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? WHY THE WEATHER ?

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HAIL -- REAL AND SO-CALLED

Besides snowflakes there are three kinds of frozen water that fall from the sky. In ordinary language they are often classed together as "hail," but for scientific purposes it is desirable to distinguish them under different names. One of these takes the form of little snowballs, about the size of coarse shot, which crumble easily and have therefore been commonly called "soft hail," but the German name "graupel" is now generally given to this kind of precipitation in scientific works. It falls only in cold weather. Then there are the small pellets or angular fragments of clear ice -- frozen raindrops -- that sometimes fall in cold weather, often mixed with ordinary rain. The United States Weather Bureau has officially prescribed the name "sleet" for these particles, which still lack an official name in Great Britain, where "sleet" means a mixture of rain and snow. The term "ice-rain" has been applied to them in publications of the International Meteorological Organization, and the name "ice-shot" has been suggested by an English meteorologist.

Lastly, there is true hail, a distinguishing feature of which is that it is composed partly of ice and partly of snow, arranged in alternate layers. This peculiar structure of the hailstone is explained by the fact that hail is formed in a region of turbulent air at the front of a thunderstorm, where it makes several journeys up and down between relatively warm and relatively cold levels of the atmosphere. Most hailstones are approximately spherical or somewhat conical, but others and very striking shapes are sometimes found. Occasionally the surface is encrusted with curious crystalline growths. Hail falls mainly in warm weather, though it is not absolutely unknown in the polar regions.

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