 35 $\frac{1}{2}$ | 50 28 $\frac{1}{2}$ | 7 21 $\frac{1}{2}$ | 2 0 | 13 21 $\frac{1}{2}$ |

DIE 11 MARTIJ, VESPERI.

| Inter ☿ & Aldeb. | Decl. ☿ B. | Alt. ☿ | Can. min. occ. |
|---------------------|---------------------|---------------------|-------------------|
| 7 37 $\frac{1}{2}$ | 45 21 $\frac{1}{2}$ | 10 8 $\frac{1}{2}$ | 4 34 |
| | | 10 9 | 3 53 |
| 7 43 | 45 20 $\frac{1}{2}$ | 10 12 | 4 7 |
| | | 10 11 $\frac{3}{4}$ | |
| 7 46 $\frac{1}{2}$ | 45 18 $\frac{1}{2}$ | 10 12 | 3 40 |
| | | 10 12 $\frac{1}{2}$ | |

DIE 14 MARTIJ, VESPERI.

7 49 $\frac{1}{2}$ Decl. ☿ 11 21 $\frac{1}{2}$. Erat tunc alti-
tudo ☿ quasi trium graduum.

DIE 15 MARTIJ, VESPERI.

| Inter ☿ & Aldeb. | Decl. ☿ | Alt. ☿ per Q. min. azim. | Can. mai. occ. |
|---------------------|---------------------|-----------------------------|---------------------|
| 7 19 $\frac{1}{2}$ | 43 11 | 11 29 $\frac{1}{2}$ | 6 12 |
| | | 11 30 | 16 40 |
| 7 26 $\frac{1}{2}$ | 43 10 $\frac{1}{2}$ | 11 29 $\frac{1}{2}$ | 5 58 |
| | | 11 30 $\frac{1}{2}$ | |
| 7 29 $\frac{1}{2}$ | | | 5 24 |
| 7 33 $\frac{1}{2}$ | | 11 30 $\frac{1}{2}$ | |
| | | 11 31 | |
| 7 35 $\frac{1}{2}$ | 43 8 $\frac{1}{2}$ | | 4 38 |
| 9 11 $\frac{1}{2}$ | | | 20 35 $\frac{1}{2}$ |
| | | | Luc. Hydræ occ. 0 4 |

¹ Observationem lucidæ stellæ Lyrae ad refractionem inveniendam infra inter fellas boreales reperies, p. 85.

LOCA MERCURIJ¹.

DIE 1 MARTIJ pro loco ☿.

| | | | |
|------------------------|---------|-------------------------------|----------|
| H. 6½ Dift. ☿ a luc. ✓ | 27 16 | Resp. Longitudo | 6 8½ ✓ |
| Declinatio ☿ | 3 6½ | Latitudo | 0 43½ B. |
| Decl. lucidæ ✓ | 21 29½ | Alt. 5½, resp. Refr. | 9' 50" |
| Ascensio R. luc. ✓ | 26 4 0 | Parall. 3 0 | |
| Ang. diff. ascens. | 20 43 7 | | 6 50 |
| Pone Asc. R. ☿ | 5 21 0 | Resp. Long. 5' 30", Lat. 3 50 | |
| | | Vera Longitudo ☿ | 6 3½ ✓ |
| | | Latitudo | 0 39½ B. |

DIE 6 MARTIJ pro loco ☿.

| | | | |
|------------------------------|----------|-----------------------------|--------------|
| H. 6 50' Dift. ☿ ab Aldebora | 50 38 | Resp. Longitudo | 13 11½ ✓ |
| Declinatio B. | 7 8 | Latitudo | 2 4 23B. |
| Decl. Aldeboræ | 15 37 | Refr. 7' 30" Refr. in Long. | 3 15 f. |
| Ascensio R. Aldeb. | 63 7 15 | Parall. 3 30 | Lat. 2 15 f. |
| Ang. diff. ascens. | 51 48 33 | | 4 0 |
| Ergo Ascens. R. ☿ | 11 18 42 | Vera ☿ Longitudo | 13 8½ ✓ |
| | | Latitudo | 2 2½ B. |

DIE 11 MARTIJ.

| | | | |
|------------------------|----------|--------------------------------|----------------|
| H. 7½ Dift. ☿ & Aldeb. | 45 21½ | Resp. Longitudo | 19 24½ ✓ |
| Declinatio ☿ | 10 9 | Latitudo | 2 22 30 |
| Declinatio Aldeb. | 15 37 | Alt. 4½, Refr. 10 25, in Long. | 5 40 sub. |
| Ang. diff. ascens. | 46 16 25 | 3 35 | Lat. 3 45 sub. |
| Ergo Asc. R. ☿ | 16 50 50 | | 6 50 |
| | | Vera ☿ Longitudo | 19 18½ ✓ |
| | | Latitudo | 2 18½ B. |

DIE 15 MARTIJ.

| | | | |
|-------------------------|----------|---------------------------|-----------|
| H. 7½ Dift. ☿ ab Aldeb. | 43 11 | Resp. Longitudo | 21 44 3 ✓ |
| Declinatio ☿ | 11 30 | Latitudo | 3 51 37B. |
| Ang. diff. Ascens. | 44 17 40 | Refr. Refr. 4' 0" | |
| Igitur Asc. R. ☿ | 18 49 35 | Par. 2 50 in long. & lat. | |
| | | Vera ☿ Longitudo | 21 40 ✓ |
| | | Latitudo | 3 48½ B. |

OBSERVATIONES STELLARUM FIXARUM IN ZODIACO.

DIE 5 JANUARIJ, MANE.

| | | | | |
|---|--|--------|------|-----------|
| Obferuatio stellarum Ω quæ desiderantur. | | 12 | 12 Ω | 29 59 bis |
| | | 14 | 14 Ω | 37 32 bis |
| | | 16 | 16 Ω | 40 58 |
| | | | | 40 58½ |
| Numerus figuræ Inter Merid. caput II & | | 17 | 17 Ω | 44 6 |
| 29 29 in præced. pede Ω | | 30 41½ | | 44 6½ |
| | | 30 42 | | 46 23 |
| 28 28 Ω | | 30 59½ | | 46 23½ |
| | | 30 59½ | | 18 52 bis |
| | | 24 | 24 Ω | |

¹ E codd. V. et K.

| | |
|-------------------------------------|---------------------|
| 25 Inter cor Ω & 25 Ω | 21 40 |
| | 21 40 $\frac{1}{2}$ |
| 26 26 Ω | 25 23 $\frac{1}{2}$ |
| | 25 24 |

Viceversa

| | |
|---|-------------------------|
| 25 Inter Spicam $\Pi\eta$ & 25 Ω | 32 20 $\frac{1}{2}$ bis |
| 26 26 Ω | 25 50 $\frac{1}{2}$ bis |

| | |
|---|---------|
| 25 Declin. eius in crure pedis Ω B. | 5 7 bis |
|---|---------|

| | |
|--|------------------------|
| 26 Declin. extremæ pedis posterioris B. | 1 27 $\frac{1}{2}$ bis |
|--|------------------------|

| | |
|---------------------------------|------------------------|
| Inter caudam Ω & Vindem. | 18 9 $\frac{1}{2}$ bis |
| & 15 $\Pi\eta$ | 30 11 $\frac{1}{2}$ |
| | 30 12 |

| | |
|-------------------------------|--------------------|
| Altit. Spicæ $\Pi\eta$ Merid. | |
| per Chal. | 25 8 $\frac{1}{2}$ |
| per Volub. | 25 7 $\frac{1}{2}$ |

DIE 18 JANUARIJ, MANE.

| | |
|---------------------------|--------------------|
| Alt. Spicæ $\Pi\eta$ mer. | |
| per Chalyb. & Volub. | 25 7 $\frac{3}{4}$ |

DIE 20 JANUARIJ.

| | |
|-------------------------|--------------------|
| Inter Aldeb. & 24 Π | 42 1 |
| | 42 0 $\frac{1}{2}$ |

| | |
|---------|--------------------------------|
| 4 Π | 37 57 $\frac{1}{2}$ du- bia |
| | 37 56 $\frac{3}{4}$ |

| | |
|----------|---------------------|
| 22 Π | 46 46 $\frac{3}{4}$ |
| | 46 46 $\frac{1}{2}$ |

| | |
|----------|---------------------|
| 11 Π | 35 19 |
| | 35 18 $\frac{3}{4}$ |

| | |
|--------------------|---------------------|
| 9 Π quæ est | |
| prope 5 (sunt duæ | 41 34 |
| paruulæ conjunctæ) | 41 33 $\frac{1}{2}$ |

| | |
|------------------|---------------------|
| Declin. 24 Π | 32 32 |
| | 32 32 $\frac{1}{2}$ |

| | |
|--------------------------------|---------------------|
| Decl. luc. pedis Π vtroque | 16 40 $\frac{3}{4}$ |
|--------------------------------|---------------------|

DIE 26 JANUARIJ.

| | | |
|-----------------|--------------------|--------------------|
| | Altit. | Declin. |
| Cordis Ω | per Volub. | per Armillas |
| | 8 56 $\frac{1}{2}$ | 14 0 $\frac{1}{2}$ |
| | | 14 0 |

| | | |
|----------------|--------------------|---------------------|
| Caudæ Ω | 7 13 $\frac{1}{2}$ | 16 58 vno |
| | 8 41 | 16 57 |
| | | 16 57 $\frac{1}{2}$ |

| | | |
|--|---------------------|---------------------|
| | 10 30 $\frac{1}{2}$ | 16 57 |
| | | 16 56 $\frac{1}{2}$ |

| | | |
|--|---------------------|---------------------|
| | 12 44 $\frac{1}{2}$ | 16 56 $\frac{3}{4}$ |
|--|---------------------|---------------------|

DIE 29 JANUARIJ.

| | |
|--|---------------------|
| Altit. merid. oculi Ω per Chal. | 49 41 $\frac{1}{2}$ |
| per Volub. | 49 41 $\frac{1}{4}$ |

Cordis Ω ad ortum Declinatio

| Altit. | vno pin. | altero |
|---------------------|---------------------|--------------------|
| 11 7 | 14 0 | 14 0 |
| 11 45 | 14 0 | 14 0 $\frac{1}{2}$ |
| 12 53 $\frac{1}{2}$ | 13 59 $\frac{1}{2}$ | 14 0 |

DIE 5 FEBRUARIJ.

| | |
|--|---------------------|
| Alt. Merid. auf. lancis $\underline{\Omega}$ | |
| per Chalyb. | 19 51 |
| per Volub. | 19 51 $\frac{1}{2}$ |

| | |
|-------------------------------|---------------------|
| Inter Spicam $\Pi\eta$ & | |
| obscuriorem in chele | 20 40 $\frac{1}{2}$ |
| austrina $\underline{\Omega}$ | 20 41 |

| | |
|--|--------------------|
| 5 in australi chele $\underline{\Omega}$ | 25 9 $\frac{1}{2}$ |
| | 25 9 |

| | |
|--|---------------------|
| 4 quæ est ad trutinam $\underline{\Omega}$ | 23 40 |
| | 23 40 $\frac{1}{2}$ |

| | |
|------------------------|---------------------|
| 7 $\underline{\Omega}$ | 31 53 |
| | 31 53 $\frac{1}{2}$ |

| | |
|-------------------------|---------------------|
| Alt. merid. bor. lancis | |
| per Chalyb. | 26 18 $\frac{1}{2}$ |
| per Volub. | 26 18 $\frac{1}{2}$ |

| | |
|---|--------------------|
| Inter Spicam $\Pi\eta$ & 8 $\underline{\Omega}$ | 34 2 $\frac{1}{2}$ |
| | 34 3 |

| | |
|------------------------|-------|
| 9 $\underline{\Omega}$ | 31 27 |
| | 31 28 |

| | |
|-------------------------|-------------------------|
| 10 $\underline{\Omega}$ | 29 13 $\frac{1}{2}$ bis |
|-------------------------|-------------------------|

| | |
|---|---------------------|
| Inter australem lancem $\underline{\Omega}$ & | |
| supremam in branchis | 18 24 $\frac{1}{2}$ |
| borealibus $\Pi\eta$ num. 22 | 18 25 |

| | |
|----------------------|------|
| Inter. auf. lancem & | 25 2 |
| cor $\Pi\eta$ num. 8 | 25 3 |

| | |
|--------------------------|--|
| Incertæ propter auroram. | |
|--------------------------|--|

Num. DIE 6 FEBRUARIJ, MANE.

| | |
|---|---------------------|
| 22 Repetita dist. inter austral. lancem | |
| $\underline{\Omega}$ & supremam in | 18 25 |
| branchis Borealibus $\Pi\eta$ | 18 25 $\frac{1}{2}$ |

| | |
|---|---------------------|
| 5 Inter auf. lancem & paruulam quæ est in fronte $\Pi\eta$ in | |
| cuspidè, constituens trian- | 19 32 $\frac{1}{2}$ |
| gulum in quo est borealior | 19 33 $\frac{1}{2}$ |

| | |
|------------------------|---------------------|
| 6 Inter auf. lancem & | |
| eam quæ est meridiona- | 18 32 $\frac{1}{2}$ |
| lior in basi trianguli | 18 33 $\frac{1}{2}$ |

| | |
|-------------------------|--------------------|
| 1 Inter auf. lancem & | |
| supremam trium lucidio- | 18 4 $\frac{1}{2}$ |
| rum in fronte $\Pi\eta$ | 18 5 |

| | |
|----------------------------------|---------------------|
| 2 Inter auf. lanc. & mediam | 17 36 $\frac{1}{2}$ |
| trium lucid. in fronte $\Pi\eta$ | 17 36 $\frac{1}{2}$ |

| | |
|---|-------------------------|
| 3 Inter auf. lanc. & infimam trium lucidarum in fronte \mathbb{M} | 18 43 $\frac{1}{2}$ bis |
| 7 Inter auf. lanc. & lucidiorem in pectore \mathbb{M} | 23 2 $\frac{1}{2}$ |
| quæ præcedit cor | 23 3 |
| 8 Inter auf. lancem $\underline{\Omega}$ & cor \mathbb{M} | 25 3 $\frac{1}{2}$ |
| | 25 4 |
| Fuit tunc. alt. cordis \mathbb{M} 8°30' per Volub. | |
| 9 Inter auf. lanc. & paruum lam quæ sequitur cor \mathbb{M} | 27 3 |
| | 27 4 |
| Alt. eius tunc erat 6 Grad. | |
| Alt. merid. supremæ in fronte \mathbb{M} per Volub. | 15 32 $\frac{1}{2}$ |
| Alt. merid. cordis \mathbb{M} per Volub. | 8 45 $\frac{1}{2}$ |
| per Chalyb. | 8 45 $\frac{1}{2}$ |

DIE 25 FEBRUARIJ, MANE.

| | |
|--|---------------------|
| Inter 17 in cauda Serpentis Ophiuchi & infimam trium in fronte \mathbb{M} num. 3 | 41 21 |
| Inter eandem 17 & mediam in fronte \mathbb{M} num. 2 | 41 21 $\frac{1}{2}$ |
| Inter eandem 17 & supremam in fronte \mathbb{M} num. 1 | 39 31 $\frac{1}{2}$ |
| Sub auroram. | 37 18 $\frac{1}{2}$ |

DIE 22 MARTIJ.

| | |
|---|---------------------|
| Alt. cordis \mathcal{O} Merid. per Chalyb. & Volub. | 48 2 |
| Alt. merid. lucidæ in collo \mathcal{O} per Chalyb. | 55 59 |
| per Volub. | 55 58 $\frac{1}{2}$ |

DIE 27 MARTIJ.

| | |
|--|---------------------|
| Inter cor \mathcal{O} & nonam \mathbb{I} | 40 27 |
| | 40 26 $\frac{1}{2}$ |
| Declinatio eius Borea | 28 45 $\frac{1}{2}$ |
| | 28 45 |

DIE 30 MARTIJ.

| | |
|---|---------------------|
| Inter finistrum genu Ophiuchi & 10 $\underline{\Omega}$ | 17 55 $\frac{1}{2}$ |
| Inter fin. genu Ophiuchi & 4 $\underline{\Omega}$ | 17 55 $\frac{1}{2}$ |
| | 23 46 $\frac{1}{2}$ |
| | 23 47 |
| Declin. 9 $\underline{\Omega}$ | 15 20 $\frac{1}{2}$ |
| | 15 20 $\frac{1}{2}$ |
| Declin. 8 $\underline{\Omega}$ | 14 18 $\frac{1}{2}$ |
| | 14 18 |

| | |
|---|-------------------------|
| Alt. merid. 5 \mathbb{M} per Volub. | 15 48 $\frac{1}{2}$ |
| Inter 17 in cauda Serpentis & 10 \mathbb{M} | 39 39 $\frac{1}{2}$ |
| | 39 40 |
| 22 \mathbb{M} | 35 0 |
| | 35 1 |
| 4 \mathbb{M} | 43 11 $\frac{1}{2}$ |
| | 43 12 $\frac{1}{2}$ |
| 6 \mathbb{M} | 37 18 |
| | 37 18 $\frac{1}{2}$ |
| 5 \mathbb{M} | 35 43 |
| | 35 43 $\frac{1}{2}$ bis |
| 7 \mathbb{M} | 36 45 |
| | 36 45 $\frac{1}{2}$ |
| | tertio 36 46 |
| 9 \mathbb{M} | 35 43 $\frac{1}{2}$ |
| | 35 43 $\frac{1}{2}$ |

Erat eius nonæ altit. tunc circiter 6 $\frac{1}{2}$.

| | |
|---|---------------------|
| Declin. 1 \mathbb{M} vno 18 36 $\frac{1}{2}$ alt. 18 36 $\frac{1}{2}$ | |
| 6 \mathbb{M} | 19 30 |
| 3 \mathbb{M} | 24 46 |
| 7 \mathbb{M} | 24 25 $\frac{1}{2}$ |
| 9 \mathbb{M} | 27 9 $\frac{1}{2}$ |
| | 27 8 $\frac{1}{2}$ |

DIE 31 MARTIJ.

| | | |
|--|-----------------------|---------------------|
| Decl. 16 \mathbb{M} | 3 33 | 3 32 $\frac{1}{2}$ |
| Inter bor. lancem $\underline{\Omega}$ & 18 \mathbb{M} | 23 34 | 23 34 $\frac{1}{2}$ |
| Inter bor. lancem $\underline{\Omega}$ & 19 \mathbb{M} | 23 34 | 23 35 |
| Inter bor. lancem & . . . ¹ | 21 55 | 21 55 $\frac{1}{2}$ |
| Inter boreal. finist. manus Ophiuchi & 21 \mathbb{M} | 28 43 | 28 42 |
| Inter bor. finistræ manus Ophiuchi & 24 \mathbb{M} | 26 32 $\frac{1}{2}$ | 26 33 |
| Decl. 22 ^e \mathbb{M} superioris in fimbria | 3 57 $\frac{1}{2}$ A. | 3 58 $\frac{1}{2}$ |
| Anno 82 inuenta est distantia inter Spicam \mathbb{M} & supremam finistræ manus Ophiuchi | 42 33 $\frac{1}{2}$ | |
| Decl. finistræ manus Oph. | 2 33 $\frac{1}{2}$ M. | |
| Ad initium anni 90 | | |
| Declin. finistræ manus Ophiuchi ex Altit. Merid. | 2 37 20 | |
| Ascensio Recta | 238 11 $\frac{1}{2}$ | |

¹ Postea adscriptum est: »Creditur 20 esse«.

DIE 10 AUGUSTI, VESPERI.

| | |
|---------------------------------|---------------------|
| Decl. stellæ in telo Sagittarij | 25 27 $\frac{1}{2}$ |
| | 25 27 $\frac{3}{4}$ |
| Tunc erat Altit. eius | 6 0 |

DIE 13 AUGUSTI

| | |
|--|---------------------|
| Declinatio quartæ in cornu | |
| præcedenti ♄, | 14 17 $\frac{1}{2}$ |
| est nebulosa | 14 17 $\frac{3}{4}$ |
| Retro numerando erat circa merid. | |
| cum obseruabatur. | |
| Altit. merid. 20 in ♄ per Volub. | 15 36 $\frac{3}{4}$ |
| Alt. merid. 14 ♄ quæ est in | |
| ventre | 10 2 $\frac{1}{2}$ |
| Declin. 7 ♄, est suprema in | 19 0 $\frac{1}{2}$ |
| triangulo in capite ♄ | 19 1 $\frac{1}{4}$ |
| Alt. merid. 21 quæ est in ilijs ♄ | 12 53 $\frac{1}{2}$ |
| Alt. merid. 23 ♄ | 15 42 |
| Declinatio 5 ♄ | 19 51 $\frac{1}{2}$ |
| | 19 52 $\frac{1}{4}$ |
| Alt. merid. 24 ♄ | 16 10 $\frac{1}{2}$ |
| Declinatio 6 ♄ | 19 40 |
| | 19 41 |
| Declinatio 8 ♄ in fronte | 20 26 |
| Declinatio 9 ♄ | 16 17 $\frac{3}{4}$ |
| | 16 18 $\frac{1}{2}$ |
| Declinatio 8 in ♁ | 10 56 $\frac{1}{2}$ |
| | 10 56 |
| Declinatio 6 ♁ | 12 57 $\frac{1}{2}$ |
| supra dorsum | 12 58 $\frac{1}{2}$ |
| N. B. Sunt antea hæ duæ obseruatæ. | |
| Inter 4 ♄ & illam quæ est | |
| ad dextram manum | 32 45 |
| Ophiuchi 10 | 32 47 |
| Inter 8 ♄ & 10 in manu | 35 9 |
| | 35 11 |
| Inter 6 ♄ (est quæ præcedit | |
| in paruo triangulo) | 36 48 $\frac{1}{2}$ |
| & 10 Ophiuchi | 36 50 |
| Inter supremam in eodem dicto trian- | |
| gulo videlicet in fronte ♄ | 37 9 $\frac{3}{4}$ |
| (quæ est 7) & 10 Ophiuchi | 37 10 |
| Inter 5 ^m numero ♄ quæ est in | |
| dicto triangulo & 10 Oph. | 37 40bis |
| Inter 10 ♄ & penultimam in | 37 16 |
| cauda Oph. serpentis | 37 14 $\frac{1}{2}$ |
| Inter 9 in collo ♄ | 36 6 |
| & . . . Ophiuchi | 36 5 $\frac{3}{4}$ |

DIE 15 AUGUSTI.

| | |
|---|---------------------|
| Alt. merid. stellæ in genu | |
| ♄ n. 11 | 7 31 $\frac{1}{2}$ |
| Declin. stellæ in altero genu ♄ quæ nu- | |
| mero est 12 in altitudine | 28 21 $\frac{1}{2}$ |
| 5° 20' circa meridianum | 28 23 |

DIE 8 SEPTEMBRIS, VESPERI¹.

| | |
|--|---------------------|
| Alt. merid. 10 in ♄ | 14 35 |
| Inter orientaliorem capitis | |
| ♄ [†] & 11 ♄ in dextro genu | 22 40 $\frac{3}{4}$ |
| 6 mag. | 22 42 |
| Inter orient. cap. ♄ [†] & 12 ♄ | 23 47 |
| | 23 48 |
| Declinatio 27 in cauda ♄ | 15 23 $\frac{3}{4}$ |
| | 15 23 |

DIE 9 SEPTEMBRIS, VESPERI.

| | |
|--|---------------------|
| Declinatio stellæ in arcu | 25 24 $\frac{1}{2}$ |
| ♄ [†] num. 4 | 25 23 $\frac{3}{4}$ |
| Huius stellæ altitudo tunc erat | 3 50 |
| Inter eandem 4 ♄ [†] | 28 26 |
| & inferius cornu ♄ | 28 25 $\frac{1}{2}$ |
| Decl. stellæ in arcu ♄ [†] num. 5 | 20 59 $\frac{1}{2}$ |
| Est altitudo 10 g. | |
| Inter lucidam & orientaliorem | |
| caudæ ♄ & 10 ♄ quæ est | 16 12 |
| obscura | 16 11 $\frac{1}{2}$ |
| Hæc erat circa meridianum. | |
| Inter lucidam in cauda ♄ | 13 4 |
| & 13 eiusdem | 13 3 $\frac{1}{2}$ |
| Decl. 13 in ♄, est obscura | 26 35 $\frac{1}{2}$ |
| | 26 36 $\frac{1}{2}$ |

Erat ad 2 circiter a meridie versus occ.

DIE 21 SEPTEMBRIS, VESPERI.

| | |
|---|---------------------|
| Inter inferius cornu ♄ | 30 49 |
| & 5 in ♄ [†] , 5 magnit. | 30 48 $\frac{1}{2}$ |
| Altitudo 5 ♄ [†] tunc erat 7 $\frac{1}{2}$. | |
| Inter lucidam caudæ ♄ | 35 36 $\frac{1}{2}$ |
| & 12 ♄ [†] | 35 37 $\frac{3}{4}$ |
| Declinatio eiusdem 12 | 19 47 $\frac{1}{2}$ |
| | 19 46 $\frac{1}{2}$ |
| Altitudo eiusdem 12 tunc erat 12 $\frac{1}{2}$ per | |
| minimum Quadrantem. | |
| Inter lucidam caudæ ♄ | 28 49 $\frac{1}{2}$ |
| & 17 ♄ [†] , obscuram | 28 50 $\frac{1}{2}$ |
| Altitudo eiusdem | |
| tunc erat obscura | 12 50 |

¹ Cf. infra inter stellas boreales diebus 6, 7, 8 Sept. observatas.

| | |
|---|---------------------|
| Inter lucid. caudæ ζ | 31 34 |
| & 29 in dextro cub. | 31 34 $\frac{1}{2}$ |
| Altitudo eiusdem 29 6 $\frac{1}{2}$. | |
| Inter lucidam caudæ ζ | 29 48 $\frac{1}{2}$ |
| & 15 \times ^r , obscuram | 29 50 |
| Altitudo eius 14 $\frac{1}{2}$, obscura. | |
| Inter luc. caud. ζ & 16 \times ^r | 26 12 |
| magnit. 6 min. melior | 26 12 $\frac{1}{2}$ |
| Altit. eiusdem tunc erat | 15 $\frac{1}{2}$ |
| Declinatio 16 ^{re} \times ^r | 16 27 $\frac{1}{2}$ |
| | 16 28 |
| DIE 22 SEPTEMBRIS, MANE. | |
| Inter lucidam \vee & 37 | 34 0 |
| in fronte γ | 34 0 $\frac{1}{2}$ |
| Declinatio eius | 13 42 |
| | 13 43 $\frac{1}{2}$ |
| Inter lucid. \vee & 29 sequen- | 30 14 |
| tem in \square dorſi γ | 30 15 |
| Declinatio eius | 26 20 |
| | 26 19 $\frac{1}{2}$ |
| Inter 22 in lino χ & 42 γ | 30 8 $\frac{1}{2}$ |
| in interfectione | 30 9 |
| Declinatio eius | 7 54 |
| | 7 55 |
| Inter 22 in lino χ & 34 | |
| in pede γ 4 magnit. | 38 20 bis |
| Declinatio eius | 4 46 |
| | 4 47 $\frac{1}{2}$ |
| Inter lucid. \vee & 31 | 22 42 |
| in pleiadibus 6 magnit. | 22 43 |
| Declinatio eius | 22 43 |
| Inter Aldeboram & 9 in sinistro cubito | |
| superioris Π (dubitatur | 41 32 $\frac{1}{2}$ |
| an in fin. cubito sit) | 41 32 |
| Declinatio eius | 28 44 $\frac{1}{2}$ |
| | 28 45 $\frac{1}{2}$ |
| Inter Aldeb. & stellulam obscuram | |
| in dextro brachio | 39 56 |
| 9 nobis sequentis Π | 39 57 $\frac{1}{2}$ |
| • • | |
| • • | |
| 9 (Arato) Ponitur ab | |
| Arato 9 | |
| numero. | |
| Inter cor ζ & prædictam | |
| stellulam quæ Arato | 41 1 |
| nona est | 41 2 $\frac{1}{2}$ |
| Declinatio meliori pinn. | 25 46 |
| eiusdem | 25 47 |
| Ex declinatione & situ apparet esse | |
| octaua. | |

| | |
|--|---------------------|
| Inter Aldeboram & 11 in fin. | 35 16 $\frac{1}{2}$ |
| genu inferioris Π | 35 15 $\frac{1}{2}$ |
| Declinatio eius | 21 5 $\frac{1}{2}$ |
| | 21 6 $\frac{1}{2}$ |
| DIE 22 SEPTEMBRIS, VESPERI. | |
| Inter 5 in arcu \times ^r & 14 | 10 12 |
| in Serpente | 10 13 $\frac{1}{2}$ |
| Altit. eiusdem 5 ^{tae} \times ^r per min. quad. 8 $\frac{1}{2}$. | |
| Altitudo 14 in Serpente | 10 35 |
| Inter 4 \times ^r & lucidam caudæ ζ | 47 7 $\frac{1}{2}$ |
| Altitudo 4 \times ^r 3 50 | 47 8 $\frac{1}{2}$ |
| Altitudo 7 \times ^r 3 10 | |
| Inter lucid. caudæ ζ & 7 \times ^r | 43 16 |
| Inter 12 \times ^r & 10 in manu | 21 3 |
| dextra Ophiuchi | 21 4 $\frac{1}{2}$ |
| Erat in mediocri altitudine. | |
| Inter 10 in dextra manu | 21 35 |
| Ophiuchi & 13 \times ^r | 21 37 |
| Intra 10 in dextra manu Oph. | 21 5 |
| & 14 in contactu \times ^r | 21 6 |
| Inter eandem in Oph. | |
| & 17 in contactu \times ^r | 27 45 $\frac{1}{2}$ |
| Declinatio eiusdem 17 \times ^r | 20 42 $\frac{1}{2}$ |
| | 20 43 |
| Inter 19 in \times ^r & occidentalio- | |
| rem in capite \times ^r | 9 37 $\frac{1}{2}$ |
| Inter penultimam in cauda Serpentis | |
| & 15 \times ^r , est in paruo trian- | 23 53 |
| gulo in crure ad ortum | 23 54 |
| Declinatio eiusdem 15 | 17 4 $\frac{1}{2}$ |
| | 17 5 |
| Inter eandem penultimam | 26 50 $\frac{1}{2}$ |
| & 16 \times ^r | 26 49 |
| Declinatio 16 in \times ^r | 25 28 |
| Erat tunc eius altit. circiter 3 gra- | |
| duum. | |
| Inter inferius cornu ζ | 14 10 |
| & 16 ζ , obscura | 14 10 $\frac{1}{2}$ |
| Inter inferius cornu ζ | 12 55 $\frac{1}{2}$ |
| & 17 ζ , obscura | 12 57 |
| Erat meridianum prætergreßa | |
| fere 4 gradibus. | |
| Declinatio 27 in cauda ζ | 10 55 |
| | 10 56 |
| Decl. 16 ζ , bis vno pinnacidio | 22 13 $\frac{1}{2}$ |
| Erat prætergreßa merid. circiter 4 | |
| gradibus. | |
| Declinatio 17 ζ | 22 45 |
| | 22 43 $\frac{1}{2}$ |

Viceversa

| | |
|---|---------------------|
| Inter 4 ζ & lucid. caud. ζ | 22 59 |
| | 22 59 $\frac{1}{2}$ |
| Inter 9 ζ & lucid. caud. ζ | 16 16 |
| | 16 17 $\frac{3}{4}$ |
| Inter 15 ζ & inferius cornu ζ | 17 26 $\frac{1}{2}$ |
| | 17 26 $\frac{3}{4}$ |

DIE 23 SEPTEMBRIS, VESPERI.

| | |
|--|-------------------------|
| Inter lucidam caudæ ζ & 17 ζ , 6 mag. min. | 19 27 $\frac{1}{2}$ bis |
| Declinatio eiusdem ¹ | 19 32 $\frac{1}{2}$ |
| | 19 33 $\frac{1}{2}$ |
| Inter lucid. caudæ ζ & 16 ζ , obscuram | 18 40 |
| | 18 42 |
| Declinatio eiusdem ¹ | 19 48 |
| | 19 49 $\frac{1}{2}$ |
| Inter 21 ζ & inferius cornu ζ | 18 48 |
| | 18 47 $\frac{1}{2}$ |
| Inter 22 ζ & inferius cornu ζ | 19 51 $\frac{1}{2}$ bis |
| Inter inferius cornu ζ & stellam in triangulo cum 19 & 20 ζ , 13 45 $\frac{3}{4}$ | |
| 6 magnit., Arato ignotam | 13 46 $\frac{1}{2}$ |
| Inter inferius cornu ² ζ & 20 ζ | 14 51 $\frac{3}{4}$ |
| | 14 52 |
| Inter inferius cornu ζ & 19 ζ | 11 6 |
| | 11 6 $\frac{1}{2}$ |

DIE 25 SEPTEMBRIS, VESPERI.

| | |
|--|---------------------|
| Inter 16 & inferius cornu ζ | 12 54 $\frac{1}{2}$ |
| | 12 55 |
| Inter eandem 16 ζ & 18 ζ | 25 40 bis |
| Declinatio eiusdem 16 | 22 37 $\frac{1}{2}$ |
| Semel vno pinnacido, per Aurifab. | |
| Erat tunc Altit. per Quad. min. 7 g 0'. | |
| Inter inferius caput II & vndecimam in sinistro | 12 2 $\frac{1}{2}$ |
| genu eius magnit. 3 | 12 2 $\frac{3}{4}$ |

DIE 6 OCTOBRIS, VESPERI.

| | |
|---|---------------------|
| Inter 12 in ζ & lucid. in crure dextri pedis \approx num. 18 | 30 30 $\frac{1}{2}$ |
| | 30 30 $\frac{3}{4}$ |
| Inter 13 ζ & lucidam in crure dextri pedis \approx | 26 42 |
| | 26 43 |
| Inter lucidam in dextro pede \approx & 18 in corpore ζ | 26 27 |
| | 26 28 |

¹ Lineis tenuibus inducta.² Codex habet caput.

DIE 7 OCTOBRIS, VESPERI.

| | |
|--|---------------------|
| Inter superius cornu ζ & 25 ζ | 20 22 $\frac{1}{2}$ |
| | 20 24 $\frac{1}{2}$ |
| Inter 26 ζ & superius cornu ζ | 23 8 $\frac{1}{2}$ |
| | 23 10 $\frac{1}{2}$ |
| Inter lucidam in crure \approx num. 18 & 16 ζ | 11 49 |
| | 11 49 $\frac{1}{2}$ |

DIE 8 OCTOBRIS.

| | |
|--|---------------------|
| Inter 22 \approx in posteriori parte finiftri fe moris & inferius cornu ζ | 34 28 $\frac{1}{2}$ |
| Eiusdem 22 declinatio | 20 51 $\frac{1}{2}$ |
| | 20 52 $\frac{1}{2}$ |
| Inter 12 ζ & 18 num. in crure \approx | 30 33 bis |
| Inter 13 ζ in femore sinistro & 18 \approx | 26 47 |
| | 26 47 $\frac{1}{2}$ |
| Inter 26 in cauda ζ & 18 \approx | 15 1 $\frac{1}{2}$ |
| | 15 2 $\frac{1}{2}$ |
| Inter 21 in genu sinistro \approx & inferius cornu ζ | 32 12 $\frac{1}{2}$ |
| | 32 12 $\frac{3}{4}$ |
| Altit. Merid. 14 in genu ζ | 10 3 $\frac{1}{2}$ |
| Altit. Merid. 15 ζ | 10 37 |

Viceversa

| | |
|--|---------------------|
| Inter lucidam caudæ Ceti & 22 \approx | 25 20 $\frac{1}{2}$ |
| | 25 19 |
| Inter 21 in genu sinistro \approx & lucidam in cauda Ceti | 27 57 $\frac{1}{2}$ |
| | 27 59 |
| Inter 20 \approx & lucidam caudæ Ceti | 24 43 |
| | 24 45 |
| | Declinatio |
| 22 \approx | 20 53 |
| 20 54 | 13 11 $\frac{1}{2}$ |
| 21 \approx | 22 43 |
| 22 42 | 11 30 |
| 20 \approx | 21 39 |
| 21 39 $\frac{1}{2}$ | 12 0 |
| Altitudo Meridiana 22 | 13 12 $\frac{1}{2}$ |
| Declinatio 25 \approx | 9 54 |
| | 9 54 $\frac{1}{2}$ |

DIE 9 OCTOBRIS.

| | |
|--|---------------------|
| Inter lucidam caudæ ζ & 8 ad oculum eiusdem | 20 50 bis |
| Altitudo Meridiana 18 ζ | 12 43 |
| Declinatio eius | 21 27 $\frac{1}{2}$ |
| | 21 28 |
| Altitudo Meridiana 19 ζ | 15 22 30 |
| Declinatio eius | 18 45 $\frac{1}{2}$ |
| | 18 46 $\frac{1}{2}$ |

| | |
|------------------------------------|---------------------|
| Inter inferius cornu γ & 21 | |
| præcedentem duarum | 18 42 |
| circa ilia vel inguina | 18 43 |
| Declinatio 14 in genu γ | 24 6 $\frac{3}{4}$ |
| | 24 7 $\frac{3}{4}$ |
| Altitudo eius Meridiana | 10 3 $\frac{1}{2}$ |
| Inter lucidam \vee & 9 obscuram | |
| in lino χ limitata | 23 18 |
| Altit. Merid. 23 in cauda γ | 15 38 |
| Declinatio eius | 18 22 $\frac{3}{4}$ |
| | 18 23 $\frac{3}{4}$ |
| Alt. Merid. luc. caudæ γ | 16 12 |
| Declinatio eius | 17 54 |
| | 17 53 $\frac{1}{2}$ |

| | |
|-----------------------------------|-------|
| Inter lucidam \vee & 10 in lino | |
| χ australis limitata | 29 44 |

Eadem viceversa.

| | |
|---|---------------------|
| Inter os Pegasi & nonam | 34 11 $\frac{1}{2}$ |
| in lino australis χ | 34 8 $\frac{3}{4}$ |
| Declinatio eius | 6 7 $\frac{3}{4}$ |
| | 6 10 $\frac{3}{4}$ |
| Inter os Pegasi & | 38 45 $\frac{1}{2}$ |
| 10 in lino australis piscis | 38 45 $\frac{1}{2}$ |
| Inter 30 in pisce Boreo & lucidum pedem Androm. | 17 36 bis |
| Declinatio | 25 6 |
| | 25 6 $\frac{1}{2}$ |
| Inter lucidam γ & 20 in \approx | 13 46 |
| | 13 47 |
| Declin. 10 ad caudam austr. χ | 5 56 |

DIE 10 NOUEMBRIS, VESPERI.

| | |
|------------------------|-------|
| Declinatio 27 γ | 15 25 |
| | 15 26 |

DIE 14 NOUEMBRIS, MANE.

| | |
|----------------------------|-------|
| Inter inferius caput Π | 30 47 |
| & 11 Ω | 30 48 |

DIE 23 NOUEMBRIS, VESPERI.

| | |
|--------------------------------------|-------|
| Altitudo meridiana stellæ lucidioris | |
| in paruo triangulo informi | |
| supra caput \vee | 59 37 |

DIE 6 DECEMBRIS, VESPERI.

| | |
|--|---------------------|
| Altitudo meridiana 4 in interfectione \vee | |
| per Volub. | 41 37 $\frac{3}{4}$ |
| per nouum Sext. | 41 38 $\frac{1}{2}$ |
| per Chalyb. | 41 37 $\frac{3}{4}$ |

| | |
|-------------------------------------|---------------------|
| Alt. mer. 3 in interfectione \vee | |
| per Chalyb. | 42 20 $\frac{3}{4}$ |
| per Volub. | 42 20 $\frac{3}{4}$ |
| per nouum Sext. | 42 20 $\frac{1}{2}$ |

| | |
|----------------------------------|----------|
| Inter lucidam \vee & Aldeboram | |
| per nouum Sextantem | 35 32 |
| Repetita | 35 32 25 |

DIE 19 DECEMBRIS, MANE.

| | |
|------------------------|--------------------|
| Declinatio Spicæ Π | 8 58 $\frac{1}{2}$ |
| per Armillas | 8 58 $\frac{1}{2}$ |

| | |
|---|--------------------|
| Horologio indicante H. 7 M. 2 $\frac{1}{2}$ | |
| transibat Spica Π | |
| per Merid. habens altitudinem | |
| per Chalyb. | 25 7 $\frac{3}{4}$ |
| per Volub. | 25 7 $\frac{1}{2}$ |

DIE 20 DECEMBRIS, MANE.

| | |
|---|--------------------|
| H. 7 21 $\frac{1}{2}$ ' Spica Π transibat | |
| per merid. habens altit. | |
| per Volub. | 25 7 $\frac{3}{4}$ |
| per Chalyb. | 25 8 |
| Declinatio Spicæ | 8 58 |
| | vtroque |

DIE 28 DECEMBRIS, VESPERI.

| | |
|----------------------------------|-------------------------|
| Inter lucidam \vee & Aldeboram | |
| per nouum Sext. | |
| orichalcicum | 25 32 $\frac{1}{2}$ bis |
| Iterata dist. | 25 33 |
| Inter Aldeb. & lucidum caput 45 | 5 |
| Π per nouum Sext. orich. 45 | 5 $\frac{1}{2}$ |
| Inter lucidam \vee & Aldeboram | |
| per nouum Sext. ligneum | 25 32 $\frac{1}{2}$ |
| Inter Aldeboram & inferius | |
| caput Π per eundem | |
| nou. ligneum Sext. | 45 5 |

OBSEUATIONES STELLARUM IN ASTERISMIS BOREALIBUS EXTRA ZODIACUM.

DIE 4 JANUARIJ.

| | |
|-------------------------------------|---------------------|
| Altitudo secundæ in Vrfæ | |
| maiore minima | |
| per Chalyb. | 23 1 $\frac{1}{2}$ |
| per Volub. | 23 1 $\frac{1}{2}$ |
| Alt. min. extremæ in cauda | |
| Vrfæ maioris per Chalyb. | 17 20 $\frac{1}{2}$ |
| Alt. merid. . . Vrfæ minoris minima | |
| per Volub. | 41 44 |
| per Chalyb. | 41 44 $\frac{1}{2}$ |
| Alt. sequentis minus lucidæ | |
| in \square Vrfæ min. infra Polum | |
| per Volub. | 39 11 $\frac{1}{2}$ |
| per Chal. | 39 12 |

| | |
|--|---------------------|
| Alt. merid. capitis Medusæ | |
| per Volub. | 73 23 $\frac{1}{2}$ |
| per Chalyb. | 73 23 $\frac{1}{2}$ |
| Altit. merid. lucidioris humeri Perfei | |
| per Volub. | 85 54 |
| Alt. merid. lucidioris lateris Perfei | |
| per Chal. | 82 23 $\frac{1}{2}$ |
| per Vol. | 82 24 $\frac{1}{2}$ |
| Nota. Hic impedimentum splendoris ∞ . | |
| Alt. merid. lucidioris | |
| in coxendice dextra Perfei | |
| per Chal. | 80 28 $\frac{1}{2}$ |
| per Vol. | 80 28 $\frac{1}{2}$ |

Eodem Vespere pro refractione

| Ad ortum Canis minoris | | |
|------------------------|-------|--------------------|
| Decl. | Azim. | Alt. per Q. min. |
| 6 21 | 87 5 | 5 18 |
| 6 20 $\frac{1}{2}$ | | |
| 6 19 | 89 10 | 6 43 $\frac{3}{4}$ |
| 6 18 $\frac{1}{2}$ | | |
| 6 17 $\frac{1}{2}$ | 91 40 | 8 31 |
| 6 17 $\frac{1}{2}$ | | |
| 6 16 $\frac{1}{2}$ | 94 | 10 9 $\frac{1}{2}$ |
| 6 17 | | |
| 6 16 | 97 48 | 12 41 |
| 6 16 | | |
| 6 15 $\frac{1}{2}$ | 14 10 | |
| 6 15 | | |
| 6 14 $\frac{1}{2}$ | 15 25 | |
| 6 14 $\frac{1}{2}$ | | |

| Ad occasum Vulturis | | |
|---------------------|------------------|--|
| Decl. | Alt. per Q. min. | |
| 7 55 $\frac{3}{4}$ | 9 0 | |
| 7 55 $\frac{1}{2}$ | | |
| 7 56 $\frac{1}{2}$ | 7 10 | |
| 7 56 $\frac{1}{2}$ | | |
| 7 57 $\frac{1}{2}$ | 6 20 | |
| 7 57 | | |
| 7 58 | 5 50 | |
| 7 57 $\frac{3}{4}$ | | |
| 7 58 | 4 40 | |
| 7 57 $\frac{3}{4}$ | | |
| 8 2 | 3 | |
| 8 4 | 2 10 | |
| 8 5 | 2 | |

Deinde sequenti mane rursus observabatur Vultur in Oriente propter refractionem vt sequitur.

| Ad Ortum | | Ad Occasum | |
|----------|--------|--------------------|--------|
| Declin. | Altit. | Declin. | Altit. |
| 7 54 | 12 30 | 7 53 $\frac{1}{2}$ | 13 55 |
| 7 54 | | 7 54 | |
| 7 54 | 12 53 | | |

Ergo in altitudine 12 Graduum ponatur declinatio tam ad ortum quam occasum 7° 53' 50". Declinatio vera 7° 52' 15". Refractio declinationis in altit. 12 graduum 1' 35".

¹ Debet esse »lucidioris in quadrato«.

DIE 5 JANUARIJ, MANE.

| | |
|--------------------------------------|------------------------|
| Stellæ polaris alt. minima merid. | |
| per Chalyb. | 53 0 bis |
| | vel 53 0 $\frac{1}{2}$ |
| per Volub. | 53 0 ter |
| Mediæ incauda Vrfæ maioris alt. max. | |
| per Volub. | 88 48 $\frac{3}{4}$ |
| Declinatio Capellæ | 45 29 $\frac{1}{2}$ |
| per Armillas | 45 30 |

Pro situ armillarum examinando,
quæ declinatio satis conuenit cum
ea, quæ obseruata est 30 Decembris
Vesperis.

| | |
|-------------------------|--------------------|
| Alt. merid. infra polum | 6 15 $\frac{1}{2}$ |
|-------------------------|--------------------|

DIE 13 JANUARIJ.

| | |
|---|---------------------|
| Altit. min. Lucid. in \square Vrfæ min. | |
| per Chalyb. | 41 42 $\frac{5}{8}$ |
| per Volub. | 41 43 |
| Alt. min. inferioris duarum præce- | |
| dentium in \square Vrfæ minoris | |
| per Chalyb. | 39 11 $\frac{1}{2}$ |
| per Volub. | 39 11 |

DIE 15 JANUARIJ, MANE.

| | |
|---|---------------------|
| Alt. max. minus luc. in \square Vrfæ min. | |
| per Chal. | 72 36 $\frac{5}{8}$ |
| per Volub. | 72 36 $\frac{5}{8}$ |
| Alt. min. lucidæ in latere Perfei | |
| per Chal. | 14 18 |
| per Volub. | 14 17 $\frac{1}{4}$ |
| | incerta |

DIE 16 JANUARIJ, MANE.

| | |
|---|---------------------|
| Alt. min. lucidioris dextri hum. Perfei | |
| per Chal. | 17 46 40 |
| per Volub. | 17 47 |
| Alt. min. lucidæ in latere Perfei | |
| per Chal. | 14 18 $\frac{3}{8}$ |
| per Volub. | 14 17 $\frac{3}{8}$ |
| Alt. max. Merid. lucidioris | |
| duarum in \square Vrfæ min. | |
| per Chal. | 70 4 $\frac{3}{8}$ |
| per Volub. | 70 4 $\frac{3}{8}$ |
| Sequentis minus lucidæ in \square | |
| Vrfæ min. Alt. mer. max. | |
| per Chal. | 72 36 $\frac{1}{2}$ |
| per Volub. | 72 36 $\frac{1}{2}$ |

DIE 18 JANUARIJ, MANE.

| | |
|---------------------------------|---------------------|
| Alt. mer. minima stellæ Polaris | |
| per Chal. | 53 0 |
| per Volub. | 53 0 $\frac{1}{8}$ |
| Alt. max. merid. | |
| extremæ in Vrfæ maiore | |
| per Volub. | 85 27 $\frac{3}{8}$ |

DIE 19 JANUARIJ.

| | |
|---------------------------------|---------------------|
| Distantia inter stellam polarem | |
| & Schedir | 32 49 bis |
| Inter stellam polarem & illam | 28 36 $\frac{1}{2}$ |
| quæ est in cing. Caßiop. | 28 37 |
| Inter stellam polarem | 30 13 $\frac{1}{4}$ |
| & lucidam Cathedræ | 30 13 $\frac{1}{4}$ |
| Inter polarem | 26 25 $\frac{1}{2}$ |
| & vndecimam Caßiopeæ | 26 26 |

DIE 20 JANUARIJ, MANE.

| | |
|---|---------------------|
| Alt. lucidæ in \square^{to} Vrfæ minoris | |
| per Chalyb. | 70 5 $\frac{1}{8}$ |
| per Volub. | 70 5 |
| Sequentis minus luc. in \square^{to} alt. max. | |
| per Chalyb. | 72 37 |
| per Volub. | 72 36 $\frac{1}{8}$ |

Vesperis

| | |
|------------------------------|---------------------|
| Inter flexuram Caßiopeæ | |
| & Polarem | 28 36 $\frac{3}{8}$ |
| Inter Schedir | 6 24 $\frac{1}{4}$ |
| & vndecimam Caßiopeæ | 6 24 $\frac{1}{8}$ |
| Alt. min. sequentis & vltimæ | |
| in triangulo Perfei N. 3 | |
| per Chalyb. | 17 47 $\frac{1}{4}$ |
| per Volub. | 17 47 $\frac{1}{4}$ |

| | |
|--------------------------|--------------------|
| Alt. min. capitis Medusæ | |
| per Chalyb. | 5 22 $\frac{1}{4}$ |
| per Volub. | 5 21 $\frac{1}{4}$ |

| | |
|-----------------------------------|---------------------|
| Alt. min. lucidæ in latere Perfei | |
| per Chalyb. | 14 17 $\frac{1}{2}$ |

| | |
|-------------------------------|---------|
| Alt. min. sequentis lucidarum | |
| in latere Perfei | |
| per Chalyb. | 12 18 |
| | incerta |

| | |
|--|---------------------|
| Alt. min. prioris in \square vrfæ min. | |
| per Chal. | 41 45 |
| per Vol. | 41 45 $\frac{1}{2}$ |

DIE 21 JANUARIJ, MANE.

| | |
|----------------------------------|---------------------|
| Alt. merid. lucidæ humeri Perfei | |
| per Chalyb. | 17 47 $\frac{1}{8}$ |
| per Volub. | 17 46 $\frac{1}{8}$ |

| | |
|--|---------------------|
| Alt. merid. cap. Medusæ infra polum | |
| per Chal. | 5 21 $\frac{1}{2}$ |
| per Vol. | 5 22 |
| Alt. mer. luc. in lat. Perf. infra Polum | |
| per Chal. | 14 17 $\frac{3}{4}$ |
| per Vol. | 14 17 $\frac{3}{4}$ |
| Alt. merid. eius in Perseo quæ | |
| est ad ilia lucidior sequens | |
| latus, infra polum | |
| per Chal. | 12 12 $\frac{1}{2}$ |
| per Vol. | 12 12 $\frac{1}{2}$ |
| Alt. max. præced. lucid. duar. | |
| in \square^{to} Vrfæ min. | |
| per Chal. | 70 5 $\frac{1}{2}$ |
| per Vol. | 70 4 $\frac{3}{4}$ |
| Sequentis min. luc. in \square^{to} alt. max. | |
| per Chal. | 72 36 $\frac{1}{2}$ |
| per Vol. | 72 36 $\frac{1}{2}$ |

DIE 22 JANUARIJ.

| | |
|---|---------------------|
| Alt. posterioris in \square^{to} Vrfæ min. | |
| per Chalyb. | 72 36 $\frac{1}{2}$ |
| per Volub. | 72 36 $\frac{1}{2}$ |

DIE 23 JANUARIJ, VESPERI.

| | |
|--|---------------------|
| Alt. min. luc ^{as} in \square^{to} Vrfæ min. | |
| per Chalyb. | 41 44 $\frac{1}{2}$ |
| per Volub. | 41 44 $\frac{1}{2}$ |
| Sequentis min. luc. in \square^{to} Vrfæ min. | |
| per Chal. | 39 12 $\frac{1}{2}$ |
| per Vol. | 39 12 |
| Altit. meridiana Lyræ infra polum | |
| per Volub. | 4 32 $\frac{1}{2}$ |
| Altit. merid. maxima sequentis | |
| lucidam in latere Perfei | |
| per Chal. | 80 31 |
| Inter inferius caput II & | |
| Borealem sinistri pedis | |
| vrfæ maioris | 33 52 $\frac{1}{2}$ |
| Inter cor \cap | 31 1 |
| & eandem in pede sinistro | 31 1 $\frac{1}{2}$ |
| vrfæ maioris | 31 0 $\frac{1}{2}$ |

Hæc discrepantia contingebat ob ventum validiorem, qui instrumentum huc illuc agitabat.

Declin. stellæ Borealis in sinistro pede posteriori Vrfæ mai. 44 56 vtr.

Inter lucid. \vee & octauam Cephei, quæ est in sinistro brachio, 52 44 $\frac{1}{2}$
distantia per Sextantem 52 45

| | |
|---|---------------------|
| Inter suram Caßiop. & sinistrum brachium Cephei | 19 13 $\frac{1}{2}$ |
| Declinatio octauæ Cephei | 19 14 |
| | 64 4 |
| | 64 3 $\frac{1}{2}$ |

DIE 24 JANUARIJ, MANE.

| | |
|---|---------------------|
| Alt. min. luc. humeri Perfei | |
| per Chal. | 14 17 $\frac{3}{4}$ |
| per Vol. | 14 17 $\frac{3}{4}$ |
| Alt. max. luc. in \square^{to} Vrfæ min. | |
| per Chal. | 70 5 $\frac{1}{2}$ |
| per Vol. | 70 3 $\frac{3}{4}$ |
| Alt. min. proximæ infra lucidiorem in latere Perfei | |
| per Chal. | 12 18 |
| per Vol. | 12 22 $\frac{1}{2}$ |
| Alt. max. minimæ in \square^{to} Vrfæ min. | |
| per Chal. | 72 37 |
| per Vol. | 72 36 $\frac{1}{2}$ |

DIE 25 JANUARIJ.

| | |
|--|-----------|
| Inter suram Caßiopeæ & sinistrum brachium Cephei | |
| per Sext. nouum | 19 15 bis |

DIE 26 JANUARIJ, MANE.

| | |
|------------------------------------|---------------------|
| Inter pectus Cephei | 18 4 $\frac{1}{2}$ |
| & caudam Cygni | 18 5 $\frac{1}{2}$ |
| Inter Arcturum & minimam | 43 43 |
| in \square^{to} Vrfæ mai. | 43 44 $\frac{1}{2}$ |
| intercurrebant nubeculæ. | |

Vesper

| | |
|---|---------------------|
| Alt. min. lucidioris in \square^{to} Vrfæ min. | |
| per Chal. | 41 44 $\frac{1}{2}$ |
| per Vol. | 41 44 $\frac{1}{2}$ |
| Inter caudam Cygni | 43 23 $\frac{1}{2}$ |
| & caput Andromedæ | 43 23 $\frac{1}{2}$ |
| Inter caudam Cygni | 33 34 |
| & lucidam cathedræ | 33 33 $\frac{1}{2}$ |
| Inter caput Andromedæ & | 26 41 $\frac{1}{2}$ |
| lucidum pedem eiusdem | 26 41 $\frac{1}{2}$ |
| Inter oculum γ & pedem | 41 23 $\frac{1}{2}$ |
| sinistrum Andromedæ | 41 23 $\frac{1}{2}$ |
| Inter oculum γ | 30 52 $\frac{1}{2}$ |
| & caput Medusæ | 30 53 |
| Inter caput Medusæ | |
| & caput Androm. | 23 44 bis |
| | Repete |
| Inter caput Androm. | 26 13 $\frac{1}{2}$ |
| & borealiorem in Δ | 26 14 |

| | |
|--|---------------------|
| Inter oculum γ | 37 28 |
| & borealiorem in Δ | 37 28 $\frac{1}{2}$ |
| Inter caput Androm. & decimam in tiara Cephei | 35 25 $\frac{1}{2}$ |
| Inter decimam in tiara Cephei & caput Medusæ | 48 19 $\frac{1}{2}$ |
| Inter cor Ω & superiorem sequentium in \square vrfæ maioris | 51 11 bis |
| Inter superiorem sequentium in \square Vrfæ mai. | 54 37 |
| & merid. cap. II | 54 37 $\frac{1}{2}$ |
| Inter Borealem in posteriore sinistro pede Vrfæ maioris | 33 53 $\frac{1}{2}$ |
| & inferius caput II | 33 54 $\frac{1}{2}$ |
| Inter eandem Borealem in sinistro pede & cor Ω | 31 0 $\frac{1}{2}$ |
| Inter fin. brach. Cephei & suram Castiopeæ | 19 15 $\frac{1}{2}$ |
| Inter fin. brach. Cephei & lucidam γ | 52 43 $\frac{1}{2}$ |
| Declin. lucidioris in tiara Cephei no. 10 | 56 12 $\frac{1}{2}$ |
| Declin. Borealis sequentium in \square Vrfæ maioris. | 59 19 $\frac{1}{2}$ |

DIE 28 JANUARIJ.

| | |
|---|---------------------|
| Inter inferius caput II & borealem finitri pedis Vrfæ maioris | 33 52 $\frac{1}{2}$ |
|---|---------------------|

DIE 29 JANUARIJ, VESPERI.

| | |
|---|---------------------|
| Declin. duarum Boreal. in Δ basi, quæ est in orthogonio | 33 1 $\frac{1}{2}$ |
| Declin. lucidioris duarum in pede dextro Androm, quæ est fere 3 magn. | 46 30 $\frac{1}{2}$ |
| | 46 31 |

DIE 4 FEBRUARIJ.

| | |
|--|--------------------------|
| Inter lucid. γ & caput. Androm. | 27 7 $\frac{1}{2}$ |
| Inter caput Androm. & caput Medusæ | 38 10 bis |
| Inter lucid. γ & lucidiorem in dextro pede Andromedæ | 25 46 $\frac{1}{2}$ |
| Inter lucidiorem & præcedentem in dextro pede Andromedæ & ocul. γ | 48 15 $\frac{1}{2}$ dub. |
| Decl. stellæ præced. in superiori pede Androm. | 48 17 bis |
| | 48 16 $\frac{1}{2}$ |
| | 46 31 $\frac{1}{2}$ |
| | 46 31 $\frac{1}{2}$ |

¹ Id est, humeri dextri.

| | |
|---|---------------------|
| Alt. merid. minima eius quæ est in occipite Draconis per Volub. | 17 22 $\frac{1}{2}$ |
| per Chalyb. | 17 22 $\frac{1}{2}$ |

DIE 5 FEBRUARIJ, MANE.

| | |
|---|---------------------|
| Alt. merid. max. lucidioris in \square Vrfæ minoris per Chalyb. | 70 5 |
| per Volub. | 70 4 $\frac{1}{2}$ |
| Alt. humeri Persei ¹ , sed erat Meridianum parum transgressa per Chalyb. | 17 47 |
| per Volub. | 17 46 |
| Alt. mer. lucidæ Persei per Chalyb. | 14 17 $\frac{1}{2}$ |
| per Volub. | 14 17 |
| Alt. mer. sequentis luc. Persei per Vol. | 12 20 $\frac{1}{2}$ |
| per Chal. | 12 21 |
| Alt. max. alterius in \square Vrfæ min. per Chalyb. | 72 36 $\frac{1}{2}$ |
| per Volub. | 72 36 |
| Alt. merid. anterioris & lucidioris in fin. manu Ophiuchi per Chalyb. | 31 28 $\frac{1}{2}$ |
| per Volub. | 31 27 $\frac{1}{2}$ |
| Inter Spicam & sinistram manum Ophiuchi | 42 32 $\frac{1}{2}$ |
| | 42 32 $\frac{1}{2}$ |

DIE 12 FEBRUARIJ, VESPERI.

| | |
|---|-------------------------|
| Inter cingulum Cephei quæ est tertia numero & Schedir Castiopeæ | 24 33 $\frac{1}{2}$ |
| Inter cingulum Cephei & lucidam in \square vrfæ minoris | 24 33 $\frac{1}{2}$ |
| Declin. eius in Cepheo bor. | 26 52 bis |
| | 68 47 $\frac{1}{2}$ |
| | 68 46 $\frac{1}{2}$ |
| Inter Schedir & lucid. in \square vrfæ min. | 47 29 $\frac{1}{2}$ |
| Inter lucid. lateris Persei & lucidam γ | 47 29 $\frac{1}{2}$ |
| Inter luc. lat. Persei & Aldeb. | 30 22 $\frac{1}{2}$ |
| Altit. Arcturi 4 38 $\frac{1}{2}$ Declin. | 30 23 |
| | 36 21 $\frac{1}{2}$ bis |
| | 21 30 $\frac{1}{2}$ |
| | 5 8 $\frac{1}{2}$ |
| | 21 29 $\frac{1}{2}$ |
| | 5 25 $\frac{1}{2}$ |
| | 21 28 $\frac{1}{2}$ |
| | 7 27 $\frac{1}{2}$ |
| | 21 27 $\frac{1}{2}$ |
| | 7 56 $\frac{1}{2}$ |
| | 21 27 |
| Altit. Lyræ min. per Volub. | 4 32 $\frac{1}{2}$ |

DIE 18 FEBRUARIJ, VESPERI.

| | |
|--------------------------------|------------------------|
| Inter stellam Polarem | 19 15 $\frac{1}{2}$ |
| & cingulum Cephei | 19 15 $\frac{1}{2}$ |
| Inter cingulum Cephei | 22 41 $\frac{1}{2}$ |
| & flexuram Caſiopeæ | 22 42 |
| Inter 8 Cephei & flex. Caſiop. | 15 0 $\frac{1}{2}$ bis |
| Inter cingulum Cephei & 8 | 8 31 $\frac{1}{2}$ |
| eiusdem in fin. humero | 8 31 $\frac{1}{2}$ |
| Declin. cinguli Cephei | 68 47 $\frac{1}{2}$ |
| | 68 47 $\frac{1}{2}$ |

| | |
|-----------------------------------|---------------------|
| Inter 1 in radice caudæ Vrfæ mai. | |
| & lucidam \square | 21 25 $\frac{1}{2}$ |
| Vrfæ minoris | 21 25 $\frac{1}{2}$ |

| | |
|-------------------------|--------------------|
| Inter 1 caudæ Vrfæ mai. | |
| & ſequinus luc. | 22 0 |
| in \square vrfæ min. | 22 0 $\frac{1}{2}$ |

| | |
|-------------------------------|--------------------|
| Declin. 8 Cephei, ſcilicet in | 64 3 $\frac{1}{2}$ |
| ſiniſtro humero | 63 3 $\frac{1}{2}$ |

| | |
|--|-------|
| Lucidioris in capite Draconis, quæ eſt | |
| inferior ſequentium in \square , | |
| per Volub. | 17 32 |

| | |
|-----------------------|--------------------|
| Alt. Lyræ merid. min. | |
| per Vol. | 4 32 $\frac{1}{2}$ |

DIE 25 FEBRUARIJ, MANE.

| | |
|--------------------------------------|---------------------|
| Inter 17 in cauda Serpentis Ophiuchi | |
| & Borealiorem lancem \triangle | 46 16 $\frac{1}{2}$ |

| | |
|-------------------------|--------------------|
| Declin. prædictæ ſtellæ | 2 53 |
| | 2 53 $\frac{1}{2}$ |

| | |
|--------------------------------|--------------------|
| Inter eandem 17 & luc. Vultur. | 25 3 $\frac{1}{2}$ |
| Repetita | 25 4 |

| | |
|----------------------------|---------------------|
| Inter eandem in cauda Ser- | |
| pentis & infimam trium | 41 21 |
| in fronte Π , num. 3 | 41 21 $\frac{1}{2}$ |

| | |
|--------------------------|---------------------|
| Inter eandem 17 & mediam | |
| in fronte Π , num. 2 | 39 31 $\frac{1}{2}$ |

| | |
|-------------------------------|---------------------|
| Intereandem 17 Serp. & ſupre- | 37 18 $\frac{1}{2}$ |
| mam in fronte Π , num. 1 | 37 19 $\frac{1}{2}$ |

| | |
|---------------------|--|
| ſub auroram | |
| Pro refractionibus. | |

| | |
|-------------------|---------------------|
| Alt. min. Capellæ | 11 26 $\frac{1}{2}$ |
|-------------------|---------------------|

Vesper.

| | |
|--------------------------------|--------------------|
| Alt. min. caudæ Cygni | 9 47 $\frac{1}{2}$ |
| ambæ per Quadrantem Volubilem. | |

DIE 1 MARTIJ.

| | |
|----------------------------------|--------------------|
| Alt. min. caudæ Cygni per Vol. | 9 47 $\frac{1}{2}$ |
| paululum pertranſierat meridiem. | |

| | |
|---|---------------------|
| Declin. ² lucidioris in baſi | 33 1 $\frac{1}{2}$ |
| Trianguli | 33 1 $\frac{1}{2}$ |
| Declinatio capitis Meduſæ | 39 20 $\frac{1}{2}$ |
| | 39 20 $\frac{1}{2}$ |

Poſtea correcto inſtrumento

| | |
|-------------|--------------------------------|
| declinatio | 33 2 $\frac{1}{2}$ vno |
| cap. Meduſæ | 39 21, altero 20 $\frac{1}{2}$ |

| | |
|----------------------|-------|
| Declin. capitis Med. | |
| per Armillas | 39 20 |

| | |
|--------------------------------|-------|
| Declin. eiusdem ex alt. merid. | 39 19 |
| Ergo ſubtrahe | 1 |

DIE 2 MARTIJ,

POST M. N.

| | |
|------------------------------------|--------------------|
| Alt. lucidi pedis Andromedæ minima | |
| per Volub. | 6 21 |
| per Chalyb. | 6 21 $\frac{1}{2}$ |

DIE 3 MARTIJ, MANE.

| | |
|---------------------------------------|---------------------|
| Alt. max. poſterioris minus lucidæ in | |
| \square Vrfæ min. per Chalyb. | 72 36 $\frac{1}{2}$ |

VESPERI.

| | |
|--------------------------------|--------------------|
| Lucida lyræ in Meridiano infra | |
| polum, alt. | 4 30 $\frac{1}{2}$ |

| | |
|-------------------------------------|------------|
| H. 6 M. 55 $\frac{1}{2}$ tuit eadem | alt. 4 32 |
| | azim. 0 30 |

| | |
|---|--------------------|
| H. 7 M. 0 $\frac{1}{2}$ quando Sirius erat 0 45 occ., | |
| lyræ azim. 1 30, alt. | 4 32 $\frac{1}{2}$ |

Hæc pro refractionibus tam cometæ quam ſtellarum.

DIE 4 MARTIJ, VESPERI.

Pro indagazione refractionis cometæ.

Lucidæ Lyræ alt. per Volub. 4 32 $\frac{1}{2}$

Sed erat vltra meridianum ſeptentrion. grad. 1 $\frac{1}{2}$.

H. 8 48 $\frac{1}{2}$ Erat lucida Hydræ orientalis 10° 0'. Eratque tunc cauda Cygni in Meridiano Boreali habens altit. per Volub. 9 50 $\frac{1}{2}$ exiſtens in 90 gradu. Vno gradu ante erat minutorum 51 vltra grad. Secundo gradu ante Meridiem erat Minutorum 52 $\frac{1}{2}$ vltra 9 gradus.

¹ Sic. in codice D. fol. 268 v. Sed f. 277 r alia manu 11 26 $\frac{1}{2}$ conſcriptum eſt.

² Hinc uſque ad finem huius diei e codice O.

DIE 6 MARTIJ.

| Nomina stellarum | Altitudo | Azimuth ex globo a mer. ad occas. | Declin. observ. per Armillas | Decl. ex alt. mer. | Differentia |
|---------------------|----------|---|---------------------------------|-----------------------|-------------|
| Dexter hum. Ericht. | 56 20 | 92 35 | 44 50 | 44 49½ | |
| Repetita | 55 40 | 93 36 | 44 50 | 44 49½ | |
| Clara Capellæ | 51 0 | 101 18 | 45 31 | 45 30½ | 45 29½ 1 20 |
| Dext. hum. Ericht. | 46 15 | 105 40 | 44 50 | 44 49½ | |
| Lucida Perfei | 41 0 | 118 32 | 48 22½ | 48 22 | 48 19½ 2 30 |
| Capella | 40 45 | 113 53 | 45 30½ | 45 30½ | 45 29½ 0 50 |
| Lucida Perfei | 40 0 | 119 43 | 48 22½ | 48 22 | 48 19½ 2 30 |
| Caput Medusæ | 33 20 | 112 11 | 39 21 | 39 20½ | 39 18½ 2 20 |
| Clara Perfei | 32 50 | 129 0 | 48 21½ | 48 21½ | 48 19½ 1 40 |
| Caput Medusæ | 31 0 | 115 21 | 39 21 | 39 20½ | 39 18½ 2 30 |
| Lucid. Triang. | 29 0 | 106 44 | 33 3 | 33 3½ | |
| Caput Algol | 24 20 | 124 43 | 39 21½ | | 39 18½ 2 45 |
| Aldeboram | 22 30 | 82 54 | 15 39½ | 15 39½ | 15 37 2 45 |
| | | Verfus Ortum | | | |
| Arcturus | 28 0 | 87 7 | 21 20½ | 21 21 | 21 22 1 30 |
| Repetita | | | 21 20½ | 21 21½ | |

DIE 6 MARTIJ, VESPERI.

Pro correctione instrumenti ratione
Declinationum.

7⁴⁷ Luc. Trianguli, Decl. 33 3

Altit. 29 0 33 3½

8 43 25⁴ Erat declin. cap. 39 21

Medusæ 39 20½

Altit. cap. Medusæ erat tunc temporis
per Quad. min. azim. 33 24

7 47½ Declin. ead. 39 21

Repetita 39 20 50

39 20½

39 18½

8 49½ Clara Perfei, alt. tunc erat
quasi 41.

Decl. lucidæ Perfei 48 22½

48 22

Repetita 48 22½

48 22

Altit. 40 48 22½

48 22

Altit. Declin.

9 1 Caput Medusæ 31 39 21

Repetita 30½ 39 20½

9 6 Clara Capellæ 51 45 31

45 30½

9 10 Dextri hum. 56½ 44 50

Ericht. 44 49½

9 15 Repetita 55½ 44 50

44 49½

9 18 Aldeboram 22½ 15 39½

15 39½

9 22½ Versus ortum 27½ 21 20½

Arcturus 21 21

28 21 20½

Lucid. in □ 21 21½

Vrfæ min. 75 49½

75 49½

... 73 19½

73 18½

73 18½

9 54½ Caput Medusæ 24½ 39 21½

vno saltem pinnac.

10 0 Lucida Perfei 32½ 48 21½

Repetita 32½ 48 21½

Dextri hum. Ericht. 46½ 44 50

44 49½

Capellæ 40 46 45 30½

45 30½

Propter nubes non poterat corrigi
instrumentum.

Circa horam 10 vidit D. Tycho, quod
halo circa ☿ erat, cuius medium se ex-
tendebat ad canem minorem, obser-
vauitque distantiam centri ☿ ad medi-

¹ Nomen stellæ deest. Est stella minus lucida in quadrato urfæ min. (γ).

tullium circumferentiæ & inuenit part.
23 25' quasi, per radium.

DIE 10 MARTIJ, VESPERI.

Pro situ Armillarum.

N.B. Hæc obseruabantur splendente luna.

Declin. lucidæ in \square Vrfæ min. 75 49 $\frac{1}{2}$
per Armillas 75 49 $\frac{1}{2}$
Repetita 75 49 $\frac{1}{2}$
75 49 $\frac{1}{2}$

Declin. minus luc. in \square 73 18
Vrfæ minoris 73 18 $\frac{1}{2}$

Altit. Arcturi per Volub. 22 48

Declin. Arcturi tunc erat 21 20 $\frac{1}{2}$
21 21

Repetita Declin. Arcturi 21 20 $\frac{1}{2}$
21 21

Declin. Aldeboræ 15 39 $\frac{1}{2}$
15 39 $\frac{1}{2}$

Tunc erat Altit. Aldeboræ per Quadr. Azim. 24 8

Declin. Canis minoris 7 46 $\frac{1}{2}$
7 47

Altit. tunc erat Canis min. 36 10

Declin. cordis \oslash cum eſet circa merid. 13 55 $\frac{1}{2}$
13 56

Altit. tunc erat cordis \oslash 47 20

DIE 11 MARTIJ, VESPERI.

Declin. 1^a in cauda Vrfæ 58 11 $\frac{1}{2}$
maioris 58 11

Declin. mediæ in cauda vrfæ maioris, incerta propter nubes 57 5
57 4 $\frac{1}{2}$
Repetita 57 5
57 4 $\frac{1}{2}$

DIE 14 MARTIJ.

Alt. min. caudæ Cygni per Volub. 9 50

DIE 15 MARTIJ.

Pro situ Armillarum.

Obſeruabatur declinatio lucidæ in \square Vrfæ minoris 75 49 $\frac{1}{2}$
per Armillas 75 49 $\frac{1}{2}$

Altitud. meridianæ præbent 75 49 $\frac{1}{2}$
Ergo cum hac ſatis bene conſentit.

Sequentis minus lucidæ 73 17 $\frac{1}{2}$

\square vrfæ min. 73 17

Repetita 73 17 $\frac{1}{2}$
73 17 $\frac{1}{2}$

Declin. capitis Medufæ 39 21

Repetita 39 21 $\frac{1}{2}$
39 21

Decl. ex merid. altit. 39 21 $\frac{1}{2}$
39 18 30

Differentia ad minimum 2 30

Decl. luc. Perſei per Armill. 48 22 30

Ex altit. merid. 48 19 40

Differentia 2 50

Decl. Capellæ per Armillas 45 29 $\frac{1}{2}$
45 30

Decl. ex altit. merid. 45 29 $\frac{1}{2}$

Declin. Arcturi 21 20 $\frac{1}{2}$
21 21

DIE 16 MARTIJ.

Declin. lucidæ in \square 75 49 $\frac{1}{2}$

Vrfæ minoris 75 49 $\frac{1}{2}$

Seq. min. luc. in \square Vrfæ min. . . .

Alt. merid. capitis Medufæ 73 23 40

Luc. lateris Perſei alt. mer. 82 24 45

Declin. ex altit. 48 19 30

Ex hac corrigebatur inſtrumentum vsquedum proueniebat declinatio per Armillas 48 19 30.

Lucidioris in coxendice dextra

Perſei Alt. mer. 80 28 30

Decl. ex alt. merid. 46 23 15

Declin. per Armillas 46 23 $\frac{1}{2}$
46 22 $\frac{1}{2}$

Altit. Capellæ merid. 79 34 45

Decl. ex altit. 45 29 30

Declin. per Armill., vtroque 45 27 $\frac{1}{2}$

Altit. merid. Arcturi 55 27 15

Decl. ex altit. 21 22 0

Declin. per Armillas 21 22 $\frac{1}{2}$
21 23 $\frac{1}{2}$

DIE 17 MARTIJ, VESPERI.

Declin. lucidæ in \square Vrfæ 75 53

minoris 75 52 $\frac{1}{2}$

Declin. minus lucidæ in 73 20 $\frac{1}{2}$

\square Vrfæ min. 73 20 $\frac{1}{2}$

Declin. capitis Medufæ 39 16 $\frac{1}{2}$
39 17

Posita declinatione lucidæ lateris
Persei vera 48 19½ vtroque pinnac.,
dirigebatur instrumentum præcise in
eandem.

Hinc denuo obseruabantur declina-
tiones stellarum sequentium.

| | |
|----------------------------|--------|
| Declin. capitis Medusæ | 39 19 |
| | 39 18½ |
| Decl. lucidæ in □ Vrsæ mi- | 75 50½ |
| noris denuo obseruata | 75 51 |
| Declinatio versus ortum | 21 22 |
| Arcturi | 21 22½ |
| Declin. lucidioris in | 46 23½ |
| coxendice Persei | 46 23½ |

DIE 18 MARTIJ, VESPERI.

| | |
|----------------------------|--------|
| Declin. lucidæ in | 75 50½ |
| □ Vrsæ minoris | 75 50½ |
| Declin. minus lucidæ in | 73 19 |
| □ Vrsæ min. | 73 19½ |
| Declin. lucidæ in △ | 33 0½ |
| | 33 0½ |
| Erat tunc eius altitudo | |
| per Volubilem | 20½ |
| Declinatio Capellæ | 45 28½ |
| | 45 28½ |
| Declinatio dextri humeri | 44 46½ |
| Erichtonij | 44 47 |
| Alt. mer. min. caudæ Cygni | |
| per Vol. | 9 51 |

DIE 22 MARTIJ, MANE.

| | |
|---------------------------|--------|
| Altitudo meridiana minima | |
| lucidæ Erichthonij | |
| per Volub. | 11 27½ |

DIE 30 MARTIJ.

| | |
|-------------------------------------|-------|
| Alt. mer. merid. australioris in | |
| sinistra manu Ophiuchi | 30 28 |
| per Volub. pro examine instrumenti. | |

DIE 10 AUGUSTI, VESPERI.

| | |
|----------------------------|--------|
| Altitudo meridiana | |
| Primæ Delphini | 44 4 |
| Quartæ Delphini | 47 19½ |
| Nonæ Delphini | 47 21 |
| Quintæ Delphini | 48 36½ |
| Sextæ Delphini | 47 45½ |
| Septimæ Delphini | 48 48½ |
| Declin. cap. Ophiuchi | 12 55½ |
| melior per vetus pinnacid. | 12 57 |

| | |
|--------------------------|-------|
| Declin. eius, quæ numero | 9 40 |
| quinta est in Vulture | 9 39½ |

DIE 11 AUGUSTI, VESPERI.

| | |
|---------------------------------------|----------------|
| Alt. mer. merid. lucidæ sinistrae | |
| alæ Cygni n. 6 | 78 15 |
| Declinatio rostri Cygni | 27 8½ |
| | 27 8½ |
| Alt. mer. secundæ in collo | |
| Cygni n. 3 | 68 7 |
| Declinatio primæ in collo | 29 15½ |
| Cygni n. 2 | 29 15 |
| Alt. mer. præcedentis in sini- | |
| stro pede Cygni num. 15 | 79 36½ |
| Declin. nonæ Delphini magn. | 11 41½ |
| 6 ^{te} minor. | 11 42½ |
| Alt. mer. frequentis in sinistro | |
| pede Cygni num. 16 | 80 35 |
| Alt. mer. pectoris Cygni n. 4 | 73 4½ |
| Alt. mer. informis circa | |
| sinistram alam Cygni | 65 8½ |
| Declinatio 10 Delphini, | |
| nebulosa | 11 57½ |
| Alt. mer. caudæ Cygni | 77 56 |
| num. 5 | 77 55½ |
| Declin. capitis Equulei | 3 37½ |
| præcedentis num. 1 | B. 3 38½ |
| Alt. mer. merid. lucidæ dextræ | |
| alæ Cygni num. 10 | 66 33½ |
| Declin. paruulæ stellæ, quæ | |
| sequitur Vulturem proxime, | |
| sextæ magn. min. | 7 30½ |
| | vtroque |
| Alt. mer. præcedentis in dextro | |
| pede Cygni num. 13 | 73 42½ |
| Inter rostrum Cygni | 15 31½ |
| & Lyræ | 15 32½ |
| Secunda Cygni 6 ^{te} magnit. | 15 24½ |
| minor distat a Lyra | 15 25 |
| Tertia in collo Cygni magnit. | |
| quintæ distat a Lyra | 16 14' 10" bis |
| Eodem die 11 Augusti, Vesperi. | |
| Alt. mer. eius in dextro genu | |
| Cygni num. 14 | 76 24½ |
| Declin. eius quæ est in | 1 58 |
| dextro latere Antinoj | 1 57½ |
| Alt. mer. extremæ dextræ | |
| alæ Cygni n. 12 | 62 40 |

Alt. merid. præcedentis duarum
informium circa dextram
alam Cygni magnit. 5 70 24½

Alt. merid. sequentis duarum
informium circa dextram
alam Cygni magnit. 6 71 48½

Declin. inferioris brachij 2 26½
sinistri Antinoi mag. 4 2 27½

DIE 12 AUGUSTI, VESPERI.

Inter Australem in dextro hu-
mero Ophiuchi & vnde- 30 5
cimam Serpentis 30 4½

Altitudo huius vndecimæ erat
circa hoc tempus circiter 11 25

Declinatio 11 Serpentis 2 2½ Bor.
4 magnit. 2 3

Inter Borealem in dextro
humero Ophiuchi 28 3
& 10 Serpentis 3 magnit. 28 2½

Declinatio decimæ 5 47
5 48

Inter Borealem in dextro
humero Ophiuchi & no- 29 41
nam Serpentis 2 magnit. 29 41½

Declinatio eiusdem nonæ 7 48½
7 50

Declin. Borealis in dextro 4 49½
humero Ophiuchi 4 49

Declin. Austr. in dextro 2 55½
humero Ophiuchi 2 56

Inter Borealem in dextro hu-
mero Ophiuchi & septi- 32 23½
mam in collo Serpentis 32 24½

Declinatio eiusdem 11 59½
7 Serpentis 11 59½

Inter quartam Serpentis & 30 48
Bor. in dextro hum. Oph. 30 49

Declinatio eiusdem 16 48½
quartæ Serpentis 16 49½

Inter tertiam Serpentis in capite
& Borealem in dextro 28 37½
humero Ophiuchi 28 37½

Declin. eiusdem tertie 17 4½
Serpentis 17 4½

DIE 15 AUGUSTI.

Declin. stellæ in dextra 9 36
manu Ophiuchi 9 37½ A.

Declin. penultimæ in cauda 2 55

Quæ est num. 10 in manu
Ophiuchi ab inferiore

cornu ζ distat 34 58½ bis
Penultima in cauda Serpentis 30 21½

a superiori cornu ζ 30 22
Ipsa item quæ in manu Ophiuchi

a sinistro humero 52 44½
ζ distat 52 45

Australior & inferior in dextro
humero Ophiuchi n. 3 31 3

a lucida Vulturis distat 31 2½
Eadem a superiore cornu 40 13½

ζ distat 40 14½

DIE 30 AUGUSTI, VESPERI.

Inter Vulturem & caput
Ophiuchi 33 30½

Declin. capitis Ophiuchi 12 56
12 56½

Eadem dist. repetita 33 30½
Alt. merid. lucidæ Vulturis

per Volub. 41 57½
Inter caput Androm. & 20 10½

Marcab. Eadem distantia 20 11
Eadem dist. tertio 20 11

Declinationes quarundam
aliorum stellarum eodem

30 Augusti vesperi obseruatæ.

Stellæ in cuspide Trianguli 27 34 B
27 35

Borealis in crure Trianguli 33 0½
33 1

Inferioris & australioris in
crure Trianguli 31 55½
31 56½

Supremæ & borealis in
cingulo Andromedæ 38 48

Mediæ in cingulo 37 16½
Andromedæ 37 17½

Lucidæ in cingulo 33 27½
Andromedæ 33 28½

Lucidi pedis Androm., 40 17½
non est certa 40 17½

Alt. merid. genu Pegasi
per Volub. 62 12

per Chalyb. 62 12½
Declin. vtroque pinn. 40 19½

¹ Hæc est declinatio australis seu lucidi pedis Andromedæ (γ).

DIE 1 SEPTEMBRIS, VESPERI.

| | |
|--|------------|
| Alt. merid. infimæ trium in Vulture in recta linea, est numero secunda, per Volub. | 39 35 |
| Alt. mer. manus Antinoi per Vol. | 32 9 |
| Inter supremam trium in recta linea in Aquila (quæ est numero 5) & caput Ophiuchi | 32 12½ bis |

Viceversa

| | |
|---|--------|
| Inter eandem 5 Aquilæ & os Pegafi | 28 58½ |
| Eadem dist. repet. (bona) | 28 57½ |
| Inter caput Ophiuchi & quintam infor- mum circa Ophiuchum in vialac- tea, est in linea recta cum capite | |
| Herculis & caput | 8 30½ |
| Ophiuchi ad ortum | 8 31½ |
| Declinatio huius 5 stellæ | 9 33½ |
| | 9 34½ |

DIE 6 SEPTEMBRIS.

Per Armillas Zodiacales proque
earum correctione.

| | |
|---|-------------------|
| Posita longitudine Aquilæ in 26 0 7 | |
| proueniebat longitudo primæ alæ Pegafi | 17 45 |
| Declinatio extremæ alæ Pegafi | 12 54 |
| Longitudo ab Aquila oris Peg. | 26 10½ |
| Ab eodem loco Aquilæ longi- tudo sinistri humeri | 17 40 bis |
| Ab eodem loco Vulturis longitudo lucidæ V | 1 54½ |
| Declin. sinistri genu Pegafi | 23 22½ |
| Ex altit. merid. | 23 23, retinenda. |

DIE 7 SEPTEMBRIS, VESPERI.

| | |
|---------------------------|-------|
| Declinatio oris Pegafi | 7 59½ |
| meliori pinnacidio | 8 1 |
| Declinatio capitis Pegafi | 4 13 |
| | 4 13½ |

Eodem Vesperi.

| | |
|--|--------|
| Per Zodiacales armillas longitudo lu- cidæ V a 26 Vulturis ¹ | 1 54½ |
| Longitudo dextri humeri | |
| a dicto loco Vulturis | 27 36½ |
| Long. 2) (a dicto loco Aquilæ | 15 41½ |

¹ Id est, a Lucida Vulturis, quam in 26° 0' 7" posuit.

| | |
|---|--------|
| Declinatio eius quæ in collo Pegafi proxime præcedit Marcab, vno meliori pinnacidio | 10 5 0 |
| eodem meliori pinnac. | 10 5½ |
| Inter Vulturem & caput Pegafi | 34 39½ |
| Alt. mer. 2 in collo Pegafi | 44 11½ |
| Alt. mer. sinistri genu Peg. | 57 28½ |

DIE 8 SEPTEMBRIS, VESPERI.

Per Armillas Zodiacales

| | |
|---|-----------|
| Longitudo luc. V a 26 Vulturis | 1 55½ bis |
| Longit. 11 in manu dextra | 4 38 |
| | 4 38½ |
| Longit. 2 V a 26 Vulturis | 28 15½ |
| Declinatio super. trium in pectore Androm. | 31 24½ |
| Decl. med. siue clarioris in pectore Androm. | 28 37½ |
| Inter Scheat & lucidam | 27 35½ |
| cinguli Andromedæ | 27 35½ |
| Inter lucid. V & lucid. | |
| pectoris Andromedæ | 20 47½ |
| Inter luc. cing. Androm. | 12 28½ |
| & luc. in pede Androm. | 12 29 |

DIE 9 SEPTEMBRIS, VESPERI.

| | |
|--|-----------|
| Declin. inferioris trium in pectore Andromedæ | 27 6½ |
| Eodem meliori pinnacid. | 27 7 |
| Stellula conficiens triangulum oxygo- nicum cum duabus inferioribus in pectore Andromedæ, | 24 25½ |
| a Marcab Pegafi distat | 24 25½ |
| Infima trium in pectore Andromedæ a Marcab Pegafi distat | 25 49 bis |
| Declinatio obscuræ stellæ consti- tuentis cum duabus inferioribus trium in pectore Andromedæ quasi tri- angul., vno meliori pinn. | 27 11 |
| Inter Marcab & supremam | 27 49 |
| trium in pectore Androm. | 27 50 |
| Infima in cauda Delphini | 35 50½ |
| num. 3 ^a distat a Marcab Peg. | 35 50½ |
| Declinatio eiusdem in Delphino | 8 42½ |
| Obscuræ in cauda Delphini | 10 0½ |
| num. 2 declin. B. | 10 0 |

DIE 10 SEPTEMBRIS, VESPERI.

| | |
|---|-------------------------|
| Secunda colli Pegasi ab ore eiusdem distat | 15 29 $\frac{1}{2}$ bis |
| Inter infimam caudæ | |
| Delphini (quæ est 3 num.) | 23 8 $\frac{1}{2}$ |
| & caudam Vulturis | 23 8 $\frac{3}{4}$ |
| Inter secundam in cauda Delphini & caudam Vulturis | 22 40 $\frac{1}{2}$ |
| Inter occidentaliorem duarum obscurarum sub rhomboide (est num. 9) & | 21 31 $\frac{1}{2}$ |
| caudam Vulturis | 21 33 |
| Inter Lyram & orientaliorem dictarum duarum obscurarum infra rhomboidem | 37 2 |
| Delphini num. 10 | 37 2 $\frac{1}{2}$ |
| Inter stellam quæ iuxta infimam 4 lucidarum in Delphino est, sextæ magn. | 35 7 $\frac{1}{2}$ |
| vel paulo maior, & lyram | 35 8 |
| Est cum hac infima siue australiori rhomboidis quasi in eadem declinatione. | |
| Stellula infra dextrum genu Pegasi ad occasum num. 14, sextæ magn., distat a cap. Andr. | 18 49 $\frac{1}{2}$ |
| Extrema in dextro pede Pegasi a capite Andromedæ | 25 31 $\frac{1}{2}$ |
| Quæ numero 12 infra Scheat, 5 magn., a capite Andr. | 18 2 |
| distat | 18 1 |
| Declinatio stellæ ad dextrum genu Pegasi num. 14 | B. 27 11 |
| Inter luc. \vee & paruum infra Scheat Peg. num. 11 puto | 40 45 $\frac{1}{2}$ |
| sextæ magnit. minor. | 40 46 |
| Declin. decimæ numero in dextro pede Pegasi | 31 11 $\frac{1}{2}$ |
| Declinatio eius quæ proxima est infra Scheat, est superior istarum duarum num. 12 | 22 28 $\frac{1}{2}$ |
| Inter lucidam \vee & 15 in superiori parte dextræ alæ Pegasi | 37 58 bis |
| Declinatio eiusdem | 21 32 |
| | 21 31 $\frac{1}{2}$ |
| Quæ sequitur ex duabus in superiore ala Pegasi num. 16 | 36 55 $\frac{1}{2}$ |
| a lucida \vee distat | 36 56 |
| Declinatio | 21 15 0 |
| | 21 13 $\frac{1}{2}$ |

DIE 12 SEPTEMBRIS, VESPERI.

| | |
|--|------------------------------|
| Posita lucida Vulturis in 26 $\frac{1}{2}$ longitudo bor. in manu Ophiuchi | 26 37 $\frac{1}{2}$ |
| Erat hæc stella Ophiuchi circa hoc tempus fere 4 grad. ab Horizonte elevata. | |
| Longitudo ex libro reducta ad hunc annum 90 est | 26 35 0 |
| Longitudo sinistri humeri | 17 40 $\frac{1}{2}$ |
| Reducta ad hunc annum | 17 42 |
| Longitudo Marcab | 17 48 \times |
| Eademque reducta præcise. | |
| Longitudo præcedentis in cauda ζ | 16 6 $\frac{1}{2}$ \approx |
| Reducta | 16 5 \approx |
| Longitudo Lucidæ in connexu lini \times obseruata | 23 40 |
| Reducta | 23 38 $\frac{1}{2}$ |
| Longitudo obseruata 1 \vee | 27 27 $\frac{1}{2}$ \vee |
| Reducta | 27 28 0 |
| Declinatio stellæ præcedentis in triangulo num. 4 in brachio dextro Andromedæ | 34 30 $\frac{1}{2}$ |
| Longit. secundæ \vee obseruata | 34 31 |
| Reducta | 28 14 $\frac{1}{2}$ |
| Declinatio sequentis & supremæ in eodem triangulo in brachio dextro Andromedæ | 36 24 |
| Inter Scheat Pegasi & quartam in dextro brachio Andromedæ num. 4, 5 magnit. | 17 56 |
| Inter Scheat Pegasi & supremam in dextro brachio Andromedæ, quæ num. 5 est, magnit. 5 min. | 17 55 $\frac{1}{2}$ |
| Inter Scheat Pegasi & eam magnit. 6 min., quæ numero sexta est in dextro brachio Andromedæ | 18 34 $\frac{1}{2}$ |
| Declinatio decimæ numero in sinistrio brachio Andromedæ | 18 56 $\frac{1}{2}$ |
| Declinatio vndecimæ numero in cubito sinistrio Andromedæ | 22 1 $\frac{1}{2}$ |
| Inter caudam Cygni & obscuram in dextra manu Andr. num. 31 | 22 0 $\frac{1}{2}$ |
| Inter caudam Cygni & eam quæ est 23 num. in annulo catenæ Andromedæ | 30 12 |
| | 30 12 $\frac{1}{2}$ |

Erit ea (opinar) quæ est suprema in manu dextra; an illa sit, examinandum.

Inter caudam Cygni & num. 8 in manu dextra Andromedæ 31 18 $\frac{1}{2}$ bis

Inter caudam Cygni & eam quæ est in manu dextra 31 14 $\frac{1}{2}$

Andromedæ num. 7 31 14 $\frac{1}{2}$

Inter Marcab & eam quæ est in cubito sinistro Andromedæ 27 43 $\frac{1}{2}$

num. 11, 5 magn. maior. 27 43 $\frac{1}{2}$

Inter Marcab & num. 10 in fin. 25 44 $\frac{1}{2}$

brachio Andr., 5 magn. 25 44 $\frac{1}{2}$

DIE 14 SEPTEMBRIS, VESPERI.

Inter Scheat & eam quæ est inferior in fura sinistri pedis Andromedæ,

6 mag. maior. num. 19 34 22 bis

Inter Scheat & eam quæ est in eadem fura sinistri pedis Andromedæ

num. 18, 5 magnit. 33 48 $\frac{1}{2}$

Inter Scheat & eam quæ proxima est decimæ octauæ antedictæ, in vel

potius circa furam sinistri

pedis Andr. borealior, 34 57

6 magnit. minor. 34 57 $\frac{1}{2}$

✱ Situs

✱

✱ 18

✱ 19

Inter Scheat & illam quæ iuxta furam dictam adhuc borealior est, est 6

magnit. min. & obscurior 34 57

eadem distant. quæ præcedentis.

Inter Scheat & supremam trium obscurarum iuxta furam, 6 magnit.

minor, cuius situs 34 59 $\frac{1}{2}$

hic notatus est 34 58 $\frac{1}{2}$

Inter Scheat & 22 numero ad furam dextri pedis Andromedæ 33 12 $\frac{1}{2}$

6 magn. minor. 33 12 $\frac{1}{2}$

Inter Scheat & 21 in fura dext. 32 23

ped. Androm., obscuram 32 23 $\frac{1}{2}$

Inter Scheat & 20 numero, est in genu dextri pedis Androm. 31 3

semel

Inter Scheat & eam quæ est fere in recta linea cum 22 & 17 34 11

in pede dext. Andr.,
obscura

34 9

✱

✱

✱

✱

✱

Inter Scheat & vltimam in pede dextro Andromedæ num. 16 37 35 $\frac{1}{2}$

5 magnit. maior. 37 35 $\frac{1}{2}$

Inter Scheat & illam quæ est in recta linea cum superiore in cingulo

Andr. & 21 parui trianguli 29 25

in crure dextro, 6 magnit. 29 25 $\frac{1}{2}$

Inter lucidam pedis sinistri Andromedæ & eam quæ est in 33 12 $\frac{1}{2}$

annulo Andromedæ 33 13

Declinatio paruæ in capite 3 5

Pegasi num. 3 3 5 $\frac{1}{2}$

Declin. inferioris & sequentis 6 38 $\frac{1}{2}$

in iuba Pegasi num. 4 6 38 $\frac{1}{2}$

Declin. præcedentis & 7 40

superioris in iuba Pegasi

num. 5 7 39 $\frac{1}{2}$

Inter paruam illam in capite Pegasi num. 3, 6 magnit. minor. 32 57

& extremam alæ Pegasi 32 56 $\frac{1}{2}$

Inter superiorem & præcedentem in iuba Pegasi num. 5, 6 magnit. minor. & extremam alæ Pegasi

20 28 bis

Inter inferiorem & sequentem in iuba Pegasi num. 4, 6 magnit., 20 8

& extremam alæ Pegasi 20 8 $\frac{1}{2}$

DIE 18 SEPTEMBRIS, VESPERI.

Decl. supremæ in dextra

manu Andromedæ 44 16 $\frac{1}{2}$

Repetita eadem decl. 44 14 $\frac{1}{2}$

vno pinn. 44 15

Inter lucidam Vulturis & paruam illam præcedentem in capite

Pegasi num. 3 33 43 $\frac{1}{2}$

DIE 19 SEPTEMBRIS, VESPERI.

Declinatio 8* numero in superiore manu Andromedæ 42 5

vtrouque

Declinatio 7* in eadem 40 0

manu Andromedæ 40 0 $\frac{1}{2}$

Declin. nonæ in eadem manu
 superiore Andromedæ, 44 10
 obscura est 44 9
 Inter Vulturem & 44 45
 5 in Pegaso 44 46½
 Inter lucidam Vulturis & 45 33½
 4 in Pegaso 45 33½
 Inter Vulturem & 15 in supe- 52 15
 riore parte alæ Pegasi 52 16
 Inter Vulturem & 16 sequentem in su-
 periore parte alæ Pegasi 53 42
 Inter rostrum Cygni & 14 in- 41 38½
 fra genu dext. Peg. ad occ. 41 37½
 Inter rostrum Cygni & 10 Peg. 34 26
 quæ est in dextro pede 34 27

Viceversa

Inter annulum catenæ An- 25 17½
 drom. & caudam Cygni 25 18

DIE 22 SEPTEMBRIS, VESPERI.

Viceversa in Andromeda

Inter lucidum pedem Andromedæ &
 2 infimam in dextra¹ 19 10
 Andromedæ 5 magnit. 19 11
 Inter luc. ped. Andr. & 3 inferiorem
 in sinistro humero 21 30
 Andromedæ 5 magnit. 21 29
 Inter luc. ped. & num. 4 20 57
 Androm. 5 magnit. min. 20 57½
 Declinatio 6 Andromedæ 35 35½
 bis, peiori pinnacidio

Inter lucidum pedem & 20 27
 5 Andromedæ 20 26½
 Inter lucidum pedem & 19 59½
 sextam Andromedæ 19 59
 Inter luc. ped. & septimam 26 36½
 in manu, magnit. 4 min. 26 36½
 Inter luc. ped. & 8 in manu 25 58½
 eius, magnit. 4 minor. 25 58
 Inter luc. ped. & 9 in manu 24 49½
 magnit. 6 minor. 24 48½
 Inter luc. ped. & superiorem in supe-
 riore manu Androm. quæ 26 12
 num. est 4 minor.² 26 12½
 Inter luc. ped. & supremam in 13 50
 cingulo num. 14, magnit. 5 13 50½
 Inter luc. ped. & mediam in 13 21
 cingulo num. 13, magnit. 4 13 21½

Inter lucidam V & 10 in sinistro
 brachio Andromedæ 18 13
 magnit. 5 maior. 18 12
 Inter luc. V & 11^{am} in sinistro 15 58½
 brachio Androm.,
 magn. 5 min. 15 58½
 Viceversa in cingulo Andromedæ.
 Inter caudam Cygni & supre- 44 18½
 mam in cingulo Androm. 44 18½
 Inter caudam Cygni & medi- 46 42½
 am in cingulo Androm. 46 42½
 Quæ est inter caput Andromedæ &
 lucidam pectoris eius-
 dem magnit. 6 minor. 22 31
 distat a lucida V 22 30½

DIE 23 SEPTEMBRIS, VESPERI.

Altitudo annuli catenæ Andromedæ
 meridiana per Volub. 74 12½
 Inter caput Androm. & 16 quæ est
 extrema in superiore 28 2½
 pede Andromedæ 28 2½
 Inter caput Androm. & 18 21 50
 in fura Andromedæ 21 49½

Viceversa

Inter lucidum latus Perfei & 16 in supe-
 riore pede Andromedæ 15 58
 magn. 5 maior. 15 58½
 Inter 18 in fura Androm. &
 caput Medusæ, 17 5½
 magnit. 5 min. 17 5½
 Inter 19 in fura Androm. 16 30
 magn. 6 & caput Medusæ 16 30½
 Inter lucid. in dextro genu Perfei num.
 23 & Androm. +, Arato 28 30½
 ignotam, magn. 5 maior. 28 30½

o 16
 o 17
 o
 o o +

Inter lucid. in dextro genu
 Perfei & 20 Androm. 30 50½
 magn. 5 maior. 30 50½

DIE 25 SEPTEMBRIS, VESPERI.

Inter 21 Andromedæ 6 magnit.
 minor. & lucidam 24 44
 in latere Perfei 24 44½

¹ Sic in codice. Fortasse »in scapula dextra« (7).

² Sic in codice D.

| | |
|--|-------------------------|
| Inter 22 Androm. 6 magn. & | 23 48 $\frac{3}{4}$ |
| luc. latus Perfei | 23 49 $\frac{1}{2}$ |
| Inter præcedentem in paruo trian- | |
| gulo ad dext. ped. Androm. 6 | |
| magnit. & luc. latus Perfei | 20 46 bis |
| Inter mediam & inferiorem in eodem | |
| triangulo 6 magnit. & | 19 59 $\frac{1}{2}$ |
| luc. latus Perfei | 19 59 |
| Inter vltimam in cuspide eius- | 19 0 |
| dem Δ & luc. latus Perfei | 19 1 |
| Inter 15 in ala Pegafi & pri- | 35 2 $\frac{1}{2}$ |
| mam auftralis alæ Cygni | 35 2 $\frac{1}{2}$ |
| Inter fequentem in pectore Pegafi num. | |
| 12 & lucidam auftralis | 28 27 $\frac{1}{2}$ bis |
| alæ Cygni, magnit. 4 | 28 27 $\frac{1}{2}$ |

DIE 3 OCTOBRIS, VESPERI.

| | |
|-------------------------------|---------------------|
| Declinatio lucidæ in dextro | 22 27 $\frac{1}{2}$ |
| humero Herculis | 22 29 |
| Declinatio lucidæ in finifiro | 25 23 $\frac{1}{2}$ |
| humero Herculis | 25 24 |

DIE 4 OCTOBRIS, VESPERI.

| | | | |
|-------------------------------|-----------------|---------|--------------|
| Declin. inferioris fequentium | 56 | 2 | |
| duarum in □ Vrfæ mai. | 56 | 0 | |
| Declinatio præcedentis in | 28 | 4 | |
| exuijs Herculis num. 7 | 28 | 3 | |
| Declinatio lucidioris duarum | | | |
| fequentium in exuijs | 29 | 20 | |
| Herculis num. 10 | 29 | 21 | |
| Altit. ftellæ | Azim. ftellæ | Polaris | Luc. Vultur. |
| Polaris per Vol. | a fept. ad ort. | | occ. |
| 56 46½ | 4 45 | | 3 1 |
| 56 53¾ | 4 50 | | 5 21 |
| 56 59 | 4 47 | | 7 7½ |

DIE 5 OCTOBRIS, VESPERI.

| | | | |
|-------------------------------|---------------------|-------------------|--------------------|
| Alt. ftellæ | Polaris | Azimuth | Luc. Vult. |
| per Volub. | per Chalyb. | eius | orient. |
| 56 26 $\frac{3}{4}$ | | 5 6 | 4 19 |
| 56 30 $\frac{1}{2}$ | 56 30 $\frac{1}{2}$ | 5 4 $\frac{1}{2}$ | 2 51 |
| 56 36 | 56 37 $\frac{1}{2}$ | | 0 30 $\frac{1}{2}$ |
| Declinatio 20 ftellæ ad | 45 3 | | |
| genu Andromedæ | 45 2 $\frac{3}{4}$ | | |
| Inter dext. hum. Herculis | 49 42 $\frac{1}{2}$ | | |
| & lucid. Vulturis | 49 43 | | |
| Inter 3 num. in dext. brachio | 51 25 | | |
| Herculis & luc. Vult. | 51 24 $\frac{1}{2}$ | | |
| Inter præced. in exuijs | | | |
| Herculis num. 7 | 34 49 $\frac{1}{2}$ | | |
| & luc. Vult. | 34 49 $\frac{1}{2}$ | | |

| | |
|-------------------------------------|---------------------|
| Declinatio num. 6 in Herculis | |
| exuijs, magnit. 5 | 29 15 $\frac{1}{2}$ |
| Inter 10 num. in exuijs | 33 23 $\frac{1}{2}$ |
| & lucid. Vult. | 33 23 $\frac{1}{2}$ |
| Inter num. 8 in exuijs leonis | 31 20 $\frac{1}{2}$ |
| & luc. Vult. | 31 19 $\frac{1}{2}$ |
| Declinatio 6 ^a numero in | 26 30 $\frac{1}{2}$ |
| brachio finifiro Herculis | 26 29 |
| Inter 11 num. in coxa Her- | 49 17 $\frac{1}{2}$ |
| culis & luc. Vult. | 49 18 |
| Decl. 14 num. in coxa Herculis | 33 36 |
| Inter 14 num. in coxa Her- | 45 18 $\frac{3}{4}$ |
| culis & lucid. Vulturis | 45 19 $\frac{1}{2}$ |
| Decl. 11 in coxa Herc., | |
| vtroq. pinn. 31 | 36 |

DIE 6 OCTOBRIS, VESPERI.

| | |
|---|---------------------|
| Quæ in finifiro brachio Herculis | |
| a lucida Vulturis | 37 19 $\frac{1}{2}$ |
| diffat, num. 6 | 37 20 $\frac{1}{2}$ |
| Inter nonam num. in exuijs | |
| leonis & lucid. Vult. | 32 27 bis |
| Declinatio 16 in extremitate superioris | |
| pedis Androm., vno eo- | 48 36 $\frac{1}{2}$ |
| demque meliori pinnac. | 48 37 $\frac{1}{2}$ |
| Declinatio 18 in fura inferioris | |
| pedis Andromedæ | 39 21 $\frac{1}{2}$ |
| Declinatio 19 Androm. in | 38 29 |
| fura pedis | 38 29 $\frac{3}{4}$ |
| Inter 4 num. in dextra manu | Herculis |
| & lucidam Vulturis | 54 38 bis |
| Inter caput Herculis & quin- | 20 52 $\frac{1}{2}$ |
| tam in capite Serpentis | 20 53 |
| Declinatio 4 in dextra | 18 16 |
| manu Herculis | 18 16 $\frac{3}{4}$ |
| Inter caput Herculis | 22 46 $\frac{1}{2}$ |
| & 2 in lingua Serpentis | 22 47 |
| Declinatio 5 num. in capite | 19 30 $\frac{1}{2}$ |
| Serpentis | 19 30 $\frac{1}{2}$ |
| Inter caput Herculis & | 20 59 |
| feftam in naribus Serp. | 21 0 |
| Declinatio ftellæ num. 2 | 21 0 |
| in lingua Serpentis | 21 0 30 |

DIE 7 OCTOBRIS, VESPERI.

| | |
|-------------------------------|---------------------|
| Inter ftellam num. 25 in genu | |
| dext. Herculis | 37 15 |
| & caput Oph. | 37 15 $\frac{1}{2}$ |
| Declinatio eiusdem 25 | 47 21 $\frac{1}{2}$ |
| | 47 20 $\frac{1}{2}$ |

| | | |
|--------------------------------|----|----------------------|
| Inter 27 num. Herculis & cau- | 49 | 55 $\frac{1}{2}$ |
| dam Vulturis volantis | 49 | 56 |
| Declinatio 26 Herculis | 46 | 4 $\frac{1}{2}$ |
| in fura dextri cruris | 46 | 4 |
| Declinatio 27 Herculis | 47 | 12 $\frac{1}{2}$ |
| | 47 | 13 $\frac{1}{2}$ |
| Inter 26 in fura dextri cruris | 48 | 30 |
| Herculis & caudam Vult. | 48 | 30 $\frac{3}{4}$ |
| Declinatio 24 in femore | 43 | 21 |
| dextro Herculis | 43 | 19 |
| Inter 28 Herculis in crure | | |
| dextro circa talum & | 50 | 18 |
| caudam Vult. | 50 | 18 $\frac{1}{2}$ |
| Inter 29 & extremam in planta | | |
| pedis dextri Herculis & | 53 | 31 |
| caudam Vulturis | 53 | 31 $\frac{1}{2}$ |
| Declinatio 23 in femore | 39 | 45 $\frac{1}{2}$ |
| Herculis dextro | 39 | 46 |
| Inter 24 in femore Herculis | 43 | 16 $\frac{1}{2}$ |
| dextro & caudam Vult. | 43 | 16 |
| Declinatio 3 in Corona | 32 | 47 |
| Gnofia | 32 | 47 $\frac{1}{2}$ |
| Declinatio 2 in Corona | 30 | 35 |
| Gnofia | 30 | 34 $\frac{1}{2}$ |
| Declinatio lucidæ Coronæ | 28 | 9 $\frac{1}{2}$ |
| num. 14 | 28 | 9 $\frac{5}{8}$ |
| Inter caudam Vulturis & | 43 | 0 |
| 13 Herculis | 42 | 59 $\frac{1}{2}$ |
| Declinatio 5 in Corona | 27 | 39 |
| Gnofia | 27 | 39 $\frac{3}{4}$ |
| Declinatio sextæ in Corona | 27 | 24 $\frac{1}{2}$ |
| Gnofia | 27 | 24 |
| Declinatio 7 in Corona | 28 | 7 $\frac{1}{2}$ |
| Gnofia | 28 | 8 $\frac{1}{2}$ |
| Inter 3 Coronæ Gnofiæ | 28 | 57 |
| & caput Herculis | 28 | 57 $\frac{1}{2}$ |
| Inter secundam Coronæ | 28 | 45 |
| Gnofiæ & caput Herculis | 28 | 44 $\frac{3}{4}$ |
| Inter quintam Coronæ Gno- | | |
| fiæ & caput Herculis | 24 | 34 $\frac{1}{2}$ bis |
| Inter 6 Coronæ & | 23 | 4 |
| caput Herculis | 23 | 5 |
| Inter septimam Coronæ & | 21 | 51 $\frac{1}{2}$ |
| caput Herculis | 21 | 51 $\frac{3}{4}$ |

DIE 8 OCTOBRIS.

| | | |
|------------------------|----|-----------------|
| Declinatio 8 in Corona | 28 | 6 $\frac{5}{8}$ |
| Boreali | 28 | 7 $\frac{1}{2}$ |

DIE 9 OCTOBRIS.

| | | |
|------------------------------|----|------------------|
| Inter caput Ophiuchi & . . . | 27 | 37 |
| | 27 | 36 $\frac{1}{2}$ |

DIE 10 OCTOBRIS, MANE.

Obferuata est stella polaris in maxima
digreßione a polo verſus occafum
5 12 $\frac{1}{2}$ Azimut.

DIE 10 OCTOBRIS, VESPERI.

| | | |
|------------------------------|----|------------------|
| Inter caudam Aquilæ & | 6 | 12 $\frac{1}{2}$ |
| 7 informium eiusdem | 6 | 12 $\frac{1}{2}$ |
| Inter ſequentem in fin. manu | | |
| Ophiuchi & lucid. | 33 | 5 |
| Coronæ Gnofiæ | 33 | 5 $\frac{1}{2}$ |
| Declinatio eiusdem in manu | 4 | 26 $\frac{1}{2}$ |
| Altitudo erat 8 40 | 4 | 27 |

Viceverſa

| | | |
|----------------------------|----|------------------|
| Inter eandem ſequentem in | | |
| manu Ophiuchi & | 54 | 32 |
| luc. Vulturis | 54 | 32 $\frac{1}{2}$ |
| Inter 5 informium Ophiuchi | 25 | 27 $\frac{1}{2}$ |
| & lucidam Vulturis | 25 | 27 $\frac{3}{4}$ |

Viceverſa

| | | |
|---------------------------------------|----|------------------|
| Inter eandem 5 ^{am} informem | | |
| Ophiuchi & | 13 | 47 $\frac{3}{4}$ |
| caput Herculis | 13 | 48 $\frac{1}{2}$ |
| Declinatio eiusdem 5 | 9 | 35 |
| | 9 | 35 $\frac{1}{2}$ |

| | | |
|----------------------------|----|------------------|
| Inter 6 in ſiniſtro cubito | | |
| Ophiuchi & lucidam | 28 | 11 |
| Coronæ | 28 | 11 $\frac{1}{2}$ |

Viceverſa

| | | |
|---|----|------------------|
| Inter eandem 6 in ſiniſtro cubito Ophi- | | |
| uchi & lucidam Vulturis | 50 | 2 bis |
| Inter 7 informium Vulturis | 18 | 2 |
| & lucidam Vulturis | 18 | 2 $\frac{1}{2}$ |
| Declinatio eiusdem 7 | 17 | 48 |
| | 17 | 47 $\frac{1}{2}$ |

Viceverſa

| | | |
|-----------------------------------|----|----------------------|
| Inter eandem 7 informium Vulturis | | |
| & caput Ophiuchi | 18 | 14 $\frac{1}{2}$ bis |
| Inter mediam in collo Cygni | | |
| num. 3 & lucidam Lyræ | 16 | 20 |

Viceverſa

| | | |
|-----------------------------|----|------------------|
| Inter eandem mediam in col- | 40 | 7 |
| lo Cygni & Scheat Pegafi | 40 | 7 $\frac{1}{2}$ |
| Siniſtrum brachium Hercu- | 29 | 13 |
| lis a Corona | 29 | 13 $\frac{1}{2}$ |

| | |
|--------------------------------------|------------|
| Inter borealiorem in dextro | |
| pede Cygni & | 24 39½ |
| Scheat Pegasi | 24 40½ |
| Hæc videtur informis esse. | |
| Inter australiorem in dextro | 24 47 |
| pede Cygni & Scheat Peg. | 24 47½ |
| et hæc videtur informis esse. | |
| Declinatio sinistri brachij | 28 2½ |
| Herculis | 28 3 |
| Inter borealiorem in Boreo | 37 53 |
| pede Cygni & Scheat | 37 54 |
| Inter australiorem in superiore | |
| pede Cygni & Scheat | 37 59½ bis |
| Viceversa | |
| Inter dictam borealiorem in | |
| pede Cygni & Lyræ | 30 54½ bis |
| Inter australiorem in dextro | |
| pede Cygni & Lyræ | 30 40½ bis |
| DIE IOUIS 15 OCTOBRIS, VESPERI. | |
| Inter 6 in sinistro cubito Ophiuchi | |
| & 3 in capite Serpentis | 16 15 bis |
| Inter 7 informium Vulturis & | |
| caudam Vulturis | 6 12 |
| Decl. 6 in sin. cubito Ophiuchi | 3 1 |
| Erat tunc Altit. eius quasi | 10 0 |
| Informis conficiens angulum rectum | |
| cum cauda Vult. & rostro | 44 13 |
| Cygni ab ore Pegasi distat | 44 12 |
| Declinatio eius quæ conficit angulum | |
| rectum cum ore Cygni & | |
| cauda Vulturis, | |
| est informis in Vulture | 20 14½ |
| meliori pinnacidio | 20 13½ |
| Inter sinistrum hum. Herculis & | |
| sinistrum brachium | 7 34 |
| eiusdem | 7 34½ |
| Viceversa | |
| Inter eam quæ conficit angulum | |
| [rectum] cum cauda Vulturis | |
| & rostro Cygni | 18 41 |
| & caput Ophiuchi | 18 41½ |
| Declinatio sinistri brachij | 28 2 |
| Herculis | 28 2½ |
| Inter præcedentem in | |
| dextro pede Cygni & | 26 47 |
| lucidam Lyræ | 26 46½ |
| Inter lucidam Lyræ & | |
| eam quæ ad genu | 28 1 |
| dextrum est Cygni | 28 0½ |

| | |
|--------------------------------------|-----------|
| Viceversa | |
| Inter Scheat Pegasi & | |
| præcedentem in dextro | 28 50 |
| pede Cygni | 28 52½ |
| Inter eam quæ ad genu est | |
| dextris pedis Cygni | 28 30½ |
| & Scheat | 28 31 |
| DIE SOLIS 18 OCTOBRIS, VESPERI. | |
| Declinatio stellæ quæ facit angulum | |
| rectum cum rostro Cygni | 20 13½ |
| & cauda Vulturis | 20 13½ |
| Inter caput Ophiuchi & eam quæ facit | |
| angulum [rectum] cum cauda | |
| Vulturis & rostro Cygni | 18 41½ |
| Inter eandem & caput | |
| Herculis | 22 32 bis |
| Informis conficiens angulum rectum | |
| cum cauda Vulturis & | |
| rostro Cygni, ab ore | 44 12½ |
| Pegasi distat | 44 13½ |
| Inter lucidam Lyræ & præ- | 26 49½ |
| ced. in dextro pede Cygni | 26 50 |
| Inter luc. Lyræ & eam quæ est | 27 58 |
| ad dextrum genu Cygni | 27 57½ |
| Viceversa | |
| Inter præcedentem in dextro | 28 54½ |
| pede & Scheat Pegasi | 28 54½ |
| Inter eam quæ est in genu | |
| dextro Cygni & Scheat | 28 25½ |
| Pegasi | 28 26 |
| DIE 28 OCTOBRIS. | |
| Declin. lucidæ Lyræ, occid. | 38 28 bis |
| Distantia inter 10 Cygni in ala | |
| inferiori mediam & | 26 18 |
| lucidam Lyræ | 26 19 |
| Declin. lucidi lateris | 48 20 |
| Persei, occid. | 48 20½ |
| Media dextræ alæ Cygni & | 29 54½ |
| Scheat distant | 29 55½ |
| DIE IOUIS 29 OCTOBRIS, VESPERI. | |
| Inter Aquilam & | 12 5½ |
| eiusdem caudam | 12 5½ |
| DIE MARTIS 10 NOUEMBRIS, | |
| VESPERI. | |
| Inter sequentem duarum inferiorum | |
| in corpore Lyræ & Scheat | 52 16 |
| Eadem dist. repetita | 52 17 |

Inter alteram earundem duarum
inferiorum in corpore Lyræ
occid. & Scheat 53 56 bis
Declin. eius meliori pinn. 32 58
Inter caudam Vulturis &
os Pegasi Repetita 39 0
Inter caudam Aquilæ &
ipfam lucidam Aquilæ 12 10
Inter finiftrum brachium 26 1½
Herculis & luc. Coronæ 26 1½
Inter caput Draconis & extre-
mam finiftræ alæ Cygni 12 22½

DIE 13 NOUEMBRIS, VESPERI.

Inter luc. manus Antinoi &
finiftrum humerum æ 12 35½ bis
Inter caput Herculis &
caudam Delphini 48 29½
Informis conficiens ab ore 40 25
Pegasi diftat¹ 40 25½
Inter præcedentem & fup-
riorem in □ Vrfæ mai. 49 16½
& Capellam Pone 49 16
Inter Scheat Pegasi &
2 Lyræ magnit. 5 53 52½
Inter Scheat Pegasi &
3 Lyræ magnit. 5 54 10½
Inter Scheat Pegasi &
4 Lyræ magnit. 6 52 25
Inter Scheat Pegasi &
5 Lyræ magnit. 6 47 55½
Inter Scheat Pegasi &
6 Lyræ magnit. 6 47 55½
Inter Scheat Pegasi &
5 Lyræ 48 21½
48 22
Inter Scheat Pegasi & ftellulam quæ
eft in linea recta cum 5 Lyræ
& fequente duarum 49 58
inferiorum eiusdem 49 57
Magnit. 6 minor., item in linea
recta cum 3^{ia} & 4^{ta} eiusdem Lyræ.

Declinationes ftellarum Lyræ:

2^{da} Lyræ 39 16½ 39 16½
3^{ta} Lyræ 37 14½ 37 14½
4^{ta} Lyræ 36 28 36 28½
6^{ta} Lyræ 37 29½ 37 29½
5^{ta} Lyræ 38 29½ 38 30½
Decl. finiftri pedis Erichtonij 32 24

Inter lucidum pedem Andromedæ &
lucid. in dextro brachio 41 49
Erichtonij, magnit. 2 41 48½
Inter luc. ped. Androm. &
quintam Ericht. 44 40
in dext. brachio 44 41
Inter luc. cinguli Androm. & feptimam
Erichtonij in finiftro 44 30
cubito 44 30½
Inter luc. cing. Andr. &
9 Ericht. in finiftro
brachio præcedentem 45 8½ bis
Inter luc. cing. Androm. & 8 Ericht.
in finiftro brachio 45 49½
fequentem 45 50

Hæc & præcedens hædi appellantur.
Declinatio lucidæ in dextro humero
Erichtonij, vtroque pinn. 44 50
Declinatio eius quæ in dextro brachio
Erichtonij num. 5 37 6
difficilior propter obftantem tra-
bem. 37 7½
melior

DIE 14 NOUEMBRIS, MANE.

Declinatio 7 in Erichtonio 43 5½
in dextro cubito 43 6½
Declin. fequentis Hædi 40 32½
Erichtonij 40 34
Inter fuper. caput II & lucidam in dex-
tro humero Erichtonij 22 39 bis
Inter fup. caput II & eam quæ 20 12½
in dextro brachio Ericht. 20 12½
Inter infer. caput II & fequen- 30 57½
tem Hædum Ericht. 30 57½
Inter fuperius caput II & præ- 31 38
cedent. Hædum Ericht. 31 39
Inter fuper. caput II & 7^{mam} 32 5
in finiftro cubito Ericht. 32 4½
Declinatio præcedentis 40 24
Hædi Erichtonij 40 23½

DIE 14 NOUEMBRIS, VESPERI.

Secunda Lyræ viceverfa
ab 11 Herculis quæ eft 26 3½
in coxa finiftra 26 4

¹ Sic in codice. Quæ fit hæc ftella, nefcio; obfervata eft poft ftellam borealem in cauda Ceti (i).

| | |
|-----------------------------|--------|
| Tertia Lyræ ab eadem 11 | 25 53½ |
| in sinistra coxa Herculis | 25 54½ |
| Quarta Lyræ ab eadem | 27 46½ |
| in coxa Herculis distat | 27 46½ |
| Quinta Lyræ a sinistra | 31 39½ |
| coxa Herculis | 31 39½ |
| Ipsa illa in sinistra coxa | 24 29 |
| Herculis a luc. lyra distat | 24 28½ |
| Sexta Lyræ a sinistra coxa | 32 8½ |
| Herculis distat | 32 8 |

DIE 15 NOUEMBRIS, MANE.

Hora 3 M. 56 pertransibat cor ♄ merid-
ridianum.

DIE 22 NOUEMBRIS, VESPERI.

| | |
|-----------------------------|--------|
| Declin. 12 in culo Herculis | 32 28½ |
| Altit. eiusdem 9 5. | 32 28 |

DIE 23 NOUEMBRIS, VESPERI.

| | |
|---|--------------|
| Altitudo maxima stellæ polaris | |
| per Volub. | 58 49½ dubia |
| Altit. merid. maxima præcedentis | |
| capitis Medusæ | 70 38 |
| Altit. 14 in capite Medusæ | 71 17 |
| Alt. mer. 13 capitis Medusæ | 72 5 |
| Alt. merid. 8 in latere Perfei | |
| magnit. 5 | 80 36½ |
| Alt. mer. 9 in eodem latere | 80 51½ |
| Alt. mer. 10 in latere Perfei | 80 30 |
| Alt. mer. 25 in calcaneo | |
| Perfei sinistro | 65 1½ |
| Alt. mer. 22 ad nates, 4 ^{te} mag. | 75 16 |
| Alt. mer. 26 in sin. pede | 64 41½ |
| Alt. mer. 24 in tibia | 68 38 |
| Alt. mer. 19 Perfei | 81 23 |
| Alt. mer. 20 in genu Perfei | 79 32½ |
| Altit. 17 supra genu Perfei | 83 39 |
| Altit. merid. 21 in dextro | |
| pede, magnit. 4 | 74 24½ |

DIE 26 NOUEMBRIS, VESPERI.

| | |
|---------------------------------|------------|
| Inter secundam Perfei & lucidam | |
| cinguli Andromedæ | 26 34½ bis |
| Inter 5 Perfei & lucidam | 25 10 |
| cinguli Andromedæ | 25 9½ |
| Inter 4 Perfei & lucidam | 21 55½ |
| cinguli Andromedæ | 21 54½ |
| Inter 6 Perfei | |
| & luc. cing. Andr. | 25 40 bona |

| | |
|--|-----------|
| Inter 11 in sin. cubito Perfei | 24 26 |
| & luc. cing. Androm. | 24 27 |
| Inter 8 Perfei | 28 43 |
| & luc. cing. Androm. | 28 44 |
| Inter 9 in latere Perfei | 29 43½ |
| & luc. cing. Androm. | 29 42½ |
| Inter 17 in genu Perfei | |
| & luc. cing. Androm. | 34 54 bis |
| Inter 16 in poplite genu Perfei | 36 43 |
| & luc. cing. Androm. | 36 42½ |
| Inter 18 in genu Perfei | |
| & luc. cinguli Androm. | 34 57 bis |
| Inter 19 in Perfeo | 36 3½ |
| & luc. cing. Androm. | 36 3½ |
| Inter 20 in Perfeo | 37 4½ |
| & luc. cing. Androm. | 37 5½ |
| H. 7 M. 0½ Transibat extrema alæ Pe- gasi per Meridianum, habens Alt. | |
| per Volub. | 47 1½ |
| Declinatio eius tunc erat | 12 54½ |
| per Armillas maximas | 12 54½ |
| Altitudines Meridianæ | |
| 4 in sin. hum. Perfei | |
| per Chal. | 81 31 |
| 2 in dextro cubito Perfei | |
| per Vol. | 88 16½ |
| Præced. in cap. Medusæ | |
| per Chal. | 70 38½ |
| 5 Perfei per Quadr. Volub. | 85 12½ |
| 15 in capite Medusæ | 71 57½ |
| 14 in cap. Medusæ | |
| per Volub. | 71 19 |
| per Chalyb. | 71 16 |
| Luc. lateris Perfei | |
| per Chalyb. | 82 24½ |
| per Volub. | 82 25½ |
| Quadrans Volubilis corrigendus est. | |
| 22 Perfei | |
| per Chalyb. | 75 17½ |
| per Volub. | 75 17½ |
| Sequentis in pede sinistro | 64 40½ |
| | 64 41½ |
| Declinatio eiusdem per Armillas | |
| vtroque pinnacidio | 30 36 |
| Decl. 25 Perfei in Armill. | 30 56 |
| | bona |
| Alt. merid. 17 in dextro genu | |
| per Chalyb. | 83 17 |
| 16 in dextro genu | |
| per Chalyb. | 83 15½ |

DIE 27 NOUEMBRIS VESPERI.

Pro rectificandis instrumentis.

| | |
|---------------------------------|--------|
| Altit. merid. capitis Andromedæ | |
| per Chalyb. | 60 55½ |
| per Volub. | 60 55½ |
| Eius declinatio vno | 26 50 |
| per Armillas alt. | 26 50½ |
| Alt. mer. extremæ alæ Pegasi | |
| per Chalyb. | 47 0½ |
| per Volub. | 47 0 |
| Eiusdem declinatio | 12 54½ |
| per Armillas | 12 54 |

DIE 4 DECEMBRIS.

Pro examinando nouo Sextante orichalco totaliter obducto.

| | |
|------------------------------|-------|
| Alt. merid. 1 alæ Pegasi | |
| per Quadr. Volub. | 47 5½ |
| per Sext. nouum ¹ | 47 6½ |

DIE 5 DECEMBRIS.

| | |
|--|--------|
| Declin. informis in medio corpore Lyræ | 37 47 |
| | 37 46½ |

DIE 6 DECEMBRIS, VESPERI.

Pro examinando nouo Sextante orichalco.

| | |
|-------------------------------------|-------|
| Altit. meridiana extremæ alæ Pegasi | |
| per nou. Sext. | 47 0½ |
| per Chalyb. | 47 0½ |
| per Volub. | 47 0½ |

| | |
|---|--------|
| Meridiana altit. lucidæ australioris in cauda Ceti per nouum orich. Sext. | 13 53½ |
|---|--------|

| | |
|--------------------------------|--------|
| Alt. merid. 4 in interfectione | 41 38½ |
| per nouum Sext. | 41 37½ |
| per Chalyb. | 41 37½ |
| per Volub. | 41 37½ |

| | |
|--------------------------------|--------|
| Alt. merid. 3 in interfectione | 42 20½ |
| per nouum Sext. | 42 20½ |
| per Chalyb. | 42 20½ |
| per Volub. | 42 20½ |

| | |
|-----------------------------|------------|
| Inter lucidam √ & Aldeboram | |
| per nouum Sext. | 35 32 |
| Repetita | 35 32' 25" |

DIE 17 DECEMBRIS, VESPERI.

| | |
|---------------------------------|--------|
| Inter fequentem & superiorem in | |
| □ Vrfæ minoris & | 42 46½ |
| caudam Cygni | 42 45 |

Aldeboram hoc vespere tranſibat per meridianum H. 9 M. 48 40". Ad hoc tempus corrigendum est horologium.

| | |
|---------------------------------|--------|
| Altit. max. ſtellæ Polaris | |
| per Chalyb. | 58 48½ |
| per Volub. | 58 48½ |
| horologio indicante H. 6 M. 6½, | |
| Aldeb. orient. | 57 41 |

| | |
|--|-------|
| H. 6 14½' correcto horologio, altitudo minima meridiana 1 ^a in cauda Vrfæ maioris | |
| per Chalyb. | 24 7½ |
| per Volub. | 24 6½ |

| | |
|--|--------|
| Altitudo merid. min. extremæ in cauda Vrfæ maioris | |
| per Chalyb. | 17 19½ |
| per Volub. | 17 19 |

DIE 18 DECEMBRIS, MANE.

| | |
|---|--------|
| Inter Arcturum & | 21 0½ |
| 3 n. Coronæ Gnoſiæ | 21 0½ |
| Inter Arcturum & 2 Coronæ | 18 59 |
| Inter Arcturum & 5 Coronæ | 21 4 |
| Inter Arcturum & | 32 31½ |
| 6 Coronæ | 32 31½ |
| Inter Arcturum & 7 Coronæ | 24 26 |
| Inter Arcturum & 8 Coronæ, | |
| incerta propter auroram | 26 11 |
| 5 ^u 54' Altitudo ſtellæ polaris minima | |
| per Q. Volub. | 53 0 |
| per Q. Chalyb. | 53 0 |

Horologium 10 M. tardius ciebatur.

Eodem die 18, vesperi.

| | |
|--|------------|
| Inter eam quæ est in ſiniſtro humero Perſei num. 4 & | 25 38 |
| Capellam | 25 38½ |
| Diſt. inter 22 Perſei magnit. | 16 39 |
| 5 maior. & Capellam | 16 39½ |
| Inter 23 Perſei magnit. 3 minor. & Capellam | 15 30½ |
| Inter 25 Perſei 4 magnit. & Capellam | 22 26½ |
| Inter præcedentem & informem in capite Meduſæ & Capellam | bis 27 52½ |
| Inter 13 infra lucidam in capite Meduſæ & Capellam | 23 39½ |

Poſtea adſcriptum eſt »inter diſponendum Sextantem in meridiem«.

| | |
|---|------------------|
| Inter 11 in cubito sinistro | |
| Perfei & Capellam | 22 9½ |
| Inter 6 Perfei in dorso & | 21 37½ |
| Capellam | 21 38 |
| Inter 15 in capite Medusæ & | 21 56 |
| cingulum Andromedæ | 21 55½ |
| Inter 8 in latere Perfei & | |
| Capellam | 18 3½ |
| Inter 9 in latere & Capellam | 17 6 |
| Altitudines Meridianæ: | |
| Inferioris in Vrfæ maiore | |
| per Chal. | 21 54 |
| per Vol. | 21 54½ |
| Stellæ polaris maxima | |
| per Vol. | 58 48½ |
| per Chal. | 58 48½ vel 48 17 |
| Minima 1 ^a in cauda Vrfæ maioris | |
| proximæ quadrato | |
| per Vol. | 24 7½ |
| per Chal. | 24 8½ |
| Minima mediæ in cauda Vrfæ maioris | |
| per Vol. | 23 1½ |
| per Chal. | 23 1½ |
| Minima extremæ in cauda Vrfæ mai. | |
| per Chal. | 17 19½ |
| per Vol. | 17 19 |

DIE 19 DECEMBRIS, MANE.

| | |
|--|--------|
| Altitudo minima meridiana præcedentis in cathedra Caſiopeæ | |
| per Chalyb. | 22 50 |
| per Volub. | 22 49½ |
| Alt. ſtellæ Polaris merid. min. | |
| per Chalyb. | 53 0 |
| per Sext. nou. | 53 0½ |
| per Volub. | 53 0½ |
| Tunc erat Spica orientalis | 10 56 |
| cum obſeruabatur ſtella polaris. | |
| Altit. meridiana minima Flexuræ Caſiopeæ | |
| per Chalyb. | 24 25 |
| per Volub. | 24 25 |
| per nouum orich. Quadr. | 24 24½ |
| Altit. capitis Algol infra Polum | |
| per Volub. | 6 21½ |

DIE 20 DECEMBRIS, MANE.

| | |
|--------------------------|-------|
| Alt. Stellæ Polaris min. | |
| per Chalyb. | 53 0 |
| per Volub. | 53 0½ |

| | |
|--|-------|
| Altitudo meridiana minima eius quæ eſt in genu Caſiop. | |
| per Chalyb. | 24 1½ |
| per Volub. | 24 1 |

Eodem die Veſperi.

Horologium in meridiæ corrigebatur.

| | |
|---|------------|
| Altitudo minima ſuperioris duarum ſequentium in □ Vrfæ mai. | |
| per Chal. | 25 14½ |
| per Vol. | 25 14 |
| Inter lucidam cinguli Andromedæ & tertiam in dextro humero Perfei | 26 52 |
| Inter Capellam & 24 in tibia ſiniſtra Perfei | 17 48½ |
| H. 5 36' Altitudo meridiana maxima ſtellæ Polaris | 58 48 15'' |
| per Chalyb. | 58 48 0 |
| per Volub. | 58 48 0 |
| Inter 26 in pede ſiniſtro | 21 16½ |
| Perfei & Capellam | 21 16½ |
| Altitudo meridiana præcedentis trium in cauda Vrfæ mai. | |
| per Volub. | 24 7 |
| per Chalyb., melior | 24 8 |
| Alt. mer. luc. cinguli Androm. | 67 29½ |
| Alt. mer. mediæ in cauda Vrfæ mai. | |
| per Volub. & Chalyb. | 23 1 |
| Alt. merid. capitis Medusæ | |
| per Volub. | 73 23 |
| per Chalyb. | 73 24 |
| Alt. merid. minima lucidioris in □ Vrfæ minoris | |
| per Volub. | 41 43½ |
| per Chalyb. | 41 44 |
| Alt. mer. luc. Perfei per Vol. | 82 19 |

Hæc altitudo meridiana debet eſſe maior, prout alibi paſſim invenies. Erat fere prætergreſſa cylindrum inſtrumentum.

Alt. merid. inferioris præcedentium duarum in □ Vrfæ min. 39 11½

DIE 21 DECEMBRIS, VESPERI.

| | |
|--------------------------|--------|
| Alt. max. ſtellæ Polaris | |
| per Chalyb. | 58 48½ |
| per Volub. | 58 48 |

Altit. minima 1^a in cauda Vrfæ mai.
per Chalyb. 24 7½
per Volub. 24 7½

Altit. merid. minima mediæ in
cauda Vrfæ maioris
per Chalyb. 23 1 25
per Volub. 23 1

DIE 22 DECEMBRIS, MANE.

Alt. min. stellæ Polaris
per Chalyb. 53 0½
per Volub. 53 0½

Eodem die 22 Dec. Vesper.

Alt. merid. inferioris duarum sequen-
tium in □ Vrfæ maioris infra
polum per Chalyb. 21 53½

Alt. maxima meridiana stellæ Polaris
per Chalyb. 58 48 35"
per Volub. 58 48 25

Non erat bene serenum.

Pro horol. corrigendo, Horologio
indicante horam 6 M. 24½,
erat dexter humerus
Orionis orient. 66 58

Tempus transitus eiusdem dextri hu-
meri Orionis per meridianum hora 10
M. 44½. Hinc corrigebatur horologium.

Altit. meridiana minima vltimæ
in cauda Vrfæ maioris
per Sext. orich. 17 20½
per Volub. 17 20½
per Chalyb. 17 19 35"

Altit. merid. superioris duarum luci-
darum in □ Vrfæ minoris minima
per Sext. nou. orich. 41 44
per Chalyb. 41 43½
per Volub. 41 43½

Altit. min. penultimæ in nodo
Draconis num. 27
per Sext. nou. orich. 26 21½
per Volub. 26 21½
per Chalyb. 26 21 0

Altit. merid. inferioris duarum præce-
dentium lucidarum in □ Vrfæ
minoris minima
per nou. Sext. orich. 39 12½
per Volub. 39 11½
per Chalyb. 39 12½

Alt. mer. min. 26 in Dracone
per Chalyb. 25 37
per Sext. nou. 25 36½

DIE 23 DECEMBRIS.

Altit. max. stellæ polaris
per Volub. 58 48½

DIE 28 DECEMBRIS, MANE.

Obferuabatur declin. Vul- 7 52
turis per Armillas 7 53½
Tunc erat eius alt. per Volub. 15 10
Declin. eiusdem repetita 7 52½
7 53

Eodem 28 Decemb., Vesper.

Alt. stellæ Polaris max.
per Volub. 58 48½
per Chalyb. 58 48½

Altit. meridiana minima 1^a in
cauda Vrfæ minoris
per Volub. 24 7½
per Chalyb. 24 7 47"

Altit. minima mediæ in cauda
Vrfæ maioris
per Volub. 23 0½
per Chalyb. 23 1

paulo minus

Declinatio Vulturis 7 53
7 53½

Altit. eius tunc erat 14½ g.
Declinatio Vulturis repetita 7 55½
7 55½

Altitudo eius erat 9½.

Horologio indicante horam 5 M. 46,
erat lucida mandibula Ceti orient. 20°
47', quæ lucida erat tranfitura per me-
ridianum hora 7 M. 27. Mouebatur igitur
horologium iusto tardius 17' 52",
qui error illi acceßerat a meridie hu-
ius diei 28 Decembris. Corrigebatur
igitur.

Declinatio Vulturis 7 56½
7 56

Altitudo 6° 35'.

Altitudo minima meridiana vltimæ
in cauda Vrfæ mai.
per Volub. 17 19 35
per Chalyb. 17 19 40

| | | |
|--|---------------------|---|
| Declinatio Vulturis | 7 57 | Altit. meridiana 10 ad flexuram dextri |
| | 7 57 $\frac{1}{2}$ | lateris Perfei per Volub. 80 28 $\frac{1}{2}$ |
| Altitudo 5° 0' | | Altit. merid. alterius lucidæ in \square Vrfæ |
| Altitudo meridiana dextri humeri | | minoris per Chal. & Vol. 37 12 |
| Perfei per Volub. | 85 53 $\frac{1}{2}$ | Inter Aldeboram & lucidam cinguli |
| Alt. mer. capitis Medufæ | | Andromedæ |
| per Chalyb. | 73 19 $\frac{1}{2}$ | per nou. Sext. orich. 49 24 $\frac{1}{2}$ |
| per Volub. | 73 20 $\frac{1}{2}$ | Alt. mer. 25 minima ¹ |
| Altit. merid. lucidioris in \square Vrfæ | | per Chalyb. 28 23 |
| minoris minima | | per Volub. 28 24 |
| per Chalyb. | 41 43 $\frac{1}{2}$ | Altitudo meridiana minima 24 in |
| per Volub. | 41 43 $\frac{1}{2}$ | Dracone in medio corpore |
| Altit. merid. lucidæ lateris Perfei | | per Volub. 32 8 $\frac{2}{3}$ |
| per Volub. | 82 23 $\frac{1}{2}$ | per Chalyb. 32 8 $\frac{2}{3}$ |
| | bona | minus 5''. |

Anno 90 ad initium.

| | | | |
|---------------------|--|---------------------|----------------------------|
| A° 89 labente | Declinatio lucidæ \square Vrfæ minoris | 75 49 $\frac{1}{2}$ | Alt. merid. |
| | Minus lucidæ in \square eiusdem | 73 17 $\frac{1}{2}$ | |
| | Aldeboræ | 15 37 | |
| | Arcturi | 21 22 | |
| | Capellæ | 45 29 $\frac{1}{2}$ | |
| A° 90 ad initium | Lucidæ Perfei | 48 19 $\frac{1}{2}$ | Semel tantum per Volub. |
| | Capitis Medufæ | 39 18 $\frac{1}{2}$ | |
| | | 73 23 45 | |

Stellarum circumpolarium altitudines meridianæ supra & infra Polum pro Poli eleuatione indaganda.

| | Per Chalybeum | Per Volubilem | |
|-------------------------------|---------------|---------------|----------------------|
| Stellæ Polaris | 58 48 55 | 58 49 0 | |
| Supra Polum | 58 49 10 | 58 49 0 | |
| | 58 49 6 | 58 49 10 | |
| | 58 49 0 | 58 48 50 | 58 49 0 ² |
| Infra Polum | 53 0 6 bona | 53 0 0 | 53 0 5 |
| | 53 0 0 | 53 0 10 | 55 54 33 |
| Lucidæ \square Vrfæ minoris | 70 4 40 | 70 4 40 | |
| Supra Polum | 70 5 10 | 70 4 45 | |
| | 70 5 20 | 70 5 0 | |
| | 70 5 15 | 70 3 50 | 41 44 22 |
| Infra Polum | 41 44 20 | 41 43 45 | 70 4 25 |
| | 41 44 20 | 41 44 30 | 55 54 23 |
| | 41 44 20 | 41 44 0 | |
| | 41 44 15 | 41 44 30 | |
| | 41 44 30 | 41 44 20 | |
| Minus lucidæ \square Vrfæ | 72 36 50 | 72 36 40 | |
| minoris | 72 36 30 | 72 36 50 | |

¹ In Dracone, Est stella 14 γ Draconis.² Hæc in folis codd. V. et K. reperiuntur.

| | | | |
|-------------|----------|----------|----------|
| Supra Polum | 72 37 0 | 72 36 50 | |
| | 72 36 50 | 72 36 30 | |
| | 72 36 50 | 72 36 50 | |
| | 72 37 0 | 72 36 40 | |
| | ... | 72 36 45 | 72 36 40 |
| Infra Polum | 39 12 20 | 39 12 30 | 39 12 10 |
| | 39 12 15 | 39 12 30 | 55 54 25 |
| | 39 12 0 | 39 11 50 | |
| | 39 12 20 | 39 12 0 | |

OBSERVATIONES STELLARUM IN ASTERISMIS AUSTRALIBUS EXTRA ZODIACUM.

DIE 18 FEBRUARIJ, VESPERI.

| | |
|--------------------------|--------------------|
| Inter Canem maiorem & | 5 34 $\frac{1}{2}$ |
| pedem eius præcedentem 5 | 34 $\frac{1}{2}$ |

DIE 9 OCTOBRIS.

| | |
|----------------------------|---------------------|
| Altit. meridiana Phomahant | 2 30 |
| Declinatio Phomahant | 31 29 |
| | 31 28 $\frac{5}{8}$ |
| Dift. inter Phomahant & | 38 51 |
| inferius cornu γ | 38 52 |
| Inter lucidam caudæ Ceti | 26 42 |
| & Phomahant | 26 42 $\frac{3}{4}$ |

DIE 13 NOUEMBRIS.

| | |
|---------------------------------|-------|
| Inter 21 Ceti borealem in cauda | |
| & sinistrum humerum α | 41 45 |

DIE 21 NOUEMBRIS, MANE.

| | |
|------------------------------|---------------------|
| Declinatio 17 Hydræ | 20 19 |
| magnit. 4 | 20 18 $\frac{1}{2}$ |
| Declinatio sequentis 8 Hydræ | |
| magnit. 5 minor. | 19 53 $\frac{3}{8}$ |

DIE 22 NOUEMBRIS, VESPERI.

| | |
|-------------------------------------|---------------------|
| Lucida quæ in ventre Ceti magnit. 4 | |
| num. 14 a borea in cauda | 22 45 |
| eiusdem distat | 22 44 $\frac{1}{2}$ |
| Quæ infra hanc ad | 22 18 $\frac{1}{2}$ |
| occasum, 5 magnit. | 22 19 $\frac{1}{2}$ |
| Quæ num. 12 etiam in ventre Ceti | |
| magnit. 4 ab eadem in | 22 2 |
| cauda eiusdem distat | 22 1 $\frac{3}{4}$ |
| Quæ num. 13 in imo ventris Ceti | |
| magnit. 5 a borea in | 27 7 $\frac{1}{2}$ |
| cauda eiusdem distat | 27 8 $\frac{1}{2}$ |

| | |
|--------------------|-------|
| Declinatio 14 Ceti | 12 20 |
|--------------------|-------|

| | |
|--------------------------------|---------------------|
| Erat tunc Altit. 20° circiter. | 12 19 $\frac{3}{4}$ |
|--------------------------------|---------------------|

DIE 23 NOUEMBRIS, VESPERI.

| | |
|------------------------------|-----------------------|
| Declinatio Meridiana | 18 7 |
| 12 Ceti | 18 6 $\frac{1}{2}$ |
| Decl. 13 in imo ventris Ceti | 23 4 |
| Altit. 9° circiter | 23 2 $\frac{1}{2}$ |
| Declin. eius quæ num. | 1 30 |
| 4 in capite Ceti | M. 1 29 $\frac{1}{2}$ |
| Decl. luc. mandibulæ Ceti B. | 2 26 $\frac{1}{2}$ |
| Decl. 3 in capite Ceti Bor. | 1 27 bis |

DIE 24 NOUEMBRIS, MANE.

| | |
|-----------------------------|-------------------------|
| Inter Canem min. & primam | 14 54 |
| in capite Hydræ magnit. 5 | 14 53 $\frac{1}{2}$ |
| Inter Canem min. & 2 in | 15 59 $\frac{1}{2}$ |
| capite Hydræ magnit. 5 | 15 59 $\frac{3}{8}$ |
| Inter Canem min. & | 14 26 |
| informem quæ præcedit | 14 25 $\frac{3}{8}$ |
| Inter Canem minorem & | 16 46 |
| 3 in capite Hydræ | 16 45 $\frac{1}{2}$ |
| Inter Canem minorem | 17 9 $\frac{1}{2}$ |
| & 4 ^{am} | 17 9 |
| Inter lucidam pedum Π & | |
| 5 in capite Hydræ | 35 17 $\frac{1}{2}$ bis |

Eadem Viceversa

| | |
|--|---------------------|
| Inter cor Ω & primam illam | 23 51 |
| in capite Hydræ | 23 50 $\frac{1}{2}$ |
| Inter cor Ω & 2 & | 22 48 $\frac{3}{8}$ |
| sequentem in capite | 22 47 $\frac{3}{8}$ |
| Inter cor Ω & informem quæ præce- | |
| dit eas in capite Hydræ | 23 17 $\frac{1}{2}$ |

| | |
|---------------------------------------|-------|
| Inter cor ζ & | |
| 3 in cap. Hydræ | 20 54 |
| Inter cor ζ & | |
| 4 in cap. Hydræ | 20 42 |
| Inter cor ζ & | |
| 5 in cap. Hydræ | 19 1 |
| Declinatio 1 & præcedentis | 4 45 |
| in capite Hydræ | 4 45½ |
| Decl. 2 in capite Hydræ Bor. | 4 50 |
| Decl. 3 in capite Hydræ | 7 52½ |
| Decl. 4 in capite Hydræ | 7 16½ |
| Decl. 5 & sequentis | 7 27 |
| in capite Hydræ | 7 27½ |
| Declinatio informis illius quæ præce- | |
| dit illos in capite Hydræ | 7 4 |

DIE 25 NOUEMBRIS, MANE.

| | |
|----------------------------|--------|
| Inter Canem minorem & | 23 48½ |
| 7 Hydræ in collo | 23 47½ |
| Inter Canem min. & 9 Hydræ | |
| in primo volumine | 30 42 |

Pro rectificandis Armillis:

| | |
|------------------------------|--------|
| Alt. merid. 18 Hydræ | |
| per Vol. | 20 4 |
| Declinatio eiusdem | 14 3½ |
| in Armillas | 14 3½ |
| Inter Canem min. | 28 49 |
| & 8 Hydræ | 28 48 |
| Altit. merid. proxime præce- | |
| dentis Cratera Hydræ | 18 1½ |
| Inter Canem minorem | 28 23½ |
| & 10 Hydræ | 28 22½ |
| Declin. proxime præce- | 16 7 |
| dentis Cratera Hydræ | 16 7½ |
| Declin. borealis 7 Hydræ | 3 58 |
| | 3 58½ |

Viceversa

| | |
|--------------------------|-----------|
| Inter 7 in ala & 7 Hydræ | 52 4½ bis |
| Inter 7 Π & | 45 31½ |
| nonam Hydræ | 45 32 |
| Inter 7 Π & | 47 28½ |
| 8 Hydræ | 47 28 |
| Declinatio auftrina | 1 1½ |
| 10 Hydræ | 1 2 |
| Inter 7 Π & 10 Hydræ | 48 18 |
| Declinatio borea | 0 42½ |
| 9 Hydræ | 0 41 |

DIE 27 NOUEMBRIS, MANE.

| | |
|--------------------------|--------|
| Declinatio 8 Hydræ borea | 0 35½ |
| | 0 34½ |
| Inter sextam in Hydra & | 21 31½ |
| Canem minorem | 21 32½ |

Viceversa

| | |
|-----------------------------------|-----------|
| Inter eandem 6 in Hydra | |
| 6 magnit. & cor ζ | 16 57 bis |
| Inter vndecimam Hydræ infra luci- | |
| dam ad occafum & Canem minor. | |
| (fere obfcura) | 29 12½ |

Eodem die Vesper

| | |
|-----------------------------|--------|
| Alt. merid. luc. caudæ Ceti | |
| per Chalyb. | 13 54½ |
| per Volub. | 13 54 |
| Eiusdem Declin. | 20 14 |
| per Armillas | 20 13½ |

DIE 6 DECEMBRIS, VESPERI.

| | |
|--------------------------------------|--------|
| Meridiana altit. lucidæ australioris | |
| in cauda Ceti per nouum | |
| orich. Sextantem | 13 53½ |

DIE 17 DECEMBRIS, VESPERI.

| | |
|------------------------------------|--------|
| Inter lucidam mandibulæ Ceti & fu- | |
| premam trium supra Caput Ori- | |
| onis num. 1 informem | 38 20 |
| | 38 21 |
| Declinatio eiusdem | 9 35½ |
| in Orione B. | 9 35½ |
| Inter infimam earundem trium supra | |
| caput Orionis & luci- | 38 43½ |
| dam mandibulæ Ceti | 38 43 |
| Declinatio eiusdem | 8 59½ |
| infimæ | 9 0 |

DIE 18 DECEMBRIS, VESPERI.

| | |
|------------------------------|--------|
| Declinatio lucidæ caudæ Ceti | |
| vtroque pinnac. | 20 12½ |

DIE 19 DECEMBRIS, MANE.

| | |
|-----------------------------|--------|
| Alt. mer. 2 in capite Corui | 13 49 |
| Alt. mer. 4 in Coruo | 18 53½ |
| Declinatio eius | 15 15 |
| per Armillas | 15 14½ |
| Alt. mer. 1 in roftro Corui | 11 43½ |
| Alt. mer. 5 in Coruo | 19 54½ |
| Declinatio per Armillas 7 | 21 4½ |
| in Coruo, eft in pede | 21 5½ |

Eodem die 19 Vesperi.
 Inter 25 in linteo Orionis 40 20
 & Canem min. 40 19
 Inter 32 Orion. & Can. min. 32 29½
 Inter 31 in ense Orionis 32 53
 & Canem minorem 32 53½
 Alt. merid. dextri hum. Orion. 41 20½
 Alt. merid. 38
 in genu dextro Orionis 24 14½

DIE 20 DECEMBRIS, VESPERI.
 Inter Aldeboram & informem, caput
 Ceti proxime sequentem, magnit.
 5 minor. 22 58
 Inter Aldeb. & 1 Ceti in
 rostro magnit. 5 maior. 24 38
 Inter 6 in capite Ceti supra oculum 4
 magnit. & Aldeb. 27 45½ bis
 Declinatio 1* 7 13½
 in capite Ceti 7 14½
 Inter mediam inter 5 & 3 in capite Ceti
 5 magnit. paulo maior., Arato ig-
 notam, & Aldeboram 31 21 bis
 Inter 5 in occipite Ceti & Aldeboram.
 4 magnit. minor. 32 11

Declinatio 6 Ceti 8 20
 8 20½
 Inter 7 Ceti & Aldeboram 35 37½
 Declinatio 5 Ceti 6 35½
 6 36

Viceversa
 Inter extremam alæ Pegasi
 & informem caput Ceti
 proxime sequentem 47 16½
 Declinatio 7 Ceti 8 25
 8 24½

Inter extremam alæ Peg.
 & 1 Ceti 41 8
 Inter 6 Ceti & extr. alæ Peg. 37 16½
 Inter mediam quæ est in recta linea
 inter 3 & 5 Ceti in capite 36 18½
 & extrem. alæ Pegasi 36 18½
 Inter 5 Ceti & extr. alæ Peg. 33 38½
 Inter 7 Ceti & extr. alæ Peg. 29 58½
 Declinatio mediæ inter 3 & 5
 in Ceto, vno pinnac. 3 46½
 Decl. sequentis caput Ceti
 proxime vtroque pinnac. 1 49½
 Decl. mediæ
 in baltheo Orion. 1 31 M

DIAMETRI STELLARUM¹.

DIE 19 JANUARIJ.
 Vesperi obseruabantur diametri stel-
 larum per Aurifabrum
 Obseruatio humeri dextri 2' 0''
 Orionis 1 15
 Canis maioris diameter 4 0
 3 30
 Denuo repetita Canis maior 3½
 3½
 Canis minoris diameter 2 0½
 vtroque pin.)
 Repetita 2 0
 2 20
 Cordis ♀ diameter 2 0
 2 15
 Repetita 2 0
 2 20
 Diameter oculi ☿ vtroq. 2 0
 Diameter Lyræ 1½
 1½

DIE 20 JANUARIJ.
 Diameter Capellæ 2½', 2½'
 Repetita vtroque 2½'
 Diameter Spicæ 1½, 2 0
 Repetita 2 0, 1 50

DIE 23 JANUARIJ, VESPERI.
 Diam. Canis mai. per Armill. 3 Min.
 Repetita 2½
 Lucidus pes Orionis, diam. 1½
 Repetita 1½
 Aldeboram diam. 1½
 Repetita 1½
 Inferius caput ♀, diam. 1½
 Repetita 1½
 Cor ♀, diam. 1½
 Repetita 1½
 Dexter & sequens humerus 1 bis

DIE 26 JANUARIJ.
 Obseruatio diametri oculi ☿ per Auri-
 fab. facta. Per Chalybeum 1½

¹ Cf. supra inter observationes planetarum pp. 30, 39, 44, 46, 47.

OBSEUATIONES ANNI 1591. OBSEUATIONES SOLIS.

DIE 5 JANUARIJ.

| | |
|-------------------------------------|---------------------|
| Erat Altitudo ☉ meridiana | |
| per Chalyb. | 12 57 $\frac{1}{2}$ |
| per Volub. | 12 58 $\frac{1}{2}$ |
| per Mural., | |
| veteri pinnacid. | 12 56 $\frac{1}{2}$ |
| Declin. ☉ | 21 8 $\frac{1}{2}$ |
| per Armill. maxim. | 21 8 $\frac{1}{2}$ |
| Horolog. rectificabatur. Erat satis | |
| ferenum. | |

DIE 7 JANUARIJ.

| | |
|----------------------------|---------------------|
| Altit. ☉ merid. | |
| per Chalyb. | 13 20 $\frac{1}{2}$ |
| per Volub. | 13 20 $\frac{1}{2}$ |
| Declin. ☉ | 20 45 $\frac{1}{2}$ |
| per Armill. max. | 20 45 $\frac{1}{2}$ |
| Horologium rectificabatur. | |

DIE 13 JANUARIJ.

| | |
|-------------------------------------|---------------------|
| Altit. ☉ merid. | |
| per Volub. | 14 39 $\frac{1}{2}$ |
| per Chalyb. | 14 38 $\frac{1}{2}$ |
| Declin. ☉ | 19 29 $\frac{1}{2}$ |
| per Armill. | 19 29 $\frac{1}{2}$ |
| Horologium corrigebatur. Erat satis | |
| ferenum. | |

DIE 21 JANUARIJ.

| | |
|---------------------------------------|---------------------|
| Altit. ☉ merid. | |
| per Chalyb. | 16 40 $\frac{1}{2}$ |
| per Volub. | 16 41 $\frac{1}{2}$ |
| Declin. ☉ | 17 26 $\frac{1}{2}$ |
| per Armill. max. | 17 26 $\frac{1}{2}$ |
| Horol. corrigebatur. Erat satis fere- | |
| num. | |

DIE 22 JANUARIJ.

| | |
|-------------------------------------|---------------------|
| Altit. ☉ merid. | |
| per Chalyb. | 16 58 $\frac{1}{2}$ |
| per Volub. | 16 58 $\frac{1}{2}$ |
| Declin. ☉ | 17 8 $\frac{1}{2}$ |
| per Armill. æquat. | 17 8 $\frac{1}{2}$ |
| Horologium corrigebatur. Erat satis | |
| ferenum. | |

Vesper.

| | |
|---|--|
| H. 6 11 $\frac{1}{4}$ Apparebat adhuc vestigium | |
| crepusculi. Sequens humerus Ori- | |
| onis orient. 34 54. | |
| 6 13 $\frac{1}{2}$ Nihil crepusculi amplius videba- | |
| tur quantum per ☾ splendorem di- | |
| scernere licuit. Seq. hum. Or. 34 28. | |

DIE 23 JANUARIJ [?]¹.

| | |
|---------------------------------------|--|
| H. 6 0' Crepusculum non amplius vide- | |
| batur. Sin. hum. Or. orient. 45 4. | |
| 6 5 Nihil restabat vestigij. Sin. hum | |
| Or. orient. 44 6. | |
| 6 7 Prorsus nihil amplius. Sin. hum. | |
| 43 31 $\frac{1}{2}$. | |

DIE 24 JANUARIJ.

| | |
|-----------------------------------|---------------------|
| Altit. ☉ merid. | |
| per Chalyb. | 17 32 $\frac{1}{2}$ |
| per Volub. | 17 33 |
| Declin. per Armill. | 16 35 $\frac{1}{2}$ |
| subterraneas | 16 35 |
| Erat mediocriter ferenum. Horolo- | |
| gium corrigebatur. | |

DIE 31 JANUARIJ.

| | |
|----------------------------------|---------------------|
| Altit. ☉ merid. | |
| per Chalyb. | 19 42 $\frac{1}{2}$ |
| per Volub. | 19 42 $\frac{1}{2}$ |
| Declin. ☉ | 14 24 $\frac{1}{2}$ |
| per Armill. | 14 24 $\frac{1}{2}$ |
| Non erat satis ferenum. Horolog. | |
| corrigebatur. | |

DIE 1 FEBRUARIJ.

Horol. in meridie corrigebatur.
Non erat satis ferenum.

DIE 7 FEBRUARIJ.

| | |
|---------------------------|--------------------|
| Altit. ☉ merid. | |
| per Chalyb. | 22 3 $\frac{1}{2}$ |
| per Volub. | 22 3 |
| Declin. ☉ per Armill. | 12 2 |
| subterraneas maxim. | 12 2 $\frac{1}{2}$ |
| Erat mediocriter ferenum. | |

¹ Dies deest. Conscripta est observatio in codice D post observationes stellarum fixarum diei 23 Januarii.

DIE 9 FEBRUARIJ.

| | |
|------------------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 22 45½ |
| per Volub. | 22 45½ |
| Declin. ☉ per Armillas | 11 22½ |
| Erat fatis ferenum. | 11 22½ |

DIE 17 FEBRUARIJ.

| | |
|-------------------------------------|-----------|
| Altit. ☉ merid. | |
| per Chalyb. | 25 41 10" |
| per Volub. | 25 41 20 |
| Declin. ☉ | 8 25½ |
| per Arm. max. | 8 26½ |
| Erat fatis ferenum. Horol. corrige- | |
| batur. | |

Eodem die 17 Februarij H. 5 M. 15 oc-
cidebat ☉. Tempus horologij annota-
tum ex æquatore ad ☉ corrigebatur.

DIE 18 FEBRUARIJ.

| | |
|---|-------|
| Altit. ☉ merid. | |
| per Chalyb. | 26 3½ |
| per Volub. | 26 3½ |
| Declin. ☉ | 8 3 |
| per Armillas | 8 3½ |
| Horologium corrigebatur, quod ius- | |
| to tardius mouebatur 13' qui error illi | |
| acceßit ab hora 5 Min. 39 hesternæ ve- | |
| spertina. Vide apud obseruationes ☿. | |
| Erat fatis ferenum. | |

DIE 19 FEBRUARIJ.

| | |
|-----------------|--------|
| Altit. ☉ merid. | |
| per Volub. | 26 26½ |
| per Chalyb. | 26 26 |
| Declin. ☉ | 7 40 |
| per Armill. | 7 39½ |

Erat fatis ferenum.

Horologium mouebatur iusto tar-
dius 33', qui error acceßit illi ab hora
5 M. 45½ hesterni vesperis.

DIE 20 FEBRUARIJ.

| | |
|-----------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 26 48½ |
| per Volub. | 26 49 |
| Declin. ☉ | 7 17½ |
| per Armill. | 7 17½ |

Horologium mouebatur iusto tar-
dius 21' 40", qui error corrigebatur.
Erat fatis ferenum.

DIE 22 FEBRUARIJ.

| | |
|-------------------------------------|--------|
| Altit. ☉ merid. | |
| per Volub. | 27 34 |
| per Chalyb. | 27 34½ |
| Declin. ☉ | 6 30½ |
| per Armillas | 6 31 |
| Horol. corrigebatur. Non erat fatis | |
| ferenum. | |

DIE 26 FEBRUARIJ.

| | |
|-----------------|-------|
| Altit. ☉ merid. | |
| per Chalyb. | 29 6½ |
| per Volub. | 29 6½ |
| Declin. ☉ | 4 59 |
| per Armillas | 4 59½ |

Horol. corrigebatur. Erat fatis fere-
num. Eodem die Vesperi circa horam
6 corrigebatur horologium, quod a
meridie 1 Minuto tardius mouebatur.

DIE 17 MARTIJ.

| | |
|-----------------|-------------|
| Altit. ☉ merid. | |
| per Chalyb. | 36 34½ |
| per Volub. | 36 34½ |
| per Muralem | vet. 36 34½ |
| | nov. 36 35 |

| | |
|-------------------------------------|-------|
| Declin. ☉ | 2 28 |
| per Arm. subtr. | 2 27½ |
| Erat fatis ferenum. Horologium cor- | |
| rigebatur. | |

| | |
|-----------------------|----------|
| Altit. ☉ obseruata | |
| per Chalyb. | 36 34 30 |
| Parallaxis add. | 2 24 |
| Refractio subtrahenda | 0 27 |
| | 36 36 27 |
| Eleuatio Æquatoris | 34 5 30 |
| Vera declinatio ☉ | 2 30 57 |
| Resp. Longitudo ☉ | 6 18 55V |

Locus ☉ ex altitudine meridiana (ha-
bita ratione parallaxeos & refractionis)

| | |
|-----------------------|----------|
| per Quadrantem Mural. | 6 20 15V |
| per Chalyb. | 6 18 55V |
| per Volub. | 6 19 0V |
| Ex Ephemeride nostra | 6 19 50V |
| Cypriani | 6 33 54V |
| Scalæ | 5 48 30V |

Die 17, Vesper.

| | | | |
|----------|---|--------------------------|------|
| H. 7 41' | Videbatur adhuc crepusculum | Luc. hum. Or. orient. | 7 35 |
| 7 44 | Videbatur aliquid crepusculi superesse | 7 0 | |
| 7 46 | Nullum crepusculi vestigium supererat | 6 27 | |

DIE 21 MARTIJ.

In meridie corrigebatur horologi-
um ad Solem. Non erat satis serenum
pro obseruanda altitudine & declinati-
one ☉.

DIE PASCHATIS 4 APRILIS.

| | |
|---|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 43 22½ |
| per Volub. | 43 22½ |
| Declin. ☉ | 9 17 |
| per Armillas | 9 17½ |
| Erat satis serenum. Horologium cor- rigebatur. | |

Vesper.

| | | |
|----------|---|-------|
| H. 8 54' | Nullum apparebat vestigium crepusculi. Luc. Hydræ occid. | 25 15 |
|----------|---|-------|

DIE 5 APRILIS.

| | |
|---|--------|
| Altit. ☉ merid. | |
| per Volub. | 43 43½ |
| per Chalyb. | 43 43½ |
| Declin. ☉ | 9 39 |
| per Armillas | 9 38½ |
| Horologium in meridie positum. Non admodum serenum erat. | |

DIE 10 APRILIS.

| | |
|----------------------------|-----------|
| Altit. ☉ merid. | |
| [per Volub.] ¹ | 45 28½ |
| [per Chalyb.] ¹ | 45 28½ |
| Declin. ☉ | 11 24 30" |
| per Armillas | 11 24 30 |
| Erat mediocriter serenum. | |

DIE 12 APRILIS.

| | |
|---------------------|--------|
| Altit. ☉ in meridie | |
| per Chal. | 46 10½ |
| per Volub. | 46 10 |

¹ E codice V.

| | |
|--------------|-------|
| Declin. ☉ | 12 5 |
| per Armillas | 12 4½ |

In eodem Meridie demetiebamur
vmbra ☉^{lis} vt sequitur.

I. Per nouum quadratum ligneum
canalem in 1000 æquales partes
diuisum, obseruabatur vmbra 18½
talium partium, intromissa per
quadratum foramen, quod am-
plum erat 10 part. symmetrarum.

II. Imponebatur minor vetus canalis
quadratus præfacto nouo, et tunc
fiebat latus 1660 partium, qualium
nouus prius erat. Foramen, per
quod hic vmbra intromittebatur,
erat etiam 10 partium, qualium
latus 1660. Vmbra obseruabatur
24½ symmetrarum partium.

III. In paruo dicto canali, qui in 1000
partes (sed minores quam in nouo)
diuisus, obseruabatur vmbra 18½
partium. Foramen, per quod vm-
bra ingrediebatur, erat quadra-
tum & 10 partium de 1000 parti-
bus istius minoris canalis.

IV. Posito foramine in paruo canali
5 partibus amplo, obseruabatur
vmbra 14½ partium.
Erat satis serenum.

Eodem die, Vesper.

| | |
|----------|---|
| H. 9 9½' | Videbatur adhuc crepuscu- lum. Spica orient. 21 23. |
| 9 13½' | Apparebat adhuc crepusculum. Spica orient. 20 15. Circa hoc tem- pus erat altit. Aldeb. circiter 1½ g. Hic erat mediocriter bene se- renum. |
| 9 21½' | Supererat adhuc vestigium cre- pusculi, sed incipiebat dubium feri. Spica or. 18 16. Tunc erat altit. capitis Medusæ 9 40. |
| 9 36' | Circa hoc tempus nullum nota- bile crepusculi vestigium super- erat. Plures non poterant obser- uari quia non satis serenum erat |

DIE 13 APRILIS.

| | |
|---------------------------|---------------------|
| Altit. ☉ merid. | |
| per Chalyb. | 46 30 |
| per Volub. | 46 30 |
| Declin. ☉ | 12 25 $\frac{3}{4}$ |
| per Armillas maximas | 12 25 |
| Erat mediocriter ferenum. | |

Obferuabamus ☉ vmbram.

Circiter horam 1 poſt Meridiem obferuabamus ☉ & accipiebamus eius vmbram.

- I. Per canalem maiorem ligneum 18 $\frac{3}{4}$
 II. Impoſito (vt heri) minore canali maiori antediſto, aggregabatur vmbra 24 $\frac{1}{2}$ partium.
 III. Per minorem canalem prodibat vmbra 18 $\frac{1}{2}$. Erat apprime ferenum.

DIE 23 APRILIS.

| | |
|--|---------------------|
| Altit. ☉ merid. | |
| per Chalyb. | 49 39 $\frac{1}{2}$ |
| per Volub. | 49 38 $\frac{3}{4}$ |
| Declin. ☉ | 15 35 $\frac{3}{4}$ |
| per Armill. | 15 35 $\frac{1}{2}$ |
| Erat mediocriter ferenum, fed intranquillus aër. | |

DIE 24 APRILIS.

| | |
|---------------------------|---------------------|
| Altit. ☉ merid. | |
| per Chalyb. | 49 57 $\frac{1}{2}$ |
| per Volub. | 49 56 $\frac{1}{2}$ |
| Declin. ☉ | 15 51 $\frac{3}{4}$ |
| per Armill. | 15 51 $\frac{1}{2}$ |
| Erat mediocriter ferenum. | |

DIE 25 APRILIS.

| | |
|-------------------------|---------------------|
| Altit. ☉ merid. | |
| per Chalyb. | 50 14 $\frac{3}{4}$ |
| per Volub. | 50 14 |
| per Muralem | 50 15 $\frac{3}{4}$ |
| | 50 15 $\frac{1}{2}$ |
| Declin. ☉ | 16 9 $\frac{1}{2}$ |
| per Armill. | 16 8 $\frac{3}{4}$ |
| Non erat fatiſ ferenum. | |

DIE 26 APRILIS.

| | |
|-----------------|---------------------|
| Altit. ☉ merid. | |
| per Chalyb. | 50 31 $\frac{3}{4}$ |
| per Volub. | 50 31 |

| | |
|---|-------------------------|
| Declin. | 16 27 |
| per Armillas maximas | 16 27 $\frac{1}{2}$ |
| Erat fatiſ ferenum. | |
| Eodem 26 Aprilis circa ipſum meridiem, mox poſt obſeruata ☉ meridianam altitudinem obſeruabamus ☉ vmbram. | |
| I. In canali nouo ligneo accipiebamus | 18 $\frac{3}{4}$ partes |
| II. In vtroque, nouo & veteri canali ſimul | 24 $\frac{3}{4}$ |
| III. In veteri canali ſolo | 18 35 |
| Erat fatiſ ferenum. | |

DIE 27 APRILIS.

| | |
|---------------------|---------------------|
| Altit. ☉ merid. | |
| per Chalyb. | 50 48 $\frac{1}{2}$ |
| per Volub. | 50 47 $\frac{3}{4}$ |
| Declin. ☉ | 16 44 $\frac{3}{4}$ |
| per Armillas | 16 44 |
| Erat fatiſ ferenum. | |

DIE 29 APRILIS.

| | |
|---------------------|---------------------|
| Altit. ☉ merid. | |
| per Chalyb. | 51 20 $\frac{3}{4}$ |
| per Volub. | 51 20 |
| per Mural. | 51 22 $\frac{3}{4}$ |
| | 51 22 $\frac{1}{2}$ |
| Declin. ☉ | 17 18 |
| Erat fatiſ ferenum. | 17 17 $\frac{1}{2}$ |

DIE 30 APRILIS.

| | |
|---|---------------------|
| Altit. ☉ merid. | |
| per Chalyb. | 51 37 $\frac{1}{2}$ |
| per Volub. | 51 37 |
| per Mural. | 51 38 $\frac{1}{2}$ |
| | 51 38 $\frac{1}{4}$ |
| Declin. ☉ | 17 32 $\frac{1}{2}$ |
| per Armill. | 17 32 $\frac{1}{4}$ |
| Horol. mouebatur 27 $\frac{1}{2}$ M. iuſto tardius. Rectificabatur. | |
| Erat mediocriter ferenum. | |

DIE 2 MAII.

| | |
|-------------------------|--------------------|
| Altit. ☉ merid. | |
| per Chalyb. | 52 9 $\frac{1}{2}$ |
| per Volub. | 52 7 $\frac{1}{2}$ |
| Declin. ☉ | 18 4 |
| per Armill. | 18 3 $\frac{1}{2}$ |
| Non erat fatiſ ferenum. | |

DIE 12 MAIJ.

| | |
|--------------------------|---------------------|
| Altit. ☉ merid. | |
| per Chalyb. | 54 24 $\frac{3}{4}$ |
| per Volub. | 54 25 $\frac{1}{2}$ |
| Declin. ☉ | 20 20 $\frac{1}{2}$ |
| per Armill. | 20 20 |
| Erat fatis bene ferenum. | |

DIE 13 MAIJ.

| | |
|--|---------------------|
| Altit. ☉ merid. | |
| per Chalyb. | 54 36 $\frac{3}{4}$ |
| per Volub. | 54 36 $\frac{5}{8}$ |
| Declin. | 20 31 $\frac{1}{2}$ |
| per Armillas | 20 31 $\frac{3}{4}$ |
| Erat fatis ferenum. | |
| Eodem die hora circiter 2 P. M. obseruabatur Quantitas ☉ ^{is} . | |
| I. Per maiorem canalem prodibat vmbra | 18 $\frac{3}{4}$ |
| II. Per minorem veterem Canalem | 18 $\frac{1}{2}$ |
| III. Per vtrumque aggregatum canalem | 24 $\frac{3}{4}$ |
| Non erat apprime ferenum, sed tamen mediocriter. | |

DIE 17 MAIJ.

| | |
|---------------------------|---------------------|
| Altit. ☉ merid. | |
| per Chalyb. | 55 21 |
| per Volub. | 55 21 $\frac{1}{4}$ |
| Declin. | 21 15 $\frac{1}{2}$ |
| per Armill. subterr. | 21 16 |
| Erat mediocriter ferenum. | |

DIE 21 MAIJ.

| | |
|------------------------|---------------------|
| Altit. ☉ merid. | |
| per Chalyb. | 56 0 |
| per Volub. | 55 59 $\frac{1}{2}$ |
| Declin. | 21 53 $\frac{1}{2}$ |
| per Armill. | 21 53 |
| Non erat bene ferenum. | |

DIE 28 MAIJ.

| | |
|---|-------|
| Altit. ☉ in meridie per Chalyb., incerta propter nubes, | 56 55 |
| Declin. ☉ per Armillas subterraneas, æque incerta, | 22 49 |

Corrigebatur horologium. Non erat plane ferenum.

DIE 12 JUNIJ.

Obseruabamus mane ☉ Declinationem Tropico ☉ vicini, idque in altitudinibus quæ sequuntur.

Horologium præcedente vesp. ad ☉ corrigebatur.

| | |
|--|---------------------|
| 4 ^h 58 ^m Declin. ☉ | 23 35 |
| per Arm. mai. subterr. | 23 35 $\frac{1}{2}$ |
| Declin. per min. | |
| Armill. nouas | 23 37 |
| Altit. ☉ per Volub. | 9 43 |
| Declin. per maiores Armill. | |
| vno pin. | 23 33 $\frac{1}{2}$ |
| Altit. per Volub. | 11 16 |
| Decl. per Arm. mai. | |
| vno pin. | 23 32 |
| Decl. per nouas minores | |
| Arm. | 23 35 |

Hæ duæ obseruationes sunt incertæ propter impedimenta tignorum.

| | |
|----------------------------|---------------------|
| 5 39 $\frac{1}{2}$ Declin. | 23 33 $\frac{1}{2}$ |
| per maiores Armill. | 23 33 |
| Decl. per minores Arm. | 23 34 fere |
| Altit. per Volub. | 14 56 |
| 5 49 Declin. per Armill. | 23 31 $\frac{1}{2}$ |
| maiores | 23 32 $\frac{1}{2}$ |
| Altit. ☉ per Volub. | 16 8 |

N.B. Amplius obseruari non poterat ☉ propter nubes, neque inter obseruandum superiora fatis ferenum fuit, & Armillæ minores iusta correctione nondum erant absolutæ, licet præcedente nocte ad stellas quasdam fixas examinatæ sunt seque mediocriter habuerunt.

Postea, cum iterum fiebat ferenum, obseruabantur sequentia.

| | |
|----------------------------------|---------------------|
| H. 7 1 $\frac{1}{2}$ Declin. ☉ | 23 31 $\frac{1}{2}$ |
| | 23 31 $\frac{1}{2}$ |
| Altitudo ☉ | 26 0 $\frac{1}{2}$ |
| Azim. a merid. ad ort. | 96 0 |
| Decl. per nouas Arm. | 23 30 $\frac{1}{2}$ |
| H. 7 11 $\frac{1}{2}$ Altitudo ☉ | 27 21 $\frac{1}{2}$ |
| Azimuth | 92 0 |
| Declin. ☉ per max. Armillas, | |
| vtrouque pinnac. | 23 31 $\frac{1}{2}$ |

| | |
|----------------|--------|
| 7 21½ Altit. ☉ | |
| per Chalyb. | 28 42½ |
| per Volub. | 28 43½ |

Tunc erat ☉ in 90 gradu a meridie
versus ortum.

| | |
|-----------------------------|---------|
| Declin. | 23 31½ |
| per max. Armill. | 23 32½ |
| per nouas | 23 30 |
| | 23 33 |
| 7 36 Altitudo ☉ | 30 46 |
| Azimuth ☉ | 87 0 |
| Declin. ☉ | 23 32 |
| per max. Armill. | 23 31½ |
| 7 45½ Altit. ☉ | 32 2½ |
| Azimuth ☉ | 85 0 |
| Declin. ☉ | 23 30½ |
| per max. Armill. | 23 31½ |
| Declin. ☉ | 23 30½ |
| per min. nouas Armill. | 23 32 |
| 7 54½ Altit. ☉ | 33 20 |
| Azimuth ☉ | 83 0 |
| Declin. ☉ | 23 31½ |
| per max. Armill. | 23 31 |
| 8 3½ Altit. ☉ | 34 35½ |
| Declin. per Arm. max. | 23 31½ |
| 8 6½ Tunc erat ☉ orientalis | 61 55 0 |
| 8 10 Erat ☉ orient. | 61 0 |
| 8 12½ Declin. ☉ | 23 31½ |
| Altit. ☉ | 35 49½ |
| Azimuth ☉ | 79 0 |
| ☉ orientalis | 60 20 |
| Correcto horologio. | |
| H. 8 4' 40" Decl. | 23 30 |
| per min. Arm. | 23 31½ |
| ☉ orient. | 59 9 |
| 8 36 Altit. ☉ | 40 56 |
| Decl. per max. Armill. | 23 30½ |
| per minores Arm. | 23 32 |
| | 23 29 |
| Tempus in æquatore | 50 48 |
| 8 55½ Altit. ☉ | 43 29½ |
| Azimuth | 65 0 |
| Decl. per Max., vno pin. | 23 31½ |
| per minores | 23 31 |
| Armillas | 23 30 |
| ☉ orient. | 45 55 |
| 9 14½ Altitudo | 45 46½ |
| Azimuth | 60 0 |

| | |
|--------------------------|--------|
| Declin. | 23 30½ |
| per Armill. maximas | 23 31½ |
| ☉ orient. | 41 17½ |
| 9 35½ Altit. ☉ | 48 14 |
| Azimuth ☉ | 54 0 |
| Declin. per Armill. max. | 23 30 |
| | 23 30½ |
| ☉ orient. | 36 5 |
| 9 56 Altit. ☉ | 50 21½ |
| Azimuth | 48 0 |
| Declin. ☉ | 23 30½ |
| per max. Armillas | 23 31 |
| 10 48½ Altit. ☉ | 55 5½ |
| Azim. ☉ | 29 0 |
| Declin. | 23 31 |
| | 23 31½ |

Eodem die 12 Iunii

| | |
|----------------------|--------|
| erat altit. ☉ merid. | |
| per Volub. | 57 35½ |
| per Chalyb. | 57 36 |
| per Muralem | 57 36 |
| | 57 35½ |

| | |
|----------------------|--------|
| Declin. | 23 31½ |
| per Armillas maiores | 23 31 |
| Declin. ☉ | 23 30 |
| per minores Armillas | 23 31 |

Horologium tribus ibat Minutis tardius, quod corripiebatur.

Infrumenta antea diligenter ad amußim corripiebantur.

Eodem meridie statim post obseruatam ☉ meridianam altitudinem obseruabamus vmbra ☉.

I. 18½ partium per solum nouum ligneum quadrangularem Canalem, qualium iste Canalis est 1000.

II. Imposito minore veteri Canali prædicto nouo, euadebat latus 1660 partium, qualium nouus antea erat, & obseruabatur vmbra 24½ partium æqualium fere.

III. Obseruabatur vmbra ☉ per prædictum minorem Canalem feorsim 18½ partium, qualium ipse minor Canalis existit 1000.

Erat satis serenum.

Post meridiem simili modo vt antea obseruabatur ☉.

| Tempus Horol. | Declin. ☉ per min. nouas Arm. | | Decl. ☉ per Arm. mai. fubterr. | | Altitudo ☉ | Azim. ☉ a mer. verf. occ. | Tempus in æquat. ☉ occid. |
|------------------|-------------------------------------|-----------------------|--------------------------------------|--------|---------------------------|---------------------------------|---------------------------------|
| 1 51½ | 23 30 | 23 29½ paulo plus/ | 23 30½ | 23 30½ | 51 29 | 44 30 | |
| 2 44½ | 23 29 | 23 29½ paulo plus/ | 23 30½ | 23 30½ | 45 25 | 61 0 | |
| 3 7 | | | 23 30½ | 23 30 | 42 34 | 67 0 | |
| 3 18½ | 23 29 | 23 29½ | 23 30½ | 23 30½ | 41 2 | 70 0 | 50 30 |
| 3 45½ | | | 23 30½ | | 38 12½ | 75 0 | 56 19 |
| 4 6½ | 23 30 | 23 30½ | 23 29½ | 23 30½ | 35 19½ | 80 0 | 61 7 |
| corr. 4½ | | | | | | | |
| 4 12½ | 23 29 | | 23 29½ | | 32 38½ | 84 0 | 65 40 |
| 4 49½ | | | 23 30½ | 23 29½ | 28 51 | 90 0 | 73 11 |
| | | | | | per Vol., 28 50 per Chal. | | |
| 5 19 | | | 23 31½ | 23 30 | 25 0 | | 79 41 |
| 5 33½ | 23 29½ | 23 30 | 23 30½ | 23 30½ | 23 0 | | |
| 5 47½ | 23 30 | 23 30 | 23 30½ | 23 30½ | 21 0 | | |
| 6 9½ | 23 29½ | 23 30 | 23 30½ | 23 30 | 18 0 | | |
| 6 24½ | 23 30 bis | | 23 30 | 23 30½ | 16 0 | | |
| 6 32 | 23 30 bis | | 23 30½ | 23 30½ | 15 0 | | |
| 6 47½ | | | 23 31½ | 23 31½ | 13 0 | | |
| 6 55½ | 23 32 | 23 32½ | 23 32½ | 23 31½ | 12 0 | | |
| 7 3½ | 23 32 | 23 32½ | 23 32½ | 23 32 | 11 0 | 116 8 | |
| 7 11½ | 23 33 | 23 33½ | 23 32½ | 23 32½ | 10 0 | 117 40 | |
| 7 19½ | 23 32 | 23 34 | 23 32½ | 23 33½ | 9 0 | 119 19 | |
| 7 27½ | 23 34 | 23 34½ | 23 33 | 23 33½ | 8 0 | 120 55 | |
| 7 36 | 23 34½ | 23 34½ | 23 34 | 23 34½ | 7 0 | 122 35 | |
| 7 44½ | 23 35½ bis | | 23 34½ | 23 34½ | 6 0 | 124 20 | |
| 7 53½ | 23 36 | 23 35½ | 23 36 | 23 35½ | 5 0 | 126 15 | |
| 8 2½ | 23 38½ | 23 39 | 23 38 | | 4 0 | 128 0 | |
| 8 11½ | 23 43 bis | | | | 3 0 | 129 53 | |

Observationes hic ad
integros gradus altitudi-
num applicantur omniſis
azimuthis, vt refractiones
ſolares eo melius haberi
& integris deinceps gradi-
bus adaptari poſint.

DIE 13 JUNIJ.

| | |
|-------------------------|--------|
| Altit. ☉ merid. | 57 35½ |
| per Chalyb. | 57 35½ |
| per Volub. | 57 36 |
| per Mural. | 57 36 |
| Declin. | 23 31 |
| per maiores Armillas | 23 30½ |
| Declin. | 23 30 |
| per min. Armill. | 23 30½ |
| Non fuit fatis ferenum. | |

DIE 14 JUNIJ.

| | |
|------------------------------------|--------|
| Horologium rectificabatur. | |
| Altit. ☉ merid. | 57 35 |
| per Chalyb. | 57 34½ |
| per Volub. | 57 35 |
| per Muralem | 57 35 |
| Declin. ☉ per Æquatorias Armillas, | 23 30 |
| vtroque pinn. | 23 29½ |
| Declin. ☉ | 23 29½ |
| per min. Armill. | 23 29½ |

Vmbra ☉ obseruabatur hoc meridie.

- I. Per nouum maiorem ligneum Canalem $18\frac{3}{4}$ partium.
 II. Per minorem dictum ligneum inferto minori obseruabatur vmbra $24\frac{1}{2}$ partium.
 III. Per minorem autem Canalem accipiebatur vmbra $18\frac{3}{4}$ partium.
 Erat fatis serenum.

DIE 15 JUNIJ.

| | |
|---------------------------|--------------------|
| Alt. ☉ merid. | |
| per Chalyb. | 57 $33\frac{1}{2}$ |
| per Volub. | 57 $33\frac{1}{2}$ |
| per Mural. | 57 $33\frac{1}{2}$ |
| | 57 $33\frac{1}{2}$ |
| Decl. ☉ | 23 $28\frac{1}{2}$ |
| per max. Armill. | 23 $28\frac{1}{2}$ |
| Declin. per nouas Armill. | 23 28 |
| | paulo plus |
| | 23 28 |
| Erat mediocriter serenum. | |

DIE 17 JUNIJ.

| | |
|-------------------------|--------------------|
| Altit. ☉ merid. | |
| per Chalyb. | 57 $30\frac{1}{2}$ |
| per Volub. | 57 $30\frac{1}{2}$ |
| per Mural. | 57 $30\frac{1}{2}$ |
| | 57 31 |
| Declin. | 23 26 |
| per Armillas maiores | 23 $25\frac{1}{2}$ |
| Non erat fatis serenum. | |

DIE 19 JUNIJ.

| | |
|-------------------------|--------------------|
| Paulo ante M. Declin. ☉ | 23 21 |
| per Armillas maiores | 23 $21\frac{1}{2}$ |

| | |
|--------------------|--------------------|
| per Armillas nouas | 23 21 |
| | 23 $21\frac{1}{2}$ |

Altitudo ☉ per Quadrantes obseruari non poterat in meridie, quia aër nebulosus & minus defecatus extitit.

DIE 21 JUNIJ.

| | |
|---------------------------|--------------------|
| Altit. ☉ merid. | |
| per Chalyb. | 57 $18\frac{1}{2}$ |
| per Volub. | 57 19 |
| Declin. ☉ | 23 $13\frac{1}{2}$ |
| per Armill. maiores | 23 $13\frac{1}{2}$ |
| per minor. Armill. | 23 13 |
| | 23 13 |
| Erat mediocriter serenum. | |

DIE 26 JUNIJ.

| | |
|---|--------------------|
| Obseruabatur ☉ in meridie. | |
| Altit. ☉ merid. | |
| per Chalyb. | 56 $54\frac{1}{2}$ |
| per Volub. | 56 $53\frac{3}{4}$ |
| Declin. | 22 $49\frac{1}{2}$ |
| per maior. Armill. | 22 $49\frac{1}{2}$ |
| Per min. Arm., vtroque pinn. | 22 $48\frac{1}{2}$ |
| Erat fatis serenum, sed aër intransquillus. | |

DIE 28 JUNIJ.

| | |
|----------------------------|--------------------|
| Obseruabatur ☉ in meridie. | |
| Altit. ☉ merid. | |
| per Chalyb. | 56 42 |
| per Volub. | 56 $41\frac{3}{4}$ |
| Declin. ☉ | 22 $37\frac{1}{2}$ |
| per maior. Armill. | 22 38 |
| Horologium corrigebatur. | |
| Erat mediocriter serenum. | |

DIE 10 JULIJ.

Post meridiem obseruabatur ☉ Eclipsis vt sequitur.

Horologium paulo ante Eclipsin corrigebatur ad ☉ obseruationem per pinacidia in Æquatore, quia non erat vmbra fatis in conspectu, propterea quod radij solares per intercurrentes nubeculas transparebant.

N.B. Sol erat vmbram siue Eclipsin ingreßus ante duo fere minuta temporis in horologio (vt quibusdam videbatur) antequam obseruaretur instrumentis.



I.

| | | | |
|------------------------|--------------------|--------------------------------------|-------|
| Tempus in horologio | | | |
| I. H. 2 | 53 $\frac{1}{2}$ | Erat ☉ occid. | 43 25 |
| | 2 52 $\frac{1}{2}$ | corr. Altit. sup. limbi ☉ per Volub. | 42 37 |
| | | per Chalyb. | 42 36 |



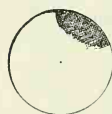
II.

| | | | | |
|-----|---|-----------------|--------------------------------|-------|
| II. | 3 | 4 $\frac{1}{2}$ | Erat ☉ in æquatore occid. | 46 0 |
| | | | Altit. ☉ sup. limbi per Volub. | 41 2 |
| | | | per Chalyb. | 41 16 |



III.

| | | | | |
|------|---|------------------|---|-------|
| III. | 3 | 15 $\frac{1}{2}$ | ☉ occid. | 48 34 |
| | | | Alt. inf. limbi ☉ per Volub. | 39 37 |
| | | | per Chalyb. | 39 37 |
| | | | Eclipsatus paulo vltra sextam partem diametri. | |



IIII.

| | | | | |
|-------|---|------------------|--|-------|
| IIII. | 3 | 27 $\frac{1}{2}$ | ☉ occid. | 51 22 |
| | | | Altit. infer. limbi ☉ per Chalyb. | 38 19 |
| | | | per Volub. | 38 18 |
| | | | Quinta quasi pars obscurata ¹ . | |



V.

| | | | | |
|----|---|----|--|---------------------|
| V. | 3 | 39 | Erat ☉ occid. | 54 5 |
| | | | Alt. infer. limbi per Volub. | 36 45 |
| | | | per Chalyb. | 36 44 $\frac{1}{2}$ |
| | | | Hic videbatur ☉ ex eclipsi eluctari & sexta ferme pars in vmbra supereße. | |



VI.

| | | | | |
|-----|---|------------------|--|---------------------|
| VI. | 3 | 51 $\frac{1}{2}$ | ☉ occid. | 57 0 $\frac{1}{2}$ |
| | | | Altit. infer. limbi ☉ per Vol. | 35 10 |
| | | | per Chalyb. | 35 10 $\frac{1}{2}$ |
| | | | Orientalis limbi Azimuth | 73 53 |
| | | | Octava quasi pars adhuc obscurata, & cornua videbantur in circulo verticali æquilibria. | |

¹ Codex V. addit alia manu: «vel potius sexta pars quod ipse memini. D. T. fuit Hafniæ».

- VII. 4 2½ ☉ occid. 59 40
 Altit. inf. limbi ☉ per Volub. 33 48
 per Chalyb. 33 47
 Decima pars in vmbra & cornu occi-
 dentale apparebat paulo eleuati-
 us respectu circuli verticalis.



VII.

- VIII. 4 10½ ☉ occid. 61 40
 Altit. infer. limbi ☉ per Volub. 32 40
 Vndecima pars paulo plus laborabat
 adhuc in vmbra.



VIII.

- IX. 4 15½ ☉ occid. 63 10
 Altit. infer. limbi per Volub. 31 52
 4 23½ ☉ occid. 64 42
 Altit. infer. limbi per Volub. 30 58½
 per Chalyb. 30 58½
 Hic nihil vmbrae amplius videbatur,
 sed ☉ iterum integre rotundus visus est,
 idque diligenti omnium animaduersione.



IX.

H. 4 31' erat ☉ in æquatore occid. 66 18 per vmbra, pro corrigendo horo-
 logio. Ergo horologium mouebatur celerius iusto 5½'.

Quantitas Deliquij Solaris suprascripti per chartaceas rimulas, & interdum,
 quando irradiatio non multum oculos offendebat, seorsim oculari intuitu dis-
 cernebatur, absque arundine. Nam vmbra non erat sufficiens. Idcirco om-
 nes ferme obseruationes per pinnacidiorum in instrumentis rimulas fieri
 oportebat: Ita enim ☉ rariusculis nubeculis toto durationis tempore inuolue-
 batur, vt obseruationibus per vmbra non satis pateret. Alias autem Eclip-
 seos incrementum & decrementum ab initio vsque ad finem (quamdiu instru-
 mentis obseruauimus) satis bene discerni & obseruari potuit, nec diligentia,
 quæ adhiberi debebat, vllò in loco neglecta est.

Examinatio eclipsis ☉ ad restitutionem nostram ꝙ factam A° 97¹.

Medium huius deliquij contigit H. 3 M. 35

Locus ☉ conueniens 27 1½ ☉

Longitudo ꝙ vera 27 19 ☉

Latitudo vera 1 2½ B.

Altitudo quasi 37°

Anomalía ꝙ coæquata 265½°

Resp. Parallaxis alt. ꝙ a ☉ 46½'

Resp. Parall. longit. 17

latit. 42

Semid. ☉ 15'

Semid. ꝙ 13

Agg. semid. 28

¹ E codice V.

DIE 12 JULIJ.

| | |
|-----------------------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 54 32½ |
| per Volub. | 54 32½ |
| Declin. per Armill. maiores | 20 27½ |
| | 20 27 |

Erat bene ferenum.

DIE 17 JULIJ.

| | |
|----------------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 54 20½ |
| per Volub. | 54 21½ |
| Declin. ☉ | 20 15½ |
| per maiores Armillas | 20 16 |

Erat mediocriter ferenum.

DIE 1 AUGUSTI.

| | |
|-------------------------|--------|
| Alt. ☉ merid. | |
| per Volub. | 49 34½ |
| per Chalyb. | 49 34½ |
| Declin. ☉ | 15 29½ |
| per Armillas æquatorias | 15 29½ |

Erat fatis ferenum.

DIE 4 AUGUSTI.

| | |
|-----------------|--------------|
| Altit. ☉ merid. | |
| per Volub. | 48 40½ |
| | vel potius ½ |
| per Chalyb. | 48 40 |
| Declin. ☉ | 14 34½ |
| | 14 34½ |

Horol. corrigebatur.
Erat fatis ferenum.

DIE 7 AUGUSTI.

| | |
|-----------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 47 44 |
| per Volub. | 47 44½ |
| Declin. ☉ | 13 39½ |
| per Armill. | 13 39½ |

Erat fatis ferenum.

DIE 26 AUGUSTI.

| | |
|----------------------|-------|
| Altit. ☉ merid. | |
| per Volub. | 41 6½ |
| per Chalyb. | 41 7½ |
| Declin. | 7 3 |
| per maximas Armillas | 7 4 |

Erat bene ferenum.

DIE 29 AUGUSTI.

| | |
|---------------------------|-----------------|
| Altit. ☉ merid. | |
| per Chalyb. | 40 0 |
| per Volub. | 40 0 |
| per Mural. | 40 0 |
| | alt. pin. 40 0½ |
| Declin. ☉ | 5 54½ |
| per Armill. æquat. | 5 54½ |
| Horologium corrigebatur. | |
| Erat mediocriter ferenum. | |

DIE 7 SEPTEMBRIS.

| | |
|-----------------------|----------|
| Alt. ☉ merid. | |
| per Chalyb. | 36 33½ |
| per Volub. | 36 33 25 |
| per Mural. | 36 33½ |
| | 36 33½ |
| Declin. ☉ per Armill. | 2 27½ |
| maximas | 2 27½ |
| Horol. corrigebatur. | |
| Erat fatis ferenum. | |

Pro ☉^{lis} loco in meridie
ex obseruationibus.

| | |
|---|------------|
| Altitudo vifa | 36 33 20 |
| Refract. congruens alt. | 27 |
| Παραλλαξις ☉ ^{lis} | 2 24 |
| Vera alt. ☉ ^{lis} | 36 35 17 |
| Alt. æquatoris | 34 5 30 |
| Vera ☉ ^{lis} Decl. | 2 29 47 B. |
| Resp. longitudo | 23 44 51½ |
| Collatio inuenti ☉ ^{lis} loci cum tabulis. | |
| Noftris | 23 45 56 |
| Copernici | 23 40 0 |
| Alphonfinis | 23 27 30 |

DIE 8 SEPTEMBRIS.

| | |
|--------------------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 36 9½ |
| per Volub. | 36 9½ |
| per Mural. | 36 9½ |
| | 36 10 |
| Declin. ☉ | 2 4 B. |
| per Armill. maior. | 2 4½ |
| Erat fatis bene ferenum. | |

DIE 21 SEPTEMBRIS.

| | |
|---------------|-------|
| Alt. ☉ merid. | |
| per Chalyb. | 31 4½ |
| per Volub. | 31 5½ |

Declin. 3 1
 per Armill. max. 3 0 $\frac{5}{8}$
 Horologium corrigeatur.
 Erat mediocriter ferenum.

DIE 26 SEPTEMBRIS.

Alt. ☉ merid.
 per Volub. 29 8
 per Chalyb. 29 7 $\frac{1}{2}$
 Declin. ☉ 4 58
 per Armillas 4 57 $\frac{1}{2}$
 Erat bene ferenum.

DIE 27 SEPTEMBRIS.

Alt. ☉ merid.
 per Volub. 28 45 $\frac{5}{8}$
 per Chalyb. 28 44 $\frac{5}{8}$
 Declin. ☉ 5 20
 per Armillas maximas 5 20 $\frac{1}{2}$

DIE 2 OCTOBRIS.

Alt. merid.
 per Volub. 26 51 $\frac{3}{4}$
 Declin. 7 14 $\frac{1}{2}$
 per Armill. maiores 7 14 $\frac{1}{2}$ *

*Erat ☉ paululum meridianum prætergreßus. Erat bene ferenum.

DIE 9 OCTOBRIS.

Alt. ☉ merid.
 per Chalyb. 24 14 $\frac{3}{4}$
 per Volub. 24 15
 Declin. ☉ 9 50 $\frac{1}{2}$
 per Armillas maiores 9 50 $\frac{1}{2}$
 Erat bene ferenum.

DIE 12 OCTOBRIS.

Alt. ☉ merid.
 per Chalyb. 23 9 $\frac{5}{8}$
 per Volub. 23 11 $\frac{1}{2}$
 Declin. 10 56 $\frac{1}{2}$
 per Armill. 10 56 $\frac{1}{2}$
 per minores Armillas 10 57
 vno pinnacidio
 Erat fatis ferenum.
 Horol. corrigeatur.

DIE 22 OCTOBRIS.

Alt. ☉ merid.
 per Chalyb. 19 46
 per Volub. 19 45 $\frac{3}{4}$
 Declin. ☉ 14 20
 per Armillas maximas 14 20 $\frac{1}{2}$
 Non erat fatis ferenum.

DIE 4 NOUEMBRIS.

Alt. ☉ merid.
 per Chalyb. 15 56 $\frac{1}{2}$
 per Volub. 15 56 $\frac{3}{8}$
 Declin. ☉ 18 9
 per Armillas maximas 18 9 $\frac{1}{2}$
 Erat fatis bene ferenum.

DIE 11 NOUEMBRIS.

Alt. ☉ merid.
 per Chalyb. 14 14 $\frac{1}{2}$
 per Volub. 14 15
 Declin. ☉ 19 52
 per Armillas 19 51 $\frac{3}{4}$
 Non erat aër fatis defecatus.

DIE 12 NOUEMBRIS.

Alt. ☉ merid.
 per Chalyb. 14 1 $\frac{1}{2}$
 per Volub. 14 3
 Declin. 20 4 $\frac{5}{8}$
 per Armillas 20 5

Paulo post obseruabatur vmbra ☉
 per Canalem quadrangularem ligneum maiorem¹ 19 0 vix perceptibiliter plus.

Per Canalem minorem 18 $\frac{3}{4}$
 Per aggregatum vtriusque
 Canalis 25 $\frac{1}{2}$

Atque hic non erat fatis ferenum.

DIE 27 NOUEMBRIS.

Alt. ☉ merid.
 per Chalyb. 11 31 $\frac{1}{2}$
 Declin. per Armillas maiores 22 34
 22 34 $\frac{1}{2}$
 Non fuit bene ferenum.

¹ Adscriptum est in margine: »Proportiones canalium vide superius».

Statim post obseruabamus ☉
vmbra.

I. Per magnum nouum Canalem di-
uisum in 1000 æquales partes 19½.
Per veterem ac minorem Cana-
lem 18 52 bonæ

II. Per eundem nouum inferto veteri
ligneo Canali, qui simul constitue-
bant 1660 partes 24½

Non est tuta quia hic nubeculæ inter-
currebant.

DIE 5 DECEMBRIS.

Altit. ☉ merid. 10 52 fere
per Chalyb. 10 52½
per Volub. 23 14½
Declin. 23 14½
per maiores Armill. 23 14½
Erat bene serenum.

Obseruabatur paulo post diameter ☉
ratione vmbrae.

I. Per maiorem Canalem nouum, &
prodibat vmbra part. 19 fere, bis.

II. Per vtriusque Canalis aggrega-
tum more consueto proueniebat
vmbra 25 0
25½ rep.

Etiam hic satis fuit serenum & tran-
quillum.

DIE 6 DECEMBRIS.

In meridie corrigebatur horologi-
um. Altitudo & declinatio ☉ non ob-
seruabantur, quia non satis erat sere-
num.

DIE 7 DECEMBRIS.

Altit. ☉ merid.
per Chalyb. 10 46½
per Volub. 10 47½
Declin. 23 19½
per maiores armillas 23 20
Non fuit satis serenum & aër tur-
bulentus.

DIE 9 DECEMBRIS.

Altit. ☉ merid.
per Chalyb. 10 43½
per Volub. 10 44
Declin. ☉ 23 24
per Armillas maiores 23 23½
Vmbra parum conspiciebatur.
Non erat satis serenum.

DIE 16 DECEMBRIS.

Altit. ☉ merid.
per Chalyb. 10 44
per Volub. 10 44½
Decl. 23 21½
per Armillas 23 22
Non erat aër satis defecatus. Magni-
tudo vmbrae per maiorem canalem
lignum 19½.

DIE 26 DECEMBRIS.

Altit. ☉ merid.
per Chalyb. 11 27½
per Volub. 11 28
Declin. 22 37½
per Armillas 22 38
Erat mediocriter bene serenum.
Postea hora 2 p. m. obseruabatur vm-
bra ☉^{is} per maiorem lignum 19½ bis.
Sed non erat satis fidendum.

OBSERVATIONES LUNÆ.

DIE 1 JANUARIJ.

Horologium hoc vespere corrigeba-
tur hora 7 Minuto 37, quo tempore ibat
iusto tardius 1 hor. M. 51½, qui error illi
acceperat a meridie 30^{mi} diej præter-
lapfi mensis Decembris.

H. 1 36' Altit. super.
limbi ☾ in meridie 51 13½
per Chalyb. 51 10½
per Volub. 1 43' 25" Decl. inf. cornu ☾ 16 35
superioris 17 4½

DIE 5 JANUARIJ, MANE.

Spica Π hoc die tranſibat meridia-
num H. 5 M. 17 S. 32.

H. 6 M. 13 verfabatur ζ circa 90 g.

Obſeruabatur ζ circa nonageſimum
vt fequitur.

| Tempus horol. | Diſt. inter or. limb. ζ & lanceam Bor. Ω | Declin. ſup. inf. cornu | Altit. infer. cornu | Pro cor. horol. Spica occ. |
|-------------------------|--|-------------------------------|---------------------------|-------------------------------------|
| 6 10 | 46 35 $\frac{1}{2}$ | 5 4 | 29 48 | 21 31 |
| cor. 6 43 $\frac{3}{4}$ | 4 37 $\frac{1}{2}$ | | | |
| 6 15 $\frac{1}{2}$ | 5 1 $\frac{1}{2}$ | 29 22 | 22 56 | |
| | 4 38 $\frac{1}{2}$ | | | |
| 6 19 $\frac{1}{2}$ | 46 32 $\frac{1}{2}$ | 28 51 | 24 4 | |
| 6 22 $\frac{1}{2}$ | 46 32 | 5 1 $\frac{1}{2}$ | 28 39 | 24 40 |
| | 4 37 $\frac{1}{2}$ | | | |

Viceverſa

| | Inter or. limb. ζ & cor Ω | | | |
|------------------------|--|--------------------|-------|-------|
| 6 28 $\frac{1}{2}$ | 33 9 $\frac{1}{2}$ | 28 1 | 26 13 | |
| cor. 7 2 $\frac{1}{2}$ | | | | |
| 6 34 $\frac{1}{2}$ | 5 0 | 27 23 | 27 32 | |
| | 4 35 | | | |
| 6 37 | 33 14 $\frac{1}{2}$ | 27 3 | 28 15 | |
| 6 39 $\frac{1}{2}$ | 33 15 $\frac{1}{2}$ | 4 57 $\frac{1}{2}$ | 26 45 | 28 58 |
| | | 4 30 $\frac{1}{2}$ | | |
| 6 42 $\frac{1}{2}$ | 33 16 $\frac{1}{2}$ | 26 25 | 29 41 | |

Pro examinanda Eclipſi ζ in fine anni
ſuperioris facta, Operatio ad eundem
diem 5 Januarij & horam 6 M. 44.

Pro longitudine & latit. ζ centri.

| | |
|--|----------------------|
| Diſt. centri ζ tunc erat a Boreali lance Ω | 46 49 |
| Declinatio centri ζ Bor. | 4 51 |
| Hinc Aſcenſio R. centri ζ | 178 36 $\frac{1}{2}$ |
| Reſp. Long. 26 48 $\frac{1}{2}$ Π | Ex noſtris ob- |
| Latit. 3 53 35 B. | ſeruationibus. |

Viceverſa

Eodem die 5 Januarij.

| | |
|--|----------------|
| H. 7 M. 2 $\frac{1}{2}$ diſtabat centrum ζ a corde Ω | 32 56 |
| Declinatio centri ζ | 4 47 |
| Hinc Aſc. R. centri ζ | 178 44 |
| Reſp. Longitudo | 26 56 27 Π |
| Latitudo | 3 52 50 B. |
| Ex Tabulis Long. | 25 59 48 |
| Prutenicis Lat. | 4 22 35 |

Ex Cypriano Long. 25 40 50
Lat. 4 21 0

Pro loco ζ ad diem 5 Januarij¹.

| | |
|--|---------------------------|
| H. 6 M. 41 Diſtancia centri ζ a bor. lance Ω | 46 49 |
| Declin. centri ζ | 4 50 B. |
| Declin. bor. lanc. Ω | 7 47 M. |
| Ang. diff. aſcenſ. | 45 11 35 |
| Aſc. R. bor. lanc. | 223 47 10 |
| Ergo Aſc. R. ζ | 178 35 35 |
| H. 7 M. 0 Diſt. ζ a corde Ω | 32 56 |
| Declin. centri ζ | 4 47 B. |
| Declin. cordis Ω | 13 56 |
| Ang. diff. aſcenſ. | 32 6 $\frac{1}{2}$ |
| Aſc. R. cordis Ω | 146 36 5 |
| Ergo Aſc. R. ζ | 178 42 $\frac{1}{2}$ |
| Pone H. 6 M. 40 Aſc. R. ζ | 178 35 |
| Declin. | 4 50 B. |
| Reſp. Longitudo | 26 46 $\frac{1}{2}$ Π |
| Latitudo | 3 52 B. |

DIE 9 FEBRUARIJ.

Obſeruatio ζ iuxta initia γ .

Cum ζ circa initium γ eſſet, duos
circiter gradus meridianum præter-
greſſa, ita obſeruata eſt.

| \odot orient. | Declin. M. ſuper. cornu inferioris | |
|-----------------|---------------------------------------|-------------|
| 56 32 | 22 13 | 22 30 dubia |
| 55 8 | 22 10 | 22 35 |
| 54 0 | 22 10 | 22 34 |

Erat ad has obſeruaciones altitudo
 ζ quali 12 grad.

Examinatio præcedentis obſeru-
ationis in ζ cum eſſet iuxta Tropicum
 γ prope meridianum.

Tempus erat quo vltimæ obſeru-
ationes duæ perficiebantur H. 8 M. 22
proxime P. M. N.

Locus ζ tunc erat iuxta Epheme-
rides Cypriani (neque enim hic ma-
gna requiritur præciſio) in 2 $\frac{1}{2}$ γ , Latit.
erat p. 1 45' S.

| | |
|--------------------------------|-------|
| Ergo Declinatio vera | 21 45 |
| Obſeruata declinatio | 22 22 |
| Differentia vtriuſque | 0 37 |
| Refractio in altit. p. 12 | 0 10 |
| Vera Parallaxis centri ζ | 0 47 |

¹ E codice V.

Sed potes hæc ipsa repetere, adhibito veriore & emendatiore loco lunæ ex observatione sequenti, vel vtrisque Ephemeridibus, & correctâ etiam latitudine eius iuxta nostram retributionem.

DIE 19 FEBRUARIJ.

N. B. Vesperis postquam ☿ iam occidisset, quem antea obseruabamus, videbatur ☿ appropinquare stellæ Aldeboram. Ideoque coniunctioni eius visibili cum hac diligenter attendebamus, erat autem ☿ nondum dimidia illuminata exacte. Quæ autem obseruabantur, fuerunt eiusmodi.

Horologio per stellas correcto & paulo ante verificato, videbatur ☿ utroque cornu directè signare stellam Aldeboram H. 10 M. 1½, fuitque tunc Canis minor occid. p. 23½ per Æquatoris gradus, eratque Declin. inferior. cornu ☿ p. 16 M. 6½, superioris p. 16 M. 42 & Altitudo infer. limbi ☿ Horizonti proximi p. 24 M. 39.

Distantia autem ☿ quoad cornu Aldeboræ proximum tunc obseruabatur p. 0 M. 34, idque per Radium, videbaturque quoad visum ☿ per cornu inferius distare a dictâ stellâ, quasi ad diametrum visibilem sui corporis. Igitur etiam aliquid ultra, non tamen sensibilibus plus, stella erat luna meridionalior.

Hinc poteris examinare parallaxes ☿ vtrasque, & locum eius visum conferre cum vero.

Pro Horologio tempore vterius verificando potest id fieri ex obseruatione paulo ante factâ, quando H. 9 M. 43½ Canis minor abfuit a meridiano versus occasum p. 31 M. 11.

Aldeborâ hoc anno II 4 4½, Lat. 5 31 M., ergo ☿ long. 4 5 II, lat. 4 40 M., H. 10 1½.

DIE 22 FEBRUARIJ.

Vesperis obseruabatur ☿ circa 90. Eratque paulo post ☿ primam non longe a digressionem vtriusque epicycli maxima.

N. B. Hæc obseruatio erat circa Tropicum ☿ & prope nodum apud minimam latitudinem, ideoque eius parallaxis hinc optime eruitur, latitudine nihil fuggerente dubij.

| Tempus horol. | Dist. occid. limbi ☿ ab Aldeb. | Decl. Bor. super. infer. cornu | Altitud. infer. cornu | Pro corr. horol. Luc. pes Or. orient. |
|---|--------------------------------------|--------------------------------------|-----------------------------|--|
| 7 28½ | 38 37 | 21 39½ | | 22 47 |
| | | 21 6½ | | |
| 7 33½ | 38 37½ | 21 39½ | 54 55 | 23 53 |
| | | 21 6½ | | |
| 7 36½ | 38 38½ | 21 39½ | 54 59 | 24 44 |
| | A corde ☿ | 21 7 | 55 31½ | |
| 7 41½ | 41 33½ | 21 39½ | super. } | 25 47 |
| | | 21 7½ | | |
| 7 46½ | 41 34 | 21 38 | | 26 58 |
| | | 21 5 | | |
| 7 54 | 41 32 | 21 39 | | Can. min. or. |
| | | 21 7 | | 7 1 |
| 7 57½ | 41 30 | | | |
| 7 59½ | Erat occid. limbi ☿ in mer. 5 46½ | | | |
| ☿ per merid. transibat habens altitudinem | | | | |
| | per Chalyb. sup. limbi | | 55 44½ | |
| | | | inferioris | 55 10½ |
| | per Volub. superioris | | 55 45 | |
| | | | inferioris | 55 11½ |
| | Ab Aldeb. | Decl. | Alt. inf. limbi | Can. min. or. |
| 8 3½ | 38 49 | 21 38½ | | 4 55 |
| | | 21 7½ | | |
| 8 8½ | 38 51 | 21 38½ | 55 11 | 3 41 |
| | | 21 6 | | |
| 8 12½ | 38 51½ | 21 39 | 55 9 | 2 38 |
| | | 21 7 | | |
| 8 17½ | 38 54 | 21 39½ | 55 7½ | 1 39 |
| corr. 11 ☿ | | 21 6½ | | |
| Debuit ☿ esse in 90 ab Horizonte H. 8½ circiter | | | | |
| | A Regulo | | | |
| 8 21½ | 41 21 | 21 38 | 55 4 | 0 39 |
| corr. 15½ ☿ | | 21 7½ | | Can. min. occ. |
| 8 24½ | 41 20 | 21 39 | 54 59 | 0 18 |
| | | 21 7½ | | |
| 8 27½ | 41 19 | 21 39 | 54 55 | 0 50 |
| corr. 20½ ☿ | | 21 7 | | |
| 8 30½ | 41 17 | 21 40 | 54 51 | 1 33 |
| | | 21 6½ | | |
| 8 32½ | 41 16½ | 21 41 | 54 45 | 2 7 |
| | | 21 5½ | | |

| Occ. limb. iterum ab Aldeb. | | | | | | |
|--------------------------------|-----------|-------|---------------------------------------|-------|------|--|
| 8 36 | 39 | 1 1/2 | 21 40 1/2 | 54 40 | 2 53 | |
| corr. 29 | | | 21 7 | | | |
| 8 39 1/2 | 39 | 2 1/2 | 21 39 1/2 | 54 35 | 3 38 | |
| | | | 21 7 | | | |
| 8 42 1/2 | 39 | 3 1/2 | 21 39 | 54 30 | 4 22 | |
| | | | 21 5 | | | |
| 8 45 | 39 | 4 1/2 | 21 39 1/2 | 54 23 | 5 10 | |
| | | | 21 6 | | | |
| Iterum a Regulo | | | | | | |
| 8 49 1/2 | 41 10 1/2 | | 21 38 1/2 | | 6 8 | |
| | | | 21 4 5/8 | | | |
| 8 53 5/8 | 41 | 9 | propt. imped. | 53 59 | 7 15 | |
| 8 58 1/2 | 41 | 8 1/2 | trabis non ac- cipiebatur decl. | 53 46 | 8 25 | |

N. B. In his obseruationibus nulla sensibilis particula de ☾ limbo occidentali obseruabatur in long., ita vt femidiameter integra rite applicari possit.

N. B. Hæ obseruationes in ☾ erant hac vespere latis diligenter acceptæ, quibus tuto vti potes. Ipsemet ade-ram vsque dum ☾ 90 gradum ab ortu transierat, & quod omnia diligenter administrarentur, curabam.

DIE 25 FEBRUARIJ, VESPERI.

Horologium corrigebatur circa horam sextam ad lucidum pedem Orionis.

| Tempus Horol. | Dist. inter ☾ & luc. ped. ☿ | Decl. Bor. super. infer. | Altit. infer. limb. | Pro ho- rol. Can. min. or. |
|------------------|-----------------------------------|--------------------------------|---------------------------|----------------------------------|
| 7 45 1/2 | 47 42 | 16 38 1/2 | 40 40 | 4 15 |
| | | 16 7 | | |
| 7 48 | 47 42 1/2 | 16 38 | 40 55 | 3 35 |
| | | 16 6 | | |
| 7 49 3/8 | 47 43 | 16 38 | 41 7 | 3 14 |
| | | 16 6 5/8 | | |

Viceversa

| Dist. a cauda ☿ | | | | |
|-----------------|-----------|-----------|-------|------|
| 7 54 1/2 | 27 24 3/8 | 16 38 1/2 | 41 37 | 2 1 |
| | | 16 5 1/2 | | |
| 7 56 3/8 | 27 24 1/2 | 16 37 | 41 51 | 1 25 |
| | | 16 6 1/2 | | |
| 7 59 1/2 | 27 22 | 16 36 1/2 | 42 9 | 0 45 |
| | | 16 6 1/2 | | |

DIE 21 MARTIJ.

☾ in 90 gradu hora 6 M. 11.

Corrigebatur horologium circa medium sextæ horæ vespertinæ, & obseruabatur circa nonagesimum vt sequitur.

5 52 1/2 Altit. sup. cornu per Chal. 55 55
inf. cornu per Vol. 55 26
super. per Volub. 55 54 1/2

Tunc erat occid. limbus ☾ in meridie.

| H. | M. | Declinatio | | Altit. inf. cornu per Volub. |
|----|--------|------------|------------|---------------------------------|
| | | inf. cornu | superioris | |
| 6 | 0 1/2 | 21 21 | 21 49 | 55 24 |
| 6 | 2 1/2 | 21 22 | 21 49 | 55 22 1/2 |
| 6 | 4 1/2 | 21 21 1/2 | 21 48 1/2 | 55 21 |
| 6 | 7 | 21 22 1/2 | 21 50 | 55 19 |
| 6 | 10 | 21 21 | 21 49 | 55 16 |
| 6 | 13 | 21 22 1/2 | 21 49 | 55 11 |
| 6 | 14 5/8 | 21 20 5/8 | 21 49 5/8 | |
| 6 | 17 3/8 | 21 22 3/8 | 21 48 3/8 | 55 6 |

DIE 22 MARTIJ.

H. 7 M. 33 Erat ☾ in 90^{mo}.

7 33 1/2 } Declinatio 20 59 21 30 1/2

7 21 corr. 1 } Canis minor occid. 11 13

Inter cor ☿ & occ. limb. ☾ 32 14 3/4

Erat circiter 4 gradus meridianum².

7 36 1/2 } Dist. a corde ☿ 32 15

7 24 1/2 corr. } Declinatio 20 58 21 30

Canis minor occid. 12 9

7 38 3/4 } Declinatio 20 59 1/2 21 29

7 26 45 corr. } Distantia 32 14 1/2

Canis minor occid. 12 44

Altit. inf. cornu ☾ tunc erat

per Volub. 54 30

7 41 1/2 } Distantia 32 14

7 29 1/2 corr. } Declinatio 20 58 21 28 1/2

Canis minor 13 21

7 44 } Declinatio 20 58 1/2 21 28 3/4

7 31 1/2 corr. } Dist. 32 12 3/4

Canis minor 13 58

Viceversa

7 49 3/8 } Declinatio 20 57 21 28 1/2

7 37 20 corr. } Canis minor 15 30

Dist. a luc. pede Erichonij 35 36 1/2

7 52 1/2 Declinatio 20 57 21 28 1/2

Dist. a luc. pede Ericht. 35 38 1/2

Cor Hydræ orient. 11 10

¹ Tempora correctæ in codice V. folo reperiuntur.

² Sic in codice.

7 54½ Declinatio 20 58½ 21 26½
 Distantia 35 37
 Cor Hydræ 10 36
 7 57 Dist. 35 37½, Cor Hydræ 9 51
 Non fumebatur declinatio propter
 impedit. trab.

DIE 23 APRILIS, VESPERI.

☾ circa 90 gradum.

| Tempus horol. | Diff. inter cor. ☿ & occ. limb. ☾ | Declin. sup./inf. cornu | Altit. sup. inf. cornu | Temp. in æquat. Spica ♏ occ. |
|------------------|---|----------------------------|---------------------------|---------------------------------------|
| 10 58 | 27 27 | 7 4½ | 34 20 | 10 13 |
| | | 6 35 | | |
| 11 2 50 | 27 30 | 7 3½ | 33 55 | 11 23 |
| | | 6 35 | | |
| 11 6 30 | 27 29 | 7 1 | 33 32 | 12 32 |
| | | 6 33½ | | |
| 11 9 30 | 27 30 | 7 1½ | 33 12 | 13 9 |
| | | 6 32½ | | |

Viceversa

| A Spica ♏ ¹ | Diff. inter cor. ☿ & occ. limb. ☾ | Declin. sup./inf. cornu | Altit. sup. inf. cornu | Temp. in æquat. Spica ♏ occ. |
|------------------------|---|----------------------------|---------------------------|---------------------------------------|
| 11 13 30 | 27 13½ | 7 0 | 32 50 | 14 18 |
| | | 6 33 | | |
| 11 17 10 | 27 13 | 6 59½ | 32 25 | |
| | | 6 32½ | | |
| 11 20 30 | 27 12½ | 7 0 | 32 10 | |
| | | 6 33 | | |

Spica ♏¹ transibat per meridianum
 H. 10 M. 22½.

DIE 24 APRILIS, VESPERI.

Obferuabatur ☾ circa 90.

| Tempus | Inter occ. limb. & cor. ☿ | Declin. sup./inf. cornu | Altit. sup. inf. cor. | Caput Ophiuchi orient. |
|--------|---------------------------------|----------------------------|--------------------------|------------------------------|
| 12 8½ | 39 44½ | 2 27 | 27 35 | 34 50 |
| | | 1 54 | | |
| 12 15½ | 39 43 | 2 25 | 26 48 | 32 57 |
| | | 1 54½ | | |
| 12 25½ | 39 42½ | 2 22½ | 25 38 | 30 13½ |

Viceversa

| Occ. limb. ☾ a Spica | Declin. sup./inf. cornu | Altit. sup. inf. cor. | Caput Ophiuchi orient. |
|-------------------------|----------------------------|--------------------------|------------------------------|
| 12 35 | 15 25½ | 2 21 | 24 40 |
| 12 38½ | 15 25 | | 24 12 |
| 12 42½ | 15 24½ | 2 19½ | 23 43 |
| | | 1 49 | 25 47 |

☾ iuxta 90 H. 12 M. 10.

Aër erat intranquillus. Nubilofum.

¹ 52 in codd. E et V.

DIE 23 AUGUSTI, VESPERI.

Obferuabatur ☾ circa nonagesimum.

| H. M. | Inter occid. limb. ☾ & inf. in dext. cornu ☿ | Declin. sup./inf. cornu | Altit. sup. limb | Vult. occid. |
|-------|---|----------------------------|---------------------|-----------------|
| 8 51½ | 33 14 | | 10 57 | 1 25 |
| 8 57½ | | 15 19 | 11 18 | 2 50 |
| | | 15 51½ | | |
| 9 6 | 33 19½ | | 12 20 | 4 50 |
| 9 13½ | 33 20 | 15 16½ | Inf. limb. | 6 42 |
| | | 15 51½ | 12 28 | |
| 9 19½ | 33 23½ | Alt. sup. limb. | 13 25 | |

Hæc obferuata sunt inter nubeculas
 recurrentes, obferuatio autem vice-
 versa fieri non potuit propter sub-
 ortas denfiores nubes.

DIE 16 DECEMBRIS.

Obferuabatur ☾ propter futuram
 Eclipsin, circa 90^{um} gradum ab ascen-
 dente.

Horologium paulo antea correctum
 est.

| H. M. | Diff. occ. limb. ☾ ab Aldehora | Decl. sup. inf. cornu | Altit. sup. limb. | Luc. man- dibulæ Ceti or. |
|-------------|--------------------------------------|--------------------------|----------------------|---------------------------------|
| 6 46 | 16 17 | 13 0 | 41 2½ | |
| | | 12 27 | | |
| 6 54½ | 16 15½ | | 41 46 | 22 2 |
| 7 0½ | 16 11 | 13 2 | | 20 28 |
| corr. 0 f | | 12 30½ | | |
| 7 8½ | 16 6½ | | | |
| | ab extrem. alæ Peg. | | | |
| 7 14½ | 47 24½ | | 43 24 | 16 58 |
| corr. 13½ f | | | | |
| 7 22½ | 47 27 | 13 7½ | 43 59½ | |
| corr. 20½ f | | 12 34 | | |

N.B. Proxima hic ☾ fuit 90^{mo} iuxta
 calculum.

| | | | | |
|-------|-------------|--------|-------|--------|
| 7 28 | 47 31 | | | |
| 7 34½ | 47 35 | 13 10 | 44 47 | |
| | | 12 37½ | | |
| | ab Aldehora | | | |
| 7 41½ | 15 51 | | 45 35 | 10 31½ |
| 7 48½ | 15 49 | | | 8 50 |
| 7 53 | | | | |
| | | 12 38 | 45 52 | |

Superius cornu propter tignum ob-
feruari hic non poterat.

| | | |
|-------|------------------------|--------|
| 8 2½ | 15 42 | 5 17 |
| 8 48½ | Occ. limb. ☾ in Merid. | occid. |
| | in Volub. | 7 3 |
| 8 50 | Alt. Merid. cornu | |

| | | |
|----------------|--------|--------|
| | sup. | infer. |
| per Q. Chalyb. | 47 34 | 46 57½ |
| per Volub. | 47 30 | 46 56 |
| Declin. | 13 26½ | 12 52½ |

Pro horologio H. 8 M. 24 pertransijt
Meridianum Lucida mandibulæ Ceti,
iuxta calculum transitura H. 8 M. 21.
Tribus igitur minutis horologium ve-
rum tempus antevertit, in quibus cor-
rigebatur.

DIE 19 DECEMBRIS.

Instrumentis correctis præparatis-
que ijs quæ ad Eclipsin ☾ obseruan-
dam neceßaria fuerunt, totam hanc
noctem aduigilauius ferenitatem
circa ipsum deliquium expectantes,
sed nubes craßæ contiguæque flante
leniter Cæcia hemispherio nostro vn-
dequaque substratæ ☾ stellarumque
apparentias tota illa nocte omnino no-
bis intercluserunt, omnemque obser-
uandi hanc Eclipsin opportunitatem
ademerunt; animadvertimus autem
solum paulo post horam secundam
p. m. n. tenebras primum ex defectu
luminis ☾, quo alias terrenum glo-
bum plena existens collustrat, ingru-
ere & paulatim vsque ad tertiam ho-
ram condenfari, post tertiam autem

horam, circa quartam vsque ad quin-
tam densas admodum fuisse, nec mi-
nores extitisse, quam si vel novilunium
fuisset.

DIE 21 DECEMBRIS.

P. M. N. obseruabatur ☾ circa 90 gra-
dum quo peruenisset H. 2 M. 43 iuxta
supputationem.

H. 1 M. 46½ Pertransijt orientalis lim-
bus ☾ per Merid. Alt. ☾ Merid.

cornu super. infer.

Per Chalyb. 55 25 54 52½

Per Volub. 55 24 54 52½

Declin. centri ☾ ex altit. 21 3

Cor ☾ orient. 19 4. Corrigebatur ho-
rologium promotum in 8 M. quibus
tardius iusto mouebatur.

| H. M. S. | Dist. or. limb. a h | Declinatio ☾ super. infer. |
|----------|------------------------|-------------------------------|
| 1 58 5 | 25 48 | 21 17½ 20 54½ |
| 2 3 | 25 50 | |
| 2 13½ | 25 55½ | 21 18 20 50 |

h hic melius apparebat.

| | | |
|-----------|----------|--------------------------|
| 2 25½ | acauda ☾ | Alt. Arcturi per Vol. |
| corr. 26½ | 41 38½ | 27 40½ |

Hæc in ☾ inter contiguas obuerfan-
tes nubeculas obseruata sunt. Arctur. or.

| | | |
|-----------|-----------|--------------------|
| 2 45 | a h | 66 45 |
| 3 6½ | 26 18 | 21 18 20 47½ 62 45 |
| | a corde ☾ | |
| 3 9½ | 18 38½ | |
| 3 11½ | 18 38½ | 59 15 |
| corr. 16½ | | |
| 3 16½ | 18 37½ | Hæc duæ nubibus |
| 3 19½ | 18 35 | interceptæ. |

LOCA LUNÆ.

Pro loco ☾ ad diem

19 FEBRUARIJ

ex animaduersione coniunctionis
eius cum Aldeboræ¹.

H. 10 M. 2½ tempus correcti. fuit ☾ Aldeb.

| | | |
|----------|---------|-----------|
| Aldeboræ | Longit. | 4 4 20 II |
| | Latit. | 5 31 0 M. |

Distantia centri ☾

ab Aldeboræ eodem tempore
50^M subt.

Fuit itaque visa ☾ Longit. 4 4½ II
Latit. 4 41 M.

Vera Latitudo ☾ ex nostris
tabulis 3 51 47

Parall. latit. ☾ 49 13

¹ E codice V. Pro loco lunæ die 5 Ianuarii vide supra p. 119.

Pro Parallaxi ☾ ex Tabulis Prutenicis
in circulo altitudinis.

| | |
|----------------------------------|-----------|
| Altitudo ☾ obseruata | 26 0 |
| | ἐν πλάτει |
| Ergo vera altitudo | 26 0 |
| Et duplex distantia a vertice | 128 0 |
| Duplex longitudo ☾ | 158 0 |
| Anomaliam ☾ coæquata | 234 0 |
| Resp. Parallaxis in circulo alt. | 56 14'' |
| Parallaxis declinationis | 34 35 |
| Ascensionis R. | 46 24 |
| Longitudinis | 41 23 |
| Latitudinis | 39 48 |
| Obseruata parallaxis latitud. | 49 13 |
| Differentia | 9 25 |

Nec tamen in his habita est ratio
refractionis.

Calculus pro loco ☾ ex obseruationibus
DIEI 22 FEBRUARIJ

adscriptis¹.

| | |
|---|----------|
| H. 8 M. 29 Distantia inter centrum ☾ et Aldeb. | 39 17½ |
| Declin. centri | 21 23 |
| Diameter ☾ assumpta est | 34 |
| H. 8 M. 15½ Distantia a corde ☾ | 41 4 |
| Afc. R. Aldeb. | 63 8 15 |
| Ergo Afc. R. ☾ ad prius | |
| tempus | 104 14 5 |
| Afc. R. cordis ☾ | 146 37½ |
| Afc. R. ad posterius | |
| tempus | 104 5 35 |

Verum quoniam semidiameter ☾ in
merid. obseruata maior iusto hic ap-
plicata videatur, dum supponitur 17
minutorum pro centro ☾ in vtraque
distantia habenda, saluari potest hæc
inconcinntas limitatis obseruationi-
bus ad tempus intermedium quod est
H. 8 M. 22.

| | |
|--|----------|
| Afc. R. limitata | 104 10 |
| Declinatio B. | 21 23 |
| Resp. Longitudo | 13 10½ ☾ |
| Latitudo | 1 30 M. |
| Subtrahe pro arcu inclinatio- nis 2' 10'' vt sit vera | |
| Longitudo | 13 8½ |

¹ E codice V.

Replicatio calculi ☾.

| | |
|--------------------------------|--------|
| H. 8 M. 20 ☾ fuit in 90 gradu. | |
| Dift. limitata ☾ Aldeb. | 39 14½ |
| centri eius ab ☾ corde ☾ | 41 2 |
| Declinatio 21° 23'. | |

Pro examinatione ☾ ex obseruatione
DIEI 22 FEBRUARIJ¹.

| | |
|----------------------------------|---------|
| H. 7 M. 56 transiit ☾ per Merid. | |
| Alt. centri | 55 28½ |
| Ergo declinatio | 21 22½ |
| Longitudo vera ☾ ad hoc | |
| tempus | 12 56 ☾ |

Simplicis motus ☾ Duplex
longitudo ☾ 7^{fig.} 18° 48'

Anomaliam coæquata 8 20 17
Distantia ☾ a terra qualium semi-
diamet. Eccent. est 100000. Resp. 99387
qualium media dift. a terra 60 semi-
diam. terræ. Resp. 59° 38 semid. ideo-
que parallaxis in altit. 55 28 resp. 32'
40'', Parallaxis correctæ 35'.

| | |
|----------------------|----------|
| Ergo declinatio vera | 21 57 40 |
| Declinatio Eclipticæ | 22 53 40 |
| Vera latitudo | 0 56 0 |
| Resp. distantia a ☾ | 10 21 |
| Ergo ☾ | 23 17 ☾ |
| Cop. | 22 4 |
| Differentia | 1 13 |

Confer cum aliis præcipuis in ✕ et
△ ☾ et videbis mutationem ☾ etc.

DIE 21 MARTIJ, P. M.¹.

Supputatio loci ☾ ex obseruat. circa
nonages. grad. quo proveniebat H. 6
M. 11.

| | |
|--|----------|
| H. 5 M. 52½ occid. limbus ☾ erat in mer. | |
| Declinatio centri ☾ | 21 35 B. |
| Semidiameter ☾ | 15 |

Horologium corrigebatur H. 5½.

| | |
|-----------------------------|------|
| Altitudo ☾ circa id tempus | 7 40 |
| Vnde refraction in ☾ subtr. | 11 |

Hæc ☾ refraction
tempori æquat. addit 5 M.

| | |
|---|----|
| Porro correctio circuli æquat. addit | 8 |
| Semidiameter vero ☾ addit | 15 |

Horæ autem 5 M. 52 $\frac{1}{2}$ in tempora
æquatoria refolutæ accumulunt vna
cum superioribus addendis 88 40 $\frac{1}{2}$

| | |
|-----------------------|-----------------------|
| Afc. R. ☉ | 9 38 $\frac{1}{2}$ |
| Ergo Afc. R. centri ☿ | 98 19 20 |
| Declinatio centri ☿ | 21 35 B. |
| Resp. Longitudo | 7 44 $\frac{1}{2}$ 69 |
| Latitudo | 1 43 M. |

Verum si error in Horologio a tem-
pore correctionis commissus sit, hic
multiplex ingeritur, sed in 23 M. saltem
haud magnum fuisse verisimile est.

DIE 22 MARTIJ¹.

Pro loco ☿ ex obseruationibus.

| | |
|---|------------------------|
| H. 7 M. 32 Distantia centri ☿ | |
| a corde ☿ | 31 57 |
| Declinatio centri | 21 14 |
| Afc. R. cordis ☿ | 146 37 $\frac{1}{2}$ |
| Ang. diff. asc. | 32 42 |
| Ergo Afc. R. ☿ | 113 55 $\frac{1}{2}$ |
| H. 7 M. 38 Distantia centri a lucido pede Erichtonij | 35 52 |
| Afc. R. eius | 75 7 30 |
| Ang. diff. asc. | 38 54 0 |
| Ergo Afc. R. ☿ | 114 1 30 |
| H. 7 M. 35 Afc. R. ☿ limitata | 113 58 $\frac{1}{2}$ |
| Declinatio ☿ | 21 13 $\frac{1}{2}$ B. |
| Resp. Longitudo | 22 15 36 69 |
| Long. ex tab. correctis | 22 34 $\frac{1}{2}$ 69 |

Postea omnibus reiteratis inuenta
est ☿ fuisse in nonagesimo gradu H. 7
M. 32.

| | | |
|------------------------------|---|--------------------------------|
| Ad hoc momentum | { | Long. 22 15 69 Lat. 0 28 M. |
| locuseiusdenuo supputatus | | |

Repetitio calculi ☿ ex obseruationibus

DIEI 22 MARTIJ.

