

There are instances in which this single improvement has apparently protected the inhabitants of courts and streets from the recurrence of ordinary epidemics. A flagged surface further affords the means of more effectual cleansing by the hose and jet. Paving may be done in many instances without waiting for the completion of drainage works, and where the principle has been adopted of draining from the backs of houses, instead of through them into sewers in the front streets, there will be comparatively few instances in which it will be necessary, on the completion of the works, to break up the pavements, in order to put in house-drains.

The Board regard with satisfaction the progress made by some Local Boards in spite of much opposition and misrepresentation in carrying into effect in their respective towns a combined and complete system of sanitary works at moderate cost. Out of 182 cities and towns, comprising upwards of 2,000,000 of town population under the Public Health Act, 126 have had surveys made, the first step for effecting improved works. In 70 towns, plans for such works have been laid out, and in 13 more the main or public works have been completed. It is expected that in about 35 other towns similar works will be in operation in the course of another year.

The Act itself, constituting the necessary authority and conferring the requisite powers for carrying out these works, has been obtained at the average expense of £112; that is, at little more than a twelfth part of the average expense of a local Act.

In the towns in which the works are the most advanced, and which may be taken as average examples of the whole, the public works of drainage have been completed at the average cost of 1*d.* per week per house.

The supply of water, including the works within the house, the service-pipes, sinks, water-closet and house-drains, has been afforded, with principal and interest, at a rate under 2½*d.* per week per house; making the total expense for the whole of these works 3½*d.* per week per house.

Sanctions for the execution of such works, after careful examination of their efficiency, economy, and completeness, have been given to the amount of upwards of 1,000,000*l.*; and it is estimated that there will be required for the towns already under the Act the further sanction of upwards of 6,000,000*l.*

Though the most advanced of these works are as yet too recent for the development of their results on the public health, the diminution of sickness which has already been effected in some of the worst localities, the removal of the sense of depression, which was before so generally felt in these districts, and the cleanliness and comfort experienced by the inhabitants, justify the hope that these amendments will act, in some degree at least, as safeguards against the threatened pestilence.

But no external works, however perfect, can prevent the operation of the causes of disease which arise from residence in dwellings unfit for human habitation, such as underground kitchens and cellars, in which no families can maintain health. Nor can the most perfect external works stop the diseases caused by internal filth and overcrowding. The Common Lodging Houses Act, indeed, which enforces certain conditions of internal cleanliness, and prevents overcrowding, reaches the latter evils for the class of houses under its control; but there are hundreds of thousands of the people who live in tenemented houses, placed back to back; each house being divided into many rooms, and each room being in

fact the house of the entire family, in which there is a total and habitual disregard both of cleanness and of the amount of breathing space. These dwellings are considered as private houses, and consequently the Common Lodging Houses Act does not touch them.

With these and other conditions favourable to the generation and diffusion of epidemic disease, too common in all our villages and towns, local outbreaks of the pestilence must be expected, and preparation must be made to mitigate the calamity as far as may be practicable. With a view to assist local authorities in the preparation of preventive measures, the Board has issued revised instructions, particularly with reference to the organization of the system of house to house visitation, and experience has shown that the saving of life in an outbreak of epidemic cholera will mainly depend on the promptitude and efficiency with which this measure is carried into execution.

The Board would call the earnest attention of Boards of Guardians and Local Boards of Health to the evidence which has been adduced of the surprising and almost incredible success that, in some instances, has attended well directed exertion, even under circumstances in which temporary measures only were available, and when an outbreak seemed inevitable. Recently, at Tynemouth, where the local authorities exerted themselves with extraordinary energy, no case of cholera occurred though neighbouring towns were devastated by the pestilence.

Within the barracks at Newcastle, where all the means at command for cleansing, for the removal of nuisances, and for the avoidance of overcrowding, were employed with great promptitude and energy, no case of cholera occurred, though premonitory diarrhoea was so prevalent among the garrison that out of 519 men, forming its total strength, 451 suffered from this affection; while in the town there were upwards of 1,500 deaths from cholera, and nearly 45,000 persons received relief at the public expense.

At a settlement in the Bahamas, in which energetic measures of cleansing were promptly effected, the mortality from the disease scarcely reached one per cent. of the affected population; whereas in a neighbouring settlement, in which no such measures were adopted, the mortality ranged from 12 to 20 per cent.

At Baltimore, in the United States, during the epidemic of 1849, which ravaged neighbouring cities, neither money nor labour was spared to purify the town, and the cleansing operations were so energetically performed that it was admitted that the town had never before been in so clean a state. For the space of three weeks or a month, premonitory diarrhoea and other symptoms, denoting the presence of the cholera poison, were as prevalent throughout the city as in the barracks at Newcastle; yet no outbreak of the pestilence took place, though at the Baltimore Almshouses, situated about two miles from the city, and close to which a large mass of putrifying filth had been left uncleansed, 99 deaths occurred from cholera, out of a population of less than 600 souls.

These results recal the observation of a great physician of that country, made nearly a century ago, with reference to another epidemic, but which is equally applicable to this:—

“To all natural evils,” says Dr. Rush, the eminent physician of the United States, “the Author of nature has kindly prepared an antidote. “Pestilential fevers furnish no exception to this remark. The means of preventing them are as