prevalent only in cities of some size, its effect is not felt on the crops in the country districts. Yet it makes its injurious action felt, both directly and indirectly. The smoke clouds limit the available daylight for vegetation in two ways.

(1). By smoke clouds. The amount of sunlight as well as diffuse daylight is not nearly as great in a smoky city as it is normally.

(2). By lessening the absorption of light by leaves. If the amount of light cut off by the deposit of tar upon glass can be considered in any sense as a measure, the tar deposit on the leaf is by far the most important factor in preventing light absorption.

The tarry matter contained in the soot coats the leaves and chokes the stomata. This injury is mechanical. Its destructive action does not, however, stop there. Like all other forms of finely divided carbon, soot has the power of occluding other substances. The tar (containing phenols and other bodies of a similar nature) and acids are all poisonous to plant growth and greatly lower the vitality, the acids in particular limiting the activity of the soil organisms, especially those of nitrification.

Cohen and Ruston find that the relative assimilations of laurel leaves in districts where the air contains different amounts of soot vary from 11.6 to 100. Crops of radishes and lettuce grown in different sections of the town show the possibility of correlation of the known atmospheric impurities with the yield of the crops. Trees automatically keep record of the presence of any inhibiting factor by the narrowing of their annual rings. In one case the cross-section of a tree plainly showed evidences of the building of a smoke-producing factory near at hand.

We find that such flowers as roses and carnations will not thrive within the smoky limits of Pittsburgh, and that, for this reason, many greenhouses have been forced to move beyond this deleterious influence. Furthermore, many trees are injured if not entirely killed by the smoke.

Smoke and Disease.

The effect of smoke on health has always been a much mooted question. At the present time in the city of Pittsburgh, it has assumed a very practical form. The city has appropriated considerable money for a tuberculosis hospital and a dispute has arisen as to its situation. Some contend that it should be placed outside the city limits, while others hold that more intensive work can be done if it is erected in that part of the city where the disease is most prevalent. The advocates of the first situation, as part of their