

ever, than the mean density of the earth, they must be very small nuclei, which, surrounded by inflammable vapor or gas, form the innermost part of fire-balls, from the height and apparent diameter of which we may, in the case of the largest, estimate that the actual diameter varies from 500 to about 2800 feet. The largest meteoric masses as yet known are those of Otumpa, in Chaco, and of Bahia, in Brazil, described by Rubi de Celis as being from 7 to $7\frac{1}{2}$ feet in length. The meteoric stone of Ægos Potamos, celebrated in antiquity, and even mentioned in the Chronicle of the Parian Marbles, which fell about the year in which Socrates was born, has been described as of the size of two mill-stones, and equal in weight to a full wagon load. Notwithstanding the failure that has attended the efforts of the African traveler, Brown, I do not wholly relinquish the hope that, even after the lapse of 2312 years, this Thracian meteoric mass, which it would be so difficult to destroy, may be found, since the region in which it fell is now become so easy of access to European travelers. The huge aërolite which in the beginning of the tenth century fell into the river at Narni, projected between three and four feet above the surface of the water, as we learn from a document lately discovered by Pertz. It must be remarked that these meteoric bodies, whether in ancient or modern times, can only be regarded as the principal fragments of masses that have been broken up by the explosion either of a fire-ball or a dark cloud.

On considering the enormous velocity with which, as has been mathematically proved, meteoric stones reach the earth from the extremest confines of the atmosphere, and the lengthened course traversed by fire-balls through the denser strata of the air, it seems more than improbable that these metalliferous stony masses, containing perfectly-formed crystals of olivine, labradorite, and pyroxene, should in so short a period of time have been converted from a vaporous condition to a solid nucleus. Moreover, that which falls from meteoric masses, even where the internal composition is chemically different, exhibits almost always the peculiar character of a fragment, being of a prismatic or truncated pyramidal form, with broad, somewhat curved faces, and rounded angles. But whence comes this form, which was first recognized by Schreiber as characteristic of the *severed* part of a rotating planetary body? Here, as in the sphere of organic life, all that appertains to the history of development remains hidden in obscurity. Meteoric masses become luminous and kindle at heights which