ing long periods of time. The planets revolving in such various elliptical orbits are also all situated in different planes. In order to render a numerical comparison possible, they are reduced to a fundamental plane, either fixed or movable, according to certain laws. As such, the most convenient is the ecliptic—the course which the Earth actually traverses—or the equator of the terrestrial spheroid. We add to the same table the inclinations of the axes of rotation of the planets toward their own orbits, so far as they are determined with any certainty.

Planets.	Inclination of the Planetary Orbits to the Ecliptic.	Inclination of the Planetary Orbits to the Earth's Equator.	Inclination of the axes of the Planets to their Orbits.
Mercury	7° 0′ 5″·9	28° 45′ 8″	
Venus	3° 23′ 28″·5	24° 33′ 21″	
Earth...........	0° 0′ 0″	23° 27′ 54″·8	66° 32′
Mars	1° 51′ 6″·2	24° 44′ 24″	61° 18′
Jupiter	1° 18′ 51″·6	23° 18′ 28″	86° 54′
Saturn	2° 29′ 35″·9	22° 38′ 14″	
Uranus	0° 46′ 28″·0	23° 41′ 24″	
Neptune	1° 47′ 0″	22° 21′ 0″	

The small planets are omitted here, because they will be treated of further on as a separate distinct group. If the planet Mercury, situated near the Sun, and the inclination of whose axis toward the ecliptic (7° 0′ 5″·9) approaches very near to that of the solar equator (7° 30′), the inclinations of the other seven planets will be seen to oscillate between $0\frac{3}{4}°$ and $3\frac{1}{2}°$. Jupiter exhibits, in the position of the axis of rotation with reference to its own orbit, the closest approximation to the extreme of perpendicularity. On the contrary, the axis of rotation of Uranus, to conclude from the inclination of the orbits of its satellites, very nearly coincides with the plane of the planet's orbit.

Since the division and duration of the seasons, the solar altitudes under various latitudes, and the length of the days, depend upon the amount of the inclination of the Earth's axis toward the plane of its orbit, as well as upon the obliquity of the ecliptic (i. e., upon the angle which the apparent course of the Sun makes with the equator at their point of intersection), this element is of the most extreme importance as regards the astronomical climate, i. e., the temperature of the Earth, in as far as this is a function of the meridian altitude attained by the Sun and the duration of its continuance above the horizon. If the obliquity of the ecliptic were great, or