

June 23

## ? WHY THE WEATHER ?

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SHORT VS. LONG HOT SPELLS

When two hot spells begin under about the same distribution of pressure and winds, why does one last a week or ten days to the other's four or five? The developments following the two recent periods of excessive heat seem to indicate the answer. The high pressure area in the southeast that was immediately responsible for the clear weather and hot winds beginning May 19, was reinforced May 22 by another high which continued the sun-heated winds. On the 23rd, however, still another high with a great body of cold air occupied Canada, and an impressive battle commenced between it and the southern high. The hottest and the coldest known May air came to grips in the northern states. The temperatures were below freezing over most of eastern Canada north of the 45th parallel, and from 70 to 100 degrees Fahrenheit from the 42nd parallel south. Along the battle front the cold air locally ran over the hot and produced a number of violent thunderstorms, hailstorms, and tornadoes along a belt from Iowa to southern New England. The southeastern high gave way, and the flood of cold air passed over the country, freezing corn in the Corn Belt. The volume of cold air that broke out of the polar regions and headed toward the tropics was enormous. For three days it poured southward at an average speed of 10 to 20 miles an hour on a thousand mile front! This figures up to about 1,000,000 cubic miles of air. Meantime warmer air must have been taking the place of the colder in the north.

When clear skies and the return of southerly winds started the long hot spell, and we were caught practically without a reserve of cold in the north, western lows that usually come east along the south edge of this cold reservoir and bring heat waves to an end, went north and northeast instead, and we continued to suffer.

(Tomorrow: Snow and Heat Frustrations)  
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