

No. 348

A SCIENCE SERVICE FEATURE

June 23

? WHY THE WEATHER ?

Dr. Charles F. Brooks,
of Clark University,
Describes

CAUSE OF HAIL

Hail is precipitation occurring in the form of more or less spherical balls of ice, showing a typical concentric structure when cut open, like the layers of an onion. Hailstones vary in size from tiny pellets to large balls or disks, two, three or even four inches in diameter. The size depends both on the intensity of the hail-producing conditions, and the extent to which the stones are melted in falling to the ground.

A hailstorm is essentially an intense thunderstorm. The storm must furnish a sufficiently powerful ascending current to carry drops of water of small balls of wet snow upward to a height where the air is cold enough to freeze them. The concentric layer structure of hailstones suggests repeated accretions and freezing, as if the stone had been carried up and then dropped and carried up again several times. Large hail stones may show seven or eight layers around a central core, and some with 20 to 25 layers have fallen. Great thunderstorm clouds include the necessary strong up-draft and turbulent air currents required for hail formation. Furthermore, measurements of the height of these clouds in the warm season show that their tops tower well up into freezing regions.

(Tomorrow: Distribution of Hail)

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