A Science Service Feature

Released on receipt
but intended for use
February 9, 1927

? WHY THE WEATHER ?

Mailed February 2,1927

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COLD WAVE BY DAY

We have the impression that the cold wave is usually a nocturnal phenomenon, and in this we are not without adequate foundation. The cold wave is, in its broad est terms, a large and rapid fall in temperature to low levels. It usually comes with a change from mild rainy or snowy weather to clear skies. Now day or night th temperatures in cloudy, rainy or snowy weather are much the same in winter, for the slanting rays of the sun have little opportunity to warm the lower air through the thick covering of cloud. On the other hand, in clear weather the daytime temperatures, in the brilliant sunshine, are commonly 15 to 20 degrees higher than the nighttime ones, when rapid cooling by radiation is possible. So the temperatures are more likely to be much lower than 24 hours earlier on a clear night with a cold wind following a cloudy night, than in the middle of a clear day following a cloudy one.

The great cold wave of January 26-27, 1927, in the northeastern United States was a nighttime affair from northern Iowa and southern Minnesota eastward through lower Michigan, Ontario, western and northern New York to northern New England and Maritime Provinces. But it struck the densely populated southern New England, New York, and the Middle Atlantic states by day. In spite of adequate cold wave warnings by the Weather Bureau a surprisingly large number of autos froze up. With morning temperatures 10 to 30 degrees Fahrenheit, and with bright sunshine it was hard to realize that the temperature was falling rapidly. In parts of southern New England the temperature fell from near 25 down to 5 between 6 a.m. and noon.

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