

of heat which the cosmical vapor experienced produced a rapid contraction in volume. Every particle upon the periphery and through the interior began to move toward the centre of gravity of the mass. It is barely possible that a process of cooling and contraction should proceed in such a mass until the work should be completed and no rotary motion be generated. Such a result has, however, in the existing universe, an infinity of chances against it. There were always other masses of matter within our firmament, and others far beyond its limits, which exerted an attraction upon the mass from which our solar system was to be engendered. If Sirius, and Capella, and Vega, and all the other fixed stars, or any of them, be suns like our own, with retinues of encircling planets, their history must be analogous to that of our own system, and we are to regard them as hanging on the verge of the firmament when our system was in its earliest infancy. Their attractive influences were felt. The cosmical vapor which might otherwise have been perfectly spherical became distorted in its form. The position of the centre of gravity was changed. The atoms, in their progress toward the centre of gravity, were found upon lines passing to one side of the centre of gravity. Each began to exert a tangential force. The resultant was a tangential force. It was as if a power had been applied at the surface to inaugurate a rotation of the mass. A rotation once inaugurated in a shrinking globe of matter, it is demonstrable that it would continue to be accelerated as long as the mass should continue to contract. In the present case the mass assumed the form of a greatly flattened spheroid, and the velocity of the peripheral portion became so great as to overcome the power of gravity. As a consequence, the peripheral portion became detached in the form of a ring—as water is thrown from a rapidly revolving grindstone. The ring continued