A Science Service Feature

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? WHY THE WEATHER ?

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LIGHTNING'S AUTOGRAPH IN GLASS

At the Pittsfield laboratory of the General Electric Company, where lightning is made to order, therehave recently been produced some artificial fulgurites, or lightning-tubes. These glassy formations, due to the fusing of loose sand along the path of a lightning discharge, have been known for ages, though they are not especially common. They are found of various sizes, from a fraction of an inch to several inches in diameter, and in some cases extend more than 25 feet into the ground. The inner surface is of smooth glass, while the outer consists of rough, incompletely fused particles of sand and often bears longitudinal ridges and furrows. The tubes are frequently twisted in spirals and are sometimes branched.

At one time fulgurites were believed to be formed by excretions from the roots of plants. Their true origin was first explained by Dr. Hentzen, of Paderborn, Germany, in 1805. Darwin, in his "Naturalist's Voyage Around the World," tells of finding these tubes in large numbers along the Rio de la Plata, in South America, where shifting sandhills had left them projecting above the ground.

In some cases the lightning that formed the tubes has been seen to strike and the fulgurites have been dug up while still hot to the touch. A few years ago Professor R. W. Wood, of Johns Hopkins University, saw lightning strike on his lawn. On examining the spot he found a hole, into which he poured melted solder. After this had hardened he dug it up, and thus secured the "cast" of a fulgurite.

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