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? WHY THE WEATHER ?

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WARMER WITH NORTHWEST WIND

In late winter and early spring we naturally expect the weather to become warmer as a low pressure area approaches and colder as it moves away. But there are times when the conditions are reversed, as has been the case in the Northeast several times during the past few weeks. If we compare the occasions when it is warm first and then cold with the peculiar ones when it is cold and then warm, we find that the more ordinary sequence attends lows that are well developed and moving slowly or at moderate speed, while the reversed form goes with rapidly moving northern lows attended by the development of southeastern coastal secondary low centers.

With the approach of a well-developed storm the wind turns to the south and blows with increasing strength for 24 hours or more, bringing a marked rise in temperature and blowing away any surface layer of cold air. At the same time, on the back side of this low there is a good wind from a northerly quarter, which has ample time to bring cold air well southward. Thus when the low center passes, the south wind gives way to a cold northwest, or north one, and the temperature falls rapidly.

But, when the northern low comes along very rapidly, there is insufficient time for a considerable importation of warm air and for the removal of the surface layer of cold air, which has only just arrived on the rear of the preceding low. Thus the front is cold, as measured by surface observations. With the more rapid fall in pressure over the sea and the consequent development of the coastal secondary low, the coast low becomes the principal center of circulation, and with its passing brings a northwest wind that is made up of the warm air recently arrived on the front of the northern low.

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