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? WHY THE WEATHER ? Mailed November 5, 1932

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AVALANCHES

If you live in a snowy part of the country you will probably witness avalanches on a small scale this winter on sloping roofs in your vicinity. The snow may become saturated with water until, no longer able to adhere to the shingles beneath, it slides off and thuds to the ground, or again, in colder weather, it may remain dry but eventually accumulate in such quantities that some slight jar will start it down. The same two varieties of avalanche occur in mountains. The former is called a "ground" avalanche, and is commonest in spring; the latter, known as a "dust" avalanche, is confined mostly to winter and consists of dry, powdery snow, great clouds of which fill the air as the mass sweeps down from aloft. In either case the amount of snow set in motion is often enormous. In the Alps, for example, one authority estimates that the average moving mass of an avalanche is something like half a million tons.

The descent of such huge masses of snow would, of itself, account for the remarkable feats of destruction accomplished by avalanches, but another destructive agency involved in these events is the "avalanche wind," due to the sudden displacement of air in front of the descending mass. The air thus displaced rushes not only straight forward but also on either side, uprooting trees and causing other striking physical effects far beyond the area covered by the avalanche itself. The avalanche wind is probably not exceeded in fury by any other natural blast on earth, tornadoes included. Alpine villages have been devastated by this wind though untouched by the descending snow.

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