A Science Service Feature

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? WHY THE WEATHER ?

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By Charles Fitzhugh Talman,
Authority on Meteorology

ABOUT LIGHTNING RODS

According to a statement issued by the U. S. Weather Bureau, lightning rods, when properly installed as a system on a building or other structure, give nearly complete protection from lightning.

Statistics from a state such as Iowa, where thunderstorms are frequent, show that more than 95 out of each 100 buildings sustaining fire losses due to lightning were unrodded. It is estimated that about 50 per cent. of the farm buildings in Iowa are rodded.

Lightning rods are nearly always made of copper or of heavily galvanized iron or steel, the former generally in the form of a stranded cable, and the latter of star cross-section twisted into a long spiral. Copper is somewhat the better in all exposures, so far as resistance to corrosion and consequent durability are concerned.

Copper conductors should weigh not less than 3 ounces per foot; iron not less than 320 pounds per thousand feet (a little over 5 ounces per foot).

Lightning conductors should be attached directly to the surface of a building, without insulators. The air terminals should be secured against overturning by the wind. The ground connections should be extended downward to permanently moist soil, usually found at a depth of 8 to 10 feet below the surface. All joints should be permanently made and should be of low electric resistance.

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