H. 7 M. 32 cum ☿ exacte esset in 90 gradu

| | | |
|---------------------|----------------|-----------|
| Distantia { | a corde ☿ | a cornu ☿ |
| | occ. 32 12 30 | 35 33 30 |
| Declinatio centri ☿ | centr. 31 57 0 | 35 49 0 |
| | | 21 13 30 |
| Cordis ☿ | Afc. R. | Declin. |
| | 146 36 56 | 13 56 30 |
| Cornu ☿ | 75 6 30 | 28 11 15 |

Ex hisce Afc. R. ☿ limitata pro $\frac{1}{2}$ dif-
ferentiæ respectu cordis ☿ quæ cer-
tius constat 113 55 $\frac{1}{2}$

| | |
|----------------|------------------------|
| Ergo Longitudo | 22 12 $\frac{1}{2}$ 69 |
| Latitudo | 28 3 M. |

Adde pro latit. 20

Poteris collocare ☿ ex obseruatione
sine sensibili errore in 22 13 69

Hæc sunt diligentissime iterata pro
maxima digressionē ☿ a motu medio.

Pro loco ☿ ex obseruat. ad

24 APRILIS¹.

H. 12 M. 11 ☿ circa nonages. grad.

H. 12 M. 29 $\frac{1}{2}$ Distantia occid. limbi a
corde ☿ 39 52
pro semidiam. adde 15

| | |
|--------------------------|----------------------|
| Distantia centri ☿ | |
| a corde ☿ | 40 7 |
| Declinatio centri ☿ | 2 7 B. |
| Ang. diff. ascenf. supp. | 38 47 20 |
| Afc. R. cordis ☿ | 146 37 $\frac{1}{2}$ |
| Ergo Afc. R. ☿ | 185 25 48 |

H. 12 M. 39 $\frac{1}{2}$ Distantia occid.
limbi a Spica 15 26
15

| | |
|-----------------------|--------------------|
| Distantia centri | 15 11 |
| Declinatio ☿ | 2 5 30 |
| Declinatio Spicæ | 8 57 $\frac{1}{2}$ |
| Afc. R. Spicæ | 195 56 45 |
| Ang. diff. ascenf. | 10 26 30 |
| Ergo Afc. R. centri ☿ | 185 30 15 |

| | |
|----------------------------|--------------------|
| H. 12 M. 34 Afc. R. emend. | 185 28 30 |
| Declinatio | 2 7 B. |
| Resp. Longitudo | 4 11 26 69 |
| Latitudo | 4 6 4 B. |
| Longit. postea | 4 11 $\frac{1}{2}$ |
| Arcus inclinat. add. | 3 30 |
| Parall. | 45 |
| Verus locus | 4 16 69 |

DIE 23 AUGUSTI².

Calculus pro vero loco ☿ ex obserua-
tionibus hora 9 M. 5 cum ☿ iuxta
nonag. gradum versaretur
secundum calculum.

Dist. centri ☿ ab infer. cornu ☿ 33 35
Decl. visa centri ☿ 15 19 M.

¹ E codice V.

² E codice E.

| | |
|---|-----------|
| Altitudo vifa centri ζ | 12 4 |
| Declin. a refractionibus liberata | 15 28 |
| Angulus differentiae ascensionalis inter ζ & infer. cornu ζ | 34 55 30 |
| Afc. R. infer. cornu ζ adde | 299 30 45 |
| Ascensio Recta ζ | 334 26 15 |

Pro παραλλάξει ζ in circulo altit. 12° resp. ex Tabulis vet. ad præsuppositum tempus ex Tab. Prut.

Longit. 0 42 47 χ
Latit. 4 30 34 M.

Simplex Long. ζ a \odot 2° 53' 27" 35"

Simplex Anomalia ζ 2 5 46 48

Duplex distantia a ver. 156 0 0

I. & II. limit. differ. subt. 2 11

II. limitis Parallaxis 51 56

III. limitis Parallaxis 61 45

III. & IV. limitum differ. add. 3 24

Duplex longit. ζ a \odot 346 55½

Epicycli minoris scrupula proport. 0 47

Pars congruens de differ.

I. subt. 1° 43' 44"

Pars congruens de differ.

II. add. 2 40

παραλλάξις II. limit. emend. 51 54

παραλλάξις III. lim. emend. 61 48

Differentia παραλλάξεων 9 54

Anomalia ζ simplex 2 5 46 48

Subtrahe προστα. ἐπιπλ. 2^{di} 3 32 2

Anomalia ζ coæquata 122 14 46

Epicycli maioris scrupula 45 3

Pars congruens de differ.

παραλλ. & scrup. add. 7 26

Parallaxis altit. quæfita 59 20

Atque hæc παραλλάξις ζ Latitudinis sola fuit. Nam ζ circa 90 gradum in Ecliptica existente vera & vifa longitudo coincidunt, idque ratione obliquitatis maximæ Zodiaci supra finitorem (vbi locum ζ tenet) vtrinque æqualiter in punctum verticalis circuli determinatæ. Quare Parallaxis altitudinis ζ a latitudine vifa subducta, relinquunt vera latitudo ζ meridionalis 3° 31' 14". Sed hæc poßunt repeti, nam παραλλάξις ζ aut maiores iustis sunt, aut non

totæ debentur latitudini ζ , quod ζ 90 gradum transierat.

Collatio Calculi ζ

| | Ex obseruationibus | Ex calc. Copern. | Ex calc. Alph. |
|-----------------|--------------------|------------------|----------------|
| Longit. ζ | 0 42 47 χ | 0 44 χ | 0 30 χ |
| Latit. vifa | 4 30 34 M. | 3 43 44 M. | 3 40 M. |

DIE 16 DECEMBRIS.

Calculatio pro loco apparenti ζ in Zodiaco ex antecedentibus observationibus

| | |
|--|--------------|
| H. 7 M. 0 Distabat centrum ζ ab Aldebora | 15 55 |
| Declinatio centri ζ | 12 46 B. |
| BA 74 23 Afc. R. ζ ab Aldeb. | 46 59 30 |
| CA 77 14 Resp. Longitudo | 18 7½ χ |
| BC 15 55 Latitudo | 4 42½ M. |
| BAC 16 9½ | |
| 63 9 | |

Eadem vespera H. 7 M. 20½ cum ζ iuxta supputationem proxima esset circa nonagesimum gradum in Ecliptica ab Ascendente, distabat centrum eius ab Extrema Alæ Pegasi 47 43

Declinatio centri ζ B. 12 50

Hinc dantur

| | |
|-------------|---|
| DA 77 6 | Afc. R. ζ ab extrem. |
| CA 77 10 | alæ Pegasi 47 9 20 |
| DC 47 43 | Ergo ad vltimum tempus hoc videlicet H. 7 |
| DAC 49 2 20 | 358 7 M. 21, quo ζ circa 90° |
| | obseruata est, fuit Afc. R. eius 47 9½ |

Declin. vero B. 12 50

Ex Pruten. Alphonfinis.

| | | |
|----------------------|--------------|--------------|
| Longit. 18 18 χ | 18 34 χ | 18 32 χ |
| Latit. 4 41½ M. | 3 42 M. | 3 40 M. |

DIE 21 DECEMBRIS.

Supputatio loci ζ ex superioribus observationibus sc. post Eclipsin, quando circa 90 g. fuit.

| | |
|---------------------------------|------------------|
| H. 2 14' Ascensio Recta ζ | 127 48 50 |
| Declinatio B. | 21 3 |
| Resp. Longitudo | 4 55 42 Ω |
| Latitudo | 2 0 39 B |
| 3 16 Ascensio Recta ζ | 128 14 40 |
| Declinatio B. | 21 2 |
| Resp. Longitudo | 5 19 9 Ω |
| Latitudo | 2 5 35 B. |

OBSERVATIONES SATURNI.

DIE 13 JANUARIJ, VESPERI.

| Altit. merid. ♄ per Chalyb. | | | | | 56 16½ |
|-------------------------------|-------------------|--------------|--------|--|---------------|
| H. M. | Inter ♄ & ocul. ☿ | Declinatio ♄ | | | Can. min. or. |
| 10 45½ | 18 53 | | | | 9 1 |
| 10 48 | 18 52½ | 22 11 | 22 10 | | 8 12 |
| Tunc erat Altit. ♄ per Volub. | | | | | 53 19 |
| 10 52½ | 18 52½ | 22 10½ | 22 10½ | | 7 20 |

Viceverfa

| Inter ♄ & inf. caput ♀ | | | | | |
|------------------------|--------|--------|-------|--|------|
| 10 59 | 26 15 | | | | 5 59 |
| 11 2½ | 26 14½ | 22 11½ | 22 11 | | 5 19 |
| 11 6½ | 26 15½ | | | | 4 19 |

DIE 22 JANUARIJ, VESPERI.

| H. M. | Dist. ♄ ab Aldeb. | Declin. ♄ per Arm. max. | Seq. hum. Orion. or. |
|---------------------------|----------------------|----------------------------|-------------------------|
| 6 31½ | 18 28½ | 22 13 22 11½ | 30 3 |
| Altit. ♄ per Volub. 50 35 | | | |
| 6 36½ | 18 31 mel. | | 28 44 |
| 6 40½ | 18 30½ | 22 12½ 22 13½ | 27 47 |
| 6 42½ | 18 30½ | | 27 18 |

Viceverfa

| Dist. ♄ ab inf. cap. ♀ | | | | | |
|------------------------|-------|--------|--------|--|-------|
| 6 49½ | 26 36 | 22 12½ | 22 13½ | | 25 34 |
| 6 51½ | 26 36 | | | | 24 53 |
| 6 56½ | 26 36 | 22 12½ | 22 13 | | |

Hoc tempore, quantum visu discernere licebat, erat ♄ omnino medius inter πρόποδα ♀ & australe cornu ☿ deflebens parum ad septentrionem a recta linea.

DIE 9 FEBRUARIJ.

Vesperī obseruabatur ♄.

| H. M. | Inter ♄ & pedus ☿ | Declin. ♄ | | | Luc. hum. Or. occ. |
|---------------------|-------------------|-----------|--------|--------|--------------------|
| 9 52½ | 27 36½ | 22 14½ | 22 15 | 34 5 | |
| Altit. ♄ per Volub. | | 46 59½ | | | |
| Inter ♄ & Aldeb. | | | | | |
| 9 55½ | 18 9 | | | | 35 1 |
| 9 58½ | 18 10½ | 22 15 | 22 15½ | 35 41½ | |
| dub. ♄ | | | | | |
| 10 0½ | 18 9½ | | | | 36 10 |
| 10 2 | 18 9½ | | | | 36 38 |

Viceverfa

| Inter ♄ & infer. caput ♀ | | | | | |
|--------------------------|--------|--------|-------|--|-------|
| 10 5½ | 26 57 | | | | 37 32 |
| 10 8½ | 26 57½ | 22 14½ | 22 15 | | 38 1 |
| 10 11½ | 26 57 | | | | 39 6 |

DIE 17 FEBRUARIJ.

Vesperī obseruabatur ♄ vt sequitur.

| H. M. | Inter ♄ & Aldeb. | Declin. B. ♄ | Altit. ♄ per Vol. | Luc. Hydræ or. |
|---------------|------------------|--------------|-------------------|----------------|
| 9 52½ | 18 9½ | 45 30½ | 41 10 | 7 14 |
| vtroq. pin. ♄ | | | | |
| 9 56½ | 18 11½ | 45 30 | 40 30 | 6 32 |
| | | | | 45 29 |
| 9 59½ | 18 10½ | 45 29 | | 5 35 |
| | | | | 45 27 |

Viceverfa

| Inter ♄ & inf. cap. ♀ | | | | | Luc. Hydræ occid. |
|-----------------------|-------|--------|------|--|-------------------|
| 10 52½ | 26 53 | 45 30 | 33 0 | | 8 2 |
| | | | | | 45 31 |
| 10 56½ | 26 54 | 45 31 | | | 8 52 |
| | | | | | 45 30½ |
| 10 59½ | 26 54 | 45 30½ | | | 9 37 |
| vel 53½ | | | | | |

DIE 25 FEBRUARIJ.

Vesperī obseruabatur ♄ vt sequitur. Horologium corripiebatur circa horam sextam ad lucidum pedem Orionis.

| H. M. | Dist. ♄ ab Aldeb. | Declin. ♄ B. | Altit. ♄ per Vol. | Can. min. orient. |
|--|-------------------|--------------|-------------------|-------------------|
| 7 2½ | 18 20 | 22 18½ | 53 58 | 10 38 |
| vno pinn. ♄ | | | | |
| 7 24 | 18 20 | 22 18½* | 53 42 | 9 53 |
| * vno pinnac., altero capi non poterat propter trabem. | | | | |
| 7 28½ | 18 19½ | 22 19½ | 53 22 | 8 40 |

vtroq. ♄

Viceverfa

| Dist. ♄ ab infer. cap. ♀ | | | | | |
|--------------------------|-------|--------|-------|--|--------|
| 7 31½ | 26 45 | 22 19½ | 53 8 | | 7 46 |
| | | | | | 22 19 |
| 7 34½ | 26 46 | 22 19½ | | | 7 4 |
| | | | | | 22 19 |
| 7 39 | 26 45 | 22 19½ | 52 33 | | 6 3 |
| | | | | | 22 19½ |

¹ Ambo pinnacidia mota fuisse videntur, nam declinatio Saturni circiter 22° 16' erat.

DIE 17 MARTIJ.

| Vesperī obſeruabatur ꝑ vt ſequitur. | | | | | |
|-------------------------------------|-------------|--------|----------|-----------|--|
| Tempus | Diſt. inter | Decl. | Alt. ꝑ | Can. min. | |
| horol. | ꝑ & Aldeb. | Bor. | per Vol. | occ. | |
| 7 11½ | 19 11 | 22 25½ | 45 25 | 12 3½ | |
| | | 22 25½ | | | |
| 7 17½ | 19 12 | 22 25 | | 13 23 | |
| | | 22 24½ | | | |
| 7 21 | 19 11½ | | 44 28 | 14 22 | |
| 7 24½ | 19 11½ | 22 24½ | 43 55 | 15 23 | |
| | | 22 24½ | | | |

Viceverſa

| | Inter ꝑ & inf. cap. II | | Luc. Hyd. orient. |
|-------|---------------------------|--------|----------------------|
| 7 30½ | 25 54½ | 22 24½ | 10 28 |
| | | 22 25 | |
| 7 34 | 25 54½ | | 42 45 |
| 7 38 | 25 55 | 22 24½ | 8 25 |
| | | 22 24½ | |

DIE 11 OCTOBRIS.

Vesperī obſeruabatur ꝑ in hunc modum.

| | Inter ꝑ & Aldeb. | Decl. ꝑ B. | Alt. ꝑ | Luc. man- dib. Ceti or. |
|--------|---------------------|------------|--------|-------------------------------|
| 11 21½ | 39 1 | 22 20½ | 18 22½ | 26 10 |
| | | 22 19½ | | |
| 11 29½ | 39 0 30" | | 19 32½ | 24 13 |

Viceverſa

| | Ab inf. cap. II | | |
|-------|-----------------|--------|-------|
| ... | 8 38½ | 22 20 | 20 22 |
| | | 22 19½ | |
| 11 43 | ꝑ 8 38½ | 21 22½ | |

eadem omnino cum priore.

Erat hac vesp̄era bene ſerenum vbi
* parua ſtella ſupra ꝑ in tali ſitu
× conſpiciebatur.

Calculus¹ pro inquirendo loco ꝑ ad
diem 11 Octob. cum eſſet in 1 ſtatione
ex obſervationibus vtrinq̄ue habitis.

| | | |
|--------|------------------------|----------|
| H. 11½ | Diſtancia ꝑ ab Aldeb. | 39 0½ |
| | Declinatio ꝑ correct̄a | 22 19 B. |
| | Declinatio Aldebor̄æ | 15 37 B. |
| | Afc. R. Aldebor̄æ | 63 8 45 |
| | Ang. diff. aſcenſ. | |
| | per ſupp. | 40 45½ |
| | Ergo hinc Afc. R. ꝑ | 103 54½ |

¹ E codice V.

² Iuxta diarium meteorologicum "rediit Tycho" e Seelandia die 25 Octobris. Tamen hæc obſervatio in codice E non ipſius manu conſcripta eſt.

H. 11½ Diſtancia ꝑ ab inf.

| | |
|-----------------------------------|------------|
| cap. II | 8 38½ |
| Declinatio inf. cap. II | 28 57 |
| Afc. R. huius | 110 3 30 |
| Ang. diff. aſcenſ. | |
| per ſupp. | 6 9 15 |
| Ergo hinc Afc. R. ꝑ | 103 54 15 |
| Afc. R. lim. | 103 54 20 |
| Reſp. Longitudo | 12 50 52½ |
| Latitudo | 0 35 15 M. |
| Arcus inclinationis ſubtr. 1' 20" | |
| Vera Long. ꝑ obſeruata | 12 49 30½ |

DIE 25 OCTOBRIS.

Mane circa horam 4^{am} matutinanum, obſeruabam quod quam proxima eſſet ſtellulæ in ventre meridionalis II, diſtans ſaltem ab hac verſus aſtrum ad quantitatem ſemidiametri lunaris uel ad ſummum 20 ſcrupulis, habebat autem quam proxime eandem Aſcenſionem Rectam cum dicta ſtellula; nam linea recta quæ procedebat a ꝑⁿⁱ ſtella per hanc in II reſpiciebat Zenith, atque inde vltimus producta ad ſtellam polarem, quantum ſolo oculari intuitu dignoſcere licuit, neque alicuius momenti potuit intercidere deuiatio; hanc obſervationem ipſemet conſideraui cum ex littore proximo Seelandico in hanc inſulam Huennenſem matutino tempore inſtante Aurora traicerem². Atque hinc locus ꝑ iuxta longum & latum datur in hunc qui ſequitur modum.

| | | |
|---|---------------|------------|
| Aſcenſ. R. ſtellæ in II ſupra nominatæ | 103 53 27 | |
| Sit eadem Aſcenſ. R. ꝑ ⁿⁱ iuxta anim- aduſionem Tychonis. | | |
| Declin. eiſdem ſtellæ B. | 22 40½ | |
| Subtrahantur 20' circiter & prouenit declinatio ꝑ | 22 20 B. | |
| Reſp. | Calc. Copern. | Alph. |
| Longit. 12 50 52½ | 12 53½ 52½ | 15 43½ 52½ |
| Latit. 0 35½ M. | 1 28½ M. | 0 40 M. |

DIE 4 DECEMBRIS.
Vesperī obseruabatur ♄.

| Horol. | Temp. corr. | | |
|------------|----------------|-----------------------------|--------|
| 8 49½ | 9 39½ | Inter ♄ & Aldeb. 36 | 56½ |
| | | Altit. ♄ per Vol. 37 | 56 |
| | | Luc. mandib. | |
| | | Ceti occ. | 6 15 |
| | | Declin. ♄ Bor. | 22 33½ |
| | | impedimento erat tignum | 22 32 |
| 8 59 55 | 9 50 | Inter Aldeb. & ♄ | 36 56½ |
| 9 4½ | 9 54½ | | 36 56½ |
| | | Lucida mand. | |
| | | Ceti occ. | 9 57 |
| | | Decl. ♄ vno pin. 22 | 31½ |
| | | Viceversa | |
| 9 15 25 10 | 4½ | Inter ♄ & | |
| | | infer. cap. II | 9 51½ |
| | | Mandibula Ceti | 12 30 |
| 9 23½ | 10 13 | Inter ♄ & | 9 55½ |
| 9 27½ | 10 17 | infer. cap. II | 9 55½ |
| 9 33 | 10 23 | | 9 55½ |
| | | Decl. ♄ vno pin. 22 | 33 |
| | | Aër erat hic intranquillus. | |

DIE 5 DECEMBRIS, VESPERI.
Obseruabamus ♄ in modum
qui sequitur.

| | | | |
|-----------|-------------------------------|----|-----|
| { 9 13½ | Dist. ♄ ab Aldebora | 36 | 52½ |
| { 8 24 40 | corr. Altit. ♄ | 28 | 9 |
| | Erat tunc luc. mand. Ceti or. | 11 | 20 |
| { 9 24 | Inter ♄ & Aldeb. | 36 | 52½ |
| { 8 34 | corr. Declin. ♄ B. | 22 | 33½ |
| | | 22 | 34 |
| | Lucida mandibula Ceti | 8 | 57 |
| | Viceversa | | |
| { 9 35 40 | Inter ♄ & inf. cap. II | 9 | 56½ |
| { 8 44½ | corr. Altit. ♄ | 31 | 22½ |
| | Lucida mandib. Ceti or. | 6 | 17 |
| { 9 45½ | Inter ♄ & eandem II | 9 | 57½ |
| { 8 54½ | corr. Lucida Ceti | 3 | 52 |
| { 9 49 | Inter ♄ & eandem II | 9 | 57½ |
| { 8 58 | corr. Lucida Ceti or. | 2 | 57 |
| { 10 2 40 | Declinatio ♄ | 22 | 33½ |
| { 9 9½ | | 22 | 34 |
| | Lucida Ceti orient. | 0 | 12 |

DIE 6 DECEMBRIS, VESPERI.

| | | | |
|------------|-----------------|----|----|
| 12 10' 20" | Inter ♄ & | | |
| | lucid. pedem II | 9 | 29 |
| | Altit. ♄ | 54 | 36 |

| | | | |
|-----------|------------------------|----|-----|
| 12 22½ | { Distabat ♄ | | |
| corr. 16' | a lucid. pede II | 9 | 28½ |
| | Declin. ♄ vno pinn. | 22 | 31 |
| 12 28½ | Inter ♄ & luc. ped. II | 9 | 28½ |
| | Oculus ♄ occ. | 26 | 25 |

Viceversa

| | | | |
|--------|---------------------------|----|----|
| 12 37½ | Inter ♄ & infer. caput II | 10 | 0½ |
| 12 42 | (corr. 12 35½) | 10 | 1½ |
| 12 45½ | | 10 | 0½ |
| 12 49½ | | 10 | 1½ |
| | Oculus ♄ occ. | 31 | 22 |
| 12 52 | Inter ♄ & eandem II | 10 | 2 |

Vacillabat instrumentum,
vehementia venti actum.

| | | | |
|-------|------------------------------|----|-----|
| 1 1 | Inter ♄ & | 18 | 1½ |
| 1 5½ | canem minorem | 18 | 3½ |
| 1 9½ | | 18 | 3½ |
| 1 14½ | | 18 | 2½ |
| 1 20½ | Transibat ♄ | | |
| | per Meridianum habens altit. | | |
| | per Chalyb. | 56 | 36½ |
| | per Volub. | 56 | 37 |
| | Canis minor orient. | 26 | 20 |
| 1 32 | Declin. ♄ | 22 | 31½ |
| | per Armillas | 22 | 31½ |

N. B. Aër erat intranquillior hac vespera. Porro erat ♄ constitutus fere in recta linea cum lucido pede II & inferiori capite eorundem, paululum tamen deflectens Horizonta versus.

Pro ♄ loco inveniendō

| | | | |
|--|---------------------|-----|--------|
| ad diem 4 Decembris ex antepenultimis præcedentibus obseruationibus. | | | |
| H. 9 M. 54 | Ascensio R. | 101 | 39 40 |
| 10 13 | | 101 | 37 0 |
| 10 3 | Ascens. R. limitata | 101 | 38½ |
| Resp. Longitudo | | 10 | 44½ 66 |
| Latitudo | | 0 | 33 M |
| Iuxta Copernicum Iuxta Alphonsum | | | |
| Long. 10 43 66 | | 13 | 43 66 |
| Latit. 1 32½ M. | | 0 | 39 M. |

Pro loco ♄ ad diem 5 Decembris
ex penultimis obseruationibus.

| | | | |
|------------|------------------|-----|-------|
| H. 8 M. 34 | Ascens. R. | | |
| | ab Aldeb. | 101 | 35 17 |
| 8 45 | ab inf. cap. II | 101 | 33 37 |
| | Asc. R. limitata | 101 | 34½ |

| | Ex obferv. | Copernico | Alphonfo |
|------------------------------|------------------------|-----------|----------|
| Long. 10 40 $\frac{1}{2}$ 69 | 10 37 $\frac{1}{2}$ 69 | 13 38 69 | |
| Lat. 0 32 $\frac{1}{2}$ M. | 1 32 $\frac{1}{2}$ M. | 0 39 M. | |

Calculus pro \hbar loco investigando
ex obferuationibus proxime præce-
dentibus die 6 Decembris.

| | | | |
|----------------------------|--------------------------|------------------------|------------------------|
| H. 12 16' | Diff. a luc. pede Π | 9 28 $\frac{1}{2}$ | |
| | Declin. \hbar B. | 22 31 $\frac{1}{2}$ | |
| | Ascensio R. | 101 26 1 | |
| 12 35 $\frac{1}{2}$ | Diff. ab inf. cap. Π | 10 1 $\frac{1}{2}$ | |
| | Ascensio R. | 101 29 40 | |
| 12 ^H 16' | ex obferv. | Copernico | Alphonfo |
| Long. 10 36 69 | | 10 31 $\frac{1}{2}$ 69 | 13 32 $\frac{1}{2}$ 69 |
| Lat. 0 34 $\frac{1}{2}$ M. | | 1 32 $\frac{1}{2}$ M. | 0 39 M. |

DIE 9 DECEMBRIS.

Obferuabatur \hbar circa meridianum
vt fequitur. Horologium corrigebatur.

| | Inter Al- deb. & \hbar | Declinatio \hbar | Dext. hum. Or. occ. |
|---|------------------------------|---------------------------|---------------------------|
| 12 7 $\frac{1}{2}$ | 36 33 | 22 35 vno | 6 34 |
| 12 14 25 | 36 32 $\frac{1}{2}$ | | 7 2 |
| 12 22 | 36 33 $\frac{1}{2}$ | | 10 35 |
| 12 28 | 36 32 $\frac{1}{2}$ | 22 35 $\frac{1}{2}$ 22 35 | |
| 12 45 | | 22 35 22 34 $\frac{1}{2}$ | |
| 12 47 $\frac{1}{2}$ | Transibat \hbar | | |
| | per Meridianum habens altit. | | |
| | per Volub. | 56 39 $\frac{1}{2}$ | |
| | per Chalyb. | 56 39 | |
| | Canis minor orient. | 5 20 | |
| Viceverfa obferuabatur \hbar a corde Ω | | | |
| 1 31 | Inter \hbar & cor Ω | 43 50 $\frac{1}{2}$ | |
| 1 34 50 | Eadem diff. repetita | 43 50 $\frac{1}{2}$ | |
| | Canis minor occid. | 5 3 | |
| 1 40 10 | Inter \hbar & cor Ω | 43 49 $\frac{1}{2}$ | |
| 1 43 35 | | 43 50 $\frac{1}{2}$ | |

His diftantijs tuto eft fidendum, quia
appime fuit ferenum & aër tranqui-
lus, nec vlla diligentia, quæ adhiberi
potuit, vspiam neglecta eft.

N.B. \hbar^{ni} ftella circa has obferua-
tiones erat Acronychia iuxta $\phi \odot$ &
verfabatur prope Perigæum propri-
um & Apogæum folare, quocirca con-
fideratio motus eius duplici nomine
conducit plurimum ad apparentias
eius exacte reftituendas, præfertim
pro loco Apogæi ad amuſim verifi-

cando, ex quo tam ratione propriæ
quam solaris Eccentricitatis quam
minimam ab æqualitate ingerat dif-
ferentiam, vt alias perueftigatione
facta pateſcet.

Ex quo igitur eſt \hbar tam ratione
Eccentrici quam Epicycli, vt com-
muniter loquuntur, terræ proximus,
folito nonnihil maior apparuit, adeo
vt ſua viſibili magnitudine lucidam
in ore Syrij (ſi radios quos ſcintilla-
tio vibrat demas) quam proxime re-
ferret. Habuit itaque ad minimum in
viſibili diametro 2 minuta vel potius
paulo plus. Hinc de vera eius quanti-
tate ratiocinari licebit præſuppoſita
videlicet proxima ad terram remo-
tione.

Pro loco \hbar ex obferuationibus
ad 9 diem Decembris.

| | | | |
|-----------|-----------------------------------|-----------|--|
| H. 12 14' | Diffabat \hbar ab Aldeb. | 36 33 | |
| | Declin. \hbar B. | 22 34 | |
| | Ascensio R. | 101 13 55 | |
| | Diffabat \hbar a corde Ω | 43 50 | |
| | Ascensio R. | 101 12 22 | |
| 12 52 | Asc. recta emendata | 101 13 0 | |

| | Ex obferv. | Calc. Copern. | Calc. Alph. |
|----------------------------|------------------------|------------------------|-------------|
| Long. 10 21 69 | 10 17 $\frac{1}{2}$ 69 | 13 18 $\frac{1}{2}$ 69 | |
| Lat. 0 33 $\frac{1}{2}$ M. | 1 32 M. | 0 39 M. | |

DIE 10 DECEMBRIS.

Obferuabatur \hbar circa meridianum
in hunc modum. Paulo ante corrige-
batur Horologium.

Transitus mandibulæ Ceti per meri-
dianum H. 8 M. 48.

| | | | |
|---------------------|-----------------------------|---------------------|--|
| 11 55 $\frac{1}{2}$ | Inter \hbar & Aldeb. | 36 28 $\frac{1}{2}$ | |
| | Mandibula Ceti occ. | 47 10 | |
| 12 0 $\frac{1}{2}$ | Inter \hbar & Aldeb. | 36 29 | |
| 12 2 $\frac{1}{2}$ | | 36 28 $\frac{1}{2}$ | |
| 12 6 $\frac{1}{2}$ | | 36 28 $\frac{1}{2}$ | |
| | Declin. \hbar vno pinnac. | 22 35 0 | |
| | Mandib. Ceti occid. | 50 14 | |

Viceverfa a corde Ω

| | | | |
|---------------------|------------------------------|----------------------------|--|
| 12 14 $\frac{1}{2}$ | Inter \hbar & cor Ω | 43 53 $\frac{1}{2}$ | |
| 12 18 $\frac{1}{2}$ | | 43 53 $\frac{1}{2}$ | |
| | Mandib. Ceti occid. | 53 33 | |
| 12 23 $\frac{1}{2}$ | Inter \hbar & cor Ω | 46 53 $\frac{1}{2}$ | |
| | Declin. \hbar | 22 35, 22 34 $\frac{1}{2}$ | |

12 45½ Tranſibat ꝑ
per meridianum habens altit.
per Chalyb. 56 39½
per Volub. 56 39½
Mandibula Ceti occid. 60 47
Erat hoc veſpere bene ferenum.

Pro ꝑ loco die 10

| | |
|-------------|----------|
| Declinatio | 22 33 45 |
| Aſcenſio R. | 101 9 19 |
| | 101 9 0 |

H. 12 M. 10 Aſc. R. emendata 101 9½

| | | |
|-------------------|---------------|-------------|
| Ex obſerv. | Calc. Copern. | Calc. Alph. |
| Long. 10 16 26 69 | 10 12½ 69 | 13 13½ 69 |
| Lat. 0 33 45 M. | 1 32½ M. | 0 39 M. |

DIE 16 DECEMBRIS.

Obſeruabatur ꝑ circa Meridianum.
« hic non longe diſtabat ab Alde-
bora, ideoque ſplendor eius oberat.

| | Inter ꝑ & Aldeb. | Declinatio ꝑ | Luc. pes Orion. or. |
|--------|---------------------|-----------------|------------------------|
| 10 15½ | 35 59½ | | 4 50 |
| 10 22½ | 35 59 | 22 38 | |
| | | 22 39 | occid. |
| 10 49½ | 35 58 | | 4 3½ |
| 10 54½ | 35 58 | 22 39½ | |
| | | 22 38 | |
| 10 57½ | 35 58½ | | |

Poſtea ꝑ obſeruabatur a corde Ω di-
ſtans non procul a Meridiano.

| | Inter ꝑ & cor Ω | Luc. pes occ. |
|--------|-----------------|---------------|
| 11 48½ | 44 23 | 18 39 |
| 11 53½ | 44 23½ | 20 0 |
| 12 0 | 44 23½ | 21 35 |

12 20 40'' Tranſibat ꝑ
per meridianum habens altitud.
per Chalyb. 56 41
per Volub. 56 41½
Declin. 22 37½ Luc. pes occ.
per Armillas 22 38 27 9½

Supputatio loci apparentis ꝑ ex proxi-
mis præcedentibus obſervationibus.

| | | |
|-----------|-------------------|--------|
| H. 10 57' | Diſt. ꝑ & Aldeb. | 35 58 |
| | Declin. ꝑ B | 22 35½ |
| 11 48 | Diſt. ꝑ a corde Ω | 44 23 |

| | |
|---------------------------------|-----------------|
| BA 74 22½ | DA 76 3½ |
| CA 67 24½ | CA 67 24½ |
| BC 35 58 | DC 44 23 |
| BAC 37 26 56 | DAC 46 1 50 |
| 63 9 30 | 146 39 |
| Aſc. R. 100 36 26 | 100 37 10 |
| Ergo H. 11 M. 22 Aſc. R. limit. | 100 36 48 |
| Reſp. ex obſ. | Calc. Copernici |
| Long. 9 47½ 69 | 9 42½ 69 |
| Latit. 0 34½ M. | 1 32 M. |
| | 0 37 M. |

DIE 21 DECEMBRIS.

Obſeruabatur ꝑ circa oppoſitum
☉ is proximus.

Horol. hic
corrigebatur

| | | | |
|----------|--------|-------------------------------|--------|
| 11 7 50 | 11 10 | Diſt. ꝑ ab | |
| | | oculo ☿ | 35 35½ |
| | | Decl. ꝑ Bor. | 22 40 |
| 11 15½ | 11 19½ | Diſt. eadem | 35 35½ |
| 11 29½ | 11 34½ | | 35 35½ |
| 11 46 25 | 11 51½ | eadem | 35 35 |
| 11 52 25 | 11 57½ | Tranſibat ꝑ | |
| | | per merid. habens altitudinem | |
| | | per Volub. | 56 44 |
| | | per Chalyb. | 56 43½ |
| | | Canis minor orient. | 9 13 |

Viceverſa

| | | | |
|----------|--------|----------------|--------|
| 12 10½ | 12 16½ | Diſt. ꝑ | |
| | | a corde Ω | 44 47½ |
| | | Canis min. or. | 4 24½ |
| 12 14 55 | | Diſt. repetita | 44 49½ |
| 12 22½ | | Diſt. eadem | 44 47 |
| 12 31 | 12 37½ | eadem | 44 48½ |
| 12 34½ | 12 40½ | eadem | 44 48½ |
| | | Declinatio | 22 39½ |
| | | Canis minor | |
| | | occ. | 1 39 |

In his diſtantijs ſplendor « magis
impedimento fuit. Sed vltimæ duæ
diſtantiæ meliores creduntur.

Supputatio loci ꝑ ex antecendentibus
obſervationibus proximis.

| | | |
|-------------------------------|-------------------|-----------|
| 11 52 | Diſt. ꝑ ab Aldeb. | 35 35 |
| | Declin. ꝑ B. | 22 38½ |
| | Aſcenſio R. | 100 11 45 |
| 12 38 | Diſt. a corde Ω | 44 48 |
| | Aſcenſio R. | 100 9 15 |
| Ergo H. 12 M. 15 Aſc. R. lim. | | 100 10½ |

| Resp. ex obf. | Calc. Copern. | Calc. Alph. |
|---------------|---------------|-------------|
| Long. 9 23 66 | 9 15 66 | 12 18 66 |
| Lat. 0 33 M. | 1 32 M. | 0 37 M. |

DIE 24 DECEMBRIS.

Horologium hic paulo ante octauam
corrigebatur.

| | | |
|-----------|------------------|-----------|
| 8 30' 40" | Inter ♄ & Aldeb. | 35 21 1/2 |
| | Altit. ♄ | |
| | per Volub. Q. | 45 4 |
| 8 36 30 | Inter ♄ & Aldeb. | 35 21 1/2 |
| | Dexter hum. | |
| | Orion. or. | 23 0 |
| 8 42 50 | Inter ♄ & Aldeb. | 35 21 |
| | Declin. ♄ B. | 22 41 1/2 |
| | | 22 41 1/2 |

Transitus dextri humeri Orionis
per Meridianum H. 10 M. 9 1/2.

Viceversa

| | | |
|----------|-----------------------|-----------|
| 8 48 30 | Inter ♄ & inf. cap. ♄ | 11 4 |
| | Dexter humer. | |
| | Orion. or. | 20 4 |
| .. . 1 | Repetita distantia | 11 4 1/2 |
| | Dexter hum. | |
| | Orionis or. | 18 40 |
| 8 55 3/2 | Eadem dist. | 11 3 |
| | Dexter hum. | |
| | Orionis or. | 18 4 |
| 9 4 3/2 | Dist. eadem | 11 4 1/2 |
| | Dexter hum. | |
| | Orion. or. | 15 44 |
| 9 19 1/2 | Inter ♄ & | |
| | infer. cap. ♄ | 11 2 3/2 |
| | Declinatio | 22 42 3/2 |
| | | 22 43 3/2 |
| 9 24 1/2 | Distantia repetita | 11 2 1/2 |
| 9 31 1/2 | | 11 4 1/2 |

Hic corrigebatur Horologium

| | | |
|-----------|-----------------|----------|
| 10 49 1/2 | Inter ♄ & cor ♄ | 45 3 |
| | Dexter hum. | |
| | Orion. occ. | 10 9 |
| 10 54 15 | Inter ♄ & cor ♄ | 45 3 1/2 |
| | Idem hum. | |
| | Orion. occ. | 11 25 |
| 10 59 55 | Inter cor ♄ & ♄ | 45 3 1/2 |

| | | |
|----------|--------------------------|-----------|
| 11 14 50 | Transibat ♄ | |
| | per merid. habens Altit. | |
| | per Chalyb. | 56 45 |
| | per Volub. | 56 45 1/2 |
| | Erat Can. minor or. | 9 53 |

Pro loco ♄ die 24.

| | | |
|-----------------|---------------------|----------|
| H. 8 43' | Dist. ♄ ab. Aldeb. | 35 21 |
| | Declinatio B. | 22 39 40 |
| | Ascensio R. | 99 55 50 |
| 10 49 | Dist. ♄ a corde ♄ | 45 3 |
| | Ascensio R. | 99 54 15 |
| Ergo H. 9 M. 45 | Afc. R. limit. | 99 55 |
| Resp. | Longitudo 9 8 50 66 | |
| | Latitudo 0 32 55 M. | |

DIE 25 DECEMBRIS.

Obferuabatur ♄ circa meridianum.
Corrigebatur horologium.

| | | |
|-----------|----------------------|-----------|
| 9 10 1/2 | Inter ♄ & Aldeb. | 35 15 1/2 |
| | Declin. ♄ B. | 22 42 1/2 |
| | | 22 43 |
| 9 13 1/2 | Repetita distantia | 35 15 1/2 |
| 10 5 1/2 | Inter ♄ & Aldeb. | 35 16 |
| 10 9 1/2 | Eadem distantia | 35 15 1/2 |
| 10 12 | | 35 15 1/2 |
| | | bona |
| | Viceversa | |
| 10 17 1/2 | Inter ♄ & cor ♄ | 45 8 |
| | Dexter humer. Orion. | 2 48 |
| 10 29 1/2 | Eadem distantia | 45 8 1/2 |
| 11 0 | Eadem | 45 8 |
| 11 12 1/2 | Altit. Meridiana ♄ | |
| | per Quadr. Chalyb. | 56 45 1/2 |
| | per Volub. | 56 45 1/2 |
| | Canis minor orient. | 9 35 |

Calculus pro loco ♄

| | | |
|-------------|---------------------|----------|
| H. 10 M. 12 | Dist. ♄ ab Aldeb. | 35 15 30 |
| | Declin. ♄ B. | 22 40 |
| | | 99 49 42 |
| 10 17 | Dist. ♄ a corde ♄ | 45 8 |
| | Ascensio R. | 99 48 26 |
| 10 15 | Ascensio Recta | |
| | limitata | 99 49 |
| Resp. | Longitudo 9 3 20 66 | |
| | Latitudo 0 32 56 M. | |

¹ In codice E 8 53 35 lineis inducta sed adscriptum est »retineatur«.

Collectio apparentiarum stellæ η
 quæ ex obseruationibus Acronychijs Mense Decembri habitæ sunt, quando
 proxime circa Meridianum fuit medioque motui \odot oppositus circa
 Perigæum, tum proprij tum Solaris Eccentrici: instituta
 vna collatione Calculi Copernici & Alphonsini
 in motibus η ad eadem tempora.

| Dies Dec. | H. M. | Ex obseruationibus | | Calculus Copernici | | Calculus Alphonsi | |
|--------------|-------|--------------------|---------|--------------------|----------|-------------------|---------|
| | | Longit. | Latit. | Longit. | Latit. | Longit. | Latit. |
| 4 | 10 3 | 10 44½ \odot | 0 33 M. | 10 43 \odot | 1 32½ M. | 13 43 \odot | 0 39 M. |
| 5 | 8 40 | 10 40½ | 0 32½ | 10 37½ | 1 32½ | 13 38 | 0 39 |
| 6 | 12 36 | 10 36 | 0 34 | 10 31½ | 1 32½ | 13 32½ | 0 39 |
| 9 | 12 52 | 10 21 | 0 33½ | 10 17½ | 1 32½ | 13 18½ | 0 39 |
| 10 | 12 10 | 10 16 26 | 0 33½ | 10 12½ | 1 32½ | 13 13½ | 0 39 |
| 16 | 11 22 | 9 47½ | 0 34½ | 9 42½ | 1 32 | 12 43½ | 0 37 |
| 21 | 12 15 | 9 23 | 0 33 | 9 15½ | 1 32 | 12 18½ | 0 37 |
| 24 | 9 45 | 9 8 50 | 0 32 55 | 8 59½ | 1 31 | 12 1½ | 0 37 |
| 25 | 10 15 | 9 3 20 | 0 32 56 | 8 54½ | 1 31 | 11 55 | 0 37 |

Instituta indagazione temporis ϕ apparentis motus η cum simplici \odot inter
 16 diem Decembris & 25 eiusdem, incidit ϕ illa in diem 21 Decembris H. 3 33'.
 Locus \odot simplicis 9 25 ζ , Locus apparens η 9 25 \odot proxime, Motus diurnus
 η 4' 57".

Fuit η in ϕ simplicis \odot iuxta obseruationes ac restitutionem motuum solarium
 Mense Decembri die 21 H. 3 M. 40 P. M., facta temporis ϕ inquisitione inter
 diem 16 & 21.

Locus \odot simplicis 9 25½ ζ

Locus η 9 25½ \odot

Calculus¹ pro η ϕ cum simplici \odot die 21 Decembris H. 12 M. 15.

Longitudo η ex obseruationibus viceversa limitatis 9 23 0 \odot . Hinc tempus
 oppof. cum simplici \odot die 21 Decembris H. 3 M. 30, η in 9° 24' 47" \odot .

Porro facta collatione inter diem 16 & diem 25 Decembris invenitur tempus
 ϕ Die 21 H. 3 M. 24, Longitudo η 9 24 30 \odot .

Limitatis hisce inter se ponitur tempus ϕ veri loci η respectu Zodiaci cum
 simplici \odot Anno 91 Mense Decembri Die 21 H. 3 M. 27. Locus η obseruatus in
 9 24 40 \odot .

Ponatur² itaque vera ϕ η cum simplici \odot Die 21 Decembris

| | |
|---|-------------------|
| H. 3 M. 35 in | 9° 25' 0" \odot |
| Subt. ³ pro Afc. R. postmodum limitata | 30 |
| Vt fit longitudo η | 9 24 30 |
| Subt. item pro arcu inclinat. latit. η | 50 |
| Verus locus η | 9 23 40 |

¹ Quæ sequuntur e codice V.

² Denuo e codice E.

³ Cetera postea alia manu adscripta.

OBSERVATIONES IOUIS.

DIE 5 JANUARIJ, MANE.

| | | |
|--|----------------------|--------|
| 6 31½ | Erat Altit. merid. ½ | |
| | per Chalyb. | 18 56½ |
| | Spica 11½ occid. | 26 54 |
| Erat autem ½ paululum transgreßus meridianum. | | |
| 6 57½ | Inter ½ & Spicam 11½ | 26 39½ |
| | Declinatio ½ | 15 9½ |
| | | 15 10 |
| | Spica 11½ occid. | 33 21 |
| Plura non potuerunt obferuari propter auroram. | | |

DIE 9 JANUARIJ.

Notandum quod die 9 Januarij mane Mæftlinus viderit Iouem totum occultatum a Marte. Vidi et ego cum irem H. 6 ad lectionem audiendam, vidi inquam copulatos, non plane tecum Iouem¹.

DIE 22 JANUARIJ, MANE.

| | | |
|----------|-----------------------------|--------|
| | Altit. merid. ½ per Chalyb. | 18 25½ |
| H. 6 35½ | Inter Spicam 11½ & ½ | 28 32½ |
| | Declinatio ½ | 15 40 |
| | | 15 41½ |
| 6 38½ | Inter Spicam 11½ & ½ | 28 33½ |
| | Declinatio ½ | 15 39½ |
| | | 15 40½ |
| | Spica 11½ occid. | 37 45½ |
| 6 43½ | Eadem distantia | 28 32½ |
| | Spica occid. | 38 54½ |

DIE 23 JANUARIJ, MANE.

| | | |
|--|-------------------|--------|
| | Altitudo ½ merid. | |
| | per Chalyb. | 18 24½ |
| | per Volub. | 18 24½ |

DIE 28 JANUARIJ, MANE.

Inter rariusculas nubes.

| H. M. | Inter ½ & Spicam 11½ | Declinatio ½ | Spica occid. |
|---|----------------------|--------------|--------------|
| 5 47½ | 29 2½ | | 32 21 |
| ½ hoc tempore erat circa merid., paululum transgreßus | | | |
| 5 51½ | | 15 48 15 49½ | 33 23 |
| 5 54½ | 29 3 | 15 48 | 34 9 |
| 5 57½ | 29 3½ | | 34 57 |

Viceversa

| Inter ½ & fin. genu Ophiuchi | | | |
|------------------------------|--------|--------|--------------|
| 6 1 | 25 53 | 15 48½ | 15 48½ 35 50 |
| 6 19 | 25 52½ | | |

DIE 3 FEBRUARIJ, MANE.

| H. M. | Inter ½ & Spicam 11½ | Decl. ½ | Altit. ½ per Volub. | Spica occid. |
|---------|----------------------|---------|---------------------|--------------|
| 6 9½ | 29 26 | 15 54 | 16 42 | 46 38 |
| vtroque | | | | |
| 6 13½ | 29 27 | | 16 33 | 47 45 |
| 6 18 | | 15 54 | | 48 50 |
| | | 15 53½ | | |

DIE 19 FEBRUARIJ, MANE.

| Altit. merid. ½ per Chalyb. | | | |
|-----------------------------|---------------------|---------------------|----------------|
| | | | 18 5½ |
| per Volub. | | | |
| | | | 18 6 |
| H. M. | Dist. ½ & Spicæ 11½ | Declinatio austrina | Lanx bor. occ. |
| 5 9* | 30 0½ | | 19 25 |
| 5 11½ | 29 59½ | 16 0½ | 20 1 |
| 5 12½ | 30 0 | 16 0 | 20 21 |

Viceversa distantia ½ a 12 Ophiuchi in femore dextro.

| | | | |
|-------|--------|-------|------|
| 5 15½ | 24 57½ | 16 0½ | 21 8 |
| | | 16 0½ | |

| | | | |
|-------|-------|--|------|
| 5 23½ | 24 56 | | 23 9 |
|-------|-------|--|------|

* H. 5 9' ½ erat tunc circiter 10° a meridie.

DIE 23 FEBRUARIJ, MANE.

Inter ½ & stellam in dextro femore Ophiuchi numero 12.

| H. M. | Dist. | Decl. auf. | Altit. per Volub. | Bor. lanx occid. |
|-------|--------|------------|-------------------|------------------|
| 5 31½ | 24 55½ | 16 1 | 16 20 | 1 48 |
| | | 16 0½ | | |
| 5 39½ | 24 55 | 16 0 | 16 5 | 5 15 |
| | | 16 1½ | | |
| 5 44 | 24 54 | 16 0 | | 6 32 |
| | | 16 0 | | |
| 5 47½ | 24 54 | 15 59½ | 15 40 | |

Propter nubes oborientes rariores & auroram vltcrius nihil obferuabatur.

¹ Manu Joannis Aurifabri confcripta.

DIE 26 FEBRUARIJ, MANE.

| H. M. | Diff. ¼ a Spica | Decl. ¼ auft. | Alt. ¼ | ¼ occid. |
|-------|--------------------|------------------|--------|----------|
| 5 18½ | 30 2 | 15 59½ | 12 50 | |
| | | 16 0 | | |
| 5 25½ | 30 1½ | 15 59½ | 14 35 | 30 5 |
| | | 16 0 | | |

Horologium corrigebatur hesternā
vespera H. 6.

DIE 4 APRILIS, VESPERI.

Hic erat ¼ retrogradus.

| H. M. | Inter ¼ & Spicam | Decl. ¼ auft. | Alt. per Volub. | Spica ⅓ orient. |
|------------------------------------|---------------------|------------------|--------------------|--------------------|
| 10 52 | 27 31 | 16 46½ | 14 37½ | 2 34 |
| | | 16 47 | | |
| 10 58½ | 27 30½ | 16 47½ | 15 4½ | 0 48 |
| 11 6½ | 27 32 | 16 47 | 15 35 | Spica occ. 1 9 |
| | incerta | 16 46½ | | |
| Viceversa a sinistro genu Ophiuchi | | | | |
| 11 16½ | 20 34½ | 16 46½ | 16 15 | 4 1 |
| | | 16 46½ | | |
| 11 22 | 20 35 | 16 46½ | 16 33½ | 5 31 |
| 11 28½ | 20 34½ | | | 6 57 |

DIE 14 APRILIS, VESPERI.

| H. M. | Diff. inter ¼ & Spicam | Decl. auſt. | Alt. ¼ | Spica occ. |
|--------|---------------------------|-------------|--------|---------------|
| 10 47 | 26 19½ | 14 53½ | 16 20 | 1 46 |
| | | 14 50½ | | |
| 10 50½ | 26 20½ | 14 51½ | | 2 39 |
| | | 14 52½ | | |
| 10 53½ | 26 21 | 14 50 | 16 42½ | 3 20 |
| | | 14 51½ | | |
| 16 57½ | 26 21 | 14 50½ | | |
| | | 14 51½ | | |

Viceversa a sinistro genu Ophiuchi

| | | | | |
|-------|--------|---------|-------|------|
| 11 2 | 21 35½ | 14 50½ | 17 6 | 5 24 |
| | | 14 51½ | | |
| 11 5½ | 21 35½ | 14 50½ | | 6 21 |
| | | 14 51½ | | |
| 11 10 | 21 36 | 14 51½* | 17 30 | 7 24 |

*vno ſaltem pinnacidio

Supputatio pro loco ¼ a Spica

die 14 Aprilis H. 11 M. 0.

| | | | |
|--------|-------|---------------|-----------|
| BA 75 | 9½ | Aſc. R. Spicæ | 195 56 52 |
| CA 81 | 2½ | Aſc. R. ¼ | 222 13 17 |
| BC 26 | 21 | Declin. M. | 14 50½ |
| BAC 26 | 16 25 | | |

Reſp. Longitudo 14 16 8 ⅓

Latitudo 1 23 35 B.

Videtur hic ¼ habuiſſe aliquam re-
fractionem propter aëris denſitatem,
licet et hanc Armillæ per ſemet ipſas
corrīgunt. Declinatio auſtrina minuto
maior, Longitudo . . . minor.

DIE 20 APRILIS, MANE.

Obſeruabatur ¼ circa oppoſitum

☉ in hunc modum.

| H. M. | Diff. ¼ a Spica ⅓ | Decl. ¼ | Alt. ¼ | Genu ſin. Oph. occ. |
|-----------|----------------------|---------|--------|------------------------|
| 2 35½ | | | | |
| corr. 21½ | 25 43 | 14 40½ | 14 50 | 8 27 |
| 2 44 | 25 42½ | 14 41 | 14 13 | 10 35 |
| 2 49½ | 25 42½ | 14 40½ | 13 47 | 12 7 |
| | | 14 41 | | |

Viceversa.

| | a 12 Ophiuchi | | | | Duode- cima occ. |
|-------|---------------|--------|-------|-------|---------------------|
| 2 59½ | 29 7½ | 14 40½ | 12 55 | 6 34½ | |
| 3 7 | 29 6 | 14 40 | 12 17 | 8 35 | |
| | | 14 40½ | | | |
| 3 14 | 29 7½ | 14 39½ | 11 40 | 10 21 | |
| 3 19½ | 29 7½ | 14 39 | 11 8 | 12 3 | |
| | | 14 39½ | | | |

Supputatio pro loco ¼

ex præcedentibus obſervationibus

H. 2 21½ Diſtancia ¼ a Spica 25 43

Declin. pro refract. limit. 14 42

Hinc a Spica Aſc. R. 221 35

Quibus reſpondet ex tabula veteri

Longitudo 13 38½ ⅓

Latitudo 1 20½ B

DIE 22 APRILIS, VESPERI.

Obſeruabatur ¼

in modum qui ſequitur.

Horologium circa 11^{mam} horam cor-
rigebatur.

| H. M. | Diff. ¼ a Spica ⅓ | Declin. ¼ | Alt. ¼ | Spica occid. |
|----------|----------------------|-------------------------------|--------|-----------------|
| 11 34½ | 25 21½ | 14 35 | 19 20 | 18 25 |
| | | 14 35½ | | |
| 11 41 | 25 21½ | | 19 24 | 20 9 |
| 11 46½ | 25 21 | 14 35 | 19 25 | 21 30 |
| | | 14 35½ | | |
| 12 2½ | | | | |
| corr. 7½ | | Alt. ¼ tranſeuntis per merid. | | |
| | | per Chalyb. | 19 30½ | |
| | | per Volub. | 19 30½ | 25 25 |
| | | Poſtea obſeruabatur viceversa | | |

| | a suprema in fronte M | | Merid. lanx occid. |
|--------|--------------------------|--------|-----------------------|
| 12 16½ | 14 11* | 14 35 | 19 25 |
| | | 14 35½ | 8 31 |

| | | |
|--------|--------|-------|
| 12 24½ | 14 11½ | 10 34 |
| 12 29 | 14 11½ | 12 0 |

* Altitudo supremæ frontis M erat circiter 13° 8'.

Ex his proximis obseruationibus invenitur per supputationem triangularem locus 2 ex datis, quæ sequuntur. H. 11 48' Dist. 2 a Spica M 25 21

| | |
|------------------|-----------|
| Declin. M. 2 | 14 34 35 |
| Declin. Spicæ M. | 8 57 45 |
| Afc. R. 2 | 221 13 10 |

| | |
|--|----------|
| 12 18 Dist. 2 a stella sup. trium in fronte M | 14 11 |
| Declin. 2 | 14 34½ |
| Decl. M. sup. in fr. M | 18 35½ |
| Afc. R. 2 | 221 14 6 |

| | |
|------------------------------|---------|
| H. 11 52' Afc. R. 2 limitata | 221 13½ |
| Declin. 2 M. | 14 34½ |

| | |
|--------------------------|------------|
| Resp. e tabula f Longit. | 13 15 51 M |
| veteri f Latit. | 1 21 25 B. |

Motus diurnus 2 iuxta obseruationes paulo maior est M. 7 47'', idque retrogradiendo.

DIE 23 APRILIS, VESPERI.

| H. M. | Dist. 2 a Spica M | Decl. 2 | Altit. 2 | Spica occ. |
|--------|----------------------|---------|----------|---------------|
| 10 22½ | 25 12 | 14 32½ | 16 58 | 1 51 |

| | | | | |
|-------|-------|--------|-------|------|
| 10 28 | 25 12 | 14 32½ | 17 11 | 3 11 |
| | | 14 31½ | | |

| | | | |
|-----------------|-----------|-------|------|
| 10 33 40 25 11½ | 14 32½ | 17 32 | 4 40 |
| | vtroque f | | |

| | | | |
|-------|-------|--------|-------|
| 11 33 | 25 13 | 14 32½ | 19 13 |
| | | 14 32½ | |

| | | |
|-----------------|--------|------|
| 11 36 30 25 13½ | 14 32½ | 20 3 |
| | 14 31½ | |

| | | | |
|-------|--------|--------|------|
| 11 40 | 25 12½ | 14 33 | 21 3 |
| | | 14 32½ | |

| | | | |
|-------------|-------|--------|-------|
| 11 46 f | 25 13 | 14 33½ | 22 31 |
| corr. 52' f | | 14 32½ | |

| | | |
|-----------------------|---|------------------|
| 11 55 30 | } Pertransibat 2 merid. habens altitudinem per Chalyb. 19 33 per Volub. 19 32 | |
| 12 2½ horol. correcto | | |
| | | Spica occ. 24 58 |

¹ Numerus 39 linea inductus.

Supputatio pro loco 2
e proximis præcedentibus obseruationibus, quando videlicet planeta hic circa meridianum versabatur & minus nubibus intricatus erat.

| | |
|-------------------------------|---------|
| H. 11 52' Distantia 2 a Spica | 25 13 |
| Declin. 2 M. | 14 32½ |
| Declin. Spicæ | 8 57½ |
| Resp. 2 Ascens. R. | 221 5½ |
| Resp. e tabula Longitudo | 13 7½ M |
| Latitudo | 1 22 B. |

| | Copernico | Alphonfinis |
|-------------|-----------|-------------|
| Long. 13 37 | 11 22½ B. | |
| Lat. 1 59 | 1 50 B. | |

DIE 24 APRILIS.

| H. M. | Dist. 2 & Spicæ | Decl. 2 | Altit. 2 | Spica occ. |
|-----------|--------------------|---------|----------|------------|
| 11 22 | 25 5½ | 14 30½ | 19 12 | 16 9 |
| | | 14 30½ | | |
| 11 29 | 25 5½ | 14 31 | | 18 2 |
| | | 14 30½ | | |
| 11 35 | 25 5 | | | 19 33 |
| 11 42½ | 25 4½ | 14 30½ | | 21 39½ |
| 11 41 | | 14 30½ | | |
| 11 56½ | Altit. 2 meridiana | | | |
| corr. 58½ | per Chalyb. | | 19 35½ | 25 5½ |
| | per Volub. | | 19 34½ | |

Erat aer intranquillus, vnde instrumentum vacillabat, eratque impedimento. Nubilofum.

DIE 26 APRILIS, VESPERI.

Inter nubeculas raras & contiguas.

| H. M. | Dist. 2 & Spicæ | Declin. | Altit. 2 | Cor. 2 occ. |
|-----------|--------------------|---------|----------|-----------------|
| 9 13 | 24 48½ | 14 24½ | 14 30 | 41 8 |
| | | 14 25 | | |
| 9 18½ | 24 49½ | 14 25 | 14 40 | Spica occ. 6 38 |
| corr. 44½ | | 14 25½ | | |
| 9 21 | 24 49½ | | 15 5 | |

Supputatio pro locis 2 ad posteriores obseruationes.

| | | | | |
|----------------------------------|--|-----------|--|--|
| DIE 24 Aprilis H. 11 M. 41 P. M. | | | | |
| Distantia 2 a Spica M | | 25 4½ | | |
| Declin. merid. | | 14 30½ | | |
| Ascensio R. 2 | | 220 56 26 | | |
| Resp. nostra Longitudo | | 12 58 M | | |
| Latitudo | | 1 20½ B. | | |

Die 26 Aprilis H. 9 M. 44½ P. M.

| | |
|-------------------------|-----------|
| Distantia 2 a Spica 11½ | 24 49½ |
| Declin. mer. | 14 26 |
| Afcenſio R. 2 | 220 41½ |
| Reſp. noſtra Longitudo | 12 44 11½ |
| Latitudo | 1 20½ B. |

DIE 29 APRILIS, VESPERI.

Obſeruabatur 2 cum eſet orientalis circa Meridianum.

| H. M. | Diſt. 2 & Spica 11½ | Decl. | Alt. | Spica occ. |
|-----------|---------------------|--------|------|------------|
| 11 4½ | 24 28½ | 14 19 | | 19 34 |
| | | 14 19½ | | |
| 11 10½ | 24 29½ | 14 19 | | 20 58 |
| | | 14 18½ | | |
| 11 14 | 24 28½ | 14 19½ | | 21 54 |
| | | 14 19½ | | |
| 11 23½ | Alt. 2 merid. | | | |
| corr. 36½ | per Volub. 19 46 | | | 24 18 |
| | per Chalyb. 19 47 | | | |
| 11 30½ | 24 28½ | 14 19½ | | 26 12 |
| corr. 40½ | | 14 18 | | |

Viceverſa.

| | a ſuprema trium in fronte 11 | Luc. Vult. or. | Spica occ. |
|-------------------------|------------------------------|----------------|------------|
| 11 42½ | 15 4½ | 65 18 | 29 7 |
| corr. 55½ | | | |
| 11 51½ | 15 4½ | | |
| | 14 19 | | |
| | 14 18½ | | |
| 11 54½ | 15 5½ | 64 25 | |
| 11 58½ | 15 4½ | 63 15 | |
| | 14 18½ | | |
| 12 2½ | 15 4½ | 62 20 | |
| (erat hic impedimento. | | | |

Supputatio pro loco 2 ex proxime præcedentibus obſervationibus.

| | |
|---|---------------|
| Die 29 H. 11 M. 40 | |
| Diſt. 2 a Spica | 24 28½ |
| Declin. 2 M. | 14 19 |
| H. 11 M. 55½ Diſt. a ſupr. trium in fronte 11 | 15 4½ |
| H. 11 48½ Afc. R. 2 limitata | 220 21 |
| Reſp. e tabula Longitudo | 12 22 28 11½ |
| Latitudo | 1 20 50 B. |
| Locus 2 e calculo Copernici | Alphonſinorum |
| Longit. 12 47 11 | 10 36 11 |
| Latit. 1 58 B. | 1 49 B. |

DIE 30 APRILIS.

| H. M. | Diſt. inter 2 & Spicam | Decl. 2 | Spica occ. |
|--------|------------------------|---------|------------|
| 10 37½ | 24 22 | 14 17 | 16 20 |
| | | 14 16½ | |
| 10 40½ | 24 21½ | 14 17 | 17 10 |
| | | 14 17½ | |
| 10 42½ | 24 21½ | 14 18½ | 17 42 |
| | | 14 18 | |
| 10 46 | 24 21½ | 14 17½ | 18 34 |
| | | 14 17 | |

Viceverſa, Diſt. 2 a Boreali in ſiniſtra manu Ophiuchi.

| | | | |
|-------|-------------------------|--------|-------|
| 11 1½ | 21 17½ | 14 17½ | 22 29 |
| | | 14 17 | |
| 11 7½ | In mer. per Chal. 19 49 | | 24 10 |
| | per Vol. 19 48½ | | |
| 11 14 | 21 17½ | 14 16½ | 25 45 |
| | | 14 17½ | |
| 11 17 | 21 17 | | 26 35 |

Investigatio loci 2 per ſupputatorem Triang. ex præcedentibus obſervationibus ſelectis, die 30 Aprilis.

| | |
|--|----------|
| H. 11 M. 7½ Diſt. 2 a Spica 11½ | 24 21½ |
| Declin. M. | 14 16½ |
| 11 30½ Diſt. 2 a Boreali illa in manu Ophiuchi | 21 17 15 |
| Declin. M. | 14 16 45 |

| | | | |
|---------------------------------|----------|---------|-----------|
| BA | 75 43½ | BA | 75 43½ |
| CA | 81 2½ | DA | 87 25½ |
| BC | 24 21½ | DB | 21 17½ |
| CAB | 24 17½ | BAD | 18 0 47 |
| Afc. R. | 220 14 7 | Afc. R. | 220 14 33 |
| H. 11 M. 16 Afcenſ. R. limitata | | | |
| | 220 14½ | | |

Reſp. e tabula Longitudo 12 15 53 11½
Latitudo 1 21 B.

DIE 5 MAIJ, VESPERI.

| H. M. | Diſt. 2 a Spica 11½ | Decl. 2 M. | Alt. 2 per Volub. | Spica occid. |
|-------|---------------------|------------|-------------------|--------------|
| 9 58 | 23 44 | 14 5½ | 19 11½ | 10 54 |
| | | 14 6½ | | |
| 10 1½ | 23 44½ | 14 6½ | 19 19 | 12 4 |
| | | vtroque | | |
| 10 5 | 23 44 | | 19 25 | 12 50 |
| 10 7½ | 23 44½ | 14 6 | | 13 25 |
| | | 14 6½ | | |

Viceversa a sinistro genu Ophiuchi
 10 12 23 56½ 19 38 14 44
 10 15½ 23 57½ 14 5½ 15 37
 14 6½
 10 18½ 23 57½ 19 46 16 27
 10 45 Tranſibat ☿
 per Meridianum habens alt.
 per Chal. 20 0½
 per Volub. 20 0 23 26

DIE 12 JUNIJ, VESPERI.

Obſeruabatur ☿. Horologium cor-
 rectum eſt, quod 2 M. tardius iuſto,
 poſtquam ad ☉ rectificatum fuit, mo-
 uebatur.

Tempus Diſt. ☿ a Decl. Altit. Vultur
 in horol. Spica ♄ ☿
 10 29½ 20 26* 13 11½ 15 42 44 32
 10 33½ } vno pin.
 13 12
 10 40 20 25 13 12 41 56
 13 12½
 10 50½ 14 10 38 56
 * Cum obſeruaretur diſtantia ☿ a
 Spica ♄, erat ea in altitudine 12 cir-
 citer grad.
 10 30 Diſt. ☿ a Spica ♄ 20 26
 Adde 2' pro refract. 20 28
 Declin., add. 2½ pro refr. 13 14½
 Asc. R. 216 21½
 Reſp. Longitudo 8 21½ ♄
 Latitudo 0 59½ B.

Tabula continens loca ☿ ex ſelectis ſingularum dierum quibusvis obſeruati-
 onibus binis ſupputata, cum collatione calculi Alphonſinorum ac Copernici,
 ad tempora obſeruationi bus congruentia. Item ſimplicem ☉ motum: vt ex
 his momentum veræ ☿ ☿ cum ☉ cognoscatur.

| Dies Aprilis | H. M. | Simplex ☉ | Calculus noſter | | Cal. Copernicæus | | Calc. Alphonſi. | |
|-----------------|-------|--------------|-----------------|----------|------------------|--------|-----------------|--------|
| | | | Longit. | Latit. | Longit. | Latit. | Longit. | Latit. |
| 14 | 11 0 | 2 19 24 | 14 16½ ♄ | 1 23½ B. | 14 40½ ♄ | 1 57B. | 12 30 ♄ | 1 51B. |
| 20 | 2 22 | 7 23 24 | 13 38½ | 1 20½ | 14 2 | 1 58 | 11 53 | 1 51 |
| 22 | 11 52 | 10 14 40 | 13 15½ | 1 21½ | 13 40½ | 1 58 | 11 30 | 1 50 |
| 23 | 11 52 | 11 13 48 | 13 7½ | 1 22 | 13 33 | 1 59 | 11 22½ | 1 50 |
| 24 | 11 41 | 12 12 29 | 12 58 | 1 20½ | 13 25 | 1 59 | 11 16 | 1 50 |
| 26 | 9 44 | 14 5 57 | 12 44 | 1 20½ | 13 10 | 1 58 | 11 1 | 1 50 |
| 29 | 11 48 | 17 8 27 | 12 22½ | 1 20½ | 12 47 | 1 58 | 10 36 | 1 49 |
| 30 | 11 16 | | 12 15 53 | 1 21 | 12 39½ | 1 58 | 10 28½ | 1 49 |
| Junij 12 | 10 30 | | 8 21½ | 0 59½ | 8 41 | 1 45 | 6 35 | 1 43 |

OBSERVATIONES MARTIS.

DIE 5 JANUARIJ.

Mane obſeruabatur ☿ vt ſequitur.

6 49½ Diſt. inter ☿ &
 Spicam ♄ 24 53
 6 52½ Eadem 24 51
 Declin. ☿ vtroque pinn. 14 35½
 Spica ♄ occid. 32 15
 6 54½ Eadem 24 54
 Spica occid. 32 45

DIE 22 JANUARIJ, MANE.

Altitudo merid. ☿
 per Chalyb. 16 43½
 per Volub. 16 42½
 Inter ☿¹
 & Spicam
 H. M. Declin. ☿ Spica
 6 47 34 32½ 17 23 17 24½ 39 58
 6 50½ 34 32 17 24½ 17 25 40 50
 6 54½ 34 32½ 41 47

¹ Poſtea adſcriptum eſt: Forte æquatoria.

DIE 23 JANUARIJ.

| | |
|-----------------|--------|
| ♂ Altit. Merid. | |
| per Chalyb. | 16 34½ |
| per Volub. | 16 35 |

DIE 28 JANUARIJ.

| | |
|------------------------|--------|
| 6 7½ Dist. ♂ a Spica ♀ | 37 51 |
| Declin. ♂ | 18 16½ |
| | 18 15½ |
| Spica ♀ occid. | 37 34 |
| Altit. ♂ per Volub. | 15 52 |
| 6 23½ Inter ♂ & | |
| fin. genu Ophiuchi | 37 49½ |
| 6 27 Eadem distantia | 37 50 |

DIE 3 FEBRUARIJ, MANE.

| H. M. | Dist. ♂ a fin. genu Ophiu. | Decl. ♂ | Alt. | Spica occid. |
|-------|----------------------------|--------------|------|--------------|
| 5 44 | 14 31½ | 19 3½ | | 40 30½ |
| | | 19 4½ | | |
| 5 46½ | Alt. mer. | per Chal. 15 | 3½ | |
| | | per Vol. 15 | 3½ | |
| 5 51½ | 14 30½ | 19 3 | | 42 19 |
| | | 19 2½ | | |
| 5 55½ | 14 31½ | | | 43 20 |

Viceversa

| H. M. | Inter ♂ a Spicam | Alt. | Spica occid. |
|-------|------------------|-------|--------------|
| 5 59½ | 41 5½ | 19 3 | 44 15 |
| | | 19 3½ | |
| 6 1½ | 41 5½ | | 44 51 |
| 6 4½ | 41 6 | | 45 26 |

N.B. ♂ erat vicinus supremæ trium in fronte ♀, fed paulo orientior, circa eundem ferme locum, quo illum olim obseruauit Copernicus¹.

DIE 19 FEBRUARIJ, MANE.

| H. M. | Inter ♂ & auf. lanc. ♀ | Decl. ♂ M. | Spica occid. |
|-------|------------------------|------------|--------------|
| 5 27 | 28 11 | 20 50½ | 51 57 |
| 5 28½ | 28 8½ * | | 52 28 |
| 5 30½ | | | 52 47 |

* Non poterat melius obseruari propter auroram.

¹ Cfr. Copernici De revolutionibus lib. V cap. 19.

² Sic in codice E. Debet esse "auf. lancem ♀".

| | |
|------------------------------|--------|
| 5 17½ ♂ tranſibat | |
| per Meridianum habens altit. | |
| per Volub. | 13 16½ |
| per Chalyb. | 13 16½ |

Lanx borealis erat tunc
in Æq. occid. 21 42

N. B. Cum ♂ primo obseruaretur, erat remotus a Meridiano 2 fere gradibus ad occafum. Hæc prima ♂ obseruatio concernit horam 5 M. 27 hic ſupra annotatam. Tranſitus autem per meridianum omnium primo obseruabatur, ideoque illi aſcriptum tempus minus eſt.

| Inter ♂ & eandem Ophiuchi ² | Spica occ. |
|--|------------|
| 5 31½ | 28 11½ |
| 20 50 | 53 8 |

Viceversa a Vulture

| | | | | |
|-------|--------|--------|--------|-------|
| 5 35 | 54 12 | | | 53 58 |
| 5 36½ | 54 11½ | | | 54 25 |
| 5 38½ | 54 12 | 20 50½ | 20 50½ | 54 55 |

DIE 29 APRILIS.

Poſt median noctem.

| H. M. | Dist. ♂ & cord. ♀ | Decl. ♂ M. | Alt. | Vultur or. |
|-------|-------------------|------------|------|------------|
| 1 29½ | 28 16 | 24 50 | 7 36 | 40 9 |
| | | 24 48½ | | |
| 1 33½ | 28 15 | 24 49½ * | 7 43 | 39 0 |

* vno pinn. propter impedimentum trabis.

| | | | | |
|-------|--------|--------|------|------|
| 1 37 | 28 17½ | 24 50 | 7 53 | 38 9 |
| 1 41½ | 28 17½ | 24 50½ | 8 0 | 37 7 |

corr. 56½

Viceversa

| Diff. ♂ a boreal lance ♀ | | | | |
|--------------------------|--------|--------|------|-------|
| (1 47½ | 49 22 | 24 49½ | 8 15 | 35 35 |
| (2 3 corr. | | 24 50 | | |
| 1 50½ | 49 20½ | 24 50 | 8 20 | 34 45 |
| | | 24 50½ | | |
| 1 54½ | 49 22 | | 8 29 | 33 44 |
| 1 57½ | 49 22½ | 24 50 | 8 34 | 32 54 |

vtroque

Supputatio pro loco ♂ ad diem
29 Aprilis ex obseruationibus ad eun-
dem diem supra notatis.

H. 13 56½ Dift. ♂ a corde III 28 17½
Declin. M. obseruata 24 50
Declin. pro refr. emend. 24 55
(Altit. ♂ circiter 8 grad.).
Ascensio R. ♂ 272 29½

14 3 Dift. obseruata
a bor. lance 49 22½
Distantia vera 49 25

Afc. R. ♂ 272 28 15
14 0 Afc. R. emendata 272 28 45
Resp. e tabula Longitudo 2 15½
Latitudo 1 24½ M.

DIE 13 MAIJ, MANE.

N.B. ♂ ad ♀ ⊙ appropinquante circa
initium retrogradationis suæ, hæc ob-
seruationes inchoatæ sunt.

| H. M. | Dift. ♂ a corde III | Decl. M. | Altit. | Vultur or. |
|-------------|------------------------|----------|--------|---------------|
| 12 53½ | 28 19½ | 25 36½ | 7 45 | 33 3 |
| | | 25 37½ | | |
| 1 0½ | 28 20½ | | 7 56 | 31 19 |
| 1 5½ | 28 20½ | 25 37½ | 8 1 | 30 5 |
| 1 34½ corr. | | 25 38 | | |

Viceversa ab orientali in capite x^r

1 16 8 59 8 15 27 25
1 45 corr.

1 22 8 58½ 25 37½ 8 20
25 38½

1 32 8 58½ 23 7
2 14 corr. Altitudo ♂ meridiana
per Chalyb. 8 27½ 20 8
per Volub. 8 28

Investigatio loci ♂ ex proximis præce-
dentibus obseruationibus, quando
scilicet circa meridianum erat
in maxima sua altitudine
refractionibus limi-
tando euitatis.

Die 12, H. 13 34½ Dift. ♂
a corde III 28 20½
Declin. ex alt. merid. 25 38
Declin. pro refr. limit. 25 45
Ascensio R. ♂ 272 39 56

Eodem die H. 13 45 viceversa distantia
ab orientali in capite x^r obseruata

8 59
Limitata 9 0
Ascensio R. ♂ 272 40 4
H. 13 40' Afc. R. limitata 272 40
Resp. e tabula Longit. 2 24 27½
Latit. 2 15 M.

DIE 14 MAIJ, MANE.

Aër vaporosus & minus defæcatus
exstitit, idque circa meridiem præ-
cipue.

| H. M. | Dift. ♂ a corde III | Declin. M. | Altit. | Vultur. or. |
|-------|------------------------|---------------|--------|----------------|
| 12 58 | 28 16½ | 25 41½ | 7 52 | 31 6 |
| | | 25 40½ | | |
| 1 9½ | 28 15 | 25 42 | 8 2 | 28 19 |
| | | 28 16½ vtroq. | | |
| 1 14½ | 28 15½ | | 8 13 | 26 56 |

Viceversa ab orientali in capite x^r

1 21 9 4½ 8 19 25 11
1 50 corr.
1 25½ 9 4½ 25 42 24 5
25 42½
1 29½ 9 4½ 23 0½
1 40 ♂ per merid. 20 16½
1 2 9½ corr. per Chal. 8 23 25
per Vol. 8 23 20

Calculus triangularis pro loco ♂ ex
proximis antecedentibus obseruatio-
nibus, iuxta modum supra notatum.

H. 13 43' distabat ♂ a corde III 28 16 limit.
Declin. M. obseruata 25 42
limit. 25 49

H. 13 50 Dift. ♂ ab orientali
in capite x^r obseruata 9 4½
limitata 9 5½
CA 64 11 CA 64 11
BA 64 35 DA 68 24½
BC 28 16 DC 9 5½
BAC 31 25½ DAC 8 47½
241 10 281 23
Afc. R. 272 35 15 Afc. R. 272 35 20
H. 13 45' Afc. R. ♂ limit. 272 35½
Resp. e tabula Longit. 2 20½
Latit. 2 18½ M.

DIE 19 MAIJ.

Post mediam noctem obseruabatur
♂ circa meridianum.

| H. M. | Dist. ♂ a corde M | Decl. M. | Altit. | Vultur or. |
|----------------------------|----------------------|-------------|--------|---------------|
| 12 47½ | 27 29½ | 26 6½ | 7 51 | 26 9 |
| | | 26 6 | | |
| 12 56½ | 27 30 | | | 23 44 |
| 1 4½ | 27 29½ | | | |
| ♂ 8 Tranſibat ♂ meridianum | | | | |
| ♂ 1 42½ corr. habens alt. | | | | |
| per Chalyb. 8 1½ 21 2½ | | | | |
| per Volub. 8 1½ | | | | |

Denſi vapores circa horizontem
fuerunt & viſualiter in altitudinem circa
10 grad. eleuati adeoque groſſi, vt
♂ ab orientali parte obſeruari non
potuerit.

Calculus loci ♂ ex
obſervationibus præcedentibus.

| | |
|------------------------------|----------|
| Diſtantiæ ♂ a corde M limit. | 27 29½ |
| Declinatio viſa | 26 4 |
| Declin. emend. pro refract. | 26 11 |
| Reſp. Aſcenſio R. ♂ | 271 45½ |
| Hinc reſp. Longitudo | 1 34½ 7 |
| Latitudo | 2 40½ M. |

DIE 21 MAIJ.

Post mediam noctem obseruabatur
♂ circa meridianum.

| Tempus in horol. | Dist. ♂ a corde M | Decl. M. | Altit. | Luc. Vult. or. |
|---------------------|----------------------|-------------|--------|-------------------|
| 12 49½ | 27 4½ | 26 15 | 7 21 | 32 26 |

vtroque

| | | | | |
|--------|-------|--|------|-------|
| 12 58½ | 27 5½ | | 7 30 | 30 20 |
|--------|-------|--|------|-------|

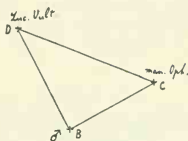
Amplius a corde M ♂ obſeruari
non poterat propter craſſitiam va-
porum circa horizontem. Diſtantijs
his a corde M non eſt fidendum, tum
propter vapores & nubes circa hori-
zontem tum (æ vicinitatem.

Diſt. a bor.
manus fin. Ophiuchi

| | | | |
|-----------------------------------|-------|------|-------|
| 13 10½ | 39 38 | 7 43 | 27 5 |
| 13 16½ | 39 39 | | 25 40 |
| 13 17 corr. | | | |
| 13 20½ | 39 39 | | 24 32 |
| 13 32½ Altit. ♂ merid. | | | |
| 13 33½ corr. per Chal. 7 50 21 26 | | | |
| per Vol. 7 50½ | | | |

Diſt. Vult. a ♂

| | | | | | |
|-------------|--------|-------|------|--|-------|
| 13 42 | 39 55½ | | | | 18 58 |
| 13 44 corr. | | | | | |
| 13 47½ | 39 56½ | | | | 17 28 |
| 13 53½ | 39 55½ | 26 5½ | 7 41 | | 16 2 |
| | | 26 6 | | | |



N.B. Hunc fere ſitum ♂ circa meri-
dianum exiſtens ad poſteriores a qui-
bus obſeruatus fuit ſtellas obtinuit, ut
cognoſceretur quantum diſtantiæ a
ſingulis pro Refractionibus addendum
fuerit.

Locus ♂ e proximis antecedentibus
obſervationibus ſupputatus.

| | | |
|--------------------|---|--------|
| Die 21 H. 13 17' | Diſt. ♂ a ſiniſtræ manus Ophiuchi Bor. | 39 38½ |
| Pro refr. limitata | | 39 41½ |
| Declin. obſeruata | | 26 15½ |
| limitata | | 26 23 |

H. 13 44' Diſt. a Vult.

| | |
|-----------|-------|
| obſeruata | 39 56 |
| limitata | 40 1 |

H. 13 34' Aſc. R. ♂ limitata 271 24 40

| | |
|-----------------|-----------|
| Reſp. Longitudo | 1 15 48 7 |
| Latitudo | 2 52½ M. |

DIE 24 MAIJ.

Post mediam noctem obseruabatur ♂
circa meridianum.

| Tempus in horol. | Dist. ♂ a corde M | Decl. ♂ M. | Altit. | Vultur. or. |
|---------------------|----------------------|---------------|--------|----------------|
| 13 2 | 26 34 | 26 27½ | 7 30 | 31 10 |
| | | 26 27 | | |

| | | | | |
|--------|--------|--|------|-------|
| 13 12½ | 26 34½ | | | 28 43 |
| 13 18½ | 26 33½ | | 7 32 | 27 15 |
| 13 35½ | 26 33½ | | | 23 8 |

13 13½ corr.

13 40½ Pertranſiuit ♂ Merid.

| | | | | |
|------------------------|-------------|--|--|--|
| 13 18 corr. | habens alt. | | | |
| per Chalyb. 7 37½ 22 3 | | | | |
| per Volub. 7 37½ | | | | |

Ab orientali parte non poterat
obſeruari propter nubes.

Calculus pro loco ♂ e proximis
antecedentibus obseruationibus.

| | |
|--------------------------|-----------|
| Die 24 H. 13 13' Dift. ♂ | |
| a corde III obseruata | 26 33½ |
| Declin. obseruata | 26 28 |
| limitata | 26 36 |
| Hinc Ascensio Recta | 270 45 15 |
| Resp. Longitudo 0 40½ Z | |
| Latitudo 3 5 M. | |

DIE 29 MAIJ.

Post mediam noctem obseruabatur ♂
circa meridianum.

| Tempus in horol. | Dift. ♂ a corde III | Declin. | Altit. per Vol. | Luc. Vult. or. |
|---------------------------|------------------------|---------|--------------------|-------------------|
| 12 27½ | 25 21 | 26 47½ | 6 53 | 33 32 |
| | | 26 48 | | |
| 12 37½ | 25 23 | | 7 3 | 31 9 |
| 12 44½ | 25 21½ | | | 29 20 |
| 12 49½ | 25 21½ | 26 47½ | 7 14 | 28 0 |
| 12 37½ corr. | | | | |
| A media in fronte III* | | | | |
| 13 0 0 32 33½ | | | | 25 26 |
| 12 48 corr. | | | | |
| 13 9 | Altit. ♂ merid. | | | 23 23 |
| 12 56 corr. | per Chal. | 7 17½ | | |
| | per Vol. | 7 17½ | | |
| 13 21½ | 32 33½ | | | 20 6 |
| 13 26½ | 32 33½ | 26 47½ | | 18 49 |
| | | 26 48 | | |

*Hæc in fronte III cum obseruaretur
fuit fere in consimili altitudine cum
♂, paulo tamen eleuatiore.

Factæ sunt hæc obseruationes inter
rariusculas nubes, ☾ simul splendente.

Sequitur calculus pro loco ♂.

| | |
|-------------------------|-----------------------|
| H. 12 37½ Ascensio R. ♂ | 269 25 51 |
| 12 47½ | 269 23 55 |
| 12 42 Asc. R. limitata | 269 25 |
| Declin. M. | 26 56½ |
| Resp. Longitudo | 29 30½ x ^r |
| Latitudo | 3 25½ M. |

DIE 6 JUNIJ.

Obseruabatur ♂ circa Meridianum.

| Tempus in horol. | Dift. ♂ a corde III | Declin. | Altit. per Vol. | Luc. Vult. or. |
|---|------------------------|------------------|--------------------|-------------------|
| 12 7½ | 23 5 | | 6 50 | 27 29 |
| 12 2 corr. | | | | |
| 12 13 ♂ in Mer. per Chal. | 6 50½ | | | |
| 12 8 corr. | per Vol. | 6 50½ | | |
| 12 20½ | 23 5½ | 27 16½ | 6 50 | 23 50 |
| | | 27 16½ | | |
| 12 33½ | 23 4½ | dub. propt. nub. | 20 30 | |
| Viceversa ab humero sinistro x ^r quæ stella est 6 numero. | | | | |
| 12 42 | 9 28½ | | | 18 30 |
| 12 38 corr. | | | | |
| 12 48 | 9 28 | | | 16 54 |
| 12 54½ | 9 27½ | 27 15½ | 6 43½ ¹ | 15 19 |
| | | 27 16 | | |

Calculus pro loco ♂.

| | |
|--------------------------|----------------------|
| H. 12 2' Ascensio R. | 266 53 30 |
| 12 38 Ascensio R. | 266 55 0 |
| 12 20 Asc. R. ♂ limitata | 266 54½ |
| Declin. M. | 27 25 |
| Resp. Longitudo | 27 15 x ^r |
| Latitudo | 3 55½ M. |

N.B. Si quicquam obstaculi refractiones in distantias ingerere poterint, quominus in minutis calculus sibi inuicem vtrinque collatus respondere nequiverit: hoc quicquid fuerat Asc. Recta ad vnum tempus limitando sublatum esse arbitror. Nam quoad refractiones distantijs insinuatæ attinet, stellæ a quibus ♂ obseruatus fuit altitudines tum inter se tum cum ♂ easdem fere obtinebant.

DIE 10 JUNIJ.

Ante mediam noctem obseruabatur
♂ circa Meridianum, correcto horologio ad lucidam Vulturis.

| Tempus in horol. | Dift. a corde III | Declin. | Altit. per Vol. | Luc. Vult. tur. or. |
|---------------------|----------------------|---------|--------------------|------------------------|
| 11 28 | 21 52½ | 27 27½ | 6 35 | 31 45 |
| | | 27 27 | | |
| 11 36 | 21 52½ | | 6 38 | 29 41 |
| 11 37½ corr. | | | | |

¹ Falsa, debet esse 6° 23'.

| | |
|--|--|
| (11 40 $\frac{1}{2}$ 21 52 $\frac{1}{2}$ | 6 38 $\frac{1}{2}$ 28 35 $\frac{1}{2}$ |
| (11 41 $\frac{1}{2}$ corr. | |
| (11 45 $\frac{1}{2}$ Altit. ♂ merid. | |
| (11 47 corr. per Vol. | 6 39 27 16 $\frac{1}{2}$ |
| per Chal. | 6 38 $\frac{1}{2}$ |
| 27 27 $\frac{3}{4}$ | |
| Diff. ab or. | 27 27 $\frac{3}{4}$ |
| in cap. x $\frac{1}{2}$ | |
| 12 0 15 33 | 6 35 23 38 |
| 12 4 $\frac{1}{2}$ 15 35 | 6 34 22 50 |
| 12 5 $\frac{1}{2}$ 15 34 | 6 33 22 8 |
| 12 9 $\frac{1}{2}$ 15 34 | 6 30 21 13 |

Erat mediocriter ferenum hac nocte, sed stella fixa in capite x $\frac{1}{2}$ difficulter conspiciebatur, propter crepusculi perpetui præsentiam.

Calculus pro loco ♂ ex proxime præcedentibus obseruationibus.

| | |
|------------------------|-------------------------|
| H. 11 40' Ascensio R. | 265 32 0 |
| 12 0 | 265 33 20 |
| 11 50 Afc. R. limitata | 265 32 $\frac{1}{2}$ |
| Declinatio ♂ M. | 27 36 |
| Resp. Longitudo | 26 2 36 x $\frac{1}{2}$ |
| Latitudo | 4 8 20 M. |

DIE 11 JUNIJ.

Ante mediam noctem obseruabatur ♂ circa Meridianum, correcto horologio ad Lucidam Vulturis.

| Tempus in horol. | Diff. ♂ a corde III | Declin. | Altit. | Luc. Vultur. or. |
|--------------------------------|------------------------------|---------------------|---------------------|---------------------|
| 11 7 $\frac{1}{2}$ | | 27 29 | 6 19 | 36 0 |
| | | 27 28 $\frac{1}{2}$ | | |
| 11 12 $\frac{1}{2}$ | 21 32 | | 6 24 | 34 48 |
| 11 15 $\frac{1}{2}$ | 21 33 $\frac{1}{2}$ | | 6 26 | 34 4 |
| 11 18 $\frac{1}{2}$ | 21 33 $\frac{1}{2}$ | | 6 30 | 33 16 $\frac{1}{2}$ |
| 11 22 $\frac{1}{2}$ | 21 34 | 27 30 | 6 34 | 32 13 |
| | | 27 29 $\frac{1}{2}$ | | |
| 11 26 | 21 34 | | 31 21 $\frac{1}{2}$ | |
| Viceversa ab inferiori cornu Z | | | | |
| 11 31 $\frac{1}{2}$ | 33 42 $\frac{1}{2}$ | | 6 35 $\frac{1}{2}$ | 29 55 $\frac{1}{2}$ |
| 11 37 | 33 44 $\frac{1}{2}$ | | | 28 43 |
| 11 41 $\frac{1}{2}$ ♂ in mer. | per Chal. 6 35 $\frac{1}{2}$ | | | 27 41 |
| | per Vol. 6 36 | | | |
| | 27 29 $\frac{1}{2}$ | | | |
| | 27 30 | | | |
| 11 52 $\frac{1}{2}$ | 33 46 | | 25 2 $\frac{1}{2}$ | |
| 11 56 $\frac{1}{2}$ | 33 46 $\frac{1}{2}$ | 6 33 | 24 7 $\frac{1}{2}$ | |

Stella in cornu Capricorni difficulter conspiciebatur propter auroram & rariusculas nubes.

Pro loco ♂.

| | |
|--------------------------|-------------------------------------|
| H. 11 23' Ascensio R. | 265 11 1 |
| 11 52 | 265 11 14 |
| 11 30 Afc. R. ♂ limitata | 265 11 $\frac{1}{2}$ |
| Declin. M. | 27 39 |
| Resp. Longitudo | 25 43 $\frac{1}{2}$ x $\frac{1}{2}$ |
| Latitudo | 4 12 M. |

DIE 12 JUNIJ, VESPERI.

Obseruabatur ♂ circa Meridianum.

Fuit tunc ♂ in æquilibrio Horizontis cum eadem fere stella.

| H. M. | Diff. a corde III | Declin. ♂ | Altit. | Luc. Vult. or. |
|--|------------------------------|---------------------|--------|---------------------|
| 11 6 $\frac{1}{2}$ | 21 15 $\frac{1}{2}$ | 27 32 | | 35 8 |
| | | 27 32 | | |
| 11 13 $\frac{1}{2}$ | 21 14 $\frac{1}{2}$ | | | |
| 11 20 | 21 14 | | | 31 50 |
| 11 33 | 21 15 $\frac{1}{2}$ | | | 28 45 |
| 11 36 $\frac{1}{2}$ ♂ per mer. | per Chal. 6 33 $\frac{1}{2}$ | | | 28 0 |
| | per Vol. 6 34 | | | |
| 11 45 $\frac{1}{2}$ | 21 13 $\frac{1}{2}$ | | | 25 38 |
| Viceversa a sinistro humero x $\frac{1}{2}$. Est numero sexta, in æquilibrio cum ♂ ad Horizontem. | | | | |
| 11 52 $\frac{1}{2}$ | 11 17 | | 6 31 | 23 54 |
| 11 58 | 11 18 | | 6 28 | 22 39 |
| 12 2 $\frac{1}{2}$ | 11 18 | 27 33 | | 21 27 |
| | | 27 32 $\frac{1}{2}$ | | |
| 12 9 $\frac{1}{2}$ | 11 19 | | 6 17 | 19 49 |
| Pro examinando sextante instrumento eadem vespera obseruata est distantia inter lucidam | | | | |
| | | | | 33 30 |
| Vulturis & caput Ophiuchi | | | | |
| | | | | 33 30 $\frac{1}{2}$ |
| Quarum diff. antea obseruata est | | | | |
| | | | | 33 30 $\frac{1}{2}$ |

Sequitur calculus pro loco ♂ ex præcedentibus obseruationibus.

| | |
|---------------------------------|-------------------------------------|
| H. 11 33' Afc. R. ♂ e corde III | 264 50 33 |
| 12 10 Afc. R. ♂ e fin. | |
| hum. x $\frac{1}{2}$ | 264 51 10 |
| 11 50 Afc. R. ♂ emend. | 264 50 50 |
| Declin. M. ♂ | 27 41 |
| Resp. Longitudo | 25 25 $\frac{1}{2}$ x $\frac{1}{2}$ |
| Latitudo | 4 14 $\frac{1}{2}$ M. |

DIE 27 JUNIJ, VESPERI.

| | | |
|--------|------------------------|-----------|
| 10 45' | Distabat ♂ a corde | 11 17 10½ |
| 11 6½ | Distabat ♂ a ♀ | 43 32½ |
| 11 32½ | Dist. ♂ a ♀ | 43 34 |
| | Altitudo ♂ circiter 6° | fere ad |
| | ♀ | 4 oculum |
| | Declinatio ♂ | 27 57½ |
| | | 27 58½ |

His obseruationibus non est adeo adhibenda fides.

H. 11 41' Pro corrigendo horologio adhibebatur lucida Vulturis orientalis in Æquatore 10 32

| | | |
|-------|----------------------|--------|
| 11 51 | Distabat ♂ ab occ. | |
| | limbo ☾ | 38 57½ |
| | Vultur in æquat. or. | 8 4 |

Postea nubes ♂ obductæ eius conspectum nobis eripiebant.

DIE 28 JUNIJ, VESPERI.

| H. M. | Dist. ♂ a corde | Declin. | Altit. per Vol. | Luc. Vultur. or. |
|--|--------------------|---------|-----------------|------------------|
| 9 58½ | 17 2½ | 27 49½ | 6 15 | 36 7 |
| | | 27 49 | | |
| 10 13½ | ♂ transibat merid. | | | |
| | per Chalyb. | 6 16 | | 32 53 |
| | per Volub. | 6 16 | | |
| 10 19½ | 17 0½ | 27 49 | | 31 15 |
| | | 27 50 | | |
| Erat ♂ in æquilib. Horiz. cum corde 11 | | | | |
| 10 25½ | 17 1 fere | | | 29 39 |
| 10 30½ | 17 0½ | | | 28 42 |

Viceversa ad ortum, a sexta in humero sinistro Sagittarij

| | | |
|--------|--------|---------------------------|
| 10 37½ | 15 32 | 6 5 38 26 55 |
| 10 48½ | 15 30 | Difficulus hic objicieba- |
| 10 52 | 15 32 | tur propter ☾ propin- |
| 10 55 | 15 32½ | quitatem |

N. B. Erat & hæc stella x^r fere in æquilibrio Horizontis cum ♂, cum ♂ hic obseruaretur, sed paulo tamen eleuator.

His obseruationibus tuto est fidentum. Nam si propter ☾ præsentiam quicquam dubij est, id obseruationum compluribus reiterationibus denuo certificabatur.

¹ Tamen nihil additum est.

Calculus pro loco ♂ ex præcedentibus obseruationibus.

| | | |
|-------------------------------------|------------------|-----------------------|
| H. 10 14' | Ascensio R. | 260 2 40 |
| 10 38 | | 260 5 28 |
| Vtrique distantie addendum est ali- | | |
| quid pro refractione ¹ . | | |
| 10 26 | Afc. R. ♂ emend. | 260 4 |
| | Declinatio M. | 27 58½ |
| | Resp. Longitudo | 21 12½ x ^r |
| | Latitudo | 4 45½ M. |

DIE 16 JULIJ.

Vesperis obseruabatur ♂ vt sequitur.

N. B. Hæc obseruationes habitæ sunt in ♂ postquam factus est iterum directus.

| H. M. | Dist. ♂ & cordis | Declin. | Altit. ♂ | Luc. Vult. or. |
|---------|------------------|------------------|------------------|----------------|
| 9 22½ | 15 39½ | 27 47½ | 5 48½ | 24 57 |
| 9 24½ | corr. | 27 48½ | Alt. cord. 11 5° | |
| | | | fere | |
| 9 30½ | 15 39½ | | 5 35 | 23 25 |
| 9 30 55 | corr. | Alt. cord. 11 3° | ferme | |

Viceversa dist. ♂ a sinistro humero x^r

| | | |
|--|--------------------|------------------------|
| 9 36 | 16 53 | 5 10 |
| 9 40 | Alt. sin. hum. 8° | fere |
| 10 2 13 | 16 53½ | 27 44 4½ p. Rad. 15 33 |
| 1 | Corr. | vno pin. |
| Erat sexta x ^r circa merid. | | |
| 10 5½ | Luc. Vult. orient. | 12 18 |
| | pro horol. corr. | |

Pro loco ♂

| | | |
|----------|------------------|---------------------|
| H. 9 24½ | Ascensio R. | 258 30 25 |
| 9 40 | | 258 31 29 |
| 9 32½ | Afc. R. emendata | 258 31 |
| | Decl. M. | 27 57 |
| | Resp. Longitudo | 20 8 x ^r |
| | Latitudo | 4 50 M. |

DIE 26 SEPTEMBRIS, VESPERI.

| | | |
|---------------------|-------------|---------------------|
| H. 6 41' | Altit. ♂ | |
| | per Chalyb. | 9 10½ |
| | per Volub. | 9 12½ |
| Declin. ♂ M. 24 55½ | | Luc. Vult. or. 2 18 |
| | 24 55 | |

Error horologii corrigebatur hic¹.

H. 6 45' Horologium hic ad 2 circiter minuta².

| H. M. | Diff. ♂ & or. cap. x ^r | Decl. | Altit. | Vultur occ. |
|-------|--------------------------------------|--------|--------|----------------|
| 6 45 | 9 3 | | 9 6 | 2 1 |
| 6 48½ | 9 3½ | | 9 4 | 3 20½ |
| 6 52½ | 9 3½ | 24 55½ | 9 0 | 4 26 |
| | | 24 55 | | |

Hæc orientalis capitis x^r 2^{bus} circiter gradibus ♂ eleuatio fuit, vnde refractionis in distantia ratio habenda.

Viceversa dist. inter ♂ & orientalem duarum lucidarum in cauda ζ. Hæc fere cum ♂ in eadem altitudine fuit, paulo tamen eleuatio.

| | | | |
|---------------|--------|------|------|
| 17 3½ | 29 13½ | 8 49 | 7 10 |
| 17 2 40 corr. | | | |
| 7 30 corr. | 29 14 | 8 45 | |

Pro loco ♂

ex antecedentibus obseruationibus.

| | | |
|----------|------------------------------------|-----------|
| H. 6 57' | Diff. ♂ ab or. cap. x ^r | 9 4 |
| | Declin. obseruata | 24 55 15 |
| | Refract. in alt. 9° | 6 45 |
| | Declin. vera | 25 2 0 |
| | Ascensio R. | 290 31 20 |
| 7 2½ | Diff. a cauda ζ orient. | 29 14 |
| | Ascensio R. | 290 35 0 |
| 7 0 | Asc. R. limitata | 290 33½ |
| | Refp. Longitudo | 18 34½ ζ |
| | Latitudo | 2 49½ M. |

N.B. Obſtaculum refractionis vtrunque in distantijs iusta limitatione ascensio- nis rectæ, quam hic adhibui, tollitur.

DIE 27 SEPTEMBRIS, VESPERI.

| | | |
|--------------|--|--------|
| 16 19½ | Transibat ♂ per meridianum | |
| 16 33½ corr. | habens altitud. | |
| | per Chalyb. | 9 17½ |
| | per Volub. | 9 18 |
| | Lucida Vult. orient. | 1 35 |
| 6 25½ | Declinatio | 24 47½ |
| | | 24 47½ |
| | Lucida Vult. orient. | 0 9 |
| 6 40½ | Inter ♂ & orientalem in capite x ^r | 9 36½ |

| | | |
|---------------|--------------------------------|--------|
| 16 53 40 | bona | 9 36½ |
| 17 9 36 corr. | Vultur occ. | 7 24 |
| 6 58½ | Inter ♂ & lucid. in cauda ζ | 28 37½ |
| | Vultur occid. | 9 38 |
| 7 2½ | Eadem dist. | 28 37½ |
| 7 5½ | Altitudo ♂ | 8 43 |
| | Declinatio ♂ | 24 48 |
| | | 24 47½ |

Ex his obseruationibus.

Ratio refractionum antea habita est in distantijs.

| | | |
|---------|---------------------------------|-----------|
| H. 6 34 | Ascensio R. | 291 13 48 |
| 7 10 | | 291 14 13 |
| 6 52 | Asc. R. limitata | 291 14 |
| | Declin. a refractione libera | 24 55 |
| | Refp. Longitudo | 19 12½ ζ |
| | Latitudo | 2 48½ M. |

DIE 30 SEPTEMBRIS.

| | | |
|-------|---------------------|--------|
| 6 20½ | Altit. ♂ per Volub. | 9 40 |
| | Declinatio ♂ | 24 26½ |
| | | 24 25½ |

Ventus agitabat instrumentum & po- tea cœlum nubibus obducebatur.

DIE 2 OCTOBRIS, VESPERI.

| | | |
|-------------|--|--------|
| 6 27½ | Altit. ♂ merid. | |
| | per Chal. | 9 55½ |
| | per Volub. | 9 55½ |
| | Vultur occid. | 1 42 |
| 16 34 | Inter ♂ & orientalem duarum lucidarum | |
| 16 35 corr. | in cauda ζ | 25 31 |
| | Vultur occid. | 3 15 |
| 6 37½ | Repetita distantia | 25 30½ |
| | Vultur occid. | 4 8 |
| 6 42 | Altitudo ♂ per Volub. | 9 51 |
| | Declinatio ♂ M. | 24 10½ |
| | | 24 10 |

Viceversa

| | | |
|--------------|------------------------------------|--------|
| 16 50 | Diff. ♂ ab or. cap. x ^r | 12 26½ |
| 16 51½ corr. | Vultur occ. | 7 24 |
| 6 51½ | Repetita distantia | 12 26½ |
| | Vultur occid. | 7 50 |

Erat hoc vespere bene serenum & aër tranquillius.

¹ Adscriptum est «Non iuste corrigitur horologium».

² Sic in codice E.

Calculus pro loco ♂
ex præcedentibus obseruationibus.

| | |
|--------------------------|------------|
| H. 6 35 Ascensio R. ♂ | 294 38 47 |
| 6 51½ | 294 39 5 |
| 6 42 ponitur Asc. emend. | 294 39 0 |
| Declin. a refr. libera | 24 16 |
| Resp. Longitudo | 22 22 25 ½ |
| Latitudo | 2 38½ M. |

DIE 9 OCTOBRIS, VESPERI.

| | |
|----------------------------|--------|
| 6 13' 15" Inter ♂ & lucid. | 21 1½ |
| 6 14 25 caud. 7 | 21 2 |
| 6 17½ Declinatio ♂ | 23 10½ |
| Transibat ♂ | 23 10 |
| per merid. habens altitud. | |
| per Chalyb. | 10 56½ |
| per Volub. | 10 57½ |
| Vultur occid. | 6 21 |

Viceversa

| | |
|---------------------------|--------|
| 6 32 10 Inter ♂ & orient. | 16 40½ |
| 6 34 45 cap. x† | 16 43 |
| 6 36 20 his est | 16 42 |
| 6 37 55 fidendum | 16 42½ |

Horologium 4 M. celerius iusto mouebatur hac vespere.

Pro loco ♂

| | |
|------------------------|-----------|
| H. 6 10' Ascensio R. | 299 22 18 |
| 6 28 | 299 23 16 |
| 6 20 Asc. R. limitata | 299 22 47 |
| Decl. pro refr. emend. | 23 14½ |

DIE 10 OCTOBRIS, VESPERI.

| | | |
|-----------------------------------|--------|-------|
| Decl. ♂ circa merid. | 23 0½ | 23 0½ |
| 6 17' 10" Inter ♂ & lucidam | 20 19½ | |
| 6 24 caudæ 11 | 20 18½ | |
| 6 29 35 Transibat ♂ | | |
| 6 21 corr. per merid. habens alt. | | |
| per Chal. | 11 5½ | |
| per Volub. | 11 6½ | |
| Vultur occid. | 7 13 | |

Viceversa

| | |
|-----------------------------------|--------|
| 6 37 45 Inter ♂ & orient. cap. x† | 17 21½ |
| 6 41 35 Inter ♂ & eandem | 17 22 |

Ex hisce obseruationibus

| | |
|-------------------------|----------|
| 6 16 Ascensio R. | 300 7 46 |
| 6 30 | 300 6 7 |
| 6 23 Asc. R. ♂ limitata | 300 7 |
| Declin. M. emendata | 23 5 |
| Resp. Longitudo | 27 31 7 |
| Latitudo | 2 24 M. |

DIE 16 OCTOBRIS, VESPERI.

| | |
|-------------------------|---------|
| 6 20 | |
| 6 15 corr. Transitus ♂ | |
| per meridianum, altit. | |
| per Chalyb. | 12 6½ |
| per Volub. | 12 7 45 |
| Vultur occid. | 11 27 |
| 6 26 Declinatio | 21 59½ |
| | 22 0 |
| 6 33½ Inter ♂ & orient. | |
| 6 28 corr. in capite x† | 21 12 |
| 6 36 Distantia ab eadem | 21 11½ |
| 6 38 | 21 13 |
| 6 43 35 | 21 12½ |

Hic splendor ☾ magno impedimento fuit.

| | |
|--|------------|
| 6 28 Asc. Recta ♂ ex præcedentibus obseruationibus | 304 14 30 |
| Declin. emendata | 22 2 |
| Resp. Longitudo | 1 27 48 ¾ |
| Latitudo | 2 10 52 M. |

DIE 10 NOUEMBRIS, VESPERI.

| | |
|---|--------|
| 6 54½ | |
| 6 43½ corr. Transibat ♂ | |
| per merid. habens alt. | |
| per Volub. | 17 24½ |
| per Chalyb. | 17 24½ |
| Lucida Vult. occid. | 28 43 |
| 6 59 Dist. inter superius cornu 7 & ♂ 22 9½ non valet | |
| Vultur occid. | 43 38 |
| 6 7 3 Distantia | 22 12½ |
| 6 47 corr. Vultur. occid. | 44 42 |
| 7 7½ Distantia repetita | 22 12½ |

Viceversa a 18 ¾ in dextro genu.

| | |
|--------------------------|--------|
| 6 12½ Distantia | 15 52 |
| 6 55 corr. | |
| 7 15½ Repetita distantia | 15 52½ |
| Declinatio ♂ | 16 40 |
| | 16 40½ |

Horologium multum iusto celerius mouebatur, quod corrigi potest.

N.B. Die præcedenti circa Meridianum visus est ♂ fere in ♂ cum sequenti in cauda 7 & altior circa gradum quantum ad visum.

Ex præcedentibus obseruationibus.

| | |
|-------------------------|-----------|
| H. 6 47' Ascensio R. | 321 39 15 |
| 6 55 | 321 40 30 |
| 6 51 Asc. R. ♂ limitata | 321 40 |
| Declinatio emendata | 16 42 |
| Resp. Longitudo | 17 49½ |
| Latitudo | 1 13 M. |

DIE 11 NOUEMBRIS, VESPERI.

Obseruabatur ♂ circa Meridianum.

| H. M. | Dist. ♂ ab inf. cornu ♂ | Decl. ♂ M. | Vultur. occid. |
|-------|----------------------------|---------------|-------------------|
| 5 28½ | 21 52½ | | 25 10 |
| 5 33½ | 21 53½ | | |
| 5 36½ | 21 53 | 16 27 | |
| | | 16 27½ | |

(5 45½ Transiuit ♂ merid. habens alt.
(5 42 corr. per Chal. 17 40
per Volub. 17 39½ 29 27

Viceversa a dextro genu ¾

| | | |
|-------------|--------|-------|
| 5 54½ | 15 17 | 31 42 |
| (5 58½ | 15 16½ | 32 40 |
| (5 56 corr. | | |
| 6 3½ | 15 16½ | |

N. B. In his obseruationibus ♂ radij
lunares nonnihil impedimento erant.

Ex præcedentibus obseruationibus.

| | |
|-------------------------|-----------|
| H. 5 34' Ascensio R. | 322 18 40 |
| 5 56 | 322 19 30 |
| 5 46 Asc. R. ♂ limitata | 322 19 |
| Declinatio M. | 16 27 |
| Resp. Longitudo | 19 23½ |
| Latitudo | 1 28 M. |

DIE 10 DECEMBRIS, VESPERI.

| | |
|---------------------------------|--------|
| 4 45 Transibat ♂ per Meridianum | |
| habens altitud. | 25 31½ |
| In æquat. autem erat adhuc | |
| ante meridiem | 0 7 |
| 4 57 20 Dist. ♂ a finistro | 24 8½ |
| 5 2½ humero ¾ | 24 9 |
| 5 8½ Eadem dist. | 24 8½ |
| 5 19 corr.) Declinatio ♂ M. | 8 35½ |
| | 8 35 |

Luc. mandib. Ceti or. 52 27

Viceversa

| | | |
|-------------|---------------------------------|--------|
| 5 19 | Dist. ♂ a boreali cauda Ceti | 17 43½ |
| | Luc. mandibulæ Ceti or. | 49 42½ |
| 5 23½ | Eadem distantia | 17 43 |
| 5 33 corr.) | Luc. mand. Cetior. | 48 48 |
| 5 26 | Distantia repetita | 17 42½ |

N. B. Hæc obseruationibus radij luna-
res nonnihil impedimento nobis fuere.
Sed tamen obseruationes mediocriter
se habent, vtpote quibus fidendum est.

Pro loco ♂

ex antecendentibus obseruationibus.

| | |
|-------------------------|------------------------|
| H. 5 19' Ascensio R. | 341 55 57 |
| 5 33 | 341 53 15 |
| 5 26 Asc. R. ♂ limitata | 341 54 36 |
| Resp. Longitudo | 10 3 33 ½ ¹ |
| Latitudo | 0 16 28 M. |
| Calculus Copernici | Alphonſinus |
| Longitudo 9 32 ½ | 11 29 ½ |
| Latitudo 0 59 M. | 0 32½ M. |

Transcriptio obseruationum in ♂ & alijs quibusdam ftellis fixis, quæ
hoc anno mense Junio & Julio a Magino & Gellio Saceride Pa-
tavij habitæ sunt, & postea ab excell. Magino annotatæ,
& huc circa initium Nouembris vna cum litteris
a Gellio Sasc. D. Tychoni submiſsæ.

DIE 20 JUNIJ, NOVO STILO.

| | |
|--|--------|
| H. 2 noctis iamiam pulsata, distantia | |
| ♂ a corde III fuit inventa | 21 55½ |
| non est tuta | |
| Paulo post | 21 52 |
| Et paulo post | 21 52 |
| Et iam pulsata fuit hora 2 ^{da} in alio ho- | |
| rologio sex minutis post | 21 51 |
| Hora 2½ | 21 49½ |

| | |
|-----------------------------|--------------|
| H. tertia exacte inter ♂ | |
| & lucid. Vult. | 44 3 |
| Hora 3½ | 44 5 |
| Paulo post | 44 3 |
| Inter cor III & Spicam | 45 50 |
| | fere |
| Inter cor ♀ & Spicam | 54 4 |
| | iterata obf. |
| Inter Spicam et lancem bor. | 27 30 |

¹ Hæc A. R. et Decl. dat Long. 10° 2' 46'', Lat. 0° 48' 9'' M., add. codex V.

DIE 21 JUNIJ.

| | |
|------------------------------|--------|
| H. 1½ Inter ♂ & Antares | 21 31 |
| Paulo post | 21 32 |
| H. 2 fere non pulfata, | |
| inter ♂ & Vulturem | 44 19 |
| Inter Vulturem & cor ♀ | 60 7 |
| Paulo post inter ♂ & Vultur. | 44 19 |
| Et paulo post | 44 21 |
| Mox | 44 20½ |

| | |
|--------------------------|--------|
| H. 2 non pulfata inter ♂ | |
| & cor ♀ | 21 31 |
| Inter lancem bor. & ♂ | 43 41 |
| Iam pulfata | 43 43 |
| H. 2½ forte non tuta | 43 44½ |
| H. 2½ | 43 42½ |

Supputatis prius ex datis longitudinibus & latitudinibus Vulturis & cordis ♀ distantia earundem 60° 9', ex distantijs ♂ a corde quidem ♀ 21 51, a lucida vero Vulturis 44 3, inveni per calculum ad diem 20 Junij longitudinem eius in 25° 59' x cum latitudine 3° 59' A.

Itidem die 21 Junij supputata distantia lucidæ Vulturis & Borealis lancis ♀ 70° 27', ex distantia ♂ a lucida Vulturis 44 20 & a lance Bor. ♀ 43 43, inuenta est longitudo eius in 25° 38' x, Latitudine existente 4° 4' A.

DIE 8 JULIJ obseruauit Maginus.

| | |
|------------------------------|------|
| H. 1½ noctis inter ♂ & cor ♀ | 17 2 |
| Paulo post | 17 1 |
| Mox | 17 1 |
| H. 2 non pulfata | 17 2 |

| | |
|---|--------|
| Similiter hora 2 inter ♂ | |
| & lancem Bor. | 40 12½ |
| Non est tuta, quia eius lumen erat exile. | |
| H. 2½ Inter ♂ & lucid. Vult. | 47 47 |
| & plus. Paulo post | 47 46½ |

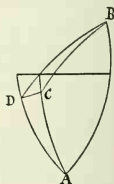
Δοκιμασία prioris calculi pro loco ♂ ad diem 20 Junij.

A polus Eclipticæ Antarcticus, B Lucida Vulturis, C stella ♂, D cor ♀.

| | |
|------------------------------|--------------------------------|
| DA 85° 33' | DBC 18° 56' fere |
| BA 119 21½ | DBA 64 49 30'' |
| DAB 51 56 | CBA 45 53 30 |
| DB 60 8 53'' | CA 86 1 13 Complem. |
| DC 21 51 Dift. ♂ | latit. ♂ |
| a corde ♀ | DAC 21 54 18 Differ. longit. |
| CB 44 3 Dift. ♂ | a corde ♀ |
| a Vulture | CAB 30 1 45 Differ. longit. |
| | a Vulture |
| Longit. Vulturis 26 0 40 x | Longit. cordis ♀ 4 4 40 |
| 30 1 45 | 21 54 18 |
| Longit. ♂ a Vult. 25 58 55 x | Longit. ♂ a corde ♀ 25 58 58 x |

Reductum igitur tempus obseruationis huius ad nostrum horologium est.

Die 20 Junij nouo stilo, Hora 10 fere, quo tempore calculus ex obseruationibus hinc supponit Long. ♂ 25 59 x fere, Latit. vero 3 59 A. proxime. Hic ♂ locus collatus cum eo, qui ex proprijs obseruationibus ad idem tempus per calculum inuentus est, Longit. faltem 4 minutis minorem ponit, Latitudine 9' circiter a nostra deficiente, quam discrepantiam refractionum limitatio, quam nos adhibuimus, totam causari videtur. Distantia enim ♂ a Vulture tribus minutis vt fit 44° 6' emendata scilicet pro refractione, distantiam hanc facile infinuata dum ♂ 17 gradibus circiter supra Patavianum horizonta eleuare-



tur & oblique admodum Vulturem intueretur. Reiterato calculo proueniunt reliqua denuo, vt sequuntur. Angulus DBC $18^{\circ}59\frac{1}{2}'$, vnde angulus CBA $45^{\circ}50'$, latus CA $85^{\circ}57'20''$, complementum scilicet latitudinis \odot , & angulus DAC $21^{\circ}54'26''$, differentia longitudinis a corde ll . Igitur hic vltime prouenit

\odot Longitudo 25 59 6 \times
Latitudo 4 2 40 M.

Examen calculi posterioris ad 21 diem Junij, habita refractionum ratione, quæ distantiam vtrobique augment a Vulture quidem tribus minutis, a borea vero Lance duobus. Vt sit vera distantia \odot a Vulture $44^{\circ}23'$, a borea Lance $43^{\circ}45'$.

Igitur 21 Junij iuxta reformatum Kalend. Sol Patavij occidit H. 7 M. 40, quibus addo duas horas, quæ interceſſerunt inter occaſum Solis & obſervationes, vt ſint horæ a meridie numeratæ H. 9 M. 40. His rurſum addo differentiam meridianorum noſtri loci & Patauiani 12 M. & prouenit tempus noſtro horologio a Meridie congruens, ſcilicet H. 9 M. 52, cui temporis iuxta has obſervationes reſpondent

Longitudo 25 39 \times
Latitudo 4 8 $\frac{1}{2}$ M.

Huius loci \odot conſtitutionem calculus noſter 4 minutis vtrobique tam Longitudine quam Latitudine excedit. Vide ſequentia.

Pro longitudine & latitudine \odot ex obſervationibus
Magini ad diem 8 Julij.

Repetatur figura prior in qua vt antea dantur. Sol occidit Patavij H. 7 M. 40. Adde 2 H. Tempus a merid. noſtro H. 9 M. 50.

Reſp. ex obſervatione Longitudo 21 9 48 \times
Latitudo 4 49 $\frac{1}{2}$ M.

Collatio calculi obſervationum noſtrarum in \odot cum eo qui
ex obſervationibus Domini Magini ac Domini Gellij
Patauij habitis, prouenit ſingulis ſuis tem-
poribus rite denotatis.

| iuxta vetus Calend. | | | | iuxta reformat. Calend. | | | |
|---------------------|-------|----------------------------------|----------------------|-------------------------|------------------------------|----------------------|--|
| Dies | H. M. | Calc. ex noſtris obſervationibus | | Menſes Dies H. M. | Calc. ex obſerv. Patav. | | |
| | | Longitudo | Latitudo | | Longitudo | Latitudo | |
| 10 Junij | 11 50 | 26 2 $\frac{1}{2}$ \times | 4 8 $\frac{1}{2}$ M. | Junius 20 10 fere | 25 59 $\frac{1}{2}$ \times | 4 2 $\frac{1}{2}$ M. | |
| 11 | 11 30 | 25 43 $\frac{1}{2}$ | 4 12 | Junius 21 9 52 | 25 39 | 4 8 $\frac{1}{2}$ | |
| 28 | 10 26 | 21 12 $\frac{1}{2}$ | 4 45 $\frac{1}{2}$ | Julius 8 9 50 | 21 9 $\frac{1}{2}$ | 4 49 $\frac{1}{2}$ | |

N.B. Obſervationes noſtræ a refractionibus iuxta limitationem vndeque liberatæ ſunt: circa Patauinas autem adiecta ſunt vt plurimum tria minuta diſtantiæ \odot a Vulture propter refractiones, quæ tantæ in Martia ſtella 17 gradibus inter obſeruandum eleuata eſſe poterant.

Item die 21 Junij ex diſtantiâ ibi inter \odot & Vulturem quidem $44^{\circ}23'$, inter cor vero ll & \odot $21^{\circ}31\frac{1}{2}'$ prouenit iuxta calculi tenorem Longit. $25^{\circ}39\frac{1}{2}'$, Lat. $4^{\circ}9'$. Qui locus \odot cum ſuperiore fere conuenit, vt videre eſt.

Quoniam autem maxime omnium intereſt \odot loca ad diem 6 & 10 Junij, præciſione qua fieri poteſt indagare, quippe quod inter hos \odot \odot medio motui oppoſitus locum Perigæum in epicyclo iuxta Hypotheſin obtineat. Igitur calculo noſtro reuiſo ac limitatius paulo quam antea peractò, hoc modo ad eosdem dies longitudines & latitudines \odot ponendæ veniunt ex obſervationibus quæ ſequuntur.

| Dies | H. M. | A corde \mathbb{M} | Declin. M. | Afc. R. | Longitudo | Latitudo |
|------|-------|------------------------------|---------------------|----------------------|----------------------------------|-----------------------|
| 6 | 12 8 | 23 5 | 27 24 $\frac{1}{2}$ | 266 53 $\frac{1}{2}$ | 27 14 $\frac{1}{2}$ x \nearrow | 3 55 $\frac{1}{2}$ M. |
| | | Ab hum. x \nearrow | | | | |
| 6 | 12 44 | 9 28 | 27 24 $\frac{1}{2}$ | 266 55 40 | 27 16 $\frac{1}{2}$ | 3 55 $\frac{1}{2}$ |
| | | A corde \mathbb{M} | | | | |
| 10 | 11 39 | 21 52 $\frac{1}{2}$ | 27 36 | 265 31 40 | 26 1 45 | 4 8 $\frac{1}{2}$ |
| | | Ab orient. cap. x \nearrow | | | | |
| 10 | 12 2 | 15 34 | 27 36 $\frac{1}{2}$ | 265 34 $\frac{1}{2}$ | 26 4 $\frac{1}{2}$ | 4 8 $\frac{1}{2}$ |

Hoc igitur postremo σ calculo vitro citroque ab ipso Domino Tychone diligenter pensitato, ponuntur ad dies prænominatos loca eius limitata vt sequuntur.

| Anni veteris | H. M. | Longitudo σ | Latitudo σ | |
|--------------|-------|---------------------------------|-------------------|---------------|
| Dies 6 | 12 10 | 27°15' 0" x \nearrow | 3°55'30" M. | N.B. His tuto |
| 10 | 11 40 | 26 2 $\frac{1}{2}$ x \nearrow | 4 8 30 M. | fidendum est. |

Verificata sunt & hæc & reliqua nostra loca ad sequentes dies, quibus σ obseruabamus, modo sequenti.

| Dies Anni | | H. M. | Nostra loca verificata | |
|-----------|----------|--------------------|------------------------|-----------------------|
| Veteris | Noui | | Longitudo | Latitudo |
| 6 Junij | 16 Junij | 12 20 | 27 15 x \nearrow | 3 55 $\frac{1}{2}$ M. |
| 10 | 20 | 11 50 | 26 2 | 4 8 $\frac{1}{2}$ |
| 11 | 21 | 11 30 | 25 43 | 4 12 |
| 12 | 22 | 11 50 | 25 25 | 4 14 $\frac{1}{2}$ |
| 28 | 8 Julij | 10 26 | 21 12 | 4 45 $\frac{1}{2}$ |
| 17 Julij | 27 | 9 32 $\frac{1}{2}$ | 20 8 | 4 50 |

Cum his confer Magini obseruationes, sicubi inciderint, & adde vtroque tempora 13' ob differentiam meridianorum.

CALCULUS PRO σ CUM MEDIO \odot MOTU INVENIENDA.

Dies 3 H. 23 M. 30 1°12 $\frac{1}{2}$ ', 1 dies 18'13" motus diurnus σ inter 6 & 10 diem Junij. Deinde die 6 Junij H. 12 10' fuit medius motus \odot 24°36'39" \mathbb{II} , Martis vero motus 27°15' x \nearrow .

Quare gradus superfunt vltra semicirculum 2°38'21". Motus autem diurnus medius \odot est 59'8", quibus addo 18'13" motum scilicet diurnum σ , & aggregantur 1°17'21". Iam dico 1°17'21" dant 1 diem, quantum 2°38'21"? Resp. Dies 2 H. 1 M. 8, atque hoc tempus addo D. 6 H. 12 M. 10, cumulanturque D. 8 H. 13 M. 18, tempus scilicet σ cum medio motu \odot .

Porro $\delta\omega\lambda\mu\alpha\sigma\iota\alpha$ calculi ex motu vtriusque diurni ita instituitur: Ad tempus σ suppositum nempe mensis Junij D. 8 H. 13 M. 18, inuenitur simplex \odot 26°37'42" \mathbb{II} . In σ autem iuxta motum diurnum apparentem 18'13", D. 2 H. 1 M. 8 (tantum enim interstitium fuit inter diem 6 Junij H. 12 M. 10 & tempus σ deputatum) competunt 37'18" fere. Hæc si subduxeris a 27°15'0" x \nearrow , loco scilicet σ ad diem 6 H. 12 M. 17 inuento, relinquitur locus σ circa σ 26°37'42" x \nearrow .

Conuenit igitur motus σ exquisite cum medio \odot ad idem tempus. Tempus igitur completum σ cum medio motu \odot fuit mensis Junij D. 7 H. 13 M. 18, a quo Coperniceus calculus tribus horis saltem deficit, Alphonsinus autem omnino non quadrat, vtpote plus integro triduo σ hanc differens.

Collectio apparentiarum ♂ ac diverforum calculorum cum nostro collatio

| | Dies | H. M. | Calculus ex nostris obf. | | Calculus Copern. | | Calculus Alph. | |
|---------|-------|-------|--------------------------|----------|-----------------------|---------|----------------------|--------------------|
| | | | Long. | Lat. | Long. | Lat. | Long. | Lat. |
| Aprilis | 29 | 14 0 | 2 15½ Z | 1 24½ M. | 2 11 Z | 0 30 M. | 4 48½ Z | 1 30 M. |
| Maij | 12 | 13 40 | 2 24½ | 2 15 | 2 33½ | 1 6½ | 5 42½ | 2 26½ |
| | 13 | 13 50 | 2 20 | 2 28½ | 2 30½ | 1 8½ | 5 42 | 2 30½ |
| | 19 | 13 40 | 1 34½ | 2 40½ | 1 50½ | 1 30 | 5 20 | 3 4 |
| | 21 | 13 34 | 1 15½ | 2 52 | 1 31½ | 1 39 | 5 4½ | 3 10½ |
| | 24 | 13 13 | 0 40½ | 3 5 | 0 52½ | 2 0 | 4 37 | 3 19½ |
| Junij | 29 | 12 42 | 29 30½ X [†] | 3 25½ | 29 36½ X [†] | 2 27½ | 3 39 | 3 47 |
| | 6 | 12 10 | 27 15 | 3 55½ | 27 7 | 2 59 | 1 36 | 4 34 |
| | 10 | 11 40 | 26 2½ | 4 8½ | 25 46 | 3 19 | 0 18 | 5 [4] ¹ |
| | 11 | 11 30 | 25 43 | 4 12 | 25 25 | 3 19 | 29 58 X [†] | 5 5 |
| | 12 | 11 50 | 25 25 | 4 14½ | 25 3 | 3 21 | 29 39 | 5 8 |
| Julij | 28 | 10 26 | 21 12 | 4 45½ | 20 22 | 3 50 | 24 54 | 5 [11] |
| | 17 | 9 32 | 20 8 | 4 50 | 18 51 | 3 53 | 22 37 | 5 [27] |
| | Sept. | 26 | 7 0 | 18 34½ Z | 18 21 | 2 32 | 20 51 | 2 [38½] |
| Decemb. | 10 | 5 26 | 10 3½ X | 0 16½ M. | 9 32 X | 0 59 M. | 11 29 X | 0 [32½] |

Die 8 Junij H. 13 M. 18

quo tempore ♂ fuit in medij motus ☉ ♂, erat locus eius

| | Ex observationibus | Ex calculo Prut. | Ex calc. Alph. |
|---------|----------------------------|------------------------|----------------|
| Longit. | 26° 37' 42" X [†] | 26° 27' X [†] | 0° 57' Z |
| Latit. | 4 2 M. | 3 8 M. | 4 48 |

N.B. Si Apogæo Tabularum Prutenicarum medio quod est ad tempus ♂ ♂ & medij loci ☉ S. 2 P. 0 28', addantur saltem 8 minuta, ita vt sit 2 0 36, retenta Prothaphæresi Eccentrici, quem præbent eadem tabulæ, ideoque consimili Eccentricitate, & applicato nostro simplici Solis, qui est tunc a 1 V 0° 58' 30' (nam præceßio nostra respectu Spicæ 11) prout fecerunt Ptolemæus & Copernicus, est 28 7½) conuenient omnia motui apparenti ipsius ♂, vt ex sequentibus patet:

| | (ex. p. M.) | Correctio |
|--|-------------|----------------------|
| Simplex Solis noster a 1 ^a V ² | 0 58 30 | 32 ^M plus |
| Apogæj motus simplex | 2 0 36 | 8 plus |
| Longitudo ♂ simplex | 4 7 52 | 10 plus |
| Anomalia eccentrici | 2 7 16 | 2 plus |
| Anomalia commutat. | 2 50 38 | 2 plus |
| Prosthaph. eccentrici A. | 9 22 | |
| Anomalia coæquata | 3 0 0 | |
| Longitudo ♂ coæquata 1 V | 3 58 30 | ♂ ☉ sup. |
| adde præceßionem nostram | 0 28 8 | |
| Longitudo ♂ ab æquin. | 4 26 38 | |
| Quod apprime obseruationi consentit. | | |

¹ Numeri uncis inclusi a nobis supputati sunt ob folium in codice E attritum
Id est, a stella prima Arietis (γ Arietis).

Differentia quæ est inter ☿ & simplicem locum & simplicem longitudinem
 ☿ dat Prosthaph. eccentrici vt hic $\begin{array}{r} 4 \ 7 \ 52 \\ 3 \ 58 \ 30 \\ \hline 0 \ 9 \ 22 \end{array}$ atque hinc cætera
 licebit ratiocinari.

Atque hæc ita se habere poterint, si Eccentricitas ☿ Prutenica rite se habeat
(nam ☿ per suam Eccentricitatem hic nihil fere sensibilis suggebit vitij).
Verum consideratius hæc examinando, quoniam in simplici longitudinis
 ☿ non poterit vsque adeo magna lubeſce deuiatio, illum vna cum simplici
 Solis nostro pro fundamento retinebimus, præſuppoſita eadem quam Co-
 pernicus eccentricitate, quoniam differentia quæ est inter simplicem longi-
 tudinis ☿ & ☿ Prosthaph. eccentrici patefacit. Omnia itaque prouenient vt
 lequitur.

| | |
|---------------------------------|--------------------------|
| <i>Simplex ☿ noſter</i> | ſex. p. M. |
| <i>Simplex long. ☿ Cop.</i> | 0 58 30 |
| <i>Diff. ab ☿ dat Pto. Ecc.</i> | 4 7 42 |
| <i>huic quadrat An. ecc.</i> | 9 12 |
| <i>hæc ablata a long. ☿</i> | 2 8 46 |
| <i>quare Anomalia com.</i> | 1 58 56 Apopæj motus |
| <i>Vera per add. Pto. Ec.</i> | 2 50 48 simplex |
| <i>Coæquata long. ☿</i> | 3 0 0 in ☿ ſimp. ☿ |
| <i>Noſtra præceſſio</i> | 3 58 30 |
| <i>Verus locus ☿</i> | 0 28 8 |
| | 4 26 38 cum obſeruacione |
| | conueniens. |

Deſiderantur itaque ſaltem 1½ gradus in Apogæj motu¹ vt omnia conueniant, retentis cæteris prout prodierant & applicato noſtro loco medio Solis atque præceſſione æquinoctiorum e Spica emendata.

At ſi Alphonſinam eccentrici æquationem, quæ Ptolemaicis numeris propior eſt, adhibuerimus in conſilium, reſpondet 9ᵖ 12' in æquatione centri iuxta eam rationem. Anomalia eccentrici ſex. 2 p. 10 M. 51, ſicque apogæi motus ſimplex erit 1 56 51, quod Copernici numerationem antecedit p. 3 M. 37. Poteſt autem in ſingulis vtpote ſimplici longit. ☿ Apogæo atque eccentricitate aliquid latere vitij, quod alias D. V. inquirendum venit.

OBSERVATIONES VENERIS.

DIE 12 APRILIS, VESPERI.

N.B. ♀ apparebat hic paulo maior Cane maiore.

| H. M. | Diff. ♀ a luc. ped. II | Declin. | Altit. | Cor. ☿ occ. |
|------------------|---------------------------|---------|--------|----------------|
| 7 47 | 49 23 | 16 2½ | 2 40 | 6 0 |
| Ab auſt. cornu ☿ | | | | |
| 7 52 | 32 55½ | 16 5½ | 1 35 | 7 22½ |
| Can. min. occ. | | | | |
| 7 56½ | 32 52½ | 16 9 | 0 55 | 45 31 |

DIE 23 APRILIS, VESPERE.

| H. M. | Diff. ♀ ab inf. cap. II | Decl. B. | Altit. | Spica IIIᵖ or. |
|-------|----------------------------|----------|--------|-------------------|
| 8 37½ | 51 1 | 20 1½ | 2 37 | 23 47 |
| | | 20 2½ | | |
| 8 43 | 49 59 | 20 3 | 2 0 | 22 11 |
| 8 48 | 49 57½ | 20 7 | 1 45 | 20 56 |

N.B. His obſeruacionibus non tuto eſt fidendum, tum propter ♀ decliuitatem, tum etiam aëris nimiam turbulentiam.

¹ Scilicet 2° 0' 36" — 1° 58' 56" = 1° 40'.

DIE 26 APRILIS, VESPERI.

Erat circa Horizontem occidentem
mediocriter serenum.

| H. M. | Dist. ♀ & inf. cap. II | Declin. | Alt. per Volub. | Cor ♀ occ. |
|--------------------|---------------------------|---------------------|--------------------|---------------|
| 8 34 $\frac{1}{2}$ | 46 21 | 20 56 | 2 35 | 31 8 |
| 8 39 | 46 18 $\frac{1}{2}$ | 20 59 $\frac{1}{2}$ | 2 10 | 32 16 |
| 8 43 $\frac{1}{2}$ | 46 16 | 21 0 $\frac{1}{2}$ | 1 40 | 33 20 |
| 8 46 $\frac{1}{2}$ | 46 14 $\frac{1}{2}$ | 21 2 $\frac{1}{2}$ | 1 20 | 34 14 |

DIE 27 APRILIS, VESPERI.

| H. M. | Dist. ♀ & inf. cap. II | Declin. | Alt. per Volub. | Spica or. |
|--------------------|---------------------------|---------------------|---|--------------|
| 8 46 | 45 12 | 21 10 | 4 23 | 20 15 |
| | | 21 9 $\frac{1}{2}$ | | |
| 8 48 $\frac{1}{2}$ | 45 11 $\frac{1}{2}$ | 21 11 | 4 9 | 19 39 |
| | | vtroque | | |
| 8 52 $\frac{1}{2}$ | 45 10 | 21 11 | 3 43 | 18 37 |
| | | 21 11 $\frac{1}{2}$ | | |
| 8 55 $\frac{1}{2}$ | 45 8 $\frac{1}{2}$ | 21 13 | 3 20 | |
| | | 21 12 $\frac{3}{4}$ | Spica præ trabe non obseruabatur. | |

DIE 27 SEPTEMBRIS, VESPERI.

Omnium primo hoc anno obserua-
batur hic ♀ circa maximam elonga-
tionem a ☉, eratque hoc vespere me-
diocriter serenum.

| | | |
|------|--------------|---------------------|
| 5 44 | Altitudo ♀ | 2 30 |
| | Declinatio ♀ | 23 33 |
| | | 23 32 |
| ... | Altitudo ♀ | 2 1 $\frac{1}{2}$ |
| | Declin. ♀ | 23 31 $\frac{1}{2}$ |
| | | 23 30 |

Cum ♀ hic obseruabatur, erat ♂
circa meridianum.

| | | |
|--------------------------|-------------------------|---------------------|
| 5 53 | Alt. ♀ minimo Quadr. | 1 45 |
| | Declin. ♀ M., vno pinn. | 2 28 $\frac{1}{2}$ |
| 5 59 $\frac{1}{2}$ | Inter ♀ & ♂ | 48 23 |
| 6 11 corr. | Alt. ♀ per Radium | 1 0 |
| 6 2 $\frac{1}{2}$ | Inter ♀ & ♂ | 48 21 |
| | Alt. ♀ per Radium | 0 $\frac{1}{2}$ |
| 6 7 | Inter ♀ & ♂ | 48 19 $\frac{1}{2}$ |
| 6 21 $\frac{1}{2}$ corr. | Alt. per Rad., fere | 0 12 |
| | Vultur or. | 4 53 |

Calculus pro loco ♀
ex obseruationibus a stella Martis
cuius locus superius innotuit.

| | | |
|--|----------------------------------|------------------------|
| H. 6 M. 11 | Distabat ♀ a ♂ in præcedentia | 48 23 |
| Pro refr. in alt. 1 g. | | |
| | in dist. adde | 12 |
| Dist. vera ♀ a ♂ | | 48 35 |
| Decl. ♀ paulo ante obseruata | | 23 32 $\frac{1}{2}$ |
| Adde pro refractionibus in alt. 2 $\frac{1}{2}$ | | 13 $\frac{1}{2}$ |
| Decl. ♀ a refr. libera | | 23 46 |
| Pone Asc. R. ♀ | | 237 32 42 |
| Resp. e noua tabula | | |
| Longit. | | 0 31 43 $\frac{1}{2}$ |
| Latit. | | 3 30 53 $\frac{1}{2}$ |
| Medius motus ☉ | | 15 44 35 $\frac{1}{2}$ |
| Vagatio ♀ a medio motu ☉ | | 44 47 7 |

N.B. Declinatio ♂ hic eadem est, qua
superius vñ fumus ex obseruationibus
limitata emergente, quam paulo ma-
iorem hic suppositum fuisse temporis
alteratio effligat, nihil tamen in loco
♀ indagando hoc habet momenti.

| | |
|--------------------|---|
| Iuxta Copernicum ♀ | Longit. 0 0 $\frac{1}{2}$ x $\frac{1}{2}$ |
| | Latit. 0 43 M. |
| Iuxta Alphons. | Longit. 0 0 x $\frac{1}{2}$ |
| | Latit. 2 17 M. |

N. B. Refractiones in distantia ♀^{ris} a
♂^e limitantur addendo distantie in al-
titudine 1° obseruatæ 12', in altitudine
vero 2 graduum 10', 3 graduum 9'.

Postea examinatione huius loci facta
per visam distantiam a ♂ 48° 23' & vi-
sas vtriusque declinationes suppositas,
huius quidem 24° 49', illius vero
23° 28', prouenit Asc. R. ♀ 237 50 45,
resp. Long. 0 44 3, Lat. 3 9 45 M.
& vera Long. 0 41 0, Lat. 3 26 $\frac{1}{2}$ habita
ratione parall. & refractionis.

DIE 30 SEPTEMBRIS, VESPERI.

| | | |
|-------|----------------------|------------------|
| 5 54' | Declinatio ♀ | 24 15 |
| | | 24 14 |
| | Altitudo ♀ tunc erat | 5 fere |
| ... | Declinatio ♀ vno 24 | 13 $\frac{1}{2}$ |
| | Altitudo tunc erat | 3 |

| | | |
|---|---------------------------|-----------|
| 6 8½ | Inter ♀ & ♂ | 47 20 |
| 6 12½ | corr./ Altitudo ♀ fere | 2 gr. |
| | Lucida Vult. orient. | 4 8 |
| 6 10 | Inter ♀ & ♂ | 47 18½ |
| | Altit. ferme | 0½ |
| 6 12 | Inter ♀ & ♂ | 47 17 |
| | Altitudo ♀ circiter | M. 12 |
| Paululum adhuc supra Horizontem eleuata erat ♀. | | |
| H. 6 M. 12 | Distabat ♀ a ♂ | 47 20 |
| | Pro refract. 2° alt. adde | 10 |
| | Vera distantia | 47 30 |
| | Declin. ♀ vifa | 24 15 |
| | Adde pro refract. | |
| | in alt. 5° | 9 |
| | Declin. M. ♀ | 24 24 |
| | Declin. ♂ vifa | 24 26 |
| | Adde pro refract. | |
| | in alt. 9° | 5 |
| | Declin. ♂ | 24 31 |
| | Ascensio R. ♀ | 240 44 28 |
| | Resp. Longitudo | 3 31½ x |
| | Latitudo | 3 32½ M. |
| Medius motus ☉ | | 18 42 2½ |
| Elongatio ♀ a medio motu ☉ ^{lis} | | 44 49 8 |

DIE 2 OCTOBRIS, VESPERI.

| | | |
|-------|------------------------------------|--------|
| 5 40' | Declinatio ♀ | 24 45 |
| | Altit. ♀ fere 3 grad. ¹ | 24 45½ |
| | per ☉ minim. | |
| 5 46½ | Altit. per Radium | 1 45 |
| | Declinatio ♀ | 24 42½ |
| | | 24 42 |
| 5 51½ | Inter ♂ & ♀ | 46 36 |
| 5 56 | corr./ Altitudo ♀ | 1½ |
| | Vultur orient. | 6 32 |
| 5 54½ | Inter ♂ & ♀ | 46 35½ |
| | Altit. | 1 0 |
| | Vultur orient. | 5 35 |
| 5 57 | Declinatio ♀ | 24 40 |
| | Altitudo | 0 55 |
| 6 0½ | Inter ♂ & ♀ | 46 35 |
| 6 5½ | corr./ Alt. per Radium | 0 45 |
| | Vultur orient. | 4 12 |

Hic corrigebatur horologium.

♀ in decliuiori altitudine Horizonti proxime non poterat obseruari vltorius propter nubes.

¹ Primum scriptum erat 2° 25'.

Ex hisce obseruationibus.

| | | |
|--|--------------------------|-----------|
| 5 56' | Dist. ♀ a ♂ | 46 36 |
| | Adde pro refract. | |
| | in alt. 1½ | 11 |
| | Distantia limitata | 46 47 |
| | Declin. obseruata | 24 45 |
| | Decl. liberata a refr. | 24 57 |
| | Ascensio R. ♂ | 294 38 |
| (adimitur l' pro alteratione temporis) | | |
| | Ascensio R. ♀ | 242 51 16 |
| | Resp. Longitudo | 5 31 x |
| | Latitudo | 3 42½ M. |
| | Remotio ♀ a medio motu ☉ | 44 51 30 |

DIE 9 OCTOBRIS, VESPERI.

| | | |
|-----------|--|------------|
| 5 42' 20" | Declinatio ♀ | 26 4 |
| | | 26 3½ |
| | Altitudo circiter | 4 |
| 5 45 | Inter ♂ & ♀ | 44 32½ |
| 5 40 | corr./ Altitudo | 2½ |
| 5 46½ | Inter ♀ & ♂ | 44 32 |
| | Altitudo | 2 |
| 5 47½ | Inter ♀ & ♂ | 44 32 |
| | Altit. ♀ | 1½ |
| 5 48 40 | Declinatio ♀ | 26 0½ |
| | Altitudo fere | 1 |
| 5 54½ | Erat luc. Vult. or. l | 31 |
| 5 50 | corr./ Vltorius non poterat ♀ obseruari, quia descenderat circa horizontem in nubes. | |
| H. 5 40' | Distancia ♀ a ♂ | 44 32½ |
| | Adde pro refract. in 2° | 9½ |
| | Distantia emendata | 44 42 |
| | Declin. obseruata | 26 4 |
| | Adde pro refract. | |
| | in alt. 4° | 10 |
| | Declin. emendata | 26 14 |
| | Ascensio R. ♀ | 249 58 40 |
| | Resp. Longitudo | 12 4 19 x |
| | Latitudo | 3 57 19 M. |

DIE 10 OCTOBRIS, VESPERI.

Altitudines per Radium obseruatæ.

| H. M. | Inter ♀ & ♂ | Decl. ♀ | Altit. ♀ | Vultur or. |
|---------|-------------|---------|----------|------------|
| 5 35 | | 26 20½ | 6 fere | |
| | | 26 19 | | |
| 5 45 15 | 44 20 | | 3 45 | 4 2 |
| 5 36 | corr. | | | |

| | | | | |
|---------|---------------|-------------------------|-----|------|
| 5 48 30 | 44 18 | 2½ | | |
| 5 51½ | 44 18½ | 26 15 | 2 | 3 40 |
| 5 54 25 | 44 17½ | | 1½ | |
| 5 57 10 | 44 17 | | 1 8 | 2 56 |
| 6 0 | 44 16 | | 1 0 | |
| 6 2 20 | 44 18 incerta | propter decliuitatem ♀. | | |

N. B. Refractiones in distantia per dimidium quantitatis quæ adhibetur in declinatione emendanda tolluntur propter decluiorem quam ab initio cum ♂ statum.

| | | | | |
|-----------------------------|---------|-----------|------|--|
| H. 5 M. 36 | Diff. ♀ | | | |
| & ♂ obseruata | | 44 20 | | |
| Diff. correctæ pro refract. | | 44 27½ | | |
| Declin. obseruata | | 26 19 50 | | |
| Adde pro refr. in alt. 6° | | | 7 10 | |
| Declin. emendata | | 26 27 0 | | |
| Ascensio R. ♀ | | 251 0 | | |
| Resp. Longitudo | | 13 0 24½ | | |
| Latitudo | | 4 2 30 M. | | |
| Elongatio a medio Solis | | 44 32½ | | |

DIE 16 OCTOBRIS, VESPERI.

| H. M. S. | Inter ♀ & ♂ | Decl. ♀ | Alt. ♀ |
|--------------|----------------|---------|--------|
| 5 31 | | 27 1½ | 1 45 |
| 5 36 15 | | 26 59½ | 1 38 |
| 5 39 20 | 43 4 | | 1 10 |
| 5 34 corr. | | | |
| 5 42 15 | 43 3½ | | 1 4 |
| 5 44 50 | 43 3 | | 0 58 |
| 5 46 50 | 43 2½ | | 0 52 |
| 5 58 35 | 43 0½ Incumbat | | |
| Horizonti ♀. | | | |

DIE 4 NOUEMBRIS.

Horologium in Meridie corripitur. Vesperī obseruabatur ♀.

Horologium 10 Minutis circiter plus iusto in sequentibus mouebatur.

| | | |
|------|------------------------|--------|
| 5 3' | Declinatio ♀ M. | 27 20½ |
| | Paulo post, alt. pinn. | 27 20½ |
| | Altitudo ♀ circiter | 3 0 |
| 5 9½ | Inter ♀ & ♂ | 43 6 |
| | Altitudo ♀ | 2½ |

Postea cælum nubibus obductum obseruationibus amplius non patebat.

DIE 10 NOUEMBRIS, VESPERI.

| | | |
|--------------------------------|-------------------|--------|
| 4 49½' | Declin. ♀ | 26 48½ |
| 4 38 corr. | per max. armill. | 26 49 |
| | Alt. 3 fere grad. | |
| 5 30 | Diff. inter ♀ & ♂ | 44 47 |
| 5 19 corr. | Alt. ♀ 2 grad. | fere |
| | Declinatio ♀ | 26 45 |
| ... | Distantia | 44 46½ |
| | Altitudo fere | 1½ |
| 5 23½ | Vultur occid. | 21 29 |
| Ad hanc horologium corripitur. | | |

Eodem die 10 Nouembris H. 5 M. 20.

| | |
|------------------------------|----------|
| Distantia ♂ a ♀ | 44 47 |
| Adde pro refract. in 2° alt. | 9 |
| Diff. emendata | 44 56 |
| Declin. ♀ obseruata | 26 48 45 |
| Adde pro refract. in alt. 3° | 12 15 |
| Decl. emendata | 27 1 0 |
| Ergo Asc. Recta ♀ | 274 12½ |
| Resp. Longitudo | 3 45½ 7 |
| Latitudo | 3 32½ M. |

DIE 11 NOUEMBRIS, VESPERI.

| H. M. | Diff. ♀ a ♂ | Declin. ♀ | Alt. ♀ per minor. ♀. |
|-------|-------------------|-----------|----------------------|
| 4 42½ | | 26 43½ | 5 |
| | | 26 43½ | |
| 4 51½ | 45 11½ minus tuta | | 2½ |
| 5 0 | 45 12½ | 26 39 | 2 |
| | | 26 38½ | |
| 5 25 | 45 12 | | 1½ |

Erat hac vespera satis serenum & aër tranquillus.

Ex antecedentibus obseruationibus.

| | | |
|------------|---------------------------|----------|
| H. 4 M. 48 | Diff. ♀ a ♂ | 45 12 |
| | Adde pro refr. in 3° alt. | 8 |
| | Vera distantia | 45 20 |
| 4 40' | Decl. ♀ obseruata | 26 43 |
| | Adde pro refr. in alt. 5° | 8 |
| | Declin. emendata | 26 51 |
| | Ascensio R. ♀ | 274 27 0 |
| | Resp. Longitudo | 3 58½ 7 |
| | Latitudo | 3 23½ M. |

Collectio apparentiarum stellæ ζ^{ris} ex obseruationibus in eadem hoc anno habitis circa maximam vagationem a \odot^{le} dum Hesperus fuit & calculo subductis facta vna collatione calculi Coper: & Alphons.

| | Dies | H. M. | Calculus ex obf. | | Calculus Copern. | | Calculus Alph. | |
|-------|------|-------|------------------------------|--------------------|----------------------------|--------|----------------|--------|
| | | | Long. | Lat. | Long. | Lat. | Long. | Lat. |
| Sept. | 27 | 6 11 | 3 31 43 \times | 3 30 53M. | 0 0 $\frac{1}{2}$ \times | 2 43M. | 0 0 \times | 2 17M. |
| | 30 | 6 12 | 3 31 $\frac{1}{2}$ | 3 32 $\frac{1}{2}$ | 3 3 | 2 50 | 2 58 | 2 30 |
| Oct. | 2 | 5 56 | 5 31 | 3 42 $\frac{1}{2}$ | 5 2 | 2 54 | 4 53 | 2 40 |
| | 9 | 5 40 | 12 4 19 | 3 57 | 11 45 | 3 10 | 11 28 | 3 6 |
| | 10 | 5 36 | 13 0 24 | 4 2 $\frac{1}{2}$ | 12 41 | 3 13 | 12 22 | 3 10 |
| | 16 | 5 34 | 18 12 $\frac{1}{2}$ | 4 14 12 | 18 0 | 3 31 | 17 30 | 3 39 |
| Nov. | 10 | 5 20 | 3 45 $\frac{1}{2}$ \propto | 3 32 $\frac{1}{2}$ | 4 17 \propto | 2 33 | 2 19 \propto | 3 59 |
| | 11 | 4 48 | 3 58 $\frac{1}{2}$ | 3 23 $\frac{1}{2}$ | 4 38 | 2 33 | 2 36 | 3 57 |

OBSERUATIONES MERCURIJ.

DIE 16 FEBRUARIJ.

Vesp̄eri obseruabatur γ .

| H. M. | Dift. inter γ & luc. γ | Decl. γ Mer. | Alt. γ per Vol. | Luc. hum. Orion. or. |
|--------------------|---|------------------------|---------------------------|-------------------------|
| 6 27 $\frac{1}{2}$ | 38 6 | 1 21 $\frac{1}{2}$ | 3 41 | 6 59 $\frac{1}{2}$ |
| 6 34 $\frac{3}{4}$ | 38 4 $\frac{1}{2}$ | 1 17 $\frac{1}{2}$ | per Q. min. | 5 9 |
| | | 1 19 $\frac{1}{2}$ | 2 fere | |
| 6 39 | 38 2 $\frac{1}{2}$ | 1 17 | 1 $\frac{1}{2}$ ferme | 4 2 $\frac{1}{2}$ |
| 6 42 | 37 59 $\frac{1}{2}$ | 1 14 | 1 $\frac{1}{2}$ | 3 20 |
| 6 45 $\frac{3}{4}$ | 37 56 | 1 13 $\frac{1}{2}$ | 1 quasi | 2 28 |
| 6 48 | 37 55 | 1 13 | | 1 48 |

γ hoc vesp̄ere admodum magnus apparuit instar stellarum primæ magnitudinis, adeo vt Aldeboram sua visibili quantitate æquauerit.

DIE 17 FEBRUARIJ.

Vesp̄eri obseruabatur γ vt sequitur.

H. 5 M. 39 examinabatur horologium antea correctum ad Canem maiorem, beneque se habebat, exceptis 5'' quibus iusto celerius mouebatur.

| H. M. | Dift. γ a luc. γ | Declin. γ M. | Altitud. per Vol. | Canis maior or. |
|--------------------|-----------------------------------|------------------------|----------------------|--------------------|
| 5 56 $\frac{3}{4}$ | | 0 39 | 8 34 | 27 9 $\frac{1}{2}$ |
| 6 1 | | 0 38 $\frac{1}{2}$ | 7 58 | 26 11 |

| | | | | |
|--------------------|---------------------|--------------------|----------------------|--------------------|
| 6 9 $\frac{3}{4}$ | 36 45 | 0 38 | 6 46 | 23 48 |
| 6 10 corr. | | | Luc. pes Orion. occ. | |
| 6 14 $\frac{1}{2}$ | 36 44 | 0 36 $\frac{3}{4}$ | 6 10 | 0 14 $\frac{1}{2}$ |
| 6 17 $\frac{1}{2}$ | 36 43 | 0 35 $\frac{1}{2}$ | 5 45 $\frac{1}{2}$ | 1 4 |
| 6 20 $\frac{1}{2}$ | 36 42 $\frac{1}{2}$ | 0 35 $\frac{1}{2}$ | 5 16 | 2 0 |
| 6 24 25 | 36 41 $\frac{3}{4}$ | 0 34 $\frac{3}{4}$ | 4 45 $\frac{1}{2}$ | 2 50 |
| 6 27 $\frac{1}{2}$ | 36 40 | 0 33 $\frac{3}{4}$ | 4 21 | 3 39 |
| 6 30 $\frac{3}{4}$ | 36 39 $\frac{1}{2}$ | 0 33 $\frac{3}{4}$ | 3 55 | 4 22 |
| 6 31 0 corr. | | 0 34 $\frac{3}{4}$ | Per Q. min. | |
| 6 35 | 36 37 $\frac{1}{2}$ | 0 32 $\frac{3}{4}$ | 3 15 | 5 33 |
| 6 38 $\frac{3}{4}$ | 36 36 $\frac{1}{2}$ | 0 31 $\frac{3}{4}$ | 2 40 $\frac{3}{4}$ | 6 27 |
| | | 0 32 | | |
| 6 42 $\frac{1}{2}$ | 36 33 $\frac{1}{2}$ | 0 29 $\frac{1}{2}$ | 2 10 | 7 22 |
| 6 46 $\frac{1}{2}$ | 36 32 $\frac{1}{2}$ | 0 26 $\frac{1}{2}$ | 1 45 | 8 17 |
| 6 49 $\frac{1}{2}$ | 36 30 | 0 24 $\frac{1}{2}$ | 1 20 | 9 5 |
| 6 54 $\frac{1}{2}$ | 36 25 | | | 10 23 |

Non capiebatur Declinatio propter decliuitatem. Altit. quasi vnus gradus quoad oculum vel ad minimum 50' per Radium.

EODEM DIE 17 FEBRUARIJ.

Vesp̄eri obseruabatur lucida γ in confimili vbique fere altitudine, qua antea γ pro refractionibus γ limitandis vt sequitur.

| Declinatio lucidæ γ | | Alt. eiusdem per Volub. |
|-------------------------------|---------------------|----------------------------|
| 21 31 $\frac{1}{2}$ | 21 31 | 14 55 |
| 21 31 $\frac{1}{2}$ | 21 31 $\frac{1}{2}$ | 13 45 |
| 21 33 vtroque pinn. | | 9 5 |
| 21 34 | 21 34 $\frac{1}{2}$ | 8 11 |
| 21 34 $\frac{1}{2}$ | 21 34 $\frac{1}{2}$ | 6 46 |
| 21 37 | 21 36 $\frac{1}{2}$ | 5 45 |
| 21 38 $\frac{1}{2}$ | 21 38 | 4 45 |
| 21 41 $\frac{1}{2}$ vno pinn. | | 3 55 |

DIE 18 FEBRUARIJ.

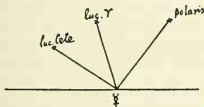
Vesperis rursus obseruabatur γ .

Horologium corrigebatur ad Canem maiorem H. 5 M. 45 $\frac{1}{2}$.

Lucida in mandibula Cete qua in sequenti obseruatione γ vti fumus, habuit per Armillas Declinationem

vno pin. 2 26
altero 2 25 $\frac{1}{2}$

N. B. Refractio distantia respectu lucidæ γ fuit qualis est refractio declinationis in tali altitudine vel paulo maior, eo quod directius imminet lucida γ Mercurio quam stella polaris sed discrimine modico. Refractio autem erat a lucida cete in distantia minor eo quod plus in obliquum tendebat, & poterat quasi medio modo se habere sic.



| H. M. | Dist. γ a luc. γ | Decl. γ Bor. | Alt. per Vol. | Pro horol. Luc. pes Or. or. |
|--------------------|-----------------------------------|------------------------|------------------|-----------------------------------|
| 6 3 $\frac{1}{2}$ | 35 24 | 0 6 | 8 36 | 1 56 |
| 6 7 | 35 24 $\frac{1}{2}$ | 0 6 $\frac{1}{2}$ | 8 5 | 1 1 |
| 6 11 | 35 24 $\frac{1}{2}$ | 0 6 $\frac{1}{2}$ | 7 35 | 0 10 |
| 6 14 $\frac{1}{2}$ | 35 23 $\frac{1}{2}$ | 0 8 | 7 5 | 0 45 |
| 6 18 | 35 22 | 0 7 $\frac{1}{2}$ | 6 41 | 1 36 |
| 6 22 $\frac{1}{2}$ | 35 21 $\frac{1}{2}$ | 0 8 | 6 10 | 2 35 |
| 6 26 | 35 21 $\frac{1}{2}$ | 0 9 | 5 40 | 3 29 |
| 6 30 $\frac{1}{2}$ | 35 20 | 0 10 | 5 10 | 4 24 |
| | | 0 9 $\frac{1}{2}$ | | |

| a lucida Cete | | | | |
|--------------------|--------------------|--------------------|----------------|------|
| 6 34 $\frac{1}{2}$ | 43 3 | 0 10 $\frac{1}{2}$ | 4 36 | 5 27 |
| | | 0 10 | | |
| 6 38 $\frac{1}{2}$ | 43 2 $\frac{1}{2}$ | 0 11 | 4 12 | 6 10 |
| 6 42 | 43 2 $\frac{1}{2}$ | 0 12 | per min. Quad. | |
| | | 0 11 $\frac{1}{2}$ | 3 40 | 7 8 |

| iterum a luc. γ | | | | |
|------------------------|---------------------|--------------------|------|-------|
| 6 45 $\frac{1}{2}$ | 35 17 | 0 13 | 3 15 | 7 55 |
| 6 49 | 35 16 | 0 13 $\frac{1}{2}$ | 2 50 | 8 47 |
| 6 53 | 35 15 | 0 15 $\frac{1}{2}$ | 2 10 | 9 47 |
| | | 0 14 $\frac{1}{2}$ | | |
| 6 56 | 35 14 $\frac{1}{2}$ | 0 18 $\frac{1}{2}$ | 1 50 | 10 30 |

| a lucida Cete | | | | |
|--------------------|---|--------------------|------|-------|
| 6 58 $\frac{1}{2}$ | 42 59 $\frac{1}{2}$ | 0 18 $\frac{1}{2}$ | 1 30 | 11 11 |
| 7 2 $\frac{1}{2}$ | 43 0 | 0 20 | 1 10 | 12 15 |
| 7 11 $\frac{1}{2}$ | occidebat γ in horisonti visibili 14 21 | | | |

N. B. Pro examinando Sextante obseruabatur mox distantia lucidæ γ & Aldeboræ, quæ inueniebatur per eundem sextantem

I 35 32 $\frac{1}{2}$
II 35 32
III 35 32 $\frac{1}{2}$

Igitur instrumentum bene se habet.

Pro investiganda refractione γ obseruabatur Arcturus.

| H. M. | Alt. Arcturi | Declinatio eiusdem | Luc. pes Orion. occ. |
|---------------------|-----------------|-----------------------|-------------------------|
| 7 22 $\frac{1}{2}$ | 3 20 | 21 31 $\frac{1}{2}$ | 21 32 |
| 7 25 | | 21 32 | 21 30 |
| 7 27 | 3 50 | 21 31 | 21 29 $\frac{1}{2}$ |
| 7 29 | 4 4 | 21 30 $\frac{1}{2}$ | 21 30 |
| ... | 5 54 | 21 28 $\frac{1}{2}$ | 21 30 |
| Alt. mer. min. Lyræ | | | 4 32 $\frac{1}{2}$ |
| ... | 6 46 | 21 28 $\frac{1}{2}$ | 21 28 |
| ... | 7 12 | 21 28 | 21 27 $\frac{1}{2}$ |

Pro experimentando instrumento obseruabatur cor Ω , quæ stella erat in tanta altitudine vt refractio nihil ingesserit.

| | |
|--|---------------------|
| Declinatio cordis Ω | 13 57 |
| | 13 57 $\frac{1}{2}$ |
| | 13 56 $\frac{1}{2}$ |
| Distantia inter Canem maiorem & pedem anteriorem eiusdem | 5 35 $\frac{1}{2}$ |
| | 5 35 |
| | 5 34 $\frac{1}{2}$ |
| Declinatio lucidæ Ceti | 2 26 $\frac{1}{2}$ |
| | 2 26 $\frac{1}{2}$ |
| Alt. mer. Lyræ minima, bona | 4 32 $\frac{1}{2}$ |

Fuit tunc Canis maior orient. 1 5
Erat bene Ierenum
 Arcturi Declin. 21 29½ Altit. 6 25
 21 29½

Eodem 18 Feb. pro refractione.
 Lucidæ mandibulæ Ceti

| H. M. | Altit. | Declinatio | |
|-------|--------|------------|-------|
| | 8 50 | 2 34½ | 2 35 |
| 9 13 | 8 37 | 2 30 | |
| 9 17½ | 8 3 | 2 30½ | 2 30 |
| 9 23½ | 7 15 | 2 31 | 2 30½ |
| | 6 27 | 2 31½ | 2 21½ |

Lucidæ V

| | | | |
|-------|-------|-------|--------|
| 9 33½ | 13 20 | 21 32 | 21 31½ |
| | 12 40 | 21 32 | 21 32½ |

Altit. merid. min. Caudæ Cygni

per Chal. 9 50½
 per Volub. 9 50½

Declin. luc. V 21 33½ 21 33

| Spicæ III | Altit. | Declinatio | |
|-----------|--------|------------|--------|
| | 5 40 | 8 52 | |
| | 6 35 | 8 54 | 8 54½ |
| | 7 45 | 8 56 | 8 55 |
| | 8 30 | 8 55 | 8 56½ |
| | 9 20 | 8 55½ | |
| Luc. V | 9 40 | 21 33½ | 21 33½ |
| | 7 20 | 21 34½ | 21 34½ |
| | 4 55 | 21 36½ | 21 36½ |

DIE 19 FEBRUARIJ.

Vesperī obseruabatur ♀ vt sequitur.
 H. 5 M. 48 corrigebatur Horologium
 ad Canem maiorem.

| H. M. | Dist. ♀ a luc. V | Declin. ♀ Bor. | Altit. ♀ | Luc. pes Orion. occ. |
|-------|---------------------|-------------------|-------------|-------------------------|
| 5 59½ | 0 46½ | 9 27 | | |
| 6 1 | 0 47½ | 9 15 | | |
| 6 4½ | 0 48 | 8 47 | | |
| 6 9 | 34 4* | 0 48½ | 8 7 | 1 2 |
| 6 12½ | 34 4* | 0 49½ | 7 41 | 1 50 |
| 6 19½ | 34 4* | 0 50½ | 6 44 | 3 39 |
| | *dubiæ | 0 50½ | | |
| 6 22½ | 34 6½ | 0 50½ | 6 17 | 4 28 |
| | | 0 50½ | | |
| 6 25½ | 34 6 | 0 51½ | 5 56 | 5 7 |
| | | vtroque | | |
| 6 27½ | 34 4 | 0 52½ | 5 36 | 5 38 |
| | | 0 51½ | | |
| 6 31½ | 34 3½ | 0 51½ | 5 15 | 6 32 |
| | | 0 53½ | | |

| | | | | |
|-------|----------|-------|------|------|
| 6 35½ | 34 2½ | 0 53 | 4 40 | 7 36 |
| | | 0 53½ | | |
| 6 43½ | 34 2 | 0 55 | 3 34 | 9 21 |
| | ♀ a luc. | 0 56 | | |

| | mandib. Cete | | | |
|-------|--------------|-------|------|-------|
| 6 47½ | 41 56½ | 0 56 | 3 10 | 10 14 |
| | | 0 56½ | | |
| 9 50½ | 41 55½ | 0 58 | 2 45 | 11 5 |
| | | 0 59 | | |

| | rufus a luc. V | | | |
|-------|----------------|-------|------|-------|
| 6 53½ | 41 54½ | 0 59½ | 2 20 | 12 3 |
| | | 1 0½ | | |
| 6 57 | 33 52 | 1 0 | 1 40 | 12 56 |
| 7 2 | 33 49 | 1 2 | 1 25 | 13 59 |
| 7 4½ | 33 47 | 1 3 | 0 50 | 14 37 |
| 7 6½ | 33 45 | | 0 45 | 15 6 |

Decl. non accipiebatur propter decliuitatem.

Exantecedentibus obseruationibus die 18 & 19 habitis selegi duas, quas in refractione correxi hoc modo.

| Die | H. M. | Dist. a luc. V | Decl. | H. M. | Dist. a luc. Cete |
|-----|-------|-------------------|-------|-------|----------------------|
| 18 | 6 30 | 35 27½ | 0 2 | 6 35 | 43 8 |
| 19 | 6 31 | 34 11 | 0 45 | 6 47 | 42 2½ |

Hinc provenit locus Mercurij in hunc modum qui sequitur. Pro refractione sumsi eandem in distantia ab V stella, quam declinatio exigebat, eo quod declinatio & distantia in eodem quasi erant quoad verticem angulo, sed in lucida Cete quoad distantiam accepi saltem dimidium eiusdem refractionis, eo quod obliquior eBst situs, dimidio plus.

Eodem Vesperī obseruabatur Arc-
 turus propter refractionem

♀ vt sequitur.

| H. M. | Declinatio Arcturi | Alt. eiusdem per Volub. |
|-------|--|----------------------------|
| 7 16½ | 21 32½ | 21 33½ |
| 7 18½ | 21 33 | 21 32½ |
| 7 23½ | 21 33 | 21 33½ |
| 7 26½ | 21 31½ | 21 32 |
| 7 31½ | 21 29½ | 21 28½ |
| 7 34 | 21 28½ | 21 29½ |
| 7 34½ | Tunc erat lyra in minima alti- tudine merid. per Volub. | 4 32½ |
| 7 38½ | 21 29½ | 21 27 |
| 7 44½ | 21 29½ | 21 27 |
| 7 49 | 21 27½ | 21 27½ |
| 7 58½ | 21 26½ | 8 25 |

| | | | |
|--------------------|---|---------------------|-------|
| 8 12 $\frac{3}{4}$ | 21 25 $\frac{1}{2}$ | | 10 19 |
| 8 23 $\frac{1}{2}$ | 21 24 $\frac{1}{2}$ | 21 25 | 11 32 |
| 8 49 $\frac{1}{2}$ | 21 23 $\frac{1}{2}$ | 21 23 | 14 51 |
| 8 55 $\frac{1}{2}$ | 21 23 $\frac{1}{2}$ | 21 22 $\frac{1}{2}$ | 15 50 |
| 9 17 | 21 23 | 21 22 $\frac{1}{2}$ | 18 45 |
| 9 43 $\frac{1}{2}$ | pro corrigendo horologio Canis maior occid. 31 11. | | |

DIE 20 FEBRUARIJ.

Vesperī obſeruabatur ☿ vt ſequitur.
*Horologium corripiebatur circa
 horam 6 a Cane minore.*

| H. M. | Diff. inter ☿ & luc. ♀ | Declin. B. | Altit. ☿ | Luc. pes Orion. occ. |
|--------------------|---------------------------|-------------------------|----------|-------------------------|
| 6 6 $\frac{1}{2}$ | | 1 26 $\frac{1}{2}$ | 9 12 | 1 2 |
| | | 1 28 | | |
| 6 10 $\frac{1}{2}$ | 32 56 $\frac{1}{2}$ | 1 28 $\frac{1}{2}$ | 8 38 | 2 2 |
| | | 1 29 $\frac{1}{2}$ | | |
| 6 13 $\frac{1}{2}$ | 32 56 $\frac{1}{2}$ | 1 29 $\frac{1}{2}$ | 8 15 | 2 45 |
| | | 1 29 $\frac{1}{2}$ | | |
| 6 16 $\frac{1}{2}$ | 32 55 $\frac{1}{2}$ | 1 29 $\frac{1}{2}$ | 7 44 | 3 39 |
| | bona) | 1 29 $\frac{1}{2}$ | | |
| 6 19 $\frac{1}{2}$ | 22 55 $\frac{1}{2}$ | 1 30 $\frac{1}{2}$ vtr. | 7 25 | 4 16 |
| 6 22 $\frac{1}{2}$ | 32 54 $\frac{1}{2}$ | 1 30 | 6 59 | 5 8 |
| | a luc. | 1 30 $\frac{1}{2}$ | | |
| 6 26 $\frac{1}{2}$ | mand. Ceti | 1 30 $\frac{1}{2}$ | 6 28 | 6 2 |
| | 41 1 | 1 30 $\frac{1}{2}$ | | |
| 6 29 | 41 1 $\frac{1}{2}$ | 1 31 $\frac{1}{2}$ | 6 4 | 6 50 |
| | | 1 31 | | |
| 6 34 | | 1 31 | 5 31 | 7 54 |
| | | 1 31 $\frac{1}{2}$ | | |
| 6 35 $\frac{1}{2}$ | 40 59 $\frac{1}{2}$ | 1 32 $\frac{1}{2}$ | 5 15 | 8 20 |
| | | 1 32 $\frac{1}{2}$ | | |
| 6 38 | 40 58 $\frac{1}{2}$ | 1 33 $\frac{1}{2}$ | 4 58 | 8 50 |
| | | 1 33 | | |
| 6 40 | 40 58 $\frac{1}{2}$ | 1 34 $\frac{1}{2}$ | 4 40 | 9 28 |
| | Iterum a luc. ♀ | 1 33 $\frac{1}{2}$ | | |
| 6 45 $\frac{1}{2}$ | 32 52 | 1 35 $\frac{1}{2}$ | 4 0 | 10 42 |
| | | 1 36 | | |
| 6 49 $\frac{1}{2}$ | 32 50 $\frac{1}{2}$ | 1 35 $\frac{1}{2}$ | 3 38 | 11 38 |
| | | 1 36 $\frac{1}{2}$ | | |
| 6 53 $\frac{1}{2}$ | 32 48 $\frac{1}{2}$ | 1 38 | 2 57 | 12 45 |
| | a luc. Cete | | | |
| 6 57 | 40 57 $\frac{1}{2}$ | 1 39 | 2 22 | 13 33 |
| | | Per Radium | | |
| 7 0 $\frac{1}{2}$ | 40 55 | 1 39 $\frac{1}{2}$ | 2 6 | 14 26 |
| 7 3 $\frac{1}{2}$ | | 1 40 $\frac{1}{2}$ | 1 55 | 15 6 |
| 7 5 $\frac{1}{2}$ | 40 54 $\frac{1}{2}$ | 1 41 $\frac{1}{2}$ | 1 35 | 15 33 |

¹ Cfr. infra inter Stellas Auſtrinas.

| | | | | | |
|-----|------------|---------------------|--------------------|-----|-------|
| 7 8 | a lucida ♀ | 32 36 $\frac{1}{2}$ | 1 42 $\frac{1}{2}$ | 1 0 | 16 15 |
|-----|------------|---------------------|--------------------|-----|-------|

Postea obſeruabatur lucida Cete pro
 examinando eius loco propter obſer-
 uationem ☿, qui ab hac aliquoties ca-
 piebatur¹.

| | |
|-----------------------|---------------------|
| Diſtancia lucidæ Cete | 23 32 $\frac{1}{2}$ |
| a lucida ♀ | 23 32 $\frac{1}{2}$ |
| Declinatio eiſdem | 2 26 $\frac{1}{2}$ |
| | 2 27 $\frac{1}{2}$ |
| Declinatio lucidæ ♀ | 21 29 |
| | 21 29 $\frac{1}{2}$ |

Inter cap. Androm. & luc. mandib.
 Cete 48 5 bis, dubia inter Chasmata.

DIE 22 FEBRUARIJ, VESPERI.

Horologium corripiebatur circa ho-
 ram 6 ad lucidum pedem Orionis, qui
 meridianum tranſibat H. 5 M. 54 $\frac{1}{2}$.

N. B. ☿ erat hac Veſpera in maxima
 digreſſione a ☉, ita tamen, vt iuxta
 Prutenicum calculum hæc elongatio
 ante diem vnum circiter præterierit.
 Iuxta Alphonſinum autem adhuc in-
 ſtare deberet, fed obſeruatio verita-
 tem pandet.

| H. M. | Diff. inter ☿ & luc. ♀ | Declin. B. | Altit. | Luc. pes Orion. occ. |
|--------------------|----------------------------|--------------------|--------|-------------------------|
| 6 14 $\frac{1}{2}$ | | 2 40 $\frac{1}{2}$ | 8 35 | 5 2 |
| | | 2 40 $\frac{3}{4}$ | | |
| 6 16 $\frac{1}{2}$ | 30 59 | 2 41 $\frac{1}{2}$ | 8 27 | 5 25 |
| | | 2 41 $\frac{3}{4}$ | | |
| 6 19 $\frac{1}{2}$ | 30 57 $\frac{1}{2}$ | 2 42 | 8 15 | 6 5 |
| | | 2 41 $\frac{3}{4}$ | | |
| 6 25 $\frac{1}{2}$ | 30 55 | 2 43 | 7 20 | 7 46 |
| | | 2 42 $\frac{3}{4}$ | | |
| 6 32 $\frac{1}{2}$ | 30 54 $\frac{1}{2}$ | 2 43 $\frac{1}{2}$ | 6 24 | 9 23 |
| | | 2 43 $\frac{3}{4}$ | | |
| 6 38 $\frac{1}{2}$ | 30 53 | 2 43 $\frac{1}{2}$ | 5 40 | 10 55 |
| | ☿ a lucida mandib. Cete | 2 44 $\frac{1}{2}$ | | |
| 6 44 $\frac{1}{2}$ | 39 21 $\frac{1}{2}$ | 2 45 | 5 0 | 12 19 |
| | | 2 46 | | |
| 6 49 $\frac{1}{2}$ | 39 20 $\frac{1}{2}$ | 2 47 | 4 14 | 13 16 |
| | | 2 46 $\frac{1}{2}$ | | |
| 6 53 $\frac{1}{2}$ | 39 20 $\frac{1}{2}$ | 2 47 $\frac{1}{2}$ | 3 40 | 14 22 |
| | | 2 47 | | |
| 6 58 $\frac{1}{2}$ | 39 18 $\frac{1}{2}$ | 2 49 | 3 8 | 15 35 |
| | | 2 49 $\frac{1}{2}$ | | |

| Iterum a luc. γ | | | | |
|------------------------|---------------------|--------------------|------|-------|
| 7 4 $\frac{1}{2}$ | 30 44 $\frac{1}{2}$ | 2 48 vno | 2 10 | 17 2 |
| 7 10 | | 2 52 $\frac{1}{2}$ | 1 50 | 18 22 |
| 7 12 | | 2 53 $\frac{1}{2}$ | | |

DIE 25 FEBRUARIJ.

Propter nubes quibus cœlum ad oculum obductum erat, non obseruabatur γ , nec etiam die 23 & 24 huius mensis cœlum magis est consentaneum.

DIE 26 FEBRUARIJ, VESPERI.

N.B. Hoc die debuit γ iuxta calculum Alphonsinum ex Hypothesibus Ptolemaicis derivatum esse in maxima sua elongatione vespertina a \odot , quod tamen experientia & obseruatio non testabitur: sed potius ante quinque dies id evenisse, quod Copernicæ rationibus magis est consentaneum.

| H. M. | Dist. γ & luc. γ | Decl. γ | Alt. per Q. min. orich. azim. | Luc. pes Orion. occ. |
|--------------------|--------------------------------|----------------------|-------------------------------|----------------------|
| 6 29 $\frac{3}{8}$ | 28 23 $\frac{1}{2}$ | 4 21 vtr. | 7 4 | 12 35 |
| 6 32 $\frac{1}{2}$ | 28 24 $\frac{1}{2}$ | 4 21 $\frac{1}{2}$ | 6 42 | 13 22 |
| | | 4 20 | | |
| 6 35 | 28 24 $\frac{1}{2}$ } bona } | 4 20 $\frac{3}{8}$ | 6 14 | 13 58 |
| | | 4 21 $\frac{1}{2}$ | | |
| 6 38 $\frac{1}{2}$ | | 4 23 $\frac{1}{2}$ * | | 14 53 |
| | | 4 22 $\frac{1}{2}$ * | | |
| 6 39 $\frac{3}{8}$ | 28 23 | 4 23 $\frac{3}{8}$ * | 5 40 | 15 15 |
| | | 4 23 * | | |
| 6 42 $\frac{3}{8}$ | 28 23 | 4 23 $\frac{3}{8}$ * | 4 13 | 16 2 |
| | | 4 24 * | *bonæ | |
| 6 46 $\frac{1}{2}$ | 28 22 | 4 25 $\frac{3}{8}$ | per Vol. | 16 56 |
| | | 4 26 $\frac{1}{2}$ | 4 45 | |
| 6 49 $\frac{3}{8}$ | 28 21 $\frac{1}{2}$ | 4 25 $\frac{1}{2}$ | per Q. orich. | 17 47 |
| | | 4 26 $\frac{3}{8}$ | 4 11 | |
| 6 52 $\frac{3}{8}$ | 28 20 $\frac{1}{2}$ | 4 26 | 3 54 | 18 36 |
| | | 4 25 $\frac{3}{8}$ | | |

a luc. mandib.

| Cete | | | | |
|-------------------|---------------------|--------------------|------|-------|
| 6 57 | 37 29 $\frac{1}{2}$ | 4 26 $\frac{1}{2}$ | 3 14 | 19 40 |
| | | 4 27 $\frac{1}{2}$ | | |
| 7 0 $\frac{1}{2}$ | 37 29 | 4 29 | 2 48 | 20 33 |
| | | 4 30 $\frac{1}{2}$ | | |
| 7 3 $\frac{1}{2}$ | 37 28 $\frac{1}{2}$ | 4 30 $\frac{1}{2}$ | 2 25 | 21 15 |
| 7 6 $\frac{1}{2}$ | 37 27 $\frac{1}{2}$ | 4 32 $\frac{1}{2}$ | 2 5 | 22 0 |
| a lucida γ | | | | |
| 7 9 $\frac{1}{2}$ | 28 9 | 4 34 | 1 33 | 22 53 |
| vno pinn. } | | | | |

Non poterat amplius hac vespera obseruari γ , eo quod Horizonti appropinquarit, nec etiam vltima hæc satis tuta est ob Horizontis vicinitatem. Potes igitur potius fidere antecedentibus, præsertim ijs quæ H. 6 M. 35 vsque in horam 7 proxime, tam a lucida γ quam lucida mandibulæ Cete acceptæ sunt. Eratque hac vespera satis bene serenum, quemadmodum etiam omnibus præcedentibus, quando γ obseruabatur. Iis vero diebus quibus nulla est facta obseruatio in γ , non fuit serenum iuxta occasum vbi videbatur.

Horologium iterum corrigebatur circiter horam 7 $\frac{1}{2}$, vbi animadversum est rursus 1 $\frac{1}{2}$ Minut. tardius moueri.

Post has in γ obseruationes circa hoc anni tempus nullæ amplius restabant, nam die 2 Martij, vesperi, cum primum hoc triduo cœlum circa Horizontem nostrum occidentalem satis bene serenum existeret, diligenter in parte cœli vbi γ locum haberet intuebamur, itaque tunc oculis vix apparuit.

Inquisitio Ascensionum rectarum γ ex binis fere vbique selectis obseruationibus distantia quidem ex diuersis stellis fixis & declinationis, pro refractionibus autem singulæ limitatæ & ad triangulares operationes dispositæ. Vnde postea longitudes & latitudines e Tabula depromuntur & cum locis calculi Copernicæ Alphonsinque ad dies quibus γ apparuit conferuntur.

| Dies | H. M. | Dist. a lucida γ a refractione libera | Declinatio emendata | Ascensio Recta |
|---------|--------------------|--|---------------------|----------------------|
| Feb. 16 | 6 27 $\frac{1}{4}$ | 38 18 0 | 1 32 A. | 354 45 $\frac{1}{2}$ |
| 17 | 6 10 | 36 50 $\frac{1}{2}$ | 0 43 30 | 355 59 5 |
| 17 | 6 31 | 36 50 | 0 43 15 | 355 59 33 |
| 18 | 6 30 | 35 27 | 0 2 B. | 357 9 5 |

| | | | | |
|----|------|------------------------------------|---------|-----------|
| 18 | 6 35 | Diff. a Cete 43 8 | 0 2 B. | 357 12 35 |
| 19 | 6 30 | Diff. ab γ 34 11 | 0 45 | 358 12 42 |
| 19 | 6 47 | Diff. a Cete 42 2 10 | 0 45 | 358 16½ |
| 20 | 6 10 | Diff. a luc. γ 33 0 | 1 25 | 359 11 53 |
| 20 | 6 26 | Diff. a luc. Ceti mand. 41 3 40 | 1 25½ | 359 13 0 |
| 22 | 6 17 | ab γ 31 1 40 | 2 38 | 0 45 0 |
| 22 | 6 45 | a Cete 39 26 30 | 2 38 30 | 0 48 35 |
| 26 | 6 35 | ab γ 28 30 30 | 4 16 | 2 40 15 |
| 26 | 6 53 | a Cete 37 35 30 | 4 16 15 | 2 40 30 |

Loca γ ex obseruationibus ad singulos dies mensis Februarij horas ac momenta quibus cœlitus a nobis obseruatus est, facta vna collatione calculi Copernicæj & Alphonsini ad eadem tempora, cum motu diurno singulorum. Denique \odot ^{his} motus medius & γ ^{rij} ab hoc iuxta obseruationum calculum elongatio.

| Dies | H. M. | Medius motus \odot ^{his} | Elongatio γ a medio motu \odot | Calculus | Longitudo γ | Latitudo γ | Motus diurnus | |
|---|-------|-------------------------------------|---|------------------------------|--|-------------------------------------|------------------------------|-----------------------------|
| | | | | | | | Longitud. | Latitud. |
| 16 | 6 27 | 5 ^h 57 ^m ½ | 18 ^o 38' | Nofter Copern. | 24 ^o 35' 13" γ 25 27 50 | 0 ^o 40' 46" B. 0 55 0 | 1 ^h 31' 0" | 0 ^o 16' 0" |
| 17 | 6 31 | 6 56½ | 19 5½ | Alphon. Nofter Copern. | 24 23 0 26 2 15 γ 26 44 | 0 40 0 0 56 15 1 1 30 | 1 32 0 1 27 0 1 16 10 | 0 7 40 0 15 30 0 6 30 |
| 18 | 6 30 | 7 55½ | 19 29½ | Alphon. Nofter Copern. | 25 54 27 25 γ 27 56 30 | 0 48 0 1 9 37 1 8 20 | 1 31 0 1 22 40 1 11 30 | 0 8 0 0 13 22 0 6 50 |
| 19 | 6 30 | 8 54½ | 19 45½ | Alphon. Nofter Copern. | 27 24 28 40 0 γ 29 4 20 | 0 56 30 1 24 0 1 16 0 | 1 30 0 1 15 0 1 7 50 | 0 8 30 0 14 20 0 7 40 |
| 20 | 6 10 | 9 53½ | 19 56½ | Alphon. Nofter Copern. | 28 51 29 50 8 γ 0 7 γ | 1 6 0 1 37 0 1 22 30 | 1 27 0 1 10 0 1 2 40 | 0 9 30 0 13 0 0 6 30 |
| 21 | 6 10 | 10 52½ | 19 59½ | Alphon. Nofter Copern. | 0 14 γ 0 52 0 γ 1 6 0 | 1 14 30 1 51 45 1 37 0 | 1 23 0 1 2 0 59 0 | 0 8 30 0 14 45 0 14½ |
| Hoc die cœlitus non est obseruatus γ | | | | Alphon. | 1 34 | 1 25 | 1 20 0 | 0 10½ |
| 22 | 6 17 | 11 52 | 19 53½ | Nofter Copern. | 1 45 10 γ 2 2 | 2 6 30 1 50 0 | 0 53½ 0 56 0 | 0 14 45 0 13 |
| 26 | 6 35 | 15 48 | 18 21 | Alphon. | 2 53 0 | 1 33 0 | 1 19 | 0 8 |
| | | | | Nofter | 4 9 6 γ | 2 50 48 B. | dies 4 2 24 0 | dies 4 0 44½ |
| | | | | Copern. | 4 49 | 2 30 0 | 2 47 0 | 0 40 |
| | | | | Alphon. | 7 32 0 | 2 8 40 | 4 39 | 0 35 40 |

Refractio φ vbique emendata est, sed parallaxis nondum applicata, quæ potest eodem modo adhiberi, vt in sole fit, est autem refractio ablata a distantia Lucidæ \vee æqualis cum refractione declinationis, eo quod stella immineret eodem modo φ , in altera autem distantia a lucida Ceti eius quasi dimidium pro refractione acceptum est, eo quod dimidio circiter angulo inclinatio eßet ad φ in hunc qui sequitur modum.

Atque ex omnibus his obseruationibus inuicem collatis patet φ motum promptius congruere Coperniceo calculo quam Alphonsino. Nam licet hic propius ab initio consentiat, tamen postea iuxta finem longius diuagatur, & quemadmodum Copernicea ratio ab initio excessum in eius longitudine committit, sic etiam fere semper, licet non æquali interstitio.

N.B. Digressio autem eius maxima a Solis medio loco fuit die 21, quod satis bene quadrat cum Copernici hypothesi, licet Alphonsinus calculus statuat eum die primum 26 a Sole maximam habiturum elongationem, quando reuera p. 1 $\frac{1}{2}$ illi propius acceßerit. Coperniceus calculus facit saltem interea acceßisse p. 1 $\frac{1}{2}$ fere. Commisit itaque Alphonsina supputatio die 26 errorem in loco φ quoad longitudinem p. 3 $\frac{1}{2}$, Copernicea saltem p. 0 $\frac{1}{2}$, quibus ambo abundant.

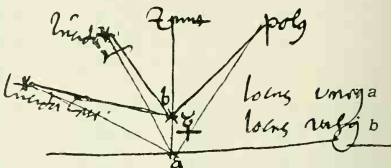
Maxima vero digressio, quæ fuit die 21 eße poterat saltem p. 20 M. 2, adhibita parallaxi, quam Copernicus facit p. 20 M. 14, quod simplex Solis ab illo aliter assumptus causari poterat discriminis.

Iuxta Alphonsinos debuißet digressio eße die vt dixi 26, ita vt φ tunc distaret a simplici Solis p. 21 M. 44, quod omnino non conuenit.

Potes itaque his obseruationibus te satis tuto fundare in restituendo φ ^{rij} motu, ita tamen vt reuideatur calculus exactius, fiatque accurata refractionum emendatio, & insuper adhibeantur parallaxes. Hinc orbium proportionem mensurabis, Apogæum eius examinabis, atque commutationem rectius præsumes, collatione præfertim cum matutinis obseruationibus pari certitudine adeptis.

Fuerunt siquidem omnes hæ obseruationes diligenter factæ, & instrumenta bene correctæ, eratque cælum apprime serenum.

Motus insuper Mercurij diurnus omnia collimatius expendet, atque an rite restituta fuerint, probabit.



OBSERATIONES STELLARUM IN ASTERISMIS BOREALIBUS EXTRA ZODIACUM.

DIE 7 JANUARIJ, VESPERI.

Altitudo meridiana minima vltimæ
in cauda vrsæ maioris
per Chalyb. 17 19 $\frac{1}{2}$
per Volub. 17 20

Maxima altitudo meridiana 10
in latere Persei

per Volub. 80 29
Alt. maxima informis præcedentis
genu dextrum proxime Persei
per Volub. 83 30 $\frac{1}{2}$

Eft in recta linea cum 10 & 17.

| | |
|----------------------------------|---------------------|
| Altit. max. 17 in genu Perfei | |
| per Volub. | 83 14 $\frac{1}{2}$ |
| Altit. 18 in flexura genu Perfei | |
| per Volub. | 80 37 $\frac{1}{2}$ |
| Altit. max. meridiana informis | |
| supra genu Perfei | 86 33 $\frac{1}{2}$ |

DIE 13 JANUARIJ.

| | |
|--|----------------------------|
| Altit. max. lucidæ in \square Vrfæ minoris | |
| per Volub. | 70 4 $\frac{1}{2}$ |
| Declin. 22 Androm. infimæ | |
| in dextra fura, vtroque | 42 15 |
| Declin. 21 eiusdem | 43 16 |
| | melior 43 17 $\frac{1}{2}$ |

DIE 21 JANUARIJ, VESPERI.

| | |
|---|---------------------|
| Altit. merid. | |
| minima sextæ Vrfæ minoris | |
| per Volub. | 41 43 |
| per Chalyb. | 41 42 $\frac{1}{2}$ |
| Altit. merid. | |
| sequentis lucidæ \square vrfæ minoris | |
| per Volub. | 39 11 $\frac{1}{2}$ |
| per Chalyb. | 39 11 |
| Altit. merid. lucidæ borealioris | |
| in latere Perfei Num. 3 | |
| per Chal. | 17 46 $\frac{1}{2}$ |
| Lucidæ lateris Perfei altitudo minima | |
| per Volub. | 14 17 |
| per Chalyb. | 14 17 $\frac{1}{2}$ |

DIE 22 JANUARIJ, MANE.

| | |
|---------------------------------------|-------------------------|
| Inter Arcturum & 4 | 39 10 $\frac{1}{2}$ |
| in finifiro humero Oph. | 39 11 $\frac{1}{2}$ |
| Inter Arcturum & 5 | 40 18 $\frac{1}{2}$ |
| in fin. humero Ophiuchi | 40 19 $\frac{1}{2}$ |
| Inter Spicam & fequentem | |
| in finiftra manu Oph. | 43 17 $\frac{1}{2}$ bis |
| Inter Vulturem & 4 | 43 32 $\frac{1}{2}$ |
| in hum. Ophiuchi | 43 32 $\frac{1}{2}$ |
| Inter Vult. & 5 in hum. Oph. | 42 37 $\frac{1}{2}$ |
| Declin. 4 Ophiuchi | 10 57 |
| | 10 55 |
| Declin. 5 Ophiuchi | 10 6 $\frac{1}{2}$ |
| | 10 6 |
| Declinatio fequentis in finiftra manu | |
| auftral. erat | 3 36 |
| circa Merid. | 3 36 $\frac{1}{2}$ |

DIE 22 JANUARIJ, VESPERI.

| | |
|--------------------------------------|---------------------|
| Altit. merid. minima præcedentis | |
| lucidioris in \square vrfæ minoris | |
| per Chal. | 41 42 $\frac{1}{2}$ |
| per Vol. | 41 43 $\frac{1}{2}$ |
| Alt. min. merid. fequentis | |
| per Chal. | 39 11 $\frac{1}{2}$ |
| per Vol. | 39 11 $\frac{1}{2}$ |

DIE 23 JANUARIJ, MANE.

| | |
|---|------------------------|
| Alt. merid. lucidæ borealis | |
| in latere Pefei | 17 46 $\frac{1}{2}$ |
| Alt. merid. lucidæ lateris Perfei | |
| per Chal. | 14 18 |
| per Vol. | 14 16 $\frac{1}{2}$ |
| Inter præcedentem finiftri humeri | |
| Ophiuchi 4 ^{to} num. & Vindemia- | |
| tricem III ^p | 56 53 |
| Inter 1 ^{am} Serpentis & Arctophilacem | |
| fiue Booten | 20 7 $\frac{1}{2}$ bis |
| Inter 1 ^{am} Serpentis & Caput | 28 6 $\frac{1}{2}$ |
| Ophiuchi | dubia 28 7 |

DIE 10 FEBRUARIJ.

| | |
|---------------------------------------|------------------------|
| Vefperi. | In Perfeo. |
| Inter 20 infra genu | 39 29 $\frac{1}{2}$ |
| & super. cap. II | 39 28 $\frac{1}{2}$ |
| Inter superius caput II & 18 in genu | |
| Perfei præcedentem bis | 41 42 $\frac{1}{2}$ |
| Inter superius caput II & 19 | 40 43 |
| mediam in genu flexur. | 40 43 $\frac{1}{2}$ |
| Inter superius caput II & | 40 24 $\frac{1}{2}$ |
| 16 Perfei in genu | 40 24 |
| Inter superius caput II | 42 15 |
| & 17 Perfei | 42 15 $\frac{1}{2}$ |
| Inter superius caput II & | 36 32 |
| 21 in dextro pede Perfei | 36 33 |
| Viceverfa a lucido pede Andromedæ. | |
| Inter 21 Perfei & lucidum | |
| pedem Andromedæ | 28 15 bis |
| Inter sup. caput II & 15 in | 55 8 |
| Capite Medufæ | 55 8 $\frac{1}{2}$ bis |
| Inter sup. caput II & 13 in | |
| capite Medufæ | 52 48 $\frac{1}{2}$ |
| Inter Capellam & 1 Perfei | 25 25 |
| in enfe fupra caput | 25 26 |
| (Sufpicamur aliam efse in via lactea, | |
| non 1 fed informem) ¹ . | |

¹ In margine poſtea adſcripta.

Inter superius cap. II & dictam I
 Perfei 6 magnit. minor. 52 48^{bis}
 Declin. eiusdem I
 proxime assignatae B. 59 50¹
 Inter informem, quæ est in recta linea
 cum 17 in dextro genu 43 50¹
 Perfei & 10 in latere Perfei 43 51¹

Viceversa

Inter eandem informem & 20 22¹
 lucid. pedem Androm. 20 23¹
 Inter veram primam Perfei 28 35¹
 & Capellam 28 35¹
 Inter dextrum hum. Erichthonij
 & 1 Perfei 6 mag. 33 17¹
 Inter Capellam & 2 in dextro 24 39¹
 cubito Perfei magnit. 4 24 39¹
 Inter Capellam & informem
 sequentem 5 capitis Perf., 22 46¹
 magn. 5 22 47¹
 Declinatio veræ 1 Perfei 53 59¹
 53 59¹
 Inter Capellam & 5 in 23 56¹
 capite Perfei 23 56¹
 Declinatio eius quæ est cum illa in
 paruo triangulo in dextro
 humero & 5 Perfei 50 38¹
 ad austrum 50 38¹
 Inter Capellam & 6 Perfei 21 41¹
 21 41¹
 Inter Capellam & dictam 22 50¹
 in paruo Δ 22 49¹
 Inter eandem in paruo tri- 56 55¹
 angulo & infer. caput II 56 55¹

DIE 16 FEBRUARIJ.

Minima altitudo meridiana minus lu-
 cidæ in \square Draconis, est superior
 duarum sequentium
 per Vol. 22 55¹
 per Chal. 22 55¹
 Altit. minima merid. lucidæ sequen-
 tium in \square Draconis (est infer. &
 magis lucida)
 per Volub. & Chalyb. 17 31¹
 Altit. min. Lyræ per Volub. 4 31¹
 Inter 4 Erichthonij in humero,
 magnit. 3 min., & lucidam 26 24¹
 lateris Perfei 26 25¹

Inter superiorem in humero Erich-
 thonij sextæ magn. & 26 12¹
 lucidam lateris Perfei 26 12¹
 Declin. 4 in dextro humero 44 47¹
 Erichthonij 44 48¹
 Altit. merid. minima lucidæ
 caudæ Cygni per Volub. 9 51¹
 Declin. super. dextri humeri 45 50¹
 Erichthonij 45 50¹
 Inter lucidum latus Perfei & 2 in
 capite Erichthonij magn. 23 56¹
 4 minor. 23 56¹
 Inter 1 in capite
 Erichth. 6 magn. & 23 10¹
 lucidum latus Perfei 23 11¹
 Declin. 2 Erichth. in capite 54 9¹
 melior 54 9¹
 Inter superius caput II & 1 29 29¹
 Erichth. in capite 29 29¹
 Inter superius caput II & 2 28 6¹
 Erichth. in capite 28 7¹
 Declin. 1 Erichthonij 55 31¹
 in capite 55 30¹
 Inter superius caput II & super. in
 dextro humero Erichthonij
 Arato ignotam 23 2^{bis}

N. Circa 11^{am} conspiciebantur Chas-
 mata apprimè irradiantia, purpurea
 & sanguinolentia, vel si maius dicere
 valde rubicunda, qui rubens color vno
 radio cernebatur tendens per Coro-
 nam gnosiā versus Zenit, diffunde-
 baturque versus occasum.

DIE 17 FEBRUARIJ, VESPERI.

Altit. merid. minima inferior. & magis
 lucidæ sequentium in \square Draconis
 per Chalyb. 17 31¹
 per Volub. 17 31¹
 Alt. merid. min. Lyræ
 per Vol. 4 31¹
 Alt. min. pectoris Cygni
 per Vol. 5 5¹
 Declinatio lucidæ \vee 21 31¹
 Altit. eius 14 55¹ 21 31¹
 Repetita decl. lucidæ \vee 21 31¹
 Altitudo 13 45¹ 21 31¹
 Altitudo meridiana minima lucidæ
 caudæ Cygni per Volub. 9 51¹

| Declin. lucidæ γ per Armillas | Altit. eius per Volub. |
|---|---------------------------|
| 21 33 vtroque pinn. | 9 5 |
| 21 34 21 34 $\frac{1}{2}$ | 8 11 |
| 21 34 $\frac{1}{2}$ 21 34 $\frac{1}{2}$ | 6 46 |
| 21 37 21 36 $\frac{1}{2}$ | 5 45 |
| 21 38 $\frac{1}{2}$ 21 38 | 4 45 |
| 21 41 $\frac{1}{2}$ vno pinn. | 3 55 |

DIE 18 FEBRUARIJ, MANE.

| | |
|--|---------------------|
| Declin. luc. Lyræ, vtroque | 38 29 |
| Inter Lyræ & Coronæ | 39 43 bis |
| Pro loco Lyræ: Inter caudam Cygni & Lyræ | 23 53 $\frac{1}{2}$ |
| Alt. merid. Capellæ min. | 23 53 $\frac{1}{2}$ |
| | 12 17 $\frac{1}{2}$ |

DIE 18 FEBRUARIJ, VESPERI¹.

Erat bene ferenum. Alt. merid. min.
per Chalyb. per Volub.

| | |
|-----------------------------|---------------------------------------|
| Lyræ (bona) | 4 32 $\frac{1}{2}$ |
| Caudæ Cygni | 9 50 $\frac{3}{4}$ 9 50 $\frac{3}{4}$ |
| Sin. hum. Cephei | 26 47 $\frac{1}{2}$ 26 48 |
| Tertiæ in cingulo Cephei | 34 41 $\frac{1}{2}$ 34 41 |

DIE 19 FEBRUARIJ, MANE.

| | |
|-----------------------------|---------------------|
| Altit. merid. lucidæ Coronæ | |
| per Volub. | 62 14 $\frac{1}{2}$ |
| per Chalyb. | 62 14 $\frac{1}{2}$ |

*Vesper eodem die**Pro refractionibus stellarum.*

Præcedentis duarum lucidarum in
□ capitis Draconis infra polum,
alt. min. per Volub. 18 33 $\frac{1}{2}$

H. 6 57 $\frac{1}{2}$ ' Sequentis lucidæ in capite
Draconis minima 17 31

| | |
|---------------------------------|--------------------|
| Alt. merid. min. Lyræ | |
| per Vol. | 4 32 $\frac{1}{2}$ |
| Alt. merid. min. pectoris Cygni | |
| per Volub. | 5 4 $\frac{1}{2}$ |
| Alt. merid. min. caudæ Cygni | |
| per Volub. | 9 51 |
| per Chalyb. | 9 50 $\frac{3}{4}$ |

DIE 20 FEBRUARIJ, MANE.

Obferuabantur hæ sequentes stellæ
circumpolares pro indagandis declinationibus,
quando liberæ erant a refractionibus.

| | |
|--|-------------------------|
| Inter stellam polarem & Lyræ | 51 37 bis |
| Inter stellam polarem & pectus Cygni | 51 37 $\frac{1}{2}$ |
| Inter stellam polarem & caudam Cygni | 49 46 $\frac{1}{2}$ bis |
| | 49 47 $\frac{1}{2}$ |
| | 44 42 |
| | 44 41 $\frac{1}{2}$ |
| | 44 41 $\frac{1}{2}$ |
| Inter stellam polarem & lucidum humerum Cephei | 27 18 $\frac{1}{2}$ |
| | 27 18 bis |
| | 27 17 $\frac{1}{2}$ |
| | melior 27 17 |

Propter auroram hæc non melius
obferuari potuit.

DIE 20 FEBRUARIJ, VESPERI.

| | |
|--|-------|
| H. 6 54 $\frac{1}{2}$ ' Alt. merid. min. | |
| frequentis in □ Draconis | 17 31 |
| Luc. pes Orionis occ. | 12 53 |
| 7 31 Alt. Lyræ merid. min. | |
| per Volub. | 4 33 |

DIE 22 FEBRUARIJ.

| | |
|---|-------|
| Alt. merid. min. præcedentis lucidæ in □ Draconis | |
| per Volub. | 18 35 |

Erat circiter dimidium gradum
meridianum transgreßa.

| | |
|--|-------|
| H. 6 48' Transibat per Merid. sequens lucida in □ Draconis habens altit. | |
| per Volub. | 17 32 |

Horologium corrigebatur circa
horam 6 ad lucidum pedem Orionis.

| | |
|--------------------------|------|
| H. 7 25' Transibat Lyræ | |
| per Merid. habens altit. | |
| per Volub. | 4 33 |

| | |
|-----------------------|------|
| Alt. min. caudæ Cygni | |
| per Vol. | 9 52 |

| | |
|--|---------------------|
| H. 9 56 $\frac{1}{2}$ ' Declinatio lucidæ γ | 21 32 $\frac{1}{2}$ |
| | 21 33 |

| | |
|---|---------------------|
| Altit. eius per Volub. | 9 36 |
| 10 7 $\frac{1}{2}$ Repetita declin. luc. γ | 21 34 bis |
| habens altit. per Volub. | 8 7 |
| 10 14 Declinatio repetita | 21 35 $\frac{1}{2}$ |
| | 21 34 $\frac{1}{2}$ |
| habens altit. per Volub. | 7 15 |
| 10 23 Repetita declin. | 21 36 |
| lucidæ γ | 21 36 $\frac{1}{2}$ |
| habens altitudinem | 6 12 |

¹ Cf. supra inter obferuationes Mercurii p. 157 lq.

DIE 23 FEBRUARIJ, MANE.

| | |
|-------------------------|-------------------------|
| Inter Stellam polarem & | 58 56 $\frac{1}{2}$ bis |
| luc. caput Draconis | 58 57 |

DIE 26 FEBRUARIJ, VESPERI.

| | |
|---|---------------------|
| H. 6 30 $\frac{1}{2}$ Altitud. merid. sequentis | 17 32 $\frac{1}{2}$ |
| lucidæ in \square Draconis | 17 32 $\frac{1}{2}$ |
| 7 5 $\frac{1}{2}$ Alt. merid. Lyræ | |
| per Vol. | 4 33 |

DIE 2 MARTIJ, VESPERI.

| | |
|--|-------------------------|
| Inter inferius caput Π | |
| & 17 præced. sc. | 46 47 |
| in genu dextro Perfei | 46 48 |
| Inter 19 in flexura genu Per- | 45 3 |
| fei & inferius caput Π | 45 2 $\frac{1}{2}$ |
| Declin. 17 in dextro | |
| genu Perfei | 49 9 $\frac{1}{2}$ |
| Inter illam quæ est in recta linea cum | |
| 10 in latere Perfei & 17 in genu & | |
| infer. caput Π | 48 11 $\frac{1}{2}$ bis |
| Declinatio 19 Perfei | 47 17 |
| Inter illam in planta pedis | 40 28 $\frac{1}{2}$ |
| Perfei & inf. cap. Π | 40 28 $\frac{1}{2}$ |

DIE 17 MARTIJ, VESPERI.

| | |
|---------------------------------------|---------------------|
| Inter lucidam in quadrato Draconis | |
| & sequentem duarum lucidarum | |
| in quadrato Vrfæ | 14 12 $\frac{1}{2}$ |
| minoris Num. 6 | 14 12 $\frac{1}{2}$ |
| Inter eandem in quadrato Draconis & | |
| superiorem duarum se- | 13 32 |
| quentium in \square Vrfæ min. 13 | 32 $\frac{1}{2}$ |
| Inter luc. cap. Draconis & inferiorem | |
| duarum lucidarum in | 26 38 $\frac{1}{2}$ |
| \square Vrfæ minoris | 26 38 $\frac{1}{2}$ |
| Inter eandem Draconis & superiorem | |
| duarum lucidarum | 29 26 $\frac{1}{2}$ |
| \square Vrfæ minoris | 29 36 $\frac{1}{2}$ |
| Inter eandem Draconis & inferiorem | |
| sequentium in \square | 26 12 $\frac{1}{2}$ |
| Vrfæ minoris | 26 12 $\frac{1}{2}$ |
| Inter eandem Draconis & super. dua- | |
| rum minus lucid. | 29 57 $\frac{1}{2}$ |
| \square Vrfæ minoris | 29 58 |
| Inter eandem Draconis & 3 | 30 58 |
| Vrfæ minoris in cauda | 30 57 $\frac{1}{2}$ |
| Inter eandem & eam quæ | 35 5 |
| Polaris proxima est | 35 5 $\frac{1}{2}$ |

Declin. 2 in manu sinistra
Bootis Borea53 51 $\frac{1}{2}$

Viceversa

| | |
|----------------------------------|---------------------|
| Inter lucid. latus Perfei | |
| & 6 Vrfæ min. | 58 17 bis |
| Inter lucid. latus Perfei | |
| & infer. duarum | 54 7 |
| sequent. in \square Vrfæ min. | 54 7 $\frac{1}{2}$ |
| Inter lucid. latus Perfei & ter- | 47 42 |
| tiam in cauda Vrfæ min. | 47 41 $\frac{1}{2}$ |
| Inter lucid. latus Perfei & eam | |
| quæ Polari proxima est | 42 3 bis |
| Declinatio primæ in ca- | B. 21 5 |
| pite serpentis Ophiuchi | 21 5 $\frac{1}{2}$ |

DIE 22 MARTIJ, VESPERI.

| | |
|-------------------------------------|----------------------|
| Inter extremam caudæ Vrfæ mai. & | |
| infimam præcedentem duarum | |
| præcedentium in \square Vrfæ min. | 24 52 bis |
| Inter eandem in Vrfæ maiore & supe- | |
| riorem duarum præcedentium | |
| numero 6 \square Vrfæ minor. 25 | 45 $\frac{1}{2}$ bis |
| Inter eandem extremam in cauda | |
| Vrfæ maioris & superiorem | |
| duarum sequentium in | 30 31 $\frac{1}{2}$ |
| \square Vrfæ min. | 30 31 $\frac{1}{2}$ |
| Inter eandem extremam Vrfæ | |
| maioris & eam quæ est | |
| num. 3 in Vrfæ minore | 35 22 $\frac{1}{2}$ |
| in educatione caudæ | 35 23 $\frac{1}{2}$ |
| Inter eandem extremam Vrfæ mai. | |
| & mediam in cauda | 38 57 $\frac{1}{2}$ |
| Vrfæ min. num. 2 | 38 58 $\frac{1}{2}$ |
| Inter extremam caudæ Vrfæ mai. | |
| & sequentem duarum | |
| superiorum in \square | 36 20 $\frac{1}{2}$ |
| Draconis num. 4 | 36 21 $\frac{1}{2}$ |
| Inter eandem Vrfæ mai & præceden- | |
| tem duarum superiorum | 33 49 |
| in \square Draconis num. 2 | 33 49 $\frac{1}{2}$ |
| Inter eandem Vrfæ mai. & | 24 47 $\frac{1}{2}$ |
| 25 Draconis | 24 48 $\frac{1}{2}$ |
| Inter eandem Vrfæ mai. & | |
| 24 Drac. post | 30 24 $\frac{1}{2}$ |
| tertium nodum | 30 25 $\frac{1}{2}$ |
| Inter eandem Vrfæ mai. & | 37 13 $\frac{1}{2}$ |
| 18 Draconis | 37 14 |

| | |
|-------------------------------------|-----------|
| Inter eandem extremam & 19 Draconis | 37 18½ |
| Inter eandem extremam & 17 Draconis | 37 18½ |
| Inter eandem extremam & 26 Draconis | 34 19 bis |
| Inter eandem extremam & 27 Draconis | 21 31½ |
| Inter eandem & 27 Drac. | 21 32 |
| | 17 2 bis |

DIE 2 APRILIS, VESPERI.

| | |
|--|--------|
| Declinatio luc. capitis | 51 37 |
| Draconis num. 6 | 51 36½ |
| Inter luc. latus Persei & super. caput II | 49 1½ |
| Declin. alterius luc. cap. Draconis num. 3 | 49 1½ |
| | 52 41½ |
| | 52 41½ |

DIE SABBATI 3 APRILIS, VESPERI.

| | |
|--|-------|
| Obseruabatur alt. min. Itellæ polaris per Volub. | 53 1½ |
| per Chalyb. | 53 0½ |

Instrumenta longo tempore non fuerunt correcta.

| | |
|--|-----------|
| Inter penultimam in cauda Vrsæ minoris & flexuram Caſiopeæ | 30 39½ |
| Inter inferiorem in □ Vrsæ min. duarum posteriorum num. 5 | 30 40 |
| & flexuram Caſiopeæ | 39 49 |
| Inter 2 Draconis magnit. 4 min. & dextr. hum. Cephei | 29 8½ |
| Inter 4 Draconis magnitud. 4 & eandem Cephei | 25 43 bis |
| Inter 3 Draconis & eandem Cephei | 31 8½ |
| Inter 1 (linguam) Drac. & eandem Cephei | 31 9½ |
| | 32 35 |
| | bona |
| | 32 34½ |

Viceversa

| | |
|---|----------|
| Inter 1 Draconis & Lyræ | 22 1½ |
| Inter 3 Draconis & Lyræ | 22 2 |
| | 17 45 |
| | 17 44½ |
| Inter dextrum humerum Cephei & caudam Cygni | 18 2' 0" |

DIE 13 APRILIS, VESPERI.

In Boote.

| | |
|-----------------------------|--------|
| Inter caudam ☾ & 20 Arcturi | 30 14 |
| in tybia sinistra, 3 mag. | 30 14½ |

| | |
|---|--------|
| Inter caudam ☾ & 22 4 mag. | 29 2 |
| paulo maior. in Boote | 29 1½ |
| Inter caudam ☾ & 21 4 mag. | 28 31 |
| minor. Bootis | 28 30½ |
| Declinatio 20 Bootis | 20 30 |
| | 20 29½ |
| Declinatio 22 Bootis | 17 51½ |
| | 17 52½ |
| Declinatio 21 Bootis | 19 30½ |
| | 19 29½ |
| Inter caudam ☾ & eam quæ est sub brachio dextro num. 16 | 42 41 |
| magn. 3 ^{re} | 42 40½ |
| Declinatio 16 Bootis, | |
| bis vno pinnac. | 28 50½ |
| propter imped. trabis | 28 50½ |
| Inter caudam ☾ & 18 Bootis | 40 26½ |
| in dorso 4 magnit. | 40 25½ |
| Declinatio 18 Bootis | 32 16½ |
| | 32 16½ |
| Declinatio 17 Bootis | 31 34½ |
| | 31 34½ |
| Inter caudam ☾ & 17 Bootis 4 magn. | 40 53½ |
| Declinatio 19 in dextro pede Bootis | 15 32 |
| | 15 33 |

| | |
|---|-----------|
| Inter caudam ☾ & 5 Bootis in humero sin., magn. 3 maior. | 42 56½ |
| | 42 57 |
| Declin. 5 Bootis bis vno pinn. | 40 6 |
| Inter caudam ☾ & 4 Bootis in cubito sinistro | 44 1½ bis |
| Inter caudam ☾ & 19 Bootis in dextro crure 3 magnit. minor. | 41 36 bis |
| Inter caudam ☾ & 6 Bootis in capite, 3 ^{re} magn. minor. | 49 5½ |
| | 49 6 |

Viceversa

| | |
|---|---------|
| Inter 11 Herculis & 20 Arctophylacis | 39 45 |
| | 39 45½ |
| Inter 11 Herculis & eam quæ est 16 Bootis in coxendice dextra | 25 42½ |
| | 25 42½ |
| Inter caput Ophiuchi & 19 Arctophyl. | 42 11½ |
| | 42 12 f |
| | dubiæ |

DIE 14 APRILIS, VESPERI.

| | |
|-----------------------------------|--------|
| Inter 11 Herculis & 19 Arctophyl. | 32 52½ |
|-----------------------------------|--------|

| | |
|---|------------|
| Inter lucidam coronæ Gnofiæ & | |
| 21 in crure finifiro | 26 23½ |
| Arctophylacis | 26 23½ |
| Inter lucidam coronæ & | 26 44½ |
| 22 Bootis | 26 44½ |
| Inter 11 Herculis & | 27 41 |
| 18 (Arato) Arctophylacis | 27 41½ |
| Declin. ſupremæ & maxime Borealis | |
| informium iuxta pedem | 20 53½ |
| dextrum Bootis | 20 54½ |
| Inter 11 Herculis & | 27 15½ |
| 17 (Arato) Arcturi | 27 15½ |
| Declin. mediæ trium informium iuxta | |
| pedem dextrum Arcturi | 18 47½ |
| 4 magnit. | 18 48 |
| Inter 5 in fin. humero | 27 10½ |
| Arcturi & 11 Herculis | 27 11 |
| Declin. infimæ trium informium iuxta | |
| pedem dextrum Bootis | 18 16½ |
| Videbuntur informes hic obſervatæ | |
| optime includi poſſe genu dextro | |
| Bootis. | |
| Inter 11 Herculis & 4 in brachio finifiro | |
| Arctophylacis, ſemel | 31 23 |
| Inter 11 Herculis & | |
| 6 Arcturi in capite | 21 52 bis |
| Inter infimam trium informium iuxta | |
| dextr. crus Arcturi magn. | 41 15½ |
| 4 ^æ circiter & caudam Ω | 41 16½ |
| Inter mediam informium iuxta dextr. | |
| crus Arctophylacis 4 | 42 19½ |
| magn. & caudam Ω | 42 19½ |
| Inter ſupremam informium | |
| iuxta crus dextrum | |
| Arctophylacis 5 magn. | 43 40 |
| maior. & caudam Ω | 43 40½ |
| Inter 10 in loro Arctophyl. & | |
| caudam Ω | 50 5½ bis |
| Inter 7 Arctophylacis in humero | |
| dextro & caudam Ω | 52 39½ bis |
| Viceverſa | |
| Inter Lyræ & 7 Arctophyl. | 37 25½ |
| Inter Lyræ & 10 Arctoph. | |
| ſemel | 40 32½ |
| Inter 11 Herculis & | |
| ſupremam informium | 27 45 bis |
| Inter 11 Herc. & | |
| mediam inform. | 30 6 |
| Inter 11 Herc. & | |
| infimam informium | 31 19 |

DIE 22 APRILIS, VESPERE.

| | |
|-------------------------|--------|
| Inter ſtellam polarem & | 19 5 |
| 19 Draconis | 19 4½ |
| Inter ſtellam polarem & | 17 39 |
| 18 Draconis | 17 38½ |
| Inter ſtellam polarem & | 18 19 |
| 17 Draconis | 18 19½ |
| Inter lucidam capitis | |
| Draconis & 25 eiudem | 16 7½ |
| Inter lucidam capitis & | 17 29½ |
| 26 Draconis | 17 29½ |
| Inter lucidam capitis & | 22 28½ |
| 27 Draconis | 22 28½ |

DIE 27 APRILIS.

| | |
|---|-------|
| Alt. merid. Spicæ Π , ſplendente Luna | |
| per Chalyb. | 25 6½ |
| per Volub. | 25 6½ |

DIE 29 APRILIS, VESPERE.

Obſervabatur ſtella polaris
vt ſequitur.

| | |
|-------------------------------------|--------|
| H. 9 6½' Altit. min. ſtellæ polaris | |
| per Chal. | 52 59 |
| per Vol. | 53 0½ |
| Altit. merid. Spicæ | |
| per Volub. | 25 6½ |
| per Chalyb. | 25 7 |
| Altit. merid. Arcturi | |
| per Chalyb. | 55 27½ |
| per Volub. | 55 26½ |

DIE 30 APRILIS, VESPERI.

| | |
|---|--------|
| H. 8 55' Tunc erat Spica | |
| orient. | 10 5 |
| Eratque Alt. min. ſtellæ polaris | |
| per Chal. | 52 59½ |
| per Vol. | 53 0½ |
| H. 9 33½' Tunc erat altit. merid. Spicæ | |
| per Volub. | 25 7½ |
| per Chalyb. | 25 7½ |

DIE 4 MAIJ.

| | |
|------------------------------|-------|
| Altitudo ſtellæ polaris min. | |
| per Volub. | 52 0½ |

DIE 5 MAIJ, VESPERE.

| | |
|-----------------------------|--------|
| Inter 14 Herculis 3 magn. & | 38 39½ |
| Arcturum | 38 39½ |

| | |
|--------------------------------------|-----------------------------------|
| Declinatio 7 Vulturis | 6 36 |
| | 6 35 ¹ / ₂ |
| Inter 7 Vulturis mag. 4 | 32 15 |
| minor. & os Pegafi | 32 14 |
| | 32 16 |
| Inter 8 Vulturis mag. 5 & | 31 19 ³ / ₄ |
| os Pegafi | 31 20 ¹ / ₂ |
| Declinatio 8 Vulturis | 4 33 ¹ / ₂ |
| | 4 34 |
| Inter caput Herculis & 6 Vult. | 39 8 ³ / ₄ |
| Inter cap. Oph. & | |
| eandem Vult. | 34 39 ¹ / ₂ |
| Inter 8 Delphini, illam scilicet quæ | |
| proxime ad latus præcedit | |
| 4 in Rhomboide & | 36 1 ¹ / ₂ |
| Marcab | 36 2 |

DIE 19 SEPTEMBRIS, VESPERI.

| | |
|------------------------------|-----------------------------------|
| Declin. 3 in capite Herculis | |
| Bor. | 20 12 ¹ / ₂ |
| Inter eandem 3 Herculis & | 51 29 |
| lucidam Vulturis | 51 28 ¹ / ₂ |
| Eadem viceversa | |
| Inter 3 Herculis & | 18 41 ¹ / ₂ |
| caput Ophiuchi | 18 41 ³ / ₄ |

Eodem Vespere

| | |
|------------------------------------|-----------------------------------|
| Inter vltimam in cauda Draconis | |
| mag. 3 & vltimam in | 25 49 |
| cauda vrfæ maioris | 25 49 ¹ / ₂ |
| Inter penultimam num. 30 in cauda | |
| Draconis mag. 3 maior. | 22 20 |
| & vltimam in cauda | 22 20 ³ / ₄ |
| Vrfæ maioris | 22 18 ¹ / ₂ |
| Inter antepenultimam Draconis | |
| (eft Arato 29) mag. 2 & | 15 14 |
| vltimam in cauda | 15 16 |
| vrfa maioris melior | 15 15 |
| Inter 29 (Arato) Draconis & | 26 22 |
| ftellam polarem | 26 21 ¹ / ₂ |
| Inter penultimam Draconis | 20 52 ¹ / ₂ |
| & ftellam polarem | 20 52 ³ / ₄ |
| Plura propter reſplendentiam ¶ ob- | |
| ſeruari nequibant. | |

DIE 26 SEPTEMBRIS, VESPERI.

| | |
|-----------------------------------|-------|
| Inter 8 in ſerpente Ophiuchi & 37 | 11 |
| 9 in cubito dextro Oph. | 37 12 |

| | |
|------------------------------|-------|
| Declinatio eiusem 8 | 8 45 |
| | 8 46 |
| Inter 9 in ſerpente Ophiuchi | |
| et 10 eiusem | 34 50 |

DIE 27 SEPTEMBRIS, VESPERI.

| | |
|----------------------------------|--------------------------------|
| Inter ftellam polarem & vlti- 21 | 12 ¹ / ₂ |
| mam in cauda Draconis 21 | 12 ³ / ₄ |

DIE 28 SEPTEMBRIS, VESPERI.

| | |
|------------------------------------|-----------------------------------|
| Inter præcedentem duarum in capite | |
| Draconis linguæ proximarum | |
| mag. 6 & 28 Draconis | 30 0bis |
| Viceversa | |
| Inter eandem 28 Draconis et | |
| extremam in cauda | 15 20 |
| Vrfæ maioris | 15 19 ¹ / ₂ |

DIE 29 SEPTEMBRIS.

| | |
|---------------------------------------|-------|
| Declinatio 4 in corona | 33 53 |
| Gnofia | 33 52 |
| Declin. præced. duarum obſcurarum | |
| infra □ in Delphino num. 9 | 11 44 |
| Declin. alterius ſequentis obſcurarum | |
| infra □ Delph. num. 10 | 11 58 |

DIE 2 OCTOBRIS, VESPERI.

| | |
|--|-----------------------------------|
| Inter 10 in exuvijs Herculis | 40 50 ¹ / ₂ |
| & caput Delphini | 40 50 ¹ / ₂ |
| Inter 9 Herculis & | |
| caput. Delph. | 40 51 |
| Inter 15 Herculis mag. 3 & | 16 13 |
| Lyram | 16 12 ¹ / ₂ |
| Inter 17 Herculis mag. 4 & | 15 39 |
| Lyram | 15 38 ¹ / ₂ |
| Declinatio 15 Herculis | 37 20 ¹ / ₂ |
| | 37 21 |
| Inter 16 Herculis ¹ mag. 3 minor. | |
| & Lyram | 14 29bis |

Viceversa

| | |
|------------------------|-----------------------------------|
| Inter 15 Herculis & | 36 20 |
| pectus Cygni | 36 21 |
| Inter 17 Herculis & | 35 41 |
| pectus Cygni | 35 42 |
| Inter 16 Herculis | 34 35 ¹ / ₂ |
| [& pectus Cygni] | 34 36 |
| Declinatio 16 Herculis | 37 35 |
| | 37 36 |

¹ Hæ tres ſtellæ 15, 17, 16 ſunt Fl. 67, 69, 75 Herculis. In catalogo Tychonis 13, 14, 15 ſunt.

| | |
|---|---|
| Inter 18 Herculis & pectus Cygni | 28 25 $\frac{1}{2}$ 28 25 |
| Declin. 17 Herculis meliori pinn. | 37 48 37 47 $\frac{1}{2}$ |
| Declinatio 18 Herculis magn. 3 min. | 37 22 $\frac{1}{2}$ 37 21 $\frac{1}{2}$ |
| Inter 18 Herc. & 11 Herc. (fuspicamur aliam esse stellam) | 24 11 $\frac{1}{2}$ 24 11 $\frac{1}{2}$ ¹ |

Viceversa

| | |
|--|-------|
| 23 Herculis distat a Lyra | 22 6 |
| Repetita distantia inter 28 & 11 Herculis | 16 22 |

DIE 8 OCTOBRIS, VESPERI.

| | |
|--|------------------------------|
| Inter 19 in sinistra fura Herculis magn. 3 & pectus Cygni | 29 54 $\frac{1}{2}$ |
| Inter eandem 19 Herculis & illam quæ est in capite Bootis | 28 55 $\frac{1}{2}$ |
| Inter 25 Herculis & caput Bootis | 15 15 15 15 $\frac{1}{2}$ |
| Declinatio 28 Herculis | 43 39 43 39 $\frac{1}{2}$ |
| Inter 26 Herculis magn. 3 maior. & caput Bootis | 13 2 $\frac{1}{2}$ |
| Inter 27 Herculis magn. 4 & caput Bootis | 12 23 $\frac{1}{2}$ |
| Declinatio 29 in extremitate dextri pedis Herculis | 42 20 |
| Inter sinistrum humerum Bootis & 28 Herculis in fura sinistri pedis, magn. 4 minor., est coniuncta cum alijs duabus obscu- ris cum quibus fere con- fuit Δ acutum | 15 45 15 44 $\frac{1}{2}$ |
| Inter 23 Herculis in sinistro pede & caput Bootis | 19 22 |
| Declinatio 23 Herculis | 39 45 39 45 $\frac{1}{2}$ |
| Inter 24 Herculis magn. 3 min. & caput Bootis | 17 19 |
| Inter eam quæ 24 Herculis in pede præcedit (est informis) magn. 5 min. & caput Bootis | 16 19 16 20 |
| Declinatio istius parvæ informis prox- ime supra memoratæ | 42 49 |

Viceversa

| | |
|-----------------------|---------------------|
| Diſta informis diſtat | 24 33 $\frac{1}{2}$ |
| a Lyra | 24 34 $\frac{1}{2}$ |

DIE 9 OCTOBRIS, VESPERI.

| | |
|---|--|
| Inter Lyram & 20 in pede ſiniſtro Herc. magn. 6 | 15 48 $\frac{1}{2}$ 15 47 $\frac{1}{2}$ |
| Inter Lyram & 21 in pede Herculis magn. 6 | 14 48 14 47 $\frac{1}{2}$ |
| Inter Lyram & 22 (obſcuram) in pede ſiniſtro | 12 35 $\frac{1}{2}$ 12 34 |
| Inter Lyram & 29 in dextro pede Herculis | 35 11 35 10 $\frac{1}{2}$ |
| Declinatio capitis Bootis | 42 4 bis |
| Inter 10 dextræ alæ Cygni & ſtellulam in corpore Lyre informem | 20 18 $\frac{1}{2}$ 20 19 $\frac{1}{2}$ |
| Declin. eiſdem informis | 35 32 $\frac{1}{2}$ |
| Inter 8 Lyre, quæ eſt ſub præcedente duarum lucidarum in corpore magn. 6, & 10 Cygni | 24 14 24 13 |
| Inter 10 Lyre & 10 Cygni | 22 14 $\frac{1}{2}$ 22 13 $\frac{1}{2}$ |
| Declinatio 8 Lyre | 32 7 $\frac{1}{2}$ |
| 10 Lyre | 31 37 |
| 20 Herculis in pede | 48 41 $\frac{1}{2}$ |
| 21 Herculis | 48 50 $\frac{1}{2}$ |
| 22 Herculis | 47 48 $\frac{1}{2}$ |
| 19 in ſiniſtra fura Herculis | 46 17 46 17 $\frac{1}{2}$ |

DIE 10 OCTOBRIS, VESPERI.

| | |
|---|---|
| Inter ſuperiorem in manu dextra Ophiuchi magnit. 6 num. 11 | 34 22 |
| & inferius cornu ζ | 34 23 |
| Declinatio 17 Ophiuchi Serpentis | M. 2 54 $\frac{1}{2}$ 2 54 $\frac{1}{2}$ |
| Declinatio 11 Ophiuchi in manu | 8 1 $\frac{1}{2}$ 8 1 $\frac{1}{2}$ |
| Altitudo erat circiter 8 g. | |
| Inter 16 Ophiuchi & inferius cornu ζ | 36 22 $\frac{1}{2}$ 36 22 |
| Inter 18 ſeu ultimam in cauda Serpentis mag. 3 & ſiniſtrum humerum ω | 39 59 $\frac{1}{2}$ 40 0 $\frac{1}{2}$ |
| Declinatio 16 Serpentis | 3 28 3 29 |

¹ Lin eis inducſta, additis tamen verbis: »non erit deletum«.

| | |
|--|---------------------|
| Inter caput Ophiuchi & 18 Serpentis | 21 47 $\frac{1}{2}$ |
| Declin. 18 Serpentis, vtroque | 21 46 $\frac{1}{2}$ |
| | B. 3 46 |

DIE 11 OCTOBRIS.

| | |
|---|---------------------|
| Inter 10 Vrfæ maioris mag. 3 | 34 40 $\frac{1}{2}$ |
| & caudam Vrfæ maioris | 34 39 $\frac{3}{4}$ |
| Declinatio eiusdem | 60 54 $\frac{3}{4}$ |
| | 60 55 $\frac{1}{2}$ |
| Declinatio 8 Vrfæ maioris | 64 47 $\frac{1}{2}$ |
| | 64 48 |
| Inter eam quæ est in triangulo paruo cum 10 versus ortum in Vrfæ ma- iore mag. 6 (notatur in asterismo littera f) & extremam | 35 41 $\frac{3}{4}$ |
| caudæ eiusdem Vrfæ | 35 42 |
| Inter 8 Vrfæ maioris in mandibula mag. 3 & extremam caudam Vrfæ maioris | 36 22 $\frac{1}{2}$ |
| Inteream quæ facit cum 8 triangulum ¹ in superiore parte Vrfæ | |
| * h maioris mag. 4 minor. & | |
| 8 * * g extremam | 38 32 $\frac{1}{2}$ |
| caudam eiusdem | 38 33 |
| Declin. eiusdem in Vrfæ | 65 6 |
| maiore litera h notatæ | 65 7 |
| Inter eam in Vrfæ maiore mag. 5 ma- ior., quæ notata existit littera g, & extremam eiusdem | 38 40 |
| Vrfæ maioris | 38 39 $\frac{1}{2}$ |
| Inter eam quæ est in recta linea cum 8 & 1 ^a in rictu Vrfæ | 40 52 |
| maioris, obscuram ² , . . . | 40 53 |
| Inter eam, quam notauimus 9 ^{am} esse magn. 4 in Vrfæ maiore & extre- mam in cauda eiusdem | 35 43 bis |

Viceversa

| | |
|--|---------------------|
| Inter eandem 9 & Capellam | 43 5 |
| Inter 10 in Vrfæ maiore & Capellam | 41 36 |
| Inter eam in Vrfæ maiore, quam f notauimus, & Capellam | 41 27 $\frac{3}{4}$ |
| | 41 28 $\frac{1}{2}$ |

DIE 12 OCTOBRIS, VESPERI.

| | |
|---|---------------------|
| Inter eam, quæ supra notata est littera g in Vrfæ maiore, & Capellam | 36 47 $\frac{1}{2}$ |
| | 36 46 $\frac{1}{2}$ |
| Inter eam, quæ sita est inter 8 & 1 in Vrfæ maiore ob- scura, & Capellam | 34 13 |
| | 34 12 |
| Inter eam, quam notauimus h, mag. 4 mai., in Vrfæ | 36 18 30 |
| maiore & Capellam | 36 19 |
| Altit. merid. lucidiorum 4 supra supre- mam in □ præcedentis | 33 30 |
| Altit. merid. supremæ omnium quæ lit. o notatur | 43 40 |
| Altit. merid. sequentis duarum superi- orum in □ paruo supra supremam quadrati Vrfæ maioris | 37 5 |
| Inter 8 in Vrfæ maiore & Capellam | 38 36 $\frac{1}{2}$ |
| | 38 37 |
| Inter 2 in Vrfæ maiore | 33 1 $\frac{1}{2}$ |
| mag. 3 min. & Capellam | 33 2 $\frac{1}{2}$ |
| Inter 3 in Vrfæ maiore | 34 46 $\frac{1}{2}$ |
| mag. 5 & Capellam | 34 47 |
| Altit. merid. sequentis in paruo □ Vrfæ mai. supra nominatæ | 33 46 |
| Inter eam ³ , quæ constituit Δ cum 2 & 3 & contigua cum 2, quæ clarior est, in Vrfæ maiore & Capellam | 32 33 |
| | 32 33 $\frac{1}{2}$ |

* k obseruata

tertia * * secunda

| | |
|--|---------------------|
| Inter eam, quæ proxima est 2 in Vrfæ maiore magnit. 5 & Capellam | 33 1 |
| Inter 4 in Vrfæ maiore | 35 45 |
| mag. 4 & Capellam | 35 45 $\frac{1}{2}$ |
| Inter 5 cui proxima est littera k notata mag. 4 in Vrfæ | 36 27 |
| maiore & Capellam | 36 27 $\frac{1}{2}$ |

DIE 10 NOUEMBRIS, VESPERI.

| | |
|--------------------------|---------------------|
| Inter Lyram & 6 in collo | 20 10 $\frac{1}{2}$ |
| Draconis mag. 5 | 20 11 |

¹ In hoc triangulo 8 est 23 h Urfæ, g = 16 c Urfæ, h = 14 i Urfæ. Cf. T. III p. 354, 27-29, ubi tamen «suprema in apice» (cujus positio falsa est) non 28 sed 14 i Urfæ est. Observatio hujus diei dat pro anno 1601: Long. 21° 58', Lat. + 44° 30'.

² Est l o Urfæ.

