Joseph Pope

ticularly if near his equator, must move with great rapidity. Consequently the markings on his face seem to be perpetually shifting as the great planet turns round under our eyes.

Jupiter's disk is marked with certain horizontal bands commonly called "belts," which extend across the surface of the planet. In telescopes such as ours, these belts are usually of a dusky hue. They change in number and breadth from time to time, sometimes exhibiting curious and beautiful scalloped forms. One night will reveal a difference in this general aspect, owing to the swiftness with which Jupiter turns on its axis.

Undoubtedly, the most interesting of all the phenomena presented by Jupiter, are those connected with his satellites. These little moons are four in number, and their ceaseless changes of position invest them with a peculiar fascination. The innermost satellite revolves about Jupiter in 421/2 hours, the second in 3½ days, the third in 7 days, and the fourth in 16½ days. To-night they may appear two on each side ; to-morrow night, three on one side and one on the other, and so on. Sometimes one satellite may be behind the body of Jupiter while another is crossing his disk, that is, coming between us and him, in which event one frequently sees, not only the satellite, but also its shadow like a little black spot on the face of the planet. To see the tiny moon edge up close to its great primary, preparatory to disappearing behind its huge body, or to be projected on his face, is an absorbing pleasure. Perhaps, still more entertaining are the frequent eclipses which the satellites suffer by getting into Jupiter's shadow. The exact second of these eclipses, both as regards disappearance and reappearance, is predicted in the Nautical Almanac. Suppose, for instance, the third satellite is scheduled for eclipse at 16 minutes and 10 seconds past 9 o'clock p.m. You have your telescope ready, at say 9.15. You turn it on Jupiter. The third satellite is shining like a little golden bead. You are watching it closely. At 9.16 its appearance is unchanged. A few moments later, however, it begins to pale, and quickly is completely extinguished. The disappearance is not so startingly sudden as the occultation of a star by the moon,

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