

Released on receipt
but intended for use
July 9, 1929.

A Science Service Feature

? WHY THE WEATHER ?

Mailed July 2, 1929.

By Charles Fitzhugh Talman,
Authority on Meteorology.

THE RUMBLING OF THUNDER

The great variations in the intensity of thunder that constitute its characteristic rumbling are, writes Dr. W.J. Humphreys, due to the following causes:

1. Crookedness of path of the lightning stroke. The noise ^{starts} /from all parts of the discharge at practically the same time, and thus the observer hears, simultaneously, the thunder from the whole of any portion of the path that happens to be at a constant distance from him. Now as the path is usually very crooked, it generally happens that many portions of it are at one or another nearly constant distance from any given point. Hence almost every peal of thunder is of irregular intensity.

2. Multiple flashes, consisting of several discharges in rapid succession along a common path; the kind of lightning that has a flickering appearance. When such discharges occur there is likely to be more or less interference between the several sound pulses, resulting at some moments in partial neutralization and at other moments in reinforcement of the sound. Hence an irregular rumble.

3. Reflection. Mountains, hills and other objects may occasionally, through reflection, prolong the noise of thunder and accentuate its rumbling, but their action in this respect appears to have been over-rated.

(All rights reserved by Science Service, Inc.)

SCIENCE SERVICE
21st and B Sts.
Washington, D.C.