

Jan. 7.

? WHY THE WEATHER ?

By Dr. Charles F. Brooks,
of Clark University.CUMULATIVE STORM INDICATIONS

Cumulative indications sometimes make a local forecaster "dead sure" of a coming storm. On one occasion the wind may back to south, but the barometer may not fall. On another, the barometer may fall without much else happening. But now and then there comes a time when all signs point to foul weather. A recent case makes a fine example. There was a brilliantly clear day with a cool northerly wind and rising pressure, yet there were detached sharply defined cirrus masses in the south and southwest, especially during the late afternoon. The next morning was clear, cold and calm, smoke from factory chimneys wandering aimlessly up into the sky. But the sky did not have the vivid blue of the day before, on close inspection it was found to be more or less smudged with white, and these smudges could be followed back into rather ragged and sinuous streaks suggestive of great dull white flames and smoke rising from a point beyond the west-northwestern horizon. These clouds drifting from that direction rapidly and stealthily across the sky soon blotted out the blue. Then there was a halo. Sounds of the city began to become unusually distinct, and the smoke began to invade the northwestern residential sections. As the chilly southeast wind gathered strength the barometer started to tumble, flat masses of dark cloud gathered in the west and spread over the sky moving rapidly from the southwest. Darkness came early and the lights from the city were reflected from a descending diffusely irregular cloud of falling snow and sleet that soon reached the ground. Increasing cirrus clouds, decreasing wind, and a cessation of the barometer's rise, were the cautionary signals, 12 hours in advance. The halo, the backing of the wind to southeast, the abnormal audibility, and the coming of dense low clouds were the warnings six hours in advance. And finally the descending plane of reflection announced the beginning of the snowfall half an hour in advance.

(Tomorrow: Temperatures of the Earth's Surface)

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