

between March 22nd and April 25th. In our reformed Calendar Easter would fall on a day midway between its present extremes, namely, April 10th.

The Respective Magnitudes of Saturn's Satellites

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SATURN is now very favourable for observations. I will venture to give a few simple notes to aid observer's, possessed of instruments of various powers. Titan can easily be seen with a 2-inch telescope. It will be found at about $4\frac{1}{2}$ times the length of the major axis of the rings distant from the planet. It is to the north of the planet on April 2nd, to the west on the 6th, to the south on the 10th, to the east on the 14th, and so on, completing the cycle in about 16 days. The satellites Rhea Dione and Tethys can be seen with instruments of 5 to 6-inch diameters. So also can Japetus, but this satellite is 5 times brighter when seen to the west than to the east of the primary. Its light value varies regularly between these extremes, which proves that it always turns the same face towards Saturn, one of which is much darker or of lower albedo than the other face. Euceladus, Mimas and Hyperion can only be seen by large instruments. Phoebe requires the most powerful instruments in existence. Titan alone presents a measurable disk, about 2,600 miles in diameter, being slightly bigger than our Moon. The time it takes for Rhea to be eclipsed, proves its diameter to be 1,100 miles. Japetus is probably about the same size as Rhea. The smallest satellite Phoebe cannot be more than 150 miles in diameter. The masses of these satellites can be calculated from their motions due to mutual attractions. Dione is $\frac{1}{20}$ th and Tethys $\frac{1}{120}$ th of the mass of our Moon. Mimas is only the $\frac{1}{2,000}$ th, or 35,000 millions of tons, or the mass of a million mountains 3,000 feet high.

Note on the "Elements of the Wilson Bolide"

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THE famous Bolide observed by Mrs. F. Wilson and Mr. A. Watkins in March 1916 appears to have had the following elements. Its height was 60 miles, the length of its trajectory was 80 miles, its velocity 25,750 metres a second. It was a member of the Pegasides.