

ing parts dispersed up and down in it; by the Wheel Barometer, heavy,

B. Another Scheme, which I drew from my Observation, about 10. minutes after, the same morning. Both these were observed with a very deep Eye-glass.

C. March 10^d. 00^h. 20^m. in the morning: the Air heavy and inflective. Use was made of a shallow or ordinary Charge.

D. March 10^d. 3^h. 00^m in the Morning; the Air very heavy and inflective, which made it glare and radiate, and be more confused, than about 3. hours before. A shallow Charge.

E. March 21^d. 9^h. 30^m post merid; the Air light (in weight) and clear, without inflecting parts; the Face appear'd most distinctly of this Forme. A shallow Charge.

F. March 21^d. 11^h. 30^m post merid; the Air continuing very light and clear, without inflecting vapours. A shallow Charge.

G. March 21^d. 8^h. 30^m post mer. the Air clear, with few inflecting veins in it, and indifferent light. A shallow Charge.

H. March 23^d. 9^h. 30^m post mer. the Air pretty light, but moist, and somewhat thick and hazy, but seem'd to have but few veins, or inflecting parts.

I. March 28^d. 3^h. p. m. much the same kind of Air with that of March 23; light, moist, and a little hazy, with some very few veins.

Observations

Made in Italy, confirming the former, and withall fixing the Period of the Revolution of Mars.

These Observations we shall summarily present the Curious in these parts with, as they were lately presented (by Letter from his Excellency the Ambassadour of Venice, now residing at the Court of France) to the Royal Society, in some printed sheets of Paper, entituled, *MARTIS, circa Axem proprium Revolubilis, Observationes, BONONIAE à JO. DOMINICO CASSINO habitæ*; come to hand June 3. 1666.

In these Papers the Excellent *Cassini* affirms;

1. That with a Telescope of 24. Palmes, or of about 16 Foot, wrought after *S. Campani's* way, he began to observe February 6. 1666 (st. n.) in the morning, and saw two dark Spots in the first Face of Mars.

2, That

2. That with the same Glass he observ'd *Febr.* $\frac{14}{24}$, in the Evening, in the *other* Face of this Planet, two other Spots, like those of the first, but bigger.

3. That afterwards continuing the Observations, he found the Spots of these two Faces to turn by little and little from *East* to *West*, and to return at last to the same situation, wherein he had seen them first.

4. That S. *Campani*, having also observ'd at *Rome* with Glasses of 50. *Palmes* or about 35 *Foot*, likewise of his own contrivance, had seen in the same Planet the same *Phenomena*.

4. That sometimes he hath seen, during the same night, the two Faces of *Mars*, one, in the Evening, the other in the Morning.

6. That the Motion of these Spots in the inferior part of the apparent Hemisphere of *Mars*, is made from *East* to *West*, as that of all the other Celestial Bodies, and is perform'd by Parallels, that decline *much* from the *Equator*, and *little* from the *Ecliptick*.

7. That the Spots return the next day to the same situation, 40. minuts later, than the day before; so that in every 36. or 37. daies, about the same hour, they come again to the same place.

8. He promises shortly to give us the particular *Tables* of this Motion and of its Inequalities, together with the *Ephemerides* themselves.

9. He represents, that some other *Astronomers* have also made at *Rome* several Observations of these Spots of *Mars*, from *March* $\frac{14}{24}$. to *March* $\frac{22}{25}$. with Glasses, wrought by *Eustachio Divini*, of 25. and 45. *Palmes*: Which Spots he makes little differing from his own, of the first Face; as will by and by appear, by the direction to the *Schemes*.

10. But he adds, that those other *Roman Astronomers*, that have observ'd with *Divini's* Glasses, will have the Conversion of *Mars* to be performed, not in 24 h, 40 m. (as he maintains it is) but in about 13 h.

11. And to evince, that they are mistaken in these Observations of theirs; he alledges, That they assure that the Spots, which they have seen in this Planet, (by an *Eustachian* Telescope) the $\frac{22}{25}$ of *March*, were small, very distant from one another, remote from the middle of the Disk, and the *Oriental* Spot was less, than the *Occidental* (as is represented by the Fig. O; like that of the first Face of *Mars*.) whereas, on the contrary,

He

He (*Cassini*) pretends to evidence by his Observations, made at the same time at *Bononia*, that, the same day and hour, those Spots were very large, neer one another, in the midst of the Disk, the Oriental bigger than the Occidental (as appears by *Fig. P*, which is that of the second Face of *Mars*.)

12. Besides, he declares, that those *Astronomers* were too hafty, in determining, after 5 or 6 Observations only, in how much time *Mars* finish's his Revolution; and denies it to be perform'd in 13 hours: adding, that, though Himself had observ'd for a much longer time, than they; yet he durst not for a great while define, Whether *Mars* made but *one* Turn in 24 hours 40 minuts or *two*; and that all, that he could, for a long time affirm, was onely this, that after 24 h. 40 m. this Planet appear'd in the same manner he did before.