³ P. VIII. 178, 6 Vrfæ, secunda est 4 π Urfæ, k est 2 A Urfæ.

| | |
|-----------------------------|---------------------|
| Inter Lyræ & 8 in | 18 20 |
| collo Draconis mag. 5 | 18 20 $\frac{1}{2}$ |
| Inter Lyræ & 7 in | 16 49 $\frac{1}{2}$ |
| collo Draconis mag. 5 | 16 49 |
| Inter Lyræ & | 20 45 $\frac{1}{2}$ |
| 9 Draconis mag. 4 min. | 20 46 |
| Viceversa | |
| Inter 6 Draconis & | 24 40 $\frac{1}{2}$ |
| caudam Cygni | 24 39 $\frac{1}{2}$ |
| Inter 8 Drac. & caud. Cygni | 23 2 bis |
| Inter 7 Draconis & | 21 18 |
| caudam Cygni | 21 17 $\frac{1}{2}$ |
| Inter 9 Draconis & | 21 43 |
| caudam Cygni | 21 43 $\frac{1}{2}$ |

DIE 11 NOUEMBRIS.

| | |
|---|---------------------|
| Altit. merid. minima inferioris duarum in anteriori \square Vrfæ maioris per Volub. | 24 29 $\frac{1}{2}$ |
| Altit. superioris in eodem \square | |
| per Vol. | 29 51 $\frac{1}{2}$ |
| per Chal. | 29 51 $\frac{1}{2}$ |
| Per minores nouas Armillas nondum correctas: | |
| Declin. præcedentium in \square Vrfæ mai. inferioris duarum | 58 50 |
| Declin. alterius superioris duarum | 64 11 |
| Inter 10 Draconis magnit. | 27 42 |
| 4 minor. & Lyræ | 27 43 |
| Inter 11 Draconis mag. | 29 21 $\frac{1}{2}$ |
| 3 minor. & Lyræ | 29 22 $\frac{1}{2}$ |
| Inter Lyræ & informem in recta linea cum duabus in dextro brachio Cephei & 11 ^{am} | 28 51 $\frac{1}{2}$ |
| Draconis mag. 6 ¹ | 28 53 |
| Inter 12 Draconis mag. 4 & | 31 28 |
| Lyræ | 31 28 $\frac{1}{2}$ |
| Altit. merid. inferioris sequentium in \square | |
| Vrfæ maioris per Volub. | 21 54 $\frac{1}{2}$ |
| per Chalyb. | 21 54 $\frac{1}{2}$ |
| Inter 13 Draconis mag. 3 & | 32 56 |
| Lyræ | 32 55 $\frac{1}{2}$ |
| Inter 16 Draconis mag. 4 | 31 58 $\frac{1}{2}$ |
| maior. & Lyræ | 31 58 $\frac{1}{2}$ |
| Altitudo superioris sequentium in \square | |
| Vrfæ maioris | |
| per Chalyb. | 25 14 $\frac{1}{2}$ |
| per Volub. | 25 15 |

| | |
|--|---------------------|
| Inter 14 Draconis mag. 4 & | 32 40 $\frac{1}{2}$ |
| Lyræ | 32 41 $\frac{1}{2}$ |
| Inter 15 Draconis mag. 4 & | 34 54 $\frac{1}{2}$ |
| Lyræ | 34 54 $\frac{1}{2}$ |
| Viceversa | |
| Inter prædictam informem iuxta Draconem & caudam Cygni | 20 20 |
| Inter 12 Draconis & | 23 10 $\frac{1}{2}$ |
| caudam Cygni | 23 11 |
| Inter 13 Draconis & | 25 52 |
| caudam Cygni | 25 52 $\frac{1}{2}$ |
| Inter 16 Drac. & caudam Cygni | 26 6 bis |
| Inter 10 Draconis & | 23 11 $\frac{1}{2}$ |
| caudam Cygni | 23 12 $\frac{1}{2}$ |
| | 23 12 |
| Altit. primæ in cauda Vrfæ maioris merid. min. | |
| per Chalyb. | 25 7 $\frac{1}{2}$ |
| per Volub. | 25 8 $\frac{1}{2}$ |
| Inter 11 Draconis & | 25 11 $\frac{1}{2}$ |
| caudam Cygni | 25 11 |
| Inter 14 Draconis & caudam Cygni | 29 1 bis |
| adhuc femel | 29 1 |
| Inter 15 Draconis & | 29 43 |
| caudam Cygni | 29 43 $\frac{1}{2}$ |
| Altit. merid. minima 2 in cauda Vrfæ maioris | |
| per Chalyb. | 23 1 |
| per Volub. | 23 1 $\frac{1}{2}$ |

DIE 5 DECEMBRIS.

| | |
|--|---------------------|
| Altit. merid. minima eius stellæ informis quæ est inter vltimam in cauda Vrfæ maioris & cæfariem Berenices in recta linea fere | 9 35 |
| Inter 19 Drac. mag. 4 maior. & | 18 52 |
| lucid. humerum Cephei | 18 53 |
| Inter 20 Drac. mag. 4 minor. | 28 41 |
| & luc. hum. Cephei | 28 41 $\frac{1}{2}$ |
| Inter 21 Draconis polo Zodiaci proximam mag. 3 min. & | 22 47 |
| lucid. hum. Cephei | 22 47 $\frac{1}{2}$ |
| Inter 22 Draconis mag. 4 & | 27 44 |
| lucid. hum. Cephei | 27 44 $\frac{1}{2}$ |
| Inter 23 Draconis mag. 4 min. | 29 21 |
| & luc. hum. Cephei | 29 20 $\frac{1}{2}$ |
| Viceversa | |
| Inter 23 Draconis & | 26 1 |
| stellam Polarem | 26 0 $\frac{1}{2}$ |

¹ 64 e Draconis.

DIE 6 DECEMBRIS, VESPERI.

Viceversa

| | |
|----------------------------------|---------------------|
| Inter 22 Draconis & | 25 25 |
| stellam polarem | 25 26 |
| Inter 20 Drac. & polarem | 21 56 |
| Inter 21 Drac. & polarem | 21 48 bis |
| Inter 10 in sinistro pede Erich- | 38 22 |
| tonij mag. 3 & lucidam V | 38 21 $\frac{1}{2}$ |
| Declinatio eiusdem 10 | 32 26 $\frac{1}{2}$ |
| | 32 27 |

Altitudines Meridianæ

| | |
|--------------------------|---------------------|
| 18 Erichtonij per Volub. | 70 1 $\frac{1}{2}$ |
| 10 Erichtonij per Volub. | 66 31 $\frac{1}{2}$ |
| 16 Erichtonij | 71 17 $\frac{1}{2}$ |
| 22 Erichtonij | 72 0 $\frac{1}{2}$ |
| 21 Erichtonij | 73 45 |
| 26 Erichtonij | 66 13 |
| 25 Erichtonij | 66 58 |
| 23 Erichtonij | 71 0 |

DIE 9 DECEMBRIS, VESPERI.

| | |
|-----------------------------------|---------------------|
| Inter stellam polarem & | |
| 2 Vrsæ maioris | 25 45 bis |
| Inter 3 Vrsæ maioris & | 25 3 |
| stellam polarem | 25 2 |
| Inter polarem & | 22 31 |
| 4 Vrsæ maioris | 22 33 |
| Inter 5 Vrsæ maioris & | 23 2 |
| polarem stellam | 23 1 $\frac{1}{2}$ |
| Inter polarem & | 21 25 |
| 6 Vrsæ maioris | 21 25 $\frac{1}{2}$ |
| Inter 6 Vrsæ maioris & | 42 22 |
| superius caput II | 42 22 $\frac{1}{2}$ |
| Altitudo merid. minima inferioris | |
| sequentium duarum in □ Vrsæ | |
| maioris per Chalyb. | 21 54 |
| Declin. ex altitudine merid. | 55 59 $\frac{1}{2}$ |
| Declin. per minores Armill. | 56 5 |
| | 55 58 |

Differentia nimis magna, corrigendæ igitur veniunt hæc armillæ ad amußim.

| | |
|---------------------------------------|---------------------|
| Altit. merid. min. superioris sequen- | |
| tium duarum in □ Vrsæ maioris | |
| per Chalyb. | 25 13 $\frac{1}{2}$ |
| Declin. ex. altit. merid. | 59 18 50 |
| Declin. per minores | 59 25 |
| Armillas | 59 19 |

| | |
|--|--------------------|
| Altit. merid. min. 1 ^a in cauda | |
| Vrsæ maioris | |
| per Chalyb. | 24 7 $\frac{1}{2}$ |
| Altit. merid. min. 2 in cauda | |
| Vrsæ maioris | |
| per Chalyb. | 23 1 |

DIE 25 DECEMBRIS.

| | |
|--------------------------------------|------------------------|
| Distantia inter Aldeboram & | 16 44 $\frac{3}{4}$ |
| boreale cornu eiusdem | 16 45 |
| Inter superius caput II & 10 in | |
| sinistro pede Erichtonij | 33 3 $\frac{1}{2}$ bis |
| Inter medium in ceruice Ω & illam in | |
| ventre eiusdem Ω post cor Ω, vix | |
| erat libera a refractione | 11 3 $\frac{1}{2}$ |
| illa in ventre | 11 3 $\frac{1}{2}$ |

DIE 27 DECEMBRIS, MANE.

| | |
|--------------------------|---------------------------|
| Inter vtrumque caput II | 4 31 |
| | 4 32 bis |
| Inter stellulam in Boote | 40 34 bo- |
| in humero & Lyram | 40 34 $\frac{1}{2}$ næ |
| | dubia 40 38 $\frac{1}{2}$ |

Stellulæ in humero Bootis dextro

| Altitudo | Azimuth |
|---------------------|-----------|
| 68 43 $\frac{1}{2}$ | 10 18 |
| 68 46 | 8 28 |
| 68 57 $\frac{1}{2}$ | 4 54 |
| 68 58 | 1 50 occ. |

| | |
|-----------------------|-------------------|
| Pone altit. in merid. | 69 0 ¹ |
|-----------------------|-------------------|

| | |
|----------------------|-------------|
| Inter humerum Bootis | |
| dextrum & eam quæ | 28 30 semel |
| est sub cauda Vrsæ | 28 31 bis |

Stella hæc, quæ capiebatur a Bootis humero, est in linea recta cum extrema caudæ Vrsæ maioris atque cauda Ω, sed stellula illa paululum ab hac linea versus septentrionem declinabat & propior erat extremæ caudæ Vrsæ quasi pro tertia parte totius distantiae inter dictas caudas Ω & Vrsæ. Hinc ratiocinare quænam hæc fuerit stella².

¹ Ergo declinatio = + 34° 54'.3 et stella debet esse δ Bootis tertiæ magnitudinis.

² Stella est 12 « Canum venaticorum. Eius declinatio (+ 40° 31') die 20 Februarii a. 1592 observata est.

OBSEUATIONES STELLARUM IN ASTERISMIS AUSTRINIS & IN ZODIACO.

DIE 7 JANUARIJ, VESPERI.

| | |
|--|-----------|
| Inter extremam alæ Pegafi | 38 51 |
| & 3 Ceti in rectu | 38 51½ |
| Inter 4 Ceti & extremam | 39 4½ |
| alæ Pegafi | 39 4½ |
| Inter 1 Ceti & 1 alæ Pegafi bis | 57 38½ |
| Altitudo meridiana 9 Ceti, duarum in- | |
| fer. in pectore ad occasum | |
| per Volub. | 17 3 |
| per Chalyb. | 17 2½ |
| Altitudo 11 ^a in pectore Ceti | |
| per Volub. | 20 29½ |
| Altif. merid. 10 Ceti in pectore | |
| per Chalyb. | 18 29 |
| Inter 7 Ceti & extremam | |
| alæ Pegafi bis | 29 56½ |
| Declinatio 8 in pectore Ceti, erat pau- | |
| lulum transgressa meridianum ad | |
| 3 fere gradus | 14 10 |
| | 14 10½ |
| Inter 9 Ceti & extremam | 45 52½ |
| alæ Pegafi | 45 52½ |
| Inter 8 in Ceto & extremam | 42 50 |
| alæ Pegafi | 42 51 |
| Declinatio 7 Ceti | 6 53 |
| | 6 54 |
| Inter 10 in pectore Ceti & | |
| extremam alæ Pegafi | 47 18 bis |
| Inter 11 Ceti & extremam | 45 11½ |
| alæ Pegafi | 45 11½ |
| Viceversa | |
| Inter 9 Ceti & lucidum | 40 21 |
| pedem Orionis | 40 22 |
| Inter 8 Ceti & lucidum | 41 38 |
| pedem Orionis | 41 37½ |
| Inter 10 Ceti & lucidum | |
| pedem Orionis | 37 20 bis |
| Inter 11 Ceti & lucidum | 38 20½ |
| pedem Orionis | 38 21 |
| Inter lucidam mandibulæ Ceti | |
| & 17 Orionis | 29 3 bis |
| Inter lucidam mandibulæ | 29 43½ |
| Ceti & 18 Orionis | 29 44½ |
| Inter lucidam mandibulæ | 28 39½ |
| Ceti & 20 Orionis | 28 40 |

| | |
|---|------------|
| Inter luc. mandib. Ceti | 27 20½ |
| & 21 Orionis in linteo ¹ | 27 21½ |
| Inter luc. mandib. Ceti & 22 | |
| Orionis in linteo | bis 26 52½ |
| Declinatio 21 Orionis | B. 8 8½ |
| in linteo | 8 9½ |
| Inter luc. mandib. Ceti | 27 13 |
| & 23 in linteo Orionis | 27 13½ |
| Declinatio 17 superioris, feil. in linteo | |
| Orionis mag. 5 | B. 13 29½ |
| | 13 29½ |
| Inter lucidam mandibulæ Ceti & | |
| 25 in lintreo Orionis | 29 10½ |
| Declinatio 20 in linteo Or. | B. 9 24½ |
| Inter Aldeboram & præce- | 42 34 |
| dentem Canis minoris | 42 33½ |

DIE 13 JANUARIJ, MANE.

Observabantur sequentes in 11½.

| Dist. a | | Declinatio | |
|------------------|--------------|------------|--------------|
| 1 alæ austr. 11½ | | | |
| 16 11½ | 26 35 | 26 34 | 4 3 4 4½ M. |
| 19 11½ | 28 12½ | 28 13½ | 7 59 7 58 |
| 18 11½ | 29 40 | 29 39 | 6 35½ 6 34½ |
| 20 11½ | 33 14½ bis | | |
| 27 11½ | 31 15½ | 31 16 | 0 35 0 34 B. |
| 19 & 18 | 6 magn. min. | | melior |

Viceversa

| | |
|----------------------------|---------------|
| Inter 19 11½ & bor. lancem | 25 38 bis |
| Inter 18 11½ & bor. lancem | 23 34 |
| | melior 23 35½ |
| Inter 27 11½ & bor. lancem | 21 55½ |
| | 21 56 |
| Inter 34 11½ & borealem in | 33 32 |
| manu Ophiuchi | 33 33 |
| Declinatio eiusdem | 3 35 |
| | 3 34½ |

EODEM DIE 13 JANUARIJ, VESPERI.

| | |
|------------------------------------|--------|
| Inter lucidum humerum | 49 16 |
| Orionis & 4 ^a m in Ceto | 49 16½ |
| Inter luc. humerum Orionis | 47 55½ |
| & 3 ^a m in Ceto | 47 55½ |
| Inter mediam in baltheo | 47 32 |
| Orionis & 9 Ceti | 47 33½ |

¹ Id est, in clipeo.

| | | |
|--------------------------------|--------|------------|
| Inter 14 Ceti & luc. pedem Or. | 50 | 8 bis |
| Decl. 18 Orionis in linteo, | | |
| vltimoq. | 12 | 48 |
| Inter præcedentem 14 Ceti | 50 | 34½ |
| ad austr. & luc. ped. Or. | 50 | 35 |
| Decl. 19 in linteo, magn. | 3 | 20 44 |
| melior | 20 | 45 |
| Inter luc. pedem Orionis & | | |
| 12 Ceti magn. | 3 | bis 51 41½ |
| Inter luc. pedem Orionis & | 48 | 35½ |
| 13 Ceti magn. | 4 | 48 36 |
| Declin. 30 Orionis infra | | |
| vltimam in baltheo | bis 2 | 54½ |
| Inter 20 in cauda Ceti | 47 | 26½ |
| & 10 Eridani | 47 | 25 |
| Inter 19 in cauda Ceti | 46 | 0 |
| & 10 Eridani | 46 | 1 |
| Inter 18 in cauda Ceti | | |
| & 10 Eridani | bis 44 | 27½ |
| Inter 15 Ceti | | |
| & 10 Eridani | bis 38 | 8½ |
| Declinatio 10 Eridani | M. 14 | 42½ |
| | 14 | 43 |
| Inter lucidum pedem | 19 | 31 |
| Orionis & 10 fluvij | 19 | 31½ |
| Inter Canem minorem | 42 | 5 |
| & 17 Orionis | 42 | 6 |
| Inter Can. min. & 18 Orionis | 41 | 2½ |
| Inter Can. min. & 19 Orionis | 41 | 12½ bis |
| magn. 4 paulo maior. | 41 | 6 |
| Inter Can. min. & 21 Orionis | 42 | 5 |
| Inter 23 Orionis & lucidum | | |
| humerum eiusdem | 15 | 59½ |
| Inter 32 in ense & 10 | 25 | 10 |
| Eridani | 25 | 10½ |
| Inter 10 Eridani & illam quæ | | |
| est supra pedem | 16 | 30½ |
| in Lepore | 16 | 31½ |
| Inter 10 Erid. & 6 quæ est | 18 | 19½ |
| in pede Leporis | 18 | 20 |
| Inter 10 Erid. & 5 in maxilla | | |
| inferiori Leporis | 18 | 18 |
| Inter 10 Erid. & 2 | | |
| in præcedenti aure | 18 | 20 bis |
| Inter 10 Erid. & 1 | | |
| in præc. aure | 18 | 12½ |
| Inter 10 Erid. & 3 | 20 | 1 |
| in sinistra aure | 20 | 2 |

| | | |
|---|----|---------|
| Inter 10 Eridani & 9 in posteriori dextro | | |
| pede Leporis 4 magn. | 26 | 49½ bis |
| Inter 10 Erid. & 4 in sin. aure | 19 | 51 |
| Inter 10 Eridani & 8 in femore | | |
| sinistri pedis anterioris | 22 | 43 |
| Inter 10 Erid. & 7 in pectore | 23 | 11½ |
| Inter lucidam mandibulæ Ceti & 10 | | |
| in sequenti pede posteriori | | |
| Leporis | 48 | 19½ |
| Inter 10 Erid. & 11 Leporis | 26 | 25 |
| Inter 10 Erid. & 12 Leporis | 28 | 45 |

Viceversa

| | | |
|---|----|---------|
| Inter 2 Leporis in aure & | | |
| Canem maiorem | 22 | 33½ |
| Inter 1 Leporis & Can. mai. | 23 | 3½ bis |
| Inter 3 Leporis & Can. mai. | 21 | 7 |
| | 21 | 7½ |
| Inter 4 Leporis & Can. mai. | 21 | 1 |
| Declinatio 3 Leporis | 12 | 43½ bis |
| Inter 11 Leporis & Can. mai. | 14 | 9½ |
| Inter 12 Leporis & Can. mai. | 12 | 3½ |
| Inter 7 Leporis & Can. mai. | 17 | 24½ |
| Alt. merid. eius quæ est in anteriori | | |
| sinistro pede Leporis | | |
| per Chal. | 11 | 11½ |
| per Vol. | 11 | 10½ |
| Alt. mer. 1 ^æ in Lepore | | |
| per Chal. | 21 | 54 |
| Alt. mer. 2 ^æ in Lepore | | |
| per Vol. | 20 | 35½ |
| Alt. mer. 5 ^æ in Lepore | | |
| per Chal. | 17 | 23 |
| Alt. mer. 4 ^æ in sinistro aure | | |
| per Chalyb. | 20 | 27½ |
| Alt. mer. 8 ^æ in femore sinistri | | |
| pedis anterioris | | |
| per Chal. | 13 | 0½ |
| per Vol. | 12 | 55½ |
| Alt. mer. 7 ^æ in medio corpore Leporis | | |
| per Chalyb. | 15 | 58½ |
| per Volub. | 15 | 58½ |
| Alt. mer. 9 ^æ in Lepore | 11 | 31 |
| Alt. mer. 11 ^{mæ} | 19 | 5 |
| Alt. mer. 10 ^æ Leporis | 13 | 10 |
| Alt. mer. 12 Leporis | 19 | 49 |

DIE 21 JANUARIJ, VESPERI.

| | | |
|-------------------------------|---|----|
| Inter infimam balthei Orionis | 9 | 3 |
| & lucid. pedem eiusdem | 9 | 2½ |

| | |
|--------------------------------|-----------|
| Inter 30 supremam in ense | 25 29 |
| & 10 Eridani | 25 31 |
| Declinatio 31 Orionis | 5 43 |
| | 5 43½ |
| Inter 10 fluvij & eam quæ præ- | 27 12½ |
| cedit infimam balthei | 27 13 |
| Inter 10 fluvij & mediam in | |
| ense, 31 numero | 25 18 bis |
| Inter præcedentem in collo | Canis |
| minoris 3 magn. & | |
| luc. hum. Orionis | 22 49 |
| Declinatio eiusdem | 9 3 |

DIE 23 JANUARIJ, MANE.

| | |
|--------------------------------------|-------------|
| Obſervatio aliquot ſtellarum in 11p. | |
| Inter 8 obſcuram in ala 11p | 10 11½ |
| aſtr. & 6 in eadem ala | 10 12 |
| Inter 8 eandem & borealem | 34 41 |
| lancem 12 melior | 34 43½ |
| Declinatio eiusdem | 1 30 |
| Inter 20 in 11p & borealem | 20 0 |
| lancem 12 | 20 1 |
| Declinatio 20= 11p | 7 16½ |
| | melior 7 19 |
| Inter 21 & aſtralem | 29 44½ |
| ſiniſtræ manus Ophiuchi | 29 45½ |
| Declinatio 21 11p | 0 21 M. |
| Inter 24 & 6 alæ 11p | bis 32 6½ |
| Declinatio 24 11p | 0 21 |
| | 0 20 |

DIE 31 JANUARIJ, VESPERI.

| | |
|-----------------------------|------------|
| Inter dextrum genu Orionis | 31 40 |
| & Canem minorem | 31 40½ |
| Inter Canem min. & 36 in | |
| ſiniſtro pede Orionis | 37 32 bis |
| Inter Canem min. & 37 | 36 20 |
| Orionis | 36 20½ |
| Inter 34 Orion. & Can. min. | 34 20 bis |
| Inter Can. min. & triceſi- | 32 40½ |
| mam tertiam Orionis | 32 40½ |
| Inter decimam Eridani & | 25 37½ |
| 33 infra enſem, 5 magn. | 25 37 |
| Inter decimam Eridani & 34, | 23 54½ |
| 5 magn. | 23 53½ |
| Declinatio aſtrina 33 | 7 31 |
| Orionis | 7 32 |
| Inter eandem Erid. & 37, | |
| 5 magn. | 21 53½ bis |
| Declinatio aſtr. 34 Orion. | 7 40 |
| | 7 41 |
| Inter 36 Orion. & 10 Erid. | 20 38½ bis |

| | |
|--------------------------------------|--------|
| Declin. aſtr. 37 Orionis | 8 15 |
| | 8 15½ |
| Declin. 36 Orionis A. | 7 19½ |
| | 7 20 |
| Inter luc. mandibulæ Ceti & supremam | |
| 3 contiguarum in capite | 38 19½ |
| Orionis 4 magn. | 38 20½ |
| Inter luc. mand. Ceti & | |
| occidentaliorem trium | |
| contiguarum in capite | 38 15 |
| Orionis 5 magn. | 38 14½ |
| Declin. B. ſuper. trium, bis | |
| vno pinn. 9 35½ | |
| Inter orientaliorem & inferiorem | |
| earundem & Canem | 30 44½ |
| minorem, 5 magn. | 30 44½ |
| Inter Can. min. & occiden- | 31 7 |
| taliorem earundem | 31 6 |
| Inter Can. min. & supremam | |
| trium in capite | 31 6½ |
| Altera in diſtantia a Cane minore | |
| non potuit inſtrumento diſcerni, | |
| vifa tamen eſt paulo minorem | |
| habuiſſe. | |
| Declin. aſtr. 30= Orionis | 5 8½ |
| | 5 9 |
| Inter Can. min. & 30 Orionis | 32 40 |
| dubia propter replendentem 12. | |

DIE 3 FEBRUARIJ, VESPERI.

| | |
|-------------------------------------|-------------|
| Inter 13 in dextro humero Orionis | |
| & luc. mandibulæ Ceti | 39 7½ |
| Inter 14 Orionis, obſcuram, | 37 55½ |
| & luc. mandib. Ceti | 37 56 |
| Declinatio 13 in melior | 3 48 |
| Orione, borea | 3 49 |
| Inter 15 Orionis obſcuram | 37 8 |
| & luc. mandib. Ceti | 37 8½ |
| Declinatio 14 Orionis borea | 3 25 |
| | 3 23 |
| Declinatio 16 Ori- | melior 2 40 |
| onis borea | 2 41½ |
| Inter 16 Orionis & borealiorem dua- | |
| rum lucidiorum in inter- | 30 26 |
| ſeſione 12, 6= magn. | 30 27 |
| Inter eandem 12 & præced. | 29 21½ |
| 16 Orion. prox., 6= magn. | 29 23 |
| Declin. eiusdem informis B. 3 | 3½ |
| | 3 4½ |
| Inter 4 Orionis 5 magn. in ſini- | |
| ſtro humero & pectus 12 | 23 9 |

| | |
|-----------------------------------|---------------------|
| Declin. 4 ^{ta} Orions | 5 32 $\frac{1}{2}$ |
| | 5 33 $\frac{1}{2}$ |
| Inter 13 Orionis magn. 5 | 30 3 $\frac{1}{2}$ |
| minor. & Canem min. | 30 3 $\frac{1}{2}$ |
| Declin. occidentalioris trium | |
| contiguarum supra | |
| caput Orionis | 9 7 |
| Inter 14 Orion. & Can. min. | 31 16 |
| | limitata |
| Inter 15 Orionis & Can. min. | 32 8 $\frac{1}{2}$ |
| | 32 8 |
| Inter 16 Orionis & Can. min. | 33 15 |
| | 33 14 $\frac{1}{2}$ |
| Inter præcedentem proxime | 34 8 |
| 16, magn. 6, & Can. min. | 34 9 |
| Inter 4 in finistro humero | |
| Orionis & Can. min. | 32 3 |
| Inter 25 infimam in clypeo | 32 5 $\frac{1}{2}$ |
| Orionis & Can. min. | 32 5 $\frac{1}{2}$ |
| Inter 20 Orionis & vltimam | 16 36 $\frac{1}{2}$ |
| balthei eiusdem | 16 37 $\frac{1}{2}$ |
| Declinatio 20 ^{ma} borea | 9 25 |
| Orionis | 9 25 $\frac{1}{2}$ |
| | 9 25 $\frac{1}{2}$ |

DIE 4 FEBRUARIJ, VESPERI.

| | |
|------------------------------|--------------------|
| Inter 4 Orionis & præced. | 29 1 $\frac{1}{2}$ |
| in collo Canis min. | 29 1 |
| Declinatio eiusdem | 5 32 |
| | 5 32 $\frac{1}{2}$ |
| Inter 19 Orionis & Can. min. | 41 11 |

DIE 7 FEBRUARIJ, VESPERI.

| | |
|---------------------------------------|-------------------------|
| Inter 25 Orionis & præcedentem | |
| in Cane minore | 37 36 $\frac{1}{2}$ bis |
| Inter 17 Orionis & præced. | 38 18 |
| in Cane min. | 38 18 $\frac{1}{2}$ |
| Declin. eius vno pinn. | 13 38 |
| Declinatio 15 Orionis | 3 3 |
| | 3 4 $\frac{1}{2}$ |
| Inter 19 Orionis & luc. | 28 48 $\frac{1}{2}$ |
| mand. Ceti | 28 48 $\frac{1}{2}$ |
| Inter 5 in dextro humero | 45 2 $\frac{1}{2}$ |
| & luc. mand. Ceti | 45 2 $\frac{1}{2}$ |
| Declin. 5 ^{ta} Orionis borea | 9 34 $\frac{1}{2}$ bis |
| Inter 6 Orion. in brachio | 48 38 |
| 6 magn. & luc. mand. Ceti | 48 38 $\frac{1}{2}$ |

| | |
|---------------------------------------|-------------------------|
| Inter 7 Orionis in dextra manu au- | |
| straliorem magn. 4 min. | 47 48 $\frac{1}{2}$ |
| & luc. mand. Ceti | 47 48 $\frac{1}{2}$ |
| Declin. 6 Orionis borea | 12 21 |
| | 12 21 $\frac{1}{2}$ |
| Inter lucidiorum duarum boream in | |
| interfectione γ & 8 Orionis in | |
| manu dext. magn. 5 mai. | 39 29 $\frac{1}{2}$ bis |
| Declin. 8 Orionis borea | 14 44 $\frac{1}{2}$ |
| | 14 44 $\frac{1}{2}$ |
| Inter eandem Tauri & 9 | 40 39 |
| Orionis magn. 6 min. | 40 39 $\frac{1}{2}$ |
| Declinatio 7 Orionis | 14 14 |
| | 14 14 $\frac{1}{2}$ |
| Inter 10 Orionis in manu | 41 25 $\frac{1}{2}$ |
| & eandem γ | 41 25 $\frac{1}{2}$ |
| Declinatio 9 in dextra manu | 16 9 $\frac{1}{2}$ |
| | 16 9 |
| Declinatio 10 ^{ma} | 16 11 |
| | 16 12 |
| Inter 11 Orionis magn. 6 | 37 2 |
| & eandem γ | 37 2 $\frac{1}{2}$ |
| Inter 12 Orionis magn. 5 | |
| & eandem γ | 39 10 bis |

N. B. Sub vtramque hanc vna alia
6 magnit. sita est¹.

| | |
|-----------------------|--------------------|
| Declinatio 11 Orionis | 20 8 |
| | 20 7 $\frac{1}{2}$ |
| Declinatio 12 Orionis | 20 5 |
| | 20 4 $\frac{1}{2}$ |

Eadem Orionis vice versa
a Cane minore in distantia:

| | |
|------------------------------------|---------------------|
| 5 Orionis | 24 28 $\frac{1}{2}$ |
| | 24 29 |
| 6 Orionis 21 42, ponatur | 21 43 |
| Hæc ad eam sibi ad latus præcedens | |
| boreum contigue coniunctam . . . | |
| quæ instrumento discerni nedum | |
| obseruari poterat ² . | |
| 8 Orionis a Cane minore | 24 29 |
| 7 Orionis | 23 20 $\frac{1}{2}$ |
| 9 Orionis | 24 0 $\frac{1}{2}$ |
| | 24 0 $\frac{1}{2}$ |
| 10 Orionis | 23 19 $\frac{1}{2}$ |
| 11 Orionis | 29 35 |
| | 29 35 $\frac{1}{2}$ |
| Declinatio 9 Cancrī | 14 14 $\frac{1}{2}$ |

¹ 11 and 12 sunt γ^1 et γ^2 , 54 et 62 Orionis, quibus 57 et 64 Orionis fere $\frac{1}{2}^\circ$ ad austrum adjunctæ sunt.

² 74 Orionis, quam 73 præcedit ad boreum.

| | |
|--|----------------------------|
| Inter 12 Orionis & Canem min. | 27 32 $\frac{1}{2}$ |
| Quæ desiderantur in Cancro & Leone. | |
| 9 \odot in australi pede a 17 in su- | 21 22 $\frac{1}{2}$ |
| periori pede inferioris Π | 21 23 |
| Declinatio 11 ^m \odot | 19 34 $\frac{1}{2}$ |
| Inter 11 \odot & | 25 16 $\frac{1}{2}$ |
| lucidum pedem Π | 25 17 $\frac{1}{2}$ |
| Eadem ab Aldeboram | 54 3 |
| | 54 3 $\frac{1}{2}$ |
| Inter 11 \odot magn. 6 & supe- | 44 50 |
| riorem pedem infer. Π | 44 50 $\frac{3}{4}$ |
| Declinatio 11 \odot | 15 49 |
| | 15 49 $\frac{1}{2}$ |
| Inter 17 \odot & præced. | |
| in Cane min. | 49 9 bis |
| Declin. eiusdem 17 \odot | 16 23 |
| Inter 21 \odot obscuram, | |
| quæ est infra 22, | 56 18 $\frac{3}{4}$ |
| & præced. in Cane min. | 56 19 $\frac{1}{2}$ |
| Declinatio eiusdem | B. 15 29 |
| | 15 29 $\frac{1}{2}$ |
| Inter 30 \odot & eandem | 49 23 $\frac{1}{2}$ |
| in Cane minore | 49 24 $\frac{1}{2}$ |
| | 49 25 $\frac{1}{2}$ |
| Declinatio 30 ^m \odot | 21 5 |
| | 21 4 $\frac{1}{2}$ |
| Viceversa | |
| Inter 21 \odot & Arcturum | 43 33 |
| | 43 35 |
| Inter 30 \odot & Arcturum | 49 23 $\frac{1}{2}$ |
| | 49 24 |
| Inter 11 \odot & caudam eius | 30 23 $\frac{1}{2}$ |
| DIE 9 FEBRUARIJ, VESPERI. | |
| Inter luc. pedem Orionis | 34 10 |
| & 16 in fluvio, mag. 3 mai. | 34 10 $\frac{1}{2}$ |
| Declin. eiusdem 16 in | 10 35 $\frac{1}{2}$ |
| Eridano austr., magn. 4 | 10 35 |
| Declinatio 13 in | 10 52 |
| Eridano austr. | 10 51 $\frac{1}{2}$ |
| Inter lucidum pedem Orionis | 29 19 |
| & 14 Eridani mag. 4 | 29 20 |
| Declinatio 12 in Eridano | 11 11 bis |
| Inter lucidum pedem Orionis & 13 | |
| Eridani magn. 3 minor. | 25 0 $\frac{1}{2}$ bis |
| Inter luc. pedem | melior 22 37 $\frac{1}{2}$ |
| Orion. & 12 Eridani | 22 38 $\frac{1}{2}$ |

¹ In margine alia manu adscripta.

| | |
|---|---------------------------|
| Inter luc. ped. Orion. | |
| & 11 Erid. | 22 4 bis |
| Altit. merid. 17 quæ est in dextro po- | |
| steriorum pedum Canis maioris | |
| per Volub. | 4 21 $\frac{1}{2}$ |
| Inter 10 Eridani & eandem | 36 45 |
| in post. dext. pede Canis | 36 46 |
| Alt. merid. 10 Canis per Volub. | 11 26 |
| Inter 10 Eridani & | 44 34 |
| 15 Canis maioris | 44 34 $\frac{1}{2}$ |
| Alt. mer. 7 Canis maioris 6 magnit. | |
| per Volub. | 15 54 |
| Alt. merid. Canis mai. | |
| per Volub. | 17 53 $\frac{1}{2}$ |
| Inter 10 Erid. & 14 Canis mai. | 46 20 bis |
| Alt. mer. sexta Canis mai. | |
| per Vol. | 13 33 $\frac{1}{2}$ |
| (non est sexta sed iuxta eam sita | |
| est & australior). | |
| Altitudines meridianæ Canis maio- | |
| ris, quæ inveniuntur, dubiæ sunt. In- | |
| strumento enim non satis ad meridia- | |
| num directo obseruatæ sunt ¹ . | |
| Viceversa | |
| Inter cor Hydræ & 17 | |
| Canis mai. | 48 36 $\frac{1}{2}$ |
| Declinatio 9 in superiore pede | |
| Canis maioris | bis 17 48 $\frac{3}{4}$ |
| Inter 10 Eridani & 18 | 50 8 $\frac{1}{2}$ |
| Canis maioris | 50 9 |
| Altit. merid. 6 Canis maioris | 14 21 |
| Altit. merid. 13 Canis maioris | 10 34 $\frac{3}{4}$ |
| Altit. merid. 15 Canis maioris | 5 44 |
| Alt. merid. 12 Can. mai. | |
| per Vol. | 10 52 $\frac{1}{2}$ |
| Inter 12 Canis maioris & | 26 57 $\frac{1}{2}$ |
| 5 Leporis magn. 3 min. | 26 58 |
| Altit. merid. 14 Canis mai. | 8 22 $\frac{1}{2}$ |
| | melior 8 23 $\frac{3}{4}$ |
| Inter 13 Canis maioris | 25 1 |
| & 5 Leporis | 25 0 $\frac{1}{2}$ |
| Viceversa a corde Hydræ. | |
| Inter cor Hydræ & | |
| 15 Can. mai. | 40 24 $\frac{1}{2}$ |
| Inter cor Hydræ & 14 | 37 27 $\frac{1}{2}$ |
| Canis maioris | 37 28 |
| Inter cor Hydræ & 12 | 37 41 $\frac{1}{2}$ |
| Canis maioris | 37 42 $\frac{1}{2}$ |

| | |
|---|------------------|
| Altit. merid. 18 Canis maioris per Chalyb. | 5 39½ |
| Inter 13 Canis maioris & cor Hydræ | 39 44½ 39 45½ |
| Inter 18 Canis maioris & cor Hydræ | 35 30½ 35 31 |

DIE 10 FEBRUARIJ.

| | |
|------------------------------------|-----------------------|
| Inter Canem minorem & 6 Eridani | 46 37 46 36 |
| Declinatio 6 Eridani austr. | 4 14½ 4 15 |
| Inter 5 Eridani & Canem minorem | 44 18½ 44 19½ |
| Inter 4 Eridani & Canem minorem | 43 0 42 59½ |
| Declinatio 5 Eridani austr. | 4 2½ 4 3 |
| Inter 2 Eridani & Canem min. | 39 19 bis |
| Declinatio 4 Eridani austr. | 6 10½ melior 6 11½ |
| Inter 3 Eridani & Canem minorem | 41 24 41 24½ |
| Declinatio 3 Eridani austr. | 7 50 7 50½ |
| Declinatio 1 Eridani austr. | 9 19½ 9 19 |
| Inter 2 Eridani & Canem minorem | 40 3½ 40 3½ |
| Declinatio 2 Eridani | 5 40 5 40½ |

DIE 16 FEBRUARIJ, VESPERI.

| | |
|---|-----------------------|
| Inter 1 Eridani & lucidam mandibulæ Ceti | 32 42½ 10 53 |
| Inter 14 Ceti in ventre & 16 fluvij | 10 53½ |
| Inter 14 Eridani & 4 Ceti | melior 12 45 12 48 |
| Inter 4 Ceti & 13 Eridani | 16 35 16 36 |
| Inter 4 Ceti & 12 Eridani | 18 50½ 18 51 |
| Inter 4 Ceti & 11 Eridani | 20 44 20 45 |
| Inter 1 Eridani & lucidam mandibulæ Ceti | 34 8 34 9 |
| Inter 3 Eridani & lucidam mandibulæ Ceti | 31 45½ 31 45½ |

| | |
|---|-----------------|
| Inter 4 Erid. & luc. mand. Ceti | 29 13½ bis |
| Inter 5 Eridani & lucidam mandibulæ Ceti | 26 49 26 50 |
| Inter 6 Eridani & lucidam mandibulæ Ceti | 24 38½ 24 39 |

| | |
|---|-----------------|
| Altit. merid. 3 in Navi per Vol. | 10 16½ |
| Altit. merid. primæ in Navi per Volub. | 12 20 12 18½ |
| Altit. merid. 2 in Navi, magnit. 3 per Chalyb. | 10 59 10 59 |

DIE 17 FEBRUARIJ, VESPERI.

| | |
|---|---------------|
| Inter 10 Eridani & vltimam trium in cauda Leporis, | 31 4½ 31 6 |
| Arato ignotam | 14 56½ |
| Declinatio eiusdem in Lepore | 14 57 |

Viceversa

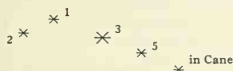
| | |
|---|-----------------|
| Inter lucidam Hydræ & præscriptam in cauda Leporis | 49 36 49 37½ |
|---|-----------------|

| | |
|---|---------------------|
| Altit. meridiana 10 ^o in Cane maiore per Volub. | 11 1½ |
| Alt. merid. 11 in Cane maiore | 11 30 |
| Alt. merid. 11 in pede Canis maioris per Chalyb. | 12 18½ ¹ |
| Alt. merid. 8 Can. mai. per Chal. | 15 9 16 12 |
| Alt. mer. 7 Can. mai. per Chal. | 16 12 |
| Alt. mer. Canis mai. per Volub. | 17 55½ |

| | |
|--|-----------------|
| Inter 5 in Argo & lucidum pedem Orionis | 38 51 38 53 |
| Inter 3 in Argo & lucidum pedem Orionis | 40 26 40 27 |
| Inter 2 in Argo & lucidum pedem Orionis | 44 17 44 19 |
| Altit. merid. eius quæ est in Navi cly- peo proxima caudæ Canis maio- ris ² (Aratus videtur hanc collo- care in Canis maioris imagine) | 8 14½ 10 16½ |
| Alt. merid. 3 in Navi | 10 16½ |
| Inter lucidam Hydræ & 5 Argi | 31 29 31 30 |

¹ Nulla stella tunc meridianum in hac altitudine tranſivit.² z Puppis (P. VII. 175) Cf. Arat. v. 349. Ea sexta ſtella Navis in catalogo Ptolemæi.

| | |
|-------------------------------------|---------|
| Alt. merid. 1 Argi | 12 18 |
| Alt. merid. 2 in Argo | 11 0 0" |
| Positus quarundam stellarum in Navi | |



| | |
|--------------------------------|-----------|
| Inter lucid. Hydræ & 3 in Navi | 28 27 bis |
| Inter lucidam Hydræ & | 24 44 |
| 2 in Navi | 24 44½ |

DIE 18 FEBRUARIJ, MANE.

| | |
|---------------------------------|-------|
| Alt. merid. 11 Π per Volub. | 6 49½ |
|---------------------------------|-------|

DIE 19 FEBRUARIJ, MANE.

| | |
|---------------------------------------|-----------|
| Inter 29 Π & bor. lancem Ω | 45 49 bis |
| Inter eandem 29 & Spicam | 21 38½ |
| | 21 38½ |

| | |
|---------------------------|-------|
| Inter 31 Π & | 45 31 |
| lucidam ceruicis Ω | 45 32 |

| | |
|---------------------|---------|
| Declinatio 29 Π | B. 5 32 |
| | 5 32½ |

| | |
|--------------------------|--------|
| Inter 31 Π & | 33 13½ |
| borealem lancem Ω | 33 14½ |

| | |
|------------------------------|-----------------|
| Declin. eiusdem 31 Π B., | vtr. pin. 7 40½ |
| | 29 57½ |

| | |
|----------------------|-------|
| Inter sinistrum genu | 29 59 |
| Ophiuchi & 24 Π | 29 59 |

| | |
|--------------------------------|------|
| Declinatio eiusdem 24 Π B. | 2 27 |
| | 2 25 |

| | |
|-----------------------------------|------|
| Altit. merid. 11 Π per Volub. | 6 46 |
| (melior præced.) | 6 46 |

| | |
|----------------------------|-------|
| Altit. merid. cordis Π | 8 46½ |
|----------------------------|-------|

Eodem Die Vesperi.

| | |
|---------------------------|--------|
| Altit. merid. humeri Ceti | |
| per Volub. | 26 48½ |
| per Chalyb. | 26 47½ |

DIE 20 FEBRUARIJ, VESPERI¹.

| | |
|-----------------------------|--------|
| Altit. merid. Canis maioris | |
| per Chal. | 17 54½ |
| per Vol. | 17 54½ |

| | |
|------------------------------|--------|
| Inter luc. pedem Orionis & | 35 11½ |
| mandib. Ceti | 35 12 |
| Declinatio luc. pedis | 9 14½ |
| Orionis | 9 14½ |
| Repetita distantia | 35 11½ |
| Declinatio luc. mandib. Ceti | 2 27½ |
| | 2 28½ |

DIE 4 APRILIS, VESPERI².

| | |
|------------------------|--------|
| Alt. merid. 5 Crateris | 21 23½ |
| Alt. merid. 2 Crateris | 18 41½ |

| | |
|--------------------------|-------|
| Inter 4 Corvi & 11 Hydræ | 43 16 |
| | 43 17 |

| | |
|-----------------------------------|--------|
| Inter 4 Corvi & proxime sequentem | |
| cor Hydræ, 13 num. bis | 37 27½ |

| | |
|----------------------------------|--|
| Inter 4 Corvi & eam, quæ alteram | |
| proxime in Hydra | |

| | |
|---------------------|-------|
| obseruatam sequitur | 34 46 |
| orientalior 5 magn. | 34 45 |

| | |
|------------------------------------|--|
| Inter Spicam & eam quæ supra prox- | |
| ime obseruatam sita est, vna ex | |

| | |
|-----------------------------------|-------|
| duabus contiguis ad occasum, 15 | |
| nostra numeratione ³ , | 48 51 |

| | |
|---------------------------------|--------|
| magn. 5 | 48 50½ |
| Inter Spicam & sequentem duarum | |

| | |
|---------------------------|--------|
| contiguarum Hydræ num. 16 | |
| nostra numeratione | 47 35½ |

| | |
|------------------------------------|--------|
| mag. 4 minor. | 47 36½ |
| Inter Spicam & eam quæ est a corde | |

| | |
|-------------------------------------|--------|
| Hydræ 5 ^a , nostra | 43 43½ |
| numeratione 17, mag. 4 ⁺ | 43 42½ |

| | |
|-------------------------------------|--|
| Inter Spicam & eam quæ est media in | |
| recta linea cum proxime obser- | |

| | |
|----------------------------------|--------|
| uata, 17 & 19 iuxta numerationem | |
| nostram inferius obser- | 40 44½ |

| | |
|--------------------------------------|--------|
| uandam ⁵ , magn. 5 minor. | 40 44½ |
| Altit. merid. 2 Corvi | |

| | |
|-----------------------|--------|
| per Volub. | 13 47½ |
| Altit. merid. 4 Corvi | |

| | |
|--------------------------------------|--------|
| per Volub. | 18 51½ |
| Inter Spicam & supremam in recta li- | |

| | |
|---------------------------------|--|
| nea in Hydra, quam iuxta obser- | |
| uationis feriem numeramus 19, | |

| | |
|------------------------------|-------|
| est Arato 18 ^{a6} , | 38 4 |
| mag. 4 | 38 3½ |

¹ Cfr. supra inter obseruationes Mercurii p. 159.² Adscripta sunt: »Describenda hæc sunt Australibus signis».³ Id est, iuxta Ptolemæum. Stella est 40 v² Hydræ.⁴ 42 μ Hydræ.⁵ 2 Crateris vel η Hydræ.⁶ 4 Crateris vel ν Hydræ.

Altit. merid. 5 Corvi
per Volub. 19 54½
Inter 4 Corvi & cor Hydræ
bis 41 50

Altit. merid. 7 Corvi 13 2
Inter Spicam & 1 in Cratera 35 45
5 magnit. paulo maior. 35 46
Inter Spicam & 3 30 49
in Cratera mag. 4 30 49½
Inter Spicam & 2 in Cratera 29 50
4 mag. 29 49½

DIE 12 APRILIS, VESPERI.

Inter 4 in Corvo præcedentem duarum 17 54
superiorum & Spicam 17 53½
Inter sequentem lucid. 14 25
superiorum & Spicam 14 24½
Declinatio 14 in Hydra 12 56
12 56½
Declinatio 16 in Hydra 14 45
(nobis 17) 14 44

Inter præcedentem inferiorum lucidarum in □ Corvi borealiorum & Spicam 21 17
21 17½
Declinatio 13 Hydræ 12 28
12 27½

Inter sequentem (num. 7) lucidiorum inferiorum in □ Corvi & Spicam bis 17 12½
Declinatio 18 nobis Hydræ, 14 46
Arato 17 14 47
Inter cor Hydræ & 16 Hydræ 16 25½
Arato, nobis 17 16 26
Inter sequentem nobis 18 in 19 7
Hydra & cor Hydræ 19 6½
Declinatio 6 Serpentis borea 6 39½
in collo 6 40
Inter 19 nobis, Arato 18 21 21
Hydræ & cor Hydræ 21 21½

Inter 1 Crateræ & cor Hydræ 24 23½
24 23
24 24
Inter 19 Hydræ & cor 28 40½
eiusdem 28 41
Declinatio 3 Crateris 12 31½
auftrina 12 32½
Declinatio 2 Crateris M. 15 26
15 27
Inter 2 in Cratere & cor 29 55
Hydræ 29 54½
Inter 3 Crateris & cor 28 0½
Hydræ 28 0½
Declinatio 5 Crateris M. 8 35½
8 36½
Declinatio 7 Crateris M. 7 31½
7 32½
Declinatio 4 Crateris 16 0½
16 0½
Declinatio 6 Crateris 14 52
14 53

DIE 9 DECEMBRIS.

Alt. merid. 16 Ceti in dorso
per Volub. 21 45½
Alt. merid. ventris Ceti 16 3
Alt. merid. luc. mandibulæ Ceti
per Volub. 36 33

DIE 10 DECEMBRIS.

Alt. merid. lucidi pedis Orionis
per Volub. 25 23
Alt. merid. sinistri humeri Orionis
per Volub. 40 0½
Alt. merid. 1 balthei Orionis 33 26
Alt. merid. med. balth. Orion. 32 35½
Alt. merid. vlt. balthei 31 53
Alt. merid. dextri pedis Orionis
per Volub. 24 14

PRO ARCU ÆQUATORIO CORRIGENDO.

Eodem die 9 X^{bris} Vesper¹ H. 4 16½' obferuabatur transitus ♂ per meridianum, eratque tunc eius altitudo 25 14' per Chalyb.
25 13½' per Volub.

In ipso momento transitus ♂ per meridianum in horizonte quadrantis volubilis numerabantur in æquatore 0° 5½' ante meridiem, qui error in æquatore venit corrigendus.

¹ In codice post obferuationem Saturni confcripta.

H. 5 M. 17 transibat extrema alæ Pegasi per meridianum habens altitudinem per Volub. 47 1½. Erat autem adhuc in æquatore 0° 5½' ante meridiem.

H. 6 M. 21½ transibat 15 Ceti per meridianum habens altitudinem 23 49½ per Chalyb., erat ante meridiem in æquatore 0° 6½'.

H. 8 M. 49½ transibat lucida mandibulæ Ceti per meridianum. Erat autem in æquatore adhuc ante meridiem 0° 7'.

Altitudo meridianæ præcedentis primi in baltheo Orionis 33 26.

Ultima versus ortum in baltheo Orionis transibat per meridianum habens altitudinem per Volub. 31 52½. Erat autem adhuc ante meridiem 0° 7½'.

Altitudo Canis maioris transeuntis per meridianum 17 55. Erat autem tunc in arcu æquatoreo ante meridiem 7½'.

Die 14 Decembris correctus est error in arcu Æquatorio maiores subterraneas Armillas ad semiperipheriam ambiente, idque emendatione in 7 minutis facta, quibus linea Meridiana in hoc a vera, in horizonte Volubilis Quadrantis antea præcise fatis adinuenta, hæcenus versus ortum declinauisse deprehensa fuit, quemadmodum animaduersiones præteritis aliquot noctibus in stellis Orionis & alijs per Meridianum transeuntibus vtrouque habitæ fatis manifestarunt & in 7' illis correctis limitatæ proxime omnes consentierunt. Itaque in omnibus antecedentibus obseruationibus quotiescunque pro maiori temporum præcisione habenda vsus huius semicirculi Æquatorij adhibitus est, addenda sunt 28" secunda temporis in horologio, tot enim 7 in 4 multiplicata efficiunt, vel 7 hæc minuta quæ in Æquatorio arcu defecerunt & iam correctæ sunt addunt ad summum vbique in omnibus obseruationibus temporis in horologio ad stellas fixas verificato semissem vnus minuti, idque ab eo tempore quo primum positus fuit semicirculus hic Æquatorius ad præsentem hunc diem 14 Decembris duobus scilicet diebus post solstitium hybernium anni huius labentis 1591. Atque hoc diligenter notetur.

N. B. OMNIBUS OBSERVATIONIBUS ÆQUATORIJS PRO TEMPORE INDAGANDO HABITIS AB IP SO INITIO COLLOCATIONIS SEMICIRCULI ÆQUATORIJ MAXIMI QUIESCENTIS ADDENDUM EST DIMIDIUM MINUTUM, EO QUOD SEPTEM QUASI SCRUPULIS MERIDIEJ EXACTEM LINEAM ANTEUERTERINT, IDQUE VSQUE AD SOLSTITIUM HYBERNUM ANNI 1591¹.

¹ Cf. T. I p. XXVI.

OBSERVATIONES ANNI 1592.

OBSERVATIONES SOLIS.

DIE 28 JANUARIJ.

Obferuabatur ☉ in meridie
vt fequitur.

| | |
|--------------------------|---------------------|
| Altit. merid. | |
| per Chalyb. | 18 39 $\frac{1}{2}$ |
| per Volub. | 18 38 $\frac{2}{3}$ |
| Declin. | 15 25 |
| per Armill. max. | 15 25 $\frac{1}{2}$ |
| Repetita | 15 25 |
| Erat fatis bene ferenum. | 15 25 $\frac{1}{2}$ |

DIE 6 FEBRUARIJ¹.

| | |
|------------------|---------------------|
| Altit. ☉ merid. | |
| per Chalyb. | 21 37 $\frac{1}{2}$ |
| per Volub. | 21 38 0 |
| Declin. | 12 29 |
| per Armill. max. | 12 29 $\frac{1}{2}$ |
| Repetita | 12 29 |
| | 12 29 $\frac{1}{2}$ |

Quando Azimuth ☉ erat in Volub.
1 $\frac{1}{2}$ g., Altit. ☉ 21 37 $\frac{1}{2}$
Erat bene ferenum.

DIE 9 FEBRUARIJ.

| | |
|------------------------------------|---------------------|
| Declin. ☉ paulo ante merid. | |
| capiebatur vno 11 26 | |
| altero 11 26 $\frac{2}{3}$ | |
| Altit. ☉ merid. | |
| per Volub. | 22 40 $\frac{1}{6}$ |
| per Chalyb. | 22 39 $\frac{1}{2}$ |
| Declin. paulo post merid. repetita | 11 26 $\frac{2}{3}$ |
| | 11 26 $\frac{2}{3}$ |

DIE 10 FEBRUARIJ.

| | |
|--|---------------------------|
| Obferuauimus declinationem paulo ante meridiem | vno 11 5 |
| hoc modo | altero 11 4 $\frac{1}{2}$ |
| Altitudo ☉ | |
| per Chalyb. | 23 1 $\frac{1}{2}$ |
| per Volub. | 23 1 $\frac{1}{2}$ |
| Repetita Declin. paulo vno 11 4 $\frac{1}{2}$ | |
| post merid. | altero 11 4 $\frac{1}{2}$ |
| Erat apprime ferenum. Impofui pro horologio duos globulos. | |

DIE 13 FEBRUARIJ.

| | |
|--|--------------------|
| Altit. ☉ merid. per Chalyb. | 24 6 $\frac{1}{2}$ |
| per Volub. | 24 6 $\frac{1}{2}$ |
| Declin. | 10 0 |
| per Armill. | 10 0 $\frac{1}{2}$ |
| Horologium mouebatur celerius iusto 16 $\frac{2}{3}$ minutis (in Meridie correctum). | |
| Pro quo errore globulos quatuor remouebamus de pondere. | |

Erat mediocriter ferenum.

Hora mediata tertia iterum correctum est horologium, motum a meridie 2 minutis iusto celerius, dempto adhuc vnico globulo in pondere pro hoc errore vitando.

DIE 17 FEBRUARIJ.

| | |
|-----------------------------|---------------------|
| Altit. ☉ Merid. per Chalyb. | 25 35 $\frac{1}{2}$ |
| per Volub. | 25 35 $\frac{1}{2}$ |
| Declin. | 8 31 $\frac{1}{2}$ |
| per Armillas | 8 31 $\frac{1}{2}$ |
| Erat apprime ferenum. | |

DIE 18 FEBRUARIJ.

| | |
|--|---------------------|
| Altit. ☉ merid. per Chalyb. | 25 57 $\frac{1}{2}$ |
| per Volub. | 25 58 |
| Declin. | 8 9 |
| per Armill. | 8 9 $\frac{1}{2}$ |
| Postea repetitur declinatio minuto 10 | 8 8 |
| | 8 8 $\frac{1}{2}$ |
| Non bene ferenum. | |
| Correctum est horologium, quod a meridie antecedentis diej 5 minut. iusto celerius mouebatur, demptis duobus globulis e pondere horologij. | |

DIE 19 FEBRUARIJ, MANE.

Pro corrigendo horologio obferuabatur ☉ in Æquatore.

| H. M. | Declin. ☉ | Altit. ☉ | Azim. | ☉ orient. |
|--------------------|--------------------|--------------------|-------|-----------|
| 7 35 $\frac{2}{3}$ | | | | 63 0 |
| 7 40 $\frac{1}{2}$ | 7 46 | 8 33 $\frac{1}{2}$ | 62 7 | 61 54 |
| | 7 45 | | | |
| 7 44 | 7 46 $\frac{2}{3}$ | 9 1 | 61 16 | 60 53 |
| | 7 47 | | | |
| 7 47 | | | | 60 10 |

¹ Pro obfervatione ortus folis die 30 Januarii vide infra inter obfervationes lunæ.

DIE 20 FEBRUARIJ.

| | |
|--------------------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 26 42½ |
| per Volub. | 26 42½ |
| Declin. | 7 22½ |
| per Armill. | 7 22½ |
| Horologium corrigebatur. | |
| Erat bene serenum. | |

DIE 21 FEBRUARIJ.

H. 6 M. 8 Incepit ☉ oriri *supremo limbo.*
 6 12½ *Medius* ☉ *ortus videbatur.*
 6 15½ *Totus* ☉ *ortus vilus est.*
Erat apprimē serenum & tranquilum.

| | |
|------------------|-------|
| Altit. ☉ merid. | |
| per Chalyb. | 27 4¾ |
| per Volub. | 27 5½ |
| Declin. | 6 59½ |
| per Armill. max. | 7 0 |

Erat bene serenum.
 Horologium a meridie præcedentis diej 33 M. tardius iusto promotum; adiecimus ergo 3 globulos ponderi pro hoc errore corrigendo.

DIE 22 FEBRUARIJ.

H. 5 50' ☉ *oriri incipiebat* (6 30¾ corr.)
 5 56 ☉ *totus exortus apparuit* (6 37 corr.) Verus ortus ☉ H. 6 M. 40 ex Mæsthilino.

DIE 25 FEBRUARIJ.

| | |
|---------------------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 28 37½ |
| per Volub. | 28 38 |
| Declin. | 5 28½ |
| per max. Armillas | 5 27½ |
| Erat mediocriter serenum. | |

DIE 25 MARTIJ.

| | |
|-----------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 39 57 |
| per Volub. | 39 58½ |
| Declinatio | 5 51 |
| | 5 51½ |

Erat bene serenum.

DIE 10 APRILIS.

| | |
|---|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 45 45½ |
| per Volub. | 45 45½ |
| Declin. | 11 40½ |
| per Armillas maiores | 11 41½ |
| Erat mediocriter serenum sed aër intranquillus. | |

DIE 11 APRILIS.

| | |
|-----------------|-------|
| Altit. ☉ merid. | |
| per Chalyb. | 46 6½ |
| per Volub. | 46 5½ |
| Declin. | 12 2 |
| per Armill. | 12 2 |

Non erat satis serenum sed tamen mediocriter. Horologium est correctum.

DIE 13 APRILIS.

| | |
|-----------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 46 46½ |
| per Volub. | 46 46 |
| Declinatio | 12 40½ |
| | 12 41½ |

DIE 19 APRILIS.

| | |
|--------------------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 48 40¾ |
| per Volub. | 48 40½ |
| Declin. | 14 35 |
| per Armillas maximas | 14 35½ |
| Erat satis bene serenum. | |

DIE 20 APRILIS.

| | |
|--------------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 48 59½ |
| per Volub. | 49 0 |
| Declin. | 14 54½ |
| per Armillas | 14 54½ |
| Erat bene serenum. | |

DIE 16 MAIJ.

| | |
|----------------------------|--------|
| Altit. ☉ merid. per Volub. | 55 17½ |
| Declin. | 21 12 |
| per Armillas | 21 12½ |
| Erat mediocriter serenum. | |

DIE 17 MAIJ.

| | |
|--------------------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 55 28½ |
| per Volub. | 55 28 |
| Declin. ☉ | 21 23½ |
| per Armillas maiores | 21 24½ |
| Erat satis bene ferenum. | |

DIE 18 MAIJ.

| | |
|-----------------------------------|---------|
| Altit. ☉ merid. | |
| per Chalyb. | 55 37½ |
| per Volub. | 55 38 0 |
| Declin. | 21 33½ |
| per Armill. | 21 33½ |
| Erat mediocriter ferenum, sed in- | |
| tranquillus aër. | |

DIE 23 MAIJ.

| | |
|--------------------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 56 20½ |
| per Volub. | 56 20½ |
| Declin. per Armill. | 22 17 |
| æquatorias | 22 17½ |
| Erat satis bene ferenum. | |

DIE 30 MAIJ.

| | |
|-----------------|-------|
| Altit. ☉ merid. | |
| per Chalyb. | 57 6 |
| per Volub. | 57 6½ |
| Declinatio | 23 2 |
| | 23 1½ |

DIE 31 MAIJ.

| | |
|---------------------------|--------|
| Altit. merid. ☉ | |
| per Chalyb. | 57 10½ |
| per Volub. | 57 9½ |
| Declin. | 23 7½ |
| per Armill. max. subterr. | 23 7½ |
| Erat satis bene ferenum. | |

DIE 7 JUNIJ.

| | |
|----------------------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 57 31½ |
| per Volub. | 57 31½ |
| Declin. ☉ per Armill. max. | |
| utroque pinnacidio | 23 27½ |
| Erat satis bene ferenum. | |

DIE 14 JUNIJ.

| | |
|-----------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 57 33½ |
| per Volub. | 57 32½ |

| | |
|-----------------------------------|--------|
| Declinatio | 23 29 |
| per Armillas | 23 29½ |
| Erat mediocriter ferenum. Correc- | |
| tum est horologium. | |

DIE 15 JUNIJ.

| | |
|--|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 57 32 |
| per Volub. | 57 31½ |
| Declin. eius per Armill. max. subterr. | |
| utroque pinnacidio | 23 27½ |
| Non satis ferenum. | |
| Horologium tardius iusto moueba- | |
| tur 6½ minut. quod notandum venit | |
| pro temporibus in præcedenti Eclipsi | |
| Lunæ die 14 Junij corrigendis. | |

DIE 27 JUNIJ.

| | |
|--------------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 56 43 |
| per Volub. | 56 42½ |
| Declin. | 22 38 |
| per Armill. | 22 37½ |
| Erat bene ferenum. | |

DIE 28 JULIJ.

| | |
|--------------------------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 50 30 |
| per Volub. | 50 30 |
| Declin. | 16 25 |
| per Armill. | 16 25½ |
| Erat mediocriter bene ferenum. | |

DIE 29 JULIJ.

| | |
|---------------------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 50 12½ |
| per Volub. | 50 12½ |
| Declin. | 16 8 |
| per Armill. | 16 8½ |
| Erat mediocriter ferenum. | |

DIE 1 AUGUSTI.

| | |
|---------------------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 49 20½ |
| per Volub. | 49 20½ |
| Declin. eius | 15 14½ |
| per Armill. max. subterr. | 15 14½ |
| Erat mediocriter ferenum. | |

DIE 8 AUGUSTI.

| | |
|-----------------|-------|
| Altit. ☉ merid. | |
| per Chalyb. | 47 9½ |
| per Volub. | 47 8½ |
| Declin. | 13 5 |
| | 13 4½ |

Horologium indicabat H. 12 M. 6½.
hinc potest corrigi pro obseruationi-
bus vesperi præcedentis.

DIE 11 AUGUSTI.

| | |
|---------------------------|-------|
| Altit. ☉ merid. | |
| per Chalyb. | 46 10 |
| per Volub. | 46 9½ |
| Declin. | 12 4 |
| per Armill. max. subterr. | 12 4½ |
| Erat bene serenum. | |

DIE 12 AUGUSTI.

| | |
|-----------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 45 49½ |
| per Volub. | 45 50½ |
| Declin. | 11 43½ |
| | 11 44½ |

Erat mediocriter serenum.

DIE 15 AUGUSTI.

| | |
|-----------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 44 48 |
| per Volub. | 44 47½ |
| Declinatio | 10 43½ |
| | 10 44 |

Non erat satis serenum.

DIE 16 AUGUSTI.

| | |
|---------------------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 44 27½ |
| per Volub. | 44 26½ |
| Declin. | 10 22½ |
| per Armill. max. subterr. | 10 22 |
| Erat bene serenum. | |

DIE 17 AUGUSTI.

| | |
|-----------------|-------|
| Altit. ☉ merid. | |
| per Chalyb. | 44 5½ |
| per Volub. | 44 5 |

| | |
|--------------------|-------|
| Declin. | 10 0½ |
| per Armill. max. | 10 0½ |
| Erat bene serenum. | |

DIE 18 AUGUSTI.

| | |
|-----------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 43 44½ |
| per Volub. | 43 44½ |
| Declinatio | 9 39½ |
| | 9 40 |

Erat mediocriter serenum sed aer
intranquillus.

DIE 21 AUGUSTI¹.

| | |
|--------------------------------------|----------|
| ☉ in meridie vifus est in altitudine | |
| per Chalyb. | 42 40 50 |
| per Volub. | 42 40 |
| Declin. vtroque pinn. | 8 34 |

| | | |
|-----------------|-------------|------------|
| | per Chalyb. | per Volub. |
| Altit. | 42 40 50 | 42 40 |
| Refract. subtr. | 7 | 7 |
| | 42 40 43 | 42 39 53 |
| Parallaxis add. | 2 10 | 2 10 |
| Vera altit. | 42 42 53 | 42 42 3 |
| Elevatio æquat. | 34 5 30 | 34 5 30 |
| Vera declin. | 8 37 23 | 8 36 33 |
| Resp. | 7 56½ 11½ | 7 58 |

*Ephemerides nostræ habent lo-
cum ☉ in 7 57 11½, quasi medium inter
vtrumque locum².*

DIE 25 AUGUSTI.

| | |
|--|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 41 12½ |
| per Volub. | 41 10½ |
| Dubitatur an Volubilis ad amuſſim se habeat, ex quo ante biduum noua coelea infigebatur. | |
| Declin. | 7 7 |
| per Armill. | 7 6½ |
| Erat bene serenum. | |

DIE 1 SEPTEMBRIS.

| | |
|----------------------|----------|
| Altit. ☉ merid. | |
| per Chalyb. | 38 33 40 |
| per Volub. | 38 32 50 |
| Declin. | 4 28 10 |
| per Armillas maximas | 4 27 50 |

¹ Observaciones declinationis Solis die 20 Augusti infra inter observaciones lunæ invenies.

² Cf. ibidem ad d. 21 Augusti.

DIE 4 SEPTEMBRIS.

| | |
|-------------------------|----------|
| Altit. ☉ merid. | |
| per Chalyb. | 37 24 |
| per Volub. | 37 24½ |
| Declin. | B. 3 19½ |
| per Armill. | 3 19½ |
| Non erat fatis ferenum. | |

DIE 9 SEPTEMBRIS.

| | |
|--------------------|----------|
| Altit. ☉ merid. | |
| per Chalyb. | 35 28½ |
| per Volub. | 35 28½ |
| Declin. | B. 1 22½ |
| per Armill. | 1 22½ |
| Erat bene ferenum. | |

DIE 10 SEPTEMBRIS.

| | |
|-----------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 35 5½ |
| per Volub. | 35 5 0 |
| Declin. B. | 1 0 0 |
| | 1 0 15 |

Erat mediocriter ferenum. Pridie instrumenta ad amußim corrigebantur.

DIE 29 OCTOBRIS.

| | |
|---------------------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 20 30½ |
| per Volub. | 20 30½ |
| Declin. | 13 36½ |
| per Armillas | 13 36½ |
| Erat mediocriter ferenum. | |

DIE 8 NOUEMBRIS.

| | |
|-----------------|---------|
| Altit. ☉ merid. | |
| per Chalyb. | 14 45½ |
| per Volub. | 14 47 0 |
| Declin. | 19 21½ |
| | 19 21½ |

Erat bene ferenum.

DIE 9 NOUEMBRIS.

| | |
|-----------------|---------|
| Altit. ☉ merid. | |
| per Chalyb. | 14 32 0 |
| per Volub. | 14 33 0 |
| Declin. | 19 35 |
| per Armillas | 19 35½ |

Erat bene ferenum sed aer intranquillus fuit.

OBSERVATIONES LUNÆ.

DIE 28 JANUARIJ.

Mane obseruauī (hoc modo¹.

Quando ☉ Azimuth a merid. versus
ortum erat 23 46, Declinatio superioris limbi ☉ 19 44
inferioris limbi 20 14

Distabat tunc a ☿ quoad limbum orientalem ipsi proximum 7 2½

Altit. infer. limbi tunc erat 14 20

Azim. ☉ 23 30, Decl.

sup. limbi 19 46

infer. limbi 20 10

Distabat tunc limbus

vt prius a ☿ 6 59

Postea obseruabatur (a ☉ hoc modo.

| Azim. | Dist. (a ☉ | Decl. | Altit. |
|-------|-----------------|-------|-------------------------|
| ☉ | quoad or. limb. | (| (|
| 21 20 | 25 54 | 19 46 | infer. 11½ ² |
| | | 20 12 | |

| | | | |
|-------|--------|--------|-------------|
| 20 22 | 25 52½ | 19 47 | infer. 13½ |
| | | 20 13 | |
| 19 35 | 25 52 | 19 48½ | sup. 15½ 10 |
| | | 20 14 | |

Postea obseruauī azimutha & altitudines ipsius (pro tempore, nam luna primum appropinquabat ad 90
Eclipticæ gradum.

| | | | |
|---------------|--------|--------|------------|
| Azim. or. | | | |
| limb. (quasi | | | |
| 12 0 | 25 44½ | 19 49 | inf. 14 10 |
| | | 20 12½ | |

Sol iam erat ortus & (prope 90 grad.

| | | | |
|-------|-------|--------|------------|
| 13 30 | 25 43 | 19 49½ | int. 13 17 |
| | | 20 12 | |

| | | | |
|-------|--------|--------|-----------|
| 14 50 | 25 40½ | 19 45½ | sup. 13 5 |
| | | 20 12 | |

| | | | |
|------|--------|--------|------------|
| 17 0 | 25 38½ | 19 49½ | sup. 13 0 |
| | | 20 13 | inf. 12 20 |

| | | | |
|-------|--------|--------|------------|
| 18 45 | 25 32½ | 19 51 | sup. 12 40 |
| | | 20 12½ | inf. 12 5 |

¹ Adscriptum est alia manu: »Fracto fune Horologii obseruabantur Azimutha pro tempore. Est autem supcio, an Azimutha in (hic obseruata vbique se rite habeant«.

² Gradus difficiles lectu. Fortasse 9½ in 10½ corr.

³ Sic in codice. Debet esse 14° 10'.

In fine vltimæ obseruationis monstrabat Horologium sciotericum quasi Horas 8½. Hic erat ☉ a meridie orient. quasi 20 14.

N.B. Paulo post corrigebatur horologium ad ☉, appenso nouo funiculo cum pondere.

DIE 30 JANUARIJ, MANE.

Inter ♃ & limbum ☿ orientalem versus horizontem vergentem maxima distantia.

| H. M. | Dist. ♃ ab or. limb. ☿ | Alt. inf. cornu | Decl. ☿ sup./inf. |
|------------|---------------------------|-----------------|----------------------|
| 6 42½ | 16 59½ | | |
| 6 44 | 16 59½ | | |
| 6 45½ | 17 0 | 7 40 | |
| 6 47½ | 17 2 | | 23 40 |
| Azim. ♃ 3½ | Alt. 12 5 | 24 3 | |
| 6 51½ | 17 3 | 7 56 | 23 42 |
| | | | 24 1 |
| 6 56 | | | 23 41½ |
| | | | 24 0½ |
| 6 58 | | 8 20 | |

N.B. Etiam pro horologio, quod ponebatur saltem ad libitum H. 6 0' cum incepißemus obseruare, quia significabat Solem exorientem hoc modo.

7 0½ ☉ superior limbis primum oriri visus.

7 2½ Medius ☉ oriebatur.

7 5½ Totus ☉ primum exortus.

8 40 Transibant cornua ☿ per meridiem. Alt. 10 35 bona
10 3

☉ versus ortum 50 0 præcise.

Habes hic bonas obseruationes tam pro stellis fixis quam ♀ ♃ atque ☿, erat enim apprime serenum atque tranquillum, defecataque & gelu depurata aura, flante leniter saltem boreali vento ad ortum inclinato. Potes autem singulariter hinc ☿ tum parallaxestum refractionem vna cum transitu per Merid. & alia eiusmodi scrutari satis præcise: erat enim bona obseruatio quoad ☿ & cætera requisita (vbi tempora fuerunt limitata). Nam ☿ erat iuxta

principia ♃ & insuper atque nodum quasi in medio situ inter vltimam ☐ & coniunctionem cum ☉. Quare hæc ipsius apparentijs & situi indagandis apprime fuerunt accommodata. Erat apprime serenum vsque fere ad Meridiem, tunc nubes oboriebantur.

Pro parallaxi ☿ enucleanda.

| | | |
|---|--------------------|-----------|
| H. 8 40' | Locus ☉ ex tabulis | 20 0 ∞ |
| Resp. Ascensio ☉ | | 322 25 30 |
| Ergo Ascensio R. MC. seu ☿ | | 272 25 30 |
| Alt. merid. vifa centri ☿ | | 10 19 |
| Ergo declinatio | | 23 46½ |
| Resp. Longitudo ☿ vifa | | 2 13½ ♃ |
| Argumentum latitudinis ☿ | | 5 28 41 |
| Latitudo ☿ ex nostris tabulis | | 0 9 58 |
| Resp. Declin. vera | | 23 20 32 |
| Declinatio obseruata | | 23 46 30 |
| Parallaxis refractionibus particeps | | 25 58 |
| Parallaxis ex tabulis Prutenicis in tali altit. | | 52 14 |
| Refraçtio | | 26 16 |

DIE 9 FEBRUARIJ.

Pro corrigendo horologio:

| | | |
|----------|-----------------|-------|
| H. 5 35½ | Lucidus pes | 18 5 |
| 5 44 55 | Orionis orient. | 15 49 |

☿ erat in maxima remotione vtriusque epicycli.

Per Sextantem veterem.

| | | |
|-------|--------------------------------|----------|
| 6 13½ | Dist. occid. limbi ☿ & Aldeb. | 9 58½ |
| | Alt. inferioris cornu | 47 50 |
| 6 16 | Dist. eadem repetita | 9 57½ |
| | Alt. infer. | 47 45 |
| | Declin. infer. cornu | 14 40+B. |
| 6 21½ | Dist. occid. limbi ☿ ab Aldeb. | 9 53 |
| | Declin. super. cornu ☿ | 15 25 |
| | Declin. infer. cornu | 14 41 + |
| 6 38½ | ☿ ab Aldeb. vt prius | 9 49½ |
| | | 12 56½ |
| 6 43½ | Occid. limb. ☿ ab Aldeb. | 9 48½ |
| | Alt. infer. cornu | 46 25 |
| 6 47½ | Dist. ☿ ab Aldeb. | 9 45 |
| | Alt. infer. cornu | 46 10 |
| 6 51½ | Dist. vt prius | 9 42½ |

¹ Sic in codice.

Pro horologio:

- 6 52½ Fuit lucidus humerus
Orionis orient. 8 24
6 56½ Accipiebatur declinatio
super. cornu ¶ 15 34
infer. 15 1
(melior obseruatio pro declin.)
Altit. infer. cornu 45½

Postea obseruabatur ¶ viceversa a
lucida √, ita vt limbus ¶ stellæ prox-
imus caperetur.

- 7 3' Dist. ¶ a lucida √ quoad lim-
bum ipsi proximum (quare pro
centro addantur 16') 26 26
Altit. inf. limbi tunc
fuit 45 0
Declin. cornu

superioris 15 35
inferioris 15 2

- 7 8½ Eadem dist. a luc. √ 26 29
Altit. infer. cornu ¶ 44½
7 11½ Eadem dist. 26 30½
Declin. super. cornu 15 36½
inferioris 15 2½
Altit. inferioris cornu 44 30

Rursus pro verificando horologio

- 7 14 obseruabatur Lucidus
humerus Orionis ver-
sus ortum 2 57

Postea denuo obseruabatur ¶
ab Aldebora.

- 7 19½ quoad limbum occ.
in dist. 9 32
Fuit tunc. altit.
infer. limbi 43 47
7 22 Distantia 9 30
Altit. infer. limbi 43 35
Declin. super. cornu 15 38
inferioris 15 5
7 27½ Rursus dist. ¶ ab Aldeb. 9 27½
Altit. 43 10
7 29 pro horologio Luc. hum.
Orionis occid. 0 50
7 31½ Repetita dist. vt prius 9 26
Altit. 42 55
Declin. inferioris 15 6
superioris 15 40

Nota. In omnibus his obseruationi-
bus habenda est ratio parallaxeos ¶,
quia erat extra 90 grad. occid.

- 7 39½ Altit. infer. cornu 42 2
Inter occid. limb. ¶ &
lucid. √ 26 36½
7 43½ Ab occid. limbo &
eadem √ 26 37
Altit. inferioris limbi 41 40
Declin. super. cornu 15 43½
inferioris 15 7
7 55½ Inter occ. limb. & luc. √ 26 43
Altit. infer. limbi 40 27
7 59½ Pro corrigendo horologio
obseruabatur lucidus
humerus Orionis occid. 8 35

N.B. Horologium in meridie sequ-
ente motum erat 10 exacte minutis
iusto tardius.

Tempus

Horol. DIE 12 FEBRUARIJ.

- 5 33½ Pro horologio corri-
gendo Lucidus pes 15 7
5 36½ Orionis orient. 14 53
5 39½ vtraque rima, or.
luc. pes Orion. 14 6½

Transitus pedis Orionis per meridi-
anum iuxta calculum fuit H. 6 M. 33½,
hinc tempora in horologio corrigantur.

Sequitur obseruatio ¶

H. 6 42' Videbatur ¶ prætergressa ¶
quasi decima parte sui diame-
tri ultra integram, id est paulo
plus toto diametro, ponendo
itaque diametro 35 distabat ¶
a gibbo occid. quasi 38 ad sum-
mum minutis. Erat autem ea-
dem prorsus latitudo visa; nam
¶ medium spatium inter ambo
cornua exacte respiciebat.

- 6 49½ obseruabatur distantia ¶ a gib-
bo ¶ sibi proximo versus occa-
sum p. 0 M. 40 per Radium.

- 6 52½ Eadem dist.
per Radium p. 0 M. 42.

- 6 55½ Eadem distantia 0 44½

Oportebat autem ¶ circa occasum
☉ fuisse visibiliter coniunctam cum ¶,
ita vt superiore cornu ipsum quasi at-
tingeret.

Erat tunc distantia ¶ quoad lim-
bum proximum a ¶^{no} quanta proxime
quarta pars diametri.

Nam H. 5 M. 20 fuit talis positus.

Distantia vifa a gibbo proximo erat tunc quasi digitorum trium, vix quarta parte diametri ζ , 9 vel 10 ad summum min.



Hoc die pertranfuit ζ 90 grad. ab afcendente Eclipticæ iuxta fupputat-ionem H. 8 M. 26.

Sequentes obferuationes funt admodum bonæ pro ζ . Poſtea obſer-uauimus ζ ad 90 Eclipticæ tendentem & paulo vltra principium \odot verfantem iuxta \odot .

Primum pro horologio.

| | | |
|--------------------|--|-------|
| 7 8 $\frac{1}{2}$ | Lucid. pes Orionis occid. | 8 13 |
| 7 10 $\frac{1}{2}$ | Idem luc. pes occid. | 8 52 |
| 7 8 $\frac{1}{2}$ | correcto horologio | |
| 7 13 | Idem lucid. pes occid. | 9 22 |
| | videtur 2 minutis iulto nec ce-lerius moueri | |
| 7 18 | Accipiebatur per Armill. max. declin. cornu fup. | 23 15 |
| | inf. | 22 43 |
| | Diameter | 32 |
| | Declinatio centri | 22 59 |
| 7 28 $\frac{1}{2}$ | Repetita declin. ζ cornu fuper. | 23 17 |
| | inferioris | 22 41 |
| | Diameter | 36 |
| | Centri declinatio | 22 59 |
| 7 33 $\frac{1}{2}$ | Repetita declinatio | 23 18 |
| | | 22 42 |
| | Diameter | 36 |
| | Declin. centri | 23 0 |

Poſtea obſeruabatur diſtantia ζ ab Aldebora per Sextantem veterem, exquifite interca-pedines rimantem.

Pro horol.
Luc. pes
Orion. occ.

| | | | |
|-------|--------------------|------------------------------|---------------------|
| 17 10 | 7 43 $\frac{1}{2}$ | Occ. limb. ζ ab Aldeb. | 33 36 |
| 17 56 | 7 47 | Eadem diſt. | 33 38 $\frac{1}{2}$ |

| | | | |
|-------|--------------------|-----------------------|---------------------|
| 18 45 | 7 50 $\frac{1}{2}$ | Eadem tertio repetita | 33 40 $\frac{1}{2}$ |
| 19 40 | 7 53 $\frac{1}{2}$ | Eadem quarto repetita | |
| | 7 51 $\frac{1}{2}$ | correct. | 33 42 $\frac{1}{2}$ |
| | 7 59 | Decl. fuperior. | 23 20 |
| | | inferioris | 22 45 |

Poſtea obſeruabatur ζ viceverſa a corde ζ hoc modo¹.

Can. mai. H. M.
orient.

| | | | |
|------|-------------------|---|---------------------|
| | 7 58 | Diſtabat occ. limb. ζ a Regulo | 46 47 $\frac{1}{2}$ |
| 1 35 | 8 0 $\frac{1}{2}$ | Ead. diſt. melior | 46 47 $\frac{1}{2}$ |
| 1 12 | 8 2 $\frac{1}{2}$ | Ead. repetita | 46 45 $\frac{1}{2}$ |
| 0 40 | 8 5 | Ead. repetita | 46 43 $\frac{1}{2}$ |
| | 8 7 $\frac{1}{2}$ | Accipiebatur declinatio ζ quoad vtrum-23 21 | |
| | | que limbum | 22 44 |
| | | Declin. centri | 23 2 $\frac{1}{2}$ |
| | | ex medio fuperiorum proxime obſeruatum. | |

Can. mai. H. M.
occ.

| | | | |
|--------------------|--------------------|--|---------------------|
| 1 27 $\frac{1}{2}$ | 8 12 $\frac{1}{2}$ | Tranfuit limb. ζ occid. per merid. | |
| 1 48 | 8 14 $\frac{1}{2}$ | Tranfuit quaſi medium ζ per merid. habuit autem tunc cornu fuperius altit. | |
| | | per Volub. | 57 23 $\frac{1}{2}$ |
| | | per Chalyb. | 57 22 $\frac{1}{2}$ |
| | | Cornu infer. alt. | |
| | | per Volub. | 56 48 $\frac{1}{2}$ |
| | | per Chalyb. | 56 49 $\frac{1}{2}$ |
| | | Altit. fuperioris limbi | 57 23 15 |
| | | inferioris limbi | 56 48 15 |
| | | ζ prope 90. | |

Can. mai. H. M.

| | | | |
|------|--------------------|----------------------------|---------------------|
| 4 37 | 8 25 $\frac{1}{2}$ | ζ vt prius ab Ald. | 33 54 $\frac{1}{2}$ |
| | 8 23 $\frac{1}{2}$ | correctum | |
| 5 17 | 8 28 | ζ occ. limb. ab Ald. | 33 56 $\frac{1}{2}$ |
| | 8 26 | correctum | |
| 6 0 | 8 30 $\frac{1}{2}$ | ζ tertio ab Ald. | 33 58 $\frac{1}{2}$ |
| | 8 33 $\frac{1}{2}$ | ζ quarto vt prius | 34 0 |

¹ Adſcriptum eſt in margine: *Hæ ζ apparentiæ funt fupputatæ*.

*Mox ☿ rursus obseruabatur
viceversa a Regulo.*

| Can. mai. occ. | H. M. | |
|-------------------|-------|--------------------------|
| 7 40 | 8 37½ | Dist. occ. limbi 46 29 |
| 8 15 | 8 39½ | a Regulo 46 27½ |
| 9 20 | 8 44 | Eadem repet. 46 26 |
| 9 50 | 8 46 | 46 25 |
| 10 19 | 8 48 | 46 24½ |
| H. 8 50' | | Declin. superioris 23 21 |
| | | inferioris 22 44½ |
| 8 54 | | Repetita declin. 23 21 |
| | | vt prius 23 44½ |

N. B. Omnes obseruationes antecedentes sunt pro lunæ apparentijs rimandis admodum bonæ atque exactæ. Erat enim illa circa solstitium æstiuum prope 7 gradum ☿ & etiam apud ☿, ita vt non magnam habuerit latitudinem. Hinc ipsius parallaxin scrutari licebit, & conferre cum alio tempore, vbi circa maximam latitudinem etiam in ☿ versabatur propter latitudinem maximam eruendam. Igitur conferre potes cum ea, quam accepisti hoc eodem mense, cum ☿ esset iuxta initia ♄ pro refractione & parallaxi enucleanda. Fuit quoque ☿ non longe a maxima remotione simplicis sui motus a Sole, vtpote circa limites vtriusque epicycli extremos, quare in constituendo motu eius concludit hæc obseruatio. Emendentur tempora iuxta transitus fixarum respectu meridiæ, quæ tamen non multum differre a vero poterint.

Pro horologio ad ☉ altero die.

| | | |
|------|-------------------------|-------|
| H. 9 | 3' A. M. ☉ ante merid. | 47 3 |
| | fuit igitur H. 8 M. 52½ | |
| 9 6 | ☉ a meridiano | 46 22 |

Ergo horologium a meridie antecedente, quando ad Solem corrigebatur, vsque in horam 9 antemeridianam huius 13 diej mouebatur 11 minutis iusto celerius.

¹ E codice V.

² Tempora correctæ a codice V.

ἐφοδος ☿ ex obseruationibus.

| | | |
|--------------------------|--------------------|--|
| H. 8 M. 26 | Distantia centri ☿ | |
| ab Aldehora | 34 12½ | |
| Declin. centri ☿ | 23 0½ | |
| Declin. Aldeboræ | 15 37½ | |
| Afc. R. Aldeboræ | 63 9 50 | |
| Afc. R. ☿ | 98 39 10 | |
| Resp. Longitudo | 7 57 36☿ | |
| Latitudo | 0 16 38M. | |
| Ex tabulis Pruten. corr. | 8 44½☿ | |

Locus ☿ ex obseruationibus

| | | |
|--------------------------|--|-------------------------|
| D. 12 Feb. | diligentiſſime supputatus ¹ . | |
| H. 8 M. 12 | transijt ☿ per Mer. | Altitudo |
| eius diligenter per bina | | 57 5 50 |
| instrumenta obseruata | | Ergo declinatio 23 0 20 |

Eodem tempore dist. centri eius

| | ab Aldehora | Corde ☿ |
|-----------------------|-------------|-----------|
| | 34 6½ | 46 24 |
| Declin. | 15 37 10 | 13 56 |
| Afc. R. | 63 8 50 | 146 37 45 |
| Ang. diff. asc. | 35 22 50 | 48 5 30 |
| Ergo Afc. R. limitata | 98 31½ | |
| Resp. Longitudo | 7 50½☿ | |
| Latitudo | 0 17½ Mer. | |

DIE 18 FEBRUARIJ.

Mane obseruabatur ☿ circa 90 grad.

| H. M. | Dist. inter occ. limb. & cor ☿ | Declin. sup./inf. | Altit. sup. limbi |
|-------------------------|--------------------------------------|----------------------|----------------------|
| 2 51½ | 23 48½ | 8 55 | 36 36 |
| | | 8 17 | |
| 12 59½ | 23 52½ | 8 47 | 35 56 |
| 13 4 corr. ² | | 8 15 | |
| 3 7½ | 23 56 | | 35 11 |

Viceversa a Spica ♏

| | Inter occid. limb. ☿ & Spicam | | |
|------------------|-------------------------------------|-------|------------------|
| 13 12½ | 30 55½ | 8 46½ | 34 42 |
| 13 17 corr. bona | 8 10 | | Spica occ. 13 46 |
| 13 20½ | 30 51½ | | |
| 13 25½ corr. | | | |
| 13 29½ | 30 46 | 8 43 | 32 49 |
| 13 34½ corr. | | 8 5 | 16 10 |

Erat hoc mane bene serenum & ær omnino tranquillus.

N. B. ¶ circa hoc tempus fere plena fuit, sed die vno ♂ prætergreſſa, vnde corrigi poteſt, quod ab occidentali limbo eandem obſeruauimus.

Pro exacta correctione horologii Spica ♄ erat occid. 18 g. 4', indicante horologio horam 3 M. 39½. Hinc cætera tempora præciſius rectificentur.

DIE 21 FEBRUARIJ.

Obſeruabatur ¶ limb. orient. a ¶ in hunc modum.

Erat autem ¶ non longe a 90 eclipticæ gradu, quoniam ſurſum porrigebat obtuſa ſua cornua quoad viſum.

| H. M. | Diſt. inter ¶ & limb. or. ¶ illi prox. | Declin. ¶ |
|---|--|-----------|
| 5 39 | 50 30½ | |
| 5 41 | 50 32 | 6 32½ |
| | | 7 3 |
| 5 43½ | 50 29½ | 6 33 |
| | | 7 3½ |
| 5 46 | 50 29 | |
| 5 47½ | 50 29 | |
| Ibat ¶ per meridianum habens altitudinem per Volub. 11 55 | | |
| per Chalyb. 11 54½ | | |

Hinc verifica tempora.

| H. M. | Diſt. ¶ & limb. or. ¶ illi prox. | Declin. ¶ | Alt. ¶ inf. |
|-------|----------------------------------|-----------|-------------|
| 5 48½ | 50 27½ | | |
| 5 50½ | 50 27 | 6 34½ | 14 24 |
| | | 7 3½ | |
| 5 52 | 50 26½ | 6 35 | 14 15 |
| | | 7 3½ | |
| 5 53½ | 50 24½ | 6 35½ | 14 2 |
| | | 7 4 | |

Fortē ¶ erat aliquid prætergreſſa 90 gradum, præſertim in vitimis obſervationibus, & habuit ¶ cum ¶ quali ſimilem altitudinem, niſi quod fuerat paulo altior, ſed hoc nihil importabat refractionis in diſtantijs.

DIE 22 FEBRUARIJ.

Mane obſeruabatur ¶ a Spica ♄. ¶ in apogeo. H. 5 4' Alt. Spicæ 11 20

| H. M. | Diſt. or. limbi ¶ | Decl. ¶ | Alt. ¶ ſup. cor. | Luc. Vult. orient. |
|-------|-------------------|---------|------------------|--------------------|
| 5 4 | 21 24½ | | | 42 57 |
| 5 41½ | corr. | | | |
| 5 9½ | 21 27 | 11 4 | 17 25 | 41 28 |
| 5 47½ | corr. | 11 34 | | |
| 5 23½ | | 11 7 | | 37 44½ |
| 6 2½ | corr. | 11 39½ | | |

Viceverſa a ¶.

| Diſt. ¶ & or. limbi ¶ | Alt. ¶ inf. cornu ¶ |
|-----------------------|---------------------|
| 5 27½ | 38 36½ |
| 6 7 | corr. |
| 5 33 | 38 32½ |
| 6 12½ | corr. |
| 5 34½ | 38 33 |
| 6 14 | |
| 5 37 | 38 29½ |
| 6 17 | corr. |
| | 11 7 |

Rurſus ¶ a ¶

¶ iam magis atque magis appropinquabat 90 gr. ab ortu, debet autem illic eſſe H. 6 M. 25 circiter.

| | | | | |
|-------|-------|--------|-------|------|
| 5 39 | 38 29 | 11 36½ | 14 7½ | inf. |
| 6 19½ | corr. | 11 8 | | |
| 5 42 | 38 28 | 11 37 | 14 20 | ſup. |
| 6 22½ | corr. | 11 9 | 13 50 | inf. |

Vltima obſeruatio non erat ſatis exacta, eo quod Iupiter propter auro-ram Solemque iam ortui inſtantiem² ſatis videri nequirit.

Postea attendebamus ad obſervationem ¶ prope 90 a ¶ hoc modo.

| | | |
|---------|---------------|--------------------|
| H. 6 5½ | Declin. ¶ per | 18 26 |
| 6 47½ | corr. | Arm. Zodiac. 18 27 |

Posito loco ¶ in 26 20 ¶ ex diſtantiâ heſterna a loco ☉ noſtro, quæ non alteratur, cum ſit iuxta extremos terminos, inuenimus per Armillas minores zodiacales ¶ orientalem locum vt ſequitur.

| Locus or. limbi. ¶ a ¶ deductus | Decl. ¶ | Alt. ¶ |
|---------------------------------|---------------|--------|
| 6 16½ | 9 22½ | 11 41 |
| 7 0½ | corr. ¶ dubia | 11 9½ |
| 6 18½ | 9 30 | |
| 7 2½ | corr. | |
| 6 20½ | 9 33 | 11 41 |
| 7 5 | corr. | 11 10 |

¶ non bene apparebat.

¹ Adſcriptum eſt in margine: »Tranſitus Vult. per Merid. H. 20 M. 33½».

² Cf. obſervationem ſupra p. 185.

Postea ☿ a ☉ accepimus hoc pacto
posito loco ☉ fixo sup. 13 0 ☿,
qui cum nostris tabulis
proxime quadrat.

| | Or. limb. ☿ | Decl. ☿ | Alt. ☿ sup. inf. | Alt. ☿ |
|---------|-------------|---------|---------------------|--------|
| { 6 33 | 9 31 M | | 8 32 | 5 0 |
| { 7 18½ | corr. | | 8 0 | |
| { 6 35½ | 9 32 M | | 8 10 | 5 20 |
| { 7 21 | | | 7 40 | |
| { 6 38½ | 9 33½ M | 11 13 | 7 45 | 6 30 |
| { 7 23½ | | 11 43 | 7 15 | |

Postea pro horologio obseruauimus
☉ in æquatore.

| | | | |
|------|-------------|--------------|-------|
| 7 6½ | 7 55½ corr. | ☉ orientalis | 61 10 |
| 7 10 | 7 59½ | | 60 8 |
| 7 11 | 8 0½ | | 59 55 |

H. 5 M. 24 motum est iusto tardius
horologium a meridie antecedente 39
M., quæ iuxta proportionem cum his
vltimis obseruationibus ☉, vbi H. 7 M.
10 aberrat horologium a vero tempore
49½, deberent esse M. 45 fere. Quare hæc
disconvenientia partim refractionibus
☉, qui vltra 7° fere non erat eleuatus,
partim inordinatæ cuidam alterationi
horologij, e Vulcano hesternæ vespere
sub crepusculum in fornace incenso
ad motum remissionis horologij ascri-
benda venit.

Corriguntur itaque præcedentia tem-
pora hoc modo. H. 1 M. 46 dant 10 M.,
quot &c.

Supputatio loci ☿ ex
obseruationibus ad diem 22 Februarij
mane a Spica 11½ & ¼¹.

☿ in 90 gradu.

| | | |
|------------|-------------------------------|---------|
| H. 5 M. 46 | Distantia centri ☿ a Spica | 21 15 |
| | habita ratione refract. Spicæ | |
| | Declin. centri ☿ Mer. | 11 18 |
| | Declin. Spicæ Mer. | 8 58½ |
| | Ang. diff. asc. | 21 28½ |
| | Afc. R. Spicæ | 195 57½ |
| | Ergo Afc. R. ☿ | 217 26 |
| | Resp. Longitudo | 8 45½ M |
| | Longit. in prop. circulo | 8 40 |
| H. 6 M. 19 | Dist. centri ☿ a ¼ | 38 44 |
| | Declin. ¼ Mer. | 22 11 |

¹ E codice V.

| | |
|--|-----------|
| Declin. ☿ | 11 23 |
| Ang. diff. asc. | 38 59½ |
| Afc. R. ¼ obseruata & reducta ex præcedente die. Nam dubiæ vel er- roneæ sunt obseruatio- nes ad eundem diem | 256 36 10 |
| Hinc Afc. R. ☿ | 217 36 40 |
| Resp. Longitudo | 8 56 M |
| Latitudo | 3 19 B. |
| Latitudo vera | 4 14½ |
| Resp. arcus inclin. subtr. | 5½ |
| Ergo vera longitudo ☿ | 8 50½ M |

| | |
|--------------------------------------|-----------|
| Repetitio antecedentis calculi ☿. | |
| H. 17 M. 44 cum ☿ exacte in 90 gradu | |
| Distantia or. limb. a Spica | 21 26½ |
| Semid. ☿ obseruata | 13 |
| Spicæ altit. 11° adde | 2 |
| Distantia emendata | 21 15½ |
| Declinatio centri ☿ Mer. | 11 18 30 |
| Declinatio Spicæ | 8 58½ |
| Resp. Ang. Afc. R. | 21 28 15 |
| Afc. R. Spicæ | 195 57 25 |
| Ergo Afc. R. ☿ | 217 25 40 |
| Resp. Long. ☿ | 8 44½ M |

DIE 14 APRILIS, MANE.

Obseruabatur ☿ circa 90 gradum ab
ascendente, quo peruenit H. 12 M. 56
fere. Corrigebatur horologium a Spica
11½, cuius transitus per merid. fuit H.
10 M. 57½.

| H. M. | Inter occ. limb. ☿ & cor ☿ | Decl. Bor. | Alt. inf. cornu |
|-----------------------|-------------------------------|------------------------------|--------------------|
| 12 35 | 40 28½ | 2 17 | sup. 29 14 |
| | | 1 48 | inf. |
| 12 42½ | 40 31½ | | 28 6½ |
| 12 47 | 40 31½ | 2 13½ | |
| | | 1 45 | |
| 12 52½ | 40 33½ | | 27 30½ |
| Viceversa a boreali ☿ | | | |
| | Occ. limb. ☿ a bor. ☿ | | |
| 12 59½ | 39 0½ | | 26 45½ |
| 1 6½ | 39 0 | 2 9½ | |
| | | 1 40½ | |
| 1 10½ | 38 59+ | | Spica occ. |
| 1 15 | 38 55+ | | 25 11 34 21 |
| 1 17½ | 38 53½ | Horol. non eget correctione. | |

DIE 7 MAIJ.

Obferuabatur ☾ vesp̄eri circa quadraturam in maxima digreſſione a centro primi epicycli, eratque plus quam H. 1½ transuecta 90 gradum cum primum obſeruetur.

Horologium corripgebatur H. 9 completa a Spica ♄, quæ merid. tranſiuit H. 9 M. 25.

| H. M. | Dift. inter occ. limb. ☾ & inf. cap. ♄ | Declin. B. ☾ | Alt. inf. cornu |
|-------|--|-----------------|--------------------|
|-------|--|-----------------|--------------------|

| | | | |
|-------|-------|--------|--------|
| 9 20½ | 34 1½ | 17 51½ | 36 21½ |
| | | 17 21 | |

| | | | |
|------|-------|--|-------|
| 9 28 | 34 5½ | | 35 3½ |
|------|-------|--|-------|

Viciverſa a penult. in auſtr. ala ♄, ſcilicet quæ eſt in recta linea cum cauda ☾ & Spica.

| | | | |
|------|-------|--------|-------|
| 9 40 | 42 40 | 17 47 | 33 45 |
| | | 17 16½ | |

| | | | |
|-------|-------|--|------------|
| 9 48½ | 42 38 | | Spica occ. |
|-------|-------|--|------------|

| | | | |
|-------|--------|--|-------|
| 9 54½ | 42 33½ | | 31 45 |
|-------|--------|--|-------|

9 58 Pro horologio corrigendo 8 29

10 1½ 9 30

Supputatio ☾ ex proxime præcedentibus obſervationibus ad diem 7 Maij.

H. 9 M. 20 Diſt. inter infer. cap. ♄ &

occ. limb. ☾ 34 1½

Semidiameter ☾ add. 15½

Diſt. centri ☾ ab inf. cap. ♄ 34 17

Declin. B. centri ☾ 17 36

H. 9 M. 40 Diſt. centri ☾ a tertia

auſtralis alæ ♄ 42 25

Declin. centri 17 32

Aſc. Recta infer. cap. ♄ 110 2½

Declin. eius B. 28 56

Aſc. Recta 3 alæ ♄ 185 14½

Declin. eius B. 0 49

Ergo hora priori ſuppoſita 9 M. 20

Aſc. Recta centri ☾ 145 26½

Declin. Borea centri ☾ 17 36

Alt. centri ☾ 36 36, qui aut nulli aut

quam min. refractioni obnoxia

fuit. Refp. Longitudo 21 52½ ☾

Latitudo 3 31 26 B.

Ex Tabulis Prutenicis

verus locus ☾ 22 10 36 ☾

Parallaxis abſoluta 48 4

DIE 17 MAIJ.

H. 0 50½ Inter occid. limb. ☾ & ♄ 2° 0' fere

Erat autem centrum ☾ in eadem altit. cum ♄, fed paululum depreſſius.

DIE 14 JUNIJ, VESPERI.

Ante obſervationem Eclipseos ☾ obſeruabamus pro horologio corrigendo occaſum ☾ in hunc modum. (N.B. ☾ iuxta tabulas occidit H. 8 M. 40).

H. 8 43½ Inferior ☾ limb. horizontem perſtringebat.

8 46 Ad medietatem corporis fui ☾ ſubmerſus fuit. Ad hoc tempus viſa eſt ☾ inter denſiores nubes ab horizonte viſibili in ☿ ☾ exorta, nec perfecte diſcerni potuit propter nubes, an aliqua fui parte fuiſſet obſcureſcens¹.

8 49 ☾ totus ſub horizontem ſuccubuit.

H. 9 30 [I] } Luna talis apparuit. Azimuth occid.

9 28 corr. } limbi a merid. verſus ortum 32 34
Altitudo 3½











9 38 [II] } Altit. inferioris limbi 3 36

9 36 corr. } Azim. occid. limbi 31 54
Luna quaſi dimidia vmbram terræ intrarat.



¹ Apographum huius obſervationis eclipseos in codicem E poſtea inſertum incipit ut ſequitur: »Sequuntur animaduerſiones in eclipse ☾ ſimulatque ex nubibus quibus circa ortum ſuum hædenus inuoluebatur denſioribus, aſcendiſſet, & quoties propter interiectas alias nubeculas ſe nobis obſeruandum præbuiſſet«.

| | | | | | | | |
|---|----------|--|--------------------|---|---|--------------------------------|--------------------------|
| 9 43 | } | Arctur | Altitudo 48 42 |  | [III] | | |
| 9 41 corr. | | | Azimuth 45 52 or. | | | | |
| 9 52 | } | [III] Luna rufus talis qualis fuit cum primo nobis | Altitudo 4 34 |  | [IV] | | |
| 9 50 | | | | | | videbatur. | Azimuth orientale 28 55 |
| 9 57½ | } | Declin. infer. | 24 57½ | Altit. Arcturi 47 37 |  | [V] | |
| 9 56 | | | 24 59 | | | | Azimuth 49 7 |
| 10 3½ | } | Fuit Spica ♄ occ. in grad. æquat. | 48 0 |  | [VI] | | |
| 10 1½ | | | | | | emend. | |
| 10 6½ | | | | | | Spica ♄ occid. | 49 19 |
| 10 15 | } | Quasi plus de ☾ visum est abesse per Radium | Azim. ☾ 23 54 |  | [VII] | | |
| 10 13 | | | | | | [IV] Pars illuminata erat 14½. | Altit. infer. limbi 5 58 |
| Non est fidendum Radio nimis. | | | | | | | |
| 10 27 | } | ☾ quasi 14 minuta adhuc illuminata¹. | Spica occid. 53 48 |  | [VIII] | | |
| 10 25 correct. | | | | | | [V] | Spica occid. 54 30 |
| 10 30½ | | | | | | | |
| 10 49½ | [VI] | Vultur orient. | 37½ |  | [IX] | | |
| 10 46½ | correct. | Magnitudo lucidi corp. M. 16². | | | | | |
| Ab utroque cornu ☾ obseruabantur per radium minuta 32, ad summum minuta 32½. | | | | | | | |
| 11 4½ | | Vultur orient. | 33 40 |  | [X] | | |
| Color partis ☾ obfuscatæ erat ferrugineus. | | | | | | | |
| Quasi duæ tertiæ illuminatæ. | | | | | | | |
| 11 12½ | [VII] | Vultur orientalis | 31 44 | | [XI] | | |
| 11 9 50 | correct. | Magnitudo part. illuminatæ 22 vel 21. | | | | | |
| Ex quo horologium in vltima consideratione inuenitur M. 2½ iusto celerius moueri, idcirco totidem hoc instanti H. 11½ retraximus indicem, vt in sequentibus rectius concordaret, quod cauendum est, dum temporum fit emendatio. | | | | | | | |
| 11 24½ | [VIII] | Quarta quasi pars ☾ deerat. | | | [XII] | | |
| 11 24½ | corr. | Caput Ophiuchi occid. | 5 35 | | | | |
| Rectius per Radium M. 24 illuminata. | | | | | | | |
| 11 28 | [IX] | Paulo minus quarta parte desiderabatur. | | | [XIII] | | |
| 11 29 | corr. | Vultur orient. | 26 56 | | | | |
| 11 40½ | [X] | Vultur orient. | 23 48 | | | | |
| 11 41½ | corr. | Radii ostendebat partem illuminatam M. 27½. | | | | | |

¹ In apographo: »Inter hanc & præcedentem considerationem maxima fuit ☾ obfcuratio, neque tamen vnquam tanta, quin pars residua illuminata ad minimum 14 M. adæquaret«.

² In apographo: »Hic vmbra terræ dimidiæ parti ☾ illustratæ ad æquilibrium Horizontis satis æquali balance cornua supereminet«.

11 49 $\frac{1}{2}$ [XI] \ *Vultur orient.*
 11 50 $\frac{3}{4}$ corr. \ *Magnitudo partis illuminatæ quasi 30 M.*

21 35

11 58 $\frac{1}{2}$ \ *Tota ¶ visa est recuperaße lumen.*

11 59 $\frac{3}{4}$ corr. \ *Vultur orient.*

19 11

Pone finem deliquij H. 11 M. 58.

12 2 $\frac{1}{2}$ \ *Transiit medium ¶ per merid.¹ habens*

12 3 $\frac{1}{2}$ \ *altitudinem inferiori limbo per Volub.*

per Chalyb.

9 1

8 59 $\frac{1}{2}$

12 5 $\frac{1}{2}$ *Pro horologio*

Vultur orient.

17 38

16 35

12 9 $\frac{1}{2}$

15 53

12 12 $\frac{1}{2}$

Noſter calculus

Copernici

Alphonſinus

Initium 8 33

8 44

9 21

Medium 10 12 $\frac{1}{2}$

10 23

10 51

Finis 11 52

12 3

12 21

N.B. Has ſequentes obſervationes in tribus deliquijs² accepi a M. Chriſtiano Iohannis Ripenſe olim meo ſtudioſo.

Obſervatio eclipſis lunaris ad diem 14 Junij anni 1592
 ad meridianum Witebergenſem.

Initium ingreßus ¶ in vmbraſſam propter nubes haberi non potuit.



Borealis Lanx

36 15

Altit. infer.
 limb. ¶ per
 Quadrantem
 12 $\frac{1}{2}$



¶ in meridiano

Vultur or.

23 30

Alt. infer.
 lymbi
 14 grad.



37 0 13 0
 N. B. Eclipsis maxima.



21 30



38 20 Altit. bor.
 lancia
 23 30
 Poſtea nubibus
 involuebatur.



20 20



Vultur or.
 26 0

Occ. limb.
 ¶ orient.
 2 $\frac{1}{2}$



16 15

Altit. infer.
 lymbi
 13 30

Finis & totalis deliberatio propter nubes circumvenientes haberi non potuit.

¹ Alia manu adſcriptum eſt: «quantum inter nubes obſervare licuit».

² Id eſt, dierum 14. Junii 1592, 20 Maii 1593, 23 Sept. 1595.

DIE 11 JULIJ, VESPERI.

Obferuabatur altitudo ☿ meridiana circa initium tropici ♀ pro parallaxi eruenda.

| | | | |
|------|-----|---|-------|
| H. 9 | 53½ | Transibat medium corporis ☿ per meridianum, habuitque super. limbus altitudinem | |
| | | per Chalyb. | 9 46½ |
| | | per Volub. | 9 46 |
| | | Infer. limb. per Volub. | 9 21 |

Erat autem hoc tempore ☿ nubibus quibusdam rarioribus implicata, ita vt inferior limbus exacte obseruari non posset, & postea nubibus tota obtegebatur.

Pro horologio corrigendo

| | | | |
|-------|----|----------------------|-------|
| H. 10 | 3½ | Vultur or. in æquat. | 20 30 |
|-------|----|----------------------|-------|

DIE 4 AUGUSTI.

Obferuabatur ☿ circa ☐ I, cum non procul esset ab Apogæo ascendendo. Vnde hæ obseruationes tam parallaxibus indagandis quam loco restituendo conducunt. Erat autem paululum prætergressa 90 grad. quantum ad visum.

| H. M. | Dist. ☿ occ. limb. a ☿ | Declin. | Altit. |
|-------|------------------------|------------|------------|
| 8 7½ | 20 48½ | 15 39 inf. | 12 13 inf. |
| | | 15 11 sup. | 12 40 sup. |
| 8 13½ | 20 45½ | | |

N. B. ☿ erat circa has obseruationes in æquilibrio fere horizontis cum ☿, sed paululum eleuator; vnde nullæ sensibiles refractiones in distantias inieruntur.

| | | | |
|-------|--------|-------------|-------------|
| 8 16½ | 20 44½ | 15 12½ sup. | 11 25½ inf. |
| | | 15 40½ inf. | 11 53½ sup. |
| 8 22½ | 20 41½ | 15 39½ inf. | 10 51 inf. |

Pro corrigendo horologio.

| | | |
|-------|-----------------------------|--------|
| 8 26½ | obseruauimus Vulturem or. | 24 17 |
| 8 29 | Repetita dist. æquat. Vult. | 23 32½ |

¹ E codice V.

Ex his poteris corrigere horologium pro libitu ad initium obseruationis positum.

| | | |
|-------|----------------|------|
| 9 19½ | Vultur orient. | 9 3½ |
|-------|----------------|------|

Supputatio ☿ ad 4 Aug. in ☐¹.

| | | |
|-----------------|-----------------------|----------|
| H. 9 M. 0 | Distantia ☿ a Vulture | 52 48½ |
| Afc. R. Vult. | | 292 42½ |
| Declinatio | | 7 53 B. |
| Decl. ☿ | | 21 28 M. |
| Ang. diff. asc. | | 44 45 |
| Ergo Afc. R. ☿ | | 247 57½ |

Pro ☿.

| | | |
|-----------------|-----------------|--------|
| H. 7 M. 58 | Distantia ☿ a ☿ | 20 23 |
| Declinatio | | 15 25 |
| Ang. diff. asc. | | 20 43½ |

| | | |
|-------------------------|--|---------|
| Afc. R. ☿ ad hoc tempus | | |
| habita rat. refract. | | 247 56 |
| Ergo Afc. R. ☿ | | 227 12½ |
| Resp. Longitudo | | 19 2½ M |

| | | |
|--|--|------------|
| ☿ in 90 gradu Eclipt. H. 7 M. 23 | | |
| Diff. temporis 35'. Resp. in parall. longit. 2½' add., latit. 6½' subtr. | | |
| Ergo verus locus ☿ | | 18° 58½' M |

DIE 7 AUGUSTI, VESPERI.

Obferuabatur ☿ circa Tropicum hybernium pro parallaxi indaganda iuxta Apogæum, quando videlicet quam minimam obtinebat latitudinem.

| | | |
|--|--|--------|
| Erat autem H. 7 42' (7 48' 25" corr.) alt. | | |
| per Chalyb. | | 10 13 |
| | | 9 44½ |
| per Volub. | | 10 12½ |
| | | 9 45 |

7 41½ } Transibat occid. limbus
7 47½ corr. / ☿ per merid.

Verum oportebit horologium rectificari, si in ☿ loco per transitum eius rimando vsui esse debet, nam prius hora 7 lato modo ad ☉ directum est.

Erat hac vespera circa meridiem tempore obseruatæ ☿ satis serenum, sed exhalationes densiores, quarum ratio in refractione subtrahenda negligenda non est, neque tamen præter solitum singulariter multis aggreganda.

Pro corrigendo horologio obseruabatur Vultur postea in æquatoria distantia.

8 6' } Fuit Vultur orient.

8 12½ corr. } 22 34

9 5½ } Vultur orient. 7 37

9 12 7" corr. } Transitus per Merid. H. 9 42½'

Ex his rectifica horologium ad transitum per meridianum, & quære postea si lubet per tempus transitus locum ¶.

Examinatio obseruationis ¶ cum eßet iuxta tropicum hibernum.

H. 7 M. 48, quando ¶ transiuit meridianum, fuit locus eius ex Magini Ephemeridibus tempore reducto in 25 2 x, cuius declinatio 23 25½. Sed latitudo meridiana addit 6½, vt sit vera declinatio 23 32½. Altitudo obseruata 9 58½. Sed refractionis addit quasi 10, vt sit vera altitudo 9 49. Ergo declinatio 24 16½. Proinde Parallaxis M. 44. Iuxta Copernicum fuisse Parallaxis quasi M. 50. Ergo oportet maiorem fuisse refractionem.

Inquisitio παράλλαξως ¶ ex obseruationibus die 7 Augusti circa meridianum.

Tempus correct. ¶ Transiuit centrum ¶ H. 7 M. 48½ } per meridianum habens altitudinem in vtroque quadrante limitatam 9 58½

Refract. subtr. 10

Altit. centri ¶ refractione eliminata 9 48 40

Elevatio æquatoris 34 5 30

Declin. centri ¶ 24 16 50

Pro loco ¶ ex transitu per meridianum.

Ascensio recta ☉ 147 2 30

Asc. R. e tempore resol. 117 10 0

Asc. recta M. C. seu ¶ 264 12 30

παράλλαξις ¶ ἐν πλάτει 50

Declin. vera ¶ 23 26 50

Resp. vera longitudo ¶ 24 41½ x

vera latitudo 4 2

Datis longitudine & latitudine Declinatio vera provenit 23 29 7, παράλλαξις 47' 43". Ex tabulis Prutenicis vera longitudo ¶ 25 14 27, differentia 33' 12".

N. B. Conuenit differentia hæc pro emendanda προσθαφαιρέσει seu diametro secundi epicycli.

DIE 18 AUGUSTI, MANE.

Obseruabatur ¶ circa meridianum appropinquans Perigæo paucis diebus ante ¶ vltimam pro parallaxi.

H. 3 23½' Oculus ¶ or. in æquat. 33 6

(H. 5 46' 15" Transitus oculi ¶ per merid. iuxta supputationem).

Declin. super. limbi 11 18½

inferioris 10 43

3 34½ Oculus ¶ or. 30 10

Declin. repet.

super. limbi 11 17½

infer. 10 44

4 0½ Altit. merid.

per Chalyb. super. 45 26½

infer. 44 55

per Volub. super. 45 26

infer. 44 53½

4 1 } Oculus ¶ orient. 23 18

4 13½ corr. } Transibat orientalis limbus ¶ per meridianum.

DIE 20 AUGUSTI, MANE.

Obseruabatur ¶ circa Perigæum & ¶ vltimam, ideoque in proxima a terra distantia, vnde parallaxes commodè pro hoc situ Epicyclorum erui poterunt ex obseruationibus hisce tam iuxta nonages. gradum, quam meridianum, præsertim cum hic non magnam haberet latitudinem.

Pro horologio, quod hesternæ vespere H. 4 M. 20 ad Solem correximus, obseruabamus H. 4 M. 13 matutina Aldebora in æquat. orient. 22 25 remanentes eodem instanti in 3 M., quibus plus iusto mouebatur interstitio H. 11 M. 53, scilicet ab hesternæ vespere correctio eßet 3' 40". Ergo horologium in 40" tardat.

H. 5 M. 16 A. M. ☉ circa 90°. Aldebo-
ram tranſijt per Meridianum iuxta
ſupputationem H. 5 M. 39. Sequuntur
nunc obſeruaciones ☿.

| | | |
|-----------|------------------------------------|------------------|
| H. 4 19½' | Diſt. or. limbi ☿ a lucida V | 39 17 |
| | Azim. ☿ a merid. ad ortum | 37 30 |
| | Altit. limbi infer. ſuper. | 49 22½ 49 51½ |
| | Declin. ſuper. limbi infer. | 20 16 19 37 |
| 4 31½' | Diſt. or. limbi ab oculo ☿ | 6 38 32 30 |
| | Azimuth Altit. ſuperioris limbi | 50 50 |
| 4 40½' | Azim. Aldeb. or. a merid. | 22 25 |

*Hinc rurfus verifica horologium¹.
Nullæ hic amplius viſæ ſunt ſtellæ.*

| | | |
|--------|--|---------------------------|
| 4 50 | Azim. orient. limbi ☿ Altit. limbi ſuper. infer. | 27 17 52 5 51 36½ |
| 4 52½' | Declin. infer. per Armill. ſuper. | 19 45½ 20 20 |
| 4 55 8 | Azimuth ☿ Altit. ſuper. limbi | 25 25 52 24 51 55 |
| | Declin. infer. ſuper. | 19 46½ 20 21 |
| 5 0 30 | Azimuth Altit. ſuper. infer. | 23 32 52 43½ 52 12½ |
| | Declin. | 19 47½ 20 21 |

*In ſequentibus ☿ appropinquauit
90 grad. ab Aſcendente.*

| H. M. S. | Azimuth | Altitudo | Declinatio |
|----------|---------|----------|------------|
| 5 7 35 | 20 52 | 53 6 | 19 49 |
| | | 52 36½ | 20 22½ |
| 5 12 28 | 19 0 | 52 19 | 19 50½ |
| | | 52 55½ | 20 22½ |
| 5 16 10 | 17 40 | 53 30½ | 19 51 |
| | | 52 58 | 20 23½ |

| | | | |
|----------------------------------|--------|--------|--------|
| 5 19 45 | 16 19 | 53 40½ | 19 51½ |
| 5 19 15 corr. | | 53 8 | 20 24 |
| ☿ tunc fuit in 90 ² . | | | |
| 5 23 25 | 14 55 | 53 48 | 19 52 |
| | | 53 16 | 20 24½ |
| 5 26 18 | 13 48½ | 53 54½ | 19 52½ |
| | | 53 22 | 20 25 |

*Deinde pro horologio verificando
hæc obſeruauimus.*

| | Solis iam exorti Altitudo | Azimuth | Declin. vifa ☉ |
|---------------|------------------------------|---------|-------------------|
| 5 32 22 | 3 40½ | 100 52 | 9 13 |
| | | | 9 13½ |
| 5 35 10 | 4 2½ | 100 18 | 9 12 |
| 5 34 44 corr. | | | 9 11½ |

Rurfus obſeruabatur ☿.

| | Azimuth ☿ | Altitudo ☿ | Declinatio ☿ |
|---------|---------------|---------------|-----------------|
| 5 41 40 | 8 2 | 54 20½ | 19 54½ |
| | | 53 47½ | 20 25½ |
| 5 45 8 | 6 34 | 54 23 | 19 54½ |
| | | 53 52 | 20 26 |
| | Altitudo ☉ | Azimuth ☉ | Declinatio ☉ |
| 5 48 35 | 5 53 | 97 32 | 9 9 |
| 5 49 22 | 6 2 | 97 17 | 9 8½ |
| 5 50 30 | 6 9½ | 97 8 | 9 8½ |

*Postea obſeruauimus ☿ appropin-
quantem ad meridianum vt ſequitur.*

| | Azim. ☿ | Altit. ☿ | Declinatio |
|--------------|---------------------------|-------------|------------|
| 5 54 40 | 3 3 | 54 32 | 19 57½ |
| | | 53 59½ | 20 28 |
| 5 56 45 | 2 2 | 54 32½ | 19 58 |
| | | 54 1 | 20 29½ |
| 6 0 57 | Tranſiit cornu occid. ☿ | | |
| 6 0 40 corr. | per meridianum | | |
| | Altit. per Volub. | 54 32½ ſup. | |
| | | 54 1½ inf. | |
| | per Chalyb. | 54 34½ | |
| | | 54 2½ | |
| 6 2 0 | Tranſiit limb. orient. | | |
| | per merid. fuitque Altit. | | |
| | per Chalyb. | 54 34 | } 3 |
| | | 54 1½ | |
| | per Volub. | 54 33 | |
| | | 54 2 | |

¹ Adſcriptum eſt alia manu: »Huic non eſt fidendum. Vix enim videri poterat ſtella propter nubes & auroram».

² Adſcriptum eſt: »Hic videbantur ☿ vtraque cornua ſurſum inclinare».

³ Hi numeri ex apographo alia manu conſcripto; in autographo Tychoſis lineis craſſis induciti ſunt.

Fuitque tunc Declin. inf.

limbi 19 59
alterius cornu, dubia 20 30

Denuo obseruabatur ☉

H. M. S. Altitudo Azim. or. ☉ in æquat.

6 6 35 8 21½ 93 47

6 6 20 corr.

6 8 25 8 36 93 27

6 10 36 8 53½ 93 3 87 28 or.

6 10 8 corr.

6 15 30 Hinc etiam horo- 86 15

6 16 0 logium corrigatur 86 0

Postea obseruabatur per Armillas Zodiacales, posito loco ☉ in 6 45 11p.

(N.B. Erat ☉ tunc vere in 6 47, at propter parallaxin & refractionem videbatur in 6 44, diff. saltem 3' a posito)¹.

6 56½ apparuit ☉ in 10 33½ II, idque quo ad orientalem limbum.

6 57½ Azim. ☉ 83 7, Alt. 15 29

6 59 ☉ per Armillas orient. 75 15

7 3 apparuit ☉ vt prius 10 38½ II

7 3½ ☉ Azim. 81 52, Alt. 16 17

7 5 ☉ per armillas or. 73 45

7 6½ ☉ vt prius 10 41 II

7 7 Azim. ☉ 81 5, Alt. 16 49

7 8½ ☉ per Armill. or. 72 53½

7 10 35" ☉ vt prius 10 43

7 11½ Azim. ☉ 80 10, Alt. 17 22½

7 12½ Dist. ☉ æquat. 71 52

7 16 Az. ☉ or. limb. 28 14,

Alt. sup. 52 11

Declin. 20 6

altero 20 37½

7 19½ Az. ☉ 29 32, Alt. 51 56½

7 22 ☉ or. 69 28 per armillas.

Declinatio centri ☉ cum transiret meridianum ponatur 20 13 fatis bene.

Azim. ☉ Altit. ☉ Dist. æq. or.

7 28½ 76 30 19 50

7 30½ 75 52 20 6½

7 32½ 66 52

7 33½ 66 39

N.B. Si conferantur declinationes in Armillis æquatorijs maioribus cum altitudinibus ☉ meridianis in confimili proxime cum altitudine hac ☉ meridiana proximis duabus æstati- bus diligenter conquisitis, inueniun-

tur limitatæ M. 1½ iustis maiores. Qui error, si his declinationibus ☉ per dictas Armillas acceptis subducatur, largiuntur circa meridiani transitum emendatam declinationem ☉ centri 20 13½, quam chalybæus quadrans ex altitudine vtriusque cornu constituit 20° 12' 45", Volubilis vero eadem ratione 20° 12' 0". Si igitur posuerimus ad tempus transitus ☉ per meridianum declinationem centri ☉ fuisse exacte 20 13, invisibiliter aberrabimus. Sed rationem horum omnium hic vide infra.

Maxima differentia inter declinationes ☉ per Armillas & quæ ex altitud. merid. quasi M. 2.

Minima earundem quasi 1.

Poteris itaque vt ad hanc limitationem in declinatione 1½ minuti.

Circa tempus transitus ☉ per merid. declin. inferioris cornu in Armillis 19 59

1 30

Ergo vera declin. infer.

cornu 19 57 30

Semidiameter add. 15 45

Vera declin. per Arm. corr. 20 13 15

Altit. max. merid.

super. limbi 54 34 30

Altit. infer.

54 2

Semidiameter

16 15

Altit. centri ☉

54 18 15

Eleuatio æquatoris sub. 34 5 30

Ergo declin. centri 20 12 45

Minima altit. super. cornu 54 33 0

Altit. infer. cornu 54 2

Semidiameter ☉ 15 30

Ergo altit. centri ☉ 54 17 30

Et declinatio 20 12 0

Limitatis igitur omnibus, ponatur

vt supra declinatio centri ☉ fatis tuto

20° 13' in meridie, vel si solis quadranti-

bibus vtendum sit,

Declin. ponenda venit 20 12½.

Calculus demonstrativus inquirendi

apparentias & parallaxes ☉ ex obser-

uationibus Die 20 Augusti mane habi-

tis, cum ☉ esset in vltima ☐, ac quam

proxima terræ, ratione vtriusque epi-

¹ Postea a Tychoe addita.

cycli, facta vna collatione Tabularum Prutenicarum tam in motuum ϖ rium verorum (ex medijs secundum propriam emendationem correctis) quam parallaxium inuestigatione.

I. Pro horologii ac temporum correctione.

H. 4 M. 10 Aldeboram in dist. æquat. fuit 22 25 versus ortum.

| | | |
|---------|--------------------|-----------|
| In ipso | Afc. recta \odot | 158 25 15 |
| instan- | Afc. recta Ald. | 63 9 40 |
| ti | Afc. recta M. C. | 242 19 25 |

Resp. in tempore H. 16 M. 9 S. 18. Ergo hic horologium celerius iusto motum est 42".

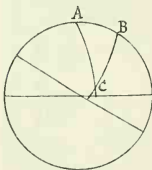
II.

H. 5 35' Azim. \odot
a merid. versus sept. 100 18

Eodem tempore
declin. \odot vera 9 4½ B.

Vt in tempore examinando vitari posset \odot is in admodum decliui altitudine refractionis infinuatio vna cum parallaxi in circulo altitudinis, excerpantur ad tempora quæ sita veri \odot is motus ex proprijs tabulis, vnde postea per triangulorum supputationem, adhibito saltem Azimutho obseruato, vera temporum momenta elicientur.

In triangulo ABC dantur:



| | |
|-----|----------|
| BA | 34 5 30 |
| BC | 80 55 30 |
| CAB | 79 42 0 |
| ABC | 96 19 0 |

Distantiæ \odot a meridie in æquatore arcus, qui in tempus reductus ostendit H. 4 25' 16". Quare ve-

rum tempus H. 5 34' 44". Ergo hic horologium saltem celerius iusto ibat 26". Atqui ex his & sequentibus correctum est horologium, quod monstrabat H. 5 M. 19½ cum ϖ eßet circa 90°, in 30 S., vt fit verum tempus suppositum transitus H. 5 19' 15".

III.

H. 6 6' 35" Azimuth \odot 93 47 obseruata
Declin. \odot vera 9 4 B.

In triangulo ABC dantur vt antea

| | | |
|----|---------|------------------|
| BA | 34 5 30 | Eleuatio Æquat. |
| BC | 80 56 0 | Complem. declin. |

| | | |
|-----|---------|--------------------|
| CAB | 86 13 0 | Compl. Az. ad 180. |
|-----|---------|--------------------|

Ergo ABC 88 25 0 Distantia \odot

æquat. a meridiano. Hæc in tempus conuersa largitur H. 5 53' 40", ideo verum tempus H. 6 6' 20". Ergo hic horologium anticiparat saltem 15".

Ex hac examinatione cum præcedentibus correctum est horologium pro transitu ϖ per meridianum in 17", vt fit verus transitus centri H. 6 M. 0 S. 40.

Præter hæc, quæ pro temporis examine demonstrata sunt, periculum insuper fecimus in eodem negotio per quædam reliqua Azimutha, imposito loco \odot ad tempus quæsitum, in globum magnum, inuenimusque ea omnia his quam proxime adstipulari. In sequentibus autem Horologium emendatione non eget, quippe quod ad æquatoreas distantias (\odot is eleuatiore facto) omnino postea conformabatur.

Sequitur calculus pro apparentijs ϖ ex obseruationibus.

I. Ex distantijs a duabus affixis.

H. 4 M. 18 S. 40 Dist. orient. limbi ϖ a lucida \vee in consequentia 39 17

| | |
|------------------------------|----|
| Semidiameter ϖ subtr. | 16 |
|------------------------------|----|

| | |
|------------------|------|
| Distantia centri | 39 1 |
|------------------|------|

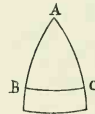
| | |
|-----------------------|--------|
| Declin. lucidæ \vee | 21 30½ |
|-----------------------|--------|

| | |
|-------------------------|-------|
| Declin. superior. cornu | 20 16 |
|-------------------------|-------|

| | |
|--------------------------|------|
| Correctio Armill. subtr. | 1 30 |
|--------------------------|------|

| | |
|-----------------------------|----------|
| Declin. sup. limbi corr. B. | 20 14 30 |
|-----------------------------|----------|

| | |
|-------------------------|----------|
| Declin. centri ϖ | 19 58 30 |
|-------------------------|----------|



| | |
|----|----------|
| BA | 68 29 30 |
|----|----------|

| | |
|----|---------|
| CA | 70 1 30 |
|----|---------|

| | |
|----|------|
| BC | 39 1 |
|----|------|

| | |
|-----|----------|
| BAC | 41 48 44 |
|-----|----------|

| | |
|--------------------------|---------|
| Afc. recta lucidæ \vee | 26 6 30 |
|--------------------------|---------|

| | |
|----------------------------|----------|
| Afc. recta centri ϖ | 67 55 14 |
|----------------------------|----------|

Resp. Longitudo 9 18 10 II
 Latitudo 1 58 18 M.
 tam ex tabula nostra quam ex operatione triangulorum.

H. 4 31' 0" Dist. orient. limbi ☉
 ab Aldeb. 6 38
 Dist. centri ab Aldeb. 6 22
 Declin. centri ☉ 19 59
 Decl. Aldeb. 15 37 15
 BA 70 1
 CA 74 22 $\frac{3}{4}$
 BC 6 22
 BAC 4 52 $\frac{3}{4}$



Afc. recta Aldeb. 63 9 40
 Afc. recta centri ☉ 68 2 0
 Resp. Longitudo ☉ 9 24 17 II
 Interstitium temporis inter vtramque observationem 12' 20"
 Differentia motuum 6 7
 Conueniunt itaque hic obseruationes pro loco ☉ stabiliendo.

II.

Iuxta nonages. gradum ab Ascendente ex obseruatione azimuthi & altitudinis & declinationis cum tempore correcto. ☉ iuxta 90 H. 5 M. 22.

H. 5 19' 15" Azim. orient. limbi 16 19

Pro correctione azimuthi

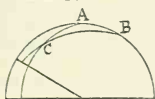
A In triangulo BAC dantur
 BA 36 36 compl. alt.
 BC 0 16 semi-diam. ☉
 Ergo BAC 0 26 $\frac{3}{4}$ vera semi-diameter ☉ in Azimutho horizontali. Ergo Azim. centri ☉ 15 52 $\frac{3}{4}$



Declin. centri correcta, per Armillas 20 6 $\frac{1}{2}$
 Hinc primum adhibito temp. & ascensionem recta ☉, quæritur Afcens. recta ☉.

In triangulo ABC dantur:

BA 34 5 30
 Compl. Eleuat. Poli
 BC 69 53 45
 Compl. declin. ☉



CAB 164 7 50 Compl. Az. ad semi-circulum

Ergo AC 36 34 43 Compl. altit. per supputationem, quod per obseruationem fuit 36 36, limitatum autem 36 35 $\frac{1}{2}$
 Et ABC 9 57 33, provenit 10 3 25

Pro declinatione ☉ ex obseruatis azimutho & altitudine iuxta nonages. gradum.

Datur complementum declinationis ex supputatione & propterea
 declinatio 20 5 0
 Declinatio obseruata 20 6 $\frac{1}{2}$

Declin. ☉ iuxta 90 ex vtroque quæsito limitata 20 5 40

Hac autem declinatione correctâ posita vna cum altitudine ☉ obseruata 53 24 0 emergit vt apparet denuo angulus ABC 10 4 0.

Denique limitatis inter se omnibus δέδομéνοις idem angulus, qui distantiam ☉ a meridiano metitur pro rato ponendus, vltimo per supputationem iuxta præcedentem methodum infinitam, peruestigatur.

BA 34 5 30 Complem. Eleuat. Poli
 CB 36 35 20 Compl. Altit. limitatæ
 CA 69 54 20 Compl. Decl. limitatæ
 CAB 9 59 55 Arcus distantiae ☉ a meridiano

Tempus datum H. 17 19' 15"

Resp. Ascensio recta 259 48 45
 Afc. R. ☉ ad hoc tempus 158 27 30
 Arcus dist. ☉ a M. C. 9 59 55
 Reiecto toto circulo

aggregatum, Afc. R. ☉ 68 16 10
 Declinatio ☉ 20 5 40

Resp. Longitudo 9 38 $\frac{1}{2}$ II
 Latitudo 1 56 $\frac{1}{2}$ M.

Longitudo capitis ☉ media inter calculum Copernicæum & Alphonsinum 23 17 30

Argumentum Latit. ☉ 11^s 16 21 0
 Vera latitudo ☉ 1 14 55
 Parallaxis ☉ 0 41 25

Pro vero loco ☿ iuxta nonages. gradum ex tabulis pro motibus iuxta propriam emendationem correctis.

Die 20 Augusti H. 5 19½'

Æquatio temporis 5½'

Tempus æquatum 5 19 0

Temp. æquatam & reductum H. 5 54 A. M.

Simplex longit. ☿ ex tab. 4° 30' 59" 24"

Simplex long. ☿ correctæ 4 30 54 4

Anomalia ☿ ex tabulis 3 0 6 20

Anomalia ☿ correctæ 2 59 15 50

Duplex longit. ☿ 3 1 48 8

Prosthaph. II Epicycli 0 19 11

Scrupula proportionalia 59 59

Anomalia coæquata 2 58 56 39

Prosthaph. I Epicycli 5 58

Exceßus 3 48

Pars congruens 3 47

Prosthaph. absoluta, subtr. 0 9 45

Longitudo ☿ a ☉ 4 30 44 19

Nostr simplex ☉ 2 38 30 12

Verus locus ☿ II 9 14 31

Prutenicus calculus absque motuum correctione 9 27 0

Longitudo ☿ obseruata 9 38 30

Long. ☿ ex tab. Prut. 9 14 31

Differentia 24 0

In tantum ferme simplex ☿ a Sole deficit iuxta hanc rationem: addentur in simpl. ☿ 18'.

III.

Ex transitu ☿ per meridianum apparentem eius locum rimari vna cum parallaxi ex altitudine.

H. 6 0' 43" Transitus centri ☿ per mer.

Tempus in Asc. rect. conuersum 270 10 45

Asc. recta ☉ 158 29 0

Ascens. recta centri ☿ 68 39 45

Declin. ex altit. correctæ 20 12 45

Resp. Longitudo II 10 1 26

Latitudo M. 1 50 18

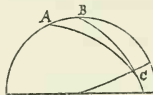
Argumentum latitudinis 11° 16' 44" 0"

Resp. Latitudo ☿ vera 1 12 10 M.

Atque hæc absque parallaxi longitudinis. Si autem ea addatur M. 8.

Provenit argum. latit. 11 16 52 0

Et propterea latit. vera M. 1 11 24



BA 23 31 30

CA 91 11 24

BAC 19 50½

Ergo BC 69 7 30

Vera declinatio 20 52 30

Obseruata declinatio 20 12 45

Parallaxis altitudinis ☿ 39 45

IV.

Postremo eundem ☿ motum apparentem, ex obseruatione eius a ☉ recenter exorto producere & analogon ijs, qui ex superioribus innotuerunt concludere.

H. 6 56' 30" Posito loco ☉ in 6 45 II

Apparebat orient. limbus ☿ in Armillis zodiacalibus in 10 33½ II

At ☉ iuxta supputationem ex nostris Ephemeridibus et in 6 47 0 II

Altit. ☉ paulo ultra 15 grad.

Parallaxis ☉ add. 2 54

Refractio subtr. 7 20

Differentia inter veram visamque altit. 4 26

Respondet in longitudine ☉ 3 30 sub.

Locus ☉ apparens 6 43½ II

Pro correctione Armillarum zodiacalium prout ad stellas fixas, postea examinabatur¹ eosdem situs cum ☿ circa meridianum habentes idque præcipue in lucidæ V & inferioris capitis II obseruatione, inuenimus ad minimum 7' addenda, vt esset hic orient. limbus in longitudine 10 39 0 II

Semidiameter ☿ sub. 16

Locus ☿ obseruat. seu apparens 10 23 0 II

Si autem hæc omnes ☿^{res} apparentiæ secundum prædemonstratas obseruationes, & post nonages. gradum ad tempus moræ eius ibidem per motum eius diurnum reducantur, applicatis vbique parallaxibus longitudinis ☿, apparebit tum obseruationum inter se conuenientia, tum earundem a ta-

¹ Cf. infra inter obseruationes stellarum fixarum die 2 Septembris.

bulis vel correctis circa hunc perigæum ¶ situm discrepantia¹.

Pro parallaxi ¶ ex nostro recenti hypothefi anno 96 inuenta².

H. 6 M. 1 ¶ transitus merid. alt. 54° 18½'
Duplex longitudo ¶ 6^{fig} 2 34
Anomalía coæquata 6 0 21

Hinc latus distantiae ¶ a terra 87920.
Resp. parall. in circulo alt. qual. semidiameter Eccent. 100000 ponitur 60 semid.

Resp. inquam 38' 2"
Correcta per 2 30
40 30

DIE 21 AUGUSTI, MANE.

Obferuabatur eodem modo ¶ appropinquans nonages. gradui & meridiano.

6 11½ Azim. ¶ 22 0 Decl. 22 36½ inf.
Altit. 55 15½ 23 6 sup.
55 45½

6 18½ Azim. ¶ 92 19 Dist. ¶ orient.
Alt. ¶ 8 55 86 54
6 20½ Azim. ¶ 91 49 86 18
Alt. ¶ 9 16

Hæc pro corrigendo horologio in ¶, qui hic non admodum pure splendebat propter vicinitatem horizontis & rariores nubes intercurrentes.

Iterum ¶ obseruabatur.

| Azimuth | Altit. | Declinatio |
|---------|--------|-------------------|
| 6 26½ | 15 55 | 55 55½ 23 7½ |
| | | 56 27½ 22 37 |
| 6 32 0 | 13 43 | 56 3 23 7 fere |
| | | 56 33 22 37½ |
| 6 38½ | 10 54 | 56 21½ 23 7½ bona |
| | | 56 53½ 22 38 |

Hic visa est ¶ circa 90 morari, id quod vtraque cornua ad angulos rectos horizonti supereminentia satis arguebant.

| Azimuth | Altit. | Declinatio | ¶ in æquat. |
|-------------|--------|-------------|-------------|
| 6 45½ | 7 58 | 56 29 23 8½ | 79 48½ |
| 6 40½ corr. | | 56 53 22 39 | |

Hæc obseruationes bonæ ¶ circa 90 commorante.

6 53 0 5 4 56 49½ 23 9 78 4
6 47 40 corr. 57 7½ 22 40

7 4 20 Transibant cornua ¶ per meridianum

7 5 20 Transiuit orient. limb.

per mer. Fuit altit. super.

per Volub. 57 13½

per Chalyb. 57 14

inferioris per Volub. 56 43½

per Chalyb. 56 44

Decl. super. 23 9½ vel ½

infer. 22 40½

Pone declin.

in meridiano 22 53½

vt habet quadrans Chalyb.

| Azim. ¶ | Altit. ¶ | Dist. æquat or. |
|---------------|----------|-----------------|
| 7 12 0 | 80 52 | 16 31 73 28 |
| 7 6½ corr. | | |
| 7 13 30 | 80 32 | 16 43 72 52 |
| 7 16 0 | 79 58 | 17 2 72 14 |
| 7 17 30 | 79 38 | 17 17 71 50 |
| 7 12 40 corr. | | |

¶ in meridie sequente visus est in

altitudine per Chalyb. 42 40 50
per Volub. 42 40

Resp. 7 56½ & 7 58 11½. Ephemerides nostræ habent locum ¶ in 7 57 11½, quasi medium inter vtrumque locum.

Quoniam igitur locus ¶ quasi medius est inter obseruationem, in Ephemeridibus limitabitur itaque vtraque altitudo quadrantum, vt insensibile sit discrimen præsertim in Chalyb., idque etiam in ¶ obseruationibus antea factis circa horam 7^{am} cum meridianum transiret, ita vt fuerit tunc reuera per vtrumque quadrantem altitudo super. cornu 57 13 45 infer. 56 43 45

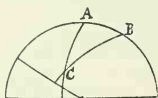
Ergo altit. centri 56 58½
Potest etiam in stellis fieri periculum.

¹ Cf. Progymn. p. 123 (Opera T. II p. 135).

² E codice V.

Pro correctione horologii ex
Azimuth \odot , \llcorner transeunte
per meridianum die
21 Augusti.

Præsupponitur H. 7 exacte tam cor-
recta quam æquata, ad quam declin.
 \odot ex Tabulis proprijs est 8 41'. Ascen-
sio vero recta ex iisdem tabulis 159 26,
eaeque ex loco \odot
dato 7 44' 11".



In horol. H. 7
M. 12 Azim. \odot a
merid. 80 52
In triangulo
ABC datur:

BA 34 5 30 Eleuatio æquatoris
CA 81 18 30 Compl. declinat. \odot
CAB 99 8 0 Compl. Azim. ad
semicircul.

Ergo ABC 73 20, qui si subtrahatur ab
Ascensione R. \odot , relinquit Ascensio-
nem rectam M. C. 86 6. Idem autem
in tempus conuersus dat H. 4 M. 53'.
Hoc vero ab H. 12 subductum resi-
duum facit H. 7 M. 6½, tempus scilicet
correctum, quod in horologio fuit H. 7
M. 12. Ideoque illud M. 6½ corrigend-
um venit. Æquatoreæ autem distan-
tia habet M. 6 fere. Calculi huius ex-
perimentatione in globo magno facta,
ostenditur ex hoc loco \odot debite impo-
sita Ascensio recta M. C. 86°3', quæ sup-
putata fuit 86 6.

Antea horologio H. 6 M. 18½ mon-
strante, horologium correctum
ex Azim. \odot H. 6 12' 15"
ex dist. æquat. 6 12 20

Pro apparente loco \llcorner ad tempus
transitus per meridianum
Die 21 Augusti.

H. 6 59' 0" tempore ex Azimuth \odot
& distantia æquatoreæ correcto,
transibat centrum \llcorner per merid.
Locus \odot ^{lis} 7 44' 11"
Asc. R. \odot 159 26

Tempori horologii, videlicet H. 5 M. 1
supplemento dati temporis ad H. 12
seu meridiem sequentem respondent

tempora æquinoctialia 75° 15', quæ
subducta Ascensioni rectæ \odot ^{lis} relin-
quunt Ascensionem rectam M. C. seu
 \llcorner centri 84 11,

Declinatio vero \llcorner visa B. 22 53½
Quibus relp. \llcorner Longitudo 24 38½ II
Latitudo 0 31½ M.

Ex tabulis Prutenicis secundum emen-
dationem motuum \llcorner propriam
Longitudo 24 44 50

Tempus apparens & reductum ex
Ephemeridibus Magini H. 6 M. 55.

Respondet locus \llcorner II 24 43 0

Transitus \llcorner per nonages. gradum
H. 6 33'

Differ. transitus per merid. & 90°, 26'

Parallaxis \llcorner ἐν πλάτει 37' in altit.

Resp. Parallaxis longit. add. 3' 25"

Vera Longit. \llcorner in transitu
per merid. II 24° 42'

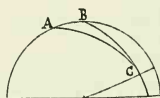
Motus \odot { Ex Copernico II 23 8
Ex Alphonso 23 20
Differentia 12

Motus \odot II 23 14

Argumentum latitudinis \llcorner 1 28 0

Resp. Latitudo vera \llcorner B. 0 8 3

Pro vera Declinatione \llcorner



BA 23 31 30
CA 89 51 57
BAC 5 18 0
BC 66 26 52

Declinatio vera \llcorner 23 33 8

Declinatio visa \llcorner 22 53 30

Parallaxis altit. 39 38

Pro Parallaxi \llcorner in circulo altit.
ex Tabulis Prutenicis

Vera dist. \llcorner a vertice in circulo merid.
32° 28'

Duplex dist. \llcorner a vertice 64 56

Duplex longit. \llcorner 207 52

Anomalia coæquata 193 13

I & II limitis differentia 1' 14"

II limitis parallaxis 28 46

III limitis parallaxis 34 16

III & IV limitis differ. 1 52

Pars congruens differentiæ
II limitis, subtr. 1 10

| | |
|--|-------|
| Pars congruens III & IV, differ., add. | 1 45 |
| Scrupula proportionalia min. epicycli | 56 30 |
| Differ. parallaxium emendatarum | 8 25 |
| Scrup. proport. mai. epic. | 59 8 |
| Pars congruens differentiae parallax., add. | 8 18 |
| Parallaxis absoluta in circulo altit. | 35 54 |
| Parallaxis ex obseruat. | 39 38 |
| Differentia | 3 44 |

DIE 25 AUGUSTI, VESPERI.

Pro Armillarum correctione, quibus
superioribus diebus in declina-
tione ☾ obseruata vsi sumus

| | Altit. merid. per Chalyb. per Volub. | | Declin. |
|--------------|---|---------------------|---|
| Roftri Cygni | 61 14 $\frac{1}{2}$ | 61 15 $\frac{1}{2}$ | 27 11 $\frac{1}{2}$ 27 11 |
| 5 in super. | 43 46 $\frac{1}{2}$ | 43 47 $\frac{3}{4}$ | 9 42 $\frac{23}{4}$ 9 43 $\frac{1}{2}$ |
| ala Vult. | | | 7 52 $\frac{1}{2}$ 7 52 $\frac{1}{2}$ |
| Lucidæ Vult. | 41 57 $\frac{1}{2}$ | 41 58 $\frac{3}{4}$ | 14 44 14 43 $\frac{1}{2}$ |
| Capitis | 48 48 | 48 48 $\frac{1}{2}$ | |
| Delphini | | | |

DIE 2 SEPTEMBRIS¹.

Obseruabatur occid. limbus ☾ a Ioue.

| H. M. | Distantia | Declin. | Altit. per Quad. min. |
|--------------------|-----------|---------------------|--------------------------|
| 7 27 $\frac{1}{2}$ | 3 33 | 21 0 sup. cor. 7 | 50 |
| | | 21 33 infer. | |
| 7 35 $\frac{1}{2}$ | 3 29 | 20 59 | 7 20 |
| | | 21 31 $\frac{1}{2}$ | |

Occid. limb. ☾ distabat a sexta num.
in hum. x⁷

| | | | |
|--------------------|-------|---------------------|------|
| 7 45 $\frac{1}{2}$ | 28 45 | 21 36 inf. | |
| | | 21 2 sup. | |
| 7 51 | | 21 2 $\frac{1}{2}$ | 6 5 |
| | | 21 30 | |
| 7 56 $\frac{1}{2}$ | 28 43 | | 5 30 |
| 8 0 $\frac{1}{2}$ | 28 37 | 21 2 $\frac{1}{2}$ | 5 10 |
| | | 21 29 $\frac{1}{2}$ | |

Obseruabatur Lucida Vulturis pro
horologio corrigendo.

| | | |
|-------------------|-------------|-----|
| 8 5 $\frac{1}{2}$ | Vultur. or. | 2 6 |
|-------------------|-------------|-----|

DIE 3 SEPTEMBRIS.

Luna hic fuit circa apogæum & ☐^{am}.

H. 5 53 $\frac{1}{2}$) Transitus occid.

5 44 20'' corr.) limbi per Merid.

Altit. super. per Chalyb. 10 50

infer. 10 16 $\frac{1}{2}$

super. per Volub. 10 49 $\frac{1}{2}$

infer. 10 17

N. B. Vterque quadrans & Armillæ
eodem die ad amußim corrigebantur.

| H. M. | Decl. sup. inf. | Azim. occ. limbi ☾ | Altit. sup. inf. |
|--------------------|------------------------------|-----------------------|---------------------|
| 6 6 $\frac{1}{2}$ | 23 25 23 50 $\frac{1}{2}$ | | |
| 6 18 $\frac{1}{2}$ | 23 24 23 50 | | |

Luna iuxta supput. fuit circa nonag.
grad.

| | | | |
|---------|------------------------------|------|-----------------------------|
| 6 20 | | 5 0 | 10 34 10 10 |
| 6 28 35 | 23 25 $\frac{1}{2}$ 23 51 | 7 16 | 10 27 $\frac{1}{2}$ 10 0 |

Inter hanc & sequentem obseruatio-
nem fuit ☾ circa 90 gradum quantum
ad visum.

| Decl. | Azim. occ. limbi | Altit. sup. inf. | Diff. ☾ ab occ. limb. ☾ |
|--------------------|--|-------------------------------------|----------------------------|
| 6 34 $\frac{3}{4}$ | 8 32 | 10 21 9 53 | |
| 6 39 0 | 23 27 $\frac{1}{2}$ fere) 23 53 | 9 25 10 15 $\frac{1}{2}$ 9 47 | |

6 51 55 8 5*
* incerta propter diei lucem

| | | | |
|--------------------|----------------------|--------------------|--|
| 6 52 30 | 12 20 | 9 55 $\frac{1}{2}$ | |
| 6 56 $\frac{3}{4}$ | | 8 5 | |
| 6 45 0 corr. | | | |
| 6 57 $\frac{1}{2}$ | 23 28 13 19 23 55 | 9 47 $\frac{1}{2}$ | |

| | | | |
|-------------------|--|-------------------|--|
| 7 3 $\frac{1}{2}$ | | 8 7 $\frac{1}{2}$ | |
| 7 4 $\frac{1}{2}$ | 23 28 23 57 | | |
| 7 19 0 | 23 26 23 58 $\frac{1}{2}$ in vltimis extremitatibus | 8 11 fere | |

Nota. ☾ & ☾ habuere eandem quasi
altitudinem.

| | | | |
|---------------------------|------------------------|-------|--|
| 7 29 |) Fuit lucida Vulturis | | |
| 7 15 $\frac{1}{2}$ corr.) | orient. | 12 10 | |
| 7 30 $\frac{1}{2}$ | Eadem luc. Vult. | 11 46 | |
| 7 32 | Eadem vt prius | 11 22 | |

¹ Observationes pro Armillis Zodiacalibus corrigendis infra inter observationes Stellarum fixarum inuenies.

*Hinc potest verificari horologium,
quod in meridie erat correctum.*

| | | |
|---------------|------------------------|------------|
| 7 37 | Dift. occid. limbi a 2 | 8 16½ |
| 7 43½ | Eadem distantia | 8 19 |
| | Vultur orient. | 8 38 |
| 7 47½ | Vultur or. | 7 45 |
| 7 33 10 corr. | Declin. 23 28 | inf. 23 58 |
| 7 52½ | Eadem dift. 2 & 2 | 8 25 |

DIE 4 SEPTEMBRIS.

Vesperis obseruabatur 2 circa initium
Tropici hybernici.

| H. M. | Occ. limb. Azim. or. | Altitud. | Declinatio |
|-------------|-------------------------|------------------|------------|
| 6 13½ | 5 37 | 9 5½ sup. cor. | 24 50 |
| | | 8 36½ inf. | 25 17 |
| 6 18 55 | 4 25 | 9 10½ | 24 50 |
| | | 8 41 | 25 17 |
| 6 23 2 3 35 | | 9 12½ | 24 49½ |
| | | 8 43½ | 25 17 |
| 6 34 0 | | Declin. vt prius | 24 51 |
| | | | 25 17½ |

6 39 22 } Transiit occid. limb. 2
6 37½ corr. } per meridianum, habuit-
que altitudinem iuxta vtrumque
cornu per Volub. super. 9 17½
infer. 8 46½
per Chalyb. super. 9 15 fere
infer. 8 45½

Declin. vnus 24 50
alterius 25 19

Fuit circa nonages. gradum ab Ascen-
dente iuxta supputationem H. 6
M. 33.

Postea obseruabatur dift. 2 a 2.

| | | |
|-------------|------------------------|--------|
| 6 49½ | Diftabat occid. limbis | |
| 6 47½ corr. | 2 a 2 | 19 55 |
| | Bona declin. sup. | 24 50½ |
| | infer. | 25 20 |
| 6 52½ | Eadem dift. 2 | 19 57½ |
| | dubia | |
| | Declinatio | 24 50½ |
| | | 25 19½ |
| 6 56½ | Eadem dift. | 19 57½ |
| 6 59 | Eadem dift. | 19 58 |
| | Declinatio 2 | 24 50½ |
| | | 25 20 |
| 7 2 | Eadem dift. 2 | 19 59 |

Pro horologio

| | | |
|-----------------|----------------------|--------|
| 7 4' 3" | Fuit luc. Vult. or. | 15 11½ |
| 6 59 30 corr. | | |
| 7 21 55 | Lucida Vult. orient. | 11 5 |
| 7 23 0 | Eadem dift. | |
| 7 17 45 corr. | æquat. | 10 37 |
| Infer. cornu 2 | per Volub. | 18 9½ |
| | per Chalyb. | 18 8 |
| Declin. eiusdem | | 15 57½ |
| | | 15 58 |

*Hinc potest periculum fieri in altit.
2 obseruata pro Armilla corrigenda.*

Anno 1584 Mense Augusti.

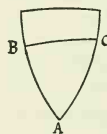
| | |
|--|---------|
| Altit. merid. infer. cornu 2 duobus infrumentis | 18 7 25 |
| Adde pro 8 annis | 1 23 |
| Altit. merid. hoc anno | 18 8 48 |

Calculus pro apparentibus 2 locis ex
præcedentium duarum dierum
obseruationibus cum 2 esset
Apogæa circa 2 primam.

Die 3 Septembris.

I. Pro ascensione recta visa 2, a quo
2 obseruata fuit.

| | |
|-------------------------------------|----------|
| H. 7 44' Dift. 2 a 6 in humero 2 | 25 20½ |
| Declin. visa 2 | M. 21 49 |
| Declin. visa eius in hum. 2 | M. 26 36 |



| | |
|-----|----------|
| BA | 63 24 |
| CA | 68 11 |
| BC | 25 20½ |
| BAC | 27 20 35 |

| | |
|-----------------------------------|-------------|
| Afc. recta eius quæ in hum. | 277 33 20 |
| Afc. recta 2 | 250 12 45 |
| H. 6 45' Dift. occ. limb. 2 a 2 | 8 5 |
| Semidiameter 2 | 15 |
| Dift. centri 2 | 8 20 |
| Declin. M. centri 2 | 23 41 |
| Declin. 2 | 21 50 |
| | BA 68 10 |
| | CA 66 19 |
| | BC 8 20 |
| | BAC 8 48 48 |
| Afcensio recta 2 | 250 12 30 |
| Afc. recta centri 2 | 259 1½ |

Resp. Vifa Longit. $\times 19^{\circ} 57' 23''$
 Latit. M. 0 32 33
 Adde pro parallaxi long. 4 7
 Vera Longit. $\times 20 \ 1\frac{1}{2}$

Pro temporis æquatione.

Simplex nofter \odot $5^{\text{ge}} 22^{\circ} 51' 29''$
 Proftaph. ablative 1 59 12
 Verus locus \odot $\Pi 20 \ 52 \ 17$
 Afcenfio recta 171 37 8
 Æquatio temporis 12 30

Tempus æquatum & reductum
 H. 7 M. 12 S. 30.

II. Pro vero \ll loco ex tabulis.

Simplex longit. \ll $1^{\circ} 28' 25'' 15''$
 Anomalía \ll fimplex 0 10 15 36
 Simplex long. \ll correct. 1 28 19 55
 Anomalía \ll correcta 0 9 25 6
 Duplex long. \ll 2 56 39 50
 Proftaph. epicycli II, add. 0 35 29
 Scrupula proport. 59 57
 Anomalía \ll coæquata 0 10 0 36
 Proftaph. I. epicycli Copern. 0 47 25
 Proftaph. correctæ 0 47 15
 Exceßus 0 23 2
 Pars congruens 0 23 1
 Proftaph. abfoluta fubt. 1 10 16
 Longit. \ll a \odot 2 27 9 39
 Nofter fimplex \odot^{us} 2 52 51 29
 Longitudo \ll vera $\times 20 \ 1 \ 8$
 Longit. obferuata vera $\times 20 \ 1\frac{1}{2}$

III. Pro parallaxi \ll in altit. meridiana.
 H. 5 $44\frac{1}{2}$ Vera longitudo \ll 19 $31\frac{1}{2}$ $\times 1$
 Ex Alphonfo & Copernico

motus Capitis \odot limit. 22 30 Π
 Argumentum latit. \ll $5^{\circ} 27' 1' 30''$
 Latitudo vera \ll 0 16 $\frac{1}{2}$
 Declin. vera \ll 22 50 15
 Altit. \ll merid. 10 33 30
 Subtrahe pro refract. 10
 Vera altitudo obferuata 10 23 30
 Ergo declin. abfque refract. 23 42 0
 et parallaxis 51 45

Pro apparentia \ll fupputatio
 ad diem 4 Septembris

ex obferuationibus antecedentibus.

I. Pro $\frac{1}{2}$ eadem Vefpera obferuato.
 H. 7 $33'$ Diff. $\frac{1}{2}$ ab inf.

cornu $\frac{1}{2}$ 46 44

Declin. $\frac{1}{2}$ obferuata 21 50 M.
 Decl. inf. cornu $\frac{1}{2}$ vifa 15 56 45^{M} .

BA 74 $3\frac{1}{2}$
 CA 68 10
 BC 46 44
 BAC 49 12

Afc. recta infer. cornu 299 31 30
 Ergo Afc. R. $\frac{1}{2}$ 250 $19\frac{1}{2}$
 H. 6 $47\frac{1}{2}$ Diff. centri \ll a $\frac{1}{2}$ 20 10
 Declin. vifa centri 25 5 M.
 Declin. $\frac{1}{2}$ 21 52

BA 68 8
 CA 64 55
 BC 20 10
 BAC 21 $43\frac{1}{2}$

Afc. recta $\frac{1}{2}$ 250 19 0
 Afc. recta \ll 272 2 50
 Resp. Longitudo 1 $51\frac{1}{2}$ $\frac{1}{2}$
 Latitudo 1 $34\frac{1}{2}$ M.

II. Pro vero loco \ll ad idem tempus
 ex Tabulis Prutenicis.

Tempus æquatum & reductum
 H. 7 M. 15.

Longit. \ll a \odot $1^{\circ} 38' 22'' 50''$
 Nofter fimplex \odot 2 53 50 12
 Verus locus \ll 2 13 2 $\frac{1}{2}$
 Obferuatus 1 51 $15\frac{1}{2}$
 Differentia 21 47

Non habetur ratio parallaxeos longitudinis addendæ longitudini vifæ, quæ tamen magna eße non poßet, \ll faltem 14^{M} temporis nonagesimum tranfuectæ.

III. Pro parallaxi \ll obferuatæ
 in Alt. Merid.

Locus verus \ll ex obferuatione $1^{\circ} 47' \frac{1}{2}$
 Vera latitudo \ll 0 51 M.
 Pro vera declinatione \ll

BA $23^{\circ} 31' 30''$
 CA 89 9 0
 CBA 1 47 0
 CA 65 38 10
 Altit. \ll meridiana 9 1 10
 Eleuatio Æquatoris 34 5 30
 Declinatio vifa \ll 25 4 20
 Pro refractione adde 10 30
 Decl. exclufa refract. 25 14 50
 24 21 50

Παράλλαξις \ll obferuata 0 53 0

Observationes quas habere licuit
in Eclipsi ☾

DIE 8 DECEMBRIS

Vespera contingente.

Cum hoc die, quemadmodum & reliquo præcedente triduo, hemisphærium vndeque intra nostrum finitorem cœli aërisque admodum obscuram, nebulosam, niuosam & nubi- bus confertam constitutionem fortitum esset, adeo vt nec Solem interdii nec Stellas aut Lunam noctu videre, nedum obseruare licuerit, Horologi- um ad diluculum seu exortum antecedentis diei, vtpote H. 6¹ matutinam saltem pro arbitrio direximus, & accenso in fornace fubterranea Vulcano, continuo moueri permisimus, pon- dere fine mora & per substitutionem portailis, vbi opus fuit, releuato.

H. 6 48' Distantia æquatoria occiden-
talis limbi ☾ a Meridie

ad ortum 76 37

6 48 $\frac{1}{2}$ Altit. super. limbi
per Volub. 26 55

Atque hæc obseruatio prima omnium fuit quæ haberi potuit, (quodammodo per nubes transparente.

H.6 51 $\frac{1}{2}$ Altit. super. limbi 27 13 $\frac{1}{2}$
Azimuth occid. limbi 92 22

Hic ¶ clarius splendebat paululum,
neque adhuc ej quicquam defuisse vi-
sum est, quatenus per nubes cernere
licuit eius rotunditatem.

| | | |
|----------|---------------------|-------|
| H. 8 48½ | Altit. super. limbi | 42 32 |
| | Azim. occident. | 67 45 |

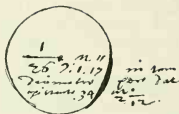
8 50' 25" Dist. orient. limbi
in æquatore a Meridie 48 28

In his binis obseruationibus inferior pars ☿ densis nubibus ita intricata tenebatur, vt perfecte discerni nequiverit, an aliqua eius pars aut quanta in umbra laborarit.

Saltem itaque pro horologio corri-
gendo hæc faciunt.

H. 8 58 $\frac{2}{3}$ } *Distantia æquatoria*
9 0 $\frac{1}{2}$ corr. } or. 46 20

¹ Forſitan Longomontanus.



Talis vifa
est C, paulu-
lulum videli-
cet oblonga
in parte ante-
cedenti infe-
riori.

Hic discubis paululum ac disruptis
nubibus ¶ aliquanto clarius ab omni
sui parte vifa, etſi Martino non aliter
quam rotunda videri potuit, anim-
aduerti tamen ego¹ exactæ rotundi-
tati circa limbum inferiorem occiden-
talem defuiſſet, ita vt penitus vmbram
tunc tranſiſſet.

H.9 2₃) Dist. æquat. orient.

9 4½ corr.) limbi 45 21

| | | | | |
|---|---|-------------------|----|----|
| 9 | 5 | Altit. sup. limbi | 44 | 40 |
|---|---|-------------------|----|----|

9 7 30 corr.) Azim. occ. limbi 63 32

9 9 Dist. æquat. orient. limbi 43 58

9 14½ Vifa est rotunda.

Altitude super. limbi \ll 45 44

Azim. occid. limbi 61 15

Dist. orient. limbi a Merid.

in æquat. 42 43

Hic satis rotunda visa est \mathcal{C} .

| | | | |
|-------|-------------------------|----|----|
| 9 43½ | Declinatio super. limbi | 24 | 9 |
| | infer. limbi | 23 | 37 |

Postea circa Merid. ¶ obseruauimus paulo clarius quam prius per nubes transparentem.

| | | | | |
|----|---|----------------------|----|----|
| 12 | 2 | Declin. super. limbi | 24 | 20 |
| | | infer. | 23 | 47 |

12 11¹ Transitus occid. limbi ☿
per Merid. habentis Alti-
tud. in super. limb.
per Volub. 58 25¹
per Chalyb. 58 26¹
infer. limb. per Volub. 57 51¹
per Chalyb. 57 51¹

12 14½ Transitus or. limbi.

Atque his obſervationibus iuxta Merid. habitis commodiſſime vti poteris, tam pro horologio plenius examinando, quam parallaxibus ¶ enucleandis. Fuit enim ¶ circa perigæum epicycli maioris & parum admodum

¹ Forſitan Longomontanus.

90 tranſueſta, dum tropico æſtuo vicina fuit in vltimis partibus II. Denique Latitudinem perexiguam obtinuit, vt & hæc ſcrupuloſiori paralaxium indagatiōi obeſſe nequirit.

Sequente Meridie videlicet 9 Decembris Horologium aliquot Minutis 7 vel 8 verum Meridiem antevertere deprehenſum eſt, idque ſaltem ad transparentiam radiorum ☉^{larium} per nubes diſcontinuas, inter quas tamen corpus ſolare obteſtum præterijt, nec vlla opportunitas examinandi aliter horologium hoc die conceſſa eſt.

Obſeruatio prædictæ Eclipſis ☿
Soræ¹ in Sielandia ab ipſo
D. Tychoſe per Quadr. portat.
minorem.

Cum ☿ quaſi media eſſet in vmbra, Altitudo eius P. 34 $\frac{1}{2}$.

Quando vltimus finis deliquij erat, habuit ☿ ſuperior limbus Altitudinem

| | |
|---------|-------|
| Primo | 41 20 |
| Secundo | 41 50 |
| Tertio | 42 25 |

Per nubes apparuit, nam nullæ ſtellæ conſpicebantur.

Si conſtitueris in vltimo deliquij tempore ſupremam circumferentiam ☿ habuiſſe Altitudinem P. 42, vltius produci non poterat. Poſteſt tamen eſſe quam proxime P. 41 30 vel ad ſummum 41 45, prout maxime concordarit. Pone 42 0.

Correctio Horologij ex obſeruatiōe Altitudinum ☿ Vraniburgi.

| | |
|---|---|
| H. 9 5' | Vera Longit. ☿ ſupput. 27 50 II |
| | Vera Latitudo 0 56 B. |
| | Altitudo obſeruata 45 0 fere |
| Parallaxis altit. ex obſ. in Merid. 47 ^m | |
| | Parallaxis Longit. 25 0 |
| | Latit. ☿ 40 0 |
| | Vifa Longitudo 28 15 II |
| | Latitudo 0 16 B. |
| Locus ☉ 27 12 x ¹ | Reſp. Afc. R. 266 57 |
| Afc. R. vifa ☿ ſuper. | 88 4 |
| Declin. ☿ vifa in ſuper. | 24 2 |
| Ergo ex obſeruata Altitud. | 44 40 & |
| | Azimuth 63 32 elicitur tempus emendatum H. 9 7 $\frac{1}{2}$, quod in horologio fuit 9 5'. |

Soræ autem in Sielandia² ex altitudine ſuper. limbi 42 $\frac{1}{2}$ manentibus reliquis vt prius colligitur tempus tanquam ad finem obſeruati deliquij H. 8 50'.

Quoniam autem aliquis ſaltem defectus ☿ qui vere diſcerni potuit, hic Vraniburgi obſeruatus ſit H. 9 0 $\frac{1}{2}$, idemque non maior $\frac{1}{2}$ P. totius corporis ☿ quatenus oculari viſu concipi potuit & ad ſummum per proportionem æquivaleret 1 $\frac{1}{2}$ in diametro ☿ aſſumpta 34', ratiocinari hinc facile eſt per horarium motum ☿ (33') finem vltimum deliquij hic contigiſſe H. 9 2 $\frac{1}{2}$, ad quem altitudo ſuperioris limbi ☿ ſupputata extitit 44° 6'.

(Differentia temporis inter Vraniburgum & Soram M. 6 $\frac{1}{2}$ add.

Tempus deliquij medijs limitatum & reductum ad noſtrum meridianum pone 7^m 48')³.

¹ Danice Soro, in Sielandia verſus occaſum. Filii Tychoſis diſcipuli ſcholæ Soranæ erant.

² Adſcriptum eſt in margine: »Eleuatio poli Soræ 55 $\frac{1}{2}$ ».

³ In ſolo codice V. poſtea adſcripta.

OBSERVATIONES SATURNI.

DIE 3 FEBRUARIJ.

| H. M. | Dift. inter h & Aldeb. | Decl. h B. | Inter h & infer. cap. II |
|-------|---------------------------|-------------------|-----------------------------|
| 6 44½ | 32 39½ | 22 56 | vtroq. |
| 6 55½ | 32 40 | 22 56 | |
| | | 22 56½ | |
| 7 4½ | | | 13 13½ |
| 7 13 | | | 13 13½ |
| 7 17½ | | 22 56½ | 13 13½ |
| | | 22 56½ | |
| | | Pone dift. 13 13½ | |

7 6 Transibat lucidus pes Orionis per Merid., habens altitudinem 25 2½. Hinc potes etiam verificare horologium.

7 15½ Sinifter humerus Orionis in Meridie habens Altitudinem 40 0. h fuit admodum altus & prope meridianum. Fuit apprimè ferenum & tranquillum.

8 39 Canis maior occid. 0 11. Altitudo Meridiana h per Volub. 57 2½, per Chalyb. 57 1 dubia, quia merid. transierat.

Pone declin. h 22 56½ vel 57 ad summum.

DIE 6 FEBRUARIJ.

Obferuabatur h circa meridianum in modum fequentem.

| H. M. | Dift. inter h & Aldeb. | Decl. h | Altit. h | Dift. æq. Luc. pedis Orion. |
|-------|---------------------------|---------|----------|-----------------------------------|
| 7 43½ | 32 31½ | 22 55½ | 56 10 | |
| | | 22 55 | | |
| 7 55 | 32 32 | 22 55½ | | |
| 8 0 | 32 32½ | | | 16 55 |

Viceverfa inter h & cor Ω.

| | | | | |
|------|--------|--------|-------|------|
| 8 4½ | 47 54½ | 22 55½ | 56 46 | 18 5 |
| | | 22 55 | | |

8 8 47 54

8 11½ 47 54½

8 24 Transibat h per Merid. habens Altitud.

per Chalyb. 57 2½

per Volub. 57 3

DIE 12 FEBRUARIJ.

h transibat per meridianum habens altitudinem p. 37 2 per Volub.¹.

¹ De conjunctiōe Saturni cum luna cf. supra p. 190.

DIE 17 FEBRUARIJ.

| H. M. | Dift. inter Aldeb. & h | Declin. h | Altit. | Luc. hum. Orion. occ. |
|-------|---------------------------|-----------|--------|--------------------------|
| 7 27 | 32 15½ | 22 59 | 56 45 | 8 5 |
| | | 22 59½ | | |
| 7 35½ | 32 15 | | | 10 15 |
| 7 38½ | 32 14½ | 22 59 | 57 0 | |
| | | 22 59½ | | |
| 7 48 | Altit. h Merid. | | | |
| | per Chalyb. | | | 57 3½ |
| | per Volub. | | | 57 4 |

Tunc erat Canis maior 0° 6' orient.

| Viceverfa h a corde Ω | Can. mai. occ. |
|--------------------------|-------------------|
| 7 58½ 48 11½ | 2 29 |
| 8 3½ 48 11 | 3 40 |
| 8 6 48 10½ inter nubes | 4 17 |

Obferuationes hac vesp̄era tam in ♂ quam h inter rariores nubes acceptæ sunt, (insuper resplendente, sunt tamen diligentia qua fieri poterat conquistæ, ita vt exactioribus selectis, cæterisque iuxta limitationem correctis, tuto singulis fidere liceat.

DIE 20 FEBRUARIJ.

h per Merid. transibat

| | |
|----------------------|-------|
| H. 7 M. 26½ Altitudo | |
| per Volub. | 57 5½ |
| per Chalyb. | 57 4½ |
| Canis maior occid. | 0 5½ |

Postea obferuabatur h ab Aldeb. in hunc modum.

| H. M. | Dift. h ab Aldeb. | Declin. h | Can. maior occid. |
|-------|----------------------|-----------|-------------------------|
| 7 46½ | 32 14 | 22 59 | 5 15 |
| 7 50½ | 32 12½ | | 6 16 |
| 7 55½ | 32 12½ | | |
| 7 58 | 32 12 | 22 59½ | 23 0 8 18 |

Viceverfa a corde Ω

| | | | |
|-------|--------|--------|------------|
| 8 9½ | 48 15 | | |
| 8 12½ | 48 13 | 22 59½ | 23 0½ 12 4 |
| 8 15½ | 48 13½ | | 12 45 |
| 8 20 | 48 13½ | | 13 53 |

DIE 29 DECEMBRIS, VESPERI.

Pro Sextante nouo examinando, quo
postea \hbar acronychius obseruatus
est, capiebatur distantia inter lu-
cidam ∇ 35 33 $\frac{1}{2}$
& Aldeboram 35 33 $\frac{1}{2}$
35 33

Primum obseruabatur \hbar acrony-
chius triduo scilicet ante veram \odot
cum \odot .

Pro horologio corrigendo.

H. 8 51 $\frac{1}{2}$ transitus Aldeb. per merid.¹

| H. M. | Dist. \hbar ab Aldeb. | Decl. B. | Alt. \hbar | Ocul. ∇ or. |
|--------------------|----------------------------|---------------------|--------------|-----------------------|
| 6 16 $\frac{1}{2}$ | 50 5 $\frac{1}{2}$ | 21 35 $\frac{1}{2}$ | 18 7 | |
| | | vtroque | | |
| 6 23 $\frac{1}{2}$ | 50 5 $\frac{1}{2}$ | | 19 21 | |
| 6 34 $\frac{1}{2}$ | 50 6 $\frac{1}{2}$ | 21 34 50 | 20 41 | 32 0 |
| 6 43 35 corr. | | 21 34 45 | | |

\hbar obseruabatur postea a lucido pede
 Π vt sequitur.

| | | | |
|--------------------------|---------------------|---------------------|-------|
| 6 45 $\frac{1}{2}$ | 21 39 $\frac{1}{2}$ | | 29 15 |
| 6 54 $\frac{1}{2}$ corr. | | | |
| 6 50 $\frac{1}{2}$ | 21 39 $\frac{1}{2}$ | 21 34 $\frac{1}{2}$ | 23 53 |
| | | 21 34 | |

Postea obseruabatur \hbar ab Aldeb. vt
prius, appropinquans merid.

| | | | | |
|---------------------|--------------------|---------------------|-------|----------------|
| 10 44 | 50 5 $\frac{1}{2}$ | 21 31 $\frac{1}{2}$ | 52 21 | Aldeb. occ. |
| 11 0 corr. | | 21 32 $\frac{1}{2}$ | 32 7 | |
| 11 14 $\frac{1}{2}$ | 50 5 $\frac{1}{2}$ | | | |
| 11 19 $\frac{1}{2}$ | 50 6 | | | |

Viceversa obseruabatur \hbar a corde \odot
vt sequitur. H. 10 12' transitus luc.
hum. Orionis.

| | | |
|---------------------|---------------------|--------------------------|
| 11 27 $\frac{1}{2}$ | 30 13 | Luc. hum. Orion. occ. |
| 11 33 $\frac{1}{2}$ | 30 14 $\frac{1}{2}$ | 21 31 $\frac{1}{2}$ |
| 11 50 corr. | 21 31 $\frac{1}{2}$ | 24 34 |
| 11 40 $\frac{1}{2}$ | 30 13 | |

Atque in his omnibus obseruationi-
bus a corde \odot illud in tantum eleua-
tum fuit, vt refractione omni careret.

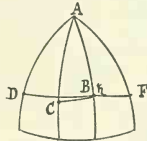
12 4 $\frac{1}{2}$ Transiuit \hbar per merid. habens
altitudinem
per Chalyb. 55 36 $\frac{1}{2}$ melior
per Volub. 55 37 $\frac{1}{2}$

Hac vespera inter obseruandum vt
plurimum fuit serenum & aer tran-
quillus, licet ad austrum circa hori-
zontem cælum rarioribus nubibus
nonnihil fuit obscuratum interdum.

Calculus pro loco \hbar
ex proximis præcedentibus obser-
uationibus inueniendo.

Ascensiones Rectæ & Declinationes
stellarum reductæ, ex quibus
in distantijs obseruatus
fuit \hbar .

| | | |
|---------------------------------|----------------------|---------------------------|
| Aldeboræ Afc. R. | 63 9 $\frac{1}{2}$ | Decl. 15 37 $\frac{1}{2}$ |
| Luc. pedis Π | 93 31 30 | 16 40 |
| Cordis \odot | 146 39 $\frac{1}{2}$ | 13 55 45 |
| Pone Declin. \hbar vbique | | 21 31 15 |
| H. 6 M. 55 Dist. \hbar a luc. | | |
| pede Π | | 21 39 $\frac{1}{2}$ |



| | |
|-----|---------------------|
| BA | 68 28 $\frac{1}{2}$ |
| CA | 73 20 |
| BC | 21 39 $\frac{1}{2}$ |
| BAC | 22 21 $\frac{1}{2}$ |

Ergo Afc. R. 24 a luc.

pede Π 115 53 $\frac{1}{2}$

Hora 11 M. 14 Dist. \hbar ab Aldeb.

BA 68 28 $\frac{1}{2}$ 50 5 40

DA 74 22 $\frac{1}{2}$ Ergo Afc. R.

DB 50 5 $\frac{1}{2}$ \hbar ab Aldeb.

DAB 52 43 $\frac{1}{2}$ 115 52 50

H. 11 M. 50 BA 68 28 $\frac{1}{2}$ Ergo Afc. R.

FA 76 4 $\frac{1}{2}$ \hbar a corde

FB 30 13 \odot

FAB 30 46 10 115 53 5

Ponatur itaque Afc. R. \hbar absque omni
sensibili errore H. 11 M. 30 115° 53' 0''
Declin. autem 21° 31 $\frac{1}{2}$ '.

Pruten. Alphonfin.

Resp. Long. 23 57 $\frac{1}{2}$ \odot 23 57 $\frac{1}{2}$ 26 46 $\frac{1}{2}$
Lat. 0 8 0 B. 0 51 M. 0 6 B.

N. B. Potest esse Afc. recta 115 53 $\frac{1}{2}$
ergo long. 23 58

¹ Per supputationem.

OBSERVATIONES IOUIS.

DIE 30 JANUARIJ, MANE.

| H. M. | Dist. inter ¶ & cor ¶ | Decl. ¶ | Sup. front. ¶ occ. |
|---|--------------------------|---------|-----------------------|
| 6 0 | 11 51 | 21 55½ | vno pinn. |
| Cor ¶ tunc appropinquabat Merid., vnde refractio non oberat. | | | |
| 6 5½ | 11 50½ | 21 55 | vno pinn. 2 25+ |
| 6 13 | 11 49½ | 21 55½ | 4 6 |
| 6 14½ | corr. | | |

| H. M. | Dist. inter ¶ & cor. ¶ | Declin. ¶ | Azim. ¶ or. | Alt. ¶ |
|-------|---------------------------|--------------|----------------|--------|
| 6 16 | 11 49½ | 21 55½ | 11 45 | 11 27 |
| 6 19 | 11 51½ | 21 56 | 10 55 | 11 35 |
| dubia | | | | |
| 6 23 | 11 48 | | 9 55 | 11 40 |

DIE 18 FEBRUARIJ.

Mane obseruabatur ¶.

| H. M. | Dist. inter ¶ & cor ¶ | Declin. ¶ Mer. | Alt. ¶ | Alt. cordis ¶ circa mer. |
|-------------|--------------------------|-------------------|--------|--------------------------------|
| 5 3½ | 14 9 | 22 8 | 10 1 | 8 35 |
| 5 14 | 14 6½ | | 10 26 | |
| 5 19½ | 14 6½ | | 10 39 | Alt. mer. 8 45½ |
| 5 29½ | | | | |
| 5 30 40" 14 | 6½ | 22 8½ | | |
| | | 22 9½ | | |

Viceversa a Vulture, nam propter splendorem ¶ a nullis alijs ¶ obseruari concedebatur.

| | | | |
|---------|--------|-----------------|-------|
| 5 36 40 | 46 46½ | | |
| 5 42½ | 46 45½ | Luc. Vult. erat | 47 20 |
| 5 47½ | 46 45½ | Alt. ¶ | 11 30 |

Erat in his postremis obseruationibus ¶ a Meridie circiter 10 grad.

| | | |
|-------|----------------------------|--------|
| 6 26½ | ¶ in merid., alt. per Vol. | 11 56 |
| | per Chal. | 11 55½ |

DIE 19 FEBRUARIJ.

Mane obseruabatur ¶.

| H. M. | Dist. inter ¶ & cor ¶ | Decl. ¶ | Alt. cord. ¶ | Pro horol. veri- ficando Luc. Vult. or. |
|-------|--------------------------|---------|-----------------|--|
| 5 42 | 14 14 | 22 10 | | |
| | | 10 9½ | | |
| 5 50½ | 14 12½ | | 8 20 | 41 11 |
| 5 54 | 14 13 | | 8 7 | 40 7 |

| | | | | |
|-------|--|--------|-------|-------|
| 5 57 | 14 13 | 22 10½ | 3 3 | 39 48 |
| 5 42 | Altitudo ¶ | | 11 40 | |
| 5 50½ | | | 11 50 | |
| 6 9 | Transiuit ¶ per meridianum habens Altitudinem maximam per Volub. 11 55½ per Chalyb. 11 55½ ¹ | | | |

DIE 21 FEBRUARIJ.

Obferuabatur ¶ a corde ¶ hoc modo.

| H. M. | Distantia | Decl. ¶ | Luc. Vult. orient. |
|-------|-----------|---------|------------------------|
| 5 20 | 14 25½ | | 43 14 |
| 5 22½ | 14 23½ | 22 11½ | |
| | | 22 12½ | |
| 5 24½ | 14 23½ | | Alt. cord. ¶ |
| 5 28½ | 14 24 | 22 11 | 8 18 41 5 |
| | | 22 10½ | Erat ¶ circa merid. |

Postea ¶ viceversa accipiebatur a Lucida Vulturis vt sequitur.

| | | | |
|-------|------------------------|---------------------|--------|
| 5 31½ | 46 31 | Pro horologio emen- | |
| 5 34½ | 46 31½ | dando Lucida Vult- | |
| | | turis orient. | 39 32½ |
| 5 47½ | Ibat ¶ per Merid. Alt. | | |
| | per Chalyb. | | 11 54½ |
| | per Volub. | | 11 55 |

DIE 22 FEBRUARIJ.

Obferuabatur ¶ a corde ¶ hoc modo.

| H. M. | Tempus correctum | Dist. ¶ a corde ¶ | Declin. | Luc. Vult. orient. |
|-------|---------------------|----------------------|---------|-----------------------|
| 5 15½ | 5 54½ | 14 40½ | 22 11½ | 39 48 |
| | | | 22 11 | |
| 5 17½ | 5 56½ | 14 41 | | |
| 5 19½ | 5 58½ | 14 41½ | | 38 48 |

Hinc examina tempora

| | | | |
|-------|------|-------------------------|--------|
| 5 29½ | 6 8½ | transiuit ¶ per Meridi- | |
| | | anum habens Altitudinem | |
| | | per Chalyb. | 11 54½ |
| | | per Volub. | 11 54 |

(N. B. Distantia procul dubio erronee numerata est, quod ex præcedentibus videre est, forsan erat 14° 31')².

¹ Postea obseruabatur Iupiter a Veneris. Cf. infra inter obseruationes Veneris.

² Hæc et tempora correctæ alia manu (quæ videtur esse Longomontani) et alio atramento postea addita sunt.

DIE 16 MAIJ.

Vesperī obseruabatur primum ¶
acronychus. Corrigendum est Horol.
ad Vulturem.

| H. M. | Diff. ¶ a corde ¶ | Decl. ¶ M. | Altit. ¶ | Luc. Vult. occ. |
|--|----------------------|---------------|----------|--------------------|
| 12 10 $\frac{1}{2}$ | 12 31 | 22 0 | 11 48 | |
| 12 9 corr. | | | | |
| 12 18 $\frac{1}{2}$ | 12 34 $\frac{1}{2}$ | | | 44 32 0 |
| Refractio fuit hic in distantia a Corde ¶ erat enim illa remota a meri- diano circa 8° 9'. | | | | |
| 12 24 $\frac{1}{2}$ | 12 28 | 22 1 | vtroq. | 43 7 |
| 12 31 $\frac{1}{2}$ | 12 29 $\frac{1}{2}$ | | Circa | 41 19 |
| 12 30 corr. | | | merid. | |
| 12 36 $\frac{1}{2}$ | 12 29 | | | |
| 12 43 $\frac{1}{2}$ | Altit. ¶ Merid. | | | |
| per Chalyb. | | | | 12 4 |
| per Volub. | | | | 12 3 $\frac{1}{2}$ |

Splendor ¶ admodum vicinæ
hac vespera aßidue impedimento fuit.
Inter occidentalem limbum ¶ & ¶ per
medium 2° fere. Erat autem cen-
trum ¶ in eadem Altitudine cum
¶ quantum ad visum, sed paulu-
lum depressus H. 12 M. 50 $\frac{1}{2}$.

Viceversa a Lucida Vulturis.
1 0 $\frac{1}{2}$ Diff. 48 2 Luc. Vult. or. 34 3
1 3 $\frac{1}{2}$ 48 3 Erat in hisce obserua-
1 5 $\frac{1}{2}$ 48 1 $\frac{1}{2}$ tionibus ¶ paululum
1 7 48 1 remotus a Meridiano,
ita vt Vulturem obliquius respiciens
etiam ab hoc Refractionum insinua-
tionem in distantia admiserit, ad instar
earum quæ a Corde ¶ contigerunt.

Calculus pro inueniendo loco ¶
ex præcedentibus obseruationibus.

| | | |
|----------------------------|--------------------|----------------------|
| H. 12 M. 30 | Diff. ¶ a corde ¶ | 12 29 $\frac{1}{2}$ |
| Pro refractione adde | | 2 |
| Distantia vera | | 12 31 $\frac{1}{2}$ |
| Decl. M. ex alt. merid. | | 22 1 $\frac{1}{2}$ |
| Adde pro refr. in alt. 12° | | 5 |
| Declinatio vera | | 22 6 $\frac{1}{2}$ |
| Declin. cordis ¶ | | 25 23 $\frac{1}{2}$ |
| Afc. R. eiusdem | | 241 10 30 |
| Afc. R. ¶ | | 254 23 $\frac{1}{2}$ |
| H. 1 M. 0 | Diff. a Luc. Vult. | 48 2 |
| Pro refractione adde | | 1 $\frac{1}{2}$ |

| | |
|--------------------------------|-------------------------------------|
| Declin. Lucid. Vult. | 2 52 $\frac{1}{2}$ |
| Afc. R. eiusdem | 292 42 0 |
| Afc. R. ¶ | 254 22 $\frac{1}{2}$ |
| H. 12 M. 45 Afc. R. ¶ limitata | 254 22 $\frac{1}{2}$ |
| Declin. M. ¶ | 22 6 $\frac{1}{2}$ |
| Resp. Longitudo | 15 33 $\frac{1}{2}$ x $\frac{1}{2}$ |
| Latitudo | 0 37 $\frac{1}{2}$ B. |

DIE 18 MAIJ.

Obseruabatur ¶ Vesperī circa Me-
ridianum, correcto Horologio a Vul-
ture, qui per Meridianum transiturus
erat H. 3 M. 7 $\frac{1}{2}$ post mediam noctem.

| H. M. | Diff. a Corde ¶ | Decl. M. | Altit. | Diff. æq. Vult. or. |
|---------------------|---------------------|----------|---------------------|------------------------|
| 11 31 $\frac{1}{2}$ | 12 21 | 21 59 | 11 8 $\frac{1}{2}$ | |
| 11 38 | 12 21 | | | 51 29 |
| 11 42 $\frac{1}{2}$ | 12 20 $\frac{1}{2}$ | | 11 38 $\frac{1}{2}$ | |

Fuit circa has obseruationes Cor ¶
circa Merid. in maxima sua eleua-
tione supra Horizontem, vnde haud
magna refractione eßepotuit in distantia.

Viceversa a Vulture

| | | |
|---------------------|-----------------------------|--------------------------------------|
| 11 52 $\frac{1}{2}$ | 48 13 fere | 21 59 |
| | | 21 59 $\frac{1}{2}$ |
| 11 59 $\frac{1}{2}$ | 48 12 $\frac{1}{2}$ | Appropinquabat ¶ |
| 12 2 $\frac{1}{2}$ | 48 13 | Merid. circa has ob- seruationes. |
| 12 26 $\frac{1}{2}$ | Altit. ¶ Merid. | |
| per Chalyb. | | 12 4' 40" |
| per Volub. | | 12 4 $\frac{1}{2}$ |
| 12 34 $\frac{1}{2}$ | Erat tunc Luc. Vult. or. | 37 24 |
| 12 37' 26" | correct. Ergo horologium | |
| | tribus minutistardius iusto | |
| | moueabatur. | |

Erat hac vespera satis serenum &
aër tranquilluss, nisi quod chasmata
rariufcula discurrendo solito more,
limpidum cælum interdum sua ob-
iectione nonnihil obfuscabatur.

Indagatio apparentiæ ¶ ex proxime
præcedentibus obseruationibus.

| | | |
|-----------------|-------------------------------------|---------------------|
| H. 11 M. 38 | Afc. R. ¶ a Corde ¶ | 254 9 $\frac{1}{2}$ |
| 12 4 | a Vulture | 254 9 $\frac{1}{2}$ |
| 11 50 | Afc. R. emendata | 254 9 $\frac{1}{2}$ |
| | Declinatio M. | 22 6 |
| Resp. Longitudo | 15 21 $\frac{1}{2}$ x $\frac{1}{2}$ | |
| Latitudo | 0 37 $\frac{1}{2}$ B. | |

Nihil hic pro refractionibus distantiae additum est: nam defecatus aer fuit & sidera decliuiora obseruata circa Merid. accepta sunt.

DIE 22 MAIJ.

Mane obseruabatur ♄ Meridianum transgressus & inter nubes hoc modo.

| H. M. | Dist. a Borelance ☊ | Declin. Auftrina | Dist. æquat. Vult. or. |
|-------|------------------------|------------------|---------------------------|
| 1 34 | 32 5½ | 21 56½ | 21 57½ |
| 1 39½ | 32 5 | | |

Fuere hæ obseruationes inter transcurrentes nubes.

Viceversa a Vulture.

| | | | |
|-------|--------|--|------------|
| 1 46 | 48 32½ | 21 56½ | 21 57 17 8 |
| 1 53½ | 48 32½ | Fuit hic ♄ remotus a Meridiano circa 20 gradum, vnde Altitudo circiter 10 eßet, vt quantum refractioni debeatur sciri poßit. | |

Calculus pro loco ♄

ex antecedentibus obseruationibus.

| | | |
|--------------------------------|--------------------|-----------|
| 1 ^h 34 ^m | Afc. recta | |
| | a borea lance | 253 41 22 |
| 1 46 | a Vulture | 253 41 20 |
| 1 40 | Afc. R. ♄ limitata | 253 41½ |
| | Declinatio Mer. | 22 3 |
| Resp. | Longitudo 14 54½ | ↗ |
| | Latitudo 0 37½ | B. |

Eodem Die 22 Vesperi.

Obseruabatur ♄ more consueto circa Meridianum.

Lucidæ Vult. Transf. per Merid.

H. 2 M. 51 post mediam noctem.

| H. M. | Dist. a media in fronte ☌ | Decl. M. | Alt. ♄ | Luc. Vult. or. |
|--------|------------------------------|----------------|-------------|-------------------|
| 11 21½ | 18 5½ | 21 57 | 11 36 | |
| | | 21 56½ | | |
| 11 27½ | 18 5½ | | | 48 19 |
| 11 37½ | corr. | Hic corrigitur | horologium. | |
| 11 43½ | 18 5½ | | | 46 41 |

Fuit ♄ cum hac stella quasi in Horizontis æquilibrio, adeo vt nullam Refractionem hinc in distantia causari poßet.

Viceversa a Vulture

| | | | |
|--------|-------------------------|--------|-------|
| 11 50½ | 48 38½ | 21 56½ | 44 52 |
| | | 21 56½ | |
| 11 56½ | 48 38 | | |
| 11 59½ | 48 38½ | | 42 38 |
| 12 13½ | Transitus ♄ | | |
| | per Meridianum. | | 39 22 |
| | Altitudo per Quadrantem | | |
| | Chalyb. | | 12 8½ |
| | Volub. | | 12 9½ |

Fuit hac vespera bene serenum & tranquilluss aeris status.

Calculus pro loco ♄

ex antecedentibus obseruationibus.

| | | |
|-------|---|----------|
| H. 11 | 38 Afc. R. ♄ a media frontis ☌ | 253 33½ |
| 11 51 | addendo ½ pro refractione in distantia Afc. R. emendata | 253 33 0 |
| | Declin. ♄ M. | 22 1½ |
| Resp. | Longitudo 14 46½ | ↗ |
| | Latitudo 0 37 54 B. | |

DIE 28 MAIJ, VESPERI.

Obseruatio ♄ post ☉ cum medio ☊.

| H. M. | Dist. a media in fronte ☌ | Declinatio ♄ | Dist. æq. Vult. or. |
|-------|------------------------------|----------------------|------------------------|
| 11 57 | 17 20½ | 21 52 | 21 52 |
| | inter nubeculas | | |
| 12 4½ | 17 19+ | | 47 40 |
| 12 8½ | 17 20 | Non fuit bene | 46 47 |
| 11 23 | corr. | serenum hac vespera. | |

Viceversa a Vulture

| | | | |
|--------|------------------|--|--------|
| 12 19 | 49 12 | | |
| 12 21½ | 49 11½+ | | 43 23 |
| 11 38 | corr. | | |
| 12 24½ | 49 12½ | | |
| 11 42 | corr. | | |
| 12 35 | Alt. meridiana ♄ | | |
| | per Volub. | | 12 12½ |
| | per Chalyb. | | 12 13 |

Calculus ♄ ex obseruationibus præcedentibus.

| | | |
|--------|-----------------------|---------|
| H. 12 | 8½ Afc. R. a stella ☌ | 252 44½ |
| 12 24½ | a Vulture | 252 46½ |

12 16½ Emendata Afc. R. 252 45 25
Declin. M. 21 57 30
Resp. Longitudo 14 2½ x^r
Latitudo 0 36½ B.

DIE 30 MAIJ.

Vespera obseruabatur ¼ circa Meridianum confueto more.

| H. M. | Diff. ¼ a media in fronte 11 | Declin. ¼ | Tempus in æqua a Luc. Vult. or. |
|-------|---------------------------------|-----------|---------------------------------------|
| 11 34 | 17 6 fere | 21 51½ | 41 45 |

11 41½ Transitus ¼ per Meridianum,
Altit. per Chalyb. 12 15 ferme
per Volub. 12 14

11 46 17 5½
11 48 17 5½

Viceversa a Vulture

11 51½ 49 26 Erat hac vespera ær
11 53½ 49 26 tranquilluss ac minus
11 55½ 49 25½ defecatus, præfer-
tim circa Horizontem ad austrum

DIE 31 MAIJ.

Obseruabatur ¼ circa meridianum
hoc modo.

| H. M. | Diff. ¼ a media in fronte 11 | Declin. M. |
|--------|---------------------------------|-------------|
| 11 4½ | 16 58½ | 21 50 21 50 |
| 11 11½ | 16 58½ | |
| 11 14½ | 16 58½ | |

Viceversa a Vulture

11 19 49 32 21 50 21 50½
11 22½ 49 32
11 24½ 49 32
11 37½ Transitus ¼ per Meridianum.

Altitudo eius

per Chalyb. 12 15½

per Volub. 12 15½

Tunc erat Vultur or. in æquat. 40 25

Fuit hac vespera non admodum fe-
renum aut ær defæcatus, obseruati-
ones tamen satis diligenter conquisitæ
sunt, vt ijs confidere liceat, habita sal-
tem ratione refractionum in declina-
tione & alibi vbi opus fuerit.

Ex obseruationibus superioribus

Diei 30 Maij.

Afc. R. a media frontis 11 252 29½
a Vulture 252 28

H. 11 M. 17½ Emendata
Afc. R. ¼ 252 28 35
Declin. vera M. 21 56

Resp. Longitudo 13 47 3 x^r
Latitudo 0 36 17 B.

Calculus ¼ ad Diem 31 Maij.

Afc. R. a media frontis 11 252 21
a Vulture 252 20 15

H. 11 M. 7½ Emendata
Afc. R. ¼ 252 20½
Declin. 21 55

Resp. Longitudo 13 39 27 x^r
Latitudo 0 36½ B.

Collectio φαινόμενων ¼ ex obseruationibus nostris acronychijs huius anni vna
cum Copernicæi & Alphonsinorum calculi annotatione ac differentia.

| Maij | H. M. | Long. x ^r | Lat. B. | Cop. Long. | Diff. plus | Cop. Lat. | Diff. plus | Al- phonf. | Diff. minus | Al- phonf. | Diff. plus |
|------|-------------------|----------------------|---------|---------------|---------------|--------------|---------------|---------------|----------------|---------------|---------------|
| 16 | 12 45 | 15 33½ | 0 37½ | 15 50½ | 17' | 1 23 | 45½ | 14 4½ | 1 29 | 1° 6' | 28½ |
| 18 | 11 50 | 15 21½ | 0 37½ | 15 36½ | 15½ | 1 23 | 45½ | 13 50½ | 1 31 | 1 6 | 28½ |
| 22 | 1 40 mane | 14 54½ | 0 37½ | | | | | | | | |
| 22 | 11 45½ Vesp. f | 14 46½ | 0 37 54 | | | | | | | | |
| 28 | 11 34 | 14 2½ | 0 36 45 | | | | | | | | |
| 30 | 11 17½ | 13 47 3 | 0 36 17 | | | | | | | | |
| 31 | 11 7½ | 13 39 27 | 0 36 20 | | | | | | | | |

Supposito motu diurno ¼ 7^m 18^s prout in-
venitur a 22 die Maij in 28 ex obseruati-
onibus, Copernicæo calculo in Ephemeridi-
bus ei proxime consentiente, inuestigatum
est hinc inde momentum ½ ¼ cum medio
☉^{lis} motu Die 26 Maij H. 7 M. 19½ præcise, id-

que in 14° 19' x^r, ☉^{le} e regione in 14° 19' 0'' 11 apogæo Eccentrici appropinquante.

DIE 29 JULIJ.

Vesperī obseruabatur $\frac{1}{2}$ stationarius post ϕ cum \odot in hunc frequentem modum.

Horologium correctum est H. 10.

| H. M. | Dift. a finist. genu Oph. | Declin. $\frac{1}{2}$ M. | Altitudo |
|---|------------------------------|--------------------------|--------------------------------------|
| 10 4 | 26 $51\frac{1}{2}$ | 21 23 | 21 $23\frac{3}{4}$ 5 0 $\frac{1}{2}$ |
| 10 11 | 26 54 | Erat hæc stella in | |
| 10 14 $\frac{1}{2}$ | 26 $53\frac{1}{2}$ | Ophiucho paululum | |
| elevation $\frac{1}{2}$ supra Horizontem. Ve- | | | |
| rum non ita tamen multum, vt refractionis quidquam caufaretur in distantia. | | | |

Viceversa a sexta in humero χ^{γ} .

| | | | |
|---------------------|--------------------|-------|--|
| 10 19 $\frac{1}{2}$ | 27 $36\frac{1}{2}$ | 21 21 | 21 20 $\frac{1}{2}$ 3 40 $\frac{1}{2}$ |
| 10 30 30 | 27 $35\frac{1}{2}$ | | |

Stella in Sagittario hoc tempore erat in altitudine quasi 6 graduum, vnde si quid refractioni debeatur, eius ratio habenda sit.

Extiterunt hac vespera craſſi vapores circa Horizontem Meridionalem, vbi $\frac{1}{2}$ obseruabatur.

DIE 4 AUGUSTI.

Obseruabatur $\frac{1}{2}$ pro eius loco vero habendo, idque cum esset fere stationarius.

| | | | |
|------|-----------------|-------------------------------------|---------------------|
| H. 9 | 2 $\frac{1}{2}$ | Dift. $\frac{1}{2}$ a Luc. Vulturis | 52 48 $\frac{1}{2}$ |
| | | Declinatio $\frac{1}{2}$ | 21 28 |

Pro horologio corrigendo.

9 19 $\frac{3}{4}$ Vultur orient. 9 3 $\frac{1}{2}$. Ex his corrige etiam Horologium ad antecedentes obseruationes in ϵ factas.

Postea subducebatur cælum nubibus, vt plures hac vespera obseruationes ad $\frac{1}{2}$ fieri nequirent; neque etiam propter impedimenta in altitudine obseruari $\frac{1}{2}$ poterat, quæ tamen propter refractiones in distantia a Vulture necessario habenda est. Ideoque cum fere stationarius fuerit $\frac{1}{2}$, eius locus ϵ ν πλάτει inquirendus est, & postea altitudo ad hoc tempus.

¹ De loco Iovis cf. supra p. 208.

² Etiam a luna, cf. supra p. 208 lq.

DIE 2 SEPTEMBRIS, VESPERI.

| H. M. | Dift. a sexta in χ^{γ} | Decl. | Alt. per min. Quad. | Vultur Diff. æquat. |
|--------------------|----------------------------------|---------------------|---------------------|---------------------|
| 8 8 $\frac{1}{2}$ | | 21 47 | 4 45 | |
| | | 21 47 $\frac{3}{4}$ | | orient. 0 5 |
| 8 13 | 25 26 $\frac{1}{2}$ | | | |
| 8 15 $\frac{1}{2}$ | 25 28 | inter chasmata | | occid. 1 5 |
| 8 17 $\frac{1}{2}$ | 25 27 $\frac{1}{2}$ | 21 47 $\frac{1}{2}$ | 4 0 | |
| | | 21 46 | | |

Postea chasmata vndeque per cælum vterius obseruationes impediebant.

DIE 3 SEPTEMBRIS.

Obseruabatur $\frac{1}{2}$ a sexta in humero χ^{γ} .

| H. M. | Distantia | Declin. $\frac{1}{2}$ | Altit. $\frac{1}{2}$ per Q. minimum |
|--------------------|---------------------|-----------------------|-------------------------------------|
| 7 58 $\frac{1}{2}$ | 25 20 $\frac{1}{2}$ | 21 49 | |
| 7 44 0 corr. | | vno pinn. | |
| 8 6 $\frac{1}{2}$ | 25 21 $\frac{1}{2}$ | | 5 50 |
| 8 11 $\frac{1}{2}$ | 25 19 $\frac{1}{2}$ | | |
| 8 13 $\frac{1}{2}$ | | 21 47 $\frac{1}{2}$ | 5 0 |
| | | 21 49 | |
| 8 23 $\frac{1}{2}$ | 25 20 $\frac{1}{2}$ | | 3 50 |
| 8 26 $\frac{1}{2}$ | | 21 47 $\frac{3}{4}$ | |
| | | 21 47 | |

Tunc erat Lucida Vult. occid. 1 34

7 30 $\frac{1}{2}$ Vultur occid. 2 36

7 14 34 corr. Transitus Lucidæ Vult. per merid. H. 8 4 $\frac{1}{2}$.

Erat hac Vespera satis serenum & tranquillum¹.

DIE 4 SEPTEMBRIS.

Obseruabatur $\frac{1}{2}$ ab inferiori cornu χ^2 .

| H. M. | Dift. $\frac{1}{2}$ ab inf. cornu χ^2 | Declin. $\frac{1}{2}$ | Alt. $\frac{1}{2}$ per min. Q. | Luc. Vult. orient. |
|--------------------|--|-----------------------|--------------------------------|---------------------|
| 7 4 | 3 $\frac{1}{2}$ | 21 52 | | 15 11 $\frac{1}{2}$ |
| | | 21 52 $\frac{1}{2}$ | | |
| 7 38 $\frac{1}{2}$ | 46 44 | 21 50 $\frac{1}{2}$ | 6 40 | |
| 7 33 corr. | | vno $\frac{1}{2}$ | | |
| 7 45 $\frac{1}{2}$ | 46 44 $\frac{1}{2}$ | | | |
| 7 49 $\frac{1}{2}$ | | 21 49 $\frac{1}{2}$ | 5 50 | |
| | | 21 49 | | |
| 7 56 | 46 43 $\frac{1}{2}$ | | | |
| 7 57 $\frac{1}{2}$ | | | | 2 6 |
| 7 51 50 corr. | | | | |

7 58½ Repetita æquatoria distantia 1 58
8 0 15 Tranſiuit Lucida Vulturis
per Meridianum.

Post cœnam.

8 47 0 Vulturoccid. in æquat. 9 35
8 49 30 Eadem occid. 10 16
8 52 0 Eadem distant. 10 50

Pro instrumentorum examinatione.
Altit. merid. præcedentis in cauda ζ
per Chalyb. 15 41 0
per Volub. 15 42 0
Declin. M. per Armillas 18 25
18 25½

Altit. merid. ſequentis in cauda ζ
per Chalyb. 16 12½
per Volub. 16 14½

N.B.¹ Limitentur quadrantes ad altitudines inferiores quæ prope cum medio conſentiunt.

Declin. eius M. 17 53½
17 54

Anno 1584 menſe Auguſto.

Altit. Merid. lucidæ caudæ ζ 16 11
adde pro 8 annis 2

1592 menſe Auguſto alt.

merid. per reductionem 16° 13' 8"

Idem fere euenit ex obſervationibus anni 1587.

OBSERVATIONES MARTIS.

DIE 23 JANUARIJ, VESPERI.

Reſtituta ſerenitate & obſeruandi
opportunitate primum hoc anno poſt
continuos obſcuros dies, obſeruatio ♂.

In horologio non poterat obſeruari
tempus propter fractum funem.

| Inter ♂ & luc. mandib. Ceti | Decl. ♂ B. | Altit. ♂ per Volub. | Luc. humer. Orion. or. |
|-----------------------------------|---------------|------------------------|---------------------------|
| 29 43½ } | 4 33 | 27 58 | 29 21 |
| non exacte) | 4 34 | | |
| 29 42½ } | 4 33½ | | 27 8 |
| | 4 33½ | | |
| 29 41½ } | | 26 19 | 25 15 |
| 29 41½ } | | | 23 16 |
| 29 42 | 4 33½ | 23 35 | 19 37 |
| | 4 33½ | | |

Viceverſa non poterat ♂ obſeruari
propter exorientes nubes ex occaſu,
tum etiam ob vehementiam venti ac
impedimentum pinnaculi ſupra Ar-
millas ſubterraneas maximas.

DIE 3 FEBRUARIJ.

Obſeruabatur ♂ propter ♀ & ſeiſum.

| H. M. | Diff. ♂ ab Aldeb. | Decl. ♂ B. | Altit. ♂ | Azim. |
|-------|----------------------|---------------|-------------|-------|
| 5 53½ | 45 9½ | 7 40 | 33 40 | |
| | dubia/ vtroq. j | | | |
| 6 0½ | 45 8½ | 7 40½ | 32 55 | 48 9 |
| 6 4½ | 45 8½ | 7 40½ | 32 27 | 49 0 |

¹ In margine.

| Inter ♂ & extrem. alæ Pegafi | | | | |
|---------------------------------|------|-------|-------|-------|
| 6 12 | 20 0 | 7 41 | 31 38 | 51 5 |
| 6 15½ | 20 0 | 7 41 | 31 10 | 52 5 |
| | | 7 41½ | | |
| 6 19 | 20 0 | | 30 50 | 52 50 |

Altitudo extremæ alæ Pegafi circa
hæc tempora 25°.

Deinde pro verificando Horologio
obſeruauimus diſtantiam æquatori-
am a Meridiano.

| | | |
|-------|--------------------|-------|
| 6 28½ | Lucid. pes Orionis | 10 14 |
| 6 30 | verſus ortum | 9 30 |
| 6 32 | Eadem diſtantia | 8 55 |
| 6 33½ | verſus ortum | 8 30 |

N.B. Lucid. pes Orionis per Merid.
iuxta ſupput. H. 7 M. 8½.

Obſeruabatur pro Sextante exami-
nando diſtantia Alde- I 35 33
boræ & Lucidæ V II 35 33
III 35 33

Patet itaque quod hic ſextans, quo
hucusque hoc anno vſi ſumus, abun-
det in tali diſtantia quaſi vno minuto,
quod venit limitandum.

Pro loco ♂ ex proximis antecedentibus obseruationibus.

| | | | | |
|------|-----|------------------------|-----|-------|
| H. 6 | 0' | Afc. R. Aldeboræ | 63 | 9½ |
| | | Hinc Afc. R. ♂ | 17 | 41½ |
| H. 6 | 12' | Afc. R. extr. alæ Peg. | 358 | 7 |
| | | Hinc Afc. R. ♂ | 17 | 44 30 |

N. B. In hac differentia vitium instrumenti aperte videtur, quod limitatione vtriusque tolli potest.

| | | | | |
|-----------|---------------------|----|----|----|
| H. 6 M. 6 | Afc. recta limitata | 17 | 43 | 0 |
| | Declinatio B. | | 7 | 40 |

| | | | | |
|--------|--------|---------|--------|-------|
| | Resp. | Copern. | Alph. | |
| Long. | 19 17½ | ✓ | 18 51½ | 19 48 |
| Latit. | 0 6½ | B. | 0 5½ | B. |

DIE 6 FEBRUARIJ.

| H. M. | Dist. ab extr. alæ Peg. | Decl. ♂ | Alt. ♂ | Alt. extr. alæ Peg. |
|-------|-------------------------|---------|--------|---------------------|
| 6 32½ | 21 39½ | 8 31½ | 29 20 | |
| | | 8 31½ | | |
| 6 35 | 21 40 | 8 32 | vtroq. | |
| 6 39½ | 21 39½ | 8 31½ | | 21 0 |
| 6 41 | 21 39½ | 8 32 | | 20 30 |

Postea viceversa ♂ ab oculo ✓

| | | | |
|-------|-------|-------|-------|
| 6 43 | 43 2 | 8 33 | |
| 6 46 | 43 3 | 8 32½ | 27 37 |
| 6 49½ | 43 2½ | 8 32½ | 27 7 |
| 6 52 | 43 2 | 8 33½ | 26 52 |
| 6 54½ | 43 2½ | 8 33½ | 26 27 |

Pro verificando horologio

Transitus Lucidi pedis Orionis per Merid. iuxta supput. H. 6 M. 56½.

(Verificabatur autem prius ad ☉ H. 1 M. 50).

| | | |
|-------|---|--------|
| 6 59½ | Luc. pes Orionis occid. | 1 31 |
| 7 0½ | Idem pes occident. | 1 55 |
| 7 2½ | Luc. pes Orion. occid. | 2 25 |
| 7 16½ | Vltima stella in baltheo Orionis transibat per Merid. habens Altitud. | 31 53½ |

Pro loco ♂ ex præcedentibus obseruationibus.

| | | | | |
|------|--------------------|-------------------------|----|-------|
| H. 6 | 40' | Dist. ab extr. alæ Peg. | 21 | 39 |
| | | Declinatio B. | 8 | 32 |
| | | Ergo Afc. R. ♂ | 19 | 42 30 |
| 6 46 | Dist. ab oculo ✓ | | 43 | 1½ |
| | Ergo Afc. R. ♂ | | 19 | 40 30 |
| 6 43 | Afc. R. ♂ limitata | | 19 | 41½ |

Resp. Longitudo 21 23½ ✓.

Latitudo 0 10½ B.

Pro verificando instrumento quo ab initio huius anni atque diu antea vñ fumus, denuo ter obseruauimus distantiam Aldeboræ & Lucidæ ✓, eamque semper adinuenimus 35° 33', quemadmodum etiam ante triduum, quod tamen ferme vnico minuto abundat, hinc cætera ratiocinare.

Postea altero Sextante nouo denuo eandem stellarum distantiam conquiritur exacte emendandi gratia inuenimus vt sequitur 35° 32½', atque hæc aptissime sese habet quoad posteriorem obseruationem factam per Sextantem veterem, quo nunc vñ fumus primum. Nam reliquæ obseruationes quasi per integrum annum antecedentem habitæ sunt per Sextantem quem voco nouum, & hinc mutuo cætera rimare & limita prout opus fuerit.

DIE 13 FEBRUARIJ.

Pro horologio corrigendo obseruauimus

| | | | |
|------|----------------------------------|-------------------------|------|
| H. 6 | 26 ^{1/2} _{Luc} | Luc. pes Orion. orient. | 1 23 |
| 6 | 28 ^{1/2} _{Luc} | Idem luc. pes orient. | 0 57 |
| 6 | 30 ^{1/2} _{Luc} | occid. | 0 22 |

Postea obseruauimus ♂ in hunc modum.

| | | |
|-------|-------------------------|--------|
| 6 32½ | Inter ♂ & caput Androm. | 30 36 |
| | Declin. ♂ vno pinn. | 10 26½ |
| | altero 10 27 | |

| | | |
|-------|---------------------------------|--------|
| 6 35½ | Eadem dist. & melior obseruatio | 30 34½ |
| 6 39½ | Repetita eadem dist. | 30 38 |
| | Declin. | 10 26 |
| | Fuit tunc Altitudo ♂ 29½ | |
| 6 44½ | Eadem distantia | 30 36½ |

Circa hanc differentia annotanda est, nam in cæteris splendor ☾ maiori impedimento fuit.

DIE 17 FEBRUARIJ.

| H. M. | Dist. inter ♂ & caput Androm. | Decl. ♂ | Altit. | Luc. hum. Orionis orient. |
|-------|-------------------------------|---------|--------|---------------------------|
| 6 43½ | 32 6½ | 11 28½ | | |
| | | 11 28 | | 0 36 |

| | | | |
|-------------|-------------|--------|--|
| | Azimuth | | |
| 6 52 32 8½ | 67 0 28 20 | occid. | |
| melior) | | | |
| 6 56½ 32 8½ | | 0 34 | |
| 6 59½ 32 8 | 68 45 27 20 | | |

Hæ distantiae per nouum Sextantem
correctiorem obseruatæ sunt.

Viceversa

| | | |
|------|---------------------|--------|
| 7 6½ | Inter Aldeboram & ♂ | 35 26½ |
| | Declinatio ♂ | 11 29 |
| | | 11 29½ |

Altitudo 25 30, Azimuth 70 15

| | | |
|-------|-------------------------|--------|
| 7 14½ | Inter Aldeb. & ♂ | 35 27 |
| | Luc. hum. Orion. occid. | 5 0 |
| 7 21 | Eadem distantia | 35 26½ |
| | Luc. hum. Orion. occid. | 6 40 |

Observationes hac vespera tam in
♂ quam ♀ inter rariores nubes ac-
ceptæ sunt, ☾ insuper resplendente;
sunt tamen diligentia qua fieri poterat
conquisitæ, ita vt exactioribus se-
lectis, cæterisque iuxta limitationem
correctis, tuto singulis fidere liceat.

DIE 18 FEBRUARIJ.

Vesperi obseruabatur ♂ hoc modo.

| H. M. | Diff. inter caput Androm. & ♂ | Declin. | Altit. | Luc. hum. Orion. or. |
|----------|-------------------------------------|---------|--------|-------------------------|
| 6 43 30" | 32 32½ | 11 45 | 28 50 | 0 35 |
| | | 11 44½ | | occid. |
| 6 53½ | 32 32½ | | 27 31 | 1 58 |
| | | Azim. ♂ | 69 0 | |

Viceversa

| H. M. | Diff. ♂ ab. Aldeb. | Altit. | Luc. hum. |
|-------|-----------------------|---------|-----------|
| 6 56 | 24 46½ | | |
| 6 58½ | 24 46½ | 26 56 | 3 18 |
| | | Azim. ♂ | 70 10 |
| 7 3½ | 24 46½ | 11 45½ | 4 25 |
| | | 11 45 | |

DIE 20 FEBRUARIJ.

Vesperi obseruabatur ♂ hoc modo.

| H. M. | Diff. ♂ a cap. Andr. | Decl. ♂ | Alt. Azim. | Luc. hum. Orion. occ. |
|-------|-------------------------|---------|---------------|--------------------------|
| 6 39½ | 33 23½ | 12 14½ | 28 47 | 1 45 |
| | | 12 14½ | 67 45 | |

| | | | | |
|-------|--------|--------|-------|------|
| 6 45½ | 33 22½ | 12 14½ | 28 2½ | 3 3 |
| | | 12 15 | 69 0 | |
| 6 48½ | 33 22½ | | 27 37 | 3 56 |
| | | | 69 55 | |

Viceversa ab Aldebora.

| | | | | |
|-------|--------|--------|--|------|
| 6 54 | 33 24 | 12 16 | | 5 18 |
| | | 12 15½ | | |
| 6 59½ | 33 23½ | 12 17½ | | 6 46 |
| | | 12 15½ | | |
| 7 3½ | 33 24½ | 12 17½ | | |
| | | 12 16½ | | |

Postea obseruabatur distantia ♂ a
Lucida γ, quæ quali ab eo versus
stellam polarem ibat in directum, non
tamen præcise, vnde declinationem
& latitudinem proba.

| H. M. | Diff. ♂ a Lucid. γ | Declin. | Luc. hum. Or. occ. | Canis maior occ. |
|-------|-----------------------|---------|-----------------------|------------------------|
| 7 9 | 9 38½ | 12 17 | 9 10 | |
| | | 12 17½ | | |
| 7 32½ | 9 38 | | | 1 36 |
| 7 34½ | 9 38½ | | | 2 8 |
| 7 37½ | 9 37½ | | | 2 58 |

DIE VLTIMO FEBRUARIJ.

Obseruabatur ♂ in hunc modum.

| H. M. | Diff. a luc. γ | Decl. | Alt. ♂ per min. Quadr. | |
|-------|---------------------|--------|---------------------------|---|
| 7 48½ | 10 56½ | 14 28½ | 21 0 | Erat ♂ fere in æquilibrio horizontis |
| 7 52 | 10 54 | 14 28½ | | |
| 7 53½ | 10 57 | 14 28½ | 20 10 | cum lucida γ paulo tamen humilior |
| | Inter Aldeb. & ♂ | | | |
| 8 2½ | 27 18 | 14 28½ | 19° | |
| | | 14 29 | | |
| 8 5½ | 27 17½ | 14 29½ | 18½ | |
| | | 14 29½ | | |

Supputatio loci ♂ ex anteced.
obseruationibus.

| | | |
|------|--------------------------|----------|
| H. 8 | Distantia ♂ a lucida γ | 10 56 |
| | ab Aldeb. | 27 18 |
| | Declinatio ♂ | 14 28 |
| | His respondet Ascens. R. | 34 53½ |
| | Resp. Longitudo | 7 25½ B. |
| | Latitudo | 0 29½ B. |

OBSERVATIONES VENERIS.

DIE 30 JANUARIJ, MANE.

Pro horologio obseruando

| H. M. | Azim. ♀ orient. | Altitudo ♀ |
|-------|-----------------|------------|
| 6 26 | 9 9 | 11 44½ |
| 6 30½ | 8 0 | 11 50 |

| H. M. | Dift. ♀ ab Antare | Alt. ♀ | Declin. ♀ |
|-------|-------------------|--------|-----------|
| 6 26 | 32 2 | 10½ | 18 47 |
| 6 30½ | 32 3½ | | 18 46 |
| 6 33 | 32 5½ | | 18 45½ |

Cor ♀ in vltima obseruatione admodum tenuiter apparuit propter auroram, potes in medio harum accipere distantiam ♀ & Cordis ♀ 32 3½.

| H. M. | Azim. ♀ | Alt. ♀ | Inter ♀ & ♀ | Declin. ♀ |
|-------|---------|--------|-------------|-----------|
| 6 35½ | 6 40 | 11 56 | 20 30 | 18 47 |
| | | Alt. ♀ | 11 35 | 18 47½ |
| 6 37 | | | 20 30½ | |
| 6 40 | 5 25 | 12 1½ | 20 31 | 18 48 |

Talis erat positus ♀ ♀ ☾.



Horologio correcto postea ☾ a ♀ obseruabamus.

| H. M. | Inter ☾ & ♀ | Alt. ☾ | Azim. ☾ a Mer. verf. or. |
|------------|-------------|--------|--------------------------|
| 7 46 corr. | 45 7 dubia | 2 35 | 58 45 |
| 7 51½ | 45 3 | 2 58 | 58 8 |
| 7 52½ | 45 4½ | 3 1 | 57 51 |
| 7 54 | 45 4 | 3 12 | 57 32 |
| 7 56½ | 45 4½ | 3 24 | 57 8 |

8 0 Obseruabatur dist. æquat.

8 corr. ♀ versus ort. a Meridie 12 5.

Tunc erat Declin. ♀ 18 44½ vno.

| H. M. | Rursus inter ☾ & ♀ | Decl. ☾ vifa | Alt. ☾ | Azim. ☾ |
|-------|--------------------|--------------|--------|---------|
| 8 5 | 45 7½ | | 4 15 | 55 30 |
| 8 8 | 45 8½ | | 4 34 | 54 55 |
| 8 10½ | 45 9 | | 4 45 | 54 35 |
| 8 12 | 45 9 | 14 44½ | 4 58 | 54 10 |

14 43

| | | | |
|------|-------|-------|-------|
| 8 16 | 45 8½ | 5 25 | 53 20 |
| 8 18 | 45 7 | 5 35 | 53 0 |
| 8 22 | 45 9 | 6 12½ | 51 50 |
| 8 27 | 45 7½ | 6 27½ | 51 14 |
| 8 31 | 45 8 | 6 44 | 50 35 |

Potes vti absque omni sensibili errore circa medium tempus harum vltimarum distantia ♀ & ☾ part. 45° 8' præcife.

8 33 Obseruabatur per Armill. max.
Decl. ☾ vno pin. 14 47
alt. 14 48

| | Dift. | Alt. ☾ | Azim. ☾ |
|-------|-------|--------|---------|
| 8 37½ | 45 9½ | 7 20 | 49 27½ |
| 8 40 | 45 9 | 7 34 | 49 0 |

8 55 Transiit ♀ per Meridianum habens Altitudinem per Volubilem 15 18, bona. ☾ remouebatur a Meridie versus ortum 46 9 per ipsum pinnaculum æquatoris.

Fuit itaque declinatio ♀ tunc 18 47½. Hanc potes prioribus obseruatis applicare.

Postea rursus obseruabatur ☾ a ♀ hoc modo.

| H. M. | Dift. | Alt. ☾ | Azimuth |
|-----------|--------|--------|---------|
| 9 0 corr. | 45 9½ | 9 51 | 43 55 |
| 9 4 | 45 9 | 10 8 | 43 18 |
| 9 5 | 45 10½ | 10 19 | 42 50 |

Habes hic bonas obseruationes tam pro stellis fixis quam ♀ ♀ atque ☾; erat enim apprime serenum atque tranquillum defæcataque & gelu depurata aura, flante leniter saltem boreali vento ad ortum inclinato. Erat apprime serenum vsque fere ad Meridiem, tunc nubes oboriebantur.

DIE 18 FEBRUARIJ.

Obseruabatur ♀ circa maximam eius a ☾ digressionem matutinam in modum qui sequitur.

| H. M. | Diff. Q a ♄ | Decl. Q M. | Alt. Q | Azim. a Mer. verif. ort. |
|-------|----------------|---------------|-------------------------------|--------------------------------|
| 6 3 | 35 6½ | 18 45½ | 6 55 | 40 42 |
| | | 18 45½ | | |
| 6 10½ | 35 7 | | 7 37 | 39 5 |
| 6 15½ | 35 7 vt | supra | 8 2 | 38 10 |
| 6 24½ | 35 7½ | 18 46½ | hic erat circa Meridian. fere | |
| | | 18 46 | 9 30½ | 33 50 |
| 6 34 | 35 8 | | | |
| 6 42 | | 18 47½ | | |
| | | 18 46½ | | |

Hæ omnes obseruationes factæ sunt per Sextantem nouum correctiorem. Postea exoriente ☉^{ie} ♀ e radijs eius adeo offuscata est, vt ab hoc more confueto obseruari haud potuerit.

8 36 Erat ☉ orient. in Æquatore 52 0 ideoque tunc horologium 4 M. celestius iusto promotum est, ab antecedente Meridie, omiſſa correctio est in Meridiem futurum.

DIE 19 FEBRUARIJ.

Obſeruabatur ♀ a ♄ in hunc qui ſequitur modum. N. B. ♀ prope maximam digreſſionem a ☉ matutinam.

| H. M. | Diff. ♀ a ♄ | Decl. ♀ M. | Alt. ♀ | Azim. |
|----------|-------------|------------|--------|-------|
| 6 5½ | 36 0½ | | | |
| 6 8½ | 36 1 | | | |
| 6 12½ | 36 2½ | 18 43 | | |
| | | 18 42½ | | |
| 6 17½ | 36 2 | 18 42½ | 9 20 | 34 30 |
| | | vtroque | | |
| 6 20½ | 36 2½ | 18 43 | 9 30½ | 33 45 |
| | | vtroque | | |
| 6 27 10" | | | 10 9 | 32 13 |

Iupiter non potuit amplius videri propter auroram.

Postea obſeruauimus ♀ a ☉ in hunc modum.

| H. M. | Diff. a ☉ | Decl. ♀ | Alt. ♀ | Azim. ♀ |
|-------|-----------|---------|--------|---------|
| 6 42½ | 46 38½ | | 11 15 | 28 25 |
| 6 46½ | 46 39 | | 11 25 | 27 45 |
| 6 49½ | 46 41 | | | |
| 6 54 | 46 41½ | | | |
| 6 58½ | 46 43½ | | Alt. ☉ | Azim. ☉ |
| 7 1½ | 46 42 | | 3 15 | 71 10 |
| 7 1½ | 46 42 | | 3 35 | 70 31½ |
| 7 8 | 46 41½ | 18 42½ | 4 26 | 69 9 |
| 7 14½ | 46 42½ | | 5 21 | 67 40 |
| 7 20 | 46 40 | | 5 59 | 66 35 |

♀ amplius videri non poterat.

| H. M. | Decl. ☉ | Alt. ☉ | Azim. ☉ | ☉ orient. |
|-------|---------|--------|---------|-----------|
| 7 35½ | | | | 63 0 |
| 7 40½ | 7 46 | 8 33½ | 62 7 | 61 54 |
| | 7 45 | | | |
| 7 44 | 7 46½ | 9 1 | 61 16 | 60 53 |
| | 7 47 | | | |
| 7 47 | | | | 60 10 |

DIE 21 FEBRUARIJ.

Obſeruabatur ♀ a ♄ in hunc modum.

| H. M. | Inter ♀ & ♄ | Decl. ♀ | Alt. ☉ | Azim. ♀ |
|-------|-------------|---------|--------|---------|
| 5 57 | 37 50½ | 18 32 | | |
| | | 18 33 | | |
| 6 0½ | 37 50½ | 18 32½ | 9 15 | 35 15 |
| | | 18 32½ | | |
| 6 4½ | 37 49½ | 18 31½ | 9 35 | 34 30 |
| | dubia | 18 32½ | | |

Fide potius primis duabus, nam vltima propter Solem iamiam exorientem nimiumque diei lumen ambigua fuit.

N. B. ♄ & ♀ habuerunt quasi eandem altitudinem supra Horizontem, graduum plus minus 10. Ideoque refractione in vtrasque irrepens distantiam veram insensibiliter variat. Vtere itaque obseruatis sed limitata, accipe 37 50½. Potes hic conferre antecedentis diei distantias.

H. 6 M. 8 incepit ☉ oriri supremo limbo.

6 12½ medius ☉ ortus videbatur.

6 15½ Totus ☉ ortus visus est.

Erat apprimè serenum & tranquilum.

Postea ☉ a ♀ obſeruauimus vt ſequitur.

| H. M. | Inter ☉ & ♀ | Alt. ☉ | Azim. ♀ | Decl. ♀ |
|-------|-------------|--------|---------|---------------------------|
| 6 23 | 46 39½ | 1 12 | 75 55 | |
| 6 25½ | 46 37 | 1 32½ | 75 20 | |
| 6 28½ | 46 36½ | 1 52 | 74 50 | 18 31½ |
| | | | | 18 31½ |
| 6 33½ | 46 38½ | 2 30 | 73 47 | |
| 6 37 | 46 40 | 3 0 | 73 0 | |
| 6 41 | 46 40 | 3 30 | 72 10 | 18 33 |
| | | | | 18 31½ |
| | | | | Diff. ☉ æquat. antemerid. |
| 6 49½ | 46 42 | 4 35 | 70 22 | 70 55 |
| 6 52½ | 46 39½ | 5 0 | 69 35 | |

| | | | | |
|--------------------|---------------------|--------------------|---------------------|---------------------|
| 7 0 | 46 41 $\frac{1}{2}$ | 6 0 | 68 5 | 68 15 $\frac{1}{2}$ |
| 7 3 $\frac{1}{2}$ | 46 42 $\frac{1}{2}$ | 6 28 | 67 17 | |
| 7 7 | | 6 55 | 66 38 $\frac{1}{2}$ | 66 35 $\frac{1}{2}$ |
| 7 27 $\frac{1}{2}$ | 46 41 $\frac{1}{2}$ | 9 29 $\frac{1}{2}$ | 62 8 | 61 19 $\frac{1}{2}$ |

♀ videbatur hic per vtramque rimulam. Declinationem ♀ potes huc ex hesternis obseruationibus transferre.

Circa has vltimas obseruationes erant ♀ & ☉ in vna quasi altitudine, quare refractio in dist. nihil importat.

| H. M. | Distantia | Altit. ☉ | Azim. ☉ | ☉ orient. |
|--------------------|-----------|----------|---------|---------------------|
| 7 32 $\frac{1}{2}$ | | 10 12 | 60 47 | 69 58 $\frac{1}{2}$ |
| 7 41 $\frac{1}{2}$ | 46 43 | 11 15 | 58 54 | 57 42 $\frac{1}{2}$ |

☉ etiam hic per vtramque rimulam videbatur.

| | | | | |
|--------------------|-----------------------|---------------------|-------|-------|
| 7 47 $\frac{1}{2}$ | 46 40 $\frac{1}{2}$ | 11 58 | 57 34 | 56 18 |
| 7 53 $\frac{1}{2}$ | 46 39 $\frac{1}{2}$ * | 12 39 $\frac{1}{2}$ | 56 10 | |

* per vtramque rimulam

| | | | | |
|--------------------|-----------|---------------------|--------------------|--|
| 7 58 $\frac{1}{2}$ | | 13 15 $\frac{1}{2}$ | 55 1 $\frac{1}{2}$ | |
| 7 41 $\frac{1}{2}$ | Declin. ☉ | 7 0 | 7 0 $\frac{1}{2}$ | |
| 7 47 $\frac{1}{2}$ | | 7 0 $\frac{1}{2}$ | 7 0 | |

| | | |
|-------------------|------------------------|-------|
| 8 5 | Tunc erat ☉ orientalis | 51 43 |
| 8 6 $\frac{1}{2}$ | ☉ orientalis | 51 24 |
| 8 8 | ☉ orientalis | 51 0 |

N. B. Motum est horologium a Meridie præcedentis diei 28 M. tardius iusto.

Pro loco ♀ ad Diem

30 JANUARIJ, MANE¹.

| | | |
|--------------------|--|------------------------|
| H. 8 $\frac{1}{2}$ | Dist. ♀ a centro ☉ | 45 8 |
| | Decl. ☉ vifa | 14 43 $\frac{1}{2}$ M. |
| | Decl. ♀ | 18 47 $\frac{1}{2}$ M. |
| | Diff. igitur Ascenf. per Triang. supp. | 47 4 $\frac{1}{2}$ |

Alt. ☉ 5° 9', ♀ 15° 0'.

Refractio ☉ 14' 30"

Parall. ☉ 3 0

Refr. relicta 11 30

Vera Asc. R. ☉ 322 24 20

Refr. Ascenf. subtr. 2 40

Ergo vifa Asc. R. ☉ 322 21 40

47 4 20

Asc. R. ♀ 275 17 20

Resp. Longitudo 5 1 30 $\frac{1}{2}$

Latitudo 4 38 $\frac{1}{2}$ B.

Parall. in circul. Alt. 15°

4' 50"

Refractio 3 0

1 50

DIE 21 FEBRUARIJ, MANE¹.

H. 6 M. 25 Dist. ♀ a ♄ 37 50 $\frac{1}{2}$

Declin. ♀ 18 32 M.

Declin. ♄ 22 11 M.

Asc. R. ♄ supput. a

Vult. & corde ♄ 256 30

Ang. diff. Asc. 40 7 30

Asc. R. ♀ 296 37 30

Resp. Longitudo 25 10 $\frac{1}{2}$ ♄

Latitudo 2 41 $\frac{1}{2}$ B.

Alt. ♀ 9°.

Parall. ♀ 4' 25"

Refractio 5 50

1 25

Resp. in Long. 15 add.

in Lat. 1 $\frac{1}{2}$ subtr.

Vera Longitudo 25 10 $\frac{1}{2}$ ♄

Latitudo 2 40 B.

OBSERUATIONES MERCURIJ.

DIE 3 FEBRUARIJ.

H. 8 $\frac{1}{2}$ verificabatur horologium ad ☉ A. M.

Sequitur obseruatio ♀ iuxta maximam remotionem a ☉¹o vespertinam.

Obseruabatur eius distantia I a ♂, postea a fixis. Pro corrigendo horologio Lucidus humerus Orionis obseruabatur

| | |
|-----------------------|------------------|
| H. 5 28 $\frac{1}{2}$ | 34 27 orient., & |
| 5 30 $\frac{1}{2}$ | 33 55 |

¹ E codice V.

Transitus lucidi humeri per Merid. supputatus H. 7 46 $\frac{1}{2}$.

| H. M. | Dist. inter ♀ & ♂ | Decl. ♀ | Altit. ♀ | Azim. |
|--------------------|---------------------|--------------------|----------|-------|
| 5 37 $\frac{1}{2}$ | 36 52 $\frac{1}{2}$ | 6 9 | 7 20 | 67 40 |
| | | 6 10 $\frac{1}{2}$ | | |
| 5 41 $\frac{1}{2}$ | 36 52 $\frac{1}{2}$ | 6 10 | 6 35 | 69 0 |
| 5 45 | 36 52 | 6 10 | 6 12 | 69 35 |
| 5 47 $\frac{1}{2}$ | 36 52 $\frac{1}{2}$ | | 5 40 | 70 5 |

Vtere dist. ♂ & ♀ circa medium ham obferuationum videlicet H. 5 M. 40 36 52.

Angulus inclinationis
♂ & ♀ respectu Horizon-
tis erat quasi 50 grad. in
hunc modum vt vides
ABC 50.

Ex antecedentibus ob-
seruationibus.

| | | |
|-----------------|------------------------------|---------|
| H. 5 M. 40 | Distabat ♀ a ♂ | 36 51½ |
| | Alt. ♀ 7°, adde pro refract. | 7 30 |
| | Dist. ♀ libera a refract. | 36 59 |
| | Declin. ♀ obseruata | M. 6 10 |
| | Adde pro refract. | 6 |
| | Veradecl. seu libera a refr. | 6 16 |
| | Ascensio recta ♂ | 17 42½ |
| | Ergo Ascens. recta ♀ | 343 21½ |
| | Resp. Copern. Alphonf. | |
| Longit. 12 15½ | 12 26½ | 12 50 |
| Latit. 0 46½ B. | 0 58 B. | 0 51 B. |

Repetitio calculi ♀ ad diem
3. Februarij.

| | | |
|------------------|--------------------|-------------|
| H. 5½ | Dist. ♀ | 36 52½ |
| | Declinatio ♀ | M. 6 10 |
| | Declin. ♂ | S. 7 40 |
| | Ang. diff. ascens. | 34 16 |
| | Afc. R. ♂ | 17 41½ bona |
| | Ergo Afc. R. ♀ | 343 25½ |
| | Resp. Longitudo | 12 21 46½ |
| | Latitudo | 0 50 33 B. |
| Alt. ♀ 7° | Resp. Refr. | 8' 15" |
| | Parall. 3 15 | |
| | | 5 0 |
| | Resp. in long. | 3 50 |
| | in lat. | 3 10 |
| Vera ♀ Longitudo | | 12 18 0½ |
| Latitudo | | 0 47½ B. |

DIE 6 FEBRUARIJ.

☉¹ iam sublato obseruauimus ♀ &
cætera vt sequitur.

