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A Science Service Feature

? WHY THE WEATHER ?

Dr. Charles F. Brooks,
of Clark University,
discusses:

APRIL SNOWS MELT FAST

After a heavy northeast snowstorm in April, such as that of April 1-2, 1924, on the Atlantic seaboard, people say, "The sun will quickly melt this snow," - and it does. Sometimes a foot or so disappears in three or four days, as in 1922 and 1924. Conditions favor a heavy April snowstorm when large masses of cold and warm air arrive simultaneously over a region and strongly engage each other. The outcome is a great lifting and cooling of the warm air with consequent heavy precipitation of wet snow, and a southwestward flow of a great body of cold air round the western flank of the warm.

This layer of air is not too thick to be quickly warmed in the bright sunlight, and melting begins even before the snow flurries end or drifting ceases. Though melting ceases before sunset, and the air becomes chilled during the clear night, on the following days the sun blazes away through clear, dry air and quickly resumes the reduction of the snow cover. The nocturnal cooling of the second night is insufficient to reduce the temperature to so low a level as on the preceding morning, so even the hazy sun of the third day does valiant service with the aid of a balmy wind, and large patches of green grass appear. A fourth day hardly gets started before the ground is clear except for snowdrifts in the shadow of dense trees, and on northerly slopes.

Without a large body of cold dry air there could have been no snowstorm; nevertheless, this same air deployed widely and insuring fair and warmer weather for days after the storm allows the rapid melting of the snow. In winter the sun is so weak and the weather changes so rapid that such a snow could be but partially melted before the next storm broke.

(Tomorrow: Sun-Warmed Houses)

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