

A Science Service Feature

Released upon receipt
but intended for use
August 20, 1934

? WHY THE WEATHER ?

Mailed August 13, 1934

ELECTRICAL KITES

By Charles Fitzhugh Talman,
Authority on Meteorology.

After Benjamin Franklin set the example, many natural philosophers of the latter eighteenth and early nineteenth centuries flew "electrical kites" designed to draw electricity from the sky. The most spectacular results were obtained by Jacques de Romas, in France, with a kite having a surface of about 18 square feet. The string was wrapped with copper wire and terminated at the lower end in a long silken cord. Near the junction of the string and the latter was placed an iron tube, from which sparks were drawn as soon as the kite became electrified. In 1757, during a summer thunderstorm, sparks 9 or 10 feet long and an inch in diameter were obtained with this apparatus.

William Sturgeon, the inventor of the electro-magnet, made many experiments with electrical kites at Woolwich, England. In 1834 he addressed a letter to the editor of the Philosophical Magazine entitled "Caution to Experimenters with the Electrical Kite." A day or two previously, when clouds had begun to gather, he had gone to the artillery barracks ground with an electric kite and got it afloat, letting out string through his hands from a coil thrown on the ground. "When about a hundred yards of the string had been let out," he says, "a tremendous discharge took place, which gave me such a blow in the chest and legs that I became completely stunned, let go the string and consequently the kite soon fell." Sturgeon blamed himself for the accident, and after explaining the precautions which should be taken concluded: "Young persons who are fond of kite flying should also be cautious not to have their kites up during thunderstorms, as it is possible that a wet string may transmit a violent discharge, from which a serious accident may occur."

(All rights reserved by Science Service, Inc.)

SCIENCE SERVICE
21st and Constitution Ave.
Washington, D.C.