13. But since those first Observations, He affirms to have found cause to determine, that the Period of this Conversion is made in the said space of 24 h. 40 m; and not oftner than once within that time; Alledging for proof;

1. That, whereas *Febr. 6.* (ft.n.) he saw the Spots of the first Face of *Mars*, moving from eleven of the Clock in the night, until break of day, they appear'd not afterwards in the Evening after the rising of that Planet (witness several intelligent persons, which he names, that were present at the Observations) Whence he infers, that after 12 hours and 20 minuts, the same Spots did not come about; since that the same, which in the morning were seen in the middle, upon the rising of *Mars*; after 13 or 14 hours, might have appear'd neer the Occidental Limb. But, because he might be imposed upon by Vapors, whilst *Mars* was yet so neer the *Horizon*, he gives this other determination, *vid.*

2. Whereas he saw the first Face of *Mars* the 6 of *February* at 11 of the clock of the night following; he did not see the same after 18 daies at the same hour; as he ought to have done, if the Period were absolved in the space of 12 h. 20 m.

3. Again, whereas he saw *Febr. 24.* in the Evening, the other Face of *Mars*, he could not see the same, the 13. and 15. day of *March*, to wit after 17 and 19 days; as he should have done, if the Revolution were made in the newly mention'd time:

4. Again, whereas the 27. of *March* in the Evening he saw the

the second Face of *Mars*, he could not see it the 14. and 16. of *April*.

From all which Observations he Judges it to be evident, that the Period of this Planets Revolution is not perform'd in the space of 12. hours 20, minutes, but in about 24 hours 40 minutes; more exactly to be determin'd by comparing distant Observations: And that those who affirm the former, must have been deceived by not well distinguishing the two Faces, but that having seen the second, taken it for the first.

All which he concludes with this Advertisement, that, when he defines the time of the Revolution of *Mars*, he does not speak of its *Mean* Revolution, but onely of that, which he observ'd, whilst *Mars* was opposite to the Sun; which is the shortest of all.

The Figures of the Principal Observations, represented in the Book here discoursed of, may be seen in the annexed Scheme; videl.

K. *One of the Faces of Mars, as S. Cassini observed it March 3. (st.n.) 1666. in the Evening, with a Glass of 24 Palmes.*

L. *The other Face, as he saw it Febr. $\frac{1}{2}$ in th Evening.*

M. *The first Face, as S. Campani saw at Rome, March 3. 1666. in the Evening, with a Glass of 50 Palmes.*

N. *The second Face, as the same Campani observ'd it March $\frac{1}{2}$ in the Evening.*

O. *The Figure of Mars, as it was seen at Rome by a Telescope of Divini of 45 Palmes, March $\frac{3}{2}$.*

P. *The Figure of the said Planet, as it was seen the same day and hour at Bononia by Cassini; being that of the second Face.*

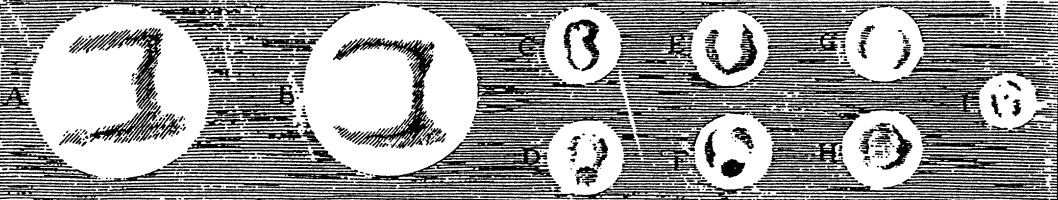
Some Observations

Lately made at London concerning the Planet Jupiter.

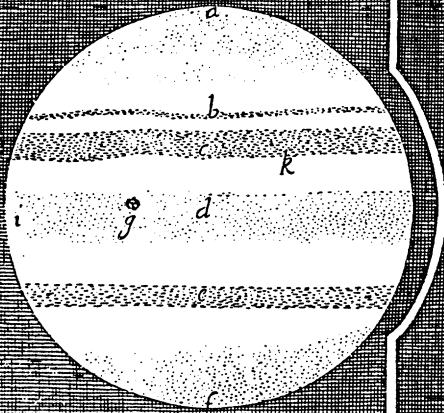
These, as they were made, so they were imparted, by Mr. *Hook*, as follows:

A. 1666. *June 26. between 3. and 4. of the Clock in the morning, I observed the Body of Jupiter through a 60. foot-glass, and found the apparent Diameter of it through the Tube, to be somewhat more than 2. degrees, that is, about four times*

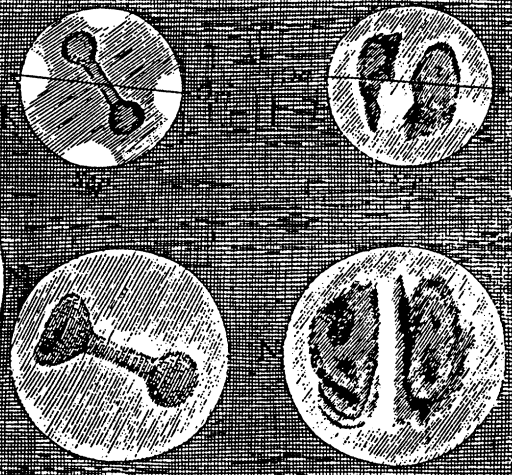
The Figures of the Observations made in London Transact. N. 14. tk.



The Observation of Iupiter.



The Figures of y^e Italian Observations.



The late Observ of Saturne.

