

a calcareous binding material very easily separated into particles by the action of the acids. Granite and brick can withstand this attack more easily on account of their binding material, but they are not the best and cheapest to be utilized in buildings, Thus we find an increased expense being borne by those desirous of keeping their buildings clean, and coming from the substitution of glazed tile and vitrified brick for the cheaper building material.

Building decorations, both interior and exterior, become disintegrated and discolored by soot, in the course of a very short time. Paint soon loses its gloss and color when exposed in smoky places, and thus an additional expense is necessitated to keep the building in any way artistic.

Now the density of the atmosphere, owing to the smoke, brings on fogs, and so the hours of sunshine are shortened, and disease soon accumulates. The temperature is found to be kept at a much higher degree by the presence of smoke in the air, and little chance is given for fresh air to be obtained. Vegetation of all kinds is affected by soot, a fact which goes to show another way in which the beauty of our cities is being destroyed. The lack of strong rays of sunlight is soon felt by the trees and plants, while the coating of tar upon the leaves prevents the proper absorption of light.

One of the greatest effects of smoke, however, is disease. The death rate through pneumonia has been extensively increased by this poison in the atmosphere, and moreover we find it the cause of sore throats and lung troubles.

Besides considering the cost of cleaning the buildings, the damage done to goods, the laundry expense and the values of property as effected by the smoke nuisance, we may also consider the cost of the smoke itself. Smoke and soot are not what we would call a refuse, but they are a waste, resulting from imperfect combustion, and therefore any means found to prevent their formation would mean a big saving to the producer of them.

Now the question arises whether or not the production of smoke could be abated. And if so could it be done with less expense than the waste now amounts to. Its production in most cases is entirely unnecessary and could be prevented with economy. The fact is that it is not an absorbing apparatus that is required, but merely a little education on the part of the careless fireman that he might do his work as he should. Along with