

Jan. 31.

? WHY THE WEATHER ?

By Dr. Charles F. Brooks,
of Clark University.ATMOSPHERIC POLLUTION

No air is clean. Even that over mid-ocean contains innumerable minute particles such as salt dust and plant spores. It is only over large cities, however, where the chimneys of industrial plants belch forth smoke all day long that the matter of atmospheric pollution becomes serious. Pittsburgh, known for so many years as the smoky city has successfully enacted drastic measures to reduce the smoke menace. In London, however, although steps in this direction are constantly being taken, marked results have not yet been achieved. There it is estimated that the average annual deposit of soot is 248 tons per square mile for the whole city. When during a fog, the smoke cannot escape, but is concentrated in the lower air, the death rate jumps. For instance, in one week under such conditions the deaths from broncho-pneumonia rose from 182 to 238. Children, in particular, are affected by the confined smoke, and fragile plants, such as orchids, perish. It appears that the combination of this soot with water contains "all the acids and irritating ingredients of poison gas."

That smoke is injurious to plant life is clearly shown when all trees and shrubs succumb in smoky districts. The efforts of St. Louis, for instance, to establish trees within the smoke area of the industrial portion of the city appear to be proving failures. Even such a resistant shrub as privet dying out. The smoke also has a destructive effect on buildings. Soot contains sulphates, in addition to the free carbon which soils everything. These cause certain building stones very slowly to disintegrate.

Will the city smoke of the future be collected, burned or filtered, and discharged high and beyond the city limits to leeward? There is already a tendency in this direction in the work of city planners who are placing the smokiest industries on the prevailing leeward margins.

All rights reserved by Science Service, Inc.

SCIENCE SERVICE,
B and 21st Sts.,
Washington, D.C.
