

might not be able to overcome the increased centrifugal force. This ring of vapour might sometimes retain its original form, as in the case of Saturn's ring; but the tendency would be, in general, to divide into several masses, which, by coalescing again, would form a single mass, having a revolution about the sun, and on its axis. This would constitute a planet in a state of vapour; and by the detachment of successive rings might all the planets be produced. As they went on contracting, by the same law, satellites might be formed to each; and the ultimate result would be solid planets and satellites, revolving around the sun in nearly the same plane, and in the same direction, and also on their axes.

Although this hypothesis has been regarded with favour by many philosophers, who were Theists, and even Christians, yet the object of La Place in proposing it was to sustain atheism. Sir Isaac Newton had expressed the conviction that "the admirable arrangement of the solar system cannot but be the work of an intelligent and most powerful Being." La Place declared that, in this statement, Newton "had deviated from the method of true philosophy," and brought forward these views to sustain his declaration. Whether they do sustain it, will be considered in another place. But since it is one of those modes in which men have attempted to account for the universe without a Deity, it is a proper subject of examination in this lecture, in which we are inquiring whether law alone will account for the creation and sustentation of the universe.

The zoogony of this hypothesis undertakes to show how animals and plants may be produced without any special exercise of creating power on the part of the Deity. It supposes matter to be endowed with certain laws, whose operation alone will determine life in brute matter, or, rather, whose operation constitutes life. Some would have it that a part of matter is essentially vital; that is, endowed with inherent life; and that this matter, like leaven, communicates life to dead matter arranged in a certain order. But the more modern view is, that life is produced by electrical agency. It is found that the fundamental form of organic beings is a globule, having another globule forming within it. It is also found that globules may be produced in albumen by electricity; and if we could discover how nature produces albumen, it is thought