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? WHY THE WEATHER ? Mailed March 19, 1928

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HOW THE MOON "EATS THE CLOUDS"

Small scattered clouds have a tendency to disappear rapidly after sunset. The presence of moonlight makes this process conspicuous; hence the popular notion that the moon itself causes the clouds to vanish. This fallacious idea is expressed in the saying "The moon eats the clouds".

What really happens is this: When the sun's rays are withdrawn, the clouds radiate more heat than they absorb, grow rapidly colder, and cool the air adjacent to them, which thus becomes denser than the surrounding clear atmosphere. The chilled air sinks until it is again in equilibrium with the air about it. In sinking, it is heated by compression, and when it finally reaches the level of equilibrium it is warmer than it was before the clouds cooled it and started it downward. Thus it has been warmed by cooling! One result is to evaporate the clouds, and another is to make the air drier (in terms of relative humidity) than it was at the beginning.

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