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LOCAL TEMPERATURES

"How cold did it get at your place?" This familiar greeting on a winter's morning brings widely divergent answers after a clear still night when there is snow on the ground. Some of the differences are so great as to cast grave doubt on the accuracy of the thermometer used. But we can hardly accuse our friends of being like the enterprising market man who got the record cold in winter and the record heat in summer by using two thermometers. "You see," said he, "I read the low one in winter and the high one in summer."

On a cold calm evening one does not require a thermometer to notice the differences of 20 or 30 degrees Fahrenheit between a hilltop and a valley bottom, occasionally to be found in a distance no less than a quarter of a mile or a difference of but 100 feet in altitude. As is well known, the coldest and heaviest air has drained down the slopes into the hollows, where still further cooling is taking place. The coldness of such lowland air on a clear evening when there is a layer of soft snow on the ground is almost unbelievable. What would you say to a statement that after the late January cold wave the temperature in one hollow in Worcester, Mass., fell to 33 degrees below zero? A policeman who caught the observer in the act of finding this temperature was satisfied only with difficulty of the man's sanity. On this latter occasion the temperatures were as follows:

Air at top of a 100 foot hill, minus 1 degree Fahrenheit; on the snow on the hilltop, minus 2 degrees; half way down the hill, minus 19 to minus 11 degrees; at the bottom of the valley, six feet above the surface, minus 13 to minus 18 degrees; valley, three feet above the surface, minus 15 to minus 20 degrees; valley, one inch above the surface, minus 28 to minus 32 degrees; snow surface, minus 28 degrees to ? (Observation prevented by police); one inch below surface in fluffy snow, minus 1 degree; two inches below surface, 13 degrees; four inches below surface, 20 degrees; eight inches below surface, 26 degrees; twelve inches down in snow drift, 30 degrees.

Those house thermometers in the line of drift of the cold bottom-land air will show some surprisingly low temperatures in comparison with those not far away.

(Tomorrow: Snow Crystal Form)

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