ing. But as we ascend to a still earlier period, what state of things are we to suppose?—a still higher temperature, a still more diffused atmosphere. Laplace conceives that, in its primitive state, the sun consisted in a diffused luminosity so as to resemble those nebulæ among the fixed stars, which are seen by the aid of the telescope, and which exhibit a nucleus, more or less brilliant, surrounded by a cloudy brightness. "This anterior state was itself preceded by other states, in which the nebulous matter was more and more diffuse, the nucleus being less and less luminous. We arrive," Laplace says, "in this manner, at a nebulosity so diffuse, that its existence could scarcely be suspected."

"Such is," he adds, "in fact, the first state of the nebulæ which Herschel carefully observed by means of his powerful telescopes. He traced the progress of condensation, not indeed on one nebula, for this progress can only become perceptible to us in the course of centuries; but in the assemblage of nebulæ; much in the same manner as in a large forest we may trace the growth of trees among the examples of different ages which stand side by side. He saw in the first place the nebulous matter dispersed in patches, in the different parts of the sky. He saw in some of these patches this matter feebly condensed round one or more faint nuclei. In other nebulæ, these nuclei were brighter in proportion to the surrounding nebulosity; when by a further condensation the atmosphere of each nucleus becomes separate from the others, the result is multiple nebulous stars, formed by brilliant nuclei very near each other, and each surrounded by an atmosphere: sometimes the nebulous matter condensing in a uniform manner has produced nebulous systems which are called *planetary*. Finally, a still greater degree of condensation transforms all these nebulous systems into stars. The nebulæ, classed according to this philosophical view, indicate with extreme probability their