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? WHY THE WEATHER ?

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IN A HAIL FACTORY

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Hail is formed in the turmoil of a thundercloud, where the hailstones make several journeys alternately up and down; at one time gathering a coating of snow aloft and at another a coat of ice from the rain below. A record of these ups and downs is seen in the concentric layers of clear and snowy ice of which the hailstone is composed. At least one human being has performed similar travels in a thunderstorm. His name was John Wise, and he was a famous American balloonist who added much to our knowledge of the atmosphere. He writes in his book "Through the Air" of ascending in a thundercloud until he found himself being pelted by both hail and snow. The balloon began making large circles in the cloud.

"I was in hope," he says, "when being whirled rapidly upward, that I should escape from the top of the cloud, but disappointment was my lot. The congenial sunshine, invariable above, which had already been anticipated by its faint glimmer through the top of the cloud, soon vanished with a violent downward surge of the balloon, as it appeared to me, of some hundred feet. The balloon subsided only to be hurled upward again, when, having attained its maximum, it would again sink down with a swinging and fearful velocity, to be carried up again and let fall. This happened eight or ten times, all the time the storm raging with unabated fury, while the discharge of ballast would not let me out at the top of the cloud, nor the discharge of gas out of the bottom of it, though I had expended at least thirty pounds of the former in the first attempt, and not less than a thousand cubic feet of the latter."

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