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notices to impart concerning the Planets Jupiter and Venus, the Comets of our system, and the Fixed Stars and Nebulæ. With regard to Venus: the motion of certain spots, first observed by Cassini, instructed that Astronomer that her rotation on her axis was performed in rather less than twenty-four Schreter, by continued observations of her horns, and hours. of some luminous points in her disc, has confirmed this result, which was doubted, and like Cassini, has found her Equator to make an angle with the ecliptic. He has also proved the existence of high mountains, and from the law by which her light gradually varies from her bright to her dark side, he proves her having an extensive atmosphere, the refrac-sing power of which differs but little from that of the atmosphere of our Earth. We have, heretofore, noticed, that belts or stripes may be observed on the disc of Jupiter, evidently parallel amongst themselves. The form of the belts may (as Brewster suggests) be fairly accounted for, by presuming that the atmosphere of Jupiter reflects more light than the body of the Planet, and that the clouds which compose it, being thrown into parallel strata by the rapidity of his diurnal motion, form regular interstices, through which are seen the opaque body of Jupiter. They appear to be clouds, which the winds transport with various velocities, in an extremely agitated atmosphere. At times one belt only is visible; at other times six, or eight; the breath is also variable—bright spots are also visible, more permanent than the belts. The remarkable spot, by the motion of which the rotation of Jupiter on his axis was proved, disappeared in the year 1694, and re-appeared in the very same place in 1708. Jupiter is next to Venus, the most brilliant of the Planets, and sometimes even surpasses her in brightness. Its apparent diameter is greatest in opposition, but it is not equal in every direction; it is flattened at the poles of its axis ;---the moons of Jupiter appear nearly in a line with the belts of the Planet. We will here note, that an observer in Jupiter will never see either Mercury, Venus, the Earth, or Mars, as from the immense distance at which he is placed from them, they must appear to accompany the Sun, and to rise and set with him. His own four Moons-the Planet Saturn, with his Rings, Satellites, and probably, Uranus also, may be visible from Jupiter.

With respect to the Laws of the Planets' revolution, it required no common sagacity in the Illustrious Kepler, assisted by singular perseverance and industry, at a period when the data themselves were involved in obscurity, and the calculations were encumbered with difficulties of which recent improvements have left us no conception, to perceive and clearly to demonstrate the real laws of their connection, as before stated and proved. But of all the laws to which induction

ment to this, the second Edition, having still more interesting