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? WHY THE WEATHER ?

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HEAVY DEWS OF AUTUMN

Autumn is generally the season of heaviest dew. Even in the northern states and in southern Canada under particularly favorable conditions we may get the equivalent of more than .01 inch of rain in a single night. Dew forms typically on clear cool nights after warm days. Objects exposed to the sky on cooling by radiation chill the water vapor near by and cause condensation as dew. Grass which is kept by evaporation from becoming hot by day, and which has little mass in comparison with its surface, falls to the dewpoint of the surrounding humid air very shortly after the sun ceases to shine on it, in shady spots even before sunset. All of the heavy dew on green grass, however, does not come from the air, an appreciable part is from water exuded from the leaves. On the other hand, a dark colored stone, which has become very warm and has absorbed so much heat that it requires hours to cool to the dewpoint, may remain perfectly dry throughout the night. In autumn, however, the air near the ground is often humid, and has much vapor to give up; this abundance of moisture in combination with the considerable cooling during rather long clear nights causes heavy dew to form on most objects.

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(Tomorrow: Chimney Draughts and the Weather)

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