nem, qui vicem Præfecti Annonæ obiret, & in omnibus istis inferiorum Decurionum Collegiis primum teneret locum, id manifeste ex hac patet Inscriptione, ubi minores Decuriones Bovillani honorem faciunt Equiti Romano & Palatino, qui Decurio seu Curialis & Fretriacus in omnibus esset locis & urbibus, a quibus & per quas Annona Ægyptiaca Romam devehebatur. Decuriones vero promotos fuisse ad honorem Sacerdotii, ita ut simul Flamines, Luperci, Epulones Jovis, & Parasiti fierent Apollinis; & hoc quoq; multis constat exemplis. Omne vero dubium tollit, quod in hac Inscriptione eques ille Romanus vocetur Antinoiton & Eunostidon Decurio. Antinoi enim urbs præcipua tum temporis Ægypti superioris erat Civitas, unde per multas fossas frumentum deferebatur ad Mareotin lacum, qui ad Eunosti portum exit in Mare. Ab hoc portu dicti Eunostidæ curatores frumenti Ægyptiaci; unde demum confectus deus Eunostus rei frumentariæ Inspector, qui huic præsideret portui.

Several Observations of the Eclipse of *Jupiter* by the *Moon* on *March* the 31*th*. 1686. St.*Vet*. whereof some account has already been given in Transaction *No*. 181.

THe most accurate Observation of this Eclipse we have received, is that of Mr. *Cassini*, made in the Royal Observatory at *Paris*, published in the *Journal des Scavans* of the 10*th* of *June* last, the substance whereof is as follows.

April 10*th*. St, *N. Vesperi* Mr. *Cassini*, assisted by other Astronomers, attended upon this Occultation with Telescopes of 21 and 70 foot, while one was deputed to take the Altitudes of ♃ to verifie the time.

At 9*h*. 31*m*. 6*sec*. ♃ was in a perpendicular falling on the Limb of the ☽ over against the Northern Part of the spot *Grimaldi* (*Mareotis*) near to *Riccioli* (*stag. Miris*) and was distant from the Limb about four times as much as the said spot.

9*h*.

9*h*. 4°*m*. 21*ſec*. ♃ touched the circumference of ☽, which undulated by reaſon of the Vapours near the Horizon.

9. 41. 20. he quite diſappeared in the inequalities of the ☽s Limb, the total Immerſion might be ſome ſeconds later.

So the central immerſion was at 9*h*. 40*m*. 51*ſec*.

♃ entred over againſt that part of *Grimaldi* next *Riccioli*. The Vapeurs of the Horizon hindered the Obſervation of the Immerſions of the *S*atellites, but not their Emerſions, for

At 10*h*. 30*m*. 2*ſec*. the *outermoſt* Satellite which preceded ♃, appeared over againſt the middle of the Caſpian Spot (*pal. Mæotis*) through which the ſection of Light and Darkneſs paſſed, and made nearly an equilateral Triangle with the Extremities of that ſpot.

At 10*h*. 40*m*. 24*ſec*. the firſt Limb of ♃ began to come out of the dark ſide of the ☽, over againſt the North part of the Caſpian ſpot, about Cleomedes,(*ad montes Riphæos*)

At 10*h*. 40*m*. 56*ſec*. the center of ♃ did emerge. It was difficult to diſtinguiſh the moment when ♃s disk was fully clear, but at 10*h*. 41*m*. 36*ſec*. the Eclipſe was certainly paſt.

At the Emerſion of the Center, the Altitude of ♃ was 11*d*. 31*m*.

At 10*h*. 42*m*. 49*ſ*, the *ſecond* Satellite, being the neareſt of the three that followed the Planet, emerged.

At 10*h*. 45*m*. 1*ſ*. the *innermoſt* Satellite, *being near its greateſt Elongation*, emerged.

At 10*h*. 50*m*. 40*ſ*. the *third* or *penextimus Satelles*, *being likewiſe near its greateſt Elongation*, began to appear over againſt the Northern Edge of the Caſpian Spot.

At 11*h*. 45*m*. the Diameter of the ☽ was 32*m*. 27*ſ*. and according to the *calculus* of Mr. *Caſſini*, her parallax was 61*min*.

Together with this Obſervation is joyned that of *R. P. Bonfa*.made at *Avignon* who obſerved the central immerſion at 9*h*. 42*m*. 13*ſ*. and the central Emerſion at 10*h*. 45*m*. 26*ſ*.

over

over againſt the Southern part of the Caſpian Spot.

