

A Science Service Feature

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? WHY THE WEATHER ?

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CITY FOGS

Cities are especially liable to enduring fogs in winter. While in the country a fog comes and goes usually in the course of but a few hours, that in the city may hang around for days. The difference is the result not only of location but also of smoke. Big cities are on lowlands, usually on some river or other waterway, in situations normally more foggy than sites less desirable from other standpoints. And big cities have plenty of smoke, especially on foggy days, which not only adds to the darkness of the fog but also <sup>retards</sup> its evaporation, for the smoke ingredients being somewhat oily tend to keep the fog droplets covered with films through which evaporation is difficult.

The conditions in London, England, which lead to the most famous and worst of city fogs, the "London particular" or "peasoup fog", show what factors operate in other cities, though to a less degree. London is in a shallow, damp basin sloping gently to the east. It is protected from the prevailing westerly winds. Cold air, accumulating and becoming foggy during the long winter nights, cannot be warmed, and the fog evaporated during the following short day with the low sun, and the fog continues. There the cold air will stay under a lid of warmer air above, while the fog becomes denser and dirtier, holding thousands of tons of soot, till some strong boisterous wind can rout it out. Then we read, as in early December, 1924, that a "fog like night covers London," and that the "city has lost \$5,000,000 through darkness of fifty hours." Such a fog is a menace to the health and safety of the people, as well as a detriment to buildings, and a wet blanket on trade.

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