

Such, in merest outline is the main part of See's theory, and Laplace is thrust unceremoniously out of court with Chamberlin and Moulton.

Many variants of the earlier theories or hypotheses might well be touched upon, but time will not permit. I mention only in this connection that in a work, just from the press, *Essai de Cosmogonie Tourbillonnaire*, M. Belot would seem to work out a dualistic theory based on a combination of the gravitational principles of Newton and the vortices of Descartes.

In the various hypotheses that have been considered, there must, one will admit, be some measure of the actual. May it not be that they seek to be too exclusive? May it not also be that in developing a criticism of a theory we may strain too far a so-called physical law, which may be a good working principle for such ranges as offer themselves in this small world that we inhabit. For example, in the temperatures and pressures that must exist in such a body as the sun, may it not be that our ordinary chemistry and physics are alien or inadequate? Thus, geometry on a small part of the surface of a large sphere is, within the limits of measurement, the geometry of the plane; but when we move out into the ampler regions of the spherical surface we need a new geometry. Indeed, the history of science is eloquent of warning against a dogmatism founded on a limited experience. Not many years ago it was generally assumed that the bright-line gaseous spectrum could come only from a molecule agitated under a high temperature, and the difficulty of conceiving a vast tenuous nebula continuing in a state of high temperature was very great. Now we know that under an electric strain, which does not imply a high temperature, the electrons in the component atoms excite in the ether the vibrations that characterise the element which is their source. Recent years have seen striking developments in physical theories,—developments that menace the classical mechanics, with its theory of energy that was and still is equal to the task of explaining all ordinary phenomena. What readjustment of theories may be necessary no one can as yet say, but it may be that in it a