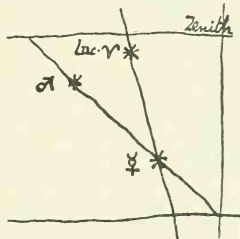
| H. M. | Dist. ♀ a ♂ | Decl. ♀ | Alt. | Azim. |
|-------|-------------|---------|------|------------|
| 5 33 | 36 2½ | 4 19½ | 8 47 | verf. occ. |
| | dub. / | | | |
| 5 37½ | 36 0½ | 4 19 | 8 7 | |
| | | 4 19½ | | |
| 5 41 | 36 1 | 4 19½ | 7 45 | 70 27 |
| | | 4 18½ | | |
| 5 43½ | 36 0½ | 4 19½ | 7 23 | 71 2 |
| | | 4 18½ | | |
| 5 46½ | 36 0½ | 4 17½ | 7 0 | 71 39 |
| | | 4 18 | | |

| | | | | |
|-------|------|-------|-------|-------|
| 5 49½ | 36 0 | 4 17 | 6 35 | 72 20 |
| | | 4 17½ | | |
| 5 52½ | 36 0 | 4 16 | 6 12½ | 72 56 |
| | | 4 16½ | | |

Postea obseruauimus ♀ a Lucida V
vt sequitur.

| H. M. | Dist. | Decl. ♀ | Alt. | Azim. |
|-------|--------|----------|-------|-------|
| 5 56 | 47 2 | 4 15½ | 5 50 | 73 40 |
| | | 4 16 0 | | |
| 5 59 | 47 1½ | 4 14½ | 5 20 | 74 25 |
| | | vtroq. / | | |
| 6 2 | 47 1½ | 4 14½ | 4 57½ | 74 55 |
| 6 6 | 47 0 | 4 14 | 4 25 | 75 47 |
| 6 9½ | 46 58½ | 4 11½ | 3 56½ | 76 35 |
| 6 14 | 46 57½ | 4 11 | 3 21 | 77 30 |
| 6 16½ | 46 55½ | 4 10 | 3 4 | 78 2 |
| 6 21 | 46 53½ | 4 8½ | 2 27 | 79 0 |
| 6 24½ | 46 51½ | 4 5 | 2 0 | 79 50 |
| 6 28½ | 46 47½ | 4 3 | 1 20 | |

Postea ♀ propter appropinquatio-
nem ad Horizontem non poterat
bene amplius obseruari, sed vt obser-
uationes eius a ♂ conquisitæ rectius
constarent & examinationi paterent,
sequentia in ♂ obseruauimus.



Talis vt apparet erat positus ♀ ad ♂
stellam & fixam in V respectu hori-
zontis & verticalis. Hinc rationare re-
fractionis quantitatem.

Pro loco ♀ ex præcedentibus
obseruationibus.

| | | |
|----------|---------------------------|-------|
| H. 5 44' | Distabat ♀ a ♂ | 36 0 |
| | Alt. ♀ 8°, adde pro refr. | 5 |
| | Vera distantia | 36 5 |
| | Declinatio | 4 19½ |

¹ E codice V.

| | | | |
|--------------------|--------------------|--------------|----------|
| | Adde pro refract. | 4 | |
| | Declin. ♀ vera | 4 23½ | |
| | Afcenfio R. ♂ | 19 41 | |
| | Ergo Afcenf. R. ♀ | 345 53 45 | |
| H. 6 0' | Decl. ♀ obferuata | 4 16 | |
| | Adde pro refr. | 7 | |
| | Decl. vera M. | 4 23 | |
| | Afc. R. Lucidæ V | 26 6½ | |
| | Afc. R. ♀ | 345 51 40 | |
| H. 5 M. 52 | Afc. R. ♀ limitata | 345 52½ | |
| | Declinatio vera | M. 4 23½ | |
| | Refp. | Calc. Cop. | Alphonf. |
| Longit. 15 18½ | (15 6 45 | 16 43 | |
| Latit. 1 32½ B. | 1 30 0 B. | 1 20 B. | |
| H. 5½ ¹ | Dift. ♀ a ♂ | | |
| | Declin. ♀ | M. 4 16½ | |
| | | alt. 4 16 12 | |
| | Declin. ♂ | 8 31½ | |
| | Ang. diff. afcenf. | 33 43½ | |
| | Afc. R. ♂ | 19 39 30 | |
| | Ergo Afc. R. ♀ | 345 55 50 | |
| H. 5 M. 56 | Dift. ♀ a luc. V | 47 2 | |
| | Declin. ♀ | 4 16 | |
| Altit. ♀ | Declin. luc. V | 21 30 | |
| 5½ | Ang. diff. afcenf. | 40 11 5 | |
| | Afc. R. luc. V | 26 5 40 | |
| | Ergo Afc. R. ♀ | 345 54 35 | |

H. 5 M. 54 fi pofueris ♀ limitatam Afc. R. 345° 55½', declin. M. 4° 16½', altit. 6°, infenfibiliter aberras in vifo loco ♀.

Refp. Longitudo 15 23½) Latitudo 1 38½ B. ♀ refract. 9' 0" Refp. in long. 4' 15" parall. 3 30 in lat. 3 30 5 30

Ergo vera ♀ Longitudo 15 19½) Latitudo 1 34½ B.

DIE 9 FEBRUARIJ

obferuabatur ♀ in modum fequentem.

H. 6 M. 29½ Dift. ♀ a luc. V 45 5

Declin. ♀ 2 52

Altitudo ♀ erat quafi 3 part.

Amplius hac vefpera non potuit obferuari ♀ propter nubes interuenientes iuxta horizontem, fed paulo ante quando altitudo ♀ erat 5° 42', Azim. 76 fuit ipfius declinatio p. 2 M. 52. Verum hoc tempore vltimo cum diftantia accipiebatur, declinatio capi non poterat. Concilia itaque hæc inuicem.

OBSERVATIONES STELLARUM FIXARUM.

DIE 20 FEBRUARIJ, VESPERI.

Altit. merid. min. Lyræ luc.

per Vol. 4 31½

Erat illic admodum ferenum.

H. 7 21½ Fuit tunc Canis maior orient.

1 5

Altit. merid. min. pectoris Cygni

(erat extra chasmata)

per Vol. 5 2½

Altit. merid. min. luc. in cauda Cygni

(erat parum involuta chasmatis)

per Chalyb. 9 51

per Volub. 9 50½

Declinatio eius stellæ, quæ eft in recta

linea cum cauda Vrfæ maioris &

cauda ♀, bene obfer-

uata eft² 40 31½

40 31½

Inter eandem ftellam, quæ eft in linea recta cum cauda Vrfæ mai. & cauda ♀, & Arcturum 25 39

25 38½

Arcturus erat in altitudine vltra 15° per Radium.

Eadem ftella viceverfa obferuabatur

in diftantia 45 36½

a corde ♀ 45 36½

Declinatio supremæ in capite

Canis maioris quæ 11 37½

eft num. 2 11 37

11 38

Diftantia inter eandem in capite

& dextrum pedem 16 34

Orionis 16 34½

¹ E codice V.

² « Canum venaticorum.

DIE 21 FEBRUARIJ, VESPERI.

H. 6 M. 39 $\frac{1}{2}$ Altit. min. merid. lucidæ
in capite Draconis
per Volub. 17 30 $\frac{1}{2}$
per Chalyb. 17 30 $\frac{1}{2}$

Tunc erat lucidus humerus

Orionis occident. 3 20

Arcturus obferuabatur hoc modo.

| H. M. | Declinatio | Altitudo | Azimuth ab ortu versus septentrionem |
|--------------------|---------------------|----------|--|
| 6 47 $\frac{1}{2}$ | 21 34 | 2 19 | 126 21 |
| 6 57 $\frac{1}{2}$ | 21 34 $\frac{1}{2}$ | 3 25 | |
| vno pinn.) | | | |
| 7 3 $\frac{1}{2}$ | 21 34 | 4 10 | |
| | 21 33 | | |

7 12 Alt. min. Lyræ

per Volub. 4 31 $\frac{1}{2}$

Declin. & Alt. Arcturi pro refractione.

| Declinatio | Altit. | Azimuth. |
|-------------------------------|---------------------|---------------------|
| 21 30 vno pinn. | 6 3 | 120 0 |
| 21 26 $\frac{1}{2}$ | 21 27 $\frac{1}{2}$ | 7 34 $\frac{1}{2}$ |
| 21 26 $\frac{1}{2}$ vno pinn. | 8 35 | 115 47 |
| 21 26 | 10 22 | 113 3 |
| 21 22 | 21 23 | 12 41 $\frac{1}{2}$ |
| inter nubes) | | |
| 21 23 $\frac{1}{2}$ | 21 22 $\frac{1}{2}$ | 14 20 |
| | | 107 3 |

Altit. merid. per Chalyb.

Superioris pedis Canis maior. 16 18 $\frac{1}{2}$

Decimæ Canis maioris 10 56 $\frac{1}{2}$

11 Canis maioris 11 28

7 Canis maioris 15 9 $\frac{1}{2}$

8 Canis maioris 16 11

6 Canis maioris 13 42

3 Canis maioris 20 32

4 Canis maioris 19 1 $\frac{1}{2}$

5 Canis maioris 17 33

Inter 3 in Cane maiore mag. 5 &

lucidum pedem Orionis 25 32 $\frac{1}{2}$

25 33

Inter 4 in Cane maiore mag. 3 minor.

& lucidum pedem

Orionis, semel 27 43 $\frac{1}{2}$

Inter 5 in Cane maiore, magnit. 4,

& lucidum pedem 26 19

Orionis 26 19 $\frac{1}{2}$

Inter decimam quæ est in inferiori

pede Canis maioris &

lucidum pedem Orionis 23 59

Inter octauam Canis maior. & lucidum
pedem Orion., semel 22 45

Inter flexuram CaBiopæ & 5 in

dextro brachio Cephei 29 7 $\frac{1}{2}$

mag. 3 minor. 29 8

DIE 29 FEBRUARIJ, VESPERI.

Pro examinandis armillis zodiacali-
bus, posito loco oculi γ in 4 $^{\circ}$ 5'

prouenit Long. Canis minoris

20 1 $\frac{1}{2}$. Incerta propter nubes.

Viceversa posito loco cordis γ 24 11

γ prouenit locus Canis minoris 20 10

$\frac{1}{2}$ certa fatis.

DIE 7 MARTIJ, VESPERI.

Obferuabamus stellas in Coma

Berenices quæ sequuntur.

Inter lucidam seu mediam in ceruice

γ & eam quæ præcedit in cuspide

Berenices ad septentrio- 30 6 $\frac{1}{2}$

nem mag. 3 minor. 30 6 $\frac{1}{2}$

Declin. eiusdem præcedentis 30 35

in Berenice, vno pinn. bis 30 36

Inter mediam ceruicis γ & duas con-

tiguas proxime dictam in cuspide

sequentes, quæ seorsim discerni

non poterant, sed superior erat

vno ferme minuto prox- 29 51

imior mediæ ceruicis γ 29 51 $\frac{1}{2}$

Declinatio superioris 29 30

eiusdem Berenices¹ 29 30 $\frac{1}{2}$

Declin. inferioris 29 25

vno pinn. bis 29 22

Inter sequentem adhuc in recta linea

cum duabus dictis contiguas ad

merid. in Beren., mag. 4 maior.,

& mediam ceruicis γ 30 9

30 10 $\frac{1}{2}$

Declinatio eiusdem 28 1

sequentis 28 2

Inter australiorem duarum contigua-

rum, quæ ad occasum declinant,

mag. 4, & 28 47 $\frac{1}{2}$

mediam ceruicis γ 28 49

Declinatio eiusdem 28 13

Berenices 28 14

¹ Hæc videtur esse 14 Comæ, quam tamen nulla stella solis oculis conspicua paucis minutis australior sequitur.

| | |
|---|--------|
| Inter alteram contiguarum dictarum, quæ ad ortum vergit, & | 29 14½ |
| mediam ceruicis Ω | 29 15 |
| Declinatio eiusdem | 28 19 |
| Berenices | 28 18½ |
| Inter eam quæ omnes cæteras præ- cedit ad austrum, 4 mag. | 27 16½ |
| & mediam ceruicis Ω | 27 17 |
| Declin. eiusdem Berenices | 26 15 |
| vno pinn. bis | 26 14½ |
| Inter sequentem inferiorum contigua- rum in recta linea fere cum prima in cuspide Berenices, mag. 4 & | |
| lucidam in | 30 39½ |
| ceruice Ω | 30 40½ |
| Declinatio eiusdem | 26 36 |
| Berenices vno pinn. bis | 26 36½ |
| Inter alteram contiguarum præce- dentem ad austrum paulum & | |
| lucidam ceruicis Ω | 30 20 |
| Declinatio eiusdem | 26 24½ |
| | 26 25 |
| Inter infimam in dicta recta linea 4 mag. & luc. ceruicis Ω , bis | 31 33½ |
| Declin. eiusdem vno pinn. | 24 48 |
| | 24 47½ |
| Inter supremam duarum in clune Ω & extremam in extensione | 27 49 |
| comæ Berenices | 27 50 |
| Declinatio | 29 53½ |
| | 29 54 |
| Inter eandem in extensione comæ mag. 3, & lucidam | 40 4½ |
| ceruicis Ω | 40 5½ |
| Inter illam quæ dictam in extensione contigue præcedit, mag. 4, | |
| & luc. ceruicis Ω , bis | 38 55½ |
| Declinatio | 29 42½ |
| | 29 43 |
| Inter alteram, quæ est in recta linea cum duabus modo obseruatis & ea in cuspide, habentem adiunc- tam paruulam ad occasum, 4 mag. | |
| & luc. ceruicis Ω bis | 35 30½ |
| Declinatio | 29 49½ |
| | 29 50½ |
| Inter eam quæ facit Δ æquilaterum cum postremo obseruatis tribus ad Zenith & luc. ceruic. Ω | 37 41½ |

DIE 21 MARTIJ, VESPERI.

| | |
|---|--------|
| Viceversa obseruabantur hæ stellæ Berenices a lucida Coronæ eo ordine quo prius. | |
| Inter eam quæ præcedit in cuspide Berenices ad septentrio- | 41 21½ |
| nem & lucidam Coronæ | 41 22 |
| Inter lucidam Coronæ & duas conti- guas proxime dictam in cuspide sequentes, sed inferior vna ferme minuto proximior est | 41 37½ |
| Coronæ | 41 38 |
| Inter sequentem adhuc in recta linea cum duabus dictis con- | 41 23½ |
| tiguis & lucidam Coronæ | 41 25 |
| Inter australiorem duarum contigua- rum & lucidam Coronæ | 42 46½ |
| | 42 48 |
| | melior |
| Inter alteram contiguarum | 42 22 |
| dictarum & luc. Coronæ | 42 21½ |
| Inter eam quæ omnes præcedit ad austrum & lucidam | 44 35½ |
| Coronæ | 44 35½ |
| Inter sequentem inferiorum contigua- rum in recta linea fere cum illa quæ præcedit in cuspide & lucidam Coronæ bis | 41 13 |
| Inter alteram præcedentem contigua- rum Berenices & | 41 39 |
| lucidam Coronæ | 41 38½ |
| Inter infimam in recta | 40 50½ |
| linea & luc. Coronæ | 40 50½ |
| Inter extremam omnium in exten- sione crinis & Coronam (superius habetur viceversa sed | 31 29½ |
| minus præcise) | 31 30½ |
| Inter alteram dictam in extensione contigue præcedentem | 32 43 |
| & Coronam | 32 43½ |
| Inter eam quæ est in recta linea cum duabus modo obseruatis | 36 1 |
| & 1 in cuspide Crinis | 36 1½ |
| Inter illam postremam, quæ Δ æqui- laterum facit cum tribus postre- mo obseruatis ad Zenith, | 34 12 |
| mag. 4 ¹ | 34 12½ |

¹ Nomen stellæ alterius deest, sed erat sine dubio Lucida Coronæ.

DIE 25 AUGUSTI.

| | |
|--|-------|
| Declinatio informis cuiusdam in rec- ta linea cum Marchab | 18 8½ |
| & infer. ala Cygni | 18 7½ |

DIE 28 AUGUSTI, MANE.

Pro examinatione instrumentorum.

| | |
|---------------------------------|--------|
| Altit. merid. ultimæ in dorso √ | |
| per Chalyb. | 53 44½ |
| per Volub. correctum | 53 44½ |
| Declinatio B. | 19 40 |
| per armillas maiores | 19 39½ |

Diligentes & bonæ propter
ferenitatem.

| | |
|-----------------------------------|-------|
| Altit. eius quæ in radice caudæ √ | |
| per Chalyb. | 52 12 |

Minus certa propter nubes & auroram.

| | |
|-------------------------|-------|
| Declinatio per Armillas | 18 8 |
| | 18 8½ |

| | |
|-------------------------|--------|
| Altit. lucidæ Pleiadum | |
| per Chalyb. | 56 51½ |
| per Volub. | 56 51½ |
| Declinatio per Armillas | 22 47½ |
| | 22 48 |

DIE 31 AUGUSTI, MANE.

Pro examinatione instrumentorum.

| | |
|--------------------------|--------|
| Declinatio 2 in capite √ | 18 47½ |
| | 18 48 |

| | |
|-----------------------|--------|
| Altit. merid. eiusdem | |
| per Chalyb. | 52 51½ |
| per Volub. | 52 52 |

| | |
|------------------------|--------|
| Altit. merid. lucidæ √ | |
| per Chalyb. | 55 34½ |
| per Volub. | 55 35 |

| | |
|--|--------|
| Declinatio eiusdem per Armillas Bor., bis obseruata | 21 30½ |
| utroque pinnacidio | 21 30½ |

| | |
|---|--------|
| Declinatio orientalis in basi Δ infor- mum trium supra | 25 31½ |
| dorsum √, magn. 3 | 25 31½ |

| | |
|--------------------|--------|
| Altit. eius merid. | |
| per Chalyb. | 59 36½ |
| per Volub. | 59 36½ |

| | |
|---|--------|
| Altit. merid. eius quæ est in radice caudæ √ | |
| per Chalyb. | 52 12½ |
| per Volub. | 52 12 |

| | |
|-------------------|-------|
| Declin. eiusdem | 18 8½ |
| per Armillas max. | 18 8½ |

| | |
|-------------------------------|--------|
| Declin. præcedentis in basi Δ | |
| supra dorsum √ | 25 16½ |
| magnit. 5 minor. | 25 16½ |

| | |
|-----------------------------|--------|
| Declin. 2 in basi Δ præced. | |
| ad occasum supra | 25 55½ |
| dorsum √ mag. 4 minor. | 25 55½ |

| | |
|---|-------|
| Declin. eius in apice Δ magnit. 4, utroque pinn. | 27 30 |
|---|-------|

| | |
|--|--------|
| Distantia inter Aldeboram & lucidam √ | 35 33½ |
| pro examinando | 35 33½ |
| Sextante | 35 33 |

DIE 2 SEPTEMBRIS, MANE.

Pro Armillarum Zodiacalium
examinatione.

| | |
|--|----------|
| Posito loco capitis Andromedæ in 8 40 √ obseruabatur dexter humerus | |
| Orionis in | 22 58 II |
| | 22 59 |

Erat autem caput Andromedæ præ-
tergreßum meridianum paulo plus
quam ☾, cum die 20 Augusti in hifce
Armillis a ☉ obseruaretur.Posito loco lucidæ √ in 1°59' ☿, proue-
nit locus Canis minoris obseruati
in 19 53½ ☿ bis. Erat Canis minor
in altitudine vltra 15°.N.B. Obseruabatur hic lucida √ in
eodem cæli situ, quo ☾ per Armillas.Manente adhuc loco lucidæ √ immo-
bili, prouenit locus Aldeboræ ob-
seruatæ in 4°1' II bis.

| | |
|--|----------|
| Manente adhuc lucida √, obseruau- mus inferius caput II | 17 25½ ☿ |
| | 17 26 |

DIE 21 SEPTEMBRIS, VESPERI.

| | |
|---|-------|
| Declin. superioris contiguarum præ- cedentium in Sagitta | 17 8½ |
| | 17 9½ |

| | |
|----------------------------|--------|
| Declin. infer. contiguarum | 16 35 |
| in Sagitta magnit. 4 | 16 35½ |

| | |
|--|-------|
| Declinatio paruulæ, quæ est supra mediam in Sagitta | 18 12 |
| magnit. 6 | 18 13 |

| | |
|---|--------|
| Inter supremam duarum contigua- rum in Sagitta & caput Ophiuchi | 30 38½ |
|---|--------|

| | |
|---------------------------------------|----------|
| Inter inferiorem contiguarum in Sa- | |
| gitta & caput Ophiuchi | 30 50½ |
| Inter paruulam, quæ est supra medi- | |
| am in Sagitta & | 32 50½ |
| caput Ophiuchi | 32 51 |
| Eædem viceversa a prima alæ Pegasi | |
| Suprema duarum contiguarum | |
| in Sagitta | 49 0 |
| Inferior illarum duarum | |
| contig. in Sagitta | 48 50 |
| Paruula supra mediam | 46 45 |
| contig. in Sagitta | 46 46 |
| Declin. hum. sinistri Antinoi | |
| mag. 4 maior. | 0 2 B. |
| Declin. caudæ Serpentis | |
| ultimæ | 3 46 B. |
| Declin. dext. hum. Antinoi | 2 24 |
| mag. 3 min. | 2 24½ |
| Declinatio eius, quæ est in genu dex- | |
| tro Antinoi, habens altitudinem | |
| per Radium 13 fere gr., | 5 23 |
| mag. 4 mai. vel 3 ^a | 5 22 |
| Declin. eius quæ infra genu præcedit | |
| Antinoi, habens Altitudinem per | |
| Radium 11° fere, mag. 4, | |
| vtroq. pinn. | 6 11 |
| Declin. eius, quæ est infra dextrum | |
| humerum in latere Antinoi, | |
| mag. 4 minor. | 0 23½ M. |

| | |
|------------------------------------|--------|
| Declin. eius, quæ hanc sequitur | |
| paululum ad austrum, | 2 7 M. |
| mag. 3 | 2 6 |
| Distantiæ informium supra dorsum √ | |
| a Scheat Pegasi. | |
| Præcedens in basi Δ supra | |
| dorsum √ | 47 42½ |
| Secunda in basi Δ | |
| quæ sequitur | 48 9 |
| Lucida siue orientaliior in basi | 49 39½ |
| Eius in apice Δ supra √ | 48 42½ |
| Viceversa a Boreo cornu √ obserua- | |
| bantur hæ stellæ præcedentes | |
| informes supra √ ordine | |
| vt prius. | |
| Præcedens in basi Δ supra √ | 36 29 |
| Secunda in basi Δ supra √ | 35 44½ |
| Lucida in basi siue | 34 22½ |
| orientaliior supra √ | 34 23½ |
| Quæ est in apice Δ supra √ | 34 30 |

DIE 29 DECEMBRIS, VESPERI.

| | |
|--------------------------------------|--------|
| Altitudo meridiana superioris in ca- | |
| pite Erichtonij per Volub. | 89 36 |
| Altit. merid. inferioris earundem | |
| per Volub. | 88 12½ |

APPENDIX AD OBSERVATIONES ANNI 1592.

STELLARUM QUARUNDAM ASCENSIONES RECTÆ,
DECLINATIONES, LONGITUDINES, LATITUDINES¹.

Ad Annum 88 completum. Vt reducatur Longitudo omnium ad initium
Anni 86 demantur singulis 2½'.

STELLARUM ♀

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|--------------------------------|----------------|------------|------------|-----------|-----------|----------|
| Lucida stella ♀ | 3 nostra/ | 26° 3' 0'' | 21° 29½' B | 1° 55½' ♀ | 9° 57½' B | 3 |
| Præcedens duarum in cornu | 1 | 22 46 30 | 17 15 | 27 26½ ♀ | 7 9 | 4 |
| Sequens in cornu | 2 | 23 0 0 | 18 46½ | 28 13 ♀ | 8 29 | 4 major. |
| In rictu duarum bo- realior | vet./ | 27 30 30 | 19 15½ | 2 24 ♀ | 7 23 | 6 |
| Australior | 4 | 28 53 0 | 17 57½ | 3 10 ♀ | 5 42½ | 6 |
| In ceruice | 5 | 23 46½ | 15 45½ | 27 47 ♀ | 5 24 | 5 |
| In renibus | 6 | 33 56 50 | 20 8½ | 8 26 ♀ | 6 7 | 6 |
| In educatione caudæ | 7 | 38 58 40 | 19 39½ | 12 46½ ♀ | 4 8½ | 5 |
| Præcedens trium in cauda | 8 | 42 3 20 | 18 6½ | 15 5 ♀ | 1 46½ | 4 |
| Media | 9 | 42 53 0 | 19 27½ | 16 14 ♀ | 2 50 | 5 |
| Sequens | 10 | 44 25½ | 19 39 | 17 40½ ♀ | 2 36 | 6 |
| In femore | 11 | 38 21 30 | 16 22½ | 11 11½ ♀ | 1 12 | 6 |
| In poplite | 12 | 36 37 50 | 15 43½ | 9 24½ ♀ | 1 6½ | 6 |
| In genu sinistro | 13 | 37 14 30 | 13 21 10 | 9 12½ ♀ | 1 29½ A | 6 |
| Præcedens genu si- nistrum | 14 | 35 32 0 | 13 30 30 | 7 41½ ♀ | 0 39 | 6 |
| Paruula in aluo | 15 | 34 53 0 | 18 13 0 | 8 36½ ♀ | 4 1 B | 6 |
| Quæ est infra lu- cid. ♀ | 16 | 25 55½ | 20 39 | 1 30½ ♀ | 9 13 | 6 |

TAURI ♀

| | | | | | | |
|--|---|-------------|-----------|-----------|----------|--------|
| In interfectione ex quatuor maxime borealis ² | 1 | 47° 3' 30'' | 17 29 0 B | 17° 50' ♀ | 5° 57' A | 5 |
| Altera | 2 | 47 0 0 | 9 52½ | 17 20 ♀ | 7 29 | 6 maj. |
| Tertia | 3 | 46 13 0 | 8 15½ | 16 7½ ♀ | 8 49½ | 4 |
| Quarta maxime au- strina | 4 | 45 41½ | 7 32 | 15 25½ ♀ | 9 22½ | 4 min. |
| In dextro armo | 5 | 51 26½ | 9 49½ | 21 35 ♀ | 8 41 | 5 |

¹ E codice G. Cf. T. III p. 409 et T. X p. XVIII. Signum † in margine appictum inter annotationes »Stellarum inerrantium Restitutioni« adjectas (Tom. III pp. 412—417) correctionem loci stellæ reperiri significat.

² Corr. ex »Suprema in interfectione«.

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. B. | Longit. | Latit. | Mag. |
|--|--------------|-------------|-------------|-----------|---------|--------|
| In pectore | 6 | 54° 28' 30" | 11° 13' 40" | 24° 51' ☾ | 8° 3' A | 4 |
| In Genu dextro | 7 | 58 18 20 | 7 48 40 | 27 49 ☾ | 12 13½ | 4 |
| In suffragine dextra | 8 | 55 19 40 | 4 47 0 | 24 8½ ☾ | 14 30½ | 4 |
| In genu sinistro | 9 | 63 47 40 | 11 38 20 | 3 59 II | 9 32 | 5 |
| In suffrag. sinistra | 10 | 63 15 40 | 9 14 20 | 3 0½ II | 11 48 | 5 |
| Hyadum seu Sucu- larum prima, sci- licet in naribus ¹ | 11 | 59 6 20 | 14 34 30 | 0 1½ II | 5 46½ | 3 |
| Inter hanc et Ocu- lum boreum | 12 | 59 49 20 | 16 30 0 | 1 6½ II | 4 2 | 3 |
| Inter eandem et oculum australem | 13 | 61 18 40 | 14 54 0 | 2 12 II | 5 53, | 4 |
| In oculo Austrino, Palilicium seu Al- deboram dicta ² | 14 | 63 6 30 | 15 37 0 | 4 2½ II | 5 30½ | 1 |
| In oculo boreo | 15 | 61 11 0 | 18 12 30 | 2 43 II | 2 37 | 3 maj. |
| Ad radicem cornu australis | 16 | 66 52½ | 18 6 0 | 8 1½ II | 3 39 50 | 6 |
| In eodem cornu du- arum australior | 17 | 70 54 0 | 19 49 20 | 12 3½ II | 2 30½ | 6 |
| Quæ magis in bo- ream | 18 | 69 38½ | 20 56 20 | 10 53½ II | 1 49½ | 5 |
| In extremo eiusdem | 19 | 78 15 30 | 20 50 10 | 19 1½ II | 2 14 | 3 |
| In origine cornu sep- tentrional. | 20 | 64 25 | 22 6 0 | 6 25 II | 0 40 B | 5 |
| In fine dextri pedis Erichthonij termi- num attingens ³ | 21 | 75 4½ | 28 10 30 | 16 49½ II | 5 20 | 2 |
| In aure duarum bo- realior | 22 | 60 26 20 | 21 49 0 | 2 44 II | 1 4 | 5 |
| Australior | 23 | 60 14 30 | 21 17 30 | 2 28 II | 0 35 | 4 |
| In collo duarum præcedens | 24 | 55 6 30 | 20 52 40 | 27 41 ☾ | 1 12 | 5 |
| Quæ sequitur | 25 | 58 18 0 | 19 31 30 | 0 18½ II | 0 46½ A | 6 |
| In ceruice quadri- lateri præceden- tium austrina | 26 | 56 27½ | 25 20 0 | 29 53½ ☾ | 5 16½ B | 6 |
| Eiusdem lateris bo- rea | 27 | 55 26 45 | 27 50 30 | 29 35½ ☾ | 7 55 | 5 |
| Sequentis lateris au- stralis | 28 | 59 27 15 | 24 34 15 | 2 23½ II | 3 56½ | 5 |
| Hujus lateris borea | 29 | 58 48 30 | 26 18 30 | 2 15½ II | 5 45½ | 5 |

¹ »Hyadum seu« corr. ex »In facie«.² Corr. ex »Lucidus oculus Palilicium dicta«.³ Corr. ex »In extremo eiusdem, estque dext. pes Heniochi«.

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|---|--------------|------------|---------------|----------------------|---------|------|
| Occidentalis lucidiorum trium in Pleiadibus | 30 | 50 8 0 | B 22 47 40 | 23 39½ ☾ | 4 11 | 5 |
| Infima et Occidentali proxima | 31 | 50 23½ | 22 42 30 | 24 2½ ☾ ¹ | 4 2½ | 6 |
| Media et lucida pleiadum | 32 | 50 46 0 | 22 46 0 | 24 14 ☾ | 4 0 | 3 |
| Quæ est in cuspide ad ortum | 33 | 51 12 0 | 22 46 0 | 24 37 ☾ | 3 55 B | 5 |
| Australiſſima in vngula pedis ſiniſtri | 34 | 50 57 | 4 43 | 19 47 ☾ | 13 30 A | 6 |
| Stellula in talo pedis ſequentis | 35 | 60 22 10 | 8 26 20 | 29 59½ ☾ | 12 2½ A | 6 |
| Quæ est in femore eiusdem | 36 | 61 28 0 | 12 4 30 | 1 48 II | 8 41 | 5 |
| Præcedens trium infra fuculas | 37 | 60 51 0 | 13 44 0 | 1 32 II | 6 56½ | 5 |
| Sequens et Media | 38 | 62 38½ | 13 56 0 | 3 17½ II | 7 4½ | 5 |
| Orientalis earundem infra Aldeboram | 39 | 63 58 0 | 14 57 40 | 4 45½ II | 6 17½ | 5 |
| Paruula in australi cornu | 40 | 73 41 40 | 21 35 30 | 14 52½ II | 1 4½ | 6 |
| Sequens in eodem | 41 | 75 44 50 | 21 31 30 | 16 45½ II | 1 20½ | 6 |
| Paruula ſequens quatuor in interfectione | 42 | 47 37 0 | 7 53 0 | 17 22½ ☾ | 9 34½ | 6 |
| Quæ est inter 27 et 26 in □ ^{tero} colli ☾ ^{ri} | 43 | 55 23½ | 26 25 30 | 29 12½ ☾ | 6 32½ B | 5 |
| GEMINORUM II | | | | | | |
| In inf. capite II, Pol-lux vel Hercules ² | 1 | 110 0 0 | B 28 56 20 | 17 32½ ☾☾ | 6 38½ B | 2 |
| In ſuperiori, Caſtor ſive Apollo ³ | 2 | 107 2 0 | 32 41 30 | 14 30½ ☾☾ | 10 2 | 2 |
| In ſiniſtro cubito præcedentis II ^{ni 4} | 3 | 96 23 0 | 34 22½ | 5 21½ ☾☾ | 10 58½ | 5 |
| In ſiniſtro brachio | 4 | 101 12 0 | 30 51 0 | 9 44 ☾☾ | 7 43 | 4 |

¹ 23°52' præbet cod. V¹, atque idem per calculum reperimus.² Corr. ex »Inferius caput II «.³ Corr. ex »Superius caput«.⁴ »cubito« corr. ex »manu«.

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|--|--------------|------------|---------------|-----------|---------|------|
| In scapu- lis eiusdem | 5 | 105 1 15 | B 28 32 40 | 13 13½ ☾ | 5 42½ | 4 |
| Sequens in dextro humero | 6 | 107 35 0 | 27 44 0 | 15 36½ ☾ | 5 10 | 5 |
| In sinistro humero sequentis Gemini | 7 | 109 52 40 | 25 19 30 | 17 56 ☾ | 3 3 | 4 |
| In latere dextro an- tecedentis | 8 | 104 35 0 | 25 47 20 | 13 8 ☾ | 2 56 | 6 |
| Stellula in sinistro cubito super. II ⁿⁱ | 9 | 105 54 45 | 28 45 | 13 59½ ☾ | 6 0½ B | 6 |
| Boreale & supre- mum Genu | 10 | 94 38 50 | 25 37 45 | 4 11½ ☾ | 2 11 | 3 |
| Sinistrum genu fe- quentis | 11 | 99 54 45 | 21 5½ | 9 16 ☾ | 2 6½ A | 3 |
| Quæ in ventre meri- dionali | 12 | 103 50 45 | 22 40 30 | 12 46 ☾ | 0 13½ A | 3 |
| In poplite inferioris Gemini | 13 | 103 36 0 | 17 13 0 | 13 3 ☾ | 5 41 | 4 |
| In pede præcedentis Gem. præcedens | 14 | 87 31 50 | 22 32 30 | 27 43 II | 0 58 | 4 |
| In eodem pede fe- quens | 15 | 89 31 0 | 22 38 40 | 29 33½ II | 0 52½ | 3 |
| In Extremo pede dextro præceden- tis Gemini | 16 | 91 7 15 | 20 23 15 | 1 4 ☾ | 3 8 A | 4 |
| Lucida pedum II | 17 | 93 27 0 | 16 40 15 | 3 20 ☾ | 6 48½ | 2 |
| In summo dextro pede sequentis II | 18 | 95 32 40 | 13 15 30 | 5 19½ ☾ | 10 9 | 4 |
| In calce pedis eius- dem | 19 | 97 52 30 | 13 37 40 | 7 46 ☾ | 9 41 | 6 |
| Quæ in Genu inferi- oris Gemini | 20 | 96 43 0 | 22 10 30 | 6 13½ ☾ | 1 12 | 6 |
| In femore superioris Gemini | 21 | 99 18 40 | 24 45 30 | 8 27½ ☾ | 1 31 B | 6 |
| Quæ est proxime in- fra caput inferius, in infima manu | 22 | 112 4 0 | 27 45 0 | 19 32 ☾ | 5 44 | 6 |
| Paruula inter vtrumque caput II ^{orum} | 23 | 109 24 0 | 29 47 0 | 16 54½ ☾ | 7 24 | 5 |
| Adaurem superioris Gemini | 24 | 105 37 0 | 32 30 0 | 13 19 ☾ | 9 42 | 5 |
| Præcedens ad sum- mum pedem II ⁿⁱ præcedentis | 25 | 84 46 40 | 23 12 40 | 25 12 II | 0 13 A | 4 |

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|--|--------------|------------|----------|----------|---------|---------------|
| CANCRI ♊ | | | | | | |
| Nebulosa in pectore quæ præsepe vocatur | 1 | 124 9 0 | 21 4 15 | 1 36 ♊ | 1 14 B | Nebu- lofa |
| Quadrilateri duarum præcedentium borea | 2 | 122 10 0 | 21 46 45 | 29 39 ♊ | 1 31½ | 5 min. |
| Earundem Austrina | 3 | 122 0 0 | 19 26 30 | 29 59½ ♊ | 0 47½ A | 5 |
| Afellus boreus | 4 | 124 47 40 | 22 54 0 | 1 46½ ♊ | 3 9 B | 4 |
| Afellus australis | 5 | 125 17 0 | 19 37 0 | 2 58 ♊ | 0 4 A | 4 |
| Inbranchioauftrino | 6 | 128 57 0 | 13 24 0 | 7 53½ ♊ | 5 8 | 3 |
| In branchijs borealibus | 7 | 125 22 0 | 30 12 0 | 0 34 ♊ | 10 23 B | 5 |
| In Extremo pedis borei | 8 | 115 52 30 | 22 39 30 | 23 45½ ♊ | 1 15½ | 5 |
| In Extremo pedis auftrini | 9 | 115 32 0 | 14 14 30 | 24 54 ♊ | 7 5 A | 5 |
| Quæ in radice caudæ lucidior | 10 | 117 7 20 | 18 49 40 | 25 35½ ♊ | 2 18½ | 4 |
| Proxime sequens in dorso | 11 | 119 55 0 | 19 33 30 | 28 3 ♊ | 1 4 | 6 |
| Borealis trium in branchijs australibus | 12 | 128 31 0 | 16 50 0 | 6 37½ ♊ | 1 54½ | 6 |
| Australis in iisdem | 13 | 131 20 40 | 12 17 0 | 10 26 ♊ | 5 36 | 5 mai. |
| Duarum in rostro septentrionalis | 14 | 129 37 0 | 26 1 0 | 5 17 ♊ | 7 14 B | 6 |
| Inferior & australis in rostro | 15 | 131 20 40 | 23 37 0 | 7 26½ ♊ | 5 20½ | 6 |
| LEONIS ♌ | | | | | | |
| In naribus | 1 | 135 5½ | 27 54 20 | 9 31½ ♌ | 10 23 B | 4 |
| In hiatu | 2 | 136 59½ | 24 45 0 | 12 6½ ♌ | 7 52½ | 4 |
| In capite duarum borea | 3 | 142 15 40 | 27 55 0 | 15 41 ♌ | 12 21 | 4 |
| Australis | 4 | 140 31 40 | 25 38 0 | 14 55 ♌ | 9 40 | 3 |
| In collo trium borea | 5 | 148 22 45 | 25 26 20 | 21 47½ ♌ | 11 50 | 3 |
| Media et lucida | 6 | 149 15 50 | 21 53 45 | 23 48½ ♌ | 8 47½ | 2 |
| Australis trium | 7 | 146 11 15 | 18 45 0 | 22 10 ♌ | 4 52 | 3 |
| Cor ♌ | 8 | 146 35 50 | 13 57 0 | 24 8½ ♌ | 0 27 | 1 |
| In pectore duarum auftrina | 9 | 146 29 | 12 0 | 24 40½ ♌ | 1 25½ A | 5 |
| Antecedens parum eam quæ in corde | 10 | 143 56 40 | 14 22 15 | 21 33½ ♌ | 0 0½ B | 4 |

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|--|--------------|------------|---------------|----------|---------|------|
| Quæ in medio corpore | 11 | 140 16½ | B 15 49 | 17 44½ Ω | 0 16 B | |
| In drace dextra priori | 12 | 137 26½ | 13 5 0 | 15 56½ Ω | 3 10 A | 4 |
| Proxime sequens in altero pede | 13 | 139 44½ | 11 43½ | 18 30½ Ω | 3 47 | 4 |
| In drace sinistra priori | 14 | 144 37 0 | 9 59 30 | 23 36½ Ω | 3 55½ | 4 |
| In sinistra axilla | 15 | 152 45 0 | 11 24 0 | 0 38 η | 0 8 B | 4 |
| In ventre trium antecedens | 16 | 145 20 0 | 16 12 0 | 22 14 Ω | 2 10 | 6 |
| Sequens in ventre | 17 | 156 9 0 | 16 21 40 | 1 56 η | 5 56 | 6 |
| Quæ australis | 18 | 156 52 0 | 12 43 45 | 3 55 η | 2 49½ | 6 |
| In lumbis duarum quæ præit | 19 | 160 1 0 | 22 22 0 | 3 4 η | 12 53 | 5 |
| Quæ sequitur est lucida in lumbis | 20 | 163 0 0 | 22 47 0 | 5 31 η | 14 20 | 2 |
| In clune duarum borealis | 21 | 163 37½ | 15 29 | η | | |
| Auftrina | 22 | 163 8 20 | 17 41 0 | 7 40 η | 9 41½ | 3 |
| In posteriori femore | 23 | 165 37 0 | 12 48 0 | 11 48½ η | 6 7 | 3 |
| In poplite posteriori | 24 | 164 56 0 | 8 15 15 | 12 58 η | 1 40 | 4 |
| Hac australior tanquam in cubitis | 25 | 166 41½ | 5 7 0 | 15 46½ η | 0 32½ A | 4 |
| Quæ in posterioribus dracibus | 26 | 168 57 | 1 27 30 | 19 16½ η | 3 2½ | 4 |
| Lucida in extremo caudæ ¹ | 27 | 171 58 30 | 16 53 0 | 15 53 η | 12 18½ | 1 |
| Extrema vngula pedis sinif. | 28 | 137 21 30 | 11 24 | 16 21½ Ω | 4 48 A | 6 |
| Vngula alterius pedis præcedentis | 29 | 136 35 30 | 10 40 | 15 51½ Ω | 5 43½ | 5 |
| Quæ in medio corpore fere | 30 | 156 1 50 | 21 4½ | 0 3½ η | 1 17½ B | 6 |
| VIRGINIS η | | | | | | |
| In fummo capite, duarum præcedens auftrina | 1 | 171 0 0 | B 10 32 40 | 17 34 η | 6 6½ B | 5 |
| Sequens septentrionalior | 2 | 171 9 0 | 8 51 0 | 18 23 η | 4 37 | 5 |
| Sequentium duarum in vultu borea | 3 | 176 3 40 | 11 2 40 | 21 57 η | 8 33½ | 5 |
| Auftralis | 4 | 174 56 0 | 8 55 30 | 21 48 η | 6 10 | 5 |

¹ Adscripta sunt: »Reiteranda est huius obseruatio per opportunitatem».

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|--|--------------|---|----------------------|--|----------------------|--------|
| In extremo alæ fini- stræ & austrinæ | 5 | 172 21 0 | 4 5 45B | 21 22 III | 0 43 | 3 |
| Earum quæ in fini- stra ala quatuor, præcedens | 6 | 179 44 0 | 1 39 40 | 29 5 $\frac{1}{2}$ III | 1 25 | 4 |
| Altera sequens | 7 | 185 11 30 | 0 49 30 | 4 26 $\frac{1}{2}$ $\underline{\underline{\text{O}}}$ | 2 49 $\frac{1}{2}$ | 3 |
| Tertia | 8 | 189 30 | 1 30 A | 9 18 $\frac{1}{2}$ $\underline{\underline{\text{O}}}$ | 2 23 $\frac{1}{2}$ B | 6 min. |
| Vltima quatuor fe- quens | 9 | 192 8 | 3 19 A | 12 26 $\frac{1}{2}$ $\underline{\underline{\text{O}}}$ | 1 45 $\frac{1}{2}$ | 4 |
| In dextro latere sub cingulo | 10 | 188 43 30 | 5 40 40B | 5 45 $\underline{\underline{\text{O}}}$ | 8 41 | 3 |
| In dextra et borea ala trium præce- dens | 11 | 185 15 40 | 12 34 15 | 29 43 III | 13 36 $\frac{1}{2}$ | 5 |
| Reliquarum dua- rum austrina | 12 | 186 14 0 | 9 58 15 | 1 41 $\frac{1}{2}$ $\underline{\underline{\text{O}}}$ | 11 37 | 6 |
| Ipfarum borea, vocatur vinde- miator | 13 | 190 27 0 | 13 12 30 | 4 13 $\frac{1}{2}$ $\underline{\underline{\text{O}}}$ | 16 15 $\frac{1}{2}$ | 3 |
| Spica III | 14 | 195 55 0 | 8 57 15A | 18 6 $\underline{\underline{\text{O}}}$ | 1 59 $\frac{1}{2}$ A | 1 min. |
| Sub perizoinate et in clune dextra | 15 | 197 9 $\frac{1}{2}$ | 1 32 B | 15 12 $\frac{1}{2}$ $\underline{\underline{\text{O}}}$ | 8 10 $\frac{1}{2}$ B | 3 |
| In finistro femoris quadrilateri præ- ced. borea | 16 | 197 38 | 4 4 M | 17 48 $\frac{1}{2}$ $\underline{\underline{\text{O}}}$ | 3 10 $\frac{1}{2}$ B | |
| Australis | 17 | Non est obseruabilis, imo non conspicitur | | | | |
| Sequentium dua- rum borealis | 18 | 200 2 50 | 6 35 M | 20 59 $\frac{1}{2}$ $\underline{\underline{\text{O}}}$ | 1 45 $\frac{1}{2}$ B | |
| Austrina | 19 | 197 55 15 | 7 58 30M | 19 33 $\frac{1}{2}$ $\underline{\underline{\text{O}}}$ | 0 19 $\frac{1}{2}$ M | |
| In genu finistro | 20 | 203 37 | 7 18 M | 24 34 $\underline{\underline{\text{O}}}$ | 2 24 $\frac{1}{2}$ B | |
| In postremo femore dextro | 21 | 209 36 $\frac{1}{2}$ | 0 21 M | 27 38 $\frac{1}{2}$ $\underline{\underline{\text{O}}}$ | 11 2 $\frac{1}{2}$ B | |
| In fyrmate quæ media | 22 | 208 36 | 3 57 $\frac{1}{2}$ A | 27 58 $\frac{1}{2}$ $\underline{\underline{\text{O}}}$ | 7 18 $\frac{1}{2}$ B | 4 |
| Quæ austrina | 23 | 207 43 40 | 8 16 50A | 28 41 $\underline{\underline{\text{O}}}$ | 2 57 $\frac{1}{2}$ B | 4 |
| Quæ borea | 24 | 211 45 $\frac{1}{2}$ | 0 20 $\frac{1}{2}$ A | 29 41 $\frac{1}{2}$ $\underline{\underline{\text{O}}}$ | 11 48 B | 4 |
| In finistro et austri- no pede extremo | 25 | 209 14 0 | 11 26 0A | 1 11 $\frac{1}{2}$ III | 0 31 B | 4 |
| In dextro et boreo pede extremo | 26 | 215 22 30 | 3 45 15 | 4 20 III | 9 49 | 4 |
| Sequens istam | 27 | 203 26 45 | 0 35 B | 21 27 $\frac{1}{2}$ $\underline{\underline{\text{O}}}$ | 9 40 $\frac{1}{2}$ B | 5 |
| Paruula inter 10 ^m et duodecimam | 28 | 185 17 0 | 9 5 0B | 1 11 $\underline{\underline{\text{O}}}$ | 10 26 | 6 |
| Quæ in ceruice est | 29 | 179 47 $\frac{1}{2}$ | 5 32 | 27 35 $\frac{1}{2}$ III | 4 59 $\frac{1}{2}$ | 6 |
| Paruula sequens vindemiatozem | 30 | 194 4 0 | 11 37 30B | 8 15 $\underline{\underline{\text{O}}}$ | 16 14 | 6 |

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|--|--------------|------------|---------------|----------|---------|----------|
| Præcedens trium in recta linea alæ boreæ | 31 | 194 12½ | B 7 40 30 | 10 1 Ω | 12 40½ | 5 |
| Sequens seu media earundem | 32 | 198 19 0 | 5 49 30 | 14 36 Ω | 12 34½ | 6 |
| Quæ est inter quartam et quin- tam | 33 | 174 42 40 | 5 58 30 | 22 46½ ♄ | 3 22½ | 6 |
| Trium in linea recta sequens | 34 | 205 14 0 | 3 35 0 | 22 0½ Ω | 13 7½ B | |
| LIBRÆ Ω | | | | | | |
| Auftralis lanx Ω | 1 | 217 5 0 | 14 14 40 A | 9 20½ ♄ | 0 26 B | 2 |
| Quæ est supra Au- stralem lancem | 2 | 216 46½ | 12 34½ | 8 32 ♄ | 1 55 | 5 |
| Borealis lanx ¹ | 3 | 223 46 30 | 7 46 45 | 13 38½ ♄ | 8 35½ | 2 |
| Supra Auf. lan ² | 4 | 219 45 | 6 48½ | 9 30½ ♄ | 8 18½ | 4 |
| Secunda ab Aufst lan. ad ort. | 5 | 224 33 | 13 52½ | 16 8½ ♄ | 2 58½ | 6 |
| Prima ab Aufst. lan. ad ortum | 6 | 221 0 | 14 38½ | 12 16½ ♄ | 1 14½ | 5 |
| Tertia ab Aufst. lan. ad or. | 7 | 228 10 | 13 19½ | 19 22½ ♄ | 4 28 | 3 minor. |
| Quæ est infra 7 ^{mam} ad ort. | 8 | 230 18 | 14 18½ | 21 38½ ♄ | 4 3½ | 4 |
| Quæ est infra 7 ^{mam} ad occ. | 9 | 227 29 | 15 20½ | 19 17 ♄ | 2 21 | 4 |
| Quæ est infra bor. lan. ad ortum | 10 | 225 30½ | 8 47 | 15 36 ♄ | 8 7½ | 4 minor. |
| SCORPIJ ♏ | | | | | | |
| Suprema in fronte ♏ | 1 | 235 24 | A 18 35 30 | 27 25½ ♄ | 1 5 B | 2 |
| Media in fronte | 2 | 234 2 | 21 22 | 26 49 ♄ | 1 54½ A | 3 mai. |
| Infima trium luci- darum in fronte | 3 | 233 35½ | 24 50 | 27 14½ ♄ | 5 22½ | 3 min. |
| Quæ magis ad Au- strum est | 4 | 233 6 | 27 54 | 27 33½ ♄ | 8 27½ | 4 |
| Borealisima fron- tis ♏ | 5 | 237 3½ | 18 19 | 28 53½ ♄ | 1 42½ B | 4 min. |
| Paruula in triangulo cum lucida fron- tis et 5 ^{ta} | 6 | 235 44 | 19 32½ | 27 57 ♄ | 0 13½ | 5 |

¹ In margine adscriptum est: »Vide primum tomum« (i. e. noster Tom. II p. 262, 37).² Debet esse »supra borealem lancem ad occiduum«.

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|---|--------------|------------|----------|-----------------------------------|----------------------|--------|
| Præcedens cor in pectore | 7 | 239 3 | 24 28 | 2 0 $\frac{1}{2}$ x [†] | 3 55 A | 4 |
| Media Scorpij quæ cor dicitur | 8 | 241 8 | 25 24 30 | 4 3 $\frac{1}{2}$ x [†] | 4 27 $\frac{3}{4}$ A | 1 |
| Quæ cor sequitur ad Eurum | 9 | 242 37 | 27 14 | 5 43 x [†] | 5 50 $\frac{1}{2}$ | 4 |
| Præcedens duarum in prioribus pedi- bus | 10 | 236 53 | 26 49 | 0 36 $\frac{1}{2}$ x [†] | 6 37 $\frac{3}{4}$ | 5 min. |

Ceteræ in nostro horizonte non conspiciuntur.

SAGITTARIJ x[†]

| | | | | | | |
|--|----|----------------------|--------------------|-----------------------|-----------------------------------|----------|
| Australis duarum in boreali parte arcus | 4 | 270 41 20 | 25 31 0A | 0 37 $\frac{3}{4}$ ζ | 2 0 $\frac{1}{2}$ A | 5 |
| In superiori exten- sione arcus | 5 | 267 21 | 21 2 $\frac{1}{2}$ | | | |
| In humero sinistro | 6 | 277 31 0 | 26 41 15 | 6 40 $\frac{3}{4}$ ζ | 3 31 | 4 mai. |
| Antecedens hanc in iaculo | 7 | 275 2 $\frac{1}{2}$ | 27 16 0 | 4 29 $\frac{3}{4}$ ζ | 3 49 $\frac{3}{4}$ | 6 mai. |
| In oculo nebulosa duplex | 8 | | | | | |
| In capite trium quæ anteit | 9 | 278 21 20 | 21 33 0 | 7 46 $\frac{1}{2}$ ζ | 1 44 $\frac{1}{2}$ B | 4 min. |
| Media | 10 | 280 2 30 | 22 13 40 | 9 17 $\frac{1}{2}$ ζ | 0 58 | |
| Sequens | 11 | 281 21 0 | 21 35 20A | 10 33 ζ | 1 20 $\frac{3}{4}$ B ¹ | 4 |
| In boreo contactu trium australior | 12 | 283 20 | 19 50 | | | nebulosa |
| Media | 13 | 284 27 50 | 18 32 30 | 13 44 $\frac{1}{2}$ ζ | 4 17 B | 4 |
| Borea trium | 14 | 284 33 0 | 16 39 15 | 14 0 $\frac{3}{4}$ ζ | 6 9 $\frac{1}{2}$ | 5 |
| Media superioris contactus | 15 | 289 28 | 17 5 | 18 58 $\frac{1}{2}$ ζ | 5 8 B | 6 min. |
| Orientalis & vltima, in superiori con- tactu | 16 | 293 37 $\frac{1}{2}$ | 16 28 | 22 42 $\frac{1}{2}$ ζ | 5 12 B | 6 min. |
| In inferiori contactu ad ortum | 17 | 290 36 $\frac{3}{4}$ | 20 44 | 19 14 $\frac{1}{2}$ ζ | 1 24 $\frac{3}{4}$ B | |

CAPRICORNI ζ

| | | | | | | |
|---|---|-----------|----------|-----------------------|---------------------|---|
| In præcedente cor- nu trium boreæ ² | 1 | 298 46 45 | 13 42 0A | 28 7 $\frac{3}{4}$ ζ | 7 2 $\frac{1}{2}$ B | 3 |
| Media | 2 | 299 21 40 | 13 45 15 | 28 40 $\frac{1}{2}$ ζ | 6 52 $\frac{3}{4}$ | 6 |
| Australis trium ³ | 3 | 299 28 30 | 15 58 15 | 28 20 $\frac{3}{4}$ ζ | 4 41 | 3 |

¹ Debet esse 1° 31' B.

² Superius cornu (sic in marg.).

³ Inferius cornu (sic in marg.).

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. | |
|--|--------------|------------|----------|-----------|----------|----------|---|
| In Extremo cornu antecedentis | 4 | 297 35 | 13 42½ A | 26 57½ | 7 15½ B | 6 min. | † |
| In rictu trium au- stralis | 5 | 300 45 | 19 41 | 28 47 ½ | 0 48 35 | 6 min. | † |
| Reliquarum dua- rum præcedens | 6 | 301 35 | 19 52 | 29 30½ ½ | 0 28 B | 6 min. | |
| Sequens | 7 | 301 19 20 | 19 2 | 29 27 ½ | 1 19½ B | 6 | |
| Nebulosa in fronte | 8 | 299 2 | 20 26 | 27 3 6 ½ | 0 23½ B | nebulosa | |
| Quæ in superiori parte colli | 9 | 304 7½ | 16 18½ | 2 38½ ½ | 3 24½ B | nebulosa | |
| Quæ in inferiori parte colli | 10 | 304 7½ | 19 32½ | 1 55½ ½ | 0 15½ B | 6 | |
| Quæ præcedit ad dextrum genu | 11 | 305 35½ | 26 39 | 1 36½ ½ | 6 58½ A | 6 min. | † |
| Quæ sequitur ad genu finistrum | 12 | 306 54 | 28 30 | 2 17½ ½ | 9 2 6 A | | † |
| In finistro armo | 13 | 310 40½ | 26 41 | 6 2½ ½ | 8 7½ A | | |
| Infima in ventre | 14 | 315 48 | 24 7 | 11 14½ ½ | 6 56½ | 5 | |
| Sequens duarum contig. ad Boream | 15 | 316 16½ | 23 31 | 11 50 ½ | 6 29 A | | |
| Trium in medio ven- tre orientior | 16 | 312 55½ | 22 16½ | 9 12½ ½ | 4 25½ A | | |
| Infima trium | 17 | 311 0 | 22 48 | 7 21 ½ | 4 27 5 A | | † |
| Septentrionalis ea- rum trium quæ in medio corpore sunt | 18 | 310 22 | 21 28 | 7 8 ½ | 3 1½ A | 5 | |
| In dorso duarum quæ anteit | 19 | 310 44 20 | 18 45 40 | 8 10½ ½ | 0 29½ A | 5 | |
| Sequens | 20 | 314 47 20 | 18 29 0 | 11 56½ ½ | 1 16½ A | 5 | |
| Antecedens dua- rum ad Ilia | 21 | 318 31½ | 21 14½ | 14 14½ ½ | 4 48½ | 5 | † |
| Sequens in dorso | 22 | 319 53 | 20 42 | 15 55½ ½ | 4 49 | 5 min. | |
| In eductione caudæ duarum præce- dens | 23 | 319 18 0 | 18 23 40 | 16 4 ½ | 2 26½ A | 4 | |
| Sequens | 24 | 321 5½ | 17 54 0 | 18 4½ ½ | 2 27½ A | 4 mai. | |
| Antecedens 4 in su- periori extensione caudæ | 25 | 319 46 | 13 13 A | 18 3 35 ½ | 2 22 B | 6 mai. | † |
| Reliquarum 4 ^{tuor} in cauda Australis | 26 | 322 58 | 15 34 | 20 16½ ½ | 0 14½ M | 5 | |
| Quæ supra | 27 | 322 43 | 15 25 | 20 5½ ½ | 0 10½ M | 6 | |
| Extrema in cauda | 28 | 320 46½ | 10 52½ | 19 43½ ½ | 4 17½ B | 6 mai. | |

¹ Linea inducta. Afc. R. & Decl. dant 17°49' 36" cum latitudine 2°28' 37" A.

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|---|--------------|------------|----------|----------|----------|----------|
| AQUARIJ ♒ | | | | | | |
| In capite | 1 | 319 41 20 | 0 27 0 B | 22 16½ ♒ | 15 23 B | 6 mai. |
| In humero dextro quæ clarior | 2 | 326 10 0 | 2 16 0 A | 27 29½ ♒ | 10 42 B | 3 min. |
| Quæ obscurior et australior | 3 | 325 32 | 4 5½ | 26 25½ ♒ | 9 11½ | 5 |
| Quæ in humero sinistro | 4 | 317 28 10 | 7 19 0 A | 17 41½ ♒ | 8 40 B | 4 |
| Quæ in dorso sub axilla | 5 | 319 1 | 9 37 30 | 18 27½ ♒ | 6 0½ | 5 |
| Sequens et inferior trium in sinistro manu | 6 | 311 48 | 12 57½ | 10 41 ♒ | 4 50 B | 6 |
| Media trium in sini- stra manu | 7 | 307 34 | 10 27 | 7 18½ ♒ | 8 19½ | 6 |
| Lucidior et antece- dens trium in sini- stra manu | 8 | 306 21 30 | 10 54 30 | 6 1½ ♒ | 8 9½ B | 4 |
| In cubito dextro | 9 | 330 7 0 | 3 23 30 | 0 59½ ♒ | 8 17½ B | 3 min. |
| In dextra manu quæ borea | 10 | 331 5 0 | 0 39 0 | 2 54½ ♒ | 10 30½ B | 5 |
| Reliquarum dua- rum australium præcedens | 11 | 331 57 0 | 2 4 40 | 3 13 ♒ | 8 52½ B | 4 |
| Quæ sequitur | 12 | 333 35 15 | 2 12 0 | 4 42½ ♒ | 8 10½ | 4 |
| In cotyla dextra du- arum præcedens | 13 | 328 48½ | 9 45½ | 27 35 ♒ | 2 45½ | 5 maj. |
| Sequens | 14 | 329 38 | 9 45 | 28 20½ ♒ | 2 29½ | 6 |
| Quæ est in dextro femore | 15 | 332 14½ | 12 42 | 29 42½ ♒ | 1 10 A | 5 |
| Quæ est ad clunes | 16 | 326 4½ | 15 46½ | 23 2½ ♒ | 2 0½ | |
| Australis in dextra tibia | 18 | 338 14½ | 17 57½ A | 3 11½ ♒ | 8 10 A | 3 |
| Borea seu in genu dextro | 19 | 336 58½ | 15 42 | 2 55 ♒ | 5 37½ | 5 |
| In sinistra coxa ¹ | 20 | | | 29 30 ♒ | 5 40 | 6 |
| In sinistra tibia dua- rum Australior | 21 | 332 58½ | 22 45½ | 26 45½ ♒ | 10 48½ M | 6 maior. |
| Borealior duarum | 22 | 335 31 | 20 55½ | 29 40 ♒ | 9 57½ M | 6 |
| Suprema in effusi- one aquæ | 23 | 334 6½ | 6 19½ | 3 41½ ♒ | 4 8½ B | 5 maior. |
| Sequens lucidior in profusione aquæ | 24 | 337 48½ | 9 41 | 5 53½ ♒ | 0 19½ A | 4 |

¹ Corr. ex »Inferior in genu sinistro«.

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|---|--------------|------------|---------|-------------|--------------|----------|
| Quæ sequitur in primo flexu aquæ | 25 | 340 59 | 9 35 | 8 50)(| M 1 23 55 | 6 |
| Sequens in primo aquæ fluxu | 26 | 343 16½ | 8 12½ | 11 27½)(| 0 59½ | 5 |
| In altero fluxu Au- ustrali | 27 | 343 55 | 9 55 | 11 22½)(| 2 48½ | 6 major. |
| Præcedens & bore- alior duarum se- quentium | 28 | 343 35 | 11 18½ | 10 32½)(| 3 58½ | 5 minor. |
| Sequens australior | 29 | 344 6½ | 11 19 | 11 0½)(| 4 10½ | 5 minor. |
| Sequens et ad Au- strum declinans | 30 | 344 22½ | 11 48½ | 11 4½)(| 4 43½ | 5 |
| Poft 30 ^{mam} duarum contiguarum præcedens | 31 | 349 37 | 16 26 | 13 56½)(| 10 58½ | 5 |
| Sequens duarum contiguarum | 32 | 350 20 | 16 45 | 14 28)(| 11 32½ | 5 |
| In tertio aquæ fluxu borea trium | 33 | 350 5½ | 20 4 | 12 52½)(| 14 29½ | 5 minor. |
| Media in tertio aquæ fluxu | 34 | 351 7 0 | 20 30 | 13 36½)(| 15 16½ | 6 |
| Sequens trium et australis | 35 | 352 30½ | 21 8 | 14 34)(| 16 23½ | 6 minor. |
| Sequentium trium borealis | 36 | 345 19½ | 22 19 | 7 44½)(| 14 45½ | 5 |
| Media trium earun- dem | 37 | 346 3½ | 22 49½ | 8 10½)(| 15 29½ | 5 |
| Australis trium ha- rum | 38 | 347 55½ | 23 10½ | 9 39½)(| 16 30½ | 5 |
| In ultimo fluxu tri- um fuperior | 39 | 341 49½ | 23 21 | 4 14 54")(| 14 25½ | 5 |
| Media harum | 40 | 341 58½ | 24 38 | 3 51½)(| 15 39½ | 5 |
| Trium infima pro- ximaque Fuma- hant | 41 | 341 20 | 25 7 | 3 6½)(| 15 52½ | 5 |
| Ultima effufionis aquæ feu ea quæ Fumahant dicitur | 42 | 338 35 | 31 43 | 28 1½ ∞ | 20 59½ | 1 |
| PISCIIUM)(| | | | | | |
| In ore pifcis Austrini | 1 | 340 44½ | 1 37½ B | 12 52)(| 9 4 B | 5 |
| Duarum in occipite | 2 | 343 59½ | 1 2½ B | 15 40½)(| 7 17½ B | 4 |
| Australis | 3 | 344 53 | 3 11 | 17 20½)(| 8 54½ | 6 |
| Borea in occipite | | | | | | |

| Nomina Stellarum | Num. vet. | Asc. Recta | Declin. | Longit. | Latit. | Mag. |
|---|--------------|------------|---------|----------|---------|-------------------------|
| Præcedens duarum in dorso | 4 | 346 49 | 4 10 | 19 31½ X | 9 3¼ | 5 |
| Sequens in dorso | 5 | 349 44½ | 3 26 | 21 46½ X | 7 13½ | 5 |
| Præcedens in aluo | 6 | 346 28 | 0 58 A | 17 11 X | 4 27 | 5 min. |
| Sequens in aluo | 7 | 350 18½ | 0 28½ | 20 55 X | 3 24½ | 5 |
| Quæ est in cauda piscis Au. | 8 | 354 34½ | 4 36½ B | 26 52 X | 6 23½ | 5 |
| Supra octauam ad or. in Cauda | 9 | 355 26½ | 6 8½ | 28 16½ X | 7 26½ B | 6 |
| Sequens | 10 | 359 56 | 5 56 | 2 18½ V | 5 28 B | |
| In lino Auftrali lu- cidarum trium præcedens | 11 | 6 52½ | 5 21½ B | 8 26 V | 2 11 B | 5 |
| Media earundem trium | 12 | 10 25 | 5 41 | 11 47½ V | 1 5½ | 5 |
| Trium sequens | 13 | 13 6 | 5 24½ | 14 9 V | 0 57½ | 5 |
| In flexu lini duarum exiguarum ante- cedens ac bore- alior | 14 | 11 51½ | 3 27½ | 12 14½ V | 1 31 M | 6 minor |
| Sequens harum ad auftrum | 15 | 14 11½ | 1 24 | 13 36 V | 4 19½ | 6 minor |
| Post inflexionem tri- um præcedens | 16 | 17 11½ | 4 1½ | 17 22½ V | 3 3 | 5 minor |
| Media | 17 | 20 1 | 3 25½ | 19 46 V | 4 40½ B | 5 |
| Sequens et vltima | 18 | 23 6 | 1 9 | 21 47½ V | 7 56½ | 5 |
| Quæ lucidior in nexu amborum linorum | 19 | 25 12½ | 0 45½ | 23 37½ V | 9 4½ M | 4 maj. |
| Præcedens in lino borea a connexu | 20 | 20 58½ | 7 5 | 22 1½ V | 1 38½ B | 5 min. |
| Post hanc trium au- ftralis | 21 | 18 52 | 10 1 | 21 5½ V | 1 51½ | 5 |
| Media et lucidior in nexu boreo | 22 | 17 25½ | 13 12½ | 21 5½ V | 5 21½ | 4 min. |
| Borea trium et vlti- ma in lino B | 23 | 16 7½ | 17 4½ | 21 26½ V | 9 24 | 5 |
| Borea duarum in ore piscis B | 24 | 12 10 | 29 14 | 23 4½ V | 21 59½ | 6 |
| Auftralis in ore X B | 25 | 12 22 | 27 54½ | 22 39½ V | 20 43½ | 5 |
| Borealis trianguli in capite X borei | 26 | 8 57½ | 26 44½ | 19 12½ V | 20 55½ | 6 min. fere nebulosa |
| Trium Auftralis in eodem triangulo | 27 | 8 29 0 | 24 52 | 17 56½ V | 19 24½ | 6 min. |
| Antecedens trian- guli eiusdem | 28 | 7 1½ | 25 21½ | 16 53½ V | 20 24½ | 6 min. |

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|--|--------------|----------------------|-----------------------|------------------------|-----------------------|----------|
| In dorfo trium præcedens ad boream | 29 | 11 0 $\frac{1}{2}$ | 19 17 $\frac{1}{2}$ B | 17 46 $\frac{1}{2}$ ✓ | 13 21 $\frac{1}{2}$ B | 6 major. |
| Media in dorfo | 30 | 11 31 $\frac{1}{2}$ | 18 24 $\frac{1}{2}$ | 17 52 $\frac{1}{2}$ ✓ | 12 21 $\frac{1}{2}$ | 6 min. |
| Trium infima et Australis | 31 | 12 3 | 17 31 $\frac{1}{2}$ | 17 58 $\frac{1}{2}$ ✓ | 11 20 $\frac{1}{2}$ | 6 |
| In aluo Boreali orduarum scilicet in latere sequenti | 32 | 14 20 | 25 6 | 23 7 $\frac{1}{2}$ ✓ | 17 25 $\frac{1}{2}$ | 5 |
| Quæ magis ad Austrum in media aluo | 33 34 | 12 57 $\frac{1}{2}$ | 22 26 | 20 48 $\frac{1}{2}$ ✓ | 15 30 $\frac{1}{2}$ | 5 |
| Quæ sequitur mediam trium in Aust. spina | 35 | 12 23 | 18 52 $\frac{1}{2}$ | 18 49 $\frac{1}{2}$ ✓ | 12 27 $\frac{1}{2}$ | 5 |
| Quæ sequitur 32 ^{dam} ad boream | 36 | 14 41 $\frac{1}{2}$ | 26 25 $\frac{1}{2}$ | 24 0 $\frac{1}{2}$ ✓ | 18 30 $\frac{1}{2}$ | 6 |
| In occipite X Borei | 37 | 10 8 $\frac{1}{2}$ | 29 34 $\frac{1}{2}$ | 21 30 $\frac{1}{2}$ ✓ | 23 2 $\frac{1}{2}$ | 6 |
| STELLARUM VRSÆ MINORIS | | | | | | |
| Polaris vulgo dicta | 1 | | | 22 50 $\frac{1}{2}$ II | 66 2 | 2 |
| Penultima Caudæ seu stellæ polari proxima | 2 | | | 25 26 II | 69 50 $\frac{1}{2}$ | 4 |
| Quæ in Caudæ radice | 3 | | | 3 14 ☉ | 73 50 | 4 |
| Superior sequentium in ☐ ^{to} | 4 | | | 21 19 ☉ | 74 59 $\frac{1}{2}$ | 4 |
| Inferior | 5 | | | 24 42 ☉ | 77 38 $\frac{1}{2}$ | 5 |
| Præcedens duarum lucidorum in ☐ ^{to} | 6 | | | 7 6 $\frac{1}{2}$ ☉ | 72 51 $\frac{1}{2}$ | 3 maj. |
| Sequens et inferior | 7 | 231 15 $\frac{1}{2}$ | 73 17 $\frac{1}{2}$ | 14 30 $\frac{1}{2}$ ☉ | 75 23 $\frac{1}{2}$ | 3 |
| VRSÆ MAIORIS | | | | | | |
| Quæ in naribus | 1 | | | 17 26 $\frac{1}{2}$ ☉ | 40 2 $\frac{1}{2}$ | 4 |
| Quæ proxima sub oculo sinistro | 2 | | | 17 0 0 ☉ | 43 55 $\frac{1}{2}$ | 3 |
| Quæ contigue supra 2 ^{dam} | 3 | | | 15 57 $\frac{1}{2}$ ☉ | 44 21 $\frac{1}{2}$ | 5 |
| Quæ supra oculum dextrum | 4 | | | 18 14 $\frac{1}{2}$ ☉ | 47 50 $\frac{1}{2}$ | 4 |
| Quæ supra oculum sinistrum | 5 | | | 19 34 $\frac{1}{2}$ ☉ | 47 44 $\frac{1}{2}$ | 4 min. |

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|---|--------------|------------|---------|-----------|--------|--------|
| † Quæ in aure sinistra | 6 | | | 24 32½ ☉ | 51 36½ | 5 |
| | 7 | | | 23 39½ ☉ | 42 3¹ | 5 min. |
| Sequens in bafe par- ui trianguli in collo | 8 | 134 15½ | 64 47½ | 24 52 ☉ | 45 3½ | 5 maj. |
| Quæ eft in recta fere linea cum 11 & 16 | 9 | | | 3 28½ ☉ | 38 15½ | 4 maj. |
| Præcedens in inferi- ori parte colli | 10 | 140 7½ | 60 55 | 0 28 ☉ | 42 36½ | 4 |
| Quæ in genu finiftro anteriori | 11 | 134 25½ | 53 30 | 0 22½ ☉ | 34 34½ | 3 min. |
| Duarum in dextro pede boreallior | 12 | 125 49½ | 49 36½ | 25 45½ ☉ | 29 15½ | 3 min. |
| In dextro pede Auftr. | 13 | 127 9½ | 48 43½ | 27 0 0☉ | 28 38½ | 3 min. |
| | 14 | | | | | |
| | 15 | | | | | |
| Superior præceden- tium duarum in ☐ ¹⁰ | 16 | 159 25½ | 63 58 | 9 24 ☉ | 49 39½ | 3 maj. |
| Inferior duarum præcedentium in quadrato | 17 | 159 0½ | 58 34½ | 13 33 25☉ | 45 3½ | 3 |
| Superior in qua- drato | 18 | 178 42½ | 59 19 | 25 15½ ☉ | 51 37½ | 3 |
| Infima fequentium in quadrato | 19 | 172 53 | 56 1 | 24 34½ ☉ | 47 6½ | 3 |
| Superior et præce- dens duarum præ- cedentis pedum poft. | 20 | 147 58 | 44 57½ | 13 46½ ☉ | 29 51½ | 3 |
| Sequens et & auftra- lior in eodem pede | 21 | 148 37½ | 43 32½ | 14 54½ ☉ | 28 45 | 3 |
| Genu præcedentis pedum pofteri- orum | 22 | 160 40 48 | 46 43½ | 22 23 ☉ | 35 14½ | 4 |
| | 23 | | | | | |
| | 24 | | | | | 3 |
| Quæ eft in caudæ radice | 25 | 188 53 | 58 14½ | 3 0 ☐☐ | 54 17½ | 3 |
| Media in cauda | 26 | 196 46 | 57 7½ | 9 46½ ☐☐ | 56 21½ | 3 |
| Vltima in cauda | 27 | 202 47 | 51 26 | 21 1½ ☐☐ | 54 25 | 3² |
| Informis | | | | | | |
| † Quæ eft in recta li- nea cum cauda ☉ & cauda vrfæ mai. | | 189 10 | 40 31½ | 17 33½ ☐☐ | 40 6 | 2 |

¹ No. 7 Latitudo debet esse 42° 30'.

² Adscripta sunt in margine: "Examine factio in alijs stellis ab . . . videntur 4 minuta addenda huius afcen-
fioni rectæ".

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|--|--------------|------------|---------|---------------------------|----------|--------|
| DRACONIS | | | | | | |
| Quæ est in lingua | 1 | | | 18 46½ \mathbb{M} | 76 17 | 4 min. |
| Quæ in Ore est | 2 | | | 4 4½ \times^{γ} | 78 14½ | 4 |
| Duarum lucidarum in capite præce- dens | 3 | | | 6 9½ \times^{γ} | 75 20½ | 3 |
| Quæ in Genu | 4 | | | 18 53 \times^{γ} | 80 21½ | 4 |
| Sequens in capite et magis lucida | 5 | 266 48 | 51 37½ | 22 14 \times^{γ} | 75 3½ | 3 maj. |
| Trium in collo borealiß. | 6 | | | 16 54 γ | 81 52½ | 5 maj. |
| Australis trium | 7 | | | 24 20½ γ | 77 57 | 5 maj. |
| Media trium | 8 | | | 20 23½ γ | 79 51½ | 5 maj. |
| Quæ tres illas ad ortum sequitur | 9 | | | 9 19 0 \approx | 80 53½ | 4 |
| Quæ est prope se- cundam flexuram ad occasum | 10 | | | 28 23 0 χ | 81 50½ | 4 |
| Borea quadrati 2 ^{dæ} flexuræ | 11 | | | 12 16½ \vee | 82 49 | 3 min. |
| Borea lateris se- quentis | 12 | | | 15 10½ \vee | 78 9½ | 4 |
| Australis eiusdem lateris | 13 | | | 27 37 \vee | 79 25 | 3 min. |
| Sequentis trianguli præcedens | 14 | | | 15 7½ \oslash | 83 4 45 | 4 |
| Quæ sequitur ad au- ftrum | 15 | | | 19 30½ \oslash | 80 38½ | 4 min. |
| Quæ supra hanc | 16 | | | 26 33½ \vee | 80 54 | 4 maj. |
| In reliquo triangulo sequens | 17 | | | 6 24½ \odot | 83 4½ | 4 |
| Australis trianguli | 18 | | | 1 18 \odot | 83 28½ | 4 |
| Præcedens ac Bore- alis trianguli | 19 | | | 5 20½ \mathbb{I} | 84 48½ | 4 |
| Quæ in flexura nodi tertij | 20 | | | 29 34½ Ω | 81 4½ | 3 min. |
| Quæ polo proxima | 21 | | | 6 15½ Ω | 86 52½ | 4 |
| Quæ 24 sequitur | 22 | | | 28 10½ \mathbb{M} | 83 18½ | 5 min. |
| Quæ illam sequitur | 23 | | | 28 12 \mathbb{M} | 81 41½ | 5 min. |
| Quæ polo Eclipticæ vicinior | 24 | | | 26 41½ \mathbb{M} | 84 45 53 | 3 |
| Antepenultimam ab extrema flexu- ra quæ præcedit | 25 | | | 7 45 $\underline{\Omega}$ | 78 32½ | 3 |

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|--|--------------|------------|---------|-----------------|---------|--------|
| Antepenultima flexuræ | 26 | | | 12 18½ Ω | 74 11½ | 3 min. |
| Penultima flexuræ | 27 | | | 29 11½ Π | 71 4½ | 3 |
| Quæ flexuram se- quitur secunda | 28 | | | 29 6½ Ω | 65 18½ | 5 min. |
| Quæ flexuram pro- xime sequitur | 29 | | | 2 0½ Π | 66 35½ | 2 min. |
| Penultima Caudæ ¹ | 30 | | | 10 15½ Ω | 61 33½ | 3 |
| Vltima Caudæ | 31 | | | 4 27½ Ω | 57 7 0 | 3 |
| Informis quæ in recta linea cum 11 & duabus in bra- chio Cephei | | | | 0 53½ ∇ | 77 31½ | 5 |
| CEPHEI | | | | | | |
| Cingulum Lucidus humerus | 1 | | | | | |
| | 2 | | | | | |
| | 3 | 320 46½ | 68 45½ | 0 3½ ∇ | 71 7 B | 3 |
| | 4 | | | 7 3 ∇ | 68 53½ | 3 |
| | 5 | | | | | |
| Quæ est in humero Quæ in Tiara sequi- tur ad Boream | 6 | | | | | |
| | 7 | | | | | |
| | 8 | 338 50½ | 64 4 | 27 43½ ∇ | 62 35½ | |
| | 9 | | | 8 18½ ∇ | 61 3½ | |
| BOOTIS | | | | | | |
| Quæ est in sinistra manu | 1 | | | 23 59 21 Π | 58 53 B | 4 min. |
| Secunda in sinistra manu | 2 | | | 25 23 21 Π | 58 51 | 4 min. |
| Tertia in sinistra manu | 3 | | | 26 49 21 Π | 60 5 | 4 min. |
| Quæ in sinistro cubito | 4 | | | 1 7 45 Ω | 54 39½ | 4 |
| In humero sinist. | 5 | 213 54½ | 40 6½ | 12 55½ Ω | 49 33½ | 3 |
| Quæ in capite est | 6 | 221 40½ | 42 4 | 18 33½ Ω | 54 15½ | 3 |
| Quæ in dextro hu- mero supra coro- nam | 7 | 224 44 | 34 53½ | 27 19½ Ω | 49 1½ | 3 min. |
| | 8 | | | | | |
| | 9 | | | | | |

¹ Adscriptum est in margine: »Supputetur hæc«.

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|---|--------------|------------|---------|-----------|-----------|--------|
| | 10 | | | | | |
| | 11 | | | | | |
| | 12 | | | | | |
| | 13 | | | | | |
| | 14 | | | | | |
| | 15 | | | | | |
| Quæ in Coxendice sub Brachio | 16 | 216 46½ | 28 51 | 22 19½ Ω | 40 40 B | 3 |
| Inferior seu sequens duarum in dorso | 17 | 214 13 | 31 35½ | 18 6 Ω | 42 10½ B | 4 |
| Superior duarum contig. | 18 | 213 40 | 32 17 | 17 7½ Ω | 42 35 35B | 4 maj. |
| Quæ in Crure dextro | 19 | 215 24½ | 15 33½ | 27 16½ Ω | 27 56 55B | 3 |
| Suprema in Tibia | 20 | 203 45½ | 20 30½ | 13 31½ Ω | 28 9½ B | 3 |
| Media in tibia fini- stra | 21 | 201 56½ | 19 31 | 12 14½ Ω | 26 32½ B | 4 min. |
| Infima in tibia fini- stra | 22 | 202 25 | 17 52½ | 13 26½ Ω | 25 13½ B | 4 maj. |
| INFORMES CIRCA DEXTRUM GENU | | | | | | |
| Infima informium | | 215 21½ | 18 17 | 26 3½ Ω | 30 27½ B | 4 |
| Media earum | | 216 31½ | 18 48½ | 27 1½ Ω | 31 21 35B | |
| Suprema informium | | 218 5 45 | 20 54½ | 27 42½ Ω | 33 52 B | |
| Arcturus | | 209 14 50 | 21 22½ | 18 29½ Ω | 31 2½ | |
| CORONÆ ¹ | | | | | | |
| Lucida Coronæ | 1 | 229 18½ | 28 9½ | 6 28½ Π | 44 23 B | 2 |
| Omnium præce- dens | 2 | 227 49 | 30 34½ | 3 26½ Π | 46 8½ B | 4 min. |
| Sequens in Boream | 3 | 228 32 | 32 47½ | 3 0½ Π | 48 24½ B | |
| | 4 | | 33 52½ | | | 6 |
| Quæ sequitur luci- dam ad Austrum | 5 | 231 20½ | 27 39½ | 9 4½ Π | 44 33½ B | 4 |
| Quæ proxime fe- quitur | 6 | 233 6½ | 27 24½ | 11 15 0 Π | 44 51½ B | 4 |
| Posthac longius sequens | 7 | 235 11 | 28 8 | 13 21½ Π | 46 9½ B | 4 |
| | 8 | | | | | |

¹ Adscripta sunt in margine: »87 vel 88 vt fuspilor completo».

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|--|-----------------|------------|---------|-----------------------|----------|----------|
| HERCULIS | | | | | | |
| Caput | 1 | 253 57½ | 14 56½ | 10 21 x [†] | 37 22½ S | 3 |
| Quæ est in dextro humero | 2 | 243 7 | 22 28½ | 25 17½ ¶ | 42 48 | 3 |
| Penultima dextri brachij | 3 | 240 56½ | 20 12 | 23 25½ ¶ | 40 5½ | 3 min. |
| Infima in dextro Brachio | 4 | 237 23½ | 18 14 | 19 56½ ¶ | 37 19 | 4 major. |
| Sinister humerus | 5 | 254 33½ | 25 23½ | 9 0 0 x [†] | 47 47 | 3 |
| Brachium sinistrum | 6 | 258 35 | 26 29½ | 14 12 x [†] | 49 23 | 4 |
| Præcedens in exuvijs | 7 | 262 32½ | 28 2 | 19 26½ x [†] | 51 16½ | 4 maj. |
| Suprema & sequens earum quæ in exuvijs | 8 | 268 0 | 28 48½ | 27 8½ x [†] | 52 19 | 4 |
| In Basi trianguli in exuvijs | 9 | 265 45 | 30 20 | 23 46½ x [†] | 53 46 | 4 minor. |
| Media earum quæ in exuvijs | 10 | 265 28½ | 29 20½ | 23 27½ x [†] | 52 46½ | 4 min. |
| Quæ est in coxa sinist. | 11 | 246 30 | 32 25 | 25 51½ ¶ | 53 10½ | 3 min. |
| | 12 ¹ | | | | | |
| | 13 | | | | | |
| Orientalior duarum lucidarum in sinist. femore | 14 | 251 9½ | 31 36½ | 2 35½ x [†] | 53 20½ | 4 major. |
| Infima trium contiguarum in femore | 15 | 255 12 50 | 37 20½ | 6 11½ x [†] | 59 38 | 3 |
| Sequentium trium præcedens | 16 | 257 24½ | 37 35½ | 9 37½ x [†] | 60 13½ | 3 maj. |
| Media trium contig. | 17 | 255 52½ | 37 47½ | 7 8½ x [†] | 60 11½ | 4 |
| Quæ in Genu sinist. | 18 | 265 34 | 37 22 | 22 46 x [†] | 60 46½ | 3 |
| Quæ in sinistra fura prope caput Drac. | 19 | 261 58½ | 46 17½ | 14 7 x [†] | 69 22½ | 3 |
| Præcedens trium obscurarum in pede sinistro | 20 | 259 2½ | 48 41½ | 6 55½ x [†] | 71 20 0 | 6 |
| Media trium obscurarum in pede sinist. | 21 | 261 4½ | 48 50½ | 10 57 x [†] | 71 13½ | 6 |
| Vltima trium obscurarum | 22 | 264 10½ | 47 48½ | 17 50 x [†] | 71 5½ | nebulosa |
| Suprema in dextro femore | 23 | 247 12 55 | 39 45½ | 22 58½ ¶ | 60 22½ | 3 |

¹ Lineis inductum est nomen stellæ sicut numeri quoque; ad hanc vero et sequentem adscripta sunt in margine: "Hæ duæ difficulter conficiuntur".

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|---|--------------|------------|---------|-----------------|---------|--------|
| Borealior in eodem femore | 24 | 245 16 | 43 19½ | 17 29½ M | 63 14 0 | 4 |
| Quæ est in dextro genu | 25 | 241 53½ | 47 21 | 8 33½ M | 65 54½ | 4 |
| Quæ in superiore sura | 26 | 238 58½ | 46 4½ | 5 46½ M | 63 51 0 | 4 |
| Quæ in Crure | 27 | 237 33 | 47 13 | 2 32½ M | 64 23 0 | 4 |
| Quæ in tibia dextri pedis circa Talum | 28 | 234 34 55 | 43 39½ | 2 18½ M | 60 15½ | 4 |
| Extrema in pede dextro | 29 | 229 16 50 | 42 20 | 26 55½ <u>Q</u> | 57 15½ | 4 |
| Informis | | | | | | |
| Præcedens 24 in Crure dextro | | 244 14 | 42 49 | 16 21½ M | 62 28½ | 5 |
| LYRÆ | | | | | | |
| | | | B | | S | |
| Lyræ vulgo lucida | 1 | 275 46 | 38 27½ | 9 33½ Z | 61 47½ | 1 |
| Quæ supra lucidam ad Aquilonem | 2 | 277 43½ | 39 16½ | 13 3½ Z | 62 27 | 5 |
| Quæ infra lucidam ad Eurum | 3 | 277 38½ | 37 14½ | 12 16 Z | 60 26½ | 5 |
| Quæ in medio educationis Cornuum | 4 | 279 58½ | 36 28 | 16 0½ Z | 59 26 | 4 min. |
| Duarum testudinis contiguarum ad ortum borealior | 5 | 284 55½ | 38 30 | 24 22½ Z | 60 45½ | 5 maj. |
| Duarum contiguarum australior | 6 | 285 31½ | 37 29½ | 24 51½ Z | 59 40½ | 5 |
| Duarum præcedentium in jugo borealior | 7 | 278 42½ | 32 57½ | 13 6½ Z | 56 5 | 3 |
| Parua quæ sub præcedente inferiorum lucidarum est | 8 | 278 39½ | 32 7½ | 12 53½ Z | 55 16½ | 6 |
| In jugo duarum sequentium borea | 9 | 280 52 | 32 11 | 16 1 Z | 55 6 | 3 |
| Parua quæ sequenti lucidarum contigue subest | 10 | 281 3 | 31 37 | 16 9½ Z | 54 31½ | 6 |

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. B. | Longit. | Latit. | Mag. |
|--|--------------|----------------------|---------------------|------------------------------|----------------------|--------|
| Informis | | | | | | |
| Quæ in medio corpore in recta linea cum 5 & sequente 2 infer. | | 283 1 $\frac{1}{2}$ | 35 32 | 20 42 γ | 58 5 $\frac{5}{8}$ B | 5 |
| CYGNI SEU OLORIS | | | | | | |
| Rostrum | 1 | 288 32 $\frac{1}{2}$ | 27 8 $\frac{1}{2}$ | 25 33 $\frac{1}{2}$ γ | 49 1 $\frac{1}{2}$ B | 3 min. |
| Quæ est in capite | 2 | 290 43 $\frac{1}{2}$ | 29 15 $\frac{1}{2}$ | 29 9 $\frac{1}{2}$ γ | 50 41 $\frac{1}{2}$ | 5 min. |
| Quæ in medio colli | 3 | 295 16 $\frac{1}{2}$ | 34 1 $\frac{1}{2}$ | 7 22 $\frac{1}{2}$ γ | 54 18 $\frac{1}{2}$ | 5 maj. |
| Pectus Cygni vulgo | 4 | 301 54 | 38 58 $\frac{1}{2}$ | 19 14 $\frac{1}{2}$ γ | 57 9 $\frac{1}{2}$ | 3 |
| Caudæ lucida | 5 | 305 50 | 48 51 $\frac{1}{2}$ | 29 43 $\frac{1}{2}$ | 59 57 | 2 maj. |
| Prima et lucidissima in ancone superiori alæ | 6 | 293 4 $\frac{1}{2}$ | 44 9 $\frac{1}{2}$ | 10 43 γ | 64 28 | 3 |
| Trium in dextra vola Aust. | 7 | | | | | 4 |
| Penultima sinistræ alæ | 8 | 289 51 $\frac{1}{2}$ | 50 54 $\frac{1}{2}$ | 12 29 $\frac{1}{2}$ γ | 71 30 $\frac{1}{2}$ | 4 |
| Extrema sinistræ alæ | 9 | 286 56 $\frac{1}{2}$ | 52 38 $\frac{1}{2}$ | 9 26 $\frac{1}{2}$ γ | 73 50 $\frac{1}{2}$ | 4 |
| Quæ in Ancone dextræ alæ | 10 | 307 24 | 32 28 $\frac{1}{2}$ | 21 59 $\frac{1}{2}$ γ | 49 26 $\frac{1}{2}$ | 3 min. |
| In Medio ipsius alæ | 11 | | | | | 4 |
| Extrema dextræ alæ ¹ | 12 | 313 52 $\frac{1}{2}$ | 28 34 $\frac{1}{2}$ | 27 23 γ | 43 43 $\frac{1}{2}$ | 3 min. |
| Præcedens in dextro pede | 13 | 310 27 $\frac{1}{2}$ | 39 37 $\frac{1}{2}$ | 0 21 $\frac{1}{2}$ γ | 54 59 | 4 |
| Quæ sequitur in dextro genu | 14 | 312 30 $\frac{1}{2}$ | 42 19 $\frac{1}{2}$ | 5 11 $\frac{1}{2}$ γ | 56 36 $\frac{1}{2}$ | 4 |
| Superior & sequens duarum contiguarum in sinif. pede | 15 | 300 49 $\frac{1}{2}$ | 46 29 $\frac{1}{2}$ | 24 24 $\frac{1}{2}$ γ | 64 17 $\frac{1}{2}$ | 4 |
| Australior et præcedens | 16 | 300 17 $\frac{1}{2}$ | 45 32 $\frac{1}{2}$ | 22 39 $\frac{1}{2}$ γ | 63 37 | 4 |
| Informes | | | | | | |
| Inferior et præcedens duarum informium quæ dextram alam sequitur | | 314 35 $\frac{1}{2}$ | 36 19 $\frac{1}{2}$ | 2 53 $\frac{1}{2}$ γ | 50 33 | 4 min. |
| Superior earundem | | 315 21 $\frac{1}{2}$ | 37 43 | 4 43 $\frac{1}{2}$ γ | 51 31 | 4 |

¹ Adscriptum est in margine: «Vide 2 To. pag. 260» (i. e. noster Tom. IV p. 218. 10).

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|--|--------------|------------|---------|-----------|---------|----------|
| PERSEI | | | | | | |
| In extrema dextræ manus obuolutione | 1 | 28 34 | 53 59 B | 18 21 ☾ | 39 0½ B | 6 minor. |
| In cubito dextro | 2 | 35 18½ | 54 10½ | 22 59½ ☾ | 37 28½ | 4 |
| In dextro humero | 3 | 38 49½ | 51 50½ | 24 16½ ☾ | 34 30 | 3 |
| Quæ in sinistro hu- mero | 4 | 34 7½ | 47 25½ | 18 54½ ☾ | 31 34½ | 4 |
| Quæ in capitis ver- tice ¹ | 5 | 36 17½ | 51 7 0 | 21 39½ ☾ | 34 26½ | 5 |
| Quæ in dorso est | 6 | 39 57½ | 47 57 | 23 22½ ☾ | 30 36½ | 4 |
| Fulgens in dextro latere | 7 | 43 51 | 48 19 | 26 7 ☾ | 30 5 | 2 † |
| Quæ proxime infra sequitur | 8 | 45 31½ | 46 31 | 26 54½ ☾ | 27 59½ | 5 |
| Hanc sequens parua | 9 | 46 54½ | 46 46 | 28 3½ ☾ | 27 55 | 5 maj. |
| Quæ est ad flexu- ram dextri lateris | 10 | 48 30½ | 46 23½ | 29 4½ ☾ | 27 14 | 3 min. |
| Quæ in cubito sini- stro | 11 | 40 30 | 43 15 | 21 56 ☾ | 26 4 | |
| Caput Medusæ | 12 | 40 26½ | 39 18½ | 20 26½ ☾ | 22 22 | 3 maj. |
| Quæ sub Algol | 13 | 41 16½ | 37 59 | 20 21 ☾ | 20 54 | 5 † |
| Duarum infer. in capite Medusæ | 14 | 39 43½ | 37 11½ | 19 8 ☾ | 20 33 | 4 |
| Præcedens ad Bore- am in capite Me- dusæ | 15 | 38 12 50 | 37 52 | 18 10 ☾ | 21 35 | 4 |
| In poplite dextro | 16 | 56 53½ | 49 10½ | 6 3½ II | 28 22½ | 5 maj. |
| Flexuram Genu præcedens | 18 | 54 45 5 | 46 32 | 3 44½ II | 26 10½ | 5 maj. |
| Quæ dextrum genu præcedit | 17 | 54 4 40 | 49 9½ | 4 1½ II | 28 50 | |
| Media in Genu dex- tro | 19 | 56 15½ | 47 17 | 5 3 52 II | 26 38½ | 4 |
| Quæ infra Genu dext. | 20 | 57 56½ | 45 27 | 5 49½ II | 24 35 0 | 6 maj. |
| Quæ est in planta pedis dextri | 21 | 62 5 45 | 40 20 | 7 50½ II | 18 56½ | 5 maj. |
| Quæ in sinistro fe- more ² | 22 | 49 17½ | 41 12 | 28 1 ☾ | 22 6½ | 5 maj. |
| Quæ in sinistro genu | 23 | 52 38½ | 38 46 | 29 57½ ☾ | 19 4½ | 3 |
| In crure sinistro | 24 | 53 6 | 34 33 | 29 13½ ☾ | 14 53½ | 5 |
| Quæ in sinistro cal- caneo | 25 | 49 39 | 30 56 | 25 23 ☾ | 12 8½ | 4 |
| Sequens sinistri ped. | 26 | 52 7 | 30 36½ | 27 26 ☾ | 11 17½ | 3 |

¹ Adscripta sunt in margine: »Habetur viceversa, sed differentia est 7 min.«.² Adscripta sunt in margine: »Eius Afc. recta habetur ex vna stella bis, viceversa autem non resp.«.

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|--|--------------|------------|----------|------------|----------|--------|
| Informes | | | | | | |
| Informis supra Caput Quæ in superiori par- te femoris dextri, Arato ignota | | 36 1 55 | 59 50½ B | 26 34½ ♀ | 42 26½ B | 5 |
| | | 51 39½ | 49 25½ | 2 20½ II | 29 31½ B | 5 min. |
| AURIGÆ | | | | | | |
| Capella dicta | 1 | | | | | |
| Lucida in dextro | 2 | | | | | |
| humero | 3 | 71 35½ | 45 29½ | 16 5½ II | 22 51½ B | 1 |
| In dextro brachio | 4 | 82 26 | 44 50 | 24 18 | 21 27½ | 2 |
| | 5 | 82 55 | 37 7 | 23 49 | 13 44½ | 4 |
| | 6 | | | | | |
| Quæ in sinistro cu- bito | 7 | 68 0½ | 43 6 | 12 58½ | 20 52½ | 4 |
| Sequens Hædus | 8 | 69 24½ | 40 33 | 13 39½ | 18 11½ | 5 maj. |
| Præcedens Hædus | 9 | 68 32½ | 40 23½ | 12 55½ | 18 8½ | 5 maj. |
| | 10 | | | | | |
| | 11 | | | | | |
| | 12 | | | | | |
| | 13 | | | | | |
| Superior pes | 14 | 67 36 | 32 24 | 10 54½ | 10 21½ | |
| OPHIUCHI | | | | | | |
| Caput ¹ | 1 | 258 56½ | 12 56½ B | 16 38½ ♂ | 35 56½ B | 3 |
| Dexter humerus | 2 | 260 47½ | 4 50 | 19 35 ♂ | 28 2 | 3 |
| Inferior & sequens in dextro humero | 3 | 261 51½ | 2 55½ | 20 54½ ♂ | 26 11½ ½ | 3 min. |
| Præcedens sinistri humeri | 4 | 248 35½ | 10 56 | 4 49½ ♂ | 32 35½ | 4 min. |
| Sequens sinistri hu- meri | 5 | 249 33 50 | 10 6½ | 6 6 ♂ | 31 56½ | 4 |
| Quæ in sinistro cu- bito | 6 | 242 39 | 2 58 | 29 52½ III | 23 39½ | 4 |
| In sinistra manu bo- realior | 7 | 238 15 | 2 34½ A | 26 34½ III | 17 19½ | 3 |
| Sequens et austrā- lior in sinistra manu | 8 | 239 11½ | 3 37 | 27 47 III | 16 30½ | 3 min. |
| | 9 | | | | | |

¹ Adscriptum est in margine: »Ad initium 87 anni«.

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|--|--------------|------------|---------|----------|----------|--------|
| Australis & præcedens in dextra manu | 10 | 264 9 | 9 37 | 24 3½ x↗ | 13 46½ B | 4 |
| Superior in dextra manu | 11 | 265 12½ | 8 6 | 25 4½ x↗ | 15 20½ | 5 |
| Dextrum Genu | 12 | 251 43½ | 15 6 | 12 14 x↗ | 7 18 | 3 |
| Quæ in sinistro Genu¹ | 13 | | | | | |
| | 14 | | | | | |
| | 15 | | | | | |
| | 16 | | | | | |
| | 17 | | | | | |
| | 18 | | | | | |
| Quæ est in sinistro genu | 19 | 243 39 | 9 37½ | 3 28½ x↗ | 11 29½ | 3 |
| | 20 | | | | | |
| | 21 | | | | | |
| | 22 | | | | | |
| | 23 | | | | | |
| | 24 | | | | | |
| Quinta informium quæ est in via lactea | | 266 56 | 9 34 B | 26 21 x↗ | 33 2½ S | 4 |
| SERPENTIS | | | | | | |
| Præcedens in ore | 1 | 230 49 | 21 5 B | 11 23½ M | 38 12 B | 5 maj. |
| Quæ in ore est | 2 | 233 18½ | 21 0½ | 14 14½ M | 39 6½ | 3 min. |
| Quæ in temporib. | 3 | 234 24 | 17 4½ | 16 56½ M | 35 24½ | 3 maj. |
| Quæ in educatione colli | 4 | 231 51½ | 16 49½ | 14 11½ M | 34 27½ | 3 maj. |
| Quæ ad finistrum oculum | 5 | 233 28 | 19 30½ | 15 0½ M | 37 28½ | 4 |
| Quæ ad nares | 6 | 236 11 36 | 24 6 | 16 21½ M | 42 37½ | 5 maj. |
| Secunda in collo infra caput | 7 | 228 50 | 11 59½ | 12 36½ M | 28 58½ | 3 maj. |
| | 8 | | | | | |
| In nexu medio colli | 9 | 231 3½ | 7 48½ | 16 19½ M | 25 35½ | 2 min. |
| Australior trium | 10 | 232 39½ | 5 47½ | 18 36½ M | 24 5½ | 3 |
| Quæ est in secunda flexione | 11 | 232 10 | 2 0 A | 20 16½ M | 16 26½ | 4 |
| | 12 | | | | | |
| | 13 | | | | | |
| | 14 | | | | | |
| | 15 | | | | | |

¹ Lineis inducæ.

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|--|----------------|------------|------------|-----------------------|----------|--------|
| Antepenultima Caudæ | 16 | 26 43 48 | 3 28½ A | 24 24½ x ⁷ | 19 56½ | 3 |
| Penultima Caudæ | 17 | 270 2 | 2 54 0 A | 0 2½ z | 20 37½ B | 4 maj. |
| Ultima Caudæ | 18 | 278 55½ | 3 46 B | 9 59½ z | 26 58½ | 3 |
| TELI SEU SAGITÆ | | | | | | |
| Superior & orien- talior | 1 | 295 9½ | B 18 24 | 1 21½ w | 39 12½ S | 4 |
| Primam proxime præcedens | 2 | 292 19½ | 17 35 | 27 44½ z | 38 58½ | 5 |
| | 3 | | | | | |
| | 4 | | | | | |
| | 5 | | | | | |
| VULTURIS | | | | | | |
| Quæ est in capite Aquilæ | 1 | 295 58½ | 6 14 B | 29 18½ z | 27 8½ S | 6 min. |
| Quæ in collo | 2 | 293 45½ | 5 29 | 26 42½ z | 26 49½ | 3 |
| Lucida Vulturis | 3 | 292 40 | | 25 58½ z | 29 21½ | 2 maj. |
| Quæ supra lucidam est & quintam pro- xime sequitur | 4 | 292 44 | 9 27 | 25 22½ z | 30 54½ | 6 |
| In sinistro humero duarum præce- dens | 5 | 291 43 | 9 40 | 25 16 z | 31 17½ | 3 |
| | 6 ¹ | | | | | |
| | 7 ¹ | | | | | |
| | 8 ¹ | | | | | |
| Cauda vulturis | 9 | 281 38½ | 13 19½ | 14 5½ z | 36 16½ | 3 maj. |
| Informes | | | | | | |
| Quæ proxime cau- dam sequitur | | 280 15½ | 14 35½ | 12 34 z | 37 40 B | 3 |
| Media informium supra caudam | | 276 58 | 20 14 | 9 1½ z | 43 32½ B | 4 |
| Septima infor. quæ ex tribus sequitur | | 277 12½ | 17 48 | 9 7½ z | 41 5½ B | 3 min. |

¹ Adscripta sunt in margine: »Hæ ab vna cœli parte in Dist. & Declin. obseruatæ sunt sed nondum supputatæ».

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|----------------------------|--------------|----------------------|----------------------|-----------------------|-----------------------|--------|
| ANTINOI | | | | | | |
| Quæ in dextro pede | 1 | | | | | |
| Manus Antinoi fini- | 2 | 297 20 $\frac{1}{2}$ | 1 58 $\frac{1}{2}$ A | 29 11 $\frac{1}{2}$ Z | 18 48 B | 3 min. |
| stra | 3 | 288 50 $\frac{1}{2}$ | 1 57 $\frac{3}{4}$ | 20 7 $\frac{3}{4}$ Z | 20 14 $\frac{1}{2}$ | 3 |
| Latus dextrum ¹ | 4 | 288 39 40 | 7 49 $\frac{1}{2}$ | 18 59 $\frac{1}{2}$ Z | 14 27 $\frac{1}{2}$ | |
| In genu | 5 | | | | | |
| | 6 | | | | | |
| | 7 | | | | | |
| DELPHINI | | | | | | |
| Lucida Caudæ ² | 1 | 303 23 $\frac{1}{2}$ | 9 58 B | 8 21 $\frac{1}{2}$ W | 29 7 $\frac{1}{2}$ B | 3 |
| Quæ Caudam sequi- | 2 | 304 32 $\frac{1}{2}$ | 10 0 | 9 37 $\frac{1}{2}$ W | 28 52 $\frac{1}{2}$ | 6 min. |
| tur | 3 | 304 48 | 8 42 $\frac{3}{4}$ | 9 31 $\frac{1}{2}$ W | 27 33 $\frac{1}{2}$ | 6 min. |
| Quæ infra Caudam | | | | | | |
| In rhomboide præ- | | | | | | |
| cedentis lateris | | | | | | |
| australior | 4 | 304 41 $\frac{1}{2}$ | 13 14 $\frac{1}{2}$ | 10 45 $\frac{1}{2}$ W | 31 57 $\frac{3}{4}$ | 3 |
| Eiusdem lateris | | | | | | |
| borealis | 5 | 305 7 $\frac{1}{2}$ | 14 31 $\frac{1}{2}$ | 11 40 $\frac{1}{2}$ W | 33 5 | 3 |
| Sequentis lateris | | | | | | |
| Australior | 6 | 306 4 $\frac{1}{2}$ | 13 39 $\frac{1}{2}$ | 13 26 $\frac{1}{2}$ W | 31 59 $\frac{1}{2}$ | 3 |
| In Capite quæ est | 7 | 306 54 $\frac{3}{4}$ | 14 43 | 13 42 W | 32 47 | 3 |
| Quæ in præcedente | | | | | | |
| latere quartam ad | | | | | | |
| latus anteit | 8 | 304 5 | 13 15 $\frac{1}{2}$ | 10 6 $\frac{1}{2}$ W | 32 8 $\frac{3}{4}$ | 5 |
| Præcedens duarum | | | | | | |
| infimarum obscur. | | | | | | |
| in Rhomb. | 9 | 303 37 $\frac{1}{2}$ | 11 42 | 9 7 $\frac{1}{2}$ W | 30 41 $\frac{3}{4}$ | 6 |
| Altera quæ sequitur | 10 | 304 50 $\frac{1}{2}$ | 11 57 $\frac{1}{2}$ | 10 32 $\frac{1}{2}$ W | 30 41 $\frac{1}{2}$ | 6 min. |
| EQUICULI ³ | | | | | | |
| Caput Equiculi præ- | | | | | | |
| cedens | 1 | 313 46 $\frac{3}{4}$ | 3 37 B | 17 22 $\frac{1}{2}$ W | 20 12 $\frac{1}{2}$ S | 4 min. |
| Caput sequens | 2 | 315 37 $\frac{3}{4}$ | 5 7 $\frac{1}{2}$ | 19 44 $\frac{1}{2}$ W | 21 6 | 4 |
| Præcedens oris | 3 | 312 35 $\frac{1}{2}$ | 8 32 $\frac{1}{2}$ | 17 43 $\frac{1}{2}$ W | 25 16 | 4 |
| Sequens oris | 4 | 313 35 $\frac{1}{2}$ | 8 27 | 18 44 $\frac{1}{2}$ W | 24 52 | 4 |

¹ Latitudo hic et in "Stellarum inerrantium Relitutions" est 20° 14 $\frac{1}{2}$ ' sed T. IV p. 264.15 habet 20° 7 $\frac{1}{2}$, quæ melior est. Declinatio pro 1° 57 $\frac{1}{4}$ ' debet esse 2° 7 $\frac{1}{4}$, unde error in latitudine ortus est.

² Adscriptum est in margine: "ad init. 87".

³ Adscripta sunt in margine: "Longitud. & Latitud. huius signi e libro 2 ad initium 89 anni reducæ sunt sicut & Afc. & Decl.

| Nomina Stellarum | Núm. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|--|--------------|----------------------|-----------------------|-----------------------|----------------------|--------|
| PEGASI | | | | | | |
| Os Pegasi | 1 | 321 1 | 8 2 B | 26 11 $\frac{3}{4}$ ♄ | 22 7 $\frac{3}{4}$ S | 3 |
| Caput Pegasi | 2 | | | 1 5 $\frac{1}{2}$ ♄ | 16 25 | 4 min. |
| Quæ ad Austrum in capite | 3 | 326 14 $\frac{1}{2}$ | 3 5 $\frac{1}{2}$ | 29 35 $\frac{1}{2}$ ♄ | 15 42 $\frac{1}{2}$ | 5 min. |
| Inferior & sequens in juba | 4 | 338 37 | 6 38 $\frac{1}{2}$ | 12 49 $\frac{1}{2}$ ♄ | 14 30 $\frac{1}{2}$ | 6 |
| Superior et præce- dens in juba | 5 | 337 55 | 7 40 | 12 34 ♄ | 15 43 $\frac{1}{2}$ | 6 min. |
| Lucida Colli | 6 | | | 10 29 $\frac{1}{2}$ ♄ | 17 41 | 3 |
| Sequens Colli | 7 | 336 34 | 10 5 $\frac{1}{2}$ | 12 16 ♄ | 18 28 $\frac{1}{2}$ | 5 |
| Sinistrum Crus | 8 | 321 28 $\frac{1}{2}$ | 23 49 $\frac{1}{2}$ | 3 12 $\frac{1}{2}$ ♄ | 36 42 $\frac{1}{2}$ | 4 |
| Sinistrum Genu | 9 | 326 57 $\frac{3}{4}$ | 23 23 | 8 40 4 | 34 18 $\frac{1}{2}$ | 4 |
| Dextrum Crus | 10 | 327 57 | 31 11 $\frac{1}{2}$ | 13 52 54 ♄ | 41 0 $\frac{1}{2}$ | 4 |
| Præcedens duarum in pectore | 11 | 336 42 $\frac{1}{2}$ | 21 26 | 17 19 $\frac{1}{2}$ ♄ | 28 49 $\frac{1}{2}$ | 4 |
| Sequens in pectore | 12 | 337 35 $\frac{1}{2}$ | 22 28 $\frac{1}{2}$ | 18 43 ♄ | 29 24 $\frac{1}{2}$ | 4 |
| Dextrum Genu | 13 | 335 56 | 28 6 $\frac{1}{2}$ | 20 0 $\frac{1}{2}$ ♄ | 35 7 $\frac{1}{2}$ | 3 |
| In austrum magis | 14 | 335 39 | 27 10 $\frac{1}{2}$ | 19 14 $\frac{1}{2}$ ♄ | 34 24 $\frac{1}{2}$ | 5 |
| Præcedens duarum quæ in ala | 15 | 345 6 $\frac{1}{2}$ | 21 31 $\frac{1}{2}$ | 25 22 $\frac{1}{2}$ ♄ | 25 34 $\frac{1}{2}$ | 6 |
| Sequens & austruor | 16 | 346 17 | 21 13 $\frac{1}{2}$ | 26 56 ♄ | 24 50 $\frac{1}{2}$ | 6 |
| Marchab seu prima alæ | 17 | 341 6 $\frac{1}{4}$ | 13 1 | 17 46 $\frac{3}{4}$ ♄ | 19 25 | 2 |
| Scheat seu in fe- more dextro | 18 | 341 0 0 | 25 52 $\frac{1}{2}$ | 23 39 4 ♄ | 31 8 | 2 |
| Extrema alæ | 19 | 358 4 $\frac{1}{2}$ | 12 54 | 3 27 $\frac{1}{2}$ ♄ | 12 34 $\frac{3}{8}$ | 2 |
| ANDROMEDÆ | | | | | | |
| Caput | 1 | 356 50 | 26 50 $\frac{1}{2}$ B | 8 37 ♄ | 25 42 B | 2 |
| Infima in scapula dextra | 2 | 3 45 $\frac{1}{2}$ | 31 25 | 16 56 7 ♄ | 27 6 $\frac{1}{2}$ | 5 |
| Inferior in sinistro humero | 3 | 4 13 $\frac{3}{4}$ | 27 6 $\frac{3}{4}$ | 15 15 ♄ | 23 3 $\frac{1}{2}$ | 4 |
| In Dextro Brachio trium Australior | 4 | 359 21 | 34 31 | 14 48 ♄ | 31 33 | 5 |
| Quæ in dextro bra- chio ad Boream | 5 | 359 2 $\frac{1}{4}$ | 36 24 $\frac{1}{2}$ | 15 35 $\frac{1}{2}$ ♄ | 33 20 $\frac{1}{2}$ | 4 min. |
| Media trium | 6 | 0 0 $\frac{1}{2}$ | 35 35 | 15 56 $\frac{1}{2}$ ♄ | 32 14 $\frac{1}{2}$ | 5 min. |
| Australior in summa manu | 7 | | | 10 18 ♄ | 40 56 $\frac{1}{2}$ | 4 |
| Super. duarum infe- rior. in dext. manu | 8 | 350 3 $\frac{1}{2}$ | 42 5 | 11 35 $\frac{1}{2}$ ♄ | 41 44 | 4 |
| Obfcurior in superi- ori manu | 9 | 351 24 $\frac{1}{4}$ | 44 9 $\frac{1}{2}$ | 14 12 $\frac{1}{2}$ ♄ | 42 8 | 5 min. |

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|---|----------------|----------------------|-----------------------|-----------------------|-----------------------|--------|
| Suprema in superi- ori manu ¹ | | 349 23 $\frac{1}{2}$ | 44 15 B | 12 36 $\frac{1}{2}$ V | 43 49 $\frac{1}{2}$ B | 4 |
| Superior et præce- dens duarum in sinistro B. | 10 | 6 26 $\frac{1}{2}$ | 22 15 | 14 59 V | 17 48 | 4 |
| Quæ in sinistro cu- bito | 11 | 8 53 | 21 15 $\frac{1}{2}$ | 16 43 $\frac{1}{2}$ V | 15 58 | 5 |
| Australior in Cin- gulo | 12 | 11 40 $\frac{1}{2}$ | 33 27 $\frac{1}{2}$ | 24 39 V | 25 59 $\frac{1}{2}$ | 2 min. |
| Media in Cingulo | 13 | 8 30 $\frac{1}{2}$ | 37 17 | 23 57 $\frac{1}{2}$ V | 30 33 $\frac{1}{2}$ | 4 |
| Suprema in Cingulo | 14 | 6 49 $\frac{1}{2}$ | 38 48 | 23 26 V | 32 30 $\frac{1}{2}$ | 5 maj. |
| Australis seu lucidus pes | 15 | 24 44 $\frac{1}{2}$ | 40 19 $\frac{1}{2}$ | 8 29 O | 27 46 $\frac{1}{2}$ | 2 min. |
| Extrema in superi- ori pede | 16 | 19 37 $\frac{1}{2}$ | 48 37 $\frac{1}{2}$ | 8 56 $\frac{1}{2}$ O | 36 49 $\frac{1}{2}$ | 5 |
| Lucidior et præce- dens in dextro pede | 17 | | 46 31 $\frac{1}{2}$ | 6 42 O | 35 21 $\frac{1}{2}$ | 4 |
| Superior in sinistra fura | 18 | 18 18 | 39 21 $\frac{1}{2}$ | 4 55 $\frac{1}{2}$ O | 28 59 | 5 |
| Inferior in fura | 19 | 19 10 $\frac{1}{2}$ | 38 29 $\frac{1}{2}$ | 3 12 $\frac{1}{2}$ O | 27 54 $\frac{1}{2}$ | 5 min. |
| Quæ ad genu dex- trum | 20 21 22 | 11 32 | 45 3 | 0 46 O | 36 20 $\frac{1}{2}$ | |
| Quæ est in annulo Catenæ | 23 | 304 45 $\frac{1}{2}$ | 40 7 $\frac{1}{2}$ | 23 49 $\frac{1}{2}$ X | 57 18 $\frac{1}{2}$ | 4 |
| Clarius et superior in sinistra scapula ² | | 4 26 $\frac{1}{2}$ | 28 37 $\frac{1}{2}$ | 16 9 $\frac{1}{2}$ V | 24 20 | 3 |
| Suprema in superi- ori mana | | 349 23 $\frac{1}{2}$ | 44 15 | 12 37 $\frac{1}{2}$ V | 43 49 $\frac{1}{2}$ | 4 |
| TRIANGULI SEU DELTOTI | | | | | | |
| Quæ in Oxygonio | 1 | 22 27 $\frac{1}{2}$ | 27 34 $\frac{1}{2}$ B | 1 8 $\frac{1}{2}$ O | 16 49 $\frac{1}{2}$ B | 4 |
| In basi ad boream | 2 | 26 22 $\frac{1}{2}$ | 33 1 $\frac{1}{2}$ | 6 39 $\frac{1}{2}$ O | 20 33 $\frac{1}{2}$ | 4 maj. |
| Australior in basi | 4 | 28 16 $\frac{1}{2}$ | 31 56 $\frac{1}{2}$ | 7 47 $\frac{1}{2}$ O | 18 56 $\frac{1}{2}$ | 4 |
| VLTRA ÆQUATOREM AD AUSTRUM CETI | | | | | | |
| Quæ in rostro est | 1 | 39 27 $\frac{1}{2}$ | 7 13 $\frac{1}{2}$ B | 9 21 O | 7 50 M | 4 |
| Lucida Mandibulæ | 2 | 40 14 $\frac{1}{2}$ | 2 26 $\frac{1}{2}$ | 8 36 $\frac{1}{2}$ O | 12 37 $\frac{1}{2}$ M | 3 maj. |
| Media in ore medio | 3 | 35 32 $\frac{1}{2}$ | 1 27 | 3 43 $\frac{1}{2}$ O | 12 2 $\frac{1}{2}$ M | 3 |

¹ Adscriptum est in margine: »Hanc Aratus non numerat«.² Adscriptum est in margine: »Semel tantum obferuata«.

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|---|--------------|------------|---------|---------|---------|--------|
| Præcedens trium in genu | 4 | 34 40 | 1 29 M | 1 52 ☾ | 14 31 M | 3 |
| Quæ infra oculum | 5 | 31 36 | 6 36 B | 1 43 ☽ | 5 52 | 4 min. |
| Quæ est supra oculum | 6 | 35 43 | 8 20 | 5 56 ☾ | 5 35 | 4 |
| In occipite quæ est | 7 | 27 51 | 6 53 | 28 19 ☽ | 4 18 | 4 min. |
| In pectore quadrilateri præcedentium Bor. | 8 | 31 33 | 14 10 M | 23 58 ☽ | 25 16 | 4 |
| Duarum inferiorum in pectore præcedens ad Aust. | 9 | 33 9 | 17 2 M | 24 21 ☽ | 28 31 | 4 |
| Sequentium in pectore borealis | 10 | 36 11 | 15 36 | 28 1 ☽ | 28 16 | 4 |
| Inferiorum in pectore sequens | 11 | 34 57 | 13 35 | 27 37 ☽ | 25 58 | 3 min. |
| In ventre ad austrum | 12 | 21 17 | 18 7 | 12 15 ☽ | 25 1 | 4 min. |
| Infima in ventre | 13 | 25 11 | 23 6 | 13 40 ☽ | 31 3 | 5 maj. |
| Borea ventris | 14 | 22 50 | 12 20 | 16 14 ☽ | 20 19 | 3 maj. |
| Duarum lucidarum in dorso orientalior | 15 | 15 55 | 10 19 | 10 32 ☽ | 15 46 | 4 maj. |
| Occidentalior | 16 | 11 59 | 12 21 | 6 1 ☽ | 16 55 | 4 maj. |
| | 17 | | | | | |
| | 18 | | | | | |
| | 19 | | | | | |
| | 20 | | | | | |
| Borealis Caudæ | 21 | 359 39 | 11 5 0 | 25 13 ☾ | 10 1 | 3 |
| Australis Caudæ | 22 | 5 42 | 20 16 | 26 46 ☾ | 20 47 | 2 min. |
| Informes | | | | | | |
| Quæ lucidam Mandibulæ ad ortum sequitur | | 44 29 | 1 49 B | 12 35 ☾ | 14 30 M | |
| Quæ proxime a 14 ^{ta} ad Africum | | | | 14 54 ☽ | 21 55 M | 4 min. |
| Quæ est in recta linea cum 3 ^{ta} et 5 ^{ta} Capitis | | 33 36 | 3 46 B | 2 39 ☾ | 9 12 M | |

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|--|--------------|------------|---------|-------------|---------|---------|
| ORIONIS | | | | | | |
| Quæ in capite ori- entalior ex tribus contiguïs¹ | | 78 36 | 8 59½ B | 18 23½ II | 14 4½ M | 5 |
| Occidentalior trium in Cap. | | 78 8 55 | 9 7½ | 17 56½ II | 13 54½ | 5 |
| Suprema trium in Capite Orionis | 1 | 78 11½ | 9 35½ | 18 1½ II | 13 26 | 4 |
| Lucidus seu sequens humerus | 2 | 83 15½ | 7 15½ | 23 12½ II | 16 6 | 2 maj. |
| Sinifter seu præce- dens humerus | 3 | 75 48 | 5 54½ | 15 13 II | 16 53½ | 2 min. |
| Sequens finiftri hu- meri | 4 | 77 10½ | 5 33 | 16 36½ II | 17 22½ | 5 |
| Quæ in dextro brachio | 5 | 84 59½ | 9 34½ | 24 54½ II | 14 51 | 4 |
| In dextra ulna | 6 | 88 20½ | 12 21 | 28 20½ II | 11 30½ | 6 |
| In manu dextra au- stralior | 7 | 87 11 | 14 14½ | 27 13½ II | 9 15½ | 4 |
| Præcedens in dex- tra manu | 8 | 86 5½ | 14 44½ | 26 10½ II | 8 44 | 4 min. |
| Proxima supremæ in dext. manu | 9 | 87 6 45 | 16 9 | 27 11 54 II | 7 20½ | 6 mai. |
| Suprema et vltima earum quæ in manu | 10 | 87 55 | 16 11½ | 27 58½ II | 7 18½ | 6 min. |
| Præcedens duarum in coloboro | 11 | 82 31½ | 20 7½ | 22 58½ II | 3 12½ | 5 |
| Sequens duarum in coloboro | 12 | 84 53½ | 20 4½ | 25 11½ II | 3 21½ | 5 |
| Quæ est infra dex- trum humerum ad occafum | 13 | 79 23½ | 3 48½ | 18 46½ II | 19 17½ | 5 min. |
| Ex duabus obfcuris in dorfo fequens | 14 | 78 13 | 3 24 | 17 29½ II | 19 36½ | obfcura |
| Præcedens duarum mediarum in dorfo | 15 | 77 23½ | 3 3½ | 16 35½ II | 19 52½ | obfcura |
| Quæ ex quatuor in dorfo præcedit | 16 | 76 17½ | 2 41 | 15 23½ II | 20 8½ | 5 min. |
| Quæ borealiffima est in linteo | 17 | 67 18½ | 13 29½ | 7 43 II | 8 16½ | 4 |
| Secunda in linteo | 18 | 68 21½ | 12 48 | 8 38 II | 9 7½ | 4 min. |

¹ Adferipta funt in margine: »Duæ hæ primæ funt ultra numerum a veteribus abignatum«.

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|--|--------------|------------|----------|-------------|---------|--------|
| Tertia in linteo | 19 | 68 2 | 10 44½ B | 8 0 0 II | 11 6½ M | 6 |
| Quarta in linteo | 20 | 68 5 0 | 9 25 | 7 50½ II | 12 25½ | 4 |
| Quinta in linteo | 21 | 67 5½ | 8 9 | 6 39 II | 13 31½ | 4 |
| Sexta in linteo | 22 | 66 59½ | 6 11 | 6 13 II | 15 27 | 4 |
| Septima in linteo | 23 | 67 22 | 4 50½ | 6 22½ II | 16 49½ | 4 |
| Octava in linteo | 24 | 68 16 | 1 44 | 6 47½ II | 20 2½ | 4 maj. |
| Vltima earum quæ in lino | 25 | 69 19 | 1 0½ | 7 47 II | 20 55½ | 4 |
| Prima balthei | 26 | 77 48½ | 0 40½ A | 16 40½ II | 23 38 | 2 |
| Media balthei | 27 | 78 51½ | 1 30½ | 17 44 | 24 33½ | 2 |
| Vltima Balthei | 28 | 80 0½ | 2 13 | 18 56½ II | 25 21½ | 2 min. |
| Quæ in manubrio Enfis | 29 | 76 0 0 | 2 50½ | 14 27 30 | 25 36½ | 3 |
| Suprema trium in Enfe | 30 | 78 46½ | 5 8 | 17 17½ | 28 9½ | 5 |
| Media Enfis seu du- arum e lucidis contiguarum borealis | 31 | 78 47½ | 5 43½ | 17 14½ | 28 45 | 3 min. |
| Auftralis in Enfe | 32 | 78 52½ | 6 15 | 17 17½ | 29 17 | 3 |
| Sequens duarum in- fra Enfem | 33 | 79 48 | 7 31½ | 18 13 | 30 37½ | 5 |
| Præcedens duarum infra Enfem | 34 | 78 1½ | 7 40½ | 16 10 | 30 37½ | 4 |
| Lucidus seu sinister Pes¹ | 35 | 73 42½ | 8 44 | 11 5½ | 31 11½ | 1 |
| Quæ in sinifstro Cal- caneo | 36 | 74 24½ | 7 19½ | 12 5½ | 29 53 | 4 |
| Quæ in fura siniftri pedis | 37 | 76 4½ | 8 15½ | 13 52 | 31 0½ | 5 mai. |
| Quæ in genu dextro | 38 | 82 4½ | 9 52 | 20 39½ | 33 8 | 3 |
| Informes circa Or. | | | | | | |
| Quæ vltimam bal- thei præcedit ad auftrum | | 79 39½ | 2 54½ A | 18 28 54 II | 26 0½ A | 4 |
| Præcedens istam ad dorsum | | 75 18½ | 3 4 B | 14 24 II | 19 40 | 6 |

¹ Adscriptum est in margine: "ad annum 86 compl.".

| Nomina Stellarum | Num vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|--|-------------|---------------------|--------------------------|------------------------|--------------------------|-----------------------|
| ERIDANI | | | | | | |
| Quæ ad sinistrum pede- dem Or. præced. | 1 | 72 24 $\frac{1}{2}$ | 9 19 $\frac{1}{2}$ | 9 29 $\frac{1}{2}$ II | A 31 35 $\frac{1}{2}$ | 4 |
| In principio fluvij su- pra pedem Orionis | 2 | 71 55 | 5 40 $\frac{1}{2}$ | 9 32 | 27 54 $\frac{1}{2}$ | 3 min. |
| Duarum aliarum sequens | 3 | 70 24 $\frac{1}{2}$ | 7 50 $\frac{1}{2}$ | 7 28 $\frac{3}{4}$ | 29 52 | 4 |
| Præcedens | 4 | 68 12 $\frac{1}{2}$ | 6 11 $\frac{1}{2}$ | 5 19 $\frac{1}{4}$ | 27 51 $\frac{1}{2}$ | 5 |
| Sequens duarum superiorum | 5 | 66 16 $\frac{1}{2}$ | 4 2 $\frac{1}{2}$ | 3 35 $\frac{1}{2}$ | 25 33 $\frac{1}{2}$ | 4 |
| Præcedens duarum sup. | 6 | 63 58 $\frac{1}{2}$ | 4 15 | 1 4 $\frac{3}{4}$ | 25 11 $\frac{1}{2}$ | 4 maj. |
| | 7 | | | | | |
| | 8 | | | | | |
| | 9 | | | | | |
| Post intervallum se- quens ex quatuor | 10 | 54 45 $\frac{1}{2}$ | 14 42 | 18 8 ☿ | 33 13 $\frac{3}{4}$ | 3 |
| | 11 | | | | | |
| Quæ ad septentrio- nem est | 12 | 50 55 $\frac{1}{2}$ | 11 11 | 14 57 ☿ | 28 46 $\frac{1}{2}$ | 3 |
| Hanc sequens | 13 | 48 27 $\frac{3}{4}$ | 10 51 $\frac{1}{2}$ | 12 35 ☿ | 27 47 | 3 |
| LEPORIS | | | | | | |
| Superior præceden- tis auris | 1 | 73 19 0 | A 12 11 $\frac{1}{2}$ | 10 4 $\frac{1}{2}$ II | M 34 33 $\frac{1}{2}$ | 5 |
| Inferior præceden- tis auris | 2 | 73 35 $\frac{1}{2}$ | 13 30 | 10 10 $\frac{1}{2}$ II | 35 53 $\frac{1}{2}$ | 5 |
| Superior sequentis auris | 3 | 75 15 $\frac{1}{2}$ | 12 43 | 12 16 $\frac{3}{4}$ II | 35 18 0 | 6 |
| Infer. sequentis auris | 4 | 75 11 $\frac{1}{2}$ | 13 38 | 12 3 $\frac{3}{4}$ II | 36 14 $\frac{1}{2}$ | 5 |
| Quæ in Capite | 5 | 73 38 0 | 16 42 | 9 39 II | 39 4 $\frac{1}{2}$ | 5 |
| Extrema antero- rum pedum | 6 | 71 59 $\frac{1}{2}$ | 22 57 | 6 15 $\frac{1}{2}$ II | 44 59 $\frac{1}{2}$ | 4 |
| Quæ in dorso seu medio corpore | 7 | 78 40 | 18 8 | 15 39 $\frac{1}{2}$ II | 41 5 $\frac{1}{2}$ | 3 min. |
| Quæ est in femore sinistri pedis | 8 | 77 40 $\frac{1}{2}$ | 21 7 $\frac{1}{2}$ | 13 56 $\frac{1}{2}$ II | 43 57 $\frac{1}{2}$ | 3 |
| Australior duarum in posterioribus pedibus | 9 | 81 52 | 22 36 $\frac{1}{2}$ | 19 11 $\frac{1}{2}$ II | 45 49 $\frac{1}{2}$ | 3 ^{tie} min. |
| Borealior duarum in post. ped. | 10 | 83 26 $\frac{1}{2}$ | 20 58 | 21 25 $\frac{3}{4}$ II | 44 17 $\frac{1}{2}$ | 3 min. |
| Præcedens in dorso | 11 | 82 6 $\frac{1}{2}$ | 15 0 $\frac{1}{2}$ | 20 16 $\frac{1}{2}$ II | 38 16 | 4 |
| Sequens in dorso | 12 | 84 32 | 14 16 $\frac{1}{2}$ | 23 17 $\frac{1}{2}$ II | 37 40 $\frac{1}{2}$ | 4 |
| Ultima in Cauda | 13 | 86 55 $\frac{1}{2}$ | 14 57 | 26 12 II | 38 26 | 4 min. |

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|---|--------------|------------|---------|--------------------|----------|--------|
| CANIS MAIORIS | | | | | | |
| In ore splendidissima Seirius | 1 | 96 45½ | 16 10½ | 8 25½ ♂ | 39 29½ | 1 |
| Quæ in fronte ad dextram aurem | 2 | 98 49½ | 11 38 | 10 51½ ♂ | 34 49 54 | 4 |
| In media fronte | 3 | 99 16 35 | 13 33½ | 11 16½ ♂ | 36 43 | 5 |
| Quæ sub sinistra aure | 4 | 101 19½ | 15 4 | 13 55½ ♂ | 31 2½ | 3 min. |
| | 5 | 99 32 | 16 22½ | 11 53 ♂ | 39 30½ | |
| | 6 | | | | | |
| | 7 | | | | | |
| In armo dextro an- terioris pedis | 8 | 95 6½ | 17 54½ | 6 32½ ♂ | 42 12½ | |
| Quæ est in extremi- tate pedis prioris | 9 | 91 13 | 17 47½ | 1 32½ ♂ 1 32½ ♂ | 41 18½ | 2 min. |
| | 10 | | | | | |
| | 11 | | | | | |
| Quæ in dorso | 12 | 101 30 | 23 15 | 15 20½ ♂ | 46 9½ | 5 maj. |
| In pectore media | 13 | 99 17 | 23 32 | 12 26½ ♂ | 46 39½ | 5 maj. |
| Quæ in ventre | 14 | 102 57½ | 25 46½ | 17 45 ♂ | 48 30 | 3 |
| In ventre inter poste- riora femora | 15 | 100 44 | 28 27 | 15 11½ ♂ | 51 24½ | 3 |
| | 16 | | | | | |
| Inferior seu Austrā- lis pes | 17 | 90 39½ | 28 27 | 0 56½ ♂ | 51 46½ | 3 |
| Quæ in Cauda | 18 | 107 4 55 | 28 34 | 24 1½ ♂ | 50 41½ | 3 |
| CANIS MINORIS | | | | | | |
| Præcedens in collo | 1 | 106 13½ | 9 2½ B | 16 29½ ♂ | 13 33½ M | 3 |
| Lucida in femore seu Canis ipse minor | 2 | 109 27½ | 6 13½ | 20 8½ ♂ | 15 56½ | 2 |
| ARGOS SEU NAVIS | | | | | | |
| Quæ in suprema navis puppi | 2 | 117 30½ | 23 9 | 5 42½ ♀ | 43 18½ | 3 |
| Suprema Clypei navis | 3 | 113 3½ | 23 52 | 0 25½ ♀ | 44 58½ | 3 min. |
| Præcedens Clypei | 5 | 110 32½ | 25 55 | 27 49½ ♂ | 47 28½ | 3 |

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|---------------------------------|--------------|----------------------|---------------------|-----------------------|----------------------|--------|
| HYDRÆ | | | | | | |
| Præcedens in Capite | 1 | 124 18 $\frac{1}{2}$ | 4 46 B | 5 29 $\frac{1}{2}$ ♄ | 14 37 M | 5 |
| Supra primam ad | | | | | | |
| Aquilonem | 2 | 125 25 $\frac{1}{2}$ | 4 50 $\frac{1}{2}$ | 6 35 $\frac{1}{2}$ | 14 16 $\frac{3}{4}$ | 4 |
| Borealior in occipite | 3 | 126 13 $\frac{1}{2}$ | 7 52 $\frac{1}{2}$ | 6 37 50 | 11 8 $\frac{1}{2}$ | 4 |
| Quæ tertiam ad | | | | | | |
| Austrum proxime | | | | | | |
| anteit | 4 | 126 39 $\frac{1}{2}$ | 7 16 $\frac{5}{8}$ | 7 12 $\frac{1}{2}$ | 11 36 $\frac{1}{2}$ | 5 |
| Omnium in capite | | | | | | |
| orientalior | 5 | 128 22 $\frac{1}{2}$ | 7 27 $\frac{1}{2}$ | 8 50 $\frac{1}{2}$ | 11 1 $\frac{1}{2}$ | 4 |
| Quæ in collo | | | | | | |
| præcedit | 6 | 131 4 $\frac{1}{2}$ | 6 39 $\frac{3}{4}$ | 11 41 $\frac{1}{2}$ | 11 5 $\frac{1}{2}$ | 6 min. |
| Sequens in | | | | | | |
| eductione colli | 7 | 133 12 | 3 59 | 14 31 $\frac{1}{2}$ | 13 5 $\frac{1}{2}$ | 4 |
| Media et præcedens | | | | | | |
| trium in nexu | 8 | 137 44 $\frac{2}{3}$ | 0 35 30 | 20 1 $\frac{1}{2}$ | 15 0 0 | 5 |
| Borea trium in flexu | | | | | | |
| colli | 9 | 139 41 $\frac{1}{2}$ | 0 41 $\frac{1}{2}$ | 21 54 | 14 17 $\frac{1}{2}$ | 4 |
| Australis in nexu | 10 | 136 55 $\frac{3}{4}$ | 1 0 $\frac{1}{2}$ A | 19 43 $\frac{1}{2}$ | 16 46 $\frac{1}{2}$ | 5 |
| | 11 | | | | | |
| Lucida seu cor | | | | | | |
| Hydræ | 12 | 136 52 $\frac{1}{2}$ | 6 53 $\frac{3}{4}$ | 21 35 $\frac{1}{2}$ | 22 23 $\frac{3}{4}$ | 1 min. |
| Quæ proxime cor | | | | | | |
| sequitur | 13 | 140 13 $\frac{1}{2}$ | 12 27 $\frac{1}{2}$ | | | 5 maj. |
| Quæ hanc deinde | | | | | | |
| sequitur | 14 | 142 56 $\frac{1}{2}$ | 13 3 | | | 5 |
| | 15 | | | | | |
| | 16 | | | | | 4 |
| Quæ a Corde 5 ^{ta} est | 17 | 151 35 | 14 44 | | | 4 |
| Quæ in recta linea | | | | | | |
| cum 17 & 19 est | 18 | 154 38 $\frac{3}{4}$ | 14 46 0 | 12 31 $\frac{1}{2}$ ♄ | 23 30 54 | |
| Proxime Crateram | | | | | | |
| præcedens | 19 | 157 23 | 14 3 | 14 41 $\frac{1}{2}$ | 21 48 $\frac{1}{2}$ | |
| Informis | | | | | | |
| Quæ proxime caput | | | | | | |
| præcedit | | 123 57 | 7 4 | 4 35 $\frac{1}{2}$ ♄ | 12 27 M | 4 |
| CRATERIS ASTERISMUS | | | | | | |
| Quæ est in Basi | 1 | 159 58 $\frac{1}{2}$ | 16 6 A | 18 3 ♄ | 22 4 $\frac{1}{2}$ M | 4 |
| Crateris | | | | | | |
| Sequens duarum in | 2 | 166 7 | 15 26 | 23 32 $\frac{1}{2}$ ♄ | 19 39 5 | 4 |
| medio | | | | | | |
| Præcedens duarum | 3 | 164 44 $\frac{1}{2}$ | 12 31 $\frac{1}{2}$ | 21 0 25 ♄ | 17 24 57 | 4 |

| Nomina Stellarum | Num. vet. | Afc. Recta | Declin. | Longit. | Latit. | Mag. |
|--|--------------|----------------------|--------------------------|--|---------------------|--------|
| CORUI ASTERISMUS | | | | | | |
| Quæ ad oculum | 2 | 177 16 $\frac{1}{2}$ | M 20 19 $\frac{1}{2}$ | 5 57 $\frac{1}{2}$ $\underline{\Omega}$ | M 19 38 53 | 4 mai. |
| Præcedens superio- rum lucidarum in \square^{to} | 4 | 178 44 $\frac{1}{2}$ | 15 12 $\frac{1}{2}$ | 5 3 $\frac{1}{2}$ $\underline{\Omega}$ | 14 24 56 | 3 |
| Sequens superio- rum | 5 | 182 11 $\frac{1}{2}$ | 14 11 | 7 44 55 $\underline{\Omega}$ | 12 6 $\frac{1}{2}$ | 3 |
| Sequens lucidarum in \square^{to} inferiorum | 7 | 183 15 $\frac{1}{2}$ | 21 5 | 11 39 $\frac{1}{2}$ $\underline{\Omega}$ | 17 59 | |
| BERENICES ASTERISMUS | | | | | | |
| In Cuspide primi & Borealis Trianguli | 1 | 181 33 | B 30 35 | $\Pi\eta$ 18 7 23 | B 28 25 | 3 min. |
| Suprema contigua- rum insequen- tium | 2 | 181 25 | 29 30 | 18 32 0 | 27 23 $\frac{1}{2}$ | 4 |
| Inferior contigua- rum | 3 | 181 27 | 29 25 | 18 36 $\frac{1}{2}$ | 27 20 | 4 |
| Quæ contiguas duas proxime sequitur | 4 | 181 58 | 28 1 $\frac{1}{2}$ | 19 8 $\frac{1}{2}$ | 27 7 | 4 |
| Præcedens duarum australiorum contiguarum | 5 | 180 22 $\frac{1}{2}$ | 28 13 $\frac{1}{2}$ | 18 14 $\frac{1}{2}$ | 25 50 $\frac{1}{2}$ | 4 |
| Altera contig. ad ortum | 6 | 180 52 $\frac{1}{2}$ | 28 18 $\frac{1}{2}$ | 18 38 $\frac{1}{2}$ | 26 7 | 4 |
| Quæ omnes præce- dit ad Austrum | 7 | 178 50 | 26 14 $\frac{1}{2}$ | 17 50 $\frac{1}{2}$ | 23 29 $\frac{1}{2}$ | 4 |
| Sequens contig. in recta linea cum prima in cuspide & lucid. corde Ω | 8 | 182 36 $\frac{1}{2}$ | 26 36 $\frac{1}{2}$ | 20 59 $\frac{1}{2}$ | 25 16 $\frac{1}{2}$ | 4 |
| Altera contig. præ- ced. ad austrum | 9 | 182 8 $\frac{1}{2}$ | 26 24 $\frac{1}{2}$ | 20 41 $\frac{1}{2}$ | 24 56 | 4 |
| Infima in dicta recta linea | 10 | 183 32 $\frac{1}{2}$ | 24 47 $\frac{1}{2}$ | 22 42 0 | 24 0 $\frac{1}{2}$ | 4 |
| Postrema in exten- sione Comæ | 11 | 193 11 $\frac{1}{2}$ | 29 53 $\frac{1}{2}$ | 28 48 $\frac{1}{2}$ | 32 45 $\frac{1}{2}$ | 4 maj. |
| Quæ dictam in ex- tensione contig. præcedit | 12 | 191 48 $\frac{1}{2}$ | 29 42 $\frac{1}{2}$ | 27 39 $\frac{1}{2}$ | 31 41 $\frac{1}{2}$ | 4 |
| Quæ in recta linea est cum his & 1 in cuspide | 13 | 187 56 $\frac{1}{2}$ | 29 50 | 24 6 $\frac{1}{2}$ | 30 16 | 4 |

OBSERVATIONES ANNI 1593.

OBSERVATIONES SOLIS.

DIE 27 FEBUARIJ.

| | |
|-----------------------------|-------|
| Alt. ☉ Merid. | |
| per Chalyb. | 29 43 |
| per Volub. | 29 42 |
| Declin. ☉ per Armillas, vno | 4 23½ |
| alt. pinn. 4 | 24½ |

DIE 7 MARTIJ.

| | |
|------------------------|---------|
| Alt. ☉ Merid. | |
| per Chalyb. | 32 51½ |
| per Volub. | 32 50½ |
| Declin. ☉ per Armillas | 1 15½ |
| | 1 15 A. |

Erat satis serenum, sed instrumentorum disconuenientia: illius diutina eorum vfus intermissio causa fuit.

DIE 10 MARTIJ.

| | |
|---------------------------------|--------|
| prope ipsum æquinoctium vernum. | |
| Alt. ☉ Merid. | |
| per Chalyb. | 34 1½ |
| Chalyb. ad perpend. correct. | |
| per Volub. | 34 0½ |
| Declin. ☉ per Armillas | 0 3 M. |
| | 0 3½ |

Erat mediocriter serenum, sed aer aliquanto intranquillior ac vehementior.

DIE 12 MARTIJ.

| | |
|-----------------------------|--------|
| Alt. ☉ Merid. | |
| per Chalyb. | 34 50 |
| per Volub. | 34 49½ |
| Declin. ☉ per Armillas max. | 0 44½ |
| | 0 44 |

Erat mediocriter serenum.

DIE 14 MARTIJ.

| | |
|-----------------------|------------|
| Alt. ☉ Merid. | |
| per Chalyb. | 35 35½ |
| per Volub. | 35 36 fere |
| Declin. ☉ per Armill. | 1 30½ |
| | 1 30 B. |

Non erat satis bene serenum.

DIE 16 MARTIJ.

| | |
|---------------|--------|
| Alt. ☉ Merid. | |
| per Chalyb. | 36 23 |
| per Volub. | 36 22½ |

| | |
|------------------------|-------|
| Declin. ☉ per Armillas | 2 18 |
| Erat satis serenum. | 2 18½ |

DIE 17 MARTIJ.

| | |
|-----------------------|--------|
| Alt. ☉ Merid. | |
| per Chalyb. | 37 47½ |
| per Volub. | 37 46½ |
| Declin. ☉ per Armill. | 2 42½ |
| | 2 42½ |

Erat bene serenum. Horologium tardius iusto mouebatur a Meridie anteced. 14 M.

DIE 15 MAIJ.

| | |
|------------------------|-------|
| Alt. ☉ Merid. | |
| per Chalyb. | 55 4½ |
| per Volub. | 55 3½ |
| Declin. ☉ per Armillas | 21 0 |
| | 21 0 |

Erat bene serenum. Error postea in Volubili deprehensus & correctus est eodem die.

DIE 17 MAIJ.

| | |
|------------------------|--------|
| Alt. ☉ Merid. | |
| per Chalyb. | 55 26½ |
| per Volub. | 55 26 |
| Declin. ☉ per Armillas | 21 22½ |
| | 21 22½ |

Fuit satis bene serenum.

DIE 20 MAIJ.

In Meridie corrigebatur pro eclipsi ☉ eodem die futura horologium, idque obseruato tum centro Solis tum vtroque limbo transeuntis Meridianum in Volubili per rimulas pinnacidiorum, præcisione qua fieri potuit, quando ita serenum non fuit, vt vmbra obseruari posset. Defecit autem horologium in tribus minutis fere ab hora 10 A. M., quando similiter in æquatore εν πλατει correctum fuit, quapropter etiam parum nunc ad pondus eius adiecimus.

Paulo post Meridiem corrigebatur horologium ad solem aliquoties, & attendendo diligenter ab hora prima vsque in horam 3½, nihil

prorlus de ☉ abesse videbatur, etiam tum, cum maxima esse debuit eclipsifis nempe hora ingruente tertia, & quamuis non fuerit satis serenum sed per intervalla nubes interponebantur & nunquam satis defæcatum, tamen id satis discernebatur, nihil prorlus de solari corpore desiderari in inferiori eius parte hoc tempore, quare neceße est lunam nulla sui parte solem obtegere potuisse, interuentu ad intuitum nostrum. Debuit autem Sol iuxta aliorum calculum nonnihil in nostro horizonte deficere, quamuis admodum parum.

Exploratio¹ an aliqua Eclipsifis ☉^{lis} hoc anno die 20 Maij fieri posset, ex nostra restitutione motuum.

Latitudo vera ☉ nostra 4½

Altitudo 43° 0'

Resp. Parallaxis ☉ a Sole 46'

Parall. Longit. 31½, Latit. 34½

Ergo visa latitudo ☉ 30° 15''

Semidiameter ☉ 15 3

Semidiameter ☉ 14 12

Aggregatum 29 15

Quoniam itaque latitudo ☉ visa maior est aggregato semidiametrorum quasi 1^m, patet nulla in nostro Horizonte facta Eclipsationum ☉, etiam si iuxta aliorum calculum satis sensibilis est. Nulla autem fuisse hic testabuntur obseruationes ad solem eodem die factæ, vide supra.

N. B. Hæc tamen Eclipsifis Rostochij obseruabatur, ita vt in principio habuerit Sol Altit. quasi 48 Grad., in fine 40½.

ROSTOCHIJ².

Obseruationes aliquot Eclipsium Lunarium, vt quæ incidit Anno 1584 7 Nouembris et anno 1588 25 Augusti. Nec non Eclipsifis Solaris A° 90 Mense Julio. Omnes mihi incendio perierunt, quo Collegium Fratrum absumptum fuit A. 1594 die 1 Iulij. Vnicam tantum prioribus nondum adscriptam retinui, quæ hæc est.

Anno 1593 die 20 Maij facta est eclipsifis ☉^{lis} post meridiem, cuius tempora ex Tabulis Alphonsinis exhibita fuerunt.

Initium hora 2 M. 7

Finis hora 3 M. 23.

Ex Tabulis Eclipsium Purbachij

Initium hora 2 M. 2

Finis hora 3 M. 20.

Obseruatio Rostochij facta in hac Eclipsifis ☉^{lis}.

Sub initium eclipsifis depræhensus est Sol altitudinem habere 47° 50'. Hinc tempus obseruationis, facta operatione, collectum fuit 2^h 24' 5'' 44''' P. Merid.

Altitudo Solis sub finem Eclipsifis fuit 40° 45'. Vnde tempus obseruationis 3^h 19', assumpto Solis loco in Meridie diej 20 8° 50' 47'' II, sub altitudine poli 54, in maxima solis declinatione 23° 30'.

Anno 1583 die 2 Decembris obseruata est altitudo stellæ polaris Meridiana quæ superior fuit 56° 55', inferior 51° 4'. Hinc poli eleuatio 53° 59' 30''.

Sequentibus diebus eiusdem stellæ altitudo meridiana superior inuenta est 56° 56', inferior vero 51° 4'. Hinc poli eleuatio 54°. Repetita hæc obseruatio aliquoties fuit & tantum bis depræhensa est eadem poli eleuatio. Ceteris vicibus altitudines vel maiores vel minores inæqualem poli eleuationem dederunt.

¹ Hæc in codice K, folio inuenitur.

² Hæc obseruatio alia manu in folio conscripta est, quod postea codici E insertum est.

ANNO D^NI 1593 DIE 20 MAIJ.

Obferuatio defectus solaris sub Meridiano Serueftano

Anhaldinorum¹. Eleuatur autem polus Serueftæ

Anhaldinorum $52\frac{1}{2}^{\circ}$.

Obferuabatur ☉ in meridie habuitque altitudinem 59 45. Tempus per æquatorium ligneum.



H. 2 M. 22
Alt. ☉ tunc
temporis 48° 10'



H. 2 56 $\frac{1}{2}$ M



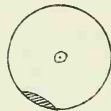
H. 2 38'
inter nubes



H. 2 58^M



H. 2 M. 47
incerta hæc,
circa medium
Eclipsis



H. 3 5



H. 2 48

In fequentibus
cælum ferenius



H. 3 Mto 9



H. 2 55 $\frac{1}{2}$
Alt. ☉ 43 $\frac{1}{2}$



H. 3 Mto 17 $\frac{1}{2}$

Totus Sol liber ab vmbra exacte conspiciebatur H. 3 $\frac{1}{2}$. Erat etiam diameter ☉ apparens per Radium obferuata circiter 30'. Digni autem obfcurationis totalis apparebant circiter duo vel paulo plus.

¹ Hæc obferuatio « Chriftiano Ioannis Ripenfi, difcipulo Tychonis, facta eft.

DIE 11 JUNIJ.

Circa solstitium æstium proxime.

| | |
|---------------|---------------------|
| Alt. ☉ Merid. | |
| per Chalyb. | 57 35 $\frac{1}{2}$ |
| per Volub. | 57 34 $\frac{1}{2}$ |

Crede Chalybeo.

| | |
|------------------------|---------------------|
| Declin. ☉ per Armillas | 23 30 |
| | 23 29 $\frac{1}{2}$ |

Erat mediocriter ferenum, sed ær aliquanto intranquillior.

DIE 13 JUNIJ.

| | |
|---------------|---------------------|
| Alt. ☉ Merid. | |
| per Chalyb. | 57 34 $\frac{1}{2}$ |
| per Volub. | 57 34 |

| | |
|-----------------------------|---------------------|
| Declin. ☉ per Armillas mai. | 23 29 $\frac{1}{2}$ |
| | 23 29 $\frac{1}{2}$ |

Crede potius chalybeo. Erat bene ferenum.

DIE 14 JUNIJ.

| | |
|------------------------|---------------------|
| Alt. ☉ Merid. | |
| per Chalyb. | 57 34 $\frac{1}{2}$ |
| per Volub. | 57 34 |
| Declin. ☉ per Armillas | 23 28 $\frac{1}{2}$ |
| | 23 29 |

Volubilis paulo ante ad amußim correctus est. Horologium M. 11 $\frac{1}{2}$ tardius iusto mouebatur. Fuit mediocriter ferenum sed non satis, ære ex vaporibus terrestribus solis feruore eleuatis denfiore facto.

DIE 18 JUNIJ.

| | |
|------------------------|---------------------|
| Alt. ☉ Merid. | |
| per Chalyb. | 57 26 $\frac{1}{2}$ |
| per Volub. | 57 26 |
| Declin. ☉ per Armillas | 23 21 $\frac{1}{2}$ |
| | 23 20 $\frac{3}{4}$ |

Erat mediocriter ferenum.

DIE 3 JULIJ.

| | |
|------------------------|---------------------|
| Alt. ☉ Merid. | |
| per Chalyb. | 55 59 $\frac{1}{2}$ |
| per Volub. | 56 0 $\frac{1}{2}$ |
| Declin. ☉ per Armillas | 21 55 |
| | 21 54 $\frac{1}{2}$ |

Fuit bene ferenum.

DIE 20 AUGUSTI.

| | |
|------------------------|--------------------|
| Alt. ☉ Merid. | |
| per Chalyb. | 43 7 $\frac{1}{2}$ |
| per Volub. | 43 7 |
| Declin. ☉ per Armillas | 9 2 B. |
| | 9 2 $\frac{1}{2}$ |

Non fuit satis ferenum.

DIE 24 AUGUSTI.

Obferuationes ☉ tam propter se quam ♂. Erat bene ferenum & tranquillum.

| | |
|-----------------------------|--------------------|
| H. 11 52 fuit declinatio ☉ | 7 34 |
| | 7 34 $\frac{1}{2}$ |
| 11 57 repetita declinatio ☉ | 7 34 $\frac{1}{2}$ |
| | 7 34 $\frac{1}{2}$ |

| | |
|---------------|----------------------------|
| Alt. ☉ Merid. | vno 41 40 $\frac{1}{2}$ |
| per Mural. | altero 41 40 $\frac{1}{2}$ |
| per Chalyb. | 41 40 |
| per Volub. | 41 39 $\frac{1}{2}$ |

| | |
|-------------------------------|------|
| H. 12 3 Decl. ☉ vtroque pinn. | 7 34 |
|-------------------------------|------|

DIE 13 SEPTEMBRIS.

Proxime circa æquinoctium autumnale.

| | |
|---|---------------------|
| Declin. ☉ per Armill. | 0 5 $\frac{1}{2}$ M |
| mai. subterr. | 0 5 $\frac{1}{2}$ |
| cum ☉ eßet in æquatore ad ortum a merid. 1° 24', & eßet mediocriter ferenum. Repetita | 0 5 $\frac{1}{2}$ |
| | 0 6 M |

cum ☉ eßet in æquatore 3° 0' occidentalis. In meridie non fuit ferenum.

DIE 1 OCTOBRIS¹.

| | |
|------------------------|---------------------|
| Alt. ☉ Merid. | |
| per Chalyb. | 26 17 |
| per Volub. | 26 16 $\frac{1}{2}$ |
| Declin. ☉ per Armillas | 7 50 |
| | 7 49 $\frac{1}{2}$ |

Fuit mediocriter ferenum.

DIE 26 NOUEMBRIS.

cum eßet apprime ferenum atque tranquillum.

| | |
|---------------|---------------------|
| Alt. ☉ Merid. | |
| per Mural. | 11 34 $\frac{1}{2}$ |
| per Chalyb. | 11 35 |
| per Volub. | 11 35 $\frac{1}{2}$ |

¹ Postea adscriptum est: »Nota bene, declinatio ☉ Meridiana 7 49 $\frac{1}{2}$ & per parallaxin 7 47 requirit locum Solis 19.52 circiter ☐, qualis fuit die tertia Octobris«.

| | |
|---|---------------------------|
| Declin. ☉ per Armillas | 22 31 |
| | 22 31 $\frac{1}{2}$ |
| <i>Locus Solis ex nostra</i> <i>restitutione</i> | 14 22 \times^{\uparrow} |
| Declinatio ☉ | 22 36 $\frac{1}{2}$ |
| Altitudo æquatoris | 34 5 $\frac{1}{2}$ |
| Vera altitudo ☉ | 11 29 |
| Parallaxis lubt. | 3 |
| Altitudo per parallaxin | 11 26 |
| obseruata | 11 35 |
| Refraçtio | 0 9 |
| quod respondet Tabellæ nostræ. | |

| | |
|--------------------------|---------------------|
| DIE 4 DECEMBRIS. | |
| Alt. ☉ Merid. per Mural. | 10 57 $\frac{1}{2}$ |
| per Chalyb. | 10 57 |
| per Volub. | 10 56 $\frac{3}{4}$ |
| Declin. ☉ per Armillas | 23 9 $\frac{1}{2}$ |
| | 23 10 |

Erat bene serenum & tranquillum.

| | |
|---------------------------|--------------------|
| DIE 30 DECEMBRIS. | |
| Alt. ☉ Merid. per Chalyb. | 12 1 $\frac{1}{2}$ |
| per Volub. | 12 1 $\frac{1}{2}$ |
| Declin. ☉ per Armillas | 22 5 $\frac{1}{2}$ |
| | 22 5 |
| Non fuit satis serenum. | |

OBSERVATIONES LUNÆ.

DIE 15 MARTIJ.

Pro horologio ad sequentes obseruationes corrigendo: Die præcedente in Meridie horologium corripiebatur. Mane, paulo ante sequentes obseruationes acceptas, corripiebatur horologium ad stellam Vulturis Lucidam, quæ tum in æquatore a Meridie ad ortum abfuit 38° 55', horologium autem indicabat H. 3 M. 44, quod eodem momento corrigendi gratia promotum est 54 M., ita vt tum demonstraret H. 4 M. 38, idque lato modo. Hinc præcisius corrige horologium.

Postea obseruabatur ☾ proxima vltimæ quadraturæ & apogæo sua, vnde tam mediorum motuum quam parallaxium rite examen institui poterit, modo obseruationes satis ratæ ac bonæ exstiterint; adde quod non longe a tropico hyberno abfuit, quod parallaxibus & refractionibus indagandis nonnihil etiam confert. Cum autem hæc obseruarentur, appropinquabat Luna Meridiano ac 90^{mo} ab oriente Eclipticæ gradu, quo perueniret iuxta calculum H. 5 M. 52.

| H. M. | Dist. ☾ ab orient. limbo ☾ | Declin. sup./inf. cornu ☾ | Altit. cornu sup. |
|-------------------|----------------------------------|---------------------------------|-------------------------|
| 5 2 $\frac{1}{2}$ | 12 57 $\frac{1}{2}$ | 25 57 $\frac{1}{2}$ | 6 52 $\frac{1}{2}$ |
| 5 4 corr. j | | 26 27 $\frac{1}{2}$ | |

| | | |
|--|---------------------|---------------------|
| 5 8 $\frac{1}{2}$ | 12 53 $\frac{1}{2}$ | 25 58 |
| 5 10 $\frac{1}{2}$ corr. j | | 26 27 $\frac{1}{2}$ |
| 5 11 Azim. orient. limbi | | 13 24 |
| Altit. infer. cornu | | 6 38 $\frac{1}{2}$ |
| præcise per Volub.; superius cornu erat in nube. | | |

In his distantijs fuit ☾ paulo eleuatior ab horizonte quam ☾, sed non tantum, vt refractionibus hisce influendis locus aliquis daretur. Obseruata item sunt hæc cælo in eo loco mediocriter sereno, licet alibi vndique nubibus referto, quæ postea quominus vltierius obseruationes continuaremus tam ☾ quam ☾ φαινόμενα visui exemerunt.

Examinatio inuenti loci ☾ ad diem

15 Martij ex ☾ correctiori Ascensione Recta supposita, quæ iuxta proximatas præcedentes obseruationes a corde ☾ hoc modo reperta est.

| | |
|-------------------------------|----------------------|
| Die 17, H. 4 M. 55 Mane | |
| Distantia ☾ a corde ☾ | 45 29 |
| Declinatio ☾ obseruata | 21 59 $\frac{1}{2}$ |
| Refraçtio in altitud. 8 grad. | 0 6 $\frac{1}{2}$ |
| Vera declinatio ☾ M. | 22 6 |
| Ascensio Recta cordis ☾ | 241 11 $\frac{3}{4}$ |
| Declinatio eiusdem M. | 25 25 |
| Ergo Ascens. Recta ☾ vera | 291 2 $\frac{3}{4}$ |
| Resp. Longitudo | 19 26 $\frac{3}{4}$ |
| Latitudo | 0 0 $\frac{1}{2}$ B. |

E. tabulis Pruten. Calc. Alphons.

Longitudo 19 18 $\frac{7}{8}$ 18 39 $\frac{7}{8}$
 Latitudo 0 27 B. 0 10 B.

Reducta autem Ascensione Recta η ad momentum, quo Luna triduo mane ab eodem obseruata est, idque per motum diurnum qui Copernico est M. 8, prouenit eadem $290^{\circ}44'0''$. Ideoque ζ Ascensio Recta restituta $277^{\circ}3'40''$ obseruata. Longitudo ζ hinc $6^{\circ}21'46''$ $\frac{7}{8}$. Verum eliminatis tam refractionibus quam parallaxibus prouenit vera Longitudo ζ obseruata die 15 Martij H. 5 M. 10 mane 6 18 $\frac{7}{8}$ $\frac{7}{8}$. Ex tabulis autem Prutenicis correctis, uisitata emendatione medijs motibus ad hoc tempus respondet verus locus ζ $6^{\circ}38'0''$ $\frac{7}{8}$. Differentia M. 19 $\frac{1}{2}$.

DIE 24 AUGUSTI.

Obseruatio ζ paululum Meridianum prætergressæ.

| H. M. | Altit. inf. limbi | Azim. limb. occ. | Declin. cornu sup. inf. |
|--------------------|----------------------|---------------------|---|
| 6 57 $\frac{1}{2}$ | 8 5 | 3 45 | 25 29 $\frac{1}{2}$ 25 59 $\frac{1}{2}$ |
| 7 9 | 7 58 | 5 58 | 25 29 26 0 $\frac{1}{2}$ |

DIE 8 SEPTEMBRIS.

Obseruatio ζ paulo post ultimam \square circa Tropicum Cancrī, cum non longe abesset a meridiano & 90° grad. H. 5 M. 50 iuxta supputationes.

N. B. Conducunt hæ obseruationes tum pro ζ parallaxi iuxta Perigæum tum $\phi\alpha\nu\nu\omicron\mu\epsilon\nu\alpha$ reliqua cognoscenda & plenius examinanda.

| H. M. | Dist. ζ a η | Decl. cornu sup. infer. | η orient. |
|--------------------|---------------------------|----------------------------|----------------|
| 5 10 $\frac{1}{2}$ | 43 34 $\frac{1}{2}$ | 24 41 $\frac{1}{2}$ | 56 15 |
| 5 17 $\frac{1}{2}$ | 43 36 | | 55 35 |

| | | |
|--------------------------|--|---|
| 5 21 | 43 33 $\frac{1}{2}$ | |
| 5 24 $\frac{1}{2}$ | 43 32 bona | 54 14 |
| 5 26 $\frac{1}{2}$ | 43 30 $\frac{1}{2}$ | 53 40 |
| 5 30 $\frac{1}{2}$ | 43 29 | 52 44 |
| 5 33 corr. | | |
| 5 34 $\frac{1}{2}$ | 25 17 $\frac{1}{2}$ 24 44 $\frac{1}{2}$ | |
| 5 40 $\frac{1}{2}$ | 43 26 | |
| 5 42 $\frac{1}{2}$ | 43 25 $\frac{1}{2}$ hic fuit ζ in 90° | |
| 5 44 $\frac{1}{2}$ | 43 24 $\frac{1}{2}$ quantum ad visum. | |
| 5 50 $\frac{1}{2}$ corr. | | |
| 5 54 $\frac{1}{2}$ | Transitus orient. limbi ζ per Merid., habuit | per Chalyb. per Volub. |
| | sup. cornu altit. | 59 20 $\frac{1}{2}$ 59 21 $\frac{1}{2}$ |
| | infer. cornu | 58 52 58 51 $\frac{1}{2}$ |

Implicata autem fuit ζ circa transitum nubibus quibusdam, sed non ita densis quin obseruationi satis patuerit.

(Pone distantiam orientalis limbi ζ a η H. 5 $\frac{1}{2}$, cum ζ esset in 90° g., 43 24 $\frac{1}{2}$.)

N. B. Diameter ζ in Chalybeo et si minor iuxta obseruata videatur, tamen pro altitudine centri conuenit cum Volubili¹.

Pro loco ζ
ex antecedentibus obseruationibus¹.

| | |
|--|--------------------------------|
| H. 5 M. 50 Dist. | ζ orient. limb. a η |
| | 43 24 $\frac{1}{2}$ |
| Semidiameter ζ | 0 15 $\frac{1}{2}$ |
| Ergo distantia centri ζ a η | 43 40 |
| Declinatio centri ζ | 25 0 $\frac{1}{2}$ B. |
| Declinatio η obseruata | 17 7 $\frac{1}{2}$ B. |
| Ascensio Recta η | 131 24 $\frac{1}{2}$ |
| Angulus differ. ascens. | 45 30 $\frac{1}{2}$ |
| Ergo Ascensio R. ζ | 85 53 $\frac{1}{2}$ |
| Resp. Longitudo | 26 16 $\frac{1}{2}$ J |
| Latitudo | 1 32 $\frac{1}{2}$ B. |
| Arcus inclinat. | add. 5' 15" |
| Ergo vera longit. in proprio circulo | 26 21 $\frac{1}{2}$ J |

¹ E codice K.

OBSERVATIONES SATURNI.

DIE 7 JANUARIJ, VESPERI.

Obferuatio h paulo poſt ϕ cum \odot .

| H. M. | Diſt. h a luc. hum. Or. | Decl. h | Alt. h | Diſt. æq. Can. min. or. |
|--------------------|-------------------------------------|---------------------|---------------------|-------------------------------|
| 8 37 $\frac{3}{4}$ | 33 55 | 21 41 $\frac{1}{2}$ | 43 11 | |
| | fere, inter nubes | | | |
| 8 49 $\frac{1}{2}$ | 33 54 $\frac{1}{2}$ | 21 41 $\frac{1}{2}$ | 44 38 $\frac{1}{2}$ | 34 50 |
| | | 21 41 $\frac{1}{2}$ | | |

Erat in ſequentibus obſervationibus
fatis ſerenum, \ll ſaltem radijs clarius
emicante, quod tamen nihil præciſioni
derogabat. Tranſiit Canis min. per
Merid. H. 11 17 $\frac{1}{2}$ ' per ſupput.

| | | | |
|--------------------|--|---------------------|-------|
| 8 59 $\frac{1}{2}$ | 33 55 $\frac{1}{2}$ | 21 41 $\frac{1}{2}$ | 45 37 |
| | præciſe f 21 41 $\frac{1}{2}$ | | |

Viceverſa a corde \odot .

| | | | |
|---------------------|--|---------------------|-----------------------|
| 9 9 $\frac{1}{2}$ | 30 57 | | 29 42 |
| 9 18 $\frac{1}{2}$ | corr. | | |
| 9 17 $\frac{1}{2}$ | 30 57 $\frac{1}{2}$ | 21 42 | Alt. cord. \odot |
| | | 21 41 $\frac{1}{2}$ | 25 27 |
| 9 24 $\frac{1}{2}$ | 30 57 $\frac{1}{2}$ | | Alt. h 25 56 |
| 9 33 $\frac{1}{2}$ | corr. | | 48 33 |
| 9 29 $\frac{1}{2}$ | 30 57 $\frac{1}{2}$ | 21 41 $\frac{1}{2}$ | |
| | Diſt. h 21 41 $\frac{1}{2}$ | | |
| | ab Aldeb. | | |
| 10 47 $\frac{1}{2}$ | 49 21 $\frac{1}{2}$ | | |
| 10 57 | corr. | | |
| 10 54 $\frac{1}{2}$ | 49 21 $\frac{1}{2}$ | | 2 54 |
| 11 2 | 49 21 $\frac{1}{2}$ | | |
| 11 12 $\frac{1}{2}$ | corr. | | |
| 11 28 | Tranſijt h per Merid. habens | | |
| 11 38 | corr. Alt. per Chal. 55 45 $\frac{1}{2}$ | | |
| | per Vol. 55 45 | | |
| | Declin. 21 41 $\frac{1}{2}$ | Can. min. occ. | |
| | 21 40 $\frac{1}{2}$ | 5 36 | |

Poſtea obducebatur cælum iterum
rarioribus nubibus.

Ponatur eius diſtantiæ ad horam 10 $\frac{1}{2}$
ſed prius verificatam

| | |
|-----------------|---------------------|
| a corde \odot | 30 58 |
| ab Aldeboram | 49 21 $\frac{1}{2}$ |
| Declinatio | 21 40 Bor. |

Hinc inquiretur ipſius locus & ad-
hibito priore inueniatur tempus ϕ
cum medio loco Solis vt ſolet.

Calculus pro loco h ex antecedentibus
obſervationibus

| | | |
|----------|-----------------------------------|---------------------|
| H. 9 34' | Diſt. h a corde \odot | 30 58 0 |
| | Ang. diff. aſcenſ. | 31 33 40 |
| | Ergo Aſc. recta h | |
| | a corde \odot | 115 5 40 |
| 10 57 | Diſt. h ab oculo \odot | 49 21 $\frac{1}{2}$ |
| | Hinc angulus diff. | |
| | aſcenſionalis | 51 55 55 |
| | Ergo Aſc. recta ab | |
| | Aldeb. | 115 5 20 |

| | |
|--|-----------------------------|
| Ponatur itaque Aſcenſio recta h limi- | |
| tata hora 10 $\frac{1}{2}$ | 115 5 $\frac{1}{2}$ |
| Declinatio | 21 40 |
| Reſp. Longitudo | 23 12 $\frac{1}{2}$ \odot |
| Latitudo | 0 8 0 B. |

Colligitur vero tam ex loco h ad
diem 29 Decembris anni præcedentis
ex obſervationibus ibidem inquiſito
quam ex loco eius ad præſentem 7
diem Januarij, eodem modo e cer-
tiſſimis obſervationibus ſupputato,
fuiſſe eius veram oppoſitionem cum
medio loco \odot in 23° 32 $\frac{1}{2}$ ' \odot die 3 Janu-
arij hora 17 4' pomeridiana. Porro
motus h diurnus inter harum obſer-
uationum interſtium collectus et per
ſingulos dies proportionali modo di-
ſtributus prodiit 5 Minut. quam pro-
xime.

DIE 8 JANUARIJ.

Obſeruabatur h in hunc modum.
Fuit autem circa initium harum ob-
ſervationum h in recta linea cum vtro-
que capite II vel paulo antea, ſcilicet
H. 8 $\frac{1}{2}$, quemadmodum per regulam
lineam ad amuſim obſeruatus eſt.

Pro inquirenda latitudine obſerua-
batur primum ab infer. cap. II h^{nus} .

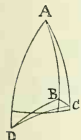
| H. M. | Diſt. | Declin. h | Alt. h | Can. min. or. |
|--------------------|-------------------------|---------------------|-----------------|------------------|
| 9 34 $\frac{1}{2}$ | 8 31 | | | |
| 9 37 $\frac{1}{2}$ | 8 31 $\frac{1}{2}$ | | | |
| | pone 8 31 $\frac{1}{2}$ | | | |
| 9 40 $\frac{1}{2}$ | 8 31 $\frac{1}{2}$ | 21 42 | 49 45 | 23 4 |
| | | 21 41 $\frac{1}{2}$ | | |

Porro diff. η ab Aldeboram vt sequitur.

| | | | | |
|---------------------|---------------------|-------|-------|--|
| 9 53 $\frac{1}{2}$ | 49 18 | | | |
| <i>pone hic</i> | 49 17 $\frac{1}{2}$ | | | |
| 9 56 $\frac{1}{2}$ | 49 17 $\frac{1}{2}$ | | | |
| 10 1 $\frac{1}{2}$ | 49 17 $\frac{1}{2}$ | 21 42 | 51 40 | |
| | | 21 42 | | |
| 10 11 $\frac{1}{2}$ | 49 17 inter nubes | | 15 10 | |

Inquiratur locus η ex vltimis obseruationibus, adhibita saltem eius ab vtraque stella distantia vna cum earundem longitudine & latitudine: pro maiori confirmatione latitudinis inquirendæ, quam Tabulæ Prutenicæ nimis erroneam ponunt, aberrando plus integro gradu ab apparentijs; Alphonsinæ vero quam proxime consentiunt, sed longitudinem falsam admodum habent.

Exquisitior inuestigatio motus η circa oppositionem \odot , assumpta vna ad diem 9 Ianuarij η ex solis distantijs a postnominatis fixis per triangulorum subductionem apparentia.



Sit in hac figuratione A polus Eclipticæ, B inferius caput Π , C η nus, D Aldeboran.

| | |
|-----------------|-----------------------------|
| Aldeb. longit. | 4 6 Π |
| latit. | 5 31 M. |
| Inf. cap. long. | 17 36 $\frac{1}{2}$ \odot |
| lat. | 6 38 B. |

| In triangulo DAB | ex obseruatione inuenta est |
|---------------------------|-----------------------------|
| BA 83 22 | 45 5 0 |
| DA 95 31 | BDC 10 7 9 |
| DAB 43 30 $\frac{1}{2}$ | DC 49 17 50 |
| DB 45 5 $\frac{1}{2}$ quæ | BC 8 31 20 |

In triangulo ADB

| |
|-----------------------|
| DA 95 31 |
| DB 45 5 $\frac{1}{2}$ |
| BA 83 22 |

Ergo ADB 74 55 23
et ADC 85 2 32

Hinc CA 89 51 23 latit. η compl.
et DAC 49 2 56 Diff. longit. η

Ergo hora 10 diei 8 Ianuarij
 η Longitudo 23° 8' 56" \odot
Latitudo 0 8 37 B.

Collato hoc η loco cum præcedente proxime, item cum eo qui ante δ inventus fuit, colligitur η circa tempus oppositionis cum medio motu \odot fuisse in 23° 32' \odot , cum latitudine borea 0° 8 $\frac{1}{2}$ '. Quod cæteris Acronychijs apparentijs η satis præcise iuxta generalem motuum eius emendationem reconciliatur.

At¹ die 29 Decembris anni præcedentis, circa mediam noctem, locus η ex antecendentibus bene limitatus esse poterit in 23° 58' \odot
Die 8 Ianuarij in 23 9
Dierum 10 intervallum 0 49

Ergo die 3 Ianuarij H. 17 a meridie, quando δ medio motu \odot , quæ erat in medio horum, propius tamen diei 8, quasi 5 horis, competent 23' 30" addenda ad locum 8 Ianuarij, nam 5 dies faciunt medium de 49', id est 24' 30", sed horæ 5 auferunt quasi 1 minutulum, vt sint faltem 23' 30" addenda; ergo provenit longitudo η tempore oppositionis cum \odot 23° 32' \odot
Calculus verificatus dat 23 33 $\frac{1}{2}$
Differentia 40"

Sed fieri potest quod maiuscula differentia dierum aliquid discriminis attulerit. Quia vero competit diebus decem motus diurnus revera 50' ad minimum, addatur ad diem 29 1', quia eius motus est magis dubius quam alterius diei, sicque conflabimus motum η tunc temporis 23° 59' \odot .

DIE 6 MAIJ

obseruauimus η in hunc modum.

| H. M. | Diff. η a corde \odot | Decl. η | Alt. η | Spica ad occas. |
|---------------------|---------------------------------|--------------|------------------|--------------------|
| 10 13 $\frac{1}{2}$ | 31 27 | 21 54 | 14 $\frac{1}{2}$ | |

vtroquej

| | | | | |
|-------|-------|---------------------|------|------|
| 10 32 | 31 26 | | | |
| 10 36 | | 21 54 $\frac{1}{2}$ | 15 0 | 14 7 |
| | | 21 55 | | |

Fuit hac vespéra satis serenum, sed venti Aquilonis nonnulla vehementia, quæ aërem aliquanto turbulentiorē reddidit. Fuerunt & chasmata circa horizontem septentrionalem.

¹ Quæ sequuntur, e codice K. folo.

DIE 15 MAIJ

obseruabatur η in hunc modum.

| H. M. | Dist. η a Capella | Decl. η | Alt. η | Spica Π occid. |
|---------------------|--------------------------------------|---------------------|-------------|-----------------------|
| 10 7 | 42 46 $\frac{1}{2}$ | 21 47 $\frac{1}{2}$ | 12 30 | 19 0 |
| 10 13 | 42 46 $\frac{1}{2}$ | 21 47 $\frac{1}{2}$ | 12 0 | 20 36 |
| | Dist. η a corde Ω | | | |
| 10 19 | 30 35 $\frac{1}{2}$ | 21 47 $\frac{1}{2}$ | 11 0 | 22 3 |
| | dubia η | | | |
| 10 26 $\frac{1}{2}$ | 30 33 | | 10 30 | 23 56 |
| 10 30 | 30 32 $\frac{1}{2}$ | 21 48 $\frac{1}{2}$ | 9 50 | |
| | | 21 49 | | |
| 10 36 | 30 31 $\frac{1}{2}$ | | 9 10 | 26 14 |
| | Dist. η ab infer. cap. Π | | | |
| 10 42 | 8 41 $\frac{1}{2}$ | 21 49 $\frac{1}{2}$ | 8 30 | 27 43 |
| | | | | Bor. lanx. |
| 10 47 | 8 41 $\frac{1}{2}$ | | 7 50 | Ω occid. |
| 10 50 | 8 41 $\frac{1}{2}$ | | 7 30 | 2 0 |
| 10 55 | 8 41 $\frac{1}{2}$ | | 7 0 | 3 23 |
| 10 58 | 8 40 $\frac{1}{2}$ | 21 52 | 6 40 | 4 0 |

Hæ obseruationes in η faciæ sunt cum appropinquaret Soli tendens ad occasum heliacum, vt de ipsius latitudine præfertim certior fierem, cum eßet circa Epicycli apogæum (vt ferunt veterum hypotheses).

Cauenda est autem refractione, quæ tamen in distantia ab inferiori capite Π parum facit. Vtere illic distantia 8 $^{\circ}$ 41 $\frac{1}{2}$ ' absque sensibili errore.

DIE 1 SEPTEMBRIS, MANE.

| | | |
|-------------------|--------------------------|-------|
| 5 3 $\frac{1}{2}$ | Dist. η a Cane min. | 23 8 |
| | inter nubes. Alt. η | 25 34 |

DIE 8 SEPTEMBRIS, MANE.

| H. M. | Dist. η a Cane min. | Decl. η | Alt. η | Dext. hum. Orionis |
|---------|--------------------------------------|--------------------|-------------|-----------------------|
| 4 0 | 23 39 $\frac{1}{2}$ | 19 0 | | 23 42 |
| | | 19 0 $\frac{1}{2}$ | | |
| 4 16 40 | 23 39 | | 27 45 | |
| | Dist. η ab infer. cap. Π | | Vice Versa | |
| 4 21 50 | 20 40 $\frac{1}{2}$ | | | 20 14 |
| 4 24 | 20 40 $\frac{1}{2}$ | | | |
| 4 26 | 20 40 $\frac{1}{2}$ | 19 0 vno | | 19 5 |

N. B. Faciunt hæ obseruationes imprimis pro latitudine η inquirenda,

quas calculo per triangulorum inductiones ex binis fixis a quibus obseruatus reperitur subducere licebit. Constituit autem fere triangulum æquilaterum cum illis, ita vt Canis minor occidentalem partem basishuiusmodi trianguli terminaret & caput inferius anguli oxygonij vicem zenit versus gereret hoc modo.

* inf. cap. Π * η

* Can. min.

* ϕ

DIE 30 OCTOBRIS

Mane, iuxta meridianum obseruabatur η circa \square \odot occiduam in frequentem modum.

| H. M. | Dist. η ab infer. cap. Π | Decl. η | Cor Ω or. |
|--------------------|--------------------------------------|---------------------|------------------|
| 6 30 $\frac{1}{2}$ | 23 56 $\frac{1}{2}$ | 18 12 | |
| 6 37 | 23 56 $\frac{1}{2}$ | | 6 18 |
| 6 41 | 23 56 $\frac{1}{2}$ | | 5 15 |
| | Dist. η a corde Ω | | Vice Versa |
| 6 47 | 13 23 $\frac{1}{2}$ | 18 11 $\frac{1}{2}$ | |
| | | 18 11 $\frac{1}{2}$ | |

| | | |
|--------------------|---------------------|-----|
| 6 53 | 13 23 $\frac{1}{2}$ | |
| 6 55 $\frac{1}{2}$ | 13 23 $\frac{1}{2}$ | 2 4 |

| | | |
|-----|--|---------------------|
| 7 2 | Transibat cor Ω | |
| | per merid. habens altit. | |
| | per Chalyb. | 48 0 $\frac{1}{2}$ |
| | per Volub. | 48 1 0 |
| | Declin. cordis Ω per | 13 55 |
| | armillas | 13 55 $\frac{1}{2}$ |
| 7 9 | Declin. η 18 11 $\frac{1}{2}$ vno | |

Hinc potes obseruatam η declinationem per armillas emendare, collatis hisce quæ in corde Ω circa meridianum sunt obseruata. Erat enim η paululum meridianum transuectus cum obseruari inciperetur.

| | |
|--------------------------------------|---------------------|
| Pone η distantiam ab inf. Π | 23 56 $\frac{1}{2}$ |
| a Regulo | 13 23 $\frac{1}{2}$ |
| declinationem | 18 12 |

DIE 23 NOUEMBRIS.

A die 30 Octobris vsque in hunc diem non fuit Ierenum.

Mane obseruabatur ♄ prope merid. & circa ☉ occid., iam retrogradus iuxta initium.

Altit. ♄ Merid.

per Chalyb. 52 19½

per Volub. 52 19½

Declin. ♄ per Armillas 18 15

18 14½

H. M. Dist. ♄ ab
inf. cap. II

5 36 23 57½

5 31 23 57½

5 5½ 23 57½

6 0 23 57½

Cor Hydræ
occid.

1 56

5 26

7 48

Vice Verfa

6 7½ 13 19½

6 19½ 13 19½

6 30 13 19½

6 41½ 13 19½

17 8

Erat hoc mane fati bene ferenum, flante tamen occidentali vento paulo vehementiori.

Horologium ad distantias æquatorias fixarum verificato; per coniecturam enim ad initium obseruationum harum direximus & moueri fecimus.

DIE 27 NOUEMBRIS, MANE.

H. M. Dist. ♄ ab
inf. cap. II

7 4 23 50

7 14 23 50½

7 19½ 13 25½

7 24 13 24½

7 32½ 13 25

Decl. ♄

18 16

44½

18 15½

18 16

23 52

26 50

22 37

22 37

22 37

22 37

22 37

22 37

22 37

22 37

22 37

22 37

22 37

22 37

22 37

22 37

22 37

22 37

22 37

22 37

22 37

22 37

22 37

22 37

22 37

Fuit hoc mane fati bene ferenum, & tranquilla aëris constitutio.

Pone decl. ♄ 18 15 propter obseruationes die 23 habitas.

DIE 10 DECEMBRIS, VESPERI.

H. M. S. Dist. ♄ ab
inf. cap. II

9 17 10 23 15½

18 32½

17½ 27 62¹

18 32

Cælum iam nubilosum prohibuit nos diutius stellis invigilare & pigritia!!².

DIE 30 DECEMBRIS.

Vesperī obseruabatur ♄ tendens ad ☿ in hunc modum.

H. M. S. Dist. ♄ a
luc. pede II

9 19 36 15

18 54

23 45

47 7½

18 53½

25 7

25 2

9 34 10 36 14

23 27

9 37 50 36 14½

22 37

Dist. ♄ a
Cane min.

9 44 50 24 58½

18 53½

27 15

21 0

18 54

9 52 10 24 59

19 17

9 54 40 24 58½

18 53½

28 50

18 6

9 57 20 24 58

18 53½

28 50

18 6

9 57 20 24 58

18 53½

28 50

18 6

9 57 20 24 58

18 53½

28 50

18 6

9 57 20 24 58

18 53½

28 50

18 6

9 57 20 24 58

¹ Sic in codicibus E & K.

² Hæc duo verba ab ipso Tycho postea addita sunt.

OBSERVATIONES IOUIS.

DIE 17 MARTIJ, MANE.

| H. M. | Dift. $\frac{1}{2}$ a corde $\frac{1}{2}$ | Decl. $\frac{1}{2}$ M. | Alt. cord. $\frac{1}{2}$ | Vultur or. |
|--------------------------|--|---------------------------|-----------------------------------|---------------|
| 4 39 $\frac{1}{2}$ | 45 28 $\frac{1}{2}$ | | 8 0 | |
| 4 42 | | 21 59 | Alt. $\frac{1}{2}$ per Q. min. | 33 38 |
| 4 55 $\frac{1}{2}$ corr. | | 21 59 $\frac{1}{2}$ | 7 45 | |
| 4 47 | 45 29 | | | |
| 4 49 | 45 29 $\frac{1}{2}$ | 21 59 $\frac{1}{2}$ | 8 20 | 31 46 |
| 5 3 corr. | | 22 0 | | |

Plura propter crepusculum obseruari non poterant.

DIE 13 JUNIJ.

Vesperī obseruabatur primum $\frac{1}{2}$ opposito \odot ¹¹ appropinquans in hunc modum.

| H. M. | Dift. $\frac{1}{2}$ ab or. cap. $\frac{1}{2}$ | Decl. $\frac{1}{2}$ | Alt. $\frac{1}{2}$ | Vultur orient. |
|---------------------|---|------------------------|--|-------------------|
| 12 12 $\frac{1}{2}$ | 8 58 $\frac{1}{2}$ | 22 18 | 10 58 | 15 54 |
| | | 22 17 $\frac{1}{2}$ | | |
| 12 27 | 8 59 $\frac{1}{2}$ | 22 18 | $\frac{1}{2}$ non longe a meridiano | |
| | | 22 18 $\frac{1}{2}$ | | |
| 12 30 $\frac{1}{2}$ | 8 59 $\frac{1}{2}$ | | | |
| | $\frac{1}{2}$ ab inf. cap. $\frac{1}{2}$ dist. | | Vice Verfa | |
| 12 46 25" | 10 12 $\frac{1}{2}$ | | | 7 15 |
| 12 51 $\frac{1}{2}$ | 10 12 $\frac{1}{2}$ | | | |

Dist. a post.
caud. $\frac{1}{2}$
28 30

1 9 Tranſibat $\frac{1}{2}$ per merid. habens
altit. per Chalyb. 11 47 $\frac{1}{2}$
per Volub. 11 47 $\frac{1}{2}$

Fuit hac vesp̄era non satis serenum,
sed nubes rariores cœlo vbique fere
subſtratæ.

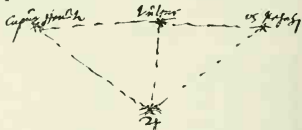
Crede potius altitudini per Chalyb.
ſumptæ, vel accipe eandem 11 47 $\frac{1}{2}$
præciſe, & non errabis.

N. B. Obſeruetur Jupiter iuxta \odot
I. A ſtellis quæ apparent in $\frac{1}{2}$ & vice
verſa in $\frac{1}{2}$, quæ fere ſunt cum eo
in æquilibrio horizontis.

II. Et quoque a ſiniſtro humero $\frac{1}{2}$ &
vice verſa ab aliqua in genu Ophi-
uchi.

Pro triangulari vero denotatione
quæ & longitudinem & latitudinem
examinabit, obſeruetur cum iuxta
meridianum eſt a tribus illuſtriori-

bus ſtellis; lucida Vulturis, quæ ſu-
pra iplum latitudinem examinat; ore
Pegafi verſus ortum; & capite Ophi-
uchi vel Herculis verſus occalum,
vt trianguli in hunc modum formari
queant.



DIE 23 JUNIJ, VESPERI.

12 27 $\frac{1}{2}$ Declin. $\frac{1}{2}$ per Armillas
22 30 fere, vtroque

Altit. $\frac{1}{2}$ Merid.
per Chalyb. 11 36 $\frac{1}{2}$
per Volub. 11 36
Erat Lucida Vult. orient. 2 50

Hæc ſaltem in $\frac{1}{2}$ hac vesp̄era ſunt
obſeruata, quando fixæ a quibus eius
diſtantia caperetur propter aërem ad
meridiem minus defecatum, non ap-
parebant.

Notetur interuallum temporis quod
tranſit iterea dum lucida Vulturis
eſt in meridiano & $\frac{1}{2}$ tam per horo-
logium quam armillas, atque hinc
etiam eius colligatur aſcenſio recta.

DIE 25 JUNIJ.

Poſt median noctem obſervatio
 $\frac{1}{2}$ Acronychij.

| H. M. | Dift. $\frac{1}{2}$ a cap. $\frac{1}{2}$ Ophiuchi | Decl. $\frac{1}{2}$ M. | Altit. $\frac{1}{2}$ | Tempus in æquat. Vultur occ. 4 11 |
|---------------------------|---|---------------------------|-------------------------|--|
| 12 35 | | 22 32 $\frac{1}{2}$ | | |
| 12 47 $\frac{1}{2}$ corr. | | 22 32 $\frac{1}{2}$ | | |
| 12 41 | 46 21 | | | |
| 12 45 | 46 21 $\frac{1}{2}$ | | | |
| 12 48 $\frac{1}{2}$ | 46 21 fere | | | |
| 1 0 corr. | | | | |
| | Dift. $\frac{1}{2}$ ab ore Pegafi | | Vice Verfa. | |
| 12 53 | 43 30 fere | | | |
| 12 59 $\frac{1}{2}$ | 43 30 præciſe | 10 $\frac{1}{2}$ | 9 47 | |
| 1 10 $\frac{1}{2}$ cor. | | | | |
| | 43 30 $\frac{1}{2}$ dubia | | | |

| | | |
|--------------------|-------------------------|------------------|
| | Dift. η a σ | |
| 1 18 $\frac{1}{2}$ | 54 30 $\frac{1}{2}$ | |
| 1 25 $\frac{1}{2}$ | 54 30 præcife | Altit. σ |
| 1 29 $\frac{1}{2}$ | 54 30 $\frac{1}{2}$ | 17 $\frac{1}{2}$ |

Nota. Caput Ophiuchi & os Pegafi faciunt cum η triangulum fatis bene pro calculo dispositum. Sed cauenda erit postea η refractionis præsertim ob latitudinem.

DIE 27 JUNIJ.

| H. M. | Dift. η a cap. Oph. | Decl. η | Vultur orient. |
|---------------------|--------------------------------|---------------------|----------------|
| 11 36 $\frac{1}{2}$ | 46 12 $\frac{1}{2}$ | ferenum fatis 22 35 | |
| | | 22 34 $\frac{1}{2}$ | |
| 11 53 $\frac{1}{2}$ | 46 13 $\frac{1}{2}$ | nebulosum | 6 9 |
| 12 1 $\frac{1}{2}$ | 46 13 | accurata | |
| 12 7 $\frac{1}{2}$ | Altit. merid. η in Volub. | 11 31 $\frac{1}{2}$ | |

| | | |
|---------------------|----------------------------|---------------|
| | Dift. η ab ore Pegafi | |
| 12 17 $\frac{1}{2}$ | 43 52 $\frac{1}{2}$ | 22 35 vtroque |

Hæ obseruationes sunt admodum incertæ propter continuas discurrentes nubes, quibus etiam densioribus interuenientibus ab obseruandi officio retenti sumus.

| | |
|----------------------------------|---------------------|
| <i>Pone hic declinationem</i> | 22 34 $\frac{1}{2}$ |
| <i>& dist. a capite Oph.</i> | 46 13 |
| <i>dist. ab ore Pegafi</i> | 43 52 $\frac{1}{2}$ |

Apodixis inuenti loci η ex obseruationibus habitis die 25 Junij post M. N.

| | | |
|--------------------------|-------------------|-----------------------|
| Hora 1 M. 0 | Dift. η | |
| a capite Ophiuchi | 46 21 0 | |
| ab ore Pegafi | 43 30 0 | |
| Capitis Ophiuchi Longit. | 16 43 40 \times | |
| | Latit. | 35 57 0 B. |
| Oris Pegafi Longit. | 26 15 40 \times | |
| | Latit. | 22 7 $\frac{1}{2}$ B. |

Angulus diff. long. ab ore Peg. 38 19 26

Ergo H. 1 M. 0 η Longitudo 17 56 $\frac{1}{2}$ γ
Latitudo 0 12 $\frac{1}{2}$ M.

Examen inuentæ latitudinis per declinationem & econtra.

Longit. 17 56 $\frac{1}{2}$ γ , resp. declin. 22 19 48 M.

Adde propter latitudinem M. 0 12 30

| | |
|-------------------------|------------------------|
| Declin. ex latitudine | 22 32 $\frac{1}{2}$ M. |
| Eadem declin. obseruata | 22 32 $\frac{1}{2}$ |
| | 22 32 $\frac{1}{2}$ |

Patet itaque latitudinem η ex distantijs a fixis eandem omnino esse cum ea ex declinatione obseruata derivanda, huic vero si adieceris 5' propter refractionem, ponitur latit. vera obseruata 0 17 $\frac{1}{2}$ M.
Tabulæ Prutenicæ habent 0 20 0 S.
Differentia latitudinis 0 37 $\frac{1}{2}$

Subtrahe etiam ex longitudine pro refractione 45'', vt fit

| | |
|----------------|------------------------------|
| vera Longitudo | 17 55 $\frac{1}{2}$ γ |
| Latitudo | 0 17 $\frac{1}{2}$ M. |

Refracte per Asc. & Decl.

| | |
|---------|------------------------------|
| Longit. | 17 56 $\frac{1}{2}$ γ |
| Latit. | 0 12 $\frac{1}{2}$ M. |

DIE 29 JUNIJ.

Vesperis obseruabatur η .

| H. M. S. | Dift. η a cap. Ophiu. | Decl. η | Alt. η | Vultur orient. |
|----------|----------------------------|---------------------|-------------|----------------|
| 10 17 30 | 46 1 $\frac{1}{2}$ | 22 35 $\frac{1}{2}$ | 8 32 | 29 34 |
| | | 22 35 $\frac{1}{2}$ | | |
| 10 28 10 | 46 1 $\frac{1}{2}$ | | 9 6 | 26 40 |
| 10 33 40 | 46 1 $\frac{1}{2}$ | 22 35 $\frac{1}{2}$ | | 25 31 |
| | | 22 36 | | |
| 10 41 40 | 46 2 | | 9 45 | 33 30 |
| 10 47 40 | 46 2 | | | 22 4 |

Dift. η ab ore Pegafi

| | | | | |
|----------|--------------------|--|-------|-------|
| 10 57 50 | 44 0 $\frac{1}{2}$ | | 10 24 | 19 29 |
| 11 4 20 | 44 0 $\frac{1}{2}$ | | 10 38 | 17 50 |

Vice Versa

| | | |
|----------|----------------------------|---------------------|
| | Dift. ab ore cap. \times | |
| 11 13 50 | 7 4 $\frac{1}{2}$ | |
| 11 19 40 | 7 5 | 22 36 11 0 |
| | | 22 36 $\frac{1}{2}$ |

| | | |
|----------|-----------------------------------|--------------------------------------|
| | Dift. η a fin. hum. \times | |
| 11 31 40 | 31 33 $\frac{1}{2}$ | 11 15 |
| 11 37 50 | 31 32 $\frac{1}{2}$ | 9 26 |
| 11 47 40 | 31 33 | |
| 12 0 | | 22 37 Crede poti- 3 52 $\frac{1}{2}$ |
| | | 22 37 us alt. mer. |

Altit. η merid. per Chal. 11 29 $\frac{1}{2}$
per Volub. 11 29 $\frac{1}{2}$

| Dist. ♄ a cap. Ophiuchi | | |
|----------------------------|----|----|
| 12 20 30 | 46 | 3½ |
| 12 23 40 | 46 | 3½ |

| Dist. ♄ ab ore Pegasi | | |
|--------------------------|----|-----|
| 12 31 | 43 | 59½ |
| 12 36 50 | 44 | 0 |

| Dist. ♄ a ♂ | | |
|-------------|----|-----|
| 12 56 30 | 56 | 18½ |
| 1 8 10 | 56 | 18½ |

| Luc. Vult. occid. | |
|----------------------|-------|
| 2 | 6 |
| Alt. ♄ | 10 51 |
| 9 30 | |

Verificentur tempora quæ adhibenda in loco ♄ eruendo.

Pone ad horam 11 distant. ♄ ab orient. cap. ♄

A sinistro humero ☾ 31 33½

Declinationem eius 22 36

Deinde post horam 12½ pone distantiam ♄ a cap. Ophiuchi 46 3

ab ore Pegasi 44 0

Declinatio vt prius.

Vide etiam quæ fit Asc. R. M. C. quando Lucida Vulturis est orientalis p. 3 M. 52½. Hanc tribue ♄ & adhibe declinationem ex altitudine Meridiana, hincque inquire longitudinem & latitudinem.

DIE 2 JULIJ, VESPERI.

| Dist. ♄ a cap. Ophiuchi | Decl. ♄ | Alt. ♄ |
|----------------------------|------------|-----------|
| (11 44 45 50½ | 22 40 | 11 0 |
| (11 9 corr. | 22 40 | |
| (11 54½ 45 50½ | | |
| (11 20 corr. | | |
| (11 59½ 45 50½ | bona | |
| (11 24½ corr. | | 9 36 |
| Dist. ♄ ab ore Pegasi | | |
| (12 9½ 44 18½ | | 7 13 |
| (11 34½ corr. | | |
| (12 14½ 44 18½ | | 5 30 |
| (11 41 corr. | | |
| (12 20 | 22 40½ | 4 19 |
| (11 46 corr. | 22 40½ | |
| Alt. ♄ merid. | | |
| per Chalyb. | 11 26½ | |
| per Volub. | 11 26 | |

Fuit hac vespera fatis ferenum & aër tranquillus, sed ☾ splendor ob vicinitatem nonnihil impedimento fuit.

Pro inueniendo loco ♄ ex observationibus ad diem 29 Junij habitis quando proxime simplici ☉ opponebatur.

| H. 11½ Dist. ♄ | |
|---------------------------------------|-----------|
| ab orient. cap. ♄ | 7 4½ |
| a sinistro humero ☾ | 31 32½ |
| Declin. ♄ ex altit. merid. | 22 36 M. |
| Declinatio refractæ capitis orient. ♄ | |
| (Altit. 11 g., 5' subtr.) | 21 30 0 |
| sinistri humeri ☾ | |
| (Altit. 16 g., 2½' subtr.) | 7 14½ |
| Ascens. R. orient. capitis ♄ | 281 24 0 |
| sinistri hum. ☾ | 317 30 30 |
| Angulus differ. ascens. rectæ | |
| supp. a capite ♄ | 7 30 0 |
| Ang. diff. asc. a fin. hum. ☾ | 28 38 25 |
| Asc. R. ♄ a cap. orient. ♄ | 288 54 0 |
| a humero ☾ | 288 52 5 |
| limitata | 288 53 0 |
| Declin. ♄ absque refract. | 22 41 0 |
| Resp. Longitudo vera | 17 22½ |
| Latitudo | 0 17½ |
| Declinatio refracta | 22 36 M. |
| Resp. Longitudo | 17 23 20½ |
| Latitudo | 0 12 43 |
| H. 12½ Dist. ♄ | |
| ab ore Pegasi | 44 0 0 |
| a capite Ophiuchi | 46 2 0 |
| Declinatio oris Pegasi | 8 3 B. |
| capitis Ophiuchi | 12 56 0 |
| Ascens. Recta oris Pegasi | 321 4 30 |
| capitis Ophiuchi | 259 0 30 |
| Ang. diff. asc. ♄ ab ore Peg. | 32 14 45 |
| a cap. Ophiuchi | 29 52 15 |
| Ergo Asc. ♄ ab ore Pegasi | 288 49 55 |
| a cap. Ophiuchi | 288 52 45 |
| limitata | 288 51 20 |
| Resp. Longitudo ♄ | 17 21½ |
| Longit. cum. refract. | 17 21½ |

Pro ascensione recta ♄ a ♂.

| | |
|---------------------------|----------|
| H. 1 0' Dist. inter ♄ & ♂ | 56 18½ |
| Ang. differ. ascens. | |
| inter ♄ & ♂ | 57 49 40 |

Ascens. recta ♂ limitata 346 44¹
 Ergo Asc. R. 2
 a ♂ ad hoc tempus 288 54 20²
 Asc. R. 2 ex transitu
 a Vulture per mer. 288 50 30
 Resp. Longitudo 2 a ♂ 17 24 0 7
 Longit. cum refract. 17 24 3 7
 Alia ratio investigandi 2 locum ex
 distantijs obseruatis
 a capite Ophiuchi 46 2
 ab ore Pegasi 44 0
 Longitudo oris Pegasi 26 15 40^{xxx}
 Ang. diff. long. 2
 ab ore Peg. 38 54 40
 Ergo Longitudo 2 17 21 15² 7
 Latitudo M. 0 13 50 M.

DIE 2 JULIJ,
 supputatio pro 2.

H. 11¹ Dift. 2
 a cap. Ophiuchi 45 50¹
 ab ore Pegasi 44 18¹
 Declinatio visa 2 22 39 30
 Ang. diff. asc. a cap. Oph. 29 28 22
 ab ore Peg. 32 37 20
 Ascens. R. a cap. Ophiuchi 288 28 50
 ab ore Pegasi 288 27 10
 limitata 288 28 0
 Declinatio vera 22 44¹
 Respondet Longitudo 16 59 15 7
 Latitudo 0 18 15 M.
 Cum refractione { Long. 16 59 54 7
 { Lat. 0 13 20 M.

Altera ratio inquirendi locum 2
 ad diem 2 Julij ex obserua-
 tionibus præscriptis.
 Differ. longit. ab ore Pegasi 39 16 5
 Ergo 2 Long. 16 59 35 7
 Lat. 0 14 30 cum refractione
 Supputatio pro loco Iouis ex distantijs
 & declinationibus ad diem
 25 JUNIJ.
 H. 1 M. 0 P. M. N. Dift. 2
 a cap. Ophiuchi 46 21
 ab ore Pegasi 43 30
 Vide loca fixarum superius.
 Declinatio 2 obseruata 22 31¹
 Ang. diff. Asc. R. a cap. Oph. 30 27 15
 ab ore Peg. 31 35 50
 Ascens. R. 2 a cap. Oph. 289 27 45
 ab ore Peg. 289 28 40
 limitata 289 28¹
 Decl. 2 a refractione
 libera 22 36¹ M.
 Resp. Longitudo 2 17 55 20 7
 Latitudo 0 17 35 M.

AD DIEM 29 JUNIJ.

Facta diligenti examinatione obser-
 uationum omnium 2 a fixis & ♂ ad
 hunc diem habitarum, tum earum
 quas præcedentibus & sequentibus
 diebus collationis causa accepimus,
 locus 2 secundum longum & latum
 iuxta sequentem limitationem ponen-
 dus venit ad horam 12^{am} completam
 æquinoctialem.

Collectio motuum 2 acronychiorum ex diuersis obseruationibus superius de-
 scriptis vna cum refractionibus altitudinum ad obseruationum momenta, ex
 quibus postea in longit. & latit. debito modo diuisis (prout in parallaxi-
 bus (fieri solet) vera eius loca secundum longum & latum innotescunt.

| Junij | Alt. 2 | Refraction | | | Refracta | | Vera | |
|---|--------------------------------|-------------------------------|----------------|-------|---------------------------------|---|-------------------------|------------------------|
| | | Altit. | Long. | Lat. | Longit. | Latit. | Longit. | Latit. |
| 25 ^d 1 ^b P. M. N. | 10 ¹ 5 ¹ | 1 ¹ 1 ¹ | 5' 0" | 5' 0" | 17 ⁵ 56 ¹ | 0 ⁵ 12 ¹ 1 ¹ | 17 ⁵ 54' 50" | 0 ⁵ 17' 20" |
| 29 11 ¹ | 11 0 | 5 | 0 ¹ | 4 58 | 17 23 ¹ | 0 12 43" | 17 23 0 | 0 17 40 |
| 29 12 ¹ | 11 0 | 5 | 0 50" | 4 50 | 17 21 ¹ | 0 12 45 | 17 20 50 | 0 17 35 |
| 29 1 P. M. N. | 10 ¹ 5 ¹ | 1 25 | 5 | 5 0 | 17 24 ¹ | 0 12 ¹ | 17 23 15 | 0 17 40 |
| Julij | | | | | | | | |
| 2 11 ¹ | 11 | 5 | 0 22 | 5 0 | 16 59 ¹ | 0 13 ¹ | 16 59 30 | 0 18 20 |

¹ Cf. infra inter obseruationes Martis.

² Sic in codice.

Pro Parallaxi Iouis in hoc situ acronychio.

| | |
|---------------------------------------|-------------------|
| Media distantia $\frac{1}{2}$ a terra | 3990 semid. terræ |
| Semidiameter orbis annui subtr. | 575 |
| Proxima distantia $\frac{1}{2}$ | 3415 |

Respondet in horizonte parallaxis 1' præcise, id est tertia pars de parallaxi ☉ media in horizonte; ergo etiam in qualibet altitudine eadem proportio feruatur; in altitudine vero 11 partium proportio est 59'', pro quibus insensibiliter vnum minutum sumas.

Reductio φαινόμενων $\frac{1}{2}$ die 29 obseruatorum ad horam 12 seu mediam noctem, item eorum quæ diebus præcedentibus & sequentibus habita sunt ad idem tempus.

| Denominatio fixarum a quibus $\frac{1}{2}$ obseruabatur | | Long. $\frac{1}{2}$ obseruata vera | |
|---|---|------------------------------------|-----------|
| Junij D. 29 H. 12 M. 0 | Orient. cap. \times & fin. humer. \propto | 17°22' 50'' \propto | |
| | a σ | 17 23 35 | |
| | a capite Ophiuchi & ore Pegasi | 17 21 0 | |
| Die 25 Junij | ex ore Pegasi & cap. Ophiuchi | 17 23 10 | |
| Die 2 Julij | ex ore Pegasi & cap. Ophiuchi | 17 23 20 | |
| | Latitudo $\frac{1}{2}$ ex altit. merid. | 0 17 40 | |
| | Latit. $\frac{1}{2}$ ex dist. ab ore Peg. & cap. Ophiuchi | 0 18 50 | |
| | Tertia pars differentię add. lat. | | |
| | ex merid. altit. | 0 23 | |
| | Latitudo obseruata & a refractione libera | 0 18 0 | proximo |
| | Parallaxis $\frac{1}{2}$ subtrahenda | 0 1 | prox. |
| | Vera Latitudo circa ϕ | 0 17 | M. |
| H. 12 | Longitudo $\frac{1}{2}$ limitata | 17 23 0 | \propto |

Calculus pro ϕ $\frac{1}{2}$ cum simplici ☉ die 29 Iunij.

| | |
|--|--------------------|
| Ex præcedenti limitata, Hora 12, $\frac{1}{2}$ longitudo | 17 23 \propto |
| Noſter simplex ☉ eodem tempore | 17 46 55 \propto |
| Differentia | 0 23 55 |
| Motus vtriusque diurnus | 1 7 8 |

Respondet in tempore H. 8 M. 33. Huic interuallo respondet motus ☉ M. 21 4'', $\frac{1}{2}$ M. 2 50''. Ergo oppositio $\frac{1}{2}$ cum simplici ☉ hoc anno facta est die 29 Iunij, H. 3½ proxime, $\frac{1}{2}$ existente in 17°25' 50'' \propto cum latitudine vera 0°17' 0'' M.

| Calculus Copernic. | | Calculus Alphons. | |
|--------------------|---------------------------|-------------------|----------|
| Iunij 29 H. 3½ | 17°34' \propto 0°21' S. | 16°34' \propto | 0° 5' M. |

Assumpta latitudine in hoc acronychio situ $\frac{1}{2}$ 0°17' 0'' M. & maxima latitudine 1°40' 0'', cadit intersectio seu nodus meridionalis aut descendens in 7°38½'. Eadem autem latitudine existente 0°17½', scilicet $\frac{1}{2}$ aucta, incidit intersectio in 7°21½' \propto . Si assumatur maxima latitudo M. $\frac{1}{2}$ 1 43, provenit intersectio in 7 47½ \propto .

DIE 30 AUGUSTI.

Vesperī obſeruabatur ♄ circa vltimam a ♂ cum ſimplici ☉ ſtationem in modum ſequentem.

| | | |
|--------------------|--------------------------|---------------------|
| 7 ^h 40' | Alt. ♄ mer. | |
| | per Chalyb. | 10 51 fere |
| | per Volub. | 10 51 $\frac{1}{2}$ |
| | Declin. ♄ per | 23 16 |
| | Armillas | 23 15 $\frac{1}{2}$ |
| | Erat tunc Luc. Vult. or. | 9 13 |
| 7 52 $\frac{1}{2}$ | Diſt. ♄ a dextro | 31 2 $\frac{1}{2}$ |
| 7 56 | genu | 31 3 |
| 8 1 | Ophiuchi | 31 3 |

Fuit hæc Ophiuchi ſtella inter obſeruandum fere in æquilibrium reſpectu horizontis cum ♄, ſed paulo tamen eleuatur. Pro refractiōe in diſtantiā cauenda.

Vice Verſa.

| | | |
|--------------------|------------|---------------------|
| 8 15 $\frac{1}{2}$ | Diſt. ♄ ab | 16 41 |
| 8 20 $\frac{1}{2}$ | inf. cornu | 16 40 $\frac{1}{2}$ |
| 8 24 | ꝛ | 16 40 $\frac{1}{2}$ |

Erat cornu ꝛ non longe a meridiano circa has obſeruatiōes, difficulter item videbatur propter ☿ ſplendorem; nihilominus tamen obſeruatiōibus hiſce ſidendum duco propter tranquillum aëris ſtatum & cœli ſerenitatem.

DIE 28 SEPTEMBRIS

Vesperī obſeruabatur ♄ iuxta ☐ ☉ in maxima proſtaphæreſi.

| H. M. | Diſt. ♄ a dext. genu Ophiuchi | Decl. ♄ | Alt. ♄ per min. Quad. | ♂ orient. |
|--------------------|-------------------------------|--------------------|-----------------------|-----------------|
| 6 23 | | 23 8 $\frac{1}{2}$ | 10 52 | |
| | | 23 8 | | |
| 6 53 | 33 32 $\frac{1}{2}$ | inter nubes | | |
| 6 58 | 33 34 | dubia | | |
| | ab extr. cauda ꝛ | | | |
| 7 56 50 | 33 59 | 23 7 | 8 0 | ♂ orient. 29 38 |
| | | 23 7 $\frac{1}{2}$ | | Vult. or. 19 39 |
| 8 3 20 | 34 0 $\frac{1}{2}$ | dubia | | |
| 8 6 40 | 33 58 $\frac{1}{2}$ | | 7 40 | |
| 8 11 $\frac{1}{2}$ | 33 58 $\frac{1}{2}$ | | | |
| 8 17 | 33 59 | | 6 40 | |

N. B. ♄ tunc fuit iuxta ☐ ☉ occident. a Sole, ſed refractiōes cauendæ ob eius decliuitatem.

¹ Debet eſſe Die 3. Cf. annotationem ad obſeruatiōem ſolis, quæ in codice poſt hanc obſeruatiōem Iovis adſcripta eſt (ſupra p. 269).

DIE 1 OCTOBRIS¹.

Obſeruatio ♄ circa ☐ ☉ vltimam.

| | | |
|------|----------------------|--------------------|
| 5 51 | Alt. merid. ♄ | |
| | per Chalyb. | 11 1 25 |
| | per Volub. | 11 1 $\frac{1}{2}$ |
| | Declin. per Armillas | 23 5 |
| | | 23 4 $\frac{1}{2}$ |

| H. M. | Diſt. ♄ a Vulture | Alt. ♄ | Vult. orient. |
|--------------------|---------------------|-------------|---------------|
| 6 13 | 31 45 | inter nubes | |
| 6 18 $\frac{1}{2}$ | 31 43 $\frac{1}{2}$ | | 0 32 |
| 6 23 $\frac{1}{2}$ | 31 43 $\frac{1}{2}$ | | |

| H. M. | Diſt. ♄ a cap. Ophiuchi | Alt. ♄ | Vult. occ. |
|--------------------|-------------------------|---------------------|------------|
| 6 31 | 44 31 $\frac{1}{2}$ | Hic fuit | 10 32 |
| 6 37 $\frac{3}{4}$ | 44 31 $\frac{1}{2}$ | ferenum | 4 2 |
| | Diſt. ♄ a ſeq. caudæ ꝛ | | |
| 6 45 | 33 34 | ferenum mediocriter | 10 35 |

6 50 33 33 $\frac{1}{2}$ inter nubes
Fuit hæc ſtella paulo altior ♄ reſpectu horizontis.

DIE 27 NOUEMBRIS.

Vesperī obſeruabatur ♄ ☉¹¹ appropinquans.

| H. M. S. | Diſt. ♄ a Vulture | Decl. ♄ | Alt. ♄ per min. Quad. | Vult. occ. |
|----------|---------------------|---------|-----------------------|------------|
| 4 40 20 | 29 47 $\frac{1}{2}$ | 21 50 | 8 0 | 34 36 |
| | | vno | | |
| 4 48 20 | 29 48 | | 7 $\frac{1}{2}$ | 36 17 |
| 4 54 20 | 29 47 $\frac{1}{2}$ | 21 49 | 7 5 | 39 41 |
| | | ferē | | |

Vice Verſa

| H. M. | Diſt. ♄ a dext. & orient. hum. ☿ | Alt. ♄ |
|---------|----------------------------------|-----------------------|
| 5 6 30 | 35 42 | 6 |
| 5 11 20 | 35 43 $\frac{1}{2}$ | 41 20 |
| 5 19 10 | 35 43 $\frac{1}{2}$ | 5 43 5 |
| 5 27 40 | 35 41 | 4 $\frac{1}{2}$ 44 43 |

Quoniam fixæ, a quibus ♄ hac vice obſeruabatur ad æquatorem haud

bene diſpoſitæ ſint, poteris ex binis ſelectioribus vtrinque diſtantijs per inductionem triangulorum ſolitam inquirere eius ſitum ad zodiacum, quod triangulari forma conuenienter diſpoſitæ ſe invicem habebant.

OBSERVATIONES MARTIS.

DIE 13 JUNIJ.

♂ obseruetur ab ☿ stellis lucidioribus, & aliquibus in Pegaso ita vt triangulum quasi æqualium laterum cum duabus faciat.

DIE 14 JUNIJ.

Mane ♂ circa trigonum ☿^{lis} occidentalem obseruabatur.

1^h 28³ Dift. ♂ ab extrema cauda ♀ 19 42³

1 30¹ Eadem distantia repet. 19 43¹

1 33 Declin. ♂ 12 17 vtroq.,

Alt. 12 43

Lucida Vulturis occ. 4 22

Hæ obseruationes factæ sunt ad ♂ in diluculo matutino, ita vt difficulter ♀ stellam a qua obseruabatur, videremus.

Pro loco ♂¹.

Ang. diff. ascensionalis 17 38 52

Ascensio R. extr. caudæ ♀ 321 9 12

Ascensio Recta ♂ 338 48 4

Resp. Longitudo 5 49 50 (

Latitudo 3 5 54 M.

DIE 25 JUNIJ.

1^h 41¹ Dift. ♂ a Vulture 55 44³ bona

Fuittum ♂ in æquat. 30 36 orient.

1 49¹ Eadem dist. repetita 55 44

non tam præcise propter auroram.

DIE 29 JUNIJ.

P. M. N. obseruabatur ♂ in hunc modum.

| H. M. S. | Dift. ♀ a ♂ | Declin. ♂ | Alt. ♂ | Vultur occid. |
|----------|---------------------|--------------------|--------|------------------|
| 12 56 30 | 56 18 ³ | 10 45 | | |
| | | 10 45 ¹ | | |
| 1 8 10 | 56 18 ¹ | | | |
| | Dift. ♂ a luc. ♀ | | | |
| 1 18 | 50 21 | 10 46 | 16 12 | |
| | | 10 45 ³ | | |
| 1 25 | 50 20 15 | | | |
| 1 28 | 50 20 15 | 10 45 ¹ | | |
| | | 10 46 | | |
| 1 31 | 50 20 15 | | 17 45 | |

¹ E codice K.

Postea obseruabatur dist. inter ♂ & lucid. Vultur.

1 37 56 51 10 45¹ 18 23 21 0
10 46

1 40 56 53¹

1 46 56 52

1 49 56 52¹

18 32 23 7

1 52 56 52 15

24 31

1 55 56 51 50

19 5 25 13

1 58

10 45

19 17

2 6

10 45 50 19 56 per Volub.

10 46 0 20 10 per Q. min.

Postea non licuit plura obseruare propter auroram ingruentem, sed obseruationes hac nocte factæ sunt satis bonæ, quibus posis fidere tam in Acronychio situ ♄ verificando quam ♂ iuxta maximam προσηγοριαν orbis &c. Ipsemet aderam post mediam noctem.

Inquire locum ♂ hoc pacto.

Pone circa Horam 1¹ ♂ dist.

a lucida ♀ 50 20¹

a lucida Vulturis 56 52

Declinationem eius 10 46 M.

Pone tunc dist. ♄ & ♂ 56 18¹

propter motum vtriusque.

Post operationes adhibe refractio-nes tam in ♂ quam ♄.

Pro loco ♂ ad eundem diem ex quo etiam ♄ pro vteriori collatione eius loci acronychij stabiliendi obseruabatur.

H. 1¹ P. M. N. Dift. visa ♂

a lucida ♀ 50 21

a Vulture 56 52

Declinatio lucidæ ♀ 21 30¹ B.

Vulturis 7 52¹ B.

Afc. Recta lucidæ ♀ 26 6 50

Vulturis 292 43

Angulus differ. afc.

lucidæ ♀ 39 21 0

Vulturis 53 59 50

Ergo Afc. R. ♂ a luc. ♀

a Vulture 346 42 50

limitata 346 44¹

DIE 2 JULIJ.

| H. M. | Dist. ♀ & ♂ | Decl. ♂ | Alt. ♂ | Vultur occ. |
|--------------|-------------|---------|--------|-------------|
| 12 45 | 57 33½ | 10 31½ | 10 24 | |
| 12 10 corr. | | 10 32 | | |
| 1 0½ | 57 33½ | | | 5 39 |
| 12 25½ corr. | | | | |
| 1 7½ | 57 33½ | | 12 47 | |
| 12 32 corr. | | | | |

Postea ♂ a fixis hoc modo obseruamus.

| H. M. | Dist. ♂ a luc. ♀ | Decl. ♂ | Alt. ♂ | Vultur occ. |
|----------------|------------------|---------|--------|-------------|
| 1 21 30" 49 34 | | 10 32½ | | |
| 12 46 corr. | | 10 32 | | |
| 1 28 | 49 34½ | | 14 20 | 12 24 |
| 12 52½ corr. | | | | |
| 1 43½ | 49 34½ | | | |
| 1 9 corr. | | | | |

| H. M. | Dist. ♂ a luc. Vult. | Decl. ♂ | Alt. ♂ | Vultur occ. |
|---------------|----------------------|---------|--------|-------------|
| 1 50½ | 57 38½ | 10 33½ | 16 38 | |
| 1 15 corr. | | 10 33½ | | |
| 2 1½ | 57 37½ | | | |
| 1 26 corr. | | | | |
| 2 7½ | 57 38½ | 10 34 | 18 0 | 21 54 |
| 1 30 50 corr. | | 10 34½ | | |

Fuit hac vesp̄era satis serenū & aēr tranquillū, sed ☾ splendor ob vicinitatem nonnihil impedimento fuit.

Oportet obseruare alicuius stellæ circa ortum in eo situ quo ♂ est declinationem pro examinanda armilla, vtpote lucidæ ♀ vel alterius illi propioris.

DIE 22 JULIJ.

Mane obseruabatur ♂ circa primam retrogradationem iuxta Copernicum in modum qui sequitur.

| H. M. | Dist. a fin. hum. ☿ | Decl. ♂ | Alt. ♂ | Luc. Vult. occ. |
|-----------------|---------------------|---------|--------|-----------------|
| 2 15½ | 33 14½ | 10 9½ | 22 0 | 38 56 |
| 1 23 corr. bona | | | | |

| H. M. | Dist. a luc. ♀ | Decl. ♂ | Alt. ♂ | Vultur occ. |
|------------|----------------|------------------|--------|-------------|
| 3 11½ | 46 47 | | | 53 2 |
| 2 19 corr. | | | | |
| 3 17 | 46 45½ | | | |
| 2 25 corr. | | | | |
| 3 18 30 | 46 45½ | | | |
| 3 31 | Alt. merid. ♂ | per Chal. 23 56½ | | |
| 2 40 corr. | | per Vol. 23 55½ | | |
| 3 36 | Decl. ♂ | 10 10 | | |
| | | 10 10½ | | |

Pro loco ♂ ex adiunctis præcedentibus obseruationibus.

| | | |
|-------------------------------------|--------------------------|------------|
| H. 1 M. 23 | Dist. ♂ a fin. hum. ☿ | 33 15 0 |
| | Declin. hum. fin. ☿ M. 7 | 17 0 |
| | Afcens. R. eius | 317 30 20 |
| | Declin. ♂ | 10 9 30 |
| Angulus diff. asc. supput. | | 33 32 5 |
| Ergo Ascensio R. ♂ | | 351 2 25 |
| H. 2 M. 25 | Dist. ♂ a luc. ♀, limit. | 46 46½ |
| | Declin. lucidæ ♀ | 21 30½ |
| | Afc. R. luc. ♀ | 26 6 40 |
| Ang. diff. inter ♂ & luc. ♀ supput. | | 35 3 40 |
| Ergo hinc Afc. R. ♂ | | 351 3 0 |
| H. 2 M. 0 | Afc. R. ♂ limitata | 351 2 40 |
| | Resp. Longitudo | 17 45 45 ☾ |
| | Latitudo | 5 46 15 M. |
| Copern. Long. 14 48½ | ☾, Lat. 5 | 30 M. |
| Alphonf. | 22 44 ☾ | 5 29 M. |

DIE 25 JULIJ.

Mane obseruabatur ♂ in hunc qui sequitur modum.

| H. M. S. | Dist. ♂ a fin. hum. ☿ | Decl. ♂ | Alt. ♂ | Vultur occ. |
|-------------|-----------------------|---------|--------|-------------|
| 1 13 40 | 33 23 | 10 14½ | 22 0 | 39 25 |
| 1 12½ corr. | | vno | | |
| 1 24 0 | 33 24 | | | |
| 1 29 0 | 33 23½ | | | 43 16 |
| 1 34½ | 33 23½ | 10 14½ | vno | |

Inter hæc obseruandum fuit satis serenū ab occid. parte cœli & tam ♂ quam hum. ☿ in tam sublimi altit. fuerunt, vt nulli refractioni eßent obnoxij.

1 49½ Vice Versa a luc. ♀ 46 43½ inter nubes.

Postea cœlum densis & aquosis nubibus subductum omnem vlt̄erius obseruandi opportunitatem nobis interclusit.

Investigatio loci ♂ ex præcedentibus obseruationibus.

| | | |
|------------------------------------|------------------------|-----------|
| H. 1 M. 29 | Dist. ♂ ab hum. fin. ☿ | 33 23½ |
| | Declin. ♂ | 10 14½ |
| Ang. differ. ascenf. alic. supput. | | 33 40 30 |
| Hinc. Ascenf. R. ♂ | | 351 10 50 |

| | | |
|-----------------------------|------------------|-------------|
| H. 1 M. 50 | Dift. ♂ a luc. √ | 46 43 40 |
| Ang. diff. ascensionalis | | 34 55 30 |
| Hinc Ascenf. R. ♂ | | 351 11 10 |
| H. 1 M. 40 Afc. R. limitata | | 351 11 0 |
| Resp. Longitudo | | 17 51 20) (|
| Latitudo | | 5 54 0 M. |

Promota itaque est ♂ stella a die 22 in 25 per triduum interlapsum 4¹/₂ in consequentia, cum tamen iuxta calculum Prutenicum debuiſſet die 21 fieri retrogradus, Alphonſino altipulante, quod adhuc directe incedat vsque in diem 27.

DIE 31 JULIJ.

Mane obſeruabatur ♂ in modum frequentem circa meridianum.

| H. M. | Dift. ab ore Pegafi ♂ | Decl. ♂ | Luc. Vult. occ. |
|----------------------------------|-----------------------------------|-----------------------------------|-----------------|
| 1 8 ¹ / ₂ | 35 12 ³ / ₄ | 10 31 vno | |
| 1 19 ¹ / ₂ | 35 13 | | 47 20 |
| 1 32 ¹ / ₂ | 35 12 ³ / ₄ | 10 30 ³ / ₄ | 50 37 |
| | | 10 30 ¹ / ₂ | |

Vice verſa
♂ a luc. √

| | | | |
|----------------------------------|-----------------------------------|-----------------------------------|---------------|
| 1 49 | 47 0 ¹ / ₂ | | |
| 1 55 ¹ / ₂ | 46 59 ³ / ₄ | | |
| 2 0 | 47 0 ¹ / ₂ | | |
| 2 4 ³ / ₄ | Altit. ♂ merid. per Chal. 23 | 35 ¹ / ₂ | |
| 2 6 ¹ / ₂ | corr. per Vol. 23 | 35 ¹ / ₂ | |
| 2 7 | | 10 31 ¹ / ₂ | ♂ occid. 0 30 |

Circa has obſervationes acceptas fuit ſatis ſerenum, & ſtellæ fixæ a quibus ♂ in diſtantijs obſeruatus eſt conſpicuæ, licet circa horizontem denſior vaporum exhalatio ſtellas ☿ & hori-
zonti vicinioreſ nebulis quaſi inuolutas obſcurari.

Pro loco ♂ e proximis antecedentibus obſervationibus.

| | | |
|--------------------------|-----------------------|-----------------------------------|
| H. 1 37' | Dift. ♂ ab ore Pegafi | 35 12 ³ / ₄ |
| | Declinatio ♂ | 10 30 ¹ / ₂ |
| Ang. diff. aſc. ♂ ab ore | | |
| Peg. ſupp. | | 30 4 |
| Afc. R. oris Peg. | | 321 4 ¹ / ₂ |
| Declinatio | | 8 3 B. |

| | | |
|---------------------------------------|------------------|---------------------------------------|
| H. 1 57' | Dift. ♂ a luc. √ | 47 0 0 |
| Ang. diff. aſc. ♂ a luc. √ | | 35 3 10 |
| H. 1 45 Afc. R. ♂ | | |
| ab ore Peg. | | 351 8 30 |
| a luc. √ | | 351 3 30 |
| Pone Afc. ♂ limitatam adhaerendo | | |
| magis Lucidæ √ | | 351 5 0 |
| Resp. Longitudo | | 17 39 ¹ / ₂) (|
| Latitudo | | 6 6 15 M. |
| Long. Alph. 22 46) (Copern. 13 57) (| | |
| Lat. | 5 46 M. | 6 0 M. |

DIE 11 AUGUSTI.

Obſeruabatur ♂ Mane in modum frequentem. Funis in pondere horologii fractus fuit, ideoque horologii hic nullus fuit vſus; poteſ igitur tempora ex diſtantijs æquatorijs ſingulis obſervationibus adſcriptis inueſtigare.

| Decl. ♂ per Armill. | Alt. ♂ Merid. | Ext. alæ Peg. or. | Resp. Tempus |
|-----------------------------------|---|-------------------|---|
| 11 17 ¹ / ₂ | per Chal. 22 47 ¹ / ₂ | 8 56 | 1 ^h 16 ¹ / ₂ ' |
| 11 17 ¹ / ₂ | per Vol. 22 47 ¹ / ₂ | | |

Dift. ♂ a fin. hum. ☿

| | | |
|----------------------------------|------|----------------------------------|
| 32 3 | 5 49 | 1 28 ¹ / ₂ |
| 32 2 ¹ / ₂ | 3 40 | 1 37 ¹ / ₂ |
| 32 3 ¹ / ₂ | 1 10 | 1 47 ¹ / ₂ |

Fuit inter hæc obſeruandum mediocriter ſerenum, ſed ☿ ſplendor nonnihil impedimento fuit; erat item hic humerus ☿ ſatis bene diſpoſitus reſpectu horizontis, quando ab hoc ♂ obſeruatus eſt.

| Vice Verſa | Dift. a luc. mandib. Ceti | ♂ occ. | Resp. Tempus |
|-----------------------|----------------------------------|--------|----------------------------------|
| | 52 8 ¹ / ₂ | 11 47 | 2 ^h 5' |
| incerta propter nubes | | | |
| | 52 8 | 13 40 | 2 12 ¹ / ₂ |
| | 52 7 ¹ / ₂ | 20 39 | |

Fuit hic ſatis ſerenum.

Hæc pleraque obſeruata ſunt inter tranſcurrentes nubes, vbi etiam ☿ ſplendor ob eius vicinitatem maiori impedimento fuit. Poteſ tamen poſtrema diſtantia tuto vti vel media prout maxime quadret.

Pro examinando Sextante quo hic vſi ſumus, obſeruabatur diſtantia in-

ter lucidam \vee & Aldeboram 35 32 $\frac{1}{2}$.
Vnde patet penes instrumentum illud
nullum vitium reperiri.

Pone distantiam ab humero \approx
sinistro H. 1 M. 45 32 3
a luc. mand. Ceti 52 8
declinationem eius 11 18
Provenit locus σ vt sequitur.

Investigatio longitudinis & latitudinis
 σ ex proximis præcedentibus
obſervationibus.

H. 1 M. 45 Diſt. σ
a ſin. hum. \approx 32 3
Declinatio σ M. 11 18
Decl. ſin. hum. \approx 7 17
Aſc. R. ſin. hum. \approx 317 30 25

Angul. diff. aſc. hinc
ſupputatus 32 14 20
Ergo Aſcenſio Recta σ 349 44 45

H. 2 M. 10 Diſt. σ
a luc. mandib. Ceti 52 8
Declinatio eius 2 27 $\frac{1}{2}$ B.
Aſc. R. eius 40 18 50

Ang. diff. aſc.
hinc ſupputatus 50 34 14
Ergo hinc Aſc. R. σ 349 44 36

Retineatur igitur ad H. 1 $\frac{1}{2}$
Aſc. R. σ 349 44 $\frac{1}{2}$
Declin. ex altit. merid. 11 18
Reſp. Longitudo 16 7 $\frac{1}{2}$ χ
Latitudo 6 18 52 M.

| Calculus | Long. | Differ. | Lat. | Differ. |
|-----------------|--------------------------|---------|---------|---------|
| Copernic. 12 0 | χ 4 7 $\frac{1}{2}$ | 6 30 | 11' | |
| Alphonſi. 21 26 | 5 18 $\frac{1}{2}$ | 6 0 | 19 fere | |

N. B. Nunc videtur σ quoad longitudinem non tam prope accedere ad calculum Copernici vt antea, ſed calculo Alphonſino ſenſim plus appropinquare, ita vt ſit hic quaſi intermedius, propior tamen Copernici calculo per vnum gradum proxime.

At quoad latitudinem eam tardius mutat quam fert Copernicæa ratio. Nam per interlapſum decendium ab vltima obſervatione mutauit latitudinem quaſi 13', quod cum Alphonſino calculo proxime conſentit, qui 14' requirit; at Copernici ratio dimidium gradum o: duplo plus efflagitat.

DIE 18 AUGUSTI, MANE.

Obſervatio σ acronychij in modum ſequentem.

| H. M. | Diſt. σ a ſin. hum. \approx | Decl. σ | Alt. σ | Prima aſc. Peg. occ. |
|-------------------|--------------------------------------|---------------------|---------------|----------------------|
| 0 9 $\frac{1}{2}$ | 30 35 $\frac{1}{2}$ | 11 54 | 21 47 | |
| | | 11 54 $\frac{1}{2}$ | | |

0 22 30 37 $\frac{1}{2}$ 0 46

0 23 corr. Hic non fuit bene ſerenum.

0 41 $\frac{1}{2}$ 30 36 $\frac{1}{2}$

0 50 Tranſiit σ merid. habens alt. per Volub. 22 11 $\frac{1}{2}$
per Chalyb. 22 11 $\frac{1}{2}$

Extrema aſc. Peg. or. 6 2

0 1 2 $\frac{1}{2}$ 30 35 $\frac{1}{2}$

0 1 3 corr. 30 35 $\frac{1}{2}$ 11 55 vno

1 9 30 35 $\frac{1}{2}$ 11 55 vno

Vice Verſa. Diſt. σ
a luc. mandib. Ceti

1 19 20 53 42 $\frac{1}{2}$ 1 47

1 25 20 53 42 Fuit hic & poſtea ſatis ſerenum & aer tranquilluſ. occid. 1 39

1 33 53 42 1 39

1 39 $\frac{1}{2}$ 53 42 $\frac{1}{2}$ 3 19

Vice verſa a luc. \vee

1 49 20 50 1 11 55 $\frac{1}{2}$

11 54 $\frac{1}{2}$

1 57 49 59 $\frac{1}{2}$

1 59 20 50 1

2 2 50 0 $\frac{1}{2}$

N. B. Hac veſperi diligenter intentibus nobis apparuit diameter σ apparens ſenſibili portione maior diametro ipſa $\frac{1}{4}$ quantum oculis diſcernere licuit, fuit etiam σ admodum rutilans.

Inquiſitio loci σ ex præcedentibus obſervationibus.

| H. 0 M. 45 Diſt. σ | a luc. ſin. humero \approx | Decl. σ ex alt. merid. | 30 36 $\frac{1}{2}$ | 11 54 |
|-------------------------------|------------------------------|-------------------------------|---------------------|-------|
| Ang. diff. aſcenſ. ſupputatus | 30 40 50 | | | |
| Aſc. R. ſin. hum. \approx | 317 30 30 | | | |
| Ergo Aſc. R. σ | 348 11 20 | | | |

H. 1 25 Dift. ♂ a luc. mand. Ceti 53 42
 hinc ang. diff. ascenf. 52 4½
 Afc. R. mandibulæ Ceti 40 18 50
 Ergo Afc. R. ♂ hinc 348 14 10

H. 2 0 Dift. ♂ a lucida ♀ 50 0 40
 hinc ang. diff. ascenf. 37 54 52
 Afc. R. ♀ 26 6 45
 Ergo Afc. R. ♂ hinc 348 11 53

His omnibus limitatis (nitendo potiſſimum ijs quæ ab humero ☿ & lucida ♀ deriuantur) ponitur

H. 1 0 Afc. R. ♂ limitata 348 12 10
 Reſp. Longitudo 14 29½ ☿
 Latitudo 6 16 7 M.

Calculus Copernici Differ. Alphonſ. Differ.
 Long. 10 11 ☿ 4 18 19 38 ☿ 5 9
 minus plus

Lat. 6 40 M. 24 6 6 M. 10
 plus min.

DIE 21 AUGUSTI, MANE.

Obſeruabatur ♂ ♂ ☉ appropinquans in modum ſequentem.

0^h36' Altit. ♂ circa Mer.

per Chal. 21 56

per Volub. 21 55½

Fuit tunc Azim. ♂ occ. 1½

Declin. ♂ circa hoc 12 9½

tempus 12 10

Dift. ♂ a dext. hum. ☿ Decl. ♂ Extr. alæ Peg. or.
 0 56½ 23 17 4 15

Hic fuit mediocriter ſerenum.

1 4 23 16½ 12 10 vtroque ♂ occid.
 10 8

In hoc & prox. præced. non fuit bene ſerenum.

Plures in ♂ obſeruaciones hoc mane fieri nequibant propter cæli obſcuritatem & nubes magis magisque condenſatas. Neque enim in ſuperioribus fuit ſatis ſerenum. Viſæ enim ſunt ſtellæ per rariores nubeculas quaſi vaporibus circumſeptæ, qui vapores poſtea in denſiores nubes cogeantur.

Investigatio loci ♂ ex præcedentibus obſeruacionibus.

H. 1 0 Dift. ♂ a dextro hum. ☿ 23 16½
 Declin. ♂ Merid. 12 9½
 Declin. M. dext. hum. ☿ 2 14 45

Ang. differ. aſcenſionalis 21 15 30
 Afc. R. dext. hum. ☿ 326 13 35
 Ergo Afc. R. ♂ 347 29 5
 Reſp. Longitudo 13 44 ☿
 Latitudo 6 14 M.

Calculus Copernici Differ. Alphonſ. Differ.
 Long. 9 16 ☿ 4 28 18 46 5 2
 Lat. 6 30 M. 16 plus 6 10 4
 minus

DIE 21 AUGUSTI.

Ante mediam noctem obſeruabatur ♂ in modum ſequentem.

