

SCIENCE

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ON THE PHYSICAL CONSTITUTION OF THE PLANET JUPITER.*

THE planet of Jupiter was one of the first objects to which the telescope of Galileo was directed, and the satellites of the planet were among the earliest discoveries made by that instrument. In 1630 the telescope had been constructed with sufficient power to show the great equatorial belt. Previous to the beginning of the eighteenth century the principal phenomena seen on the surface of Jupiter had been observed, and the time of rotation and position of the axis of the planet ascertained. Notwithstanding, however, the great mass of facts which have been collected from observations extending over a period of 200 years, yet up to the present time no theory of the physical condition of the surface has been advanced which has met with universal acceptance. In order that the subject may be more clearly understood it will be well to state briefly the salient features presented to the eye of the observer. The disk of Jupiter appears as an ellipse having axes in the ratio of 14 to 15, the longer axis lying in the direction of the planet's equator. The equatorial diameter is about 89,000 miles.

* Address of the chairman of Section A, Mathematics and Astronomy, and vice-president of the American Association for the Advancement of Science. Read at the Washington meeting, December 29, 1902.