

Titan, the largest, will most surely be seen, generally a considerable distance from Saturn, shining like an 8th magnitude star. Its place will be found, with those of all the other satellites, in the *Washington Nautical*.

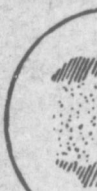
URANUS, whenever visible as a small star to the unaided eye, will show nothing more in a small lens except a steady disc of light.

To find NEPTUNE, the amateur will need not only the *Nautical*, but a star map, in order to know exactly where to point his telescope.

THE ASTEROIDS are not entirely beyond the range of a small telescope. Several of them, when at or near opposition, are to be picked up, shining as small planetary discs. Vesta, the largest, when at Opposition, is visible to the unaided eye as a star of the fifth or sixth magnitude. The difficulty is to locate these small bodies amongst the hosts of stars. It can only be done with the aid of an ephemeris, giving their exact places in Right Ascension and Declination. An ephemeris of the four best known: Ceres, Juno, Pallas and Vesta is to be found each year in the *Greenwich Nautical*.

VENUS will probably disappoint the amateur acquainted with her proximity to the earth. She scintillates so, and is so unsteady that very little can be done, even with the most powerful, much less the smallest telescopes. She is best seen when visible before sunrise in the morning sky, because the air is then purer, but this remark applies to all the planets, in fact generally to all observations. Five weeks before and after inferior conjunction with the sun, Venus is at "greatest brilliancy." About this time, a $1\frac{3}{8}$ inch lens will show her crescent form distinctly, and the amateur will have seen that which so charmed Galileo, proving to the world the truth of the Copernican theory, and that Venus is a planet moving at such times between the earth and sun. One very fine winter morning, I remember seeing, with a 2 inch Achromatic, that remarkable phenomena known as the "Phosphorescence of Venus," when what should have been the dark part of her disc was covered with a beautiful hazy light, similar to the "old moon in the new moon's arms."

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