

II. The Longitude of Carthagena in America. By the same.

HAVING lately, by the Favour of Sir *Hans Sloane*, received a Packet of Observations from *Cartagene* in *America*, made by Colonel *Don Juan de Herrera*, Chief Engineer of that City, I find among them one Immerfion of the first Satellite of *Jupiter* into his Shadow, observed there by a Telescope of 17 $\frac{1}{2}$ Feet, on *April 9. Stilo vet.* 1722. at 15 h. 58' 44" apparent Time; and two Emerfions of the fame, *viz. July 5. 11 h. 23' 41"* and *July 21. 9 h. 42' 17" Stil. vet.* all which tally with Observations made at *Wansted*, by the Reverend Dr. *Pound* and Mr. *Bradley*, who observed there the very next Eclipses to all the three; that is to say, the Immerfion by a fifteen Foot Tube, on *April 11. 15 h. 28' 40" Temp. æqu.* or 15 h. 30' 25" *Temp. app.* And the first Emerfion, *July 7. 10 h. 59' 28" Temp. æq.* by the Reflector, and 18" after, or 10 h. 59' 46" by the 15 foot Glafs, that is, 10 h. 54' 12" apparent Time. The other was observed at *Wansted. July 23. 9 h. 19' 10" Temp. æq.* both by the Reflector and 15 foot Glafs; that is to say, at 9 h. 13' 35" apparent Time. Subtract from each of these one Period of this Satellite, or 1 d. 18 h. 28' 36" and *April 9. 15 h. 58' 44"* at *Cartagene* will be 21 h. 1' 49" of the same Day at *Wansted*, and the difference of Meridians 5 h. 3' 5". Likewise by the first Emerfion, *July 5. 11 h. 23' 41"* at *Cartagene* was at *Wansted 16 h. 25' 36"* of that Day, whence the Difference of Meridians 5 h. 1' 55". But by the last E-

Q

merfion,

merſion, *July 21.* $9^{\text{h}}.42'17''$ at *Cartagene* was $14^{\text{h}}.44'59''$ at *Wanſted*; whence *Wanſted* is $5^{\text{h}}.2'42''$ more eaſterly than *Cartagene*: and taking the *Medium* of all three, $5^{\text{h}}.2'34''$ or $75^{\circ}38'$ may be taken for the true difference of Longitude, that is, $75\frac{1}{2}$ from *London*, which compared with Capt. *Candler's* Obſervation of the late Lunar Eclipse, ſhews *Cartagene* to be about 20 Leagues to the Eaſtwards of *Port Royal* in *Jamaica*.

III. *Cometæ Berolini, anno 1718. viſi Obſervationes a 18 Januarii, Stylo novo, ad 5 Febr. ex Epiſtolâ Viri Cl. Chriſtfridi Kirchij, Reg. Soc. Scient. Berolin. Aſtron. ad Edm. Hallejum, LL.D. R. S. S. deſumptæ.*

MOnere hic debeo obſervationes Cometæ à me inventi, in *Novis Literariis Lipſienſ.* non eſſe accuratas; primo quidem, cum eas tantum amico cuidam feſtitanter tranſmiſerim, ut etiam ille Cometam quæreret; deinde, cum etiam vitium typographicum irrepſerit; nam die 23 Januarii mane, Cometæ cum θ & φ Caſſiopeæ (non vero δ & φ) conſtruebat triangulum æquicrurum; & vesp̄eri φ Perſei, Cometæ & θ Caſſiopeæ ad ſenſum erant in linea recta. Pleniorem Cometæ hiftoriam jam paratam habeo, ex qua hæc breviter attingam. Obſervavi eum a die 18 *Jan.* ad 5 *Februarii*. Loca ejus ex obſervationibus ad horam 10 vesp̄ertinam cujuſque diei, quo Cometæ obſervari potuit, reducta, hæc Tabella exhibet.