

uations proved the charge to be true; of insignificant dimensions at first these spots gradually increase and vanish, some in a few days, others after a few weeks, others reach gigantic proportions, say 90,000 miles in diameter. What were the theories brought forth to explain that phenomenon? Some spoke of solar volcanoes; others represented the sun as a body thickly coated with bituminous and ignited substances, on the surface of which were floating scoria. To tell the truth, man does not like to confess his ignorance and prefers to caricature the sun by resorting to nonsensical and groundless theories. The general belief and the one most consonant to science is, that these spots are parts of the sun which appear through the luminous atmosphere when, owing to some unknown cause, a rent is made in it. Despite these spots, imperceptible to the naked eye, the sun ceases not to reign, the king of the day, the master-piece of irrational creation. No wonder that the poets should vie with each other in praising the magnificence of the king of the firmament. The sweet and melodious notes of the feathered tribes, the roaring of the lion in the African deserts, the buzzing of the tiny insect under the blade of grass, every sound, every voice in nature hails the rising of the sun that brings consolation and relief to the poor sufferer and joy to all animate creation.

Now a few words about the planets. The word itself is derived from the Greek and means a wanderer. Planets are indeed wandering bodies, though not at random, through the boundless heavens, revolving around the sun, the centre of the system. There are eight well known planets, Mercury, Venus, the Earth, Mars, Jupiter, Saturn, Uranus and Neptune. How distant are they from us, and what are their dimensions? Do not wonder, gentlemen, at what I am going to say, for in the fields of astronomy, or rather space, we never calculate by hundreds or thousands of miles, but by millions, nay, hundreds of millions.

Mercury, which lies at 37 millions of miles from the sun, is nearest to it. Of all the planets, it is the smallest but most rapid in its course. It travels at the rate of 30 miles a second; 1,800 a minute.

Venus, which next to the sun and the moon, is the fairest and most brilliant of the planets, appears like a shining lamp suspended to the firmament. It lights our dark and long winter-nights and replaces the moon during its periodical absence. No wonder that all the poets and shepherds of Italy and Greece have praised it in their songs.

Jupiter is 476 millions of miles from the sun and 1,100 times larger than the earth.

Saturn, seven hundred times larger than our planet, is 872 millions of miles distant from the sun. Uranus is 1,800 millions, and 74 times larger than the earth. Its speed, when describing its gigantic orbit of over 12 billions of miles, around the sun is at the rate of fifteen thousand miles an hour. It would take us 9,700 years to reach Uranus were we to travel 30 miles an hour.

Neptune was discovered in consequence of the computations of Leverrier of Paris by Galle of Berlin in 1846. "Point a telescope more powerful than mine," said Leverrier, "at such a spot of the heavens and you will find another planet of such magnitude; if not, astronomy is no longer a science, and the absence of such a planet destroys all the known laws of gravitation." Galle had a powerful telescope and he indeed discovered Neptune in the direction indicated and at a distance of over three billions of miles.

These are bewildering figures indeed, and when our imagination has tried, but in vain, to fathom the unfathomable, we remain overawed, terrified as it were, and we forcibly exclaim: How great God is, how little and insignificant are we! Indeed we are little and insignificant beings; but infinitely nobler, greater and more sublime than all these heavenly bodies, if we take our nature, our origin and immortal destinies into consideration. At any rate why should we wonder at such vast proportions? Take of all insects the tiniest; suppose it gifted it with reason; let it look at man and consider him. No doubt it would exclaim: Dear me! what a prodigious being! what a huge monster man is! Indeed that insect would be right, since we are many millions of times larger than the puny creature. Thus, our