H. M. Dift. ♂ ab extr. caudæ ☿ Decl. ♂ Prima alæ Peg. or.
 11 52½ 25 45 dub. 12 15 2 32
 12 15

11 57 40 25 48½
 0 0 25 48½
 0 2 40 25 47½ occid. 0 13

Vice Verſa

Dift. a hum. fin. ☿ ♂ orient. Peg. or.
 0 7½ 29 39½ 3½
 0 10 29 38½
 0 12½ 29 38½

(0 27 20 12 15½

(0 28 corr. 12 15½

Alt. ♂ Merid. per Chalyb. 21 51 25
 per Volub. 21 51½

Dift. ♂ a luc. mandib. Ceti Extr. alæ Peg. or.
 0 38 54 45½
 0 40 40 54 44
 0 43 54 45
 0 45 20 54 45 6 13

Dift. a luc. nodi ☿ 5 1
 0 50 40 1
 0 55½ 39 59½ 12 15 vtroq.
 1 3 40 0½

Dift. a luc. ♀ 0 18
 1 7½ 50 59
 1 9½ 50 59½
 1 11½ 50 59½

Dift. ab ore Peg. inter nubes.
 1 20 32 59½
 1 34½ 32 59

Ex hoc tempore huius diej nulla oportunitas obſeruandi amplius data eſt propter nubes ab occiduo horizonte exorientes.

Inquisitio Longitudinis & Latitudinis
♂ ex superioribus obseruati-
onibus proximis.

| | | | | |
|--|------------|------------------------|-------------|-----------|
| H. 0 | 0' | Dift. ♂ a seq. caudæ | 25 47½ | |
| | | Declin. eiusdem | 17 53 M. | |
| | | Afc. R. eiusdem | 321 9 | |
| | | Declin. ♂ merid. | 12 14 | |
| Ang. | diff. | ascenf. supput. | 26 5 | |
| | | Ergo hinc Afc. R. ♂ | 347 14 | |
| 0 | 10 | Dift. ♂ a fin. hum. ☿ | 29 39 | |
| | | Declin. eius | 7 17 | |
| | | Afc. R. eiusdem | 317 30 35 | |
| Ang. | diff. | ascenf. supput. | 29 41 | |
| | | Ergo hinc Afc. R. ♂ | 347 11 35 | |
| 0 | 45 | Dift. ♂ a luc. mandib. | 54 45 | |
| | | Decl. mandib. Ceti B. | 2 27 30 | |
| | | Afc. R. eiusdem | 40 18 50 | |
| Ang. | diff. | ascenf. supput. | 53 6 3 | |
| | | Ergo hinc Afc. R. ♂ | 347 12 47 | |
| 1 | 0 | Dift. ♂ a luc. nodi ☿ | 40 0 | |
| | | Declin. eius B. | 0 46½ | |
| | | Afc. R. | 25 15 45 | |
| Ang. | diff. | ascenf. supput. | 38 6 5 | |
| | | Hinc Afc. R. ♂ | 347 9 40 | |
| H. 1½ | Dift. | ♂ a luc. ♀ | 50 59½ | |
| | | Afc. R. eius | 26 6 45 | |
| Ang. | diff. | ascenf. supput. | 38 56 56 | |
| | | Hinc Afc. R. ♂ | 347 9 50 | |
| Collectio omnium ascensionum R. ♂ | | | | |
| & ad vnum tempus diductio. | | | | |
| H. 0½ | { | a sequente cauda | 347 13 40 | |
| | | a sinistro humero ☿ | 347 11 25 | |
| | | a lucid. mandib. ceti | 347 12 50 | |
| | | a nodo ☿ | 347 10 5 | |
| | | a lucida ♀ | 347 10 20 | |
| Limitatis hisce omnibus inter se poni- | | | | |
| tur ascenf. recta ♂ H. 0½ | | | | 347 11 30 |
| | | declinatio | 12 14 10 M. | |
| | | Resp. Longitudo | 13 26½ ☿ | |
| | | Latitudo | 6 11 35 M. | |
| | Calculus | Longitudo | Latitudo | |
| | Copernici | 8 58 ☿ | 6 43 M. | |
| | Alphonfin. | 18 29 ☿ | 6 12 M. | |

DIE 22 AUGUSTI.

Ante Mediam Noctem obseruabatur
♂ in modum sequentem.

| H. M. | Dift. ♂ ab infer. cornu ☿ | Decl. ♂ | Alt. ♂ | Prima alæ Peg. or. |
|--------|------------------------------|---------|--------|-----------------------|
| 10 11½ | 46 2 | 12 17½ | 16 15 | 28 15 |
| | bis | 12 17½ | | |

10 24 20 46 2 Erat inf. cornu ☿ fere
in æquilibrio horizontis cum ♂
sed paulo tamen depressius.

| H. M. S. | Dift. ♂ a fin. hum. ☿ | Decl. ♂ | Alt. ♂ | Prima alæ Peg. or. |
|----------|--------------------------|---------|--------|-----------------------|
| 10 32 40 | 29 24 | 12 18 | 17 40 | 23 5 |
| | | 12 17½ | | |
| 10 43 | 29 24½ | | 18 20 | |
| 10 49½ | 29 24 | | 18 50 | |
| 10 55 | 29 23½ | | 19 4 | |
| | Dift. ♂ a luc. ♀ | | | |
| 11 11½ | 51 12½ | | | |
| 11 15 | 51 13½ | | | 20 14 |
| 11 21½ | 51 13½ | | | |
| | Dift. ♂ a luc. nodi ☿ | | | Extr. alæ Peg. or. |
| 11 37 | 40 15 fere | | | 24 20 |
| 11 42 | 40 15½ | | | 23 5 |
| 11 49 20 | 40 15½ | | | 21 16 |

Dift. ♂ a luc.
mandib. Ceti

11 57½ 55 1½ 19 15

0 2 20 55 1 inter nubes
Hæ sunt dubiæ vt pote inter
nubes obseruatæ.

N. B. Non respondet calculus ex hac
distantia in 2 minutis.

| Dift. ♂ ab extr. alæ Peg. | Decl. ♂ | ♂ orient. |
|------------------------------|--------------------------|-----------|
| 0 20 | 27 34 | |
| 0 23½ | 27 34½ | 1 47 |
| 0 30½ | 12 19½ | |
| 0 20½ corr. | 12 19½ | |
| Alt. mer. ♂ per Chal. | 21 47½ | |
| per Vol. | 21 47½ | |
| 0 57 10 | 27 35 | ♂ occid. |
| 1 1½ | 27 34½ | 7 31 |
| | Dift. ♂ ab ore Pegasi | |
| 1 8½ | 32 49 | |
| 1 10 50 | 32 49½ | |
| 1 14 | 32 49 | 10 37 |

Fuit hac vesp̄era apprime serenum
(nisi vbi notatum est) & aër tranqui-
lus, ♂ autem in diametro sua visibili
ipsum ♀ aliquanto superabat, nec ita
rutilanti colore apparuit, sed ♀ tamen
aliquanto rubicundior.

Pone H. 10½ dift. ♂ a cornu 7 46 2
a fin. hum. 29 24
11½ a lucida V 51 13½
a luc. nodi X 40 15
12 0 a luc. mand. ceti 55 1
ab extr. alæ Peg. 27 34 30
1½ ab extr. alæ Peg. 27 34½
ab ore Pegafi 32 49

*Sed redigenda sunt postea omnia
ad tempora transitus per Merid.*

DIE 23 AUGUSTI, VESPERI.

Vltimo videlicet die ♂ cum
simplici ☉ præcedente.

Antequam inceptum est obseruare
corrigebatur horologium.

| H. M. | Dift. ♂ ab inf. cornu 7 | Decl. ♂ | Alt. ♂ | Prima alæ Peg. or. |
|--------|----------------------------|---------|--------|-----------------------|
| 10 24 | 45 45½ | 12 23 | | 23 20 |
| | | 12 22½ | | |
| 10 34½ | 45 45½ | | 18 13 | |
| 10 47½ | 45 45½ | | | |
| | Ab hum. fin. 2 | | | |
| 10 54½ | 29 9 | 12 23 | 19 23 | 15 42 |
| | | 12 22½ | | |
| 11 5½ | 29 8½ | | | |
| 11 8½ | 29 9½ | | | |

Vice versa ab orientali parte cœli

| | Dift. ♂ a luc. V | ♂ orient. |
|--------|---|-----------|
| 11 20 | 51 28 | |
| 11 33½ | 51 27½ | |
| 11 39 | 51 28½ | 11 51 |
| | Dift. ♂ a luc. nodi X | |
| 11 48 | 40 31½ | 8 6 |
| 11 56½ | 40 31½ | 6 2 |
| 12 1½ | 40 32 | |
| | Dift. ♂ a luc. mandib. ceti | |
| 12 6½ | 55 17½ | 3 31 |
| 12 11 | 55 17½ | |
| 12 20 | 55 17½ | 1 56 |
| 12 22½ | Transijt ♂ per meridianum habens altit. per Chalyb. 21 42 30 per Volub. 21 42 15 | |
| | 12 24½ | |
| | 12 24½ | |

¹ Hæc postea alia manu adscripta sunt.

| | Dift. ♂ ab ore Peg. | |
|--------|---|------------------------|
| 12 28½ | 32 39½ | |
| 12 43 | 32 38½ | |
| 12 46½ | 32 39½ | <i>Pone hic 32 39</i> |
| | Dift. ♂ ab extr. alæ Peg. | ♂ occid. |
| 12 55½ | 27 45½ | 8 19 |
| 1 0½ | 27 45 | |
| 1 3 | 27 45½ | |
| 1 8 | 27 45½ | <i>Pone hic 27 45½</i> |
| | Dift. inter os Pegafi | 36 42 |
| | & extremam alæ | 36 41½ |
| | (his non est fidendum, inter nubeculas) ¹ . | |

Fuit etiam hac nocte admodum fe-
renum & fatis tranquillum, flante le-
niter Euro ad Meridiem inclinato.

DIE 24 AUGUSTI.

Obseruabatur ♂ quando erat quam
proxime in opposito simplici ☉ in
modum hunc qui sequitur.

| H. M. S. | Dift. ♂ ab inf. cornu 7 | Declin. ♂ | Prima alæ Pegafi or. |
|---------------|------------------------------|-----------------|-------------------------|
| 10 7½ | 45 29 | | 8 38 |
| 10 11 | 45 31 | 12 27 | |
| | | 12 27½ | |
| 10 16 40 | 45 30 | 12 27½ | ♂ orient. 31 50 |
| 10 8 10 corr. | | 12 28 | |
| 10 20 40 | 45 29½ | <i>Pone 45½</i> | |
| | Dift. ♂ a hum. fin. 2 | | Hum. fin. 2 occ. |
| 10 25 | 28 53½ | | |
| 10 28 40 | 28 52 dubia | | |
| 10 30½ | 28 53½ | | 0 30 |
| 10 32 50 | 28 54 | | 1 10 |
| | Dift. ♂ a luc. V | | |
| 10 39½ | 51 43½ | | |
| 10 45½ | 51 43 | Altit. ♂ | |
| 10 49½ | 51 43 | 19 0 | 5 17 |
| 10 40 corr. | | | |
| 10 53½ | 51 43½ | | |
| 10 56 | 51 43½ | | |
| | Dift. ♂ ab extr. alæ Peg. | | |
| 11 2½ | 27 54½ | | |
| 11 5 20 | 27 54½ | | |
| 11 9 | 27 55 | | |
| | Dift. ♂ ab ore Pegafi | | |
| 11 16 40 | 32 29½ | | |
| 11 21 50 | 32 29½ | | |
| 11 28½ | 32 29½ | | |

| Vice Verfa a hum. fin. ☿ | | ♂ orient. |
|-------------------------------------|------------------------------------|------------------------|
| 11 32 | 28 53½ | 13 0 |
| 11 38 40 | 28 52½ | |
| 11 41½ | 28 53 | 10 34 |
| Diff. ♂ a luc. nodi ☿ | | |
| 11 54½ | 40 48½ | |
| 11 57½ | 40 49 | |
| 0 3 10 | 40 48½ | 5 9 |
| Diff. ♂ a luc. ♀ | | |
| 0 9½ | 51 44 | |
| 0 12½ | 51 43½ | |
| 0 15 | 51 43½ | 2 10 |
| 0 17½ | 51 44 | Prima alæ Peg. occ. |
| 10 24 | Transijt ♂ per Merid. | 5 10 |
| 10 15½ | corr. habens altit. | |
| | per Muralem 21 37½ | |
| | per Chalyb. 21 38 25 | |
| | per Volub. 21 37½ | |
| | Declin. 12 27½ Non erat bene fere- | |
| | 12 28 num cum declina- | |
| | tio obseruaretur. | |
| Mouebatur itaque horologium vbi- | | |
| que 8½ plus iusto, quod corrigatur. | | |

DIE 29 AUGUSTI, VESPERI.

Obseruatio ♂ paucis diebus post ♂
cum simplici ☉.

Horologium corrigebatur H. 9½.

| H. M. | Diff. ♂ a hum. fin. ☿ | Decl. ♂ | Alt. ♂ | Vultur occid. |
|----------------------|----------------------------|------------|-----------|-----------------------|
| 9 58½ | 27 36½ | 12 46½ | 17 25 | 24 13 |
| | | 12 46½ | | |
| 10 8 | 27 36½ | | 18 0 | |
| Inter luc. Vult. & ♂ | | | | |
| 10 13 | 55 54 | | 18 22 | 28 5 |
| 10 17 | 55 53½ | 12 47½ | 18 36 | 29 1 |
| | | 12 47½ | | |
| | ♂ a luc. ♀ | | | Prima alæ Peg. or. |
| 10 33½ | 52 55½ | | | 14 11 |
| | | | | Vult. occ. |
| 10 39½ | 52 56½ | | 20 0 | |
| 10 48 | 52 56½ | | 20 23 | 36 4 |
| 11 8½ | 52 56½ | 12 48 | | |
| | | 12 47½ | | |
| 11 30½ | Transibat ♂ per merid. | | | |
| | inter nubes, habens altit. | | | |
| | per Chalyb. | 21 18½ | | |
| | per Volub. | 21 17½ | | |

Inuestigatio loci ♂ ad diem 22 Augusti
ex obseruationibus eidem diej
supra adscriptis.

| | | |
|-------------------------------|------------------------|-----------|
| H. 10½ | Diff. ♂ | |
| | ab infer. cornu ☿ | 46 2 |
| | Declin. infer. cornu ☿ | 15 57½ M. |
| | Afc. R. eiusdem | 299 31½ |
| Angulus differ. ascensionalis | | 47 24 55 |
| Ergo Ascensio recta ♂ | | 346 56 40 |
| Decl. ♂ M. | | 12 18 |
| H. 10½ | Diff. ♂ | |
| | a finist. hum. ☿ | 29 24 |
| Angulus differ. asc. supput. | | 29 25 |
| Ergo Afc. recta ♂ | | 346 55 35 |
| H. 11½ | Diff. ♂ a lucida ♀ | 51 13 |
| Ang. diff. asc. supput. | | 39 11 43 |
| Ergo Afc. recta ♂ | | 346 55 3 |
| H. 11½ | Diff. ♂ a luc. nodi ☿ | 40 15 |
| Angulus diff. ascenf. | | 37 41 10 |
| hinc Ascenf. R. ♂ | | 346 54 35 |

Collectio omnium ascensionum rec-
tarum in ♂ hoc die earumque ad
transitum eius per Meridi-
anum reductarum.

| | | |
|-------------------------------------|-----------------|-----------|
| H. | Ascenf. R. ♂ | |
| 0½ | ab inf. cornu ☿ | 346 55 20 |
| | a fin. hum. ☿ | 346 55 5 |
| | a luc. ♀ | 346 54 45 |
| | a luc. nodi ☿ | 346 54 20 |
| Hisce omnibus limitatis ad horam 0½ | | |
| P. M. N. ponitur Ascenf. R. ♂ | | 346 55 0 |
| Decl. Merid. | | 12 18 0 |
| Resp. Longitudo | 13 10½ ☿ | |
| Latitudo | 6 8½ M. | |

Inquisitio loci ♂ ex omnibus obserua-
tionibus selectioribus habitis
die 23 Augusti.

| | | |
|----------------------------|-------------------------|-----------|
| H. 10½ | Diff. ♂ ab inf. cornu ☿ | 45 45½ |
| Angulus diff. supput. | | 47 8 42 |
| Ergo Afc. R. ♂ | | 346 40 27 |
| Decl. ♂ ex altit. merid. | | 12 23 |
| H. 10½ | Diff. ♂ a fin. hum. ☿ | 29 9 |
| Ang. diff. asc. supputatus | | 29 8 53 |
| Ergo Ascensio R. ♂ | | 346 39 35 |
| H. 11½ | Diff. ♂ a luc. ♀ | 51 28 |
| Angulus diff. asc. | | 39 27 25 |
| Afc. R. ♂ | | 346 39 20 |
| H. 11½ | Diff. ♂ a luc. nodi ☿ | 40 31½ |
| Ang. diff. asc. | | 38 37 35 |
| Ergo Afc. R. ♂ | | 346 38 10 |

| | |
|-----------------------------|-----------|
| H. 12 $\frac{1}{2}$ Dift. ♂ | |
| a luc. mand. ceti | 55 17 45 |
| Angulus diff. ascenf. | 53 38 32 |
| Ergo Ascenf. R. ♂ | 346 40 20 |

Reductio omnium ascensionum rec-
tarum ad H. 11 completam.

| | | |
|--------------|------------------------|-----------|
| H. 11 compl. | Cornu infer. \bar{z} | 346 40 7 |
| Afc. R. | Sin. hum. \approx | 346 39 28 |
| ♂ a | Lucida \vee | 346 39 30 |
| | Nodo χ | 346 38 40 |
| | Luc. mand. | |
| | Ceti | 346 41 0 |

Hicce omnibus inter se vti fieri po-
tuit limitatis, fidendo tamen potius ijs
quæ a lucida \vee & sinistro humero \approx
prouenerunt, ascensio recta ponitur
ad hanc eandem 11 horam comple-
tam absque sensibili errore 346 39 $\frac{1}{2}$

| | |
|-----------------|----------------------------|
| Declinatio M. | 12 23 |
| Resp. Longitudo | 12 54 $\frac{1}{2}$ χ |
| Latitudo | 6 7 $\frac{1}{2}$ M. |

Pro longitudine & latitudine ♂ ad
eundem diem 23 Augusti ex obserua-
tione a stellis Pegasi.

| | |
|---------------------------------|---------------------|
| Circa H. 12 $\frac{1}{2}$ Dift. | |
| ab ore Pegasi | 32 39 |
| ab extr. alæ Pegasi | 27 45 $\frac{1}{2}$ |
| Oris Peg. Longit. | 26 15 35 \approx |
| Latit. | 22 8 0B. |
| Extr. alæ Longit. | 3 31 45 \vee |
| Latit. | 12 35 0B. |

Ang. diff. long. ab extr. alæ 20 36 56
Ergo per hanc ratiocinationem

| | |
|------------------|----------------------------|
| resultat ♂ Long. | 12 54 $\frac{1}{2}$ χ |
| Lat. | 6 8 $\frac{1}{2}$ M. |

Supputatio loci ♂ ex obseruationibus
diej 24 Augusti assignatis.

| | |
|--|---------------------|
| H. 10.0 Dift. ♂ | |
| ab inf. cornu \bar{z} | 45 29 |
| Declin. ♂ | 12 27 $\frac{1}{2}$ |
| Angulus differ. ascenf. | 46 52 20 |
| Ergo Ascensio R. ♂ | 346 24 5 |
| H. 10.20 Dift. ♂ a sin. hum. \approx | 28 53 50 |
| Angul. diff. ascenf. | 28 52 40 |
| Ergo ascensio R. ♂ | 346 23 15 |
| H. 10.40 Dift. ♂ a luc. \vee | 51 43 |
| Angul. differentiæ ascenf. | 39 43 54 |
| Ergo Afc. R. ♂ | 346 22 51 |

| | |
|-------------------------------------|---------------------|
| H. 11.46 Dift. ♂ a luc. nodi χ | 40 48 $\frac{1}{2}$ |
| Differ. ascenf. | 38 54 40 |
| Ergo Afc. R. ♂ | 346 21 5 |

Collectio omnium ascensionum rec-
tarum ♂ & ad H. 10 $\frac{1}{2}$ reductio
(vbi nulla longitudinis parallaxis eBet)

| | | |
|-----------------------|------------------------|-----------|
| Hora 10 $\frac{1}{2}$ | cornu \bar{z} infer. | 346 23 45 |
| Afc. recta | humero \approx | 346 23 10 |
| ♂ a | lucida \vee | 346 22 58 |
| | nodo χ | 346 22 58 |

Additis 15 $\frac{1}{2}$ pro parallaxi. Limitatis
his omnibus prouenit ad horam 10 $\frac{1}{2}$

| | |
|--------------------|----------------------|
| Afc. R. ♂ limitata | 346 23 $\frac{1}{2}$ |
| Declin. M. ♂ | 12 27 $\frac{1}{2}$ |
| Resp. Longitudo | 12 37 50 χ |
| Latitudo | 6 5 25 M. |

Pro eiusdem ♂ longitudine & lati-
tutine ad 24 diem per vltatiam mo-
dum triangulorum ex distantia ab ore
Pegasi & extrema alæ Pegasi.

| | |
|---|---------------------|
| H. 11.0 Dift. ♂ | |
| ab ore Pegasi | 32 29 $\frac{1}{2}$ |
| ab extrema alæ | 27 54 $\frac{1}{2}$ |
| Ang. diff. long. ab extr. alæ | 20 51 27 |
| Fuit itaque H. 11 per hanc ratiocina- tionem ♂ Longitudo | 12 40 15 χ |
| Latitudo | 6 6 8 M. |

Fidendum autem est potius superi-
oribus in longitudine. Latitudo autem
paululum per hæc potest augeri.

Supputatio pro loco ♂ die 29 Augusti
ex proximis ascriptis ob-
seruationibus.

| | |
|---|----------------------------|
| H. 10 M. 5 Dift. ♂ | |
| a sin. hum. \approx | 27 36 $\frac{1}{2}$ |
| Angulus differentiæ ascenf. | 27 29 30 |
| Hinc Afc. R. ♂ | 345 0 5 |
| H. 10 $\frac{1}{2}$ Dift. ♂ a luc. Vultur. | 55 53 45 |
| Declin. luc. Vulturis | 7 51 $\frac{1}{2}$ B. |
| Ascenf. R. eius | 292 43 20 |
| Hinc Afc. R. ♂ | 345 0 20 |
| Nam ang. differ. asc. est | 52 17 0 |
| H. 10 $\frac{1}{2}$ Dift. ♂ a luc. \vee | 52 56 $\frac{1}{2}$ |
| Angulus differ. ascenf. | 41 5 40 |
| Ergo hinc Afc. R. ♂ | 345 1 5 |
| H. 10 $\frac{1}{2}$ pone Afc. rectam ♂ lim. | 345 0 25 |
| Declinationem vero | 12 47 30 |
| Resp. Longitudo | 11 15 $\frac{1}{2}$ χ |
| Latitudo | 5 52 $\frac{1}{2}$ M. |

Pro oppositione ☿ cum simplici ☾.

I. Ponitur motus diurnus circa ☿ 16 M. 45 S, neque enim maior elici potest, facta eius inquisitione ex selectissimis observationibus iuxta ☿.

II. Ad diem 24 hora 10½ Noster simplex ☾^{lis} 11½ 12 55 0
 Longit. ☿ vera ☾ 12 37 50
 Differentia 0 17 10

Facta igitur est ☿ cum simplici ☾^{lis} Die 24 Augusti hora 5 M. 4 pomerid., fuit autem tum iuxta motum diurnum prius suppositum

☿ Longitudo visa 12 41½
 Latitudo visa 6 6 M.
 Vera latitudo 6 3
 Parallaxis abumitur 3

Collectio φαινόμενων ☿ obseruatorum hoc anno vna cum collatione Calculi Copernici & Alphonsi.

| | Ex obseruat. | | Ex Calculo Copern. | | Ex Calculo Alphonsi. | |
|--|--------------|---------|--------------------|--------|----------------------|--------|
| | Long. | Lat. | Long. | Lat. | Long. | Lat. |
| Julius | | | | | | |
| 21 ^d 14 ^h 0 ^m | 17 45½☾ | 5 46½ M | 14 48½☾ | 5 30 M | 22 44☾ | 5 29 M |
| 24 13 40 | 17 51½ | 5 54 0 | | | | |
| 30 13 45 | 17 39½ | 6 6½ | 13 57 | 6 0 | 22 46 | 5 46 |
| Augustus | | | | | | |
| 10 13 45 | 16 7½ | 6 18 52 | 12 0 | 6 30 | 21 26 | 6 0 |
| 17 13 0 | 14 29 5 | 6 16 7 | 10 11 | 6 40 | 19 38 | 6 6 |
| 20 13 0 | 13 44 0 | 6 14 0 | 9 16 | 6 30 | 18 46 | 6 10 |
| 21 12 30 | 13 26 30 | 6 11 36 | 8 58 | 6 43 | 18 29 | 6 12 |
| 22 12 20 | 13 10 15 | 6 8 50 | 8 39 | 6 43 | 18 11 | 6 14 |
| 23 11 0 | 12 54 20 | 6 7 30 | 8 21 | 6 40 | 17 53 | 6 15 |
| 24 10 30 | 12 37 50 | 6 5 30 | 7 4 | 6 37 | 12 35 | 6 16 |
| 29 10 20 | 11 15 25 | 5 52½ | 6 42 | 6 21 | 15 59 | 6 22 |

Consideratione dignum est quod ☿ circa 10 diem Augusti habuerit maximam latitudinem austrinam & postea decreuerit, ita vt die 24 in ☿ quasi ½ gradus propior Eclipticæ redditus sit, quod tamen Canones etiam correcto latitudinis maximæ loco in 18 ☿ nequaquam exhibent, quomodocunque abumatur illic maxima latitudo, cuius rei causa studiose inquirenda venit¹.

DIE 8 SEPTEMBRIS.

Vesperis circa Meridiem obseruabatur ☿ post ☿ cum simplici ☾^{lis} in modum qui sequitur.

| H. M. | Dist. ☿ a fin. hum. ☿ | Decl. ☿ | Dext. hum. ☿ occ. |
|--------|--------------------------|------------|----------------------|
| 10 11 | 25 18½ | 13 6½ vno | 1 4 |
| 10 18 | 25 19½ | | |
| 10 21½ | 25 18½ | | |
| 10 26 | 25 18½ | 13 7½ | 4 33 |
| | | 13 7 | |

Vice versa. A luc. nodi ☾

| | |
|---------|-------------------------------|
| 10 49½ | 44 35½ |
| 10 52½ | 44 36 Vitium aliquod pin- |
| 10 56 | 44 35½ nacidio adhæsit |
| 10 59½ | 44 35½ |
| 11 2 20 | 44 35½ |
| 11 14½ | Transitus ☿ per merid. habens |
| | alt. per Chalyb. 20 58 30 |
| | per Volub. 20 58 15 |
| | Tempus in Æquatore: Prima in |
| | effusione aquæ 4 31 a merid. |

¹ Cfr. T. V p. 335 et Appendicem ad observationes hujus anni.

DIE 20 SEPTEMBRIS, VESPERI.

N. B. ♂ iuxta stationem alteram incipiens dirigi.

| | | | |
|--------|-----------------------|--------|------------|
| 10 55½ | Decl. ♂ | 12 50½ | vno pinn., |
| | inter nubes | | |
| | Alt. merid. per Chal. | 21 14½ | |
| | per Vol. | 21 14½ | |
| 11 10½ | Dift. ♂ a fin. hum. ∞ | 23 31 | |
| | Prima alæ Pegasi | 3 7or. | |

Mediocriter bona. Hæc obseruata sunt inter transcurrentes nubes. Valida etiam erat tempestas ab occafu.

DIE 21 SEPTEMBRIS.

Vesper. Horologium corrigebatur hora 3 pomerid.

| H. M. | Dift. ♂ a fin. hum. ∞ | Decl. ♂ | Hum. fin. ∞ occ. |
|----------|---------------------------|-----------|-------------------------|
| 9 9 | 23 26½ | | 4 55 |
| 9 14½ | 23 26½ | bis | |
| 9 19½ | 23 26½ | | |
| | Vice Verfa ♂ a luc. Vult. | | |
| 9 26½ | 51 55½ | 12 47 vno | 9 9 |
| 9 32 40 | 51 55½ | 12 47 | |
| | | 12 46½ | |
| 9 36 | 51 55½ | | |
| | Dift. ♂ a luc. √ | | |
| 9 50 | 56 15½ | | 14 54 |
| 9 54 | 56 15½ | | |
| 10 8½ | 56 15½ | | |
| 10 11 | 56 15½ | | |
| | Dift. ♂ a luc. nodi √ | | Prima alæ Peg. or. 2 18 |
| 10 15 50 | 46 17 | 12 47½ | |
| 10 20 | 46 17 | 12 47 | |

10 24 *Transiit ♂ meridianum habens altit. per Chalyb. 21 19½ per Volub. 21 19½*

10 35 Decl. ♂ 12 46½ meliores

N. B. Circa hos dies debuit ♂ esse stationarius iuxta calculum Prutenicum die 21 Septembris, quod tamen non concordat; mutauit enim distantiam a sinistro humero ∞ ab hesternâ die per 5. Min. fere, quod

rectius quadrat Alphonfino calculo, qui stationem eius facit iuxta diem 28 Septembris. Vide sequentes ♂ obseruationes.

Pro loco ♂^{us} ex obseruationibus ad diem 21 Septembris¹.

| | | |
|-------|---------------------------|-----------|
| H. 9½ | Dift. ♂ a sinistro hum. ∞ | 23 26½ |
| | a lucida √ | 56 15½ |
| | Declin. ♂ | 12 46 M. |
| | Sin. hum. ∞ | 7 18 M. |
| | Luc. √ | 21 31 M. |
| | Afcenf. Recta hum. ∞ | 317 30 50 |
| | luc. √ | 26 7 15 |

Per supputationem triangularem

| | |
|------------------------------|-----------|
| Angulus diff. Afc. a hum. ∞ | 23 9 2 |
| luc. √ | 45 27 45 |
| Ergo Afc. R. ♂ | 340 39 40 |
| Decl. | 12 46 |
| Resp. Longitudo | 7 20½ |
| Latitudo | 4 13½ M. |
| Longit. vera in proprio orbe | 7 15 |

DIE 26 SEPTEMBRIS.

Vesper. obseruabatur ♂ in modum sequentem.

| H. M. | Dift. ♂ a Vulture | Decl. ♂ | Vultur occ |
|----------|-------------------|---------------|------------|
| 8 59½ | 51 38½ | 12 25½ vno | |
| 9 5 | 51 39 | | 37 38 |
| 9 9½ | 51 40 bis | | |
| 9 16 | 51 40 | | 39 43 |
| 9 28½ | | 12 25½ vno | |
| 9 51½ | Transiit ♂ | | |
| | per merid. habens | 47 50 | |
| | alt. per Chal. | 21 41½ | |
| | per Volub. | 21 41 | |
| | Dift. ♂ a luc. √ | | |
| 10 1½ | 56 11½ | | |
| 10 8 | 56 11½ | | |
| 10 14½ | 56 11½ | | |
| 10 22 | 56 11 | | |
| 10 33 20 | 56 11½ | | |
| 10 38 40 | 56 12 | Altit. ♂ 21 7 | |

Pone distantiam ♂ a lucida √ 56 11½, a lucida Vult. 51 40.

N. B. Erat Mars fere circa ipsam stationem secundam.

¹ E codice K folo.

DIE 28 SEPTEMBRIS.

Vesperī obſeruabatur ♂ hoc modō.

♂ ſtationarius apud Alphonſinos.

In obſervationibus ♂ pone circa horam 10 diſtantiā eius

a lucida ♀ 56 4

a lucida Vulturis 51 35

& declinationem auſt. 12 13½

Videtur autem non amplius retrogradus, ſed potius directus, quamvis calculus Alphonſinus ſtatuitem hoc die ſtationarium.

| H. M. S. | Diſt. ♂ a luc. ♀ | Decl. ♂ | Vultur occid. |
|-----------------------|--------------------------|------------------|------------------|
| 8 26 40 | 56 5½ dub. | 12 12½ 12 13½ | 25 17 |
| 8 30 10 | 56 3½ | | |
| 8 34 | 56 3 | | |
| 8 36 40 | 56 4 | | |
| 8 40½ | 56 3½ | | |
| 8 42 10 | 56 3½ | | |
| 8 49 | 56 3½ | | |
| 8 52 40 | 56 3½ | 12 14 vno | |
| Diſt. ♂ a Luc. Vult. | | | |
| 9 6 50 | 51 35½ | | |
| 9 11 10 | 51 35 | | |
| 9 29 | 51 35 | | |
| 9 43 | | 12 14 12 13 | |
| 9 47 20 | 51 35½ | | Vultur occ. |
| Vice Verſa ♂ a luc. ♀ | | | |
| 9 50 | 56 4½ | | 45 40 |
| 9 59 | Transijt ♂ | | 47 52 |
| | per merid. habens altit. | | |
| | per Chal. | 21 52½ | |
| | per Vol. | 21 51 50 | |
| 10 5 20 | 56 3½ | | |
| 10 13½ | 56 4 | 12 14 vtroque | |

DIE 3 OCTOBRIS, VESPERI¹.

♂ obſervationes circa ſtationem vltimā ſequuntur in hunc modum.

H. M. Diſt. ♂ a luc. ♀

7 39½ 55 33 Altit. ♂ 18 10

Diſt. a Vulture

7 47 51 39 Hum. fin. ☞ occ. 4 2

7 56½ 51 39½

8 0½ 51 40 Decl. ♂ 11 42
11 42½

Rufus a luc. ♀

8 22 55 32½ Extrema alæ 19 17
Peg. or.

puto fuiſſe inter nubes

8 47½ 55 32½ Vultur occ. 35 15

9 40 20 Transijt ♂ per merid. habens
alt. inter nubes,

per Chal. 22 24

per Vol. 22 23½

Decl. in armillis 11 42½

11 43

DIE 12 OCTOBRIS.

Vesperī obſeruabatur ♂ circa mediam annui orbis ſui digreſſionem in ſequentem modum.

Horologium paulo ante correctum.

| H. M. | Diſt. ♂ a Vulture | Decl. ♂ | Vultur occ. |
|-------|-------------------|-----------------|-------------|
| 8 16 | 52 23½ | | 38 46 |
| 8 23 | 52 23½ | 10 32 10 31½ | |
| 8 33 | 52 23½ | | 43 26 |

Vice Verſa a luc. ♀

8 43 53 53½

8 49½ 53 53½

8 55½ 53 53½

9 5½ Transijt ♂

per Merid. habens alt.

per Chalyb. 23 34½

per Volub. 23 34½

Decl. 10 32 vtroq. 49 16

Erat hac vesp̄era mediocriter ſerenum, & aëris conſtitutio apprime tranquilla. Fuit autem ♂ circa 26 gr. a perigæo annui orbis, vbi maximum exceſſum ob variationem eius in Eccentrico hypotheſis Copernicæa ponit. Conducunt itaque hæ obſervationes tum ad exceſſum hunc corrigendum, tum ♂^{us} motum circa mediam diſtantiā inter perigæum annui orbis & medietatem eiusdem rite examinandam & reſtituendam.

¹ Codex habet Die 1. Cf. ſupra pp. 269 et 281.

DIE 29 OCTOBRIS.

Vesperī obſeruabatur ♂ circa maxi-
mam digreſſionem annui orbis.

| H. M. S. | Diſt. ♂ a Vulture | Decl. ♂ | Alt. ♂ | Vulture occ. |
|--------------------------|------------------------|---------------------------|--------|-----------------|
| 6 34 | 55 40 $\frac{1}{2}$ | 7 36 $\frac{1}{2}$ | | 31 10 |
| 6 42 40 | 55 40 $\frac{1}{2}$ | | 24 23 | 33 48 |
| 6 49 50 | 55 40 $\frac{1}{2}$ | 7 36 $\frac{1}{2}$ | | 34 31 |
| Vice Verſa ♂ a luc. Y | | | | |
| 7 3 50 | 48 41 $\frac{3}{4}$ | inter nubes | | 38 47 |
| 7 15 30 | | 7 36 $\frac{1}{2}$ vtroq. | | 41 45 |
| 7 22 4 | 48 41 $\frac{1}{2}$ | | | 43 21 |
| Denuo a luc. Vult. | | | | |
| 7 28 20 | 55 41 $\frac{1}{2}$ | 7 37 vtroq. | | 44 43 |
| Diſt. ♂ a luc. Y | | | | |
| 7 38 50 | 48 39 | inter nubes | | 47 23 |
| 7 47 20 | 48 40 $\frac{1}{2}$ | 7 36 $\frac{1}{2}$ vno | | 50 37 |
| bona | | | | |
| 8 4 30 | Transibit ♂ | | | |
| | per Merid. habens alt. | | | |
| | per Chal. | 26 29 $\frac{1}{2}$ | | |
| | per Vol. | 26 30 | | |
| | | 7 37 | | 53 43 |
| | | 7 36 $\frac{1}{2}$ | | |

Hac veſpera non erat ſatis ſerenum,
præcipue ab orientali cœli parte &
circa meridiem.

Pro loco ♂ ex obſervationibus
antecedentibus¹.

| | | |
|------------------|---------------------------------------|-----------------------|
| H. 7 0 | Diſt. ♂ a lucida Vult. | 55 41 |
| | a lucida Y | 48 41 |
| | Declin. ♂ M. | 7 35 30 |
| Ex his Aſc. R. ♂ | limitata quæ bene vtrique conuenit | 346 21 |
| Reſp. Longitudo | | 14 29 $\frac{3}{4}$ X |
| Latitudo | | 1 35 $\frac{3}{4}$ M. |

DIE 30 OCTOBRIS.

Vesperī obſeruabatur denuo ♂ circa
Meridianum.

| H. M. S. | Diſt. ♂ a Vulture | Decl. ♂ | Vulture occ. |
|----------|----------------------|--------------------|-----------------|
| 7 13 50 | 55 57 $\frac{1}{2}$ | | |
| 7 17 50 | 55 57 $\frac{1}{2}$ | 7 24 | 46 43 |
| | | 7 24 $\frac{1}{2}$ | |
| 7 26 50 | 55 57 $\frac{1}{2}$ | | 48 56 |

¹ E codice K.

² Poſtea adſcriptum eſt: »Dubitatur de his obſervat., an enim lucida nodi X ſit, nam non reſpondent cum
ceteris».

Vice Verſa a luc. Y

| | | | |
|----------------|---------------------|--------------------|---------------------|
| 7 33 40 | 48 18 $\frac{1}{2}$ | 7 24 $\frac{1}{2}$ | Alt. ♂ 50 36 |
| | | 7 24 $\frac{1}{2}$ | per Chal. |
| 7 40 30 | 48 17 | inter nubes | 26 41 |
| 7 47 10 | Transibit ♂ | per Merid. habens | |
| 8 4 45 | corr. | | 54 0 |
| | | alt. per Chal. | 26 41 $\frac{1}{2}$ |
| | | per Vol. | 26 41 $\frac{1}{2}$ |
| | | 7 25 | |
| | | 7 24 $\frac{1}{2}$ | |
| Diſt. a luc. Y | | | |
| 7 54 50 | 48 18 $\frac{1}{2}$ | | |
| 7 58 20 | 48 17 | | |
| 8 4 30 | 48 18 | | Non admodum |
| 8 7 10 | 48 17 $\frac{1}{2}$ | | certæ ob vicini- |
| 8 14 20 | 48 17 | | tatem ☾. |
| 8 18 20 | 48 17 | | Os Peg. occ. |
| 8 22 40 | | 7 23 $\frac{3}{4}$ | 33 33 |
| | | 7 24 | |

DIE 25 NOUEMBRIS.

Vesperī obſeruabatur ♂ circa Δ ☉
orient., vbi maxima annui orbis προ-
σθαφαίρεισις eſt.

| H. M. S. | Diſt. ab ore Peg. | Os Pegafi occ. |
|------------------------------|----------------------|---------------------------------|
| 6 32 20 | 37 17 $\frac{1}{2}$ | |
| 6 36 $\frac{1}{2}$ | 37 17 | 30 37 |
| 6 40 50 | 37 17 $\frac{1}{2}$ | 31 26 |
| Diſt. a dext. hum. ☿ | | |
| 6 53 30 | 30 51 | incerta propter ☾ ^{am} |
| 6 58 40 | Transiit ♂ | per meridianum |
| Tempus habuitque tunc altit. | | |
| fatis bene | per Volub. | 32 21 |
| ſe habet | per Chalyb. | 32 20 $\frac{3}{4}$ |
| | Fuit tunc os Pegafi | |
| | occid. | 36 4 |
| | Decl. per arm. max., | |
| | | vno 1 45 $\frac{1}{2}$ |
| | | alt. 1 45 $\frac{3}{4}$ |

Diſt. ab hum.

| | | |
|------------------------------------|---------------------|--------------------------|
| | fin. ☿ | |
| 7 8 40 | 30 53 $\frac{1}{2}$ | 38 32 |
| 7 12 50 | 30 54 bona | 39 26 |
| Vice Verſa | | |
| Diſt. ♂ a luc. nodi X ² | | |
| 7 20 20 | 32 41 $\frac{1}{2}$ | dub. pp. ☾ ſplend. 41 38 |
| 7 23 50 | 32 43 | ſere |
| 7 27 50 | 32 42 $\frac{3}{4}$ | |

| | | | |
|---------|--------------------------|-------------------|-------|
| | A luc. Υ | | |
| 7 33 30 | 36 38 $\frac{1}{2}$ | In his distantijs | 44 2 |
| 7 37 30 | 36 38 $\frac{1}{2}$ | (non magno- | |
| 7 42 40 | 36 38 $\frac{1}{2}$ | pere fuit | 46 43 |
| 7 48 10 | 36 38 $\frac{1}{2}$ | impedimento | 47 52 |
| | Decl. 1 45 $\frac{1}{2}$ | | |
| | 1 45 | | |

Fuit hac vespera bene ferenum dum hæc obseruarentur, splendente tamen ☾.

DIE 26 NOUEMBRIS, VESPERI.

| H. M. S. | Diff. ☽ ab ore Peg. | Decl. ☽ | Os Pegasi occid. |
|----------|------------------------------|------------------------|------------------|
| 6 22 50 | 37 39 $\frac{1}{2}$ | | |
| 6 25 50 | 37 39 | | 24 50 |
| 6 36 10 | 37 38 $\frac{1}{2}$ | 1 32 $\frac{1}{2}$ vno | 26 37 |
| | Vice Verfa a luc. Υ | | ☽ orient. |
| 6 55 50 | 36 11 $\frac{1}{2}$ | | 4 52 |
| 6 59 50 | 36 11 $\frac{1}{2}$ | | 4 15 |
| 7 2 50 | 36 11 $\frac{1}{2}$ | 1 31 $\frac{1}{2}$ | Os Peg. occ. |
| | inter nebulas 1 32 | | |
| 7 14 20 | Transijt ☽ | | 36 10 |
| | per Merid. habuitque alt. | | |
| | per Chalyb. | 32 35 | |
| | per Volub. | 32 35 $\frac{1}{2}$ | |

Plura obseruare in ☽ hoc vesperi propter nebulas non concedebatur¹.

DIE 27 NOUEMBRIS, VESPERI.

| | | | |
|----------|------------------------|---------------------|--------------|
| 7 2' 20" | Transijt ☽ | | |
| | per Merid. habens alt. | | |
| | per Chalyb. | 32 49 $\frac{1}{2}$ | Os Peg. occ. |
| | per Volub. | 32 49 $\frac{1}{2}$ | |
| | Declin. ☽ vno | 1 15 $\frac{1}{2}$ | 37 0 |
| | Diff. ab ore Peg. | | |
| 7 22 0 | 38 2 | | 41 37 |
| 7 24 40 | 38 2 $\frac{3}{4}$ | | |
| 7 29 40 | 38 3 | | 43 22 |

Propter oppositum ☾ splendorem hæc stellæ difficulter sunt visæ & obseruatæ.

| | | | |
|---------|---------------------|--|-------|
| | A dext. hum. ☿ | | |
| 7 36 20 | 31 50 $\frac{1}{2}$ | | 45 0 |
| 7 39 20 | 31 50 $\frac{1}{2}$ | | 45 46 |
| 7 43 30 | 31 50 $\frac{1}{2}$ | | 47 27 |

¹ In codice E adscriptum est: »N. B. Distantiæ hæc ☽ ab vtraque fixa ordine præpoltero sunt numeratæ per incuriam. Veram igitur distantiam ab ore Pegasi pone 37° 39 $\frac{1}{2}$, a luc. Υ 36° 11 $\frac{1}{2}$ &c.« (Numeratæ fuerant 38° 20 $\frac{1}{2}$ 37° 48 $\frac{1}{2}$ &c.).

| | | | |
|--------|---------------------------|--------------------|-------|
| | Vice Verfa | | |
| | Diff. ☽ a luc. Υ | | |
| 7 56 0 | 36 20 $\frac{1}{2}$ | inter nubes | 49 32 |
| 8 4 30 | 36 20 $\frac{1}{2}$ | | |
| 8 7 0 | 36 20 $\frac{1}{2}$ | Decl. 1 16 | |
| | | 1 16 $\frac{1}{2}$ | |

DIE 1 DECEMBRIS.

Vesperi obseruabatur ☽ circa maximam pene digressionem seu parallaxin quæ fit per orbem annuum.

7 1' 30" Decl. ☽ 0 19 40 vno.

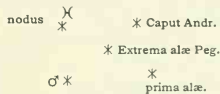
| | | |
|-----------------|---------------------|--------------|
| Altit. ☽ merid. | | |
| per Chalyb. | 33 45 $\frac{1}{2}$ | Os Peg. occ. |
| per Volub. | 33 46 $\frac{1}{2}$ | 38 47 |

| H. M. S. | Diff. ☽ ab ore Peg. | | |
|----------|---------------------|-------|-------|
| 7 15 20 | 39 39 $\frac{1}{2}$ | dubia | |
| 7 19 40 | 39 40 $\frac{1}{2}$ | | 43 0 |
| 7 23 10 | 39 40 $\frac{1}{2}$ | | 43 42 |
| 7 29 40 | 39 40 $\frac{1}{2}$ | | 44 57 |

| | | | |
|---------|-------------------------|--------------------|-------|
| | Vice Verfa | | |
| | Diff. a luc. Υ | | |
| 7 39 50 | 33 38 $\frac{1}{2}$ | | 47 24 |
| 7 50 30 | 33 39 | Declin. ☽ | |
| 8 0 10 | 33 38 $\frac{1}{2}$ | 0 19 | 51 21 |
| | | 0 19 $\frac{1}{2}$ | |

Erat mediocriter ferenum hac vespera & aer tranquillus.

N. B. Fuit hac vespera ☽ fere in recta linea cum extrema alæ Pegasi & capite Andromedæ, sed paululum in consequentia remotior, quantum insensibiliter fere ad visum; constituit item quadratum æquilaterum cum prima alæ Pegasi & capite Andromedæ &



suprema in lino ☾ boreo in cuius medio extrema alæ Pegasi centri loco exstitit, ideoque crucis figuram in hunc modum hæc 5 stellæ exacte formabant.

DIE 7 DECEMBRIS.

Vesperī obſeruabatur ♂ paululum transgreſſus Meridiem in hunc modum.

| H. M. S. | Inter ♂ & ſeq. luc. & auſt. | Decl. ♂ | ♂ occ. |
|------------|--------------------------------|------------|---------------------------|
| 7 12 20 | 18 50½ | 1 7½ | vno 11 10 |
| 7 27 40 | 18 51½ | | Ocul. ♂ or. |
| 7 31 30 | 18 51½ | | 45 0 |
| 7 40½ 40 | 18 51½ | | 43 33 |
| Vice Verſa | | | |
| | a luc. mand. Ceti | | |
| 7 52 30 | 37 28½ | | 41 50 |
| 7 59 10 | 37 29 | | |
| 8 4 50 | 37 28½ | 1 10 | dubia prop- ter tignum |
| | Dift. ♂ a luc. γ | | |
| 8 16 40 | 30 28 | | 35 5 |
| 8 23 0 | 30 27½ | | 34 20 |
| 8 31 30 | 30 27½ | 1 8 | 32 36 |
| | | 1 8½ | |

Erat hæc vesp̄era ſerenum & medio-
criter tranquillum, poteſ itaque tuto
hiſ vti obſervationibus (Declinatione
ex collationibus præcedentium altitu-
dinum Meridianarum correcta) Marte
circa maximam vti nunc eſt digreſſi-
onem annui orbis exiſtente, pro in-
quiſitione parallaxeos & ſemidiametri or-
bis menſuræ.

DIE 8 DECEMBRIS.

Vesperī obſeruabatur ♂ in maxima
remotione annui orbis.

| H. M. S. | Dift. inter ♂ & os Peg. | Decl. ♂ | Os Pegafi occid. |
|---------------|----------------------------|------------|---------------------|
| 5 46 50 | 42 37½ | dubia | |
| 5 49 20 | 42 38½ | bis | |
| 5 57 40 | 42 38½ | 1 21½ | 33 13 |
| 5 50½ corr. | | vno | |
| Dift. ab hum. | | | |
| | dext. ☿ | | |
| 6 8 20 | 37 17 | | 35 38 |
| 6 11 30 | 37 16½ | | 36 24 |
| 6 2½ corr. | | | |
| 6 14 10 | 37 17 fere | | 37 32 |
| Vice Verſa | | | |
| | Dift. ♂ a luc. γ | | |
| 6 20 10 | 30 1½ | | 38 28 |
| 6 11 10 corr. | | | |
| 6 25 30 | 30 1½ | | |
| 6 29 50 | 30 1½ | 1 22½ | altero pin. |

¹ Codex habet 60.

² Codex habet 35.

| | | |
|--------|---------------------------|--------|
| 6 37 0 | Transiit ♂ per merid. | |
| | habens alt. | |
| | per Chalyb. | 35 28 |
| | per Volub. | 35 28½ |
| | | 1 22½ |
| | | 1 22½ |
| | Dift. a luc. mandib. Ceti | 42 9 |

| | | |
|------------|-----------|-------|
| 6 50 40 | 37 0 fere | |
| 6 55 50 | 36 59½ | 46 42 |
| 6 44 corr. | | |

N. B. Obſervationes huius vesp̄eri
in ♂ ſunt admodum bonæ pro ſemi-
diametro annui orbis inquirenda, erat
enim circa digreſſionem illam quæ
maximam parallaxin cauſatur, & præ-
terea medio fere loco inter Apogæum
& Perigæum in Eccentrico, fuit autem
dum hæc obſeruentur ſatis bene ſe-
renum & aër tranquilluſ.

DIE 10 DECEMBRIS.

Obſervationes alio Sextante in ♂
meliores.

| | | |
|------------------------|---------------------------|--------------------|
| 6 ^h 24' 20" | Transiit ♂ per meridianum | |
| | habens alt. per Chalyb. | 35 58 |
| | per Volub. | 35 57½ |
| | Os Pegafi occ. | 43 ² 42 |

| | Dift. ♂ ab ore Pegafi | Os Peg. occ. |
|---------|--------------------------|-----------------|
| 6 46 40 | 43 32 | 48 40 |
| 6 56 10 | 43 31½ | 50 51 |
| 7 0 0 | 43 32 | |

Vice Verſa

| | Dift. a luc. mandib. Ceti | |
|---------|------------------------------|--|
| 7 8 20 | 35 57½ | 53 46 |
| 7 15 20 | 35 56½ | |
| 7 21 40 | 35 56 | |
| 7 36 0 | 35 55½ | |
| 8 2 40 | | |
| | Dift. a luc. γ | |
| 8 14 0 | 28 52½ | |
| 8 27 0 | 28 52½ | 1 53 |
| | Dift. ab oculo γ | |
| 8 42 10 | 59 29½ | Hæc diſtantiæ ♂ ab |
| 8 49 0 | 59 31 | Aldeboran ſunt in- certæ ob nimiam in Sextante diſtan- tiam harum ſtellarum ab inuicem. Erat hæc vesp̄era ſatis bene ſerenum. |

Pro loco ♂ ex proximis præcedentibus obseruationibus.

| | | |
|--|---------------|-------------|
| Die 10 Dec. H. 6 M. 45 Dift. ♂ | | |
| ab ore Pegafi | 43 32 | |
| Declinatio ♂ B. | 1 52½ | |
| Declin. oris Pegafi | 8 3½ | |
| Hinc angulus diff. ascenf. fupput. | 43 17 5 | |
| Ascensio Recta oris Pegafi | 321 4 45 | |
| Ergo Ascenf. recta ♂ | 4 21 50 | |
| H. 7 M. 20 Dift. ♂ | | |
| a mand. Ceti | 35 56 | |
| Declin. mandib. ceti | 2 27½ | |
| Afc. R. mandib. ceti | 40 18 50 | |
| Angulus diff. ascenf. fupput. | 35 57 20 | |
| Ergo Ascenf. R. ♂ | 4 21 30 | |
| H. 7 completa Afc. R. ♂ limit. | 4 21½ | |
| Declin. B. | 1 52½ | |
| Resp. Longit. 4 44 0 V 1 ^m add. | | |
| Latit. 0 1 0 M. 1 45" subtr.) | | |
| | parallax. | |
| Ex obseru. verus locus ♂ | Ex calc. Cop. | Ex Alphonf. |
| Longit. 4 45 V | 4 30 V | 6 9 V |
| Latit. 0 0 45 B. | 0 30 M. | 0 1 30 B. |

DIE 13 DECEMBRIS.

Vesperī obseruabatur ♂ iuxta terminum annui orbis, vbi maxima parallaxis est, idque ☉^{ie} circa perigæum eccentrici fui quam proxime versante.

Horologium paulo antea corrigebatur.

| | |
|---|------------------|
| 6 ^h 16' 50" Transiit ♂ merid. habens | |
| alt. per Chalyb. | 36 41 20 |
| per Volub. | 36 41 |
| Declin. ♂ 2 36½ | Os Peg. in æquat |
| 2 36½ | 44 48 |

Dift. ♂ ab ore Peg.

| | | |
|---------|--------|-------|
| 6 27 40 | 44 53½ | 47 22 |
| 6 29 50 | 44 53 | |
| 6 34 0 | 44 52½ | 48 38 |
| 6 38 10 | 44 53 | 49 58 |

Dift. a prima alæ Pegafi

| | | |
|---------|--------|-------|
| 6 41 40 | 26 34½ | 50 41 |
| 6 43 40 | 26 34½ | 51 17 |
| 6 45 30 | 26 34 | |

Vice Verfa
♂ a luc. V

| | | |
|---------|-----------------|---------|
| 6 50 50 | 27 20 | |
| 6 52 40 | 27 20 | |
| 6 54 20 | 27 20 | |
| | Dift. ab Aldeb. | |
| 6 57 30 | 57 54½ | 54 29 |
| 7 0 10 | 57 54½ | Decl. ♂ |
| 7 2 50 | 57 54½ | 2 36½ |
| | | 2 36½ |

Hæ obseruationes sunt diligenter acceptæ & admodum bonæ pro inquirenda femidiametro orbis annui ♂, erat autem mediocriter ferenum, licet aëris status aliquanto turbulentior & intranquillior.

Supputatio loci ♂ ex proximis antecedentibus obseruationibus

| | |
|----------------------------------|----------|
| H. 6 30' Dift. ♂ | |
| ab ore Pegafi | 44 53 |
| Declinatio ♂ | 2 36 |
| Declin. oris Pegafi | 8 3 B. |
| Ang. diff. ascensionalis fupput. | 44 46 20 |
| Afc. Recta oris Pegafi | 321 4 20 |
| Ergo Afc. Recta ♂ | 5 50 40 |
| H. 7 0' Dift. ♂ | |
| ab Aldebora | 57 54½ |
| Declin. Aldeboræ | 15 38 B. |
| Afc. R. eiusdem | 63 10 20 |
| Hinc Afc. R. ♂ | 5 49 40 |
| Ergo H. 6½ Ascenf. ♂ | |
| limitata | 5 50½ |
| Declin. ♂ B. | 2 35 40 |
| Resp. Longitudo | 6 23 0 V |
| Latitudo | 0 3½ B. |
| Parallaxis / Longit. 1' 10" add. | |
| ♂ Lat. 1 40 add. | |
| Ergo vera Long. | 6 24½ V |
| Lat. | 0 5 0 B. |

DIE 19 DECEMBRIS.

Vesperī obseruabatur ♂ circa meridianum.

| H. M. S. | Dift. ♂ ab ore Peg. | Decl. ♂ | Oculus V or. |
|----------|---------------------|--------------|--------------|
| 5 30 40 | 47 42 | | 64 5 |
| 5 33 30 | 47 42½ | | 63 20 |
| 5 37 10 | 47 42 | | |
| 5 39 10 | 47 42½ | 4 41½ vtroq. | |

| | | |
|--|---------------------------|--------------|
| | Vice versa ♂ ab Aldeb. | oculus ♀ or. |
| 5 51 0 | 54 35½ | 59 48 |
| 5 56 20 | 54 34½ | 58 17 |
| 6 1½ | 54 34½ | 57 35 |
| 5 46½ corr. | | |
| 6 5½ | 54 34½ | 56 24 |
| 6 14 50 | | 4 4½ |
| | | 4 4½ |
| Transfuit ♂ merid. habens alt. | | |
| per Chal. | 38 10 | |
| per Vol. | 38 9½ | |
| Dift. ♂ a prima alæ Peg. | | |
| 6 30 0 | 28 50 | 51 8 |
| 6 32 50 | 28 50½ | 50 13 |
| 6 15 corr. | | |
| 6 37 40 | 28 50½ | 49 11 |
| Dift. a luc. ♀ | | |
| 6 44 20 | 24 7½ | 47 45 |
| 6 50 10 | 24 7½ | 46 30 |
| 6 30 0 corr. | Decl. ♂ | |
| 6 54 10 | 24 7½ | 45 25 |
| | 4 5 | |
| Supputatio loci ♂ obseruati ex vltimis obseruationibus. | | |
| H. 5 M. 26 Dift. ♂ ab ore Peg. | 47 42½ | |
| Decl. ♂ ex altit. merid. | 4 4½ | |
| Ang. diff. asc. ^{alis} | 47 49½ | |
| Ergo asc. recta ♂ | 8 54 5 | |
| H. 5½ Dift. ♂ ab Aldeboræ | 54 34 50 | |
| Declin. Aldeboræ | 15 38 | |
| Angul. diff. ascenf. | 54 18 27 | |
| Ergo Ascenf. R. ♂ | 8 51 53 | |
| H. 5 M. 35 Asc. ♂ | | |
| recta limitata | 8 52½ | |
| Declinatio B. | 4 4½ | |
| ♂ Longitudo | 9 45 6V | |
| ♂ Latitudo | 0 12 36B. | |
| Eiusdem loci ♂ Investigatio alia sed familiari methodo in triangulo a prima alæ Pegasi & Lucida ♀. | | |
| H. 6 M. 20 Dift. ♂ | | |
| a prima alæ Pegasi | 28 50½ | |
| a Lucida ♀ | 24 7½ | |
| Locus Lucidæ ♀ | Long. 1 59 45V | |
| | Lat. 9 57 B. | |
| Primæ alæ Peg. | Long. 17 50½ | |
| | Lat. 19 26 B. | |
| Vnde complem. Latit. ♂ | 89 46 10 | |

Ang. diff. longit. inter
Luc. ♀ & ♂ 22 13 50
Ergo H. 6 M. 20 Longit. ♂ 9 45 55V
Latit. ♂ 0 13 50B.

Reducto autem hoc tempore ad obseruationes prius ex ore Pegasi & Aldeboran factas & locum ♂ per limitationem ex his emersum qui fuit 9°45'6" ♀, prouenit hic locus ♂ per motum diurnum 34 M. reductus 9°44'55" ♀, ita vt differentia in longitudine faltetm sit 11 secundorum, quæ insensibilis est; in latitudine autem differentia est quasi 1½ M., quæ limitanda venit, si modo illa, quæ ex altitudine meridi-ana deducta est, non præferatur.

Pro parallaxi ♂ circa Merid. altitud. 38° resp. 2 M.

Ergo parallaxis { Longit. 0' 50" add.
Latit. 1 50 add.

Itaque H. 5½ verus locus ♂ limitatus
Longitudo 9 45 50 V
Latitudo 0 15 0 B.

luxta Copern. Alphonf.
H. 5½ { Long. 9 33 V 11 8 V
Lat. 0 14 M. 0 12 B.

DIE 29 DECEMBRIS, VESPERI.

5^h10' 0" Transfuit ♂ Merid. habens
alt. per Chalyb. 40 37½
per Volub. 40 47½
Declin. ♂ 6 32½
6 32½

| | | |
|------|-----------------------------|-------------------------|
| | Dift. ♂ a prima alæ Peg. | Luc. hum. Orion. or. |
| 5 22 | 33 12½ | 66 0 |
| 5 25 | 33 12½ | |
| 5 32 | 33 12½ | 63 32 |

| | | |
|---------|---------------------------|-------|
| | Vice versa ♂ ab Aldeb. | |
| 5 53 40 | 48 47 | 60 22 |
| 5 55 50 | 48 47½ | 59 26 |
| 5 57 30 | 48 47½ | 58 42 |
| 6 1 50 | 47 47½ | 6 32½ |
| | | 6 32½ |

Non fuit satis ferenum & aër intranquillus.

DIE 30 DECEMBRIS, VESPERI.

| H. M. S. | Dift. ♂ ab ore Pegafi | Luc hum. Orion. or. |
|----------|-----------------------------|--|
| 5 49 40 | 53 13½ | 74 42 |
| 5 54 30 | 53 13½ | 73 30 |
| 5 59 40 | 53 13½ | 72 19 |
| | Dift. ♂ ab oculo ♀ | Vice versa |
| 6 7 40 | 48 12½ | 70 31 |
| 6 13 0 | 48 12 | |
| 6 16 20 | Transfuit ♂ merid. habens | |
| 5 46 20 | corr. alt. per Vol. 40 52½ | |
| | Decl. 6 47½ | 68 29 |
| | 6 48 | |
| 6 39 0 | 48 12 | 63 17 |
| | Dift. ♂ a prima alæ Peg. | |
| 6 45 50 | 33 41 | |
| 6 47 50 | 33 41 | |
| 6 50 10 | 33 41 | Fuit mediocriter ferenum sed aër intransquillior. |

Pro loco ♂ ex vltimis obseruationibus
ad diem 30 Decembris.

| | | |
|-------------------------------|--------------------------|---------------------|
| H. 5 M. 20 | Dift. ♂ ab ore Pegafi | 53 13½ |
| | Declin. ♂ sept. | 6 46½ |
| Angulus diff. ascenf. supput. | 53 41½ | |
| Ergo Ascensio R. ♂ | 14 46 | |
| H. 5½ | Dift. ♂ ab Aldeb. | 48 12 |
| | Diff. ascenf. supput. | 48 24 54 |
| | Ergo hinc Asc. R. ♂ | 14 45 26 |
| Pone ergo H. 5½ | Asc. R. ♂ limit. | 14 45½ |
| | Declinationem | 6 46½ |
| Resp. Longitudo 16 | 2 23✓ | Includitur |
| Latitudo | 0 24 40 B | hic paral- laxis |
| Long. Copernici | 16 4✓ | |
| Lat. | 0 0 | |
| Alphonf. | 17 17✓ | |
| | 0 22 B. | |

OBSERVATIONES VENERIS.

DIE 16 JANUARIJ, VESPERI.

4^h 55^r ♀ occid. in æquat. 45 20 pro
horologio.

| | Dift. ♀ a luc. caud. Ceti | Decl. ♀ | Alt. ♀ per min. Q. | Ocul. ♀ or. |
|--|------------------------------|---------|-----------------------|----------------|
| 5 præcife | | 11 7 | 14 | |
| | | 11 7½ | | |
| 5 48½ | 28 53½ | 11 3½ | 7 40 | |
| | | 11 3 | | |
| 5 56½ | 28 52 | | 6½ | 24 56 |
| Erat cauda Ceti respectu horizontis non multum eleuata supra. | | | | |
| | | | Alt. caud. Ceti | |
| 6 3½ | 28 54½ | 11 1 | 5½ | 9 0 |
| 6 9½ | 28 52½ | 11 0 | 4½ | |
| | | 11 0½ | | Oc. ♀ or. |
| 6 16½ | 28 53 | | 4 0 | 19 55 |
| 6 25 | 28 53 | 10 57 | 2½ | |

Pro examinando Sextante veteri quo
hæ distantia ♀ & ♂ obseruatæ sunt:
Dift. inter lucidam ✓ 35 33
& Aldeb. 35 33½

Patet itaque instrumentum Sextantis
satis bene cum altero quadrare, scilicet
novo, quo propter pinnacidij trans-
uersam locationem hic vti non licuit.

Erat hac vespera apprimè serenum
& aër tranquillulus.

DIE 16 MARTIJ, VESPERI.

Obseruabatur ♀ ab Aldeb. in hunc
modum.

| H. M. | Dift. ♀ ab Aldeb. | Decl. ♀ B. | Alt. ♀ per min. Quad. | Can. min. occ. |
|-------|----------------------|------------|--------------------------|-------------------|
| 7 53 | 19 16½ | | 19 30 | |
| 8 5½ | | 17 56 | 17 30 | 18 27 |
| | | 17 56½ | | |
| 8 10 | 19 14 | 17 56½ | 16 20 | 19 38 |
| | | 17 57 | | |

DIE 22 APRILIS.

Vesperī obseruata est ♀ *appropin-
quans maximæ remotiōni a ☉* in hunc
modum.

| H. M. | ♀ ab inf. Cap. II | Decl. ♀ | Alt. per min. Quad | Spica III or. |
|-------|----------------------|---------|-----------------------|------------------|
| 9 6 | 20 47½ | 26 27½ | 22 0 | |
| | | 26 27 | | |
| 9 15½ | 20 47½ | 26 27 | 21 0 | |
| | | 26 26½ | | |
| 9 25 | | | | 19 59 |
| 9 29½ | 20 46 | 26 27½ | 19 30 | 18 40 |
| | | 26 27½ | | |

Erat constitutio aëris ferena & tranquilla. Corrige horologium ex hac distantia æquatoria pro libitu ad nonam horam circa initium obseruationis directum.

DIE 27 APRILIS.

Corrigebatur horologium ad ☉ hora 2 M.O. Eodem tempore obseruabatur Declin. ♀ 26 30½ vno pinn. H. 8 5' fuit ♀ in nonagef. gradu habens Alt. 32 41½ per Volub.

| Iuxta horol. | Dist. ♀ ab inf. cap. II | Decl. ♀ | Alt. ♀ | Spica or. |
|--------------|-------------------------|---------|-----------|-----------|
| 8 11 | | 26 32½ | | |
| | | 26 32½ | | |
| 8 59½ | 15 48½ | | 25 48 | |
| 9 6 | 15 47 | | | |
| 9 9 | | 26 33 | (24 25 | 18 40 |
| | | 26 32½ | ἐν πλάτει | |

♀ a corde ☉

| | | | | |
|-----------------------|-------|--------|-----|-------|
| 9 19 | 52 4 | | 23½ | |
| Pone hic potius 52 3. | | | | |
| 9 26 | 52 2 | 26 33 | | 14 30 |
| | | 26 33½ | | |
| 9 35 | 52 2½ | | 21½ | |
| 9 42 | 52 1 | | 20½ | 10 48 |

Non fuit exquisitè ferenum, præfertim in posterioribus obseruationibus atque vltima. Fuit ♀ circa hunc 27 Aprilis quam proxima remotioni a ☉ maximæ vespertinæ, quæ tamen adhuc intra paucos dies restabit. Ev πλάτει per dist. a Regulo fuiset ♀ in 2½ ☉; Prut. 1½ ☉, Alphonsi. 2½ ☉.

DIE 6 MAIJ, VESPERI.

A præced. die hucusque non fuit ferenum. Horologium corrigebatur ad ☉ 7^h12^m.

| H. M. | Dist. inter ♀ & η | Decl. ♀ | Alt. ♀ per min. Quad. | Spica or. |
|-------|-------------------|---------|-----------------------|-----------|
| 8 53½ | | 26 4½ | 25 0 | |
| | | 26 5 | | |
| 9 6½ | 12 2½ | | 23½ | |
| 9 19 | 12 2¼ | 26 4½ | | 4 57 |
| | | 26 4½ | | |
| 9 24 | 12 2¼ | | | |
| 9 30 | | | | 1 43 |

| Inter ♀ & cor. ☉ | | | | | Spica occ. |
|------------------|--------|-------|-----|--|------------|
| 9 35 | 43 14½ | 26 4 | 19½ | | |
| 9 40 | 43 14½ | | | | 0 44 |
| 9 45 | 43 14 | 26 6 | 18½ | | 1 52 |
| ♀ a Capella | | | | | |
| 9 59 | 31 12½ | | 16 | | |
| 10 5 | 31 12 | 26 5½ | 15 | | 6 33 |

Hæc in ♀ hac vespere obseruauimus, eratque iuxta maximam a Sole digressionem, quamuis nunc aliquantulum accedere inciperet. Intermedijs diebus non erat ferenum a die 27 Aprilis hucusque. Igitur non licuit plures interea habere in ♀ obseruationes iuxta maximam digressionem vespertinam.

DIE 15 MAIJ, VESPERI.

Cælo bene fereno.

| H. M. | Dist. ♀ a corde ☉ | Decl. ♀ | Alt. ♀ min. Quad. | Spica occ. |
|-------|-------------------|---------|-------------------|------------|
| 9 17½ | | 24 55½ | 19½ | |
| | | 24 56 | | |
| 9 25 | 35 4 | | | |
| 9 29 | 35 3½ | 24 56 | | 9 34 |
| | | 24 55½ | | |

Dist. ♀ a sup. cap. II pro latitudine

| | | | |
|-------|-------|------|-------|
| 9 45½ | 8 36 | | 13 36 |
| 9 51½ | 8 36½ | 14½ | 15 7 |
| 10 0 | 8 35½ | 14 0 | 17 15 |

DIE 1 SEPTEMBRIS, MANE.

| | | |
|-----|---------------------------|--|
| 5 8 | Dist. ♀ a Canemin. 18 26 | |
| | Decl. ♀ 13 30 inter nubes | |
| | Dexter hum. Or. 25 26 | |

DIE 8 SEPTEMBRIS, MANE.

| H. M. | Dist. ♀ a luc. ceruicis ☉ | Sin. hum. Orion. |
|-----------------------------|---------------------------|------------------|
| 4 32½ | 18 19 | 18 20 |
| 4 34½ | 18 18 | |
| 4 36½ | 18 19 | |
| 4 45 corr. | | |
| Vice versa ♀ a luc. pede II | | |
| 4 42½ | 36 23 | 15 8 |
| | | 15 7½ |

| | | |
|-------|------------------------------|----------|
| 4 51½ | 36 23½ | 26 24 |
| 4 58½ | corr. Difficulter hæc stella | |
| 4 53½ | 46 23½ videbatur propter | |
| | a Cane min. | auroram. |
| 4 58½ | 23 18½ | 15 7½ |
| | | 15 6½ |
| 5 0½ | 23 18½ | |

Pro Ascensione Recta ♀ ex antecedentibus proximis obseruationibus.

| | | | |
|-----------------------|-------------------------|-----------|--|
| H. 4½ | Dist. ♀ a luc. ceruicis | 18 18½ | |
| | Declinatio ♀ B. | 15 7½ | |
| | Decl. ceruicis ♀ B. | 21 52½ | |
| | Afc. Recta eiusdem | 149 20 | |
| Angul. differ. | ascension. | 17 58 33 | |
| H. 5 | Dist. ♀ a luc. pede II | 36 23½ | |
| | Declinatio pedis II | 16 40½ | |
| | Eiusdem Afc. Recta | 93 30½ | |
| Ang. differ. | Afcenf. | 37 52½ | |
| Hora 5 pone Afc. R. ♀ | | 131 22 20 | |

DIE 25 SEPTEMBRIS.

Obseruabatur ♀ circa maximam digressionem a sole matutinam.

| H. M. | Dist. ♀ a luc. pede II | Decl. | Alt. ♀ | Can. min. or. |
|-------|------------------------------|-----------------------------------|--------|---------------|
| 4 19 | 52 16½ | 12 13½ | 21 7 | |
| | | 12 14 | | |
| 4 27½ | 52 16½ | 12 13½ | | 29 56 |
| | | 12 13½ | | |
| 4 33½ | 52 16½ | | 23 8 | |
| | Vice versa ♀ a luc. clunis ♀ | | | |
| 4 46½ | 18 14 | Fuit hæc stella ♀ fere in æquili- | | |
| 4 50½ | 18 15 | librio horizontis cum ♀ dum in- | | |
| 4 54½ | 18 15½ | uicem obseruarentur, verum | | |
| 4 58½ | 18 14½ | paululum altior. | | |
| 5 0 | 18 14½ | 12 12 | 27 23 | 22 18 |
| | | 12 12 | | |

Erat hoc mane ♀ non longe ♂ cum corde ♀ prætergreßa; distantia autem eius ab hoc per radium obseruauimus sub finem harum distantiarum a lumbō ♀, a corde ♀ 1° 49', 1° 50', hinc poteris de ♀ latitudine ratiocinari, supposita eadem fere longitudine quæ est Cordis ♀, paululum tamen maiori quam ex distantia a reliquis fixis sub calculum reuocatis patefcit.

♀ erat iuxta maximam a Sole digressionem eoam vel paululum ean-

dem prætergreßa, quasi per triduum ad summum.

DIE 30 OCTOBRIS.

Quando cor ♀ eßet prope meridianum ipsemet obseruauit quod ♀ ad intuitum eßet in ea linea recta quæ ducebatur ab altera sequente in sinistra ala II, quæ est in 4½ II cum latitudine 2½ B. vsque in Arcturum, distabat vero in hoc ipso ductu a præ-nominata fixa in II quasi ad duos soles, id est, quo ad visum vno prope-modum gradu, quantum solo intuitu oculari discernere licuit.

DIE 26 NOUEMBRIS, MANE.

Obseruatio ♀ eoæ ♂ appropinquantis. Fuit borea lanx ♀ hic in consimili fere altitudine cum ♀, paulo tamen altior, vnde in his distantijs insensibilis refractione eße potest.

| H. M. | Dist. ♀ a bor. lance ♀ | Decl. ♀ | Alt. ♀ | Spica II or. |
|-------|-------------------------|---------|--------|--------------|
| 7 13½ | 10 3½ | | | |
| 7 15½ | | 11 31 | 15 44 | 19 26 |
| | | 11 30½ | | ♀ or. |
| 7 21½ | 10 3 | | | 36 22 |
| | Vice versa ♀ a Spica II | | | |
| 7 28½ | 18 18½ | 11 30½ | 16 35 | 34 50 |
| | | 11 30½ | | |
| 7 35½ | 18 19 | | 17 10 | Spica or. |
| 7 42½ | 18 19½ | | 17 37 | 12 58 |
| 7 50½ | 18 19 | 11 31½ | 18 14 | |
| | | 11 31½ | | |

DIE 27 NOUEMBRIS, MANE.

| H. M. | Dist. ♀ a bor. lance ♀ | Decl. ♀ | Alt. ♀ | Cor ♀ occ. |
|-------|------------------------|---------|-----------------------|------------|
| 7 41 | 9 9½ | 11 55 | 13 40 | |
| | | 11 54½ | | |
| 7 51 | 9 9½ | | 15 30 | 31 32 |
| 7 57 | 9 8½ | 11 55½ | 16 30 | |
| | | 11 56 | dubia propter auroram | |
| | Vice versa ♀ a Spica | | | |
| 8 9 | 19 27½ | | 17 5 | 35 48 |
| 8 15½ | 19 27½ | | 17 26 | 37 32 |
| 8 21½ | 19 28½ | 11 56½ | 17 48 | |
| | | 11 56 | | |

Fuit hoc mane fatis bene ferenum & tranquilla aëris constitutio.

Pro loco ♀ ad diem 6 Maij ex obferuationibus.

| | | |
|----------------------|--|-----------------------|
| H. 9 $\frac{1}{2}$ | Diffantia ♀ a corde ☉ | 43 14 $\frac{1}{2}$ |
| | Declinatio ♀ | 26 4 |
| | Declin. cordis ☉ | 13 56 |
| | Afcenf. R. cordis ☉ | 146 39 |
| | Angulus diff. afcenf. | 44 25 $\frac{1}{2}$ |
| | Ergo Afcenfio Recta ♀ | 102 14 $\frac{1}{2}$ |
| H. 10 | Diff. ♀ a Capella | 31 12 $\frac{1}{2}$ |
| | Declinatio Capellæ | 45 29 |
| | Angulus diff. afcenf. | 30 36 50 |
| | Afcenf. R. Capellæ | 71 40 0 |
| | Ergo Afcenfio Recta ♀ | 102 16 50 |
| Hora 9 $\frac{1}{2}$ | pone Afcenfionem rectam ♀, accedendo propius ad cor ☉ quod diffantia ab hoc minori refractioni obnoxia erat, | 102 15 0 |
| | Refp. Longitudo | 11 0 $\frac{1}{2}$ 59 |
| | Latitudo | 2 58 $\frac{1}{2}$ B |
| | Refractionis & parallaxis fe mutuo elidunt. | |

Pro loco ♀ die 25 Septembris mane.

| | | |
|---------------------------------------|-----------------------------------|------------------------|
| H. 4 M. 20 | Diff. ♀ a luc. pede II | 52 16 $\frac{1}{2}$ |
| | Declinatio ♀ | 12 13 $\frac{1}{2}$ B. |
| | Declin. inf. pedis II | 16 40 $\frac{1}{2}$ B. |
| | Afcenfio R. eiusdem | 93 31 30 |
| | Ergo Afcenfio Recta ♀ | 147 28 |
| Erat enim per fupput. | angulus differentia afcenfionalis | 53 56 $\frac{1}{2}$ |
| Eodem mane H. 4 M. 50 | Diff. ♀ a clune ☉ luc. | 18 14 |
| | Declin. clunis eiusdem | 22 45 $\frac{1}{2}$ |
| | Ang. diff. afcenf. | 15 38 $\frac{1}{2}$ |
| | Afc. R. eiusdem clunis ☉ | 163 3 45 |
| | Ergo Afc. Recta ♀ | 147 25 15 |
| H. 4 M. 30 | pone Afc. rectam ♀ | 147 28 |
| | Alt. ♀ 22 $\frac{1}{2}$ circiter, | |
| | Decl. | 12 13 $\frac{1}{2}$ |
| | Refp. Longitudo | 25 29 10☉ |
| | Latitudo | 0 53 50M. |
| Parallaxis altit. ♀ 4 $\frac{1}{2}$, | | |
| refp. Long. | | 3' 20" |
| Lat. | | 2 30 |
| Vera { | Longitudo | 25 26 50☉ |
| | Latitudo | 0 51 20M. |

OBSERVATIONES MERCURIJ.

DIE 16 JANUARIJ, VESPERI.

Obferuatio ♀ hac vefpera primum confpecti.

| H. M. | Diff. ♀ a ♀ | Decl. ♀ auf. | Alt. ♀ | Alt. ♀ | Ocul. ☿ æq. |
|--------------------|--------------------|---------------------|-----------------|-----------------|-------------|
| 5 9 $\frac{1}{2}$ | 9 53 | 13 14 | 5 20 | | |
| Vice Verfa | | | | | |
| 5 19 $\frac{1}{2}$ | 9 57 $\frac{1}{2}$ | 13 13 $\frac{1}{2}$ | 4 $\frac{1}{2}$ | | |
| | | 13 13 | | | |
| 5 24 $\frac{1}{2}$ | 9 57 $\frac{1}{2}$ | 13 10 $\frac{1}{2}$ | 3 $\frac{1}{2}$ | | |
| | | 13 11 | | | |
| | | | | Alt. ♀ | Ocul. ☿ æq. |
| 5 30 $\frac{1}{2}$ | 9 55 | | 2 $\frac{1}{2}$ | 9 $\frac{1}{2}$ | 31 26 |
| 5 36 | 9 52 | 13 7 | 2 | | |

Vltcrius hac vefpera ☿ obferuare non dabatur quod horizonti vicinior nubeculæ cuidam implicabatur. Diffantia autem fecunda vice accepta, & fic deinceps limitando fatis tuto vti poteris, refractione huius & quidem ♀_{ris} vna exclufa.

OBSERVATIONES STELLARUM FIXARUM.

DIE 16 JANUARIJ.

Distantia inter 14 Vrfæ maioris & superius caput II (hæc est infra genu dextrum anter.), magnit. 5

26 11 bis

Inter 15 in genu dextro anteriore

Vrfæ maioris mag. 5 & super. caput II

28 35 bis

Inter superius caput II & infimam

in pede posteriori Vrfæ 47 0 50
mai. mag. 4 47 1½

Inter superiorem seu 23 in posteriore

pede Vrfæ maioris mag. 4 46 39½

& superius caput II 46 39½

Declinationes earundem

| | |
|------------------|----------------|
| Declin. 14 infra | 53 12½ |
| genu | 53 12 |
| 15 in genu | Vrfæ 55 39 vno |
| 24 in | mai- 33 51 |
| pede | oris 33 50½ |
| 23 in pede | 35 19 |

vtrouque pinn.

DIE 16 MARTIJ, VESPERI.

Pro refractionibus.

Altitudo merid. minima caudæ Cygni
per Chalyb. 9 51

per Volub. 9 51½

Distantia caudæ Cygni a 44 38½

stella polari infra polum 44 38½

Erat tunc eius altitudo 10 12½

Dist. stellæ polaris a pectore Cygni infra polum 49 39½

Altitudo pectoris Cygni 6 11½

Inter Capellam & stellam

polarem supra polum 43 25 bis

Præcedens ex duabus contiguis

supra cor Hydræ distabat

a Cane minore 40 35

Declinatio eius 11 7

Sequens earundem a 41 29

Cane min. distabat 41 29½

Declinatio huius 10 20½

Erat satis serenum sed chasmata in septentrione.

DIE 17 MARTIJ.

Distantia pectoris Cygni in- 49 41½

fra polum a stella polari 49 42

Altitudo 5 16

Inter caudam Cygni & 44 39

stellam polarem 44 39½

Altitudo eius 9 54

Distantia inter lucidam in ultimo no-

do caudæ Draconis & stellam

polarem infra polum 27 15½ bis

Altitudo eius 26 51½

Inter 4 Coronæ & 55 57

caudam Ω 55 56½

.¹ 59 38

59 37

DIE 18 MARTIJ, VESPERI.

Inter Lyræ & supremam in anteri-

ori □ Vrfæ minoris 43 54½

infra polum 43 55½

Altitudo Lyræ tunc erat 8 48

Inter eandem in □ Vrfæ minoris

& lucidam in capite 29 33½

Draconis infra polum 29 33

Altitudo eius tunc erat 24 0

Inter pectus Cygni & stellam 49 41½

polarem infra polum 49 42

Altitudo eius 5 48

Inter caudam Cygni

& stellam polarem 44 38½

infra polum 44 38½

Altitudo eius 10 26

DIE 19 MARTIJ, MANE.

Inter lucidum latus Persei

& stellam polarem 39 22½

infra polum 39 23

Altitudo eius 15 22½

Inter Lyræ & supremam in anteriori

□ vrfæ minoris supra 43 57½

polum 43 57½

Inter eandem in □ Vrfæ minoris

& capitis lucidam in 29 34

Dracone supra polum 29 34½

¹ Nomina stellarum defunt in codice.

Inter pectus Cygni & stellam 49 48½
 polarem supra polum 49 48½
 Inter caudam Cygni & stellam
 polarem supra polum 44 42 bis

DIE 6 MAIJ, VESPERI.

Obseruauimus has duas stellas pro
 † loco olim Augustæ Vindelicorum
 obseruati inueniendo.

Distantia inter dextrum 19 11½
 humerum Erichtonij¹ 19 11
 & Arcturum 19 12

Vice versa a Lyra

Distantia eiusdem 40 34 0
 bis
 Altitudo eius meridiana 68 56 30
 Inter cor Ω & infimam 4 46 50
 ceruicis Ω 4 46 30
 4 46 0

¹ Sic in codice, sed debet esse »Bootis«. Cf. T. X p. 33.

APPENDIX AD OBSERUATIONES ANNI 1593.

PRO ♂ LATITUDINE EXTRICANDA CIRCA
♂ ACHRONYCHIAM A° 1593¹.

Anno 1593² Augusti die 10 H. 12 p. m. latitudo 6.20
Augusti die 24 12 p. m. 6. 5

Recapitulatio omnium

| | Diff. a nodo | scrup. pr. | lat. calc. | lat. obl. |
|------|-----------------|---------------|---------------|--------------|
| 1580 | 20 10 | 22 46 | 1 44 | 1 40 |
| 1582 | 60 13 | 53 20 | 4 3½ | 4 6 |
| 1585 | | | 4 33 | 4 33 |
| 1587 | 51 40 | 48 49 | 3 43 | 3 38 |
| 1589 | 12 55 | 14 30 | 1 8½ | 1 7 |

N.B. Hinc adiecta latitudine ratio-
cinatio . . . at³ tabellam quæ facta est
ducta linea e centro eccentrici ♂ di-
stante a terra 9½ de 60 vsque in prio-
rem sed nondum satis . . . gradus pro
latitudine obtinenda.

Fac periculum accipiendo e centro eccentrici & super hoc deducto cir-
culo siue quadrante.

| | | | | |
|----------------------------|--------|------------|------------|------------|
| Anno 1580 | 20 10 | 1582 60 13 | 1587 51 40 | 1589 12 55 |
| Tabella addit ⁴ | 1 45 | 2 4 | 2 20 | 1 15 |
| Diff. emendata | 21 55 | 62 17 | 54 0 | 14 10 |
| Resp. scrup. prop. | 22 22 | 53 6 | 48 31 | 14 40 |
| Lat. bor. max. | 4 34 | 4 34 | 4 34 | 4 34 |
| Resp. | 1 42 8 | 4 2 29 | 3 41 30 | 1 7 9 |

Recapitulatio omnium

| | Diff. a nodo | Correcta | Scr. prop. | Lat. sup. | obseruata | Diff. a supputatione |
|------|--------------|----------|------------|-----------|-----------|-------------------------|
| 1580 | 20 10 | 21 55 | 22 22 | 1 42 | 1 40 | 2 minus |
| 1582 | 60 13 | 62 17 | 53 6 | 4 2½ | 4 6 | 3½ plus |
| 1587 | 51 40 | 54 0 | 48 31 | 3 41½ | 3 38½ | 3 minus |
| 1589 | 12 55 | 14 10 | 14 40 | 1 7 | 1 7 | 0 idem |

1593 Augusti die 24 ad tempus ♂ ♂ cum simplicibus

long. ♂ 5 10 52 28
add. 1 30
long. ♂ corr. 5 10 54 0

N.B. Deficiunt in commutatione ♂ simplicibus apud Copernicum M^{ta} 10½ ad-
denda.

| | |
|---------------------|--------------------------------------|
| Long. ♂ simplex | 5 ^{lex} 10 ^p 54' |
| Apogæi locus | 1 55 26 |
| Anomalia eccentrici | 3 15 28 |
| Προσθαφ. noltra | 3 31 |
| | 3 19 0 |

Adde Prostaph. Copernici
partem 14^{am}
Copernici 3 17

¹ E codice Vindob. 10689^{us}. Cf. T. V. p. 335 et supra p. 291.

² Per lapsum calami codex habet 1583.

³ Fortasse verificat.

⁴ Cf. T. Vp. 334.

| Anno 1593 labente Augulti die | | | |
|-------------------------------------|-------------------------------------|------------------------------------|-----------------------------------|
| 10 compl. in M. N. feq. | | 24 H. 2½ p. m. | |
| An. eccent. | An. com. | An. ecc. | An. com |
| ambo coæquata | | | |
| 3 ^{ex} 10 ^p 15' | 2 ^{ex} 55 ^p 20' | 3 ^{ex} 19 ^p 0' | 3 ^{ex} 0 ^p 0' |
| adde 6 45 ¹ | | 6 45 | |
| pro lat. | | 3 25 45 | 3 0 0 |
| 3 17 0 | 2 55 20 | Scrup. | |
| Resp. Scrup. prop. | Resp. lat. | 54' 0" | 6 50 |
| 57' 22" | 6 25 | | 6 9 |
| | 6 8 6 | | |

Patet itaque quod vtroque pene eadem euadat latitudo, quæ tamen die 10 maior esse debet ½ & die 24 minor ½, quæ concilianda.

Examen per gradus correctos Anomalie eccentrici nostra neoterica ratione.

| | | | |
|--------------------|------|---------|------|
| 3 ^{ex} 17 | | 3 25 45 | |
| 1 20 | | 1 52 | |
| 3 18 20 | | 3 27 37 | |
| 56' 56" | 6 25 | 53' 6" | 6 50 |
| | 6 6 | | 6 2 |

Pone apogæum 1 gradum vltius & fac periculum.

Anomalia eccentrici ad tempus ♂ 6 18 0
dift. pro lat. 7 45

| | | | |
|---------------|---------|---------|--------|
| Resp. 56' 36" | 6 35 | 6 25 45 | |
| | 6 12 37 | 52 20 | 6 35 |
| | | | 6 6 20 |

Reduxi sic ad 6 minuta, sed desiderantur adhuc 6 alia.

♂ fuit in ♂ veri loci ☉ Augulti die 25 H. 14 p. m. Si tunc commutatio erat 6^{us} 0°, ita vt in ♂ veri loci ☉^{is} nulla fuerit,

in loco Mediæ ♂ erat long. ♂ 5 10 52 28

adde pro die 1 31 27

horis 11 14 25

| | |
|------------|-------------|
| 5 11 38 20 | 5 11 38 20 |
| 1 55 26 | 0 28 9 40 |
| 3 16 12 | ♂ 5 39 48 0 |
| 3 31 | 41 50 |
| 6 45 | 2 2 0 |
| 3 26 28 | |
| 3 16 12 | |
| 2 0 | |

locus ♂ erat in 11 50 X

Anomalia eccent. vera 3 18 12 in ipsa ♂ cum vero loco ☉
Commutatio vera 6 0 0

Fac I periculum iuxta æqualitatem in ☉ & tabulam neotericam.

17 gradus facit 19 0

Resp. scrup. 56' 44"

6 35

6 13 30

26 facit 28 35

Resp. scrup. 52' 40"

7^p

6 8 40

Differentia 5', debet esse 13, desiderantur 8'.

¹ 6° 45' erat differentia longitudinis inter apogæum et locum maximæ latitudinis.

Pone apogæum 2 gradibus vterius, vt sit 3 27 30, resp. latit.
 6 23 & 6 16 50, differentia 6'.
 Sit apogæum 2 gradibus minus vt 3 23 30, resp. latit.
 6 14 10 & 6 8 40, differentia 5' 30".
 Aliter per nouam tabellam procedentem ab eccentricitate 12.

| | |
|---|-------------|
| 17 | 26 |
| facit 2 25 | facit 3 14 |
| 19 25 | 29 14 |
| 70 35 | 60 46 |
| Resp. 56' 34" | Resp. 52 20 |
| 6 35 6 12 24 | 7 0 6 6 20 |
| Differentia 6' 0". Desiderantur adhuc 6'. | |

Adde apogæo 1 gradum & aufer[?]ab . . . vnum. Resp.
 6 8 10 & 6 1 40. Differentia 7'.

Nulla itaque ratione fieri potest, vt vltra 6 vel 7 Minuta latitudo augeatur diebus 14 ante ♂, cum deberet tunc duplo adhuc maior esse. Oportebit itaque aliquam aliam adhuc non satis perspectam lubeſce rationem, siue a motione alia apogæi & eccentricitatis, siue ex ♂ cum Solis vero loco proveniente.

Si vltima in tabula latitudinis austrinæ tardius procedere poterit omnia melius quadrabunt vtpote sic.

Pone maximam latitudinem austrinam
 & iuxta finem tabulæ
 tardius erunt hoc modo

| | |
|--------|----|
| 6° 55' | 30 |
| 6 53 | 29 |
| 6 50 | 28 |
| 6 47 | 27 |
| 6 44 | 26 |
| 6 40 | 25 |

Experimentatio

| 17 | | 26 | |
|--------------|---------|--------|--------|
| 12 | 9½ | 12 | 9½ |
| 2 40 | 2 0 | 3 30 | 2 35 |
| 17 | 17 | 29 30 | 28 35 |
| 19 40 | 19 0 | 52 11 | 52 40 |
| Scrup. 56 36 | 56 44 | 6 55 | 6 55 |
| 6 41 | 6 41 | 6 0 56 | 6 4 17 |
| Lat. 6 18 7 | 6 19 10 | | 6 53 |
| | 6 37 | | 6 2 31 |
| | 6 15 22 | | |

Maxima latitudo austrina ♂ potest esse
 Debet autem tabula iuxta finem sic procedere

Tunc omnia recte se habebunt, adhibita
 illa limitatione Canonis quæ habet 9½
 in eccentricitate. Nam præbet
 die 24 in ♂ lat. ♂ 6 2½
 eandem die 10 6 14½
 quod satis recte se habet & vtroque
 habeatur ratio parallaxeos 4 circiter
 minorum auferendorum ex ob-
 lueruata latitudine.

| | |
|------|----|
| 6 53 | |
| 6 53 | 30 |
| 6 51 | 29 |
| 6 48 | 28 |
| 6 44 | 27 |
| 6 40 | 26 |
| 6 35 | 25 |
| 6 29 | 24 |
| 6 22 | 23 |
| 6 14 | 22 |
| 6 5 | 21 |
| 5 55 | 20 |

Pro altera aultrina ♂ latitudine¹: dift. a nodo 50, addit 1 22 26, resp. 35 40 & 6° 53' [dat] 4 2 23, quod etiam cum nostra obleruatione latis quadrat.

Pone latitudines ♂ prout præbet vtraque tabula tam quæ præcedit per 12 de 60 quam 9½ de 60, & vide vtra ratio propius accedat in vtraque latitudine tam borea quam aultrina.

I. Pro latitudinibus Borejs ♂ ex tabula quæ respondet eccentricitati 9½ de 60, assumendo lat. max. boream 4° 34'.

Anno 1580 ♂ 6 50 II, lat. 1 40 B.
 anomalia eccentrici 9 2 8 6
 προσθαφ. add. 11 22 10

Ex dift. ab ap. adde pro lat. 9 13 30 16
 6 45
 Anom. latit. 9 20 15 16
 facit correcte 59
 9 21 14

Resp. e nostra tabula scrup. prop. 21 42 [lat. max.] 4 34
 [Lat. supputata] 1 39 6 obleruata 1 40

1582 anomalia eccentrici 10 16 12 39
 προσθαφ. 7 15 52
 10 23 28 31
 pro latitudine 6 45
 10 30 13 31
 facit 60 14
 add. 1 46

Anom. lat. 62 0
 Resp. 52 58
 4 2 obleruata 4 6, diff. 4'

| 1585 | 1587 | 1589 |
|---------------------------|------------------------|-------------|
| ♂ in 25 5 III, lat. 3 37½ | ♂ 3 55 III lat. 1 7 B. | |
| 11 27 14 51 | 1 8 4 12 | 2 21 29 |
| 0 29 32 | 6 27 6 | 11 5 |
| 11 27 44 23 | 1 1 37 6 | 2 10 24 |
| 6 45 | 6 45 | 6 45 |
| 0 4 29 23 | 1 8 22 6 | 2 17 9 |
| 85 31 | 51 38 | 12 50 |
| add. 35 | add. 2 25 | add. 1 20 |
| 86 6 | 54 3 | 14 10 |
| Resp. 59 51 | Resp. 48 32 | Resp. 14 40 |
| [lat.] 4 33 19 | 3 41 38 | 1 7 |
| obl. 4 33 | obl. 3 37½ forsan plus | obl. 1 7 |
| | addendum pro parallaxi | |

¹ In oppositione anni 1591.

Repete ex Canone ▽

| | |
|--------------|------------|
| Anno 1580 | 20 15 |
| Tabula addit | 1 53 |
| | <hr/> 22 8 |

Resp. Scrup. prop. 22' 34'', lat. 1 43 3 N. B. Sed hæc obſeruatio eſt dubia,
 Calculus dedit 1 43 nam per radium ſolummodo facta
 Obſeruatio 1 40 & forte non ſatis pro parallaxi eſt
 additum.

| 1582 | 1585 | 1587 | 1589 |
|-------------|-----------------|------------|-----------|
| 60 14 | 4 30 | 38 22 | 77 10 |
| 2 | 85 30 | 51 38 | 12 50 |
| <hr/> 62 14 | 12 | <hr/> 1 40 | <hr/> 1 6 |
| | 85 42 | 53 18 | 13 56 |
| Reſp. 53 5 | Reſp. 59 40 | 48 5 | 14 36 |
| 4 2 25 | 4 33 14 | 3 39 35 | 1 6 41 |
| obl. 4 6 | quod conſentit | obl. 3 37½ | obl. 1 7 |
| diff. 3½ | cum obſeruatur. | | |

Pro latitudine ♂ auſtrina

| Anno 1593 ♂ in | 12 35 | Pro latitudine ♂ auſtrina | Anno 1591 | 26 40 |
|-----------------------------------|-------------|------------------------------------|-----------|---------------|
| Latitudo maxima | 17 0 | | | 16 55 |
| Dift. a limite auſt. | <hr/> 25 35 | | | <hr/> 1 20 15 |
| | 64 25 | | | 39 45 |
| | 2 6 | | | <hr/> 2 57 |
| | <hr/> 66 31 | | | <hr/> 36 48 |
| Reſp. 53' 0'', [lat. max.] 6° 50' | | Reſp. 35' 50'', [lat. max.] 6° 50' | | |
| lat. 6 2 50 | | lat. 4 4 52 | | |

COLLECTIO OMNIUM LATITUDINUM ♂ TAM BOREALIVM
QUAM AUSTRALIVM ET EARVNDEN COLLATIO.

Latitudines Boreæ

| Anno | Lat. obſeruata | Calculata | Differentiæ |
|------|-------------------|-----------|----------------------|
| 1580 | 1 43 ¹ | 1 43 | plus ² |
| 1582 | 4 3 ³ | 4 2½ | ½ minus ⁴ |
| 1585 | 4 33 | 4 33 | 0 |
| 1587 | 3 38½ | 3 39½ | 1½ plus |
| 1589 | 1 7 | 1 6½ | 0 |
| 1595 | 0 5½ | 0 5½ | 0 |

Latitudines Auſtrinae

| Anno | Lat. obſeruata | Calculata | Differentiæ |
|------|----------------|-----------|-------------|
| 1591 | 4 2 | 4 5 | 3 plus |
| 1593 | 6 2 | 6 3 | 1 plus |

¹ Primitus ſcriptum erat »40 dubia«.² Primitus ſcriptum erat »3 plus«.³ Primitus ſcriptum erat »6«.⁴ Primitus ſcriptum erat »3½ minus«.

N.B. In omnibus latitudinibus borealibus assumpta est maxima latitudo ex obseruatione anni 85 p. 4 M. 34, adhibita videlicet parallaxi, et vltus sum tabula scrupulorum proportionalium nostra emendata tam per tabellam quæ hoc ∇ signum habet¹, quæ eccentricitatem præsupponit $9\frac{1}{2}$ de 60, et additæ sunt differentiæ inuentæ in tabula ad distantiam ab utroque nodo, præsupponendo quod anno 1585 in ♀ cum ☉ in fine Octobris² fuerit nodus ♀ boreus ☉ in 17.0 ♀ præcise, ideoque ante apogæum [3^s] p. 6 M. 40, cum reliquo vero sic collecto scrupula proportionalia in nostra renouata tabula sunt conquistata & in maximam latitudinem boream logistice multiplicata, vt euaderet ea latitudo quam annotaui. In austrina vero latitudine maximam assumsi 6° 50', eo quod binæ illæ latitudines obseruatæ minorem³ non ferent. Vltus autem hic sum tabula quæ hoc ∇ habet signum, subtrahendo differentiam a distantia a nodo & cum residuo quærendo scrupula proportionalia & faciendo vt prius.

¹ Hanc tabulam non inuenimus.

² Anno 1585 oppositio Martis cum sole erat in fine Ianuarii, Anno vero 1595 erat in fine Octobris.

³ Codex habet "maiores".

OBSERVATIONES ANNI 1594.

OBSERVATIONES SOLIS.

DIE 14 JANUARIJ.

| | |
|------------------------------------|--------|
| Alt. ☉ Merid. | |
| per Chalyb. | 14 54½ |
| fuit tranſuectus merid. in chalyb. | |
| per Volub. | 14 55½ |
| Declin. M. | 19 9½ |
| | 19 9 |

DIE 9 MARTIJ.

| | |
|----------------------------------|-----------|
| Alt. ☉ merid. cum prope æquinoc- | |
| tium eſet | |
| per Muralem | 33 32½ |
| per Chalyb. | 33 32½ |
| per Volub. | 33 32 |
| Declin. in Armill. | 0 35 fere |
| maior. ſub. | 0 34½ |

DIE 10 MARTIJ

proximo æquinoctio verno.

| | |
|--------------------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 33 56½ |
| per Volub. | 33 56 |
| per Mural. | 33 56½ |
| Declin. in Armillis | 0 8½ |
| mai. ſub. | 0 9 0 |
| Fuit fatis bene ſerenum. | |

DIE 28 MARTIJ.

| | |
|----------------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 40 54½ |
| per Volub. | 40 52½ |
| Declin. per Armillas | 6 47½ |
| | 6 47½ |

DIE 7 JUNIJ.

| | |
|--------------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 57 32 |
| per Volub. | 57 31½ |
| Declin. ☉ | 23 26½ |
| | 23 26 |
| Fuit bene ſerenum. | |

DIE 8 JUNIJ.

| | |
|-----------------------|--------|
| Declin. ☉ in Armillis | 23 28½ |
| | 23 28½ |

DIE 9 JUNIJ.

| | |
|---------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 57 34 |
| per Volub. | 57 33½ |

| | |
|-----------------------|--------|
| Declin. ☉ in Armillis | 23 29 |
| Fuit bene ſerenum. | 23 29½ |

DIE 12 JULIJ.

| | |
|--------------------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 54 28½ |
| per Volub. | 54 27½ |
| Declin. per Armillas | 20 23 |
| | 20 23½ |
| Erat fatis bene ſerenum. | |

DIE 25 JULIJ.

| | |
|----------------------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 51 26½ |
| per Volub. | 51 27½ |
| Declin. ☉ per Armill. max. | 17 22½ |
| | 17 23 |
| Non fuit fatis ſerenum. | |

DIE 1 AUGUSTI.

| | |
|-------------------------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 49 30½ |
| per Volub. | 49 28½ |
| Declin. per Armill. max. ſub. | 15 24½ |
| | 15 25 |
| Erat mediocriter ſerenum. | |

DIE 24 AUGUSTI.

| | |
|--------------------------|-------|
| Alt. ☉ merid. | |
| per Chalyb. | 41 45 |
| per Volub. | 41 44 |
| Declin. per Armill. max. | 7 40 |
| | 7 39 |
| Non fuit fatis ſerenum. | |

DIE 25 AUGUSTI.

| | |
|--------------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 41 23 |
| per Volub. | 41 22½ |
| Declin. | 7 16½ |
| | 7 16½ |
| Fuit bene ſerenum. | |

DIE 13 SEPTEMBRIS

prope æquinoctium.

| | |
|---------------|-------|
| Alt. ☉ merid. | |
| per Chalyb. | 34 6½ |
| per Volub. | 34 6½ |

Declin. ☉ per Armill. max. subt. 0 0

Fuit bene ferenum. 0 0½ M.

Hic apparet Armillis circa æquinoctialem intersectionem errorem inesse.

Commodissime hac ☉^{lis} obseruatione vti poteris tam pro puncto æquinoctiali quam motu ☉ examinando. Quadrantes ante obseruationem factam ad amuſim corrigebantur.

DIE 15 SEPTEBRIS.

Alt. ☉ merid. 32 19½
per Chalyb. 33 19
per Volub. 33 19
Declin. per Armill. max. 0 47½ vtroque.
Non fuit satis ferenum.

DIE 17 SEPTEBRIS.

Alt. ☉ merid. 32 33
per Chalyb. 32 32½
per Volub. 32 32½
Declin. per Armill. max. subt. 1 35
Fuit satis bene ferenum. 1 35

DIE 18 SEPTEBRIS.

Alt. ☉ merid. 32 9
per Chalyb. 32 9
per Volub. 32 9½
Declin. per Armill. max. subt. 1 57
Non fuit satis bene ferenum. 1 57

DIE 19 SEPTEBRIS.

Alt. ☉ merid. 31 45½
per Chalyb. 31 45½
per Volub. 31 45½
Declin. per Armill. 2 21½
Fuit bene ferenum. 2 21½

DIE 23 SEPTEBRIS.

Alt. ☉ merid. 30 12
per Chalyb. 30 12
per Volub. 30 12
Declin. per Armill. 3 55
Fuit mediocriter ferenum. 3 55½

DIE 28 OCTOBRIS.

Horolog. in merid. 12' iusto citius mouebatur.

Alt. ☉ merid. 17 49½
per Chalyb. 17 50
per Volub. 17 50
Declin. ☉ per Armill. max. 16 16½
Fuit bene ferenum. 16 16½

DIE 18 NOUEMBRIS.

Alt. ☉ merid. 12 47½
per Chalyb. 12 48
per Volub. 12 48
Decl. ☉ per Armill. 21 20
Non fuit satis ferenum. vtroque

DIE 19 NOUEMBRIS.

Alt. ☉ merid. 12 38½
per Chalyb. 12 38½
per Volub. 12 38½
Declin. 21 30½
Non fuit satis ferenum. 21 30

DIE 29 NOUEMBRIS.

Alt. ☉ merid. 11 17
per Chalyb. 11 17
per Volub. 11 17
Declin. ☉ 22 48½
Non fuit satis ferenum 22 49

Horologium ab hora 4½ matutina, quando correctum fuit, hucusque tardius mouebatur M. 15.

DIE 8 DECEMBRIS.

Alt. ☉ merid. 10 42½
per Chalyb. 10 43½
per Volub. 10 43½
Declin. per Armill. 23 23½
Fuit mediocriter ferenum. 23 23½

DIE 11 DECEMBRIS.

Cum ☉ esset iuxta Solstitium hybernium & optime ferenum & tranquillum.

| | |
|---|----------|
| <i>Altit. in merid.</i> | |
| per Volub. | 10 41 20 |
| per Chalyb. | 10 41 10 |
| per Mural. | 10 41 0 |
| <i>Declin. per Armill. max.</i> | 23 26 15 |
| Altero pinnacidio | 23 25 30 |
| 12 ^h 8 ^m Repetita eadem | 23 26 0 |
| Altero | 23 26 20 |
| 12 10 Tertio repetita, vno | 23 25 45 |
| Altero | 23 26 10 |

Hinc patet, quod Armillæ hæ in duobus minutis declinationem australem iuxta meridianum plus iusto adaugeant.

H. 3 20¹ Inferior limb. ☉ occidebat.
3 25¹ Superior limb. ☉ occidebat.

| | |
|--|----------|
| <i>Altitudo obseruata</i> | 10 41 15 |
| | 3 5 |
| <i>Vera altitudo</i> | 10 44 20 |
| <i>Altit. æquatoris</i> | 34 5 30 |
| <i>Declinatio vifa</i> | 23 21 10 |
| <i>Locus ☉ noster</i> 29 28 x ^r | |
| <i>Declinatio vera</i> | 23 31 25 |
| <i>Differentia quæ metitur</i> | |
| refractionem | 10 15 |
| <i>Canon noster habet</i> | 9 40 |
| <i>Differentia saltem</i> | 0 35 |

DIE 15 DECEMBRIS.

| | |
|-----------------------------------|--------------------|
| <i>Altit. ☉ merid.</i> | |
| per Chalyb. | 10 43 |
| per Volub. | 10 42 ¹ |
| per Mural. | 10 42 ¹ |
| <i>Decl. per Armill. subterr.</i> | 23 23 ¹ |
| | 23 23 ¹ |

Horologium citius iusto mouebatur ab H. 8 P. M. hesterni diej minuta 15.

Fuit mediocriter bene serenum, sed ær craſſior circa meridiem.

DIE 17 DECEMBRIS.

| | |
|---------------------------------|--------------------|
| <i>Alt. ☉ merid.</i> | |
| per Chalyb. | 10 47 ¹ |
| per Volub. | 10 47 ¹ |
| <i>Declin. per Armill. max.</i> | 23 18 ¹ |
| | 23 18 ¹ |

Fuit mediocriter serenum.

Pro refractione ☉ ex tribus antecedentibus obseruationibus iuxta Solstitium hybernum vtpote die 11, 15, 17 Decembris.

| | |
|-------------------------------|-----------------------------------|
| <i>Die 11, Locus ☉ noster</i> | 29 26 ¹ x ^r |
| <i>Declinatio ☉ vera</i> | 23 31 25 |
| <i>Declinatio vifa</i> | 23 24 15 |
| <i>Parallaxis ☉ subtr.</i> | 0 3 4 |
| <i>Declin. absque</i> | |

| | |
|-----------------------------|----------|
| parallaxi | 23 21 11 |
| <i>Ergo refractione</i> | 10 14 |
| <i>Tabulæ nostræ dant</i> | 9 40 |
| <i>Differentia excedens</i> | |

tabulas 0 34

Erat quidem satis serenum, sed ær craſſiufculus nihilominus.

| | |
|----------------------------------|----------|
| <i>Die 15, Locus ☉ noster</i> | 3 32 7 |
| <i>Vera declinatio</i> | 23 28 40 |
| <i>Declinatio obseruata</i> | 23 22 45 |
| <i>Parallaxis ☉ subtr.</i> | 0 3 3 |
| <i>Vifa declinatio citra</i> | 23 19 42 |
| <i>Ergo refractione ☉</i> | 0 9 0 |
| <i>Tabulæ dant</i> | 9 38 |
| <i>Diff. qua tabulæ superant</i> | 0 38 |

Fuit mediocriter serenum, sed ær aliquanto craſſior iuxta meridiem.

| | |
|-------------------------------|-----------|
| <i>Die 17, Locus ☉ noster</i> | 5 34 40 7 |
| <i>Declinatio vera</i> | 23 24 25 |
| <i>Declinatio obseruata</i> | 23 18 5 |
| <i>Parallaxis</i> | 3 3 |
| <i>Vifa decl. absq.</i> | |

| | |
|---------------------------|---------|
| parall. | 23 15 2 |
| <i>Ergo refractione ☉</i> | 0 9 23 |
| <i>Tabulæ dant</i> | 0 9 35 |
| <i>Differentia exc.</i> | 0 0 12 |

Patet itaque, quod Canon noster refractionum solarium satis bene se habeat. In prima obseruatione tantum deficit, quantum in altera abundat, in tertia satis quadrat.

DIE 20 DECEMBRIS.

In meridie corrigebatur horologium, quod 14 M. iusto tardius motum fuit ab hora 2¹ A. M.

| | |
|------------------------------|--------------------|
| <i>Altitudo ☉ per Mural.</i> | 10 58 |
| per Chalyb. | 10 57 ¹ |
| per Volub. | 10 58 ¹ |
| <i>Declin. per Armill.</i> | 23 8 |
| | 23 8 ¹ |

Fuit faltem mediocriter serenum.
Eodem die circa occasum ☉ capiebatur declinatio & altitudo ☉ pro ♀ refractione in superioribus obfervationibus & fequentibus cognoscenda¹.

| H. M. | Declinatio ☉ | Altitudo |
|----------|--------------|----------|
| 2 37 | 23 6 | 23 5½ |
| 2 40 35s | 23 4½ | 23 5 |
| 2 44½ | 23 3½ | 23 4 |
| 2 51 | 23 3 | 23 3½ |
| 2 57 | 23 1½ | 23 0½ |

Posthac vmbra ☉^{lis} in pinnacidijs discrete obferuari haud potuit, quod is circa Horizontem densis vaporibus implicabatur.

DIE 22 DECEMBRIS.

| | |
|---------------------|--------|
| In meridie Alt. ☉ | |
| per Chalyb. | 11 7½ |
| per Volub. | 11 7½ |
| Declin. per Armill. | 22 59½ |
| | 22 59½ |

Horologium ab hora 4½ matutina mouebatur citius iusto minutis 6.

Non fuit satis serenum fed vtunque.

DIE 23 DECEMBRIS.

| | |
|--------------------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 11 11½ |
| per Volub. | 11 11½ |
| Declin. per Armill. max. | 22 55 |
| | 22 54½ |

Fuit satis bene serenum.

DIE 26 DECEMBRIS.

| | |
|---------------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 11 30½ |
| per Volub. | 11 29½ |
| Declin. per Armill. | 22 36½ |
| | 22 36½ |

Horologium vno faltem minuto celerius iusto ibat ab H. 9½ A. M. Fuit mediocriter serenum, fed non satis ob rariufculas nubes circa ☉ apparentes.

Post H. 2 obferuabamus ☉ in altit. & declinatione propter ☿ obferuationes hodie acceptas.

| H. M. S. | Declinatio | Altit. |
|----------|----------------|--------|
| 2 9 0 | 22 35 vtroque | 7 0 |
| 2 19 0 | 22 33½ | 6 20 |
| 2 35 45 | 22 32½ vtroque | 5 0 |
| 2 43 50 | 22 32½ | 4 20 |
| 2 54 20 | 22 30½ | 3 31 |

Confer hæc cum antecedentibus ante meridiem habitis (quæ inter obferuata in ☿ scripta sunt) in ☿ obferuationibus.

DIE 27 DECEMBRIS

ante meridiem.

H. 9½ A. M. corrigebatur ad ☉ horologium ab hesterno Meridie 7½ M. iusto tardius promotum.

| H. M. S. | Declin. ☉ | Azim. ☉ orient. | Altit. | Diff. æquat. a merid. |
|----------|-----------|-----------------|--------|-----------------------|
| 9 22 55 | 22 24½ | | | |
| 9 27 20 | 22 25 | 34 50 | 5 15 | 38 5 |
| 9 31 10 | 22 26 | 34 0 | 5 33 | 36 54 |
| | 22 27 | | | |

Postquam ☿ obferuabamus fequentia rurſus in ☉ eodem modo vt antea.

| H. M. S. | Declin. ☉ | Azim. ☉ or. | Altit. | Diff. æq. a merid. |
|----------|-----------|-------------|--------|--------------------|
| 10 21 25 | 22 28 | 23 0 | 8 48 | |
| | 22 28½ | | | |
| 10 25 50 | 22 28½ | 22 0 | 9 3 | 23 44 |
| | 22 28 | | | |
| 10 30 24 | 22 29½ | 21 0 | 9 17½ | 22 44½ |
| | 22 28½ | | | |
| 10 34 47 | 22 29 | 20 0 | 9 31 | 21 37½ |
| | 22 29½ | | | |
| 10 41 24 | 22 29 | 18½ | 9 47 | 19 53 |
| | vno | | | |
| 10 48 5 | 22 29½ | 17 0 | 10 4½ | |

EODEM DIE 27 DECEMBRIS.

| | |
|---------------|--------|
| Alt. ☉ merid. | |
| per Chalyb. | 11 36½ |
| per Mural. | 11 36 |
| per Volub. | 11 36½ |
| Declin. | 22 29½ |
| | 22 29½ |

¹ Cfr. infra inter obferuationes Veneris.

Moueabatur Horologium celerius iusto
a H. 9 $\frac{1}{2}$ A.M. Fuit mediocriter ferenum.

Obferuationes ☉ post meridiem
huius diej.

| H. M. S. | Azim. ☉ | Alt. per Vol. | Declin. | ☉ occid. |
|----------|---------|---------------|---------------------|---------------------|
| 1 18 5 | 17 32 | 10 3 | 22 29 $\frac{1}{2}$ | 18 45 $\frac{1}{2}$ |
| | | per min. Q. | 22 30 | |
| 1 27 40 | | 9 2 | 22 29 $\frac{1}{2}$ | 21 7 $\frac{1}{2}$ |
| | | | 22 29 | |
| 1 31 20 | | 9 25 | 22 28 $\frac{1}{2}$ | |
| | | Volub. | 22 29 | |
| 1 37 40 | 22 0 | 9 10 | 22 28 $\frac{1}{2}$ | |
| | | | 22 29 $\frac{1}{2}$ | |
| 1 42 10 | 23 0 | 8 54 | 22 28 $\frac{3}{4}$ | 24 33 $\frac{1}{2}$ |
| | | min. | 22 29 $\frac{1}{2}$ | |
| 1 49 15 | | 8 41 | 22 28 $\frac{1}{2}$ | 26 18 $\frac{1}{2}$ |
| | | | 22 28 $\frac{3}{4}$ | |
| 1 55 55 | | 8 5 | 22 28 $\frac{1}{2}$ | 27 52 |
| | | utroquej | | |
| 2 4 20 | | 7 32 | 22 27 $\frac{1}{2}$ | 29 48 |
| | | | 22 27 $\frac{1}{2}$ | |
| 2 15 55 | | 6 55 | 22 26 $\frac{3}{4}$ | 32 46 $\frac{1}{2}$ |
| | | | 22 26 $\frac{1}{2}$ | |
| 2 36 30 | | 5 30 | 22 26 | 37 46 |
| | | | 22 25 $\frac{1}{2}$ | |

Hic corripiebatur horologium, re-
ducto indice 5 min. quibus celerius
iusto motum fuisse horologium fit de-
prehensum.

2 49 30 38 30 3 59 $\frac{1}{2}$ 22 23 $\frac{1}{2}$
22 24

DIE 28 DECEMBRIS.

Obferuabatur ☉ ante meridiem in
hunc sequentem modum.

| H. M. S. | Alt. per Q. min. | Declin. | ☉ orient. in æquat. |
|----------|------------------|---------------------|---------------------|
| 9 49 0 | 6 0 fere | 22 19 | 37 0 |
| | | 22 16 | |
| 9 51 5 | 6 $\frac{1}{2}$ | 22 18 $\frac{1}{2}$ | 36 30 |
| | | 22 18 $\frac{1}{2}$ | |
| 10 7 55 | 7 8 | 22 20 | 32 30 |
| | | 22 19 $\frac{1}{2}$ | |
| 10 13 50 | 7 16 | 22 19 $\frac{1}{2}$ | 31 0 |
| | | 22 19 | |

10 21 50 7 53

22 19 $\frac{1}{2}$ 29 0

22 19 $\frac{1}{2}$

10 25 58 8 10

22 20 28 0

22 19 $\frac{1}{2}$

*Hinc patet quod horologium plus
iusto mouebatur, quare tempora
corrigenda.*

Deinceps obferuabatur ☉ in meri-
die habens Altit.

per Chalyb. 11 44 $\frac{1}{2}$

per Volub. 11 43 $\frac{1}{2}$

per Mural. 11 44 $\frac{1}{2}$

Declin. per Armill. max. 22 21 $\frac{1}{2}$

22 22

Corripiebatur horologium, quod plus
iusto mouebatur 19' 30".

Fuit fatis bene ferenum.

Postea obferuabatur ☉
post meridiem.

| H. M. S. | Alt. per min. Q. | Azim. | Decl. | ☉ in æquat. occ. |
|----------|-------------------|-------|---------------------|---------------------|
| 1 41 40 | 9 1 $\frac{1}{2}$ | 23 0 | 22 22 | 24 40 $\frac{1}{2}$ |
| | | | 22 21 $\frac{1}{2}$ | |
| 1 51 20 | 8 40 | | 22 21 | 27 0 |
| | | | 22 20 $\frac{1}{2}$ | |
| 1 59 25 | 8 8 | | 22 20 $\frac{3}{4}$ | 29 0 |
| | | | 22 20 $\frac{1}{2}$ | |
| 2 3 30 | 7 50 | | 22 20 | 30 0 |
| | | | 22 19 $\frac{1}{2}$ | |
| 2 13 30 | 7 10 | vno | 22 19 $\frac{1}{2}$ | 32 30 |
| 2 32 0 | 6 40 | vno | 22 18 $\frac{1}{2}$ | 37 0 |
| 2 40 15 | 5 10 | | | 39 0 |

Corripiebatur Horologium, quod 4
scrupulis plus iusto mouebatur.

DIE 31 DECEMBRIS.

Alt. ☉ merid.
per Chalyb. 12 8

per Volub. 12 8 $\frac{1}{2}$

Declinatio 21 59

21 59 $\frac{1}{2}$

Fuit bene ferenum.

OBSERVATIONES LUNÆ.

DIE 19 FEBRUARIJ, VESPERI.

Cum ☾ eſet tranſuecta meridianum
3½° in Azim., erat eius altitudo in Volu-
bili 59 53 in limbo infer.

| Dift. occid. limbi | Declin. |
|-----------------------------|-------------------|
| 7 44 20 ☾ a luc. pede 15 18 | inf. limbi |
| 7 49 10 Erichtonij | 25 52 |
| 7 56 | 15 16 Sin. humer. |
| 8 1½ | 15 19 Orion. occ. |
| 8 10½ corr. } | 28 51 |
| 8 8 20 | 15 17 |

Viceverſa

| | | |
|---------------|----------------------|------------------|
| 8 12 20 } | | |
| 8 31½ corr. } | Dift. eius- 52 | 3 34 11 |
| 8 15 30 | dem limbi 52 | 2½ Can. mai. oc. |
| 8 22½ | a corde ☾ 52 | 2 6 10 |
| | Declin. ¹ | 26 25 |
| | | 25 54 |

Supputatio loci ☾ ex obſervationibus
diei 19 Feb.².

| | |
|------------------------|--------|
| H. 8½ Diſtancia centri | |
| a luc. ped. Ericht. | 15 35 |
| Declinatio ☾ | 26 6 |
| Declin. ped. Ericht. | 28 11 |
| Aſcenſio R. eius | 75 9½ |
| Ang. diff. aſcenſ. | 17 21 |
| Ergo Afc. R. ☾ | 92 30½ |

| | |
|-------------------------------|--------|
| H. 8 M. 27 Diſtancia centri ☾ | |
| a Regulo | 51 47 |
| Declinatio ☾ | 26 7 |
| Declinatio Reguli | 13 56 |
| Afc. R. Reguli | 146 40 |
| Ang. diff. aſcenſ. | 53 58 |
| Idcirco Afc. R. ☾ | 92 42 |

| | |
|---------------------------|----------|
| Pone H. 8½ Afc. R. ☾ | 92 31 |
| Declin. | 26 6 |
| Reſp. Longitudo | 2 15½ 69 |
| Pro latitudine adde | 6½ |
| Pro parallaxi | 8 |
| quod ☾ eſet 5' vltra. | |
| Ergo verus ☾ quaſi 90 gr. | |
| tranſuectæ | 2 30 69 |

DIE 18 OCTOBRIS.

Veſperi obſervabatur ☾ iuxta 90° ab
Aſcendente ante Eclipſationem ſe-
quenti mane contingentem.

Debut eſſe in 90 gradu H. 9 M. 50.
Prima alæ Peg. tranſ. H. 8 M. 33 S. 36.

| H. M. S. | Dift. occ. limb. a 1 alæ Peg. | Decl. ☾ | Alt. ☾ | Prima alæ Peg. occ. |
|----------|-------------------------------|--------------------|------------|---------------------|
| 9 38 | 46 29½ | 9 48 inf. | 37 43 inf. | |
| | | 10 21 ſup. | 38 12½ | |
| 9 48 | 46 38 | Difficulter ſtella | 18 42 | |
| 9 48 24 | corr. | in Pegaſo vide- | | |
| 9 52 59 | 46 41½ | batur, tum ob | 20 5 | |
| 9 53 56 | corr. | ſplendorem ☾ tum | | |
| | | rariuſc. nubes | | |

Viceverſa, Diſt. occ. limb.

| | | | |
|----------|------------|-----------------|-------|
| 9 59 55 | 33 52½ | | 21 32 |
| 9 59 45 | corr. | | |
| 10 3 20 | 33 51 | Decl. ☾ | 22 31 |
| 10 6 45 | 33 50 | 9 56 inf. limb. | |
| | | 10 28 ſuper. | |
| 10 13 30 | 33 48 fere | | 24 50 |

Pro loco ☾ iuxta nonag. gradum.

| | |
|--------------------------------|----------------|
| H. 9 54 Diſt. centri ☾ | |
| ab alæ Peg. | 46 58 |
| Declin. centri ☾ | 10 5 B. |
| Afc. R. I alæ Peg. | 341 10 |
| Ang. diff. aſc ^{alis} | ſupp. 47 54 30 |
| Ergo Afc. R. ☾ | 29 4 30 |
| 9 59½ Diſt. centri ☾ ab Aldeb. | 33 36 |
| Declin. centri ☾ | 10 6 |
| Decl. Aldeb. | 15 37 |

Arcus incli-
nat. 2½^M ſubtr.

| | |
|-------------------------------|---------|
| Afc. R. Aldeb. | 63 11 |
| Ang. diff. Afc. ſupp. | 34 2 |
| Ergo Afc. R. ☾ | 29 9 0 |
| H. 9 M. 57 Afc. R. ☾ limitata | 29 6 45 |
| Declinatio viſa | 10 5 30 |
| Reſp. Longitudo | 0 36½ 3 |
| Latitudo | 1 45 M. |

¹ Adſcriptum eſt «ad poſtremum tempus», ſed lineis inducitur.

² E codice V.

DIE 19 OCTOBRIS, MANE.

Pro horologio ante Eclipsin.

| | |
|------------------|-----------------------|
| H. 5 M. 23 S. 50 | Canis minor occident. |
| 5 25 30 | |
| 5 27 0 | |
| 5 30 0 | |

| |
|------|
| 4 42 |
| 5 7 |
| 5 29 |
| 6 15 |

Sequitur obseruatio Eclipsis ☾.

| Tempus corr. | H. M. | |
|--------------|-------|---|
| 5 56½ | 5 50 | Plane nihil adhuc de ☾ abfuit ¹ . Canis minor occid. 11 21 |
| | 5 54½ | Incepit ☾ in superiori limbo deficere. |
| | | Fuit tunc canis minor occ. 12 35 |

6 4½ 6 3 Fuit diameter ☾ apparens
per radium 27'.
Quasi 5 minuta de ☾ defuere.



6 8 6 7 Quasi quarta fere pars dia-
metri ☾ abfuit. Altit. ☾ infer.
limbi fuit 8^p 5'.



Fuit tunc
cor ☾ or.
21 33

6 13 54 6 12 45 Tunc abfuit de ☾ quasi medi-
um inter tertiam & quartam
partem.
Fuit tunc altit. inf. limbi ☾ 7 18




Cor ☾ orient.
20 4


6 20½ 6 19 Quasi tertia pars de ☾ labora-
vit in tenebris vt vides.
Altit. inf. limbi ☾ 6 25




Cor ☾ orient.
18 28½

¹ His verbis deletis hæc addit codex V: »De hac Eclipsi dubitatur an multo antea inceperit quam anno-
tatum fit«.

6 33 6 31 ¶ quasi dimidia fuit in vmbra.
Pone medietatem hanc H. 6
M. 32, vel ad summum H. 6
M. 33½, cum eadem stella
eßet occid.  *Canis minor*
occid. 21 50
22 25

6 39½ 6 37½ Fuit diameter corporis lucidi
¶ per radium 14 M.
Fuit tunc altit. inf. limbi
per radium 4½.  *Canis occid.*
23 23½

6 46½ 6 44 Fuit tunc altit. inf. limbi 2½
incertum  *Canis*
minor
occid. 25 7

6 50 0 Pro horologio iterum *Canis minor occid.* 26 35
6 51 31 eadem stella occ. 26 48

Sed tunc ¶ non apparuit propter vapores densiores & nubeculas circa horizontem.

Obferuatio eiusdem Eclipsis ¶ a D. D. Gellio
in obferuatorio auftrali.



Cum *Canis minor*
abeßet a Meridi-
ano 12 Grad. vel
48' temporis, tan-
tum quantum fig-
natum est videba-
tur corpori Lu-
nari defeciße.
Gradus 12^o 0'
Tempus 0 48



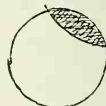
Cum abeßet 51'
minut. temporis.

Grad. 12° 45'
Hor. 0 51



Cum abeßet 55'
minutis feu
13 gr. 45'

Grad. 13° 45'
Temp. 0 55



Cum abeßet *Canis*
minor a meri-
die minutis 57½
Temporis, 3^a pars
femidiametri Lu-
naris obscurata
videbatur.

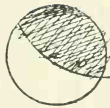
Grad. 14° 22'
Temp. 0 57½



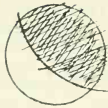
Cum abeſet idem
Canis 18 gr. 22' vel
H. 1 13½ min. tem-
poris.



Cum abeſet hora
1 M. 21 media fui
parte obſcurata ¶
apparebat, ſi non
paulo amplius.



Cum abeſet canis
minor 22½ gr. feu
H. 1. 31, faltem ½
ſemidiametri Lu-
naris ſupereſſe vi-
debatur.



Canis minor H. 1°
40 P. M. ¶ faltem
medietas ſemidi-
ametri nobis ſu-
pereſſe videbatur.
Nec poſtea obſer-
uari potuit.
Grad. 25. 0½
Temp. 1.40

Grad. 18° 22'
Tempus 1.13½

Grad. 20° 15'
Tempus 1.21

Grad. 22.45'
Temp. 1.31

H. 7 M. 12 incepit limbus ☉ ſuperior oriri.

H. 7 M. 14½ Medium corporis ☉ viſum oriri.

H. 7 M. 17 Totus ☉ ortus eſt.

Facta² experientia mechanica pro medio huius Eclipſeos
inuentum eſt effluſiſſe ab initio ad obſcurationem ¶ ¼ 0^H 23^M

Tempus
6^H 8^M
½ 0 45 6 31 limit.

Ergo medium H. 19 M. 20.

DIE 27 OCTOBRIS.

Pro examinatione ſitus armillarum
auſtralium ad Meridiem obſeruau-
imus hora 1½ circiter in Azimuto Volu-
bilis Quadrantis

Azim. ☉ in Volub. cum ☉ eſet in æquatore
a merid. ad occaſ. Armillarum

| | |
|------|---------------|
| 22 0 | 21 47 |
| 23 0 | 22 49 |
| 24 0 | 23 53 hic non |

fuit bene ferenum. Pone 23 52.

Hinc potes corrigere armillas, dato
loco ☉ ad ſuppoſitum tempus.

DIE 28 OCTOBRIS.

Pro examinatione Armillarum am-
barum.

Canis minor occident.

| H. M. S. | Per Armillas maximas | Per Armillas merid. |
|----------|-------------------------|------------------------|
| 5 29 10 | 22 0 | 21 50 |
| 5 31 5 | 22 30 | 22 18 |
| 5 33 0 | 23 0 | 22 40 |
| 5 34 55 | 23 30 | 23 20 |
| 5 36 50 | 24 0 | |
| ... | 27 0 | 26 50 |

¹ Hi anguli horales alia manu adſcripti ſunt.

² E codice V.

Ex his patet quod 10 circiter mi-
nuta ſubtrahenda veniant ab obſer-
uatione Armill. auſtr.

| Repetita | Canis minor occid. |
|----------|--------------------|
| 5 50 20 | per maximas 27 30 |
| 5 52 20 | 28 0 |
| 5 54 15 | 28 30 |
| 5 58 5 | 29 30 |
| 6 0 0 | 30 0 |
| 6 2 0 | 30 30 |
| 6 3 55 | 31 0 |

Armilla auſtralis in duabus vlti-
mis minus habuit 10' vel 40" tempo-
ris. Hoc ipſum obſeruatio Solis per
vmbram in meridie ſequentis die
confirmauit.

DIE 28 OCTOBRIS.

Obſeruabatur ¶ iuxta 90 gradum
corniculata, media inter ☐ & ☿.
12 14 30 ☉ occid. 3 38½
¶ occid. 62 45½ Or. limb.
Diſt. æquat. 59 7
Declin. ſuper. cornu ¶ 11 27 borea
infer. cornu 11 0

| | | | |
|----------|----------------------------------|--------|-------------------|
| 12 19 30 | ⊙ occid. | 4 58 | |
| | ☾ occid. | 64 2 | |
| | Dift. æquat. | 59 4 | pone 59 5 |
| 12 23 40 | ⊙ occid. | 6 4½ | |
| | ☾ occid. | 65 8 | |
| | Dift. æquat. | 59 3½ | pone 59 4 bona |
| 12 26 30 | ⊙ occid. | 6 47½ | |
| | ☾ occid. | 65 50½ | |
| | Dift. æquat. | 59 3 | bona |
| 12 29 50 | ⊙ occid. | 7 39 | |
| | ☾ occid. | 66 39½ | |
| | Dift. æquat. | 59 0½ | bona |
| 12 31½ | Fuit rursus declin. infer. limbi | 10 58½ | |
| 12 35 | Repetita decl. | | |
| | inf. limb. | 10 56½ | |
| 12 39½ | Declin. super. limbi | 11 25 | |
| 12 40½ | Declin. inferioris | 10 55 | |

Supputatio loci lunaris ex præceden-
tibus obseruationibus ad merid.
fere die 28 Octobris.

☾ iuxta supput. in 90 H. 23 M. 10,
diei 27 Octobris.

| | |
|----------------------------|-------------------------|
| H. 12 M. 14½ | vel post M. H. 0 M. 14½ |
| Dift. centri ☾ a ☉, | |
| accipiendo semidia- | |
| metrum ☾ 14' æquat. | 59 21 |
| Declin. ☾ borea | 11 13½ |
| Afc. recta ☉ visa | 222 14 50 |
| Ergo Afc. recta ☾ | 162 53 50 |
| Resp. Longitudo ☾ | 9 57½ 11p |
| Latitudo | 3 38 0 B. |
| Arcus inclinationis | 6' 0" subtr. |
| Vera Lunæ respectu proprij | |
| circuli longit. | 9 51½ 11p |

DIE 13 NOUEMBRIS.

Vesperī obseruabatur ☾ ab Apogæo
descendens, & in medio loco inter pri-
mam ☐ & ♀ cum ☉.

Erat autem iuxta 90 gr. H. 6½ iuxta
supput.

| H. M. | Dift. occ. limb. ab ore Peg. | Declin. ☾ | Vultur. occ. |
|-------|---------------------------------|-----------------|-----------------|
| 6 14½ | 51 20 | | |
| 6 18½ | 51 22 | 2 4½ sup. limb. | 41 23 |
| | | 1 32 infer. | |
| 6 24 | 51 22 | | 42 53 |
| 6 26½ | corr. | | |
| 6 26½ | 51 25 | | |
| 6 28½ | corr. | | |
| | Occ. limb. a lucida √ | Vice Verfa | |
| 6 34 | 23 52½ | | 45 30 |
| 6 36½ | corr. | | |
| 6 37 | 23 56 | | 46 18 |
| 6 39 | 55" corr. | | |
| 6 39½ | 23 54 | | 46 55 |
| 6 42½ | 23 53 | 2 9 sup. limb. | 47 37 |
| | | 1 35 infer. | |

Transitus Vulturis per meridianum
ex supput. H. 3 34' 45"¹.

Ex his præced. obseruationibus in-
uentus est Locus ☾ vt sequitur.

| | | |
|-------------|-------------------------|----------|
| H. 6 M. 28½ | Dift. centri ☾ | |
| | ab ore Pegasi | 51 40 |
| | Decl. centri ☾ | B. 1 49½ |
| | Decl. oris Peg. | 8 3½ |
| | Ang. diff. ascenf. alis | 51 31½ |
| | Afc. R. oris Peg. | 321 5½ |
| | Ergo Afc. R. ☾ | 12 36½ |
| H. 6 M. 40 | Dift. centri ☾ | |
| | a luc. √ | 23 40 |
| | Declin. centri ☾ | 1 50 |
| | Declin. luc. √ | 21 31 |
| | Afcensionalis diff. | 13 29½ |
| | Afc. R. luc. √ | 26 8 |
| | Ergo afc. R. ☾ | 12 38½ |
| H. 6 M. 33 | Limitata | |
| | Afc. R. ☾ | 12 37½ |
| | Resp. Longitudo | 12 19½ √ |

¹ In margine adscriptum.

DIE 17 NOUEMBRIS.

Vesperī obferuabatur ☾ in plenilunio & maxima primi
Epicycli Proftaphærefi.

| H. M. | Dift. occ. limb. a luc. ☿ | Decl. | Azim. or. limb. & Altit. Az. 22 10 | Dext. hu. Orion. 33 1 |
|--|------------------------------|---|--|-----------------------------|
| 11 6 $\frac{1}{2}$ | 34 7 $\frac{1}{2}$ | | Alt. fup. 55 53 | |
| 11 12 $\frac{1}{2}$ | 34 11 $\frac{1}{2}$ | | | 31 35 |
| 11 13 corr. | | | | |
| 11 16 $\frac{1}{2}$ | 34 10 $\frac{1}{2}$ | | | Luc. pes Or. 19 31 |
| 11 22 $\frac{1}{2}$ | | fup. 23 14 $\frac{1}{2}$ | Az. 16 0 | |
| 11 18 35" corr. ¹ | | inf. 22 42 | Alt. fup. 57 35 inf. 56 2 | |
| 11 29 $\frac{1}{2}$ | 34 18 bona | | | 17 45 |
| | Or. limb. ☾ a fup. cap. ☿ | Viceverfa | | |
| 11 33 | 39 6 $\frac{1}{2}$ | 23 15 $\frac{1}{2}$ fup. | | 16 46 |
| 11 34 corr. | | 22 44 inf. | | |
| 11 39 | 39 4 $\frac{1}{2}$ | | Alt. inf. 56 36 Az. or. 9 0 | 15 17 |
| 11 45 $\frac{1}{2}$ | 39 0 $\frac{1}{2}$ | 23 17 fup. 22 46 $\frac{1}{2}$ inf. | | 13 38 |
| 11 59 Tranſijt occ. limb. | | | | 10 22 |
| ☾ merid. in alt. fuperius cornu | | per Chal. 57 24 per Volub. 57 23 $\frac{1}{2}$ | | |
| 12 1 $\frac{1}{2}$ Tranſijt orient. limb. | | | | 9 31 |
| ☾ in alt. inferioris cornu | | per Chal. 56 53 per Volub. 53 52 $\frac{1}{2}$ | | |
| Vltorius pro horologio | | | | |
| 12 9 $\frac{1}{2}$ Sinifter hum. Orionis | | | | 9 43 |
| 12 12 $\frac{1}{2}$ Lucidus pes Orion. or. | | | | 6 55 |

Pro longitudine ☾ ex præcedentibus
obferuationibus in plenilunio.

☾ iuxta nonag. gr. H. 11 M. 18

| | |
|--|---------------------|
| H. 11 M. 13 Dift. centri ☾ a luc. ☿ | 34 27 |
| Declin. centri ☾ | B. 22 58 |
| Declin. luc. ☿ | B. 21 31 |
| Ang. d ^{ra} afc ^{is} | 37 10 $\frac{1}{2}$ |
| Afc. R. luc. ☿ | 26 8 0 |
| Ergo Afc. R. ☾ | 63 18 30 |
| H. 11 34 Dift. centri ☾ a fup. cap. ☿ | 39 23 |
| Declin. centri ☾ | 23 0 |
| Declin. fup. cap. ☿ | 32 42 |
| Ang. d ^{ra} afc ^{alis} | 43 30 20 |
| Afc. R. fup. cap. ☿ | 107 5 0 |
| Ergo Afc. R. ☾ | 63 34 40 |

| | |
|--|-----------------------|
| H. 11 M. 23 $\frac{1}{2}$ Afc. R. ☾ limit. | 63 26 35 |
| Declin. ☾ B. | 22 59 0 |
| R. Longitudo | 5 41 13 $\frac{1}{2}$ |
| Latitudo | 1 41 0 B. |
| Arcus inclinationis ob latit. | 5 40 |
| | add. |
| Ergo vera longitudo ☾ in propria orbita | 5 46 53 |
| Ephemerides Magini | 5 42 |
| Alphonſinorum | |
| Cypriani | 5 51 |

DIE 18 NOUEMBRIS.

Correximus Horologium ad Vultu-
rem pro futuris ☾ obferuationibus,
promouendo illud 18 M.
☾ iuxta 90 gr. H. 12 38'.

¹ Minuta debent eſſe 23.

| H. M. | | Luc. pes Orion. or. |
|------------------------|-----------------------------|------------------------|
| 12 8 | Dift. orient. | 48 17½ 3 55 |
| 12 11 | limbi a luc. V | 48 22 3 10 |
| 12 15 | 0 Dext. hum. Orion. or. | 11 38 |
| 12 18 | Decl. sup. cornu | 26 10½ |
| | infer. | 25 38 |
| 12 22 50 | Eadem dift. | 48 24 9 38 |
| 12 36 24 | corr. | |
| 12 25 5 | | 48 24½ |
| 12 38 45 | corr. | |
| 12 28 40 | Transfuit boreale | 8 11 |
| | cornu V merid. in altit. | |
| | per Chal. | 62 15 |
| | per Volub. | 62 16 |
| | ἐν πλάτει propter C. | |
| | Viceversa ab infer. cap. II | |
| 12 34 30 | Dift. | 27 27½ 6 42 |
| 12 48 10 | corr. | |
| 12 44 55 | Transijt orient. | 3 58 |
| | limb. C per merid. | |
| | habuitque altit. | |
| | sup. cornu | |
| | per Chalyb. | 60 16½ |
| | per Volub. | 60 16½ |
| infer. cornu per Chal. | | 59 44 |
| | per Volub. | 59 44½ |
| 12 50 55 | Eadem dift. | 27 22½ 2 29 |
| 12 53 50 | ab infer. | 27 20½ 1 44 |
| 12 59 15 | cap. II | 27 19½ 0 25 |
| | Decl. sup. cornu | 26 13½ |
| | inferioris | 25 45 |

Obferuationibus hifce omnibus inuicem limitatis tuto fidendum est. Fuit enim apprime ferenum & aër tranquillus.

Pro loco longitudinis & latitudinis C ad diem 18 Nouembris.

| | | |
|--------------|---------------------------|----------|
| H. 12 M. 38½ | Dift. centri C | |
| | a luc. V | 48 9 |
| | Decl. centri C | 25 54 |
| | Decl. lucidæ V | 21 31 |
| | Afc. R. lucidæ V | 26 8 |
| | Ang. d ^{re} afc. | 52 43 |
| | Ergo Afc. R. C | 78 51 |
| H. 12 M. 48½ | Dift. centri C | |
| | ab inf. cap. II | 27 43 |
| | Decl. centri C | 25 55 |
| | Decl. inf. cap. II | 28 57 |
| | Afc. R. inf. cap. II | 110 4 20 |
| | Ang. d ^{re} afc. | 31 8 0 |
| | Ergo Afc. R. C | 78 56 20 |

| | | |
|--------------|---|-----------------|
| H. 12 M. 42½ | | |
| | Limitata Afc. R. C | 78 53 40 |
| | Declin. C B. | 25 54 30 |
| | Quando C fuit in 90 gr. ab Afcend. Eclipt. | |
| | Relp. Longitudo | 20 1 0 II |
| | Latitudo | 2 46 20 B. |
| | Arcus inclinationis ob latit. 0 | 7 0 |
| | | add. |
| | Ergo long. C | |
| | in proprio circulo | 20 8 0 II |
| | Ex ephemeride Magini | 19 33 0 |
| | Cypriani | 19 46 0 |
| | Interuallo tem- poris ab hestern a obferuatione | Ex Obferuat. |
| H. 25 M. 21 | 14° 21' | Ex Magino |
| | | Ex Cypriano |
| | | 13 51 13 55 |

DIE 27 NOUEMBRIS, MANE.

| | | |
|-------------|--|--------------|
| 6 53 | Dift. or. limbi C | 52 39½ 20 35 |
| 6 55 55 | & cor C | 52 37 19 45 |
| | Declin. super. 4 | 56 |
| | infer. 5 | 25 |
| 7 1 45 | Dift. a corde C | 52 41½ 18 5 |
| 8 14 20 | Orientalis limbus C tranfijt merid. habens alt. sup. cornu | |
| | per Chalyb. | 28 50 |
| | per Volub. | 28 50 |
| infer. vero | per Chalyb. | 28 20½ |
| | per Volub. | 28 22 |

DIE 9 DECEMBRIS.

Obferuatio C iuxta 90 gr. & prope Apogæum & □.

Horologium corrigebatur ad C
H. 2 M. 5.

| H. M. S. | Decl. C | Alt. C | Azim. C a mer. ver- fus occid. |
|----------|--------------------------------------|---------------------|--------------------------------------|
| 3 0 25 | sup. 6 | 6 sup. corn. 19 12½ | 44 0½ |
| | inf. 6 | 29½ | inf. 18 48 per Chal. f |
| 3 9 15 | sup. 6 | 4 | 20 15 42½ f |
| | inf. 6 | 30½ | 19 51 Volub. f |
| | C debuit esse in 90 gradu H. 3 M. 8. | | |
| 3 19 25 | Dift. occ. | 39 37½ | |
| 3 33 40 | corr. limbi C | | Decl. 9 |
| 3 21 30 | a C | 39 39 | 18 5½ |
| | | | 18 5½ |
| 3 23 45 | | 39 40½ | |
| 3 28 45 | Decl. sup. limbi inferioris | 5 55 inter | nubes |

6 30 30 Dift. occ. limbi ζ a $\frac{1}{2}$ 31 35
 Luc. mandib. Ceti or. 27 10
 Declin. inf. cornu 5 42 $\frac{1}{2}$
 superioris 5 14
 6 34 15 Dift. occ. limbi a $\frac{1}{2}$ 31 36
 Altit. super. cornu ζ 27 $\frac{1}{2}$
 Altit. $\frac{1}{2}$ 9 $\frac{1}{2}$

DIE 10 DECEMBRIS, VESPERI.

| H. M. | Decl. ζ sup. inf. | Dift. occ. limb. a $\frac{1}{2}$ | Altit. sup. inf. | ζ occid. |
|--------------------|----------------------------|-------------------------------------|---------------------|----------------|
| 3 32 | 0 26 $\frac{1}{2}$ | | 23 36 | 4 46 |
| | 0 58 | | ... | |
| 3 37 $\frac{1}{2}$ | 0 25 $\frac{1}{2}$ | | | 6 2 |
| | 0 56 $\frac{1}{2}$ | | | |

Postea ζ ad 90 gr. propius tendente.

| | | | |
|-------------------------|---------------------|---------------------|-------|
| 3 51 $\frac{1}{2}$ | 50 39 $\frac{1}{2}$ | 25 27 | 9 37 |
| 4 0 $\frac{1}{2}$ corr. | | 24 56 | |
| 3 55 | 50 40 $\frac{1}{2}$ | | |
| 3 59 | 50 42 | 26 12 $\frac{1}{2}$ | 11 28 |
| | | 25 43 | |
| 4 4 $\frac{1}{2}$ | 50 43 $\frac{1}{2}$ | 26 15 | 12 38 |
| 4 7 | 50 45 | 13 32 | |
| 4 9 $\frac{1}{2}$ | 0 18 $\frac{1}{2}$ | 50 45 $\frac{1}{2}$ | 14 10 |
| | 0 48 $\frac{1}{2}$ | | |
| 4 12 $\frac{1}{2}$ | 50 47 $\frac{1}{2}$ | | 15 0 |
| 4 15 | 50 48 | ... | 15 35 |
| | | 27 11 | |

6 28' 15" ζ occ. limbus tranfuit meridianum quando prima alæ erat occid. 27 12

Altitudo sup. cornu Chalyb. 34 19
 inf. cornu 33 40 $\frac{1}{2}$ ¹
 sup. Volub. 34 17 $\frac{1}{2}$
 inf. 33 50

DIE 11 DECEMBRIS.

Vesperī obferuabatur ζ appropinquans 90 gr. in hunc qui fequitur modum.

| H. M. | Dift. occ. limb. ab ore Peg. | Declin. vtriusq. limbi | Alt. sup. inf. | Vultur occid. |
|-------------------------|------------------------------------|------------------------------|---------------------|------------------|
| 4 32 | 56 56 | 5 23 $\frac{1}{2}$ | 31 0 | 47 0 |
| | | 4 52 | 30 30 | |
| 4 37 $\frac{1}{2}$ | | | 31 30 | 48 38 |
| | | | 30 59 $\frac{1}{2}$ | |
| 4 40 $\frac{3}{4}$ | 57 0 $\frac{1}{2}$ | 5 23 $\frac{1}{2}$ | | 49 26 |
| | | 4 53 | | |
| 4 44 $\frac{1}{2}$ | 57 2 | 5 25 | 32 15 | 50 31 |
| | | 4 53 | 31 46 | |
| 4 52 $\frac{3}{4}$ | 57 5 | | | 52 42 |
| 5 3 $\frac{1}{2}$ corr. | | | | |

¹ Debet esse 50 $\frac{1}{2}$.

Postea obferuabatur ζ viceversa
 ab Aldebora.

| | | | |
|-------------------------|--|---------------------|--------------|
| 4 56 $\frac{1}{2}$ | 44 57 $\frac{1}{2}$ | 33 22 $\frac{1}{2}$ | 53 42 |
| 5 7 $\frac{1}{2}$ corr. | | 32 53 | |
| 5 0 | 44 55 | 5 29 | 54 43 |
| | | 5 0 | |
| 5 3 | 44 53 $\frac{1}{2}$ | 34 2 | 55 23 |
| | | 33 31 | |
| 5 6 | 44 52 $\frac{1}{2}$ | | Os Peg. occ. |
| 5 8 50 | 44 52 | 5 28 $\frac{1}{2}$ | 28 41 |
| | | 5 1 | 34 2 |
| 7 3 10 | Tranfuit occid. limb. ζ per meridianum, habuitque altitudinem in cornu superiori | | |
| | per Chalyb. | 40 4 | |
| | per Volub. | 40 2 $\frac{1}{2}$ | |
| | in cornu infer. | | |
| | per Chalyb. | 39 34 $\frac{1}{2}$ | |
| | per Volub. | 39 33 $\frac{1}{2}$ | |

Pro loco ζ ad diem 9 Decembris
 in \square & Apogæo.

| | | |
|----------|--------------------------------------|-----------------------|
| H. 3 34' | Dift. centri ζ a $\frac{1}{2}$ | 39 52 |
| | Declin. centri ζ | 6 14 M. |
| | Declin. ζ tam obferuata | |
| | quam reduéta | 18 5 M. |
| | Ang. differ. afcenfio- | |
| | nalis fupput. | 39 3 10 |
| | Afcenf. R. ζ | 317 49 10 |
| | Afcenf. R. ζ | 356 52 20 |
| | Refp. Longitudo | 24 38 $\frac{1}{2}$ X |
| | Latitudo | 4 28 6 M. |
| | Reductio | 7 30 |

Pro loco ζ die 10 Decembris.

| | | |
|---------|--------------------------------------|-----------------------|
| H. 4 0' | Dift. centri ζ a $\frac{1}{2}$ | 50 54 |
| | Declin. centri ζ | 0 38 M. |
| | Declin. ζ | 17 42 |
| | Afc. R. ζ | 318 52 |
| | Ergo Afc. R. ζ | 7 40 45 |
| | Refp. Longitudo | 6 47 $\frac{1}{2}$ V |
| | Latitudo | 3 38 $\frac{1}{2}$ M. |

Pro loco ζ die 11 Decembris.

| | | |
|-------------------------|-------------------------|-----------------------|
| H. 5 M. 3 $\frac{1}{2}$ | Dift. ζ | |
| | ab ore Pegafi | 57 20 $\frac{1}{2}$ |
| | Declin. centri ζ | 5 10 $\frac{1}{2}$ B. |
| | Declin. oris Pegafi | 8 3 $\frac{1}{2}$ B. |
| | Afc. recta eiusdem | 321 5 20 |
| | Angulus differ. asc. | 57 41 42 |
| | Ergo Afc. recta ζ | 18 47 2 |

| | | | |
|------|-------|-----------------------------|----------|
| 5 | 7½ | Dift. centri (ab Aldeb. 44 | 42 |
| | | Declin. centri (| 5 12 B. |
| | | Declin. Aldeboræ | 15 37 B. |
| | | Afc. recta Aldeb. | 63 11 30 |
| | | Ang. differentiæ afc. | 44 18 10 |
| | | Ergo Afc. recta (| 18 53 20 |
| H. 5 | M. 5½ | Afc. R. (limitata | 18 50½ |
| | | Declinatio | 5 11 B. |
| | | Refp. Longitudo | 19 20½ V |
| | | Latitudo | 2 18½ M. |

DIE 14 DECEMBRIS.

Vesperī obseruabatur (inter ☐ & ☿ circa mediam distantiam inter Apogæum & Perigæum, in eo videlicet loco, vbi maxime ab apparentijs tabulæ tum Prutenicæ tum Alphonsinæ discrepant.

Hoc die fuit (iuxta 90 gr. H. 8 M. 35.

Aldeborā iuxta supput. transiit merid. H. 10 exacte.

| H. M. S. | Dift. occid. limb. (a luc. Y | Declin. (vtriusque limbi | Oculus ☿ orient. |
|---------------|-------------------------------|---------------------------|------------------|
| 8 8 50 | 27 49½ | fup. 21 14 inf. 20 43 | 28 7½ |
| 8 14 55 | 27 53½ | | 26 26 |
| 8 18 35 | 27 54 | | 25 35 |
| 8 22 55 | | | 24 28 |
| 8 22 corr. | | | |
| 8 26 25 | 28 0 | | |
| 8 28 10 | 28 2 | fup. 21 21 inf. 20 48½ | |
| 8 32 0 | 28 4½ | | 22 11 |
| 8 31 15 corr. | | | |

Viceversa ab infer. cap. II

| | | | |
|------------|--------|---------------------------|-------|
| 8 34 55 | 49 0½ | | 21 28 |
| 8 34 corr. | | | |
| 8 37 0 | 48 59½ | fup. 21 23 inf. 20 48½ | 20 55 |
| 8 41 35 | 48 57½ | | 19 42 |
| 8 45 5 | 48 55 | | 18 55 |

Pro examinandis Armillis maioribus obseruabamus Aldeboram & inuenta est eius declinatio Boreā

15 39½ vno
15 39½ altero pinnac.

1 Postea adscripta.

(Deberet esse declinatio 15 37½. abundant igitur Armillæ in 2 minutis)¹.

| H. M. S. | Dift. occ. limbi a lucida Y | Declinatio | Luc. hum. Orion. or. |
|----------|-----------------------------|----------------------------|----------------------|
| 8 59 40 | 28 14 | fup. 21 25½ inf. 20 55½ | 35 22 |
| 9 4 30 | 28 17½ | | 34 14 |
| 9 6 30 | 28 18½ | 21 26½ 20 56½ | 33 47 |

Viceversa ab inferiori capite II

| | | | |
|---------|---------|----------------|-------|
| 9 11 0 | 48 45 0 | | |
| 9 14 10 | 49 43½ | 21 28 20 54 | 31 47 |
| 9 22 15 | 48 40 0 | | 29 47 |

9 35 15 Transiit occid. limbus (per meridianum habens altitud. super. limbi per Chalyb. 55 35½

per Volub. 55 34½

infer. per Chalyb. 55 4

per Volub. 55 3½

Dexter hum. Orionis or. 26 37

Declin. super. 21 33

inferioris 20 58½

Obseruabatur rursus pro Armillis examinandis lucida Y in declinatione 21 31
21 30½

(Fuisse illa 21 30½ B. Conueniunt igitur fere hic Armillæ)¹.

Ponatur ad horam 8 M. 35, quando (debuit esse in 90 grad. ipsius distantia a lucida Y quoad limbum occid. 28 5½ & eodem instanti pone distantiam ab infer. II 49 0½, Declinationem vero inquire & emenda ex Aldeborā. Hinc inquiratur locus (exacte.

DIE 15 DECEMBRIS, VESPERI.

Obseruatio (iuxta 90 grad. tendentis ad ☿ ☉.

Erat autem in 90 grad. H. 9 M. 55.

| H. M. S. | Dift. occ. limbi (a luc. Y | Declin. (vtriusque limbi | Dext. hum. Orion or. |
|----------|-----------------------------|---------------------------|----------------------|
| 9 28 0 | 41 12½ | fup. 24 56 24 23½ | 27 9 |
| 9 32 40 | 41 13 | 24 57½ 24 25 | 25 58 |

| | | |
|----------------------------------|--------|------------|
| 9 35 40 | 41 14½ | 25 11 |
| 9 38 25 | 41 16 | 24 59½ |
| | 24 25½ | 24 30 |
| 9 45 10 | 41 20 | 22 47 |
| 9 45 20 corr. | | |
| 9 48 30 | 41 20½ | 25 0½ |
| | 24 28½ | |
| 9 52 40 | 41 21½ | |
| Viceversa ab inferiori capite II | | |
| 9 55 45 | 34 49½ | 20 10 |
| 9 57 5 | 34 49½ | 19 50 |
| 9 59 10 | 34 48½ | 25 0 |
| | 24 29 | |
| 10 2 45 | 34 47 | Lucid. pes |
| 10 4 50 | 34 46½ | Orion. or. |
| | 25 0 | 8 29 |
| | 24 29 | |
| 10 9 0 | 34 45½ | 7 20 |
| 10 11 5 | 34 44½ | 6 50 |
| | 24 30½ | |

Pro examinandis Armillis obferuabatur hic Declin. Borealis 28 11½
cornu 28 11½

H. 10 M. 29 20" Tranſijt occid. limbus (per merid., habuitque alt. in ſup. limbo per Chalyb. 59 10 per Volub. 59 9½ in inf. limbo per Chalyb. 58 34½ per Volub. 58 35

Declin. ſuper. 25 3
inferioris 24 30½

Lucidus pes Orionis or. 2 16

Pro loco (ad diem 14 Decembris ex obſervationibus ſuperius eidem diej aſignatis.

H. 8 34' Diſt. centri (a lucida V 28 22
Eadem ab inf. cap. II 48 45
Aſumpta ſemidiam. 16
Declin. centri (21 5 B.
Declin. luc. V 21 31 B.
Declin. infer. cap. II 28 56 B.
Aſc. recta luc. V 26 8 10
inf. cap. II 110 6 30
Ang. differ. aſc. a luc. V 30 29 30
ab inf. cap. II 53 32 15
Ergo Aſc. recta (a luc. V 56 37 40
ab inf. cap. II 56 34 20
Aſc. R. (limitata 56 36 0
Reſp. Longitudo 29 5½
Latitudo 1 5½ B.

Supputatio loci (ad diem 15 Decembris.

H. 9 52½' Diſt. (a lucida V 41 38
Declin. (borea 24 45
Ang. diff. aſcenſ. 45 20 30
Ergo Aſc. R. (71 28 30
H. 9 57½' Diſt. (ab inf. cap. II 34 33
Declin. centri (B. 24 46
Ang. diff. aſcenſionalis 38 36 40
Hinc igitur Aſc. R. (71 29 50
H. 9 55½' Aſc. R. (limitata 71 29½
Declinatio B. 24 45½
Reſp. Longitudo 13 13 50 II
Latitudo 2 18 34 B.

DIE 20 DECEMBRIS.

Mane obſeruabatur (circa meridianum & 90 grad.

H. 2 33' 40" Tranſiit orient. limbus (per merid. habens altit. ſuper. cornu per Chalyb. 55 37½ per Volub. 55 34½ infer. per Chalyb. 55 3 per Volub. 55 2
Declin. ſuper. 21 29½ Cor (or.
infer. 20 57 9 18

Decl. centri (ex his alt. 21 13½
(in 90 gr. Eclipticæ H. 3 M. 42. Cor (tranſijt meridianum iuxta ſupput. H. 3 M. 10½.

| H. M. S. | Diſt. or. limbi (ab inf. cap. II | Declin. | Cor (occ |
|---------------|-----------------------------------|--------------------------------|----------------|
| 3 30 30 | 26 17½ | | 5 7 |
| 3 30 55 corr. | | | |
| 3 31 45 | 26 18 | inf. 20 47 | 5 26 |
| 3 33 35 | 26 19½ | | |
| 3 35 10 | 26 20½ | ſup. 21 18 | 5 55 |
| | | inf. 20 45½ | ambo vno pinn. |
| 3 38 25 | 26 22½ | | Can. min. occ. |
| 3 40 30 | 26 24 | 21 17 | 44 48 |
| 3 41 10 corr. | | 20 46½ | |
| 3 44 35 | 26 26 | | 45 48 |
| 3 45 10 corr. | | Hæ vltimæ diſtantiæ ſunt bonæ. | 46 7 |
| 3 45 50 | | | 46 32 |
| 3 47 20 | 26 27½ | | |
| 3 48 4 corr. | | | |
| 3 48 30 | 26 27½ | 21 14½ | 46 50 |
| | | 20 42½ | |

Viceversa a corde Ω

| | | |
|-------------------|--------------------|--------------------------------------|
| 3 52 0 | 10 49 ¹ | 47 42 |
| 3 52 ¹ | | |
| 3 53 0 | 10 48 ¹ | 21 13 ¹ 48 0 |
| | | 20 42 |
| 3 55 55 | 10 47 | 48 41 |
| 3 57 10 | 10 46 ¹ | 21 12 ¹ 49 1 ¹ |
| | | 20 41 ¹ |
| 3 59 20 | 10 45 ¹ | 49 35 |
| 4 0 55 | 10 44 ¹ | 50 0 |
| 4 2 45 | 10 44 ¹ | 50 28 |
| 4 4 10 | 10 43 ¹ | 21 11 ¹ 50 49 |
| | | 20 29 ¹ |

Fuit fatis bene serenum, sed non absque flatu vehementiori.

Hæ obseruationes ζ sunt admodum bonæ pro eius motu restituendo circa perigæum. Versabatur enim ζ prope perigæum medio loco inter ϕ & quadraturam, quo in loco obseruationes ratæ hæctenus fere considerabantur.

N. B. Transitum ζ per meridianum vide superius, vt inde tam declinationem examines quam parallaxes, si forte lubeat, erui possint.

Pro loco ζ ex præcedentibus obseruationibus (absumitur semid.
 ζ in dist. 16¹).

| | |
|--|-----------------------------|
| H. 3 48' Dist. centri ζ | |
| ab inf. cap. Π | 26 10 ¹ |
| Declin. centri ζ | 20 59 |
| Declin. infer. cap. Π | 28 56 ¹ |
| Afc. R. eiusdem | 110 6 |
| Angulus differ. afc. | 27 35 ¹ |
| Ergo Afc. R. ζ | 137 41 ¹ |
| H. 3 52 ¹ ' Dist. centri a Regulo | 11 5 ¹ |
| Declin. ζ | 20 58 B. |
| Declin. Reguli | 13 55 |
| Afc. R. Reguli | 146 40 10 |
| Angulus diff. afc. | 8 59 |
| Ergo Afc. R. ζ | 137 41 10 |
| H. 3 M. 50 Pone Afc. R. ζ | 137 41 ¹ |
| Declinationem | 20 58 ¹ |
| Resp. Longitudo | 13 49 ¹ Ω |
| Latitudo | 4 27 ¹ |

¹ Primitus scriptum erat 49¹, sed ¹ lineis inductæ.

DIE 21 DECEMBRIS.

Obseruabatur ζ post 90 gr., vbi eßet H. 5 0¹.

| H. M. | Dist. or. limb. ζ ab inf. cap. Π | Declinatio sup. inf. limbi | Spica Π orient. |
|------------------|--|-------------------------------|------------------------|
| 6 1 ¹ | 42 8 ¹ | 15 40 ¹ | 15 8 6 55 |
| 6 4 ¹ | 42 10 ¹ | | 6 12 |
| 6 7 35 | 42 12 | 15 39 | 15 7 5 32 |
| 6 0 ¹ | corr. | | |

Viceversa a Spica Π

| | | | |
|-------------------|--------------------|--------------------|------------------------|
| 6 10 ¹ | 48 35 | | 4 50 |
| 6 3 0 | corr. | | |
| 6 12 40 | 48 33 | 15 35 ¹ | 15 4 ¹ 4 12 |
| 6 15 50 | 48 32 ¹ | | 3 23 |

N. B. Erat quasi vna hora prætergreßa 90 gradum, sed Parallaxis quoad latitudinem vix vnicum minutum in eo situ variat: in longitudine vix ultra 6'. Est autem hæc obseruatio diligenter seruanda, tum propter distantiam a terra, cum fuerit in Perigæo primi Epicycli & quasi in medio loco inter ϕ & \square , propior tamen quadraturæ, & habens magnam latitudinem. Diameter ζ vix apparebat maior 33' vel ad summum 34', si habeas rationem eius particulæ quæ de ζ cornubus inter obseruandum videbatur. At si Ptolomai-cas spectemus Hypotheses, opportu-isset longe fuisse maiorem, cum & Copernicæi paulo maiorem faciant.

DIE 22 DECEMBRIS.

Mane obseruabatur ζ iuxta Peri-gæum suum & \square vltimæ pro-pedem appropinquans.
 ζ per 90 grad. H. 6 M. 30.

| | |
|--|--------------------|
| H. 4 22 ¹ ' Transiit orient. limbus ζ | |
| per merid. habens altit. | |
| per Chalyb., sup. | 44 9 |
| inf. | 43 35 |
| per Volub., sup. | 44 8 ¹ |
| inf. | 43 37 ¹ |
| Tunc fuit cor Ω occid. | 19 51 |
| Declin. ζ inf. | 9 27 |
| sup. | 10 2 |
| H. 4 M. 42 obseruabatur | 13 54 ¹ |
| cor Ω in declin. | 13 54 ¹ |

Pro Armillis corrigendis in obſeruationibus heſternis & hodiernis ☾, Fuit enim Regulus in tantum a meridiano remotus & ferme in eodem ſitu, quo dictæ ☾ obſervationes fiebant.

| H. M. S. | Diſt. or. limb. ☾ a corde ☾ | Declin. Bor. | In æquat. Spica or. |
|---------------|-----------------------------|--------------|---------------------|
| 6 13 20 | 20 37 | | |
| 6 15 20 | 20 39 | 9 33 ſup. | 1 6 |
| | | 9 0 inf. | occid. |
| 6 20 15 | 20 40½ | | 0 2 |
| 6 21 35 | 20 41 | 9 30½ | 0 25 |
| | | 8 58½ | |
| 6 27 10 | 20 41½ | | 1 48 |
| 6 28 50 | 20 42* | 9 29 | 2 14 |
| | | 8 55 | |
| 6 31 35 | 20 43* | | 2 51 |
| 6 29 20 corr. | | *bonæ | |

Viceverſa a Spica ♏

| H. M. S. | Diſt. | Decl. B. | Altit. ſup. cornu | Spica occ. |
|------------|--------|----------|-------------------|------------|
| 6 33 40 | 33 48 | 9 31 | | 3 23 |
| 6 32 corr. | | 8 55 | | |
| 6 36 50 | 33 46 | | | 4 11 |
| 6 38 5 | 33 43½ | 9 30 | | 4 28 |
| | | 8 53½ | 36 40 | |
| 6 43 5 | 33 42½ | | | 5 39 |
| 6 45 25 | 33 41½ | 9 27 | | 6 16 |
| | | 8 52 | | |

Poſtea obſervauimus velperi declinationem lucidæ ♀ in eodem ſitu & eſt inuenta vtroque pinnacidio 21 30½. Debet eſſe 21 31½.

Et inferioris capitis ♀ verſus ortum 28 57½, debet eſſe 28 57.

Armillæ itaque in ½ minuto verſus ortum augent: occid. minuunt.

DIE 23 DECEMBRIS.

Mane obſervabatur ☾ circa 90 gr. non procul a ☐. Fuit ☾ iuxta 90 H. 7 M. 45.

| H. M. S. | Diſt. or. limb. a corde ☾ | Declin. ſup. inf. | Cor ☾ occid. |
|----------|---------------------------|-------------------|--------------|
| 7 23 50 | 35 27½ | 2 46½ | |
| | | 2 13 | |
| 7 27 30 | 35 25 | | 66 54 |

| | | | |
|--------|--------|-------|------------|
| 7 31 0 | 35 32 | 2 44 | Alt. 67 50 |
| | | 2 10½ | |
| 7 34 0 | 35 32½ | | 68 33 |
| 7 31 0 | corr. | | |
| 7 37 0 | 35 34 | 2 42½ | 29 45 |
| 7 34 0 | corr. | 2 9½ | |

Viceverſa a Spica ♏

| | | | |
|---------|--------|------|-------|
| 7 41 30 | 18 56 | | 70 19 |
| 7 38 0 | corr. | | |
| 7 43 10 | 18 54½ | | |
| 7 44 45 | 18 54½ | 2 40 | |
| | | 2 7 | |
| 7 47 15 | 18 53½ | | 71 45 |

Stellæ amplius videri nequibant propter auroram & rariuſculas nubes.

Calculus apparentiarum ☾ ex ſelectis obſervationibus dierum 21, 22 & 23 Decembris iuxta 90 grad., Mane.

Die 21 H. 6 0½ Diſt. centri ☾

| | |
|---------------------|-------|
| ab inf. cap. ♀ | 41 56 |
| Declin. inf. cap. ♀ | 28 57 |
| Decl. ☾ centri | 15 22 |

N.B. Semidiameter ☾ ex declinationibus limitata adhibetur: in diſtantijs vero vbique 16 M. circa Perigæum.

Angulus differentię aſcenſ. inuentus

| | |
|-----------------------|---------|
| eſt per ſupput. | 43 8½ |
| Aſcenſio R. capitis ♀ | 110 6 |
| Ergo Aſc. R. ☾ | 153 14½ |

H. 6 3' Diſt. centri ☾ a Spica 48 51

| | |
|------------------|---------|
| Declin. Spicæ M. | 8 59 |
| Declin. centri ☾ | 15 21 |
| Aſc. R. Spicæ | 195 59½ |

Ang. differentię aſc. ſupput. 42 45 20

Ergo Aſc. R. ☾ a Spica,
fere 153 14 0

H. 6 0 Aſc. recta ☾ limitata 153 13 0

| | |
|---------------------|----------|
| Declin. ☾ B. | 15 22 0 |
| Reſp. Longitudo | 29 38½ ☾ |
| Latitudo | 3 59½ B. |
| Parallaxis | 6 add. |
| Arcus inclinationis | 5 ſubtr. |

Erit igitur vera ☾ longit. obſeruata 29 39½ ☾

Scrupulorum supputatio loci (ex
obseruationibus 21 Decemb.¹.

H. 6 M. 0 Distant. orient. limbi ab
inf. cap. II 42 11
Semidiam. (subt. 18
Ergo dist. centri 41 53
Declin. (15 22
Diff. ascenf. 43 5
Asc. R. stellæ 110 6
Asc. R. (153 11
A Spica III dist. 48 55
Ang. diff. asc. 42 49½
Asc. R. Spicæ 195 59½
Asc. R. (153 9½
Pone Asc. R. limit. 153 10
Resp. Longitudo 29 35 50

Pro parallaxi (.
Dist. (a terra 55 semid. terræ.
Dist. (a vertice 52° 30'.
Resp. Parall. alt. 38'
Latus longit. 6
Resp. 4 fere add.
Arcus latit. subt. 4 50"
Differentia 50"

Ergo vera longit. (
in proprio circulo 29° 35' 50

DIE 22 DECEMBRIS, MANE.

H. 6 29½' Dist. (a corde 5 20 27
Hæc fuit iuxta ipsum 90 gr.
Vide superius.
Declin. centri 9 13
Ang. differentię asc. 20 19½
supput.
Ergo Asc. R. (166 59½
a Regulo
H. 6 32' Dist. (a Spica 34 4
Declin. (9 12
Angulus differ. ascenf. 28 56 0
Ergo Asc. R. (a Spica 167 3 15
H. 6 30' Asc. recta limitata 167 1½
Declin. B. 9 12½
Resp. Longitudo 14 28½ III
Latitudo 3 28 10 B.

DIE 23 DECEMBRIS, MANE.

H. 7 34' Dist. (a corde 5 35 18
Declin. centri (2 26 B.

¹ E codice V.

Angulus diff. asc. supput. 33 47 30
Ergo Asc. R. (180 27 40
H. 7 38' Dist. (a Spica 19 12 0
Declinatio centri (B. 2 24 0
Angulus differ. asc. 15 30 45
Ergo Asc. R. (a Spica 180 28½
H. 7 M. 36 Asc. recta limitata 180 28 0
Declin. B. 2 25 0
Resp. Longitudo 29 27½ III
Latitudo 2 24½ B.
Arcus inclinationis subt. 7' 17".
Ergo vera (longitudo 29 20½ III

DIE 26 DECEMBRIS.

Obseruabatur (ad Solis locum vi-
sum per Armillas æquatorias, cum
esset prope 90 gradum, in hunc qui
sequitur modum. Erat autem (tunc
in ✕ ☉, quasi media inter ☐ & ☿,
nec habuit magnam latitudinem, &
in προσθαφαιρειν ferme maxima.

Debuit autem esse in 90 gr. hodie
H. 9 M. 40.

| Tempus | Distant. æquat. | Declin. | Semid. |
|---------|----------------------|-------------------------|-----------|
| | | vtriusq. cornu | |
| 9 36 50 | ☉ or. 35 49½ | sup. 16 28½ | |
| | (oc. 30 38 | inf. 16 56 | 0 37½ |
| | Differ. 66 27½ | | |
| 9 39 30 | | 16 24½ | |
| | | 16 57 | 0 32½ |
| 9 41 40 | ☉ or. 34 38½ | | |
| 9 41 15 | corr. ex vera asc. ☉ | | |
| | (oc. 31 47 | | |
| | 66 25½ | | |
| 9 44 30 | ☉ or. 33 56 | 16 20 | Alt. ☉ |
| | (oc. 32 28 | 16 54 | 6½ |
| | 66 24 | 0 34 | |
| 9 46 0 | ☉ or. 33 26½ | | Alt. inf. |
| | (oc. 32 57 | | limb. |
| | 66 23½ | | 12½ |
| 9 49 | (oc. 33 36½ | 16 22 Alt. ☉ 6½ | |
| | | 16 54 inf. limb. (| |
| | | 0 32 11½ | |
| 9 52 | ☉ or. 32 0½ | inf. 16 24 Alt. ☉ 7 0 | |
| | (oc. 34 21 | sup. 16 56 (inf. limb. | |
| | 66 21½ | 0 32 11 30 | |
| 9 54 | ☉ or. 31 33 | | |
| | (oc. 34 47 | | |
| | 66 20 | | |

Postea vt Declinatio ☉ vifa habetur, capiebatur ea hoc modo.

| H. M. | Altitudo ☉ | Declinatio |
|--------|------------|----------------|
| 10 15 | 8½ | 22 35½ vtroque |
| 10 20½ | 8½ | 22 35½ vtroque |

Pone itaque hora 9 M. 40, quando ☉ debuit esse in 90 gradu, differentiam æquatoriam orientalis limbi a ☉ 66 26 & adde pro semidiametro 15 M., accipe tunc declinationem centri ☉ 16 38½ austrinam & declinationem vifam ☉ 22 34½. Hincque ex loco vifo ☉ quo ad Afc. R. & declinationem, collige Afc. R. centri ☉ vifam & longitudinem ac latitudinem vifam, quæ per refractionem æqualem folari emendata, dat longitudinem veram ☉ & latitudinem vifam Parallaxi faltem obnoxiam, postea cum nostra Hypothesi².

Pro loco ☉ ad diem 26 Decembris.

H. 9 M. 40

Dift. centri ☉ a ☉ 66 41

Afc. recta vifa ☉ 285 54

(Subtrahitur pro refractione ☉ 4^m fere in Afc. R.³).

Ergo vera Afc. R. ☉ 219 13

Declin. centri ☉ austr. 16 38½

Resp. Longitudo 12 3½ M

Latitudo 1 1½ M.

DIE 27 DECEMBRIS.

Mane obseruabatur ☉ ante 90 gradum.

| H. M. S. | Dift. ☉ a Spica ♏ | Declin. sup./inf. | Alt. inf. limb. | Spica ♏ occid. |
|------------|-------------------|-------------------|-----------------|----------------|
| 7 14 40 | 36 42½ | | 22 0 | |
| 7 17 50 | 36 44 | 20 50½ | 12 16 | 22 43 |
| | | 21 16½ | | |
| 7 23 45 | 36 47 | | 24 11 | |
| 7 28 20 | 36 50 | 20 51 | 12 32 | 25 17 |
| 7 35 corr. | | 21 19 | | |

Spica amplius propter auroram non videbatur.

H. 8 12' 20" Tranfluit ☉

per meridianum habens altit.

superioris cornu

per Chalyb. 13 8½

per Volub. 13 5

infer. vero per Chalyb. 12 40½

per Volub. 12 39

Declin. super. 21 0

infer. 21 30

Pone declinationem vifam 21 12

veram 21 10

H. 9½ corrigebatur ad ☉ horologium ab hefterno meridie 7½ tardius iusto promotum.

Eodem die ☉ obseruabatur a ☉ exiftens iuxta 90 gradum, in quo obseruabatur H. 10 M. 2.

| H. M. S. | Dift. or. limb. ☉ | Declin. vtriusq. cornu | Alt. medietatis ☉ | Limitat. distant. |
|----------|-------------------|------------------------|-------------------|-------------------|
| 9 41 20 | | | 11 20 | |
| 9 47 55 | 49 59½ | 21 33½ | 10 0 | 50 2 |
| | sup. 21 6½ | | | |
| 9 51 20 | 50 2 | | | 50 1 |
| 9 53 25 | 50 1½ | | | 50 0 |
| 9 55 30 | 49 59 | 21 35 | 9½ | 49 59 |
| | | 21 1 | | |
| 9 58 18 | 49 58½ | 21 38 | 9½ | 49 58 |
| | | 21 14 | | |
| 10 0 38 | 49 56 | 21 45 | | 49 56 |
| | | 21 13 | | |
| 10 3 30 | 49 55 | | | 49 55 |
| 10 5 30 | 49 53 | | | 49 53 |
| 10 7 20 | 49 50 | | | 49 51 |
| 10 10 15 | | 21 49 | | ☉ orient. |
| | | 21 11 | | 27 37 |

Pone hora 10 M. 2, cum ☉ esset in 90 gradu, eius distant. per limb. or. a ☉ p. 49 M. 55 & adde 15' pro semidiametro ☉, vt fit vera distantia 50 10. Declinatio ☉ assumatur 21 25 & Altit. ☉ 9 p. & declinatio ☉ vifa 22 27, altit. 7½.

¹ Forſitan 33, numerus correctus eſt.

² Nihil amplius in codice.

³ In margine adſcriptum.

DIE 28 DECEMBRIS.

Mane obseruabatur ☾ 2½ H. ante
90 vt sequitur.

| H. M. S. | Diff. or. limbi a Spica ♄ | Decl. vtriusq. cornu | Alt. infer. limbi | Spica ♄ occid. |
|--------------|---------------------------------|----------------------------|-------------------------|----------------------|
| 7 36 40 | 49 50½ | 24 31½ | 6 34 | |
| | infer. 25 | 0½ | | |
| 7 40 15 | 49 53 | 24 31½ | 6 52 | 23 20 |
| | | 25 0½ | | |
| 7 44 0 | 49 55 | 24 33½ | 7 5 | 24 15 |
| | | 25 1 | | |
| 7 47 30 | 49 57 | 24 34 | 7 20 | 25 9 |
| | | 25 3 | | |
| 7 56 35 | 49 59 | 24 35½ | 7 45 | 27 20 |
| | | 25 5 | | |
| 18 1 30 | 50 1 | 24 37½ | 7 57 | 28 22 |
| 17 45½ corr. | | 25 7 | | |

Supputatio φαινομένων ☾ in longitu-
dine & latitudine ex obseruationibus
habitis die 27 & 28 Decembris
(reliqua vide iuxta obseruati-
ones singuli diej).

Die 27 H. 10 M. 2 A. M., ☾ existente in
90 gradu.

| | |
|-------------------------|-----------|
| Distantia centri ☾ a ☉ | 50 10 |
| Declinatio centri ☾ | 21 25 M. |
| Declin. ☉ vifa | 22 27 |
| Afc. R. ☉ vifa | 287 3 |
| Angulus differ. ascenf. | 54 22 45 |
| Ergo Afc. R. ☾ | 232 40 15 |
| Resp. Longitudo | 25 36 11 |
| Latitudo | 2 15½ A. |

Eodem die H. 7 M. 35 A. M., H. 2 M. 27
ante 90^{um} g.

| | |
|----------------------|-----------|
| Diff. ☾ a Spica ♄ | 36 34 |
| Declin. centri ☾ | 21 5 |
| Declin. Spicæ | 8 59 |
| Angulus differ. asc. | 35 51½ |
| Afc. R. Spicæ | 195 59½ |
| Ergo Afc. R. ☾ | 231 50 25 |
| Resp. vifa Longitudo | 24 46 11 |
| Latitudo | 2 7½ Aur. |

Die 28, cum ☾ eſſet iuxta 90 gradum
H. 10 M. 40.

| | |
|---------------------------|----------------------|
| H. 7 M. 45 Diff. centri ☾ | |
| a Spica | 49 45 |
| Declin. centri ☾ | 24 51 |
| Angulus differ. asc. | 49 38 |
| Ergo Afc. R. ☾ | 245 37½ |
| Resp. Longitudo | 7 58½ x [†] |
| Latitudo | 3 11½ M. |

Proximæ binæ apparentiæ ☾ con-
ducunt ad motum ☾ diurnum cogno-
ſcendum, ſubducta ſaltem a poſteri-
ori Parallaxi longitudinis M. 3½ prio-
rem exſuperante: ita vt ſit Longitudo
7 55, & propterea motus diurnus hoc
modo inueſtigatus.

| | |
|----------|---------------------|
| D. H. M. | |
| 27 7 35 | 24 46 11 |
| 28 7 45 | 7 55 x [†] |
| 1 0 10 | 13 9 Differentia. |

| | |
|---------------------------|-------|
| Erit itaque motus diurnus | |
| iuxta obseruationem | 13 3 |
| iuxta Copernicum | 13 12 |
| Alphonſinum | 13 19 |

Collectio φαινομένων lunarium obſervatorum a 10 die Decembris in 27¹.
Longitudo Lunæ.

| Dies H. M. | Reſpectu Eclipticæ | Reſp. propriæ orbitæ | Ex Magino | Ex Cypriano |
|---------------|--------------------|----------------------|-----------|-------------|
| 9 3 34 | 24 38½ ☾ | 24 31½ ☾ | | |
| 10 4 0 | 6 47½ ☾ | 6 41½ ☾ | 7 4 ☾ | 7 30 ☾ |
| 11 5 5½ | 19 20½ ☾ | 19 16½ ☾ | 19 56 ☾ | 20 35 ☾ |
| 14 8 34 | 29 5½ ☾ | 29 10½ ☾ | 29 49 ☾ | 0 2 II |
| 15 9 55½ | 13 13½ II | 13 20 35 II | 13 42 II | 13 53 II |
| 20 3 50 A. M. | 13 49½ ☾ | 13 48 ☾ | 12 49 ☾ | 12 45 ☾ |
| 21 6 0 - - | 29 44½ ☾ | 29 39½ ☾ | 28 41 ☾ | 29 0 ☾ |
| 22 6 30 - - | 14 28½ ☾ | 14 22 ☾ | 13 35 ☾ | 14 14 ☾ |
| 23 7 36 - - | 29 27½ ☾ | 29 20½ ☾ | 28 51 ☾ | 29 27 ☾ |
| 26 9 40 - - | 12 3½ ☾ | 12 4 25 ☾ | 12 38 ☾ | 12 14 ☾ |
| 27 10 2 - - | 25 26 ☾ | 25 30½ ☾ | 26 23 ☾ | 25 46 ☾ |

¹ Dies 9 poſtea additus eſt.

N. B. In hac Calculi Copernicæi & Alphonsinorum cum Phænomenis ☿ obseruatis collatione, neque temporis æquationis neque reductionis ob dißimiles meridianos ratio habita est: quod hæc perpetuo per similes sibi maneat, illa vero in continua collatione intra tam breue tempus non multum sensibilibiter alteretur. Satis itaque est cognoscere: tum ex motu diurno ☿, tum eius in diuerso Hypotheseos situ constitutione, neutram artificum Hypothesin apparentijs cœlestibus satisfacere aut eas saluare posse. Quod ex omnibus etiam antea habitis obseruationibus satis superque perfectum est.

OBSERUATIONES SATURNI.

DIE 14 JANUARIJ.

Obseruabatur ☿ ἀκρονύχιος non procul a ☉ ☿.

| | Dist. ☿ ab infer. cap. ♀ | Decl. ☿ | Can. min. or in æquat. |
|----------|-----------------------------------|-----------------------------------|------------------------------|
| 10 12 40 | 20 54 | | 7 49 |
| 10 18 | 20 54 ⁵ / ₆ | | |
| 10 21 30 | 20 55 | | 5 29 |
| 10 26 | 20 55 ¹ / ₂ | | |
| 10 29 30 | 20 55 | 19 13 ¹ / ₂ | |
| | | 19 13 ³ / ₄ | |

| | Dist. ☿ a Cane min. | Transibat Can. min. Mer. | Can. min. occ. |
|----------|----------------------------------|---------------------------------------|-------------------|
| 10 42 30 | 24 7 ⁵ / ₆ | | 2 44 |
| 10 47 10 | 24 8 | | |
| 10 54 40 | 24 7 ⁵ / ₆ | 19 13 ¹ / ₂ vno | 4 46 |

Viceversa a corde ☿

| | | |
|----------|-----------------------------------|------|
| 11 10 | 16 26 fere | |
| 11 14 20 | 16 25 ⁵ / ₆ | 9 39 |
| 11 20 20 | 16 26 ⁵ / ₆ | 10 9 |
| 11 32 | 16 25 ⁵ / ₆ | |

Viceversa a luc. pede ♀

| | | |
|----------|---|--|
| 11 39 20 | 35 4 ¹ / ₆ | |
| 11 42 40 | 35 4 ³ / ₆ | |
| 11 51 30 | 35 4 ⁵ / ₆ | |
| 12 2 50 | Transijt ☿ per meridianum habens Altit. per Q. Volub. 53 16 ⁵ / ₆ Decl. per Armill. 19 13 ¹ / ₂ | |

Orientalissima in capite Hydræ

| | Dist. ☿ a Cauda ☿ | Can. min. occ. |
|----------|-----------------------------------|-------------------|
| 12 18 10 | 39 37 ¹ / ₂ | 25 13 |
| 12 20 40 | 39 37 | 25 52 |
| 12 22 10 | 39 37 | 26 7 |

Pro loco ☿ ex præcedentibus
obseruationibus.

H. 10 30' Dist. ☿ ab inf.

| | |
|---------------------------------|-----------------------------------|
| cap. ♀ | 20 55 0 |
| Declin. ☿ | 19 11 ¹ / ₂ |
| Declin. cap. ♀ | 28 57 ¹ / ₂ |
| Ang. differ. ascenf. supput. | 20 19 |

| | |
|---------------------|-----------|
| Afc. R. inf. cap. ♀ | 110 5 30 |
| Ergo Afc. R. ☿ | 130 24 30 |

| | |
|---------------------------|-----------------------------------|
| H. 11 20' Dist. a corde ☿ | 16 26 |
| Declin. cordis ☿ | 13 56 ¹ / ₂ |
| Ang. differ. ascenf. | 16 15 ¹ / ₂ |
| Ergo Afc. R. ☿ | 130 23 55 |
| Nam Afc. R. cordiseft | 146 39 25 |

| | |
|---|----------|
| H. 11 M. 20 Ponē Ascenf. rectam ☿ reductam ac limit. | 130 24 5 |
| Declinationem B. | 19 11 30 |

| | |
|-----------------|------------|
| Resp. Longitudo | 7 45 0 ☿ |
| Latitudo | 0 49 20 B. |

Supputatio motus diurni ☿ ex Tabulis Prutenicis præsupposito restituto motu Apogæi ☿ & Longitudinis.

| | | |
|----------|---------------|------------------------|
| Januarij | 14 7° 52' 35" | Differentia 25' 16" |
|----------|---------------|------------------------|

| | | |
|--------|------------|-------|
| Die ad | 19 7 27 19 | 25 32 |
|--------|------------|-------|

| | |
|-------|-----------|
| M. N. | 24 7 1 47 |
|-------|-----------|

Ex his elicitor motus diurnus 5' 4" 40''' præcise inter diem ex quo obseruationes in ☿ sunt factæ & eius ☿ cum ☉^{le}.

Calculus pro ☿ ☿ cum Simplici ☉^{lis} nostro.

| | | |
|---|---------|----|
| Noſter ſimplex ☉ ^{is} ad tempus præſcriptum | 3 53 53 | 33 |
| Locus ☿ obſeruatus | 7 45 0 | Ω |
| Differentia | 3 51 7 | |

Aggregatum motus diurni ☉ & ☿ 64'
13" 0"', reſp. ad differentiam D. 3 H.
14 M. 22 add.

| | | |
|---|--------|-------|
| Ideoque ☿ ☿ cum ſimplici ☉ ^{is} facta eſt Menſe | D. | H. M. |
| Januario | 18 | 1 42 |
| ☿ exiſtente in | 7 26½ | Ω |
| Latitudo | 0 49½ | B. |
| Calculus } Longitudo | 7 32 | Ω |
| Copernici } Latitudo | 0 6 | M. |
| Calculus } Longitudo | 10 4 | Ω |
| Alphonſin. } Latitudo | 0 48 | B. |
| Ex Tabu- } Simplex Long. 1 ^s 35° 35' 13" | | |
| lis Prut. } Apogæum ☿ | 4 1 14 | 37 |
| Noſtra præceſſio | | |
| Æquinoctij | 28 10 | 0 |

DIE 25 JANUARIJ.

Veſperi obſeruabatur ☿ paululum
meridianum tranſuectus, & etiam op-
poſitum ☉ nonnihil prætergreſſus.

| H. M. S. | Diſt. ☿ ab inf. cap. II | Declin. ☿ B. | Luc. hum. Orion. occ. |
|-----------------------------|----------------------------|-----------------|--------------------------|
| 12 27 30 | 19 3½ | 19 26½ | 54 42 |
| mediocriſ inter | 19 27 | | |
| nubes. <i>Dubia obſerv.</i> | | | |

DIE 26 JANUARIJ.

Veſperi denuo obſeruabatur ☿.

| H. M. S. | Diſt. ☿ ab inf. cap. II | Declin. ☿ B. | Luc. hum. Orion. or. |
|----------|----------------------------|-----------------|-------------------------|
| 8 7 40 | 19 57 | 19 29 | 10 13 |
| | | 19 29½ | |
| 8 16 30 | 19 58½ | melior | 8 0 |
| 8 30 | 19 57½ | 19 29½ vno | |
| 8 31 20 | 19 57½ | | 4 23 |
| | Diſt. ☿ a Cane min. | | |
| 8 40 | 23 26½ | | 2 39 |
| 8 42 10 | 23 27 | | |
| 8 44 50 | 23 26½ | | 1 15 |
| 8 47 50 | 23 27½ * | 19 29½ vno | |

* ambigua propter nubes.

Tranſiit luc. hum. Orionis per me-
rid. deficiente ſemigradu.

*N. B. Fecerunt duæ prænominatæ
fixæ, inferius caput II & Canis minor
cum ☿ Triangulum quali iſofceles,
vnde per Triangularem demonſtra-
tionem inquirendus locus erit.*

H. 11 M. 53 Tranſiit ☿
meridianum habuitque Alt.
per Chalyb. 53 32½
per Volub. 53 34½
Declin. ☿ 19 29½ vtroque.

*Cum tranſiret fuit Lucidus hume-
rus Orionis occid. 46 8. Horologio
non fidas, quia nimis inæqualiter
hac veſpera mouebatur.*

| H. M. | Diſt. ☿ a luc. pede II | Declin. ☿ | Luc. hum. Orion. occid. |
|-------|---------------------------|---------------|----------------------------|
| 12 10 | 34 8 | | 50 20 |
| 12 12 | 34 7½ | | |
| 12 15 | 34 7½ | | |
| | Diſt. a Cane min. | | |
| 12 19 | 23 27½ | 19 28 vtroque | |
| 12 24 | 23 27½ | | 54 5 |
| | ☿ ab infer. cap. II | | |
| 12 35 | 19 59 | | 56 42 |
| 12 38 | 19 59 | | |
| 12 41 | 19 58½ | 19 28 vtroque | |

DIE 27 JANUARIJ.

Tranſibat oculus ☿

per meridianum habens Altit.
per Chalyb. 49 42½
per Volub. 49 42½
Declinationem 15 38
15 38½

Ad hunc tranſitum correctum eſt
horologium ad Hor. 7 M. 12½. Pro ex-
aminatione instrumentorum quæ ho-
die ſunt ad amuſim correctæ.

| H. M. S. | Diſt. ☿ a pede II | Decl. ☿ | Luc. hum. Orion. occ. |
|----------|----------------------|---------------|--------------------------|
| 9 10 | 34 3½ | 19 31 | |
| | | 19 30 | |
| 9 11 | 34 4 | | 13 39 |
| 9 17 40 | 34 3½ | | |
| 9 26 10 | 34 4 | | |
| | Diſt. ☿ a Cane min. | | |
| 9 29½ | 23 24½ | 19 30 | |
| | | 19 31 ferme | |
| 9 36 | 23 24 | | 19 39 |
| 9 41½ | 23 24½ | 19 30 vtroque | |

9 51 *Tranfuit fuperius caput II*
per meridianum & habuit Altit.
per Chalyb. 66 46½
per Volub. 66 46½

| H. M. | Diff. h ab infer. cap. II | Declin. h | Luc. hum. Orion. occ. |
|--------|------------------------------|--------------|--------------------------|
| 10 1 | 19 54½ | | |
| 10 15½ | 19 54½ | | 30 29 |
| 10 19½ | 19 54½ | | 31 35 |

Diff. a corde Ω

| | | | |
|--------|------------------------------|---------------|--|
| 10 25 | 17 28½ | | |
| 10 29 | 17 28½ | | |
| 10 34½ | 17 28½ bona quia extra nubes | 35 48 | |
| 10 38 | 17 28½ | 19 30 vtroque | |

Diff. a luc. pede II

| | | | |
|-------|-------|--|------|
| 10 47 | 34 3 | | 39 8 |
| 10 49 | 34 2½ | | |
| 11 5 | 34 2½ | | |

11 11' 40" *Tranfuit h*
meridianum habens altit.
per Volub. 53 34½ | *inter*
per Chalyb. 53 34½ | *nubes*

Declin. h 19 30 vtroque pinnac.

Luc. humerus Orion. occ. 46 42

Diff. h a luc.
pede II

| | | | |
|-------|-------|--|------|
| 11 32 | 34 2½ | | |
| 11 35 | 34 2½ | | 52 0 |

Diff. h a corde Ω

| | | | |
|--------|--------|---|-------|
| 11 38 | 17 28½ | } Mediocres fed tamen inter nubes | |
| 11 42½ | 17 28½ | | |
| 11 49 | 17 28½ | | 19 30 |

Calculus pro locis hⁿⁱ indagandis ex
 præcedentibus obferuationibus
 die 26 & 27 Jan. factis.

I. Die 26 Januarij.

| | | | |
|-------|--------------------------------------|-----------|--|
| H. 8½ | Diff. h ab infer. cap. II | 19 58½ | |
| | Declin. h B. | 19 27 0 | |
| | Angulus differ. asc. ^{alis} | | |
| | supput. | 19 18½ | |
| | Ergo Asc. R. h | 129 24 15 | |
| H. 8½ | Diff. h a Cane min. | 23 27 | |
| | Declin. Canis min. | 6 13 B. | |
| | Asc. R. Canis min. | 109 31 20 | |
| | Angulus differ. asc. | 19 54 40 | |
| | Ergo Asc. R. h | 129 26 0 | |

Pone H. 8½ Ascenf. Rectam h limitatam
 adhærendo propius Capiti II

| | | |
|--|------------------|-----------|
| | Declinationem B. | 19 27 |
| | Resp. Longitudo | 6 47½ Ω |
| | Latitudo | 0 50 5 B. |

Die fequente ex obferuationibus
 exquisitioribus.

| | | |
|--------|-------------------------|-----------|
| H. 10½ | Diff. h ab inf. cap. II | 19 54½ |
| | Declin. h | 19 28 45 |
| | Angulus differ. asc. | 19 14 45 |
| | Ergo Asc. R. h | 129 20 15 |
| H. 10½ | Diff. h a corde Ω | 17 28½ |
| | Ang. diff. asc. | 17 19 20 |
| | Ergo Asc. R. h | 129 20 0 |

| | | |
|---------|-------------------|-----------|
| H. 11.0 | Diff. h | |
| | a luc. pede II | 34 4 |
| | Declin. pedis II | 16 40 |
| | Asc. R. huius | 93 32 0 |
| | Ang. differ. asc. | 35 46 30 |
| | Ergo Asc. R. h | 129 18 30 |

Pone ex his ad H. 10½

| | | |
|--|---------------------|------------|
| | Asc. R. h limitatam | 129 19 50 |
| | Declinationem B. | 19 28 45 |
| | Resp. Longitudo | 6 42 0 Ω |
| | Latitudo | 0 50 32 B. |

Inquifitio motus diurni h circa φ
 ex collatione obferuationum
 14 & 27 Januarij.

Die 14 Jan. H. 11½ Longit. h 7 45 0 Ω

Die 27 Jan. H. 10½ 6 42 0

Differ. temp. D. 12 H. 23,

Differ. motus 1° 3'

Resp. ex his motus diurnus 4' 52" 0'''

Ex his colligitur motum diurnum h
 circa φ cum Sole, vel faltem inter 14
 Jan. & 18, diem videlicet ipfum φ fu-
 iſſe ad ſummum M. 5' 0'', licet Tabulæ
 Prutenicæ (reformato Perigæo h) eun-
 dem ponunt 5' 4½''. Inueſtigato itaque
 denuo iuxta hunc motum φ h cum ☉
 termino tum temporis reſpectu tum
 motus, incidit illa in 18 diem Ianuarij
 H. 1 M. 47, Longit. h in 7 27 0 Ω fere.

DIE 14 FEBRUARIJ, VESPERI.

| H. M. S. | Diff. h a luc. pede II | Declin. h | Alt. h | |
|-----------|----------------------------|--------------|--------------------------|--|
| 7 17½ | 32 44 | | | |
| 7 24 50 | 32 44½ | 19 51 | 44 0 | |
| | | 19 51½ | | |
| 7 38 50 | 22 44 | | | |
| | Viceversa a corde δ | | | |
| 7 57 | 18 53½ | inter nubes | Luc. hum. Orion. occ. | |
| 7 58½ | 18 51½ | melior | 15 35 | |
| 8 4 20 | 18 52½ | 19 51 | 48 30 | |
| | | 19 51½ | | |
| 9 30 | 18 51½ | | | |
| 9 32 10 | 18 51 | 25" bona | 42 7 | |
| 9 40' 50" | Tranſiuit h per | | 44 43 | |
| | meridianum habens altit. | | | |
| | per Chalyb. | 53 45 | 0 | |
| | per Volub. | 53 45 | 0 | |

DIE 19 FEBRUARIJ, VESPERI.

| | | | | |
|------------|--------------------------------|--------|---------|---------|
| H. 9 M. 29 | Tranſiuit h | | | |
| | per meridianum habens Altit. | | | |
| | per Q. Volub. | 53 58½ | | |
| | per Q. Chalyb. | 53 59 | | |
| | Erat tunc cor δ orient. | 18 35 | | |
| 9 35 20 | Diff. h a | 32 32½ | Decl. h | |
| 9 42 10 | lucido | 32 32½ | bis | 19 54 |
| 9 48½ | pede II | 32 32 | fere | vtroque |

Splendor \llcorner nonnihil obſeruatio-
nibus hiſce obfuit.

Viceversa

| | | | |
|----------|----------------|-------|-----|
| 10 4 | Diff. h | 19 7½ | bis |
| 10 7 | a | 19 7 | |
| 10 25 40 | corde δ | 19 7½ | |

Hæ obſervationes meliores ſunt,
quod a ſplendore \llcorner Cor δ longius
abfuit.

DIE 28 FEBRUARIJ, VESPERI.

| | | | |
|---------|------------------------------|-------|----------------------|
| 8 59 35 | Diff. h a | 32 4 | Cor δ orient. |
| 9 6 40 | lucido | 32 4½ | 20 24 |
| 9 . . . | pede II | 32 4 | |
| 9 13 | Tranſiuit h | | 19 10 |
| | per meridianum habens altit. | | |
| | per Chalyb. | 54 5½ | |
| | per Volub. | 54 6 | |
| | Declinatio h | 20 2 | |
| | | 20 1½ | |

Viceversa.

| | | | |
|---------|----------------|--------|-------|
| 9 19 55 | Diff. h | 19 32 | Erat |
| 9 22 35 | a | 19 32½ | bene |
| 9 27 5 | corde δ | 19 31½ | fudum |

DIE 9 MARTIJ, VESPERI.

| | | | |
|---------|----------------------------|--------|-------|
| 7 49 20 | Diff. h | | |
| | a lucido pede II | 31 44 | |
| | Cor δ ἐν πλάτει or. | 27 20 | |
| 7 59 | Eadem diſt. repetita | 31 44½ | |
| | Declin. h | 20 7 | |
| | | 20 6 | dubia |

DIE 1 MAIJ, VESPERI.

| | | | |
|----------|--------------------------|--------|----------|
| 10 9 10 | Diff. h ab inf. cap. II | 18 25½ | |
| | Declin. h | 19 51 | Altit. h |
| | | 19 52 | 24 20 |
| | Spica III occid. | | 6 33 |
| 10 19 10 | Eadem diſt. repetita | 18 26½ | |
| | Viceversa | | |
| 10 33 | Diff. h a corde δ | 18 58½ | |
| | Altit. h | 21 0 | |
| | Spica III occid. | | 12 50 |
| 10 39 10 | Eadem diſt. | 18 57½ | melior. |

DIE 9 OCTOBRIS, MANE.

| Diff. h a cauda δ | Decl. h | Alt. h | Canis min. occid. |
|-----------------------------|------------|-----------|----------------------|
| 24 38½ | | | 1 37 |
| 24 39½ | | | 2 13 |

Non bene hic obſeruabatur a cau-
da δ propter auroram.

Viceversa a cane min.

| | | | |
|------------|--------|-------|------|
| 37 20½ | 13 56½ | 40 34 | 3 3 |
| | 13 55½ | | |
| 37 21 | | | 4 41 |
| 37 20 fere | | | 5 13 |
| 37 20½ | | | 5 42 |

DIE 19 OCTOBRIS, MANE.

Ante obſervationem eclipſeos \llcorner
capiebatur h \square \odot appropinquans
in modum ſequentem.

Horologium correctum.

| H. M. S. | Diff. h a Cane min. | Declin. | Altit. h | Canis maior or. occ. |
|----------|-------------------------------|---------|-------------|----------------------------|
| 4 9 40 | 36 59 | | | 1 3 |
| | | | | |
| 4 12 40 | 36 59 | 14 50½ | 34 32 | 0 20 |
| | Viceversa | | | |
| | Diff. h a luc. dorſi δ | | | |
| 4 21 30 | 17 45½ | | | 2 41 |

DIE 28 OCTOBRIS, MANE.

Obseruabatur η circa \square^{tum} \odot^{lis} .

| H. M. S. | Dist. η a Cane minore | Declin. η | Cor \odot orient. |
|----------|-------------------------------|--|------------------------|
| 4 59 | 37 26 $\frac{1}{2}$ | | 22 57 |
| 5 1 25 | 37 27 $\frac{1}{2}$ | | 22 18 |
| 5 3 40 | 37 27 $\frac{1}{2}$ | 14 40 $\frac{1}{2}$ 14 40 $\frac{1}{2}$ | 21 45 |

Viceversa a cauda \odot

| | | | |
|---------|---------------------|------------------------------|-------|
| 5 16 10 | 24 33 fere | | 18 27 |
| 5 18 45 | 24 32 $\frac{1}{2}$ | | 17 47 |
| 5 20 45 | 24 33 | 14 40 $\frac{1}{2}$ 14 41 | |

5 24 Eadem repetita 14 41

N.B. η nondum ad \odot cum corde \odot peruenerat, quamuis calculus Prutenicus id exigeret, vt iam ante dies præterierit illa \odot .

Videbatur η in linea recta, quæ ducitur a Corde \odot in infimam trium ceruicis, nisi quod hanc lineam non-nihil versus ortum prætergressus fuerit, ad quantitatem diametri sui corporis, id est 3 circiter minutis. Fuit autem borealior quasi ad diametrum lunarem seu ad summum 45', ita vt stella η corde \odot foret septentrionalior, maioremque habuit latitudinem, quamuis Canones tantam non exhibeant.

| | | |
|---------|--|--|
| 6 27 16 | Transiit η Merid. habens Altitud. per Chalyb. | 48 46 $\frac{3}{4}$ 48 44 $\frac{3}{4}$ |
|---------|--|--|

| | | |
|---------|---|--|
| 6 27 25 | Transiit Cor \odot Merid. habens Altitud. per Chalyb. per Volub. | 48 0 $\frac{1}{2}$ 48 0 $\frac{1}{2}$ |
|---------|---|--|

Fidendum potius Volubili & ponenda differentia declinationis vtriusque 44' & differentia Asc. rectæ 2', quibus η minus habet quam Cor \odot .

Inuestigatio loci η ex collatione cum Corde \odot in transitu per meridianum.

| | | |
|--------------------|---|-----------|
| H. 6 $\frac{1}{2}$ | η citius transibat Merid. corde \odot 2 $\frac{1}{2}$ ' in Asc. R. | |
| | Ascensio recta cordis \odot | 146 40 0 |
| | Ergo Ascensio R. η | 146 37 30 |

Declin. η ponenda 14 40 0Resp. Longitudo 23 55 \odot

Latitudo 1 8 B.

Si posueris circa hoc tempus η remotum fuisse 3' ad ortum a linea recta ducta a corde \odot in infimam ceruicis, vt superius annotatum habes, facta experimentatione deinde in Globo magno, conuenit hic situs η cum superiori exacte quoad Latitudinem, posita scilicet distantia inter Cor \odot & η 45', in Longitudine vero vix vno minuto anterior est.

Resp. Longitudo 23 54 \odot vel paulo plus
Latitudo 1 8 B.

DIE 29 OCTOBRIS, VESPERI.

| H. M. S. | Dist. η a Cane min. | Decl. η | Canis minor occid. |
|----------|-----------------------------|---------------------|-----------------------|
| 4 46 15 | 37 29 $\frac{1}{2}$ | | |
| 4 53 5 | 37 30 $\frac{1}{2}$ | | 8 15 |
| 4 56 30 | 37 30 | 14 42 | 9 4 |
| | | 14 41 $\frac{1}{2}$ | inter nubes. |

Postea nubes impediuerunt.

DIE 27 NOUEMBRIS, MANE.

Obseruabatur η stationarius.

| H. M. S. | Dist. η ab infer. cap. II | Declin. η | Cor \odot occ. |
|----------|-----------------------------------|------------------------------|---------------------|
| 7 8 20 | 37 23 | 14 31 $\frac{1}{2}$ 14 31 | 32 47 |
| 7 13 40 | 37 23 | | 34 10 |
| 7 15 55 | 37 23 | | 34 45 |

DIE 29 NOUEMBRIS, MANE.

Hora 2 $\frac{1}{2}$ post mediam noctem vidi quod η stationarius & incipiens regredi steterit in linea recta ducta a Corde \odot in eam, quæ est informis & lucidior infra caudam Vrfæ maioris, quæ videlicet quasi in vno ductu est inter caudam Vrfæ maioris & caudam \odot . Distabat vero η ab ipso Regulo non multum ultra gradum versus septentrionem & ortum. Sed exactiorem obseruationem accipe per instrumenta.

Obferuetur difcrimen tranfitus γ & Reguli per Meridiem exacte vnacum vtriusque altitudine vtroque Quadrante, & notetur interuallum temporis tam per Horologium prius diligenter correctum quam per æquatorem.

Attendatur diligenter ad γ ante Auroram, si forte videri & obferuari queat.

Mane obferuabatur γ in ftatione primo.

| H. M. S. | Dift. γ a Cane min. | Declin. γ | Cor Ω or. |
|----------|----------------------------|---------------------|------------------|
| 4 12 0 | 38 8 $\frac{1}{2}$ | | 7 38 |
| 4 16 25 | 38 9 | 14 32 $\frac{1}{2}$ | 6 24 |
| | | 14 33 | |
| 4 19 0 | 38 9 | | 5 39 |

Viciverfa a corde Ω

| | | | |
|---------|--------------------------------|---------------------|---------------------|
| 4 26 10 | 23 49 $\frac{1}{2}$ | | 3 51 |
| 4 28 5 | 23 50 $\frac{1}{2}$ | | |
| 4 40 35 | Cor Ω tranfuit | 0 2 | |
| | per meridianum habens Altitud. | | |
| | per Chalyb. | 48 0 $\frac{1}{2}$ | |
| | per Volub. | 48 0 $\frac{1}{2}$ | |
| 4 43 25 | Tranfuit γ | | |
| | Merid. habens Altit. | | |
| | per Chalyb. | 48 38 | Cor Ω occid. |
| | per Volub. | 48 37 $\frac{1}{2}$ | 0 42 $\frac{1}{2}$ |

Differ. in tempore

0 2 50

facit 42' 30"

adde 30

facit 43 0

Differ. in gr.

44' 40"

Horologium interea iuflo tardius mouebatur $\frac{1}{2}$ m^{to} ex proportione reliquarum, poterat igitur eſſe differentia tranfituum. Accipe medium vtriusque 43' 45", Diff. decl. M. 38.

| H. M. S. | Dift. γ a cauda Ω | Cor Ω occ. |
|----------|---------------------------------|-------------------|
| 4 52 0 | 23 50 $\frac{1}{2}$ | 3 3 |
| 4 54 10 | 23 50 | |

Ad occafum denuo

| | Dift. γ ab inf. Cap. II | Declin. γ | |
|---------|--------------------------------|---------------------|------|
| 4 57 30 | 37 19 $\frac{1}{2}$ | | 5 37 |
| 4 59 30 | 37 20 $\frac{1}{2}$ | 14 32 $\frac{1}{2}$ | |
| | | vtroque pinnac. | |
| 5 4 50 | 37 20 $\frac{1}{2}$ | | |

Fuit hoc mane apprise ſerenum & fatiſ tranquilluſ aër.

Hinc patet quod γ a die 27, quo diſtabat ab eadem ſtella 37 23 per biduum retroceſſiſſe minutis tribus. Fuit igitur prius ſtationariuſ, quod non concordat cum tabulis.

Pro loco γ

| | |
|--------------------|--|
| H. 4 $\frac{1}{2}$ | Ex tranſitu γ per Meridianum, collatione cum Corde Ω facta, inuenitur eiuf Aſc. Recta 147 25 |
| | Declinatio 14 33 $\frac{1}{2}$ B. |
| | Reſp. Longitudo 24 50 $\frac{1}{2}$ Ω |
| | Latitudo 1 16 $\frac{1}{2}$ B. |

DIE 4 DECEMBRIS, MANE.

| | | |
|------------|---|---------------------------|
| H. 4 M. 25 | Cor Ω tranſit Meridianum habens Alt. | |
| | per Chalyb. | 48 0 $\frac{1}{2}$ |
| | per Volub. | 48 0 $\frac{1}{2}$ |
| | Cor Ω in æquatore orient. | 0 5 |
| 4 28 15 | Tranfuit γ | |
| | Merid. habens Alt. | |
| | per Chal. | 48 39 $\frac{1}{2}$ |
| | per Volub. | 48 39 $\frac{1}{2}$ |
| | Dift. γ ab infer. cap. II | Declin. γ |
| 4 38 15 | 37 16 $\frac{1}{2}$ | |
| 4 40 45 | 37 14 $\frac{1}{2}$ | 14 36 inter |
| | | 14 35 $\frac{1}{2}$ nubes |
| 4 43 10 | 37 17 | |
| 4 47 25 | 37 16 | |

Canis min. occ.

Viciverfa a cauda Ω

| | | | |
|---------|---------------------|---------------------|-------|
| 4 54 20 | 23 52 $\frac{1}{2}$ | | 44 39 |
| 4 57 10 | 23 52 $\frac{1}{2}$ | 14 35 $\frac{1}{2}$ | |
| | | 14 35 $\frac{1}{2}$ | |
| 5 5 20 | 23 53 $\frac{1}{2}$ | | 47 22 |
| 5 9 20 | 23 52 $\frac{1}{2}$ | | 48 29 |

In his poſtremis obſeruacionibus a cauda Ω fuit fatiſ ſerenum.

DIE 10 DECEMBRIS, MANE.

| | | |
|---------------------------|-----------------------------|---------------------|
| H. 6 44' 0" | γ in æquatore orient | 57 7 $\frac{1}{2}$ |
| 6 44 23 | Cor Ω in æquatore | 57 48 $\frac{1}{2}$ |
| 7 47 corr.) | Declin. γ | 14 38 |
| | | 14 37 $\frac{1}{2}$ |
| 6 49 45 | γ in æquatore | 38 40 |
| 6 50 25 | Cor Ω in æquatore | 39 25 $\frac{1}{2}$ |
| 7 53 $\frac{1}{2}$ corr.) | Spica Π occ. | 10 14 |

| | | | |
|--------------------------|------------------|------------------|----|
| Prima obseruatio η | 57 | 7 | 40 |
| Cor Ω | 57 | 48 | 45 |
| Differ. in æquat. | 41 | 5 | |
| Differ. in tempore facit | 5 | 45 | |
| Dift. æquatoria | 35 | 20 | |
| Altera η in æquat. | 38 | 40 | |
| Cor Ω | 39 | 25 $\frac{1}{2}$ | |
| | 0 | 45 $\frac{1}{2}$ | |
| Tempus subtr. | 10 | | |
| | 35 $\frac{1}{2}$ | | |

H. 7. 50 *Pone itaque differentiam æquatoriam η & Cordis 0 35 $\frac{1}{2}$ Declinationem 14 38 hincque collige locum eius. Ascensio R. Cordis Ω 146 40 0 Ergo Asc. R. η 147 15 30 Ex obseruatione provenit eius*

Longitudo 24 30 $\frac{1}{2}$ Ω , Lat. 1 18 $\frac{1}{2}$ B. Calc. Prutenicus 24 45 $\frac{1}{2}$ 0 29 B. Calc. Alphonsin. 26 46 $\frac{1}{2}$ 1 15 B. Patet itaque quod calculus Prutenicus in Longitudine quam proxime accedit, in Latitudine nimis, Alphonsinus vero in Longitudine 2 gradibus excedit, in Latitudine fere convenit.

DIE 11 DECEMBRIS, MANE.
Per Armillas Zodiacales obseruatur η in hunc qui sequitur modum. Verificata & disposita Armilla ad Spicam Π , constituto eius loco in 18 11 Ω , inueniebatur long. η . H. 7 M. 1 Cum Spica esset occidentalis 7° 42', η in 24 11 Ω Cor Ω in 23 56 Ω Debuit Cor Ω esse in 24 12 Ω , deficientibus 16', ergo tantundem in η , quare Locus eius in 24 27 Ω .

H. 7 M. 9 Declin. η 14 40 $\frac{1}{2}$ 14 39 $\frac{1}{2}$ η obseruatam 14 40 dis Ω 13 59 $\frac{1}{2}$ Corr. 14 36 7 13 20 Cor Ω 60 24 $\frac{1}{2}$ occid. 7 13 35 η 59 25 $\frac{1}{2}$ Tempus add. 4 29 $\frac{1}{2}$

| | | | | |
|---------|--------------|----|----|--------|
| 7 14 50 | Cor Ω | 60 | 51 | occid. |
| 7 15 10 | η | 60 | 24 | |
| | | 27 | | |
| | Tempus | 5 | | |
| | | 32 | | |

Erat in Aurora & difficulter Cor Ω videbatur, sed limitando duas anteriores obseruationes ponatur differentia Asc. η & Reguli 0 31 & Declin. η 14 37 $\frac{1}{2}$.

N. B. Ex superiori ratione per Armillas Zodiacales provenit η Longitudo in 24 27 Ω , iuxta hanc inferiorem rationem per Armillam æquatoriam provenit idem η in 24 26 $\frac{1}{2}$ Ω , Latitudo utrobique euadit 1 17 $\frac{1}{2}$ B.

DIE 16 DECEMBRIS, MANE.
Obseruabatur η ab inferiori capite Π

| H. M. S. | Dift. η ab inf. cap. Π | Declin. η | |
|----------|---------------------------------|---------------------|--|
| 6 7 0 | 36 57 $\frac{1}{2}$ | | |
| 6 9 30 | 36 58 $\frac{1}{2}$ | 14 42 $\frac{1}{2}$ | |
| | | 14 42 | |
| 6 11 45 | 36 57 inter nubes | | |

| Viceversa a Spica Π | | | | |
|-------------------------|---------------------|---------------------|-----------|--|
| 6 15 15 | 53 59 $\frac{1}{2}$ | 14 42 $\frac{1}{2}$ | Spica or. | |
| 6 18 0 | 53 58 $\frac{1}{2}$ | vno | 7 17 | |
| 6 20 20 | 53 59 $\frac{1}{2}$ | | 6 40 | |
| 6 23 0 | 53 59 $\frac{1}{2}$ | 14 42 | 6 4 | |

Declin. Cordis Ω 13 54 $\frac{1}{2}$ bis pro Armillis corrigendis 13 54 6 47 10 Dist. æquat. η 48 48 $\frac{1}{2}$ 0 4 or. 6 48 15 Cordis Ω 49 26 0 15 $\frac{1}{2}$ occ. *dubia quia inter nubes.*

DIE 20 DECEMBRIS, MANE.
Obseruabatur η ab inferiori capite Π .

| H. M. S. | Dift. | Decl. η | Cor Ω or. |
|----------|---------------------|---------------------|------------------|
| 2 54 25 | 36 47 | | 3 59 |
| 2 57 40 | 36 47 $\frac{1}{2}$ | 14 46 $\frac{1}{2}$ | 3 13 |
| | | 14 45 $\frac{1}{2}$ | |
| 3 1 15 | 36 47 $\frac{1}{2}$ | | 2 16 |

¹ In margine alia manu adscriptum est: »Asc. R. Cordis Ω 146 40 0 Ergo Asc. R. η 147 11 0«.

| | | | | | | |
|---|----|-------|------------------------|------------------|---------------------|---------------------|
| Viceversa a cauda Ω | | | | | | |
| 3 | 4 | 15 | 24 | 16 $\frac{1}{2}$ | 14 47 | 1 31 |
| 3 | 6 | 30 | 24 | 16 $\frac{1}{2}$ | vtroque | 0 59 |
| 3 | 7 | 35 | 24 | 17 | | 0 38 |
| 3 | 10 | 15 | Transijt Cor Ω | | | |
| | | | per Merid. habens Alt. | | | |
| | | | per Chalyb. | | | 48 0 $\frac{1}{2}$ |
| | | | per Volub. | | | 48 0 |
| | | | Cor Ω occid. | | | 0 1 |
| 3 | 11 | 15 | transijt η | | | |
| | | | per Merid. habens Alt. | | | |
| | | | per Volub. | | | 48 51 $\frac{3}{4}$ |
| | | | per Chalyb. | | | 48 52 |
| | | | Cor Ω occ. | | | 0 15 $\frac{1}{4}$ |
| Decl. Cordis Ω | | 13 55 | Decl. η | | 14 46 $\frac{1}{2}$ | |
| | | | 13 54 $\frac{1}{2}$ | 14 47 | | |
| Cor Ω transferat per Merid. iuxta supput. H. 3 M. 10 $\frac{1}{2}$. | | | | | | |
| Hoc die η declinat sensibilibiter ab ea recta linea quæ ducitur a Corde Ω in mediam seu Lucidam ceruicis, id- | | | | | | |

que ad occasum, quantum diameter η fuisse, vel paulo plus. Hinc constare potest de γ & Reguli (poterat esse circiter 3 minuta).

DIE 22 DECEMBRIS, MANE.

Obseruabatur η in hunc modum.

| H. M. S. | Dift. η ab inf. cap. II | Declin. η | Cor Ω occid. |
|----------|------------------------------|---------------------|---------------------|
| 4 57 50 | 26 43 | | 28 37 |
| 5 3 30 | 26 42 | 14 49 | 29 44 |
| | | 14 48 $\frac{1}{2}$ | |
| 5 8 0 | 26 41 $\frac{3}{4}$ | | 31 2 |
| 5 9 40 | 26 41 $\frac{1}{2}$ | 14 49 | 31 34 |
| | | 14 49 $\frac{1}{2}$ | |

Viceversa a Spica Π

| | | | |
|---------|---------------------|---------------------|-------|
| 5 14 30 | 54 14 $\frac{3}{4}$ | | 32 35 |
| 5 16 30 | 54 15 $\frac{1}{2}$ | | 33 4 |
| 5 18 20 | 54 15 $\frac{1}{4}$ | 14 49 | 33 37 |
| | | 14 48 $\frac{1}{2}$ | |

OBSERVATIONES IOUIS.

DIE 25 JULIJ.

Obseruabatur Υ tendens in ϕ \odot idque circa meridianum in hunc modum.

| H. M. | Dift. Υ a Vulture | Decl. | Alt. | Os Pegasi orient. |
|---------------------|----------------------------|------------|------------|-------------------|
| 11 46 $\frac{1}{2}$ | 40 22 $\frac{1}{2}$ | Υ | Υ | 5 3 |
| 11 50 $\frac{1}{2}$ | 40 22 $\frac{3}{4}$ | | | |
| 11 54 $\frac{1}{2}$ | 40 22 $\frac{1}{2}$ | | | 2 50 |

Viceversa

| | | | | | |
|--------------------|------------------------------|-------------|------------------|--------|---------------------|
| a prima alæ Pegasi | | | | | |
| 12 | 1 $\frac{3}{4}$ | 31 | 17 $\frac{1}{2}$ | melior | |
| 12 | 4 $\frac{1}{2}$ | 31 | 16 $\frac{1}{2}$ | 14 | 41 $\frac{1}{2}$ |
| | | | | 19 | 15 |
| | | | | 0 | 20 |
| | | | | 14 | 41 $\frac{1}{4}$ |
| 12 | 20 $\frac{1}{2}$ | 31 | 17 $\frac{1}{4}$ | | |
| 12 | 26 $\frac{1}{2}$ | Transibat ♄ | | | |
| | per Meridianum habens Altit. | | | | |
| | per Chalyb. | | | | 19 24 |
| | per Volub. | | | | 19 23 $\frac{1}{2}$ |

Sunt hæc obseruationes mediocres, quantum inter Υ splendorem & nubes rariufculas eas accepiße licuit. Potes autem pro loco Υ hinc inde indagando vtræque via procedere, tam per

Ascensiones rectas respectu \AA equatoris, quam per triangulum respectu Zodiaci, fuerunt enim vtræque fixæ ad hanc vltimam pragmatiam instituendam satis commode cum Υ dispositæ.

DIE 27 JULIJ.

Iterum Υ paulo ante transitum per Merid. in hunc modum obseruatus est.

| H. M. | Dift. Υ a Vulture | Decl. | Alt. | Υ orient. |
|---------------------|----------------------------|---------------------|-------|--------------------|
| 10 44 $\frac{1}{2}$ | 40 12 $\frac{1}{2}$ | 14 46 | 17 30 | 19 44 |
| | | 14 46 $\frac{1}{2}$ | | |

Viceversa

| | | | | |
|--------------------|------------------|----|------------------|-----------------|
| a prima alæ Peg. | | | | |
| 10 | 56 $\frac{1}{2}$ | 31 | 29 | |
| 11 | 0 $\frac{1}{4}$ | 31 | 28 $\frac{3}{4}$ | |
| Repetita a Vulture | | | | |
| 11 | 3 $\frac{1}{2}$ | 40 | 13 $\frac{3}{4}$ | non satis certa |
| 11 | 6 | 40 | 12 $\frac{3}{4}$ | |

Obseruationes factæ inter nubes.

¹ In margine adscriptum.

DIE 31 JULIJ.

| H. M. | Diff. ♀ ab inf. cornu ♂ | Declin. | Alt. | Luc. caudæ Delph. c. r. |
|--------|----------------------------|---------|-------|-------------------------------|
| 10 25½ | 25 16½ | | 15 30 | 4 17 |
| 10 33½ | 25 16½ | 14 56½ | | |
| | | 14 56½ | | |
| 10 41 | 25 17 | | 16 40 | |

Viceversa ab extr. alæ Peg.

| | | | | |
|--------|--------|--|--------|------|
| 10 49½ | 42 25½ | | | 2 0 |
| 10 55½ | 42 26 | | | fere |
| 11 58½ | 42 25½ | | 17 32½ | |

Alia ♀ obseruatio

| H. M. | Diff. ♀ a luc. Vult. | | Alt. | Vultur occ. |
|--------|-------------------------|--|-------|----------------|
| 11 9½ | 39 53½ | | 18 2½ | 18 10 |
| 11 15½ | 39 53½ | | | |
| 11 17½ | 39 54 | | | |

Viceversa a Scheat Peg.

| | | | | |
|--------|--------|--------|--|-------|
| 11 23 | 43 28½ | | | |
| 11 31½ | 43 28½ | 14 57 | | 24 11 |
| | | 14 57½ | | |

11 40½ 43 27 dubia

12 3½ Transiuit ♀

Merid. habens Altitud.

per Chalyb.

19 8½

per Volub.

19 8

Sunt hæ obseruationes admodum accommodæ pro situ ♀ Acronychio inquirendo, applicatæ videlicet vtrique vñtatæ Calculi methodo. Fuit enim hac vesp̄era satis bene serenum & aër omnino tranquillus.

DIE 1 AUGUSTI.

| H. M. | | | Vultur. occid. |
|--------|-------------------|--------|-------------------|
| 11 15½ | Diff. ♀ ab infer. | 25 11 | 19 25 |
| 11 19½ | cornu ♂ | 25 10½ | |

Viceversa a Vulture

| | | | |
|--------|----------------|--------|----------------|
| 11 23½ | inter nubes | 39 47 | 21 18 |
| 11 29½ | | 39 48½ | |
| 11 33½ | | 39 48½ | |
| 11 36 | Declin. ♀ 15 1 | | Altit. ♀ 18 31 |
| | 15 0½ | | |

DIE 4 AUGUSTI.

Vesper̄i. ♀ proxime ♂ ☉.

| Diff. ♀ ab inf. cornu ♂ | Declin. | Sin. hum. ☉ orient. | Resp. tem- corred. |
|----------------------------|---------|------------------------|-----------------------|
| 24 47 | ♀ | 3 48 | 11 20½ |
| 24 46½ | | 2 40 | 11 24 |

Viceversa ab extr. alæ Peg.

| | | | |
|-------|----------|------|-------|
| 42 55 | 15 9½ M. | 1 13 | 11 30 |
| | 15 9 | | |

42 56 dubia 0 44 occ. 11 38

42 55 1 44 11 42

Denuo ad occidentem a Vulture

| | | |
|--------|------|--------|
| 39 35½ | 3 10 | 11 47½ |
| 39 35½ | 3 47 | 11 50 |

Viceversa a prima alæ Peg.

| | | |
|--------|------|--------|
| 32 17½ | 5 21 | 11 56½ |
| 32 16 | 5 55 | 11 58½ |
| 32 16 | 6 34 | 12 1½ |

H. 12 M. 6 Altit. ♀ meridiana

per Chalyb. 18 57

per Volub. 18 56½

Sin. hum. ☉ occid. 7.50

Fuit hac vesp̄era mediocriter serenum, sed vento Zephyri paululum vehementius flante.

DIE 5 AUGUSTI.

Horologium a fixis.

| H. M. | Diff. ♀ ab inf. cornu ♂ | Decl. | Altit. | Sin. hum. ☉ or. occid. |
|--------|----------------------------|--------|--------|------------------------------|
| 11 24 | 24 39½ | 15 12½ | 18 23 | 1 37 |
| | | 15 12 | | occid. |
| 11 31½ | 24 39 | | 18 36 | 0 12 |
| 11 36 | 24 39½ | | | 1 16 |

Viceversa ab extr. alæ Peg.

| | | |
|--------|-------|------|
| 11 41½ | 43 2½ | 2 38 |
| 11 46 | 43 2½ | 3 48 |

Denuo ad occasum a Vulture

| | | |
|-------|--------|-------|
| 11 51 | 39 30 | 4 58 |
| 11 53 | 39 30½ | 5 26 |
| 11 56 | 39 30½ | 6 17 |
| | | 7 25½ |

Altit. ♀ Merid.

per Chalyb. 18 55

per Volub. 18 54½

Viceversa a prima alæ Peg.

| | | |
|--------|--------|-------|
| 12 7½ | 32 22½ | 9 5 |
| 12 9½ | 32 22½ | 9 41 |
| 12 12½ | 32 22 | 10 24 |

Fuit bene serenum & aër bene tranquillus.

¹ Tempora ex angulis horalibus stellæ Aquarii supputata sunt.

² Lineis tenuibus inducta.

DIE 8 AUGUSTI.

| H. M. | Diff. ♄ ab inf. cornu ☿ | Sin. hum. ☿ or. |
|---------------------|----------------------------|---------------------|
| 11 9 $\frac{1}{2}$ | 24 16 $\frac{1}{2}$ | 2 33 |
| 11 16 | 24 16 $\frac{1}{2}$ | 1 7 |
| | Diff. ♄ | Decl. ♀ |
| | a Vulture | Idem hum. occ. |
| 11 23 | 39 16 | 0 28 |
| 11 26 $\frac{1}{2}$ | 39 17 | 1 23 |
| 11 31 $\frac{1}{2}$ | 39 16 | 15 19 $\frac{1}{2}$ |
| | | 15 20 |

Diff. a prima alæ Peg.

| | | |
|---------------------|---------------------|---------------------|
| 11 37 | 32 40 $\frac{1}{2}$ | 5 14 |
| 11 43 $\frac{1}{2}$ | 32 39 $\frac{1}{2}$ | dubia |
| 11 52 | Alt. ♄ meridiana | |
| | per Chalyb. | 18 47 $\frac{1}{2}$ |
| | per Volub. | 18 46 $\frac{1}{2}$ |

Non fuit satis ferenum.

Phænomena ♄ supputata ex selectiori-
bus obseruationibus, binis vtrique
limitatis, cum proximus eſet ☿
Simplicis ☉^{lis}, vnde locus eius
Acronychius poſtea
enucleatur.

| Auguſti die | H. M. | Longit. ♀ | Latitudo |
|----------------|-------|-----------------------|----------|
| 4 | 11 35 | 22 31 $\frac{1}{2}$ ☿ | 1 8 45 |
| 5 | 11 45 | 22 23 ☿ | 1 8 40 |

Motus diurnus Longit. 8 $\frac{1}{2}$, Latitudinis
inſenſibilis.

Altitudo quando obſeruabatur ♄
fuit vt plurimum part. 18 $\frac{1}{2}$, vnde re-
fractio in circulo Altitudinis eſſe poſſet
45". Hanc autem neglexi ob paral-
laxin hanc aberrationem ex aduerſo
emendaturam.

Die 4 Auguſti H. 11 $\frac{1}{2}$ noſter ſimplex
☉ ☿ 23° 0' 33". Hinc ſupputatur tem-
pus ☿ veri motus ♄ cum ſimplici ☉
fuiſſe

Die 4 Auguſti H. 1 M. 10 in 22 35 ☿.
Motus ♄ ex Tab. ♄ Longit. 4^{ex} 57° 53' 34"
Prutenicis ☿ Apogæi 2 38 43 35
Præceſſio æquinoctij
noſtra 0 28 10 24

¹ Codex habet 37 24 $\frac{1}{2}$.

DIE 4 OCTOBRIS, VESPERI.

| Diff. ♄ a Vulture | Sin. hum. ☿ occ. |
|---------------------|---------------------|
| 1 | 0 43 |
| 36 42 $\frac{1}{2}$ | 1 18 |
| 36 42 $\frac{1}{2}$ | 1 55 |
| | 3 2 |
| Alt. ♄ meridiana | |
| per Chalyb.. | 17 24 $\frac{1}{2}$ |
| per Volub. | 17 25 |
| Decl. ♄ M. | 16 41 |
| | 16 41 $\frac{1}{2}$ |
| Viceverſa | |
| Diff. ♄ ab | 47 39 $\frac{1}{2}$ |
| extrem. alæ | 47 38 $\frac{1}{2}$ |
| Pegafi | 47 38 $\frac{1}{2}$ |
| Decl. ♄ vtroq. | 16 41 |

DIE 8 OCTOBRIS.

| Diff. ♄ a lucida Vulturis | Declin. ♀ | Sin. hum. ☿ or. |
|------------------------------------|---------------------|-----------------------|
| 36 44 | | 2 32 |
| 36 43 $\frac{1}{2}$ | | 1 59 |
| 36 43 $\frac{1}{2}$ | 16 40 | 1 22 |
| | 16 40 $\frac{1}{2}$ | |
| Viceverſa ab extrema alæ Peg. | | Idem hum. ☿ occid. |
| 47 38 $\frac{1}{2}$ inter chasmata | | 0 27 |
| 47 37 | | 1 1 |
| 47 37 | | 1 31 |
| Transitus ♄ | | |
| per Merid. habens Alt. | | |
| per Chalyb. | 17 26 $\frac{1}{2}$ | |
| per Volub. | 17 26 | |

DIE 28 OCTOBRIS.

Vesperī obſeruabatur ♄
circa ☐^{tum} ☉^{lis}.

| H. M. S. | Diff. ♄ ab inferiori cornu ☿ | Decl. ♀ | Vultur occid. |
|----------|---------------------------------|---------------------|---------------------|
| 5 36 5 | | 16 20 M. | |
| | | 16 19 $\frac{1}{2}$ | |
| 6 6 20 | 20 54 $\frac{1}{2}$ | | 21 40 |
| 6 9 20 | 20 56 | | 22 28 |
| 6 11 20 | 20 55 | | 22 59 $\frac{1}{2}$ |
| 6 14 45 | 20 55 $\frac{1}{2}$ | | 23 45 |
| 6 16 50 | 20 55 $\frac{1}{2}$ | 16 19 $\frac{1}{2}$ | 24 19 |
| | | 16 19 | |
| 6 22 36 | 20 56 | | 25 43 |

6 32 5 *Transiit postrema* 28 5
cauda ꝑ per Merid.,
habuitque tunc Alt.
per Volub. 16 12½
per Chalyb. 16 13½

6 33 45 *Transiit ꝑ stella* 28 28
Merid. habens Alt.
per Volub. 17 49
per Chalyb. 17 48
Differentia
in transitu Vult. 0 23

(Fuit per Chalyb. 17 47, quod rec-
tius & melius conuenit cum declina-
tione)¹.

Horologium fecit differentiam in
transitu extremæ caudæ ꝑ & ꝑ M. 1
40", quæ faciunt 25 Minuta graduum:
alt tranlitus Vulturis per Armil-
lam æquatoriam dedit differentiam
Ascensionalem 23', accipiendo ita-
que horum dimidium, quod est 24,
& addendo ad Asc. rectam stellæ
prodit Alt. recta ꝑ satis exacte.
Declinatio vero eius minor erat De-
clinatione eiusdem stellæ 1 M. 35',
& sic patebit locus eius iuxta Solis
□ in maxima prosthaphæresi paral-
laxeos.

Rursus obseruabatur ꝑ viceversa
ab extrema alæ Pegasi in hunc mo-
dum qui sequitur.

