

Oct. 26

? WHY THE WEATHER ?

Dr. Charles F. Brooks,
Secretary, American Meteorological Society,
explains:

WIND CLOUDS

After a rain it is not unusual for the sky to clear for an interval before the commonly following cool, northerly wind becomes established. If the early morning is clear the lower air heats rapidly till it becomes too light to stay under the cooler air above. Then masses of cool air descend and force the warm air to heights from several hundred to well over a thousand feet. The cooling which the rising humid air experiences as it ascends and expands condenses some of the moisture into the familiar cumulus clouds. These clouds grow upward till they have cooled to a temperature below that of the surrounding air and thus have become heavier. Within a few hours after the cool wind following a rain has begun to blow, the vertical extent of this cool wind is usually not greater than half a mile to a mile. Thus the cumulus clouds cannot grow much before they reach the lid of warm air at the top of the cool layer. Here they must stop cooling and stop rising and spread out in ominous masses of downward-bulged and ragged stratocumulus cloud. But for the lid that stopped the upward progress and cooling these clouds would have become shower clouds. Now, however, they are but wind clouds. The name "wind clouds" is very appropriate, for the stronger the cool wind the greater is the overturning of the lower air that is responsible for the clouds, and the more pronounced is the contrast between the cool wind below and the warm air above, forming the lid that prevents the clouds from rising high.

(Tomorrow: Autumn Haze)

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