

nave been hurled from one of these moving clouds. In less frequent cases, as in that which occurred on the 16th of September, 1843, at Kleinwenden, near Mühlhausen, a large aërolite fell with a thundering crash while the sky was clear and cloudless. The intimate affinity between fire-balls and shooting stars is further proved by the fact that fire-balls, from which meteoric stones have been thrown, have occasionally been found, as at Angers, on the 9th of June, 1822, having a diameter scarcely equal to that of the small fire-works called Roman candles.

The formative power, and the nature of the physical and chemical processes involved in these phenomena, are questions all equally shrouded in mystery, and we are as yet ignorant whether the particles composing the dense mass of meteoric stones are originally, as in comets, separated from one another in the form of vapor, and only condensed within the fiery ball when they become luminous to our sight, or whether, in the case of smaller shooting stars, any compact substance actually falls, or, finally, whether a meteor is composed only of a smoke-like dust, containing iron and nickel; while we are wholly ignorant of what takes place within the dark cloud from which a noise like thunder is often heard for many minutes before the stones fall.*

* On *meteoric dust*, see Arago, in the *Annuaire* for 1832, p. 254. I have very recently endeavored to show, in another work (*Asie Centrale*, t. i., p. 408), how the Scythian saga of the sacred gold, which fell burning from heaven, and remained in the possession of the Golden Horde of the Parlatæ (Herod., iv., 5-7), probably originated in the vague recollection of the fall of an aërolite. The ancients had also some strange fictions (Dio Cassius, lxxv., 1259) of silver which had fallen from heaven, and with which it had been attempted, under the Emperor Severus, to cover bronze coins; metallic iron was, however, known to exist in meteoric stones. (Plin., ii., 56.) The frequently-recurring expression *lapidibus pluit* must not always be understood to refer to falls of aërolites. In Liv., xxv., 7, it probably refers to pumice (*rapilli*) ejected from the volcano, Mount Albanus (Monte Cavo), which was not wholly extinguished at the time. (See Heyne, *Opuscula Acad.*, t. iii., p. 261; and my *Relation Hist.*, t. i., p. 394.) The contest of Hercules with the Ligyans, on the road from the Caucasus to the Hesperides, belongs to a different sphere of ideas, being an attempt to explain mythically the origin of the round quartz blocks in the Ligyian field of stones at the mouth of the Rhone, which Aristotle supposes to have been ejected from a fissure during an earthquake, and Posidonius to have been caused by the force of the waves of an inland piece of water. In the fragments that we still possess of the play of Æschylus, the *Prometheus Delivered*, every thing proceeds, however, in part of the narration, as in a fall of aërolites, for Jupiter draws together a cloud, and causes the "district around to be covered by a shower of round stones" Posido-