6 46 *Dist. ꝑ* 46 40½ *Vult.* 31 41

6 48½ *ab extr.* 46 40½ *occ.*

6 50½ *alæ Peg.* 46 40½ 32 45½

6 54 *Declin. ꝑ*

vno pinn. 16 19

altero 16 19½

Atque hinc etiam potest verificari
locus ꝑ conferendo distantiam eius
ab inferiori cornu ꝑ superius anno-
tatum & adhibendo declinationem
ex Altitudine meridianæ. Habenda
tamen est ratio refractionis.

Inquisitio loci ꝑ ex obseruationibus
eius proxime antecedentibus.

Die 28 H. 6 M. 17 *Dist. ꝑ*

ab infer. cornu ꝑ 20 55½

Declinatio ꝑ limitata 16 18 0 M.

Declin. inf. cornu ꝑ 15 57 M.

Asc. R. inf. cornu ꝑ 299 34 0

Ang. diff. asc^{alis} 21 47 30

Ergo Asc. R. ꝑ 321 21½

H. 6 M. 48 *Dist. ꝑ*

ab extrema alæ Pegasi 46 40½

Decl. extr. alæ Peg. 12 56

Asc. R. extr. alæ Peg. 358 9½

Ang. diff. asc. 36 49½

Ergo Asc. R. ꝑ 321 20 0

H. 6 M. 34 *Asc. R. ꝑ limit.* 321 20 45

Declin. ꝑ 16 18

Resp. Longitudo 18 43½ ∞

Latitudo 1 2½ M.

Ex Calculo Longitudo Latitudo

Copernici 18 32 ∞ 0 53 M.

Alphonfino 18 45 ∞ 1 10 M.

DIE 13 NOUEMBRIS.

Vesperi obseruabatur ꝑ in
hunc modum.

| H. M. | Dist. ꝑ a Vulture | Declin. ꝑ | Luc. Vult. occid. |
|-------|----------------------|--------------|----------------------|
| 5 20 | 38 8½ | | 26 5 |
| 5 23 | 38 8 | 15 45½ | 26 54 |
| | | 15 46 | |
| 5 26½ | 38 8½ | | 27 47 |

Viceversa a prima alæ Peg.

| | | | |
|-------|----------------------------------|--------|-------|
| 5 29 | 33 59½ | | |
| 5 30½ | 34 0½ | | |
| 5 31½ | 34 0 | | 29 9 |
| 5 35½ | <i>Transiit ꝑ Merid.</i> | | 30 10 |
| | <i>habens Altit. per Chalyb.</i> | 18 20½ | |
| | <i>per Volub.</i> | 18 20½ | |

DIE 17 NOUEMBRIS.

Vesperi. Obseruabatur ꝑ circa Merid.
in □^{tura} ☉.

H. 5 M. 20½ ꝑ Meridianum
transiit in Altitudine
per Chalyb. 18 30½
per Volub. 18 31½
Lucida Vult. occid. 30 41

| H. M. | Dist. ꝑ a lucida Vult. | Decl. ꝑ | Vultur occid. |
|-------|---------------------------|------------|------------------|
| 5 27 | 38 26½ | 15 36 | |
| | | 15 35 | |

5 30½ 38 27½ 33 12

5 33½ 38 27

¹ Alia manu (probabiliter Longomontani) adscriptum.

Viceversa a I. alæ Pegasi

| | | |
|-------|--------|--------------|
| 5 37½ | 33 35½ | 35 2 |
| 5 40½ | 33 33 | |
| 5 43 | 33 34 | |
| 5 46½ | 33 35 | 37 10 |
| 5 49½ | 33 35½ | |
| 5 51½ | 33 34½ | 15 36½ 38 32 |
| | | 15 35½ |

DIE 18 NOUEMBRIS.

Obferuabatur ¶ circa Meridianum

4 42 15 Dift. ¶ a Vulture 38 30½
Vultur occid. 27 304 46 15 *Transiuit extrema ꝯ caudæ*
Mer. habens Alt. Vult. occ. 28 29½
per Chalyb. 16 14
per Volub. 16 154 54 55 *Transiuit ¶*
Merid. super Altitudinem 30 39
per Chalyb. 18 33½
per Volub. 18 33*Differ. in tempore 8^m 40^s facit 2^h 10^m.**Respondet itaque vtrunque quod fuerit differentia ascensionalis in Æquatore ¶ & extremæ caudæ P. 2 M. 10 vel ad minimum M. 9½. Hincque Ascensio recta ¶ constare potest, addita hac differentia ad Asc. rectam stellæ. Declinatio vero eius patet ex Altitudine Meridiana, data vel collata differentia Altitudinis ipsius & dictæ stellæ.*

| H. M. S. | Dift. ¶ a Vulture | Decl. ¶ | Vultur occid. |
|----------|----------------------|------------|------------------|
| 5 2 50 | 38 30½ | | 32 43 |
| 5 7 10 | 38 30 | | 33 51 |
| 5 9 53 | 38 30½ | 15 33 | 34 36 |

vtroque

Viceversa ab extr. alæ Peg.

| | | |
|---------|--------|-------|
| 5 14 25 | 44 26 | 35 44 |
| 5 17 45 | 44 28 | 36 32 |
| 5 20 55 | 44 27½ | 37 18 |
| 5 23 50 | 44 28 | 38 4 |

DIE 24 NOUEMBRIS, VESPERI.

H. 4 M. 42 Altit. ¶ Merid.
per Chalyb. 18 51
per Volub. 18 50½

| H. M. S. | Dift. ¶ a Q | Decl. ¶ | Alt. Q per Rad. | Vult. occ. |
|----------|----------------|------------|--------------------|---------------|
| 4 59 20 | 22 56 | | 8 0 | |
| 5 3 30 | 22 55½ | 15 15½ | 7½ | 37 0 |
| | | 15 15½ | | |

Dift. ¶ a Vult.

| | | | | |
|---------|------|--|--|-------|
| 5 7 40 | 39 2 | | | 38 3 |
| 5 10 30 | 39 2 | | | 38 53 |

Viceversa ab extr. alæ Peg.

| | | | | |
|---------|-------|--------|--|-------|
| 5 13 20 | 43 39 | | | 39 36 |
| 5 15 55 | 43 38 | | | 40 12 |
| 5 17 40 | 43 39 | 15 15½ | | 40 45 |

vtroque pin.

| | | | | |
|---------|--------|--|--|-------|
| 5 21 15 | 43 39½ | | | 41 42 |
|---------|--------|--|--|-------|

Fuit apprime ferenum & tranquilum.

DIE 3 DECEMBRIS, VESPERI.

H. 4 M. 30 S. 5 Obferuabatur Altitudo
¶ circa meridianum, cum primum
factum eßet ferenum. Fuit tunc
Azimuth occident. 2^o fere.*Per Chalyb.* 19 21½*per Volub.* 19 21½

Declinatio ¶ 14 46

14 45½

Dubia propter nubes.

DIE 9 DECEMBRIS.

| | | |
|-----------|-----------------------|--------|
| 6 19' 25" | Dift. ¶ a Vulture | 40 33 |
| | Declinatio ¶, vtroque | 14 22 |
| | Altit. ¶ per Q. min. | 11 0 |
| | Lucid. mand. cete or. | 30 3 |
| 6 25 50 | Distantia | 40 33½ |
| | Luc. mand. Cete | 28 24 |

DIE 10 DECEMBRIS.

H. 3 M. 45½ *Transiuit ¶ stella meridi-*
anum habens Altit.
per Chalyb. 19 46½
per Volub. 19 45½
Declin. per 14 22 vno
Armill. max. 14 21 altero
Postea obseruabatur Q a ¶ in
hunc modum.

| H. M. | Dift. | Declin. | Altit. | Vult. occ. |
|-------|-------|----------|--------|------------|
| 4 58 | 8 34 | ¶ 14 22 | ¶ 17½ | 52 37 |
| | | Q 17 42 | | |
| 5 2½ | 8 33½ | | Q 12½ | 53 51 |
| 5 6 | 8 33½ | ¶ 14 21 | | 54 34 |
| | | Q 17 41½ | | |
| 5 9½ | 8 32½ | | ¶ 17½ | 55 39 |
| | | | Q 12 | |

| H. M. S. | Dist. ♀ a fin. hum. ☾ | Decl. ♀ | Alt. ♀ per min. Q. |
|----------|--------------------------|-----------------|-------------------------------------|
| 5 21 40 | 11 40½ | | 16½ incerta propter lumen ☾ |
| 5 25 30 | 11 43½ | 14 21 14 20½ | |
| 5 28 45 | 11 43½ | | 16½ Prima alæ Peg. occ. 13 14 |
| 5 33 20 | 11 43 | 14 20 14 20½ | |

Viceversa a lucida caudæ Cete, quæ
est in inferiori parte.

| | | | | |
|---------|--------|------------------|-----|-------|
| 5 42 15 | 37 19½ | | 15½ | 15 29 |
| 5 45 15 | | 14 20½ 14 20 | | 16 22 |
| 5 49 0 | 37 21* | | 14½ | 17 12 |
| 5 52 0 | 37 21* | 14 20½ 14 19½ | | 17 51 |
| | *bonæ | | | |
| 5 54 30 | 37 20½ | | 14 | 18 34 |
| 5 57 | 37 19½ | 14 20½ 14 20 | | 19 15 |
| 6 0 | 37 20 | | | |

Pone itaque hora 5 M. 40 dist. ♀ a
sinistro humero ☾ 11 43, a lucida in
cauda Cete pone dist. 37 20½ & Declin.
♀ 14 20, hinc locum eius inuestiga, &
per ipsum ♀ locum inquisitum exa-
mina per distantias antecedentes,
habita ratione motionis ♀ interea.

Postea per Armillas Zodiacales
♀ obseruauimus hoc modo.
Verificatis Armillis per Aldeboram
in 4^{te} 8' II.

H. 6 M. 37½, Prima alæ Pegasi distante
a meridiano 29 24, erat ♀ longit.
24 30 ☾ bis.

Fuit eodem instrumento
declinatio ♀ visa 14 19
Altitudo ♀ 10 p.

Pro correctione horologii

| | | |
|----------|-------------------------|-------|
| H. 6 48½ | Prima alæ Pegasi occid. | 32 9 |
| 6 50½ | | 32 49 |
| 6 53½ | | 33 28 |

DIE 11 DECEMBRIS, VESPERI.

H. 3 43' 20" Tranfuit ♀
per meridianum habens altitud.
per Chalyb. 19 48½
per Volub. 19 48½
Fuit ♀ tunc occ. per æquat. 7 24

Postea obseruabatur ♀ in Armillis
zodiacalibus.

| | | |
|---------|---|------------------|
| 5 32 20 | Posito loco Aldeboræ in 4 8 II ♀ in 24 39 ☾, Os Pegasi occ. | 34 48 |
| 5 36 50 | Dexter hum. ☾ eodem modo obseruatus Os Pegasi occid. | 27 45 ☾ 35 56 |

Obseruationes hæ sunt factæ, post-
quam hodie Armillæ Zodiacales essent
ad amußim correctæ.

Deinde ♀ eodem modo obseruabatur.

Verificatis Armillis per Aldeboram

H. 5 54' vt prius ♀ in 24 42 ☾
Altit. ♀ 14½, Declin. ♀ 14 16½ vno
14 17½ alt.

| | | |
|------|--|--|
| 5 59 | Idem locus ♀ eodem modo Altit. 13½ in 24 42 ☾ | |
| 6 1 | Dexter humer. ☾ eodem modo Altit. ♀ 13½ 27 45 ☾ Fuit tunc ♀ declin. 14 15 14 16 | |

Pro examinandis Armillis capie-
batur declinatio fixarum dextri hu-
meri ☾ austrina 2 16 vno pin.
2 16½ alt. pin.

Sinistri humeri ☾ 7 18½
7 18

| H. M. S. | Dist. ♀ a Vulture | Decl. ♀ | Altit. ♀ | Prima alæ Peg. occ. |
|----------|----------------------|------------------|-------------|------------------------|
| 6 25 10 | 40 47½ | | 11 30 | 28 16 |
| 6 27 40 | 40 48 | 14 15½ 14 15½ | | 29 0 |

Viceversa ab infer. caudæ Cete

| | | |
|---------|--------------------------|-------------|
| 6 32 20 | 37 12 incerta | 10 40 |
| 6 35 35 | 37 10 14 15½ vtroque/ | 10 20 |
| 6 40 0 | 37 10½ | 10 10 32 15 |

DIE 15 DECEMBRIS, VESPERI.

| H. M. S. | Decl. ♀ | ♀ occid. | |
|----------|----------------------|-------------------------|-------------------|
| 3 57 50 | | 5 38 | |
| 4 2 55 | 14 0 $\frac{5}{8}$ | 6 53 | |
| | 14 1 | | |
| H. M. S. | Dist. ♀ a Vulture | Altit. ♀ | Vultur. occid. |
| 5 49 40 | 41 17 | 14 35 | 40 28 |
| | 14 1 $\frac{1}{2}$ | | |
| 5 52 45 | 41 18 | 14 15 | 41 22 |
| 5 54 50 | 41 18 | 14 1 $\frac{1}{2}$ 14 0 | 41 51 |
| | vno/ | | |

Viceversa a lucida caudæ Ceti
6 2 36 40 13 30 43 31

Plures distantiaæ ab hac stella capi
non poterant propter nubeculas.

Fuerunt utræque fixæ fere cum ♃
sitæ ad æquilibrium Horizontis, sed
Vultur tamen paulo eleuatur.

Declinatio sinistri humeri ∞ (7 14 $\frac{1}{2}$
pro Armillis examinandis) 7 15

DIE 17 DECEMBRIS.

| H. M. S. | Dist. ♃ a Vulture | Declin. | Altitud. | Vultur occid. |
|----------|----------------------|---------------------|----------|------------------|
| 5 49 50 | 41 32 | | 13 45 | 72 3 |
| 5 52 30 | 41 33 | 13 52 $\frac{1}{2}$ | 13 30 | 72 42 |
| | | 13 52 | | |
| 5 57 0 | 41 32 $\frac{1}{2}$ | | 13 5 | 73 57 |

Viceversa ab extr. alæ Pegasi

| | | | | |
|--------|---------------------|---------------------|-------|-------|
| 6 1 45 | 39 51 $\frac{1}{2}$ | 13 53 $\frac{1}{2}$ | 12 40 | 75 10 |
| | | vtroque | | |
| 6 5 45 | 39 51 $\frac{1}{2}$ | | 12 20 | 76 9 |
| 6 8 5 | 39 51 | 13 52 $\frac{1}{2}$ | 12 5 | 76 43 |
| | | 13 52 $\frac{1}{2}$ | | |

Pone ad horam 6 distantiam ♃ a
lucida Vulturis, cum qua erat in
æquilibrio Horizontis, ideoque nul-
la refractionis in distantia sensibilis in-
geriebatur, sitque ea 41 32 $\frac{1}{2}$, ab ea
vero, quæ extrema est in ala Pegasi,
fuerit tunc distantia 39 51 $\frac{1}{2}$. Atque sic
refractionis ♃ attollens distantiam pau-
lulum, iusto brevior reddidit. Ve-
rum cum locus eius visus constet,
facile verus ex tabulis Parallaxium
perquiri poterit.

H. 6 Ascens. R. ♃ a Vulture ex distan-
tiantia dicta superius 328 24 30
Afc. R. ♃ ex dist. æquat.
a Vulture¹ 328 23 30

H. 5 $\frac{1}{2}$ Declinatio ♃ 13 52

H. 6.0 Afc. R. ♃ 328 22 44
ab extr. alæ Peg.
Pone H. 5 $\frac{1}{2}$ Afc. R. ♃ 328 23 $\frac{1}{2}$

¹ Cfr. infra inter observationes Veneris.

² Jupiter et Venus in conjunctione erant, cf. infra inter observationes Veneris.

DIE 20 DECEMBRIS, VESPERI².

Observationes ♃ a cauda Cete

| H. M. S. | Dist. | Decl. | Alt. | Vultur occ. |
|----------|---------------------|---------------------|-------|----------------|
| 5 34 30 | 35 47 $\frac{1}{2}$ | | 14 40 | 70 58 |
| 5 38 30 | 35 47 $\frac{1}{2}$ | 13 41 | 14 10 | 71 58 |
| | | 13 40 $\frac{1}{2}$ | | |

Decl. ♃ 13 42 vtroq.

5 43 55 35 47 $\frac{1}{2}$ 13 40 73 14

Postea obseruabatur ♃ a lucida Vul-
turis in hunc qui sequitur modum.

5 48 $\frac{1}{2}$ 41 55 $\frac{1}{2}$ 13 41 $\frac{1}{2}$ vno 13 15 Os Peg.

Decl. ♃ 13 40 $\frac{1}{2}$ vno

5 53 $\frac{1}{2}$ 41 55 $\frac{1}{2}$ 12 50 47 37

5 55 41 55 $\frac{1}{2}$ 13 40 12 35 48 6

Decl. ♃ 13 42

13 41 $\frac{1}{2}$

N. B. Hæ stellæ, vt pote lucida Vul-
turis & cauda Cete, erant in eadem
quali altitudine cum ♃ & ♀, vnde quo
ad distantiam insensibilis est diffe-
rentia per refractionem. At altera
intercapedo, quæ iam lumenda ve-
nit, magna ex parte in refractione
differentiam incidentem per hanc
deuoluit.

Postea lumbatur ♃ ab extrema
alæ Pegasi.

| H. M. | Dist. | Decl. | Alt. | Extr. alæ Peg. occ. |
|--------------------|---------------------|------------------------------|------|------------------------|
| 6 27 $\frac{1}{2}$ | 39 12 $\frac{1}{2}$ | 13 40 $\frac{1}{2}$ vno | 9 40 | 18 49 |
| | | ♀ 13 40 $\frac{1}{2}$ vtroq. | | |
| 6 30 $\frac{1}{2}$ | | ♀ 13 39 $\frac{1}{2}$ vno | 9 20 | 19 41 |
| 6 36 | 39 13 | | 8 45 | 20 57 |
| 6 39 | 39 13 $\frac{1}{2}$ | 13 39 | 8 25 | 21 42 |
| | | 13 39 $\frac{1}{2}$ | | |
| | | ♀ 13 40 | | |
| | | 13 40 $\frac{1}{2}$ | | |

DIE 22 DECEMBRIS.

Vesperis obseruabatur ♃ ab extrema
alæ Pegasi in hunc modum.

| H. M. S. | Dist. | Decl. | Alt. | Vult. occ. |
|----------|---------------------|---------------------|-------|---------------|
| 5 11 55 | 38 55 $\frac{1}{2}$ | | | 66 10 |
| 5 13 35 | 38 55 $\frac{1}{2}$ | | | 66 32 |
| 5 15 35 | 38 56 | 13 33 $\frac{1}{2}$ | 15 43 | 67 4 |
| | | 13 33 $\frac{1}{2}$ | | |

Viceverfa a Vulture

| | | | | | | | |
|---|----|----|----|---------------------|------------|----|----|
| 5 | 20 | 25 | 42 | 10 $\frac{1}{2}$ | | 68 | 16 |
| 5 | 23 | 20 | 42 | 10 $\frac{1}{2}$ | | 69 | 0 |
| 5 | 25 | 10 | 42 | 10 $\frac{1}{2}$ | 13 32 15 0 | | |
| | | | | 13 32 $\frac{1}{2}$ | | | |

DIE 25 DECEMBRIS, VESPERI.

| H. M. S. | Decl. ¶ | Azim. occ. ¶ | Alt. ¶ | Extr. alæ Peg. occ. |
|--------------------|---------------------|-----------------|--------------------|------------------------|
| 6 50 45 | 13 15 | 57 0 | 5 14 $\frac{1}{2}$ | 30 55 |
| vtroque | | | | |
| 6 55 24 | 13 14 $\frac{1}{2}$ | 58 0 | 4 42 $\frac{1}{2}$ | 32 9 |
| | 13 15 | | | |
| 7 0 8 | 13 13 $\frac{1}{2}$ | 59 0 | 4 10 $\frac{1}{2}$ | 33 16 $\frac{1}{2}$ |
| vtroque | | | | |
| 7 5 24 | 13 11 $\frac{1}{2}$ | 60 0 | 3 33 | 34 38 |
| | 13 12 | | | |
| 7 9 28 | 13 10 | 61 0 | 3 5 $\frac{1}{2}$ | 35 41 |
| | 13 10 $\frac{1}{2}$ | | | |
| 7 14 8 | 13 9 | 62 0 | 2 32 | 36 49 |
| vnico faltem pinn. | | | | |

Non poterat amplius obferuari.

Eadem vefpera obferuabatur ¶
a Vulture.

| H. M. S. | Diff. | Decl. ¶ | Alt. ¶ | Vult. occ. |
|----------|---------------------|------------|-----------------|---------------|
| 6 7 5 | 42 35 | | | 85 16 |
| 6 9 40 | 42 35 $\frac{1}{2}$ | 13 19 | 9 $\frac{1}{2}$ | 85 55 |
| | | 13 18 | | |
| 6 14 40 | 42 36 | | | |

Viceverfa a cauda Cete

| | | | | |
|---------|---------------------|---------------------|------|------------------------|
| 6 17 55 | 34 56 $\frac{1}{2}$ | 13 19 | | |
| | | 13 18 $\frac{1}{2}$ | | |
| 6 22 55 | 34 56 $\frac{1}{2}$ | | 9 10 | Extr. alæ Peg. occ. |
| 6 28 10 | 34 56 $\frac{1}{2}$ | 13 18 | | 25 17 |
| | | 13 18 $\frac{1}{2}$ | | |

Cum hæ diftantiæ obferuarentur, fuit tam Vultur quam cauda Cete in æquilibrio fere Horizontis cum ♀ & ¶, adeo vt refractionis infinuatio hic nulla eßet.

DIE 26 DECEMBRIS, VESPERI.

Horologio in meridie reñificato.

Deinde¹ ¶ pari ratione obferuabatur vt fequitur.

| H. M. S. | ¶ occ. in Azim. | Altit. ¶ | Decl. ¶ | ¶ occ. in æquat. |
|----------|--------------------|---------------------|---------------------|---------------------|
| 4 4 5 | 17 0 | 19 29 $\frac{1}{2}$ | | 16 22 $\frac{1}{2}$ |
| 4 8 20 | 18 0 | 19 19 $\frac{1}{2}$ | 13 16 $\frac{1}{2}$ | |
| vtroque | | | | |
| 4 12 6 | 19 0 | 19 9 $\frac{1}{2}$ | 13 16 $\frac{1}{2}$ | 18 21 |
| | | | 13 16 $\frac{1}{2}$ | |
| 4 15 58 | 20 0 | 18 58 | 13 16 $\frac{1}{2}$ | 19 21 $\frac{1}{2}$ |
| 4 19 45 | 21 0 | 18 46 $\frac{1}{2}$ | | 20 20 |
| 4 23 40 | 22 0 | 18 33 $\frac{1}{2}$ | 13 15 $\frac{1}{2}$ | 21 20 $\frac{1}{2}$ |
| | | | 13 15 $\frac{1}{2}$ | |

N. B. Potes fidere his obferuationibus in ¶ & ♀ hodierno præfertim die habitis, quia fuere diligentes & ipſemet aderam. Aër quoque erat ferenus, limpidus & tranquillus vsque in occafum vtriusque.

DIE 27 DECEMBRIS.

Vefperi obferuabatur ¶ vt fequitur.

| H. M. S. | Azim. ¶ | Alt. ¶ | Decl. ¶ | ¶ in æquat. occ. |
|-----------|------------|---------------------|---------------------|---------------------|
| 4 7 40 | 19 0 | 19 13 | 13 11 | 18 16 |
| | | | 13 11 $\frac{1}{2}$ | |
| 4 11 50 | 20 0 | 19 2 $\frac{1}{2}$ | | 19 20 |
| 4 15 50 | 21 0 | 18 51 | 13 12 | 20 21 |
| | | | 13 11 $\frac{1}{2}$ | |
| 4 19 55 | 22 0 | 18 39 $\frac{1}{2}$ | 13 11 $\frac{1}{2}$ | 21 24 |
| vtroque / | | | | |
| 4 23 45 | 23 0 | 18 26 $\frac{1}{2}$ | bona | 22 22 $\frac{1}{2}$ |
| 4 27 54 | 24 0 | 18 12 $\frac{1}{2}$ | 13 11 $\frac{1}{2}$ | 23 20 |
| | | | 13 11 $\frac{1}{2}$ | |
| 4 32 10 | 25 0 | 17 59 | | |

Poſtea obferuabantur ¶ & ♀ eodem modo².

DIE 28 DECEMBRIS.

| H. M. S. | Declin. ¶ | Azim. | Altit. ¶ | ¶ in æq. |
|----------|--------------------|-------|---------------------|----------|
| 4 7 42 | 13 5 | 20 0 | 19 5 $\frac{1}{2}$ | 19 28 |
| | 13 4 | | | |
| 4 11 38 | | 21 0 | 18 53 $\frac{1}{2}$ | 20 26 |
| 4 15 30 | 13 8 $\frac{1}{2}$ | 22 0 | 18 42 $\frac{1}{2}$ | |
| | 13 8 | | | |

¹ Id eßt, poß obferuationes Veneris. Inter has etiam obferuationes Iovis inuenies.² Vide infra inter obferuationes Veneris.

| | | | | |
|---------|--------------------|------|---------------------|-------|
| 4 19 35 | | 23 0 | 18 30 $\frac{1}{2}$ | 22 21 |
| 4 23 35 | 13 7 $\frac{1}{2}$ | 24 0 | 18 17 | |
| | 13 7 $\frac{1}{2}$ | | | |
| 4 27 30 | | 25 0 | 18 2 $\frac{1}{2}$ | 24 21 |

Postea obseruabatur ♄ in decliuiori
fitu vt antea.

| | | | | | |
|---------|---------------------|---------|--------------------|------|------------------------|
| | | | | | Luc. mand. Cete or. |
| 6 53 20 | 13 0 $\frac{1}{2}$ | 58 0 | 4 54 | 9 34 | |
| | 13 1 | | | | |
| 6 58 10 | | 59 0 | 4 22 $\frac{1}{2}$ | 8 20 | |
| 7 2 40 | 13 2 | 60 0 | 3 50 $\frac{1}{2}$ | | |
| | 13 2 $\frac{1}{2}$ | | | 7 9 | |
| 7 7 42 | 12 59 | 61 0 | 3 14 $\frac{1}{2}$ | 5 58 | |
| | 12 59 $\frac{1}{2}$ | | | | |
| 7 12 15 | 12 57 | 62 0 | 2 44 $\frac{1}{2}$ | 4 53 | |
| | vno } | | | | |
| 7 17 10 | 12 56 | 63 0 | 2 11 $\frac{1}{2}$ | 3 39 | |
| | vno } | | | | |
| 7 21 50 | | 64 0 | 1 41 $\frac{1}{2}$ | 2 29 | |
| 7 24 10 | | 64 30 | 1 21 | 1 54 | |
| 7 26 0 | | 65 0 | 1 7 $\frac{1}{2}$ | 1 22 | |
| | | dubia } | | | |

♄ visus est Horizontem visibilem
stringere H. 7 M. 35 iuxta horologium.

DIE 31 DECEMBRIS.

| H. M. S. | Azim. occ. | Altit. | Decl. | ♀ occid. |
|----------|------------|---------------------|---------------------|---------------------|
| 4 14 5 | 24 0 | 18 31 | 12 55 $\frac{1}{2}$ | 17 15 |
| | | | 12 55 fere | |
| 4 18 10 | 25 0 | 18 16 $\frac{1}{2}$ | 12 55 | |
| | | | 12 54 $\frac{1}{2}$ | |
| 4 22 5 | 26 0 | 18 3 | 12 54 $\frac{1}{2}$ | 19 11 $\frac{1}{2}$ |
| | | | 12 54 | |

Postea obseruabantur ♄ & ♀ in æqua-
toria distantia².

Postea obseruabatur ♄ in decliuiori
fitu.

| | | | | | Extr. alæ Pegali occ. |
|---------|------|------|---------------------|-------|--------------------------|
| 6 5 30 | 50 0 | 9 17 | 12 51 $\frac{1}{2}$ | 23 44 | |
| | | | 12 51 $\frac{1}{2}$ | | |
| 6 10 10 | 51 0 | 8 50 | 12 51 $\frac{1}{2}$ | | |
| | | | 12 51 $\frac{1}{2}$ | | |

OBSERUATIONES MARTIS.

DIE 3 JANUARIJ, VESPERI.

Transiit ♂
meridianum habens altitudinem
per Q. Chalyb. 41 50
per Q. Volub. 41 49 $\frac{1}{2}$
Declinatio per Armillas 7 45 $\frac{1}{2}$

| Horologium | Diff. ♂ ab extr. alæ Peg. | Luc. hum. Orion or. |
|------------|------------------------------|------------------------|
| correctum | | |
| 6 0 | 19 13 $\frac{1}{2}$ | 57 46 |
| 6 5 | 19 13 $\frac{1}{2}$ | 56 24 |
| 6 9 | 19 14 | |
| 6 11 | 19 13 $\frac{1}{2}$ | |

Viceversa ab oculo ♀

| | | | |
|--------------------|---------------------|--------------------|-------|
| 6 15 $\frac{1}{2}$ | 45 51 | Declin. ♂ | 53 48 |
| 6 20 | 45 51 $\frac{1}{2}$ | 7 45 | |
| | | 7 45 $\frac{1}{2}$ | |

6 25 45 50 $\frac{1}{2}$
6 30 $\frac{1}{2}$ 45 20 $\frac{1}{2}$ Transitus luc. hum.
Orionis per merid. H. 9 50 $\frac{1}{2}$ iuxta
supput.

¹ Vide infra.

Pro loco ♂
ex adiunctis obseruationibus.

| | | |
|------------|----------------------|---------------------|
| H. 6 M. 5 | Diff. ♂ ab extr. | |
| | alæ Peg. | 19 13 50 |
| | Declin. alæ B. | 12 55 $\frac{1}{2}$ |
| | Angulus differ. asc. | 18 50 3 |
| | Extr. alæ Afc. R. | 358 8 10 |
| | Ergo Afc. R. ♂ | 16 58 13 |
| H. 6 M. 20 | Diff. ♂ ab Aldeb. | 45 51 0 |
| | Declin. Aldeb. | 15 38 B. |
| | Ang. differ. asc. | 46 13 8 |
| | Ergo hinc Afc. R. ♂ | 16 57 17 |
| H. 6 M. 12 | Afc. R. ♂ limitata | 16 57 40 |
| | Declin. ♂ | 7 44 $\frac{1}{2}$ |
| | Resp. Longitudo | 18 36 6V |
| | Latitudo | 0 27 57B. |

DIE 14 FEBRUARIJ.

Obseruabatur ♂ cum eßet circa ma-
ximam digressionem a medio motu,
respectu orbis annui, vnde pro huius

femidiametro corrigenda imprimis
conducunt hæ obferuationes.

| H. M. | Diff. ♂ a luc. ☿ | Decl. ♂ | Alt. ♂ | Luc. hum. Orion. or. |
|----------------------|---------------------|--------------|--------|-------------------------|
| 6 34 | 15 45½ | 17 20 | 44 0 | |
| | | 17 20½ | | |
| 6 41½ | 15 45½ | | | 5 40 |
| 6 52½ | 15 45½ | | | |
| Viceversa ab oculo ☿ | | | | |
| 6 58 40 | 20 8 | | 1 3 | |
| 7 3 | 20 8 fere | 17 21 vtroq. | 0 8 | |
| 7 11 20 | 20 7½ | | | |

DIE 29 NOUEMBRIS, MANE.

*Attendatur diligenter ad ♂ ante
Auroram si forte videri & obferuari
queat*¹.

Obferuabatur ♂ primo apparens &
nuper egreßus radios ☉.

| H. M. S. | Diff. ♂ a Spica ♄ | Decl. ♂ | Alt. ♂ per Min. Q. | Cor. ♀ occ. |
|----------|----------------------|------------|-----------------------|----------------|
| 6 32 50 | 30 20 | | 5½ | |
| 6 40 10 | | 16 56½ | per Volub. | |
| | | 16 56 fere | 5 55 | |
| 6 46 50 | 30 15 | | | 32 36½ |
| 6 54 0 | | 16 59 | 7 52 | |
| | | 16 58 | | |

Hæ in ♂ distantia exactius obferuari non poterant, tum ob ☿ vicinitatem cum ♂ tum Auroram. Declinationes mediocres sunt.

N. B. Fuit ♂ circa hoc tempus in recta linea cum meridionali lance ☿ & tertia meridionalis alæ ♄, quantum discernere oculis potuimus, & est fere cum cauda ♀ & Spica in recta linea.

Inuestigatio loci ♂ ex superioribus obferuationibus.

H. 6 M. 40 Diff. ♂ a Spica 30 20

Adde pro refract. in

diff. 4

Vera distantia 30 24

Declin. ♂ vera M. 17 5

Declin. Spicae ♄ M. 8 59

Afc. R. Spicae 196 0 30

Ergo Afc. R. ♂ 226 8 0

Refp. Longitudo 18 31 0 ♄

Latitudo 0 19½ B.

Calculus Copernici

Alphonfinus

| | | |
|-------|---------|---------|
| Long. | 18 13 ♄ | 18 10 ♄ |
| Lat. | 0 9 B. | 0 6 B. |

Hæ non ita certæ sunt in ♂ obferuationes atque sequentes die 10 Decembris.

Reiteratio calculi ex obferuatione ♂ die 29 Nouemb. habita pro eius latitudine circa ♂ ☉ dignoscenda².

H. 6½ Distantia ♂ a Spica ♄ 30 20

Declin. eius obferuata 16 57

Hinc adhibito præscripto

Spicae loco prodit

Ang. diff. asc. 30 40

Atque propterea

Afc. R. ♂ 226 5½

Refp. Longitudo } vifæ 18 26½ ♄

Latitudo } 0 26½ B.

Altitudo ♂ ab horizonte 5 30

Refp. Refr. 9' 30"

Parall. 1 50

Differentia 7 40

Refract. Longit. 5½ add.

Latit. 6 subtr.

Ergo vera longitudo 18 31½ ♄

latitudo 0 20½ B.

DIE 10 DECEMBRIS, MANE.

| H. M. S. | Diff. ♂ a Spica ♄ | Decl. ♂ | Alt. ♂ | Spica in æquat. or. |
|--------------------|----------------------|------------|--------|------------------------|
| (6 10 10 | 37 55½) | | 8 25 | 0 15 |
| (7 11½ corr. bona) | | | | occid. |
| (6 19 30 | 37 55 | 19 3 | | 2 3 |
| (7 21 corr. | | 19 0½ bona | | |
| 6 22 45 | 37 56½ | | | 2 54 |

Fuit admodum exilis ♂ propter Auroram.

Pone H. 7 M. 15 ♂ distantiam a Spica 37 55½ & declinationem eius 19 1 Meridionalem, hinc dabitur Longitudo & Latitudo ♂ vifa. Per Parallaxin & refractionem: accipiat deinde refractione stellarum in altitudine 8½ & hinc dematur media Parallaxis ☉, cum residuo quærat in Tab. Parallaxium latus long. & lat. atque Parallaxes ambæ.

¹ Cf. supra p. 336.

² E codice V. Cf. T. V p. 336.

Pro loco ♂ ex obseruationibus
die 10 Decembris Mane.

| | | |
|---------------------------------|-----------------|------------|
| H. 7 M. 15 | Dist. ♂ a Spica | 37 55½ |
| Declin. ♂ visa | | 19 1 |
| Declin. Spicæ | | 8 59 |
| Afc. R. Spicæ | | 196 0 |
| Ang. diff. afc. ^{alis} | | 37 47 10 |
| Ergo Afc. R. ♂ | | 233 47 10 |
| Resp. Longitudo | | 26 2 34 ⅓ |
| Latitudo | | 0 19 34 B. |

Pro refractione & parallaxi
♂ in altit. 8½.

| | |
|--------------------------|---------------|
| Refraçtio | 6' 30" |
| Parallaxis | 1 30 fubt. |
| Relicta refraçtio altit. | 5 0 |
| Resp. in longum | 2 23 add. |
| latum | 4 20 fubt. |
| Ergo vera ♂ Longitudo | 26 5 ⅓ |
| Latitudo | 0 15½ B. |
| Calculus Copern. | |
| Long. 25 51 ⅓ | Lat. 0 8 B. |
| Alphonf. | 26 1 ⅓ 0 4 B. |

Hic Alphonfinus calculus propius
accedit in Longit., Prutenicus in la-
titudine, sed ambo in latitudine ni-
mis parum habent.

DIE 28 DECEMBRIS, MANE.

Attendimus ad ♂ cum ☿ admodum
corniculata ad ipsius congressum ap-
plicaret visibili copula, a qua tamen
circiter gradum distabat. Nam linea
recta per apicem vtriusque cornu

☿ ducta, relinquebat ♂ quasi vno gra-
du versus ortum emplati hora 7. A. M.
Fuit autem ♂ ipsa ☿ multo septentri-
onalior. ♂ apparebat instar stellæ 3
magnitudinis.

Horologium ab hesternâ die non
erat correctum, quare tempora ex
distantia Spicæ a meridie emen-
danda.

Obseruabatur autem primo
♂ stella hoc modo.

| Tempus | Dist. ♂ a Spica | Decl. ♂ | Altit. | Spica a merid. |
|----------|--------------------|---------|--------|-------------------|
| H. M. S. | | | | |
| 7 0 0 | | 21 39½ | 7 10 | 13 20 |
| 7 2 50 | 50 32 | 21 41 | 7 30 | 14 30 |
| 7 8 24 | 50 33½ | 21 41 | 7 50 | 15 34 |
| 7 12 55 | 50 35 | 21 40 | 8 5 | 16 40 |
| 7 16 55 | 50 33½ | 21 40½ | 8 30 | 17 40 |
| 7 21 10 | 50 31 dub. | 21 41½ | 9 20 | |

Pro examinando instrumento &
rimandis refractionibus capiebatur
Spica & Cor ⅓ hoc modo.

H. 7½ Cum Spica esset a meridiano
p. 21 0', distabat a corde ⅓ p.
45 56½'. Fuit tunc declinatio ip-
sius cordis ⅓ p. 25 M. 17 & alti-
tudo p. 7½.

N. B. Pone hora 7½ distantiam ♂
a Spica p. 50 M. 34 & declinationem
21 41.

N. B. Vera declinatio Cordis ⅓
nunc esse debuit P. 25 M. 25. Ergo re-
fraçtio eam 8 minutis minuit, & di-
stantia a Spica vera est 45 56½, quod
insensibiliter differt.

OBSERUATIONES VENERIS.

DIE 28 OCTOBRIS.

Vesperis obseruabatur ♀.

| H. M. S. | Dist. ♀ a ☿ | Decl. ♀ | Alt. ♀ per Rad. | Vult. occ. in æquat. |
|----------|----------------|------------|--------------------|-------------------------|
| 5 49 50 | 50 25 | 25 36½ | | |
| 5 54 | 50 23½ | vno pin. | 1 20 | 18 42½ |

Sed hæc obseruatio vix est suffi-

ciens, quia valde fuit decluius ♀ 1½
grad. alta.

DIE 18 NOUEMBRIS.

Obseruabatur ♀ Heliaca tendens ad
maximam digressionem a ☉.

Corrige ipse horologium ex distan-
tijs æquatorijs, quia ἐν πλάτει ad ☉
primum direximus.

| H. M. S. | Dist. inter ♀ & ♄ | Decl. ♀ | Alt. per Q. min. | Vultur occid. |
|----------|----------------------|------------|---------------------|------------------|
| 4 13 45 | 28 47 | 24 9½ | 8½ | |
| | | 24 10½ | | |
| 4 22 10 | 28 46½ | | 7½ | 22 11 |
| 4 26 0 | 28 44½ | 24 10½ | | 23 12 |
| | | 24 10 | | |
| 4 33 10 | 28 44½ | | 7½ | |

DIE 19 NOUEMBRIS.

Vesperī obseruabatur ♀ Heliaca a ♄.

| H. M. S. | Dist. ♀ a ♄ | Decl. ♀ | Alt. per min. Q. | ♄ or. æquat. |
|----------|----------------|------------|---------------------|-----------------|
| 4 41 15 | 27 48 | 23 58½ | 9½ | 12 1 |
| | | 23 58½ | | |
| 4 47 50 | 27 46½ | | 8½ | 10 27 |
| 4 53 15 | 27 46 | 23 58½ | 8½ | 9 5 |
| 5 3 0 | 27 45½ | | 8 0 | 6 49 |

N. B. Correximus horologium H. 5½, quod tunc citius iusto promotum fuit a meridie 21 M., ideoque particulam plumbi ponderis eius in meridie adiectum rursus ei detraximus.

DIE 3 DECEMBRIS, VESPERI.

H. 4 M. 30 Declinatio ♀ 20 19
20 19½

DIE 9 DECEMBRIS.

| H. M. S. | Dist. ♀ a Vulture | Decl. ♀ | Alt. ♀ | Vlt. alæ Peg. occ. |
|----------|----------------------|------------|------------------------|-----------------------|
| 5 51 20 | 35 39½ | 18 0½ | 7 0 | 4 37 |
| | | 17 59½ | | |
| | | | Luc. mand. Ceti or. | |
| 5 59½ | 35 57½ | | 6½ | 35 24 |

Ex his distantijs potes inuestigare locum ♀ in ☾ loco inquirendo vsurpandum.

Sed videndum potius sequenti die, quis fuerit locus ♀ circa horam 3½ ex ♄, & is per motum eius diurnum cum iam sit in maxima remotione a Sole huc applicandus.

DIE 10 DECEMBRIS.

H. 3 13½ Transiuit ♀ stella per meridianum habens altit.

| | |
|-----------------------|--------|
| per Chalyb. | 16 26½ |
| per Volub. | 16 24 |
| Declin. ♀ vno pinnac. | 17 43 |
| altero | 17 42½ |
| Vera | 17 42½ |

H. 3 16' Inferior limbus ☉ subire

Horizontem vilis est.

3 19 Altit. eadem

per Chalyb. 16 25½

per Volub. 16 23½

Altitudo } 34 5½

per declinationem } 17 42

16 23

Hinc patet quod potius fidendum altitudini per ♀. Volubilem lumpæ, quam per Chalyb. Sed examinandum per stellas.

Postea ♀ obseruabatur in hunc modum.

N. B. Locus ♀ per ☐ ex sequentibus quærendus.

| H. M. | Dist. ♀ a Vult. | Decl. ♀ | Alt. per min. ♀. | Vultur 2 occ. |
|----------------------|--------------------|------------|---------------------|------------------|
| 4 22 | 36 20 | 17 43 | 15 0 | |
| | | 17 42½ | | |
| 4 26½ | 36 21 | | 14½ | 44 30 |
| 4 30 | 36 21½ | | 14½ | 45 33 |
| 4 39 corr. | | | | |
| 4 33 | 36 20½ | 17 42½ | 14½ | |
| | | 17 43 | | |
| ♀ a prima alæ Pegasi | | | | |
| 4 39 | 37 47½ | | | 47 44 |
| 4 48½ corr. | | | | |
| 4 41½ | | 17 42 | 14½ | 48 18 |
| | | 17 41½ | | |
| 4 45½ | 37 48½ | | | 49 18 |
| 4 47 | 37 47½ | | 13½ | 49 55 |
| 4 51 | 37 46½ | 17 42½ | | 50 49 |
| | | 17 42½ | | |
| 4 54½ | 37 46 | | 13½ | 51 37 |

Pone igitur circa horam 4½ dist. ♀ a Vulture 36 21 & eodem tempore a prima alæ 37 48, Declinationem 17 42, Altit. 14.

Postea obseruabatur ♀ a ♄ in hunc modum.

1 Tycho adscript: 59 puto.

2 Alia manu adscriptum est: Vultur per Merid. transiuit iuxta sup. H. 1 M. 36½.

| H. M. | Dist. | Decl. | Altit. | Vult. occ. |
|-------|-------|---------------------|--------|------------|
| 4 58 | 8 34 | ♂ 14 22 ♀ 17 42 | ♂ 17½ | 52 37 |
| 5 2½ | 8 33½ | ♀ 12½ | | 53 51 |
| 5 6 | 8 33½ | ♂ 14 21 ♀ 17 41½ | | 54 34 |
| 5 9½ | 8 32½ | ♂ 17½ ♀ 12 | | 55 39 |

Postea per Armillas zodiacales
obseruauimus ♀ hoc modo.

Verificatis Armillis per Aldeboram
in 4 g. 8' II apparuit ♀

H. 6 16' in 16 5½

Et mox lucida cauda III fuit
per idem instrumentum visa in
18 0½

Fuit tunc prima alæ Peg. occ. 23 54

Erat autem hæc stellula in eadem
cum ♀ Altitudine quasi 5½ g., ideoque
refractio eadem.

At cum stellæ locus deberet esse 5'
anterior re vera hoc tempore, igitur
etiam tantundem Veneris loco detra-
hendum, vt fuerit tunc Longitudo ♀
16 0½.

DIE 11 DECEMBRIS, VESPERI.

H. 3 17' 0" Transiit ♀
per Meridianum habens altitud.
per Chalyb. 16 45½
per Volub. 16 45½
Decl. ♀ aust. vtroque pin. 17 20

Inferior limbus ☉
occid. hora 3 M. 20½

Superior limbus ☉
occid. hora 3 M. 25½

Postea obseruabatur distantia ♂ & ♀.

H. 3 M. 50 30" Dist. inter ♂ & ♀ 7 43

Fuit tunc Decl. ♂ 14 18, ♀ 17 19½
altero pin. 14 17½ 17 19½

Sed fidendum potius declinationi
vtriusque ex altitudine meridiana
derivatæ. Fuit autem circa hoc tem-
pus altitudo ♀ 16½ g. per mobilem
Quadrantem minorem chalybeum.

H. 3 M. 56 Eadem dist. ♀ & ♂ 7 42½
Fuit tunc altit. ♀ 16 30

Eadem in hunc modum repetita.

| H. M. | Dist. ♂ & ♀ | Declin. vtriusque | Altitudo ♀ | ♂ |
|-------|----------------|----------------------|---------------|-------|
| 4 0 | 7 43½ | ♂ 17 20 ♀ 14 18 | 16½ | |
| 4 6 | 7 42½ | | 16 5 | 19 50 |
| 4 10 | 7 42½ | | | |

Postea obseruabatur ♀ a Vulture
in hunc modum.

| H. M. | Dist. ♀ a Vult. | Decl. ♀ | Alt. ♀ | Vulture occid. |
|-------|--------------------|------------|-----------|-------------------|
| 4 13½ | 36 49½ | 17 20 | | 42 23 |
| 4 22½ | corr. | | | |

4 16½ 39 49½ 15 40 43 2

Viceversa a prima alæ Pegasi.

| | | | | |
|-------|--------|--------|-------|-------|
| 4 20½ | 36 55 | | | 44 22 |
| 4 23 | 36 55½ | 17 19½ | 15 25 | |
| 4 32 | corr. | | | |

4 25 36 55½ 15 20 45 23

Postea obseruabatur ♀ per Armil-
las Zodiacales.

H. 5 19' 10" Posito loco Aldeboræ 4° 8'

II inueniebatur locus ♀ in Armil-
lis zodiacalibus in 17 4½

Os Pegasi occ. 31 30

H. 5 25' 30" manente loco Aldeboræ

vt prius, prouenit locus sinistri
humeri ☿ in 17 51½

Os Pegasi occ. 33 2

H. 5 44½ Fuit os Pegasi 38 0 occ.

Posito loco Aldeboræ in 4 8 II

videbatur ♀ stella in 17 5½

Fuit tunc altit. ♀ 9 42

H. 5 47½ Rursus eadem
videbatur vt prius in 17 5½

5 50 Mox videbatur sin.

hum. ☿ vt supra 17 51½

Tunc altitudo ♀ 9 30

Declin. ♀ vno 17 17½
altero 17 16

Supputatio loci ♀ ex obseruationibus
antecedentibus proximis ad dies
9, 10 & 11 Decembris.

Die 10 Decembris H. 4½

| | |
|-------------------|----------|
| Dist. ♀ a Vulture | 36 21 |
| a prima alæ Peg. | 37 48 |
| Decl. ♀ | 17 42 M. |

| | |
|-----------------------------------|-----------|
| Alt. ♀ | 14 0 |
| Decl. Vulturis | 7 52 B. |
| Decl. 1 alæ Pegasi | 13 4 B. |
| Ang. diff. Vulture | 26 9½ |
| afc. ^{alis} a 1 alæ Peg. | 22 15 0 |
| Afc. R. Vulturis | 292 44½ |
| 1 alæ Peg. | 341 9½ |
| Ergo Afc. R. ♀ | |
| a Vulture | 318 53 50 |
| a 1 alæ | 318 54 15 |
| Afc. R. limitata | 318 54 0 |
| Resp. Longitudo | 15 54½ ∞ |
| Latitudo | 1 39½ M. |

Alius inuestigandi locum ♀ modus in triangulis ab iisdem fixis omnia Declinatione, vt Latitudo eius varie exploretur.

| | |
|----------------------------------|------------|
| Datur Vult. Long. | 26 3½ 7 |
| Lat. | 29 21½ B. |
| 1 alæ Peg. Long. | 17 51½ 8 |
| Lat. | 19 26 0 B. |
| Ergo Long. a Vulture | 15 53 58 ∞ |
| 1 alæ Peg. | 15 53 52 |
| Latitudo | 1 38 55 |
| Ex hac itaque ratione H. 4 M. 45 | |
| ♀ Longitudo | 15 53 55 ∞ |
| Latitudo | 1 38 55 M. |
| H. 4 M. 45 limitata vtroque modo | |
| Longitudo | 15 54½ ∞ |
| in altit. 14° visa | |
| Latit. | 1 39 M. |

Medius motus ☉ noster 28 53½ 7.
Differentia 47 0½ iuxta maximam a ☉ elongationem, sed parallaxis & refractionis ♀ hic cavendæ veniunt.

| | |
|---|------------|
| Die 11 Decembris H. 4½ correct. | |
| Diff. ♀ a Vulture | 36 49 40 |
| 1 alæ Peg. | 36 55 20 |
| Ergo ♀ long. a Vulture | 16 56 0 |
| a 1 alæ Peg. | 16 56 20 ∞ |
| Pone itaque ad H. 4½ ♀ limitatam | |
| longitudinem | 16 56½ ∞ |
| latitudinem | 1 35 20 M. |
| Idque in altitudine 15½°. Vnde parallaxis & refractionis postea eliminatur. | |

Si autem locus Veneris reducatur ad diem 9 Decembris, quo ☾ ab eo obseruata est, prouenit

| | |
|--------------------------|----------|
| H. 3 34' Locus ♀ Longit. | 14 48½ ∞ |
| Latitudinis | 1 43 M. |
| Resp. Afc. R. supponenda | 317 49 7 |

N.B. In his obseruationibus ♀ iuxta maximam a ☉ elongationem adhibetur parallaxis eadem quæ ☉^{is} in citima a terra distantia, addita eiusdem quarta parte in consimili vbi que altitudine. Refractionis autem adhibenda stellis fixis, deputata etiam in consimili altitudine æquabitur. At postea discretio differentie parallaxium & refractionum in longum & latum iuxta tabulas fiet.

DIE 15 DECEMBRIS.

| | | | | | | |
|------------------------------|----|----|----------------|------------|-----------|-------------|
| H. 3 18½ Tranſibat ♀ | | | | | | |
| per meridianum habens altit. | | | | | | |
| per Chalyb. | | | | | | |
| per Volub. | | | | | | |
| Declin. ♀ per Armillas | | | | | | |
| 15 46½ | | | | | | |
| 15 47 | | | | | | |
| H. | M. | S. | Diff. ♀ a ♀ | Decl. ♀ | Alt. ♀ | ♀ occid. |
| 3 | 57 | 50 | 4 26½ | | 17 50 | 5 38 |
| 4 | 2 | 55 | 4 26½ | 15 46½ | vtroq. | 6 53 |
| 4 | 9 | 25 | 4 26½ | | 17 10 | |
| 4 | 15 | 0 | 4 26½ | 15 46½ | | 9 53 |
| | | | | 15 46½ | | |

Postea ♀ obseruabatur iuxta maximam digressionem a Sole.

| H. M. | Diff. ♀ a Vulture | Declin. ♀ M. | Alt. ♀ | Vultur occ. |
|-------|-------------------|--------------|--------|-------------|
| 4 30 | 38 48 | 15 46 | 16 45 | 48 52 |
| | | 15 45½ | | |
| 4 33 | 38 47½ | | | 49 34 |
| 4 35½ | 38 46½ | 15 46 | 16 25 | 50 17 |
| | | vtroque) | | |
| 4 39½ | 38 47½ | | 16 10 | 51 16 |
| 4 42 | 38 47½ | 15 46 | 16 0 | 51 52 |
| | | 15 45½ | | |
| 4 45 | 38 47½ | | 15 50 | 52 39 |

Postea ab altera parte obseruabatur
♀ viceversa a prima alæ Pegasi
in hunc qui sequitur modum.

| | | | | | | | | | |
|---|------------------|----|------------------|----|------------------|------------------|----|-----|----|
| 4 | 51 $\frac{1}{2}$ | 33 | 32 $\frac{1}{2}$ | 15 | 45 $\frac{1}{2}$ | 15 | 30 | 54 | 10 |
| | | | | | 15 | 45 $\frac{1}{2}$ | | | |
| 4 | 55 $\frac{1}{2}$ | 33 | 33 $\frac{1}{2}$ | | | 15 | 20 | 55 | 16 |
| 4 | 58 | 33 | 33 $\frac{1}{2}$ | | | 15 | 46 | 15 | 5 |
| | | | | | | 15 | 45 | | |
| 5 | 1 $\frac{1}{2}$ | 33 | 32 $\frac{1}{2}$ | | | 14 | 55 | | |
| 5 | 4 $\frac{1}{2}$ | 33 | 31 $\frac{1}{2}$ | | | 15 | 46 | vno | |
| 5 | 7 $\frac{1}{2}$ | 33 | 31 $\frac{1}{2}$ | | | 14 | 30 | | |

Os Pegasi
occ.
30 25

Atque his duabus distantijs potes
vti triangulariter a polis Eclipticæ
supputando locum ♀, ponendo iuxta
horam 4 M. 50 distantiam ♀ a lucida
Vulturis 38 47 $\frac{1}{2}$, & hinc distantiam
eiusdem a prima alæ Pegasi 33 33 $\frac{1}{2}$.
Postea cauenda erit refractio.

Postea ♀ obseruabatur a lucida in
cauda Cete, quæ est secundæ
magnitudinis, quæ erat quasi
in eadem cum ♀ altitu-
dine, ideoque refrac-
tio parum im-
pedit.

| H. M. | Dist. | Decl. ♀ | Alt. ♀ | Os Peg. occ. |
|--------------------|--------------------|------------|-----------|-----------------|
| 5 14 | 40 5 | | 14 15 | 31 40 |
| 5 16 $\frac{1}{2}$ | 40 5 $\frac{1}{2}$ | 15 45 | 14 0 | 32 17 |
| 5 19 $\frac{1}{2}$ | 40 5 | | 13 50 | 32 58 |
| 5 22 $\frac{1}{2}$ | 40 4 $\frac{1}{2}$ | | 13 35 | 33 48 |

Postea denuo ♀ obseruabatur a Vul-
ture, eo quod Vultur non multo
maiores habet altitudinem
quam ♀, ideoque refrac-
tio in distantia pa-
rum infert.

| H. M. | ♀ a Vulture | Decl. ♀ | Alt. ♀ | Os Peg. occid. |
|--------------------|---------------------|---------------------|-----------|-------------------|
| 5 29 | 38 48 $\frac{1}{2}$ | 15 45 | 13 10 | 35 19 |
| 5 33 | 38 49 $\frac{1}{2}$ | | 12 50 | 36 17 |
| 5 35 $\frac{1}{2}$ | 38 49 $\frac{1}{2}$ | 15 44 | 12 35 | 36 59 |
| 5 38 | 38 49 $\frac{1}{2}$ | 15 44 $\frac{1}{2}$ | 12 20 | 37 33 |

Ex his poteris per Æquatoriam
intercapedinem viceversa inuesti-
gare Ascens. Rectam & declinatio-
nem ♀, ita vt ponatur H. 5 $\frac{1}{2}$ dist. ♀ a

¹ Lineis inducta.

Vulturis lucida 38 49, a lucida Cete
40 5 $\frac{1}{2}$, & adhibeatur declinatio emen-
data ex dextro humero ☿, qui erat
in eodem quasi cum ♀ situ, in hunc
modum.

Habuit dexter humerus ☿ declina-
tionem per Armillas
vno pinn. 2 15 $\frac{1}{2}$
altero 2 14 $\frac{1}{2}$
Deberet esse Declin. 2 14 45

Pro loco ♀ ad diem 15 Decembris.

| | | |
|-----------------|--------------------------|------------------------|
| H. 4 50' | Dist. ♀ a Vulture | 38 47 $\frac{1}{2}$ |
| | 1 alæ Peg. | 33 33 $\frac{1}{2}$ |
| | Ergo Latitudo ♀ M. | 1 16 48 |
| | Ang. diff. long. a Vult. | 24 53 46 |
| | a 1 alæ | 26 53 25 |
| Hinc colligitur | (a Vulture | 20 57 26 $\frac{1}{2}$ |
| | ♀ Longitudo) a 1 alæ | 20 58 15 |
| | Longitudo limitata | 20 57 $\frac{1}{2}$ ☿ |
| | Latitudo | 1 16 $\frac{1}{2}$ M. |

Alia ratio inquirendi locum ♀
ad hunc diem, adhibita
declinatione ♀.

| | | |
|--------------------------|---------------------------|-----------------------|
| H. 5 $\frac{1}{2}$ Dist. | ♀ a Vulture | 38 49 |
| | Declin. Vulturis | 7 52 B. |
| | Declin. ♀ | 15 45 M. |
| | Dist. a luc. caudæ Cete | 40 4 $\frac{1}{2}$ |
| | Decl. luc. caudæ Cete | 20 14 |
| | Afc. R. eius | 5 46 20 |
| | Ang. diff. asc. ♀ a Vult. | 31 6 25 |
| | Ergo hinc Afc. R. ♀ | 323 50 35 |
| | Ang. diff. asc. ♀ | |
| | a cauda Cete | 41 58 50 |
| | Ergo hinc Afc. R. ♀ | 323 47 30 |
| | Afc. R. limitata | 323 49 0 |
| | Declin. ♀ | 15 45 M. |
| | Resp. Longitudo | 20 59 $\frac{1}{2}$ ☿ |
| | Latitudo | 1 16 M. |
| | Altit. ♀ 13 g. | |

DIE 17 DECEMBRIS.

| | | |
|--------------|--------------------------------------|--------------------|
| H. 3 15' 25" | Tranfluit ♀ | |
| | per meridianum habens altit. | |
| | per Chalyb. | 19 5 $\frac{1}{2}$ |
| | per Volub. | 19 5 $\frac{1}{2}$ |
| | Declin. 15 0 exacte, vno pin., inter | |
| | nubes. | |

N.B. ♀ in maxima digressione a ☉.

| H. M. S. | Diff. ♀ a Vult. | Decl. ♀ | Alt. ♀ | ♀ occid. |
|----------|--------------------|------------|-----------|-------------|
| 4 30 10 | | 14 58½ | 17 10 | 16 9 |
| | | 14 59½ | | |
| 4 33 35 | 39 48½ | | 17 0 | 17 12 |
| 4 35 45 | 39 48½ | 14 59 | | 18 30 |
| | | 14 58½ | | |

Postea viceversa ♀ obseruabatur
a prima alæ Pegasi.

| H. M. S. | Diff. ♀ a Vult. | Decl. ♀ | Alt. ♀ | ♀ occid. |
|------------|--------------------|------------|-----------|-------------|
| 4 42½ | 31 55½ | 14 58½ | 16 25 | 55 11 |
| | | vtroque | | |
| 4 45 | 31 54½ | | | 55 45 |
| 4 49 corr. | | | | |
| 4 47 | | 14 57½ | 16 15 | 56 19 |
| | | 14 58 | | |
| 4 50½ | 31 54½ | | | |
| 4 52½ | 31 54½ | 14 57½ | 16 5 | |
| | | 14 57½ | | |

Pone hora 4 M. 45 emendatis distantiam ♀ a lucida Vulturis 39 49, a prima alæ Pegasi 31 55.

Postea ♀ obseruabatur a lucida
caudæ Ceti hoc modo.

| H. M. | Diff. | Declin. | Altitud. | Os Pegasi occ. |
|-------|--------------|---------|----------|-------------------|
| 4 57½ | 38 32½ | | 15 55 | 30 42 |
| 5 0 | 38 32 | 14 57½ | 15 45 | 31 16 |
| | fere vtroque | | | |
| 5 3½ | 38 30 | | 15 30 | 32 3 |
| 5 6½ | 38 30 | 14 57 | 15 10 | 32 44 |
| 5 12½ | 38 30½ | | 14 55 | 34 32 |
| 5 14½ | 38 31½ | 14 57½ | 14 45 | 34 51 |
| 5 17 | 38 32½ | 14 56½ | 14 30 | 35 34 |

Fuit autem ♀ cum hac stella in Cete quasi in æquilibrio Horizontis, quare refraçtio nihil importat in distantia discriminis. Poteris ponere circa horam 5 distantiam Veneris a lucida in Cete 38 32, & cum hac confer distantiam a lucida Vulturis, applicando eam huc per motum ♀, vt sit 39 49½.

Pro examine vero Armillæ, qua declinationes ♀ sumebantur, capiebatur mox in consimili quasi situ

H. 5 M. 23 Declin. finitri

| | |
|-------------------|-------|
| hum. ∞ | 7 15½ |
| pinnacidio altero | 7 15½ |

5 25 Declin. dextri hum. ∞ 2 14½
Altero pinnacidio 2 14

Postea per Æquatorem obseruabatur ♀ & ♀ distantia æquatoria subito, adhibito tempore exacte.

| | Vult. occ. | Occid. | Decl. |
|------------|------------|----------|-------|
| 5 30 12 | 67 11½ | ♀ 34 14½ | 14 56 |
| 5 35 corr. | | | |
| 5 30 42 | 67 19 | ♀ 31 39½ | 13 53 |
| Diff. 0 30 | 7 20 | 2 34 50 | |

Facit 7½ subtrahenda a ♀. Est itaque differentia ascensionalis vtroque modo 2° 43' 15". Atque sic etiam locum ♀ habebis, correctio loco ♀ ex sequentibus obseruationibus, & adhibita vtriusque hic obseruata correctæ declinatione. Est autem ♀ hoc die prope maximam a ☉ digressionem, & vna ☉ est in suo perigæo citra prosthaphæresin vt patet, quod idem sit perigæum ♀.

Inuestigatio loci ♀ ad diem 17 Dec.

| | |
|---------------------------|------------------|
| H. 4½ Diff. ♀ a Vulture | 39 49 |
| a 1 alæ Peg. | 31 55 |
| Ang. differ. longit. | 26 52 33 |
| | 24 55 20 |
| Latitudo ♀ M. | 1 4 27 |
| Long. ♀ a Vulture | 22 56 13 ∞ |
| a 1 alæ | 22 56 20 |
| Ergo H. 4 M. 45 Longitudo | 22 56½ ∞ |
| Vifa ♀ | Latitudo 1 4½ M. |
| ♀ Altit. 16½ g. | |

II. Inuestigatio ♀ loci alio modo ad situm æquatoris.

| | |
|---|----------|
| H. 5 M. 0 Diff. ♀ | |
| a luc. caudæ Cete | 38 32 |
| Declin. ♀ M. | 14 57 |
| Decl. luc. caudæ Cete | 20 14 M. |
| Eodem tempore distantia reducta a Vulture | 39 49½ |
| Declin. Vulturis | 7 52 B. |
| Ergo Af. R. a Vulture | 325 40 |
| a Cauda Cete | 325 38 |

Sed quia incertæ sunt distantia ♀ a cauda Cete acceptæ ob splendorem ☿, habebitur ratio tertiae partis differentiae ab hac stella pro Ascensione recta ♀ limitanda.

Sitque illa 325 39½, Decl. M. 14 57 0

Resp. Longitudo 22 56½

Latitudo 1 5 20 M.

Q Altit. 15° fere.

III. Hora 5½ inuenta est triplici ratione

Afc. R. ¼ 328 23½

H. 5½ Dift. æquat. Q a ¼ 2 42 15

Ideoq. Afc. R. Q 325 41 15

IV. Idem a Vulture explorare in

Dift. Æquat.

H. 5½ Dift. æquat. Q & Vult. 32 57 10

Afc. R. Vulturis 292 44 10

Ergo Afc. R. Q 325 41 20

Declin. vifa 14 56 0

Resp. Longit. . . .

Q in alt. 13½ Latit. . . .¹

Pro² refactionum in Q examinatione conferantur altitudines Merid. potiores cum declinationibus in Altit. 4 & 3 G., adhibita tam motus diurni in declinatione quam parallaxium alteratione.

DIE 20 DECEMBRIS, VESPERI.

H. 3 15½ Tranfuit Q

per Merid. habens Alt.

per Chalyb. 20 20½

per Volub. 20 20

Decl. Q per Armillas 13 45½

13 45½

H. M. Declin. Q Alt. Q Azimuth

3 28½ 13 45½ 20 16

13 45

3 34½ 13 45½ vno 20 12½ 5 0 a meridie

3 38 35 13 45 20 9½ 6 0

13 44½

Resp. in de-

clinatione per supput. 13 45 57

Obferuationes per Radium

H. 4½ Fuit Dift. ¼ & Q 0 36½

4½ Fuit eadem dift. 0 34

4 M. 21 Fuit eadem earundem dift. 0 33

Fuit tunc Declinatio Q 13 45

¼ 13 41½

Sequuntur meliores.

Fuit eadem dift. Fuit tunc Vult. occ.

H. 4 M. 23 0 32½ 53 1

4 28 0 33 53 40

4 29½ 0 32 54 4

Declin. Q 13 44½

¼ 13 41½

Postea ¼ & Q per Æquatorem.

H. M. S. Vultur In æquat. Decl. Altit. vtriusque

4 32 35 54 49½ Q 19 10½ 13 44½

4 32 58 54 56½ ¼ 18 52½ 13 40½ 18½

4 36 45 55 59½ Q 20 20½ 13 44½

4 37 14 56 5 ¼ 19 53½ 13 40½

4 39 48 56 52½ Q 21 15½ 13 44½ 18 0

4 40 24 57 6 ¼ 20 51½ 13 40½ vtriusq.

Mand. Cete or.

4 49 34 47 51 Q 24 6 17 25

4 49 58 47 48½ ¼ 23 48

4 53 15 47 1 Q 25 3 13 44 17 10

4 53 58 46 52½ ¼ 24 33½ 13 40½

Postea obferuabatur Q in hunc modum vt fequitur.

| H. M. S. | Dift. Q a Vult. Lucida | Declinatio vtriusque ¼ | Alt. Q | Vultur occid. |
|----------|------------------------|------------------------|--------|---------------|
| 5 5 50 | 41 27 | | 16 25 | 63 46 |
| 5 8 50 | 41 27 | 13 40½ | 16 10 | 64 30 |
| | | 13 40½ | | |
| 5 12 50 | 41 27½ | | 15 50 | 65 32 |
| | | | | |
| 5 17 25 | 36 18 | 13 40½ | 15 40 | 66 41 |
| | | 13 40½ | | |
| 5 22 40 | 36 17½ | | 15 10 | 68 3 |
| 5 26 0 | 36 17½ | 13 41 | 14 55 | 68 51 |
| | | 13 40½ | | |
| | | 13 42½ | | |

¹ Defunt in codice.

² E codice V. folo.

³ Lineis inducta.

Postea fumebatur ♀ ab extrema alæ Pegafi.

| H. M. | Distantia | Declin. ♀ | Declin. ♀ | Alt. ♀ | Os Pegafi occid. |
|-------|-----------|-----------|-----------|--------|------------------|
| 6 6½ | 39 39½ | | | 11 30 | 50 39 |
| 6 10½ | 39 40½ | 13 39½ | 13 41 | 11 5 | 51 39 |
| | | 13 40 | vtroque | | |
| 6 17½ | 39 39½ | | | 10 25 | 53 20 |
| 6 20½ | 39 39½ | 13 40 | 13 40½ | 10 0 | 54 9 |
| | | 13 39½ | 13 41 | | |

Postea pro inquirenda ♀ refractione. Collatione videlicet cum superioribus facta, inquirebatur Collatio ♀ & ipsius ♀, cum admodum eßent vicini & eidem refractioni obnoxij.

| In horol. H. M. S. | Per Quadrantem Azim. occid. | Volubilem Altitudo | Declinatio & ♀ | Aldehora orient. |
|-----------------------|--------------------------------|-----------------------|-------------------|---------------------|
| 6 52 30 | 53 0 | ♀ 7 3½ | 13 40 | 13 39½ |
| 6 54 40 | | ♀ 6 55 | 13 38 | 13 37½ |
| 7 9 15 | 56 30 | ♀ 5 4 | 13 37 | vtroque |
| 7 11 15 | | ♀ 5 6 | 13 35 | 13 35½ |
| 7 18 20 | 58 30 | ♀ 4 2½ | 13 36 | 13 36½ |
| 7 20 38 | | ♀ 4 2½ | 13 35 | 13 35 |
| 7 23 20 | 59 30 | ♀ 3 30 | 13 35 | 13 35 |
| 7 25 28 | | ♀ 3 29½ | 13 34 | 13 34½ |
| 7 28 35 | 60 30 | ♀ 2 54 | 13 32½ | 13 33 |
| 7 30 48 | | ♀ 2 53½ | 13 32 | 13 32½ |
| 7 35 34 | 62 0 | ♀ 2 6½ | 13 29 | 13 29 |
| 7 37 10 | | ♀ 2 8 | 13 29 | 13 29 |
| 7 40 18 | 63 0 | ♀ 1 34 | | |
| 7 42 10 | | ♀ 1 34 | | |

De ♂ ♀ & circa hoc tempus.

N.B. Die 21 Decembris Vesperis iam præterierat ♂ ♀ & ♀, vt ex sequentibus obseruationibus patet. Nam & ego tunc Landskroniæ existens vidi Hora 4½ quod ♀ eßet ♀ prætergressa paulo plus femidiametro Solari, id est quasi tertia parte vnus gradus, idque in ea linea, quæ tendebat a ♀ per ♀ vsque in primam alæ Pegafi. Die vero sequente videlicet 22 Decembris H. 5½ videbatur ♀ prætergressa Iouem paulo plus duabus diametris Solaribus, i. e. nonnihil vltra gradum, idque in ea linea recta, quæ ducebatur a ♀ per ♀ vsque in extremam alæ Pegafi. Eratque ipsa ♀ vbi-que septentrionalior ♀ in latitudine, adeo vt in ipsa ♀ quæ fuit inter diem 20 & 21, habuerit parte quarta vnus gradus minorem latitudinem Austrinam ipso Ioue, quare borealior appa-

rebat, cum tamen calculus Prutenicus faciat ♀ Ioue meridionaliorem G. 1 M. 12, Alphonfinus exquisite vno gradu.

DIE 21 DECEMBRIS.

Vesperis obseruabantur ♀ & ♀ in Æquatore.

| H. M. S. | In æquat. occ. | Declin. ♀ | Alt. ♀ |
|----------|----------------------|--------------|--------------|
| 4 40 35 | ♀ 20 5 | 13 20½ | |
| | | 13 20½ | |
| 4 55½ | ♀ 22 17 | | 18 20 |
| 4 59½ | ♀ 23 22½ | | |
| 5 0 | ♀ 23 22½ | | |
| 5 10 55 | ♀ 26 12½ | | |
| 5 11 20 | ♀ 26 12½ | | |
| 5 22 | | ♀ 13 20 | |
| | Inter nubes ♀ 13 38½ | | Alt. ♀ 16 22 |

Hæc saltem in ♀ & ♀ hac vespere obseruare licuit, eaque inter densas nubes per quas Planetæ dicti emicabant. Poteris autem ex obseruatione

æquatoria adhibita solum alteratione temporis in Horologio scrupulose ad hoc negotium obseruati distantiam ascensionum rectorum ab inuicem scrutari, quæ limitata esse possit 5 minutis cum $\frac{1}{2}$, quæ \odot orientaliore in Æquatore ipso \uparrow extitit. Fuit autem eodem superior, vt ex declinationum collatione liquet $\frac{1}{2}$ G. vel paulo minus. Hinc de \odot & latitudine vtriusque planetæ collatis antecedentium & consequentium dierum in iisdem obseruationibus ratiocinaberis.

DIE 22 DECEMBRIS.

Vesperis obseruabatur \odot circa Meridianum, postquam inter nubes rariunculas apparuiſſet.

| Horol. | Declinatio \odot & \uparrow | Altitudo \odot & \uparrow | Azimuth \odot & \uparrow |
|--------------------|--|----------------------------------|---------------------------------|
| H. M. S. | | | |
| 3 46 | \odot 12 56 $\frac{1}{4}$ 12 55 $\frac{3}{4}$ | \uparrow 20 54 $\frac{1}{2}$ | 8 0 |
| 3 54 $\frac{1}{2}$ | \odot 12 55 $\frac{1}{2}$ 12 55 $\frac{3}{4}$ | \uparrow 20 43 | 10 0 |
| 3 59 $\frac{1}{2}$ | \odot 12 55 $\frac{1}{2}$ 12 55 $\frac{3}{4}$ | \uparrow 19 50 $\frac{3}{4}$ | 12 5 |
| 4 2 $\frac{1}{2}$ | \uparrow 13 33 $\frac{5}{6}$ 13 34 | \odot 20 29 | 12 5 |
| 4 11 10 | \uparrow 13 34 | \uparrow 19 30 | 15 0 |
| 4 13 55 | \odot 12 56 | \uparrow 20 8 | |

Postea distantia Æquatoriæ
 \uparrow & \odot obseruabantur.

| H. M. S. | Diff. æquat. occ. | Declin. | Alt. \odot | Vult. occ. |
|----------|-------------------------------|--------------------------------|-----------------|---------------------|
| 4 31 10 | \uparrow 19 26 | \uparrow 13 34 | | 56 4 $\frac{1}{2}$ |
| 4 32 | \odot 18 52 $\frac{1}{2}$ | \odot 12 54 $\frac{1}{2}$ | | 56 14 $\frac{1}{2}$ |
| 4 37 45 | \uparrow 21 3 $\frac{1}{2}$ | \uparrow 13 33 $\frac{1}{2}$ | 19 0 | 57 41 |
| 4 38 25 | \odot 20 29 | \odot 12 55 | | |

Postea capiebatur distantia \odot a fixis per Sextantem, & primum a Vulture vt sequitur.

| H. M. S. | Diff. | Decl. \odot | Alt. \odot | Vult. occ. |
|----------|---------------------|---------------------|--------------|------------|
| 4 51 5 | 42 32 | | | |
| 4 53 30 | 41 31 $\frac{1}{2}$ | | | |
| 4 55 10 | 42 32 | 12 54 $\frac{1}{2}$ | 18 10 | |

Viceversa ab extrema alæ Pegasi.

| 5 2 10 | 37 54 $\frac{1}{2}$ | | | 63 44 |
|--------|---------------------|---------------------|-------|-------|
| 5 5 10 | 37 55 | | | 64 27 |
| 5 7 10 | 37 55 | 12 54 $\frac{1}{2}$ | 17 28 | 64 59 |
| | | 12 54 $\frac{3}{4}$ | | |

Post hac vtrunque \uparrow & \odot in Altitudine & Azimuth vna cum Declinatione obseruabamus pro refractione & parallaxi \odot quandoquidem facta declinior.

| H. M. S. | Altit. | Azim. | Declin. \uparrow & \odot | Ext. alæ Peg. occ. |
|----------|--------------------------------|-------|---------------------------------|-----------------------|
| 6 11 40 | \uparrow 11 18 | 44 0 | 13 31 $\frac{1}{2}$ | 15 49 |
| 6 13 55 | \odot 12 0 | | 12 52 | 16 20 |
| 6 16 20 | \uparrow 10 51 $\frac{1}{2}$ | 45 0 | 13 31 $\frac{1}{2}$ | 16 54 |
| 6 18 25 | \odot 11 34 $\frac{1}{2}$ | | 12 51 $\frac{1}{2}$ | 17 29 |
| 6 25 0 | \uparrow 9 58 $\frac{1}{2}$ | 47 0 | 13 31 | 19 4 |
| 6 27 0 | \odot 10 42 $\frac{1}{2}$ | | 12 50 $\frac{3}{4}$ | 19 39 |
| 6 34 0 | \uparrow 9 3 $\frac{1}{2}$ | 49 0 | 13 31 | 21 21 |
| 6 36 0 | \odot 9 48 | | 12 50 $\frac{1}{2}$ | 21 49 |
| 6 43 0 | \uparrow 8 5 | 51 0 | 13 30 | 23 40 |
| 6 45 0 | \odot 8 50 | | 12 50 $\frac{1}{2}$ | 24 6 |
| 6 52 5 | \uparrow 7 6 $\frac{1}{2}$ | 53 0 | 13 29 $\frac{1}{2}$ | 25 55 |
| 6 54 5 | \odot 7 51 $\frac{1}{2}$ | | 12 49 $\frac{1}{2}$ | 26 24 |

Declin. dextri humeri \propto pro
corrigendis Armillis

2 13 $\frac{1}{2}$ Altitudo 14 0
2 14

| | | | | |
|---------|---------------------------|------|---------------------|-------|
| 7 15 30 | \uparrow 4 29 | 58 0 | 13 25 | 31 46 |
| 7 17 25 | \odot 5 12 | | 12 45 | 32 12 |
| 7 25 25 | \uparrow 3 20 | 60 0 | 13 20 $\frac{1}{2}$ | 34 18 |
| 7 27 20 | \odot 4 2 | | 12 43 | 34 38 |
| 7 33 20 | \uparrow 2 25 | 62 0 | 13 22 | 36 12 |
| 7 35 25 | \odot 3 5 $\frac{1}{2}$ | | 12 43 | 36 38 |
| | incerta | | incerta | |
| 7 43 50 | \uparrow 1 14 | 64 0 | | 38 50 |
| 7 45 20 | \odot 2 1 $\frac{1}{2}$ | | | |

Hæc obseruationes diligenter sunt acceptæ, sed aer hac vespere craſſus & minus defecatus extitit circa primas præcipue obseruationes.

DIE 23 DECEMBRIS.

Vesperis obseruabatur \odot non procul a Meridiano.

| H. M. S. | Declinatio | Azim. \odot | Altitudo |
|----------|---|---------------|---------------------|
| 4 12 45 | \odot 12 29 $\frac{1}{2}$ 12 30 | 16 0 | 20 24 |
| 4 16 35 | | 17 0 | 20 16 |
| 4 24 35 | \uparrow 13 28 $\frac{1}{2}$ 13 28 | 19 0 | 19 55 $\frac{1}{2}$ |

Postea distantia æquatoria ♀ & ♀.

| H. M. S. | Declinatio | Dist. æquat. occid. | Vultur occid. |
|----------|------------|------------------------|-------------------------|
| 4 29 40 | ♀ 13 29 | 20 55½ | |
| 4 30 15 | ♀ 12 29½ | 19 40½ | |
| 4 33 20 | ♀ | 21 49½ | |
| 4 33 54 | ♀ | 20 32½ | |
| 4 38 20 | ♀ 13 28 | 23 6½ | |
| 4 39 5 | ♀ 12 29½ | 21 51½ | |
| 4 50 55 | ♀ | 24 47 | |
| 4 54 5 | ♀ 12 28* | 25 36½ | 63 1½ inter nubes |

* vno pinn. inter nubes.

DIE 25 DECEMBRIS, VESPERI.

Post rectificatum Quadrantem ex-
acte.

| H. M. S. | Declin. ♀ | Azim. ♀ | Alt. ♀ | Dist. ♀ a Mer. verf. occ. |
|----------|-----------|---------|--------|---------------------------------|
| 3 33 0 | 11 39½ | 7 0 | 22 13½ | |
| | 11 40 | | | |
| 3 40 40 | 11 39½ | 9 0 | 22 4 | 8 24 |
| | 11 39½ | | | |
| 3 44 32 | 11 39½ | 10 0 | 22 0 | 9 23 |
| 3 48 14 | 11 39½ | 11 0 | 21 53½ | 10 21 |
| 3 52 15 | 11 39½ | 12 0 | 21 48 | 11 20 |
| 3 56 5 | 11 39½ | 13 0 | 21 41½ | 12 29 |
| | 11 39½ | | | |
| 4 0 0 | | 14 0 | 21 33½ | 13 16 |
| | | bona | | |
| 4 3 45 | 11 38½ | 15 0 | 21 25 | |
| | 11 38½ | | | |
| 4 9 45 | ♀ 13 20½ | 19 0 | 19 3½ | 18 24 |
| | 13 20 | | | |
| 4 18 58 | ♀ 11 39½ | 19 0 | 20 47½ | |
| | 11 39 | | | |
| 4 23 25 | ♀ 13 19½ | 19 30 | 18 23 | 21 52 |
| | 13 20 | | | |
| 4 26 40 | ♀ | 22 30 | 20 26 | |
| 4 29 20 | ♀ 13 19½ | 24 0 | 18 3½ | 23 24 |
| | 13 20½ | | | |
| 4 33 15 | ♀ 13 20 | 25 0 | 17 50½ | |
| | 13 20½ | | | |

Postea ♀ obseruabatur donec ha-
beret similem altitudinem cum
ijs quæ in ♀.

| H. M. S. | Decl. ♀ | Azim. ♀ | Alt. ♀ | ♀ occ. |
|----------|---------|---------|--------|--------|
| 4 38 10 | 11 38½ | 24 0 | 19 48½ | 22 57 |
| | 11 38½ | | | |

| H. M. S. | Decl. ♀ | Azim. ♀ | Alt. ♀ | Dist. ♀ a Mer. verf. occ. |
|----------|---------|---------|--------|---------------------------------|
| 4 42 3 | 11 38½ | 25 0 | 19 34½ | 63 45 |
| | 11 39 | | | |
| 4 46 5 | 11 39 | 26 0 | 19 20½ | 64 40 |
| 4 49 54 | | 27 0 | 19 5½ | 65 40 |
| 4 53 55 | | 28 0 | 18 51 | 66 45 |
| 4 58 10 | | 29 0 | 18 33½ | 67 47 |
| 5 2 8 | vno | 30 0 | 18 17 | 68 52½ |
| 5 5 58 | 11 38½ | 31 0 | 18 2 | 69 51½ |
| 5 10 5 | 11 38 | 32 0 | 17 43 | 70 53 |
| 5 14 4 | 11 38½ | 33 0 | 17 23½ | 71 54 |
| 5 18 12 | 11 38½ | 34 0 | 17 5½ | 72 56½ |
| 5 22 15 | 11 37½ | | | 73 57½ |
| 5 26 15 | 11 37 | 36 0 | 16 26½ | 74 59 |
| | 11 37½ | | | |
| 7 19 38 | 11 29½ | 62 0 | 4 34½ | Aldeb. or. 47 1 |
| | 11 30½ | | | |

Postea subito occasus & cœlum nu-
bibus inducebatur, vt nullæ amplius
in his obseruationes haberi poterint.
Fuit autem antea satis serenum & aër
tranquillus, non tamen admodum
frigidus, sed medio modo se habens
inter resolutionem & congelationem
tanquam verna esset aura, nonnihil
vaporosa serena tamen.

Potes autem his obseruationibus
fidere in inquirenda refractione &
parallaxi ♀, collatione ad ♀ debito
modo facta, & limitatis vbi opus fue-
rit ipsis obseruationibus. Nam fuere
satis diligentes, & quadrans volubi-
lis priusquam capiebantur tam in
Azimuthali ductu quam altitudine
accurata diligentia corripiebatur.

Hac eadem Vespera
obseruabatur ♀ a Vulture.

| H. M. S. | Distantia | Declin. | Vult. occ. |
|-------------------------------|-----------|---------|---------------|
| 5 41 45 | 44 11½ | | 78 51 |
| 5 45 0 | 44 12½ | 11 37½ | 79 42 |
| | | 11 37½ | |
| 5 48 20 | 44 12½ | | 80 32 |
| Viceversa a Lucida Caudæ Cete | | | |
| 5 52 40 | 32 59 | 11 37½ | 81 35 |
| | | 11 37½ | |
| 5 57 15 | 32 58½ | | 82 47 |
| 6 0 10 | 32 58 | 11 36 | 83 28 |
| | | 11 36½ | Alt. 13 27 |

Deinde ♀ pari modo in declui situ
obseruabatur vt sequitur.

| H. M. S. | Azimuth ♀ | Altit. | Declin. | Aldeb. orient. |
|----------|-----------|--------------------|-------------------------------|--------------------|
| 7 19 35 | 62 0 | 4 55 | 11 2 $\frac{1}{2}$ | |
| | | | 11 3 $\frac{1}{2}$ | |
| 7 24 8 | 63 0 | 4 21 $\frac{1}{2}$ | 11 2 | 44 55 |
| | | | 11 2 $\frac{1}{2}$ | bona observ. |
| 7 28 42 | 64 0 | 3 48 $\frac{1}{2}$ | 11 1 $\frac{1}{2}$ | 43 45 |
| | | | 11 2 | |
| 7 33 15 | 65 0 | 3 12 $\frac{1}{2}$ | 11 0 $\frac{1}{2}$ | 42 34 |
| | | | 11 1 | |
| 7 37 58 | 66 0 | 2 38 | 10 59 $\frac{1}{2}$ | 41 13 |
| 7 42 34 | 67 0 | 2 5 | 10 56 $\frac{1}{2}$ | 40 4 |
| 7 46 35 | 68 0 | 1 32 $\frac{1}{2}$ | non potuit amplius haberi. | 39 7 $\frac{1}{2}$ |

Fuit satis exquisita serenitas & tranquillitas, flante leniter septentrionali vento, & instrumentum erat antea correctum, vt & heri, ita vt nihil in Azimuthis vel Altitudinibus desideraretur.

Vt autem eius, si qua fuerat versus occasum inclinatio in Declinationibus, posset debito modo limitari, capiebatur dexter humerus ☿ H. 6 M. 1. cum Vultur occid. esset 83 49, habuit in declinatione

| | | |
|-------------------------|---------------------------------|--------------------|
| | 2 14 | Altit. |
| H. 6 M. 6 $\frac{1}{2}$ | 2 14 $\frac{1}{2}$ | 19 1 $\frac{1}{2}$ |
| | 2 15 | |
| | 2 14 $\frac{1}{2}$ ¹ | |

Hinc examina Declinationes ♀ & ♀ in pari situ.

DIE 27 DECEMBRIS.

Vesperis obseruabantur ♀ & ♀ vt sequitur.

H. 3 M. 8 S. 25 Transijt ♀ per Meridianum habens Altitudinem.
per Chal. 23 18 Decl. per 10 49 $\frac{1}{2}$
per Vol. 23 18 $\frac{1}{2}$ Armill. 10 50

| H. M. S. | Azimuth ♀ | Altit. | Declin. | Q in æquat. occ. |
|----------|-----------|---------------------|---------------------|------------------------|
| 3 30 50 | 6 0 | 23 7 | 10 48 $\frac{1}{2}$ | 5 32 |
| | | | 10 48 $\frac{1}{2}$ | |
| 3 34 55 | 7 0 | 23 2 $\frac{1}{2}$ | | 6 31 |
| 3 38 55 | 8 0 | 22 59 | 10 48 $\frac{1}{2}$ | |
| | | | 10 48 $\frac{1}{2}$ | |
| 3 46 22 | 10 0 | 22 50 $\frac{1}{2}$ | | 9 20 |

| | | | | |
|---------|------|---------------------|---------------------|-------|
| 3 50 25 | 11 0 | 22 43 | 10 48 | 10 21 |
| | | | 10 48 $\frac{1}{2}$ | |
| 3 58 5 | 13 0 | 22 32 $\frac{1}{2}$ | | 12 18 |
| 4 2 0 | 14 0 | 22 24 $\frac{1}{2}$ | 10 47 $\frac{1}{2}$ | |
| | | | 10 48 $\frac{1}{2}$ | |

Postea sumebatur æquatoria distantia ♀ & ♀ in modum vt sequitur.

| H. M. S. | Dist. æquat. occid. | Declin. | Altit. | Vultur occid. |
|----------|------------------------|---------------------|--------|-------------------------|
| 4 37 24 | 25 36 $\frac{1}{2}$ | 13 10 $\frac{1}{2}$ | 17 40 | 63 10 $\frac{1}{2}$ |
| 4 37 55 | 21 56 $\frac{1}{2}$ | 10 47 $\frac{1}{2}$ | | 63 28 |
| 4 42 15 | 26 50 $\frac{1}{2}$ | 13 10 $\frac{1}{2}$ | | 64 26 |
| 4 42 54 | 23 9 | 10 47 $\frac{1}{2}$ | 20 40 | 64 35 $\frac{1}{2}$ |
| 4 46 36 | 27 53 $\frac{1}{2}$ | 13 10 $\frac{1}{2}$ | 17 5 | 65 28 |
| 4 46 58 | 24 7 $\frac{1}{2}$ | 10 47 $\frac{1}{2}$ | | 65 34 |
| 4 51 52 | 29 12 $\frac{1}{2}$ | 13 10 $\frac{1}{2}$ | | 66 48 |
| 4 52 28 | 25 29 $\frac{1}{2}$ | 10 47 $\frac{1}{2}$ | 20 5 | 67 0 |
| | | | | vel 66 59 $\frac{1}{2}$ |

Postea ♀ obseruabatur in consimili cum ♀ antea altitudine.

| H. M. S. | Azim. occid. ♀ | Altit. | Declin. | Vultur occid. |
|----------|-------------------|---------------------|---------------------|---------------------|
| 5 1 18 | 29 0 | 19 27 $\frac{1}{2}$ | 10 47 | 69 4 $\frac{1}{2}$ |
| | | vno | | |
| 5 5 32 | 30 0 | 19 11 | 10 47 | 70 7 $\frac{1}{2}$ |
| | | vno | | |
| 5 9 34 | 31 0 | 18 53 | 10 46 $\frac{1}{2}$ | 71 7 |
| | | altero | | |
| 5 13 44 | 32 0 | 18 36 | 10 46 $\frac{1}{2}$ | 72 10 |
| 5 17 50 | 33 0 | 18 16 | 10 46 $\frac{1}{2}$ | 73 11 $\frac{1}{2}$ |
| 5 22 4 | | 17 58 $\frac{1}{2}$ | 10 46 | 74 13 |

Postea obseruabatur Os Pegasi in Declinatione & Altitudine atque Azimutho, vt Armillarum, si qua requireretur limitatio in ♀ & ♀ hinc restitui posset.

| | | | | |
|---------|------|---------------------|-------------------|-------------------|
| 5 30 40 | | 29 3 | 8 2 $\frac{1}{2}$ | Prima vtrique. |
| 5 34 28 | | | 8 3 $\frac{1}{2}$ | alse Pegasi |
| | | | bona occid. | |
| 5 41 28 | 60 0 | 27 53 $\frac{1}{2}$ | 8 3 $\frac{1}{2}$ | 30 26 |
| | | | | vtrique |

Postea obseruabatur ♀ distantia a Vulture & viceversa a Cauda Ceti.

| H. M. S. | Dist. a Vulture | Declin. | Altit. | Prima alæ. Peg. occ. |
|----------|---------------------|---------------------|--------|-------------------------|
| 5 49 5 | 45 19 $\frac{1}{2}$ | | 15 40 | 32 32 |
| 5 51 35 | 45 18 | | | |
| 5 53 40 | 45 18 $\frac{1}{2}$ | 10 46 | | 33 41 |
| | | 10 45 $\frac{1}{2}$ | | |

¹ Adscriptum est in margine: Quod mediocriter concordat cum vera declinatione.

Viceverfa a Cauda Ceti.

| | | | | | | |
|---|----|----|----|-----|--------|-------|
| 5 | 59 | 50 | 31 | 49+ | 34 | 54½ |
| 6 | 1 | 50 | 31 | 47 | 10 45½ | 14 20 |
| | | | | | 10 45½ | |

| | | | | | | |
|---|---|----|----|-----|----|----|
| 6 | 5 | 50 | 31 | 47½ | 36 | 41 |
|---|---|----|----|-----|----|----|

Postea obseruabantur ♀ & ♀ eodem modo vt sequitur.

| H. M. S. | Azimuth | Altit. | Declin. | Extr. alæ | Peg. occ. |
|----------|---------|--------|---------|-----------|-----------|
| 6 27 15 | 4 52 | 0 | 7 58½ | 13 9½ | 25 1 |
| | | | | bis f | |

| | | | | | | |
|------|---|------|---|--------|--------|-------|
| 6 40 | 0 | ♀ 52 | 0 | 10 41½ | 10 43½ | 28 7½ |
| | | | | | 10 44 | |

| | | | | | | |
|------|----|------|---|-------|--------|-------|
| 6 44 | 34 | ♀ 53 | 0 | 10 9½ | 10 42½ | 29 17 |
|------|----|------|---|-------|--------|-------|

| | | | | | | |
|------|----|---|--|-------|-------|--------|
| 6 49 | 25 | ♀ | | 5 45½ | 13 5½ | 30 32½ |
|------|----|---|--|-------|-------|--------|

| | | | | | | |
|------|----|------|---|-------|-------|-------|
| 6 52 | 30 | ♀ 57 | 0 | 5 22½ | 13 5½ | 31 14 |
|------|----|------|---|-------|-------|-------|

| | | | | | | |
|------|----|------|---|-------|-------|-------|
| 6 57 | 15 | ♀ 58 | 0 | 4 51½ | 13 3½ | 32 26 |
|------|----|------|---|-------|-------|-------|

| | | | | | | |
|--|--|--|--|-------|--|--|
| | | | | bonaf | | |
|--|--|--|--|-------|--|--|

| | | | | | | |
|-----|----|------|---|------|-------|--------|
| 7 1 | 54 | ♀ 59 | 0 | 4 19 | 13 3½ | 33 35½ |
|-----|----|------|---|------|-------|--------|

| | | | | | | |
|-----|----|------|---|------|------|-------|
| 7 6 | 46 | ♀ 60 | 0 | 3 46 | 13 3 | 34 46 |
|-----|----|------|---|------|------|-------|

| | | | | | | |
|------|----|------|---|-------|-------|--------|
| 7 11 | 30 | ♀ 61 | 0 | 3 12½ | 13 2½ | 35 57½ |
|------|----|------|---|-------|-------|--------|

| | | | | | | |
|--|--|--|--|-------|--|--|
| | | | | bonaf | | |
|--|--|--|--|-------|--|--|

| | | | | | | |
|------|----|------|---|------|------|-------|
| 7 16 | 24 | ♀ 62 | 0 | 2 41 | 13 1 | 37 11 |
|------|----|------|---|------|------|-------|

| | | | | | | |
|------|---|------|----|-----|--------|--|
| 7 21 | 5 | ♀ 63 | 0½ | 2 7 | 12 59½ | |
|------|---|------|----|-----|--------|--|

dubia)

Postea ♀ pari ratione in declini situ capiebatur.

| H. M. S. | Azim. | Altit. | Declin. | Aldeb. | orient. |
|----------|-------|--------|---------|--------|---------|
| 7 30 50 | 63 0 | 4 51½ | 10 39½ | 44 24½ | |
| 7 35 40 | 64 0 | 4 15½ | 10 38 | 43 11 | |
| 7 40 18 | 65 0 | 3 41½ | 10 37½ | 41 58 | |
| 7 45 10 | 66 0 | 3 5½ | 10 36 | 40 48½ | |
| 7 49 50 | 67 0 | 2 32 | 10 34½ | 39 37 | |
| 7 54 45 | 68 0 | 1 59 | 10 32 | 38 25½ | |
| 7 59 32 | 69 0 | 1 24½ | | 37 15 | |

Non poterat amplius obseruari.

Postea capiebatur prima alæ Pegasi in confimili versus polum situ.

| | | | | | | |
|------|----|----|---|--------|-------|--------|
| 8 7 | 18 | 78 | 0 | 23 42½ | | 35 16 |
| 8 11 | 54 | | | 23 6½ | 13 2½ | |
| 8 21 | 5 | 81 | 0 | 21 49½ | 13 3½ | 31 49½ |
| 8 25 | 40 | 82 | 0 | 21 12 | 13 3½ | 30 38 |

DIE 28 DECEMBRIS, VESPERI.

| | | | |
|---------------------|-----|-------------------------------|--------|
| H. 3 M. 6 | 40" | Transiit ♀ | |
| | | per Merid. habens Altitudinem | |
| | | per Chalyb. | 23 41½ |
| | | per Volub. | 23 41½ |
| Declin. in Armillis | | | 10 22½ |
| max. | | | 10 22 |

| H. M. S. | Declin. ♀ | Azim. | Altit. | ♀ occid. in æquat. |
|----------|-----------|-------|--------|--------------------|
| 3 48 25 | 10 23 | 11 0 | 23 11½ | |
| | 10 23½ | | | |
| 3 52 20 | | 12 0 | 23 4½ | 11 10 |
| 3 56 10 | 10 23 | 13 0 | 22 58 | |
| | 10 23 | | | |
| 4 0 0 | | 14 0 | 22 50½ | 13½ |
| 4 3 50 | 10 21 | 15 0 | 22 42½ | |
| | 10 22 | | | |
| 4 30 50 | 10 22½ | 22 0 | 21 33 | |
| | 10 22 | | | |
| 4 35 0 | | 23 0 | 21 19½ | |
| 4 39 4 | | 24 0 | 21 6 | 22 40 |
| 4 42 55 | 10 20 | 25 0 | 20 53 | |
| | 10 21½ | | | |
| 4 50 50 | | 27 0 | 20 24½ | 25 37 |
| 4 59 12 | 10 21 | 29 0 | 19 53 | Vultur occ. |
| 5 3 10 | 10 20 | 30 0 | 19 37 | 70 57 |
| 5 7 15 | | 31 0 | 19 21½ | |
| 5 11 20 | 10 21½ | 32 0 | 19 2 | 72 47 |
| | bonaf | | | |

Mox lucida Cete tranfiit Merid. in Alt. 13 57½, Declin. 20 10½ eiusdem per Armillas 20 10

Postea obseruabatur ♀ primo a Lucida Vulturis, quasi in aßimili Altitudine, quare nulla refractio se infinuare potuit.

| H. M. S. | Dist. | Declin. ♀ | Altit. ♀ | Vulturis luc. occ. |
|----------|--------|-----------|----------|--------------------|
| 5 27 0 | 45 52 | | 17 30 | |
| 5 30 15 | 45 50½ | 10 21½ | | 77 30 |
| | | 10 21½ | | |
| 5 35 40 | 45 52½ | | 16 58 | 78 57 |

Viceverfa a Lucida Cauda Cete.

| | | | | |
|---------|--------|--------|-------|-------|
| 5 46 20 | 31 16½ | 10 19 | 16 4 | 81 27 |
| | | 10 18 | | |
| 5 52 55 | 31 17½ | | 15 28 | 83 2 |
| 6 0 5 | 31 17 | 10 18 | 15 17 | 84 45 |
| | | 10 17½ | | |

Postea ♀ obseruabatur vsque in occasum.

| H. M. S. | Azimuth | Declin. | Altit. | Mandib. Cete occ. |
|----------|---------|---------|----------|-------------------|
| 7 33 15 | 64 0 | 10 8½ | 4 45 | 0 23 |
| | | | vtroque) | |

| | | | | |
|---------|---------|-----------------|------|-------------------|
| 7 37 45 | 65 0 10 | 8 $\frac{1}{2}$ | 4 13 | 1 32 |
| 7 42 42 | 66 0 | | 3 35 | 2 43 |
| 7 47 25 | 67 0 10 | 7 | 3 1 | 3 51 |
| 7 52 15 | 68 0 10 | 6 $\frac{1}{2}$ | 2 23 | dub. |
| 7 57 0 | | 10 5 | 1 50 | 6 8 $\frac{1}{2}$ |

Postea ☽ obseruari non poterat amplius hac vesp̄era.

DIE 31 DECEMBRIS, VESPERI.

| H. M. S. | Azim. ☽ occid. | Altit. ☽ | Declin. | ☽ occid. in æquat. |
|----------|-------------------|---------------------|-------------------|-----------------------|
| 3 33 50 | 8 0 | 24 42 $\frac{1}{2}$ | 9 5 $\frac{1}{2}$ | 7 19 |
| | | | 9 6 $\frac{1}{2}$ | |
| 3 41 20 | 10 0 | 24 33 | 9 5 $\frac{1}{2}$ | |
| | | | 9 5 $\frac{1}{2}$ | |
| 3 48 45 | 12 0 | 24 20 $\frac{1}{2}$ | 9 6 | 10 56 |
| | | | 9 5 $\frac{1}{2}$ | |
| 3 56 30 | 14 0 | 24 9 | 9 6 $\frac{1}{2}$ | 12 52 |
| | | | 9 5 $\frac{1}{2}$ | |
| 4 4 10 | 16 0 | 23 52 | 9 5 $\frac{1}{2}$ | |
| | | | 9 6 | |

Postea obseruabantur ♃ & ♀ in æquatoria distantia.

| H. M. S. | Dist. æquat. | Altitudo | Declinatio |
|-----------|--------------------------|---------------------|---------------------|
| 4 29 44 ♃ | occ. 27 9 $\frac{1}{2}$ | 17 31 $\frac{1}{2}$ | |
| 4 30 4 ♀ | occ. 21 11 | 22 41 | |
| 4 32 42 ♃ | occ. 27 54 $\frac{1}{2}$ | | ♃ 12 54 |
| 4 33 30 ♀ | occ. 22 2 $\frac{1}{2}$ | | ♀ 9 4 $\frac{1}{2}$ |
| 4 38 20 ♃ | occ. 29 19 | 17 0 | |
| 4 39 10 ♀ | occ. 33 25 $\frac{1}{2}$ | 22 9 | |

Postea obseruabatur distantia ☽ a Vulture, cum quo ad æquilibrium Horizontis fuit disposita.

| H. M. S. | Distantia | Declin. | Vultur occid. |
|----------|---------------------|-------------------|---------------|
| 4 52 25 | 47 26 $\frac{1}{2}$ | | 71 19 |
| 4 55 40 | 47 25 $\frac{1}{2}$ | 9 5 $\frac{1}{2}$ | 72 2 |
| | | 9 6 | |
| 4 59 20 | 47 26 $\frac{1}{4}$ | | 72 55 |
| 5 3 50 | 47 26 $\frac{1}{2}$ | 9 5 $\frac{1}{2}$ | 21 0 |
| | | 9 5 $\frac{1}{2}$ | |

Viceversa a Cauda Cete.

| | | | |
|---------|---------------------|---------|---------------------|
| 5 11 40 | 29 44 $\frac{1}{2}$ | | 75 51 $\frac{1}{2}$ |
| 5 14 5 | 29 43 | 9 5 vno | 20 10 |
| 5 16 50 | 29 43 $\frac{1}{2}$ | | 77 9 |

Hæc stella in Cete ob vapores difficulter obseruabatur hac vesp̄era. Fuit autem ☽ hac paulo eleuatio inter obseruandum.

Deinde obseruabatur a Lucida ♀.

| H. M. S. | Dist. a luc. ♀ | Altit. | Declin. | Vultur occid. |
|----------|-----------------------|--------|-------------------|---------------|
| 5 20 50 | 56 54 $\frac{1}{2}$ + | 19 36 | | |
| 5 24 40 | 56 53 | 19 5 | 9 4 | 79 12 |
| | | | 9 4 $\frac{1}{2}$ | |
| 5 28 10 | 56 53 | 18 50 | | |
| 5 32 10 | 56 53 | | 9 3 | 81 6 |
| | | | 9 3 $\frac{1}{2}$ | |

OBSERVATIONES PRO STELLIS FIXIS QUÆ DESIDERANTUR IN FIXARUM CATALOGO.

DIE 14 FEBRUARIJ, VESPERI.

| | | |
|----------------------------|--|---------------------|
| 4 ^æ mag. maior. | Inter flexuram Caſiopejæ & ſiniſtrum genu Cephei | 18 0 melior |
| | | 18 0 $\frac{1}{2}$ |
| | Inter dextrum humerum Cephei & eandem | 18 36 $\frac{1}{2}$ |
| | in ſiniſtro genu | 18 37 $\frac{1}{2}$ |
| | Inter dextrum humerum Cephei & paruam | 15 49 |
| | in fœmore ſupra genu ſiniſtrum | 15 49 $\frac{1}{2}$ |
| 6 mag. | Inter eandem & flexuram Caſiopejæ | 17 29 |
| | | 17 30 |
| mag. 6 | Inter flexuram Caſiopejæ & dextrum genu Cephei | |
| | bis rep. | 27 48 |
| | Inter eandem & dextrum humerum Cephei | 16 9 |
| | | 16 9 $\frac{1}{2}$ |

DIE 28 FEBRUARIJ, VESPERI.

| | | |
|-------------|--|---------------------|
| 4 mag. maj. | Inter stellam Polarem & 10 in tyara Cephei | 31 29 bis |
| 4 mag. | Inter eandem & 11 in tyara Cephei | 32 38 $\frac{1}{2}$ |
| | | 32 37 $\frac{1}{2}$ |

Viceversa.

| | |
|---|-------------------------|
| Inter decimam Cephei (priore modo obseruatam) | |
| & flexuram Caßiopejæ | 20 51 $\frac{1}{2}$ bis |
| Inter 11 (posteriore modo obseruatam) | |
| & flexuram Caßiopejæ | 20 57 bis |

DIE 9 MARTIJ, VESPERI.

| | | |
|-----------|--|------------------------|
| magnit. 5 | Inter 22 in pede finistro Bootis & caudam Ω | 28 57 bis |
| 5 mag. | Inter cor Ω & 21 in finistro pede Bootis | 53 3 $\frac{1}{2}$ bis |
| | Inter cor Ω & 20 in finistro pede Bootis | 54 45 |
| | | 54 44 $\frac{3}{4}$ |

OBSERVATIONES ANNI 1595.

OBSERVATIONES SOLIS.

DIE 1 JANUARIJ.

| | |
|------------------------|--------|
| Altit. ☉ Merid. | |
| per Chalyb. | 12 17½ |
| per Volub. | 12 17 |
| per Mural. | 12 17½ |
| Declin. ☉ per Armillas | 21 50½ |
| | 21 50½ |

Fuit satis bene serenum.

DIE 2 JANUARIJ.

| | |
|------------------------------|--------|
| Altit. ☉ Merid. | |
| per Chalyb. | 12 26½ |
| per Volub. | 12 26½ |
| per Mural. | 12 26½ |
| Declin. per Armillas maiores | 21 38½ |
| | 21 39 |

Erat satis bene serenum, sed aër fluctulentus & intranquillus.

DIE 24 JANUARIJ.

| | |
|----------------------|--------|
| Altit. ☉ Merid. | |
| per Chalyb. | 17 32½ |
| per Volub. | 17 32½ |
| Declin. per Armillas | 16 34½ |
| | 16 35 |

Erat mediocriter serenum.

DIE 25 JANUARIJ.

| | |
|------------------------|--------|
| Altit. ☉ Merid. | |
| per Chalyb. | 17 50½ |
| per Volub. | 17 50 |
| Declin. ☉ per Armillas | 16 15½ |
| | 16 15½ |

Fuit bene serenum.

DIE 6 FEBRUARIJ.

| | |
|------------------------------|--------|
| Altit. ☉ Merid. | |
| per Chalyb. | 21 42½ |
| per Volub. | 21 42½ |
| Declin. per Armillas maiores | 12 23½ |
| | 12 24 |

Horologium ab hora 4^a pomeridiana hesternæ diei 3½ M. citius iusto ibat. Fuit bene serenum.

DIE 8 FEBRUARIJ.

| | |
|----------------------|--------|
| Altit. ☉ Merid. | |
| per Chalyb. | 22 25½ |
| per Volub. | 22 24½ |
| Declin. per Armillas | 11 41 |
| maiores | 11 40½ |

Erat satis bene serenum.

Horologium tardius iusto ibat a Meridie antecedentis diei 9 M. sed de corrigendo horologio ex his incertum erit, quod pondus in aquam immersum fuit.

DIE 13 FEBRUARIJ.

| | |
|----------------------|--------|
| Altit. ☉ Merid. | |
| per Chalyb. | 24 12½ |
| per Volub. | 24 11 |
| Declin. per Armillas | 9 51½ |
| | 9 52½ |

Corrigebatur Horologium, quod plus iusto 8 Minutis mouebatur. Fuit mediocriter serenum.

DIE 14 FEBRUARIJ.

| | |
|----------------------|--------|
| Altit. ☉ Merid. | |
| per Chalyb. | 24 32½ |
| per Volub. | 24 33 |
| Declin. per Armillas | 9 31 |
| | 9 30 |

Corrigebatur horologium quod 2 M. plus iusto motum fuit ab Hora 12½ vespertina antecedente, quod animadverti potest in temporibus corrigendis, quomodo autem tunc correctum est horologium vide superius¹.

DIE 15 FEBRUARIJ.

| | |
|----------------------|--------|
| Altit. ☉ Merid. | |
| per Chalyb. | 24 57 |
| per Volub. | 24 55½ |
| Declin. per Armillas | 9 8½ |
| | 9 9 |

Horologium tardius iusto ibat 9 Min. ab hesterno Meridie, sed pondus eius iam in aquam immersum fuit.

Non fuit satis serenum.

¹ Vide infra inter observationes lunæ d. 13 Feb.

DIE 16 FEBRUARIJ.

| | |
|----------------------|---------------------|
| Alt. ☉ Merid. | |
| per Chalyb. | 25 19 $\frac{1}{2}$ |
| per Volub. | 25 19 $\frac{1}{2}$ |
| Declin. per Armillas | 8 45 $\frac{1}{2}$ |
| | 8 45 |

Fuit inter obseruandum mediocriter ferenum.

Horologium a Meridie antecedentis diej 5 Min. tardius iusto ibat.

DIE 19 FEBRUARIJ.

| | |
|----------------------|---------------------|
| Altit. ☉ Merid. | |
| per Chalyb. | 26 25 $\frac{1}{2}$ |
| per Volub. | 26 25 $\frac{1}{2}$ |
| Declin. per Armillas | 7 38 |
| | 7 38 $\frac{1}{2}$ |

Fuit mediocriter ferenum.

DIE 22 FEBRUARIJ.

Hæc quæ sequuntur in ☉¹⁶ obseruabamus.

| H. M. vitato horol. | Altit. ☉ | Azim. a mer. ad ort. | Decl. | Dift. æquat. ☉ |
|---------------------|--------------------|----------------------|--------------------|----------------|
| 7 12 | 4 22 | 71 $\frac{1}{2}$ | | |
| 7 14 $\frac{3}{4}$ | 4 43 | 71 0 | | |
| 7 26 $\frac{3}{4}$ | 6 14 $\frac{1}{2}$ | 68 $\frac{1}{2}$ | 6 29 $\frac{1}{2}$ | 68 34 |
| | | | 6 30 | |
| 7 31 $\frac{1}{2}$ | 6 48 $\frac{1}{2}$ | 67 $\frac{1}{2}$ | 6 27 $\frac{1}{2}$ | 67 26 |
| | | | 6 27 $\frac{3}{4}$ | |
| 7 33 45 | 7 7 $\frac{3}{4}$ | 67 0 | | |
| 8 1 30 | 10 32 | 61 10 | | 60 0 |

In hac vltima obseruatione posuimus indicem vtriusque horologij exacte in punctum horæ octauæ adiijcendo nonnihil ponderi maioris quod illud ab H. 9 $\frac{1}{2}$ vespertina M. 10 tardius iusto ibat.

Die eodem in meridie

| | |
|----------------------|---------------------|
| Altit. ☉ per Chalyb. | 27 33 $\frac{1}{2}$ |
| per Volub. | 27 33 $\frac{1}{2}$ |
| Declin. per Armillas | 6 28 $\frac{1}{2}$ |
| | 6 29 $\frac{1}{2}$ |

Fuit mediocriter bene ferenum.

DIE 24 FEBRUARIJ.

| | |
|----------------------|---------------------|
| Altit. ☉ Merid. | |
| per Chalyb. | 28 21 |
| per Volub. | 28 21 $\frac{1}{2}$ |
| Declin. per Armillas | 5 41 |
| | 5 41 $\frac{3}{4}$ |

Fuit satis ferenum.

DIE 16 MARTIJ¹.

| | |
|-----------------------|---------------------|
| Altit. ☉ Merid. | |
| per Volub. | 36 12 |
| per Mural. | 36 11 $\frac{1}{2}$ |
| per Chalyb. | 36 12 |
| Declin. ☉ in Armillis | 2 10 $\frac{1}{2}$ |
| | 2 10 |

N. B. Corrigebantur Armillæ ad amuſim, in quibus error plus minus 5 M. deprehensus est, Declinationem boream circa æquatorem iusto maiorem exhibentes.

Horologium in Meridie iusto tardius mouebatur Minutis 18, quæ numeranda sunt ab Hora tertia matutina, vti supra annotauimus.

DIE 17 MARTIJ¹.

| | |
|---|---------------------|
| H. 5 41 ¹ incepit super. limbus ☉ oriri | |
| 5 42 $\frac{1}{2}$ medius | |
| 5 45 $\frac{1}{2}$ totus | |
| Altit. ☉ merid. | |
| per Chalyb. | 36 36 |
| per Volub. | 36 36 $\frac{1}{2}$ |
| Declinatio | 2 31 $\frac{1}{2}$ |
| | 2 31 |
| Declin. per Armillas maxim. denuo rectificatas, vno pinnac. | 2 30 |
| altero pinnacidio | 2 30 $\frac{1}{2}$ |

DIE 18 MARTIJ.

| | |
|--|---------------------|
| Altit. ☉ in merid. | |
| per Chalyb. | 36 58 $\frac{1}{2}$ |
| per Volub. | 36 59 |
| per Mural. | 36 59 $\frac{1}{2}$ |
| Declin. per Armillas maiores | 2 52 $\frac{1}{2}$ |
| | 2 52 $\frac{3}{4}$ |
| Erat apprime ferenum & tranquilum. | |
| Horologium 5 $\frac{1}{2}$ M. celerius iusto promotum est. | |

¹ Obseruationes Solis hora 6 A. M. factas infra inter obseruationes Veneris inuenies.

Pro vero loco ☉^{lis} circa æquinoctium
ex præcedente obferuatione.

| | |
|---------------------------------------|-----------|
| Altit. merid. obferuata & limitata | 36 59 0 |
| Parallaxis ☉ add. | 2 23 |
| Refractio fubtrah. | 25 |
| Vera alt. mer. ☉ | 37 0 58 |
| Eleuatio æquinoctialis | 34 5 30 |
| Vera decl. ☉ ^{lis} | 2 55 28 |
| Refp. Long. ☉ ^{lis} | ✓ 7 20 45 |
| Ephemeris noſtra ☉ ^{lis} | ✓ 7 20 34 |

DIE 20 MARTIJ.

H. 5 M. 2½ ☉ medius oriri viſus eſt.
5 4 Totus ☉ ortus

| | |
|---------------------------|--------|
| Altit. ☉ merid. | |
| per Chalyb. | 37 45½ |
| per Volub. | 37 46 |
| per Mural. | 37 46 |
| Declin. per Armillas max. | 3 39½ |
| | 3 39½ |

Fuit mediocriter ferenum.

Horologium 28 M. tardius iuſto ibat
a Meridie antecedentis diej.

DIE 23 MARTIJ.

| | |
|-----------------------------|--------|
| Altit. ☉ Merid. | |
| per Chalyb. | 38 54½ |
| per Volub. | 38 54½ |
| per Mural. | 38 55½ |
| Declin. per Armill. maiores | 4 38½ |
| | 4 38½ |
| Repetita mox Declin. | 4 38½ |
| | 4 38½ |

Fuit ſatis bene ferenum.

DIE 24 MARTIJ.

| | |
|-----------------------------|--------|
| Altit. ☉ Merid. | |
| per Chalyb. | 39 18 |
| per Volub. | 39 19 |
| per Mural. | 39 18½ |
| Declin. per Armill. maiores | 5 11½ |
| | 5 11 |

Non fuit ſatis ferenum.

DIE 25 MARTIJ.

| | |
|---------------|--------|
| Alt. ☉ Merid. | |
| per Chalyb. | 39 40½ |
| per Volub. | 39 40½ |
| per Mural. | 39 41½ |

| | |
|---------------------------|-------|
| Declin. ☉ per Armill. | 5 34 |
| Fuit mediocriter ferenum. | 5 33½ |

DIE 28 MARTIJ.

| | |
|-----------------------|--------|
| Altit. ☉ Merid. | |
| per Chalyb. | 40 47½ |
| per Volub. | 40 48 |
| per Mural. | 40 49½ |
| Declin. ☉ per Armill. | 6 42 |
| | 6 41½ |
| Fuit bene ferenum. | |

DIE 29 MARTIJ.

| | |
|------------------------|--------|
| Altit. ☉ Merid. | |
| per Chalyb. | 41 10½ |
| per Volub. | 41 10½ |
| per Mural. | 41 11½ |
| Declin. ☉ per Armillas | 7 4½ |
| | 7 4½ |
| Non fuit bene ferenum. | |

DIE 30 MARTIJ.

| | |
|------------------------|--------|
| Altit. ☉ Merid. | |
| per Chalyb. | 41 34 |
| per Volub. | 41 33½ |
| per Mural. | 41 34½ |
| Declin. ☉ per Armillas | 7 27½ |
| | 7 27½ |

Fuit mediocriter ferenum, ſed aër
intranquillus, flante ſubſolano.

DIE 1 APRILIS.

| | |
|--------------------------|--------|
| Altit. ☉ Merid. | |
| per Chalyb. | 42 17½ |
| per Volub. | 42 18½ |
| per Mural. | 42 18½ |
| Declin. per Armill. max. | 8 11 |
| | 8 11½ |

Non fuit ſatis ferenum & inſuper
aër admodum intranquillus.

DIE 17 APRILIS.

| | |
|--------------------------------|--------|
| Altit. ☉ Merid. | |
| per Chalyb. | 47 48½ |
| per Volub. | 47 48½ |
| per Mural. | 47 50½ |
| Declin. per Armill. | 16 41½ |
| maiores | 16 41½ |
| Erat mediocriter bene ferenum. | |

Postea correcti sunt Quadrantes subterranei, inter quos Chalybeus errorem satis manifestum amissi exhibuit, qui illi acceberat post frigoris regulationem.

Pro loco ☉ ex limitata altitudine meridiana

| | | | |
|---|----|------------------|-------|
| Alt. Mer. per Chal. & Vol. lim. | 47 | 48 $\frac{2}{3}$ | |
| Parallaxit altit. ☉ ^{lis} add. | | 2 | 0 |
| Vera altit. ☉ ^{lis} | 47 | 50 | 40 |
| Eleuatio æquatoris nostra | 34 | 5 | 30 |
| Vera decl. ☉ ^{lis} | | 13 | 45 10 |
| Resp. Longitudo | 6 | 33 $\frac{1}{2}$ | |
| Ex nostra Ephemeride | 6 | 36 | 54 |
| Muralis dat locum ☉ | 6 | 37 | 52 |

DIE 18 APRILIS.

Circa meridiem.

Cum ☉ esset in Azimuth a Meridie ad occasum P. 3 M. 7.

| | | | |
|---------------------|----|-----------------|---|
| Altit. ☉ | | | |
| in Chalyb. | 48 | 7 | 0 |
| in Volub. | 48 | 7 | 0 |
| Declin. per Armill. | 14 | 1 $\frac{1}{2}$ | |
| | 14 | 1 $\frac{3}{4}$ | |

Erat satis bene serenum.

DIE 23 MAIJ.

| | | | |
|--------------------------|----|------------------|--|
| Altit. Merid. | | | |
| per Chalyb. | 56 | 15 $\frac{1}{2}$ | |
| per Volub. | 56 | 14 $\frac{3}{4}$ | |
| Declin. per Armill. max. | 22 | 8 $\frac{1}{2}$ | |
| | 22 | 9 | |

Fuit satis serenum.

DIE 25 MAIJ.

| | | | |
|----------------------|----|------------------|--|
| Alt. ☉ merid. | | | |
| per Chalyb. | 56 | 30 $\frac{1}{2}$ | |
| per Volub. | 56 | 30 $\frac{3}{4}$ | |
| Declin. per Armillas | 22 | 23 $\frac{3}{4}$ | |
| | 22 | 24 $\frac{1}{2}$ | |

Fuit bene serenum.

DIE 12 JULIJ.

| | | | |
|---------------|----|------------------|--|
| Alt. ☉ merid. | | | |
| per Chalyb. | 54 | 31 $\frac{1}{2}$ | |
| per Volub. | 54 | 31 $\frac{3}{4}$ | |
| per Mural. | 54 | 32 | |

| | | |
|------------------------------|----|------------------|
| Declin. per Armillas maiores | 20 | 26 |
| | 20 | 25 $\frac{1}{2}$ |
| Erat mediocriter serenum. | | |

DIE 22 JULIJ.

| | | | |
|---------------------|----|-----------------|----|
| Altitud. ☉ Merid. | | | |
| per Volub. | 52 | 17 | 45 |
| per Chalyb., melior | 52 | 17 | 20 |
| Declin., vno altero | 18 | 9 | |
| | 18 | 9 $\frac{1}{2}$ | |

DIE 23 JULIJ.

| | | | |
|--------------------|----|------------------|----|
| Altit. ☉ Merid. | | | |
| per Volub. | 52 | 2 | 50 |
| per Chalyb. | 52 | 1 | 45 |
| Declin. vno altero | 17 | 54 | |
| | 17 | 54 $\frac{1}{2}$ | |

Adhibe fidem potius Chalybeo. Nam Volubilis aliquid vitij contraxerat, quod statim correximus.

DIE 2 AUGUSTI.

| | | | |
|----------------------|----|------------------|--|
| Altit. ☉ Merid. | | | |
| per Chalyb. | 49 | 16 | |
| per Volub. | 49 | 14 $\frac{3}{4}$ | |
| Declin. per Armillas | 15 | 9 bis | |
| maximas | 15 | 9 $\frac{1}{2}$ | |
| Non bene serenum. | | | |

DIE 11 AUGUSTI.

| | | | |
|---------------------------|----|------------------|--|
| Altit. ☉ Merid. | | | |
| per Chalyb. | 46 | 25 $\frac{1}{6}$ | |
| per Volub. | 46 | 24 $\frac{1}{2}$ | |
| Declin. per Armillas | 12 | 16 $\frac{5}{6}$ | |
| maximas | 12 | 17 | |
| Fuit mediocriter serenum. | | | |

DIE 26 AUGUSTI.

| | | | |
|----------------------|----|------------------|--|
| Altit. ☉ Merid. | | | |
| per Chalyb. | 41 | 5 $\frac{1}{2}$ | |
| per Volub. | 41 | 5 $\frac{1}{6}$ | |
| Declin. per Armillas | 6 | 59 $\frac{1}{2}$ | |
| maximas | 6 | 59 $\frac{1}{4}$ | |
| Inter nubes. | | | |

DIE 30 AUGUSTI.

| | | | |
|----------------------|----|------------------|--|
| Altit. ☉ Merid. | | | |
| per Chalyb. | 39 | 36 | |
| per Volub. | 39 | 35 | |
| Declin. per Armillas | 5 | 28 $\frac{1}{2}$ | |
| maximas | 5 | 28 $\frac{1}{2}$ | |
| Satis bene serenum. | | | |

DIE 5 SEPTEMBRIS.

| | |
|--------------------------|---------------------|
| Altit. ☉ Merid. | |
| per Chalyb. | 37 17 $\frac{1}{2}$ |
| per Volub. | 37 17 $\frac{1}{2}$ |
| Declin. per Armill. max. | 3 9 $\frac{1}{2}$ |
| Bene ferenum. | 3 10 |

DIE 9 SEPTEMBRIS.

| | |
|---------------|---------------------|
| Alt. ☉ Merid. | |
| per Chalyb. | 35 44 $\frac{1}{2}$ |
| per Volub. | 35 44 $\frac{1}{2}$ |
| Declin. | 1 36 |
| | 1 36 $\frac{1}{2}$ |

DIE 14 SEPTEMBRIS.

In meridie ☉ obseruabatur hoc modo.
Declinatio accipiebatur vt sequitur
per Armillam maximam.

| | | |
|---------------------|------------------------|-----------------------|
| H M | | |
| 11 32 $\frac{1}{2}$ | Declinatio vno pinn. | 0 18 $\frac{1}{2}$ M. |
| | altero | 0 19 |
| 11 34 | Eadem repetita vno | 0 19 |
| | altero | 0 19 $\frac{1}{2}$ |
| 11 47 | Eadem repetita vno | 0 20 $\frac{1}{2}$ |
| | altero | 0 20 $\frac{1}{2}$ |
| 11 49 | Repetita | 0 20 $\frac{1}{2}$ |
| | | 0 20 $\frac{1}{2}$ |
| 11 53 $\frac{1}{2}$ | Repetita | 0 21 |
| | | 0 21 |
| 11 55 $\frac{1}{2}$ | Repetita | 0 20 $\frac{3}{4}$ |
| | | 0 21 |
| 11 57 $\frac{1}{2}$ | Repetita | 0 21 |
| | | 0 21 $\frac{1}{2}$ |
| 12 0 | Altit. ☉ Merid. | |
| | per Q. Chalyb. | 33 47 50 |
| | Volub. | 33 48 |
| | Mural. | 33 49 |
| | Declin. vifa ex alt. | 0 17 $\frac{1}{2}$ |
| | ex armill. | 0 21 |
| | diff. excessus | 3 $\frac{1}{2}$ |
| 12 6 | p. m. Repetita Decl. ☉ | 0 21 $\frac{1}{2}$ |
| | | 0 21 $\frac{1}{2}$ |
| 12 7 $\frac{1}{2}$ | Repetita eadem | 0 21 $\frac{1}{2}$ |
| | | 0 21 $\frac{1}{2}$ |
| 12 10 | Repetita eadem, | |
| | vtroque | 0 21 $\frac{1}{2}$ |
| 12 12 | Repetita eadem | 0 21 $\frac{1}{2}$ |
| | | 0 21 $\frac{1}{2}$ |

DIE 15 SEPTEMBRIS.

Paulo ante Meridiem capiebatur

| | | |
|--------------------|----------------------|----------------------|
| H M | Declin. ☉ hoc modo. | |
| 11 37 | Declin. ☉ vno | 0 44 $\frac{1}{2}$ |
| | | 0 44 $\frac{1}{2}$ |
| 11 47 | Eadem repetita | 0 44 $\frac{1}{2}$ |
| | | 0 44 |
| 11 50 | Eadem repetita, bona | 0 44 $\frac{1}{2}$ |
| | | 0 44 $\frac{1}{2}$ |
| 11 56 | | 0 44 $\frac{1}{2}$ |
| | | 0 44 |
| Altit. ☉ Merid. | | |
| | per Chalyb. | 33 23 $\frac{1}{2}$ |
| | per Volub. | 33 23 $\frac{1}{2}$ |
| | per Mural. | 33 25 |
| 12 1 | Declin. ☉ vno | 0 45 |
| | altero | 0 45 ^{ferē} |
| 12 3 | Repetita | 0 45 |
| | | 0 44 $\frac{1}{2}$ |
| 12 5 $\frac{1}{2}$ | Repetita vtroque | 0 45 |

DIE 16 SEPTEMBRIS

| | | |
|-------|--------------------|---------------------|
| H M | in Meridie. | |
| 11 47 | Declin. ☉ Merid. | |
| | vno pinn. | 1 9 ^{me} |
| | altero | 1 8 ^{lior} |
| 11 51 | Repetita Declin. ☉ | 1 9 $\frac{1}{2}$ |
| | | 1 8 |
| 11 53 | Repetita | 1 9 $\frac{1}{2}$ |
| | | 1 8 |
| 11 56 | Repetita | 1 9 $\frac{1}{2}$ |
| | | 1 8 $\frac{1}{2}$ |

Pone harum medium. Nam dicunt,
quod in linea, quæ minuta monstrat,
vna pars deficiat nonnihil, altera
vero nonnihil abundet, quam infen-
sibile hoc fuerit.

| | | |
|--------------------------------|----------------------|--------------------|
| 12 ^u 0 ^m | Alt. ☉ Merid. | |
| | per Chalyb. | 33 1 $\frac{1}{2}$ |
| | per Volub. | 33 1 0 |
| | per Mural. | 33 1 30 |
| 12 8 10 | Repetita Decl. ☉ vno | 1 9 $\frac{1}{2}$ |
| | altero | 1 8 $\frac{1}{2}$ |
| 12 11 10 | Repetita | 1 9 $\frac{1}{2}$ |
| | | 1 8 $\frac{1}{2}$ |
| 12 13 50 | Repetita | 1 9 $\frac{1}{2}$ |
| | | 1 8 $\frac{1}{2}$ |
| 12 18 30 | Repetita | 1 9 $\frac{1}{2}$ |
| | | 1 8 $\frac{1}{2}$ |

DIE 20 SEPTEMBRIS.

| | |
|-----------------|---------------------|
| Altit. ☉ Merid. | |
| per Chalyb. | 31 22 $\frac{1}{2}$ |
| per Volub. | 31 22 $\frac{3}{4}$ |
| Declin. ☉ | 2 42 $\frac{1}{2}$ |
| Inter nubes. | 2 43 |

DIE 21 SEPTEMBRIS.

| | |
|-----------------------------------|-------------------|
| ^{H M} | |
| 11 54 $\frac{3}{4}$ Declin. ☉ vno | 3 3 $\frac{1}{2}$ |
| altero | 3 4 |

| | | |
|--|--------------------|---------------|
| 11 56 $\frac{3}{4}$ Repetita eadem | 3 4 $\frac{3}{4}$ | <i>melior</i> |
| | 3 5 | |
| 11 58 Repetita | 3 5 $\frac{1}{2}$ | |
| | 3 5 $\frac{1}{2}$ | |
| 12 0 ☉ in Merid. habuit Alt. | | |
| per Chalyb. | 31 3 $\frac{1}{2}$ | |
| per Volub. | 31 3 $\frac{3}{4}$ | |
| Fuit tunc in ipso Meridie | 3 5 $\frac{1}{2}$ | |
| Declin. ☉ | 3 6 | |
| 12 4 $\frac{1}{2}$ Repetita Declin. ☉, | | |
| | vtroque | 3 6 |
| 12 10 $\frac{1}{2}$ Repetita | 3 6 | |
| | 3 6 $\frac{1}{2}$ | |

DIE 23 SEPTEMBRIS.

Obſeruatio Eclipſis ☉.

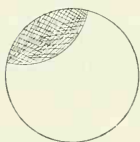
Ab initio cum hæc eclipſis inciperet, Sol non apparuit ob nubium denſitatem, quibus poſtea rarefactis aliquatenus tranſparuit, adeo vt paulo ante medium totius deliquij per nubes attenuatas emicuerit.

Horologio itaque rectificato ad diſtantiã ☉ æquatoriam a meridie verſus occaſum P. 14 M. 15, poſito tunc indice in Minuto 57 vltra 12^h, reliqua poſtmodum obſeruabantur, prout ſubſequentes delineationes oſtendunt.

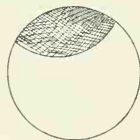
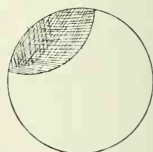
Colligitur vero fuiſſe medium maximæ Eclipſationis circa horam 1 M. 3, quantum per intuitum animadvertere licuit.

Finis autem vltimus fuit H. 1 M. 49 vel ad ſummum 1 M. 50. Nam tunc ☉ plane rotundus apparuit, ita vt nihil deeſſe videretur ab vlla parte.

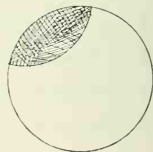
Phaſes vero & quantitates colligi poterint ex ſequentibus picturis ea qua licuit accurratione ad imitationem earum quæ cœlitus apparebant conformatis.



H. 12 M. 59

H. 1 M. 2 $\frac{1}{2}$ 

H. 1 M. 5

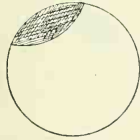
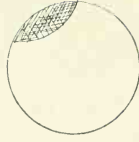


H. 1 M. 9



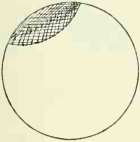
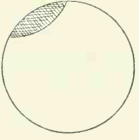
H. 1 M. 12 $\frac{1}{2}$ fuit tunc
☉ occid. 18. 22 $\frac{1}{2}$

H. 1 M. 29 $\frac{1}{2}$
☉ occident. 22° 36'



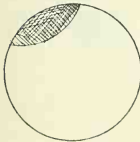
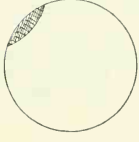
H. 1 M. 16 $\frac{1}{2}$
☉ occident. 19° 17'

H. 1 M. 33 $\frac{1}{2}$
☉ occident. 23° 44'

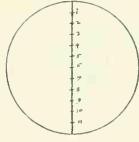


H. 1 M. 21 $\frac{1}{2}$
☉ occident. 20° 32'

H. 1 M. 39 $\frac{1}{2}$
☉ occident. 25° 2'



H. 1 M. 26
☉ occident. 21° 38'



H. 1 M. 49 $\frac{1}{2}$ ☉ totus rotundus nobis quantum per nubes videre licuit apparuit.

H. 1 M. 49 $\frac{1}{2}$ plane totus Sol recuperavit rotunditatem suam.

H. 1 M. 58 $\frac{1}{2}$ ☉ occidens 29 35.

Denuo attendimus & visus est Sol plane rotundus, vt nullum superfit dubium, iam antea præterijße omnino eius eclipſationem, tempore videlicet ante ſignato, quare vterque calculus ſenſibiliter aberrat, qui circa hoc tempus medium fere eclipſis conſtituit.

Pro corrigendo Horologio obſeruabatur ☉ occidentalis

H. 2 M. 20 35 0.

Delineatio eiusdem ☉^{lis} Eclipseos Viburgi Cimbrorum obseruatæ.

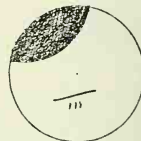
H. 12 exacte iuxta Compaßum, id fuit H. 12 M. 8 iuxta correctionem eiusdem Compaßi, postea huc transmissi ☿ in superiorem ☉^{lis} limbum inciderat ad quantitatem 3 fere Minutorum seu 2 $\frac{1}{2}$.



H. 12 $\frac{1}{2}$ hoc est iuxta Compaßum correctum H. 12 M. 37 paulo plus quinta parte de corpore ☉^{lari} ut vides a ☿ obtegatur.



H. 12 M. 40 Obser. hoc est per Compaßum correctum H. 12 M. 46 ☉ nonnihil ultra quartam sui corporis partem defecit.

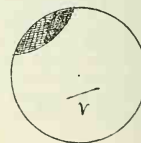


H. 12 M. 45 Obseruat. id est iuxta Compaßum correctum H. 12 M. 51, eclipsabatur quasi tertia pars corporis Solaris, vix tamen.

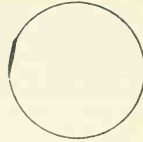


N. B. Fuit inter hanc & superiorem proximam animadversionem maximum ☉^{lis} in hac eclipsi deliquium, quod 4 digitos excedere vix potuit, quantum eo in loco oculis saltem discernere licuit.

H. 1 $\frac{1}{2}$ in Compaßo iuxta obseruat. Verum iuxta Compaßum correctum H. 1 $\frac{1}{2}$. Sextam propemodum partem ☿ rursus egrediendo de corpore ☉^{lari} obscurarat (vel inter sextam & septimam).



H. 1 $\frac{1}{2}$ Obfer., id eft in Compaſſo correcto H. 1 M. 25, parua admodum portio reſtabat obſcurata de ☉^{le} ad inſtar vnus quaſi Minuti.



H. 1 M. 25 obſeru., hoc eft H. 1 M. 30 iuxta compaſſum correctum, nullum omnino obſcurationis in ☉^{le} veſtigium amplius eſt viſum (finierat potius hæc Eclipſis paulo antea, vt eius finem ponas H. 1 M. 28 iuxta Compaſſum correctum Viburgi)¹.

Porro Compaſſum, quo ibidem vſus ſum, diligenter hic ad ☉ & Merid. noſtrum correximus circa eaſdem horas, quibus ibidem obſeruatum eſt & iuxta H. 12 M. 8, poſtea minuendo vsque ad 5 Minuta temporis illum minus exhibuiſſe deprehendimus.

ARGENTORATI ANNO DOMINI 1595 DIE 23 SEPTEMBRIS

obſeruabatur Eclipſis in ☉^{le}2. Eodem die Alt. ☉ Meridiana per Quadrantem 38 $\frac{1}{2}$ Grad. Eleuatio Poli Argentinienſis quantum propter exilitatem Quadrantis fieri potuit, ex vtroque Solſtitio obſeruabatur, maxime autem æſtuali, circiter 48 $\frac{1}{2}$ grad.



☉ occid. 0° 30'



☉ occid. 2° 0'



☉ occid. 3 $\frac{1}{2}$
Alt. ☉ 37 $\frac{1}{2}$



☉ occid. 6 $\frac{1}{2}$

☉ occid. 9° 0'
Alt. ☉ 37



☉ occid. 10 $\frac{1}{2}$ °



☉ occid. 12° 0'



☉ occid. 14° 0'
Atque ipſa hora prima ☉ liber ab vmbra ſua rotunditate vndiquaque refulſit.



¹ Poſtea adſcripta.

² A Chriſtierno Ioannis Ripenſe, olim diſcipulo Tycho- nis. Cf. obſeruaciones eclipſis lunæ d. 14 Iunii 1592 et eclipſis ſolis d. 20 Maii 1593 (ſupra pp. 197 et 268).

Examinatio obseruatæ Eclipsis ☉
præcedentis¹.
Pone medium deliquij huius H. I. M. 5.
Resp. noster verus locus ☉ 9 34 40 $\frac{1}{2}$
Qui etiam est visus locus ☉ in Ecliptica.
Pro reductione ad propriam orbitam
☉ subtr. 3 $\frac{1}{4}$. Ergo obseruatus locus
☉ in proprio circulo 9 31 $\frac{1}{2}$
Long. ☉ ex Tabulis nostris 9 18 $\frac{1}{2}$
Differentia, quæ est Parall.
Long. 12' 25"
Vera Latitudo ☉ 1 13 20 B.
Pro Parallaxi Luminarium
Altitudo ☉ 30 $\frac{1}{2}$
Anomalia coæquata 174 6
Resp. Parallaxis Altit. ☉ 57' 0"
Parallaxis ☉ 2 30
Parallaxis ☉ a ☉ 54 30
Resp. Parallaxis Longit. 12 30
Latit. 53 0
Ergo visa Latitudo Borea 20 20
Semidiameter ☉ 15 30
Semidiameter ☉ correctâ 14 20
Aggregat. semidiam. 29 50
Ergo defectus ☉ maximus 9 30
Resp. Digni Eclips. 3° 35'.
Obseruatio habet vix 4 digitos.

DIE VLTIMO SEPTEMBRIS.
Altit. ☉ Merid. 27 34 $\frac{1}{2}$
per Chalyb. 27 34 $\frac{1}{2}$
per Volub. 27 34 $\frac{1}{2}$
Declin. per Armillas max. 6 32 $\frac{1}{2}$
6 32 $\frac{1}{2}$
Fuit bene serenum.

DIE 3 OCTOBRIS.
Altit. ☉ Merid. 26 26 $\frac{1}{2}$
per Chalyb. 26 26 $\frac{1}{2}$
per Volub. 26 26 $\frac{1}{2}$
Declin. per Armillas 7 40 $\frac{1}{2}$
vtroque
Non satis erat serenum.

DIE 4 OCTOBRIS.
Altit. ☉ Merid. 26 4 $\frac{1}{2}$
per Chalyb. 26 3 $\frac{1}{2}$
per Volub. 26 3 $\frac{1}{2}$

Declin. per Armill. max. 8 3 $\frac{1}{2}$
8 3 $\frac{1}{2}$
Inter nubes.

DIE 13 OCTOBRIS.
Altit. ☉ Merid. 22 47 $\frac{1}{2}$
per Chalyb. 22 48
per Volub. 22 48

DIE 16 OCTOBRIS.
Altit. ☉ Merid. 21 44
per Chalyb. 21 45
per Volub., melior 21 19 $\frac{1}{2}$
Declin. per Armill. max. 12 19 $\frac{1}{2}$
12 19 $\frac{1}{2}$
Medium harum 12 19 $\frac{1}{2}$

Altit. æquat. 34 5 $\frac{1}{2}$
Altit. ☉ 21 45
Declin. ex altit. 12 20 $\frac{1}{2}$
Differentia 1', corrigenda in vtroque
organo.
In meridie horologium mouebatur
iusto celerius 25 $\frac{1}{2}$ m., vnde tempora
antecedentia² correctâ.

DIE 20 OCTOBRIS
Altit. ☉ Merid. 20 23 $\frac{1}{2}$
per Chalyb. 20 23 $\frac{1}{2}$
per Volub. 20 23 $\frac{1}{2}$
Declinatio 13 41 $\frac{1}{2}$
13 42
Fuit satis serenum.

DIE 21 OCTOBRIS.
Altit. ☉ Merid. 20 4
per Chalyb. 20 3 $\frac{1}{2}$
per Volub. 20 3 $\frac{1}{2}$
Declin. per Armill. 14 1
14 1 $\frac{1}{2}$
Satis erat serenum.

DIE 24 OCTOBRIS
Altit. ☉ Merid. 19 5 $\frac{1}{2}$
per Chalyb. 19 6 fere
per Volub. 19 59
Declin. per Armillas 14 59 $\frac{1}{2}$
14 59 $\frac{1}{2}$
Non fuit satis serenum.

¹ E codice V.² Id est, observationum lunæ.

DIE 27 OCTOBRIS.

| | |
|---|---------------------|
| Altit. ☉ Merid. | |
| per Chalyb. | 18 11 $\frac{3}{4}$ |
| per Volub. | 18 10 $\frac{3}{4}$ |
| Declin. per Armillas | 15 54 |
| | 15 54 $\frac{3}{4}$ |
| Fuit mediocriter ferenum, fed tempestuosum. | |

DIE 29 OCTOBRIS.

| | |
|-----------------|---------------------|
| Altit. ☉ Merid. | |
| per Chalyb. | 17 31 $\frac{1}{2}$ |
| per Volub. | 17 35 |
| Declin. ☉ | 16 30 $\frac{3}{4}$ |
| | 16 31 |

DIE 30 OCTOBRIS.

| | |
|-----------------------|---------------------|
| Altit. ☉ Merid. | |
| per Chalyb. | 17 18 $\frac{1}{2}$ |
| per Volub. | 17 20 |
| | dubia |
| Declin. ☉ | 16 48 $\frac{1}{2}$ |
| Non fuit fat ferenum. | 16 48 |

DIE 3 NOUEMBRIS.

| | |
|----------------------------------|---------------------|
| Altit. ☉ Merid. | |
| per Chalyb. | 16 11 25 |
| per Volub. | 16 11 $\frac{1}{2}$ |
| Declin. M. per Armillas | 17 55 |
| | 17 54 $\frac{3}{4}$ |
| Erat bene ferenum & tranquillum. | |

DIE 8 NOUEMBRIS.

| | |
|----------------------|---------------------|
| Altit. ☉ Merid. | |
| per Chalyb. | 14 55 |
| per Volub. | 14 54 $\frac{3}{4}$ |
| Declin. per Armillas | 19 11 |
| Erat fatis ferenum. | 19 10 $\frac{3}{4}$ |

DIE 10 NOUEMBRIS.

| | |
|---------------------|---------------------|
| Altit. ☉ Merid. | |
| per Chalyb. | 14 26 $\frac{1}{2}$ |
| per Volub. | 14 27 $\frac{1}{2}$ |
| Declin. ☉ | 19 38 |
| Fuit fatis ferenum. | 19 38 $\frac{1}{2}$ |

DIE 13 NOUEMBRIS.

| | |
|-----------------|---------------------|
| Altit. ☉ Merid. | |
| per Chalyb. | 13 47 $\frac{1}{2}$ |
| per Volub. | 13 47 $\frac{1}{2}$ |

| | |
|-----------------------------------|---------------------|
| Declin. per Armillas | 20 18 $\frac{1}{2}$ |
| | 20 18 $\frac{3}{4}$ |
| Fuit fatis ferenum & tranquillum. | |

DIE 16 NOUEMBRIS.

| | |
|-----------------|---------------------|
| Altit. ☉ Merid. | |
| per Chalyb. | 13 12 $\frac{1}{2}$ |
| per Volub. | 13 12 $\frac{1}{2}$ |
| Declin. ☉ | 20 53 $\frac{1}{2}$ |
| | 20 53 $\frac{3}{4}$ |

Corrigebatur etiam horologium, quod intra tres vnus horæ quintas tardius iulto mouebatur 4 minutis.

DIE 21 NOUEMBRIS.

| | |
|-----------------------|----------|
| Altit. ☉ Merid. | |
| per Chalyb. | 12 20 5 |
| per Volub. | 12 20 15 |
| Fuit apprime ferenum. | |

DIE 22 NOUEMBRIS.

| | |
|--------------------|---------------------|
| Altit. ☉ Merid. | |
| per Chalyb. | 12 11 $\frac{1}{2}$ |
| per Volub. | 12 11 $\frac{3}{4}$ |
| Declin. | 21 55 $\frac{1}{2}$ |
| Fuit bene ferenum. | 21 55 $\frac{1}{2}$ |

DIE 26 NOUEMBRIS.

| | |
|----------------------|---------------------|
| Alt. ☉ Merid. | |
| per Chalyb. | 11 38 $\frac{3}{4}$ |
| per Volub. | 11 39 |
| Declin. per Armillas | 22 27 $\frac{1}{2}$ |
| maximas | 22 27 $\frac{1}{2}$ |
| Fuit bene ferenum. | |

DIE 4 DECEMBRIS.

| | |
|---------------------|---------------------|
| Altit. ☉ Merid. | |
| per Chalyb. | 10 54 $\frac{1}{2}$ |
| per Volub. | 10 54 $\frac{3}{4}$ |
| Declin. in Armillis | 23 11 |
| Fuit bene ferenum. | 23 11 $\frac{1}{2}$ |

Ad diem 4 Decembris.

| | |
|--------------------------------|---------------------|
| ☉ 22 4 $\frac{1}{2}$, Declin. | 23 17 $\frac{1}{2}$ |
| Altit. vera | 10 48 $\frac{3}{4}$ |
| Parallaxis | 3 |
| Altit. visa | 10 45 $\frac{3}{4}$ |
| Refractio | 9 $\frac{1}{2}$ |
| | 10 54 $\frac{1}{2}$ |
| | concordat. |

DIE 5 DECEMBRIS.

| | |
|--|----------------------|
| Altit. ☉ Merid. | |
| per Chalyb. | 10 51 $\frac{5}{8}$ |
| per Volub. | 10 52 |
| Declin. per Armillas max. | 23 15 |
| | 23 15 $\frac{1}{8}$ |
| Locus ☉ noster in | 23 5 0 $\frac{1}{4}$ |
| Declinatio nostra | 23 20 36 |
| Altit. æquatoris | 34 5 30 |
| Alt. ☉ vera | 10 44 54 |
| Parallaxis aufert | 3 3 |
| | 10 41 51 |
| Alt. obseruata per Volub. | 10 51 50 |
| Ipsa refractio | 10 0 |
| Tabulæ nostræ habent | 9 30 |
| <i>Hic tabulæ videntur dimidio minuto deficere, at sequenti die $\frac{1}{2}$ abundare.</i> | |

DIE 6 DECEMBRIS

| | |
|----------------------------|---------------------|
| Altit. ☉ Merid. | |
| per Chalyb. | 10 48 $\frac{1}{8}$ |
| per Volub. | 10 48 |
| per Mural. | 10 48 $\frac{1}{8}$ |
| Declin. per Armillas | 23 17 $\frac{1}{8}$ |
| | 23 18 |
| Fuit mediocriter ferenum. | |
| Locus ☉ noster | 24 6 $\frac{1}{4}$ |
| Declinatio | 23 23 34 |
| Altit. æquat. | 34 5 30 |
| Altit. ☉ vera | 10 41 56 |
| Parallaxis | 3 3 |
| Alt. absque par. | 10 38 53 |
| Alt. obseruata per Chalyb. | 10 48 20 |

Differentia 9 27
Tabula nostra habet 9 $\frac{3}{8}$
Concordant itaque quam proxime altitudo obseruata & hinc deducta refractio cum ea quæ ex canone nostro depromitur.

DIE 18 DECEMBRIS.

| | |
|-----------------|---------------------|
| Altit. ☉ Merid. | |
| per Chalyb. | 10 49 $\frac{1}{8}$ |
| per Volub. | 10 48 |
| Declin. ☉ | 23 7 $\frac{1}{8}$ |
| | 23 7 $\frac{3}{8}$ |

N. B. Facto examine Quadrantum ad amußim deprehensus est error in Chalybeo vnus Minuti circiter præbendo Altitudines plus iustis.

Vesper. Pro crepusculo.

Quando prima alæ Pegasi fuit occidentalis P. 26 $\frac{1}{2}$, nihil plane amplius de crepusculo vespertino circa Horizontem occiduum videbatur. Quare hinc crepusculi mensuratio circa Solstitium Hybernum potest indagari. Erat in horologio H. 6 M. 3 circiter.

DIE 24 DECEMBRIS.

| | |
|------------------------|---------------------|
| Alt. ☉ Merid. | |
| per Chalyb. | 11 15 |
| per Volub. | 11 15 $\frac{1}{8}$ |
| Declin. ☉ per Armillas | 23 9 $\frac{3}{8}$ |
| | 23 9 $\frac{1}{4}$ |

Fuit bene ferenum.

OBSERUATIONES LUNÆ.

DIE 5 JANUARIJ.

Obseruabatur ☾ distantia a ☉.

| H. M. S. | Diff. occ. limb. ☾ a ☉ | Decl. | Altit. ☉ in æquat. occ. |
|--------------------------|------------------------|-----------|-------------------------|
| 1 50 30 | 54 47 | | |
| 1 46 $\frac{1}{2}$ corr. | | | |
| 1 52 10 | 54 48 | 7 45 | 10 20 |
| | | inf. 8 23 | |
| 1 57 20 | 54 50 | | 28 17 $\frac{1}{2}$ |
| 1 53 $\frac{1}{2}$ corr. | | | |

¹ Debet esse 22°59'.

1 59 0 54 51 $\frac{1}{2}$ 7 46 $\frac{1}{2}$ 9 50 28 40
 inf. 8 22 $\frac{1}{2}$

2 2 30 54 52 $\frac{1}{2}$ Inf. cornu ☾ 29 35
 Altit. 24 g.

Fuit ☾ iuxta 90 Gr. H. 1 $\frac{1}{2}$ P. M.

Pro loco ☾

ex proximis obseruationibus.

H. 1 $\frac{1}{2}$ ponitur distantia
 centri ☾ a ☉ 55 2
 Vera Asc. recta ☉^{lis} 297 2 $\frac{1}{2}$

Vera Declin. ☉^{lis} 21 11½ M.
 Alt. ☉ / refractio sub. 9 45
 10½ resp. | parallaxis add. 3 4
 Ergo visa declinatio ☉
 ponatur 21 5 0 M.
 et Asc. recta visa ☉ 297 3 0
 Decl. ☉ centri 8 4 M.
 Ang. diff. Asc. 55 32½
 Ergo Asc. recta ☉ 352 35½
 Resp. Longitudo 20 0½)
 Latitudo 4 27 M.
 Addeproparallaxiinlong. 3 0

DIE 17 JANUARIJ.

Obseruabatur ☉ iuxta 90 grad.
 ☉ circa 90^{mum} g. H. 2½.

| H. M. S. | Diff. ☉ ab inf. cap. II | Decl. ☉ inf./sup. | Spica or. |
|---------------|----------------------------|----------------------|-----------|
| 3 7 0 | 35 3 | | 19 4 |
| 3 7 30 corr. | | | |
| 3 9 40 | 35 5 | 17 41 | 18 30 |
| 3 10 0 corr. | | 18 18½ | |
| | ☉ or. limb. a cauda ☉ | | |
| 3 15 35 | 24 23½ | | |
| 3 18 55 | 24 19½ | | |
| 3 17 40 corr. | | | |
| 3 19 45 | 24 19 | 17 38½ | 16 20 |
| 3 18½ corr. | | 18 15½ | incertum |

Hæc obseruabantur inter nubes
 cum ☉ transuecta eßet vltra 90 g. cir-
 ca ½ vnus horæ, ibi enim eßet H. 2½.

N. B. H. 3½ fuit orientalis limbus ☉
 in recta linea cum ☿ et lucida ceruicis
 ☉ quoad visum quam proxime.

Pro loco ☉

| | | |
|---------------------|-----------------------------|-------|
| H. 3 M. 10 | Diff. ☉ ab infer. | |
| cap. II | 34 49 | |
| Decl. ☉ centri | 18 0 | |
| Asc. R. infer. cap. | 110 6½ | |
| Declin. eius | 28 57 | B. |
| Ang. diff. ascenf. | 36 13 0 | |
| Ergo Asc. Recta ☉ | 146 19½ | |
| H. 3 M. 18 | Diff. centri ☉ a cauda ☉ | 24 36 |
| Decl. centri ☉ | 17 58 | B. |
| Asc. R. caudæ ☉ | 172 4½ | |
| Declin. eius | 16 51 | B. |
| Ang. diff. asc. | 25 46½ | |
| Ergo Asc. R. ☉ | 146 17 45 | |

H. 3 M. 14 Asc. R. ☉ (∞ limit. 146 18½
 Declin. 17 59 B.
 Resp. visa | Long. ☉ 22 31 0 ☉
 | Lat. 4 10 0 B.

DIE 5 FEBRUARIJ.

*Inter rariulculas nubes transpa-
 rentes.*

| H. M. S. | Diff. occ. limb. ☉ (& Aldeb. | Decl. ☉ sup./inf. | Alt. ☉ inf. | Occ. limb. ☉ occ. |
|----------|------------------------------------|----------------------|----------------|----------------------|
| 6 21 40 | 28 48½ | 13 27½ | | |
| | | 13 2 | | |
| 6 25 45 | 28 47½ | | 40 13 | 32 52 |

*Fuerunt quidem hæc obseruationes
 ☉ inter raras factæ, sed lunt
 tamen mediocres, poterint tempora
 verificari ex antecedentibus & supe-
 rioribus obseruationibus æquatorij
 a Meridiano Lucidi pedis Orionis &
 Canis Maioris.*

DIE 6 FEBRUARIJ.

☉ in nonagesimo gradu H. 3½.

| H. M. S. | Azim. ☉ or. | Alt. ☉ | Decl. ☉ |
|----------|---|--------|---------|
| 4 51 40 | 6 0 | 51 55 | 17 58 |
| | | 51 23½ | 17 32½ |
| 5 8 10 | transijt orientalis limbus ☉ per merid. habens altit. per Chalyb. 52 6½ 51 36½ per Volub. 52 50 51 38½ ☉ in æquat. occid. 57 19 | | |

Deinde capiebatur distantia orien-
 talis limbi ☉ a ☿ per Sextantem.

| H. M. S. | Distantia | Declin. sup./inf. | Altit. inf. limbi | ☉ occid. |
|-----------|-----------|----------------------|----------------------|----------|
| 5 14 20 | | | | 58 50 |
| 5 16 30 | 58 12 | 18 3½ | | 59 22 |
| 5 9 corr. | | 17 34½ | | |
| 5 20 20 | 58 13½ | 18 4 | | 60 16 |
| | | 17 37 | | |
| 5 22 30 | 58 15 | | | 60 49 |
| 5 25 40 | 58 15½ | | | 61 35 |
| 5 28 20 | 58 17½ | | 51 32 | 62 15 |
| 5 31 55 | 58 18½ | 18 3½ | | 63 7 |
| | | 17 37 | | |

*Luna erat 90 gradum aliquantulum
 prætergreßa, sed non multum... Me-
 ridiem. Declinatio ☉ circa hæc tem-
 pora fuit per Armillas vtroque pin-
 nacidio 2 33½ B. & Altitudo 17 G.*

Postea capiebatur ☾ extra 90 Gradum existentis in distantia primum a Lucida ☿ hoc modo.

| H. M. S. | Dist. occ. limbi ☾ & Luc. ☿ | Declin. sup. inf. | Alt. inf. | Pes Orionis occ. |
|----------|-----------------------------|-------------------|-----------|------------------|
| 7 8 50 | | 18 21½ | | 0 36 |
| | | 17 54 | | |
| 7 12 45 | 18 34 | 18 23 | 45 55 | |
| 7 15 30 | 18 35 | 17 56½ | | 2 15 |
| 7 19 5 | 18 36 | 18 24 | 45 22 | 3 8 |
| 7 21 30 | 18 37 | 17 56½ | | 3 41 |
| 7 24 40 | 18 37½ | | 44 51 | 4 30 |
| 7 14 0 | corr. | | | |
| 7 27 0 | 18 39 | 18 24½ | | 5 7 |
| 7 16½ | | 17 57½ | | |

Obseruabatur declinatio Lucidæ ☿ pro Declinatione ☾ limitanda, quando ad talem situm veniret, videlicet in sequenti obseruatione ab Aldeboræ vno 21 32 altero 21 32½

Postea fumebatur viceversa per eundem Sextantem distantia occid. limbi ☾ & Aldeboræ.

| H. M. S. | Dist. | Declin. | Alt. inf. limbi ☾ | Luc. pes Orion. occ. |
|----------|--------|---------|-------------------|----------------------|
| 7 34 45 | 17 0 | 18 27½ | | 7 2 |
| 7 24½ | corr. | 17 59 | | |
| 7 38 40 | 16 58 | 18 28 | 43 30 | 7 58 |
| 7 41 10 | 16 56 | 18 0 | | 8 32 |
| 7 44 5 | 16 55 | | 42 55 | 9 19 |
| 7 46 30 | 16 54½ | 18 28 | | 9 52 |
| | | 18 0½ | | |
| 7 48 50 | 16 53½ | 18 30½ | 42 30 | 10 26 |
| 7 50 55 | 16 53 | 18 1½ | | 10 57 |
| 7 53 15 | 16 52 | 18 31 | 42 0 | 11 32 |
| 7 56 0 | | 18 2½ | | 12 24 |
| 7 58 30 | 16 50 | 18 32 | 41 30 | 12 58 |
| | | 18 1½ | | |

Postea capiebatur Declinatio Aldeboræ pro examinandis Armillis in eo situ, quo prius ☾ capiebatur a Lucida ☿.

| | | |
|----------------|--------|----------------------------|
| Aldeb. Declin. | 15 38½ | subtrahe 1 ^m 0. |
| | 15 38½ | |
| | 15 38½ | |
| | 15 38½ | |
| | 15 38½ | |

Vera Decl. Luc. ☿ 21 31½
Oculi ☿ 15 37 35

DIE 7 FEBRUARIJ, VESPERI.
Obseruabatur ☾ extra 90 Grad. ☾ iuxta nonages. grad. H. 5 0.

| H. M. S. | Dist. occ. limb. ☾ a lucida ☿ | Declin. sup. inf. | Alt. inf. limb. | Luc. pes Orion. occ. |
|----------|-------------------------------|-------------------|-----------------|----------------------|
| 8 11 0 | 30 13½ | | | |
| 8 13 35 | 30 15½ | 22 35 | | 19 52 |
| | internubes | 22 10 | | |
| 8 17 40 | 30 17 bona | | 47 15 | 20 50 |
| 8 20 10 | 30 18 | 22 39½ | | 21 23 |
| | | 22 9½ | | |
| 8 24 30 | 30 19½ | | 46 37 | 22 34 |
| 8 22 | corr. | | | |

Viceversa ab inferiori capite ☿

| | | | | |
|---------|--------|--------|-------|-------|
| 8 30 40 | 46 14½ | 22 38 | | 24 6 |
| 8 28 0 | corr. | 22 14 | | |
| 8 34 10 | 46 13½ | | 45 25 | 24 56 |
| 8 37 30 | 46 11 | 22 39 | | 25 42 |
| | | 22 14½ | | |
| 8 44 50 | 46 9 | | 44 15 | |
| 8 47 30 | 46 6½ | 22 40 | | 28 10 |
| | | 22 14½ | | |

Erat mediocriter serenum dum hæc obseruabantur in ☾, præterquam in duabus prioribus obseruationibus, quæ ex sequentibus limitatæ sunt.

Postea capiebatur Declin. Aldeb. pro Armillis corrigendis 15 38½
15 38½

Inquisitio motus ☾ ad diem

6 FEBRUARIJ

☾ in 90 gradu H. 3 M. 45.

| | | |
|------------------------|-------------|-----------|
| H. 5 M. 9 | Dist. ☾ a ☿ | 58 27 |
| Asc. recta ☿ vifa | | 347 31 30 |
| Declin. ☿ | | 2 32 B. |
| Declin. ☾ | | 17 47 B. |
| Angulus diff. ascenf. | | 57 36 0 |
| Ergo Ascensio R. ☾ | | 45 7 30 |
| Resp. ☾ vifa Longitudo | | 17 47½ ☿ |
| Latitudo | | 0 36½ B. |

Habita est ratio tum alterationis Parallaxium & Refractionum ☿, item motus eius ab eo tempore quo postea obseruata reperitur.

Deinde a lucida ☿ & Aldeboræ.

| | |
|---|----------|
| H. 7 M. 16½ Dift. (a luc. V. . . . ¹ | |
| Declin. (| 18 10 0 |
| Declin. luc. V | 21 31 |
| Afc. recta luc. V | 26 8½ |
| Ang. diff. ascenf. | 19 47½ |
| Ergo Afc. recta (| 45 55 35 |

H. 7 M. 24½ Dift. centri (ab Aldeb. . . .¹

| | |
|--------------------|----------|
| Declin. centri (| 18 11½ |
| Declin. Aldeb. | 15 37½ |
| Ang. diff. ascenf. | 17 18 27 |
| Afc. recta Aldeb. | 63 11 30 |
| Ergo Afc. recta (| 45 53 3 |

H. 7½ pone Afc. R. vifam (45 54½
et Declinationem 18 11 B.
Resp. (vifa Longitudo 18 37 0½
Latitudo 0 47½ B.

Investigatio motus (a vifi ad diem
7 Februarij ex obferuationibus.
(in 90 Gr. H. 5 completa.

H. 8 M. 22 Dift. centri (a lucida V,
addendo 15'
Declin. centri (30 35
Ang. diff. asc. 22 23½
33 1 40
Ergo Afc. recta (59 9 55

H. 8 M. 28 Dift. centri (ab inf.
cap. II 45 59 0
Declin. centri (22 24½
Declin. inf. cap. II 28 56½
Afc. recta inf. cap. II 110 6½
Ang. diff. asc. 50 53 0
Ergo Afc. recta (59 13 30

H. 8 M. 25 Afc. R. (limitata 59 11 45
Declin. (B. 22 24 0
Resp. Longitudo 1 42½ II
Latitudo 2 51½ B.

DIE 8 FEBRUARIJ, VESPERI.

Obferuabatur (iuxta 90 Gradum
in hunc qui fequitur modum.
(in nonag. gr. H. 6½.

| H. M. S. | Dift. occ. limb. ab inf. cap. II | Decl. (| Altit. sup. inf. limbi or. | Luc. pes Orion. or. |
|----------|--|---------|----------------------------------|---------------------------|
| 6 8 35 | | 25 30½ | | 10 27½ |
| | | 25 1 | | |
| 6 12 0 | 34 12½ | | | 9 37 |

6 14 50 34 11½ 25 31½ 8 54
25 2½

6 17 10 34 9½ 8 22
6 18 50 34 8½ 58 50 7 57
6 24 10 34 7½ 25 34 6 39
25 4

{ 6 26 50 34 5½ 5 55
{ 6 24 0 corr.

Postea viceversa a lucida V
{ 6 30 50 41 55½ 4 58
{ 6 28 0 corr.

{ 6 33 15 41 56½ 4 22
{ 6 30 12 corr.
6 35 45 41 58

6 36 40 41 59 3 27
6 39 15 42 0½ 2 53
6 44 5 Tranfijt occid. limbus (

per Merid. habens Altitud.
superioris cornu per Chalyb. 59 39½
inferioris 59 6

superioris per Volub. 59 35½
inferioris 59 10½
Declinatio super. 25 33
infer. 25 3½

Lucidus pes Orion. orient. 1 41

N. B. Prouenit declinatio ex Altitudine
Meridiana per vtrumque
Quadrantem 25 17½
per Armillas vero 25 18½
differentia 1 minuti.

Pro loco (ex obferuationibus.
H. 6 M. 24 Dift. (a lucido feu

infer. cap. II 33 51
Decl. (25 15½
Ang. diff. asc. 37 56 50
Ergo Afc. recta (72 9 40

H. 6 M. 30 Dift. centri (a luc. V 42 12 0
Decl. (25 16
Ang. diff. asc. 46 1 0
Ergo Afc. r. (72 9 15

H. 6 M. 27 Pone Afc. R. (72 9½
et declin. (25 15½
Resp. Longitudo 13 53½ II
Latitudo 2 44½ B.
Arcus inclinationis add. 7'
Ergo vera Longitudo (14 0½ II

¹ Deest in codice.

DIE 11 FEBRUARIJ, VESPERI.

H. 9 38' 40" Tranſijt occid. limbus ☿
per meridianum habens Altitu-
dinem ſuperioris cornu

per Chalyb. 59 32½
inferioris 58 59½
ſuperioris per Volub. 59 31
inferioris 59 3½

Inter nubes rariuſculas.

Circa horam ante corrigebatur ho-
rologium ad Aldeb.

N.B. Plura in luna hac vefpera ob-
ſeruare non licuit propter nubes mox
indenſatas. Eſt autem mediocriter
bona obſervatio pro latitudine ☿ ma-
xima limitanda. Nam ſit iuxta limi-
tes maximæ latitudinis boreæ in ☿
fere iuxta 28 Gradum, cum limes
boreus ſit in 5 ☿, vt ſit diſtantia a
nodo¹ circiter 7 partium, quæ latitu-
dinem alterare poteſt a maxima non

nifi 2½'. Adhibeatur itaque locus ☿
correctus iuxta noſtram inuentio-
nem, & habeatur ratio parallaxeos
locique viſi, & inquiretur latitudo
vera, qua collata cum ea, quam
præcedentibus annis obtinuit, cum
rurſus Luna eſſet iuxta limites lati-
tudinis maximæ aultrinos, poterit
ſingula inuicem trutinando erui hinc
☿ maxima ab Ecliptica euagatio.

Vtere vero Declinatione centri ☿,
cum limbus eius occidentalis Meri-
dianum tranſiret, 25 11, accedendo
per dimidium minutum propius ad
obſervationes per Chalybeum fac-
tas, quæ proculdubio erant verio-
res, licet quo ad centri ☿ declinatio-
nem non ſit exceſſus illius niſi vnus
minuti. Sed confer etiam alias ☿ ob-
ſervationes conſimili ſitu habitas,
quo ad latitudinem.

DIE 12 FEBRUARIJ, VESPERI.

Obſeruabatur hoc modo per Sextantem in diſtantia a fixis.

Capiebatur vero occidentalis limbus ☿.

| H. M. S. | Diſt. a luc. pede II | Azim. occ. limbi | Altit. ſup. limbi | Declinatio | | Luc. pes Orionis occ. ² |
|----------|-------------------------|---------------------|----------------------|------------|--------|---------------------------------------|
| | | | | ſup. | inf. | |
| 7 25 30 | 39 7 | 65 57 | 41 3 | 22 8½ | 21 35 | 13 0½ |
| 7 30 0 | 39 9½ | 64 52 | 41 35 | | | 14 4 |
| 7 33 20 | 39 12 | 63 58 | 42 1 | 22 8½ | 21 35½ | 14 56 |
| 7 37 25 | 39 15 | 62 57 | 42 29 | | | 15 55 |

Poſtea ab inferiori capite II.

| | | | | | | |
|---------|--------|-------|--------|-------|--------|--------|
| 7 43 30 | 23 26½ | 61 25 | 43 11 | 22 6½ | 21 32½ | 17 27½ |
| 7 49 10 | 23 30½ | 60 0 | 43 51½ | | | 18 48 |

Deinde obſeruabatur a corde ☿ idem limbus ☿.

| H. M. S. | Diſtantia | Azim. occ. limbi | Altit. ſuper. limbi | Declinatio | | Luc. pes Orion. occ. |
|----------|-----------|---------------------|------------------------|------------|--------|-------------------------|
| | | | | ſuper. | infer. | |
| 7 54 0 | 13 40½ | 58 41 | 44 24 | 22 5½ | 21 32 | 20 3 |
| 7 56 50 | 13 38½ | | | | | 20 46 |
| 7 59 40 | 13 38 | 57 12 | 45 0 | 22 4½ | 21 31 | 21 25 |
| 8 4 30 | 13 37 | 55 52 | 45 33½ | | | 22 37 |
| 8 9 5 | 13 34 | 54 40 | 46 3 | 22 2½ | 21 28 | 23 46 |
| 8 13 0 | 13 31 | 53 34 | 46 27 | | | 24 42 |
| 8 17 35 | 13 29 | 52 19 | 46 55 | 22 1½ | 21 27½ | 25 50 |
| 8 21 40 | 13 27 | 51 5 | 47 20½ | | | 26 52 |
| 8 24 20 | 13 26 | 50 16 | 47 35 | 22 0 | 21 27 | 27 32 |
| 8 28 20 | 13 24½ | 49 13 | 47 58 | 22 0½ | 21 24 | 28 28 |

¹ Sic in codice, ſed debet eſſe a limite.

² Nomen huius ſtellæ deſt in codice.

Promota est igitur ☾ versus stellam in 26¹ minutis temporis per 16 minuta Graduum, quod satis quadrat. Difficulter autem videbatur distantia ☾ & Reguli, quia erant quasi in verticali.

H. 8 M. 33 Fuit Declinatio Cordis ☾ 13 57
13 57½ in eodem situ, quo ☾ erat,
pro verificandis declinationibus per Armillas.

H. 8 M. 38 Rursus Declin. ☾ inferioris 21 23 Altit. ☾ super. cornu
superioris 21 58½ 49 0

H. 8 M. 43 Repetita Declin. ☾ super. cornu 21 58 49 34
inferioris 21 23

Postea obseruabatur ☾ Meridiano appropinquans in hunc modum.

| H. M. S. | Dist. occ. limbi ☾ ab infer. cap. II | Declinatio | | Azim. occ. limbi | Altitudo | | Cor ☾ orient. |
|----------|---|------------|-----------|---------------------|----------|-------|------------------|
| | | sup. | inf. | | sup. | inf. | |
| 9 58 30 | 24 37½ | 21 45 | 21 6 dub. | | | | |
| 10 4 0 | 24 38 | | | 16 44 | 54 52 | 54 25 | 20 45 |
| 10 8 50 | 24 39½ | 21 42½ | 21 8 | 14 31 | 55 3 | 54 32 | 19 34 |
| 10 14 10 | 24 42 | | | 12 55 | 55 11 | 54 42 | 18 15 |
| 10 18 40 | 24 43½ | 21 40 | 21 7½ | 10 54 | 55 20 | 54 51 | 17 5 |
| 10 23 30 | 24 44 | | | 9 10 | 55 25 | 54 54 | 15 58 |

Postea viceversa idem limbus ☾ accipiebatur a Cauda ☾, quia rectius quam Cor disponebatur.

| | | | | | | | |
|----------|-------|-------|-------|------|-------|-------|-------|
| 10 28 10 | 34 7 | 21 39 | 21 6 | 7 20 | 55 33 | 54 59 | 14 46 |
| 10 31 0 | 34 5½ | | | | 55 34 | 55 2 | 14 1 |
| 10 34 40 | 34 3½ | 21 37 | 21 4½ | 4 50 | 55 36 | 55 5 | |
| 10 38 20 | 34 1 | | | 3 26 | 55 37 | 55 7 | |

Postea, ☾ appropinquante ad Meridianum.

| | | | | | | | |
|----------|--|--------|-------|--------------------|--------|-------|-------|
| 10 42 10 | | 21 36 | 21 2½ | 2 0 | 55 38 | 55 8 | 11 15 |
| | | | | | 55 39½ | 55 4 | |
| 10 46 50 | Transiit occid. limbus ☾ per Merid. habens altit. per Chalyb. 55 40 per Volub. 55 39 | | | | | | 10 16 |
| | | | | | 55 39 | 55 7 | |
| 10 51 50 | | 21 34½ | 21 2½ | 2 0 occ. | | | 8 53 |
| | | 21 33½ | 21 1½ | | | | |
| | | | | per Chalyb. 55 38½ | 55 38½ | 55 4½ | |
| | | | | per Volub. 55 39 | 55 39 | 55 7 | |

Obseruabatur mox pro examine 13 57 Repetita 13 57
Armillarum Declin. cordis ☾ 13 57 13 57½

Postea denuo rectificabatur horologium, quod visum est hucusque 4 Minutis iusto celerius moueri, quibus index retrahebatur. Erat autem saltem ad Solem ante occasum cito modo verificatum, quare priora tempora corrigenda veniunt per distantias æquatorias fixarum a Meridiano simul obseruatas.

Postea obseruabatur ☾ tendens ad 90 Eclipticæ ab Horizonte Gradum vt sequitur. ☾ in 90 gradu H. 11 M. 56.

¹ Debet esse 34.

| H. M. S. | Dist. ☿ ab inf. cap. II | Declinatio | | Azim. occ. limbi | Altitudo | | Cor ☿ occ. |
|---------------|----------------------------|------------|--------|---------------------|----------|--------|---------------|
| | | super. | infer. | | super. | infer. | |
| 11 32 10 | 25 22½ | 21 25 | 20 51½ | 18 55 | 54 26 | | 2 1 |
| 11 37 30 | | 21 24½ | 20 51½ | 20 0 | 54 10 | 53 37 | 3 18 |
| 11 41 40 | 25 25½ | 21 23½ | 20 50 | 22 35 | 53 59 | 53 26 | 4 21 |
| 11 45 40 | 25 29 | 21 22½ | 20 49½ | 23 55 | 53 37 | | 5 18 |
| 11 50 30 | 25 30 | 21 22 | 20 48 | 25 50 | 53 25 | 52 54 | 6 30 |
| 11 49 0 corr. | | | | | | | |
| 11 55 15 | 25 33½ | 21 21 | 20 46 | | | | |
| 11 54½ corr. | | | | | | | |

Postea viceversa a Cauda ☿ accipiebatur idem occidentalis limbus ☿.

| H. M. S. | Dist. ☿ ab inf. cap. II | Declinatio | | Azim. occ. limbi | Altitudo | | Cor ☿ occ. |
|----------------|----------------------------|------------|----------------|---------------------|----------|--------|---------------|
| | | super. | infer. | | super. | infer. | |
| 12 0 5 | 33 25 | 21 20 | 20 45½ | | | | 40 25 |
| 12 58 35 corr. | | | | | | | |
| 12 4 20 | 33 23 | 21 19½ | 20 45 | 30 45 | 52 33 | 52 1 | 39 23 |
| 12 8 10 | 33 22 | 21 18½ | 20 43½ | | | | 38 22 |
| 12 11 5 | 33 21½ | 21 18½ | 20 42½ | 32 45 | 51 58 | 51 29 | 37 38 |
| 12 14 40 | 33 20½ | 21 17 | 20 43 | 34 0 | 51 44 | 51 14 | 36 45 |
| 12 18 50 | 33 19½ | 21 15½ | 20 42½ | 35 30 | 51 29 | 50 57 | 35 42 |
| 12 23 45 | 33 15½ | 21 14 | 20 41½ | 37 0 | 51 4 | 50 29 | 34 32 |
| 12 28 20 | 33 13½ | 21 13½ | 20 39½ | 38 25 | 50 41 | 50 12 | 33 22 |
| 12 32 30 | | 21 14½ | 20 39 | | 50 14 | 49 43 | |
| 12 36 40 | | 21 13½ | 20 38 meliores | | | 49 0 | |
| | | 21 13 | 20 37½ | | | | |

Postea pro verificanda Declinatione ☿ per Armillas accepta, si quid deviationis factæ incidisset, capiebatur Declinatio Cordis ☿ in eodem quasi situ quo ☿ prius capiebatur.

H. 12½ 13 56½ ter Idem fiebat in ☿, qui non poterat interea sensibilibiter mutare declinationem. Subtrahe a Declin. ☿ vbique 1½'.

Deinde rursus pro tempore examinando accipiebatur Spica ♄ in æquatoria distantia

| | |
|-------------|---------------|
| H. 1 3' 10" | Spica 24 48 |
| 1 5 0 | ♄ 24 15 |
| 1 6 0 | orient. 23 58 |
| 1 6 55 | 23 42 |
| 1 7 30 | 23 34 |

DIE 13 FEBRUARIJ, VESPERI.

Observabatur occidentalis limbi ☿ distantia a ☿.

| H. M. S. | Distantia | Altit. ☿ | Azimuth | Declinatio | | Dext. hum. Orion. or. |
|----------|-----------|----------|---------|------------|-------|--------------------------|
| | | | | sup. | inf. | |
| 6 3 30 | 5 42½ | | | | | 16 55 |
| 6 9 0 | 5 46 | 18 51 | 92 40 | 17 19½ | 16 42 | 15 32 |

Deinde a Cane minore, occid. limbus ☿.

| H. M. S. | Distantia | Altit. ☿ | Azimuth | Declinatio | | Dext. hum. Orion. or. |
|----------|-----------|----------|---------|------------|--------|--------------------------|
| | | | | sup. | inf. | |
| 6 15 5 | 40 14½ | 19 36 | 91 30 | | | 14 6 |
| 6 18 15 | 40 15½ | 19 58 | 91 0 | 17 14½ | 16 41½ | 13 18 |
| 6 21 50 | 40 16½ | 20 29 | 90 15 | | | 12 23 |
| 6 24 45 | 40 18½ | 20 50 | 89 45 | 17 13½ | 16 39 | 11 36 |

Distantia ☿ ab inf. cap. II.

| H. M. S. | Distantia | Altit. ☿ | Azimuth | Declinatio | | Dext. hum. Orion. or. |
|----------|-----------|----------|---------|------------|--------|--------------------------|
| | | | | sup. | inf. | |
| 6 55 45 | 38 6 | 24 52 | 83 20 | 17 8 | 16 32 | 4 10 |
| 7 1 10 | 38 9½ | 25 30 | 82 17 | | | 2 46 |
| 7 4 25 | 38 10 | 25 54 | 81 40 | 17 6 | 16 30½ | 2 1 |

7½ observata est Cor ☿ in declinatione 13 57½, 13 58. Distabat autem Regulus a ☿ non multum amplius 4 gradibus in antecedentia, ut hic Declinationes ☿ fatis certo verificare poteris.

Vera declinatio Cordis ♀ hoc anno ad initium 13 55 $\frac{1}{2}$.

Deinde obseruabatur ♀ in confimili situ seu Altitudine quo hesternā vespēra ante transitum per Meridianum & 90 Gr. pro motu eius diurno cognoscendo, in æquatoria distantia a dextro humero Orionis, inter nubes tamen.

| H. M. S. | Occ. limbi ♂ orient. | Alt. sup. limbi | Azim. occ. limbi | Declinatio sup. inf. | Hum. Orion. occ. |
|----------|-------------------------|--------------------|---------------------|-------------------------|----------------------------|
| 9 1 5 | 40 47 | 40 0 | 54 0 | 16 42 16 8 | 26 35 $\frac{1}{2}$ |
| 9 6 0 | 39 32 | 40 30 | 53 10 | | 28 1 incerta propter nubes |

Deinde obseruabatur distantia occid. limbi a Cane minore.

| | | | | | |
|---------|-------|------|-------|-------|----------------------------------|
| 9 41 45 | 41 47 | 44 0 | 43 18 | 16 21 | 15 56 $\frac{1}{2}$ ¹ |
|---------|-------|------|-------|-------|----------------------------------|

Postea ab inferiori capite ♀.

| | | | | | |
|---------|-------|-------|-------|--|--|
| 9 47 35 | 39 37 | 44 29 | 41 37 | | |
|---------|-------|-------|-------|--|--|

| | | | | | |
|---------|-----------------------|-------|-------|-------|--|
| 9 50 30 | 39 37 $\frac{1}{2}$ * | 44 42 | 40 38 | 16 20 | 15 56 $\frac{3}{4}$ ¹ * incerta propter nubes |
|---------|-----------------------|-------|-------|-------|--|

Postea sumebatur distantia ♀ a ♄,

quia aliæ stellæ non apparebant, quoad occid. limbum ♀.

| | | | | | |
|---------|------|-------|------|-------|------------------------------------|
| 11 3 15 | 8 10 | 49 14 | 17 0 | 16 13 | 15 31 $\frac{1}{2}$ Can. min. occ. |
|---------|------|-------|------|-------|------------------------------------|

| | | | | | |
|---------|------|-------|-------|---------------------|---------------------------|
| 11 7 10 | 8 13 | 49 22 | 15 32 | 16 12 $\frac{1}{2}$ | 15 39 $\frac{1}{2}$ 31 41 |
|---------|------|-------|-------|---------------------|---------------------------|

| | | | | | |
|----------|------|--|--|--|-------|
| 11 12 30 | 8 15 | | | | 32 58 |
|----------|------|--|--|--|-------|

11 50 50 Transijt occid. limbus ♀ per Merid. habens Altit.

per Chalyb. 50 5 sup. limbi 16 4 $\frac{1}{2}$ 15 26 42 32 $\frac{1}{2}$

49 31 $\frac{1}{2}$ infer.

per Volub. 50 3 super.

49 32 infer.

Statim postea capiebatur Dist. occid. limbi ♀ ab inferiori capite ♀

| H. M. S. | Distantia | Declinatio | Can. min. occ. |
|----------|-----------|------------|----------------|
|----------|-----------|------------|----------------|

| | | | |
|----------|-------|--|-------|
| 11 59 40 | 40 42 | | 44 46 |
|----------|-------|--|-------|

| | | | |
|---------|---------------------|--------------------|------------|
| 12 1 10 | 40 42 $\frac{1}{2}$ | 16 2 $\frac{1}{2}$ | 15 24 45 5 |
|---------|---------------------|--------------------|------------|

| | | | |
|---------|---------------------|--|-------|
| 12 3 40 | 40 43 $\frac{1}{2}$ | | 45 40 |
|---------|---------------------|--|-------|

Viceversa ab Arcturo

| | | | |
|--------|-------|--------------------|--------------------------|
| 12 5 0 | 54 18 | 16 0 $\frac{1}{2}$ | 15 22 $\frac{1}{2}$ 46 1 |
|--------|-------|--------------------|--------------------------|

| | | | |
|---------|-------|--|-------|
| 12 7 30 | 54 17 | | 46 40 |
|---------|-------|--|-------|

| | | | |
|---------|---------------------|---------------------|---------------------------|
| 12 10 5 | 54 15 $\frac{1}{2}$ | 15 59 $\frac{1}{2}$ | 15 22 $\frac{1}{2}$ 47 17 |
|---------|---------------------|---------------------|---------------------------|

Corrigebatur Horologium H. 12 $\frac{1}{2}$, quod a Meridie antecedente M. 11 citius iusto ibat: quare ponderi eius duo parua plumbi frustra detraximus.

Sequuntur obseruationes ♀ habitæ iuxta 90 Gr. Eclipticæ (quem transiret iuxta supputationem H. 1 $\frac{1}{2}$ P. M. N.) cum stellæ fixæ vtriusque melius confpicerentur, cælo vtpote sereniori quam prius hac vespere factō.

| H. M. S. | Dist. ab inf. cap. ♀ | Declinatio | Altit. super. | Azimuth | Canis min. occid. |
|---------------|-------------------------|---------------------|---------------------|---------|----------------------|
| 1 4 30 | 41 21 $\frac{1}{2}$ | | 46 43 | 29 20 | 63 40 $\frac{1}{2}$ |
| 1 7 0 | 41 23 $\frac{1}{2}$ | 15 43 $\frac{1}{2}$ | 46 42 | 30 13 | 64 25 |
| 1 11 10 | 41 24 $\frac{1}{2}$ | | 46 24 | 31 33 | 65 20 |
| 1 13 50 | 41 26 | 15 39 $\frac{1}{2}$ | 46 11 | 32 45 | 66 0 |
| 1 18 15 | 41 28 $\frac{1}{2}$ | | 45 52 | 33 45 | 67 7 |
| 1 20 25 | 41 31 $\frac{1}{2}$ | 15 35 $\frac{1}{2}$ | 45 41 $\frac{1}{2}$ | 34 27 | 67 42 |
| 1 23 30 | 41 33 $\frac{1}{2}$ | 15 1 $\frac{1}{2}$ | 45 25 | 35 38 | 68 28 |
| 1 26 15 | 41 34 $\frac{1}{2}$ | | 45 13 | 36 15 | 69 10 |
| 1 28 10 | 41 35 | | 45 2 | 37 5 | |
| 1 30 15 | 41 36 | 15 34 | 44 52 | 37 42 | 70 10 |
| 1 31 20 corr. | | | | | |
| 1 33 45 | 41 37 $\frac{1}{2}$ | | 44 31 | 38 34 | |

* melior

¹ Debet esse 46 $\frac{1}{2}$. ² Debet esse 41.

Viceversa ab Arcturo.

| | | | | | | |
|-------------|--------|--------|--------|-------|-------|-------|
| f 1 36 10 | 53 41½ | | | 44 20 | 39 23 | 71 37 |
| 1 36½ corr. | | | | | | |
| 1 38 25 | 53 40½ | 15 31½ | 14 54½ | 44 8 | 40 7 | 72 10 |
| 1 41 10 | 53 39½ | | | 43 52 | 40 57 | 72 53 |
| 1 44 0 | 53 38 | 15 30 | 14 54½ | | | 73 37 |
| 1 47 10 | 53 37½ | | | | | 74 21 |
| 1 48 40 | 53 37½ | | | | | 74 44 |
| 1 51 0 | 53 34½ | 15 28 | 14 53 | | | 75 27 |
| 1 54 5 | 53 34 | | | | | 76 5 |
| 1 56 35 | 53 33 | 15 26½ | 14 51 | | | 76 45 |
| 1 59 20 | 53 30½ | | | 42 0 | | 77 25 |

Postea sumebatur Declinatio Cordis ☿

vno pinn. 13 57½

pro corrigendis Armillis

altero 13 57

Debent igitur adimi duo minuta in Declin. ☿.

Dum hæc in ☿ circa nonagesimum gradum obseruabantur fuit satis fere-
num & stellæ fixæ conspicuæ. Sunt autem obseruationes diligentia qua fieri
potuit acceptæ, adeo vt si in quibusdam locis limitentur ratione motus diurni
☿, illis satis tuto fidere licebit pro hypothesi ☿ = circa Perigæum 1 Epicycli
Copernici examinanda, a quo ☿ non longe abfuit sicut neque ab ☿ cum ☉.

N. B. Distantiæ summa præcisione respectu occidentalis limbi ☿ acceptæ
sunt, ita vt semidiameter iusta & qualem ex reliquis obseruationibus ratioci-
nari poteris, applicetur.

DIE 14 FEBRUARIJ, VESPERI.

Obseruabatur ☿ in eadem ferme alti-
tudine qua heri vesperti primo.

| H. M. S. | Diff. or. limbi ☿ a Cane min. | Declin. sup./inf. | Altit. sup. limbi orient. | Canis min. orient. |
|----------|-------------------------------------|----------------------|---------------------------------|--------------------------|
| 8 28 55 | 55 26½ | | 24 48 | 5 20 |
| 8 34 10 | 55 25 | 10 27 | | |
| | | 9 53 | | |
| 8 37 40 | 55 26½ | 10 24½ | | |
| | | 9 51½ | | |

Postea ☿ distantia a Corde ☿
in limbo vt prius.

| | | | | |
|---------|-------|--------|-------|------|
| 8 41 55 | 18 45 | | | |
| 8 44 30 | 18 47 | 10 22½ | 26 40 | 1 27 |
| | | 9 50½ | | |
| 8 48 5 | 18 48 | | | 0 30 |
| 8 51 0 | 18 50 | 10 22 | 27 20 | 0 11 |
| | | 9 48 | | 1 12 |
| 8 55 20 | 18 52 | | | 1 42 |
| 8 57 25 | 18 54 | 10 21½ | | |
| | | 9 46½ | | |
| 9 5 0 | 18 55 | | | |
| 9 7 5 | 18 56 | 10 17½ | 29 15 | 4 6 |
| | | 9 43½ | | |
| 9 14 0 | 18 59 | | | 5 54 |

9 16 0 19 0 10 16 6 21

9 18½ 19 2½ 30 40 7 4

9 21½ 19 4½ 10 13½ 31 3 7 45

9 40

Propter Armillas 13 56½

Declin. Cordis ☿ 13 57½ Pone 13 57

| Diff. or. limbi ☿ a Corde ☿ | Decl. ☿ | Alt. sup. | Canis min. occ. |
|-----------------------------------|------------|--------------|--------------------|
| 11 22 55 | 20 12½ | | 38 16 |
| 11 25 10 | 20 13½ | 9 42 | 40 33 |
| | | 9 6½ | |
| 11 29 35 | 20 15 | | 39 55 |
| 11 31 55 | 20 17 | 9 40 | 41 50 |
| | | 9 4½ | |
| 11 35 50 | 20 19 | | 41 31 |

Viceversa idem limbus ☿ ab Arcturo.

11 38 50 42 26 9 35½ 42 10 42 17

9 3½

11 42 20 42 25 43 6

11 44 0 42 24 9 33½ 42 25 43 28

9 2

11 47 40 42 23 42 35 44 30

Poſtea, cum appropinquaret ad Meridianum, obſeruabatur diſtantia orient. limbi ¶ a Corde ☿.

| | | |
|----------|-------------|-------|
| 12 25 10 | 20 43½ | 53 50 |
| 12 26 50 | 20 45 9 22½ | 54 20 |
| | 8 50 | |

| | | |
|----------|--------|-------|
| 12 30 40 | 20 46½ | 55 13 |
| 12 32 55 | 20 47 | 55 50 |

12 40 50 Tranſijt orient. limbus ¶
per Merid. habens Altitudinem
per Chalyb. ſuper. 43 22½ 57 53

infer. 42 49½
per Volub. ſuper. 43 21
infer. 42 49½

Declin. 9 17½
8 47½

Poſtea obſeruabatur idem limbus ¶
ab Arcturo.

| H. M. S. | Diſtantia | Declin. | Can. min. occ. |
|----------|------------|---------|----------------|
| 12 46 30 | 42 5 | | 59 15 |
| 12 48 15 | 42 7 9 17½ | | 59 38 |
| | 8 42 | | |

| | | |
|----------|-----------|-------|
| 12 49 50 | 42 5½ | 60 5¹ |
| 12 51 30 | 42 5 9 16 | 60 35 |
| | 8 41 | |

| | | |
|----------|-------|-------|
| 12 53 40 | 42 5 | 61 3 |
| 12 55 35 | 42 4½ | 61 28 |

1 0 10 Tranſijt Cor ☿ Merid. habens

Alt. per Chalyb. 50 55½
per Volub. 50 55
Declin. eiſdem 16 52½
16 53

Difficulter obſeruabatur propter ¶.

Poſtea obſeruabatur ¶ tendens ad
90 Gr. Eclipticæ, iuxta quem fuit H. 2
M. 56.

| H. M. S. | Diſt. or. limb. ¶ a Corde ☿ | Decl. ¶ | Alt. ſuper. limbi | Spica ¶¶ orient. |
|----------|-----------------------------------|------------|----------------------|------------------------|
| 2 32 50 | 21 47½ | | | 0 30 |

| | | | | |
|--------|--------|-------|-------|----------------|
| 2 35 0 | 21 49½ | 8 43 | 37 58 | occid. 0 0½ |
| | | 8 13½ | | |

| | | | | |
|---------|--------|-------|-------|-------|
| 2 38 40 | 21 52 | | 37 39 | 0 59½ |
| 2 40 45 | 21 52½ | 8 43½ | 37 26 | 1 26 |
| | | 8 10 | | |

| | | | | |
|---------|--------|-------|-------|------|
| 2 44 20 | 21 54 | | 37 10 | 2 20 |
| 2 46 15 | 21 55½ | 8 42½ | 36 55 | 2 48 |
| | | 8 7½ | | |

| | | | |
|-------------|--------|-------|-----------|
| 2 49 30 | 21 57 | 36 40 | 3 36 |
| 2 51 10 | 21 57½ | 8 40½ | 36 30 4 2 |
| 2 48½ corr. | 8 5 | | |

Viceverſa a Spica ¶¶.

| | | | |
|---------------|--------|------|------|
| 2 56 15 | 32 26½ | 36 0 | 5 18 |
| 2 53 40 corr. | | | |

| | | | |
|---------|--------|-------|------------|
| 2 57 40 | 32 26½ | 8 39½ | 35 55 5 45 |
| | | 8 4½ | |

| | | | |
|--------|-------|-------|------------|
| 3 0 50 | 32 25 | 35 35 | 6 27 |
| 3 2 40 | 32 24 | 8 38 | 35 20 6 52 |
| | | 8 2½ | |

| | | | |
|--------|--------|-------|-----------|
| 3 5 45 | 32 22½ | 35 10 | 7 37 |
| 3 7 20 | 32 21½ | 8 37 | 34 55 8 3 |
| | | 8 1 | |

| | | | |
|---------|--------|-------|-----------|
| 3 10 0 | 32 21½ | 34 40 | 8 43 |
| 3 11 25 | 32 20 | 8 35 | 34 35 9 3 |
| | | 8 0 | |

DIE 16 FEBRUARIJ, MANE.

Obſeruabatur ¶ prope 90 Gr. Eclipticæ, iuxta quem fuit H. 4 M. 2, ſumebaturque diſtantia orientalis limbi ¶ a Corde ☿ per Sextantem.

| H. M. S. | Diſtantia | Declin. ſup./inf. | Alt. ſuper. | Spica ¶¶ occ. |
|----------|-----------|----------------------|-------------|------------------|
| 3 44 0 | 37 40 | 1 21½ | | 17 30 |
| | | 0 49½ | | |

| | | | | |
|---------|--------|-------|--|-------|
| 3 47 50 | 37 41½ | | | 18 26 |
| 3 50 30 | 37 42½ | 1 20 | | 19 7 |
| | | 0 48½ | | |

| | | | | |
|---------|--------|------|-------|-------|
| 3 55 20 | 37 46 | | 28 37 | 20 18 |
| 3 58 0 | 37 46½ | 1 19 | | 21 0 |
| | | 0 46 | | |

| | | | | |
|--------|--------|------|------|-------|
| 4 1 30 | 37 48½ | | | 21 53 |
| 4 3 15 | 37 49½ | 1 17 | 28 5 | 22 21 |
| | | 0 43 | | |

| | | | | |
|--------|--------|--|--|-------|
| 4 6 50 | 37 51² | | | 23 17 |
| 4 8 40 | 37 52 | | | 23 37 |

| | | | | |
|--------------|--------|------|-------|-------|
| 4 10 50 | 37 53* | 1 14 | 27 15 | 24 16 |
| 4 5 20 corr. | | 0 44 | *fere | |

| | | | | |
|-------------|--|--|--|--|
| 4 10½ corr. | | | | |
|-------------|--|--|--|--|

| | | | | |
|---------|-------|------|-------|-------|
| 4 17 55 | 16 31 | 1 11 | 26 42 | 25 57 |
| | | 0 39 | | |

Viceverſa capiebatur diſtantia
orient. limbi ¶ a Spica ¶¶.

| | | | | |
|--------|--------|--|--|-------|
| 4 16 0 | 16 31½ | | | 25 29 |
|--------|--------|--|--|-------|

| | | | | |
|---------|--------|--|--|-------|
| 4 21 45 | 16 28½ | | | 26 53 |
|---------|--------|--|--|-------|

¹ Codex habet 59 65.

² Forſitan 52.

4 23 45 16 26½ 1 10 26 8 27 21
0 37½

4 28 40 16 23 28 36
4 30 40 16 22½ 1 6½ 29 6
0 34½

4 33 20 16 21½ 29 45
4 35 20 16 20 1 5½ 24 55

Sin. genu
Ophiuchi
or.

0 33 17 30

4 44 40 Deinde pro examinandis
Armilla fumebatur De- 13 11 B.
clinatio Vindemiatoris 13 10½
difficulter propter ☾.

4 52 0 Declinatio Spicae ♄ 8 59½
vtrouque pinn.

DIE 18 FEBRUARIJ, MANE.

Obferuabatur ☾ iuxta 90 Gr., ad
quem venit H. 5½ P. M. N.

N. B. Factæ sunt hæ obferuationes
medio loco fere inter ☿ & ☐ vltimam.

| H. M. S. | Dift. or. limbi ☾ a Spica ♄ | Declin. sup./inf. | Altit. sup. | Vultur orient. |
|-------------|-----------------------------------|----------------------|----------------|-------------------|
| 5 36 40 | 14 16 | 12 47½ | 15 45 | 48 31 |
| 5 33½ corr. | | 13 16½ | | |
| 5 40 50 | | 12 48½ | | 47 25 |
| | | 13 12 dubia. | | |

N. B. Spica ter circiter obferuata
eft, fed quæ pofita eft diftantia opti-
ma nobis videbatur.

Viceverfa a Capite Ophiuchi

5 46 35 55 1 Per min. 46 5
5 43½ corr. Quad.

5 47 50 55 0 12 50½ 14 50 45 46
13 19½

5 52 10 55 0
5 53 0 54 59 12 50½ 44 25
13 21

Fuit hoc mane cœlum ad plagam oc-
ciduam admodum nebulofum, adeo
vt non daretur ab illa parte ☾ obfer-
uare nifi in diftantia a Spica, quæ ta-
men incerta eft, quod nebulis & nube-
culis ftella hæc fere occulta erat. Quæ
autem ab altera parte acceptæ funt
diftantiæ mediocres funt, ftella nimi-
rum in Capite Ophiuchi bene appa-
rente.

Horologium in meridie fequenti 3
minutis tardius iufto ibat.

Supputationes motuum ☾^{rium} ex obfer-
uationibus diebus fuperioribus
habitis, cum ☾ eſſet iuxta
nonageſimum gradum.

DIE 12 FEBRUARIJ.

H. 11 M. 53½ Dift. ☾

ab infer. cap. ♄ 25 49 0

Declin. centri ☾ 21 2 30

Declin. inf. cap. ♄ 28 56½

Ang. diff. aſcenf. 27 12 50

Ergo Aſcenf. R. ☾ 137 19 20

Eodem die H. 11 M. 58

Dift. ☾ a cauda ♄ 33 9

Declin. ☾ 21 1½

Declin. caudæ ♄ 16 51 0

Ang. diff. aſcenf. 34 50 0

Ergo Aſc. R. a cauda ♄ 137 14 50

H. 11 M. 56 Aſc. R. ☾ limitata 137 17 0

Declin. ☾ B. 21 2

Reſp. Longitudo 13 27½ ♄

Latitudo B. 4 22 50

Arcus inclinationis M. 2 fubt.

DIE 13 FEBRUARIJ.

H. 1 M. 31 poſt M. N. Dift. centri ☾

ab infer. cap. ♄ 41 54½

Declin. centri ☾ 15 14½

Ang. diff. aſcenf. 43 3 0

Ergo Aſc. R. ☾ 153 9 30

Eodem die H. 1 M. 37

Dift. ☾ ab Arcturo 53 24

Declin. ☾ 15 12½

Declin. Arcturi 21 20½

Ang. diff. aſcenf. 56 8 30

Aſc. R. Arcturi 209 19 15

Ergo Aſc. R. ☾ 153 10 45

H. 1 M. 34 Aſc. R. ☾ limitata 153 10½

Declin. ☾ B. 15 13 0

Longitudo 29 39½ ♄

Latitudo 3 50½ B.

Arcus inclinationis 5½ fubt.

DIE 15 FEBRUARIJ.

H. 2 M. 48½ mane.

Dift. centri ☾ a corde ♄ 21 40

Declin. ☾ 8 21

Decl. cordis ♄ 13 55½

Ang. diff. aſc. 21 21½

Aſc. R. cordis ♄ 146 40 50

Ergo Aſc. R. ☾ 168 2 10

| | |
|---------------------------------|------------|
| H. 2 M. 53½ Dift. centri (| |
| a Spica 111 | 32 44 |
| Declin. (| 8 20 B. |
| Decl. Spicæ | 8 59½ M. |
| Ang. diff. asc. | 27 53 0 |
| Afc. R. Spicæ | 195 59 20 |
| Ergo (Afc. R. | 168 6 20 |
| H. 2 M. 51 Afc. R. (limitata | 168 4½ |
| Declin. (| 8 20½ |
| Resp. Longitudo | 15 46½ 111 |
| Latitudo | 2 56½ B. |
| Arcus inclinationis M. 7½ fubt. | |

DIE 16 FEBRUARIJ, MANE.

| | |
|------------------------------|-----------|
| H. 4 M. 5½ Dift. (a corde 5 | 37 37 0 |
| Declin. (| 0 59 0 B. |
| Ang. Diff. Ascenf. | 35 42 50 |
| Ergo Af. R. (| 182 23 40 |
| H. 4 M. 10½ Dift. centri (| |
| a Spica | 16 47½ |
| Declin. Spicæ | 8 59½ M. |
| Declin. (| 0 57 B. |
| Ang. diff. ascenf. | 13 35 20 |
| Ergo Afc. R. (| 182 24 0 |

| | |
|---------------------------|----------|
| Ergo H. 4 M. 8 | |
| Afc. R. (limit. | 182 23½ |
| Declin. B. | 0 58 B. |
| Resp. Longitudo | 1 48½ 5 |
| Latitudo | 1 50½ B. |
| Arcus inclinationis fubt. | 6' 45" |

DIE 18 FEBRUARIJ, MANE.

| | |
|--|----------------|
| H. 5 M. 33½ Dift. centri (| |
| a Spica | 14 1 dubia |
| Decl. centri (| 13 1 M. |
| Ang. diff. ascenf. | 13 40 46 |
| Ergo Afc. R. (| 209 40 6 |
| H. 5 43½ Dift. a cap. | |
| Ophiuchi | 55 16 |
| Decl. centri (| 13 3 M. |
| Decl. cap. Ophiuchi | 12 57 B. |
| Ang. diff. ascenf. | 49 12 0 |
| Afc. R. cap. Oph. | 259 0 45 |
| Ergo Afc. R. (| 209 48½ melior |
| H. 5 M. 40, cum (eBet iuxta nonagesf. | |
| Gr. Eclipticæ, pone eius | |
| Afc. R. | 209 47 |
| & Declinationem M. | 13 3½ |
| Resp. Longitudo | 2 14½ 111 |
| Latitudo M. | 0 48 35 |
| Subtr. | 5 0 |

Collectio φαινομένων (rium anteceden-
tium & ad propriam orbitam (x
reducitorum, cum collatione
Calculi Prutenici & Al-
phonfinorum.

| Dies Feb. | H. M. | Long. obf. | Ex Mag. | Ex Cyp. |
|--------------|-------|---------------|------------|------------|
| 12 | 11 56 | 13 25½ 5 | 13 46 | 14 11 |
| | Mane | | | |
| 14 | 1 34 | 29 34½ 5 | 29 36 | 29 43 |
| 15 | 2 51 | 15 39½ 111 | 15 20 | 15 15 |
| 16 | 4 8 | 1 42 5 | 1 8 | 0 51 |
| 18 | 5 40 | 2 13½ 111 | 1 36 | 0 55 |

DIE 22 FEBRUARIJ, MANE.

N. B. Bona obfervatio (pro Paral-
laxi & Refractione.

| | |
|--|--|
| H. 6 M. 50½ Tranfijt orient. limbus (| |
| per Meridianum, habuitque fup- erius cornu altit. per Chalyb. 5 58½ | |
| Declin. per Armillas, fup. 28 8½ | |
| inf. 28 33 | |

Fuit tunc circa Meridiem aër den-
fior circa Horizontem, vt vix (obser-
uari poffet, ☉^{le} autem paululum ori-
ente, (ftatim videri defijt.

DIE 15 MARTIJ, VESPERI.

Obferuabatur (plena iuxta Peri-
gæum.

| H. M. | Dift. orient. limb. (a Corde 5 | Decl. auf. fup. inf. | Alt. inf. limbi | Cor. 5 occid. |
|--------|---------------------------------------|-------------------------|--------------------|------------------|
| 11 9 | 43 9½ | 1 4 | 30½ | 25 30 |
| | | 1 36 | quafi | |
| 11 30½ | 43 22 | | 31 40 | 31 10 |
| 11 36½ | 43 24 | 1 12½ | 31 45 | 32 40 |
| | | 1 46 | | |
| 11 50 | 43 30 | | | 36 15 |
| 12 6½ | Tranfijt occid. limbus (| | | |
| | per Merid. habens Alt. | | Spica or. | |
| | per Volub. fup. | 32 39½ | 8 40 | |
| | inf. | 32 7½ | | |
| 12 8½ | Tranfijt or. limbus (| | 8 7 | |
| | Declin. (fup. | 1 26½ | | |
| | inf. | 2 0 | | |

Viceversa obseruabatur orientalis
limbus ☾ a Spica ♏ post M. N.

| H. M. | Distantia | Declin. M. | Altit. inf. | Spica or. |
|---------------------|---------------------|--------------------|----------------|--------------|
| 12 30 $\frac{1}{2}$ | 10 35 $\frac{1}{2}$ | | | 2 9 |
| 12 40 $\frac{1}{2}$ | 10 33 | 1 30 $\frac{1}{2}$ | | occid. |
| | | 2 5 $\frac{1}{2}$ | | 0 10 |
| 12 52 $\frac{1}{2}$ | 10 26 $\frac{1}{2}$ | | 30 35 | 3 30 |
| 12 56 $\frac{1}{2}$ | 10 24 $\frac{1}{2}$ | 1 39 $\frac{1}{2}$ | | 4 38 |
| | | 2 12 $\frac{1}{2}$ | | |

Deinde circa 90 Gr. obseruabatur
orient. limbus ☾ a Corde ♏.

| | | | | |
|--------------------------|---------------------|--------------------|-------|-------|
| 2 17 $\frac{1}{2}$ | 44 52 | | | 26 11 |
| 2 20 $\frac{1}{2}$ | 44 55 $\frac{1}{2}$ | 2 45 $\frac{1}{2}$ | 24 50 | 27 3 |
| | | 2 6 $\frac{1}{2}$ | | |
| 2 26 $\frac{1}{2}$ | 44 57 | | | 28 35 |
| 2 29 $\frac{1}{2}$ | 44 59 $\frac{1}{2}$ | 2 47 | 24 7 | 29 20 |
| 2 44 $\frac{1}{2}$ corr. | | 2 9 | | |

☾ in 90 Gr. H. 2 M. 58 P. M. N.

Viceversa a Spica ♏.

| | | | | |
|--------------------------|--------------------|--------------------|-------|-------|
| 2 36 $\frac{1}{2}$ | 9 30 | | | |
| 2 38 $\frac{1}{2}$ | 9 28 | 2 11 $\frac{1}{2}$ | 23 11 | 31 49 |
| | | 2 49 $\frac{1}{2}$ | | |
| 2 43 | 9 24 | | | 33 5 |
| 2 59 $\frac{1}{2}$ corr. | | | | |
| 2 47 $\frac{1}{2}$ | 9 21 $\frac{1}{2}$ | 2 13 $\frac{1}{2}$ | 22 15 | 34 6 |
| 3 3 $\frac{1}{2}$ corr. | | 2 49 | | |
| 2 53 $\frac{1}{2}$ | 9 18 $\frac{1}{2}$ | | | 35 38 |

Postea obseruabatur ☾ limbus orient.
a Lucida Ceruicis ♏.

| | | | | |
|--------------------------|---------------------|--------------------|-------|-------|
| 2 58 $\frac{1}{2}$ | 45 59 $\frac{1}{2}$ | | | 37 11 |
| 3 15 $\frac{1}{2}$ corr. | | | | |
| 3 1 $\frac{1}{2}$ | 46 1 | 2 19 | 20 40 | 37 53 |
| | | 2 56 $\frac{1}{2}$ | | |

N. B. In his ultimis obseruationibus depræhensum est horologium $\frac{1}{2}$ vnus horæ tardius iusto moueri, qui error acceperat ab hora 11 vespertina. Quapropter tempus in superioribus obseruationibus ad fixas diligenter corrigendum erit pro motu ☾.

Denique pro Armillis corrigendis obseruabamus in declinatione Spicæ ♏ in eadem fere remotione a Meridiano qua ☾ iuxta 90 Gr. eßet.

| | | |
|------------------------|--------------------|------------|
| H. 3 M. 35 Decl. Spicæ | 8 57 $\frac{1}{2}$ | Spica occ. |
| Corrigebatur hic | 8 57 $\frac{1}{2}$ | 42 53 |
| horologium | Altit. Spicæ | 10 55 |

Calculus loci lunaris ex antecedentibus obseruationibus.

H. 2 M. 45 Dift. centri ☾

| | |
|-----------------------|----------------------|
| a Regulo | 44 43 $\frac{1}{2}$ |
| Declin. centri merid. | 2 30 0 |
| Declin. Reguli | 13 55 0 |
| Ang. diff. ascenf. | 41 58 13 |
| Afc. R. Reguli | 146 39 $\frac{1}{2}$ |
| Ergo Afc. R. ☾ | 188 37 30 |
| Resp. Longitudo | 8 53 $\frac{1}{2}$ ☾ |
| Latitudo | 1 8 $\frac{1}{2}$ B. |

H. 3 M. 0 Dift. centri ☾ a Spica 9 40 $\frac{1}{2}$

| | |
|--------------------|-----------------------|
| Decl. Spicæ | 8 59 $\frac{1}{2}$ M. |
| Decl. ☾ centri | 2 34 $\frac{1}{2}$ M. |
| Ang. diff. ascenf. | 7 16 15 |
| Afc. R. Spicæ | 195 59 25 |
| Ergo Afc. R. ☾ | 188 43 10 |
| Resp. Longitudo | 8 59 $\frac{1}{2}$ ☾ |
| Latitudo | 1 6 $\frac{1}{2}$ B. |

H. 3 M. 15 Dift. centri ☾

| | |
|--------------------|----------------------|
| a luc. ceruicis ♏ | 45 43 |
| Declin. centri ☾ | 2 39 |
| Declin. luc. ceru. | 21 51 0 |
| Ang. diff. ascenf. | 39 30 4 |
| Afc. R. luc. ceru. | 149 21 5 |
| Ergo Afc. R. ☾ | 188 51 9 |
| Resp. Longitudo | 9 10 $\frac{1}{2}$ ☾ |
| Latitudo | 1 5 $\frac{1}{2}$ B. |

H. 3 M. 0 quando ☾ fuerat in nonagesimo gradu, vera Longitudo limitata 9 0 ☾

Pro arcu inclinationis Latitudinis subt.

7

Ergo vera Longit. ☾ respectu propriæ orbitæ

8 53 ☾

Æquatoria temporis nostræ subt.

0 40

Nofter Simplex ☉^{lis} 0^s 2^s 56^s 56^{ss}

Simplex Longit. ☾ 3 4 46 18

Anomalia ☾^æ 3 13 50 13

DIE 17 MARTIJ, MANE.

Obseruabatur ☾ circa 90 Gradum.

N. B. Correximus horologium a Spica retrahendo indicem 2 M. quibus citius iusto mouebatur ab hesternâ vespere H. 8 $\frac{1}{2}$.

| H. M. | Dist. a cauda ☿ | Declin. M. | Alt. inf. cornu | Spica ☿ occ. |
|-------------------------------------|---------------------|---------------------|-----------------|--------------|
| 4 3 $\frac{1}{2}$ | 40 36 | | | 50 11 |
| 4 9 $\frac{1}{2}$ | 40 44 $\frac{1}{2}$ | 9 40 | 14 7 | 51 35 |
| | | 10 13 | | |
| 4 16 | 40 50 $\frac{1}{2}$ | | | |
| 4 18 | 40 51 $\frac{1}{2}$ | 9 43 | 13 25 | 53 40 |
| | | 10 15 | | |
| Viceversa a finistro genu Ophiuchi. | | | | |
| 4 25 $\frac{1}{2}$ | 39 52 | | | |
| 4 27 $\frac{1}{2}$ | 39 50 $\frac{1}{2}$ | 9 45 | 12 25 | 60 2 |
| | | 10 19 $\frac{1}{2}$ | | |
| 4 30 $\frac{1}{2}$ | 39 49 $\frac{1}{2}$ | | | |

DIE 18 MARTIJ, MANE.
Obseruabatur ☿ iuxta 90 Gradum.

| H. M. S. | Dist. or. limbi ☿ a Spica | Declin. | Alt. inf. cornu | Arcturus occid. |
|----------|---------------------------|------------------------|-----------------|-----------------|
| 4 1 0 | 21 40 | 16 0 $\frac{1}{2}$ | 13 30 | 36 19 |
| 4 6 30 | 21 44 | | | 37 44 |
| 4 8 50 | 21 44 | 16 46 | 13 5 | 38 14 |
| | | incerta propter trabem | | |
| 4 14 0 | 21 47 $\frac{1}{2}$ | | | 39 34 |
| 4 16 50 | 21 48 | 16 38 | 12 30 | 40 14 |
| | | 16 4 sup. | | |

Viceversa a Corde ☿.

| | | | | |
|---------|--------------------|--------------------------|-------|-------|
| 4 24 10 | 24 10 | | | 42 1 |
| 4 26 30 | 24 9 | 16 5 | 11 45 | 42 39 |
| | | 16 38 $\frac{1}{2}$ inf. | | |
| 4 31 30 | 24 8 | 16 7 $\frac{1}{2}$ | | 43 55 |
| | dub. | | | |
| 4 33 20 | 24 6 $\frac{1}{2}$ | 16 41 | 11 15 | |

N.B. Cor ☿ in his obseruationibus erat quasi in Meridiano, paululum egressus, & Spica erat antea quasi in confirmili cum ☿ altitudine, sed habenda ratio Refractionis.

DIE 19 MARTIJ, MANE.

Obseruabatur ☿ iuxta 90 gradum.
Media inter ☿ & ☐.

| H. M. S. | Dist. or. limbi ☿ a Spica | Decl. sup./inf. | Alt. sup. per min. nor. Q. | Æq. dist. Arctur. occ. |
|-------------------|---------------------------|-----------------|----------------------------|------------------------|
| 4 3 $\frac{1}{2}$ | 36 17 | 21 28 | 11 | 43 31 |
| 4 22 corr. | | 21 58 | | |
| 4 6 50 | 36 19 $\frac{1}{2}$ | | | 44 25 |
| 4 10 40 | 36 23 | | | 45 28 |

Postea viceversa a Corde ☿ hoc modo.

| | | | | |
|--|--------------------|---------------------|-------|-------|
| 4 14 5 | 9 39 | 21 29 | | 46 5 |
| | | 21 58 $\frac{1}{2}$ | | |
| 4 17 0 | 9 36 | | 10 15 | 46 57 |
| 4 19 10 | 9 33 | 21 30 | | 47 32 |
| | | 22 0 | | |
| 4 21 30 | 9 31 $\frac{1}{2}$ | | 9 50 | 48 16 |
| <i>Denuo rursus distantia a Spica in ipso 90 Gr.</i> | | | | |
| 4 24 30 | 36 30 | | | 48 58 |
| 4 26 $\frac{1}{2}$ | 36 31 | 21 30 $\frac{1}{2}$ | 9 25 | 49 25 |
| | | 22 0 $\frac{1}{2}$ | | |

N.B. Fuit tunc ☿ inter ☿ & ☐ quæ inter Perigæum & mediam elongationem est quasi, & habuit cum Spica fere eandem ab Horizonte altitudinem, vnde refractionis in distantia insinuatio modicum intulit. Sed Cor ☿ paulo fuit decliuus, igitur limitandæ veniunt vtrunque.

Locus¹ ☿ diligenter ex hisce supputatus quoad long. H. 4 M. 40 est 24°26' ☿ ac infuper arcus lat. add. 4 $\frac{1}{2}$.

DIE 20 MARTIJ, MANE.
Attendebamus ad ☿ appropinquantem 90.

| H. M. | Dist. ² | Decl. ☿ sup./inf. | Arcturus occid. |
|--------|--------------------|---------------------|-----------------|
| 4 8 30 | 4 32 | 25 27 $\frac{1}{2}$ | 49 59 |
| | | 25 56 | |

Postea per Semicirculum ☿ a ☿³.

| | Dist. or. limbi ☿ & ☐ | Alt. ☿ |
|--------------------|-----------------------|--|
| 4 38 $\frac{1}{2}$ | 86 30 | 7 $\frac{1}{2}$ sup. 57 8 |
| 4 39 $\frac{1}{2}$ | | 25 31 $\frac{1}{2}$ |
| | | 26 0 |
| 4 42 | 86 25 $\frac{1}{2}$ | 58 18 |
| | 26 ⁴ | |
| 4 44 $\frac{1}{2}$ | | 58 41 |
| 4 46 $\frac{1}{2}$ | 86 20 | 25 31 $\frac{1}{2}$ |
| | dub. 22 | 25 59 $\frac{1}{2}$ 6 $\frac{1}{2}$ med. |
| 4 50 $\frac{1}{2}$ | 86 21 $\frac{1}{2}$ | dubia 6 inf. |
| 4 54 $\frac{1}{2}$ | 86 19 $\frac{1}{2}$ | 25 33 |
| | melior 26 3 | |
| 4 57 $\frac{1}{2}$ | 86 16 | |
| 5 1 $\frac{1}{2}$ | | 25 32 5 25 inf. |
| | | 26 0 |

¹ E codice V.

² Nomen stellæ deest.

³ Cf. infra inter obseruationes Veneris.

⁴ Sic in codice.

DIE 22 MARTIJ, MANE.

Cum ☾ prope ♄ vnus horæ præceßit
Meridianum, circiter H. 4½, erat De-
clinatio superioris cornu ☾ inter nubes
28 35 Plura propter nubes
28 36 non licuit obseruare.

☾ erat quasi in 4½ ♄
cuius declinatio 23 27
Declinatio centri 28 50
Latit. & parallaxis 5 23
refractio 14 comm. refract.
folari fuit.

5 37

4 36

Parallaxis 1 1
quod satis quadrat.

DIE 23 MARTIJ, MANE.

Obseruabatur ☾ vtcunque, sed vi-
deri non potuit propter diem & va-
pores ad Horizontem.

| | | | | |
|------------------------|---------|----------|----------|-----------|
| Distantia ¹ | Decl. ☾ | Altit. ☾ | Altit. ☉ | ☉ orient. |
| 83 9* | 27 55 | 6 8 | 8 10 | 82 50 |
| 83 36 | 28 15 | | *melior | |

Transiuit ☾ Meridianum habens
Altitudinem

per Chal. 6 10 sup.
5 50½ inf., melior

per Volub. 6 21 Fuit tunc ☉ orient.
6 1 79 52

| | | |
|-------|------|-------|
| 83 15 | 11 0 | 77 49 |
| 82 40 | 11½ | 77 10 |

Hanc varietatem & deuiationem
peperit ☾ non bene apparens, tam
propter Solem eleuatum partibus
quasi 10, quam propter ipsam lunam
admodum decliuem & vaporibus
Horizontis inuolutam.

DIE 9 APRILIS.

Vesperis obseruabatur ☾ ☐ priorem
transuecta in Meridiano & circa no-
nagesimum gradum vt fequitur.

H. 8 25½ transferat occ. limb. ☾ ad ½
partem suæ diametri, habuitque
alt.

¹ Id est distantia orientalis limbi lunæ a sole.

per Chalyb. per Volub.

| | | |
|--------|-------|------|
| super. | 50 5½ | 50 6 |
| infer. | 49 36 | |

Fuit tunc Canis minor occ. 46 10

DIE 11 APRILIS, VESPERI.

H. 9 M. 38½ Declinatio ☾
super. cornu 2 24
infer. cornu 1 51

9 41½ Transiuit occid. limbus ☾
per Meridianum habens Altitud.
per Chal. sup. 36 31½ inf. 35 57½
per Volub. 36 31½ 35 58½

Fuit tunc Cor ☾ occid. 33 25 bene.
Pone itaque super. limbi 36 31½
Altitudinem infer. 35 58

Deinde obseruabatur ☾ succedente
ad 90 tendens.

N. B. ☾ inter ☐ & ♀ Eclipticam.

| H. M. S. | Occ. limb. ☾ a Corde ☾ | Decl. sup./inf. | Alt. sup. limbi orient. | Spica occid. |
|----------|---------------------------|--------------------|----------------------------|-----------------|
| 10 25 50 | 35 28½ | 2 9 | 4 13 | |
| | | 1 39 | | |
| 10 30 0 | 35 30 | | 35½ | 2 46 |
| 10 34 10 | 35 32½ | 2 6½ | 1 55 | |
| | | 1 35½ | | |

Postea viceversa ☾ a Spica capie-
batur vt fequitur.

| | | | |
|----------|--------|----------|---------------|
| 10 39 20 | 18 54 | | 0 39 |
| 10 41 50 | 18 52 | 2 4½ 34½ | occid. 0 3 |
| | | 1 33½ | |
| 10 45 40 | 18 50½ | 2 3½ | 1 3 |
| | | 1 30 | |
| 10 50 10 | 18 48½ | 2 2 34½ | 2 10 |
| | bona | 1 28 | |

Deinde cum ☾ appropinquaret 90
Gradui Eclipticæ, quo veniret H. 12½,
denuo obseruata est.

| H. M. S. | Dist. ☾ a Spica | Declin. sup./inf. | Altit. | Spica occid. |
|----------|--------------------|----------------------|-----------------------|-----------------|
| 12 13 50 | 18 0 | 1 30½ | | 24 25 |
| | | 1 3 | | |
| 12 18 30 | 17 57½ | | 26 45 | 25 34 |
| | | | Viceversa a Ceruice ☾ | |
| 12 26 30 | 37 12½ | 1 29½ | 26 0 | 27 41 |
| | | 1 0½ | | |
| 12 29 40 | 37 16½ | | | 28 34 |

| A corde ζ | | | Alt. Cor. ζ | | |
|-----------------|---------------------|--------------------|-------------------|----------------|--|
| 12 34 10 | 36 36 | 1 27 $\frac{1}{2}$ | 17 $\frac{1}{2}$ | 29 30 | |
| | | 0 56 $\frac{1}{2}$ | | inter nubes | |
| 12 37 0 | 36 37 | | | Ceruix ζ | |
| 12 39 50 | 36 38 $\frac{1}{2}$ | 1 25 $\frac{1}{2}$ | 16 $\frac{1}{2}$ | occ. | |
| | | 0 56 $\frac{1}{2}$ | | 78 0 | |
| 12 43 30 | 36 39 $\frac{1}{2}$ | | | 78 49 | |

| A Ceruice ζ | | | Alt. Ceruicis | | |
|-------------------|-------|--------------------|---------------|---------------|--|
| 12 46 50 | 37 26 | 1 23 $\frac{1}{2}$ | 23 45 | 79 47 | |
| | | 0 53 | | dub. ob nubes | |

A boreali Lance Ω . Erat hæc stella proxime iuxta Meridianum, cum ab ea ζ primum obseruaretur.

| | | | Bor lanx | | |
|----------|--------------------|--------------------|----------|-----------------|--|
| 12 52 40 | 43 7 | | | Δ occid. | |
| 12 54 50 | 43 6 $\frac{1}{2}$ | 1 22 $\frac{1}{2}$ | | | |
| | | 0 51 | | | |
| 12 58 10 | 43 3 $\frac{1}{2}$ | | 22 20 | 8 13 | |
| 1 1 10 | 43 0 $\frac{1}{2}$ | | | 9 0 | |

N. B. Obseruationes hæ ζ iuxta 90 Grad. acceptæ sunt, vt plurimum stellis fixis inter nubes transparentibus: sunt tamen tales, quibus fidere potes, præsertim vbi plures distantia continuo ab ijsdem sunt captæ: reliquæ per collationem ad has probentur.

DIE 13 APRILIS, MANE.

Obseruabatur ζ circa 90 Gr., H. videlicet 1 $\frac{1}{2}$.

| H. M. S. | Dist. a Cauda ζ | Declin. inf./sup. | Altit. inf. cornu | Vultur orient. |
|----------------------|--------------------------|--------------------|-------------------|----------------|
| 1 49 20 | 32 15 | 6 24 | 18 $\frac{1}{2}$ | 54 9 |
| | | 5 50 $\frac{1}{2}$ | | |
| 1 54 0 | 32 17 $\frac{1}{2}$ | | 18 0 | 53 3 |
| 1 57 20 | 32 20 | 6 29 $\frac{1}{2}$ | 17 0 | 52 13 |
| | | 5 52 | | |
| A fin. genu Ophiuchi | | | | |
| 2 4 10 | 48 8 $\frac{1}{2}$ | | | 50 20 |
| 2 7 50 | 48 6 | 6 30 | 15 $\frac{1}{2}$ | 49 11* |
| | | 5 56 | | |
| 2 16 0 | 48 4 $\frac{1}{2}$ | | | 47 15 |
| 2 17 40 | 48 1 $\frac{1}{2}$ | | 14 $\frac{1}{2}$ | 46 49 |
| 2 24 | Pro Armillis corrigendis | | | obser- |
| | uabatur Spica Π | | 9 2 | |
| | in declinatione | | 9 1 $\frac{1}{2}$ | |
| | Fuit tunc Altit. Spicæ | | 12 0 | |

N. B. Fuit Cælum non fatis ferenum cum hæc in ζ obseruarentur, sed nebulis discurrentibus rariufculis subfratum, adeo vt stellæ non fatis perspicuæ essent, præcipue illa in genu Ophiuchi, quæ etiam nonnihil splendore ζ obfuscabatur.

DIE 13 APRILIS, VESPERI.

Ante Eclipsin ζ eadem nocte contingentem obseruabatur ζ circa Meridianum.

H. 11 M. 48 $\frac{1}{2}$ Altitudo Meridiana

| | super. cornu | infer. cornu |
|--------------------------------|--------------------|---------------------|
| per Chalyb. | 22 2 | 21 28 $\frac{1}{2}$ |
| per Volub. | 22 1 $\frac{1}{2}$ | 21 29 |
| idque in transitu occid. limbi | | |
| per Merid. | | |

Eodem tempore 12 6 super.

Declinatio ζ 12 37 $\frac{1}{2}$ M.

Erat tunc Cor ζ in æquatore 61 17

Postea obseruata est ζ in distantia a fixis stellis vt sequitur.

| H. M. | Dist. occid. a Spica Π | Declin. M. sup./inf. | Cor ζ occid. |
|------------------------------|----------------------------|----------------------|---------------------------|
| 12 2 $\frac{1}{2}$ | 12 13 $\frac{1}{2}$ | | 64 49 |
| 12 6 $\frac{1}{2}$ | 12 17 | 12 10 | 65 50 |
| | | 12 42 $\frac{1}{2}$ | |
| | | | |
| Occid. limbus a Lucida Vult. | | Altit. sup. limb. | Lucida Vult. orient. |
| 1 46 | 85 58 $\frac{1}{2}$ | 12 39 | 55 20 $\frac{1}{2}$ |
| 1 45 $\frac{1}{2}$ corr. | 85 55 $\frac{1}{2}$ | 13 10 $\frac{1}{2}$ | |
| 1 51 $\frac{1}{2}$ | 85 55 $\frac{1}{2}$ | 12 38 | 53 57 |
| | | 13 10 | |
| 1 55 $\frac{1}{2}$ | 85 55 | | 16 40 53 3 |
| 1 59 $\frac{1}{2}$ | | 12 41 | 51 57 |
| | | 13 12 | |
| 2 3 $\frac{1}{2}$ | 85 52 $\frac{1}{2}$ | | 16 20 |
| 2 7 $\frac{1}{2}$ | 85 50 | 12 43 | |
| | | 13 13 $\frac{1}{2}$ | |
| 2 11 $\frac{1}{2}$ | 85 48 | | 15 35 35 3 $\frac{1}{2}$ |
| 2 16 $\frac{1}{2}$ | 85 47 $\frac{1}{2}$ | 12 44 $\frac{1}{2}$ | 36 3 $\frac{1}{2}$ |
| | | 13 16 $\frac{1}{2}$ | |
| 2 20 $\frac{1}{2}$ | 85 44 $\frac{1}{2}$ | | 14 50 37 5 |
| 2 23 | 85 45 | 12 46 $\frac{1}{2}$ | 37 45 |
| | | 13 17 $\frac{1}{2}$ | |
| 2 26 $\frac{1}{2}$ | 85 44 | | 14 20 38 34 $\frac{1}{2}$ |

ζ occid. limb. occ.

| | | | |
|----------|--------|--------|-------|
| 2 30 10 | 85 41½ | 12 46½ | |
| | | 13 19½ | |
| 2 34 15 | 85 41 | | 13 35 |
| 2 37 20 | 85 40 | 12 49 | 43 11 |
| | | 13 20½ | 42 30 |
| 2 41 30 | 85 37 | | 12 50 |
| 2 44 50 | 85 35 | 12 50½ | 41 33 |
| | | 13 22 | 40 42 |
| 12 50 30 | 85 31 | | 12 0 |
| 12 49½ | corr. | | 39 18 |

Postea ¶ incepit eclipsari. Pone¹
primum ingressum cum Vultur ab-
fuit 38½

| | | |
|---------|------------------------------------|------------------|
| 2 55 | ¶ ¶ visa est ali- | 38 5 |
| 2 52½ | corr. ¶ quid lucis amittere. | |
| 2 59½ | ¶ nonnihil plus ingressa | 36 58 |
| 3 2½ | sensibiliter ingressa est vmbra | 36 18 |
| 3 6 50 | Dist. ¶ a Vult. 85 25 | 35 20 |
| | Declin. 12 56½ Alt. sup. | |
| | 13 25 10½ | |
| 3 11 30 | quasi tertia pars ¶ | 34 7 |
| | fuit in vmbra terræ | bona in temp. |
| 3 16 0 | Dist. 85 25 Decl. 12 58 | 32 55 |
| | 13 28 | |
| 3 19 20 | 85 20½ Alt. 9 0 | 32 7 |
| 3 21 30 | ¶ ¶ media in- | 31 36 |
| 3 20 | corr. ¶ greßa fere | bona |
| 3 23 10 | per Radium 18' ¶ lumen | 31 9 |
| 3 26 20 | per Radium 15' ¶ lumen | 30 19 |

Pone itaque tempus cum media
esset in vmbra H. 3 M. 24 & insensi-
biliter aberrabis.

| | | |
|---------|---------------------------------|--------|
| 3 34 50 | quasi tertia pars ¶ residua | 28 11 |
| 3 40 40 | quasi quarta pars ¶ restabat | 26 52 |
| 3 43 20 | Dist. vt prius 85 6 | 26 4 |
| | Declin. med. 13 7, Alt. 6°. | |
| 3 49 50 | ¶ Tota ¶ ingressa | 24 34½ |
| 3 48 | corr. ¶ vmbra | bona |

¹ In margine adscriptum.

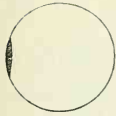
² Cf. infra, post observationes lunæ diei 13 Septembris.

¶ toto hoc tempore fuit in nubibus
subdenufculis.

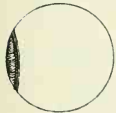
N.B. A transitu ¶ per Meridianum
vsque ad defectum eius primum fue-
runt continuo rariores nubes circa ¶
vndiquaque sparsæ in parte cæli me-
ridionali, quæ paulatim crassiores
factæ, stellarum fixarum faces in
confinio ¶ occultabant, adeo vt ad
ortum Lucida Vulturis, supra ¶ vero
& ad occasum Arcturus faltem pene
viserentur. Circa initium vero ingres-
sus ¶ in vmbra etiam nubeculæ
quædam illius orientalem limbum
obfederunt, adeo vt primum in vmbra
terræ introitum, qui exquisitè
ab orientali limbo inciperetur, discerne-
re & præcise obseruare vix liceret,
vt & neque reliqua animaduersionum
momenta ob nubes circa ¶ magis ma-
gisque condensatas. Totalem autem
¶ disparentiam satis præcise obser-
uabamus, sed inter densiores etiam
nubes quæ exile lumen ¶ reliquum
forfan aliquot minutulis ante totalem
ingressum e conspectu abduxerant.
Potes tamen pro medio deliquij huius
inquirendo, animadversionem circa
primam obscurationem tutius vsur-
pare, conferendo cum illis ea, quæ
superius in Armillari Meridionali ar-
cis accepta sunt, quæ non multum ab
his discrepant, quæ in obseruatorio
subterraneo obseruabantur, anim-
aduertendo quod ¶ paululum antea
obscurari incepta est, quam illic ob-
seruabatur, quod etiam ibidem innui-
tur².

Corrigatur horologium ad Lucidam
Vulturis, quod visum est circa initium
Eclipsis 1 M. abundare, circa finem
vero 1½, prout hæc & reliqua omnia
scrupulosius inquire & inter se confe-
rendo examinari possunt.

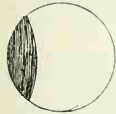
Obferuatio eiusdem Eclipsis ☾ in Armillis æquatorijs Australibus.



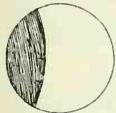
Vulturis Lucida in
æquatore orientali
37 39, Refpondet H.
2 M. 55½ fenfibiler
defecit ☾.
Videbatur autem
nobis non fatis ma-
ture attendiße.



Vulture orient. 36 48
Adhuc amplius vm-
bram ingreßa eft ☾.



Vulture orient. 35 1,
quafi quarta pars
corporis lunaris in
vmbra.



Vulture orient.
33 34 Tertia pars ☾
vmbra ingreßa.



Vulture orient.
31 20 Quafi media
☾ in vmbra. Refp.
H. 3 M. 19.



29 38 Tertia pars
reliqua videbatur.

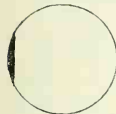


28 20 Vix quarta
pars reliqua vide-
batur.

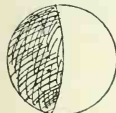


26 20 Adhuc pa-
rum videbatur reli-
quum.
24 35 Tota ☾ dispa-
ruit. Refpondet H. 3
M. 48, exquisitè con-
uenit cum fupè-
riori.

Obferuabatur eadem Eclipsis in Armillis feptentrionalibus ita.



Arcturo occident.
45 39 Refp.
H. 2 M. 55½, fenfibi-
lis defectionis pri-
ma facies.



48 3 Secunda,
quafi quarta pars
obfcurata.



52 30 Refp.
H. 3 M. 22½. Tertia.
Media pars ☾
obfcurata.



53 51 Quarta. Fere
quarta pars reliqua
cernebatur.
58 38 Vltima.
Tota obfcurata.
Refp. H. 3 M. 47½.

Admonitio de Eclipsi ☾ in Aprili¹.
 Tota difparitio in vmbra 3^h48^m
 Ab initio ad medium secundum
 vtrumque calculum
 Alph. & Cop. 1 4
 Ergo primum initium 2 44
 & medium 4 33
 si subtraxeris 3^m pro celeriori ingreſſu.
 Aequatio temporis subtr. 9^m.
 Ergo medium obseruatum & æquatum
 4^h24^m cui te fundare poſſis.

