cal condition from the first. The upper cloud will have positive electricity, on account of that species of electricity being developed during the precipitation of vapour, the lower having changed its character to negative, in consequence of the evaporation it has undergone. A diminished temperature at length may produce, between the clouds, icy particles, or hail in a nascent state, which the opposite electrical states of the upper and lower clouds will cause to oscillate, until, by gathering matter from the surrounding moisture, they become at length enveloped in compact and opaque ice, and attain a size which, overpowering the electric forces, compels them by gravity to descend."

It has been objected to this theory, that hail sometimes falls so early in the morning, that the sun could not have acted on the clouds except on the previous day, and it must then be admitted that the hailstones began to oscillate between the clouds eight or ten hours before they fell. Arago urges a still more powerful argument against the theory, when he asks how it is that the clouds are not brought together, for they are moveable, and may be supposed to attract each other as well as the hail. It might also be asked, how it has happened that the oscillatory motion has never been observed ; for it is more than probable that some traveller must, when in mountainous countries, have passed between hail-clouds, or at least must have been so near to them as to see the motion, had it been existent. Arago's objection is the only one which can be fairly urged against the theory, and it is fatal unless answered upon the laws of electrical attraction.

Mr. Harvey, to whose paper on meteorology in the Encyclopedia Metropolitana we have already referred, adapts Hutton's theory of rain to this phenomenon, and supposes that a difference of temperature is of itself sufficient to account for the formation of hail. But to this theory it is objected, that hail-storms are not always most abundant in cold climates, nor most frequent during the winter months ; that hail-clouds are generally low, and that the hail is sometimes so large as to forbid the supposition that they were produced by a change of temperature uninfluenced by other causes. But at the same time it must be acknowledged, that hail and rain frequently proceed from the same cloud. There is, in fact, a great uncertainty concerning the origin of hail ; facts seem to combat with each other ; and the theory which readily ex