

A Science Service Feature

Released upon receipt  
but intended for use  
April 21, 1930.

? WHY THE WEATHER ?

Mailed April 14, 1930

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PIONEER STUDIES OF LIGHTNING

On November 7, 1749, Benjamin Franklin drew up a list of the attributes that he had observed lightning and electricity to have in common, concluding with the words:

"The electrical fluid is attracted by points, and we do not know whether this property is in lightning. But since they agree in all the particulars wherein we can already compare them, is it not probable that they agree likewise in this? Let the experiment be made."

The experiment was duly made in the year 1752, but whether first on M. Dalibard's estate near Paris--where, in accordance with suggestions published by Franklin, a pointed iron rod had been set up for the purpose of observing the possible effects of passing thunderstorms--or by the American philosopher himself, with his famous kite, at Philadelphia, is not altogether certain. The date of the French experiment is known. It was on May 10, 1752, that Dalibard's servant, Coiffier, drew sparks from the iron conductor when thunderclouds gathered overhead, but Franklin has left us guessing as to the date when he flew his kite. It has been placed conjecturally from one to two months after the date of the episode in France.

We know, however, that Franklin set up a rod on his house in September of the same year, and that many rods were soon afterward erected, partly for scientific and partly for practical reasons, on both sides of the Atlantic. There were also renewed experiments with kites. M. Romas, in France, built a huge kite with a surface area of 18 square feet and flown from a string wound with copper wire. With this apparatus he obtained sparks 10 feet long during a thunderstorm.

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