

nied by phenomena of sound, though without light; finally, and, indeed, the most frequently, the falls of meteoric stones present themselves in close connection with brilliant fire balls. Of this connection, the falls of stones at Barbotan (Dép. des Landes) on the 24th of July, 1790, with a simultaneous appearance of a red fire-ball and a *white* meteoric cloud,* from which the aërolites fell; the fall of stones at Benares, in Hindostan, 13th December, 1798, and that of Aigle (Dép. de L'Orne) on the 26th of April, 1803, afford well-described and indubitable examples. The last of the phenomena here mentioned—that which among all has been investigated and described with the greatest care by Biot—has finally, 23 centuries after the great Thracian fall of stones, and 300 years since a Frate was killed by an aërolite at Crema,† put an end to the skepticism of the academists. A

* Känitz, *Lehrbuch der Meteorologie*, vol. iii., p. 277.

† The great fall of aërolites at Crema and on the shores of Adda is described with especial vivacity, but unfortunately in a rhetorical and vague manner, by the celebrated Petrus Martyr, of Anghiera (*Opus Epistolarum*, Amst., 1670, No. cccclxv., p. 245–246). What preceded the fall itself was an almost total darkening on the 4th of September, 1511, at the noon hour. “Fama est, pavonem immensum in aërea Cremensi plaga fuisse visum. Pavo visus in pyramidem converti, adeoque celeri ab occidente in orientem raptari cursu, ut in horæ momento magnam hemisphærii partem, doctorum inspectantium sententia, pervolasse credatur. Ex nubium illico densitate tenebras ferunt surrexisse, quales viventium nullus unquam se cognovisse fateatur. Per eam noctis faciem, cum formidolosis fulguribus, inaudita tonitrua regionem circumseperunt.” “The report is, that an enormous peacock was seen flying in the sky above the town of Crema. The peacock appeared to change into a pyramid, and was carried from west to east with such rapidity, that in a moment it seemed to traverse the whole hemisphere, as some learned men imagined who saw it. Immediately afterward such darkness arose from the denseness of the clouds as was never known by mortal before. During this midnight gloom, unheard-of thunders, mingled with awful lightnings, resounded through that quarter of the heavens.” The illuminations were so intense, that the inhabitants round Bergamo could see the whole plain of Crema during the darkness. “Ex horrendo illo fragore quid irata natura in eam regionem pepererit, percunctaberis. Saxa demisit in Cremensi planitie (ubi nullus unquam æquans ovum lapis visus fuit) immensæ magnitudini, ponderis egregii. Decem fuisse reperta centilibralia sexa ferunt.” “You will perhaps inquire what accompanied that terrific commotion of nature. On the plain of Crema, where never before was seen a stone the size of an egg, there fell pieces of rock of enormous dimensions and of immense weight. It is said that ten of these were found weighing a hundred pounds each. Birds, sheep, and even fish were killed.” Under all these exaggerations, it may still be seen that the *meteoric cloud* out of which the stones fell must have been of uncommon blackness and thickness. The “pavo” was undoubtedly a long and broad