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A Science Service Feature

? WHY THE WEATHER ?

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SAMPLING SNOW

The practice of cutting cores of snow and weighing them in order to determine how much water the snow over a certain area is likely to yield at time of melting has been employed in America for about a quarter of a century and is now very common in the mountainous regions of the western United States, where it forms the principal operation of "snow surveys." The sampler is a metal tube, provided with a cutting edge to facilitate forcing it down through the snow. Several types are in use.

A sampler is usually graduated in inches on the outside and thus serves as a measuring-stick for determining the depth of the snow. Narrow slots in its wall permit inspection of the core obtained in sampling and also permit a tool to be inserted for cleaning out the snow after use.

In taking a sample the tube is pressed vertically down until the ground is reached and then withdrawn. The tube with its contents is next suspended horizontally from a spring balance and weighed. The dial of the balance is generally graduated to show, instead of actual weight, the equivalent depth of water. Allowance must be made for the weight of the tube, but in some cases the pointer of the balance is adjusted to indicate zero when the empty tube is supported.

One style of sampler is made in 5-foot sections, which can be coupled to form a tube long enough to reach the bottom of the deepest mountain snowfields.

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