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A Science Service Feature

July 4

? WHY THE WEATHER ?

Dr. Charles F. Brooks,  
of Clark University,  
tells about:

FIREWORKS AND THE WEATHER

Fourth of July fireworks have often been unjustly blamed for untimely showers which curtail the celebrations of the evening. The belief that rain can be precipitated by explosions has long been widespread and has led to many attempts at rain-making. Prof. C. F. Talman, of the U. S. Weather Bureau, points out that "the idea originated long before the invention of gunpowder. It is mentioned by Plutarch and other writers of antiquity". Some have suggested that a violent explosion jostles minute cloud particles together into drops large enough to descend as rain. The extent of this jostling might be compared with the result of clapping our hands in a room full of moist air. Another explanation of the supposed effect of explosives is that the increase of smoke and gases in the air affords more abundant nuclei for condensation. The atmosphere, however, has ordinarily more than enough of such nuclei. Moreover, smoky cities like Pittsburgh receive no more rainfall than the surrounding country.

Many people have cited the frequency of rain after battles in support of the theory of explosives causing rainfall. As rain in many places occurs normally every two or three days, and battles are usually fought in fair weather, rain soon after a battle is what might be expected.

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(Tomorrow: Colors and Temperatures)

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