

light. As the cooling went on, other zones would be thrown from the mass, and thus a series of vaporous planets be formed; and he supposes that, as the detached masses of vapour were cooled and condensed, they, like the sun itself, threw off a portion of their matter for the formation of rings or satellites. By this singular hypothesis, which is built on no other foundation than a conjecture as to the ultimate destination of the now existing nebulous matter, the French philosopher accounts for the formation of the solar system. We cannot, however, conceive how the reception of such a theory can at all advance his object, or prove that the primitive cause of material existence was a fortuitous combination of atoms; for, admitting the truth of his hypothesis, it may still be asked whence the atoms, and the properties by which they were distinguished.

#### PHASES OF THE MOON.

The phases of the moon may also be mentioned as celestial appearances worthy of attention, and come more immediately under our consideration than those just mentioned as being constantly visible to the naked eye. The moon is not inherently luminous like the sun, but becomes visible by reflecting the solar beams. If the moon's surface were smooth and polished, an appearance very different from that now exhibited would be observed; for it would not then reflect light in every direction, but at certain periods an intensely brilliant image of the sun would be seen. The moon is a rough and opaque body, and, like the primary planets, reflects a portion of the rays that are thrown upon its illuminated surface, that is, the hemisphere nearest to the sun.

The surface of the moon, as a telescopic object, presents a most interesting appearance, being diversified with mountains, valleys, and plains, having apparently all the varieties of distribution that are known to exist on the surface of the earth. Some of the mountains form elevated continuous ridges; others are insulated and conical, having the precise form of the terrestrial volcano. It may appear a bold statement that there are lunar volcanoes in different stages, but those who have an opportunity of observing the moon's disk, with a tolerably good telescope, for a few months, may easily convince themselves of the truth of the assertion.

But the inhabitants of the earth can only see that part of