

may be the same, when the same space is gone over with a great velocity, as with a small one.

LXXI. *Observationes Eclipsium Satellitum Jovis habitæ Ulissipone in Regali Collegio Beatissimæ Virginis à necessitatibus, dictæ à Joanne Chevalier, Præsbytero Seculari Congregationis Oratorii, Anno 1753.*

Read Feb. 14, 1754. **D**IE 30 Aprilis, cœlo clarissimo, observavi, telescopio Gregoriano 6 pedum longitudinis, emerfionem primi satellitis è umbra Jovis, hora postmeridiana temporis veri 9^h 57' 48".

Die 24 Maii, iterum cœlo purissimo, observavi, eodem telescopio Gregoriano, emerfionem tertii satellitis ab umbra Jovis, hora postmeridiana temporis veri 8^h 19' 6".

LXXII. *Observatio Solis defectus Ulissipone habitæ, in Æde Beatissimæ Virginis à necessitatibus, nuncupatæ à Joanne Chevalier, Præsbytero Congregationis Oratorii, die 26^a Octobris 1753.*

Read Feb. 14, 1754. **H**UNC solis defectum commodè, ac exactè observare potui, cœlo clarissimo ac purissimo. Initium ac finem eclipsis telescopio 15 palmorum examinavi, digitos vero observationis

rationis micrometro mensus sum. Eodem tempore sodalis meus physicæ professor, easdem eclipsis phases observabat in specie solis, in charta alba depicta, per alium tubum duabus lentibus instructum.

| | | | | | Temp. ver. | | |
|-------------------------------------|---|---|---|---|------------|--------|----|
| | | | | | ant. | merid. | |
| | | | | | h | ' | " |
| Initium eclipsis | . | . | . | . | 7 | 31 | 4 |
| 2 digiti obscurationis | . | . | . | . | 7 | 43 | 54 |
| 4 digiti | . | . | . | . | 7 | 56 | 40 |
| 6 digiti | . | . | . | . | 8 | 9 | 30 |
| 8 digiti | . | . | . | . | 8 | 22 | 10 |
| 10 digiti | . | . | . | . | 8 | 34 | 40 |
| Major obscuration undecim digitorum | | | | | h | ' | " |
| ac 5 min. | . | . | . | . | 8 | 41 | 46 |
| 8 digiti | . | . | . | . | 9 | 2 | 0 |
| 2 digiti | . | . | . | . | 9 | 44 | 20 |
| Finis | . | . | . | . | 9 | 58 | 18 |

Prope tempus maximæ obscurationis, luce solis notabiliter imminutâ, Jovem, Venerem, aliquasque stellas, primæ ac secundæ magnitudinis, videre licuit. Mercurium tamen, propter ejus ad solem appropinquationem, aspicere non potui.

Speculum catoptricum diametri trium palmorum, in cujus foco plumbum liqueſcit, & ex ligno flamma statim excitatur, eadem phænomena efficiebat, cum solis digiti septem jam obscurati essent: post tempus tamen majoris phasis, lignum in foco suspensum per aliquod temporis intervallum minimè combussit.

Tempore majoris obscurationis aer frigescere cæpit,

valido flante vento à setemptrione ; crassique vapores
ascendere visi sunt è fluvio portuque vicino.

In thermometro domini de Reaumur, sequentes
mutationes observatæ fuere.

7^h 20' Spiritus vini 12° & dimidium altitudinis
supra terminum congelationis aquæ obtinebat.

| h | | | | | | | o |
|----|----|---|---|---|---|---|------------------|
| 8 | 12 | . | . | . | . | . | 13 |
| 8 | 30 | . | . | . | . | . | 12 $\frac{1}{2}$ |
| 8 | 43 | . | . | . | . | . | 12 $\frac{3}{4}$ |
| 8 | 55 | . | . | . | . | . | 11 $\frac{3}{4}$ |
| 9 | 30 | . | . | . | . | . | 12 |
| 10 | 0 | . | . | . | . | . | 12 $\frac{1}{2}$ |
| 10 | 40 | . | . | . | . | . | 13 $\frac{1}{4}$ |

LXXIII. *An Account of some astronomical
Observations taken at Lisbon by M. John
Chevalier in the Year 1753. By James
Short, M. A. and F. R. S.*

Read March 14, 1754. **T**HIS gentleman mentions two emer-
sions of the satellites of Jupiter,
viz. one of the first, and another of the third, both
observed, in a very clear air, with a Gregorian te-
lescope six feet long. Dr. Bevis, from a great num-
ber of observations, has computed *formulae* of tables for
the times of the immerfions and emerfions of the first
satellite of Jupiter, and which times we have seldom
found to differ from the observations above 10": By
com-