

These are the particulars of the Discovery, whereby the admirable Analogy and Uniformity of the parts of the Universe are most evident, and the Infinite Wisdom and Power of the Creator is demonstrated to the Contemplative. In the Conclusion, the Discoverer considers that the Antient Astronomers, having translated the Names of their Heroes among the Stars, those Names have continued down to us unchanged, notwithstanding the endeavour of following Ages to alter them; and that *Galileo*, after their Example, had honoured the House of the *Medici* with the discovery of the *Satellites* of *Jupiter*, made by him under the Protection of *Cosmus II*; which Stars will be always known by the Name of *Sidera Medicea*. Wherefore he concludes that the *Satellites* of *Saturn*, being much more exalted and more difficult to discover, are not unworthy to bear the Name of *Louis le Grand*, under whose Reign and in whose Observatory the same have been detected, which therefore he calls *Sidera Lodoicea*, not doubting but to have perpetuated the Name of that King, by a Monument much more lasting than those of Brass and Marble, which shall be erected to his Memory.

In our Figure we have omitted the Orbe of the outer *Satellite*, that so the rest might not be crowded, but its distance to that of *Hugenius's*, is as Cube Root of 25 or 2,925 to 1.

Two Astronomical Observations of the Eclipses of the Planet Jupiter, by the Moon in March and April last, made at London.

The *Lipsick Ephemerides* of Mr. *Godfrid Kirck*, giving notice of these Occultations, they were thought of too great consequence to be neglected, if the weather proved fair. The first hapned *March 31th.* at night, and was attended with a most Serene Sky, no Clouds any where appearing, wherefore Mr. *Hook* and *E. Halley* undertook the Observation in
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Gresham Colledg, which succeeded as follows. Having taken some good Notes for the rectifying the *Pendulum* Clock, they expected the rising of the Moon, so much the rather, for that it was doubtful, whether the Planet would be eclipsed at the Rising or no, for tho' *Kirk's Ephemerides* made the Immersion at 9 h. 46 m. at *Lipsick*, that is at *London* 8 h. 54 m. yet his *Jupiters* place being 13 m. too slow, it was plain that the Occultation would be very near the Horizon of *London*. Accordingly at 9 h. 26 m. the under Limb of the Moon, was just risen over *Shooters Hill*, and soon after *Jupiter* appeared near the Eastern Limb of the Moon, within a few Minutes of being eclipsed.

9 h. 33 m. As near as could be guessed, was the Time of the central Immersion, which was very difficult to be observed, by reason of the Asperity of the Moons Limb, which undulated and sparcked very much, as it appeared through the Vapours near the Horizon, so that the contact of the Limbs could with no certainty be determined: the Ingress happened much about the length of the Spot, called by *Hevelius palus Mareotis*, to the North of the said Spot, or about the 124th. Degree of the outer Limb of his *Selenography*, nearly in the same Latitude with the Moons Center.

10 h. 30 m. The Western Edg of *Jupiter* began to emerge out of the dark Limb of the Moon.

10 h. 31 m. 20 s. The whole disk of *Jupiter* was entire, so that he was about a minute and a third in coming out from behind the Moon, whereby the Diameter of this Planet may be determined.

The Emerision was exactly in a right Line with the Moons Center, and the Northern Part of *Palus Mæotis*, or about the 324th degree of the inner Limb of the *Selenographic* Table of *Hevelius*.

The other Occultation hapned *May* the 28th. *Mare*, or Astronomically, the 27th after mid-night; the preceding Night was cloudy dark Weather; so that there was no encouragement to set up for it; however by good hap, both

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Immersion and Emerfion were obferved.

The Immersion was feen at *Totteridge* (which place is about 9 Miles from *London*, and nearly 25 *feconds* of time to the *Westward* thereof) by Mr. *Edward Haines*, a Member of the R. *Society*, well verft in this fort of Obfervation: who between a gap of the Clouds obferved the Contact of the *Moons* limb and *Jupiters*, at 15 h. 3½ min. the Clouds clofing again permitted him to obferve no more, however from this we may conclude the Central Immersion at *London* to have been 15 h. 4½ min.

The Emerfion was obferved at *London* by *E. Halley*, to fall out at 15 h. 49 min.; for at 15 h. 50 min. *Jupiter* was all out, and the limbs fo little feperated, that he judged, that a *minute* before, the center of *Jupiter* had been upon the *Moons* edg: The point of the Emerfion was overagainft the *Southern* part of the fpot, called by *Hevelius* *Infula Macra*, or at the 342d division of the inner limb of his Map of the *Moon*.

What has been obferved of thefe two Occultations elfewhere, would be very acceptable to the R. *Society*; fuch fort of Obfervations, if accurate, being of fingular ufe to determine the *Longitudes* of Places, efppecially thofe that are far remote; for which purpofe all Curious Perfons furnifhed with Inftuments and Skill in *Aftromical* matters, are defired to let flip none of thefe opportunities, which may be of fo great benefit to *Geography*.