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CREST CLOUDS AND CAP CLOUDS

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Most clouds drift with the wind, but the crest clouds that often form along the crest of a mountain ridge remain stationary, while the wind blows through them. They are, however, stationary only in the sense that a cataract is stationary, as the individual cloud particles move with the wind and the cloud as a whole is in constant process of formation on the windward side and of evaporation on the leeward. Their formation is due to the cooling by expansion of the moist air that is forced to ascend in its passage over the ridge. A striking example of the crest cloud is the "foehn wall", seen along the crest of an Alpine ridge when the foehn wind is blowing.

A similar process explains the formation of the stationary cap clouds, or cloud caps, that frequently crown the summits of isolated peaks, and in many parts of the world are regarded, not without reason, as a sign of rain. The clouds that thus attach themselves to mountains were once known as "parasitic clouds" and some rather fantastic attempts to explain their origin were current among our ancestors. One writer of the eighteenth century, for example, suggested that they were due to condensation of moisture in an ascending current maintained by the emission of subterranean heat from the mountain. John Ruskin devotes a good deal of unprofitable discussion to these clouds in his "Modern Painters".

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