

Vulcan, Mercury and Venus—whose orbits are nearer to the Sun than that of our planet.

In the year 1859 the astronomical world was startled by the announcement that a French physician of the name of Lescarbault, had on the 26th of March discovered a new planet, nearer to the Sun than Mercury. There was an antecedent probability of the report being true, as LeVerrier had observed perturbations of Mercury which rendered its existence extremely probable. On visiting the humble country physician LeVerrier found that his means of observation were somewhat antiquated, but the candid statement which he made, left the impression that he really did see a new planet. As, however, no evidence has, so far as we know, been since produced to corroborate the observations of the worthy medical practitioner, we are left to infer that a dark spot of the description referred to in our last paper was mistaken for a planet.

Mercury has been long known, but has never been a popular planet. An old English writer describes it in no very complimentary terms when he says it is "a squinting laquy of the Sun, who seldom shews his head in these parts, as if he were in debt." The planet is thus described because of its being seen at all times near the Sun—never rising to any great distance above the horizon. In those credulous days when fortunes were read in the stars it was considered "a malignant planet." This planet is about 1962 miles in diameter, and it rushes through space in its orbit at the rate of 109,300 miles per hour, or about 1,822 miles a minute! Yet its inhabitants, if it has any, are as insensible of its motion as we are of the earth's. Its mean distance from the Sun is about 35 millions of miles. Its density is seven times that of water. It has the most solid body of all the planets. If you add 18 ciphers to the figures 393 you have its weight in tons. Were gravitation allowed to exert its influence alone it would plunge into the Sun in 15 days. The solar heat at its surface is seven times that experienced on the earth. As to whether it has an atmosphere is a disputed point, and it turns on its axis more slowly than any other planet.

Next comes the very popular planet Venus. Does it not strike the reader that there is a pointed allusion to its conspicuous splendour in the Revelation, were our Lord says, "I am the root and the offspring of David, and the bright and morning star." It is generally thought that by Lucifer as mentioned in Isaiah meant Venus, and it is so designated by Milton in the most magnificent ode ever penned by man—that on Christ's nativity:—

"The Stars with deep amaze,  
Stand fix'd in steadfast gaze,  
Bending one way their precious influence;  
And will not take their flight,  
For all the morning light,  
Or Lucifer that often warn'd them thence;  
But in their glimmering orbs did glow,  
Until their Lord himself bespake, and bid  
them go."

The diameter of Venus is almost the same as the earth's. It is generally believed that it has an atmosphere, resembling that of the earth. Its distance from the Sun is about 66 millions of miles. Its velocity on its axis is only 30 miles per hour less than that of the earth. The degree of heat which it receives from the Sun is nearly double that enjoyed by our planet. Venus on account of its orbit being nearer to the Sun than that of the earth presents phases like the moon. It seems to have no satellite, though the existence of one has been confidently maintained; but how could it escape the keen and far reaching vision of Rosse's Telescope? We have in our last paper said that the transit of Venus which is to occur in 1874 is anticipated with deep interest by the astronomical world. The British Government have already voted £10,000 towards observations of it at various points. May the weather prove propitious, and the accuracy of the observations be such, in determining the Sun's distance, as to prove permanently memorable!

### India Aboriginal Missions.

It is a strange fact, and it makes us hope for good results from the present expedition of British armies against the Looshais, that the Aboriginal tribes which have received the Gospel most readily first forced themselves on the attention of the British Government