The ſame *P. Bonfa* has alſo obſerved at *Avignon* the other Eclipſe of the ſame Planet, *April 28th. ſt. vet Mane.* The Immerſion of the Center hapned at 3*h.* 37*m.* 23*ſ.* on the Eaſt ſide of the Spot *Xenophanes.* The Emerſion was at 4*h.* 28*m.* 2½*ſ.* between *Seneca* and *Beroſus*, according to *Riccioli*, or *ad montes Alanos Hevelii*, a little to the Northward of the *Palus Mæotis.* This occultation could not be obſerved at *Paris* by reaſon of Clouds.

Another printed Paper about the Eclipſe of *March 31th*, is ſince come to hand from *Nurenburg*, where it was obſerved part, by Mr. *I. Iac Zimmerman*, and by Mr. *Wurtzelbauer*, the ſubſtance of whoſe Obſervations is as follows.

At 10*h.* 19*m.* 56*ſ.* Mr. *Zimmerman* obſerved the firſt contact of the Limbs of ♃ and the ☽, and at 10*h.* 20*m.* 47*ſ.* ♃ was all eclipſed.

At 11*h.* 22*m.* 51*ſ.* ♃ was wholly clear from the Eclipſe.

The Immerſion was about the 117*th*, the Emerſion at the 321*th.* Degree of the Limb, in the Chart of *Hevelius.*

At 11*h.* 31*m.* 06*ſ.* the third Satellite of ♃ emerged. Theſe times were collected from the Culminations of fixt Stars, and the Vibrations of a Pendulum.

The Relation of the other Obſerver Mr. *Wurtzelbauer* is to this purpoſe.

At 10*h.* 20*m.* 50*ſ.* ♃ applyed to the Limb of the ☽, over againſt the *loca paludoſa Inſulæ Circinnæ.*

At 10*h.* 22*m.* 00*ſ.* he appeared about half eclipſed.

At 10*h.* 22*m.* 30*ſ.* he was wholly hid.

At 11*h.* 19*m.* 40*ſ.* ♃ began to Emerge.

At 11*h.* 21*m.* 20*ſ.* he was quite free from the interpoſition of the ☽. The point of the Emerſion was ſomewhat to the North of the *Palus Mæotis.*

No Spot in the ☽ was ſo near the apparent magnitude of ♃s disk as the *Inſula Besbicus Hevelii.*

At 11*h.* 40*m.* 00*ſ.* the Altitude of *Procyon* was 8*gr.* 37*m.* whence the Pendulum Clock, which had been ſet by Alti-

tudes of the ☉ the afternoon preceding, may be examined.

The Account we have but now lately received from the famous Mr. *Hevelius* from *Dantzick*, of theſe ſame Eclipſes, is contained in this following Diſcourſe addreſſed in a Letter from the Obſerver to the *R. Society*.

Occultatio Jovis Anno 1686, *die* 10 *April. ſt. n. veſperi, obſervata Gedani a* Joh. Hevelio.

AD hanc Obſervationem ſumma alacritate acceſſi, non obſtante invaletudine mea, cum Cœlum fere undeq; eſſet ſerenum, niſi quod circa Horizontem, ubi Luna atq; Jupiter exoriri debebant, vapores quidam atq; nubeculæ exiſterent. Inprimis ex eo maximopere fui excitatus, quod hujus generis Obſervationes, Occultationes nempe Jovis admodum raro contingant, ſed adhuc rarius ex voto obſerventur. Me quod attinet, ſcias, mi Lector, etiamſi hucuſq; per 56 annos Rebus Cœleſtibus pro meo modulo operam dederim, atq; nullam Obſervationem alicujus momenti, (abſit gloriola) lubens neglexerim, haud feliciorem fuiſſe quam quod in hunc uſq; diem ſpatio 50 circiter annorum, non niſi tres tales Jovis Eclipſes rite deprehendere & annotare potuerim: utpote primam Anno 1646, die 24 Decemb. veſperi, ſed tantummodo ejus finem: ſecundam, Anno 1679, die 5 Junii ante meridiem de die, quo tempore res omnis felicius ſucceſſit; tertiam hoc Anno currente 1686 die 10 April. veſperi.

Quam Obſervationem, mi Aſtrophile, prout perägi potuit, a me nunc benevole accipias, rogo. Quæ vero obtenta, atq; annotata fuerunt, ex ſubſequente Tabella & Obſervationis Typo patebunt. Omnium primo nonnullas Altitudines Solis, & Arcturi Quadrante ſingula minuta commonſtrante obſervavi, ad corrigendum Horologium ambulatorium aliquanto tardius incedens. Deinde, exoriente atq; ex nu-