

No. 243

A Science Service Feature

Feb. 21.

? WHY THE WEATHER ?

Dr. Charles F. Brooks,
of Clark University

Discusses

WINTER DARK DAYS

In winter-time, smoky cities are particularly likely to experience dark days, from the concentration of soot and dust in the lower air. Requirements of heating and lighting in winter increase the smoke production of a city; and the humidity, usually higher than in warm weather, favors the production of dense smoke and water clouds. Not only have we more smoke in winter than in summer, but often less chance to get rid of it. If there is no appreciable wind, there is little tendency for different layers of air to mix, for in winter the lower atmosphere is typically in a state of stable equilibrium with the colder, heavier air below. The smoke and dust, then, instead of being carried aloft and dissipated by convectional currents, as in summer, remain in the stagnant lower air where they originated, forming a heavy pall. A slightly warmer air current arriving aloft will accentuate this condition by forming a definite "lid" in the atmosphere against which sooty clouds mushroom and form a black ceiling.

When snow occurs under such conditions extreme darkness results.

(Tomorrow: Snow Blanket Allows Ground To Thaw)

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