DIE 6 MAIJ, VESPERI.

Obſeruatio ☾ in quadratura.
 ☾ in 90 Gradu H. 8 exacte.

9^h16^m } Cor ☾ occid. 44 28
 9 13^m corr. }
 9 17^m occid. limb. ☾ 42 40^m
 9 20 cor ☾ 45 15^m occ.
 9 20^m occid. limb. ☾ 43 28^m
 9 23^m Cor ☾ occid. 46 9
 9 24^m occid. limb. ☾ 44 21
 Declinatio ſuper. 17 17
 infer. 16 42

Hæc obſeruata ſunt inter nubes,
 cum ☾ circiter 1^h horis 90 Gradum
 eſſet tranſvecta.

Poteris tamen nihilominus adhibita
 parallaxi Longitudinis ☾, quæ exigua
 erat, explorare motum ☾ ad hypothe-
 ſin circa ☐^{ram} inter quadraturam Ec-
 centri & Perigæum ☾ exiſtente in ☐^{ra}
 cum ☉, idque in maxima digreſſione.

(Cæterum quoniam per vnicum pin-
 nacidium capta eſt tum ſtella tum ☾,
 ideoque interuallum temporis tum in
 errorem ſe effundit, vt verifiſimile ſit
 addenda eſſe Longitudini ☾ M. 8, vt ſit
 25 18 ☾)¹.

Pro loco ☾ ex antecedentibus
 obſervationibus.

H. 9 M. 15 Diſt. æquat. occid. limb. ☾
 & cordis ☾ 1 53 30
 Aſc. R. cordis ☾ 146 40 25
 Ergo Aſc. R. occ. limb. 148 33 55
 Adde pro ſemidiam. ☾ 15 0
 Pone itaque Aſc. R. ☾ 148 49

¹ E codice V.

Declinatio centri ☾ 17 1
 Reſp. Longitudo 25 51^m ☾
 Latitudo 4 31^m B.

Pro Parallaxi ☾
 Altit. ☾ 38 g. Parallaxis in circulo alt.
 54'0" ex Tab. Prut. ☾ a 90 Gradu
 H. 1 M. 15.
 Ergo Parallaxis Longitudinis 8'45" add.
 Pro arcu inclinationis ex latitud.
 Diſtantia ☾ a ☿ 65 40
 Vera latitudo ☾ 4 48
 Arcus inclinationis 5'30" ſubtr.
 Ergo vera Longit. ☾ obſeruata 25 9 ☾

DIE 21 MAIJ, MANE.

Obſeruabatur ☾ circa 90 Grad. & vlti-
 mam ☐^{ram}, non longe ab Apogæo ſui
 Epicycli vtriuſque in modum ſequen-
 tem.

H. 3 M. 25^m Diſt. orient. limb. ☾
 a ♀ 43 25^m bona
 3 28 43 25^m
 paulo incertior propter auroram.
 Declin. inf. 12 27 Altit. ſup.
 ſup. 11 58^m cornu 13 30

N. B. ☾ in 90 Gradu iuxta ſupputa-
 tionem H. 3 M. 40.

DIE 9 JULIJ, VESPERI.

Obſeruabatur ☾ circa Tropicum Hy-
 bernum in 90 & Meridiano pro paral-
 laxi & refractione, quin etiam pro
 Longitudine, quando ☿ cum ☉ mediæ
 vicina eſſet. ☾ in 90 Gradu H. 10^m.

| H. M. | Diſt. occ. limb. ☾ a ſin. genu Oph. | Declin. inf. ſup. | Altit. ſup. per Volub. | Vultur orient. |
|--------------------|---|----------------------|------------------------------|--------------------|
| 10 24 ^m | 38 27 ^m | 29 2 | 5 20 | 18 9 |
| | | 28 31 ^m | | |
| 10 30 ^m | 38 29 ^m | | | Arcturus occid. |
| 10 35 ^m | 38 32 | | 5 33 | 68 20 |
| 10 37 corr. | | | | |

Viceverſa. Idem limb. ab ore Pegafi.
 10 40^m 54 20^m 69 50
 10 43 corr.
 10 42^m or. limb. 70 19
 10 45 53 53
 corr.

(10 44 $\frac{3}{4}$ Transiit orient. limbus ζ per
(10 47 corr. Meridianum habens altit.

superior cornu infer. cornu

per Volub. 5 36 5 6 $\frac{1}{2}$

per Chalyb. 5 35 $\frac{1}{2}$ 5 6

Arcturus occident. 70 50 $\frac{1}{2}$

Ad idem tem- } 28 31 29 2
pus Declin. }

Erat aer mediocriter defæcatus cir-
ca horizontem meridionalem, vbi ob-
seruabatur ζ , & satis tranquilluss.

Locus ζ nofter ad tempus transitus
per Meridianum 8 $^{\circ}$ 30 ζ' facta reduc-
tione & æquatione, cuius declinatio
23 15. Latitudo addit 5 58

Declin. ζ obseruata 28 46

Refractio addit 14

Declin. visa 29 0

Declin. vera noſtra 23 15

Latit. ζ visa 5 45

Latit. ζ vera noſtra 4 57

Parallaxis ζ in circulo alt. 48

Parall. prutenica quaſi 53

Differ. 5', ſed denuo examinandum.

Calculus pro vero loco ζ ad diem

9 Julij ex præcedentibus ob-

ſervationibus circa

90^{mum} gradum.

H. 10 M. 25 Diſtancia occid. limbi a

ſiniſtro genu Ophiuchi 38 28 0

Semid. add. 15

Ergo vera diſt. 38 43

Declin. ζ obseruata 28 46^{auſt.}

Decl. genu Ophiuchi 9 38^{auſt.}

Aſc. R. Ophiuchi 243 44

Ang. diff. aſcenſ. 35 55 40

Ergo Aſc. R. ζ 279 39 40

H. 10 M. 43 Diſt. centri ζ ab

ore Pegafi 54 5

Declin. ζ 28 46 M.

Declin. oris Pegafi 8 3 B.

Aſc. R. oris Pegafi 321 5

Ang. diff. aſcenſ. 41 9 10

Ergo Aſc. R. ζ 279 55 50

Aſcenſio Recta limitata

Reſp. Longitudo 8 32 $\frac{3}{4}$ ζ

Latitudo 5 31 $\frac{1}{2}$ M.

DIE 6 SEPTEMBRIS, VESPERI.

Obſeruabatur ζ circa Meridianum.

ζ in 90 Gradu H. 12 M. 2.

H. 11 M. 13 Tranſitus ζ

per Merid. inter nubes, ſup. limb.

per Chalyb. 20 15

per Volub. 20 15

inferior. vero

per Chalyb. 19 48

per Volub. 19 47

Vultur occidentalis 46 55

| H. M. | Diſt. occ. limbi a Vult. | Declin. ſup. inf. | Altit. | Vultur occid. |
|-------|-----------------------------|----------------------|--------|------------------|
| 11 27 | 50 7 $\frac{1}{2}$ | 13 46 $\frac{1}{2}$ | 14 19 | 49 34 |

| | | | | |
|---------------------|-------|--|--|-------|
| 11 31 $\frac{1}{2}$ | 50 10 | | | 50 35 |
|---------------------|-------|--|--|-------|

| | | | | |
|---------------------|-------|---------------------|---------------------|-------|
| 11 35 $\frac{1}{2}$ | 50 11 | 13 46 $\frac{3}{4}$ | 14 18 $\frac{1}{2}$ | 51 40 |
|---------------------|-------|---------------------|---------------------|-------|

| | | | | |
|---------------------|-------|--|--|-------|
| 11 38 $\frac{1}{2}$ | 50 12 | | | 52 24 |
|---------------------|-------|--|--|-------|

| | | | | |
|---------------------|---------------------|--|--|------|
| 11 41 $\frac{1}{2}$ | 50 12 $\frac{1}{2}$ | | | 53 8 |
|---------------------|---------------------|--|--|------|

Viceverſa a lucida Cauda Ceti

| | | | | |
|---------------------|-------|---------------------|-------|-------|
| 11 51 $\frac{1}{2}$ | 26 55 | 13 48 $\frac{1}{2}$ | 19 55 | 55 36 |
|---------------------|-------|---------------------|-------|-------|

| | | | | |
|------|-------|--|--|-------|
| 12 3 | 26 53 | | | 58 24 |
|------|-------|--|--|-------|

| | | | | |
|--------------------|-------|---------------------|--|-------|
| 12 6 $\frac{1}{2}$ | 26 52 | 13 40 $\frac{1}{2}$ | | 59 16 |
|--------------------|-------|---------------------|--|-------|

| | | | | |
|---------------------|---------------------|-------|--|--|
| 12 11 $\frac{1}{2}$ | 26 49 $\frac{1}{2}$ | 13 40 | | |
|---------------------|---------------------|-------|--|--|

| | | | | |
|--|--|------|--|--|
| | | 14 8 | | |
|--|--|------|--|--|

Pro Armillarum correctione obſerua-

batur Lucida Caudæ 10 11 $\frac{1}{2}$ bis

Cete in declinatione 10 12 $\frac{1}{2}$

DIE 10 SEPTEMBRIS, MANE.

Obſeruabatur orientalis limbus ζ in

diſtancia ab ore Pegafi.

| H. M. | Diſtancia | Declin. | Os Pegafi occ. |
|---------------------|---------------------|--|-------------------|
| 12 56 $\frac{1}{2}$ | 50 20 | | 45 40 |
| 12 59 $\frac{1}{2}$ | 50 22 $\frac{1}{2}$ | ſup. 3 12 $\frac{1}{2}$ inf. 2 42 $\frac{1}{2}$ | 46 34 |
| 1 4 0 | 50 25 | | 47 33 |

| | | | |
|---------|--------------------------------|--|--|
| 1 15 40 | Transiit orient. limb. ζ | | |
|---------|--------------------------------|--|--|

| | | | |
|--|--------------------------|--|--|
| | per Merid. habens Altit. | | |
|--|--------------------------|--|--|

| | | | |
|--|-------------|------------|--|
| | per Chalyb. | ſup. 37 24 | |
|--|-------------|------------|--|

| | | | |
|--|--|--------------------------|--|
| | | inf. 36 56 $\frac{1}{2}$ | |
|--|--|--------------------------|--|

| | | | |
|--|------------|------------|--|
| | per Volub. | ſup. 37 23 | |
|--|------------|------------|--|

| | | | |
|--|--|------------|--|
| | | inf. 36 58 | |
|--|--|------------|--|

Tunc fuit Os Pegafi occid. 50 23

¹ Debet eſſe circiter 43.

Viceversa orient. limb. ☾ ab oculo ☿.

| | | |
|-------|-------|-----------|
| 1 25½ | 52 15 | 52 55 |
| 1 29½ | 52 14 | sup. 3 17 |
| | | inf. 2 51 |
| 1 33½ | 52 12 | 54 52 |

Pro corrigendis Armillis obseruabatur

| | |
|------------------|-------|
| Lucidæ Mandibulæ | 2 27½ |
| Cete Declinatio | 2 27½ |

N. B. ☾ tunc fuit sesquialtero die post plenilunium & in Apogæo quasi.

N. B. Vultur die 10 vesp̄ri in meridiano habuit alt. per Chalyb. 41 58½, per Volub. 41 57½, hinc rimabere quodnam veram altitudinem præbuerit instrumentum.

Debuit esse 41 58 0.

DIE 11 SEPTEMBRIS.

H. 1 M. 34½ } Transiuit orient. limb. ☾
1 39½ corr. } per Merid. habens Altit.

| | | |
|------|-------------|------------|
| | per Chalyb. | per Volub. |
| sup. | 43 4½ | 43 3 |
| inf. | 42 37 | 42 37 |

Tunc fuit Luc. mandib. Cete or. 17 50

Examinatio ☿ ex Altit. Merid.

H. 1 M. 39 Altitudo centri ☾ 42 50 30
34 5 30

Ergo Declin. centri ☾ 8 45 0B.

Pro viso loco ☾.

Cum centrum ☾ transiret Meridianum erat Lucida mand. Cete orient., differentia ascensionalis 18 4

Afc. Recta Mandibulæ Cete 40 21½

Ergo Afc. R. ☾ 22 17½

Resp. visa Longitudo 23 51½ ✓
Latitudo 0 35 55M.

Ergo vera Longitudo 24 7½ ✓
Latitudo 0 3½ B.

Resp. Distantia a ☿ 0 39½, posito angulo maximæ latitudinis hoc loco 5°

7°. Erit ergo nodus 23 28 ✓
24 3

Differentia a Copernico 35
Conferatur cum anno 92 die 12 Feb.

Item anno 95 die 17 Feb. Vnde palam fiet nodos inæqualiter mutari ratione parui circelli & differentia maxi-

ma in ✕ & △ ☉, quemadmodum in ☿ & ☐ mutat maximam latitudinem.

Pro Parallaxi ☾.

Duplex Longitudo fig. 1 22 16
Anomalia coæquata 0 22 32

Resp. Latus, distantia ☾ a terra iuxta nostram Hypothesin 106916

100000—60^{femid.}—106916 64°9^{femid.}

Distantia ☾ a vertice 47 10

Resp. Parallaxis in circulo alt. 39' 20"

Adde pro parallaxium corr. 3 10

Ergo vera Parallaxis in altit. 42 30

Resp. in Longitudine 16 0
in Latitudine 39 20

DIE 12 SEPTEMBRIS, MANE.

H. 2 M. 29½ Obseruabatur transitus orient. limbi ☾ per Meridianum in Altitudine

| | | |
|------|-------------|------------|
| | per Chalyb. | per Volub. |
| sup. | 48 27½ | 48 26 |
| inf. | 47 57 | 47 58 |

Fuit tunc Lucidus humerus Orionis orientalis 49 43

DIE 13 SEPTEMBRIS.

Obseruatio ☾ in medio loco inter ☿ & ☐ secundam.

Declin. superioris limbi ☾ 19 58
inferioris 19 32½

Declinatio ☉ borea 0 9½
☉^{le} orientali 55 57

Postea obseruata est distantia orientalis limbi ☾ a ☉ per semicirculum.

| H. M. | Distantia | Declin. ☾ sup./inf. | Decl. ☉ | ☉ or. |
|-------|------------|------------------------|---------|-------|
| 8 50 | 128 52 | 20 3 | 0 8 | 47 15 |
| | | 19 36 | 0 7½ | |
| 8 57 | 128 48 | 20 4 | 0 7½ | 45 45 |
| | | 19 38 | 0 7½ | |
| 9 3 | 128 44 | 20 4½ | 0 7½ | 44 3 |
| | | 19 38½ | 0 7½ | |
| 8 50 | Altitudo ☉ | | 22 30 | |
| 8 57 | | | 23 13 | |
| 9 3 | | | 24 0 | |

Ad tempus vltimæ obseruationis erat
Altitudo superioris cornu ☾
17 43

DIE 14 SEPTEBRIS.

Post ortum ☉ ☿ obseruauimus, primo per Armillas Zodiacales, posito loco ☉ in 0 30 Ω.

| H. M. | Orient. limb. ☿ in Longitudine | Declinatio ☿ super. | infer. | Alt. super. limbi ☿ | ☉ ante Merid. | Altit. ☉ per Volub. |
|-------|-----------------------------------|------------------------|--------|------------------------|------------------|------------------------|
| 7 25 | 2 12½ | | | | 68 45 | 11 40 |
| 7 30 | 2 14½ | 23 37½ | | | 67 27 | 12 15 |
| 7 37 | 2 18 | | | 38 | | 13 10 |
| 7 45 | 2 21½ | 23 40 | 23 12 | 37½ | 63 45 | 14 15 |
| 7 52 | 2 23½ | 23 40½ | 23 12 | 36½ | 61 52 | 15 10 |
| 7 56 | 2 24 | 23 41 | 23 12½ | 36 | | 15 45 |
| 8 4 | 2 27 | 23 42½ | 23 13½ | 35 | 59 0 | 16 35 |
| 8 8 | 2 29 | 23 42½ | 23 13 | 34½ | 58 2 | 17 5 |
| 8 11 | 2 30½ | | | 34½ | 57 17 | 17 30 |
| 8 14 | 2 32 | 23 43 | 23 14 | 33½ | 56 40 | 17 50 |
| 8 18 | 2 33½ | 23 43½ | 23 15½ | 33 | 55 36 | 18 20 |

{ aut ad summum 34'

Postea per Armillam æquatoriam capiebantur distantiae æquatoriae Solis & Lunæ vt sequitur.

| H. M. | ☉ orient. | ☿ occident. | Dist. æquat. | Declinatio ☿ super. | infer. | Altit. ☿ | Altit. ☉ |
|-------|-----------|-------------|--------------|------------------------|--------|----------|----------|
| 8 21 | 54 47½ | 66 1 | 120 48½ | 23 43½ | 23 17½ | 32 | |
| 8 27 | 53 10½ | 67 33½ | 120 44 35 | 23 44 | 23 17½ | 31½ | 19½ |
| 8 32½ | 51 52½ | 68 49½ | 120 42½ | 23 45 | 23 18 | 31½ | 20 33 |

Ponatur itaque H. 8 Min. 18 distantia ☿ a centro Solis 2 34 II, quibus semidiameter vifa ☿ subtr. 14', vt sit 2 20 II centrum ☿, posito tunc loco ☉ 0 30' Ω, sed quia erat re vera eo tempore ☉ 0 31½, cumque refractione ☉ sit 5' & parallaxis 2¼, remanent pro refractione 2¼, quæ in Longitudine efficiunt 2 Minuta subtrahenda. Fuit itaque vifus locus Solis in 0 29½ Ω, & ob id saltem dimidium Minutum auferendum a loco ☿, quod est insensibile.

Sic H. 8 M. 21 Posito eodem loco ☉ 0½ Ω

180 27½

& subducta hinc distantia ☿ æquatoria

121 2½

Prouenit Ascensio Recta centri ☿

59 25

& Declinatio eiusdem tunc apparet

23 31

Hinc colligitur ☿ Longitudo 2 9½ II vifa

& eiusdem Latitudo B. 2 55

Differunt itaque hic ambæ rationes quasi Minutis 10, cuius discrepantiæ ratio inquirenda venit, & locus hic cum nostro calculo conferendus.

DIE 15 SEPTEMBRIS, MANE.

| H. M. | Tempus corr. | Dist. or. limbi ☿ a Luc. ☿ | Decl. sup./inf. | Luc. hum. Orion. or. | Viceversa idem limbus ☿ ab infer. capite II. | | | |
|-------|-----------------|-------------------------------|--------------------|-------------------------|---|--------|--------|--------------|
| 2 46½ | 2 56 39 | 41 14 | | 27 7 | 3 0 | 3 9 7 | 34 25 | 24 0 |
| 2 48 | 2 59 7 | 41 15 | | 26 30 | 3 2 | 3 13 7 | 34 23½ | 26 12 23 0 |
| 2 51½ | 3 2½ | 41 16½ | 26 12 | 25 42 | 3 5 | 3 14 7 | 34 21½ | 12 39 22 45 |
| 2 55 | 3 5½ | 41 17½ | 25 37½ | 24 53 | 3 8 | 3 18½ | 34 21 | 26 12½ 21 39 |

¹ Sic in codice.

| | | | |
|---------------------------------|---------------------------|---------------|-------------------|
| 3 46 | 3 58 | 55 | Transluit orient. |
| | limbus | ¶ Merid. | habens Alt. |
| | | per Chal. | per Volub. |
| | super. cornu | 60 23 | 60 22½ |
| | inferioris | 59 50 | 59 51 |
| | Lucido humero Orionis or. | 11 33 | |
| Eodem die mane obseruabatur Cor | ¶ | | |
| in distantia a | | 37 19½ | |
| Cane minore | | 37 19½ | |
| Declinatio | 13 57½ | Altit. Cordis | |
| Cordis ¶ | 13 58 | ¶ 15 50 | |

DIE 16 SEPTEMBRIS, MANE.

Obseruabatur ¶ in Quadratura & maxima distantia vtriusque epicycli. Propter Armillas Lucidus pes Erich-tonij habuit Declin. 28 9 bis, vno.

| H. M. | Or. limb. ¶ ab Aldeb. | Declinatio super. | infer. | Luc. pes Orion. orient. |
|-------|--------------------------|----------------------|--------|-------------------------------|
| 3 29½ | 23 53 | 27 57 | 27 20½ | dub. |
| 3 35½ | 24 2 | 27 54 | 27 22 | 7 12 |
| 3 39½ | 23 58 | 27 53½ | 27 20 | 6 11 |
| 3 42½ | 24 0 | 27 54 | 27 22½ | 5 35 |

Dist. ab infer. capite ¶

| | | | | |
|--------|-------|--------|--------|------|
| 3 50½ | 21 33 | 27 53 | 27 22½ | 3 30 |
| 3 54 8 | 21 32 | 27 53½ | 27 22½ | 2 33 |
| 3 56 8 | 21 30 | 27 54 | 27 22½ | 2 3 |

Repetitio obseruationum lunarium mane, cum ad 90 Gradum versaretur, factarum, & continuatio cum sequentibus postea & ipso die ad Solem factis, etiam cum esset ¶ multum vltra 90 Eclipticæ ab oriente Gradum.

¶ itaque apud 90 Eclipticæ Gradum ab Ascendente versans, in maxima remotione vtriusque Epicycli ita se habuit, altissima circa finem ¶ atque in magna latitudine borea.

| H. M. | Orient. limb. ¶ ab Aldeb. | Declinatio super. | infer. | Luc. pes Orion. occ. |
|-------|------------------------------|----------------------|--------|----------------------------|
| ... | 24 9 | | | |
| 4 59 | 24 10½ | | | 3 5 |
| 5 2 | 24 12½ | 27 55 | 27 23 | 3 50 |
| 5 6 | 24 13½ | 27 55 | 27 24 | 4 46 |
| 5 9 | 24 14½ | 27 56 | 27 24½ | 5 33 |

Postea viceversa ¶ ab infer. Cap. ¶
... 21 20 27 55 27 23½ Luc. hum.
Orion. occ.

| | | | | |
|-------|-------|--------|-------|------|
| 5 25½ | 21 17 | | | 0 8 |
| 5 28½ | 21 15 | | | 0 59 |
| 5 30 | 21 14 | 27 54½ | 27 23 | 1 16 |
| 5 33 | 21 12 | | | 2 5 |

Propter Auroram sese ingerentem magis magisque hæc non poterant ulterius neque præcisus obseruari. ¶ debuit esse in 90 Gradu H. 5 M. 28 A. M.

Mox deinde transluit orientalis limbus ¶ per Meridianum habens Altit. vt sequitur.

H. 5 M. 36½ Orientalis limbus ¶ in Meridiano & habuit Altitudinem per Chalyb. per Volub.

| | | |
|--------|--------|--------|
| super. | 62 4 | 62 4½ |
| infer. | 61 32½ | 61 32½ |

Fuit autem tunc Lucidus humerus Orionis occidentalis 2 50 vnde etiam Afc. Rectam orientalis limbi ¶ quoddammodo ratiocinari licebit, & ob id etiam Centri per subtractionem quartæ partis gradus.

H 5 M. 42 habuit super. 27 56½
¶ Declin. infer. 27 23½

N.B. Pes Erich-tonij, qui communis est cum cornu altero ¶ habuit Altitudinem Meridianam

| | |
|-------------|--------|
| per Chalyb. | 62 16½ |
| per Volub. | 62 15½ |
| limitatam | 62 16 |

Atque hinc verificabis ¶ Altitudinem Meridianam, adhibita etiam Declinatione tam ¶ quam stellæ circa Meridianum obseruatarum. Fuit autem eiusdem stellæ Declinatio limitata, cum prope Meridianum esset, per Armillas maximas 28 8½ limitata. Huic confer veram, quæ esse debuit 28 11½. Addenda itaque 2½ fere Minuta ad declinationem ¶ obseruatam iuxta Meridianum, vt sit vera Declinatio ¶ tunc cum Meridianum transiret ex Declinatione obseruata & limitata 27 42½. Sed Altitudo Meri-

diana dat 27 43 vel etiam paulo plus,
qua vt ere, vt sit vera Declinatio ☾,
cum in Meridiano eſet, quoad orientalem
limbum hoc modo.

Declinatio Centri ☾ 27 43

Vel potius ad ſummum 27 43½

Deinde Hora quaſi 5 M. 52 accipie-
batur diſtantia orientalis limbi ☾
a ☽ per ſemicirculum 75 35

Fuit vero tunc Declin. ☽ B. 8 17

Altitudinem eius poteſ ex globo
rimari.

Neque ſæpius hanc diſtantiam li-
cuit experiri ob auroram inualeſcen-
tem & ☽ conſpectum attenuantem.

Repetita Declinatio ☾

H. 6 M. 0 ſupra 27 57½ 27 25½

6 5 Repetita 27 58½ 27 26½

6 8 27 59 27 26½

6 10 Repetita 27 58½ 27 26½

Ex hiſce limitatis collige id, quod
maxime conuenit.

Poſtea obſeruabatur ☾ a ☽ per ſemicirculum vt ſequitur.

| H. M. | Diſt. ☽ & ☾ orient. limbi | Declinatio ſuper. | infer. | Altit. ☾ ſuper. | Altit. ☽ | ☽ or. |
|-------|------------------------------|----------------------|-------------------|--------------------|----------|--------|
| 8 5 | 94 59½ | 27 59½ | 27 27½ | 51½ | 16 30 | 58½ |
| 8 13 | 94 56 | | | | 17 15 | 56 40½ |
| 8 16 | 94 54½ | 27 59½ | 27 27½ | 50 0 | 17 40 | |
| 8 21½ | 94 52½ | | | | 18 10 | 54 29 |
| 8 29 | | 27 59½ | 27 28 | 48 52 | | 52 38 |
| 8 34 | 94 46½ | | | | 20 5 | 51 16 |
| 8 35 | 94 45½ | 27 58 | 27 28 | 47 10 | 20 20 | 50 56 |
| 8 42 | 94 44 | 27 58½ | 27 ½ ¹ | 46 45 | | 49 12 |
| 8 45½ | 94 42 | | | | 21 25 | 48 26 |
| 8 50½ | 94 38½ | 27 58½ | 27 27½ | | 21 45 | 47 1 |
| 8 54 | 94 37 | | | 45 21 | 22 15 | 46 15 |
| 8 57 | 94 35½ | 27 57½ | 27 27½ | | | |
| 9 14 | 94 31 | 27 57½ | 27 27½ | 42 55 | 24 10 | 42 37 |
| 9 18 | 94 29 | | | 42 15 | 24 30 | 41 30 |
| 9 21 | 94 28 | 27 55½ | 27 26 | | 24 50 | 40 21 |
| 9 27 | 94 26½ | | | | 25 25 | 39 56 |
| 9 29 | 94 25½ | 27 55 | 27 26 | 41 11 | 25 40 | 38 27 |
| 9 33 | 94 24 | 27 57 | 27 27 | 40 25 | 26 0 | 37 24 |
| 9 37 | 94 23 | | | 39 31 | 26 30 | 36 42 |
| 9 42 | 94 21½ | 27 56½ | 27 28 | 38 56 | 26 55 | 35 44 |
| 9 49 | 94 18½ | | | 38 16 | 27 30 | 33 35 |
| 9 56 | 94 16 | 27 56½ | 27 26½ | 37 18 | 28 0 | 31 6 |
| 10 0 | 94 14 | 27 57 | 27 27½ | 36 40 | 28 25 | 30 18 |

Poſtea obſeruabatur ☾ a ☽ quemadmodum antea, vt cognofcatur eius in-
terea temporis promotio, locus & parallaxis.

| H. M. S. | Diſt. ☾ a ☽ | Declinatio ſuper. | infer. | Altit. ſuper. limbi ☾ 18 circiter |
|----------|----------------|----------------------|--------|---|
| 12 27 0 | 93 5½ | 27 53 | 27 24½ | 17 49 |
| 12 33½ | 93 0½ | | | 15 5 |
| 12 48 50 | 92 54½ | 27 52½ | 27 25 | 14 0 |
| 12 52 20 | 92 50½ | | | 13 33 |
| 12 58 20 | 92 44½ | 27 52½ | 27 23½ | 13 21 |
| 1 2 0 | 92 43½ | 27 52 | 27 22½ | |

¹ Sic in codice.

Calculus φαινόμενων (̸ obseruat. cum
eſſet proxime nonageſ. gradum
Eclipticæ.

| | |
|----------------------------|----------|
| H. 5 M. 10 Diſt. centri (̸ | |
| ab Aldeb. | 24 0 |
| Decl. centri (̸ lim. | 27 37½ |
| Ang. diff. afc. ſupp. | 22 26 20 |
| Afc. R. Aldeb. | 63 12 0 |
| Ergo Afc. R. (̸ | 85 38 20 |

| | |
|--|-----------|
| H. 5 M. 28, cum (̸ exacte eſſet in 90 gradu, diſt. centri | |
| ab inf. cap. II | 21 29 |
| Ang. diff. af. | 24 23 50 |
| Afc. R. inf. cap. II | 110 6 30 |
| Ergo Afc. R. (̸ | 85 42 40¹ |

DIE 18 SEPTEMBRIS, MANE.

| H. M. | Diſt. or. limbi (̸ a corde ̸ | Decl. inf. cap. II per corr. arm. | Decl. (̸ | Luc. pes Orion. or. |
|-------------|------------------------------------|---|-------------|---------------------------|
| 4 9 | 32 3½ | 28 59½ | | 4 56 |
| | | 28 59½ | | |
| 4 12 | 32 2½ | | | 4 15 |
| 4 18½ | | | 26 41½ | 3 31 |
| | | | 26 7½ | Alt. inf. |
| 4 23 | 32 1½ | | 26 41 | limbi (̸ |
| inter nubes | | | 26 6 | 46 50 |

Poſtea (̸ obſeruabatur a ♀.

| H. M. | Diſt. or. limb. (̸ a ♀ | Decl. (̸ | Alt. inf. limbi (̸ | ♀ orient. |
|-------|---------------------------|-------------|-----------------------|--------------|
| 5 56½ | 51 36 | | | 76 48 |
| 5 57 | 51 35 | 26 35½ | 55 7 | 75 55 |
| | | 26 3 | | |
| 6 2 | | 26 32½ | 55 30 | |
| | | 26 1 | | |
| 6 6½ | | 26 33½ | 55 55 | |
| | | 26 1½ | | Azim. or. |
| 6 12 | | | 56 20 | limbi (̸ |
| 6 17 | ⊙ quaſi ortus | 26 31½ | 56 45 | 37 0 |
| | | 26 1½ | | |
| 6 22 | | 26 31½ | 57 4 | |
| | | 25 59½ | | |
| 6 25 | | 26 31½ | 57 20 | |
| | | 25 59½ | | |

¹ Cf. infra p. 400 poſt diem 19 Septembris.

(̸ ad Meridiem appropinquante.

| H. M. | Diſt. orient. limbi (̸ a ⊙ | Declin. ſup. inf. | ⊙ orient. |
|-------|-------------------------------|----------------------|--------------|
| 7 16 | 70 52 | | 71 3½ |
| 7 18 | 70 51 | | 70 33 |
| 7 21 | | 26 25½ | 69 48½ |
| | | 25 54 | |

Ergo Declin. centri (̸ correctæ 26 12½

Circa Horam 8 corrigebatur Horo-
logium ad Solem, quod 37 Minutis
iuſto celerius motum erat.

H. 7 M. 29½ Tranſiit orient. limbus (̸
per Merid. habens Altitudinem
60 31 ſup.
60 1½

per Chalyb. 60 3 inf., dubia

En plati propter nubeculas

Oportet conſiderare quod ſuperius
cornu paulum erat inclinatum.

H. 7 M. 34 Fuit ⊙ orientalis in æqua-
tore 66 24. Hinc verifica tempora.

H. 7 M. 36½ Repetita ſup.

60 30½
59 59½

Orient. limbi

Azimuth 2 45

⊙ orient. 65 51

Inferius

per Chalyb. 59 59½

Pone itaque Altitudinem infer. limbi
(̸ cum per Meridianum tranſiret
60 1

Cui adde pro centro 16

Vt fuerit vera Altit. centri 60 17

Vel ad ſummum erat ea 60 18

34 5½

Declinatio centri (̸

26 12½

Eadem paulo ante per Ar-

millas verificatas 26 12½

Ad minimum 26 12

N.B. Antecedentes obſervationes
habitæ ſunt inter rariuſculas nubes,
ſunt tamen mediocres pro inſecti-
ganda maxima (̸ Latitudine. Nam
hoc tempore verſabatur ea iuxta li-

mitem boreum in 24 Gr. 69. Habenda tamen est ratio parallaxeos tam quoad Longitudinem quam Latitudinem.

Postea ¶ cum appropinquaret 90 Gradui carens Parallaxi Longit.

Debuit esse in 90 G. H. 8 M. 45.

| H. M. | Diff. ¶ & ☉ | Declin. (| Alt. ¶ per Volub. | orient. ☉ |
|-----------------------------|----------------|--------------|----------------------|--------------|
| 8 38 | | 26 15½ | melior | |
| | | 25 44 | | |
| 8 40 corr. | | 26 14 | 57 51 | 50 0 |
| | | 25 45 | 57 20 | |
| 9 6 | 70 12½ | 26 13½ | 55½ | 43 34½ |
| | melior) | 25 42½ | | |
| 9 13 | | 26 10½ | 54 55 | |
| | | 25 41½ | | |
| 9 15 | 70 4* | 26 10 | 54 45 | 41 30 |
| *dubia propter nubes 25 39½ | | | | |

N.B. Vt emendari possit Declinatio ¶ quam habuit, cum esset prope 90 Gradum circa Horam 8½, accipiebatur antea mane lucidior duarum in pede Persei, quæ est supra Pleiades in eodem quasi situ, in sua declinatione, & inuenta I 30 34½

est eadem II 30 34½
Idque vnico saltem pinnac. III 30 34½
Anno 89 habuit eadem stella Declinationem 30 36½

At 6 anni insequentibus augent eius Declinationem Minuto quasi vno ½, vt sit hoc anno ad minimum 30 37½. Sunt igitur addenda ad declinationem ¶ in tali situ quasi Minuta 3 vt constet vera.

Sed potest etiam fieri periculum per transitum huius stellæ hoc anno per Meridianum.

DIE 19 SEPTEBRIS.

Rursus obseruabatur ¶ cum esset intermedia quasi quadraturæ vltimæ & novilunio sequenti, idque interdiu quantum ex Sole pro ea serenitate capere licuit ¶ attenuata ob lumen diei. Corrigebatur Horologium ad Solem.

| H. M. | Diff. centri ☉ & ☿ limbi | Declinatio super. | infer. | Altitudo ☉ | ¶ inf. limb. | ☉ orient. |
|--------|-----------------------------|----------------------|--------|---------------|--------------|-----------|
| 9 57 | 56 52 | 22 43 | 22 12½ | 27 | 52½ | |
| 10 5½ | 56 48½ | 22 40 | 22 11½ | 27½ | 52 | |
| 10 9½ | 56 46½ | 22 39½ | 22 10 | 27½ | 51½ | 27 34 |
| 10 13 | 56 44½ | 22 38½ | 22 8½ | 28 | | 26 41 |
| 10 17½ | 56 43 | 22 38½ | 22 7½ | 28½ | 51 | 25 34 |
| 10 21½ | 56 41 bona | 22 36½ | 22 7½ | 28½ | | 24 31 |
| 10 26½ | 56 39½ | 22 35 | 22 5 | | 50 | 23 11 |

Debuit autem ¶ esse in 90 Gradu H. 9 M. 37 nempe 20 Minutis antequam obseruatio fiebat. Ideoque tunc habita ratione motus sequentis a ☉ per add. 10 M. debuit distare p. 57 M. 2 quibus semidiameter ¶ add. 14 M., vt sit vera distantia centri vtriusque luminaris 57 16. Declinatio vero centri ¶ visa ad idem tempus 22 35, habita videlicet ratione sui augmenti & correctionis Armillarum.

PRO ¶ LATITUDINE MAXIMA

| | | | | |
|---------------|--------------|----------------|-------------|-----------------------|
| C inf. cap. ¶ | Decl. 28 56½ | Afc. R. 110 7½ | I In trian- | II In trian- |
| D Aldebora | 15 37½ | 63 12½ | gulo CAB | gulo ABD |
| B luna | 27 42½ | CB | 21 30 | |
| A polus | | BD | 24 7 | CAB 24 25½ BAD 22 32½ |

Ergo die 16 Septembris cum ¶ esset iuxta 90 Grad. H. 5 M. 28 reperitur ex antecedentibus eius Declin. 27 42½ & tunc limitata distantia ab inferiori capite ¶ 21 30, ab Aldebora vero 24 7 quoad centrum. Hinc colligitur ip-

ius differentia æquatoria ab Aldebora 22 32 $\frac{1}{2}$, ab inferiori capite II 24 25 $\frac{1}{2}$, hincque conflatur Afc. R. C respectu Aldeboraë 85 45. Sed quoad inferius caput II 85 42. Accipiendo itaque medium horum, quod est 85 43 $\frac{1}{2}$ & applicando declinationem præscriptam C p. 27 M. 42 $\frac{1}{2}$ prouenit
 C Longitudo in 26 11 $\frac{1}{2}$ II , Latitudo 4 14 $\frac{1}{2}$ B.

Si vero hæc ad transitum C per Meridianum deducas, qui mox intra 6 Minuta temporis sequebatur, fuerit tunc Longitudo C in 26 $\frac{1}{2}$ II . Ideoque Afc. R. 85 47. Adhibita vero Declinatione C quæ tunc erat 27 43 B., prouenit Latitudo C 4 14 $\frac{1}{2}$. Potes itaque ponere 4 15 B.

At Parallaxis Latitudinis ex calculo Prutenico tunc est M. 27 $\frac{1}{2}$, quare vera Latitudo erit 4 42 $\frac{1}{2}$ B. Cumque distet a limite boreo C circa 90 Gradum p. 27 M. 40, debuit esse Latitudo 4 39, si maxima 5 $\frac{1}{2}$, igitur deficiunt 3 $\frac{1}{2}$. C in 27 $\frac{1}{2}$ V.

Die 18 VIIbris H. 7 $\frac{1}{2}$, cum C orientalis limbus transiret per Meridianum, colligitur ex antecedentibus eius diej obseruationibus quod fuerit distantia centri C & centri C omnibus limitatis & huc deductis debito modo p. 70 M. 58, & declinatio centri C p. 26 M. 12 B., declinatio Solis visa p. 1 M. 44 M., longitudo C refractæ tum 4 24 $\frac{1}{2}$, Afc. recta C 184 2, angulus differentiaë afc. 67 45 $\frac{1}{2}$. Ascensio R. itaque centri C 116 16 $\frac{1}{2}$ & declinatio eiusdem 26 12. His respondet
 C Longitudo 23 29 $\frac{1}{2}$ C , Latitudo 4 48 $\frac{1}{2}$ B.

Die eodem H. 8 M. 45, cum C esset iuxta 90 Eclipticæ Gradum ab Horizonte carens Parallaxi Longitudinis, colligitur distantia centraliter a C p. 70 M. 25 & habuisse declinationem etiam quoad centrum P. 26 M. 2, fuit autem tunc declinatio C visa p. 1 M. 46 & Afc. R. C visa 184 5. Subtrahe angulum differentiaë 67 9, Afc. R. centri C 116 56, declinatio eiusdem 26 2, quibus respondet
 C Longitudo 24 6 $\frac{1}{2}$ C , Latitudo 4 44 $\frac{1}{2}$ B.

Die 19 H. 9 M. 37, luna existente in 90 gradu, distantia tunc centrorum C & C colligitur 57 16 & declinatio C limitata tunc 22 35 B. Fuit insuper C declinatio visa 2 11 & Afc. R. 185 2, subtrahe angulum differentiaë 55 44 $\frac{1}{2}$, hinc prouenit Afc. R. centri C 129 17 $\frac{1}{2}$, Declinatio eiusdem 22 35. Vnde
 C Longitudo 5 52 $\frac{1}{2}$ C , Latitudo 3 50 $\frac{1}{2}$ B.

DIE 20 SEPTEMBRIS, MANE.

Obseruatio C cum esset media inter vltimam Quadraturam & Nouilunium, sed habuit magnam Parallaxin.

| H. M. | Dist. Q & or. limbi | Declinatio C super. infer. | Declin. Q | Alt. Q | Alt. C inf. limbi | Luc. pes Orion. or. |
|--------------------|------------------------------|---|-------------------------|------------------|----------------------------|---------------------|
| 5 22 | 26 7 $\frac{1}{2}$ | 18 49 18 18 | 6 26 $\frac{1}{2}$ 6 27 | 10 $\frac{1}{2}$ | 33 $\frac{1}{2}$ | 14 0 |
| 5 30 | 26 6 | | 6 26 vtroque | | 34 $\frac{1}{2}$ | 15 53 |
| 5 36 | 26 4 | 18 46 18 17 | | 12 | 35 | 16 57 |
| 5 42 $\frac{1}{2}$ | 26 2 | | 6 25 6 25 $\frac{1}{2}$ | 12 41 | 36 2 | |
| 5 47 $\frac{1}{2}$ | 26 0 $\frac{1}{2}$ | 18 44 $\frac{1}{2}$ 18 15 $\frac{1}{2}$ | | 13 51 | | |

N. B. Posunt obseruationes in Q factæ Die 15 huc applicari per motum diurnum & conferri cum sequentibus in Q accipiendis, si quæ in propinquo haberi queant.

C inter nubes oriebatur H. 6 M. 5 en plati. Debuit tunc esse H. 6 $\frac{1}{2}$ quasi.
 C debuit hoc die esse iuxta 90 Gradum H. 11 M. 3.

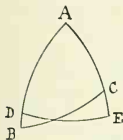
| H. M. | Diff. orient. limbi ☾ a ☉ | Declinatio ☾ | Altit. ☉ | Altit. centri ☾ | ☉ orient. |
|---------------------|---|--|-------------|--------------------|-----------|
| 11 32 | 42 50 $\frac{1}{2}$ | | 31 0 | | 8 35 |
| 11 45 $\frac{1}{2}$ | | 17 24 $\frac{1}{2}$ centri 17 23 $\frac{1}{2}$ | | 44 3 $\frac{1}{2}$ | 5 30 |
| 11 59 | 42 38 $\frac{1}{2}$ ☉ non plen- debat satis | 17 27 $\frac{1}{2}$ sup. 16 52 $\frac{1}{2}$ inf. inter nubes | | | 2 47 |

Aliquanto vero post, cum videlicet ☉ esset ante Meridianum adhuc p. 8 M. 35, erat diff. orientalis limbi ☾ a ☉

11 26 42 50 $\frac{1}{2}$

11 49 42 38 $\frac{1}{2}$ licet in vltima obseruatione ☉ non satis videbatur clare.

Fuit vero circa medium horum temporum Declinatio medietatis siue centri ☾ vtcunque sumpta p. 17 M. 24. Sed de hac non dubium, mediocris tamen. Altitudo vero centri ☾ iuxta primam obseruationem, quæ etiam melior erat, p. 45 proxime. Pone itaque H. 11 M. 3 diff. ☾ a centro ☉ 43 3. Sed propter semidiametrum adde 12, quia luna admodum tenuis erat, vt fuerit tunc vera distantia centri ☾ a ☉ 43 15. Declinationem vero ☾ potes vtcunque adaptare p. 17 30 B.



Fuit tunc ☉ 6 31 $\frac{1}{2}$ ♌, eius Declinatio 2 36 M., Asc. R. 185 59, Differentia ascensionalis per adiectam figuram 38 51 subtrahenda. Asc. R. ☾ 147 8. Adhibita igitur Declinatione 17 $\frac{1}{2}$ prouenit ☾ Longitudo 23 25 $\frac{1}{2}$ ♍, Latitudo 3 58 $\frac{1}{2}$ B.

DIE 21 SEPTEMBRIS, MANE.

Deinde¹ etiam in ☾ iam veteri & Soli appropinquantis vtpote 2 $\frac{1}{2}$ diebus faltem a Nouilunio distante.

| H. M. | ☉ & or. limb. ☾ | Decl. ☉ | Declinatio ☾ | Altit. ☉ | Altit. ☾ | Syrius orient. |
|--------------------|---------------------|--------------------|---------------------|---------------------|------------------|-------------------|
| 5 50 $\frac{1}{2}$ | 12 31 | 5 56 $\frac{1}{2}$ | | 13 | | 2 23 |
| 5 54 | 12 29 $\frac{3}{4}$ | 5 56 | 12 49 $\frac{3}{4}$ | 12 18 $\frac{1}{2}$ | 25 | 1 24 |
| 5 59 | 12 28 $\frac{1}{2}$ | 5 55 $\frac{1}{2}$ | 12 50 | 12 19 $\frac{1}{2}$ | 14 $\frac{1}{2}$ | 25 $\frac{1}{2}$ |

DIE 22 SEPTEMBRIS, MANE.

Interea dum studiosi in obseruatorio extra domum ea, quæ ad hunc diem annotata sunt, cœlitus denotant, ego ipsemet² superius apud domum Vraniburgi sequentia ad oculum vidi.

Cum vltima Balthæi Orionis esset in Meridiano, distabat centrum totius corporis lunaris (quod etiam satis euidenter apparuit præter particulam illuminatam) a ♀ stella, quasi per duas diametros sui corporis, id est Gr. 1 $\frac{1}{2}$ quam proxime, idque in ea linea recta, quæ duci videbatur a ♀ per ☾ in Lucidam Lyræ, circa Septentrionalem Horizontem decliuiter apparentem. Erant autem tam ☾ quam ☾ quasi in æquilibrio Horizontis quo ad centra, nisi quod ☾ paulo altior cernebatur.

☿ autem erat vtisque decliuior & constituēbat cum illis triangulum non adeo magnum, sed laterum inæqualium, ita vt a ☿ ad centrum ☾ fuerit ferme duplum eius interualli, quod a ☾ centro ad ♀.

¹ Id est, post obseruationes Veneris.

² Hæc non ab ipso Tycho scripta sunt.

Quando lucida humeri Orionis in meridiano erat, talem φάσιν ostendebant hi tres planetæ, prout subsequens figuratio designat.

DB duæ Lunæ

DC tres & semis Lunæ

CB 3.0

Angulus CAB erat ferme rectus.

Linea vero recta ducta a ♀ per inferius cornu ☾ tendebat in mediam & lucidiorem Ceruicis ♀ quantum oculis discernere licuit.

Quando tertia pars eius phasis, quæ est inter lucidum humerum Orionis & Canem maiorem, videbatur in meridiano, ita vt lucidus humerus propior esset meridiano, nec tantum eundem præterierat, quantum Syrius ad ortum remouebatur, tali modo apparebant ejdem Planetæ.

AC & AB sunt æquales, nisi quod AC paulo longior. CA dirigebatur ferme in verticem paululum saltem inclinans superius versus meridiem, erant autem AC & AB quasi tres Lunæ vel 2 proxime gradus.

Interea vero etiam per Radium capiebatur distantia ♀ & ♀, idque bis:

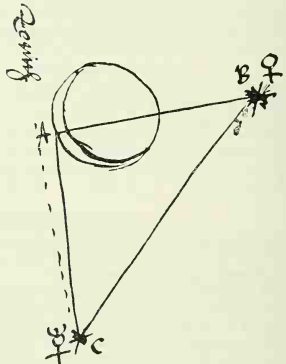
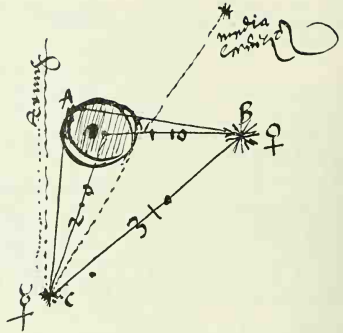
H. 5 M. 32 3 4¹
5 35 3 1½¹

Pro quibus potes constituere distantiam quasi intermediam vtpote tres Gr. 2 M. absque sensibili errore.

Sed observatio per Sextantem ex locis eorum mensis dat dist. 2 16.

H. 5 M. 45 fuit ☾ Decl. super. 6 4
infer. 5 40

Canis maior
orient. 2 52



H. 5 M. 40 Inferior limbus ☾ capiebatur a ♀ per Radium partis vnus M. 42. Et paulo post, videlicet H. 5 M. 47 deprehendebatur eadem p. 1 M. 44. Ex his colligitur distantia centrorum ☾ & ♀ circa H. 5½ fuisse p. 1 M. 40 quam proxime.

Declinationes vero eorundem circa idem tempus colligere potes ex reliquis observationibus hoc eodem die factis & in his proximis pagellis annotatis.

¹ Lineis inducta.

DIE 28 SEPTEMBRIS.

Cum intermedijs diebus post 23, quo ☾ Eclipsin aliquo modo inter rariusculas nubes obseruauimus, & diem 25, quando ☿ cum ♀ semel atque iterum mane accepti sunt ἐν πλάτει tamen, ob ferenitatis inconstantiam, hoc tandem die ante occasum ☾ aliquis affulfit ferenitas. Et quoniam ☾ versabatur in vltimæ decuriæ χ^7 principio iuxta latitudinem austrinam, ad limitem maximum tendentem, idque ob id non longe a maxima decliuitate in Meridiano, ad eius sublimitatem cœlitus denotandam, qua fieri poterat accurate, attendimus. Diei lumine, ob ☾^{lem} adhuc supra Horizontem existentem, ☾^{nam} (quominus oculis se fati apparenter ingereret) attenuante & obseruationis exquisitissimam certitudinem impediēte, inuenta tamen sunt sequentia.

Primo corrigebatur horologium ad ☾^{lem} per eius distantiam æquatoriam, quoad fieri poterat in ista decliuitate ☾, vbi etiam refractionis eius habenda est ratio.

Postea cum occidentalis limbus ☾ qui integer visus est, Meridianum attingit, idque Hora 4 M. 43½, & ☾ tunc occidentalis in Armilla æquatoria appareret p. 70 M. 21½, fuit ☾ Altitudo Meridiana hoc modo

(☾ occident. 70 21½, fere H. 4 M. 41½)

| | cornu superius | inferius |
|-------------|----------------|----------|
| per Chalyb. | 5 24½ | 4 58 |
| per Volub. | 5 22 | 4 55 |

Differentia horum est paulo maior 2 M., intolerabilis quidem, sed in ☾ ob causas supra dictas difficulter oculis se inuenientem excusabilis.

Pone itaque Alitudinem centri ☾ p. 5 M. 10 & vix vno M. aberrabis, cis vel vltra.

DIE 29 SEPTEMBRIS.

Obseruabatur ☾ cum a Meridiano abisset 20 Gr., H. 7½ quia prius non erat, ferenum. ☾ in 90 g. H. 5½.

| Tempora correcta | Declin. ☾ inf. sup. | Altit. inf. limbi ☾ | Lucida Vult. occ. |
|---------------------|------------------------|------------------------|-------------------------|
| 6 51 | 29 16 | 3 0 | 4 25 |
| | 28 50 | | |
| 6 56 | 29 17 | 2 55 | 5 41 |
| | 28 50 | | |
| 7 2 | 29 17 | 2 40 | 7 13 |
| | 28 49½ | | |

Potes conferre cum Declinatione hesternæ.

| H. M. | limbi ☾ hum. ☾ | Declin. ☾ | Altit. | Vult. occ. |
|-------|-------------------|--------------|--------|---------------|
| 7 12 | 40 56 | 29 21 | | 9 44 |
| | | 28 47½ | | |

| A posteriore in cauda ☾ | | | | |
|----------------------------|--------|--------|------|-------|
| 7 19 | 38 29½ | 29 16½ | 2½ | 11 24 |
| | | 28 46 | | |
| 7 25 | 38 26 | 29 16½ | 1 55 | 13 7 |
| | | 28 45½ | | |
| 7 30 | 38 24½ | 29 16 | 1 45 | 14 20 |
| | | 28 45 | | |

Circa idem tempus vel paulo post accipiebatur Declinatio Lucidæ stellæ in capite χ^7 , quæ videbatur quasi in recto ductu cum vtroque cornu ☾ & lucida Lyræ, ἐν πλάτει tamen. Fuit autem eius Declinatio

21 31 vno
21 30½ alt. pinn. Altitudo 8½

Accepi autem huius stellæ declinationem potissimum propter Armillæ examinationem, quia erat in consimili quasi cum ☾ posita a Meridiano.

N.B. Lucidioris stellæ in capite χ^7 obseruabatur Declinatio in Altitudine 8½

21 30½

21 31

Ex his corrige antecedentia vt antea quoque ob id annotatum est.

DIE VLTIMO SEPTEMBRIS, VESPERI.

☾ iuxta maximam Latitudinem Austrinam. ☾ in 90 Gr. fuit H. 5 M. 31. Cum primum confici potuit ☿, obseruabatur occidentalis limbus ☾ per Semicirculum a ☿. Tempora correcta.

| H. M. | Distantia | Declinatio | | Alt. inf. cornu | Alt. ☿ | Vultur. orient. |
|--------------------|---|---------------------|---------------------|-----------------|--------|--------------------|
| | | super. | infer. | | | |
| 5 50 $\frac{1}{2}$ | 64 40 $\frac{1}{2}$ | | | | 6 35 | |
| 5 55 | 64 40 | 27 26 $\frac{3}{4}$ | 27 59 | 5 45 | | |
| 6 7 $\frac{5}{8}$ | 64 38 $\frac{1}{2}$ | 27 26 $\frac{1}{2}$ | 27 59 $\frac{1}{2}$ | | 8 40 | 5 24 |
| 6 11 | 64 37 $\frac{3}{4}$ | 27 26 $\frac{1}{2}$ | 28 0 $\frac{1}{2}$ | | 10 10 | 4 27 |
| 6 19 | 64 35 | | | | | 2 26 |
| 6 28 | 64 31 | 27 27 | 28 0 $\frac{1}{2}$ | | 12 0 | 0 16 |
| 6 39 | Transiit occid. limbus ☾ per Merid. habens Alt. | | | | | Vultur occid. 2 23 |
| | | superioris limbi | inferioris | | | |
| | per Chalyb. | 6 43 $\frac{1}{2}$ | 6 10 | | | |
| | per Volub. | 6 44 | 6 11 | | | |

N.B. *Posui declinationem centri ☾ 27 40 & Distantiam a ☿ 64 20 iuxta horam 6 $\frac{1}{2}$. Inuenta est Longitudo ☾ in 25 13 $\frac{3}{4}$, Latitudo 6 37 M¹. Sed en plati.*

DIE 3 OCTOBRIS, VESPERI.

| H. M. | Occ. limbus ☾ a ☿ | Declinatio | | Alt. super. limbi | Alt. ☿ | Vultur or. |
|-------|---------------------|--------------------|---------------------|-------------------|--------|------------|
| | | super. | infer. | | | |
| 5 53 | 27 1 $\frac{3}{4}$ | 16 9 $\frac{1}{2}$ | 16 40 $\frac{1}{2}$ | 7 20 | 8 10 | |
| 5 58 | 27 1 | | | 8 27 | 8 46 | 4 55 |
| 6 2 | 27 0 | 16 8 $\frac{1}{2}$ | 16 39 $\frac{1}{2}$ | 8 39 | 9 15 | 4 5 |
| 6 7 | 26 59 $\frac{3}{4}$ | | | 9 3 | 9 57 | 2 50 |
| 6 11 | 26 59 $\frac{1}{2}$ | 16 8 | 16 38 | 9 25 | 10 22 | 1 55 |
| 6 14 | 26 58 | | | 9 52 | 10 57 | 0 57 |
| 6 17 | 26 56 | 16 7 | 16 37 $\frac{3}{4}$ | 10 10 | 11 21 | 0 12 |

Viceversa idem limbus ☾ obseruabatur ab inferiori cornu ☿.

| | | | | Alt. inf. limbi | Alt. cornu ☿ | Vultur occ. |
|--------------------|---------------------|--------------------|---------------------|-----------------|--------------|-------------|
| 6 28 | 32 34 | 16 5 | 16 34 $\frac{1}{2}$ | 10 32 | | 2 29 |
| 6 33 | 32 37 | | | 10 55 | | 3 43 |
| 6 36 | 32 40 | 16 4 $\frac{5}{8}$ | 16 35 | 11 10 | 17 55 | 4 26 |
| 6 40 $\frac{1}{2}$ | 32 41 | | | 11 29 | | |
| 6 42 $\frac{1}{2}$ | 32 42 | 16 3 | 16 31 $\frac{3}{4}$ | 11 45 | | 6 17 |
| 6 49 | 32 44 | | | 12 10 | | 7 42 |
| 6 52 | 32 45 $\frac{1}{2}$ | 16 1 $\frac{1}{2}$ | 16 30 $\frac{1}{2}$ | 12 30 | 17 56 | 8 34 |

Postea capiebatur Declinatio Lucidæ Caudæ ☿ 17 56, 17 56 $\frac{1}{2}$.

| | | | | | |
|-----|---|-------|------|----------------------------|-------|
| 9 5 | Transiit occid. limbus ☾ per Merid. habens Alt. superioris cornu per Chalyb. 18 30 per Volub. 18 31 $\frac{3}{4}$ inferioris 18 2 $\frac{1}{2}$ | | | 18 4 $\frac{1}{2}$ | |
| | Declin. | 15 35 | 16 8 | Extrema alæ Pegasi orient. | 23 45 |

| Temp. corr. | Dist. occ. limbi ☾ a fin. hum. ☿ | | | Extrema alæ Peg. orient. | |
|-------------|----------------------------------|-------|--------------------|--------------------------|-------------------------------------|
| 9 20 | 18 34 $\frac{3}{4}$ | | | 20 8 | |
| 9 26 | 18 36 | 15 34 | 16 6 $\frac{3}{4}$ | 18 38 | Dist. incertæ propter splendorem ☾. |
| 9 29 | 18 38 | | | 17 47 | |

¹ Confer calculum loci ☾ infra, post diem 16 Octobris.

| | | | | |
|---------------|-------------------------------|--------|-------|-------|
| Distantia a ♄ | | | | |
| 9 32 | 25 40 | 15 32½ | 16 4 | |
| 9 35 | 25 39½ | | | |
| 9 39 | 25 38 | 15 32 | 16 3½ | |
| 9 42 | 25 37 | | | |
| 10 20½ | Declinatio extremæ alæ Pegasi | | | 13 4 |
| | pro armillis corrigendis | | | 13 3½ |

DIE 4 OCTOBRIS.

Vesperī obseruabatur ☾ adhuc media inter ☐ & ☿ proxime & circa 90 Gr.

Distantia occid. limbi ☾ a sinistro humero ☿.

| H. M. | Dist. | Declin. sup./inf. | Alt. inf. cornu | Vultur occid. |
|-------|-------|-------------------|-----------------|---------------|
| 6 37 | 27 2 | 10 49 | 12 15 | 5 27 |
| | | 11 21½ | | |
| 6 42 | 27 3½ | | 12 45 | 6 48 |
| 6 44 | 27 4 | 10 48½ | 13 0 | 7 22 |
| | | 11 22 | | |
| 6 51 | 27 6 | | 13 44 | 9 9 |
| 6 55 | 27 7½ | 10 46½ | 14 2 | 9 53 |
| | | 11 21 | | |

Viceversa a Lucida ☿

| | | | | |
|------|--------|--------|-------|-------|
| 7 1½ | 51 56½ | | 14 50 | 11 37 |
| 7 5½ | 51 55 | 10 44½ | 15 2 | 12 36 |
| | | 11 28 | | |
| 7 9 | 51 53½ | | 15 21 | |
| 7 11 | 51 51½ | 10 44 | 15 36 | |
| | | 11 18 | | |

Pro Armillarum correctione obseruabatur Declinatio ♄

3 2
3 1½

7 28 Altit. ♄ tunc fuit 20 10 per Volub.,
Vultur occidentalis 18 12

DIE 7 OCTOBRIS.

N. B. ☾ plena in apogæo & circa eclipsationem. ☾ in 90 Gradu Eclipticæ H. 9½.

| Temp. correctæ | Dist. occ. limbi ab ore Pegasi | Decl. sup./inf. | Alt. inf. limbi | Os Pegasi occid. |
|----------------|--------------------------------|-----------------|-----------------|------------------|
| 9 2 | 55 51½ | | | |
| 9 5½ | 55 52½ | 6 29½ | 31 10 | 17 23 |
| | | 6 2 inter nubes | | |
| 9 14 | 55 54 | 6 31 | 31 55 | |
| | | 5 59½ | | |

Viceversa orient. limbus ☾ ab Aldebora

| | | | | |
|------|------------------------|-------|--------|--|
| 9 21 | 45 14 | | | |
| 9 23 | 45 13 | 6 35 | 32 40 | |
| | | 6 2 | | |
| 9 29 | 45 11 | | 33 31½ | |
| | inter nubes | | | |
| 9 32 | 45 10½ | 6 37½ | 33 48 | |
| | melior 6 9 inter nubes | | | |

Pro corrigendis Horologijs accipiebatur

7 37 Vulturis Lucida occid. 53 28
Horologium corrigeatur Hora 10
M. 4½ quod minus iusto mouebatur.
Pro corrigendis Armillis capiebatur
sequentis cornu ☿
H. 10 M. 13½ Declinatio 18 48½
18 48

Debet esse 18 48½, quare bene se habent.

Rursus pro corrigendis Armillis capiebatur H. 10 20½ Lucidæ Mandib.
Cete Declinatio 2 27½ Debit esse
2 28 2 27½

Ergo Armillæ bene habent hoc in loco.

Postea obseruabatur ☾ appropinquans Meridiano ab oculo ☿.

| Temp. correctæ | Dist. | Declin. sup./inf. | Alt. | 1 alæ Peg. occ. |
|----------------|-------------------------------------|-------------------|-------|-----------------|
| 11 9½ | | 6 56½ | 39 55 | |
| | | 6 27½ | | |
| 11 27½ | 44 51 | | | 32 53 |
| 11 32 | 44 49½ | 7 2½ | | 33 57 |
| | | 6 34 | | |
| 11 35½ | 44 49 | | | 34 52 |
| 11 45 | Transitus occid. limbi ☾ 37 17 | | | |
| | per Merid. habentis Altitudinem | | | |
| | per Chalyb. sup. 41 12½ inf. 40 44 | | | |
| | per Volub. 41 10 40 45 | | | |
| | Declin. ☾ per Armillas maximas 7 5½ | | | |
| | 6 37½ | | | |

Postea obseruabatur idem limbus ☾

| a prima alæ Pegasi | | | | Prima alæ Peg. occid. |
|--------------------|-----|----|--------|--------------------------|
| 11 | 54½ | 37 | 0 | 39 37 |
| 11 | 57 | 37 | 1 | 40 20 |
| 12 | 0 | 37 | 1½ 7 6 | 40 56 |
| | | | 6 37½ | |

12 1½ 37 2½ 41 15

Pro loco ☾ ex antecedentibus obseruationibus iuxta 90^m gradum.

| | |
|---------------------------|----------|
| H. 9 M. 14 Dist. centri ☾ | |
| ab ore Pegasi | 56 8 |
| Declin. centri ☾ | 6 15 |
| Declin. oris Pegasi | 8 4 |
| Ang. diff. asc. supput. | 56 35 13 |
| Afc. recta oris Peg. | 321 6½ |
| Ergo Afc. recta ☾ | 17 42 3 |

| | |
|-------------------------------|----------|
| H. 9 M. 23 Dist. centri ☾ | |
| ab Aldebora | 45 28 |
| Declin. Aldebora | 15 28 |
| Afc. R. Aldebora | 63 12 |
| Ang. diff. asc. | 45 25 27 |
| Ergo Afc. recta ☾ | 17 46 33 |
| H. 9 M. 24 Afc. R. ☾ limitata | 17 46½ |
| Declinatio | 6 17 |
| Resp. Longitudo | 18 47½ ✓ |
| Latitudo | 1 11½ M. |

DIE 8 OCTOBRIS, MANE.

N. B. Hæ obseruationes in ☾ sunt alternatim sumptæ, accipiendū nunc distantiam orientalis limbi ab Aldebora, nunc occidentalis. Nam ☾ fuit prorsus plena, testante eius Eclipsatione.

| H. M. | Dist. ab Aldeb. | Declin. | Altit. | Luc. hum. Orion. occ. |
|-------------------------|--------------------|---------|--------|--------------------------|
| 15 40 | occ. | 8 30 | 8 5 | |
| 15 46 ^{corr.} | 42 27 | 8 0½ | | |
| 15 43½ | or. | | 7 40 | 26 21 |
| 15 49½ ^{corr.} | 41 52½ | | | |
| 15 46½ | occ. | 8 32 | 7 10 | Aldeb. occid. |
| 15 53 ^{corr.} | 42 20 | 8 2½ | | |
| 15 51 | or. | 8 32 | 6 35 | 48 42 |
| 15 58½ ^{corr.} | 41 46 | 8 3½ | | |
| 15 53½ | occ. | 8 35½ | 6 0 | 49 39 |
| 16 2 ^{corr.} | 42 15 | 8 5 | | |
| 15 56½ | or. | 8 37 | 5 30 | 50 31 |
| 16 5½ ^{corr.} | 41 41 | 8 7½ | | |

Obseruatio Eclipsæ ☾ quanta hic visa est viderique poterat in occiduo nostri Horizontis limite.

Horologio vel iuxta sequentia cor-
6 23 rectum H. 6 M. 39½

Putabatur aliquid deeße ☾ (patet itaque esse in horologio 3 Minutis vel 4 antea).

6 27 Altitudo inferioris limbi ☾ 0 15
6 32 occidit medium ☾.

Inquisitio temporis pro corrigendo horologio ex medio ☾ occasu in Eclipsi.

Ex reductione motus ☾ ab antecedentibus & sequentibus Eclipsis obseruationibus circa 90 Gr. habitis provenit

| | |
|--------------------------|---------|
| H. 6½ matutina eius vera | |
| Longitudo | 23 9 ✓ |
| Latitudo | 0 1½ B. |

Pro Parallaxi Altit. ☾ in Horizonte
Anomalia ☾ coæquata 0 7 10
Dist. ☾ a vertice 90 0

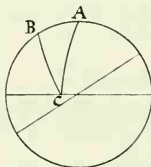
Resp. Parallaxis in circulo alt. 53 0
Refractio ☾ 34 0

Residuum Parallaxium 19 0
Resp. in Longit. 15 30

in Latit. 12 40
Ergo visa ☾ Longit. 22 53 ✓

Latit. 0 11 M.
Resp. Afc. R. ☾ visa 21 13

Declin. ☾ visa 8 45
Afc. Recta ☾^{lis} 202 22



In triangulo BAC

| | |
|-----|--------|
| BA | 34 5½ |
| BC | 81 15 |
| CA | 90 0 |
| CBA | 103 40 |

Resp. H. 6 M. 50 5"
Horol. 6 32 0
18 5

Colligitur ex his initium Eclipsæ fuisse iuxta correctum horologium H. 6 M. 35.

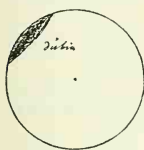
Dimidia duratio iuxta nostræ latitudinis rationem & motus diurni hoc modo:

| | |
|--|--------|
| Semidiameter ☾ | 15' 0" |
| Semidiameter vmbrae limit. | 39 16 |
| Aggregatum Semid. | 54 16 |
| Resp. 53 36, summa incidentiae & morae dimidia | |
| Scrupula Latit. ☾ | 8 25 |
| Motus horarius ☾ a ☉ | 27 |
| Resp. in tempore H. 1 59 ^m 6 ^s dimid. duratio | |
| Ergo medium deliquij H. 8 | 34 |
| Æquatio temporis | 22 40" |
| Medium æquatum H. 8 | 11 20 |
| Medij respondentes motus ex Tab. Prut. | |

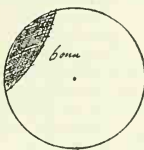
| | |
|--|------------|
| Simplex Longitudo ☾ 2° 58' 42" 25" | |
| Anomalia ☾ | 0 8 3 30 |
| Simplex ☉ noſter | 3 26 12 23 |
| Verus ☉ noſter | 24 15 36 |
| Reiteratio Eclipsis huius. Initium ob- ſeruatum iuxta horologium correc- tum per proportionem ab ante- cedentibus obſervationibus per Aldeboram. | |
| H. 6 M. 31 Adduntur enim faltem 8 Min. | |
| 4 ſubtrahe pro vero initio | |
| 6 27 Verum initium | |
| 1 59 Dimidia duratio | |
| 8 26 Medium Eclipsis. | |

APPARENTIÆ ☾ ECLIPSATÆ DIE 8 VIII^{BRIS}

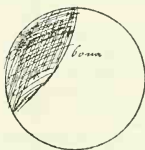
quas hic Vraniburgi obſeruare licuit, tempore vbique correcto appoſito.



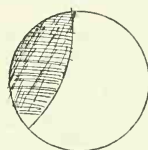
H. M.
6 23
6 39½ corr.



H. M.
6 27
6 44½ corr.



H. M.
6 30
6 48½ corr.



H. M.
6 31½
6 50

DIE 8 OCTOBRIS, VESPERI vsque ad mediam noctem.

Horologium prius corripgebatur a
Lucida Vulturis H. 7 M. 23, quod tar-
dius iusto mouebatur 13 minutis a
Meridie præcedente.

Tempora sunt correcta
Obſeruabatur orient. limbus ☾
a 1 alæ Pegafi.

| H. M. | Diff. | Declin. ſup./inf. | Altit. | Os Peg. occ. |
|--------|-------|----------------------|--------|-----------------|
| 11 22½ | 47 10 | 12 26½ | 44½ | 52 29 |
| | | 11 56 | quafi | |
| 11 32½ | 47 13 | | | 54 56 |
| 11 35½ | 47 15 | 12 26½ | 45 2 | |
| | | 11 56 | | |
| 11 38½ | | | | |

Pro corrigendis horologijs
capiebatur Os Pegafi occid. 56 29

Postea obſeruabatur idem limbus ☾
ab oculo ☿

Luc. Pes
Orion. ori.

| | | | |
|----------|-------|-------|-------|
| 11 47 | 32 43 | 45 28 | 54 2 |
| 11 53 20 | 32 40 | 45 42 | 52 27 |

Declinatio Lucidæ Vulturis pro
corrigenda Declinatione ☾ 7 56
heri mane obſeruata 7 57
in altitudine 4 50, inter nubes.

Transijt orient. limbus ☾ per
Meridianum habens Altitudinem
per Chalyb. ſuper. 46 41 infer. 46 7
per Volub. 46 42½ 46 6

Inter obſcuriufculas nubes.
☾ in 90 gradu H. 10 M. 23.

| | |
|----------------------------|---------|
| H. 11 M. 40 Diff. aſc. ☾ & | |
| 1 alæ Pegafi | 48 14 5 |
| ☾ & Aldeb. | 39 48½ |

| | |
|---------------------------|----------------------|
| Afc. Recta ☾ | 29 24 $\frac{3}{4}$ |
| Declin. B. | 12 14 |
| Resp. Longitudo | 1 38 $\frac{3}{4}$ ☾ |
| Latitudo | 0 9 B. |
| Parall. Long. 9' 30" add. | |
| Latit. 36 25 add. | |
| Vera ☾ Longitudo | 1 48 $\frac{3}{4}$ ☾ |
| Latitudo | 0 46 B. |

DIE 12 OCTOBRIS.

Vesperī obseruabatur orient. limbus
☾ a Lucida ☾.

| H. M. | Dist. | Declin sup./inf. | Altit. inf. limbi ☾ | 1 alæ Peg. occ. |
|--------------------|---------------------|---------------------|------------------------|--------------------|
| 11 0 $\frac{1}{2}$ | 48 15 | | 34 33 | 30 36 |
| 11 3 $\frac{3}{4}$ | 48 15 $\frac{3}{4}$ | 27 13 | 35 1 | 31 32 |
| | | 26 40 $\frac{1}{2}$ | | |
| 11 7 | 48 17 | | 35 25 | 32 22 |

Viceversa a superiori Capite ☿.

| | | | | |
|-------------------------------|-------|---------------------|-------|-------|
| 11 10 $\frac{1}{2}$ | 24 52 | 26 41 $\frac{1}{2}$ | 35 52 | 33 12 |
| 11 13 $\frac{1}{2}$ | 24 51 | | 36 18 | 33 57 |
| 11 15 $\frac{1}{2}$ | 24 50 | | 36 33 | 34 28 |
| Altitudo superioris Capitis ☿ | | | 26 0 | |

Tempora correcta sunt.
Pro Armillarum correctione obserua-
batur Lucidus pes Erich-
tonij habens Declin. 28 13 $\frac{1}{2}$
Prima alæ Pegasi occid. 35 14

DIE 13 OCTOBRIS, MANE.

Obseruabatur ☾ circa 90 Gradum &
Meridianum. ☾ in 90 Gradu H. 3 $\frac{1}{2}$.
Dist. orient. limbi ☾ a Lucida ☾.

| Temp. correcta | Distantia | Declinatio sup./inf. | Luc. mandib. Cete occ. |
|--------------------|---------------------|-------------------------|------------------------------|
| 3 16 | 49 57 | 27 13 | 35 37 |
| 3 21 $\frac{1}{2}$ | 49 58 $\frac{1}{2}$ | 27 37 $\frac{1}{2}$ | 37 0 |
| | | 27 2 $\frac{1}{2}$ | |

3 27 49 59 38 23
3 37 $\frac{1}{2}$ Transiit orient. limbus ☾
per Meridianum habens Altit.
per Chalyb. sup. 61 49 infer. 61 16
per Volub. 61 39 $\frac{1}{2}$ ¹ 61 15
Luc. Mandib. Cete occid. 41 0
Viceversa Distantia eiusdem limbi
a superiori Capite ☿.

| | | |
|--------------------|---------------------|-------|
| 4 7 $\frac{1}{2}$ | 22 51 | 48 28 |
| 4 8 $\frac{3}{4}$ | 22 49 | 48 51 |
| | 27 3 | |
| 4 12 $\frac{1}{2}$ | 22 48 $\frac{1}{2}$ | 49 49 |

Pro corrigendis Armillis Declinatio
Lucidi pedis 28 13 $\frac{1}{2}$
Erichtonij 28 13 $\frac{1}{2}$

Inter nubeculas suborientes.
Horologium in Meridie sequente
ibat iusto celerius 9 $\frac{1}{2}$ M.

Pro inuestigatione loci ☾ ad 13 Oct.².
H. 3 M. 20 quando ☾ fuit in 90 gradu
Distantia centri eius

| | |
|---------------------|-----------------------|
| a luc. ☾ | 49 12 |
| Declinatio centri ☾ | 27 28 |
| Declinatio ☾ luc. | 21 31 $\frac{1}{2}$ |
| Afc. R. eius | 26 8 $\frac{3}{4}$ |
| Angulus diff. afc. | 54 39 |
| Ergo Afc. R. ☾ | 80 47 $\frac{3}{4}$ |
| Resp. Longitudo | 21 49 $\frac{3}{4}$ ☿ |
| Arcus latit. add. | 6 $\frac{1}{2}$ |
| Longitudo ☾ | |
| in proprio circulo | 21 55 $\frac{1}{2}$ ☿ |

DIE 14 OCTOBRIS, MANE.

N. B. ☾ circa mediam longitudinem & maximam latitudinem Boream ten-
dens ad ☐.

H. 4 M. 32 Transiit orient limbus ☾ per Meridianum habens Altitudinem
superioris limbi per Chalyb. 62 18 per Volub. 62 19 $\frac{1}{2}$
inferioris 61 48 $\frac{1}{2}$ 61 50
Declinatio per Armillas max., super. 28 13 $\frac{1}{2}$ inter
infer. 27 45 nubes

Pone altitudinem centri ☾ 62 4 fatis tuto. Declin. vera ex altitudine centri 27 58 $\frac{1}{2}$.
H. 4 M. 31 Longitudo ☾ 4 57 ☿, Latitudo 4 33 B.

¹ Sic in codice. Etiam in V., ubi tamen 39 $\frac{1}{2}$ correcta sunt in 49 $\frac{1}{2}$.

² E codice V.

Distantia orientalis limbi ☾ a Lucida Ceuuicis ☽.

| Tempora correcta | Distantia | Declinatio | | Canis min. occ. | Pro corrigendo horologio Canis maior occ. |
|---------------------|-----------|---------------------|---------------------|--------------------|---|
| | | fup. | inf. | | |
| 4 50 $\frac{1}{2}$ | 48 22 | | | 3 50 | |
| 4 53 $\frac{1}{2}$ | 48 19 | 28 13* | 27 45 $\frac{1}{2}$ | | 15 15 * inter nubes |
| 5 44 $\frac{1}{2}$ | 48 1 | | | 4 34 | |
| 5 47 $\frac{1}{2}$ | 48 0 | 28 12 $\frac{1}{2}$ | 27 41 $\frac{1}{2}$ | 5 20 | |
| 5 52 55'' | 47 58 | | | 6 55 | |

Eodem die 14 Octobris, ☾ circa 90 Gr. N. B. ☾ circa initium ☾ & maximam Latitudinem boream, tendens ad ☐ ☉.

Tempora sunt verificata.

| H. M. | Dist. ☉ & or. limbi ☾ | Declinatio | | Alt. inf. limbi ☾ | Azim. ☾ | Alt. ☉ | ☉ or. |
|---------------------|--------------------------|---------------------|---------------------|----------------------|---------|------------------|---------------------|
| | | fup. | inf. | | | | |
| 8 55 | 113 12 | 28 2 $\frac{1}{2}$ | 27 34 | 38 24 | | 12 $\frac{1}{2}$ | 46 13 |
| 8 59 $\frac{1}{2}$ | 113 11 $\frac{1}{2}$ | | | 36 6 $\frac{1}{2}$ | | 13 | 44 49 $\frac{1}{2}$ |
| 9 4 $\frac{1}{2}$ | 113 10 | 28 2 | 27 32 $\frac{1}{2}$ | 35 32 | | 13 $\frac{1}{2}$ | 43 49 |
| 9 8 $\frac{1}{2}$ | 113 9 | 28 1 $\frac{1}{2}$ | 27 32 | 35 0 | | 14 0 | 42 53 |
| | | | | Alt. fup. | | | |
| 9 13 0 | 113 7 | | | 34 47 $\frac{1}{2}$ | | 14 15 | 41 46 |
| 9 15 $\frac{3}{4}$ | 113 4 | 28 1 | 27 31 $\frac{1}{2}$ | 34 16 | | 14 $\frac{1}{2}$ | 40 48 |
| 9 22 $\frac{1}{2}$ | 113 0 | | | 33 20 | | 15 0 | 39 19 $\frac{1}{2}$ |
| 9 26 $\frac{1}{2}$ | 112 57 | 28 0 $\frac{1}{2}$ | 27 31 | 32 51 | 92 0 | 15 20 | 38 23 $\frac{1}{2}$ |
| 9 30 $\frac{1}{2}$ | 112 55 $\frac{1}{2}$ | | | 32 22 | 92 50 | 15 50 | 37 23 |
| 9 40 $\frac{1}{2}$ | 112 52 | 27 59 $\frac{1}{2}$ | 27 30 | 31 5 | 94 50 | 16 40 | 34 51 |
| | | | | per Chalyb. | | | |
| 9 44 $\frac{1}{2}$ | 112 50 | | | 29 15 | | 17 0 | 33 57 |
| 9 53 $\frac{1}{2}$ | 112 45 | | | | | 17 40 | 31 34 |
| 9 58 $\frac{1}{2}$ | 112 44 | 27 59 | 27 28 $\frac{1}{2}$ | 28 43 | | 18 0 | 30 27 |
| 10 10 $\frac{1}{2}$ | 112 40 | 27 59 $\frac{1}{2}$ | 27 29 $\frac{1}{2}$ | 27 0 | | 19 0 | 27 22 |
| 10 15 $\frac{1}{2}$ | 112 38 | | | 26 34 | | 19 15 | 26 10 |
| 10 21 $\frac{1}{2}$ | 112 35 | 27 56 $\frac{1}{2}$ | 27 28 $\frac{1}{2}$ | 25 36 | | 19 50 | 24 43 |

DIE 15 OCTOBRIS, MANE.

Quoniam non erat serenum, attendimus diligenter quando ☾ per nubes transpareret, si forte subinde dividerentur, ut eius aspectum admitterent, & ob id tam per Quadrantem in Azimuthis & Altitudinibus, quam Armillis Declinationum sequentia scrutati sumus. Tempora sunt correctæ.

| H. M. | Declin. ☾ | Alt. ☾ | Azim. orient. limbi ☾ |
|--------------------|-----------|---------------------|--------------------------|
| 5 51 | 27 14 | 61 4 | 8 55 |
| | 26 47 | 60 34 $\frac{1}{2}$ | |
| 5 54 $\frac{3}{4}$ | 27 15 | 60 54 $\frac{1}{2}$ | 11 10 |
| | 26 46 | 60 29 | |
| 6 3 0 | | 60 42 $\frac{1}{2}$ | 14 15 |
| | | 60 16 $\frac{1}{2}$ | |
| 6 11 0 | 27 14 | 60 35 | |

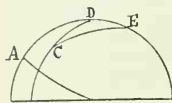
| | | |
|--------------------|---------------------|--------------------|
| a Cane min. | 26 45 $\frac{1}{2}$ | 60 4 $\frac{1}{2}$ |
| 6 5 0 ¹ | 27 13 | 60 8 |
| | 26 45 | 59 38 |
| 6 21 $\frac{1}{2}$ | 27 13 $\frac{1}{2}$ | 59 54 |
| | 26 42 | 59 21 |
| | | 59 22 per Chal. |
| 6 26 | 27 12 $\frac{1}{2}$ | 59 36 |
| | 26 43 | 59 9 |

Stella nulla dum hæc obseruantur apparuit. Sed semel duntaxat Canis minor inter nubes visus est H. 6 M. 16, fuit is tunc occidentalis 11 35. Hinc cætera tempora corrigenda.

Ex antecedentibus, præsertim ijs, quando ☾ erat iuxta 90 Gradum H. 5 M. 51, fuit Declinatio centri ☾ 27 0 correctæ. Longitudinem competen-

¹ Sic in codice. Sine dubio tempus correctum est per observationem Procyonis, nam calculus ostendit correctionem horologii fuisse circiter — 8^m.

tem quære ex obferuationibus hefternis & fequentis diej, idque pro ¶ Latitudine maxima perfeftiganda.



| | | |
|--------|-----|-----|
| I. DE | 34 | 5½ |
| DC | 29 | 10½ |
| CDE | 170 | 35 |
| EC | 63 | 1½ |
| II. DE | 34 | 5½ |
| DC | 29 | 18 |
| CDE | 168 | 20 |
| EC | 63 | 1½ |

Medium itaque horum

| | | |
|---------|-----|----|
| III. DE | 34 | 5½ |
| DC | 29 | 30 |
| CDE | 165 | 15 |
| EC | 63 | 0½ |
| | 63 | 1 |
| | 26 | 59 |

N. B. Azimutha & Altitudines iuxta tres primas obferuationes dant Declinationem ¶ 26 59, quod quafi vnico Minuto deficit ab ea, quære per Armillas capiebatur, recte correctæ. Sed fidendum potius abignatæ & limitatæ Armillarum Declinationi.

DIE 16 OCTOBRIS, MANE.

¶ ante Meridianum & 90 Gr. Eclipticæ existens in □ vltima iuxta maximam digreffionem & maximam Latitudinem boream. Tempora correctæ funt.

| H. M. | Or. limb. ¶ ab inf. cap. II | Declin. vtriusque cornu | Altit. inf. limbi | Aldeb. occid. |
|---|-----------------------------------|-------------------------------|-------------------------|------------------|
| 4 10½ | 13 46½ | 24 55½ | 50 50 | 29 12 |
| | | 24 22 | | |
| 4 14½ | 13 49 | 24 55 | 51 8½ | 30 23 |
| | | 24 22 | | |
| 4 19½ | 13 51 | 24 54 | 51 32 | 31 21 |
| | | 24 21½ | | |
| 4 24½ | 13 53 | 24 53 | 52 6 | 32 47 |
| | inter nubes | 24 21½ | | |
| 4 30 | 13 55½ | 24 53 | 52 30 | 34 0 |
| | | 24 21 | | |
| 4 33 | 13 57 | | 52 48 | 34 46 |
| Postea viceversa a Corde ¶ obferuatur idem limbus ¶ orientalis. | | | | |
| 4 35½ | 22 56½ | 24 52½ | 53 8 | 35 37 |
| | | 24 20½ | | |

¹ Sic in codice.

| | | | | |
|-------|--------|--------|-------|-----------------------------|
| 4 40 | 22 53½ | 24 52½ | 53 45 | 36 54 |
| | | 24 20½ | | |
| 4 45½ | 22 52 | | 54 0 | 8 15 |
| 4 50½ | 22 49½ | 24 51½ | 54 33 | Can. mai. occ. 5 43 |
| | | 24 19 | | Luc. hum. Orion. occ. 21 11 |
| 4 59½ | 22 48 | 24 49½ | 55 1 | 21 11 |
| 5 1 | 22 47½ | | 55 40 | 21 57 |

Postea viceversa capiebatur ¶ ab inf. cap. II Tempora correctæ.

| | | | | |
|-------|--------|--------|--------------------|-------|
| 5 5 | 14 12½ | | 55 31 | 22 45 |
| 5 11½ | 14 12 | | 55 51 | 24 15 |
| 5 14 | 14 13½ | 24 46½ | 56 12 | 25 30 |
| | | 24 16½ | | |
| 5 17 | 14 14½ | 24 16 | 56 12 ¹ | |
| | | 24 16 | | |

5 23 Transijt inf. Caput II per Merid. habens Altit.

| | |
|-------------------------------------|------|
| per Chalyb. | 63 0 |
| per Volub. | 63 1 |
| Fuit tunc Aldebora occid. | 47 7 |
| Declinatio 29 58½ vtroq. pinnacido. | |

Postea ¶ a Corde ¶ obferuabatur.

| Temp. corr. | | | Can. min. occ. |
|-------------|--------|--------|-----------------------------|
| 5 31 | 22 32 | 24 45½ | 57 2 |
| | | 24 14 | |
| 5 34½ | 22 31½ | 24 45 | 4 5 |
| | | 24 13½ | |
| 5 37½ | 22 30½ | 24 43½ | 57 16 |
| | | 24 14 | 4 38 |
| 5 41 | | | 57 25 |
| 5 43½ | 22 27½ | 24 43 | 57 31 |
| | | 24 16½ | 6 10 |
| 6 4½ | 22 20½ | | 58 2 |
| 6 7 | 22 20 | 24 43 | 58 6 |
| | | | Luc. hum. Orion. occ. 37 38 |
| | | 24 9½ | 12 6 |
| 6 9½ | 22 18½ | 24 42 | 58 10 |
| | | 24 9 | 12 43 |

Viceversa a lucido pede Erichtonij.

| | | | | |
|-------|-------|--------|--------|-------|
| 6 12½ | 45 6½ | | 58 12 | 13 26 |
| 6 13½ | 45 8 | 24 41½ | 58 12½ | |
| | | 24 8 | | |
| 6 15½ | 45 9 | | 58 13 | 14 5 |
| 6 18 | 45 10 | 24 41½ | | |
| | | 24 6½ | | |

6 28 4'' Tranſiuit orient. limb. ☾
per Merid. habens Altitudinem
ſuper. per Chal. 58 43, per Vol. 58 39
infer. 58 10½ 58 12
Fuit tunc Canis minor occid. 16 25
Habebat autem Declin. ſuper. 24 40½
infer. 24 7

6 39½ Denuo ☾ per Volub. examina-
batur in Azimutho 2° 0',

Altit. ſup. 58 38½
inf. 58 7½

N.B.¹ Johannes inter obſeruandum
ab hac parte plus iuſto de ☾ limbo ce-
piſſe ex ſequenti calculo colligi poteſt:
deinde etiam ex Altitudine Meridiana,
quod ille obſeruabat in Volubili.

☾ appropinquante ad 90 gradum, eadem obſeruabatur a ☿.

| Temp. corr. | Diſt. orient. limbi a ☿ | Declinatio ☾ | | Altit. ☾ inf. cornu | Altit. ☿ | ☿ occid. |
|----------------|----------------------------|--------------|-------|------------------------|-------------|----------------|
| 6 43 | 69 43½ | 24 35½ | 24 7 | | 20½ | |
| 6 50½ | 69 45½ | 24 34½ | 24 4 | 57 45 | | 81 52 |
| 6 54 | 69 47½ | 24 34½ | 24 3½ | | | 82 40 |
| 6 57 | 69 48½ | 24 32½ | 24 3½ | ſup. limbi 58 20½ | 18½ | 83 17 |
| 6 59 | 69 49 | 24 32 | 24 2½ | | 18 0* | 84 3 |
| | | | | | | * ἐν πλάτει |
| | | | | | | Azim. or. lim. |
| 7 3½ | 69 50 | 24 31 | 24 1½ | | | 15½ |
| 7 5½ | 69 52 | 24 30½ | 24 1 | 57 35 | 17½ | 17 25 |

Postea nullæ ſtellæ apparebant, ob Solem ad ortum tendentem.

H. 7 M. 21½ incepit limbus ☉ oriri

7 23 ☉ medius ortus

7 26 ☉ totus exortus.

Postquam ☉ eodem mane exortus eſt & nullæ ſtellæ appa-
rent, ipſa vero ☾ ad 90 gradum quam proxime applicaret, ſequentia obſeruauimus. Tem-
pora ſunt correctæ.

| H. M. | Declinatio ☾ | | Altitudo ☾ | | Azim. or. limbi ☾ | Altit. ☉ |
|-------|--------------|--------|------------|-------------|----------------------|-------------|
| 7 16 | 24 29½ | | ſup. 57 14 | inf. 56 46½ | 21 0 | |
| 7 20 | 24 28½ | 24 0 | 57 2 | 56 33 | 22 30 | |
| 7 24 | 24 28½ | 23 59½ | 56 49 | 56 21½ | 24 0 | |
| 7 27½ | 24 28½ | 23 59 | 56 35½ | 56 7 | 25 30 | 1 50 |
| 7 31 | 24 27½ | 23 58½ | 56 20½ | 55 52 | 27 0 | 2 10 |

Deinceps orientalis limbus ☾ a ☉ iuxta 90 Gradum.

| H. M. | Diſtancia | Declinatio ☾ | | Azim. ☉ | Altit. ☉ |
|-------|-----------|--------------|--------|---------|----------|
| 7 41½ | | 24 25 | 23 57½ | | 3 25 |
| 7 42½ | | 24 24 | 23 57 | 62 2 | 3 40 |
| 7 46½ | 89 21 | 24 23½ | 23 56½ | 61 5 | 4 0 |
| 7 51 | 89 18 | 24 23 | 23 55½ | 60 15 | 4 27 |
| 7 57 | 89 17 | 24 21 | 23 53½ | 59 5 | 5 12 |
| 8 1½ | 89 17 | 24 21 | 23 53½ | 58 5 | 5 45 |

Refractio ☉ in his vbique præcauenda.

N. N. Vere potius ſequentibus ob refractionem minorem.

¹ In margine adſcriptum.

Continuatio obferuationis ☿ a ☉.

| H. M. | Diftantia | Declinatio ☿ | | Altit. ☿ fup. limb. | Altit. ☉ | Azim. ☉ | ☉ dift. æquat. |
|-------|-----------|--------------|--------|------------------------|-------------|------------|-------------------|
| 8 11 | 89 16 | 24 20 | 23 52 | .. 55 | 6 32 | 56 30 | |
| 8 12½ | 89 14½ | 24 19½ | 23 51½ | 52 40 | 7 21 | 55 0 | |
| 8 21 | 89 11 | 24 19 | 23 50½ | 52 5 | 8 0 | 53 40 | 54 49 |
| 8 26½ | 89 9 | 24 18½ | 23 50 | 51 43 | 8 25 | 52 50 | 53 56 |
| 8 31 | 89 6½ | 24 16 | 23 49 | 51 2 | 9 10 | 51 25 | 52 14 |
| 8 38½ | 89 4½ | 24 15 | 23 48½ | | 9 47 | 49 50 | 50 26 |
| 8 47 | 89 1½ | 24 14 | 23 45 | 49 21 | 10 51 | 47 45 | 48 16 |
| 8 57 | 88 56 | 24 11 | 23 43½ | 48 0 | 11 55 | 45 30 | 45 42 |
| 9 1½ | 88 53½ | 24 10 | 23 42 | | 12 21 | 44 25 | 44 34 |

Vtere aliqua harum & elige optimam, ac primum locum ☉ vifum effice in Longitudine & Latitudine per refectionem Altitudinum & Tabulas noftras. Hinc deduc Declinationem & Afcenfionem Rectam ☉, quæ confer cum diftantia, addendo 15 pro femidiametro ☿.

Pro loco ☿ ad Diem vltimum Septembris Vefperi ex obferuationibus fupra fcriptis.

☿ in 90 H. 5½.

| | | |
|------------|----------------------|-----------|
| H. 5 M. 50 | Dift. centri ☿ a ♄ | 64 26 |
| | Declin. centri ☿ | |
| | limitata | 27 40½ M. |
| | Declin. ♄ | 2 49½ M. |
| | Ang. diff. afcenf. | 62 29 |
| | Afc. Recta ♄ reducta | 357 31 10 |
| | Ergo Afc. R. ☿ | 295 2 10 |
| | Refp. Longitudo | 22 8 26¾ |
| | Latitudo | 6 3 35 M. |

Pro Parallaxi ☿ in circulo Altitudinis feu Merid. inquirenda.

| | | |
|---------|----------------------|------------|
| H. 6 39 | Longitudo ☿ | 22 36 ¾ |
| | Nodus ☉ | 23 6 ✓ |
| | Diftantia ☿ a ☉ | 8° 29' 30" |
| | Refp. vera Latit. | 5 14 56 M. |
| | Refp. Declin. vifa ☿ | 27 38 20 |
| | Declin. vera | 26 48 5 |

Parallaxium & refract. differentia 50 15

Diftantia ☿ a 90 Gr. 20^m temporis,
Refp. Parallaxis Longit. 2' 20" add.
Pro arcu inclinationis 8" fubtr.
Ergo vera Longitudo ☿ 22 10½ ¾
ad datum tempus in cælo.

Ponitur¹ parallaxis & refractionis

differentia in altitudine 6° M. 50 exacte, nam circiter ¼ superabat refractio parallaxin in ½ grad.

Calculus loci ☿ ex antecedentibus obferuationibus die 16 Octobris
Mane habitis, vt conferatur cum fequenti circa 90 Gradum a ☿ accepto.

| | | |
|-------|-------------------------|-----------|
| H. 6½ | Dift. centri ☿ a Regulo | 22 35 |
| | Declin. centri ☿ | 24 25 |
| | Declin. Reguli | 13 55 |
| | Ang. diff. afc. fupput. | 21 13 15 |
| | Afc. Recta Reguli | 146 41 0 |
| | Ergo Afc. R. ☿ | 125 27 45 |

| | | |
|---------|-------------------------------|---------|
| H. 6 18 | Dift. centri ☿ a fup. cornu ☿ | 44 54 |
| | Declin. centri ☿ | 24 23 |
| | Decl. pedis Erichtonij | 28 11 |
| | Ang. diff. afcenf. | 50 15 |
| | Afc. R. pedis Erichtonij | 75 11½ |
| | Refp. Afc. R. ☿ | 125 26½ |

Pone H. 6½ Afc. R. ☿ (adhærendo magis Regulo) 125 27
Declin. B. 24 25
Refp. Longitudo 2 0 4½ ☉
Latitudo 4 43 32 B.
Parallaxis Altit. 30'
Latus Longit. 20'
Refp. Parallaxis Longit. 10' fubtr.
Igitur vera Longitudo 1 50 ☉

¹ In margine adfcriptum.

H. 7 0' Obseruata

Longitudo ζ 1 2 20 40
 Pro Parallaxi subtrahæ 2 40
 Vera Longitudo ζ 2 18 0 ζ

Diff. temporis 50,
 diff. motus 28 0

Hæc differentia exacte correspon-
 det motui nostro diurno 13° 24' pro
 dato temporis intervallo.

Longitudo ζ in proprio orbe 2 15 $\frac{3}{4}$ ζ
 Distantia a nodo ζ 100 8

Supputatio loci ζ cum eſet proxime
 90 Gr. Eclipticæ vtrinq̃ue ex præ-
 cedentibus obſeruationibus
 die 16 Octobris, Mane.

H. 7 M. 0 Dift. or.

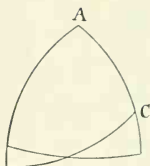
limbi ζ a ζ 69 49 $\frac{1}{2}$
 Declin. viſa ζ 17 53
 Dift. centri ζ a ζ 69 35
 Declin. centri ζ verif. 24 16
 Ang. diff. aſc. 75 7 47
 Aſc. R. ζ ex obſerua-
 tionibus reductis 50 40 0

Pone itaque H. 7 M. 0

Aſc. R. ζ 125 47 $\frac{1}{2}$
 Reſp. Longitudo 2 20 $\frac{3}{4}$ ζ
 Latitudo 4 41 $\frac{1}{2}$ B.

H. 8 M. 12 Dift. or. limbi ζ

a centro ζ 89 16
 Verus locus ζ 2 14 $\frac{1}{2}$ M
 Alt. ζ obſeruata 6° 30'
 Parallaxis 3 0
 Refraſtio 13 10
 Reſiduum refrac-
 tionis in alt. ζ 10 10
 Reſp. in long. 8 5
 in latit. 6 3
 Ergo viſa ζ Longitudo 2 6 $\frac{1}{2}$ M
 Latitudo 0 6 $\frac{1}{2}$
 Reſp. Aſc. Recta ζ 209 56 $\frac{1}{2}$
 Declinatio 12 9 $\frac{1}{2}$ M.
 Dift. centri ζ a ζ 89 30
 Declin. ζ obſeruata
 & limitata 24 5 B.

¹ Vide infra.

B
 H. 8 M. 12 Aſc. R. ζ 126 1 55
 Reſp. Longitudo 2 35 52 ζ
 Latitudo 4 33 31 B.

Debuit autem ζ eſſe in 90 Gr. H. 7 M. 18,
 carens parallaxi longitudinis. Fuit au-
 tem circa primam obſeruationem Al-
 titudo ζ 58°. Ideoque Parallaxis in ver-
 ticali 0 30 proxime, quod facit in Lon-
 gitudine ſaltem 2 Minuta ſubtrahenda,
 & in Latitudine 29 $\frac{1}{2}$ reddenda. Altera
 obſeruatio habuit Parallaxin Altitu-
 dinum quaſi 34'. Ergo Longit. 6' ad-
 dit, Latit. 33 $\frac{1}{2}$ ' addit. Quapropter verus
 locus ζ prouenit

| H. M. | Longit. vera | Latit. vera |
|----------------|----------------------------|-------------|
| 7 0 | 2 18 $\frac{1}{2}$ ζ | 5 11 B |
| 8 12 | 2 42 $\frac{1}{2}$ ζ | 5 7 B. |
| Differentia 12 | 0 24 | 0 4 |

(N. B. Ego parallaxes ſaltem ἐν πλά-
 τει accepi, quare caſtigandæ).

Quæ promotio nimis lenta eſt. Nam
 debent interea conficere 40 M. Quare
 hæc revidenda, & potius obſeruati
 ad ζ fidendum, collatione facta cum
 diſtantiâ a ſtella antea definita 16.

N. B. ζ tunc diſtabat a Nodo cum
 eſſet in 90 Gradu part. 10 M. 15, facit
 Latitudinem 5 10 ſatis conuenienter.

DIE 27 OCTOBRIS.

Poſt Meridiem obſeruabatur ζ cir-
 ca Meridianum. ζ circa medium ζ in
 maxima Latitudine auſtrina.

| Tempora correcta | Declin. ☾ | Alt. ☾ per Volub. | Azim. or. | ☉ occ. 63½ év πλάτει |
|---------------------|----------------------------------|----------------------|--------------|-------------------------------|
| 4 21½ | 28 13½ | 5 47½ | 3 30 | |
| | 28 38½ | 5 21 | | |
| 4 29 | 28 13½ | 5 52 | 2 0 | |
| | 28 37½ | 5 25 | | |
| 4 30 | Infima pars ☉ vifa est occidere. | | | |
| 4 33 | 28 13½ | 5 53 | 1 0 | |
| | 28 38 | 5 26½ | | |
| 4 37 | Occid. limbus ☾ in Meridie | | | |
| | 28 11½ | 5 54 | | |
| | 28 38 | 5 26½ | | |
| | | 5 54½ | per | |
| | | 5 26 | Chalyb. | |
| 4 44 | 28 10½ | 5 52½ | per | |
| | 28 37½ | 5 25½ | Volub. | |

☾ in 90 Gr. H. 3 M. 38.
Postea obseruabatur occid. limbus ☾ a ☽.

| H. M. | Distantia | Declin. ☾ | Alt. sup. limbi ☾ | ☽ orient. |
|-------|-----------|--------------|----------------------|--------------|
| 4 46½ | 67 26½ | 28 36½ | 5 50 | 62 39 |
| | | 28 10½ | | |
| 4 49 | 67 26½ | 28 36½ | 5 45 | |
| | | 28 9½ | | |
| 4 52 | 67 25 | 28 36½ | infer. | 61 15 |
| | | 28 9½ | 5 25 | |

| | | | | |
|-------|--------|--------|------|---------------|
| 4 56 | 67 23½ | 28 36½ | | 60 17 |
| | | 28 8½ | 5 20 | |
| 5 0 | 67 22 | 28 36½ | | 59 27 |
| | | 28 8½ | 5 17 | |
| 5 4 | 67 21½ | 28 35½ | | 58 36 |
| | | 28 7½ | 5 15 | |
| 5 7½ | 67 18½ | 28 36 | | 57 43 |
| | | 28 7½ | 5 11 | |
| 5 10 | 67 17½ | 28 35½ | | 56 53 |
| | | 28 6½ | 5 7 | |
| 5 14 | 67 15½ | 28 35½ | | 55 54 |
| | | 28 6½ | 5 2 | |
| 5 16½ | 67 14½ | 28 35 | | Vultur occid. |
| | | 28 6 | 4 55 | 7 32 |
| 5 19 | 67 14½ | 28 34½ | | 8 13 |
| | | 28 5½ | 4 50 | |
| 5 21 | 67 14 | 28 35 | | 8 42 |
| | | 28 4 | 4 43 | |

Fuit satis bene serenum & ☾ erat iuxta Meridianum in ☽ prope maximam Latitudinem Austrinam. Habenda tamen ratio est refractionis & parallaxeos. Nam erat nonnihil ultra 90 Gradum.

DIE 28 OCTOBRIS, VESPERI.
Obseruabatur ☾ circa 90 Gradum.

| Tempora correcta | Dist. occid. limbi a ☽ | Declinatio ☾ sup. inf. | Altitudo sup. inf. | Azim. | Alt. ☽ | ☽ orient. |
|---------------------|--|---------------------------|-----------------------|-------|--------|--------------------|
| 4 18 | | 25 50½ | 26 19 | 6 32½ | 15 | |
| 4 21 | | 25 51 | 26 18 | 7 9 | 6 41 | 14 |
| 4 26 | | 25 50½ | 26 16½ | 7 16½ | 6 51 | 13 |
| 4 31 | | 25 49 | 26 16½ | 7 28 | 6 56½ | 12 |
| 4 36 | | 25 48 | 26 16½ | 7 35 | 7 4½ | |
| 4 42 | 54 15½ | 25 48 | 26 16½ | | 9 50 | |
| 4 44½ | 54 15 | 25 47½ | 26 16½ | | 9 25 | 62 10 |
| 4 46½ | 54 14½ | | | 7 30 | 9 0 | 12½ 61 35 |
| 4 50 | 54 14½ | 25 47½ | 26 16½ | 7 35 | 8 5 | |
| 4 52½ | 54 12 | 25 46½ | 26 15½ | 7 37 | 7 15 | 13 0 60 8 |
| 4 56½ | 54 11 | | 8 0 | 7 39 | 13 35 | 59 23 |
| 4 58½ | 54 10½ | 25 45 | 26 15½ | 8 2 | 7 40 | 58 55 |
| 5 1½ | 54 8½ | | 8 4 | 7 44 | | 58 4 |
| 5 4 | 54 8½ | 25 44½ | 26 15½ | 8 7 | 7 47 | 57 14 |
| 5 7 | 54 7 | | 8 11 | 7 50 | 14 55 | 56 19 |
| 5 9½ | 54 5 | 25 44½ | 26 15 | 8 12 | 7 52 | 55 45 |
| 5 12½ | 54 4 | | 8 15 | | 15 35 | 54 56 |
| 5 16 | 54 2½ | 25 43 | 26 12 | 8 17 | 7 55 | Vultur occ. |
| 5 17½ | 54 0 | | 8 18 | 7 56 | | 8 28 |
| 5 26½ | Transiit occid. limbus ☾ per Merid. habens | | | | | 8 53 |
| | Altitudinem | | | 8 24½ | 7 52½ | 11 9½ |
| | | 25 41½ | 26 11½ | 8 23 | 7 53 | per Volub. præcise |

DIE 29 OCTOBRIS.

Obseruatio (iuxta 90 Gr. pro Paral-
laxi & Refractione.

| H. M. | Altitudo (| Declin. | Azimuth |
|--------------------|------------------------|---------------------|-------------|
| 4 30 | 8 33 sup. | 22 13 | 25 0 |
| | 8 0 $\frac{1}{2}$ inf. | 22 41 $\frac{1}{2}$ | |
| 4 40 $\frac{1}{2}$ | 9 1 | 22 12 $\frac{1}{2}$ | 23 0 |
| | 8 31 $\frac{1}{2}$ | 22 41 | inter nubes |

DIE 30 OCTOBRIS, VESPERI.

H. 7 M. 0 corrigebatur Horologium
ad Vulturis Lucidam.

H. 7 M. 4 $\frac{1}{2}$ Transiuit occid. limbus (

per Meridianum habens Altitud.
per Chalyb. 16 48 $\frac{1}{2}$ per Volub. 16 48 $\frac{1}{2}$ sup.
16 18 $\frac{1}{2}$ 16 15 inf.

7 10 $\frac{1}{2}$ Decl. 17 14 sup. Vultur occ.
17 45 inf. 39 19

Hæ obseruationes en plati inter

nubes.

DIE 3 NOUEMBRIS, VESPERI.

(in medio loco inter ☐ & ☿ Apogæi.
(paulo ante 90 gradum.

| H. M. | Dist. a dextro hum. ☿ | Declin. | Alt. inf. limbi | Vultur occid. |
|--------------------|-----------------------|--------------------|-----------------|---------------|
| 6 24 $\frac{1}{2}$ | 47 35 | 4 26 | 31 13 | |
| | | 3 51 | 24 41 | |
| 6 28 $\frac{1}{2}$ | | | 25 2 | 32 18 |
| 6 30 $\frac{1}{2}$ | 47 41 $\frac{1}{2}$ | 4 25 $\frac{1}{2}$ | | 32 49 |
| | melior | 3 51 $\frac{1}{2}$ | 25 22 | *melior |
| 6 34 | 47 42 $\frac{1}{2}$ | | 25 48 | 33 32 |

Viceversa a Lucida V, inclinata
stella magis versus zenith.

| | | | | |
|--------------------|---------------------|--------------------|-------|-----------------------|
| 6 36 $\frac{1}{2}$ | 21 23 | 26 1 | 34 15 | |
| 6 38 | 21 22 | | 34 40 | |
| 6 40 $\frac{1}{2}$ | 21 23 $\frac{1}{2}$ | 4 24 | | Os Peg. occ. 6 51 |
| | dubia | 3 57 $\frac{1}{2}$ | 26 28 | |
| 6 57 $\frac{1}{2}$ | | 4 30 | | Luc. Vult. occ. 39 23 |
| 6 55 $\frac{1}{2}$ | | 3 58 $\frac{1}{2}$ | | |
| 7 5 $\frac{1}{2}$ | | 4 31 $\frac{1}{2}$ | 29 48 | |

inferior limbus non bene visus est.

Postea (a ☿ quia nullæ aliæ stellæ
apparebant. (in 90 Gr. H. 7 $\frac{1}{2}$.

| | | | |
|--------------------|-------|--------------------|-------|
| 7 23 $\frac{1}{2}$ | 20 21 | 31 8 | ☿ or. |
| 7 22 $\frac{1}{2}$ | | | |
| 7 25 $\frac{1}{2}$ | 20 22 | 4 37 $\frac{1}{2}$ | |
| 7 24 $\frac{1}{2}$ | | 4 8 | 31 15 |
| 7 33 $\frac{1}{2}$ | 20 25 | 32 10 | 13 28 |
| 7 33 $\frac{1}{2}$ | | | |

| | | | |
|--------------------|-------|-----------|-------|
| 7 37 | 20 26 | 32 20 | 12 35 |
| 7 43 $\frac{1}{2}$ | | 4 42 bona | |
| | | 4 13 33 0 | |

(& ☿ viceversa

7 49 31 46 33 30

(rufus a ☿

7 51 $\frac{1}{2}$ 20 29 $\frac{1}{2}$ 33 42 9 5

7 53 20 31 8 25

7 54 $\frac{1}{2}$ 4 45 $\frac{1}{2}$

4 15 $\frac{1}{2}$ 33 50

8 2 $\frac{1}{2}$ 5 57

8 8 $\frac{1}{2}$ } Vultur occ. 55 48

8 0 corr. }

Postea (appropinquans meridiano
capiebatur a prima alæ Pegasi.

9 23 $\frac{1}{2}$ 38 36 52 46

9 25 $\frac{1}{2}$ 33 53 52 21

9 28 33 54 $\frac{1}{2}$ 38 40 51 43

9 30 5 9

4 36

9 30 $\frac{1}{2}$ 33 56 $\frac{1}{2}$

9 35 33 57 5 6 $\frac{1}{2}$ 49 48

9 39 $\frac{1}{2}$ Transiuit (occid. limbus

per Meridianum habens Altitud.

per Chalyb. 39 17 $\frac{1}{2}$ per Volub. 39 15

38 43 $\frac{1}{2}$ 38 46

Fuit tunc Aldeb. orient. 48 45 en plati.

9 45 $\frac{1}{2}$ Decl. (supra 5 13 bona

Aldeb. orient. 47 11

9 48 Repetita 5 13

Decl. 4 42

Postea (viceversa capiebatur ab

Aldebora vt sequitur.

H. M. Dist. Decl. Alt. inf. Aldeb. or.

9 54 $\frac{1}{2}$ 48 52 limbi 45 22

9 56 $\frac{1}{2}$ 48 51 44 31

9 59 48 50 $\frac{1}{2}$ 38 42 43 33

10 1 $\frac{1}{2}$ 48 49 5 17 38 40 42 50

4 46 $\frac{1}{2}$

10 4 $\frac{1}{2}$ 48 47 38 37

10 8 $\frac{1}{2}$ 48 45 $\frac{1}{2}$ 38 33

Mox denuo viceversa

a prima alæ Pegasi

10 10 $\frac{1}{2}$ 34 3 $\frac{1}{2}$ 38 31

10 13 $\frac{1}{2}$ 34 6 $\frac{1}{2}$ 5 21 $\frac{1}{2}$ 16 44

4 50

10 15 34 6 $\frac{1}{2}$

10 18 34 8 $\frac{1}{2}$ 5 22

4 52

H. 10 M. 23 $\frac{1}{2}$

| | | | | |
|----------------------|---------------------|----|--------|--|
| Pro loco ☾. | | | | |
| H. 7 M. 22 | Diff. centri ☾ a ♄ | 20 | 36 | |
| | Declin. centri ☾ | 4 | 12 B. | |
| | Declin. ♄ | 3 | 43½ M. | |
| | Ang. diff. ascenf. | 19 | 1 48 | |
| | Afc. recta centri ☾ | 14 | 15 28 | |
| H. 7½ ☾ a ♂ | dift. | 31 | 31 | |
| | Declin. ☾ | 4 | 18 B. | |
| | Declin. ♂ | 17 | 3 | |
| | Ang. diff. ascenf. | 29 | 24½ | |
| | Afc. recta ☾ | 14 | 24 0 | |
| Pone H. 7½ Afc. R. ☾ | | 14 | 14 | |
| | Declinationem | 4 | 12 B. | |
| | Resp. Longitudo | 14 | 43½ ✓ | |
| | Latitudo | 1 | 46½ M. | |

Pro examine Armillarum obseruatur denuo declinatio Aldeb. 15 39½
15 38½

Alt. Aldeb. 42½

H. 10 M. 38 Lucidus pes Orionis or.
43 32½

DIE 6 NOUEMBRIS, VESPERI.

☾ erat in plenilunio iuxta ♂ mediam.

Obseruabatur ☾ iuxta 90 Gr. H. 10½

Distantia occid. limbi ☾ ab inferiori capite II.

| H. M. S. | Distantia | Declin. | Altitud. super. Orion. or. | Luc. pes |
|---------------|-----------|---------|----------------------------|----------|
| 10 22 50 | 56 3½ | 20 27 | 51 32 | 45 35 |
| 10 26½ corr. | | 19 54 | | |
| 10 27 20 | 56 2* | 20 29 | 51 40 | 44 15 |
| 10 31 corr. | | 19 55 | *inter nubes | |
| 10 30½ | 56 0½ | | 43 47 | |
| 10 34½ corr. | | | | |
| 10 32½ | 55 59 | | 43 20 | |
| 10 36½ corr. | | | | |
| 10 37 10 | 55 56½ | | 41 50 | |
| 10 41 0 corr. | | | | |

Viceversa orient. limbi ☾ a Lucida ✓.

| | | |
|---------------|--------|-------------------|
| 10 44 20 | 21 41½ | 40 12 |
| 10 48½ corr. | | |
| 10 46½ | 21 41½ | 39 44½ |
| 10 49 0 | 21 42 | 39 1 |
| 10 53 0 corr. | | |
| 10 51 0 | 21 44½ | 20 34 sup. 38 30½ |

¹ In margine adscripta.

| | | |
|---|--------|-------|
| Diff. occid. limbi ☾ ab inf. capite II. | | |
| 10 54½ | 55 54 | 37 42 |
| 10 56 50 | 55 52½ | 37 3 |
| 11 5½ | 55 49 | 34 48 |

11 9½ corr.

11 8 40 20 36 bona
19 59

11 45½ Occid. limbus ☾ in Meridiano

11 50½ corr. habens Alitudinem

per Chalyb. 54 46½ 54 16½

per Volub. 54 45 54 18

Declin. 20 43½ super.

20 11 infer.

Nubes densæ cælum operiebant, adeo vt nullæ stellæ amplius sunt visæ.

Supputatio loci ☾ ex antecedentibus obseruationibus.

H. 10 M. 35 Diff. centri ☾

ab inf. cap. II 55 45 0

accipiendo femid. 15½

Declin. centri ☾ 20 11½ B.

Declin. inf. cap. II 28 57

Ang. diff. asc. 61 11 30

Afc. R. inf. cap. II 110 7½

Ergo Afc. R. centri ☾ 48 56 0

H. 10½ Diff. centri ☾ a luc. ✓ 21 24½

Declin. centri ☾ 20 13½

Declin. lucidæ ✓ 21 31½

Ang. diff. asc. 22 53½

Afc. R. lucidæ ✓ 26 8 50

Afc. R. centri ☾ 49 2 30

H. 10½ Ascensio Recta ☾ 48 59 15

Declinatio ☾ B. 20 12 30

Resp. Longitudo 21 57½ ✓

Latitudo 1 57½ B.

Arcus inclinationis 6 add.

Resp. vera Longitudo ☾ 22 4½ ✓

Ex Prut. ☾ Simpl. Long. S. 2 29° 23' 21"

Æq. temp. Anom. simp. 0 34 36 12

M. 24 Noft. Simpl. ☉ 7 25 22 3

Rebus¹ omnibus penitatis possunt addi adhuc ad motum ☾ 2 M. quasi, vt fit 22 6½ ✓.

DIE 10 NOUEMBRIS, MANE, inter nubes.

☾ in principio ☽ in Borea latitudine maxima.

Cum ☾ eſet tranſuecta Merid.

3½ in Azim.

Altitudo per Volub. limbi

sup. 62 17½
inf. 61 42

Altit.infer.limbiper Chalyb.61 41

Declin. ſup. 28 8

inf. 27 33½

Poſtea, facta aliqua ſerenitate obſeruabatur pro motu diurno orient. limbus ☾ a Regulo vt ſequitur.

| H. M. | Diſt. | Decl. inf./ſup. | Altit. ☾ ſuper. | h orient. |
|-------|--------|-----------------|-----------------|-----------|
| 5 58 | 51 29½ | | 42 10 | 11 15 |
| 6 1½ | 51 28½ | 27 31 | 41 42 | 10 25 |

28 6½

6 16½

27 31

39 29

56 9

28 5½

Pro examine Armillarum capiebatur inferius caput II

in Declinatione

Repetita

28 57½

28 57½

DIE 13 NOUEMBRIS, MANE.

Obſeruabatur orient. limbus ☾

ab inf. cap. II.

| H. M. | Diſt. | Declin. | Alt. ſuper. limbi | Canicula occid. |
|-------|-------|---------|-------------------|-----------------|
| 6 4 | 25 3 | | 48 35½ | 56 51 |
| | 25 5 | 20 54½ | 48 15 | 58 32 |

21 29

Diſt. h & ☾

24 46

24 45½

24 43½

21 25

Alt. inf. limbi

46 54

60 29

60 54

61 31

Plura obſeruandi occaſionem Aurora nobis præripuit.

DIE 16 NOUEMBRIS.

Ante Meridiem capiebatur orient.

limbus ☾ a ☉.

☾ in 90 Gradu H. 10½.

| H. M. | Diſt. | Declin. ☾ | Altit. ☾ inf. limbi | ☉ or. |
|--------|--------|-----------|---------------------|-------|
| 11 33½ | 67 12½ | | 19 40 | 6 35 |

Alt. ☉

11 36½

67 12½

13 3

5 47½

11 39½

67 12

2 23

5 12½

2 55

11 43½

67 8

2 54½

13 7

4 0

Alt. ☾ inf.

11 46½

67 0½

2 24½

17½

2 36½

11 47½

67 0

2 52

17 2

1 51½

2 21½

Alt. ☉

13 10

11 47½

13 11½

DIE 17 NOUEMBRIS.

Obſeruabatur orientalis limbus ☾ cum eſet circa 90 Gr. a ☉^{le}.

| H. M. | Diſt. | Declin. inf./ſup. | Altit. ſup. limbi | ☉ or. |
|--------|-------|-------------------|-------------------|-------|
| 11 14½ | | | 21 31½ | 11 50 |
| 11 16½ | 53 57 | 4 25 | 21 16½ | 11 26 |

3 54

11 20½

53 52

20 58

10 24

11 22

53 50

20 40

10 0

11 23½

53 47

4 26½

3 56

18 34

7 45

Plura capi propter crebras nubes non potuerunt.

Pro horologio corrigendo oportet diſtantias æquatorias ☾ limitare, colatione facta cum horologio, ſiquidem illæ diſculty obſeruari poterant ob circulum horizontalem ☉^{lis} vmbram in æquatore diſſipantem.

DIE 25 NOUEMBRIS.

H. 4 0 ☾ Altit. Merid.

ſuper.

in Chalyb. 10 28½

infer. 10 1½

in Volub. 10 29

10 1½

N.B. Fuit ☾ tranſuecta Meridianum ſemidiametro ☾ vel 20 M. ad ſummum. Deinde obſeruabatur occid. limb. ☾ a 2½.

N.B. Fuit autem ☾ medio loco fere inter ☿ & ☐ ☉ in media etiam a terra diſtancia.

| H. M. | Diſt. | Declin. inf./ſup. | Alt. inf. limbi | ☿ or. |
|-------|--------|-------------------|-----------------|-------|
| 4 22½ | 46 40 | | 9 58 | |
| 4 23½ | 46 38½ | 24 5 | | 37 52 |

23 31

4 28½

46 36½

36 25

4 30½

46 35

24 4½

9 45

35 52

23 30

Fuit 90 Gradum aliquantulum trans-
ucta. Ideoque Parallaxis Longitudi-
nis habenda est ratio.

Pro corrigendo Horologio

4 38 Vultur occid. 28 46

4 42 29 54

DIE 4 DECEMBRIS.

Vesperī obseruabamus 90 circa
Gradum appropinquantem oppositi-
oni ☉.

☿ in nonages. gradu H. 9 M. 32.

Dift. occid. limbi a Lucida ♀.

| H. M. S. | Dift. or. limb. | Declin. inf. / sup. | Altit. inf. | Dext. hum. Orion. or. |
|----------|--------------------|------------------------|----------------|--------------------------|
| 9 8 | 28 51 | | 54 13 | 43 32 |
| 9 12 | 50 corr. | | | |

occid.

9 9 28 22

22 29 1/2
23 0 1/2

9 12 28 23

54 26

42 27

9 14 28 24 1/2

54 46

41 59

9 16 28 25

9 20 corr.

Viceversa ab infer. capite ♀.

9 19 47 58 1/2

22 31 54 53 40 40
23 3

9 21 47 55 1/2

9 23 47 54 1/2

22 31 1/2 54 55 39 36
23 3 1/2

9 25 47 52 1/2

55 0

9 27 47 52

55 23

38 28

9 33 corr.

Pro examine Armillarum

obseruabatur Declinatio 15 37 0

Aldeboræ 15 37 1/2

DIE 6 DECEMBRIS, VESPERI.

Pro examine Armillarum quibus ☿ po-
stea obseruabitur, obseruabatur Declin. borealis 28 11

Cornu ☿ H. 11 M. 4 28 11 1/2

bis vtroque pinnacidio.

Altitudo eiusdem borealis Cornu ☿
per Meridianum per Chalyb. 62 16 1/2.

Huic Altitudini non est fidendum,
quod stella Meridianum transiens nu-
beculis ita inuoluta fuerit, vt satis
præcise obseruari nequiverit.

N.B. ☿ obseruata proxima existens
plenilunio & Tropico Æstiuo atque
Latitudini maximæ.

Corrigebatur horologium paulo ante
has obseruationes factas.

| H. M. | Dift. a luc. ♀ | Decl. Dext. hum. sup. / inf. Orion. or. |
|-------|------------------|--|
| 11 33 | 53 41 occ. limb. | 27 50 1/2 5 33 |
| | | 27 19 |

11 38 54 12 1/2 orient. 4 5

11 40 54 13 1/2 orient. 3 35

11 42 54 15 orient.

11 43 54 15 1/2 27 51 2 47

27 20

11 48 54 16 1/2 1 37

11 50

Viceversa orient. limbus ☿ ab infe-
riori Capite ♀.

11 51 21 15 1/2 0 46

11 54 5 corr.

11 53 21 15 27 50 1/2 0 17

27 19 1/2 idem

11 54 21 13 0 2

N.B. ☿ in 90 Gradu H. 12 exacte.

Pone ad Horam 11 M. 50,

rectificatam tamen, distantiam ☿
a Lucida ♀ 54 17 1/2 quoad
eandem ab inf. cap. ♀ 21 16 1/2 orient.
limb.

Pro semid. autem accipe 16', & hinc
conflabis locum ☿, applicata Declin-
atione ad dictum tempus, sed visum
nonnihil emendandum per Paral-
laxin ob aliqualem videlicet 1 horæ
distantiam a 90 Gradu, fac deinde
periculum in sequentibus.

H. 12 M. 3 1/2 Transiit occid. limbus ☿
per Meridianum, fuit autem tunc
lucidus seu dexter humerus Ori-
onis occid. in æquatore exacte
2 21 1/2

Altitudo meridiana medio tempore in-
ter transitum occ. & orient. limbi
super. in Chal. 61 57 1/2 infer. 61 24 1/2

in Vol. 61 58 61 25

Centrum lunæ per vmbra obserua-
tum in Chalyb. 61 41 0

ea attentione qua fieri poterat.

H. 12 M. 5 1/2 Transiit orient. limbus ☿
per Meridianum. Fuit tunc dex-
ter humerus Orionis 2 56 occid.

Postea rursus capiebatur orient. limbus ☾ ab inferiori capite ☿.

| H. M. | Dist. | Decl. ☾ sup./inf. | Dext. hum. Orion. occ. |
|--------|--------|----------------------|---------------------------|
| 12 15 | 21 1½ | | 5 25 |
| 12 16½ | 21 1 | | |
| 12 18 | 20 59½ | 27 51½ | 5 41 |
| | | 27 20½ | |

N.B. In hanc observationem pro Latitudine ☾ maxima inquirenda potes latis tuto te fundare, ponendo Alitudinem Centri cum eſet in Merid. 61 41 præcise

Nam Volubilis dabat

quoad Centrum ☾ 61 41½

Aſt Chalybæus paulo minus,
ut pote 61 40 47

Medium itaque horum fuit proxime 61 41½, at quoniam potius Chalybeo fidendum erit, 61 41 exacte.

Quod etiam concordat cum observatione centri ☾ ex umbra eius in

Chalybeo 61 41. Nec poterit minus eſſe, ſed potius ½ minuto plus, ſi quid eſſet.

Calculus pro vero loco ☾.

| | |
|------------------------------|----------|
| H. 11 M. 52 Dist. centri ☾ | |
| a luc. ☿ | 54 2½ |
| Declin. centri ☾ | 27 35 |
| Declin. luc. ☿ | 21 31½ |
| Ang. diff. aſcenſ. | 59 35½ |
| Aſc. recta luc. ☿ | 26 8 50 |
| Ergo Aſc. recta ☾ | 85 44½ |
| Eodem tempore Dist. centri ☾ | |
| ab inf. cap. ☿ | 21 31 |
| Ang. diff. aſcenſ. | 24 25 40 |
| Aſc. R. inf. cap. ☿ | 110 7 30 |
| Ergo Aſc. recta ☾ | 85 41 50 |
| H. 11 M. 52 Aſc. R. ☾ | |
| limitata | 85 43 10 |
| Declinatio B. | 27 35 |
| Reſp. Longitudo | 26 12 0☿ |
| Latitudo | 4 6 53B. |

OBSERVATIONES SATURNI.

DIE 24 JANUARIJ, VESPERI.

Obſervabamus ☿ Acronychium & ad ☿ ☾ tendentem circa Meridianum.

| H. M. S. | Dist. ☿ ab inf. cap. ☿ | Declin. ☿ | Canis min. occid. |
|----------|---------------------------|---------------|----------------------|
| 11 40 | 34 25½ | | 23 58 |
| 11 42 40 | 34 26 | 15 40½ vtroq. | 24 35 |
| 11 47 25 | 34 26 | | 25 52½ |
| 11 50 10 | 34 26½ | 15 40 | 26 31 |
| | | 15 40½ | |

Viceverſa Dist. ☿ a cauda ☿

| | | | |
|----------|--------|--------|-------|
| 11 57 30 | 26 19½ | | 28 21 |
| 11 59 45 | 26 19½ | 15 40½ | 28 53 |
| | | 15 40½ | |

12 4 0 26 19½

Pro corrigendis Armillis ſumta eſt

Declinatio Cordis ☿ 13 56½

13 56½

12 25 0 Tranſiit ☿ per Meridianum habens Altitud.

Can. min. occ.

per Quadr. Chalyb. 49 44½

35 9

per Volub. 49 44½

12 33 5 Tranſiit Cor ☿ per Meridianum habens Altitudinem per Chalyb. 48 0½

per Volub. 48 0½

Erat Canis minor occid.

in Æquat. 37 10

Fuit bene ſerenum & tranquillum.

Declin. Reguli hoc anno 13 55½ bona.

Declinatio vtroque tam in Corde ☿ quam ☿ per armillas ſumta abundat 1½, ſed fidendum potius quadrantibus, ponendo ☿ Declinationem 15 39½ & diſt. ab infer. Capite ☿ 34 26, a Cauda ☿ 26 19½.

Per tranſitum Meridiani reperitur vtriusque differentia æquatoria P. 2 M. 1, idque tam iuxta æquatoriam diſtantiam per tranſitum Canis minoris, quam iuxta horologium quam proxime. Ergo Aſc. R. ☿ eſt anterior quam Aſcenſio Recta Reguli duobus gradibus & 1 ſcrupulo, ſed Declina-

tio eius excedit Declinationem Reguli P. 1 M. 44. Hinc ex data Reguli ad hoc tempus Ascensione Recta quæ est 146 40 $\frac{1}{2}$ Decl. Reguli 13 55 15

Dist. a γ 2 1 Exceßus γ 1 43 55

A. R. γ 144 39 $\frac{1}{2}$ Decl. γ 15 39 10

Est igitur γ Longitudo 21 47 $\frac{1}{2}$ γ

Latitudo 1 26 $\frac{1}{2}$ B.

Calculus Prutenicus Alphonfinus

Longitudo 21 52 $\frac{1}{2}$ γ 24 1 $\frac{1}{2}$ γ

Latitudo 0 36 $\frac{1}{2}$ B. 1 27 B.

Ex quibus liquet numeros Prutenicos hic quam proxime obseruationi correspondere, differentia faltem incidente 5 scrupulorum. At in latitudine demunt $\frac{1}{2}$ vnus gradus, cum in hac Alphonfinus pene concordet, cuius causa fit per accidens ob Apogæi locum & terminos maximæ latitudinis sese quoad errorem vtrique incidentem pariformiter elidentes prout alias annotatum habes. Quoad longitudinem vero Alphonfinus calculus gradibus 2 $\frac{1}{2}$ abundando aberrat, quemadmodum etiam Prutenicus in quinis istis scrupulis obseruationem excedit.

Sed videndum etiam quid distantie viceversa a corde & cauda γ inducant.

DIE 31 JANUARIJ, MANE.

Obseruabatur γ prope ϕ \odot 11 .

| H. M. | Dist. γ ab inf. cap. γ | Decl. γ B. | Alt. B. | Spica γ 11 occid. |
|--------------------------|--------------------------------------|---------------------|---------|-------------------------------|
| 5 22 45 | 33 59 | 15 50 $\frac{1}{2}$ | 23 20 | 19 45 |
| 4 48 $\frac{1}{2}$ corr. | | 15 51 | | |
| 5 28 45 | 33 58 $\frac{3}{4}$ | | | 21 20 |
| 4 52 corr. | | | | |
| 5 30 20 | 33 58 | | 22 15 | 21 46 |
| 4 56 $\frac{1}{2}$ | | | | |

Viceversa a Cauda γ

| | | | |
|-------------------------|---------------------|---------------------|-------------|
| 5 35 10 | 26 47 $\frac{1}{2}$ | | 23 7 |
| 4 59 corr. | | | |
| 5 37 10 | 26 46 $\frac{1}{2}$ | 15 50 $\frac{1}{2}$ | 21 15 23 36 |
| 5 4 corr. | | 15 50 | |
| 5 42 30 | 26 47 | | 20 25 25 1 |
| 5 9 $\frac{1}{2}$ corr. | | | |

¹ Incerta propter maculam atramentii.

Pro Armillis corrigendis 13 57
 sumebatur Declin. Cordis γ 13 57 $\frac{1}{2}$
 Abundat 2'. Alt. Cordis γ 19 46
 Pone in dist. ab inf. cap. γ 33 58 $\frac{3}{4}$
 a cauda γ 26 47
 Declinat. 15 48

Postea obseruabatur æquatoria distantia γ a corde γ .

| | corr. | occid. | Spica occ. |
|------------|-------------------------------------|---------------------|---------------------|
| 5 49 30 | 5 17 0 γ | 78 45 | 26 52 $\frac{1}{2}$ |
| 5 50 50 | 5 18 24 Cor γ | 76 32 $\frac{1}{2}$ | 27 13 |
| 5 51 55 | 5 19 40 γ | 79 17 $\frac{1}{2}$ | 27 32 |
| 5 52 50 | 5 20 32 Cor γ | 77 0 $\frac{1}{2}$ | 27 45 |
| 5 57 0 | 5 25 22 γ | 80 42 | 28 58 |
| 5 57 50 | Cor γ | 78 22 $\frac{1}{2}$ | |
| 5 50 50 | Alt. γ | 19 10 | |
| 5 52 50 | Decl. γ | 15 50 15 51 | |
| 5 57 0 | Alt. γ | 18 4 | |
| 6 0 quasi. | Dist. inter γ & Cor γ | 3 20 $\frac{1}{2}$ | |

bis per radium, sed inter nubes.

Fuit Regulus circa hoc tempus cum γ ad æquilibrium Horizontis æque dispositus.

Supputatio loci γ ex obseruationibus ad diem 24 Januarij.

| | | |
|----------------------|--|---------------------------------|
| H. 11 $\frac{1}{2}$ | Dist. γ ab infer. cap. γ | 34 26 |
| | Declin. inf. cap. γ | 28 56 $\frac{1}{2}$ B. |
| | Declin. γ | 15 39 $\frac{1}{2}$ |
| | Ang. diff. ascens. | 34 32 30 |
| | Asc. R. inf. cap. γ | 110 6 30 |
| | Ergo Asc. R. γ | 144 39 0 |
| H. 12 0 | Dist. γ a cauda γ | 26 19 $\frac{1}{2}$ |
| | Declin. caudæ γ | 16 51 B. |
| | Ang. diff. ascensionalis | 27 24 40 |
| | Asc. R. caudæ γ | 172 4 45 |
| | Asc. R. γ | 144 40 5 |
| Ergo H. 12 completa, | | |
| | Asc. R. γ | 144 39 $\frac{1}{2}$ |
| | Declin. γ B. | 15 39 $\frac{1}{2}$ |
| | Resp. Longitudo | 21 47 30 $\frac{1}{2}$ γ |
| | Latitudo | 1 26 15 B. |

Idem fere locus prouenit ex transitu per meridianum, vide superius.

Investigatio loci η ex obseruationibus
diei 31 Januarij.

| | |
|---------------------------------------|-----------------------|
| H. 4 M. 50 Dist. η | |
| ab inf. cap. II | 33 58 $\frac{1}{2}$ |
| Declin. η | 15 48 B. |
| Ang. diff. asc. | 34 4 $\frac{1}{2}$ |
| Ergo Asc. R. η | 144 10 45 |
| H. 5. 9 Dist. η a cauda Ω | 26 47 |
| Angulus | 27 54 $\frac{1}{2}$ |
| Ergo Asc. R. η | 144 10 0 |
| H. 5 pone Asc. Rectam η | 144 10 $\frac{1}{2}$ |
| et declinationem | 15 48 0 |
| quibus resp. Longitudo | 21 18 0 Ω |
| Latitudo | 1 25 $\frac{3}{4}$ B. |

N. B. Quod Latitudo η hic a superioribus & sequentibus obseruationibus circiter M. 1 deficiendo variet, euenit procul dubio ob declinationem per limitationem nimium attenuatam, insuper quod obseruationes factæ sint inter chasmata.

DIE 1 FEBRUARIJ.

Vesperī obseruabatur η circa meridianum in hunc modum.

N. B. Obseruatio η eo ipso die quo \odot medio loco opponebatur.

| H. M. S. | Dist. η ab inf. cap. II | Declin. η | Dext. hum. Orion. occ. |
|----------|---------------------------------|---------------------|---------------------------|
| 11 25 0 | 33 48 $\frac{1}{2}$ | | |
| 11 25 50 | 33 49 | 15 53 $\frac{1}{2}$ | |
| | | 15 54 | |
| 11 30 45 | 33 48 $\frac{1}{2}$ | | 54 35 |

Vicēuersa a cauda Ω

| | | |
|---------------------|---------------------|-------------------|
| 11 38 0 | 26 54 $\frac{1}{2}$ | Can. min. occ. |
| 11 41 $\frac{1}{2}$ | 26 54 $\frac{1}{2}$ | 15 53 vtroq. 31 3 |
| 11 45 5 | 26 55 | 32 4 |

11 55 28 Transiuit η
per Meridianum habens Altitud.
per Chalyb. 49 57 $\frac{1}{2}$ bona
per Volub. 49 57 0
Pone declin. η 15 52 $\frac{1}{2}$
Canis minor occid. 34 35

Transijt Cor Ω per merid. habens altit.
per Chalyb. 48 0 $\frac{1}{2}$ bona Can. min. occ.
per Volub. 47 59 $\frac{1}{2}$ 37 14

Differentia transitus Cordis Ω & η
ex animaduersione Canis minoris per
vtramque obseruationem 2 $^{\circ}$ 39'.

N. B. Obseruationes hæ factæ sunt
aëre non satis defæcato existente,

verum rariuisculis nubeculis subinde
dum obseruabatur, intercurrentibus.
Sunt tamen diligenter admodum acceptæ,
adeo vt si iuste vtrinque limitentur
obseruationes, illis satis tuto fundari
liceat pro Acronychio situ η hoc anno
terminando, idque collatione per motu
 η diurno cum superioribus facta,
qua tamen ab intentione sensibilibiter
aberrari nequit, siquidem hæ obseruationes
eodem ipso die quo η medio \odot motui
opponebatur, fiebant.

Tempora assignata sunt correctæ.

Inuestigatio motus η ad diem 1 Februarij
ex assignatis superioribus obseruationibus.

| | |
|---|---------------------|
| H. 11 $\frac{1}{2}$ Dist. η ab inf. cap. II | 33 48 $\frac{1}{2}$ |
| Declin. η | 15 52 $\frac{1}{2}$ |
| Ang. diff. asc. | 33 54 50 |
| Ergo Asc. recta η | 144 1 26 |
| H. 11 $\frac{1}{2}$ Dist. η a cauda Ω | 26 54 $\frac{1}{2}$ |
| Ang. diff. ascens. | 28 3 15 |
| Ergo Asc. recta η | 144 1 30 |

Ponatur itaque absque vilo sensibili
errore H. 11 $\frac{1}{2}$ η Asc. R. 144 1 $\frac{1}{2}$
Declinatio B. 15 52 $\frac{1}{2}$
Resp. Longitudo 21 8 $\frac{1}{2}$ Ω
Latitudo 1 26 $\frac{3}{4}$ B.

Ex differentia η & Cordis Ω in transitu
per meridianum prouenit
Asc. R. η 144 1 $\frac{1}{2}$
Pro ϕ η cum medio motu \odot

Die 1 Feb. H. 11 $\frac{1}{2}$

Noster Simplex \odot 10 $^{\circ}$ 21' 24" 29"
Verus Locus η 5 21 8 30
Differentia 16 0

Hinc colligitur η fuisse oppositum
medio motui Die 1 Feb. H. 5 $\frac{1}{2}$ in

Longit. 21 9 $\frac{1}{2}$ Ω

Latit. 1 26 $\frac{3}{4}$ B.

Subducta Parallaxi η Latit. 1 27 B.

Nostri Præcessio

Æquinoctij 0 28 10 45

Ex Tabulis Prutenicis

Simplex Longitudinis η 1 48 16 23

Apogæus 4 1 15 16

Arcus inclinationis add. 1 50

Ergo vera Long. η
in proprio circulo 21 11 35 $\frac{1}{2}$ Ω

Facta ex his experimentatione iuxta correctionem motuum η simplicium quondam institutam prouenit Locus η in 21 18 50, ita vt abundant 7 $\frac{1}{2}$, cuius differentia causa maxima penes Apogaei mutationem incidit.

N. B.¹ hæc alibi aliter sunt correctæ & inquisita.

DIE 5 FEBRUARIJ.

Obseruationes η post δ cum \odot .

| H. M. S. | Æquat. dist. η & Cordis δ orient. | Declin. η | Canis mai. occ. |
|----------|---|------------------------|-----------------|
| 8 42 35 | η or. 44 7 | 16 0 $\frac{1}{2}$ vno | 2 50 |
| 8 44 15 | Cor δ 46 38 $\frac{1}{2}$ | | 3 15 |
| 8 49 30 | η or. 42 20 $\frac{1}{2}$ | 16 0 $\frac{1}{2}$ | 4 36* |
| 8 50 45 | Cor δ 44 59 $\frac{1}{2}$ | *inter nubes | 4 54 |

Pone dist. æquatoriam inter Cor δ & η H. 8 $\frac{1}{2}$ 2° 57' 0" prout ex his obseruationibus eandem colligere liceat. Obseruabantur autem hæc inter nubes.

Postea serenitate restituta obseruabatur η in distantijs per Sextantem non procul a meridiano vt sequitur.

| H. M. S. | Dist. η ab inf. cap. II | Declin. | Hum. Or. occid. |
|----------|------------------------------|------------------------|-----------------|
| 10 31 30 | 33 29 $\frac{1}{2}$ | | |
| 10 33 25 | 33 29 $\frac{1}{2}$ | 16 0 $\frac{1}{2}$ vno | |
| 10 37 15 | 33 30 | | 44 55 |

Viceversa a Cauda δ

| | | | |
|----------|---------------------|--------------------|-------|
| 10 39 40 | 27 13 $\frac{1}{2}$ | | |
| 10 41 0 | 27 13 $\frac{1}{2}$ | 16 0 $\frac{1}{2}$ | 45 48 |
| | | 16 0 $\frac{1}{2}$ | |

Pro corrigendis Armillis obseruabatur

| | |
|-------------------------|---------------------|
| Declin. cordis δ | 13 56 |
| | 13 55 $\frac{1}{2}$ |

Plura propter nubes denuo exorientes in η obseruare hac vespera non licuit.

DIE 6 FEBRUARIJ.

Vesperis obseruabatur η in æquatoria distantia cum Corde δ .

| H. M. S. | Dist. æquat. | Decl. | Alt. η | Can. min. occ. |
|----------|----------------------------------|--------------------|-----------------------|----------------|
| 9 53 10 | η or. 28 21 $\frac{1}{2}$ | | 5 36 | |
| 9 56 28 | η or. 27 43 | 16 1 | 6 25 | |
| 9 57 0 | Cor δ 30 38 $\frac{1}{2}$ | 16 1 $\frac{1}{2}$ | 6 34 | |
| 10 0 28 | η or. 26 44 $\frac{1}{2}$ | 16 1 $\frac{1}{2}$ | 45 7 24 $\frac{1}{2}$ | |
| 10 1 10 | Cor δ 29 36 $\frac{1}{2}$ | 16 2 | 7 37 $\frac{1}{2}$ | |
| 10 4 18 | η or. 25 44 $\frac{1}{2}$ | 16 2 | 8 24 | |

| | | | |
|---------|----------------------------------|--------------------|---------|
| 10 4 50 | Cor δ 28 39 $\frac{1}{2}$ | 16 2 $\frac{1}{2}$ | 8 32 |
| 10 8 40 | η or. 24 39 $\frac{1}{2}$ | | 46 9 29 |
| 10 9 25 | Cor δ 27 32 | | 9 40 |
| 10 13 4 | η or. 23 33 | 16 2 | 10 35 |

| | | | |
|----------|----------------------------------|-----------------------|---------------------|
| 10 14 0 | Cor δ 26 22 $\frac{1}{2}$ | vtroq. | 10 50 |
| 10 17 24 | η or. 22 29 $\frac{1}{2}$ | 16 2 46 $\frac{1}{2}$ | 11 39 |
| 10 18 18 | Cor δ 25 20 | 16 2 $\frac{1}{2}$ | 11 47 $\frac{1}{2}$ |

Statim postea capiebatur Declinatio Cordis δ in confimili situ, vt hinc verificari possint ceteræ declinationes η factæ

per Armillas extra 13 57 vno pinn. meridianum 13 57 $\frac{1}{2}$ altero.

Iterata vice fumebatur decl.

| | |
|-----------------|---------------------|
| cordis δ | 13 57 $\frac{1}{2}$ |
| | 13 56 $\frac{1}{2}$ |

Postea obseruabatur η in distantia a Lucido pede II per Sextantem.

| H. M. S. | Distantia | Declin. | Cor δ or. |
|----------|---------------------|--------------------|---------------------|
| 10 31 41 | 47 55 | | 21 52 $\frac{1}{2}$ |
| 10 33 50 | 47 55 $\frac{1}{2}$ | 16 2 | |
| | | 16 2 $\frac{1}{2}$ | |

| | | | |
|----------|---------------------|--|-------|
| 10 37 25 | 47 55 | | 20 30 |
| 10 39 45 | 47 54 $\frac{1}{2}$ | | 19 50 |

Deinceps a Capite II

| H. M. S. | Distantia | Declin. | Can. min. occ. |
|----------|---------------------|------------------------|----------------|
| 10 46 15 | 33 25 | 16 2 vno | 18 58 |
| 10 55 22 | 33 25 | | 21 11 |
| 10 57 40 | 33 25 $\frac{1}{2}$ | 16 2 $\frac{1}{2}$ vno | 21 47 |
| 11 16 20 | 33 25 $\frac{1}{2}$ | | 26 27 |

Viceversa a Cauda δ

| | | | |
|----------|---------------------|--------------------|-------|
| 11 18 45 | 27 18 | | 27 0 |
| 11 20 40 | 27 17 $\frac{1}{2}$ | 16 2 $\frac{1}{2}$ | 27 36 |
| | | 16 2 $\frac{1}{2}$ | |

| | | | |
|----------|---------------------|--------------------|-------|
| 11 27 0 | 27 18 $\frac{1}{2}$ | | 29 8 |
| 11 29 10 | 27 18 | 16 2 $\frac{1}{2}$ | 29 38 |
| | | 16 2 $\frac{1}{2}$ | |

11 47 0 Transiit η Meridianum

| | | |
|--------------------|--------------------|---------------------|
| habens Altitudinem | | |
| per Chalyb. | 50 6 $\frac{1}{2}$ | 34 10 $\frac{1}{2}$ |
| per Volub. | 50 6 | |

11 59 20 Transiit Cor δ Meridianum

| | | |
|--------------------|--------------------|---------------------|
| habens Altitudinem | | |
| per Chalyb. | 48 0 $\frac{1}{2}$ | 37 13 $\frac{1}{2}$ |
| per Volub. | 48 0 $\frac{1}{2}$ | |

Pone distantiam

| | |
|--------------------|---------|
| a lucido pede II | 47 55 |
| & a Capite inf. II | 33 25 |
| & a Cauda δ | 27 18 |
| declinationem | 16 0 40 |

¹ In margine a Tychone adscripta. Cf. T. V p. 252.

*redigendo omnia ad mediam noctem
per motum proprium ꝥ diurnum a
dictis fixis.*

Horologium ab huius dieꝝ meridiem
in meridiem fequentis dieꝝ 16 Minutis
citius iusto promotum est, quatenus
tunc ☉ per rimulas inter nubes obser-
uare licuit.

DIE 7 FEBRUARIJ.

Vesperi obseruabatur ꝥ circa
Meridianum.

| H. M. S. | Dist. ꝥ a luc. pede II | Declin. ꝥ | Luc. pes Orion. occ. |
|----------|---------------------------|--------------|-------------------------|
| 10 12 50 | 47 50½ | 16 3½ | |
| | | 16 4 | |

| | | | |
|----------|--------|--|-------|
| 10 18 0 | 47 50½ | | 50 45 |
| 10 20 15 | 47 49½ | | 51 16 |

Viceversa a Cauda ☉

| | | | |
|----------|--------|-------|-------|
| 10 24 40 | 27 21½ | 16 3½ | 52 26 |
| | | 16 3½ | |

| | | | |
|---------|-------|-------|-------|
| 10 40 0 | 27 22 | 16 3½ | 56 15 |
| | | 16 4½ | |

| | | | |
|----------|--------|--|--------|
| 10 42 15 | 27 21½ | | 56 51½ |
|----------|--------|--|--------|

Postea ab inferiori Capite II

| | | | |
|----------|--------|-------|--|
| 10 46 50 | 33 20½ | 16 4 | |
| | | 16 3½ | |

| | | | |
|----------|--------|--|--------|
| 10 50 30 | 33 20½ | | 58 59½ |
| 10 53 0 | 33 20½ | | 59 37 |

Pro corrigendis Armillis ob-
seruabatur Decl. Cordis ☉ 13 57½

11 33 55 Transijt ꝥ Merid. in Altit.
per Chalyb. 50 7½

per Volub. 50 7½

Erat Canis minor occid. 34 0½

11 46 25 Transijt Cor ☉ in Altit.
per Chalyb. 48 0½

per Volub. 48 0½

Canis minor occid. 37 16½

DIE 12 FEBRUARIJ, VESPERI.

De transitu ꝥ per Meridianum.

H. 11 9' 40" Altitudo
per Chalyb. 50 16½

per Volub. 50 15½

Declinatio per
Armillas 16 12½

Cor ☉ tunc fuit orientalis 3 34

11 23 35 Cor ☉ transijt per Meridi-
anum habens Altitudinem

per Chalyb. 48 0½

per Volub. 47 59½

Declinatio Cordis ☉ 13 57½

per Armillas 13 57½

Fuit tunc Cor ☉ orient. 0 5

*Fide potius obseruationibus per
Chalyb. factis tam in ☿ quam ꝥ &
Corde ☉ quas Christiernus sedulo
accepit.*

H. 12 55 Declin. ꝥ 16 12½, 16 12½

12 59 repetita 16 12½, 16 12.

DIE 13 FEBRUARIJ.

6 31 20 Sumebatur declinatio
ꝥ inter nubes 16 14½

11 14 55 Transiuit ꝥ per Meridianum
per ☿ Chalyb. 50 16

per Volub. 50 17

Declinatio in 16 14

Armillas 16 14½

Canis minor occid. 33 35

DIE 14 FEBRUARIJ.

Vesperi obseruabatur ꝥ appropin-
quans Meridiano.

| H. M. S. | Dist. ꝥ ab inf. Cap. II | Declin. ꝥ | Canis min. occ. |
|----------|----------------------------|--------------|--------------------|
| 10 47 50 | 32 45½ | | 29 23 |

| | | | |
|----------|--------|--------|-------|
| 10 52 30 | 32 45½ | 16 16 | 30 33 |
| | | 16 15½ | |

| | | | |
|----------|--------|--|------|
| 10 54 35 | 32 45½ | | 31 5 |
|----------|--------|--|------|

11 4 25 Transijt ꝥ per
Meridianum habens Altit.

per Chalyb. 50 18½

per Volub. 50 18½

Deinde capiebatur distantia ꝥ
a Cauda ☉

| | | | |
|------|-------|--|-------|
| 11 9 | 27 51 | | 34 42 |
|------|-------|--|-------|

| | | | |
|----------|--------|--|--|
| 11 10 20 | 27 51½ | | |
|----------|--------|--|--|

| | | | |
|---------|--------|--------|-------|
| 11 12 5 | 27 51½ | 16 15½ | 35 31 |
| | | 16 15½ | |

| | | | |
|----------|-------|--|-------|
| 11 15 40 | 27 51 | | 36 24 |
|----------|-------|--|-------|

¹ Codex habet »Chalyb.«.

DIE 15 MARTIJ.

Quoniam antecedentibus diebus hucusque nulla fuit constans serenitas, attendebamus Vesperī post ☉ occalum & obseruauimus ♄ vt sequitur.

Verificato paulo ante horologio, quod iam aliter dispositum erat per Cor ♄.

H. 9 6½' Transijt ♄ per Meridianum habens altitud. 50 52½ per Chalyb. Fuit tunc Cor ♄ orient. 5 26.

Postea obseruabatur ♄ a luc. pede II.

| H. M. S. | Dist. | Declin. ♄ | Cor. ♄ orient. |
|----------|--------|--------------|-------------------|
| 9 13 30 | 32 45 | | 3 34 |
| 9 17 40 | 32 46½ | 16 51½ | 2 24 |
| | | 16 52½ | |

9 21½ 32 46 1 23

9 27½ Transijt Cor ♄ per Merid. habens Altitudinem per Volub. 48 1½.

Fuit tunc Cor ♄ in æquatore occid. 0 0½.

Viceversa a Cauda ♄. Cor. ♄ occid.

| H. M. S. | Dist. | Declin. ♄ | Cor. ♄ occid. |
|----------|--------|--------------|------------------|
| 9 32 10 | 29 30½ | 16 51½ | 1 22 |
| | | 16 52 | |
| 9 34 10 | 29 31½ | | 1 51 |
| 9 36 0 | 29 30 | | 2 24 |

DIE 19 MARTIJ, VESPERI.

Obseruabatur ♄ stationi vltimæ propinquus circa Meridianum.

| H. M. | Dist. ab inf. cap. II | Declin. ♄ | Canis min. occid. |
|-------|--------------------------|--------------|----------------------|
| 8 24½ | 30 53 | 16 50½ | 22 2 |
| | | 16 50½ | |
| 8 38½ | 30 52 | | 25 17 |
| 8 41½ | 30 52½ | 16 50 vtrog. | 25 55 |
| 8 45½ | 30 52 | | 27 1 |

Viceversa a Cauda ♄

| H. M. | Dist. | Declin. ♄ | Canis min. occid. |
|-------|--------|--------------|----------------------|
| 8 48 | 29 38½ | 16 50 | 27 43 |
| | | 16 50½ | |
| 8 50½ | 29 38½ | | 28 20 |
| 8 53½ | 29 38½ | 16 49½ | 28 57 |
| | | 16 50½ | |

9 4½ Transijt ♄ per Meridianum habens Altit. per Q. Chalyb. 50 55 per Volub. 50 54½

Tunc fuit Canis minor occid. 31 35

Prouenit ex hifce obseruationibus:

*Vera Longitudo ♄ 18 43 23 ♄
Latitudo 1 27 22 Borea.*

DIE 6 APRILIS.

Vesperī obseruatus est ♄ iuxta ☐

☉ vltimam, idque non procul a Meridiano.

| H. M. S. | Dist. ♄ a Corde ♄ | Declin. ♄ | Dist. æquat. a Cane min. |
|----------|----------------------|--------------|------------------------------|
| 9 12 10 | 6 28 | | 52 51 |
| 9 15 0 | 6 28½ | 16 55 | Can. min. occid. 54 41 |
| | | 16 55 | |
| 9 20 | 6 20 dubia | | |

Plura non potuimus ob nubes.

DIE 11 APRILIS.

Vesperī obseruabatur ♄ iuxta stationem, cum eBet 2½^h circiter transuectus Meridianum.

| H. M. | Dist. ♄ ab inf. cap. II | Declin. ♄ | Altit. | Cor. ♄ occid. |
|-------|----------------------------|--------------|--------|------------------|
| 9 47 | 30 29 | 16 52½ | | 34 54 |
| | | 16 53 | | |
| 9 50½ | 30 29 | | | 35 43 |
| 9 53 | 30 29½ | 16 53½ | 39½ | 36 22 |
| | | 16 53½ | | |

Viceversa a Corde ♄ in distantia capiebatur.

| H. M. | Dist. | Declin. ♄ | Altit. | Cor. ♄ occid. |
|-------|-------|--------------|--------|------------------|
| 9 58½ | 6 28 | | 38½ | 37 42 |
| 10 2 | 6 27½ | 16 53½ | | 38 43 |
| | | 16 53½ | | |
| 10 5 | 6 28½ | 16 53 vtrog. | | 39 34 |
| 10 7 | 6 28½ | | 37 | |

Postea obseruabatur Declinatio Cordis ♄ in confimili quasi situ quo ♄ obseruabatur 13 53½ vno

H. 10 M. 12½ 13 52½ altero

Fuit autem Altitudo Reguli tunc 37^h

N.B. Potes hinc verificare declinationem ♄.

DIE 12 APRILIS, VESPERI.

H. 7 M. 57 Fuit Declinatio η 16 55
16 55 $\frac{1}{2}$

Fuit tunc η non longe a Meridiano,
sed hunc aliquantulum prætergres-
sus versus occalum.

H. 8 M. 1 Eadem η meli- (16 55
Declinatio repetita ores 16 55

| H. M. S. | Inter η & inf. cap. II | Decl. η | Cor. Ω occid. |
|--------------------|--------------------------------|-----------------|-------------------------|
| 8 54 | 30 29 | | 16 5 |
| 8 56 $\frac{1}{2}$ | 30 29 $\frac{1}{2}$ | | 16 39 |
| 9 7 10 | 30 29 | | 19 30 |

| H. M. S. | A corde Ω | Decl. | Cor. Ω occid. |
|----------|--------------------|---------------------|-------------------------|
| 9 13 0 | 6 27 $\frac{1}{2}$ | 16 53 $\frac{1}{2}$ | 20 54 |
| | | 16 53 $\frac{1}{2}$ | |
| 9 23 20 | 6 27 35 | 16 53 $\frac{1}{2}$ | 23 38 |
| | | 16 53 $\frac{1}{2}$ | |

Atque hinc patet, quod η hoc tem-
pore fuerit stationarius, liquidem
eandem habuerit distantiam ab in-
feriori Capite II & Corde Ω quam
habuit [heri].

DIE 13 APRILIS.

Observabatur η iuxta stationem
vesperi post occalum \odot .

| H. M. S. | Dist. ab inf. Cap. II | Declin. | Cor. Ω occid. |
|----------|--------------------------|---------------------|-------------------------|
| 9 6 40 | 30 28 | | |
| 9 10 40 | 30 29 $\frac{1}{2}$ | 16 52 | 21 26 |
| | | 16 52 $\frac{1}{2}$ | |
| 9 14 10 | 30 29 $\frac{1}{2}$ | | 22 23 |
| 9 17 10 | 30 29 | 16 53 | 23 10 |

Viceversa a Corde Ω .

| H. M. S. | Dist. ab inf. Cap. II | Declin. | Cor. Ω occid. |
|----------|--------------------------|---------------------|-------------------------|
| 9 20 20 | 6 27 | | 23 57 |
| 9 24 50 | 6 27 $\frac{1}{2}$ | 16 52 $\frac{1}{2}$ | 25 2 |
| | | 16 53 | |

9 27 10 6 27 $\frac{1}{2}$
9 31 10 Pro Armillis corrigendis
observabatur Cor Ω 13 53
habens Declinationem 13 52 $\frac{1}{2}$

DIE 15 APRILIS, VESPERI.

| H. M. | η ab inf. cap. II | Declin. | Can. min. occid. |
|--------------------|---------------------------|---------------------|---------------------|
| 8 42 $\frac{1}{2}$ | 30 31 $\frac{1}{2}$ | 16 52 | 53 41 |
| | | 16 52 $\frac{1}{2}$ | |

| H. M. | η ab inf. cap. II | Declin. | Can. min. occid. |
|--------------------|---------------------------|---------|---------------------|
| 8 49 $\frac{1}{2}$ | 30 31 | | 55 25 |
| 8 51 $\frac{1}{2}$ | 30 31 | | 55 58 |

Viceversa a Corde Ω

| H. M. S. | Dist. ab inf. Cap. II | Declin. | Cor. Ω occid. |
|----------|--------------------------|---------------------|-------------------------|
| 8 55 0 | 6 27 $\frac{1}{2}$ | 16 52 | 56 55 |
| | | 16 52 $\frac{1}{2}$ | |

| H. M. S. | Dist. ab inf. cap. II | Declinatio | Can. min. occid. |
|--------------------|--------------------------|---------------------|---------------------|
| 8 59 $\frac{1}{2}$ | 6 27 $\frac{1}{2}$ | | 57 59 |
| 9 1 $\frac{1}{2}$ | 6 27 $\frac{1}{2}$ | 16 52 $\frac{1}{2}$ | 58 31 |
| | | 16 52 | |

Erat satis bene ferenum & ζ lati-
tando non obfuit.

DIE 16 APRILIS, VESPERI.

| Dist. η ab inf. cap. II | Declinatio | Can. min. occid. |
|---------------------------------|---------------------|---------------------|
| 30 33 | 16 53 | 28 0 |
| | 16 52 $\frac{1}{2}$ | |
| 30 32 $\frac{1}{2}$ | | 28 34 |
| 30 33 | | 29 17 |

Viceversa a Corde Ω

| H. M. S. | Dist. ab inf. cap. II | Declinatio | Can. min. occid. |
|--------------------|--------------------------|------------|---------------------|
| 6 29 $\frac{1}{2}$ | 16 53 vtroque | | 29 49 |
| 6 29 | | | 30 38 |
| 6 28 | | | 31 0 |

N. B. Observatae sunt hæ distantiae
per alterum Sextantem quem novum
appellamus.

DIE 17 APRILIS, VESPERI.

| H. M. S. | Dist. η ab inf. cap. II | Decl. | Can. min. occid. |
|----------|---------------------------------|---------------------|---------------------|
| 9 0 10 | 30 32 $\frac{1}{2}$ | | 55 35 |
| 9 4 40 | 30 32 $\frac{1}{2}$ | 16 51 $\frac{1}{2}$ | 56 40 |
| | | 16 51 | |

| H. M. S. | Dist. η ab inf. cap. II | Decl. | Can. min. occid. |
|----------|---------------------------------|-------|---------------------|
| 9 9 30 | 30 32 $\frac{1}{2}$ | | 57 52 |

Distantia viceversa a Corde Ω

| H. M. S. | Dist. ab inf. cap. II | Decl. | Can. min. occid. |
|----------|--------------------------|---------------------|---------------------|
| 9 18 30 | 6 28 | | 59 52 |
| 9 21 40 | 6 27 $\frac{1}{2}$ | 16 51 $\frac{1}{2}$ | |
| | | 16 51 $\frac{1}{2}$ | |

| H. M. S. | Dist. ab inf. cap. II | Decl. | Can. min. occid. |
|----------|--------------------------|-------|---------------------|
| 9 25 0 | 6 27 55 | | 61 35 |

Pro examine Armillarum 13 53

fuit Declinatio Cordis Ω 13 52 $\frac{1}{2}$

Distantiæ captæ sunt per novum
Sextantem.

DIE 11 SEPTEMBRIS, MANE.

| H. M. | Dist. η a Cane min. | Declin. η | Alt. | Luc. hum. Orion, or. |
|--------------------|-----------------------------|-------------------|-------|-------------------------|
| 4 38 $\frac{1}{2}$ | 44 39 | | 11 53 | 15 42 |

Pes Orion.

| H. M. | Dist. η a Cane min. | Declin. η | Alt. | Luc. hum. Orion, or. |
|--------------------|-----------------------------|-------------------|-------|-------------------------|
| 4 41 | 44 37 $\frac{1}{2}$ | | 12 10 | 5 30 |
| 4 43 $\frac{1}{2}$ | 44 38* | | 12 40 | 4 54 |
| 4 48 $\frac{1}{2}$ | 44 38* | 12 15 | | 3 36 |

*meliores 12 14 $\frac{1}{2}$

| H. M. | Dist. η a Cane min. | Declin. η | Alt. | Luc. hum. Orion, or. |
|--------------------|-----------------------------|---------------------|------|-------------------------|
| 4 54 $\frac{1}{2}$ | 44 37 $\frac{1}{2}$ | 12 14 $\frac{1}{2}$ | 14 6 | |

Melior repetita 12 13 $\frac{1}{2}$

12 14

Cor \odot in altit. 13 g. habuit Declin. 13 59, debuit autem habere re vera 13 55, ergo 4' auferenda, vt lit vera Decl. $\frac{1}{2}$ hora 4 $\frac{1}{2}$ p. 12 M. 16 $\frac{3}{4}$.

DIE 15 SEPTEMBRIS, MANE.

| H. M. | Dist. $\frac{1}{2}$ a Cane min. | Declin. $\frac{1}{2}$ | Altit. $\frac{1}{2}$ | Luc. hum. Orion. or. |
|--------------------|---------------------------------|-----------------------|----------------------|----------------------|
| 3 37 | 45 3 | 12 4 $\frac{1}{2}$ | 12 $\frac{3}{4}$ | 12 30 |
| | | 12 4 $\frac{1}{2}$ | | |
| 3 40 $\frac{1}{2}$ | 45 2 $\frac{3}{4}$ | | 14 $\frac{1}{2}$ | |
| 3 51 $\frac{1}{2}$ | 45 5 | | | 10 26 |
| 3 55 | 45 5 $\frac{1}{2}$ | 12 4 | 15 0 | 9 29 |
| | | 12 4 $\frac{3}{4}$ | | |
| 3 59 | 45 5 $\frac{1}{2}$ | | 15 15 | 8 5 |

DIE 16 SEPTEMBRIS, MANE.

| H. M. | Dist. $\frac{1}{2}$ a Cane min. | Declin. $\frac{1}{2}$ | Altit. $\frac{1}{2}$ |
|-------|---------------------------------|-----------------------|----------------------|
| 4 20 | 45 8 | 12 6 | 6 10 |
| | | 12 6 $\frac{1}{2}$ | |
| 4 24 | 45 8 $\frac{3}{4}$ | 12 5 $\frac{1}{2}$ | 6 50 |
| | | 12 5 | |
| 4 28 | 45 9 | 12 4 $\frac{1}{2}$ | 7 15 |
| | | 12 4 $\frac{3}{4}$ | |

DIE 20 SEPTEMBRIS, MANE.

| H. M. | Dist. $\frac{1}{2}$ a Canis min. | Decl. $\frac{1}{2}$ | Altit. $\frac{1}{2}$ | Pes Or. lucid. or. |
|--------------------|----------------------------------|---------------------|----------------------|--------------------|
| 4 4 | 45 32 | 11 54 | 13 5 | 3 53 |
| 4 11 $\frac{1}{2}$ | 45 32 | 11 53 $\frac{1}{2}$ | 14 45 | 0 13 |
| 4 31 corr. | Pone distantiam | | 45 33 | |

declinationem 11 50 $\frac{1}{2}$

Vtraque liberata a refractione.

DIE 21 SEPTEMBRIS.

Mane ante ortum \odot .

Tempora sunt correcta.

| H. M. | Dist. $\frac{1}{2}$ a Cane min. | Decl. $\frac{1}{2}$ | Altit. $\frac{1}{2}$ | Canis maior. or. |
|-------|---------------------------------|---------------------|----------------------|------------------|
| 4 48 | 45 40 | 11 49 $\frac{3}{4}$ | 17 20 | 18 3 |
| | | 11 49 $\frac{1}{2}$ | | |
| 4 52 | 45 39 $\frac{3}{4}$ | 11 48 $\frac{3}{4}$ | 17 55 | |
| | | 11 48 $\frac{1}{2}$ | | |
| 4 55 | 45 40 | | 18 15 | 16 18 |

Pone itaque distantiam 45 40, declin. 12 8 $\frac{1}{2}$, sed attendendum ad declinationem. Nam non consentit cum hestern.

¹ Sic in codice.

DIE 22 SEPTEMBRIS, MANE.

| H. M. | Dist. $\frac{1}{2}$ a Cane min. | Declin. $\frac{1}{2}$ | Altit. $\frac{1}{2}$ | Can. maior orient. |
|--------------------|---------------------------------|-----------------------|----------------------|--------------------|
| 4 49 | 45 48 $\frac{1}{2}$ | 11 45 $\frac{1}{2}$ | 17 38 | 17 6 |
| | | vtroque $\frac{1}{2}$ | | |
| 4 53 | 45 49 | 11 45 $\frac{3}{4}$ | 18 11 | 16 0 |
| | | 11 45 $\frac{1}{2}$ | | |
| 4 56 | 45 48 $\frac{3}{4}$ | 11 45 | 18 32 | 15 22 |
| | | 11 45 $\frac{1}{4}$ | | |
| 4 57 | Declin. $\frac{1}{2}$ | 13 57 | | |
| | Cordis \odot | 13 57 $\frac{1}{4}$ | | |
| 4 58 $\frac{1}{2}$ | Decl. $\frac{1}{2}$ | 11 45 | | |
| | repetita | 11 44 $\frac{1}{2}$ | | |

DIE 10 NOUEMBRIS, MANE.

Obferuabatur $\frac{1}{2}$ iuxta $\square \odot$ matutinam in hunc modum vt lequitur.

| H. M. | Dist. $\frac{1}{2}$ a Reguli | Declin. $\frac{1}{2}$ | Alt. $\frac{1}{2}$ | Arcturus or. |
|--------------------|------------------------------|-----------------------|--------------------|--------------|
| 6 26 | 13 8 $\frac{1}{2}$ | | | 53 21 |
| 6 28 $\frac{1}{2}$ | 13 8 $\frac{1}{2}$ | 10 21 $\frac{1}{2}$ | | 52 48 |
| | | 10 21 $\frac{1}{2}$ | | |
| 6 32 | 13 8 $\frac{1}{2}$ | | | 51 45 |
| 6 40 | Transiuit $\frac{1}{2}$ | | | |
| | per Meridianum habens Altit. | | | |
| | per Chalyb. | 44 27 vel | 26 $\frac{3}{4}$ | |
| | per Volub. | 44 27 | 49 42 | |

Declin. per 10 21 $\frac{1}{2}$ vno

Armillas 10 21 $\frac{1}{2}$ altero

Deinde $\frac{1}{2}$ rursus viceversa obseruabatur ab Arcturo.

| H. M. | Distantia | Declin. $\frac{1}{2}$ | Alt. $\frac{1}{2}$ | Arct. or. |
|-------|---------------------|-----------------------|--------------------|-----------|
| 6 45 | 48 47 | | | 48 15 |
| 6 48 | 48 47 $\frac{1}{2}$ | | | 47 34 |
| 6 50 | 48 46 dubia | | | 46 57 |
| 6 52 | 48 47 $\frac{1}{2}$ | | 44 22 | 46 26 |
| 6 55 | | 10 21 $\frac{1}{2}$ | | |

10 21 dub.

Pone circa horam 6 $\frac{3}{4}$ Dist. $\frac{1}{2}$ a Regulo 13 8 $\frac{1}{2}$, ab Arcturo 48 47 $\frac{1}{2}$ & declinat. eius 10 21 $\frac{1}{2}$.

DIE 21 NOUEMBRIS, MANE.

Obferuabatur $\frac{1}{2}$ in $\square^{\text{to}} \odot$ exacte fere existens, tam pro annuo orbe quam latitudine eius examinandis, idque circa meridianum, in hunc modum.

| H. M. | Dist. $\frac{1}{2}$ a Reguli | Declin. $\frac{1}{2}$ | Alt. $\frac{1}{2}$ | Arct. or. |
|-------|------------------------------|-----------------------|--------------------|-----------|
| 6 45 | 48 47 | | | 48 15 |
| 6 48 | 48 47 $\frac{1}{2}$ | | | 47 34 |
| 6 50 | 48 46 dubia | | | 46 57 |
| 6 52 | 48 47 $\frac{1}{2}$ | | 44 22 | 46 26 |
| 6 55 | | 10 21 $\frac{1}{2}$ | | |

Erat tunc Canis minor occid. 50 40

| H. M. | Dift. h a Corde ζ | Canicula occid. |
|--------------------|----------------------------|--------------------|
| 6 19 $\frac{3}{4}$ | 13 37 fere | 54 1 |
| 6 22 | 13 37 | 54 38 |
| 6 24 | 13 36 $\frac{1}{2}$ | 55 11 |
| 6 27 $\frac{1}{2}$ | 13 36 $\frac{1}{2}$ | 56 5 |

Viceversa ab Arcturo

| | | |
|--------------------|---------------------|-------|
| 6 32 $\frac{1}{2}$ | 48 25 $\frac{1}{2}$ | 57 13 |
| 6 34 $\frac{1}{2}$ | 48 25 $\frac{3}{4}$ | 57 42 |
| 6 36 $\frac{1}{2}$ | 48 25 $\frac{1}{2}$ | 58 13 |

Postea h ab inferiori Capite II

| | | |
|--------------------|---------------------|--------------------|
| 6 39 | 50 14 $\frac{1}{2}$ | 58 48 |
| 6 40 $\frac{3}{4}$ | 50 14 $\frac{1}{2}$ | Spica or. 27 18 |
| 6 42 $\frac{1}{2}$ | 50 14 $\frac{1}{2}$ | 26 58 |

Viceversa a Spica III , iam libera
a refractione, fuit altitudo
Spicæ III 22 g. & ultra.

| | | |
|--------------------|---------------------|-------|
| 6 45 $\frac{3}{4}$ | 40 32 $\frac{1}{2}$ | 26 2 |
| 6 47 $\frac{1}{2}$ | 40 32 $\frac{1}{2}$ | 25 34 |
| 6 49 | 40 32 $\frac{1}{2}$ | 25 6 |

N. B. Hæc observatio h est admodum bona pro eius situ inuestigando, tam quoad longum quam latum, cum est in \square ☉ Matutinus. Erat autem hodie apprimè serenum.

| | |
|--------------------------------|----------|
| Pone declinationem h | 10 13 18 |
| Distantiam a Regulo | 13 36 55 |
| Dift. ab Arcturo | 48 25 40 |
| Dift. ab inf. cap. II | 50 14 20 |
| Dift. a Spica III | 40 32 30 |

Pro Orbe annuo h

poterit autem h examinari etiam in antecedentibus & sequentibus observationibus, utpote ☉ in æquinoctio autumnali maximam habente prosthaphæresin. Item cum iuxta tropicum $\frac{3}{4}$ fere nullam vel minimam habet prosthaphæresin.

Declinatio ob Armillas æquatorias e centro dimotas & nondum correctas haberi non potuit. Itaque ex altit. meridiana petenda est.

Resp. Longitudo 7 46 5 III
Latitudo 1 39 25 B.

DIE 22 NOUEMBRIS, MANE.

Obseruatus est h iuxta Meridianum
a Corde ζ .

| H. M. | Distantia | Declinatio | Canicula occid. |
|--------------------|---------------------|---------------------|--------------------|
| 5 19 $\frac{1}{2}$ | 13 38 $\frac{1}{2}$ | | 45 0 |
| 5 22 $\frac{1}{2}$ | 13 38 $\frac{1}{2}$ | | 45 32 |
| 5 24 $\frac{1}{2}$ | 13 38 $\frac{1}{2}$ | 10 13 | 46 2 |
| | | 10 12 $\frac{3}{4}$ | |

Viceversa h a Vindemiatore III

| | | | |
|--------------------------------|--------------------------------|--|---------------------|
| 5 32 $\frac{3}{4}$ | 29 51 $\frac{1}{2}$ | | 48 7 |
| 5 34 $\frac{1}{2}$ | 29 51 $\frac{1}{2}$ | | |
| 5 36 $\frac{1}{2}$ | 29 51 $\frac{1}{2}$ | | 49 5 |
| 5 42 $\frac{1}{2}$ | Tranſiuit h | | |
| | per Meridianum habens Altitud. | | |
| | per Chalyb. | | 44 18 $\frac{1}{2}$ |
| | per Volub. | | 44 18 $\frac{1}{2}$ |
| Declinatio 10 12 $\frac{3}{4}$ | Fuit tunc Canicula | | |
| h | 10 12 $\frac{3}{4}$ occident. | | 50 40 |

DIE 6 DECEMBRIS, MANE.

Obſeruabatur h appropinquans Merid.
iuxta primam ſtationem cum
vellet fieri retrogr.

| H. M. | Dift. a corde ζ | Declin. h | Can. minor occid. |
|--------------------|--------------------------|-----------------------------|----------------------|
| 3 22 $\frac{3}{4}$ | | 10 10 $\frac{1}{2}$ bis vno | 35 19 |
| 3 25 40 corr. | | pinnac. | |
| 3 26 $\frac{1}{2}$ | 13 52 $\frac{3}{4}$ | | |
| 3 31 20 | 13 53 $\frac{3}{4}$ | 10 10 vno | 36 50 |
| corr. | | pinn. | |
| 3 37 12 | 13 53 $\frac{1}{2}$ | | 39 33 |
| 3 39 $\frac{1}{2}$ | 13 54 | | 39 47 |

Viceversa h a Cauda ζ

| | | | |
|---------------|-------------------------|---------------------|-------|
| 3 50 44 | 13 0 $\frac{3}{4}$ dub. | 10 10 $\frac{1}{2}$ | 41 36 |
| | | 10 10 $\frac{1}{2}$ | |
| 3 55 45 corr. | 13 0 $\frac{3}{4}$ | | 42 50 |
| 4 0 20 corr. | 13 0 $\frac{3}{4}$ | | 44 14 |
| 4 6 20 | 13 0 $\frac{3}{4}$ | 10 10 $\frac{1}{2}$ | 45 30 |
| | | 10 10 $\frac{1}{2}$ | |

Postea h a Cane minori

| | | | |
|--------------------|--------------------------------|---------------------|-------|
| 4 11 $\frac{1}{2}$ | 50 25 | | 48 8 |
| 4 15 $\frac{1}{2}$ | 50 24 $\frac{1}{2}$ | 10 10 $\frac{1}{2}$ | 49 6 |
| | | 10 10 $\frac{1}{2}$ | |
| 4 17 $\frac{1}{2}$ | 50 24 $\frac{1}{2}$ | | |
| 4 21 $\frac{1}{2}$ | Tranſiuit h | | |
| | per Meridianum habens Altitud. | | |
| per Chal. | 44 16 $\frac{1}{2}$ | 10 10 $\frac{1}{2}$ | 50 53 |
| per Vol. | 44 16 $\frac{1}{2}$ | 10 10 $\frac{1}{2}$ | |

Deinde η ab Arcturo

| | | |
|--------------------|---------------------|-------|
| 4 31 $\frac{1}{2}$ | 48 8 | 53 24 |
| 4 34 | 48 8 $\frac{1}{2}$ | 54 3 |
| 4 36 | 48 8 $\frac{1}{2}$ | 54 33 |
| | 10 10 $\frac{1}{2}$ | |
| | 10 10 $\frac{3}{4}$ | |

N.B. Hæ obseruationes η sunt bonæ pro limitanda eius prosthaphæresi orbis annui. Nam est iuxta stationem primam, quando vult incipere retrocedere. Nam statio eius post triduum contingit.

DIE 17 DECEMBRIS, MANE.

Obseruabatur η cum eſſet Meridianum aliquamdiu prætergreſſus a Spica \mathbb{M} .

| H. M. | Diſtancia | Declin. η | Altit. η | Spica \mathbb{M} occid. |
|--------------------|---------------------|---------------------|---------------|---------------------------|
| 7 12 $\frac{1}{2}$ | 40 19 | | 33 0 | 8 12 |
| 7 13 $\frac{1}{2}$ | 40 18 $\frac{3}{4}$ | 10 15 | 32 48 | 8 34 |
| | | 10 14 $\frac{5}{8}$ | | |
| 7 15 $\frac{3}{4}$ | 40 18 $\frac{1}{2}$ | | 31 58 | 9 4 |

Viceverſa a Corde Ω

| | | | |
|--------------------|---------------------|---------------------|------|
| 7 23 $\frac{3}{4}$ | 13 51 $\frac{3}{4}$ | melior | 11 5 |
| 7 26 $\frac{1}{2}$ | 13 50 $\frac{1}{2}$ | 10 15 | 12 8 |
| | dubia \int | 10 15 $\frac{1}{2}$ | |
| 7 29 $\frac{1}{2}$ | 13 51 $\frac{3}{4}$ | 10 15 | |
| | melior \int | 10 15 $\frac{1}{2}$ | |

Pro examinandis Armillis capiebatur

Declinatio Caudæ Ω 16 50 vtroque

Denuo capiebatur Declin. 10 15

η exactiſſime 10 15 $\frac{1}{2}$

Fuit mediocriter ſerenum ſed ventus validior.

Pro loco η ex præcedentibus proximis obſeruationibus.

| | | |
|--------------------|-----------------------------------|------------------------|
| H. 7 $\frac{1}{2}$ | Diſt. η a Spica \mathbb{M} | 40 18 50 |
| | Declin. η | 10 15 $\frac{1}{2}$ B. |
| | Declin. Spicæ \mathbb{M} | 8 59 $\frac{1}{2}$ M. |
| | Ang. diff. aſcenſ. | 35 35 31 |
| | Aſc. recta Spicæ | 196 0 $\frac{1}{2}$ |
| | Ergo Aſc. recta η | 160 24 39 |
| H. 7 $\frac{3}{4}$ | Diſt. η a corde Ω | 13 51 40 |
| | Declin. cordis Ω | 13 55 0 |
| | Ang. diff. aſcenſ. | 13 40 37 |
| | Aſc. recta cordis Ω | 146 41 0 |
| | Ergo Aſc. recta η | 160 21 37 |
| | Aſc. recta η limitata | 160 22 31 |

DIE 18 DECEMBRIS, MANE.

Obſeruabatur η paululum Meridianum prætergreſſus in Perigæo \odot lis

Altit. η in Volubili 44 17 $\frac{3}{4}$ Azimuth 3 $\frac{1}{2}$ in Chalyb. 44 16 4 $\frac{1}{2}$

| H. M. | Diſt. η a Corde Ω | Declin. η | Spica \mathbb{M} or. |
|--------------------|-------------------------------|---------------------|------------------------|
| 4 27 $\frac{1}{2}$ | 13 47 $\frac{1}{2}$ | | 24 32 |
| 4 34 | 13 48 | 10 14 $\frac{1}{2}$ | 23 2 $\frac{1}{2}$ |
| | | 10 15 | |

| | | | |
|------|-------|--|-------|
| 4 46 | 13 48 | | |
| 4 53 | 13 48 | | 18 46 |

Viceverſa a Spica \mathbb{M}

| | | | |
|------|---------------------|---------------------|-------|
| 4 59 | 40 19 $\frac{1}{2}$ | 10 15 | 16 33 |
| | | 10 15 $\frac{1}{2}$ | |
| 5 12 | 40 19 | | 12 48 |
| 5 15 | 40 19 $\frac{1}{2}$ | 10 15 $\frac{1}{2}$ | 12 15 |
| | | 10 15 | |

Pone diſtantiā a Spica 40 19 $\frac{1}{2}$
a Corde Ω 13 48

Declinatio limitanda eſt ex obſeruationibus ſequentium dierum, cum per Meridianum tranſit η .

OBSERVATIONES IOUIS.

DIE 1 JANUARIJ, VESPERI.

| H. M. S. | Azim. η | Altit. η | Declin. |
|----------|--------------|---------------------|---------------------|
| 4 15 40 | 25 0 | 18 20 $\frac{3}{4}$ | 12 50 |
| | | | 12 49 $\frac{3}{4}$ |
| 4 19 30 | 26 0 | 18 7 | |
| 4 23 25 | 27 0 | 17 51 $\frac{3}{4}$ | |
| 4 27 45 | 28 0 | 17 25 $\frac{1}{2}$ | 12 49 $\frac{1}{2}$ |
| | | | 12 49 $\frac{3}{4}$ |

Poſtea ſumebatur diſt. æquat. η & \odot .

| | Diſt. | Altitudo |
|---------|-----------------------------|---------------------|
| 4 32 30 | η 28 32 $\frac{3}{4}$ | 17 15 $\frac{1}{2}$ |
| 4 33 40 | \odot 22 15 | 22 54 |
| 4 35 30 | η 29 15 $\frac{1}{2}$ | |
| 4 35 55 | \odot 22 48 | |
| 4 37 40 | η 29 47 $\frac{1}{2}$ | |
| 4 38 40 | \odot 23 28 $\frac{3}{4}$ | |

Hæc vesp̄era corrigebantur armillæ æquatoriæ maiores a stellis tum ad occasum tum ortum atque circa Meridianum quoad eius fieri potuit.

DIE 2 JANUARIJ, VESPERI.

Obs̄eruabatur ♄ in modum vt sequitur.

| H. M. S. | Azim. ♄ | Alt. ♄ | Decl. ♄ | ♀ occid. |
|----------|---------|--------|---------|----------|
| 4 23 25 | 28 0 | 17 39½ | 12 43½ | 20 15½ |

| | | | | |
|---------|------|-------|------------|-------|
| 4 27 30 | 29 0 | 17 25 | 12 43½ vno | 22 15 |
| 4 31 40 | 30 0 | 17 8 | | |

Deinde capiebantur ♄ & ♀ in distantijs æquatorijs.

| | | |
|---------|----------|----------|
| 4 34 45 | ♄ 30 5½ | ♀ 12 43½ |
| 4 35 30 | ♀ 23 14½ | ♀ 8 13 |
| 4 36 40 | ♄ 30 35½ | |
| 4 37 20 | ♀ 23 39½ | |
| 4 38 40 | ♄ 31 3½ | |
| 4 39 32 | ♀ 24 11½ | |

DIE 24 JANUARIJ, VESPERI.

Obs̄eruabatur ♀ & ♄.

| H. M. S. | Inter ♄ & ♀ | Declin. ♄ | Alt. ♄ |
|----------|-------------|-----------|--------|
| 5 30 | 16 34½ | | 3 42 |
| 5 42 | 16 21 | 10 47 | 3 1 |

| | | | |
|---------|--------|------------|-----|
| 5 47 0 | 16 17½ | | |
| 5 49 40 | 16 15 | 10 42½ vno | 2 5 |

N.B. Fuerunt ♀ & ♄ inter obs̄eruandum fere in vno circulo verticali, declinante parum ♀ ad ortum & circa medias obs̄eruationes in Alt. 17 Gr. Vnde de refractione in distantiam sese ingerente ratiocinari licet.

DIE 16 MAIJ, MANE.

| | | |
|-------------|-------------------|--------|
| H. 2 M. 40½ | Diff. ♄ a Vulture | 66 54½ |
| | per Semicirculum | |
| | Declin. ♄, vno | 1 32 |
| | Alt. ♄ | 7 12 |

Postea exorientem videbamus ♀ sed propter nubes illam nec a ♄ nec vllis alijs stellis obs̄eruare concessum est.

DIE 21 JULIJ, MANE.

Obs̄eruabatur ♄ circa stationem & trigonum aspectum cum ☉.

| H. M. | Diff. ♄ a fin. hum. ☉ | Declin. ♄ B. | Alt. ♄ | Vultur occ. |
|-------|-----------------------|--------------|--------|-------------|
| 12 38 | 47 3½ | 0 11½ | 23 40 | |
| 12 43 | 47 3½ | vno | | |

| | | | | |
|--------|------|--------|-------|-------|
| 12 44½ | 47 3 | 0 11½ | 24 21 | 28 20 |
| | | altero | | |

Viceversa a Lucida ♀

| | | | | |
|--------|--------|------|-------|-------|
| 12 50½ | 30 12½ | | | |
| 12 54½ | 30 12½ | 0 12 | 25 25 | 30 44 |
| 12 58½ | 30 12½ | | | |

Obs̄eruata sunt hæc inter recurrentes nubes, flante vento a plaga cœli occidua vehementiori.

DIE 22 JULIJ, MANE.

Obs̄eruabatur ♄ quemadmodum hesternò mane factus iam pridem retrogradus post primam stationem.

| H. M. | Diff. ♄ ab ore Pegasi | Decl. | Alt. | Vultur occ. |
|-------|-----------------------|-------|-------|-------------|
| 2 18½ | 43 36½ | | | |
| 2 20½ | 43 35½ | 0 9½ | 32 20 | 52 53 |
| 2 24½ | 43 35 | | | |

Viceversa ♄ a Lucida ♀

| | | | | |
|-------|------------|-------|--|--|
| 2 27 | 30 13½ | 32 42 | | |
| 2 29 | 30 13½ | | | |
| 2 30½ | 30 14 | | | |
| 3 29½ | Transijt ♄ | | | |

per Meridianum habens Altitud. in Chalyb. 34 16 melior in Volub. 34 16½

Hinc etiam potest verificari Horologium per verum locum ♄.

Fuerat hoc mane satis tranquillum & serenum spirante leniter admodum Zephyro, ergo bonæ obs̄eruationes.

Horologium in meridie sequente 3½ tardius ibat.

DIE 29 AUGUSTI, VESPERI.

Obs̄eruatio ♄.

| H. M. | Diff. ♄ a fin. hum. ☉ | Decl. ♄ | Alt. per Volub. | Vultur occid. |
|--------|-----------------------|---------|-----------------|---------------|
| 10 29½ | 43 58½ | | 24 53 | 29 52½ |
| 10 35½ | 44 2 | 1 13½ | | 31 25 |

| | | | | |
|--------|--------|-------|------|-------|
| 10 42½ | 44 0 | 1 14 | 26 2 | 32 58 |
| 10 47 | 43 59½ | 1 13½ | | 34 0 |
| | | 1 13½ | | |

| | | | | |
|--------|------|--|--|-------|
| 10 53½ | 44 0 | | | 35 31 |
|--------|------|--|--|-------|

Viceversa Distantia ♄ a Lucida ♀.

| | | | | |
|-------|--------|-------|-------|-------|
| 10 59 | 33 13½ | 1 14½ | 27 27 | 36 44 |
| | | 1 14½ | | |
| 11 8 | 33 13½ | | 28 3 | 38 46 |
| 11 13 | 33 13½ | 1 14½ | | 40 3 |
| | | 1 14½ | | |

DIE 7 SEPTEMBRIS, MANE.

Appropinquans ♂ ☉.

| H. M. | Diff. ¶ ab ore Pegafi | Decl. ¶ | Vultur occid. |
|---------------------|---------------------------------|--------------------|------------------|
| 12 30 $\frac{1}{2}$ | 40 32 $\frac{1}{2}$ | | 65 9 |
| 12 32 $\frac{1}{2}$ | 40 21 | 1 40 $\frac{1}{2}$ | |
| | | 1 40 $\frac{1}{4}$ | |
| 12 34 $\frac{1}{2}$ | 40 21 $\frac{1}{2}$ | | 66 17 |
| 12 37 $\frac{1}{2}$ | 40 21 $\frac{1}{2}$ | | 66 54 |
| 12 39 $\frac{1}{2}$ | Transfuit ¶ | | |
| | per Meridianum habens Altitud. | | |
| | per Chalyb. 32 27 $\frac{1}{2}$ | | |
| | per Volub. 32 27 $\frac{1}{2}$ | | |

| H. M. | Viceversa a luc. mand. Cete | Decl. | Altit. | Os Pegafi occ. |
|---------------------|-----------------------------------|--------------------|--------|----------------------|
| 12 57 $\frac{1}{2}$ | 40 4 $\frac{1}{2}$ | 1 40 $\frac{1}{2}$ | | 43 25 |
| | | 1 40 | | |

| | | | | |
|--------------------|--------------------|------------------------|-------|-------|
| 1 1 $\frac{1}{2}$ | 40 8 $\frac{1}{2}$ | | | |
| 1 3 $\frac{1}{2}$ | 40 8 | | 32 15 | 44 54 |
| 1 7 $\frac{1}{2}$ | 40 8 $\frac{1}{2}$ | | | 45 49 |
| 1 11 $\frac{1}{2}$ | 40 9 | 1 49 $\frac{1}{2}$ vno | | 46 42 |

Pro corrigendis Armillis obseruabatur

Declinatio Lucidæ 2 26 $\frac{1}{2}$ } bis
Mandibulæ Cete 2 28 $\frac{1}{2}$ }*N.B. Die 9 Septembris. ¶ hoc die fuit in ipſa ☉ ſimplicis ☉ iuxta Perigæum Eccentrici, & prope maximam latitudinem auſtrinam.*

DIE 10 SEPTEMBRIS, MANE.

| H. M. | Diff. ¶ ab ore Pegafi | Decl. | Os Pegafi occid. |
|---------------------|---------------------------------|--------------------|---------------------|
| 12 6 $\frac{1}{2}$ | 40 0 $\frac{1}{2}$ | | |
| 12 14 $\frac{1}{2}$ | 40 0 | 1 49 $\frac{1}{2}$ | 35 14 |
| | | 1 50 | |
| 12 18 $\frac{1}{2}$ | 40 0 | | 36 26 |
| 12 23 $\frac{1}{2}$ | 40 0 $\frac{1}{2}$ | 1 49 $\frac{1}{2}$ | 37 30 |
| | | 1 50 | |
| 12 29 $\frac{1}{2}$ | Transfuit ¶ per Meridi- | | |
| 12 14 corr. f | anum habens Altitudinem | | |
| | per Chalyb. 32 18 $\frac{1}{2}$ | | |
| | per Volub. 32 18 $\frac{1}{2}$ | | |

Fide potius Volubili. Pone Altitudinem ¶ 32 18 $\frac{1}{2}$ exacte. Pone Declinationem ¶ 1 47 auſtrinam.

Viceversa a Lucida Mandib. Cete.

| | | | |
|---------------------|---------------------|--------------------|-------|
| 12 37 | 40 29 $\frac{1}{2}$ | | 41 0 |
| 12 41 50 | 40 30 | 1 50 $\frac{1}{2}$ | 42 6 |
| | | 1 51 | |
| 12 47 0 | 40 30 $\frac{1}{2}$ | | 43 22 |
| 12 49 $\frac{1}{2}$ | 40 30 $\frac{1}{2}$ | | 44 5 |

Pone H. 12 $\frac{1}{2}$ diff. ¶ ab ore Pegafi 40 0 $\frac{1}{2}$ *A Mandib. Cete 40 30,**Decl. eius 1 47 M.*

DIE 11 SEPTEMBRIS.

Nocte antecedente Meridiem².

| H. M. | Diff. ¶ ab ore Pegafi | Declin. Merid. | Luc. Mand. Cete orient. |
|---------------------|--------------------------|--------------------|----------------------------|
| 11 50 $\frac{1}{2}$ | 39 57 | | 43 39 |
| 11 54 $\frac{1}{2}$ | | | 42 41 |
| 11 58 $\frac{1}{2}$ | 39 54 | 1 52 $\frac{1}{2}$ | 41 51 |
| | | 1 53 | |

Pone declin. ¶ 1 50 $\frac{1}{2}$ correcte

| | | | |
|---------------------|---------------------------------|--|-------|
| 12 4 $\frac{1}{2}$ | Altit. ¶ Merid. | | |
| | per Chalyb. 32 14 $\frac{1}{2}$ | | 40 25 |
| | per Volub. 32 15 fere | | |
| 12 9 $\frac{1}{2}$ | 39 54 | | 41 7 |
| 12 12 $\frac{1}{2}$ | 39 54 $\frac{1}{2}$ | | 38 21 |

Vtere declin. per Volubilem vel limitata per add. $\frac{1}{2}$ m.

Viceversa a Luc. Mandib. Cete

| | | | |
|---------------------|---------------------|----------------------------------|-------|
| 12 19 $\frac{1}{2}$ | 40 36 $\frac{1}{2}$ | 1 53 | 36 38 |
| | | 1 53 $\frac{1}{2}$ bis vno pinn. | |
| 12 25 0 | 40 35 $\frac{1}{2}$ | | 35 12 |
| 12 27 $\frac{1}{2}$ | 40 35 $\frac{1}{2}$ | 1 53 bis | 34 30 |
| 12 30 $\frac{1}{2}$ | 40 35 $\frac{1}{2}$ | | 33 43 |
| 12 34 | 40 35 $\frac{1}{2}$ | 1 53 | 32 54 |
| | | 1 52 $\frac{1}{2}$ | |

Declin. Lucidæ 2 27 $\frac{1}{2}$ } per arm.
Mandib. Cete 2 27 $\frac{1}{2}$ } max.De obseruationibus ¶ hoc anno habitis quomodo ad vſum producendæ³.

Obſeruabatur ¶ circa ☉ ☉ Simplicis die 10 & 11 Septembris ab ore Pegafi & Lucida Mandibulæ Cete, quia nullæ aliæ inſigniores melius diſpoſitæ erant. Oportet autem has ipſas prius exacte per reiteratas obseruationes examinari.

¹ Sic in codice. Fortaſſe debet eſſe 22.² Id eſt, nocte inter dies 10 et 11.³ Hæc inueſtigatio poſtea codici inſerta eſt.

Est vero obseruata die 10 Vesperi distantia Oris Pegasi a Vulture 28 $1\frac{1}{2}$, aliquoties obseruata & ad hunc modum limitata (vide infra). Altitudo Meridiana Oris Pegasi 42 $9\frac{1}{2}$, Mandib. Cete 36 33 0. Declinatio $\frac{1}{2}$ verificata ex Altitudine Meridiana singulis hisce diebus habita sine errore petenda est.

Pro restitutione fixarum, e quibus $\frac{1}{2}$ obseruabatur.

Die 13 Nouembris Vesperi Distantia Oris Pegasi a Vulture 28^e 3' 50"

Eadem a prima alæ Pegasi 20 20 55

Inde Ascensio Recta Oris Pegasi supputata est, reductis ad hoc tempus reliquarum fixarum locis 321^e 5' 30", Declinatio 8^e 3' 40", resp. Longitudo 26 16 $\frac{1}{2}$ $\frac{1}{2}$, Latitudo 22 8 0 B.

N. B. Hæ obseruationes optime viceversa sibi invicem correspondent.

A Vulture 321 5 34, a prima alæ Pegasi 321 5 32. Vide in libro fixarum.

Pro Lucida Mandibulæ Cete: Eodem die 13 Nouembr. vesperi Lucida Mandib. Cete distabat a 1 alæ Pegasi 59 25 30

ab Aldeboran 26 5 40. Declin. Mandib. Cete 2 27 $\frac{1}{2}$.

Afc. Recta a 1 Alæ Pegasi 40 19 12, ab Aldeb. 40 19 52.

Pone itaque Afc. R. Mandib. Cete limitatam sine sensibili errore 40 19 $\frac{1}{2}$, resp. Longitudo 8 41 $\frac{1}{2}$ $\frac{1}{2}$, Latitudo 12 38 0 M.

Atque hoc modo harum binarum stellarum loca obseruationibus recentibus exactissimis sunt examinata, a quibus $\frac{1}{2}$ Acronychius hoc anno obseruatus est, quæ tamen parum & vix perceptibiliter discrepant ab illa denotatione, quæ Catalogo Fixarum inserta reperitur, vt suo loco videre est.

N. B. Distantiæ $\frac{1}{2}$ a fixis diebus 10 & 11 Septembris obseruatæ vel ob aliquod Sextantis illis diebus incommodum contractum vel splendorem $\frac{1}{2}$ vicinioris impedientem breviores iustis vtrinque circiter 2 $\frac{1}{2}$ M. fuisse sequentibus diebus vel pluribus examinationibus comprobantur.

I. Die 10 Septembris H. 0 $\frac{1}{2}$ A. M.

Distantia $\frac{1}{2}$ ab ore Pegasi 40 0 $\frac{1}{2}$ obseruata
a Mandibula Cete 40 30 $\frac{1}{2}$

Declinatio $\frac{1}{2}$ 1 46 $\frac{1}{2}$

Angulus differentię ascenf. ab ore Pegasi 38 52 0

Ascensio recta oris Pegasi 321 5 30

Ergo Ascensio recta $\frac{1}{2}$ 359 57 30

Angulus differentię ascenf. a luc. mand. Cete 40 17 $\frac{1}{2}$

Afc. recta lucidæ mandib. Cete 40 19 35

Ergo Ascensio recta $\frac{1}{2}$ 0 2 5

Differentia qua arguuntur distantię iustis minores 4' 35".

Die sequente H. 0 $\frac{1}{2}$ A. M.

Distantia $\frac{1}{2}$ ab ore Pegasi 39 54 $\frac{1}{2}$

a Mandibula Cete 40 35 $\frac{1}{2}$

Hinc Ascensio recta ab ore Pegasi 359 51 15

a Mandibula Cete 359 57 0

Differentia 5 45

II. Sin autem hæc eadem operatio fuerit ad 10 diem iuxta dispositionem stellarum ad Zodiacum sine declinatione adhibita, vfitata scilicet Triangulorum praxewg inductione ex folis distantijs, prouenit ad idem tempus $\frac{1}{2}$ Longitudo 29 23 $\frac{1}{2}$, Latitudo 1 27 M. Quod superioribus limitatis in longitudine 6 M. abundat, in latitudine vero 11 M. ab iisdem deficit, vt propterea vel ex his

fatis superque liquet distantias sextantem iustis minores suppeditaſſe, quod in Globo mechanicè deprehendi.

III. Comprobatio ex \odot is stella eodem die circa trinum \odot obſeruata.

| | | | |
|---|----|------------------|----|
| Die 10 H. 2 $\frac{1}{2}$ A. M. Diſt. \odot a lucida \vee | 25 | 47 | |
| H. 2 $\frac{3}{4}$ A. M. Diſt. \odot ab Aldebora | 9 | 43 $\frac{1}{2}$ | |
| Declinatio \odot | 17 | 5 $\frac{1}{2}$ | |
| Angulus differentiaſc. a lucida \vee | 26 | 57 | 0 |
| Aſcenſio recta lucida \vee | 26 | 8 | 50 |
| Aſcenſio recta \odot | 53 | 5 | 50 |
| Angulus differentiaſc. \odot aſc. ab Aldebora | 10 | 1 | 5 |
| Aſcenſio recta Aldeb. | 63 | 12 | 0 |
| Hinc Aſcenſio recta \odot | 53 | 10 | 55 |
| Differentia Aſcenſionum rectarum | 5 | 5 | |

Hinc etiam vel maxime patet, Sextantem (quocunque accidente incommodo id tandem euenerit) diſtantias etiam in \odot breuiores veris largitum. Quod in ceteris infra per Sextantem obſeruatis cauendum erit, quoad vitium hoc patefactum per alias obſeruaciones æque viceverſa habitas ſeſe denuo emendet atque elidat. Nam ex eo tempore Sextantem hunc ſcientes non correximus.

| | | |
|---|----|-----------------|
| IV. Die 10 Septembris diſtantia oris Pegafi a Vulture | 28 | 1 $\frac{1}{2}$ |
| Die 13 Nouembris eadem & verior diſtantia | 28 | 3 50 |
| Differentia | 2 | 35 |

Patet itaque aberratum fuiſſe in Sextante priori vice cum $\frac{1}{4}$ obſeruaretur 2 $\frac{1}{2}$ proxime, quod fuit inquirendum.

Examinato itaque Achronychio $\frac{1}{4}$ diſtantiaſc. vbique auctæ ſunt p. 2 $\frac{1}{2}$ vt ſequitur.

Die 10 Septembris H. 0 $\frac{1}{2}$ A. M.

| | | | | |
|-----------------------------------|-----|-----------------------|-----------------------------------|---------------------|
| Diſt. $\frac{1}{4}$ ab ore Pegafi | 40 | 2 $\frac{3}{4}$ corr. | Eodem tempore diſt. $\frac{1}{4}$ | |
| Declin. $\frac{1}{4}$ poſita | 1 | 47 10 M. | a Mandib. corr. | 40 32 $\frac{1}{2}$ |
| Hinc prouenit ang. diff. aſcenſ. | 38 | 55 33 | Ang. diff. aſcenſ. | 40 20 0 |
| Aſc. recta oris Pegafi | 321 | 5 30 | Aſc. recta Mandib. Cete | 40 19 35 |
| Aſc. recta $\frac{1}{4}$ | 0 | 1 3 | Aſc. recta $\frac{1}{4}$ | 359 59 35 |
| Aſc. R. $\frac{1}{4}$ limitata | 0 | 0 $\frac{1}{2}$ | | |
| Reſp. $\frac{1}{4}$ Longitudo | 29 | 17 33 χ | | |
| Latitudo | 1 | 38 25 M. | | |

Die ſequentè videlicet 11 Septembris ante M.

| | | | | |
|--|-----|-------------------------|-------------------------------|---------------------|
| H. 0 $\frac{1}{2}$ Diſt. $\frac{1}{4}$ ab ore Peg. corr. | 39 | 56 $\frac{1}{2}$ | Diſt. a luc. mand. Cete corr. | 40 38 $\frac{1}{2}$ |
| Declin. $\frac{1}{4}$ | 1 | 50 $\frac{1}{2}$ M. | Ang. diff. aſcenſ. | 40 25 6 |
| Ang. diff. aſcenſ. ab ore Peg. | 38 | 48 27 | Ergo hinc Aſc. | |
| Ergo hinc Aſc. recta $\frac{1}{4}$ | 359 | 53 57 | recta $\frac{1}{4}$ | 359 54 29 |
| Hinc limitata Aſc. R. $\frac{1}{4}$ | 359 | 54 $\frac{1}{2}$ | | |
| Reſp. Longitudo $\frac{1}{4}$ | 29 | 10 $\frac{1}{2}$ χ | | |
| Latitudo | 1 | 39 2 M. | | |

Die 7 Septembris A. M. H. 0 M. 30.

| | | | |
|--|---------------------|-------------------------------|----------|
| H. 0 $\frac{1}{2}$ Diff. $\frac{1}{2}$ ab ore Peg. | 40 21 $\frac{1}{2}$ | H. 1.0 Diff. $\frac{1}{2}$ | |
| Declin. $\frac{1}{2}$ | 1 38 M. | a Mand. Cete | 40 8 40 |
| Ang. diff. asc. $\frac{1}{2}$ ab ore Peg. | 39 17 7 | Hinc Ang. diff. ascenf. | 39 56 42 |
| Ergo Asc. recta $\frac{1}{2}$ | 0 22 37 | Ergo Asc. recta $\frac{1}{2}$ | 0 22 53 |

H. 0 $\frac{1}{2}$ Ascensio R. $\frac{1}{2}$ limitata 0 22 $\frac{1}{2}$
 Resp. Longitudo 29 41 48 χ
 Latitudo 1 39 0 M.

N.B. Quandoquidem adeo bene obseruationes conueniant hoc loco vice-versa habitæ, satis videre liquet Sextanti incommodum prædictum ab hoc die in 10^{mm} accidiße. Vtimur autem tutius loco $\frac{1}{2}$ ex hisce obseruationibus emanente pro acronychio eius situ investigando per reductionem ex motu diurno nostræ correctioni competente in hunc modum.

A die 5 H. 12 completa in 9 diem H. 12 complet. videlicet interstitio quatuor integrorum dierum fuit differentia in motu $\frac{1}{2}$ suppositis omnibus iuxta nostram restitutionem 30 $\frac{1}{2}$ M, ergo motus diurnus fuit 7' 55".

Ex obseruatione autem respondet motus diurnus

| | |
|---------------|---------------------------------|
| D. 6 H. 12 45 | 29 41 48 |
| D. 9 H. 12 45 | 29 17 33 |
| Differentia | 24 15 vnde motus diurnus 8' 5". |
| D. 10 12 10 | 29 10 44 |
| | 31 4 respondet 7' 50" proxime. |

Pone itaque motum diurnum $\frac{1}{2}$ a die 7 Septembris vsque ad ϕ cum \odot 7' 57", & insensibiliter aberrabis.

Pro vero loco $\frac{1}{2}$ Die 7 Septembris A. M. H. 0 $\frac{1}{2}$, parallaxi in longo & lato exclusa.

Diff. $\frac{1}{2}$ a terra 3042 femid. terræ. Altitudo in plurimum 32 $\frac{1}{2}$ g. Resp. parallaxi in circulo altitudinis 0' 56", resp. in Long. 22" add., Lat. 51" subtr.

Ergo vera $\frac{1}{2}$ Longitudo 29 42 $\frac{1}{2}$ χ , Latitudo 1 38 $\frac{1}{2}$ M.

6^p 12^h 45^m $\frac{1}{2}$ 29 42 10 χ Reductio ad ϕ \odot

\odot 25 20 10 \parallel (tempus æquatum est pro \odot motu)

4 22 0 Differentia motus

Motus diurnus \odot & $\frac{1}{2}$ aggregatus 67' 5".

67' 5" dant 24, quid 4^e 22' 0". Resp. 3^p 21^h 44^m.

Ergo ϕ $\frac{1}{2}$ cum \odot facta est Die 10 Septembris H. 10 $\frac{1}{2}$ proxime. Tempus adparens. Cui respondent

$\frac{1}{2}$ vera Longitudo 29^e 11' 8" χ

Latitudo 1 38 0 M. quam proxime.

Ex Tabulis Prutenicis resp. Simplex Long. $\frac{1}{2}$ 5^e 31' 17" 26"

Apog. $\frac{1}{2}$ 2 38 43 47

Nostra præceptio æquinoctij 0 28 11 25

Differentia hic inter motum $\frac{1}{2}$ obseruatum & ex correctis tabulis est 6 $\frac{1}{2}$.

Postea anno 1596 in alio acronychio situ inuentus est locus $\frac{1}{2}$ obseruatus differre ab iisdem Tabulis 10 $\frac{1}{2}$, vtrumque iuxta perigæum. Fuerunt autem nunc obseruationes exquisitæ admodum, quare eæ limitandæ veniunt vt etiam tempore differenti [?].

DIE 14 SEPTEBRIS, VESPERI.

H. 11 M. 27 Transiit $\frac{1}{2}$
 Meridianum habens Altitudinem
 per Chalyb. 32 $\frac{2}{3}$
 per Volub. 32 $\frac{2}{3}$
 Extrema alæ Pegafi occid. 1 7

| H. M. | Dist. $\frac{1}{2}$ ab ore Pegafi | Declin. | Extrema alæ Pegafi occ. |
|---------------------|--------------------------------------|-------------------|-------------------------------|
| 11 47 | 39 29 $\frac{1}{2}$ | | |
| 11 50 $\frac{1}{2}$ | 39 29 $\frac{1}{2}$ | 2 6 | 13 27 |
| | | 2 6 $\frac{1}{2}$ | |
| 11 56 | 39 29 $\frac{1}{2}$ | | 14 50 |
| 12 0 | 39 29 $\frac{1}{2}$ | 2 6 $\frac{1}{2}$ | 15 51 |
| | | 2 6 $\frac{1}{2}$ | |

Viceversa a Lucida Mandib. Cete

| | | | |
|---------------------|-------------------------|-------------------|-------|
| 12 6 $\frac{1}{2}$ | 41 7 | | 17 29 |
| 12 11 $\frac{1}{2}$ | 41 7 $\frac{1}{2}$ | 2 6 $\frac{1}{2}$ | 18 42 |
| | | 2 6 $\frac{1}{2}$ | |
| 12 17 | 41 7 | | 20 7 |
| 12 20 $\frac{1}{2}$ | 41 7 $\frac{1}{2}$ bona | | 20 48 |

DIE VLTIMO SEPTEMBRIS,
VESPERI¹.

| H. M. | Dist. $\frac{1}{2}$ ab ore Pegafi | Declin. | Altitud. | Vultur occid. |
|--------------------|--------------------------------------|-----------------------|----------|------------------|
| 7 21 $\frac{1}{2}$ | 37 54 | 2 49 $\frac{1}{2}$ | 17 55 | 13 6 |
| | | vtroque $\frac{1}{2}$ | | |
| 7 27 | 37 54 $\frac{1}{2}$ | | 18 22 | |
| 7 32 | 37 53 $\frac{1}{2}$ | 2 50 | 18 36 | |
| | | 2 49 $\frac{1}{2}$ | | |

Viceversa a Lucida ∇

| | | | | |
|--------------------|--------------------|--------------------|-------|-------|
| 7 38 | 37 7 | | 19 39 | |
| 7 41 | 37 6 $\frac{1}{2}$ | 2 50 $\frac{1}{2}$ | 19 57 | 17 54 |
| | | 2 49 $\frac{1}{2}$ | | |
| 7 43 $\frac{1}{2}$ | 37 6 $\frac{1}{2}$ | | 20 16 | |

Hinc colligitur $\frac{1}{2}$ a f. R. 357 30 $\frac{1}{2}$

Declinatio 2 50 M.

Ergo Longitudo 26 35 χ

Latitudo 1 36 $\frac{1}{2}$ M.

DIE 3 OCTOBRIS.

Tempora sunt correcta.

| H. M. | Dist. $\frac{1}{2}$ a fin. hum. ∞ | Declin. | Altitud. | Vultur occid. |
|-------|---|--------------------|----------|------------------|
| 7 19 | 39 40 | 2 58 $\frac{1}{2}$ | 18 34 | |
| | | 2 58 $\frac{1}{2}$ | | |

Decl. extremæ 13 3 $\frac{1}{2}$

alæ Pegafi 13 4

| | | | |
|--------------------|---------------------|-----------------------|-------------|
| 7 26 | 39 40 $\frac{1}{2}$ | 19 55 | |
| 7 31 $\frac{1}{2}$ | 39 40 | 2 58 $\frac{1}{2}$ | 20 10 18 24 |
| | | 2 58 | |
| 7 36 | 39 40 $\frac{1}{2}$ | 2 58 $\frac{1}{2}$ | 20 52 19 36 |
| | | vtroque $\frac{1}{2}$ | |

Viceversa a Lucida ∇ .

| | | | |
|------|---------------------|--------------------|------------|
| 7 40 | 37 26 $\frac{1}{2}$ | 21 10 | 20 31 |
| 7 42 | 37 26 $\frac{1}{2}$ | 2 58 | 21 37 21 6 |
| | | 2 57 $\frac{1}{2}$ | |

7 46 37 26 $\frac{1}{2}$ 21 54 $\frac{1}{2}$ 21 58

Repetita Decl. extr. alæ Peg. 13 4 vtroque

Postea obseruabatur $\frac{1}{2}$ ab ore Pegafi.

| | | | |
|--------------------|---------------------|-------------------|----------------------------------|
| 9 51 | 37 40 $\frac{1}{2}$ | | |
| 9 53 | 37 40 $\frac{1}{2}$ | 3 0 $\frac{1}{2}$ | Extrema alæ Pegafi orient. |
| | | 3 0 $\frac{1}{2}$ | 10 39 |
| 9 57 $\frac{1}{2}$ | 37 40 $\frac{1}{2}$ | | |

Viceversa a Lucida ∇

| | | | |
|-------|---------------------|--------------------|------|
| 10 2 | 37 26 $\frac{1}{2}$ | | 9 35 |
| 10 6 | 37 26 $\frac{1}{2}$ | | 8 28 |
| 10 10 | 37 26 | 2 59 $\frac{1}{2}$ | 7 38 |
| | | 3 0 | |

Declin. extr. alæ Peg. 13 4 vtroque.

| | | | |
|-------|-------------------------------|--|--------------------|
| 10 37 | Altitud. Merid. $\frac{1}{2}$ | | |
| | per Chalyb. | | 31 6 $\frac{1}{2}$ |
| | per Volub. | | 31 7 |

Declin. per 2 59 $\frac{1}{2}$

Armilla. max. 3 0

10 45² Extrema alæ Pegafi or. pro
 corrigendo horologio 1 10

DIE 12 OCTOBRIS

H. 9 M. 58 $\frac{1}{2}$ Altitud. $\frac{1}{2}$ Merid. capiebatur
 per Chalyb. 30 46 $\frac{1}{2}$
 per Volub. 30 46 $\frac{1}{2}$
 Os Pegafi occid. 35 13 $\frac{1}{2}$

| Tempora sunt correcta | Dist. $\frac{1}{2}$ ab ore Pegafi | Os Pegafi occid. |
|--------------------------|--------------------------------------|---------------------|
| 10 6 $\frac{1}{2}$ | 36 55 $\frac{1}{2}$ | 37 13 |
| 10 9 $\frac{1}{2}$ | 36 55 $\frac{1}{2}$ | 37 56 $\frac{1}{2}$ |

Deinceps ab orient. humero ∞

10 12 30 1 38 36

10 14 30 1

10 15 $\frac{1}{2}$ 30 0 $\frac{1}{2}$ 39 29

Viceversa dist. $\frac{1}{2}$ a Luc. Mandib. Cete.

10 19 $\frac{1}{2}$ 44 18 40 25

10 21 $\frac{1}{2}$ 44 18 $\frac{1}{2}$ 40 56

10 23 $\frac{1}{2}$ 44 18 $\frac{1}{2}$ 41 30

¹ Cf. supra p. 404 inter obseruationes lunæ

² Tempus correctum.

10 33 corrigebatur Horologium ab
Ore Pegasi, quod celerius iusto
mouebatur 5 M. 40 S. Fuit tunc
Os Pegasi occid. 42 5
Adiectum est pondus vnus globuli
plumbei.

DIE 25 OCTOBRIS.

H. 9½ ἐν πλάτει. Altit. ½
Meridianum iam prætergreßi
per Chalyb. 30 27 Azim. 1½°
per Volub. 30 25½ 2½

DIE 26 OCTOBRIS.

Obseruationes ½ a dextro humero ☿.

| H. M. | Distantia | Declin. ½ | Os Pegasi occid. |
|-------|-----------|-----------|---------------------|
| 8 44½ | 29 12 | 3 38½ | |
| | | 3 38½ | |
| 8 49½ | 29 12½ | 3 38½ | 31 55 |
| | | 3 38 | |
| 8 53½ | 29 12½ | | 32 57 |

9 0 Transitus ½
per Meridianum. Altitudo
per Chalyb. 30 26½
per Volub. 30 26½
9 11 36" Transitus
per Merid. extremæ alæ Pegasi,
per Chalyb. 47 1½
per Volub. 47 1
Os Pegasi occid. 37 7

Viceversa ½ a Mandib. Cete Lucida.

| | | |
|-------|--------|------------------|
| 9 14½ | 45 18½ | 37 52 |
| 9 17 | 45 15½ | 38 25 |
| 9 19 | 45 16½ | 3 38½ vtr. 38 45 |

Cum Lucida in Latere Persei ab
Aldehora pro corrigendo Sextante
capi non posset, eius loco capiebatur
distantia Aldeboræ a Lucida √ cum
esset prope Merid.

| | |
|-----------------------|--------|
| H. 10 M. 32 Distantia | 35 31 |
| | 35 31½ |

DIE 27 OCTOBRIS, VESPERI.

H. 5 29' 0" Altit. ½ 17 0,
Vultur occid. 10 42
H. 8 57 Transijt ½
per Meridianum habens Altit.
per Chalyb. 30 25½
per Volub. 30 25½
Prima alæ Pegasi occid. 14 13

Declin. ½ 3 38

3 38½

½ a dextro humero ☿

| Temp. corr. | Dist. | Declin. ½ | Alt. ½ | Luc. mand. Cete or. |
|----------------|-------|--------------|-----------|------------------------|
| 9 53 | 29 7½ | | | 30 50 |
| 9 55 | 29 7½ | | | 30 23 |
| 9 57 | 29 7½ | | | 29 52 |
| 9 58½ | 29 8 | 3 39 | 28 55 | 29 32 |
| | | 3 39½ | | |

Viceversa ½ a Lucid. Mandib. Cete.

| | | | |
|-------|--------|-------|-------------|
| 10 5½ | 45 18½ | 28 20 | 27 49 |
| 10 7½ | 45 19 | 28 15 | 27 20 |
| 10 9 | 45 18½ | 3 39½ | 28 10 26 55 |
| | | 3 39 | |

11 0 Tranfuit Lucida √
per Merid. habens Altitudinem
per Chalyb. 55 35½
per Volub. 55 36½
Declin. Lucidæ √ 21 32½
per Armillas 21 31½

Pro loco ½ ad diem 26 Octobris.

H. 9 M. 0 Tranfuit merid. ½. Declin.
ex Alt. Merid. 3 38½ M.
Dist. a dextro humero ☿ 29 12
Declin. hum. ☿ 2 24 M.
Ang. diff. ascenf. 29 12½
Asc. R. hum. ☿ 326 15½

Hinc Asc. R. ½
a hum. dextro ☿ 355 28 5
Dist. a luc. mand. Cete 45 17
Declin. mand. Cete 2 28 B.
Ang. diff. ascenf. 44 53½
Asc. R. Mandib. Cete 40 22 0

Hinc Asc. R. ½
a mandib. Cete 355 28½
Ergo Asc. R. ½ limitata 355 28 17
Resp. Longitudo 24 23½ (X)
Latitudo 1 32½ M.

Pro loco ½ ad 27 diem Octobris.

Dist. a dext. hum. ☿ 29 8
Declin. ½ 3 39½ M.
Ang. diff. ascenf. 29 8½
Hinc Asc. R. ½ 355 24½
Dist. a luc. mand. Cete 45 19
Ang. differ. ascenf. 44 55 30
Hinc Asc. R. ½ 355 26½
Pone Asc. R. ½ 355 25½
Vnde Longitudo 24 20 35 (X)
Latitudo 1 32 5 M.

DIE 28 OCTOBRIS.

Tranfuit 2

per Meridianum habens Altitud.

per Chalyb. 30 25

per Volub. 30 25½

Declin. 3 40 Fuit tunc Lucida

2 3 40½ Mand. Cete or.

44 54

Deinde capiebatur 2 a dextro hum. 22

Temp. correct. Distantia Mandib. Cete or.

8 59 29 5½ 43 13

9 1½ 29 5½ 42 45

9 3 29 5½

Deinde a Lucida Mand. Cete

9 4 30 45 19½ 41 54

9 7 45 21 41 16

9 10½ 45 21 40 26

9 11½ 45 19½ 39 56

9 13 45 19½ 39 35

9 16½ 45 19½ 38 57

Declin.

2 39½

3 40

DIE 3 NOUEMBRIS.

H. 8 M. 25½ Tranfuit 2

per Meridianum habens Altit.

per Chalyb. 30 22

per Volub. 30 22

Declinatio 3 43 bona

3 42½

H. 8 M. 31½ Fuit Vultur occid. 64 2

Postea 2 a dextro & orientaliore humero 22

H. M. Dist. Declin. Altit. 2 Vult. occ.

8 38 28 55½ 30 20 65 41

8 40½ corr. 66 18

8 40½ 28 55½ 66 18

8 42½ 28 55½ 3 43 30 15 66 50

Fuit circa hæc tempora Altitudo eiusdem humeri 22 orientioris quasi 26 partium.

Postea viceversa capiebatur 2 a Lucida Mandibulæ Cete.

8 47 5 45 31½ 30 11 68 5

8 50½ 45 31½ 30 8 68 55

8 53½ 45 31½ 3 43 30 5 69 47

Altitudo Lucidæ Mandibulæ Cete fuit circa hæc tempora partium quasi 28. Ideoque citra refractionem.

Ex his obseruationibus 2 circa Meridianum habitis potes verificare locum etiam 2 antea a 2 obseruatum.

Pro loco 2 Die 3 Nouembris.

H. 8½ Dist 2 a dextro hum. 22 28 55 50

a luc. mand. Cete 45 31 40

Decl. 2 ex altit. merid. 3 43½

Decl. dextri hum. 2 24 M.

luc. mand. Cete 2 28 B.

Ang. diff. asc. a hum. 22 28 56 36

a mand. Cete 45 7 47

Resp. Asc. R. 2 355 12 26

355 14 13

Ascensio R. limitata 355 13½

DIE 7 NOUEMBRIS, VESPERI.

Obferuabatur 2 meridiano appropinquans a dextro humero 22.

N. B. 2 erat stationarius in statione secunda.

H. M. Distantia Declin. Altit. 2 Os Pegasi

7 52 28 51 30 10½ occid.

7 54½ 28 52½ 30 14 28 45

7 56½ 28 51 29 16

7 58 28 51 30 15 29 40

Viceversa 2 a Lucida V.

8 1½ 39 29½ 30 20 30 34

8 3½ 39 29½ 30 22 31 7

8 5½ 39 29 30 22½ 31 36

8 7½ 39 29 32 8

8 15½ Tranfuit 2

per Meridianum habens Altitud.

per Chalyb. 30 21½

per Volub. 30 20½

Declin. 2 3 43½

3 43½

Fuit tunc Os Pegasi occid. 34 1½

DIE 13 NOUEMBRIS, VESPERI.

Obferuabatur 2 prope Meridianum cum iam recens factus esset directus post vltimam stationem.

Horologium corrigebatur H. 7.

H. M. Dist. 2 ab Ore Pegasi Declin. Altit. Os Pegasi occid.

7 4½ 35 57½ 3 41½ 24 55

7 7½ 35 57½ 3 40½

7 14 35 57½ 3 40½ 29 50 26 40

3 41½

Viceversa $\frac{1}{2}$ a Lucida ∇

| | | | |
|--------------------|--------------------------------------|--------------------|-------|
| 7 $18\frac{1}{2}$ | 39 $25\frac{1}{2}$ | 30 15 | 28 8 |
| 7 $24\frac{1}{2}$ | 39 27 | | 29 6 |
| 7 28 | 39 27 bis | 30 23 | 30 15 |
| 7 $32\frac{1}{2}$ | 39 $27\frac{1}{2}$ non fatis ferenum | | 31 21 |
| 7 42 $\frac{1}{2}$ | Transluit $\frac{1}{2}$ | | |
| | per Merid. habens Altit. | | |
| | per Chalyb. | 30 $24\frac{1}{2}$ | 34 1 |
| | | 30 $24\frac{1}{2}$ | |

Declin. $\frac{1}{2}$ 3 41
3 41

Pro loco $\frac{1}{2}$ ex proxime præcedentibus
obseruationibus.

| | |
|-----------------------------------|----------------------|
| Dist. $\frac{1}{2}$ ab ore Pegafi | 35 $57\frac{1}{2}$ |
| Declin. $\frac{1}{2}$ | 3 $41\frac{1}{2}$ M. |
| Declin. oris Pegafi | 8 4 |
| Ang. diff. ascenf. | 34 3 50 |
| Afc. R. oris Pegafi | 321 5 40 |
| Ergo Afc. R. $\frac{1}{2}$ | 355 9 30 |

Vice versa a lucida ∇

| | |
|----------------------------|------------|
| Distantia | 39 27 |
| Declin. lucidæ ∇ | 21 31 33 |
| Afc. R. eiusdem | 26 9 |
| Ang. differ. ascenf. | 30 59 30 |
| Ergo Afc. R. $\frac{1}{2}$ | 355 9 30 |
| Ascensio R. limitata | 355 9 30 |
| Resp. Longitudo | 24 5 23 |
| Latitudo | 1 27 23 M. |

DIE 15 NOUEMBRIS, VESPERI.

Obseruabatur $\frac{1}{2}$ ab Ore Pegafi.

| H. M. | Dist. | Declin. | Altit. | Os Pegafi occid. |
|--|------------------------------|--------------------|-------------------------------|---------------------|
| 7 $28\frac{3}{4}$ | 35 $57\frac{3}{4}$ | | | |
| 7 $30\frac{3}{4}$ | 35 $57\frac{3}{4}$ | | 32 0 | |
| Viceversa $\frac{1}{2}$ a Lucida Mand. Cete. | | | | |
| 7 33 | 45 $31\frac{1}{2}$ | | 32 32 | |
| 7 $35\frac{1}{2}$ | 45 32 | 3 41 | 33 11 | |
| | | 3 $40\frac{1}{2}$ | | |
| 7 $39\frac{3}{4}$ | Transluit $\frac{1}{2}$ | | | |
| | per Meridianum habens Altit. | | | |
| | per Chalyb. | 30 24 55 | | |
| | per Volub. | 30 25 | | |
| | Declin. $\frac{1}{2}$ | 3 40 $\frac{1}{2}$ | Fuit tunc Os Pegafi occid. | |
| | | 3 40 $\frac{1}{2}$ | 34 5 præcife | |
| 7 $42\frac{3}{4}$ | 45 $31\frac{1}{2}$ | | 34 50 | |

DIE 16 NOUEMBRIS, VESPERI.

Obseruabatur ab Ore Pegafi $\frac{1}{2}$ vt
lequitur.

| H. M. | Dist. | Declin. | Altit. $\frac{1}{2}$ | Extr. alæ Peg. or. |
|-------------------|--------------------|---------|----------------------|-----------------------|
| 7 24 | 35 59 | | 30 19 | |
| 7 $27\frac{3}{4}$ | 35 59 | | 30 21 | 6 53 |
| 7 $29\frac{1}{2}$ | 35 $58\frac{1}{2}$ | | | |

Viceversa $\frac{1}{2}$ a Lucida Mand. Cete.

| | | | |
|-------------------|------------------------------|--------------------|---------------------------------|
| 7 32 | 45 $31\frac{1}{2}$ | | 5 50 |
| 7 $34\frac{1}{2}$ | 45 3 $\frac{1}{2}$ | | |
| 7 $36\frac{1}{2}$ | 45 $31\frac{1}{2}$ | | 4 51 |
| 7 $44\frac{1}{2}$ | Transluit $\frac{1}{2}$ | | |
| | per Meridianum habens Altit. | | |
| | per Chalyb. | 30 26 | |
| | per Volub. | 30 26 | |
| | Declin. | 3 39 $\frac{1}{2}$ | Extrema alæ |
| | | 3 40 | Peg. orient. . . . ² |

DIE 21 NOUEMBRIS, VESPERI.

Postquam Armillæ æquatoriae ad
fixas vtrinque eßent correctæ, ob-
seruabatur $\frac{1}{2}$ appropinquans Me-
ridiano, inter \square^{tum} & \triangle \odot vesper-
tinum pro parallaxi orbis exami-
nanda.

Horologium correctum.

| H. M. | Dist. a dext. hum. ∞ | Declin. | Altit. $\frac{1}{2}$ | Os Pegafi occid. |
|-------------------|--------------------------------|-------------------|-------------------------|---------------------|
| 6 $48\frac{3}{4}$ | 29 $3\frac{3}{4}$ | | 30 25 | 29 16 |
| 6 $51\frac{1}{4}$ | 29 3 | | | 29 54 |
| 6 $52\frac{1}{2}$ | 29 4 | | | 30 19 |
| 6 $54\frac{1}{2}$ | 29 $3\frac{1}{2}$ | 3 $34\frac{1}{2}$ | 30 27 | 30 38 |
| | | 3 35 | | |

Viceversa $\frac{1}{2}$ a Lucida Mand. Cete.

| | | | |
|-------------------|------------------------------|--------------------|--------|
| 7 0 | 45 $20\frac{1}{2}$ | | 32 5 |
| 7 $1\frac{3}{4}$ | 45 $21\frac{1}{2}$ | | 32 34 |
| 7 $8\frac{1}{2}$ | Transluit $\frac{1}{2}$ | | |
| | per Meridianum habens Altit. | | |
| | per Chalyb. | 30 $31\frac{1}{2}$ | |
| | per Volub. | 30 $31\frac{1}{2}$ | |
| | Declin. | 3 35 | 34 19 |
| | $\frac{1}{2}$ | 3 $34\frac{1}{2}$ | exacte |
| 7 $16\frac{1}{2}$ | 45 $21\frac{1}{2}$ | | 36 21 |
| 7 18 | 45 21 | | 36 49 |
| 7 $19\frac{3}{4}$ | 45 $21\frac{1}{2}$ | | 37 15 |

¹ Sic in codice.

² Angulus horarius deest in codice

DIE 23 NOUEMBRIS, VESPERI
 Obseruabatur $\frac{1}{2}$ transiens
 per Meridianum habens Altitud.
 per Chalyb. 30 33 $\frac{1}{2}$
 per Volub. 30 33 $\frac{1}{2}$
 H. 7 M. 1 $\frac{1}{2}$ Fuit tunc collum Pegafi
 occid. 27 50

Declin. $\frac{1}{2}$ 3 32 $\frac{1}{2}$
 3 32 $\frac{1}{2}$
 Postea $\frac{1}{2}$ in distantijs ab ore Pegafi
 H. M. Distantia Declin. Collum Peg.
 occid.

7 22 $\frac{1}{2}$ 36 7 33 25
 7 24 $\frac{1}{2}$ 36 7 $\frac{1}{2}$ 3 32 $\frac{1}{2}$ 33 44
 3 32 $\frac{1}{2}$

7 26 $\frac{1}{2}$ 36 8
 Viceversa $\frac{1}{2}$ a Lucida Mandib. Cete
 7 29 $\frac{1}{2}$ 45 15 $\frac{1}{2}$ 35 34
 7 31 $\frac{1}{2}$ 45 15 $\frac{1}{2}$ 36 4
 7 33 $\frac{1}{2}$ 45 15 $\frac{1}{2}$ 3 32 $\frac{1}{2}$ 36 26
 3 32 $\frac{1}{2}$

DIE 25 NOUEMBRIS.
 Cum Os Pegafi esset occidentalis in
 æquatore 34 23
 Altit. $\frac{1}{2}$ Merid.
 per Chalyb. 30 37
 per Volub. 30 37 $\frac{1}{2}$

H. M. Dist. $\frac{1}{2}$ ab ore Pegafi Declin. Altit. Os Peg.
 occid.
 6 58 $\frac{1}{2}$ 36 11 3 28 $\frac{1}{2}$ 36 29
 7 2 $\frac{1}{2}$ 36 11 $\frac{1}{2}$ 3 28 $\frac{1}{2}$
 3 28 $\frac{1}{2}$

Viceversa a Luc. Mandib. Cete
 7 8 45 10 30 27 39 7
 7 10 $\frac{1}{2}$ 45 10 $\frac{1}{2}$
 7 12 $\frac{1}{2}$ 45 10 $\frac{1}{2}$ 30 24 40 20

DIE 4 DECEMBRIS, VESPERI.
 Obseruabatur $\frac{1}{2}$ iuxta \square \odot Meridia-
 num appropinquans.

I ab Ore Pegafi. Os Pegafi
 H. M. Dist. Declin. Altit. occid.
 5 32 $\frac{1}{2}$ 36 35 $\frac{1}{2}$ 3 11 $\frac{1}{2}$ 30 22 24 59
 3 12 $\frac{1}{2}$
 5 37 36 37 3 11 $\frac{1}{2}$ vtroq. 26 3
 5 39 36 35 $\frac{1}{2}$ 3 12 $\frac{1}{2}$ 26 36
 3 12
 5 42 36 ... 30 35 $\frac{1}{2}$ 27 25
 5 45 $\frac{1}{2}$ 36 37 $\frac{1}{2}$ 3 12 $\frac{1}{2}$ 30 40 $\frac{1}{2}$
 3 12

Pone dist. $\frac{1}{2}$ circa hæc tempora 36 37.

Viceversa a Luc. Mandib. Cete
 5 52 44 34 $\frac{1}{2}$ 30 0
 5 53 $\frac{1}{2}$ 44 34 $\frac{1}{2}$ 3 12 $\frac{1}{2}$ 30 29
 3 12 $\frac{1}{2}$
 5 56 44 34
 6 11 $\frac{1}{2}$ Transiit $\frac{1}{2}$
 per Meridianum habens Altitud.
 per Chalyb. 30 53 $\frac{1}{2}$
 per Volub. 30 54 $\frac{1}{2}$
 Declin. $\frac{1}{2}$ 3 13 Fuit tunc Os Peg.
 3 13 $\frac{1}{2}$ occid. 34 57 $\frac{1}{2}$

Postea obseruabatur $\frac{1}{2}$ a Lucida ∇
 6 15 $\frac{1}{2}$ 38 25 $\frac{1}{2}$
 6 17 38 25 $\frac{1}{2}$
 6 19 $\frac{1}{2}$ 38 25 $\frac{1}{2}$ 3 12 37 0
 3 11 $\frac{1}{2}$

H. 6 $\frac{1}{2}$ Corrigeatur horologium pro-
 mouendo illud 10 M. quibus tar-
 dius iusto a Meridie antecedente
 iuerat.

DIE 6 DECEMBRIS, VESPERI.
 Obseruabatur $\frac{1}{2}$ appropinquans Meri-
 diano, postquam horologium cor-
 rectum esset, & proximus qua-
 draturæ \odot $\frac{1}{2}$ existeret.

