



A view of 17 transits of the planet Venus over the face of the Sun, (viz: from the year 918 to 2117 inclusive;) and particularly that which will next happen in the year 1761, by which the parallax and distance of the Sun will be nicely determined; and the dimensions of the solar system accurately ascertain'd

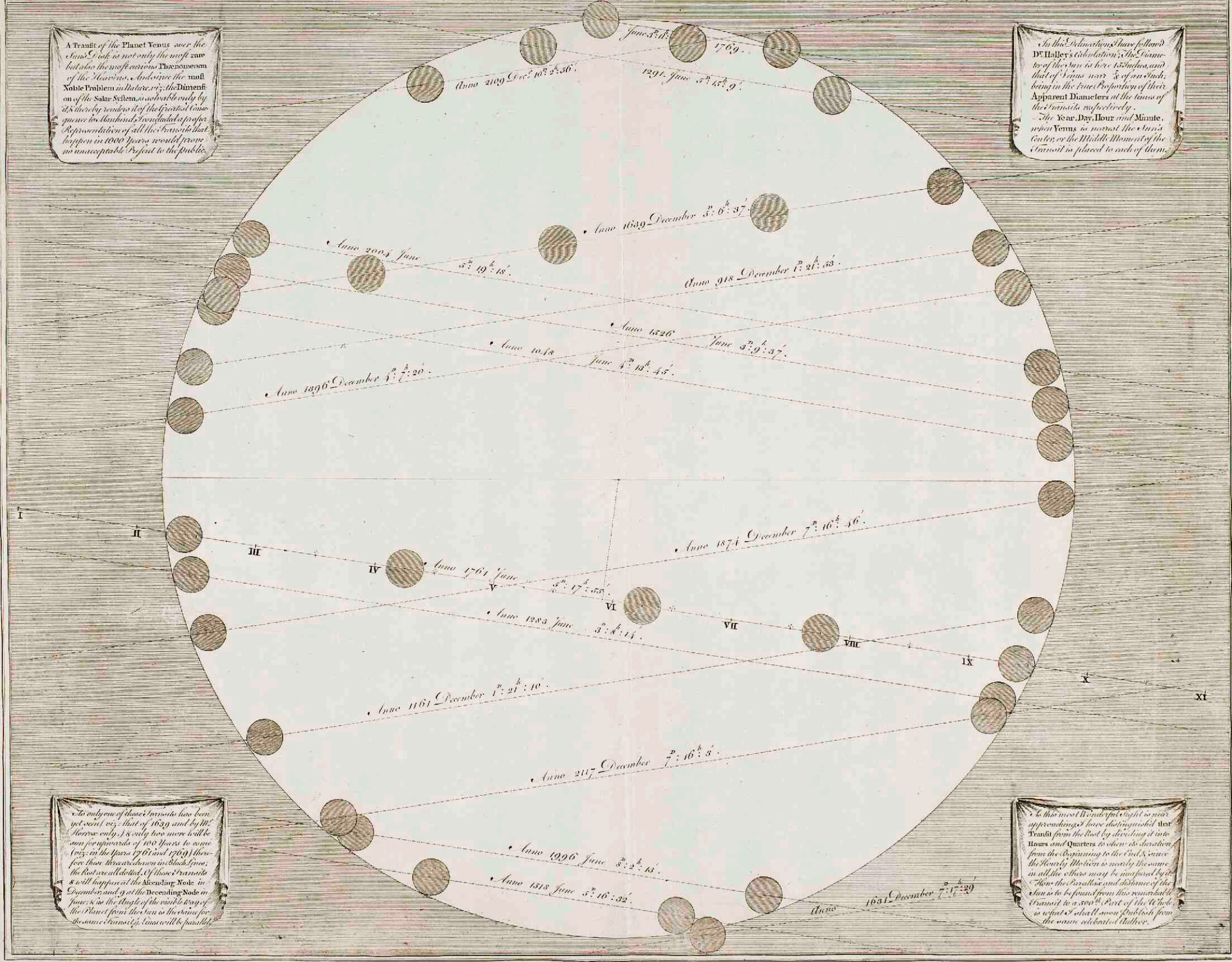
Pamflet voor de overgangen van de planeet Venus voor de zon van 918 tot 2117, 1757

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A VIEW of 17 TRANSITS of the Planet VENUS over the FACE of the SUN, (viz. from the Year 918 to 2117 inclusive;) and particularly That which will next happen in the Year 1761, by which the PARALLAX and DISTANCE of the SUN will be nicely determined; and the DIMENSIONS of the SOLAR SYSTEM accurately ascertained. By B. MARTIN.

A Transit of the Planet Venus over the Sun's Disk is not only the most rare but also the most curious Phenomenon of the Heavens. And since the most Noble Problem in Nature, viz. the Dimension of the Solar System is ascertainable only by it, there is no wonder if the greatest Curiosity for Astronomers is concluded to proper Representation of all the Transits that happen in 1000 Years would prove no unacceptable Present to the public.

In this Delicacy have followed Dr. Halley's Calculations, the Quantity of the Sun is here 1500000000, and that of Venus near 1/3 of an Inch, being in the true Proportion of their Apparent Diameters at the time of the Transits respectively. The Year, Day, Hour and Minute, when Venus is nearest the Sun's Center, or the Middle Moment of the Transit is plac'd to each of them.



As only one of these Transits has been yet seen, viz. that of 1639 and by Mr. Halley's only 1, & only two more will be seen for upwards of 100 Years to come (viz. in the Years 1761 and 1784) therefore these three are drawn in Black; since the Rest are all dotted. Of these Transits 8 will happen at the Ascending Node in December, and 9 at the Descending Node in June; & so the Angle of the visible Rays of the Planet from the Sun is the same for the same Transits, Venus will be parallel

As this most Wonderful Sight is near approaching, those that wish'd their Transits from the East by observing it in the Hours and Quarters to show its duration from the Beginning to the End, & since the Hourly Motion is exactly the same in all the others may be compar'd by the Hour the Parallax and distance of the Sun is to be found from this remarkable Transit to a 500th Part of the Whole, as what I shall soon Publish from the same celebrated Author.