

favorable Opposition (1892). All who have telescopes should observe him from September to November at every opportunity. The Satellites have been seen at favorable Oppositions in comparatively small telescopes. On the night of this Opposition (Oct. 20th) Phobos, the inner Satellite, is at Greatest Elongation West of the Planet at midnight; Deimos, the outer Satellite, being at a similar position at 9h. on the evening of the 20th, three hours previous to his smaller brother.

Satellite.	Time of Revolution.
PHOBOS (I).....	Od. 7h. 39m. 14s.
DEIMOS (II).....	1d. 6h. 17m. 54s.

Mars' apparent disc will vary from "gibbous" to "full"; or from 0.841 in June to 1.000 in the middle of October, reducing to 0.901 in December.

[For descriptive illustrated article, see "Markings on Mars," in SMITH'S PLANETARY ALMANAC for 1892, price 12 cents, post-paid.]

THE ASTEROIDS, 1894.

The total number is now 355. Of these, 29 were discovered in 1892, and 25 picked up by Wolf at Heidelberg and Charlois at Nice, by the aid of photography, between Jan. 1 and April 15, 1893. The negatives were made with an exposure of from three to five hours. Images of stars, if the exposure is carefully attended to, so that the telescope follows the star, come out round and clean—images of asteroids, comets, or other moving objects, appear as streaks, owing to their orbital motion.

While all the larger asteroids have without doubt been discovered, the list is not by any means complete, as there are probably thousands, ranging in size from a large cannon-ball to several miles in diameter.

CERES (1) reaches Opposition—brightest, is overhead at midnight, and best placed for telescopic observation on March 7th, 1894. Her Right Ascension is then 11h. 40m. 28s. Declination North, $20^{\circ} 51' 51''$. A spot in the Constellation *Leo Major*, about 6° North of *Denebola*, the planet forming a triangle with *Denebola* and *Zosma*.

PALLAS (2) is at Opposition on February 15th, 1894. Its R. A. is then 9h. 18m. 37s.; Declination S. $15^{\circ} 39' 21''$. A spot in the Constellation *Hydra*, South of *Alphard*.

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