Primum ab ore Pegafi. Transitus Oris
 Pegafi per Meridianum fuit H. 3 M. 49

H. M. Dist. Declin. Os Peg. occid.
 5 41 $\frac{1}{2}$ 36 44 $\frac{1}{2}$ 3 6 $\frac{1}{2}$ 28 5
 3 6

5 44 $\frac{1}{2}$ 36 44 $\frac{1}{2}$ 28 50
 5 46 $\frac{1}{2}$ 36 44 29 17

Viceversa $\frac{1}{2}$ a Lucida Mandib. Cete
 5 50 $\frac{1}{2}$ 44 24 $\frac{1}{2}$ 3 5 $\frac{1}{2}$ 30 13
 3 6 $\frac{1}{2}$
 5 52 $\frac{1}{2}$ 44 24 $\frac{1}{2}$ 30 41
 5 55 $\frac{1}{2}$ 44 25 $\frac{1}{2}$ 3 6 $\frac{1}{2}$
 3 6 $\frac{1}{2}$

5 56 $\frac{1}{2}$ 44 25 $\frac{1}{2}$ 31 51

Postea a prima alæ Pegafi
 6 1 $\frac{1}{2}$ 21 57 $\frac{1}{2}$ 32 59
 6 3 $\frac{1}{2}$ 21 57 33 38
 6 5 $\frac{1}{2}$ 21 57 $\frac{1}{2}$ 34 0

6 9 $\frac{1}{2}$ Transiit $\frac{1}{2}$
 per Merid. habens Altitud.
 per Chalyb. 30 58 $\frac{1}{2}$ Pone igitur
 per Volub. 30 58 $\frac{1}{2}$ 30 58 $\frac{1}{2}$
 Declin. per 3 6 $\frac{1}{2}$ Tunc fuit Os Peg.
 Arm. max. 3 6 $\frac{1}{2}$ occid. 35 12
 exacte

Viceversa $\frac{1}{2}$ a Lucida ∇ .

| | | | |
|--------------------|---------------------|-------------------|-------|
| 6 16 $\frac{1}{2}$ | 38 13 $\frac{1}{2}$ | | 36 53 |
| 6 18 0 | 38 14 $\frac{1}{2}$ | 3 6 $\frac{1}{2}$ | |
| | | 3 5 $\frac{1}{2}$ | |
| 6 20 0 | 38 15 | | 37 40 |
| 6 22 | 38 14 $\frac{3}{4}$ | | |
| 6 23 $\frac{1}{2}$ | 38 14 $\frac{3}{4}$ | 3 6 | 38 37 |
| | | 3 5 $\frac{1}{2}$ | |

N. B. Hæ obſervationes in $\frac{1}{2}$ invicem collatæ ſunt admodum bonæ pro eius Longitudine & Latitudine inquirenda iuxta \square Solis vſpertime tam pro annuo orbe, quam Latitudine ipliſ examinandis.

Pro loco $\frac{1}{2}$ ex antecedentibus obſervationibus.

| | |
|--|---------------------|
| H. 5 $\frac{1}{2}$ Diſt. $\frac{1}{2}$ ab Ore Pegafi | 36 44 $\frac{1}{2}$ |
| Decl. $\frac{1}{2}$ | 3 7 0 M. |
| Decl. Oris Pegafi | 8 3 40 B. |
| Ang. diff. aſcenſ. | 35 5 4 |
| Aſc. R. Oris Pegafi | 321 5 40 |
| Aſc. R. $\frac{1}{2}$ | 356 10 44 |

| | |
|--|-----------------------|
| H. 5 $\frac{1}{2}$ Diſt. $\frac{1}{2}$ | |
| a luc. mand. Cete | 44 24 $\frac{1}{2}$ |
| Decl. luc. mand. Cete | 2 27 $\frac{1}{2}$ B. |
| Ang. diff. aſcenſ. | 44 4 56 |
| Aſc. R. luc. mand. Cete | 40 19 40 |
| Aſc. R. $\frac{1}{2}$ | 356 14 44 |

| | |
|---|---------------------|
| H. 6.0 Diſt. $\frac{1}{2}$ a I alæ Peg. | 21 57 $\frac{1}{2}$ |
| Declin. I alæ | 13 4 0 |
| Aſc. R. eiſdem | 341 10 0 |
| Ang. diff. aſcenſ. | 14 56 57 |
| Aſc. R. $\frac{1}{2}$ | 356 6 57 |

| | |
|--|------------------------|
| H. 6 $\frac{1}{2}$ Diſt. $\frac{1}{2}$ a lucida ∇ | 38 14 $\frac{1}{2}$ |
| Declin. lucidæ ∇ | 21 31 $\frac{1}{2}$ B. |
| Aſc. R. eiſdem | 26 9 0 |
| Ang. diff. aſcenſ. | 29 53 7 |
| Aſc. R. $\frac{1}{2}$ | 356 15 53 |

Hæc differentia ob ſplendorem \ll inter obſervandum contigerat, vide circa $\frac{1}{2}$ ϕ cum \odot ſupra.

| | |
|---------------------------------|----------------------|
| H. 6.0 Aſc. recta $\frac{1}{2}$ | |
| limitata | 356 12 $\frac{1}{2}$ |
| Reſp. Longitudo | 25 16 48 χ |
| Latitudo | 1 20 48 M. |

Alia inqueſitio loci $\frac{1}{2}$ ad diem

6 Decembris.

| | |
|---------------------------------------|----------------------|
| Declinatio $\frac{1}{2}$ | 3 6 $\frac{1}{2}$ M. |
| Diſtantia $\frac{1}{2}$ ab ore Pegafi | 36 44 $\frac{1}{2}$ |
| Declinatio oris Pegafi | 8 4 |
| Aſc. R. eiſdem | 321 5 40 |
| Angulus diff. aſc. | 35 5 20 |
| Ergo Aſc. R. | 356 11 |

DIE 14 DECEMBRIS, VESPERI.

Obſervabatur $\frac{1}{2}$ appropinquans

Meridiano. I ab Ore Pegafi.

| H. M. | Diſtantia | Declin. | Vult. occ. |
|--------------------|---------------------|--------------------|------------|
| 5 5 | 37 20 | | 55 43 |
| | inter nubeculas | | |
| 5 6 $\frac{1}{2}$ | 37 21 $\frac{3}{4}$ | 2 46 $\frac{1}{2}$ | |
| | melior | 2 47 | |
| 5 12 $\frac{1}{2}$ | 37 21 $\frac{3}{4}$ | 2 46 $\frac{1}{2}$ | 57 28 |
| | | 2 46 $\frac{1}{2}$ | |

Traſſiit $\frac{1}{2}$ per Meridianum habens

Altitudinem per Volub. 31 22

| | | |
|-------------|--------------------|-------------|
| Declin. per | 2 46 $\frac{1}{2}$ | inter nubes |
| Armillas | 2 46 $\frac{1}{2}$ | |

Ex his obſervationibus elicitur
locus $\frac{1}{2}$.

| | |
|-----------------------|----------------|
| H. 5.5 Aſcenſio recta | 356 56 40 |
| Declin. eiſdem | 2 46 M. |
| Reſp. Longitudo | 26 5 38 χ |
| Latitudo | 1 19 6 M. |

DIE 17 DECEMBRIS, VESPERI.

Obſervabatur $\frac{1}{2}$ appropinquans Meridiano vt ſequitur. I ab Ore Pegafi.

N. B. \odot erat in Perigæo, vnde ex his obſervationibus liquido conſtabit, an Eccentricus \odot aliquid ingerat inæqualitatis.

| H. M. | Diſtantia | Declin. $\frac{1}{2}$ | Extr. alæ Peg. or. |
|--------------------|---------------------|-----------------------|-----------------------|
| 4 39 $\frac{1}{2}$ | 37 35 $\frac{1}{2}$ | | |
| 4 41 $\frac{1}{2}$ | 37 35 $\frac{1}{2}$ | | 9 42 |
| 4 45 | 37 36 | 2 36 $\frac{1}{2}$ | 9 16 $\frac{1}{2}$ |
| | | 2 36 $\frac{1}{2}$ | |
| 4 46 $\frac{3}{4}$ | 37 35 $\frac{1}{2}$ | | 8 1 |

II. Viceversa $\frac{1}{2}$ a Luc. Mand. Cete.

| | | | | |
|---|------------------|---------------------|--------------------|------|
| 4 | 51 $\frac{1}{2}$ | 43 20 | | 7 11 |
| 4 | 53 | 43 20 $\frac{1}{2}$ | 2 36 $\frac{1}{2}$ | 6 20 |
| | | melior | 2 36 $\frac{1}{2}$ | |
| 4 | 54 $\frac{1}{2}$ | 43 20 $\frac{1}{2}$ | | 6 6 |

Deinde $\frac{1}{2}$ a Lucida ∇

| | | | | |
|---|------------------|--------------------|--------------------|------|
| 4 | 56 $\frac{1}{2}$ | 37 9 $\frac{1}{2}$ | 2 36 $\frac{1}{2}$ | 5 37 |
| | | | vtroque | |

| | | | | |
|---|------------------|--------------------|--|------|
| 4 | 58 $\frac{1}{2}$ | 37 9 $\frac{1}{2}$ | | 5 10 |
|---|------------------|--------------------|--|------|

6 15 Transiit $\frac{1}{2}$

per Meridianum habens Altit.

per Chalyb. 31 28 $\frac{3}{4}$ per Volub. 31 27 $\frac{1}{2}$ Declinatio 2 36 $\frac{1}{2}$ 2 36 $\frac{1}{2}$

Fuit tunc Luc. Mand. Cete or. 43 23

Vide pro examine quadrantum stel-
larum fixarum altitudines meridianas
sequenti mane obseruatas.

DIE 18 DECEMBRIS, VESPERI.

Obseruabatur $\frac{1}{2}$ appropinquans Mer-
ridiano, cum \odot esset circa Peri-
gæum sui Eccentrici.

I. Ab Ore Pegafi

| H. M. | Diff. | Declin. | Altit. $\frac{1}{2}$ | Os Pegafi occid. |
|-------------------|---------------------|--------------------|----------------------|---------------------|
| 4 58 | 37 41 $\frac{1}{2}$ | | | 30 6 |
| 5 0 $\frac{1}{2}$ | 37 41 $\frac{1}{2}$ | 2 34 $\frac{1}{2}$ | 31 20 | 30 38 |
| | | 2 34 $\frac{5}{8}$ | | |
| 5 2 $\frac{5}{8}$ | 37 41 $\frac{1}{2}$ | 2 34 $\frac{1}{2}$ | | 31 35 |
| | | 2 34 $\frac{5}{8}$ | | |

Viceversa $\frac{1}{2}$ a Lucida ∇ .

| | | | | |
|--------------------|--------------------|---------------------------|-------|---------------------|
| 5 7 $\frac{1}{2}$ | 37 2 | | 31 28 | 32 49 |
| 5 10 $\frac{1}{2}$ | 37 1 | 2 34 $\frac{5}{8}$ vtroq. | | 33 21 $\frac{1}{2}$ |
| 5 12 $\frac{1}{2}$ | 37 1 $\frac{1}{2}$ | | 31 31 | 34 0 |
| 5 14 $\frac{5}{8}$ | 37 1 $\frac{1}{2}$ | 2 34 $\frac{5}{8}$ vtroq. | | 34 37 $\frac{1}{2}$ |

5 21 $\frac{1}{2}$ Transiit $\frac{1}{2}$

per Merid. habens Altit.

per Chalyb. 31 31 $\frac{1}{2}$

per Volub. 31 32

Declin. $\frac{1}{2}$ 2 34 $\frac{5}{8}$ Fuit tunc Os Pe-2 34 $\frac{5}{8}$ gafi occid. 36 16 $\frac{1}{2}$ Pone Declinationem $\frac{1}{2}$ 2 34 M.Postea rursus $\frac{1}{2}$ ab orientaliore
ac dextro humero ∞ .

| H. M. | Distantia | Declin. | Os Pegafi occid. |
|--------------------|--------------------|--------------------|---------------------|
| 5 28 $\frac{1}{2}$ | 31 2 $\frac{5}{8}$ | | 38 7 |
| 5 30 $\frac{1}{2}$ | 31 2 $\frac{1}{2}$ | | 38 39 |
| 5 33 $\frac{1}{2}$ | 31 2 $\frac{5}{8}$ | 2 34 $\frac{5}{8}$ | 39 16 |
| | | 2 34 $\frac{1}{2}$ | |
| 5 35 $\frac{1}{2}$ | 31 3 | | 39 47 |

Viceversa $\frac{1}{2}$ a Luc. Mand. Cete.

| | | | |
|--------------------|---------------------|--|-------|
| 5 38 | 43 12 $\frac{1}{2}$ | | 40 31 |
| 5 40 | 43 11 $\frac{1}{2}$ | | 40 58 |
| 5 42 | 43 11 | | 41 20 |
| 5 44 $\frac{1}{2}$ | 43 11 $\frac{1}{2}$ | | 41 58 |

*N. B. Erat hac vespera bene fere-
num & fatis tranquillum, vnde bonæ
obseruationes pro $\frac{1}{2}$ & \odot .*

DIE 31 DECEMBRIS.

H. 3 M. 42 Transiit $\frac{1}{2}$

per Meridianum habens Altit.

in Chalyb. 32 15 $\frac{1}{2}$ in Volub. 32 15 $\frac{1}{2}$ Decl. $\frac{1}{2}$ per 1 48 $\frac{1}{2}$ Armillas 1 48 $\frac{3}{4}$ inter nubesH. 4 M. 25 $\frac{1}{2}$ Distantia $\frac{1}{2}$ a \odot 46 26 $\frac{1}{2}$

| H. M. | Diff. $\frac{1}{2}$ ab Ore Pegafi | Decl. | Altit. $\frac{1}{2}$ | Aldeb. or. |
|--------------------|--------------------------------------|--------------------|-------------------------|---------------|
| 4 31 $\frac{1}{2}$ | 39 4 $\frac{1}{2}$ | 1 48 | | 53 36 |
| | dubia | 1 48 $\frac{1}{2}$ | | |
| 4 34 $\frac{1}{2}$ | 39 7 | | | 53 0 |
| 4 36 $\frac{1}{2}$ | 39 6 $\frac{1}{2}$ | 1 48 $\frac{1}{2}$ | | 52 35 |
| | | 1 48 | | |
| 4 39 $\frac{1}{2}$ | 39 5 $\frac{1}{2}$ | | 31 28 | 51 44 |

Viceversa a Lucida ∇ .

| | | | | |
|--------------------|---------------------|--------------------|-------|-------|
| 4 44 $\frac{1}{2}$ | 35 19 $\frac{1}{2}$ | 1 48 $\frac{1}{2}$ | 31 20 | 50 35 |
| | | 1 48 $\frac{3}{4}$ | | |
| 4 47 | 35 18 | | | |
| 4 51 $\frac{1}{2}$ | 35 18 | 1 48 $\frac{1}{2}$ | 30 57 | 48 57 |
| | | 1 48 $\frac{3}{4}$ | | |

Hæc inter transcurrentes nubes ob-
seruata fuit, flante insuper Zephyro
tempestate valida.

OBSERVATIONES MARTIS.

DIE 3 JANUARIJ, MANE.

Oberuabatur ♂ a Corde ♀.

| H. M. S. | Dist. ♂ a Corde ♀ | Altit. | Declin. | Spica ♀ occ. |
|----------|----------------------|-------------|---------|-----------------|
| 7 22 20 | 9 46 | in aurora | | 25 4 |
| 7 26 15 | 9 48 | 8° circiter | 22 20 | 26 1 |
| | incerta | | incerta | |

His obseruationibus in ♂ non multum est fidendum, quod ille propter Auroram difficillime videbatur. Fuit autem inter obseruandum in æquilibrio Horizontis cum Corde ♀ adeo vt nulla obnoxia refractio in distantia esse posset.

DIE 4 JANUARIJ, MANE.

| H. M. S. | Dist. ♂ a Corde ♀ | Altit. | Declin. | Spica ♀ occid. |
|----------|----------------------|--------|---------|-------------------|
| 7 6 30 | 10 28½ | 8 10 | 22 27 | 23 46½ |
| 7 7 50 | 10 29 | | 22 27½ | |

Plures obseruationes habere non licuit, quod tam ♂ quam Cor ♀ a nube occultabantur. Sunt autem hæc satis rata, quibus fidere poteris, quia ♂ inter obseruandum satis fuit conspicuus.

Inquisitio loci ♂ ex obseruationibus die 4 Januarij habitis.

| | | |
|-------|---------------------|-----------|
| H. 7½ | Dist. ♂ a Corde ♀ | 10 28½ |
| | Declin. ♂ | 22 27 M. |
| | Declin. Cordis ♀ | 25 24 M. |
| | Ang. diff. ascenf. | 11 0 26 |
| | Afc. Recta Cordis ♀ | 241 12 55 |
| | Ergo Afc. Recta ♂ | 252 13 20 |
| | Resp. Longitudo | 13 36 40x |
| | Latitudo | 0 3 45 B. |

DIE 21 JULIJ, MANE.

Oberuabatur ♂ in ☐ ☉ pro parallaxi orbis in eo situ cognoscenda.

| H. M. | Dist. ♂ & ♀ | Decl. ♂ B. | Altit. ♂ | Vultur occid. |
|-------|----------------|---------------|-------------|------------------|
| 1 2½ | | 10 23½ | 21 40 | |
| | | 10 24 | | |
| 1 9 | 29 40 | | | 34 36 |

1 E codice V.

| | | |
|-------|--------|-------|
| 1 11 | 29 39½ | |
| 1 13½ | 29 40 | |
| 1 15½ | 29 40 | 23 32 |

Viceversa

| | | |
|-------|------------------------------|--------|
| 1 21½ | Dist. ♂ ab aurali cornu ♀ | 43 54½ |
| | Mediocris sed inter nubes. | |

Fuit hæc stella in ♀ in recta linea fere cum inferiori limbo ☐ & ♂. ☐ tamen ad Zenith paululum eleuatiore.

DIE 22 JULIJ, MANE.

| H. M. | Dist. ♂ ab ore Peg. | Decl. ♂ B. | Altit. ♂ |
|-------|---------------------------|---------------|-------------|
| 2 32½ | 50 28 | 10 35½ | 33 32 |
| | | 10 36 | |
| 2 36½ | 50 27½ | | |
| 2 37½ | 50 28½ | | |

Viceversa ab oculo ♀

| | | | |
|-------|----------------|-------|------------------|
| 2 41½ | 29 58½ | | 34 32 |
| 2 43½ | 29 58½ | | |
| | Dist. ♂ a ♀ | | Vultur occid. |
| 2 46 | 30 16½ | | |
| 2 47½ | 30 17½ | 10 35 | 35½ 60 30 |
| | | 10 35 | Resp. H. 2 M. 50 |

Pro corrigendis Armillis

Declin. Lucidæ ♀ 21 30 vtroque.

Die 22 Julij mane ♂ circa Perigæum Eccentrici & in ☐ ☉ pro cognoscenda Latitudine eius¹.

| | |
|------------|--------------------------------|
| H. 2 M. 40 | prima alæ Peg. 50 28 |
| | Distabat ♂ ab Aldehora 29 58½ |
| | Declinatio ♂ 10° 36' correctæ. |

Afc. R. Declinatio

| | |
|-----------------------------|---------------|
| Aldehoræ | 63 12½ 15 37 |
| Primæ alæ Peg. 341 | 9½ 13 3 37 B. |
| Ang. diff. / prima alæ Peg. | 51 35 5 |
| a/c. ex oculo ♀ | 30 22 23 |
| Hinc Afc. R. ♂ limitata | 32 47 14 |
| Resp. Longitudo | 4 11½ |
| Latitudo | 2 30 M. |
| | vera |

DIE 7 SEPTEMBRIS, MANE.

Obferuatio ♂ in Δ ☉ iuxta maximam
Proftaphærefin.

| H. M. | Diff. ♂ a Lucida ♀ | Declin. ♂ | Altit. | Luc. Mand. Cete or. |
|----------------------------|-----------------------|-----------------|--------|---------------------------|
| 2 41½ | | 16 52½ | | |
| | | 16 53 | | |
| 2 44 | 25 18 | | | |
| 2 48 | 25 18 | | 47 54 | 8 40 |
| 2 52½ | 25 17½ | 16 52½ | | 7 45 |
| | | 16 51 | | |
| 2 56½ | 25 18½ | | | 6 38 |
| Viceverfa a Lucido pede II | | | | |
| 3 3 | 39 12 | | 48 50 | 5 9 |
| 3 6½ | 39 12½ | 16 52 | | 4 20 |
| | | 16 51½ | | |
| 3 8½ | 39 12½ | | | 3 40 |
| Deinde ab oculo ♀ | | | | |
| 3 13½ | 10 15½ | | | 2 35 |
| 3 15½ | 10 16 | | | 2 0 |
| 3 19 | 10 16½ | 16 52½ vno pin. | | 1 12 occid. |
| 3 22½ | 10 17 | | 49 51 | 0 20 |

Pro Armill. correctione obferuabatur
Declinatio Aldeboræ 15 36½
15 36½

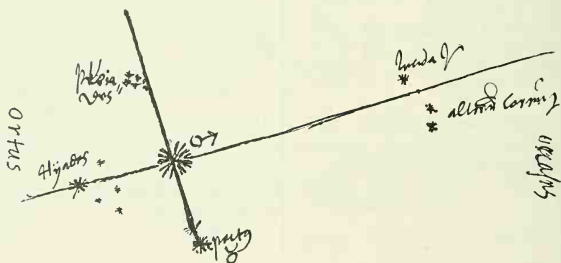
Debuit eſſe 15 37½, ergo addendum
in Declinatione ♂ 1 Minutum.
Pone decl. ♂ 16 53½.

Die 7 Septembris corrigebatur ho-
rologium in Meridie, mouebatur enim
plus iuſto a præcedente die M. 32.

N. B. Circa horam tertiam correc-
tam pone diſtantiam ♂ a 3 ✓ 25 18 &
tunc etiam a Lucido pede II 39 12½.
Declinationem eius fac P. 16 M. 53 &
poteris vna facere periculum in di-
ſtantia ab Aldehora P. 10 M. 16½.

N. B. Ego tunc Hafniæ fui, cum hæ
obſervationes in ♂ perficerentur Vra-
niburgi, & attendi mane ante Auro-
ram Die 7 Septembris circa id temporis,
quo Pleiades erant prope Meridi-
anum i. e. 50 gradus æquatoris, Sole
verſante in 23½ 11½, ideoque Aſc. Rec-
tam habente 174 graduum quaſi, di-
ſtabat itaque a Meridiano P. 236, i. e.
H. 15 M. 44. Vnde colligitur Hora fuiſſe
3½ circiter paulo antequam ☾ occi-
dere videbatur. Obſeruavi autem in
hunc modum tunc ♂.

Linea recta ducta ab Aldehora per
♂ verſus occaſum tranſibat paulo
infra Lucidam ✓ quaſi in medio ſpa-
cio inter hanc & ſibi proximam in
altero cornu. Item alia linea decus-
ſatim a pectore ♀ per ♂ ducta in par-
tem occidentaliorem Pleiadum por-
rigebatur, ſtringens earundem limi-
tem, qui verſus cornua ✓ ſpectatur,
idque in hunc modum, vt ſubiecta
delineatio oſtendit.



Colligitur hinc ex globo paruo } Longit. ♂ 24½
 Ex globo max-imo } Latit. 2 0 M.
 Calculus Alphonfinus } Long. 25½
 Decrescit sensibilibiter Latitudo } Latit. 2 0 decrefcens.
 Alphonfina.

Calculus Prutenicus habet } Long. 22½
 } Latit. 2½ M.

Estque circa id tempus stationarius in Latitudine sua, & incipit eam minuire iuxta Copernicum.

DIE 9 SEPTEMBRIS, VESPERI.

Quando Os Pegasi Meridianum tranſiuit, videbatur ♂ ſtella in linea recta, quæ ducitur ab Aldebora in ſecundam V^{ti}s exacte, diſtans ab Aldebora P. 9 45½, vt ex obſervationibus poſt mediam noctem factis colligere liquet.

DIE 10 SEPTEMBRIS, MANE.

(Vide ſuperius ſupp. & corripge diſtantias)¹.

| H. M. | Diſt. ♂ a Lucida γ | Declin. | Aldebora orient. |
|---------|--------------------|---------|------------------|
| 2 33 10 | 25 48 | | 32 32 |
| 2 36½ | | 17 4 | 31 45 |
| | | 17 4½ | |
| 2 39½ | 25 46½ | | 30 54 |
| 2 41½ | 25 46 | | 30 26 |
| 2 44½ | 25 47½ | 17 4 | 29 47 |
| | | 17 3½ | |

Viceverſa ab oculo γ

| | | | |
|-------|-------|-------|-------|
| 2 49½ | 9 43½ | | 28 28 |
| 2 54½ | 9 43 | 17 4 | 27 30 |
| | | 17 3½ | |
| 2 56½ | 9 43½ | | 26 52 |

Erat ♂ propinquus Meridiano in Altitudine 50° fere.

| | | |
|---|--------|-------|
| 2 58½ | 9 43½ | 26 24 |
| Pro Armillarum correptione capiebatur Aldebora Declinatio | 15 36½ | |
| | 15 37 | |

Igitur adde ½ M. ad Declinationem ♂ vt ſit 17 5. Sed Altitudo Meridiana dat 17 5½, melior.

Statim nebulosæ nubes ab occaſu exortæ totum Horizontem occuparunt.

Tandem nubibus transgreſſus,

H. 3 M. 54 tranſiuit ♂ merid. habens

Altitud. in Q. Chalyb. 51 12½

Volub. 51 11

melior

Lucido humero Orion. orient.

30 6½

Pone H. 2½ Diſt. ♂ a Lucida γ

ab Aldeb. 9 43½

DIE 11 SEPTEMBRIS, MANE.

| H. M. | Diſt. ♂ a Lucida γ | Declin. | Luc. Mand. Cete occ. |
|-------|--------------------|---------|----------------------|
| 3 11 | 25 58 | | 5 45 |
| 3 13 | 25 58 | 17 8½ | 6 25 |
| | | 17 8½ | |
| 3 18 | 25 58½ | | 7 45 |
| 3 20 | 25 58½ | | 8 10 |

Viceverſa ab oculo γ.

| | | | |
|-------|--------|--------|-------|
| 3 25 | 16 32½ | | 9 20 |
| 3 27½ | 16 32½ | 17 8½ | 9 45 |
| 3 32½ | 16 32½ | vtroq. | 10 57 |
| 3 34 | 16 33 | | 11 33 |

3 40½ Tranſiuit ♂

per Meridianum habens Altit.

per Chalyb. 51 14½

per Volub. 51 14½

Lucida Mandib. Cete occid. 13 5

Vtere Declinatione ♂ 17 9½ borea

Declinatio 15 35½

Aldebora 15 35½

Deficit hæc Declinatio 2 Minutis.

DIE 12 SEPTEMBRIS, MANE.

H. 3 M. 53 Altitudo ♂ Meridiana

per Quadr. Chalyb. 51 18½

Volub. 51 19

Luc. hum. Orion. orient. 28 48

| H. M. | Diſt. ♂ a Lucida γ | Declin. | Luc. hum. Orion. or. |
|-------|--------------------|---------|----------------------|
| 4 13½ | 26 6½ | | 24 13½ |
| 4 20½ | 26 6½ | 17 14 | 22 30 |
| | | 17 13½ | |
| 4 28½ | 26 7 | 17 13½ | 20 55 |
| | | 17 13½ | |

¹ Cfr. ſupra p. 432.

Viceversa ab Aldebora

4 37 $\frac{1}{2}$ 16 29 18 21
 Subito nebuloſæ nubes ab ortu totum Horizontem occuparunt.

DIE 15 SEPTEMBRIS, MANE.

| H. M. | Diſt. ♂ a Lucida ♀ | Declin. B. | Luc. hum. Orion. orient. |
|--------------------|-----------------------|---------------------|-----------------------------|
| 1 59 $\frac{1}{2}$ | 26 25 | | 39 13 |
| 2 3 $\frac{1}{2}$ | 26 25 $\frac{1}{2}$ | 17 22 $\frac{1}{2}$ | 38 15 |
| | | 17 23 | |
| 2 7 | 26 25 | | 37 7 |
| 2 9 $\frac{1}{2}$ | 26 25 $\frac{1}{2}$ | 17 22 $\frac{1}{2}$ | 36 35 |
| | | 17 23 | |

Viceversa ab oculo ♀

| | | | |
|--------------------|-------------------|---------------------|-------|
| 2 14 $\frac{1}{2}$ | 9 1 | | 35 18 |
| 2 16 | 9 1 $\frac{1}{2}$ | 17 22 $\frac{1}{2}$ | 34 45 |
| | | 17 23 | |

| | | | |
|--------------------|-------------------|--|-------|
| 2 20 $\frac{1}{2}$ | 9 1 $\frac{1}{2}$ | | 33 43 |
| 2 23 | 9 1 $\frac{1}{2}$ | | 33 0 |

2 37 Tranſiuit ♂ Meridianum in Altit.
 per Chalyb. 51 29 $\frac{1}{2}$ 29 19
 per Volub. 51 29 $\frac{1}{2}$

DIE 16 SEPTEMBRIS.

Matutino tempore ſequentia obſervabantur me ipſo præſente.

H. 4 M. 1 45" Tranſiuit ♂ Meridianum
 per Chalyb. 51 32 $\frac{1}{2}$
 per Volub. 51 32

H. 4 M. 3 50" Tranſiuit peſtus 45 22 $\frac{1}{2}$
 ♀ per Merid. 45 22 $\frac{1}{2}$

Quando ♂ tranſiuit Meridianum fuit
 peſtus ♀ 0 43 $\frac{1}{2}$ orient.

Hinc poteſ verificare Aſc. Rectam
 ♂ ex tranſitu eius ſtellæ per Meridianum.

H. 4 M. 3 S. 44 corr. Tranſiuit oculus ♀
 per Meridianum habens Altit.
 per Chalyb. 49 43 bonæ
 per Volub. 49 43

Fuit paulo poſt Declinatio ♂
 vno 17 25 $\frac{1}{2}$
 altero 17 26

Et mox Aldebore Declin. 15 35 $\frac{1}{2}$
 15 36

♂ fuit tunc in linea recta cum Aldebora & Lucida ♀, atque rurfus cum peſtore ♀ & Lucidiore duarum in pede Perſe quæ ſupra Pleiades.

DIE 18 SEPTEMBRIS, MANE.

Obſervatio ♂ iuxta Merid.

H. 3 M. 35 $\frac{1}{2}$ Altitudo ♂ in Meridie
 per Chalyb. 51 38 $\frac{1}{2}$
 Volub. 51 38

Lucidus peſ Orionis orient. 19 27

| H. M. | Diſt. ♂ a Lucida ♀ | Declin. ♂ | Lucid. peſ Orion. orient. |
|--------------------|-----------------------|-----------|------------------------------|
| 3 40 $\frac{1}{2}$ | 26 44 | | 12 16 |
| | 26 43 $\frac{1}{2}$ | | |
| 3 43 $\frac{1}{2}$ | 26 43 $\frac{1}{2}$ | | 11 6 $\frac{1}{2}$ |

Viceversa ♂ a Lucido pede II

| | | | |
|--------------------|---------------------|---------------------|---------------------|
| 3 46 $\frac{1}{2}$ | 37 30 | | 10 22 $\frac{1}{2}$ |
| 3 48 $\frac{1}{2}$ | 37 30 | | 9 35 |
| 3 51 | 37 30 $\frac{1}{2}$ | Declin. ♂ | 9 4 |
| 4 1 | | 17 31 $\frac{1}{2}$ | |
| | | 17 31 $\frac{1}{2}$ | |

Prodit locus ♂, Long. 26 7 13 ♀
 Latit. 1 41 51 M.

DIE 22 SEPTEMBRIS, MANE.

Obſervabatur ♂ circa Meridianum.

| H. M. | Diſt. ♂ a Lucida ♀ | Declin. ♂ | Canis maior orient. |
|-------|-----------------------|---------------------|------------------------|
| 4 17 | 26 54 $\frac{1}{2}$ | 17 40 | 25 1 |
| 4 21 | 26 54 | 17 40 | 23 57 |
| | | 17 40 $\frac{1}{2}$ | |

4 25 26 54 $\frac{1}{2}$ 22 58

Viceversa a Lucido pede II

| | | | |
|------|-------|---------------------|-------|
| 4 29 | 37 15 | 17 40 $\frac{1}{2}$ | 21 54 |
| | | 17 40 $\frac{1}{2}$ | |

4 33 37 15 $\frac{1}{2}$ 17 41 $\frac{1}{2}$ vtroque

4 36 37 16

N. B. Hæc declinatio ♂ aliquid fortassis habet dubij. Nam non conuenit cum ea, quæ ſequenti die circa Meridianum capiebatur, quæ erat 17 44. Neque enim eius declinatio 3 vel 4 Minutis interea augeri poterat, cum ſit ſtationarius. Videndum itaque in cuius die obſervatione error lateat: huiusne an vero ſequentis. Aut an forſan digreſſio a Meridiano in Armilla declinationum id huius vitio euenerit, quod ſequentes obſervationes diſcernere poterint.

DIE 23 SEPTEMBRIS, MANE.

H. 3 M. 35 Altit. ♂ Merid.

| | | |
|-------------|------------|---------------------|
| Inter | per Chal. | 51 50 $\frac{1}{2}$ |
| nubes | per Volub. | 51 51 $\frac{1}{2}$ |
| Dexter hum. | Orion. or. | 21 15 |

Declinatio ♂ 17 44 vno pinn.
17 43½ altero

Sed videndum an in hac Declinatione ♂ (emendata primo per additionem 2 minutorum, vt conueniat cum ea, quam altitudo dat meridia-
na) lateat aliquantulus error: an vero in ea, quæ die antecedente iuxta Ho-
ram 4½ per Armillas capiebatur.

DIE VLTIMO SEPTEMBRIS, MANE.
Obseruatus est ♂ paulo supra Merid.

| Tempora correcta | Dist. ♂ a Luc. ♀ | Declin. ♂ | Canis maior orient. vno vtrorq. |
|---------------------|---------------------|-----------|--|
| 3 34 | 26 29½ | 17 55½ | 28 27 |
| 3 49½ | 26 29½ | 17 55½ | 24 36 |
| 3 52½ | 26 30 | | 23 53 |

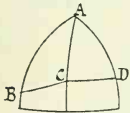
Viceversa a Luc. humero Orionis
3 58½ 30 19½ 17 55½ 22 33
17 55½

| | | | |
|-----|--------|--------|-------|
| 4 1 | 30 19 | | 21 49 |
| 4 4 | 30 19½ | 17 55½ | 21 3 |
| | | 17 55½ | |

Postea obseruabatur Declinatio Lu-
cidi humeri Orionis pro corrigendis
Armillis. 7 13
7 13½

Debent esse 7 15½. Ergo Martis 17 57.

Examen loci ♂



D Lucida ♀
B lucidus hum.
Orion.
C ♂

Triangulus BAC

| | |
|----|--------|
| AC | 72 2½ |
| AB | 82 45 |
| BC | 30 19½ |

Ergo BAC 29 8

Alc. R.

hum. Or. 83 22

Alc. R. ♂ 54 14

Triangulus CAD

| | |
|----|-------|
| AD | 68 29 |
| AC | 72 2½ |
| CD | 26 30 |

Ergo CAD 27 56½

Alc. R.

luc. ♀ 26 9

54 5

Sed potius accede ad AR quæ pro-
uenit a lucida ♀, faciendo illam 54 8
& prouenit ♂ in Long. 26 6½ ♀, Lat.
1 26 M.

1 Sic in codice.

Ergo Die 30 Septemb. H. 4 A. M.

| | Longitudo | Latitudo |
|-------------------|-----------|----------|
| Obseruatio nostra | 26 6½ ♀ | 1 26 M. |
| Calculus Alphonf. | 26 16 | 1 18 |
| Calculus Copern. | 24 20 | 2 31 |

Patet itaque quod Alphonfinus
Calculus hic propius accedit tam in
Longitudine quam Latitudine.

DIE 12 OCTOBRIS, VESPERI.

Tempora sunt correctæ.

| H. M. | Dist. ♂ a Lucida ♀ | Declin. | Alt. | Os Pegasi occid. |
|-------|-----------------------|---------|-------|---------------------|
| 8 23½ | 24 14 | 17 59½ | 18 0 | 11 24 |
| 8 28½ | 24 15 | | 21 2 | 12 39 |
| 8 31½ | 24 15½ | 17 59 | 21 2½ | Vult. occ. 41 46 |
| 8 35½ | 24 15½ | 17 59 | 22 23 | 42 45 |
| 8 46½ | 24 15½ | 17 59 | 23 50 | 45 39 |
| | | 18 0 | | |

Pro examine Armillarum accipie-
batur Declinatio Aldeboræ.

8 52½ Altit. eius 16 20 46 42

Viceversa Dist. ♂ ab Aldehora

| H. M. | Dist. | Decl. ♂ | Alt. ♂ | Luc. Vult. occid. |
|-------|--------|---------------|---------------|----------------------|
| 8 57 | 11 11 | 17 59 | 25 48½ | 48 11½ |
| | | 17 59½ | | |
| | | Decl. Aldeb. | Alt. Aldeb. | |
| 9 1½ | 11 11½ | 15 41 | 17 50 | 49 22 |
| | | 15 41½ | | |
| 9 5½ | 11 11½ | ♂ 17 59½ | ♂ 26 18 | 50 18 |
| | | vtrorq. | | |
| 9 8½ | 11 11 | Aldeb. 15 41 | Aldeb. 18 18½ | 51 3 |
| | | 15 41½ | | |
| 9 41 | 11 12 | ♂ 17 59½ | Aldeb. 23 2½ | Os Pegasi 30 52 |
| | | vtrorq. | | |
| 9 44½ | 11 11½ | Aldeb. 15 40½ | Aldeb. 23 20 | 31 44 |
| | | 15 41 | | |

N. B. Ex his vtrinque per Trian-
gulos examinatis colligitur ♂

| | | |
|--------------------|-----------|----------|
| | Longitudo | Latitudo |
| | 23 52½ | 0 54 M. |
| Calculus Alphonsi. | 23 51 | 0 45 |
| Copern. | 21 56 | 2 9 |

Postea obseruabatur ♂ cum transiret
per Merid. habens Altitudinem
per Chalyb. 52 0½
per Volub. 52 1½

H. 1 M. 42½ Luc. Mand.
Cete occid. 12 0
Temp. correct. est. Transitus Mandib.
Cete erat H. 12 M. 54½.

DIE 16 OCTOBRIS, MANE.

Obseruabatur ♂ a Lucida ♀ & Aldeb.
Tempora sunt correcta.

H. 3 M. 27 Decl. ♂ 17 52
17 52½

Dist. luc. ♀ & Aldeb. per Sext. 35 32½

| H. M. | Dist. ♂ a luc. ♀ | Declin. | Altit. | Aldeb. occid. |
|-------|---------------------|---------|--------|------------------|
| 3 27½ | 23 22½ | 17 53½ | 45 15 | 18 35 |
| | | 17 54 | melior | |
| 3 31½ | 23 22½ | 17 53½ | 45 0 | 19 34 |
| | | 17 54 | | |
| 5 35½ | 23 22½ | 17 54½ | 44 44 | 20 17 |
| | | vtroque | | |

3 37 Accipiebatur Declinatio Alde-
boræ pro verifi- 15 40
candis armillis 15 40½
Repetita 15 40 vtroque
Altitudo Aldeb. 47 5

Viceversa ♂ ab Aldebora

| H. M. | Dist. ab Aldeb. | Declin. | Altit. | Aldeb. occid. |
|-------|--------------------|--------------|--------|------------------|
| 3 40½ | 12 9½ | 17 54 vtroq. | | 21 46 |
| 3 43 | 12 9½ | | 43 50 | |
| 3 45 | 12 9½ | 17 54 | | 23 4 |
| | | 17 53½ | | |
| 3 48 | 12 9½ | 17 54 | 43 4 | 23 50 |
| | | vtroque | | |

4 0 Repetebatur Declinatio Alde-
boræ, quæ erat quasi in eodem
situ quo ♂ antea 15 40

4 6½ Eadem Declinatio 15 39½
15 40

4 20 Repetita Declin. 15 39½
Aldeb. 15 40

Auferenda sunt vbique quasi 2 Mi-
nuta de ♂ Declinatione, quia Alde-
bora tantum abundauit in pari situ,
vitio Armillarum.

Pone itaque H. 3 M. 45

♂ Distantiam ab Aldeb. 12 9½
a Lucida ♀ 23 22½

Declinationem 17 52

Est autem hoc tempore

| | Afc. Recta | Declin. | Diff. afc. |
|-----------|------------|---------|------------|
| Aldeboræ | 63 12 | 15 38 | 12 29½ |
| Lucidæ ♀ | 26 9 | 21 31 | 24 33 0 |
| Afc. R. ♂ | 50 42 40 | | |
| | 50 42 0 | | |

Ergo H. 3 M. 35 Afc. R. limit. 50 42½

Resp. Longitudo 22 55½ ♀

Latitudo 0 43½ M.

| | Longitudo | Latitudo |
|--------------------|-----------|----------|
| Calculus Alphonsi. | 22 50 | 0 33 |
| Copernici | 21 0 | 1 55 |

Patet itaque, quod Longitudo ob-
seruata excedit vtrumque calculum,
adeoque Alphonsinum qui vltior est
superet pene 6 Minutis, Copernici 1 56.
In Latitudine propius quidem accedit
Alphonsi numeratio, attamen deficit
pene 11 minutis.

DIE 25 OCTOBRIS, MANE.

Obseruationes ♂ ab Aldebora

| H. M. | Dist. | Declin. | Altit. ♂ | Canicula occid. |
|-------|--------|---------|-------------|--------------------|
| 6 32½ | | 17 36 | 15½ | 26 20 |
| | | 17 35½ | | |
| 6 36 | 15 11½ | 17 34½ | 15 0 | 27 19 |
| | | 17 35½ | | |
| 6 39 | 15 11½ | 17 35½ | 14 30 | |
| | | 17 34½ | | |
| 6 41 | 15 11 | 17 35½ | 14 10 | 28 31 |
| | | 17 34½ | | |
| 6 43½ | | 17 34½ | 13 50 | 29 12 |
| | | 17 35½ | | |

Viceversa ♂ Distantia a Cap. Medusæ
6 49½ 22 33 17 35½ 13 10 30 37
vtroque

Postea a Lucido Latere Persei

| | | | | |
|-------|-------|--------|-------|-------|
| 6 51½ | 30 55 | 17 35½ | 12 40 | 31 10 |
| | | 17 35½ | | |
| 6 53½ | 30 55 | 17 36 | 12 30 | 31 45 |
| | | 17 36½ | | |

| | | | |
|--------------------|---------------------|---------------------|-------|
| 6 56 | 17 35 $\frac{1}{2}$ | 12 10 | 32 16 |
| | 17 36 $\frac{1}{2}$ | | |
| 6 58 $\frac{1}{2}$ | 30 56 | 17 36 $\frac{1}{2}$ | 11 50 |
| | | 17 36 $\frac{1}{2}$ | 32 54 |

Postea capiebatur Declin. Aldeboræ
pro examine Armillarum.

| | Decl. | Alt. Aldeb. | Canis minor occid. |
|-------------------|---------------------|-------------|--------------------------|
| 7 0 $\frac{1}{2}$ | 15 40 $\frac{3}{4}$ | 18 50 | |
| bonæ | 15 40 $\frac{1}{2}$ | | 33 30 |
| | 15 40 $\frac{1}{2}$ | 18 0 | Can. mai. occ. |
| | 15 40 | | 47 5 |

Ergo declinatio emendata Aldebo-
ræ quæ est 15 37 45 subtrahit minuta
2 $\frac{1}{2}$ & tantundem a ♂ Declinatione ob-
servata.

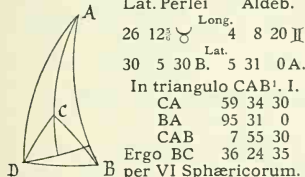
H. 6 M. 36 Dist. ♂ ab Aldeb. 15 11 30
Pone eius decl. observatam 17 35,
quibus emendatis per Aldeboram fac-
ta aufert 2 $\frac{1}{2}$ ′, vt sit vera decl. ♂ 17 33 $\frac{1}{2}$.
Decl. Aldeb. 15 37 $\frac{1}{2}$.

| | |
|---------------------|-----------------------|
| Ang. diff. ascenf. | 15 43 43 |
| Afc. recta Aldeboræ | 63 12 8 |
| Ergo Afc. Recta ♂ | 47 28 25 |
| Resp. Longitudo | 19 52 0 $\frac{1}{2}$ |
| Latitudo | 0 13 0 M. |

Inquisitio loci ♂ in triangulo ex
Aldeboræ & Lucido Latere Perfei H. 6 $\frac{1}{2}$.
H. 6 M. 45 Dist. ab Aldeb. 15 11
a Perfeo 30 55

Altitudo ♂^{is} quasi 14 g.

Lat. Perfei Aldeb.



| Lat. | Long. |
|---------------------|-----------|
| 26 12 $\frac{3}{4}$ | 4 8 20 II |
| 30 5 30 B. | 5 31 0 A. |

In triangulo CAB¹. I.

| | |
|-----|----------|
| CA | 59 34 30 |
| BA | 95 31 0 |
| CAB | 7 55 30 |

Ergo BC 36 24 35
per VI Sphæricorum.

II.

| | |
|---------------|---------------------|
| BC | 36 24 35 |
| BD | 15 11 |
| DC | 30 55 |
| Ergo DBC | 58 30 $\frac{1}{2}$ |
| per IX Sphær. | |

III.

| | |
|----------|---------------------|
| BC | 36 24 35 |
| BA | 95 31 |
| CA | 59 54 30 |
| Ergo CBA | 11 35 $\frac{1}{2}$ |
| per IX. | |

Addito iam Angulo DBC ad CBA
conflatur triangulus DBA, in quo dan-
tur:

| | |
|-----|--------------------|
| DB | 15 11 |
| BA | 95 31 |
| ABD | 70 5 $\frac{3}{4}$ |

Ergo per VI Sphær. DA 90 13 $\frac{1}{2}$
per IX Sphær. DAB 14 15 $\frac{1}{2}$

| | Longitudo | Latitudo. |
|-------------------|-----------------------|------------|
| Ergo ♂ | 19 53 0 $\frac{1}{2}$ | 0 13 50 M. |
| Calculus Alphonf. | 19 46 | 0 7 M. |
| Copern. | 17 54 | 1 8 M. |

DIE 25 OCTOBRIS, VESPERI.

♂ a Lucida V

| H. M. | Dist. | Declin. | Altit. | Os Pegañ or. |
|--------------------|---------------------|---------------------|---------------|-----------------|
| 6 10 $\frac{1}{2}$ | 20 17 $\frac{1}{2}$ | 17 32 $\frac{1}{2}$ | 14 17 | 9 15 |
| | | 17 34 $\frac{1}{2}$ | | |
| | Declinatio | 15 41 | Altit. Aldeb. | |
| | Aldeboræ | 15 40 $\frac{1}{2}$ | 15 30 | Vult. occ. |
| 7 54 $\frac{1}{2}$ | 20 16 | 17 30 $\frac{1}{2}$ | Altit. ♂ | 45 7 |
| | | 17 31 | | |
| 7 57 $\frac{1}{2}$ | 20 15 $\frac{1}{2}$ | 17 31 $\frac{1}{2}$ | 26 40 | 45 44 |
| | | vtroque | | |
| 8 1 | 20 16 | 17 30 $\frac{1}{2}$ | 27 15 | 46 44 |
| | | vtroque | | |

Viceversa ♂ a Lucido Latere Perfei

| | | | | |
|-------------------|---------------------|---------------------|-------|-------|
| 8 4 $\frac{3}{4}$ | 30 57 $\frac{1}{2}$ | 17 30 $\frac{1}{2}$ | 27 42 | 48 35 |
| | | 17 30 | | |
| 8 7 $\frac{1}{2}$ | 30 57 $\frac{1}{2}$ | 17 30 $\frac{1}{2}$ | 28 18 | |
| | | vtroque | | |
| 8 10 | 30 57 $\frac{1}{2}$ | | 28 45 | 50 0 |

Deinceps ♂ ab oculo V

| | | | | |
|--------------------|---------------------|---------------------|-------------|-------|
| 8 15 $\frac{3}{4}$ | 15 23 $\frac{1}{2}$ | 17 30 | Alt. Aldeb. | |
| | | 17 30 $\frac{1}{2}$ | 19 5 | 51 25 |
| 8 18 | Decl. | 15 40 $\frac{1}{2}$ | | |
| | Aldeb. | 15 40 $\frac{1}{2}$ | | |
| 8 23 $\frac{3}{4}$ | 15 23 $\frac{1}{2}$ | 17 30 $\frac{1}{2}$ | | |
| | | 17 30 $\frac{1}{2}$ | 19 55 | 52 24 |
| 8 26 $\frac{1}{2}$ | 15 24 | 17 30 $\frac{1}{2}$ | 20 25 | 53 4 |
| | | 17 30 $\frac{1}{2}$ | | |

Pro Sextante examinando Aldeboræ
a Lucida V

| H. M. | Dist. | Decl. Aldeb. | Altit. | Vultur occid. |
|-------|---------------------|---------------------|--------|------------------|
| 8 46 | 35 32 | 15 39 $\frac{1}{2}$ | 22 37 | 57 57 |
| | 35 32 $\frac{1}{2}$ | 15 39 $\frac{1}{2}$ | | |

¹ A est polus eclipticæ, B Aldebaran, C Latus Perfei, D Mars.

Poftea obferuabatur ♂ appropinquans Meridiano a Lucida √.

| H. M. | Diff. | Decl. | Alt. | Extr. alæ |
|--------|-----------------------------|--------|--------|-----------|
| | | ♂ | ♂ | Peg. occ. |
| 10 53 | 19 52½ | 17 29½ | vtroq. | |
| 10 57 | 19 52½ | | | 26 25 |
| 11 0 | 19 52½ | | | 27 7 |
| 11 3½ | Altitud. Meridiana Lucidæ √ | | | |
| | per Chalyb. | 55 35½ | 28 7 | |
| | per Volub. | 55 35½ | | |
| | Viceverfa ♂ ab Aldebora. | | | |
| 11 9 | 15 50½ | | | 29 20 |
| 11 13 | 15 50½ | 17 29½ | | 30 2 |
| | | 17 29½ | | |
| 11 14½ | 15 51 | | | 30 40 |
| 11 17 | 15 51½ | 17 29½ | | 31 20 |
| | | 17 29 | | |

11 26½ Altitud. ♂ cum tranfiret per Meridianum
per Chalyb. 51 31½ inter
per Volub. 51 31½ nubes
Luc. hum. Orion.
vti videbatur or. 36 25
Plura ob ſuborientes crebras nubes
capi non potuerunt.

H. 11½ ♂ 15 50½ ab Aldeb.

| | | |
|------------------------------|-----------------|--|
| | 19 52½ a Luc. √ | |
| Declin. ♂ limit. | 17 27½ | |
| Declin. Aldebora | 15 37½ | |
| Luc. √ | 21 31½ | |
| Ang. diff. aſc. ab Aldeb. | 16 25½ | |
| Aſc. R. Aldeb. | 63 12 | |
| Aſc. R. ♂ | 46 46 35 | |
| Ang. diff. aſc. a Luc. √ | 20 39 15 | |
| Aſc. R. Luc. √ | 26 9 0 | |
| Aſc. R. ♂ | 46 48 15 | |
| Ergo limit. aſc. recta reſp. | 46 47 25 | |
| Reſp. Longitudo | 19 13 23½ | |
| Latitudo | 0 8 6M. | |

DIE 27 OCTOBRIS, MANE.

| Tempora correcta | Diff. ♂ & Aldeb. | Declin. | Altit. ♂ | Canicula occid. |
|---------------------|---------------------|---------|-------------|--------------------|
| 6 49 | 15 54 | 17 23½ | 11½ | |
| | | 17 23½ | | |
| 6 53½ | 15 52½ | 17 30½ | 10½ | 34 33 |
| | | vtroque | | |
| 6 56½ | 15 53½ | | 10 | 35 20 |

DIE 27 OCTOBRIS, VESPERI.

Obferuabatur ♂ in hunc modum per Sextantem nouum.

| Tempora correcta | Diff. a Lucida √ | Declinatio ♂ | Altit. ♂ | Azimuth | Os Pegafi or. |
|---------------------|--|--------------|-------------|---------|------------------|
| 6 14½ | 19 31½ | 17 28½ | 17 28½ | 14 0 | 6 19 |
| 6 17 | 19 33½ | 17 28½ | 17 28½ | 14 10 | 5 26 |
| 6 20½ | | 17 28 | 17 28½ | 14 21 | 4 33 |
| 6 24½ | 19 33½ | 17 28½ | 17 28½ | 15 5 | 3 27 |
| 6 29 | 19 35 dubia | | | 15 24 | 2 39 |
| 6 33 | 19 34 | | | 15 55 | 1 38 |
| 6 36 | 19 34 | | | 16 22 | 0 51 |
| 6 39½ | Tranfijt Os Pegafi per Meridianum habens Altitudinem | | | | |
| | per Chalyb. | 42 9½ | | | |
| | per Volub. | 42 9½ | | | |

Fuit in Armilla æquatoria 2 Minutis vltra Merid.

| | | | | | |
|-------|---------------------------------|---------------|--------|-------|-----------|
| 6 44½ | 19 34½ | 17 27½ | 17 28 | 17 35 | 1 16 occ. |
| 6 48 | 19 35 | 17 28 vtroque | 18 0 | | 2 8 |
| 6 50 | 19 34½ | 17 27½ | 17 28 | 18 20 | 2 45 |
| 6 52½ | 19 34½ | 17 27½ | 17 27½ | 18 30 | 3 21 |
| | ♂ Diff. a Lucido Latere Perfei. | | | | |
| 6 56 | 30 58½ | 17 27½ | 17 27½ | 19 11 | 4 13 |
| 6 59½ | 30 59½ | 17 27½ | 17 27½ | 19 43 | 5 3 |
| 7 2 | 30 59 | | | 20 10 | 5 44 |

Deinceps a Capella.

| H. M. | Dift. | Declinatio | | Altit. ♂ | Azimuth | Os Peg. occid. |
|-------|-------|------------|--------|----------|---------|----------------|
| 7 5½ | | 17 27½ | 17 27½ | 20 55 | 90 30 | 6 35 |
| 7 7½ | 35 3½ | 17 27½ | 17 27½ | 21 5 | 90 15 | 7 6 |
| 7 11 | 35 3½ | 17 27½ | 17 27½ | 21 35 | 89 30 | 8 1½ |
| 7 13½ | 35 3 | 17 27½ | 17 27½ | 22 0 | 89 0 | 8 40 |
| 7 18 | 35 4 | 17 27½ | 17 27½ | 22 20 | 88 0 | 9 44 |
| 7 21 | 35 4 | | | 23 5 | 87 25 | 10 33 |
| 7 24 | 35 4½ | 17 27½ | 17 27½ | 23 20 | 86 40 | 11 15 |
| 7 26 | 35 3½ | 17 27½ | 17 27½ | 23 45 | 86 20 | 11 46 |
| 7 28½ | 35 4 | 17 27½ | 17 27 | 24 10 | 85 50 | 12 24 |

Interim accipiebatur Declinatio Lucidæ pedis Persei 30 39½, 30 39½. ♂ erat verfus polum, vt Armillæ examinarentur.

Poftea denuo ♂ obferuabatur a Lucida ♀, iam liber a refractione.

| Temp. corr. | Dift. | Declinatio ♂ | | Declinatio Aldeb. | Altit. ♂ | Azim. ♂ | Prima alæ Peg. orient |
|-------------|--------|--------------|--------|-------------------|-------------|---------|-----------------------|
| 7 33 | | 17 27½ | 17 27½ | | 24 40 | 85 0 | 6 42 |
| 7 38 | | | | | 25 15 | | 5 31 |
| | | | | | Alt. Aldeb. | | |
| 7 40 | | | | 15 40 | 15 40½ | 14 40 | 5 0 |
| 7 43 | 19 33½ | | | 15 40½ | 15 40 | 15 13 | 4 16 |
| 7 45 | 19 33½ | 17 27 | 17 27½ | | 15 30 | | 3 47 |
| 7 50 | 19 33½ | | | 15 40½ | 15 40½ | 15 55 | 2 30 |

Chriftiernus¹ Declinationem Aldeb. accepit

15 39½ 15 39 16 30

8 0 Prima alæ Pegafi per Meridianum tranfijt habens Altitudinem

per Chalyb. 47 8½
per Volub. 47 8½

Fuit etiam tunc repetita

Declin. Aldeboræ

15 39 15 39 17½

Declin. primæ alæ Peg.
13 9½ 13 10

Poftea iterum ♂ ab Aldeboræ.

| Temp. corr. | Dift. | Declinatio ♂ | | Decl. Aldeb. | Altit. Aldeb. | I alæ Pegafi occ. |
|-------------|-------|--------------|--------|--------------|---------------|-------------------|
| 8 9 | 16 7½ | 17 26½ | 17 26½ | | 18 38 | 2 14 |
| 8 11½ | 16 7½ | | | 15 39½ | 15 39½ | 2 51 |
| 8 14½ | 16 7 | 17 26½ | 17 26½ | | 19 5 | 3 38 |
| 8 18 | 16 7 | | | 15 39½ | 15 40 | 4 30 |
| 8 20 | 16 7 | | | | 20 5 | |

Sequuntur ♂ obferuationes a prima
♀ circa Merid.

| Tempora verificata | Diftantia | Decl. | Luc. Mand. Cete or. |
|--------------------|-----------------------|------------|---------------------|
| 11 29 | 22 27½ | | |
| 11 31 | 22 26½ | | 6 25 |
| 11 34 | 22 26½ | | |
| | ♂ a Lucida ♀ | | |
| 11 36½ | 19 30½ | 17 27½ vno | 4 48 |
| 11 46 | 19 31½ | | |
| 11 49 | 19 31½ | | 1 49 |
| 11 50½ | 19 32 | | 1 16 |
| 11 55½ | Altit. Merid. | | |
| | Lucidæ Mandibulæ Cete | | |

per Chalyb. 36 33½
per Volub. 36 33

Luc. Mand.

Poftea ♂ a Luc. Mand. Cete.

occ. 1 36

12 2 16 3 dubia

12 4 16 5

12 6 16 5½

12 20 ♂ tranfijt

per Meridianum habens Altitud.

per Chalyb. 51 29½

per Volub. 51 28½

Declin. ♂ 17 25½

17 24½

Fuit tunc Luc. Mand. Cete occ. 6 24

¹ Longomontanus.

*Medium Declinat. est 17 24 50.
Verum quia deprehensa est Declin.
vno minuto abundare, ponatur illa
17 23 50. Medium vero Altit. est
51 29 5. Pone itaque hic Declinati-
onem ♂ 17 23½ B.*

Deinde ♂ ab Aldeboræ.

| H. M. | Distantia | Luc. Mand. Cete occ. |
|--------|-----------|-------------------------|
| 12 36½ | 16 10 | 10 16 |
| 12 39 | 16 10½ | |
| 12 41 | 16 10 | 11 36 |
| 12 44½ | 16 10½ | 12 22 |

Deinde ♂ a Lucido pede II.

| | | |
|-------|--------|-------|
| 12 51 | 44 59½ | 14 5 |
| 12 55 | 45 0 | 14 53 |

| | | |
|-------|--------|-------|
| 12 57 | 44 59½ | 15 27 |
| 1 0 | 44 59½ | 16 13 |

N. B. Declinationem ♂ potes appli-
care ex Altitudine vtraque hesternæ
& hodiernæ, vtraque limitata.

Pro examine Sextantis nouiter re-
parati capiebatur distantia Aldeboræ
& Lucidæ V 35 32bis

Diff. Luc. Lateris Perfei &
Aldeb. 36 20bis

H. 1 M. 27½ Tranfuit oculus per Me-
correcte /idianum habens Altitud.
per Chalyb. 49 43½
per Volub. 49 42½

Declin. Aldeb. 15 38½
15 38½

DIE 28 OCTOBRIS.

♂ obseruabatur a Lucida V. Tempora verificata.

| H. M. | Distantia | Declinatio ♂ | Altit. ♂ | Azim. | Os Pegasi occ. |
|-------|-----------|--------------------------------|----------|-------|-------------------------|
| 6 53 | 19 12½ | 17 24 | 17 23½ | 20 10 | 92 0 |
| 7 0½ | 19 13 | 17 23½ | 17 24½ | | |
| 7 3½ | 19 13 | | | 20 57 | 90 10 |
| 7 6 | 19 13½ | 17 23½ | 17 23½ | | |
| 7 8 | | | | 21 35 | 89 10 |
| 7 11½ | 19 13 | | | | |
| | | Postea a Lucido Latere Perfei. | | | 8 34 |
| 7 16½ | 31 0½ | 17 23½ | 17 23½ | 22 55 | 87 20 |
| 7 19½ | 31 0 | | | | |
| 7 23½ | 31 0 | 17 23½ | 17 23½ | 23 47 | |
| | | | | | 12 0 |
| 7 31 | 31 0½ | 17 23½ | 17 23½ | 24 45 | |
| | | | | | Prima alæ Peg. or. 6 24 |

Postea Aldeboræ Declinatio per Ar-
millas limitanda & in simili
♂ alibi Altitudine.

| H. M. | Declin. | Altit. Aldeb. | Prima alæ Pegasi or. |
|-------|---------|---------------|----------------------|
| 7 40 | 15 39½ | 15 8 | 4 16 |
| | 15 39½ | | |
| 7 47½ | 15 39½ | 16 5 | 2 11 |
| | 15 39½ | | |
| 8 0 | 15 39½ | 17 49 | 0 52 |
| | 15 39½ | | |
| 8 6 | 15 39½ | | |
| | 15 40 | | |

Postmodum ♂ obseruabatur
a Capella.

| | | |
|-------|-------|----------------|
| 8 23½ | 35 18 | 6 50 |
| 8 26 | 35 18 | Pro latitudine |
| 8 29 | 35 18 | ♂ examinanda. |

Deinceps a Lucida Mand. Cete.

| | | Luc. mand. Cete or. |
|-------|--------|------------------------|
| 8 42 | 15 54½ | 47 20 |
| 8 45½ | 15 54 | 46 29 |

Rurfus obseruabatur ♂ Meridiano
appropinquans.

| H. M. | Diff. a prima V | Declin. | Luc. Mand. or. |
|--------|-----------------------|---------|-------------------|
| 10 35½ | 22 7½ | | |
| 10 39½ | 22 7 | | |
| 10 40½ | 22 7½ | 17 21 | 17 40 |
| | | 17 20½ | |
| 10 45½ | Altit. Merid. primæ V | | |
| | per Chalyb. 51 22½ | | 17 56 |
| | per Volub. 51 22 | | 17 40 |
| 10 53 | 22 5½ | | |

| | | | |
|-----------------|-----|----------------------|---------|
| 10 | 54½ | Alt. Merid. Lucidæ V | |
| | | per Chalyb. | 55 36½ |
| | | per Volub. | 55 35½ |
| Declin. eiusdem | 21 | 31½ | vtroque |

♂ viceversa a Lucido pede II.

| H. M. | Dift. | Declin. | Aldeb. or. |
|-------|-------|---------|------------|
| 11 | 7½ | 45 19½ | 34 0 |
| 11 | 11½ | 45 19½ | 17 20½ |
| | | | 17 20½ |
| 11 | 14½ | 45 20½ | 32 19 |
| 11 | 20½ | 45 20 | 30 50 |

♂ viceversa a Lucida V.

| | | | |
|----|-----|--------|--------|
| 11 | 31½ | 19 11½ | 28 6 |
| 11 | 36 | 19 10½ | 26 54 |
| 11 | 39½ | 19 10½ | 17 20½ |
| | | | 17 20½ |
| 11 | 55½ | 19 10½ | 22 1 |
| 12 | 1 | 19 10½ | 20 35 |

Altitud Meridiana Lucidi Lateris
Perfei in Chalyb. 82 25½

| | | | |
|--------------|----|----------------------------|--------|
| 12 | 14 | Tranfijt ♂ | |
| | | per Merid. habens Altitud. | |
| | | per Chalyb. | 51 25½ |
| | | per Volub. | 51 26½ |
| Declinatio ♂ | 17 | 20½ | 17 0 |
| | | | 17 20½ |

Viceversa ab Aldebora. Luc. hum.

| | Dift. | Decl. ♂ | Orion. or. |
|----|-------|---------|------------|
| 12 | 30½ | 16 34½ | 33 21 |
| 12 | 38 | 16 34 | 31 28 |
| 12 | 42 | 16 33½ | 30 43 |
| 12 | 45 | 16 33½ | 17 20½ |
| | | | 17 21 |

1 23½ Tranfuit Aldebora
per Meridianum habens Altitud.
per Chalyb. 49 43½
per Volub. 49 43
Declinatio 15 38½
Aldeb. 15 39½
Lucidus humerus Orionis
orient. 19 38

DIE 30 OCTOBRIS, VESPERI.

♂ obferuabatur a Lucida V.

| H. M. | Distantia | Declinatio ♂ | Alt. ♂ | Vultur occid. |
|-------|-----------|--------------|--------|---------------|
| 7 | 26 corr. | 18 32½ | 17 17 | 17 17½ |
| 7 | 32½ | 18 32½ | 17 17½ | 17 17½ |
| 7 | 36½ | 18 32½ | 17 17½ | 17 17½ |

♂ poſtea a Capella.

| | | | | | | | | |
|---|-----------|--------|--------|---------|-------|-------|--------|--------|
| 7 | 43 | 35 48½ | 17 17½ | 17 17½ | 28 16 | 47 50 | | |
| 7 | 46½ | 35 47 | | | | 48 45 | 15 39½ | 15 39½ |
| 7 | 50½ | 35 47½ | 17 17½ | vtroque | 29 27 | 49 53 | | |
| 7 | 53 corr. | | | | | | | |
| 7 | 56½ corr. | 35 45½ | | | | | | |

1 alæ Peg. occ.

Viceversa poſtea ♂ ab Aldebora.

| | | | | | | | | | |
|---|-----------|------------|--------|--------|-------|------|--------|--------|-------------|
| 7 | 59½ | | 17 17½ | 17 17½ | | 3 53 | | | Alt. Aldeb. |
| 8 | 1½ | | | | | 4 24 | 15 39½ | 15 39½ | 19 25 |
| 8 | 4½ | 17 12½ bis | | | 31½ | 5 14 | | | 20 13 |
| 8 | 8½ | 17 12½ | | | | 6 16 | | | 20 58 |
| 8 | 12½ corr. | | | | | | | | |
| 8 | 18½ | 17 12½ | 17 17½ | 17 ... | 33 30 | | | | 22 16 |
| 8 | 22 corr. | | | | | | | | |

Rurfus ♂ a Lucida V.

| | | | | | Extr. alæ Peg. or. | | | | |
|--|-----------|--------|--------|-----------|--------------------|------|--------|--------|-------|
| 8 | 21½ | 18 32½ | 17 17½ | 17 17 | 34 0 | 7 0 | | | 22½ |
| 8 | 26½ corr. | | | | | | | | |
| 8 | 24 | 18 31½ | | | 34 10 | 6 40 | 15 39½ | 15 39½ | 23½ |
| 8 | 28½ corr. | | | | | | | | |
| 8 | 27½ | 18 32½ | 17 16½ | vno pinn. | 34 45 | | | | 23 50 |
| Deinde viceversa capiebatur ♂ ab Aldebora, ſed inter rariuſculas nubes diſcurrentes. | | | | | | | | | |
| 8 | 38½ | | 17 17 | vno | 36 25 | | | | 25 37 |

Supputatio loci ♂ ex obseruationibus dierum 27 & 28 Octobris,
habitis ante ♀ cum ☉, cum ♂ citra vltraque
Meridianum verfaretur.

Die 27 VIIIbris.

Fixarum 4^{tuor} loca a quibus
obseruabatur.

| | Afc. r. | Decl. B. |
|-----------------------------------|----------|----------|
| I ♀ | 22 52 15 | 17 17 |
| Lucida ♀ | 26 8 50 | 21 31 30 |
| Aldeb. | 63 12 10 | 15 37½ |
| Luc. pes II | 93 33 20 | 16 40½ |
| H. 12½ cum ♂ transiret per Merid. | | |

| | | |
|--------------|------------|----------|
| Dift. eius a | I ♀ | 22 26 0 |
| | luc. ♀ | 19 31½ |
| | Aldeb. | 16 10 15 |
| | luc. p. II | 44 59½ |

Declinatio ♂

| | | |
|----------------------|------------|----------|
| Ang. diff. ascenf. a | I ♀ | 23 30 40 |
| | luc. ♀ | 20 15 24 |
| | Aldeb. | 16 47 0 |
| | luc. p. II | 47 10 20 |

Ergo ♂ Afc. Recta

| | |
|--|----------|
| | 46 22 55 |
| | 46 24 14 |
| | 46 25 10 |
| | 46 23 0 |

| | |
|-------------------------|----------|
| H. 12½ Afc. R. limitata | 46 24½ |
| Resp. Longitudo | 18 51½ ♀ |
| Latitudo | 0 5½ M. |

| | |
|----------------------|----------------------|
| Parallax Long. 1' 0" | vera Long. 18 52 15½ |
| Latit. 3 15 | Latit. 0 2 20M. |

DIE 28 OCTOBRIS.

| | |
|----------------------|----------|
| H. 11½ Dift. ♂ a I ♀ | 22 6 |
| a luc. pede II | 45 20 |
| Declin. ♂ | 17 20 30 |
| Ang. diff. ascenf. | 23 9 45 |
| | 47 31 35 |

| | |
|----------------|--------|
| Ergo Afc. R. ♂ | 46 2 0 |
| | 1 45 |

| | |
|------------------|----------|
| Afc. R. limitata | 46 1 50 |
| Resp. Longitudo | 18 29½ ♀ |
| Latitudo | 0 2 52M. |

Eadem nocte H. 12½ ad transitum ♂
per Meridianum.

| | |
|----------------|----------|
| Dift. a luc. ♀ | 19 10 30 |
| ab Aldeb. | 16 34 0 |

| | |
|--------------------|----------|
| Declin. ♂ | 17 20½ |
| Ang. diff. ascenf. | 19 51 40 |
| | 17 11 23 |

Ergo ♂ Afc. R.

46 0 30

46 0 47

Afc. R. limitata 46 0 40

Resp. Longitudo 18 28 25½

Latitudo 0 2 45M.

Ergo ex } Longitudo 18 28 22½

supput. } Latitudo 0 2 50M.

Parallax Long. 1' 0" add.

Latit. 3 15 subtr.

Vera Longitudo 18 29 20½

Latitudo 0 0 25B.

DIE 30 OCTOBRIS.

H. 8 M. 20 Dift. ♂ a luc. ♀ 18 32

ab Aldeb. 17 12 40

Declin. ♂ 17 16

Ang. diff. ascenf. 19 8 33

17 52 38

Afc. R. ♂ 45 17 23

45 19 22

Afc. R. limitata 45 18½

Resp. Longitudo 17 48½ ♀

Latitudo 0 3½ B.

Parallax Altit. ♂ 3 10

in Long. 1 15 subtr.

in Lat. 3 30 add.


Igitur vera ♂ Longit. 17 47½

Latit. 0 7½ B.

Ex his & præcedentibus colligitur ♂
fuisse secundum verum locum suum
in Ecliptica in ♀ cum simplici ☉

Octob. 29^o 21^h 50^m in 17 56½ ♀

cum Latitudine vera 5½ B.

 CBA rectus
ACB 4° 33'
Lat. AB 5° 30''

Inquiratur CB, 1° 4'. Ergo inter-
sectio in 16 52½ ♀.

Exploratio distantiae ♂ ab alijs duabus
stellis supra & infra pro Latit-
tudine eius exploranda.

Longitudo

Lateris Persei 26 12½ ♀ 30 5½ B.

Capellæ 16 11 35 II 22 51 B.

Mand. Cete 8 42 25 ♀ 12 37 10M.

Die 28 Oct. H. 8½ ♂ supput.
 Long. 18 32
 Latit. 0 3 M.
 Resp. Distantia supput. 35 18 46
 Capellæ & ♂ obferuat. 35 18 0
 H. 9 Longitudo ♂ 18 31½ ♀
 Latitudo vt prius
 Resp. Distantia supput. 15 53 53
 a Mandib. Cete obf. 15 54½ lim.
 Die 30 Oct. H. 8 (Long. 17 48½ ♀
 quali, ♂ obferuat. Latit. 0 3½ B.
 Resp. Dift. ♂ supput. 35 47½
 a Capella obferuat. 35 47½ lim.

DIE 3 NOUEMBRIS.

Pro examinanda Declinatione ♂ ante quadriduum facta obferuabatur Aldebora in confimili quali altitudine qua tunc ♂ erat.

| H. M. | Decl. | Altit. | Aldeb. |
|-------|--------|--------|-------------------|
| | Aldeb. | Aldeb. | orient. |
| 9 5 | 15 39½ | 31½ | |
| | 15 38½ | | |
| 9 13 | 15 39½ | 31½ | 55 34 |
| | 15 38½ | | Luc. pes |
| 10 38 | 15 39½ | 42½ | Orion. or. 43 32½ |
| | 15 38½ | | |

Resp. Decl. 15 39 15

Debet esse 15 37 45

Differentia 1 30 auferenda a declinatione ♂ in confimili altitudine.

Obferuabatur ♂ appropinquans meridiano, 1° a Lucida ♀.

| H. M. | Dift. | Declin. | Altit. ♂ | Luc. pes |
|--------|--------|-------------------------|----------|------------|
| | | | | Orion. or. |
| 11 4½ | 17 10½ | 17 4½ | 50 46 | 36 58 |
| | | 17 2½ | dubia | |
| 11 7½ | 17 11 | | 50 50 | 36 15 |
| 11 9½ | 17 10½ | 17 3 | 50 55 | 35 41 |
| | | vno | | |
| | | Viceversa ♂ ab oculo ♀. | | Luc. hum. |
| 11 13½ | 18 40½ | | 51 0 | 44 15 |
| 11 16½ | 18 42 | inter nubes | | 43 17 |
| 11 19 | 18 42½ | 17 3½ | | 42 32 |
| | | melior | 17 4 | |
| 11 25½ | 18 41½ | | | 41 9 |

Pone

hic 18 42 & in anteced. 17 10½.

11 30½ Tranfuit ♂
 per Meridianum habens Altitud.

per Chalyb. 51 7½ vel ½
 potius

per Volub. 51 7½
 Declin. ♂ 17 3½ exacte
 17 3

Fuit tunc Luc. hum. Orion. or. 35 9
 Pone Declin. ♂ 17 2½, Altitudinem
 51 7½.

Postea capiebatur ♂ a Lucido pede II.

| H. M. | Distantia | Luc. hum. |
|--------|-----------|-----------|
| | | Or. or. |
| 11 49½ | 47 35 | 34 32 |
| 11 52½ | 47 32½ | 33 46 |
| 11 55 | 47 33½ | 33 10 |
| 11 57½ | 47 33½ | 32 30 |

Pone circa hæc tempora

distantiam 47 33.

12 45½ Tranfuit Aldebora
 per Meridianum habens Altitud.

per Chalyb. 49 43

per Volub. 49 42½

Declin. Aldebora 15 38½

15 38½

Fuit tunc Luc. hum. Orion. orient. 20 1½

N. B. Hic in Declinatione Aldebora abundat 1 Minut. & in Altitudine deficit ½ in Chalybeo, propterea tantum supra limitaui hæc vtraque in ♂.

Pro ♂ loco die 3 Nouembris ex obferuationibus præcedentibus.

H. 11½ Dift. ♂ a Luc. ♀ 17 10 50
 ab Aldeb. 18 42 0

Decl. ♂ præcife

ex alt. mer. 17 2 15 B

Ang. diff. asc. ♂

a Luc. ♀ 17 35 0

Ergo Asc. ♂ hinc 43 44 0

Ang. diff. asc. ab Aldeb. 19 26 20

Ergo Asc. R. ♂ hinc 43 45 40

Asc. Recta limitata 43 44 50

Resp. Longitudo 16 19 4 ♀

Latitudo 0 16 26 B.

Eodem die H. 12

Dift. ♂ a luc. pede II 47 33

Declin. ♂ vt supra

Ang. diff. ascenf. 49 49 30

Ergo Asc. R. ♂ 43 43 50

Resp. Longitudo 16 18 12 ♀

Latitudo 0 16 40 B.

Pone H. 12 Longit. 16 18½ ♂ limitata
Latitud. 0 16½ B.

Distantia ♂ a terra in femid. terræ 600.
Altit. in meridie ἐν πλάτει 51 g.

Resp. Parallaxis in circulo altit. M. 3½
Inde Parallaxis Longit. 1' 0" add.
Latit. 3 15 add.

Collectio φαινομένων ♂ ex quibus
Acronychius eius situs quærebatur.

| Men- fis | Dies | H. M. | Longitudo | Latitudo |
|-------------|------|-------|-----------|------------|
| Oct. | 27 | 12 20 | 18 52½ ♀ | 0 2½ M. |
| | 28 | 12 15 | 18 29 20 | 0 0 25 B. |
| | 30 | 8 20 | 17 47½ | 0 7½ B. |
| Nou. | 3 | 12 0 | 16 18½ | 0 19 45 B. |

Idem inquirere enucleatius ex col-
latione dierum 28 & 30 Oct.

| D. | H. M. | Longitudo | Latitudo |
|-------|--------|-----------|-----------|
| 28 | 12 15 | 18 29 20 | 0 0 25 B. |
| 30 | 8 20 | 17 47 15 | 0 7 10 |
| diff. | 1 20 5 | 42 5 | 6 45 |

Resp. Motus diurnus Longit. 22' 54"
Latit. 3 40

Pro vero motu diurno ♂ observato
a die 28½ vsque ad ♂ ☉ inquirendo ex
collatione antecedentium.

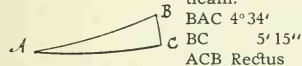
D. 5 H. 3 remittunt in motu diurno
M. 1 0. Quid D. 1 H. 10? 16".

Pone itaque motum ♀ Longit. 23' 10"
diurnum ♂ Latit. 3 30

Æquatio temporis M. 24.

Ex his suppositis applicato vno no-
stro simplici ☉ inuenitur ♂ fuisse in ♂
cum simplici ☉ Die 29 H. 21 M. 46, id-
que in 17 56 5 ♀ cum Latitudine 0 5½
B. simili cum priori.

Pro interfectione orbitæ ♂ per Eclip-
ticam.



Ergo CA 1° 5'. Cadit itaque interfectio
in 16 51 vel 16½ ♀. Omnibus subtiliter
pro Parallaxibus ♂ trutinatis.

DIE 7 NOUEMBRIS, VESPERI.

Obseruabatur ♂ a Lucida ♀.

| H. M. | Diff. | Decl. | Altit. ♂ | Os Peg. occ. |
|-------|--------|--------|----------|--------------|
| 8 23½ | 15 59½ | | 38 6½ | 35 55 |
| 8 25½ | 15 59½ | 16 51½ | 38 15 | |

| | | | | |
|-------|--------|--------|--------|-------|
| 8 31½ | 16 0 | 16 50½ | 39 11 | 38 16 |
| 8 33½ | 15 59½ | 16 50½ | 39 28½ | 38 53 |
| | | 16 51 | | |

Viceversa ♂ ab Aldeborā.

| | | | | |
|-------|---------|--------|-------|-------|
| 8 43½ | 20 fere | | 40 31 | 41 6 |
| 8 46½ | 20 | | 40 46 | 41 41 |
| 8 48½ | 20 1½ | 16 51 | 40 57 | |
| | | 16 51½ | | |

8 51½ 20 0 41 16 43 1
☉ obscurauit Aldeboram, vt com-
mode videri non posset.

Pro examine Armillarum

| | |
|-----------------------|--------|
| capiebatur Declinatio | 15 58½ |
| Aldeboræ | 15 38½ |
| Altit. Aldeb. | 30 22 |

DIE 13 NOUEMBRIS, VESPERI.

Obseruabatur ♂ a Lucida ♀.

| H. M. | Diff. | Declin. | Altit. ♂ | 1 alæ Peg. occid. |
|-------|---------------|---------|----------|-------------------|
| 7 50 | 14 24½ | | 38 47 | 15 59 |
| 7 53½ | 14 22½ | 16 35½ | 39 37 | 16 47 |
| | inter nubes / | 16 34½ | | |
| 8 6½ | 14 24 | | | 20 16 |
| 8 8½ | 14 24 | | 40 47 | |

Viceversa ♂ ab Aldeborā.

| | | | | |
|-------|--------|--------|--|-------|
| 8 15½ | 21 48½ | 16 36½ | | 22 37 |
| | | 16 36½ | | |
| 8 18 | 21 49 | | | 23 11 |

DIE 15 NOUEMBRIS, VESPERI.

Obseruabatur ♂ cum eſſet circa
Meridianum, a Lucida ♀.

| H. M. | Diff. | Declin. | Altit. | Aldeb. or. |
|--------|--------|---------|--------|------------|
| 9 59½ | 13 58½ | 16 31 | | 32 33 |
| | | 16 30½ | | |
| 10 2½ | 13 59½ | | | 31 45 |
| 10 5½ | 13 58½ | | | 31 2 |
| 10 8½ | 13 58½ | | | 30 19 |
| | | | | |
| 10 13 | 22 20½ | | | 29 5 |
| 10 15½ | 22 20½ | 16 30½ | | 28 28 |
| | bona / | 16 30½ | | |
| 10 22 | 22 20½ | | | 26 47 |

10 35½ Transiuit ♂

per Meridianum habens Altit.

per Chalyb. 50 34½

per Volub. 50 34½

Declin. ♂ 16 29½. Fuit tunc

16 30½ Aldeb. or. 23 16

DIE 21 NOUEMBRIS, VESPERI.

Obferuabatur ♂ appropinquans
Merid., a Lucida ♀.

| H. M. | Diff. | Declin. | Oculus ♀ or. |
|--------------------|---------------------|---------------------|--------------|
| 9 38 $\frac{1}{2}$ | 12 51 $\frac{1}{2}$ | 16 20 vtroque | 28 40 |
| 9 41 $\frac{1}{2}$ | 12 51 $\frac{1}{2}$ | | 27 54 |
| 9 44 $\frac{1}{2}$ | 12 51 $\frac{1}{2}$ | 16 20 | 27 21 |
| | | 16 19 $\frac{1}{2}$ | |

9 54 $\frac{1}{2}$ Tranſiuit ♂
per Meridianum habens Altit.
per Chalyb. 50 25 $\frac{1}{2}$
per Volub. 50 24 $\frac{1}{2}$

Declin. per 16 19 $\frac{1}{2}$ Tunc fuit Aldeb.
Armill. max. 16 19 $\frac{1}{2}$ or. 24 32

Viceverſa Diff. ♂ ab oculo ♀.
10 5 $\frac{1}{2}$ 23 37 $\frac{1}{2}$ 21 50
10 6 $\frac{1}{2}$ 23 37 fere 21 30
10 9 23 37 $\frac{1}{2}$ 20 53

DIE 23 NOUEMBRIS, VESPERI.

Obferuabatur ♂ appropinquans
Meridiano, I a Lucida ♀.

| H. M. | Diff. | Decl. ♂ | Luc. Mand. Cete or. |
|--------------------|---------------------|---------------------|------------------------|
| 9 13 $\frac{1}{2}$ | 12 35 | | 10 37 |
| 9 15 $\frac{1}{2}$ | 12 34 $\frac{1}{2}$ | | 9 56 |
| 9 23 40 | correct. | | |
| 9 18 $\frac{1}{2}$ | 12 34 $\frac{1}{2}$ | 16 18 | |
| | | 16 18 $\frac{1}{2}$ | |

Viceverſa ab Aldebora.

9 21 $\frac{1}{2}$ 23 54
9 23 $\frac{1}{2}$ 23 54 $\frac{1}{2}$ 16 18 vtroq. 7 58
9 31 corr.
9 25 $\frac{1}{2}$ 23 54 $\frac{1}{2}$
9 46 $\frac{1}{2}$ Tranſiuit ♂

Meridianum habens Altitud.

per Chalyb. 50 22 $\frac{1}{2}$

per Volub. 50 23 $\frac{1}{2}$

Fuit tunc Luc. Mand.

Cete or. 1 56 $\frac{1}{2}$

Calculus pro loco ♂ ad diem

23 Nouembris.

H. 9 $\frac{1}{2}$ Diff. ♂ a Lucida ♀ 12 34 45
Aldebora 23 54 20

Declin. ♂ 16 17 $\frac{1}{2}$ B.

Afc. R. ♂ limitata 38 18

Reſp. Longitudo 11 6 $\frac{1}{2}$ ♀

Latitudo 1 40 $\frac{1}{2}$ B.

DIE 4 DECEMBRIS, VESPERI.

Obferuabatur ♂ *prope ſtationem*,
iuxta directionem appropinquans
△ ⊙, pro ſemidiametro orbis ex-
aminanda. I. a prima alæ Pegafi.

| H. M. | Diff. | Declin. | Altit. | Aldeb. or. |
|--------------------|---------------------|---------------------|--------|------------|
| 8 19 $\frac{1}{2}$ | 54 23 $\frac{1}{2}$ | 16 21 $\frac{1}{2}$ | 49 50 | |
| | | 16 21 | | |

8 21 $\frac{1}{2}$ 54 22 $\frac{1}{2}$
8 24 $\frac{1}{2}$ 54 22 $\frac{1}{2}$ 16 21 $\frac{1}{2}$ 34 55
16 21

8 26 54 22 $\frac{1}{2}$ 34 25

Viceverſa ab Aldebora.

8 29 24 40 $\frac{1}{2}$ 33 40
8 31 $\frac{1}{2}$ 24 40 $\frac{1}{2}$ 33 0
8 33 $\frac{1}{2}$ 24 41 16 21 $\frac{1}{2}$ 32 24
16 21

8 59 Tranſiuit ♂
per Meridianum habens Altit.

per Chalyb. 50 26 $\frac{1}{2}$

per Volub. 50 27

Fuit tunc oculus ♀ or. 25 28

DIE 5 DECEMBRIS, VESPERI.

Obferuabatur ♂ appropinquans Meri-
diano, I. a Lucida ♀.

| H. M. | Diffantia | Declinatio | Luc. Mand. Cete or. |
|-------|-----------|------------|------------------------|
|-------|-----------|------------|------------------------|

7 55 11 50 $\frac{1}{2}$
8 1 11 51 bis
8 4 $\frac{1}{2}$ 11 51 16 23 vtroq. 11 5

N. B. Hæ diffantiae inter nubes ♂
exiſtente captæ ſunt, interdum ſaltem
per illas eodem reſplendente.

Viceverſa ♂ ab Aldebora.

8 11 $\frac{1}{2}$ 24 40 $\frac{1}{2}$ 9 16 $\frac{1}{2}$

8 14 24 40 $\frac{1}{2}$ 8 35

8 16 $\frac{1}{2}$ 24 40 $\frac{1}{2}$ 16 22 $\frac{1}{2}$

inter nubes 16 23

8 41 Tranſiuit ♂

per Meridianum habens altitud.

per Chalyb. 50 27 $\frac{1}{2}$

Fuit tunc ♂ transgreſſus Meridia-
num circiter unum gradum. Nam in
ipſo Meridie non fuit ſerenum.

N. B. Addenda eſt tertia pars vnus
minuti, vt patuit die ſequenti.

Ergo vera Altitudo ♂ fuit 50 28 $\frac{1}{2}$.

N. B. Ex hac distantia ♂ ab Aldebora 24 40 $\frac{1}{2}$, quæ hesternam 24 40 $\frac{1}{2}$ faltem dimidio minuto anticipat, colligitur ♂ non longe a statione secunda abfuisse, vtpote vix vltra $\frac{1}{2}$ diem, cum tamen Calculus Prutenicus ipsum faciat triduo ante stationarium, vtpote ante diem 1 Decembris: At Alphonsinus rectius quadrat, ponens stationem eius Die 3 Decembris. Debuit autem ♂ ab hesternam die iuxta vtrumque Calculum proceßisse 4 minutis, cum ne vnum quidem in ipso cælo abfoluerit.

N. B. Hæ obseruationes ♂ possunt examinari pro loco eius, tam per triangulos a polo Eclipticæ quam per differentias ascensionales ratione Æquatoris, præstat vero prior modus ad [trutinam?].

DIE 6 DECEMBRIS, VESPERI.

Obferuabatur ♂ appropinquans Meridiano, I. a prima alæ Pegasi.

| H. M. | Distantia | Declin. | Sin. hum. Orion. or. |
|--------------------|---------------------|---------------------|----------------------|
| 8 25 $\frac{3}{4}$ | 54 25 | | 46 2 |
| 8 27 $\frac{3}{4}$ | 54 24 $\frac{1}{2}$ | | 45 27 |
| 8 29 $\frac{1}{2}$ | 54 25 | 16 24 $\frac{3}{4}$ | |
| | | 16 25 | |

8 31 $\frac{1}{2}$ 54 24 $\frac{3}{4}$ 44 41

Viceversa ♂ ab Aldebora.

| | | | |
|------|---------------------|---------------------|-------|
| 8 35 | 24 39 $\frac{1}{2}$ | | 43 36 |
| 8 37 | 24 39 $\frac{1}{2}$ | 16 25 $\frac{1}{2}$ | 43 9 |
| | | 16 25 | |

8 39 24 39 $\frac{1}{2}$

Postea ♂ a Lucida ♀.

| | | | |
|--------------------|-------|--|-------|
| 8 44 $\frac{1}{2}$ | 11 51 | | 41 11 |
| 8 46 $\frac{3}{4}$ | 11 51 | | 40 26 |

8 55 Tranßuit ♂

| | |
|--------------------------------|---------------------|
| per Meridianum habens Altitud. | |
| per Chalyb. | 50 30 |
| per Volub. | 50 29 $\frac{3}{4}$ |
| Declin. ♂ | 16 25 $\frac{1}{2}$ |
| per Armillas | 16 25 |
| finitur humer. Orionis or. | 38 24 |

Deinde ♂ altitudo iterata est, cum circiter vnum gradum Meridianum

eßet transgreßus, ad hesternam in Meridie eiusdem altitudinem ex temporis interuallo eliciendam.

8 57 $\frac{3}{4}$ Altit. ♂ 50 29 $\frac{3}{4}$.

Constat igitur addendam esse Altitudini Meridianæ hesternæ faltem tertiam vnus minuti partem, per Chalybeum vtrobique obseruatæ, vide supra.

Pro loco ♂ ex obseruationibus Diej 6.

H. 8 M. 25 Dist. ♂

| | |
|--------------------|----------|
| a prima alæ Peg. | 54 25 |
| Declin. ♂ | 16 25 B. |
| Declin. primæ alæ | 13 3 42 |
| Afc. R. eiusdem | 341 10 |
| Ang. diff. ascenf. | 56 19 55 |
| Ergo Afc. R. ♂ | 37 29 55 |

Vice versa ab Aldebora.

| | |
|------------------------|------------------------|
| 8 35 Dist. ♂ ab Aldeb. | 24 39 $\frac{1}{2}$ |
| Declin. Aldeb. | 15 37 30 |
| Afc. R. eiusdem | 63 12 |
| Ang. diff. ascenf. | 25 39 30 |
| Ergo Afc. R. ♂ | 37 32 30 |
| Afc. Recta limitata | 37 30 13 $\frac{1}{2}$ |
| Resp. Longitudo | 10 25 35 $\frac{1}{2}$ |
| Latitudo | 1 29 55 |

H. 8 $\frac{1}{2}$ Dist. ♂ a Mandib.

| | |
|--------------------|---------------------|
| Declin. ♂ | 16 24 $\frac{1}{2}$ |
| Ang. diff. ascenf. | 56 19 58 |
| Afc. R. ♂ | 37 29 58 |

H. 8 $\frac{1}{2}$ Dist. ♂ ab Aldeb.

| | |
|---------------------|------------------------|
| Ang. diff. ascenf. | 25 39 $\frac{1}{2}$ |
| Afc. R. ♂ | 37 32 40 |
| Afc. Recta limitata | 37 31 $\frac{1}{2}$ |
| Resp. Longitudo | 10 26 16 $\frac{1}{2}$ |
| Latitudo | 1 29 4B. |

DIE 14 DECEMBRIS, VESPERI.

H. 8 M. 37 $\frac{3}{4}$ Tranßuit ♂

| | |
|--------------------------------|---------------------------------|
| per Meridianum habens Altitud. | |
| per Chalyb. | 50 50 $\frac{3}{4}$ |
| per Volub. | 50 51 $\frac{1}{2}$ |
| Declinatio ♂ | 16 45 |
| Inter nubes | 16 44 $\frac{3}{4}$ rariufculas |

Extrema alæ Pegasi occid. 40 0 exacte.

¹ Debet esse 37° 31' 13'', quæ cum altera Afc. R. pro hora 8 $\frac{1}{2}$ exquisitè consentit.

DIE 17 DECEMBRIS, VESPERI.

Obferuabatur ♂ I. a prima alæ Pegafi.

| H. M. | Dift. | Declin. | Extr. alæ Peg. or. |
|-------|--------|---------|----------------------------------|
| 6 0½ | 55 19½ | dubia | 4 38 |
| 6 2½ | 55 20½ | bis | 4 7 |
| 6 6½ | 55 20½ | 16 56½ | Mars fuit fatis altus |
| 6 8½ | | 16 56½ | carens omni re- fractione. |

Viceverfa ♂ ab Aldehora.

| | | | |
|-------|--------------------|------------|-------------------|
| 6 11 | 23 40½ | 16 56½ | 2 0 |
| | | 16 56½ | |
| 6 13 | 23 40½ | | |
| | Rurfus ♂ ab Aldeb. | Luc. mand. | |
| 6 21½ | 23 41½ | 16 56½ | Cete or. 41 28 |
| | | 16 56½ | |

Dux priores obferuationes in ♂ funt meliores. Poftquam enim 2 obferuat fuit, nubes exortæ funt & ♂ obferuationem impedierunt.

Pro corrigendis Armillis capiebatur Declin. Aldeboræ

15 37½
15 38

eo fere fitu quo antea ♂ obferuatus eft, H. 7 M. 56½.

Poftea obferuabatur ♂ appropinquans Meridiano a Lucida √.

| H. M. | Dift. | Declin. | Alt. ♂ |
|-------|-------|---------|-----------|
| 7 5½ | 12 40 | | 49 47 |
| 7 10½ | | 16 55½ | vno pinn. |

Poftea reftituta aliqua serenitate, vbi ♂ Meridianum erat transgreffus, H. 8 M. 26 fuit eius Altitudo

| | |
|--------------------------|--------|
| per Volubilem | 50 34 |
| Azimuth ♂ a Mer. ad occ. | 12 0 |
| Lucida Mand. Cete occ. | 6 10 |
| Declin. ♂ | 16 56½ |
| | 16 56½ |

8 37 Altitudo ♂ in Volubili 50 10
Azimuth 16 18

Declinatio ♂ circa medium harum obferuationum absumi poterit 16 56½

B. ex correptione per Aldeboram.

Diftantia a prima alæ Peg. 55 20½
ab Aldehora 23 40½

¹ Lineis induta.

Pro loco ♂ die 17 Decembris.

H. 6 M. 6½ Dift.

| | |
|-------------------------|---------------|
| a prima alæ Peg. | 55 20 30 |
| Afc. R. primæ alæ | 341 10 |
| Declin. eiusdem | 13 3 42 |
| Ang. diff. ascenf. | 57 20 56 |
| Ergo Afc. R. ♂ | 38 30 56 |
| Dift. ♂ ab Aldeb. | 23 40½ |
| Afc. R. | 63 12 |
| Declin. eiusdem | 15 37 20 |
| Ang. diff. ascenf. | 24 38 52 |
| Ergo Afc. R. ♂ | 38 33 8 |
| Ascensio Recta limitata | 38 32 2 |
| Refp. Longitudo | 11 31 27 bona |
| Latitudo | 1 40 44 B. |

DIE 18 DECEMBRIS, VESPERI.

Obferuabatur ♂ a prima alæ Pegafi.

| H. M. | Diftantia | Declinatio | Os Pegafi occid. |
|-------------|-----------|------------|---------------------|
| 5 49½ | 55 29½ | | 43 7 |
| 5 51½ | 55 29½ | | 43 38 |
| 5 52½ | 55 29½ | 16 59½ | 44 0 |
| Pone 55 29½ | 16 59½ | | |

Viceverfa ♂ ab oculo √.

| | | | |
|-------------|--------|-------------|-------|
| 5 56½ | 23 31½ | | 44 46 |
| 5 58½ | 23 31½ | 17 0 vtroq. | 45 24 |
| 6 3½ | 23 31½ | 17 0 | 46 25 |
| Pone 23 31½ | 17 0½ | | 1 alæ |

Deinde ♂ a Lucida √.

| | | | |
|-------|--------|-------|-------|
| 6 14 | 12 38 | | 29 2½ |
| 6 15½ | 12 38½ | 17 0½ | 29 23 |
| | | 17 0 | |
| 6 16½ | 12 38½ | | 29 37 |

Pone 12 38½

Viceverfa a Boreali cornu √.

| | | | |
|-------|--------|--|-------|
| 6 19 | 35 20½ | | 30 15 |
| 6 20½ | 35 20 | | 30 45 |
| 6 22 | 35 19½ | | 31 1 |

Pone 35 20

Poftea rurfus obferuabatur ♂ appropinquans Meridiano.

I. a prima alæ Pegafi.

| H. M. | Diftantia | Declinatio | Extr. alæ Peg. occ. |
|----------|-----------|------------|------------------------|
| 7 34 | 55 29½¹ | | |
| 7 35½ | 55 30 | | |
| 7 37½ | 55 30½ | | |
| 7 38½ | 55 30½ | | |
| Pone hic | | | |
| dift. | 55 30½ | | |

| | | | |
|--|-------------------------------|---------------------------|---------------------|
| Viceversa ♂ ab Aldebora. | | | |
| 7 41 $\frac{3}{4}$ | 23 30 $\frac{3}{4}$ | 17 0 vtroque | |
| 7 43 $\frac{1}{2}$ | 23 30 $\frac{3}{4}$ | | |
| 7 45 | 23 31 | | 34 27 |
| { 7 43 27 corr. | | | |
| 7 46 $\frac{3}{4}$ | 23 31 $\frac{1}{2}$ | | 34 52 |
| 7 48 $\frac{1}{2}$ | 23 30 $\frac{3}{4}$ | 17 0 $\frac{1}{2}$ vtroq. | 35 20 |
| <i>Pone hic</i> | | | |
| <i>dist. 23 31</i> | | | |
| Postea ♂ a Lucida V. | | | |
| { 7 51 $\frac{3}{4}$ | 12 39 $\frac{1}{2}$ | | 36 12 $\frac{1}{2}$ |
| { 7 52 corr. | | | |
| 7 53 $\frac{1}{2}$ | 12 39 | | 36 38 |
| 7 55 $\frac{3}{4}$ | 12 39 | 17 0 $\frac{1}{2}$ | 37 1 |
| | | 17 0 $\frac{1}{2}$ | |
| 7 56 $\frac{1}{4}$ | 12 39 | | 37 29 |
| Viceversa ♂ a Lucido pede II. | | | |
| 7 59 $\frac{1}{2}$ | 52 20 $\frac{1}{2}$ | 17 0 $\frac{1}{2}$ | 38 6 |
| | | 17 0 $\frac{1}{2}$ | |
| 8 1 | 52 21 | | 38 30 |
| 8 2 $\frac{1}{2}$ | 52 20 $\frac{1}{2}$ | | 38 51 |
| 8 4 $\frac{1}{2}$ | 52 20 | | 39 15 |
| 8 9 $\frac{1}{2}$ | Transiuit ♂ | | |
| | per Merid. habens Altitudinem | | |
| | in Chalyb. | | 51 4 $\frac{3}{4}$ |
| | in Volub. | | 51 4 $\frac{3}{4}$ |
| | Declinatio ♂ | | 17 0 $\frac{1}{2}$ |
| | | | 17 0 Fuit Lucida |
| Mandib. Cete orient. exacte 1 38 | | | |
| Declin. Aldeboraē | 15 37 $\frac{1}{2}$ | | |
| | 15 37 $\frac{1}{2}$ | | |
| Pro examinando Sextante accipiebatur distantia | | | |
| | | 35 31 $\frac{1}{2}$ | |
| Lucidæ V & | | 35 31 $\frac{1}{2}$ | |
| Aldeboraē | | 35 31 $\frac{1}{2}$ bis | |
| | | 35 31 $\frac{1}{2}$ | |
| | | 35 31 $\frac{1}{2}$ | |
| <i>Per alterum Sextantem nouum</i> | | | |
| | | 35 32 $\frac{1}{2}$ | |
| <i>Postea adhuc semel paulo plus.</i> | | | |
| <i>Sed denuo exactius bis,</i> | | | |
| | <i>minus tamen</i> | | 35 32 |
| Deinde denuo capiebantur distantiaē ♂ per Sextantem nouum, siquidem is | | | |
| præcipuus veram distantiam Lucidæ V | | | |
| & Aldeboraē exhibebat. | | | |
| I. ♂ a Lucida V. | | | |
| | | Luc. Mand. | |
| H. M. | Dist. | Decl. ♂ | Cete occid. |
| 8 51 $\frac{1}{4}$ | 12 42 | 17 0 | 8 51 |
| | | 17 0 $\frac{1}{2}$ | |

¹ Lineis inducta.

| | | |
|--|----------------------------------|--------------------------|
| 8 54 $\frac{1}{4}$ | 12 42 | 9 40 |
| 8 56 $\frac{3}{4}$ | 12 40 $\frac{1}{2}$ ¹ | 17 0 vno 10 14 |
| 9 1 $\frac{3}{4}$ | 12 42 | 11 32 |
| 9 3 $\frac{5}{8}$ | 12 42 | 12 13 |
| <i>Pone hic dist. 12 42 & decl. 16 59$\frac{1}{2}$.</i> | | |
| Viceversa ♂ ab Aldebora per eundem | | |
| Sextantem nouum. | | |
| 9 9 $\frac{3}{4}$ | 23 32 $\frac{1}{2}$ | 13 37 |
| 9 13 $\frac{3}{4}$ | 23 33 ¹ | 17 0 $\frac{1}{2}$ 14 36 |
| | | 17 0 |
| 9 15 | 23 31 $\frac{1}{2}$ ¹ | 15 0 |
| 9 17 $\frac{3}{4}$ | 23 32 $\frac{1}{2}$ | 15 26 $\frac{1}{2}$ |
| 9 20 $\frac{1}{2}$ | 23 32 $\frac{1}{2}$ | 16 17 |
| 9 22 $\frac{3}{4}$ | 23 32 $\frac{3}{4}$ | 16 48 |
| 9 33 | 23 32 $\frac{3}{4}$ | |
| <i>Pone pro his 23 32$\frac{1}{2}$</i> | | |
| 9 46 $\frac{1}{2}$ Transiuit Aldebora | | |
| per Meridianum habens Altitud. | | |
| per Chalyb. | | 49 43 $\frac{3}{4}$ |
| per Volub. | | 49 42 $\frac{3}{4}$ |
| Pro loco ♂ die 18 Decembris | | |
| per veterem Sextantem. | | |
| H. 7 $\frac{1}{2}$ Dist. ♂ | | |
| a prima alæ Peg. | | 55 30 $\frac{1}{2}$ |
| Declin. ♂ | | 16 58 $\frac{1}{2}$ B. |
| Decl. primæ alæ Peg. | | 13 3 42 |
| Asc. R. eiusdem | | 341 10 |
| Ang. diff. ascenf. | | 57 31 1 |
| Ergo Asc. R. ♂ | | 38 41 1 |
| Viceversa ♂ ab Aldebora. | | |
| Dist. ♂ ab Aldeb. | | 23 30 $\frac{3}{4}$ |
| Decl. Aldeb. | | 15 37 30 |
| Asc. R. eiusdem | | 63 12 |
| Ang. diff. ascenf. | | 24 28 31 |
| Ergo Asc. R. ♂ | | 38 43 29 |
| Asc. Recta limitata | | 38 42 15 |
| Resp. Longitudo | | 11 41 $\frac{1}{2}$ V |
| Latitudo | | 1 40 0 B. |
| Per Nouum vero Sextantem. | | |
| H. 9 $\frac{1}{2}$ Dist. ♂ a Luc. V | | 12 42 |
| Decl. eiusdem | | 21 31 33 |
| Asc. R. eiusdem | | 26 9 |
| Ang. diff. ascenf. | | 12 33 58 |
| Ergo Asc. R. ♂ | | 38 42 58 |
| Vice versa Dist. ♂ | | |
| ab Aldeb. | | 23 32 $\frac{1}{2}$ |
| Ang. diff. ascenf. | | 24 30 53 |
| Ergo Asc. R. ♂ | | 38 41 7 |

| | |
|---|-----------------------|
| Afc. R. limitata | 38 41 55 |
| Differentia Sextantum 20 ^u . | |
| Ergo limitata Ascensio | 38 42 5 |
| Resp. Longitudo | 11 41 19 ^u |
| Latitudo | 1 40 3B. |

Per veterem Sextantem.

| | |
|--|-----------------------|
| H. 8.0 Dist. ♂ a Luc. ✓ | 12 39 |
| Ang. diff. ascenf. | 12 30 34 |
| Ergo Afc. R. ♂ | 38 39 34 |
| Viceversa Dist. ♂ | |
| a Luc. pede II | 52 20 20 |
| Decl. Luc. pedis II | 16 40 31 |
| Afc. R. eiusdem | 93 33 28 |
| Ang. diff. ascenf. | 54 52 24 |
| Ergo Afc. R. ♂ | 38 41 4 |
| Afc. Recta limitata | 38 40 19 |
| Resp. Longitudo | 11 39 45 ^u |
| Latitudo | 1 40 34B. |
| H. 8 ^u Prouenit ex omnibus obseruati- | |
| onibus antecedentibus limitata | |
| Longitudo | 11 41 0 ^u |
| Latitudo | 1 40 0B. |

DIE 23 DECEMBRIS, VESPERI.

Obseruabatur ♂ appropinquans
meridiano. I. a Lucida ✓.

| H. M. | Dist. | Declinatio | Ext. alæ Peg. occ. |
|-------------------|--------------------|------------|-----------------------|
| 7 21 ^u | 13 22 ^u | | 36 27 |
| 7 24 ^u | 13 23 ^u | | 37 32 |

| | | | |
|-------------------|--------------------|--------------------|-------|
| 7 26 ^u | 13 23 ^u | 17 21 ^u | 37 47 |
| | | 17 21 ^u | |
| 7 30 | 13 23 | | 38 30 |

Viceversa ♂ ab Aldebora.

| | | | |
|--------------------------------|--------------------|--------------------|-------|
| 7 34 ^u | 22 38 ^u | | 39 46 |
| 7 41 ^u Tranfluit ♂ | | | |
| per Meridianum habens altitud. | | | |
| per Chalyb. | | 51 26 | |
| per Volub. | | 51 26 ^u | |

Tunc fuit Luc. Mand. Cete or. 0 42

| | | | |
|-------------------|--------------------|--------------------|-------------------|
| 7 45 ^u | 22 38 ^u | | 43 9 ^u |
| 7 48 ^u | 22 38 ^u | 17 21 ^u | 43 16 |
| | | 17 21 ^u | |

Pro veteri Sextante recens instaurato
examinando capiebatur

| | |
|--|--------------------|
| H. 7 M. 52 ^u Distantia Lucidæ ✓ | |
| & Aldeb. | 35 32 ^u |
| Repetita | 35 32 ^u |

Pro loco ♂ die 23 Decembris.

| | |
|---|--------------------|
| H. 7 ^u Distantia eius a Luc. ✓ | 13 23 ^u |
| Ang. diff. ascenf. | 13 29 40 |
| Ergo Afc. R. ♂ | 39 38 40 |

Viceversa ♂ ab Aldebora.

| | |
|-------------------------------------|-----------------------|
| H. 7 ^u Dist. ♂ ab Aldeb. | 22 38 ^u |
| Ang. diff. ascenf. | 13 33 32 |
| Ergo Afc. R. ♂ | 39 38 28 |
| Ascensio Recta limitata | 39 38 34 |
| Resp. Longitudo | 12 39 45 ^u |
| Latitudo | 1 44 31B. |

OBSERVATIONES VENERIS.

DIE 1 JANUARIJ, VESPERI.

Obseruabantur ♀ primum, deinde ♀
vt sequitur².

| H. M. S. | Azim. ♀ | Altit. ♀ | Declin. ♀ | ♀ in æquat. |
|----------|------------|--------------------|-------------------|----------------|
| 3 48 30 | 12 0 | 24 47 ^u | 8 40 ^u | |
| | | | 8 40 ^u | |
| 3 52 20 | 13 0 | 24 40 ^u | | 11 55 |
| 3 56 15 | 14 0 | 24 32 ^u | 8 40 ^u | |
| | | | 8 40 ^u | |
| 4 3 30 | 16 0 | 24 7 ^u | 8 40 ^u | |
| | | | 8 40 ^u | |

Simili modo & ♀ obseruabatur.

¹ Sic in codice. Debet esse circiter 42° 30'.

² Cf. supra p. 428 sq. inter obseruationes Iovis.

DIE 2 JANUARIJ, VESPERI.

Consueto more obseruabantur
♀ & postea ♀.

| H. M. S. | Azim. ♀ | Altit. ♀ | Declin. ♀ | ♀ occid. in æquat. |
|----------|------------|--------------------|-------------------|-----------------------|
| 4 1 0 | 16 0 | 24 42 ^u | 8 13 ^u | 14 40 |
| | | | 8 13 ^u | |
| 4 8 20 | 18 0 | 24 25 ^u | 8 13 ^u | 16 28 |
| | | | 8 13 ^u | |
| 4 12 0 | 19 0 | 24 15 | 8 13 ^u | |
| | | | 8 13 ^u | |
| 4 16 0 | 20 0 | 24 5 bona | | 18 23 |

Postea obseruabatur ♀ in æquatoria
distantia a Vulture.

| H. M. S. | Vultur occ. | ♀ occ. | Declin. ♀ |
|----------|---------------------|--------|-----------|
| 4 47 20 | 71 57½ | 26 9 | 8 12½ |
| | incerta inter nubes | | 8 12½ |
| 4 50 20 | 72 42½ | 26 50 | |
| 4 53 15 | 73 25½ | 27 34½ | 8 12½ vno |

Hæ distantia ♀ a Vulture obseruabatur inter densas nubes recurrentes, ideoque limitandæ ponendo H. 4½. Distantiam æquatoriam ♀ & Vulturis 45 51½ pro ♀ loco indagando. Declinatio autem ♀ præcise haberi potest ex collatione Declinationis vna cum Altitudine & Azimuth antea hac vespere obseruatis, N. B. in qua etiam scrupulosius inquirenda cardo vertitur, quod ♀ hoc ipso die Eclipticam transiret ascendendo, iuxta calculum Copernici, vel statim transitura.

DIE 19 JANUARIJ, VESPERI.

| H. M. S. | Decl. ♀ Mer. | Azim. | Altit. | ♀ occid. |
|----------|-----------------|-------|--------|----------|
| 5 0 5 | 1 29½ | 43 0 | 24 46½ | |
| | 1 29½ | | | |
| 5 7 40 | 1 29½ | 45 0 | 24 0½ | |
| | 1 29½ | | | |
| 5 19 10 | 1 29 | 48 0 | 22 47 | 43 15 |
| | 1 29½ | | | |

Pro examinandis Armillis obseruabatur extrema alæ Pegasi postea vt sequitur.

| | |
|-------------------|--------|
| 6 12 0 Declinatio | 12 57½ |
| | 12 57½ |

Fuit autem hæc stella cum obseruaretur in illa altitudine, vt refractionem omnem excluderet.

| H. M. S. | Dist. ♀ a Vult. | Alt. ♀ | Decl. ♀ | Aldeb. orient. |
|----------|--------------------|-----------|------------|-------------------|
| 5 38 | 27 55 | | | 28 9 |
| 5 40 40 | 27 55½ | | | |
| 5 44 50 | 27 54½ | | 1 29 vno | |

Viceversa a Luc. Mandib. Cete.

| | | | |
|---------|-------|-------|-------|
| 5 53 50 | 53 3½ | | 24 15 |
| 5 57 25 | 53 3½ | | |
| 5 58 55 | 53 3½ | 18 20 | 1 28½ |
| | | | 1 28½ |

Erat hac vespere satis ferenum.

DIE 24 JANUARIJ, VESPERI.

Postea¹ obseruabatur ♀ a fixis
vt sequitur.

| H. M. S. | Dist. ♀ a 1 alæ Peg. | Decl. M. | Altit. ♀ | Sin. pes Orion. or. |
|----------|-------------------------|-------------|-------------|------------------------|
| 6 4 20 | 14 50½ | | 15 45 | 23 51 |
| 6 7 5 | 14 51½ | 0 8 | 15 27 | 23 13 |
| | | 0 7½ | | |
| 6 10 35 | 14 51 | | 15 0 | 22 26 |

Viceversa distantia a Lucida ♀.

| | | | | |
|---------|--------|------|-------|--------|
| 6 20 45 | 42 26 | 0 8 | 13 44 | |
| | | 0 8½ | | |
| 6 24 15 | 42 27 | | 13 15 | 19 1 |
| 6 27 15 | 42 25½ | 0 9½ | 12 54 | 18 17½ |
| | | 0 9 | | |
| 6 33 20 | 42 25½ | | 12 7 | 16 54 |

Eadem vespere circa H. 7 pro examinando Sextante Trigonico, quo vsi sumus vt plurimum hoc & superiori anno in distantijs siderum rimandis, obseruabamus diligenter distantiam inter Lucidam ♀ & Aldeb. quam inuenimus

35 32½ I

35 32½ II melior

DIE 3 FEBRUARIJ, VESPERI.

Obseruabatur ♀ *stationaria* & *incipiens regredi*, *Horologio nondum correcto*.

| H. M. S. | Azimuth | Altit. | Decl. B. |
|----------|---------|--------|--------------------------|
| 5 18 30 | 62 0 | 20 16½ | 2 15½ |
| | | | 2 14½ |
| 5 22 55 | 63 0 | 19 44½ | 2 14½ |
| | | | 2 15½ |
| 5 27 0 | 64 0 | 19 13 | 2 18 sup. |
| | | | ♀ in æquat. occident. |
| 5 35 45 | 66 0 | 18 7 | 2 15½ 60 16 |
| | | | 2 15½ |

Postea sumebatur æquat. distantia ♀
a Lucido pede Orionis.

| | | | |
|---------|-----------------|--------|------------|
| 5 47 30 | ♀ occidentalis | 63 19 | Decl. ♀ B. |
| | Pes Orionis or. | 22 17 | 2 15½ |
| | Dist. æquat. | 85 36 | |
| 5 52 30 | ♀ occidentalis | 64 31½ | 2 15½ |
| | Luc. pes Orion. | 21 0½ | 1 25½ |
| | Differ. æquat. | 85 32½ | 1 vtroq. |
| 5 55 15 | ♀ occidentalis | 65 13½ | |
| | Idem Or. pes | 20 20½ | orient. |
| | Differ. æquat. | 85 34 | |

¹ Post observationes distantia Veneris a Iove. Cf. supra p. 429.

| | | | |
|---------|-----------------|-------|--------------------|
| 5 57 50 | Q occident. | 65 52 | Decl. Q |
| | Pes Orionis or. | 19 40 | 2 15 $\frac{1}{2}$ |
| | | 85 32 | |
| 6 1 30 | Q occident. | 66 47 | |
| | Pes Orion. or. | 18 46 | |
| | Differ. æquat. | 85 33 | |

| H. M. S. | Q Azim. | Altit. | Declin. |
|----------|---------|---------------------|--------------------|
| 6 7 25 | 73 0 | 13 58 | 2 17 $\frac{1}{2}$ |
| 6 12 15 | 74 0 | 13 17 $\frac{1}{2}$ | 2 18 dubia |

Postea accipiebatur Q a Lucida V
in distantia per Sextantem
vt sequitur.

| H. M. S. | Dist. | Declin. | Altit. | Luc. pes Orion. or. |
|-----------|---------------------|--------------------|--------|------------------------|
| 6 18 10 | 41 30 $\frac{1}{2}$ | | | 14 28 |
| 6 9 corr. | | | | |
| 6 20 50 | 41 30 $\frac{1}{2}$ | 2 16 | | 13 48 |
| | | 2 16 $\frac{1}{2}$ | | |
| 6 23 50 | 41 30 $\frac{1}{2}$ | | 11 42 | 13 4 |
| 6 27 35 | 41 30 $\frac{1}{2}$ | 2 17 $\frac{1}{2}$ | | 12 9 |
| | | 2 18 $\frac{1}{2}$ | | |
| 6 33 50 | 41 30 $\frac{1}{2}$ | 2 19 $\frac{1}{2}$ | 10 10 | 10 34 |

Pro examinanda Armilla capiebatur in eodem situ versus polum Declinatio Capitis Andromedæ P. 26 M. 53 $\frac{1}{2}$ borea, idque vnico saltem pinnacidio, sed satis tamen bene. Nam mox nubes ascendebant ab occasu, interquas altero pinnacidio capiebatur eiusdem stellæ declinatio 26 52 $\frac{1}{2}$, sed minus certum propter nubes vti dictum.

Vera Declinatio esse debet 26 51 $\frac{1}{2}$.

Hinc poterit verificari Declinatio Q. Nam quantum stellæ huic deest vel abundat, tantum etiam in Q declinatione corrigendum, sed adhibenda insuper refractionis & paralaxeos ratio.

DIE 5 FEBRUARIJ, VESPERI.

Obseruabatur Q, primum antequam stellæ apparebant.

| H. M. S. | Azimuth | Altit. | Declin. | Q in æquat. occid. |
|----------|---------|---------------------|--------------------|--------------------------|
| 4 57 5 | 63 0 | 19 59 $\frac{1}{2}$ | 2 28 $\frac{1}{2}$ | 56 45 |
| | | | 2 29 | |
| 5 1 30 | 64 0 | 19 27 | 2 29 | 58 2 $\frac{1}{2}$ |
| | | | 2 28 $\frac{1}{2}$ | |
| 5 5 55 | 65 0 | 18 53 $\frac{1}{2}$ | | 59 9 |
| 5 10 15 | 66 0 | 18 10 $\frac{1}{2}$ | 2 29 $\frac{1}{2}$ | 60 12 |
| | | | 2 29 | |

| | | | | |
|---------|------|---------------------|--------------------|---------------------|
| 5 14 50 | 67 0 | 17 46 | 2 29 $\frac{1}{2}$ | 61 20 |
| | | | vno } | |
| 5 19 10 | 68 0 | 17 12 $\frac{1}{2}$ | 2 29 $\frac{1}{2}$ | 62 26 $\frac{1}{2}$ |
| | | | 2 28 $\frac{1}{2}$ | |
| 5 23 30 | 69 0 | 16 38 | 2 29 $\frac{1}{2}$ | 63 32 $\frac{1}{2}$ |
| | | | 2 29 | |
| 5 28 20 | 70 0 | 16 0 $\frac{1}{2}$ | 2 29 $\frac{1}{2}$ | 64 40 |
| | | | vtroque } | |

Postea apparentibus stellis obseruabatur Q in æquatoria distantia a Lucido pede Orionis prout etiam ante biduum.

| | | | | |
|---------|--------------|---------------------|--------------------|---------------------|
| 5 32 10 | Q oc. | 65 41 $\frac{1}{2}$ | 2 29 $\frac{1}{2}$ | Alt. Q |
| | Luc. pes or. | 20 22 | 2 29 $\frac{1}{2}$ | |
| | Differ. æq. | 86 3 $\frac{1}{2}$ | | |
| 5 35 20 | Q occ. | 66 25 $\frac{1}{2}$ | | 15 8 |
| | Luc. pes or. | 19 36 $\frac{1}{2}$ | | |
| | Diff. æq. | 86 2 | | |
| 5 37 45 | Q occ. | 67 0 | 2 29 | |
| | Pes Orion. | 19 0 $\frac{1}{2}$ | 2 29 $\frac{1}{2}$ | |
| | | 86 1 | | |
| 5 40 44 | Q occ. | 67 43 $\frac{1}{2}$ | | 14 26 $\frac{1}{2}$ |
| | Pes Orion. | 18 17 $\frac{1}{2}$ | | |
| | | 86 1 | | |
| 5 43 38 | | 68 27 | 2 29 $\frac{1}{2}$ | 13 45 |
| | | 17 35 | 2 29 $\frac{1}{2}$ | έν |
| | | 86 2 | | πλάτει |

Poteris absque sensibili errore vti differentia æquatoria circa horam 5 $\frac{1}{2}$ P. 86 M. 2.

Postea obseruabatur distantia Q & Lucidæ V hoc modo.

| H. M. S. | Q a Lucida V | Declin. | Altit. Q | Idem pes Orion. or. |
|----------|---------------------|--------------------|-------------|------------------------|
| 5 52 50 | 41 50 dubia | | 12 45 | |
| 5 56 55 | 41 48 | 2 29 $\frac{1}{2}$ | | 14 16 |
| 5 59 40 | 41 49 $\frac{1}{2}$ | | 11 53 | 13 40 |
| 6 2 40 | 41 48 | 2 30 | | 12 53 |
| 6 5 40 | 41 48 | | 11 5 | 12 11 |

Si igitur posueris circa Horam 6 distantiam Q & Lucidæ in Capite V 41 48 $\frac{1}{2}$, insensibiliter aberrabis. Pro declinatione autem Q verificanda accipiebatur Declinatio Capitis Andromedæ in eodem quasi situ versus polum

| | |
|----------|---------------------|
| vno pin. | 26 52 $\frac{1}{2}$ |
| altero | 26 53 borea |
| Repetita | 26 52 $\frac{1}{2}$ |
| | 26 52 |

Vera decl. hoc anno esse debet 26 51 30.

Abundant hic Armillæ saltem $1\frac{1}{2}$, si limitatur declinatio.

Collatio refractionis & parallaxeos ♀ pro eius vero motu ad dies proximos 3 & 5 Feb. ex obseruatione inquirendo.

Sumitur refractio in altitud. 12 g., fere medium inter ☉^{lis}

| | |
|-------------|--------------------|
| & stellarum | 6 ^M 0'' |
| Parallaxis | 9 20 |
| Differentia | 3 20 |

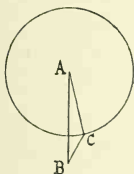
Resp. in longitudine 2' 40'' addend.
latitudine 2 0 addend.

(Refractio ♀ postea deprehensa est non maior esse quam in ceteris fixis in confimilibus altitudinibus)¹.

Pro distantia ♀ a terra inter 3 & 5 diem Februarij, vt habeatur parallaxis in altitudine 12 g. obseruata.

Die 4 Feb. Anomalia ♀ correcta & cœquata 2^e 50' εν πλάτει.

Distantia centri orbis a terra in semid. 1112.



In triangulo BAC
datur in semid. terræ

BA 1112

CA 822

BAC 10 0

Ergo BC 343

distantia ♀ a terra.

Pro parallaxi ♀ in altitudine 12 g. ex data distantia a terra.

παρεξίς pro parallaxi ♀

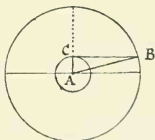
In triangulo CAB
datur

CA 100000

BA 34300000

Angulus CAB 78 0

Ideoq. Angulus CBA 91^M parallaxis ♀ in altit. 12 g.



N.B. Postea animaduersum est ex collatione Azimuth, Altitudinum & Declinationum captarum per Armillas, Declinationes acceptas per Armillas Boreas circa æquatorem deficere plus iuxta Horizontem occiduum 2^{bus} minutis, vbi ex Azimuthis & Altitudinibus tantundem vt plurimum abundant, idque etiam circa ortum sed in partem contrariam vt fieri debet. Quare in ♀ declinationibus vtrobique obseruatis limitatio facta est secundum exhibitionem declinationum ex Azimuthis & Altitudinibus, habita ratione dictæ deuiationis harum, quod Armillæ in situ axis & alijs iuxta peripheriam incommodo sunt obnoxie.

Pro loco ♀ ex obseruationibus diej 3 Februarij.

(Calculus ad hunc diem reuifus hic est & correctus)¹.

H. 6^h Dist. ♀ a luc. ♀ 41 30^h

Decl. ♀ B. limit.

per Azim. & Alt. 2 17

Declin. lucidæ ♀ 21 31^h

Ang. diff. ascenf. 37 49 50

Afc. R. luc. ♀ 26 8 15

Ergo Afc. Recta ♀ 348 18 25

Resp. Longitudo 20 9^h X

Latitudo 6 43^h B.

Parallaxis Refractionem exuperans

in Longitudine 3 30 add.

in Latitudine 2 40 add.

Ergo vera ♀ Longitudo 20 12 50^h X

Latitudo 6 46 10^h B.

Pro loco ♀ ad diem 5 Feb.

H. 6.0 Dist. ♀ a luc. ♀ 41 48

Declin. ♀ limitata B. 2 28^h

Ang. diff. ascenf. 38 16 10

Ergo Afc. Recta ♀ 347 51^h

Resp. Longitudo 19 49^h X

Latitudo 7 5^h B.

Adde Parall. Longit. 19 52 10^h X

Latit. 7 7^h B.

Altitudo circiter 12 g.

Die sequente 6 Februarij fuit ♀ apparens locus in 19 34^h X circa eandem Horam & in eadem quasi alti-

¹ In margine adscripta.

tudine, vt patet ex fequentibus. Ergo mota eft intra hoc diurnum tempus 15 $\frac{1}{2}$, quod paulo fuperat Alphonfinum, qui habet 13' & longe plus Copernici ratiocinia. Ergo prius fuit ftationaria quam vterque habet calculus, quod etiam certiis confltat ex obferuationibus inter diem 3 & 5. Promota itaque eft ♀ in antecedentia fpatio duorum dierum vt fupra M. 20, quod oftendit ipfam longe citius fuiſſe ftationariam quam præbet calculus Prutenicus, imo etiam paulo antea quam Alphonſinus.

DIE 6 FEBRUARIJ, VESPERI.

Obferuabatur ♀ in diſt. æquatoria a lucido pede Orionis.

| H. M. S. | Diſtancia æquatoria | Decl. ♀ | Altit. ♀ |
|------------------|---------------------|--------------------|----------|
| 5 42 15 | | 2 33 $\frac{1}{2}$ | vtroq. |
| 5 49 25 ♀ occid. | 67 27 $\frac{1}{2}$ | 2 34 | |
| Pes Or. or. | 18 53 | 2 34 $\frac{1}{2}$ | |
| Diff. æquat. | 86 20 | | |
| 5 55 15 ♀ occid. | 68 52 $\frac{1}{2}$ | | 13 36 |
| Pes Orion. | 17 28 | | |
| Diff. æquat. | 86 20 $\frac{1}{2}$ | | |
| 5 58 15 ♀ occid. | 69 35 $\frac{1}{2}$ | | |
| Pes Orion. | 16 42 $\frac{1}{2}$ | 2 34 $\frac{1}{2}$ | 13 30 |
| Differ. | 86 18 | 2 34 | |
| 6 2 40 | | 2 34 $\frac{1}{2}$ | |

Differentiam hanc peperit Axis vtrobique inuerſus, quare fere medium vtriuſque capiendum, quod eft 86 15.

Postea ſumebatur diſt. ♀ a Lucida √.

| H. M. S. | Diſt. | Declin. | Altit. | Luc. pes Orion. or. |
|-----------|--------------------|--------------------|--------|---------------------|
| 6 11 35 | 42 1 $\frac{1}{2}$ | | 11 36 | 13 22 |
| 6 16 15 | 42 1 $\frac{1}{2}$ | 2 34 $\frac{1}{2}$ | vno | 12 15 |
| 6 7 corr. | | | | |

Pro examinandis Armillis capiebatur

| | | | | |
|------------------|---------------------|----------|------|---------------------|
| Declinatio capi- | 26 53 | | | |
| tis Andromedæ | 26 53 $\frac{1}{2}$ | | | |
| 6 23 0 | 42 1 | | 10 6 | 10 34 $\frac{1}{2}$ |
| 6 28 30 | 42 0 $\frac{1}{2}$ | 2 35 vno | 9 13 | |
| 6 32 5 | 42 0 $\frac{1}{2}$ | | 8 52 | 8 20 |

Repetebatur Declinatio ſtellæ in Capite Andromedæ propter declin. 26 52 $\frac{1}{2}$

Armillarum

examinanda 26 53

Pone 26 53

Ergo Armillæ 1 $\frac{1}{2}$ plus iuſto oftendunt.

Pro loco ♀ ad diem 6 Februarij.

H. 6 completa. Diſt. ♀

| | |
|--------------------|-----------------------|
| a lucida √ | 42 2 |
| Declinatio ♀ | 2 33 0 B. |
| Ang. diff. aſcenſ. | 38 35 25 |
| Aſc. R. lucidæ √ | 26 8 15 |
| Ergo Aſc. R. ♀ | 347 32 $\frac{1}{2}$ |
| Reſp. Longitudo | 19 34 0 X |
| Latitudo | 7 16 $\frac{1}{2}$ B. |

Alt. ♀ 12 grad. Ergo motus diurnus ♀ 15 $\frac{1}{2}$ M. Nam heſterna die H. 6 in eadem altitudine viz. 12 fuit ♀ in 19 49 $\frac{1}{2}$ X. Verus locus ♀ ad 6 Feb. H. 6, habita ratione parallaxeos

Long. 19 36 $\frac{1}{2}$ X
Lat. 7 18 $\frac{1}{2}$ B.

DIE 8 FEBRUARIJ, VESPERI.

| H. M. S. | Azimuth | Altit. | Decl. ♀ | Luc. pes Orion. or. |
|----------|---------|--------|--------------------|---------------------|
| 5 34 40 | 73 0 | 14 23 | 2 39 | 18 55 |
| | | | 2 39 $\frac{1}{2}$ | |
| 5 39 15 | 74 0 | 13 47 | 2 39 $\frac{1}{2}$ | 17 47 |
| | | | 2 39 $\frac{1}{2}$ | |

Postea obſeruabatur ♀ diſtancia a Lucida √ modo antecedentium dierum, vt ſequitur.

| H. M. S. | Diſt. | Declin. | Altit. | Idem or. |
|----------|---------------------|--------------------|--------|--------------------|
| 5 47 15 | 42 35 $\frac{1}{2}$ | 2 40 vno | | 15 46 |
| 5 49 55 | 42 36 $\frac{1}{2}$ | | 12 15 | 15 3 $\frac{1}{2}$ |
| 5 53 10 | 42 35 $\frac{1}{2}$ | 2 40 $\frac{1}{2}$ | | 14 17 |
| 5 56 5 | 42 35 $\frac{1}{2}$ | 2 40 $\frac{1}{2}$ | 11 28 | 13 33 |

Postea obſeruabatur ♀ vicina Horizonti.

| | | | Alt. per Radium | occid. |
|--------------------------|---------------------|--------------------|-----------------|--------|
| 6 58 0 | 42 26 $\frac{1}{2}$ | | 3 0 | 1 46 |
| 6 54 $\frac{1}{2}$ corr. | | | | |
| 6 59 0 | 42 26 | 2 49 $\frac{1}{2}$ | 2 45 | 1 58 |
| 6 55 $\frac{1}{2}$ corr. | | vno | | |
| 7 4 50 | 24 24 $\frac{1}{2}$ | 2 52 $\frac{1}{2}$ | 2 0 | 3 28 |

Plura in ♀ obſeruare non licuit propter nubes ſtellas fixas nobis occultantes.

DIE 12 FEBRUARIJ, VESPERI.

| H. M. S. | Azim. ♀ | Altit. | Declin. | ♀ occid. |
|----------|---------|--------|---------|----------|
| 5 32 20 | 78 0 | 11 8½ | 2 33 | |
| | | | 2 32½ | |
| 5 37 10 | 79 0 | 10 29½ | 2 32½ | 75 4 |
| | | | 2 32½ | |
| 5 42 10 | 80 0 | 9 50 | | 76 17 |
| 5 46 50 | 81 0 | 9 12½ | 2 33 | 77 26½ |
| | | | 2 33½ | |

Postea obseruabatur ♀ in distantia a Lucida √ per Sextantem.

| H. M. S. | Dist. | Altit. ♀ per Volub. | Decl. | Luc. pes Orion. or. |
|----------|--------|------------------------|---------|------------------------|
| 5 55 55 | 44 11½ | 7 59 | 2 33½ | 8 57 |
| | | | vtroque | |
| 5 59 0 | 44 11 | 7 33 | 2 34 | 8 14 |
| | | | 2 33½ | |
| 6 2 5 | 44 10½ | 7 10 | | 7 24 |
| 6 4 55 | 44 9½ | 6 50 | 2 35½ | 6 44 |
| | | | 2 34½ | |
| 6 8 30 | 44 8½ | 6 17 | | |
| 6 15 40 | 44 8½ | 5 15 | 2 37½ | 4 7 |
| | | per min. Quad. | 2 36½ | |
| 6 19 40 | 44 7½ | 4 40 | 2 37 | 3 17 |
| | | | 2 36½ | |
| 6 24 10½ | 44 7½ | 4 5 | 2 39½ | 2 14 |
| | | | 2 39 | |
| 6 29 0 | 44 5½ | 3 30 | 2 40 | 0 54 |
| | | | 2 39½ | |
| 6 32 20 | 44 4½ | 3 0 | 2 41 | 0 6 |
| | | | 2 40½ | occid. |
| 6 35 20 | 44 3 | 2 35 | 2 41½ | 0 39 |
| 6 39 40 | 44 2½ | 2 0 | 2 43 | 1 40 |
| 6 42 50 | 43 59½ | 1 30 | 2 45 | 2 26 |
| 6 46 20 | 43 56 | 1 15 | 2 48 | 3 21 |
| 6 49 40 | 43 54 | 0 40 | 2 50 | 4 10 |

Vltima distantia non fuit satis exacta sed mediocris, tamen potes ponere 43 53 & Declin. 2 51.

Capitis Andromedæ 26 53 vno

Declinatio 26 52 altero

Distantia inter Lucidam √

& Aldeb. 35 32½

Ergo bonum instrumentum.

DIE 14 FEBRUARIJ, VESPERI.

| H. M. S. | Altit. ♀ | Azim. occid. | Decl. B. | Humerus Orion. or. |
|----------|----------|--------------|----------|-----------------------|
| 5 43 20 | 8 18½ | 82 0 | 2 22½ | 20 28 |
| | | | 2 22 | |

| | | | | |
|---------|-------|------|-------|-------|
| 5 48 0 | 7 38½ | 83 0 | 2 23 | 19 22 |
| | | | 2 22½ | |
| 5 53 5 | 6 58½ | 84 0 | 2 23 | 18 4 |
| | | | 2 22½ | |
| 5 57 50 | 6 21½ | 85 0 | 2 23½ | 16 56 |
| | | | 2 23½ | |

Postea obseruabatur ♀ in distantia a Lucida √.

| H. M. S. | Dist. ♀ a tertia √ | Altit. ♀ | Declin. | Hum. luc. Orion. or. |
|----------|-----------------------|----------|---------|-------------------------|
| 6 5 0 | 45 8 | 5 15 | 2 25 | 15 13 |
| | | | 2 24½ | |
| 6 8 15 | 45 7½ | 5 0 | 2 26 | 14 19 |
| | | | 2 25½ | |
| 6 12 0 | | 4 25 | | 13 25 |
| 6 15 20 | 45 5½ | 4 0 | 2 27½ | |
| | | | 2 27 | |
| 6 18 20 | 45 4½ | 3 45 | | 11 50 |
| 6 20 10 | 45 3 | 3 15 | 2 29 | 11 20 |
| | | | 2 28½ | |
| 6 23 5 | 45 2 | 2 50 | 2 30 | 10 39 |
| | | | 2 29 | |
| 6 26 15 | 45 1 | 2 25 | 2 31 | 9 51 |
| 6 29 50 | 45 0 | 2 0 | 2 33 | 8 56 |
| 6 32 30 | 44 59 | 1 35 | 2 34 | 8 15 |
| 6 36 25 | 44 57 | 1 15 | 2 37 | 7 21 |

DIE 15 FEBRUARIJ, VESPERI.

Obferuabatur ♀ quantum licuit inter nubes in hunc modum.

5 56½ ♀ Alt. 5 29½ Azim. 86 6 Pes Or. 6 36

| H. M. S. | Dist. ♀ a √ | Decl. ♀ | Alt. ♀ per min. Q. | Luc. pes Orion. or. |
|----------|----------------|-------------|-----------------------|------------------------|
| 6 2½ | 45 42 | inter nubes | | 5 15 |
| 6 4 0 | 45 41 | 2 19 | 4½ | 4 51 |
| | | 2 18½ | | |
| 6 6½ | 45 40½ | | 4 5 | 4 14 |
| 6 7 35 | 45 39½ | | | |
| 6 9 15 | 45 38½ | 2 19½ | 3½ | 3 32 |
| | | 2 20 | | |

Postea in densas nubes circa Horizontem existentes ♀ descendens nec obseruationi nec visui amplius hac vespera patuit.

¹ Forſitan frequentes obseruationes a Tychoſne conſcriptæ ſint.

DIE 17 FEBRUARIJ, VESPERI.

Obferuabatur ♀ appropinquans
ad ♂ Solis.

| H. M. S. | Altit. | Azimuth | Declin. | Can. maior orient. |
|----------------------|--------|---------|---------|-------------------------|
| 5 38 25 | 6 25 | 84 0 | 1 56½ | |
| | | | 1 57 | |
| 5 43 10 | 5 47½ | 85 0 | 1 57½ | 31 50 |
| | | | 1 56½ | |
| 5 45 40 | 5 25 | 85 30 | 1 57½ | 31 8 |
| | | | 1 57½ | |
| 5 48 10 | 5 6½ | 86 0 | 1 58½ | 30 32 |
| | | | 1 59 | Luc. hum. Orion. or. |
| 5 52 50 | 4 29 | 87 0 | 1 59½ | 15 55 |
| | | | 2 0 | |
| 5 55 10 | 4 12½ | 87 30 | 1 59½ | 15 7 |
| | | | 2 0½ | |
| 5 57 55 | 3 52 | 88 0 | 2 0½ | 14 42 |
| | | | 2 1 | |
| Declinatio fupputata | | | 2 5 20 | |

Postea in æquatoria distantia capiebatur ♀ a Lucido Humero Orionis alternatim conuoluendo axem.

| | Decl. ♀ | Altit. ♀ |
|-----------------|---------|-----------|
| 6 2 50 ♀ occid. | 87 19 | 2 1½ 3 10 |
| Luc. hum. or. | 13 26 | 2 2½ |
| Diff. æq. | 100 45 | |
| 6 5 0 ♀ occ. | 87 56½ | 2 2 2 50 |
| | 12 56 | 2 3 |
| | 100 52½ | |
| 6 6 45 | 88 16 | 2 2½ 2 35 |
| | 12 38 | 2 3½ |
| | 100 54 | |
| 6 8 20 | 88 48 | 2 3½ 2 20 |
| | 12 7 | 2 4 |
| | 100 55 | |

Conuolutio axis instrumenti peperit hanc varietatem.

Postea obferuabatur ♀ a Lucida γ vt fequitur.

| H. M. S. | Diff. | Altit. | Declin. | Luc. hum. Orion. or. |
|----------|--------|--------|---------|-------------------------|
| 6 12 40 | 46 42 | 1 50 | | 10 57 |
| 6 14 0 | 46 41½ | 1 30 | 2 7 | 10 45 |
| | | | 2 8 | |
| 6 18 5 | 46 37 | 1 15 | | 9 43 |
| 6 19 45 | 46 35½ | 1 0 | 2 12 | 9 5 |
| 6 22 35 | 46 31½ | 0 40 | | 8 33 |
| 6 24 0 | 46 29½ | 0 30 | 2 17 | 8 10 |

DIE 18 FEBRUARIJ, VESPERI.

Attendimus ad ♀ an obferuari poffet, fed difficulter videbatur propter rariffimas circa Horizontem nubes, nihilominus hæc qualiacunque in Declinatione & Altitudine tandem accepimus.

H. 6 M. 13 S. 35

| | |
|--|-------|
| Canis maior. orient. | 23 42 |
| Declin. ♀ 2 0 dubia, Altit. ♀ 1½ | |
| 6 16 0 Canis maior orient. | 23 5 |
| Declin. ♀ 1 57½. | |
| 6 22 35 Occidit ♀ in vifibili Horizonte. | |
| Fuit tunc Canis maior orient. 21 29 | |
| Declin. ♀ 2 22 fuperiori rimula vnus pinnacidij. | |

Pro loco ♀ ad diem 17 Februarij.

| | |
|--------------------------|-----------|
| H. 6½ Diff. ♀ a Lucida γ | 46 41½ |
| Declin. obferuata | |
| & corr. | 2 10 0 B. |
| Declin. Luc. γ | 21 31 |
| Afc. Recta eiusdem | 26 8½ |
| Ang. diff. afcenf. | 43 42 0 |
| Ergo Afc. Recta ♀ | 342 26½ |
| Refp. Longitudo | 14 39½ X |
| Latitudo | 8 54½ B. |

DIE 7 MARTIJ.

Obferuatio ♀ matutina.

Quoniam antecedentibus diebus non fuit villa ferenitas vsque in hunc diem per dies intermedias 15, ita vt ♀ matutina interea vti cupiebam obferuari nequierit, hoc mane diligenter ad eius apparentias attendimus. Et primo antequam oriretur obferuauimus Os Pegali in confimili quali fitu. Horologium emendabatur ad ftellas H. 4½.

| H. M. | Os Pegafi in declin. | Azim. | Alt. Oris Peg. |
|-----------------------------|-------------------------------------|-------|--------------------|
| 4 33 | 8 8 $\frac{1}{2}$ 8 8 $\frac{1}{2}$ | | 14 45 |
| 4 38 $\frac{1}{2}$ Repetita | 8 8 8 8 $\frac{1}{2}$ | 81 10 | 15 42 ¹ |
| 4 49 Rurfus | 8 8 8 7 $\frac{1}{2}$ | 78 50 | 17 22 |

Vera declinatio Oris Pegafi 8 3 $\frac{1}{2}$ B. Abundant igitur Armillæ hic in 5 M.

Postea ♀ obseruabatur vt sequitur.

| H. M. S. | Diff. ♀ a Luc. Vult. | Declinatio ♀ | Azim. | Alt. | Sin. genu Ophiu. occ. | Resp. supput. Declin. |
|----------------------|-------------------------------|---------------------------------------|-------|---------------------------------|--------------------------|---------------------------------|
| 4 52 50 | | | 83 0 | 1 44 | | |
| 4 53 10 | 43 36 $\frac{1}{2}$ | 2 26 $\frac{1}{2}$ 2 26 $\frac{3}{4}$ | | | 7 22 | |
| 4 56 40 | | | 82 0 | 2 16 | | 2 35 $\frac{1}{2}$ |
| 4 58 0 | 42 38 $\frac{3}{4}$ | 2 28 $\frac{1}{2}$ 2 29 $\frac{1}{2}$ | | | 8 40 | |
| 5 3 corr. | | | | | | |
| 5 1 20 | | | 81 0 | 2 55 | | 2 36 15 |
| 5 2 0 | 42 41 | 2 30 $\frac{1}{2}$ 2 30 $\frac{1}{2}$ | | | 9 45 | |
| 5 7 30 corr. | | | | | | |
| 5 5 30 | | | 80 0 | 3 29 $\frac{1}{2}$ ² | non valet | 2 40 $\frac{1}{2}$ ² |
| 5 6 40 | 42 42 $\frac{1}{2}$ | 2 32 2 33 $\frac{1}{2}$ | | | 11 1 | |
| 5 10 0 | | | 79 0 | 4 12 | | 2 38 |
| 5 16 ³ 20 | 42 43 $\frac{1}{2}$ | 2 33 $\frac{1}{2}$ 2 33 $\frac{3}{4}$ | | | 12 14 | |
| 5 14 | | | 78 0 | 4 54 | | |
| 5 15 40 | 42 43 $\frac{1}{2}$, pone 44 | 2 35 vtroque | | | 13 32 | |
| 5 18 50 | | | 77 0 | 5 28 | | |
| 5 21 0 | | 2 35 $\frac{1}{2}$ 2 35 $\frac{3}{4}$ | | 5 50 | | |
| 5 22 10 | | | 76 0 | 6 6 | Arctur. occid. | |
| 5 27 0 | | 2 36 vtroque | 75 0 | 6 40 | 51 5 | |

Pone itaque H. 5 M. 6 $\frac{1}{2}$ Distantiam ♀ & Lucidæ Vulturis 42 43 $\frac{1}{2}$ & Declinationem 2 33 $\frac{3}{4}$ in Altitudine 4 30.

Confer has obseruationes cum obseruationibus factis Die 8 Februarij. Nam hi duo dies quasi æqualiter remouentur a tempore ☿ ♀ cum Sole, vnde commutatio viceversa erit quasi eadem atque parallaxes & refractiones, si æqualis fumatur altitudo, pariformiter se habebunt.

| | | |
|--|----------------|--|
| Feb. 8 ^D , 6 ^H 54 ^M P. M. | ♀ a Lucida √ | 42 26 $\frac{3}{4}$, Declin. 2 48, Alt. 3 0 |
| Martij 7, 5 7 $\frac{1}{2}$ A. M. | ♀ a Vulture | 42 41, 2 30 $\frac{1}{2}$, 3 0 |
| Item Feb. 8, 6 55 $\frac{1}{2}$ | ♀ a Lucida √ | 42 26, 2 49 $\frac{1}{2}$, 2 $\frac{1}{2}$ |
| Martij 7, 5 4 $\frac{1}{2}$ | ♀ a Luc. Vult. | 42 39 $\frac{1}{2}$, 2 29 $\frac{1}{2}$, 2 $\frac{1}{2}$ |

Sequitur calculus apparentiarum ♀ ex superscriptis obseruationibus.

| | |
|---|---|
| Feb. 8, 6 ^H 54 ^M Ang. diff. asc. 39 12 20 | Eodem die H. 6 M. 55 $\frac{1}{2}$ |
| Afc. R. Lucidæ √ 26 8 20 | Diff. ascenf. ♀ & Luc. √ 39 12 17 |
| Ergo Afc. R. ♀ 346 56 0 | Ergo Afc. R. ♀ 346 56 3 |
| Declin. ♀ B. 2 48 0 | Declin. B. 2 49 |
| Resp. Longitudo 19 5 $\frac{3}{4}$ (| Resp. Longitudo 19 6 $\frac{1}{2}$ (|
| Alt. ♀ 3 g. Latitudo 7 45 $\frac{1}{2}$ B. | Alt. ♀ 2 $\frac{1}{2}$. Latitudo 7 46 $\frac{1}{2}$ B. |

¹ Incerta propter folium attritum.

² Lineis inducta.

³ Linea inducta.

Si hæc ad altitudinem \odot 3 graduum redigentur & H. 6 M. 54, ponatur vifus locus limitatus \odot Long. 19 $7\frac{1}{2}$ (, Lat. 7 $45\frac{1}{2}$ B.

Pro parallaxi & refractione \odot .

Distantia \odot a terra hoc die iuxta Copernicum in femidiametris terræ 319.

Ergo parallaxis in altitudine 3° resp. 10' 45"

Refraction vt in reliquis stellis 12 30

Differentia 1 45

Resp. in long. 1' 30" subtr. in hemisphærio occid.
lat. 1 0 subtr.

Ergo H. 6 M. 54 Vera \odot Longitudo 19 4 10 (

Latitudo 7 $44\frac{1}{2}$ B.

Posita Declinatione \odot limitatorii in Alt. 3 gr., videlicet 2 $48\frac{1}{2}$, erit Angelus a lucida \vee 39 12 47,

resp. Vifa Longitudo 19 $5\frac{1}{2}$ (

Latitudo 7 $46\frac{1}{2}$ B.

et Vera Longitudo 19 4 0 (

Latitudo 7 $45\frac{1}{2}$ B.

Die 7 Martij Mane ex suprascriptis.

H. 5 M. 6 Diff. ascenf. \odot

& Vult. 41 30 25

Afc. R. Vult. lucidæ 292 42 $\frac{1}{2}$

Ergo Afc. R. \odot 334 12 45

Alt. \odot Declin. \odot M. 2 30 $\frac{1}{2}$

3 gr. Resp. Longitudo 5 10 56 (

Latitudo 7 39 47 B.

Paulo antea H. 5 M. 5

Ang. diff. ascenf. \odot

& Vult. 41 29 $\frac{1}{2}$

Ergo Afc. R. \odot 334 11 30

Alt. Declin. M. 2 29 20

2 $\frac{1}{2}$ gr. Resp. Longitudo 5 10 $\frac{1}{2}$ (

Latitudo 7 $41\frac{1}{2}$ B.

Reducendo item hæc ad altitudinem 3 graduum H. 5 M. 6 ponitur limitata \odot Longitudo 5 11 0 (, Latitudo 7 40 B.

Pro parallaxi & refractione \odot : Distantia \odot a Terra 348 semid. terræ.

Respondet parallaxis in alt. 3 gr. 9' 52"

refraction vt in fixis 12 30

Differentia 2 38

Resp. in Long. 0' 32" add.

Lat. 2 30 subtr.

Ergo verus locus \odot Long. 5 11 $\frac{1}{2}$ (

Lat. 7 37 $\frac{1}{2}$ B.

N. B. Posita limitatorii declinatione \odot 2 $34\frac{1}{2}$ M., prouenit Angelus diff. ascensionalis 41 27 48, ergo Ascensio Recta \odot 334 10 8,

resp. Long. 5 7 0 (

Lat. 7 37 0 B.

Ergo vera Longitudo 5 7 $\frac{1}{2}$ (

Latitudo 7 34 30 B.

DIE 16 MARTIJ, MANE.

Obseruabatur \odot iuxta stationem matutinam.

| H. M. | \odot & Vultur. Lucida | Declinatio | | Altitudo | Azimuth | Vultur or. |
|--------------------|--------------------------|--------------------|--------------------|-----------------------|---------|------------|
| 4 30 $\frac{1}{2}$ | 42 53 | 4 18 | 4 17 $\frac{1}{2}$ | 1 $\frac{1}{2}$ quasi | | 40 0 |
| 4 36 | | | | 2 0 | 79 | 38 33 |
| 4 38 | 42 59 $\frac{1}{2}$ | 4 25 $\frac{1}{2}$ | 4 26 $\frac{1}{2}$ | | | 37 59 |
| 4 41 $\frac{1}{2}$ | 43 1 $\frac{1}{2}$ | | | 2 40 | 78 | 37 14 |
| 4 44 $\frac{1}{2}$ | 43 2 | 4 28 | 4 28 $\frac{1}{2}$ | | | 36 29 |
| 4 45 $\frac{1}{2}$ | | | | 3 17 | 77 | |
| 4 48 | 43 2 $\frac{1}{2}$ | 4 29 | 4 28 $\frac{1}{2}$ | | | 35 30 |
| 4 50 $\frac{1}{2}$ | | | | 3 51 $\frac{1}{2}$ | 76 | |
| 4 51 | 43 4 $\frac{1}{2}$ | 4 29 $\frac{1}{2}$ | 4 29 $\frac{1}{2}$ | | | 34 46 |
| 4 54 $\frac{1}{2}$ | 43 5 | 4 30 $\frac{1}{2}$ | 4 29 $\frac{1}{2}$ | | | 33 56 |
| 4 54 $\frac{1}{2}$ | | | | 4 29 | 75 | 33 8 |
| 4 59 $\frac{1}{2}$ | | | | 5 6 $\frac{1}{2}$ | 74 | |

Postea inferius per alium Sextantem paulo diligentius.

| | | | | | |
|--------------------|---------------------------------|--------------------|--------------------|-----------------------|-------|
| 5 1 $\frac{1}{2}$ | 43 5 $\frac{1}{2}$ | 4 31 | 4 30 $\frac{1}{2}$ | Altit. esse potest 73 | 31 58 |
| 5 5 corr. | | | | 5 22 proxime | |
| 5 4 $\frac{1}{2}$ | 43 5 $\frac{3}{4}$ | | | 5 49 $\frac{1}{2}$ 73 | 31 25 |
| 5 6 $\frac{1}{2}$ | 43 6 $\frac{1}{2}$ | | | | 30 44 |
| 5 9 $\frac{1}{2}$ | 43 6 $\frac{1}{2}$) dubia j | 4 32 $\frac{1}{2}$ | 4 31 $\frac{1}{2}$ | | 29 58 |
| 5 13 $\frac{1}{2}$ | | | | 7 0 $\frac{1}{2}$ 71 | |
| 5 17 $\frac{1}{2}$ | | | | 7 37 70 | |

Postea cum nullæ stellæ apparent, accipiebatur ♀ in folis Azimuth & Altitudine propter declinationem eius rimandam.

| | | |
|---------|--------------------|------|
| 5 26 24 | 8 47 | 68 0 |
| 5 30 42 | 9 19 $\frac{1}{2}$ | 67 0 |

Postea ♀ propter Solis ortum instantem non amplius discrete cernebatur.

Pro maiori examinatione obseruationum præcedentium in Declinatione, Altitudine & Azimuth ♀ obseruabamus ☉^{lem} ortui vicinum in iisdem fere Altitudinibus, quibus antea ♀, vt facta deinceps collatione Declinatio ♀ certius constaret.

| H. M. S. | Azim. ☉ | Altitudo | Declinatio | | ☉ or. |
|--------------------|------------------|--------------------|--------------------|-------------------|-------|
| 6 4 $\frac{1}{2}$ | 89 0 | 3 12 $\frac{1}{2}$ | 2 12 $\frac{1}{2}$ | 2 12 | 87 20 |
| 6 8 $\frac{3}{4}$ | 88 0 | 3 52 $\frac{1}{2}$ | | | 86 10 |
| 6 13 $\frac{3}{4}$ | 87 0 | 4 33 | 2 10 $\frac{1}{2}$ | 2 10 | 84 54 |
| 6 18 10 | 86 0 | 5 12 | | | 83 48 |
| 6 21 30 | | | 2 10 | 2 9 $\frac{1}{2}$ | |
| 6 25 0 | 84 $\frac{1}{2}$ | 6 11 $\frac{1}{2}$ | | | 81 55 |
| 6 27 $\frac{1}{4}$ | 84 0 | 6 31 $\frac{1}{2}$ | | | 81 20 |
| 6 31 20 | | | 2 7 $\frac{1}{2}$ | 2 8 | |
| 6 36 20 | 82 0 | 7 50 | | | 79 1 |

DIE 17 MARTIJ, MANE.

| H. M. | Dist. ♀ a Vulture | Decl. per Arm. max. | Decl. per Arm. min. | Altit. ♀ | Azim. ♀ | Vultur orient. |
|--------------------|---------------------|--|---|--------------------|-----------------|----------------|
| 4 36 25 | | | | 1 49 $\frac{1}{2}$ | 79 0 | |
| 4 40 $\frac{3}{4}$ | 43 9 | 4 44 ¹ | 4 35 $\frac{1}{2}$ ¹ 4 36 | 2 20 | | 37 22 |
| 4 48 | | | | 3 21 | 76 40 mediocris | |
| 4 51 | 43 12 $\frac{1}{2}$ | 4 39 4 39 | 4 48 4 48 $\frac{1}{2}$ | 3 50 | | 34 46 |
| 4 55 $\frac{3}{4}$ | 43 14 $\frac{3}{4}$ | | | 4 20 | | 33 33 |
| 4 58 $\frac{1}{2}$ | | 4 41 $\frac{1}{2}$ 4 41 $\frac{1}{2}$ | 4 50 4 49 | 4 45 | | 32 50 |
| 5 3 $\frac{1}{2}$ | 43 17 $\frac{1}{2}$ | | 4 51 $\frac{1}{2}$ 4 50 | 5 23 | | 31 34 |
| 5 8 $\frac{1}{2}$ | 43 18 $\frac{1}{2}$ | 4 43 4 42 $\frac{5}{8}$ | | 6 2 | | 30 20 |
| 5 13 | | 4 44 4 43 $\frac{1}{2}$ | 4 52 4 51 | 6 40 | | |

¹ Sic in codice.

Postea non videbantur stellæ, igitur in solis Altitudinibus & Azimuthis capiebatur ☉.

| H. M. S. | Azim. | Altit. | Declin. per mai. | Declin. per min. | Arcturus occid. | |
|----------|--|--------|---------------------|---------------------|--------------------|------------|
| 5 23 50 | 69 0 | 7 57½ | 4 45 | 4 49 | 56 57 | |
| | | | | 4 50½ | | |
| 5 27 40 | 68 0 | 8 32¾ | 4 44½ | 4 50* | 58 0 | *melior |
| 5 32 25 | 67 0 | 9 10½ | | 4 51 | 59 25 | †mediocris |
| 5 41 | <i>Incepit superior limbus ☉ oriri</i> | | | | | |
| 5 42¾ | <i>medius</i> | | | | | |
| 5 45½ | <i>totus</i> | | | | | |

Postea pro examinandis Declinationibus in ☉ obseruatus est ☉, quemadmodum hesternum mane.

| H. M. S. | Azim. ☉ | Altit. ☉ | Declin. per mai. Arm. | Declin. per min. Arm. | ☉ or. in æquat. | |
|----------|---------|----------|--------------------------|--------------------------|--------------------|--|
| 6 1 30 | 91 0 | 2 40 | 2 35 | 2 36 | | *Vmbra non satis discrete cerni potuit. |
| | * | | 2 40 | 2 30 | | |
| 6 7 30 | 90 0 | 3 0 | 2 35½ | 2 20 | 88 20 | **Resp. supp. declin. 2 28 56 |
| | ** | | 2 39½ | 2 30 | | |
| 6 11 10 | 89 0 | 3 40¾ | | | 87 6 | |
| 6 15 40 | 88 0 | 4 21 | 2 31½ | 2 19 | 85 56 | |
| | | | 2 35½ | 2 30 | | |
| 6 20 50 | 87 0 | 5 0½ | | | 84 47 | |
| 6 25 30 | 86 0 | 5 39½ | 2 30 | 2 21 | 83 34 | |
| | | | 2 34½ | 2 27 | | |
| 6 29 50 | 85 0† | 6 17½ | 2 32 corr. | | 82 21 | †Resp. declin. supp |
| 6 34 10 | 84 0 | 6 56½ | 2 29½ | 2 22 | 81 19 | 2 25½ |
| | | | 2 34 | 2 26 | | |
| 6 39 40 | 83 0 | 7 37 | | | 80 3 | |
| 6 44 20 | 82 0 | 8 18 | 2 29 | 2 23 | 78 47 | |
| | | | 2 33 | 2 27 | | |

Examinatio instrumentorum pro antecedentium ☉ obseruationum certitudine per ☉^{lem} instituta.

| | | | | |
|---------------------------------|---------------------------|-------|---------------------------------|--------|
| H. 6½ | Declin. ☉ per Armillas | 2 32 | Parallaxis Altit. | 2' 59" |
| | Altitudo ☉ ^{lis} | 6 17½ | Refractio Altitudinis obseruat. | 13 19 |
| | Azimuth ☉ a merid. | 85 0 | Differentia | 10 20 |
| Resp. Declin. ex Altit. & Azim. | | 2 25½ | Resp. Refractio Declin. | 8 30 |
| Vera Declin. ☉ ex nostris Tab. | | 2 26½ | Declin. visa ex Tab. | 2 34½ |

Correctio Armillarum ad ortum.

Fidendum itaque est Armillis maioribus in antecedentibus obseruationibus ☉ proxime secundum hanc limitationem, vt in priori facta die 16 Martij mane ante correctionem Armillarum, addantur vbique ad Declinationem ☉ Merid. M. 2½, & post correctionem videlicet 17 Martij mane totidem minuta subtrahantur, quemadmodum collatione ex Altitudine ☉ Meridiana ad vtrumque diem facta vterius etiam probatur & quod instrumentum Armillare in 4½ minutis correctum sit colligitur.

Inuestigatio loci ♀ circa stationem.

| Ad diem 16 Martij, Mane | | | | Die 17 Martij, Mane | | | |
|-------------------------------|-----|--------|---|---------------------|-----|---------|---|
| H. 5 M. 5 Dist. ♀ a Vulture | 43 | 5½ | | H. 5 M. 3 Dist. ♀ | | | |
| Alt. ♀ 5½. Declin. ♀ emendata | 4 | 33½ M. | | a Vulture | 43 | 17½ | |
| Declin. Vulturis | 7 | 52½ B. | | Alt. ♀ 5½. Decl. ♀ | | | |
| Ang. diff. ascenf. | 41 | 21 30 | | emendata | 4 | 40 M. | |
| Afc. R. Vulturis | 292 | 44½ | | Ang. diff. ascenf. | 41 | 31 50 | |
| Ergo Afc. R. ♀ | 334 | 5 50 | | Ergo Afc. R. ♀ | 334 | 16 10 | |
| Resp. Longitudo | 4 | 19½ | ⌋ | Resp. Longitudo | 4 | 27 0 | ⌋ |
| Latitudo | 5 | 47½ B. | | Latitudo | 5 | 38 0 B. | |

Pro refractione & parallaxi ♀ ad diem 16 Martij.

H. 5 A. M. Distantia ♀ a Terra 401 semid.

Altitudo ♀ obseruata 5½, respondet parallaxi 8' 30"

Refractione in consimili altitudine 9 40

Differentia 1 10

Resp. in Longit. 0' 15", in Latit. 1' 5". Hinc de cæteris.

DIE 18 MARTIJ, MANE.

Obseruabatur ♀ hoc pacto.

| H. M. | Dist. ♀ a Vulture | Declinatio ♀ per maior. minor. | | Altit. ♀ | Azim. ♀ | Arcturus occid. |
|-------|-------------------|--------------------------------|-------|----------|---------|-----------------|
| 4 41½ | 43 24½ | 4 44 | 4 44½ | 2 20 | | 46 27 |
| | | 4 44½ | 4 50 | | | |
| 4 47½ | | 4 46 | 4 46 | | | 47 53 |
| | | 4 46 | 4 52 | | | |
| 4 51 | | | | 3 24 | 76 0 | |
| 4 51½ | 43 27 | | | | | |
| 4 53½ | 43 27½ | 4 47½ | 4 48 | 3 54 | | 49 25 |
| | bona | vtrouque | vno | | | |
| 4 56 | | | | 4 9* | 75 | *melior |
| 5 0½ | | | | 4 50** | 74 | **dubia |
| 5 5½ | 43 31 | 4 50 | 4 50½ | 5 24 | 73 | 52 22 |
| | | 4 50½ | vno | | | |
| 5 8½ | 43 31½+ | | | 5 50 | | 53 11 + bona |
| 5 10½ | | | | 6 1 | 72 | |
| 5 11½ | 43 31½ | 4 51½ | | | | |
| | | 4 51½ | | | | |
| 5 15½ | 43 33 | 4 52 | 4 52 | 6 37½ | 71 | |
| | | 4 52 | | | | |

Postea Vulturis stella non cernebatur, quare ♀ in Altitudine & Azimutho diligenter capiebatur hoc modo vt sequitur.

| Tempus | Altitudo | Azimuth | Arcturus occid. |
|---------|----------|---------|-----------------|
| 5 19 35 | 7 5 | 70 | 55 51 |
| 5 24 27 | 7 49½ | 69 | 57 3 |
| 5 29 5 | 8 26 | 68 | 58 15 |
| 5 33 40 | 9 3½ | 67 | |

Inquisitio loci ♀ ex præcedentibus proximis obseruationibus.

| | | | |
|-----------------------------------|----------|-----------------|-----------|
| D. 18 H. 5 M. 2 Dist. ♀ a Vulture | 43 31 | Afc. Recta ♀ | 334 28 15 |
| Alt. 5 24 Decl. ♀ emendata | 4 48 | Resp. Longitudo | 4 35½ |
| Ang. diff. ascenf. | 41 43 54 | Latitudo | 5 26 0 B. |

DIE 20 MARTIJ, MANE.

| H. M. | Diff. ♀ a Vulture | Declinatio | | Altitudo | Azimuth | Arcturus occid. |
|---------------------------------|-------------------------------------|-------------------|-------------------|----------|---------|--------------------|
| | | vno | altero | | | |
| 4 14 $\frac{1}{2}$ | 44 0 | 5 2 $\frac{1}{2}$ | 5 2 $\frac{3}{4}$ | 4 20 | | 51 21 |
| 4 16 $\frac{1}{2}$ | 44 0 $\frac{1}{2}$ | | | 4 44 | | 52 0 |
| 4 19 $\frac{1}{2}$ | 44 1 | 5 3 | 5 3 | 5 5 | 73 | 52 41 |
| 4 22 $\frac{3}{4}$ * | 44 1 $\frac{1}{2}$ (2) ¹ | | | 5 26 | | 53 18 *4 57 corr. |
| 4 24 $\frac{1}{2}$ | 44 1(3) ¹ | 5 5 | 5 4 $\frac{5}{8}$ | 5 40 | 72 | 53 56 |
| 4 27 $\frac{1}{2}$ | 44 5 $\frac{1}{2}$ ** | | | 6 7 | | 54 38**mediocr. |
| 4 29 $\frac{1}{2}$ | 44 6 $\frac{1}{2}$ † | 5 5 $\frac{1}{2}$ | 5 6 | 6 19 | 71 | 55 4 †bona |
| 4 38 $\frac{1}{2}$ ² | | | | 7 25 | | 57 8 |
| 4 39 $\frac{1}{2}$ | | | | 7 35 | 69 | |
| 4 42 | | 5 7 $\frac{3}{4}$ | 5 8 | 7 55 | | 58 18 |
| 4 44 $\frac{1}{2}$ | | | | 8 9 | 68 | 58 41 |
| 4 46 $\frac{1}{2}$ | | | | 8 27 | | |
| 4 49 | | 5 8 $\frac{1}{2}$ | | 8 45 | 67 | |
| 4 50 $\frac{1}{2}$ | | | | 9 0 | | |
| 4 53 | | | | 9 23 | 66 | |
| 4 57 $\frac{1}{2}$ | | | | 9 50 | | |

Calculus loci ♀ ad diem 20 Martij
ex præcedentibus obseruationibus.

| | | | |
|--------------------|------------------------|--|--|
| H. 4 M. 57 | Diff. ♀ a Vulture 44 2 | | |
| Decl. ♀ limitata | 5 2 $\frac{1}{2}$ M. | | |
| Declin. Vulturis | 7 52 $\frac{1}{2}$ B. | | |
| Ang. diff. ascenf. | 42 12 | | |
| Ergo Asc. R. ♀ | 334 56 20 | | |
| Resp. Longitudo | 4 56 20) | | |
| Latitudo | 5 2 20 B. | | |

DIE 25 MARTIJ, MANE.

Obseruabatur ♀.

| H. M. S. | Diff. ♀ a Vulture | Declin. | Alt. per min. | Arcturus occid. |
|----------|----------------------|--------------------|---------------|-------------------------|
| 5 2 10 | 45 51 $\frac{1}{2}$ | 5 25 $\frac{1}{2}$ | 5 10 | 54 36 |
| | | vtrouque/ | | |
| 5 7 10 | 45 53 $\frac{1}{2}$ | | 5 45 | 55 48 |
| 5 11 20 | 45 52* | 5 27 | 6 15 | 56 45 |
| | | 5 26 $\frac{1}{2}$ | | *dubia propter auroram. |

Plura in ♀ obseruare propter auro-
ram non licuit.

DIE 3 APRILIS, MANE.

Obseruabatur ♀ inter stationem & di-
greßionem maximam tum ob Lon-
gitudinem tum maxime Latitudi-
nem in eo situ cognoscendam.

| H. M. S. | Diff. ♀ a Vulture | Decl. ♀ M. | Alt. per min. | Arcturus occid. |
|----------|----------------------|--------------------|---------------|--------------------|
| 4 47 50 | 50 25 | 5 14 $\frac{1}{2}$ | 5 10 | 59 23 |
| | | 5 15 $\frac{1}{2}$ | | |

¹ Sic in codice.

² Cf. supra p. 387 inter obseruationes lunæ.

³ Codex habet 36.

⁴ Id est post obseruationem Jovis.

| | | | | | |
|---|---------------------|--------------------|---------|--------------------|--|
| 4 52 20 | 50 25 | | 5 50 | | |
| 4 53 0 | 50 25 $\frac{1}{2}$ | 5 14 $\frac{1}{2}$ | 5 55 | 60 54 | |
| | | 5 15 | | | |
| 4 57 20 | 50 25 $\frac{1}{2}$ | | 6 25 | 61 40 | |
| Postea ♀ facta altiore capiebatur eius. | | | | | |
| | Declin. | Alt. | Azimuth | | |
| 5 5 50 | 5 16 | 7 19 | 69 0 | 63 ³ 48 | |
| | 5 16 $\frac{1}{2}$ | | | | |
| 5 10 45 | | 7 55 | 68 0 | | |

Erat hoc mane satis ferenum fed non-
nihil intranquillum.

DIE 16 MAIJ, MANE.

Obseruabatur ♀ circa maximam di-
greßionem matutinam.

Postea exorientem videbamus ♀, fed
propter nubes illam nec a foue nec vllis
alijs stellis obseruare conceßum est.

DIE 21 MAIJ, MANE.

Obseruatio ♀ paulo post digreßionem
maximam.

| H. M. S. | Diff. ♀ a Vulture | Declin. | Alt. ♀ | Vultur or. |
|--------------------|----------------------|---------|--------|---------------|
| 2 32 $\frac{1}{2}$ | 89 3 $\frac{1}{2}$ | 7 30 | 1 55 | |
| | dubia | 7 28 | melior | |
| 2 39 0 | 89 5 | bona | 2 50 | 6 9 |
| 2 41 20 | 89 6 $\frac{1}{2}$ | 7 23 | 3 5 | 5 30 |
| | bona | 7 24 | | |

2 53 20 89 6 | 7 20 $\frac{1}{2}$ 5 0 2 0
 2 54 corr. dub. | 7 21
 3 29 $\frac{1}{2}$ Totus ☉ oriebatur. Tunc fuit ☉
 orient. 82 35 in Horizonte visibili.

DIE 26 MAIJ, MANE.

Obseruabantur ☉ & ♃ ab inuicem.

| H. M. | Dift. ☉ a ♃ | Declin. | Alt. |
|--------------------|--------------------|---------------------------|----------------------------|
| 3 6 | 29 1 $\frac{1}{2}$ | ☉ 0 59 M. ♃ 6 25 | 0 59 $\frac{1}{2}$ ♃ 12 40 |
| | | ☉ 9 8 vno pin. | ☉ 7 27 |
| 3 15 $\frac{1}{2}$ | 29 1 $\frac{1}{2}$ | ☉ 9 6 $\frac{1}{2}$ ♃ 8 5 | 9 6 per Vol. |
| 3 20 $\frac{1}{2}$ | 29 3 | ☉ 9 6 | ☉ 14 0 |
| | | | per min. ☉. |
| | | ☉ orient. 61 51. | |

DIE 22 JULIJ, MANE.

Obseruabamus ☉ ☉ appropinquan-
 tem pro semidiametro orbis
 inquirenda.

| H. M. | Dift. ☉ ab oculo ☉ | Decl. ☉ B. | Alt. |
|--------------------|---------------------|---------------------|------|
| 2 57 $\frac{1}{2}$ | 30 16 $\frac{1}{2}$ | | |
| 2 59 | 30 17 | 22 32 | 14 5 |
| | | 22 31 $\frac{1}{2}$ | |

Pluries ab Aldebora propter Auroræ
 lucem obseruari ☉ nequibat.

| | | |
|-----|---------------------|------|
| 3 7 | 22 32 | 15 3 |
| | 22 31 $\frac{1}{2}$ | |

Pone Declinationem ☉ rectificatam
 P. 22 M. 28 $\frac{1}{2}$ absque refractione cum
 parallaxi.

DIE 23 JULIJ.

Pro declinatione ☉ in Armillis corri-
 genda obseruabatur Vesper

in ortu Lucidæ ♀ Decl. 21 34 $\frac{1}{2}$

in altit. 13 35

Debet esse 21 31 $\frac{1}{2}$

Ergo diff. 3'

DIE 10 SEPTEBRIS, MANE.

| H. M. | Dift. ☉ a Cane minori | Declin. | Alt. per Volub. | Luc. hum. Orion. or. |
|--------------------|-----------------------|--------------------|-----------------|----------------------|
| 4 3 $\frac{1}{2}$ | 47 8 $\frac{1}{2}$ | | | |
| 4 7 $\frac{1}{2}$ | | 11 2 $\frac{1}{2}$ | 7 50 | 18 22 |
| | | 11 2 | | |
| 4 11 $\frac{1}{2}$ | 47 9 | | 8 30 | 17 30 |
| 4 14 | 47 9 | 11 1 | | 16 52 |
| | | 11 1 $\frac{1}{2}$ | | |
| 4 16 $\frac{1}{2}$ | 47 8 $\frac{1}{2}$ | | 9 10 | 16 15 |

¹ Sic in codice.

Pone H. 4 $\frac{1}{2}$ Dift. ☉ a Cane minore
 47 9, & Declinationem emenda ab
 aliqua fixa in consimili situ, atque
 refractionis rationem habe.

Die sequenti obseruata est Declinatio
 Cordis ☉ in alti- 13 59 $\frac{1}{2}$
 tudine 13 gr. 0' 13 58 $\frac{1}{2}$
 pro refractione in Declinatione ☉
 euitanda & limitanda.

Debit autem esse saltem 13 55,
 ergo 4 minuta demenda sunt Declina-
 tioni ☉, vt sit vera & a refractione
 libera. Erit itaque ad horam 4 $\frac{1}{2}$
 illa ipsa Declinatio P. 10 M. 57 quam
 proxime, quin & distantia ob refractionem
 limitanda. Euadit enim paululum
 maior, quod Tabula Refractionum
 stellarum in distantiam applicata
 expedit.

DIE 11 SEPTEBRIS, MANE.

| H. M. | Dift. ☉ a Cane minori | Decl. ☉ | Alt. | Luc. pes Orion. occ. |
|--------------------|--------------------------|---------------------|-------|----------------------|
| 5 2 $\frac{1}{2}$ | 48 18 | 10 31 $\frac{1}{2}$ | 11 35 | |
| | | 10 32 | | |
| 5 7 $\frac{1}{2}$ | 48 17 $\frac{1}{2}$ | 10 32 | 12 15 | 1 0 |
| | | 10 33 | | |
| 5 11 | 48 18 $\frac{1}{2}$ bona | 10 32 | 12 55 | 1 58 |
| | | 10 32 $\frac{1}{2}$ | | |
| 5 15 $\frac{1}{2}$ | 48 18 $\frac{1}{2}$ bona | 10 32 $\frac{1}{2}$ | 13 25 | 2 55 |
| | | | | |
| 5 19 $\frac{1}{2}$ | 48 18 | 10 33 | 14 0 | 3 50 |
| | | 10 32 $\frac{1}{2}$ | | |

N.B. Cor ☉ in Altitudine 13 P. ha-
 buit Declinationem 13 59. Debit au-
 tem habere reuera 13 55. Ergo 4 mi-
 nuta auferenda, vt sit vera Declinatio
 ☉ circa Horam 5 $\frac{1}{2}$ P. 10 M. 29 fere.
 Quin & distantia ob Refractionem
 limitandæ.

DIE 14 SEPTEBRIS, MANE.

| H. M. | Dift. ☉ a Cane minori | Decl. | Alt. ☉ | Luc. hum. Orion. or. |
|-------------------|-----------------------|--------------------|--------|----------------------|
| 4 25 ¹ | 51 44 | 9 19 | 4 55 | 16 46 |
| | | 9 19 $\frac{1}{2}$ | | |
| 4 23 | 51 43 $\frac{1}{2}$ | 9 19 | 5 30 | 15 20 |
| | | 9 18 | | |
| 4 32 | 51 44 | | 6 40 | 13 3 |

| | | | | |
|------|-------|-------|-------|------|
| 5 14 | 51 45 | 9 14 | 12 28 | 4 35 |
| | | 9 13½ | | |
| 5 28 | 51 46 | 9 12 | 14 10 | |
| | | 9 13 | | |

DIE 15 SEPTEBRIS, MANE.

| H. M. | Diff. ♀ a Cane minore | Decl. ♀ | Altit. | Luc. hum. Orion.or. |
|-------|--------------------------|------------|--------|------------------------|
| 4 20 | 52 57½ | 8 45½ | 10 50 | 3 18 |
| | | vtroque) | | |
| 4 24 | 52 57½ | | 11 30 | 2 49 |
| 4 26 | 52 57½ | 8 46 | 11 50 | 1 28 |
| | | 8 46½ | | |
| 4 30 | 52 57½ | | | 0 40 |

Plura propter Auroram obseruari non poterunt.

Postea ante Meridiem H. 11½ corrige-
batur horologium, quo vsi sunt hac
nocte, & visum est tunc lesquialtera
hora iusto tardius promotum. Sed is
error in antecedentibus non vbique
imputandus, sed ad stellas corrigen-
dum tempus.

DIE 18 SEPTEBRIS, MANE.

| H. M. | Diff. ♀ a Cane minore | Decl. ♀ | Altit. | Luc. pes Orion.occ. |
|-------|--------------------------|------------|--------|------------------------|
| 4 54½ | 56 26½ | 7 23 | 11 5 | 11 53 |
| | | 7 23½ | | |
| 4 57½ | 56 27 | | 11 40 | 12 45 |
| 4 58½ | 56 27½ | 7 22½ | 12 5 | 12 58 |
| | | 7 22½ | | |
| 5 4 | 56 28 | 7 22½ | 12 40 | 14 10 |
| | | 7 22½ | | |

Circa Horam 8 corrigebatur Horo-
logium ad Solem, quod 37 Minutis
iusto celerius motum erat.

DIE 21 SEPTEBRIS, MANE¹.

| H. M. | Diff. ♀ a Regulo | Declin. ♀ | Altit. | Syrius or. |
|-------|---------------------|--------------|--------|---------------|
| 5 31 | 24 1 | 5 59½ | 10 21 | 7 17 |
| 5 33 | 24 2 | 5 59½ | 10 30 | 6 45 |

Plura in ♀ habere non licuit ob Re-
gulum per Auroram minute appa-
rentem. Potes vti hoc loco ♀ pro ob-
seruationibus diej antecedentis quo-
que conferendo vna obseruationes
diej 18 ante triduum in ipsa factas.

DIE 22 SEPTEBRIS.

| H. M. | Diff. ♀ a Corde ♀ | Declin. | Altit. | Can. mai. orient. |
|-------|----------------------|----------|--------|----------------------|
| 5 13 | 25 16½ | 5 31½ | 7 15 | 11 1 |
| | | vtroque) | | |
| 5 18 | 25 17 | 5 30 | 7 52 | 9 49 |
| | | 5 30½ | | |
| 5 22 | 25 18 | | 8 29 | 8 50 |
| 5 24 | 25 19 | 5 29 | 8 40 | 8 21 |
| | | 5 29½ | | |

Angulus differ. ascens. est 24 13
ideoque Asc. R. ♀ 170 54
Declinatio 5 30

Resp. Longitudo 19 29½ appa-
Latitudo 1 26 B. reñter
cum refractione
Longit. Latit.

Calculus Alphonf. ♀ 19 39½ 0 55 B.
Copernici 18 50 1 7 B.

DIE 25 SEPTEBRIS, MANE.

H. 4 M. 58½ Obseruabatur ♀ orientalis,
habens Altitudinem 4 43
Azimuth 90 22 a Meridie ad ortum
Declinatio eius 4 9½ vno
4 9½ altero

DIE 20 OCTOBRIS, MANE.

Obseruatio ♀ matutina cum prope ☉ eſet. Positum horologium εν πλατει ad
H. 6 M. 0. Obseruatio ♀ a Regulo.

| Horol. cor- rectum vt & tempora | Diff. a Regulo | Declinatio ♀ vno | altero | Azim. ♀ | Altit. ♀ | Can. min. occid. | |
|---------------------------------------|-------------------|---------------------|--------|------------|-------------|---------------------|---------|
| 6 36 | 48 32 | 8 11½ | 8 11½ | 68 34 | 4 0 | 23 19 | |
| 6 38 | 48 33* | 8 12½ | 8 12½ | 68 11 | 4 20 | 23 50 | *melior |
| 6 40 | 48 34 | 8 12½ | vno | 67 38 | 4 27 | 24 18 | |

¹ Obseruaciones declinationis Veneris die 20 Septembris factas supra inter obseruationes lunæ inuenies
(p. 400).

| Dift. a Cane mai. | | | | |
|-------------------|---------|-----------|-------|--|
| 6 43 | 103 11 | 8 13½ | 8 14 | |
| 6 45½ | 103 12½ | 8 14½ | 8 14½ | |
| 6 49½ | 103 13 | 8 14½ vno | | |
| 6 52 | 103 13 | 8 15½ vno | | |
| 6 56 | 103 13½ | 8 16 vno | | |

Stella nulla vifa propter auroram.

DIE 27 OCTOBRIS, MANE.

Obferuabatur ♀ a Cane maiore.

| H. M. | Dift. | Declin. M. | Altit. | Canicula occid. |
|-------|---------|------------|--------|--------------------|
| 7 1½ | 109 42½ | 11 23½ | 4 10 | 36 33 |
| | | 11 23½ | | Can. mai. occ. |
| 7 7 | 109 43 | | 4 35 | 50 42 |
| 7 8½ | 109 45½ | 11 26 | 5 0 | 51 2 |
| | dubia | 11 25½ | | |

Pone declinationem 11 30 & dift. ♀ in vlt. obferuat. 109 44, & recte erit.

N.B. Hæc obferuatio ♀ fuit bona per commutationem eius. Nam erat propinqua ☉ circiter 10 gr. mane. Et erat quafi in æquilibrio Horizontis cum Syrio.

☉ ortus H. 7 M. 50.

Pro limitanda vero ♀ Declinatione tam propter refractionem quam Armillarum (fi quod fuit vitium) errorem capiebatur nocte fequente Canis maior cum in confimili ferme eſet altitudine vt pote 5½, & inuenta eſt eius declinatio

vno pinnacidio 16 5 vtraque
altero 16 5½ bona

| | | | | Altit. Syrij |
|-------|------|-------|--|-----------------|
| 67 7 | 4 57 | 25 3 | | |
| | 5 7 | 25 41 | | 10½ |
| 65 40 | 5 26 | 26 37 | | 10½ |
| 64 57 | 5 45 | 27 18 | | |
| 64 14 | 6 14 | | | 9 55 |

Debuit autem eſſe 16 10½ vel potius 10½. Idem probat ferme Lucidus pes Orionis in altit. 5½, habens decl. 8 38, debuit eſſe 8 42½.

DIE 28 OCTOBRIS, MANE.

Pro heſterna ♀ obferuatione capiebatur Canis maior in confimili altitudine.

| | | |
|-------------|--------------------------|----------|
| H. 12 M. 9½ | correſt. Declin. | 16 5 |
| | Canis maioris | 16 5½ |
| | vtrumque bonum. | Alt. 5½. |
| | Luc. mandib. Ceti occid. | 2 25 |

Obferuabatur ♀ a ♄.

| H. M. | Dift. ♀ a ♄ | Decl. ♀ ſupputata | Altit. ♀ | Azim. |
|-------|--------------------|----------------------|-------------|-------|
| 6 34½ | 57 57½ | 11 56 | 1 40 | 65 40 |
| | bona | | | |
| | a Syrio | | | |
| 6 41½ | 110 43½ | 12 11 | 2 5 | 64 30 |
| | Canis maior occid. | | | 48 30 |

Declinatio ♀ haberi nequijt ob declinitatem, fed hanc vel ab heſterna obferuatione huc reducta mutuabimur vel potius ex his obferuatis & Altitudinibus.

OBSERVATIONES MERCURIJ.

DIE 30 MARTIJ, VESPERI.

Primum obferuabamus ☿ hoc anno.

| H. M. S. | Dift. ♀ ab Aldeb. | Decl. | Alt. | Can. min. occ. |
|-------------|----------------------|--------|------|-------------------|
| 7 52 40 | 27 58 | 15 50½ | 6 40 | 26 4 |
| 7 51 corr. | vtroq. pin. | | | |
| 7 56 50 | 27 52½ | 15 46½ | 6 5 | |
| | vno, dub. | | | |
| 8 0 20 | 27 56½ | 15 50½ | 5 40 | 27 56 |
| 7 58 corr. | | 15 52 | | |
| 8 5 0 | | 15 53 | 5 10 | 29 7 |
| 8 3 0 corr. | | 15 52½ | | |

| | | | |
|------------|-------------|--------|------------|
| 8 7 40 | 28 3 | 4 50 | 29 46 |
| 8 5½ corr. | | | |
| 8 11 10 | 27 57½ | 15 53 | 4 15 30 40 |
| 8 10 0 | bona vtroq. | | |
| | corr. | | |
| 8 14 20 | 27 57½ | 15 54 | 3 50 31 26 |
| 8 12½ | bona | 15 53½ | |
| | corr. | | |
| 8 18 0 | 27 55 | 3 25 | 32 25 |
| 8 16 4 | mediocris | | |
| | corr. | | |

Postea ☿ videri desijt inter rariusculas nubes.

8 22½ Pro examinandis Armillis
capiebatur oculus 15 36½

☿ in Declinatione 15 37

Altitudo oculi ☿ 18½ per minor. Q.

Vera Aldeboræ Declinatio reducta ad præfens tempus 15 37½.

Confide vltimis tribus distantijs.

Erat autem hac vespera ventus admodum intranquillus.

Calculus loci ☿ ad diem 30 Martij
ex obseruationibus.

H. 8 M. 10 Dist. ☿

ab Aldebora 27 58

Declin. ☿ emendata 15 54½

Decl. Aldeb. emendata 15 38

Ang. diff. ascensionalis 29 5

Afc. recta ☿ 34 6 35

Resp. Longitudo 7 10½ ☿

Latitudo 2 4 0 B.

Alt. ☿ (Refr. 10' 45" in Long. 6 0

4½ (Parall. 3 15 Lat. 4 30

7 30

Ergo vera ☿ Longitudo 7 4½ ☿

Latitudo 1 59½ B.

DIE 1 APRILIS, VESPERI.

Obseruabatur ☿ iuxta maximam
a ☉ elongationem in modum
qui sequitur.

| H. M. | Dist. ☿ ab Aldeb. | Decl. ☿ B. | Altit. | Can. min. occid. |
|-------|----------------------|---------------|--------|---------------------|
| 7 36 | 25 11½ | 16 59½ | 9½ | 25 26 |
| 7 41 | corr. | 17 1 | | |
| 7 40½ | 25 10 | 17 1½ | 8 50 | 26 32 |
| 7 45½ | | 17 2 | | |
| 7 45½ | 25 11 | 17 5 | 8 20 | 27 40 |
| 7 50 | | 17 4½ | | |
| 7 48½ | 25 11 | | 7 50 | 28 24 |
| 7 53 | | | | |
| 7 51½ | 25 10½ | 17 4½ | | 29 11 |
| 7 56 | | 17 4½ | | |
| 7 55½ | 25 10 | 17 4½ | 7 0 | 30 8 |
| 8 0 | | 17 5 fere | | |
| 7 59½ | 25 9½ | 17 4½ | 6 35 | 31 4 |
| 8 3½ | | 17 5½ | | |

8 3½ 25 8½ 17 6 6 0 32 0

8 7½ 17 6½

8 8 25 8 17 6½ 5 30 33 5

8 11½ 17 6½

8 12½ 25 6½ 17 7½ 5 0 34 8

8 16 17 7½

8 16½ 25 6½ 17 9½ 4 30 35 6

8 19½ 17 9½

8 19½ 25 5½ 17 9½ 4 0 35 54

8 23 17 9½

8 22½ 25 5½ 17 9½ 3 40 36 42

8 26

8 27 25 4½ 17 9½ 3 10 37 42

8 30

8 32 Pro Armillarum examine 15 38½

Declinatio Aldeboræ 15 38

Altitudo eiusdem 15 20

Fuit satis serenum & tranquillum.

Inquisitio loci ☿ ad diem 1 Aprilis
ex obseruationibus.

H. 8 M. 0 Dist. ☿ ab Aldeb. 25 10

Declin. ☿ limitata 17 6½

Ang. diff. ascenf. 26 12½

Afc. Recta ☿ 36 59½

Resp. Longitudo 10 10½ ☿

Latitudo 2 18½ B.

Alt. ☿ (Resp. Refr. 8' 15" in Long. 4 0

7° 0' (Parall. 3 15 Lat. 3 0

5 0

Vera ☿ Longitudo 10 6½ ☿

Latitudo 2 15½ B.

DIE 2 APRILIS, VESPERI.

Obseruabatur ☿ in modum sequentem.

| H. M. | Dist. ☿ ab Aldebora | Decl. ☿ | Altit. | Can. min. occid. |
|-------|------------------------|---------|--------|---------------------|
| 8 0½ | 23 55½ | 17 37½ | 7½ | |
| 8 2½ | corr. | 17 38½ | | |
| 8 5½ | 23 54½ | 17 38 | 6 50 | 32 53 |
| 8 7 | corr. | 17 38½ | | |
| 8 9½ | 23 53½ | 17 38½ | 6 0 | 34 3 |
| 8 11½ | | 17 38½ | | |
| 8 15 | 23 52 | 17 40½ | 5 20 | 35 25 |
| 8 17½ | | 17 40½ | | |
| 8 19½ | 23 51½ | 17 41½ | 4 50 | 36 34 |
| 8 22 | | 17 41½ | | |

| | | | | |
|----------|-----------|-----------|-------|-------|
| 8 24 | 23 51 | 17 42 | 4 1/2 | 37 46 |
| 8 26 1/2 | | 17 42 1/2 | | |
| 8 29 1/2 | 23 50 1/2 | | 3 3/4 | 39 2 |
| 8 31 1/2 | | | | |

Fuit mediocriter serenum & tranquillum fatis.

Hifce diebus etfi continua fuerat serenitas, tamen vndeque ab Horizonte in elevatione circiter 39 vel vltra obfcuræ nubeculæ fuerunt φαινόμενα afcendentia & defcendentia infra dictam altitudinem obtegentes.

Sequitur calculus ꝑ ex fupraſcriptis obſervationibus d. 2 Apr.

| | | |
|------------|--|-------------|
| H. 8 M. 5 | Diſt. ꝑ ab Aldeb. | 23 55 |
| | Declin. ꝑ limitata | 17 40 |
| | Declin. Aldeboræ | 15 38 |
| | Ang. diff. aſcenſ. | 24 53 1/2 |
| | Reſp. Longitudo | 11 32 1/2 ☿ |
| Alt. 7° 0' | Latitudo | 2 26 3/4 B. |
| | Vera a refractione (Long. 11 28 1/2 ☿ & parallaxi libera) Lat. | 2 23 3/4 B. |

DIE 3 APRILIS, VESPERI.

| H. M. | Diſt. ꝑ ab Aldeb. | Decl. ꝑ | Altit. | Can. min. occ. |
|------------|-------------------|------------------|--------|----------------|
| 8 55 1/2 | 22 40 3/4 | 18 8 | 7 40 | 33 30 |
| 8 6 | dubia | 18 7 1/2 | | |
| corr. | | | | |
| 8 59 | 22 43 | 18 9 1/2 | 7 8 | 34 25 |
| 8 10 corr. | | 18 9 3/4 | | |
| 8 3 | 22 42 1/2 | 18 9 1/2 | 6 50 | 35 22 |
| 8 13 1/2 | | 18 9 3/4 | | |
| 8 7 1/2 | 22 41 3/4 | 18 10 | 6 7 | 36 20 |
| 8 17 1/2 | | vtroque | | |
| 8 12 1/2 | 22 40 3/4 | 18 11 | 5 23 | 37 42 |
| 8 23 | | 18 11 1/2 | | |
| 8 17 1/2 | 22 40 3/4 | 18 12 1/2 | 4 50 | 38 59 |
| 8 28 | | 18 12 1/2 | | |
| 8 20 3/4 | 22 39 | 18 13 | 4 30 | 39 50 |
| 8 31 1/2 | | vno faltem pinn. | | |
| 8 25 1/2 | 22 38 1/2 | 18 13 1/2 | 3 52 | 41 3 |
| 8 36 | | | | |
| 8 30 | 22 38 3/4 | 18 14 | 3 15 | 42 25 |
| 8 41 1/2 | dubia | dubia | | |

Pro Armillarum examine 15 37 3/4
capiebatur Aldeb. Declin. 15 38
Altitudo eius tum 12 1/2
Erat hac vefpera appripe ſerenum & tranquillum.

Calculus ꝑ ex fupraſcriptis obſervationibus.

| | | |
|-----------------------------------|------------------------|-------------|
| H. 8 M. 10 | Diſt. ꝑ ab Aldeb. | 22 43 |
| | Declin. ꝑ limitata | 18 11 |
| | Altit. ꝑ tunc temporis | 7 8 |
| | Ang. diff. aſcenſ. | 23 36 1/2 |
| | Reſp. Longitudo | 12 52 1/2 ☿ |
| | Latitudo | 2 33 25 B. |
| Subductis Parallaxi & Refractione | | |
| Reſp. vera ꝑ Longitudo | 12 48 1/2 ☿ | |
| | Latitudo | 2 30 1/2 B. |

DIE 4 APRILIS, VESPERI.

Obſervatio ꝑ.

| H. M. | Diſt. ꝑ ab Aldeb. | Decl. ꝑ borea | Altit. | Can. min. occ. |
|------------|-------------------|---------------|--------|----------------|
| 8 53 1/2 | 21 39 1/2 | 18 34 | 9 30 | 31 45 |
| 8 55 corr. | | vtroque | | |
| 8 58 | 21 36 | 18 35 | 9 0 | 32 57 |
| 8 0 | dubia | 18 35 1/2 | | |
| 8 1 | 21 38 | 18 37 | 8 30 | 33 48 |
| 8 3 1/2 | | 18 38 | | |
| 8 6 1/2 | 21 38 | 18 38 | 7 48 | 35 20 |
| 8 9 1/2 | | 18 38 1/2 | | |
| 8 11 1/2 | 21 37 1/2 | 18 38 | 7 0 | 36 39 |
| 8 15 | | vtroque | | |
| 8 15 | 21 37 1/2 | 18 39 1/2 | 6 30 | 37 30 |
| 8 18 | | 18 40 | | |

Viceverſa a dextro humero Orionis

| | | | | |
|----------|-----------|-----------|------|-------|
| 8 21 1/2 | 42 54 | 18 40 | 5 40 | 39 13 |
| 8 25 | | 18 39 3/4 | | |
| 8 24 1/2 | 42 52 1/2 | 18 40 1/2 | 5 10 | 40 5 |
| 8 28 1/2 | | 18 40 1/2 | | |
| 8 26 3/4 | 42 51 | 18 41 | 4 40 | 40 40 |
| 8 30 3/4 | | vno pin. | | |

ꝑ hac vefpera amplius obſervari nequibat propter nubes circa Horizonta occiduum craſſas exiſtentes. Erat inſuper hac vefpera ventus aliquanto inſtranquillior ab eadem cœli plaga.

Locus ☿ ad diem 4 Aprilis ex obseruationibus suprascriptis.

| | | |
|---|------------|--|
| H. 8 M. 15 Dist. inter ☿ & Aldeb. | 21 37½ | |
| Declin. ☿ limitata | 18 39½ | |
| Alt. ☿ tunc fuit | 7 0 | |
| Ang. diff. ascenf. | 22 25½ | |
| Resp. Longitudo | 14 5 0 ☿ | |
| Latitudo | 2 39 50 B. | |
| Vera ☿ a Refractione & Parallaxi libera | | |
| Longitudo | 14 1 ☿ | |
| Latitudo | 2 36½ B. | |

DIE 6 APRILIS, VESPERI.

Obseruabatur ☿ iuxta maximam a ☉^{re} digressionem.

| H. M. | Dist. ☿ ab Aldeb. | Decl. ☿ | Alt. | Can. min. occid. |
|-------------|-------------------|---------|------|------------------|
| 8 15½ | 19 40½ | 19 21½ | 7 50 | 38 30 |
| 8 14½ corr. | | 19 21½ | | |
| 8 20½ | 19 40½ | 19 24½ | 7 15 | 39 43 |
| 8 20 | | 19 23½ | | |
| 8 24½ | | 19 24½ | 6 40 | 40 45 |
| 8 24 | | 19 24½ | | |
| 8 30 40 | 19 40 | 19 26½ | 6 0 | |
| | | 19 26½ | | Cor. ☿ occ. |
| 8 34 20 | 19 39½ | 19 26 | 5 30 | 6 6 |
| | | 19 26½ | | |
| 8 38 30 | 19 39 | | 4 50 | 7 7 |

Postea obseruabatur ☿ distantia a dextro humero Orionis.

| | | | | |
|---------|-------|-------|------|-----------|
| 8 47 10 | 41 53 | 19 31 | 3 50 | Can. min. |
| | | 19 30 | | 46 28 |

Hæc vltima fuit dubia propter nubes intervenientes.

Inquisitio loci ☿ ex suprascriptis obseruationibus.

| | | |
|------------------------------------|------------|--|
| H. 8 M. 20 Dist. ☿ ab Aldeb. | 19 40½ | |
| Declin. ☿ limitata | 19 25 | |
| Alt. ☿ tunc fuit | 7 15 | |
| Ang. diff. ascenf. | 20 15½ | |
| Resp. Longitudo | 16 12½ ☿ | |
| Latitudo | 2 48 B. | |
| Subtractis Parallaxi & Refractione | | |
| Resp. Vera ☿ Longitudo | 16 8½ ☿ B. | |
| Latitudo | 2 45 B. | |

DIE 11 APRILIS.

Obseruatio ☿.

| H. M. S. | Dist. ☿ ab hum. luc. Or. | Decl. ☿ vno | Alt. | Can. min. occid. |
|----------|--------------------------|-------------|------|------------------|
| 8 14 10 | | 20 36½ | 6 0 | 47 30 |
| 8 18 20 | 37 38½ | | 5 50 | 48 30 |
| 8 21 0 | 37 40½ | 20 36½ | 5 30 | 49 17 |
| | | 20 37 | | |
| 8 23 40 | 37 41½ | 20 37½ | 5 10 | 49 58 |
| | | 20 37 | | |
| 8 26 20 | | 20 38½ | 4 50 | 50 41 |

Circa medium horum temporum fuit Altitudo lucidi humeri Orionis, vnde capiebatur distantia ☿ quasi 14 vel 15 gr.

H. 8 M. 40½ pro Armillarum examine, Decl. Aldeboraë 15 40 Altitudo eiusdem 7½

Postea non potuit amplius obseruari ☿, ab hora videlicet 8 M. 26½, sed nubibus tegebatur, & vapores ad Horizontem impediabant. Potes autem absque sensibili errore vti distantia intermedia, quæ accepta est H. 8 M. 21, ponendo eam P. 37 M. 40 in Altitudine 5½, & assumendo declinationem eius P. 20 M. 37. Habenda vero est ratio refractionis Lucidi humeri Orionis, a qua stella distantia capiebatur, & videndum etiam quid Armillæ in Declinatione forte devient, experimento facto per Aldebora adhibita eius refractione.

Inquisitio loci ☿ ad diem 11 Aprilis.

| | |
|--------------------------------|---------------------|
| H. 8½ Dist. ☿ a luc. hum. | |
| Orionis | 37 40 |
| Decl. ☿ correctâ | 20 38 |
| in altit. (Decl. vifa hum. Or. | 7 16 |
| 14½ (Asc. R. eius vifa | 83 21½ |
| Ang. diff. ascenf. | 36 25 15 |
| Ergo Asc. rectâ ☿ | 46 56 15 |
| Altit. 5½ | Longitudo 20 13½ ☿ |
| | Latitudo 2 52 35 B. |

[DIE 12 APRILIS.]

Non potuit hac vespera obseruari ☿ propter crepusculum & lucidos vapores iuxta occasum, & etiam ad plenilunium tendente suo lumine ipsum offuscante. Refertur autem hic dies ad 12 Apr., cuius vespera h̄ obseruauimus.

Collectio verorum Phænomenon ꝗ cœlitus a nobis obseruatorum vna cum adiectione calculi Copernici & Alphonsinorum, moto diurno vtriusque cum obseruato nostro collationis gratia ascripto.

| | | Obseruata vera | | Copernici | | Alphonsinorum | | Motus diurnus Longitudinis | | | |
|------|-------|----------------|---------|-----------|---------|---------------|---------|----------------------------|-------|------|------|
| Dies | H. M. | Long. ꝗ | Lat. B. | Long. ꝗ | Lat. B. | Long. ꝗ | Lat. B. | Obseruatus Copern. Alph. | | | |
| 30 | 8 10 | 7 4½ | 1 59½ | 6 48 | 1 30 | 5 5 | 1 11 | 3 | 2 20 | 2 45 | 3 14 |
| 1 | 8 0 | 10 6½ | 2 15½ | 9 33 | 1 52 | 8 19 | 1 23 | 1 | 22 0 | 1 20 | 1 36 |
| 2 | 8 5 | 11 28½ | 2 23½ | 10 53 | 1 59 | 9 55 | 1 30 | 1 | 19 30 | 1 17 | 1 34 |
| 3 | 8 10 | 12 48 | 2 30½ | 12 10 | 2 7 | 11 29 | 1 36 | 1 | 13 | 1 15 | 1 31 |
| 4 | 8 15 | 14 1 | 2 36½ | 13 25 | 2 13 | 13 0 | 1 41 | 2 | 7 30 | 2 17 | 2 54 |
| 6 | 8 20 | 16 8½ | 2 45 | 15 42 | 2 24 | 15 54 | 1 59 | 4 | 0½ | 4 26 | 6 30 |
| 11 | 8 20 | 20 9 | 2 48½ | 20 8 | 2 45 | 22 24 | 2 0 | | | | |

DIE 14 SEPTEMBRIS, MANE.

N. B. Obseruatio ꝗ matutina prope maximam a ☉ remotionem.

| H. M. | Diff. ꝗ a Cane min. | Altitud. ꝗ | Luc. humerus Orion. orient. |
|-------|---------------------|------------|-----------------------------|
| 4 44 | 54 42 | 4 55 | 11 38 |
| 4 51 | 54 42½ | | 10 5 |
| 4 55 | 54 43 | 6 10 | 8 30 |
| 5 4 | 54 42¾ | 7 20 | 6 24 |

Pone circa vltima tempora Declinationem ꝗ veram 7 18, quæ tamen cum cœlo non quadrat.

DIE 15 SEPTEMBRIS, MANE.

| H. M. | Diff. ꝗ a Cane min. | Declin. ꝗ | Altitud. | Luc. hum. Orion. or. |
|---------|---------------------|-----------|----------|----------------------|
| 4 4½ | 55 20 | | 6 0 | 7 1½ |
| 4 8 | 55 22 | 7 16 | 6½ | 6 7 |
| | | 7 16½ | | |
| 4 12 30 | 55 23½ | 7 15½ | 7 50 | 5 0 |
| | | 7 16 | | |

Pone ad vltima tempora distantias & declinationes liberæ a Refractione hoc modo qui sequitur.

55 27½ 7 10½
vel 28 ad summum.

DIE 16 SEPTEMBRIS, MANE.

Obseruabatur ꝗ iuxta maximam a ☉ remotionem matutinam, quæ poterit esse die sequente.

| H. M. | Diff. ꝗ a Cane min. | Declin. ꝗ | Altitud. | Luc. pes Orion. or. |
|--------|---------------------|-----------|----------|---------------------|
| 3 59½ | 56 14½ | 7 10 | 4 50 | 1 15 |
| | | 7 10½ | | |
| 4 2 40 | 56 14¾ | 7 9½ | 5 10 | 0 25 |
| | | 7 9½ | | |
| 4 7 | 56 15½ | 7 8 | 5 50 | occid. |
| | | 7 8½ | | 0 40 |
| 4 9½ | 56 16 | 7 7½ | 6 5 | 1 15 |
| | | 7 8 | | |

N. B. His obseruationibus ꝗ potes tuto te fundare, sed limitandæ sunt ob Refractionem vtrouique idque ad rationem eius, quam Cor ☉ facit in consimili Altitudine quasi, vti patet ex ijs, quæ in fine libri prope fixas denotantur in obseruatione Reguli ad Canem minorem lub hoc ibidem annotato signo ∇¹.

Et sic prodibit ꝗ obseruatio irrefracta & rite correctæ vt sequitur.

| | Diff. ꝗ a Cane minore | Declinatio |
|-------------|-----------------------|------------|
| I. | 56 26 | 7 2 |
| II. | 56 25½ | 7 2 |
| III. H. 4 7 | 56 23½ | 7 2 |
| IV. 4 9½ | 56 23 | 7 2 |

Confide potius duabus vltimis ponendo quando pes lucidus Orionis fuit quasi vno gradu occid.: Diff. ꝗ a Cane minore 56 23½ & Decl. 7 2 B., vtraque a refractione vindicata.

¹ Sic in codice. Cf. infra d. 16 Sept. inter obseruationes fixarum.

DIE 18 SEPTEMBRIS, MANE.

Opportebat ☿ fuisse hesternae die in maxima a ☉ digressionē matutina, vt-pote die 17, sed examina obseruatione quo ad Longitudinem.

| | Dist. ☿ a Cane min. | Declin. ☿ | Altit. ☿ | Luc. pes Orion. occ. |
|------------------|------------------------|--------------|-------------|-------------------------|
| ... ¹ | 58 6½ | 6 47½ | 3 0 | 0 15 |
| | | 6 46 | | |
| | 58 8 | 6 47 | 3 20 | 1 24 |
| | | 6 46½ | | |
| | 58 9 | 6 44½ | 3 45 | 1 54 |
| | 58 9½ | 6 45 | | 2 21 |
| | 58 10½ | 6 44½ | 4 25 | 2 |
| | bona) | 6 44½ | | |
| 4 15½ | 58 11 | 6 43½ | 4 31 | 2 52 |
| | | 6 44½ | | |
| 4 18½ | 58 12 | 6 43½ | 5 0 | 3 32 |
| | | 6 43 | | |
| 4 21½ | 58 12½ | 6 42½ | 5 23 | 4 18 |
| | | vtroque) | | |
| 4 27½ | 58 12½ | 6 42½ | 5 45 | 4 59 |
| | | 6 42 | | |
| 4 31½ | 58 12½ | 6 42½ | 6 17 | 5 52 |
| | | 6 41½ | | |
| 4 37½ | 58 13½ | 6 40½ | 6 50 | 6 46 |
| | | 6 41½ | | |
| 4 41 5 | 58 14 | 6 40 | 7 40 | 8 20 |
| | | 6 39½ | | |
| 4 43½ | 58 14½ | | 8 10 | 9 10 |
| 4 46 | 58 14½ | 6 39½ | 8 30 | 9 47 |
| | | 6 39½ | | |

Pone circa tempora vltimarum obseruationum distantiam ☿ a Cane minore 58 18 & Declinationem 6 35, ambo a Refractione & errore vindicata.

DIE 20 SEPTEMBRIS, MANE.

| H. M. | Dist. ☿ a Regulo | Decl. ☿ | Altit. | Luc. pes Orion. occ. |
|-------|---------------------|----------|--------|-------------------------|
| 4 23½ | | 6 4 | 2 32 | 2 18 |
| | | 6 3 | | |
| 4 31 | | 6 4½ | 3 17 | 3 45 |
| | | vtroque) | | |
| 4 37 | 24 43 | | | 5 9 |
| 4 43½ | 24 44 | 6 1½ | 4 37 | 6 16 |
| | | 6 2 | | |
| 4 47 | 24 44½ | 6 0½ | 5 0 | 6 55 |
| | | 5 59½ | | |

| | | | | |
|-------|--------|-------|------|------|
| 4 56½ | 24 45½ | 5 59½ | 6 1½ | 8 53 |
| | | 5 59 | | |
| 5 2½ | 24 46 | 5 58 | 6 45 | 10 8 |
| | | 5 58½ | | |

Interea etiam per Radium obseruabatur distantia ☉ & ☿ ab H. 4 M. 45 in H. 5 0, & inuenta est illa medio modo P. 1 M. 45, idque in ea linea recta, quæ ibat a ☿ per ☉ in Cor ☿ ad vltum.

N. B. Pone circa tempora vltimarum obseruationum distantiam eius a Regulo 24 52½ & Declinationem eiusdem 5 53, vtraque a refractione vindicata. Tempus autem aßume H. 5 M. 0.

Ponendo Cor ☿ in 24 13 ☿ vt est hoc anno, euadit addendo 24 52 Longitudo ☿ in 19 5 11½. Calculus Prutenicus habet 19 48, Alphonsinus 20 2.

Patet itaque obseruationem vtrumque calculum antecedere. Sed habenda quoque est ratio latitudinis ☿ quam hic negleximus, quod ea forte non multum differat ab ea, quam Regulus habet.

DIE 21 SEPTEMBRIS, MANE.

| H. M. | Dist. ☿ a Regulo | Decl. ☿ | Altit. | Can. maior orient. |
|-------|---------------------|----------|--------|-----------------------|
| 5 1 | 26 6 | 5 53½ | 4 45 | 14 42 |
| | | vtroque) | | |
| 5 5 | 26 6½ | 5 32½ | 5 18 | 13 43 |
| 5 11 | 26 7 | 5 31 | 5 55 | 12 36 |
| 5 16 | 26 7½ | 5 30½ | 6 44 | 11 5 |
| 5 20 | 26 7½ | 5 30½ | 7 17 | 10 10 |
| 5 26 | 26 8½ | 5 30 | 8 4 | 8 36 |

DIE 22 SEPTEMBRIS, MANE.

| H. M. | Dist. ☿ a Corde ☿ | Decl. ☿ | Altit. | Can. maior orient. |
|-------|----------------------|----------|--------|-----------------------|
| 5 0 | 27 27 | 5 5 | 3 45 | 14 21½ |
| | | 5 4½ | | |
| 5 5 | 27 27½ | 5 3½ | 4 33 | 12 58 |
| | | vtroque) | | |
| 5 9 | 27 27½ | 5 1½ | 5 0 | 12 7 |
| | | 5 2 | | |
| 5 27½ | 27 31½ | 4 59½ | 7 39 | 7 22 |
| | | vtroque) | | |
| 5 32 | 27 32 | 4 59 | 8 12 | 6 14 |
| | | 4 58½ | | |
| 5 35 | 27 33 | 4 58½ | 8 37 | 5 29 |
| | | vtroque) | | |

¹ Hæc quinque tempora deleta sunt et legi non possunt.

² Codex habet 3 50, quod manifeste falsum est.

N.B. *Angulus diff. asc. euadit 26 26½*
ideoque Alc. R. 7 173 7½, Decl. 4 59.
Ideoque Longitudo 21 42½ 111

Latitudo 1 50 B. appar.

Ambo loca 7 & 9 hic supputata habent adhuc refractionem.

Calculus

Alphonf. Long. 22 111, Lat. 1 7 B.
Copern. 22 2711 0 53 B.

DIE 25 SEPTEBRIS.

Cum duobus antecedentibus diebus non fuisset matutinis horis serenum, denuo mane visus est 7 & per 9 obseruatus, cum nullæ aliæ stellæ paterent, vt pote cœlo alias nisi prope Horizontem orientalem nubibus obvelato.

Capiebantur autem Azimutha quædam & Altitudines tam 9 quam 7 sequenti ratione.

Correxi tempora ex Sole in meridie sequenti fere¹.

H. 4 M. 58½ Obseruabatur 9 orientalis,
 habens Altitudinem 4 43
 Azimuth 90 22 a Meridie ad ortum.
 Declinatio eius 4 9½ vno
 4 9½ altero

Postea eodem modo obseruauimus 7.

| H. M. | Alt. 7 | Azimuth a mer. ad ort. | Declin. |
|----------|--------|---------------------------|----------------|
| 5 4½ | 3 14 | 91 12 | 3 23½ 3 23½ |
| 5 9½ | 3 49 | 90 13 | 3 21 3 21½ |
| 5 14 55" | 4 32 | 89 5 | 3 19 3 19½ |

N.B. Tempora horologii non sunt satis exacta. Nulla enim fixa stella apparuit, per quam horologium corrigere tur. Possunt tamen tempora assignata emendari ex altitudinibus 9 obseruatis, modo eius locus prius ex præcedentium & sequentium dierum animadversionibus indagetur. Vtendum vero loco viso 9 & a Parallaxi & Refractione non vindicato. Interea vero dum cæteri studiosi Azimutha atque Altitudines prædicto modo denotabant, alius, nempe Franciscus Tegnagel per

Radium cui nouiter adueherat, inueniebat 9 & 7 distantiam modo sequenti. Distantia 9 & 7 2 58½ *dub. inter nubes*
 per Radium 2 55 *melior*

Si itaque 2 55 quasi pro veriore eorundem distantia acceperimus, infensibiliter aberrabitur.

Correcto vero loco 9 ex antecedentium & subsequendum dierum obseruationibus, potest ex hac ipsa distantia 7 locus satis tuto peruestigari, adhibitis videlicet vna tam 9 quam 7 declinationibus & iisdem a Refractione liberatis.

Notandum vero quod 7 fuerit 9 orientatior. Ideoque plus in gradibus & minutis habuerit quam ipsa, quemadmodum omnibus etiam alijs antecedentibus diebus. Sed tempus etiam hic corrigendum est ex altitudine 9 prout antea quoque innuebam.

N.B. Obseruatio 7 circa occasum Heliacum matutinum tenuiter apparentis ἐν πλάτει tamen facta & in euidenti discrimine vtriusque calculi.

DIE VLTIMO SEPTEBRIS

mane quasi horula ante ortum ☉ denuo vidimus 7 admodum tamen tenuiter apparentem ob appropinquationem ad ☉. Nec a studiosis meis eo die obseruatus est, licet alijs obseruationibus matutinis attenderint. Sed ego² tunc in nauicula Hafniam versus traiciens cum aidentibus ipsi satis adhuc altum supra Horizontem vidi, vt ob Auroram & ☉ præsentiam parum conspicuum: Cumque instrumenta deessent per baculum vtcunque obseruabatur. Ita vt hoc medio prout fieri poterat arrepto & linea transversali existente partis vnus, fuerit Radius oblongior, earundem partium quasi 8. Hinc colligitur per triangulos planos angulum distantie earum, videlicet 9 & 7 fuisse Part. 7½ quam proxime. Quod Copernianis ratiocinijs quam proxime accedit, ab Alphonfinis vero multum differt.

¹ Hæc in margine adscripsit Tycho.

² Hæc in codice ab ipso Tychone conscripta non sunt. In diario meteorologico legimus ad diem 30 Sept.:
 «Abiit Tych. B. Haf.»

OBSERVATIONES FIXARUM STELLARUM QUÆ IN
CATALOGO DESIDERANTUR.

DIE 24 JANUARIJ, VESPERI.

| | |
|--|-----------|
| Inter mediam in basi | 35 55 |
| trianguli & Aldeboram | 35 54½ |
| Inter eandem & caput | 27 31½ |
| Andromedæ | 27 32 |
| Declinatio eius | 32 23 |
| | 32 23½ |
| Inter 11 ^{mam} numero (magn. 5 min.) in | |
| Eridano & Lucidam | 19 26 |
| mandib. Cete | 19 27 |
| Inter eandem & | |
| lucid. pedem Orionis | 22 10 bis |
| Declin. aufr. | 13 24 |
| | 13 24½ |
| Præcedens ex contiguis in Hydra quæ | |
| Cor lucidum sequuntur, | 48 17 |
| distat a Cane maiore | 48 17½ |
| Declin. vtroque | 11 6 |
| Sequens earundem a | 49 46 |
| Cane maiore | 49 47 |
| Declin. aufr. | 10 20 |
| | 10 20½ |

(Hæ duæ antea observatæ reperiuntur).

DIE 1 FEBRUARIJ.

Dist. Cordis & Caudæ ζ 24 39½

DIE 5 FEBRUARIJ.

Pro restituendo loco Caudæ ζ ex qua β hoc anno vice versa observatus est. Distantia Caudæ ζ 24 39½
a Corde ζ 24 39½ bis

Pro Declinatione vera capitis Andromedæ ad principium huius anni stabilienda ex Altitudinibus meridianis superioribus annis in eadem stella habitis:

| | | | |
|----------|----|------------|-------------|
| Anno | 84 | Altitud. | 60° 53' 45" |
| | 87 | Merid. | 54 55 |
| completo | 90 | Cap. Andr. | 55 25 |

Ex his omnibus colligitur Declinatio præcise ad initium 1595 esse 26 51½ B. Hac stella vti sumus pro corrigendis armillis in observationibus ϕ , vt videre est superius.

DIE 12 FEBRUARIJ.

| | | | |
|---------------------------|-------|------------|-----|
| Observabatur quater | 35 0½ | Alt. Spicæ | 22½ |
| Distantia caudæ ζ a | 35 0 | | 22½ |
| Spica diligenter | 35 0½ | | 23 |
| | 35 0½ | | 23½ |

Declinatio observata caudæ ζ inter nubes statim post eius transitum per Merid. 16 53½ vtroque.

Hinc debent subtrahi quasi duo minuta, quia cor ζ in eodem situ tantundem præbuit declinationem plus iusto.

DIE 13 FEBRUARIJ.

Pro examinandis quadrantibus recens correctis observabatur Lucidi

| | |
|-----------------------------------|--------|
| Humeri Orionis altitudo meridiana | |
| per Chalyb. | 41 21½ |
| per Volub. | 41 21½ |
| Declinatio | 7 17½ |
| | 7 18 |
| Declin. Canis maioris | 16 10½ |
| inter nubes | 16 10½ |

H. 2 M. 35 S. 20 Transiit Spica π per Merid. habens Altitudinem per Chalyb. 25 6½
per Volub. 25 6½

Hinc provenit Declin. Spicæ 8 59½, quod plane concordat cum observatione in Spica ante nouennium habita. Nam anno 1585 completo fuit Declin. Spicæ 8 56 20 & 9 anni atque 1½ mensis addunt 2° 59", vt sit vera Declinatio quam proxime 8 59½, quod bene se habet. Proba quod Quadrantes hodie correcti rite se habeant.

DIE 14 FEBRUARIJ, VESPERI.

| | |
|-------------------------------|--------|
| Altitudo Meridiana Supremæ in | |
| baltheo Orionis | |
| per Chalyb. | 33 26½ |
| per Volub. | 33 27 |
| Mediæ | |
| per Chalyb. | 32 34½ |
| per Volub. | 32 34½ |
| Infimæ | |
| per Chalyb. | 31 53½ |
| per Volub. | 31 53½ |

DIE 10 SEPTEMBRIS, VESPERI.

| | | |
|-----------------------------|----|------------------|
| Alt. Merid. Lucidæ Vulturis | | |
| per Chalyb. | 41 | 58 $\frac{1}{2}$ |
| per Volub. | 41 | 57 $\frac{1}{2}$ |
| Dift. inter Vult. & | 28 | 1 $\frac{1}{2}$ |
| Os Pegafi | 28 | 1 |
| Eadem repetita | 28 | 2 |
| | 28 | 1 bis |

DIE 11 SEPTEMBRIS, MANE.

| | | |
|-------------------|---------------------|---------------------|
| Alt. Merid. | per Chal. | per Vol. |
| Lucidæ V | 55 35 $\frac{1}{2}$ | 55 35 $\frac{1}{2}$ |
| Luc. mandib. Cete | 36 32 $\frac{1}{2}$ | 36 33 |
| Aldeboræ | 49 43 $\frac{1}{2}$ | 49 42 $\frac{1}{2}$ |

Quære alibi eius altit. merid. Nam debuit iterum esse Declin. 15 37 40, ideoque altit. merid. 49 43 10, quod pene consentit cum Chalybeo.

Eodem die vesperi

| | | |
|-----------------|---------------------|---------------------|
| Alt. merid. | per Chal. | per Vol. |
| Lucidæ Vulturis | 41 57 $\frac{1}{2}$ | 41 57 $\frac{1}{2}$ |
| Oris Pegafi | 42 9 $\frac{1}{2}$ | 42 9 $\frac{1}{2}$ |
| Luc. humeri | 26 48 | 26 48 |

DIE 14 SEPTEMBRIS, VESPERI.

| | | |
|---|---------------------|---------------------|
| Alt. merid. | per Chal. | per Vol. |
| 7 ^h 24 $\frac{1}{2}$ Luc. Vulturis | 41 57 $\frac{1}{2}$ | 41 57 $\frac{1}{2}$ |
| 9 15 $\frac{1}{2}$ Oris Pegafi | 42 9 | 42 9 $\frac{1}{2}$ |
| 12 49 $\frac{1}{2}$ Lucidæ V | 55 36 | 55 36 $\frac{1}{2}$ |

Nocte diem 14 Septembris sequenti

| | | |
|-----------------|---------------------|---------------------|
| Luc. mand. Cete | 36 33 $\frac{1}{2}$ | 36 33 $\frac{1}{2}$ |
| Aldeboræ | 49 42 $\frac{1}{2}$ | 49 43 |

DIE 15 SEPTEMBRIS, MANE.

| | |
|-----------------------------|---------------------|
| Observabatur Cor ζ in | 37 19 $\frac{1}{2}$ |
| distantia a Cane minori | 37 19 $\frac{1}{2}$ |
| Declinatio Cordis ζ | 13 57 $\frac{1}{2}$ |
| | 13 58 |

Altitudo Cordis ζ 15 50.

Eodem die vesperi.

| | |
|---|---------------------|
| 7 ^h 56 $\frac{1}{2}$ correctæ, Luc. Vulturis | |
| per Chalyb. | 41 58 |
| per Volub. | 41 58 |
| per Mural. | 41 59 $\frac{1}{2}$ |

N. B. Memoriale. Oportebit postmodum exactissime eas stellas Ictu-

tari, a quibus η Achronychius hoc anno acceptus est, quales sunt Os Pegafi & Luc. Mandib. Ceti, idque tam per distantias ab alijs vice versa quam declinationem.

Observationes pro locis oris Pegafi & luc. mand. Ceti examinandis & restituendis, a quibus η achronychius hoc anno observatus est.

| | |
|------------------------------|---------------------|
| Dift. Oris Peg. a luc. Vult. | 28 3 $\frac{1}{2}$ |
| Repetita eadem | 28 3 $\frac{1}{2}$ |
| Eadem comperta est denuo | 28 3 $\frac{1}{2}$ |
| Vice versa Os Pegafi a prima | |
| alæ Pegafi | 20 20 $\frac{1}{2}$ |
| Repetita eadem | 20 20 55 |
| Tertio repetita | 20 21 |

Postea capiebatur distantia luc. mand. Ceti ab Aldeboræ 26 5 $\frac{1}{2}$ bis

Vice versa Luc. mand. Ceti a prima alæ Pegafi 59 24 $\frac{1}{2}$
Repet. eadem inuenta est 59 26 fere

DIE 16 SEPTEMBRIS, MANE.

∇^1 Pro examinanda refractione Cordis ζ versus ortum in certis altitudinibus tam quoad distantiam quam declinationem.

| Refraçtio | Dift. cordis ζ | | Declin. | Altitudo |
|----------------------------|----------------------|---------------------|---------------------|----------------|
| Dift. | Decl. | a cane min. | cordis ζ | cordis ζ |
| 8 $\frac{1}{2}$ ' | 6 $\frac{1}{2}$ ' | 37 11 $\frac{1}{2}$ | 14 1 $\frac{1}{2}$ | 5 50 |
| 6 | 5 $\frac{1}{2}$ | 37 14 | 14 0 $\frac{1}{2}$ | 6 20 |
| 4 | 5 | 37 16 | 14 0 | 7 50 |
| 2 | 4 $\frac{1}{2}$ | 37 18 | 13 59 $\frac{1}{2}$ | 11 0 |
| 1 | 4 | 37 19 | 13 59 | 11 30 |
| $\frac{1}{2}$ ² | 2 $\frac{1}{2}$ | 37 19 $\frac{1}{2}$ | 13 57 $\frac{1}{2}$ | 15 50 |

Debuit autem hoc tempore esse declinatio ipsius cordis ζ 13 55, quæ igitur abundanter pertinet ad Refractionem & instrumenti aliquantulum deviationem.

Distantia autem harum stellarum prius est accepta, cum altiores essent & liberæ vtrunque a refractionibus, 37 20.

¹ Cf. observationem Mercurii eiusdem diei.

² Adscriptum est in margine »Die 15 Mane«.

DIE 18 SEPTEMBRIS.

Similia sic examinaui.

| [Refractio Dift. Decl.] | Dift. Reguli a cane min. | Declin. Reguli | Altitudo Reguli | |
|----------------------------|-----------------------------|-------------------|--------------------|----------------------|
| 4 ¹ | 4 ¹ | 37 16 | 13 59 ¹ | 11 circiter |
| 3 | 4 | 37 17 | 13 59 | 12 circiter |
| 2 | 3 ¹ | 37 18 | 13 58 ¹ | 12 ¹ fere |
| 1 | 3 ¹ | 37 19 | 13 58 ¹ | 13 |
| 0 | 3 | 37 20 | 13 58 | 16 ¹ |
| 0 | 2 ¹ | 37 20 | 13 57 ¹ | 17 |
| ... | 2 ¹ | 37 20 | 13 57 ¹ | 17 ¹ |

DIE 20 SEPTEMBRIS, MANE.

| Dift. Can. min. a Corde Ω | Declin. Reguli | Altitudo Reguli | Pes Orion. luc. orient. |
|-------------------------------------|--------------------|--------------------|----------------------------|
| 37 18 | 13 59 | 12 55 | 14 55 |
| 37 18 ¹ | 13 58 ¹ | 13 30 | 13 36 |
| 37 19 ¹ | 13 58 | 14 45 | 11 26 |
| 37 20 | 13 57 ¹ | 15 5 | 9 8 |
| 37 20 | 13 57 | 17 17 | 6 53 |

DIE 21 OCTOBRIS, VESPERI.

Pro Armillis æquatorijs corrigendis.

| H. M. | Declin. Arcturi | Altitudo eiusdem | Vultur occid. |
|-------------------|--------------------|---------------------|------------------|
| | 21 22 | 17 | |
| | 21 22 ¹ | | |
| 7 53 ¹ | 21 22 ¹ | 16 ¹ | 8 52 |
| | 21 22 ¹ | | |

Luc. Coronæ

| | Declin. | Altitudo eiusdem | |
|-----|-------------------|---------------------|-------|
| | 28 9 ¹ | 32 0 | 10 21 |
| | 28 9 ¹ | | |
| 8 6 | 28 9 ¹ | 31 ¹ | 11 29 |
| | 28 9 ¹ | | |

Postea Luc. γ

| | | |
|------|--------------------|-----------------|
| 8 13 | 21 30 ¹ | 22 ¹ |
| | 21 8 ¹ | |

DIE 15 NOUEMBRIS.

| | |
|------------------------|-------------------|
| Alt. mer. 1 alæ Pegafi | |
| per Chalyb. | 47 9 ¹ |
| per Volub. | 47 9 ¹ |

Declinationes quarundam stellarum fixarum pro correctis recens armillis examinandis versus occafum.

¹ Sic in codice. Fortaſſe 28¹.

² Diſtantiæ deſſt.

Declin. Caniculæ verſus

| | |
|-----------------|------|
| ortum vtrobique | 6 13 |
| ad occafum | 6 13 |

| | |
|--------------------|--------------------|
| ad ortum { Arcturi | 21 19 ¹ |
| | 21 20 ¹ |

| | |
|--------------|-------------------|
| { Lucidæ Co. | 28 7 ¹ |
| { ronæ | 28 8 ¹ |

| | |
|-----------------------|--------------------|
| Inferioris capitis II | 28 56 ¹ |
| | 28 57 ¹ |

Cordis Ω non longe 13 54¹

a merid. ad occafum 13 54 55¹

Spicæ, fuit fatis alta, 9 1

a refractiōne libera 9 1¹

DIE 23 NOUEMBRIS.

Vefperi inceptum eſt obſeruare in Diſtantijs & Declinationibus ſtellas in Catalogo fixarum hæcenus deſideratas.

Inferior duarum informium ſupra Saggiſtam, quæ in recta linea eſt cum eiſdem media & alia informium ab ore Pegafi 29 52

4 magn. denuo 29 53 melior

Declin. eiſdem 21 38

Inter ſuperior. earundem

4 magn. & Os Pegafi 29 55¹

Declin. eiſdem 23 7¹

Inter Os Pegafi & informem infra roſtrum Cygni 4 magn. quæ facit oxygonium cum modo obſeruatis², Declin. eiſdem 23 58 melior

23 59

Diſt. inferioris informium

inter Lyræ & ſuperiorem

alam Cygni, 16 27

4 magn., a peſtore 16 26¹

Declin. eiſdem 43 28¹

43 29

Inter ſuperiorem earundem 15 58¹

informium & peſtus Cygni 15 59

Declin. eiſdem 46 26

Informes 4 inter Os Pegafi

& pedem eiſdem ſiniſtrum * * 2

quarum ſitus talis:

Diſtantiæ ejus quæ eſt in * 3 * 1

recta linea ad Mediam

alæ Cygni 24 51

a prima alæ Pegafi 24 50¹

Declin. eiſdem 18 9¹

18 10¹

| | |
|--------------------------|------------|
| Dift. alterius quæ supra | 23 44 |
| hanc a prima alæ Pegafi | 23 45 fere |
| Declin. eiusdem | 21 57 |
| | 21 58 |

2* Dift. præscriptarum 3 a
prima alæ Peg. 19 20½

3* Declin. ejusdem 15 34

1* 4*

DIE 12 DECEMBRIS, VESPERI.

| | |
|--|----------|
| Dift. quatuor informium quæ est inferior ad ortum supra dorsum V | |
| a boreali cornu | 34 21½ |
| a Capite Andromedæ | 35 27 |
| Declin. eiusdem | 25 33 B. |

DIE 17 DECEMBRIS, VESPERI.

| | |
|----------------------------|----------|
| Altit. Aldeboræ per Merid. | 49 43 10 |
|----------------------------|----------|

DIE 18 DECEMBRIS,

Mane. Pro quadrantibus examinandis capiebantur harum Altitudines Merid.

Tertia & lucida in australi ala 11½
per Volub. 34 53½

Vindemiator
per Chalyb. 47 15
per Volub. 47 14½

Vesperii

obseruabantur in stellis fixis Distantiæ
& Declinationes vt sequitur.

Magn. 3. Trium in fluuio Cete contiguarum præcedens Dift. 34 9½
a luc. pede Orionis 34 9½
ab extrema alæ Pegafi 47 1½ bis
Declin. eiusdem 10 32½ M.

Magn. 3 Quæ hanc sequitur, 29 17½
dift. a luc. pede Orionis 29 19
ab extrema alæ Pegafi 51 10½
Declin. eiusdem 10 21
10 22

4 Magn. In medio fluuij, dist. 22 2½
a luc. pede Orionis 22 3
a nodo lini X 29 46½

| | |
|-----------------|--------|
| | 29 47 |
| | 29 47½ |
| Declin. eiusdem | 13 24 |
| | 13 23½ |

Eodem tempore. In extrema dextra
ala Cygni, distantia ab 31 55½
extrema alæ Pegafi 31 55½

4 mag. a pectore Cygni 20 19½
Declin. eiusdem 26 59½
27 0½

Supra fluuium duarum informium

4 magn. Præcedens, 31 40½

Dift. a luc. V 31 41½

a luc. pede Orionis 25 46½

Declin. eiusdem Merid. 0 54½
0 55½

4 magn. Quæ hanc sequitur

Dift. a luc. V 37 8½

Dift. a luc. pede 20 37½

Declin. Merid. 4 10½

Orionis 4 10½

Trium informium

præcedens inter * 3

Orionem & Viam

lacteam, supra

Canem maior. * 2

* 1

Magn. 4. Ad occasum præcedens

Dift. a Corde Hydræ 47 45½

vice versa 33 24½

ab Aldehora 33 26

Declin. eiusdem merid. 6 11½

6 11½

Magn. 4. Quæ sequitur illam ad ortum,

Dift. ab Aldeb. 36 29½

vice versa a Corde 44 15

Hydræ 44 15½

Declin. eiusdem merid. 6 48½

6 49

Quæ supra hanc

Mag. 5. Dift. a Corde Hydræ 44 43

Decl. merid. eiusdem 4 33½

Vice versa ab Aldeb. 34 55½

Decl. merid. eiusdem 4 33½

DIE 23 DECEMBRIS.

Obferuabatur a fixis ftellis vt fequitur.

| | |
|--|--------------------|
| Mag. 4. In collum Pegafi | |
| a pectore Cygni dift. | 38 25 |
| vice verfa ab extrema | 27 19½ |
| alæ Pegafi | 27 18½ |
| Declin. | 10 12 |
| | 10 12½ |
| Mag. 4. Poſtea obferuabatur | 18 40½ |
| in fluuiio a nodo lini dift. | 18 40½ |
| vice verfa a luc. pede | 32 17 |
| | Orionis 32 18 |
| Declin. auſtr. | 9 15½ |
| | melior 9 14½ |
| Mag. 4. Supra fluuium informis præ- | |
| cedens duarum diftat a lucido | |
| pede Orionis | 15 33½ |
| Vice verfa a luc. | 20 31½ |
| | mand. Cete vtroque |
| Declin. auſtr. | 7 57½ |
| | melior 7 57½ |
| Mag. 4. Quæ fequitur diftat | 14 28½ |
| a lucido pede Orionis | vtroque |
| Declin. auſt. | 8 19½ |
| | vtroque |
| Mag. 4. In Cepheo prima in baſi Δ dua- | |
| rum præcedens ad boream diftat | |
| a cingulo Cephei | 13 5½ |
| | vtroque |
| Vice verfa ab ilia | 20 51 |
| | melior |
| Caſiopeæ | 20 50½ |
| Mag. 4. Secunda diftat | 14 18½ |
| a cing. Ceph. | vtroque |
| Vice verfa ab ilia | 20 53½ |
| Caſiopeæ | 20 54½ |
| | melior |
| | 20 55 |

| | |
|---------------------------|-------------------|
| Mag. 4. Tertia ſub cubito | |
| dextro duarum præcedens | |
| auſtraliſior diftat | 29 4½ |
| ab ilia Caſiopeæ | 29 5½ |
| Vice verfa ab Vrfæ | 31 39 |
| | min. luc. vtroque |

| | |
|-------------------------|--------|
| Mag. 4. Quarta, | |
| altera borealiſior, | 30 8 |
| ab ilia Caſiopeæ diftat | 30 9 |
| Vice verfa a lucida | 29 37½ |
| Vrfæ min. | 29 38 |

| | |
|---------------------------|---------------|
| Mag. 4. Quinta in ceruice | 19 50½ |
| ab ilia Caſiopeæ | 19 50 |
| Vice verfa a luc. Vrfæ | 33 39½ |
| | minoris 33 40 |

| | |
|------------------------------|--------|
| Mag. 4. Sexta in pede dextro | 18 4½ |
| | melior |
| Dift. a luc. Vrfæ min. | 18 5½ |
| Vice verfa a dextro | |
| humero Cephei | 16 4½ |

| | |
|----------------------------------|---------|
| Mag. 3. Septima in pede ſiniſtro | |
| a luc. cathedræ Caſiop. 18 | 25½ |
| | vtroque |
| a luc. Vrfæ min. dift. | 25 46½ |
| | vtroque |

*Circa finem huius Anni declina-
tiones & Alcenſiones rectæ
quarundam fixarum.*

| | | |
|--------------------|---------------------------------|----------------------------------|
| Prima alæ Pegafi | 13 ^P 3½ ^M | 341 ^P 10 ^M |
| Aldebora | 15 37½ | 63 12 |
| lucida V | 21 31½ | 26 9 |
| Media ceruicis Ω | 21 51½ | 149 21½ |
| lucidus humer. Or. | 7 15½ | 83 22 |
| Arcturus | 21 20 | 209 20 |
| lucida Vulturis | 7 52½ | 292 45 |
| inferius caput II | 28 56½ | 110 7½ |
| Os Pegafi | 8 4 | 321 6 |

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F. HENDRIKSEN
NUMERUS EXEMPLORUM VENALIUM: 225

DUODECIMUS TOMUS PRELUM RELIQUIT
DIE 16 MENSIS OCTOBRI
ANNO MCMXXV

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