

logues. This gave the convenience of round numbers, and an exactness that may be depended on. Thus the entire period is 25,920 years; the half period 12,960 years; the quarter 6480 years; the twelfth, or a sign, 2160 years.

We must observe that the constellations leave spaces between, and that sometimes they infringe on each other. Thus, between the last star of Scorpio, and the first of Sagittarius there is an interval of six degrees and two-thirds; on the contrary, the last of Capricornus is more advanced by fourteen degrees of longitude than the first of Aquarius.

“Independently of the inequality of the motion of the sun, the constellations would give a very unequal and faulty measurement of the year and months. The signs of thirty degrees afford a more convenient and less defective method. But the signs are only a geometric supposition; we can neither distinguish nor observe them; they are continually changing their places by the retrogradation of the equinoctial point.

“We have always been able to calculate roughly the equinoxes and solstices; and we have remarked, that the spectacle of the heavens during the night was not any longer exactly the same as it had been anciently at the times of the equinoxes and solstices. We have never been able to observe accurately the heliacal rising of a star; we must be a few days out of the calculation, and thus we often speak without having a positive period from which we could reckon. Before Hipparchus we do not find, either from books or traditions any thing whence we may calculate, and this has caused a multiplicity of systems. We have disputed without having a knowledge of the subject. Those who are not astronomers may form