

25th of April, between the 6th and 12th of December, and, to judge by the number of true falls of aërolites enumerated by Capocci, also between the 27th and 29th of November, or about the 17th of July.

Although the phenomena hitherto observed appear to have been independent of the distance from the pole, the temperature of the air, and other climatic relations, there is, however, one perhaps accidentally coincident phenomenon which must not be wholly disregarded. The Northern Light, the Aurora Borealis, was unusually brilliant on the occurrence of the splendid fall of meteors of the 12th and 13th November, 1833, described by Olmsted. It was also observed at Bremen in 1838, where the periodic meteoric fall was, however, less remarkable than at Richmond, near London. I have mentioned in another work the singular fact observed by Admiral Wrangel, and frequently confirmed to me by himself,\* that when he

probably the enormous fall of aërolites that occurred at the Rio Assu, near the village of Macao, in the Brazils, on the 11th of December, 1836. (Brandes, *Unterhalt. für Freunde der Physik*, 1825, heft i., s. 65, and *Comptes Rendus*, t. v., p. 211.) Capocci, in the interval between 1809 and 1839, a space of thirty years, has discovered twelve authenticated cases of aërolites occurring between the 27th and 29th of November, besides others on the 13th of November, the 10th of August, and the 17th of July. (*Comptes Rendus*, t. xi., p. 357.) It is singular that in the portion of the Earth's path corresponding with the months of January and February, and probably also with March, no *periodic* streams of falling stars or aërolites have as yet been noticed; although, when in the South Sea in the year 1803, I observed on the 15th of March a remarkably large number of falling stars, and they were seen to fall as in a swarm in the city of Quito, shortly before the terrible earthquake of Riobamba on the 4th of February, 1797. From the phenomena hitherto observed, the following epochs seem especially worthy of remark:

22d to the 25th of April.

17th of July (17th to the 26th of July?). (Quet., *Corr.*, 1837, p. 435.)

10th of August.

12th to the 14th of November.

27th to the 29th of November.

6th to the 12th of December.

When we consider that the regions of space must be occupied by myriads of comets, we are led by analogy, notwithstanding the differences existing between isolated comets and rings filled with asteroids, to regard the frequency of these meteoric streams with less astonishment than the first consideration of the phenomenon would be likely to excite.

\* Ferd. v. Wrangle, *Reise längs der Nordküste von Sibirien in den Jahren, 1820-1824*, th. ii., s. 259. Regarding the recurrence of the denser swarm of the November stream after an interval of thirty-three years, see Olbers, in *Jahrb.*, 1837, s. 280. I was informed in Cumana that shortly before the fearful earthquake of 1766, and consequently thirty-three years (the same interval) before the great fall of stars on