The following Table shows the distances of the planets from the sun; with their magnitudes and periods, according to the latest observations.

NAMES.	Mean distances from the Sun.	Periodic Revolutions round the Sun.	Times of rotation on their axis.	Diameters in English miles.
	Miles.	*d.* *h.* *m.*	*d.* *h.* *m.*	
Sun	. . . . .	. . . . .	25 15 16	883,217
Mercury	37,000,000	87 23 15	unknown.	3,222
Venus	68,000,000	224 16 49	23 22	7,687
The Earth	95,000,000	365 6 9	23 56	7,964
Moon	95,000,000	365 6 9	29 12 44	2,160
Mars	144,000,000	686 23 30	24 39	4,189
Ceres	260,000,000	1,681 0 0	unknown.	160
Pallas	265,000,000	1,682 0 0	unknown.	110
Vesta	282,000,000	1,848 0 0	uncertain.	unknown.
Juno	290,000,000	2,007 12 0	uncertain.	unknown.
Jupiter	490,000,000	4,332 8 51	9 56	87,000
Saturn	900,000,000	10,759 14 36	10 16	79,042
Georgian Planet	1800,000,000	30,686 18 0	unknown.	35,109

The *fixed stars* are distinguished from the planets by being more luminous, and by exhibiting that appearance termed the twinkling of the stars. They shine by their own native light, and are therefore, by analogy, and with the highest probability, supposed to be so many *suns*, each illuminating a considerable number of *planets* or *worlds*, which circulate round it. Indeed, it is unreasonable to think that these vast bodies of light and fire should be placed at such immense distances in the infinity of space, for no other purpose than to give a feeble light to the earth and the other planets in our solar system. Their distance from our earth is so inconceivably great, that, were the nearest of them to be removed out of its present situation 200 millions of miles in any direction, its change of place would not be in the smallest degree perceived by any observer on the earth, although aided by the best instruments; hence it appears that a luminous spherical body, 200 millions of miles in diameter, if viewed at the distance of the nearest fixed star, would appear as a mere lucid point, without any sensible diameter.

Besides the planets, there are other bodies belonging to our solar system, called *comets*, which also revolve round the sun as a centre, but the orbits of which do not approach so near to circles as those of the planets; for they are very long ellipses, having the sun in one of their foci. Hence it happens, that, during one part of its revolution, a comet goes off to an immense distance from the sun, and therefore cannot be seen from our earth; and during another part it comes much nearer to him, and may then become visible for a short time. The comets differ also considerably in other respects from the planets; for the paths of the latter in the heavens are all found within the *zodiac*, which is a tract extending to a small distance on each side of the ecliptic, or the path which the sun appears to describe round the heavens; whereas the path of the former is found sometimes in one quarter of the heavens, and sometimes in another. The planets likewise move all in one direction about the sun, viz. from west to east, but the comets appear to move in all directions. They are also much more numerous than the planets, calculations having been made upon the orbits of upwards of eighty of them, by astronomers.

FIGURE AND MAGNITUDE OF THE EARTH.

The earth which we inhabit seems comparatively a small point in the universe, the sun being above two millions of times larger than the earth; and there is reason to suppose that similar is the fact with respect to all the stars.