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? WHY THE WEATHER ?

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METEORIC DUST IN THE AIR

Several million meteors enter the earth's atmosphere every twenty-four hours. In their swift flight they are heated to incandescence by the friction and compression of the air they encounter, and all except those of unusually large size are, according to a common description, "burned up;" but this description is not exact. A large proportion of the material composing them must settle down as an impalpable dust to the earth's surface.

The principal metals found in the larger meteors that fall, now and then, as "meteorites" are iron and nickel. Fine particles of these same metals have been collected on the snows of the polar regions and high mountains, so far from inhabited regions that they could hardly have been due to the activities of mankind. It is entirely plausible to suppose that they are the debris of meteors and that a considerable amount of metallic dust of meteoric origin must be normally present in the atmosphere.

This idea appears to be confirmed by recent studies in France, where M. Lucien Radaux has collected numerous samples of dust brought down by rain and snow, from which he has separated the iron and nickel particles with the aid of a magnet. The amount of the metallic material is found to vary more or less in correspondence with the frequency of meteors rather than with the atmospheric conditions that affect the prevalence of dust in general. Thus at a place on the English Channel metallic dust was sometimes more abundant when the wind blew from the sea than when it blew from the land. Lastly, on one occasion, after the passage of a magnificent meteor, the metallic particles were exceptionally numerous and many were so big that they were visible to the naked eye on the surface of the collecting device.

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