## EXISTENCE AND DEITY.

the other fixed surs. It was even seen by those who had good eyes at noonday. Its phenomena, it is said, were so striking as to determine the celebrated Tycho Brahe to become an astronomer. This star continued visible for about sixteen months, gradually becoming fainter till it disappeared. In 945 and 1264 stars had appeared in the same constellation in a somewhat similar manner, and as the intervals between the three dates are almost equal, it has been conjectured that they might be three appearances of the same object. If this be the case this star in the course of a few years, (in 1891 or 1892, as thus its period would be about 319 years), may make its appearance again, and thus we might have an opportunity of gazing upon this object, which in former times attracted so much attention. Another temporary star of considerable brilliancy appeared in the year 1604, and was also carefully observed by Brahe. Modern times, however, have furnished us with several instances of this kind. In 1848 Mr. Hind observed a new star in Ophiuncus. It increased in brilliancy to the fourth magnitude, but subsequently decreased to the 11th or 12th, at which it now remains. In 1866 a new star appeared in the Northern crown, and was very minutely examined. It had been previously noted as of the sixth magnitude, but it suddenly shone out as a star of the second magnitude ; its light, however, diminished very rapidly for some time. Attention was at once directed to it, the spectroscope being now available for observation. This instrument exhibited, in addition to the ordinary spectrum of the star, a second spectrum of bright lines, prominent among which were those indicative of burning hydrogen; so that it appears as if in this instance a sudden blaze was produced by incandescent hydrogen, and other substances.

When old star catalogues are compared with those of the present day, it is found that, in addition to many changes of magnitude, several stars, whose places are there recorded, are now no longer to be seen; and, on the other hand, that some of those now known are not recorded in the old lists, although their brilliancy is considerable, and would probably have insured their insertion had they been visible. In many other cases doubtless the discrepancy may have arisen from errors in observation ; but there is no doubt that many stars have a'together disappeared, and it is not improbable that some of these may be variable stars, which, after a more or less prolonged absence, may again become visible. Different explanations have been offered to account for these phenomena. Some imagine that it revolves in an immense orbit, and that when it is visible it is in the part of that orbit nearest the earth, gradually increasing in brilliancy as it approaches to its nearest point, and gradually diminishing as it departs from it, which is y ' at all a reasonable supposition in the case of the stars. Some imagine the star to rotate, and one part of its surface to be more luminous than another, which is a very reasonable supposition ; others suppose that a planet of large dimensions may revolve around the star and thus eclipse its light, which may or not be a reasonable supposition; but

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