

A Science Service Feature

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? WHY THE WEATHER ? Mailed January 19, 1931

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MEASURING SNOW

At weather stations it is customary to record both the actual depth of snowfall and also its "water equivalent," or corresponding depth of rainfall. Many special methods and devices are employed in different parts of the world in making such measurements.

A device peculiar to western France is the "snow table." This is a horizontal board exactly one meter square, supported on legs a few feet above the ground in a locality well protected from wind. After a snowstorm or at a specified hour of observation the observer plunges a scale vertically in the snow lying on the table and measures its depth. He then brushes all the snow from the table into a large zinc bucket and weighs it. Owing to the dimensions of the table and the fact that a cubic centimeter of water weighs a gram the weight of the snow in kilograms gives directly the depth of rainfall in millimeters.

At many places difficult of access in the Alps the meteorological services have installed gauges called "totalizers" for collecting and preserving the rain and snow of an entire season or year. Each gauge contains a measured quantity of calcium chloride and a little vaseline. The former melts the snow falling into the gauge and the latter forms a thin layer at the surface of the water as a means of preventing evaporation.

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