HOW TO MAKE OUR OWN HOUSES SANITARY : WITH PERSONAL EXPERIENCES.

Read in the Section of Public Medicine.

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THE importance of a knowledge of sanitary details to every householder has been shown in a most convincing manner by recent events. Even royal householders have been compelled to set the example, and to learn the laws of sanitation in a very practical manner; the results of inspection showing that both Marlborough and Bagshot Houses were very deficient in their drainage-arrangements. Moreover, the authorities of one of our largest public schools were obliged to descend from their classical and mathematical heights to learn, among other sanitary details, that it was not desirable to have a tank containing the faecal accumulations of sixty or seventy boys in close juxtaposition to the source whence drinking-water was obtained. Household-ers of a less exalted class have also learned, from bitter experience, that they cannot trust to architects, builders, plumbers, or even to sanitary inspectors; but that, if they would have healthy homes, they must first learn how a house may be made healthy, and then see for themselves that the necessary requirements are fully carried out. If this be true of householders in general, how much more forcibly does it apply to those who are also medical practitioners? For not only does it behove each of us to set an example in his own house of thorough sanitation, but also to be able to advise those who may consult us on this matter as to their own homes, even to the minutest detail. In a word, it may be asked of us, "Who shall teach the teacher?" and the best answer will be, "Every householder his own sanitary inspector." As my own experiences as a householder may possibly be of both use and interest to associates, especially those who are lodgers and not householders, I will give them.

My first experience was in a house very near this building, which had the attractions of good accommodation, with a low rental. I was assured that it was perfectly healthy, but I was soon undeceived in a very sharp and disagreeable manner. Hardly had I entered and taken possession, when a back flow occurred in the water-closet, ruining all the new paint and whitewash of the room underneath, and producing other consequences which may be imagined. On seeking the cause, it was soon apparent. The water-closet was one of the old D-trap form; the soil-pipe, formed principally of lead, was so flattened in parts, that a finger could not have been passed. Nor was this all. In high winds, the most sickening effluvia pervaded the kitchen (which was a cellar one) and the rest of the basement. This I found to be due partly to defective sink-traps of the kind known as "bell-traps," removable at the pleasure of the servant; and partly to an old disused, but not properly closed, drain. These defects were all remedied, but other circumstances induced me to remove, after a tenancy of rather more than twelve months.

My next house had been tenanted by a well known associate, who was himself only a yearly tenant, and therefore not responsible for its sanitary defects. Shortly after taking possession, the landlord laid down new drains at great expense, besides converting the privy in the back yard into a water-closet; and, as a set-off against all this, raising the rent. How and where the sewage had been previously disposed of, I never knew, and hardly liked to inquire. It is enough to say that the drainage must have been most defective. I remained in that house for ten years, and it only required one or two slight alterations to make it perfectly sanitary in all respects.

My third house was the one which I now occupy, and hope to do for many years to come. It had been previously tenanted by a surgeon, who was also its owner for many years, and was built at a period when sanitary science was unknown. My predecessor assured me that when he first occupied it there was no water-closet in it whatever, only a privy in the back yard, which he converted into a water-closet; he also put in the house a water-closet, which was in the cellar close to the back yard; and, though inconveniently situated, it had the advantage of a very short soil-pipe. There were no drains under the house, nor any soil-pipe except this one. I, being this time my own landlord, at once had an interceptor constructed in the back yard, with a ventilating shaft carried up to the roof of the house. Into this interceptor all the various soil and wet trap pipes were emptied, one inch above the water-level, while it overflowed by a fall of fourteen feet into the main sewer. The kitchen sink-pipe was also conducted into one of the wet traps in the back yard. It being desirable to have another water-closet in a more convenient situation, one was chosen close to the outer wall of the house, so that the soil-pipe might pass at once through the wall and be carried outside the house. As I was in-

formed that the basin known as Jennings's patent was objected to by our sanitary authorities as causing waste of water, I procured a wash-out basin without pan, and with a flush of six gallons of water. It was continuous with a bend-pipe of porcelain, which joined the iron soil-pipe, the latter being continued up to the roof in an air-shaft. The other closets were altered and improved. The result of all these arrangements, which are perfectly simple and within the reach of almost any householder, is, that no sewer-gas ever does, or ever can, enter the house.

The advice which I would, as a result of this experience, offer my younger brethren who are about to become householders, is briefly this.

1. Before taking a house, see for yourself that it is properly drained into a main sewer.
2. If possible, have some interceptor between your house and the main sewer. The smallest back yard, court, or garden will suffice for this.
3. Have all soil-pipes carried outside the house, if possible, with ventilating shafts of the same calibre. If no interceptor can be had, this becomes absolutely necessary.
4. Let all sink, bath, and other waste pipes empty themselves into a wet trap, care being taken that the ends of pipes are not too near the grid of the trap, and are so fixed that nothing except fresh air can ascend.
5. Should the basin of the water-closet be of the old kind, with opening pan at the bottom, have it removed, and a proper wash-out basin placed in its stead, with a water-supply sufficient to flush it thoroughly each time it is used. Any expense and trouble caused in securing this will be amply recompensed. I maintain that a water-closet should no longer be a foul-smelling, ill-ventilated den, but as sweet and well-ventilated an apartment as can be secured for the purpose.

Fresh air, pure and filtered water, are such obvious requisites to health that I need only name them. There is one other matter which has given me much anxiety—I mean the disposal of vegetable refuse. Whether it be better to burn this or to bury it in cinder-heaps, is a question I hope to hear discussed, and satisfactorily answered here; for, unless decaying vegetable matters can be rendered thoroughly harmless by an ample supply of cinders, our dry ashpits must become nearly, if not quite, as dangerous as the privy of old days.

I had written the preceding, when I read, in the BRITISH MEDICAL JOURNAL, of July 7th, an excellent article, entitled "The Home as a Sanitary Unit," an extract from which will serve as a very appropriate conclusion to this paper. It will also serve, I trust, as a sufficient apology for the very elementary and almost obvious propositions I have made; and for so patiently listening to them, I must heartily thank you.

"No class," says the writer of the article, "have done so much for sanitation as the medical profession; and, indeed, it is mainly by their efforts, aided immediately in mechanical matters by the gentlemen who describe themselves as sanitary engineers, that the progress has been effected in public and private sanitation, which has resulted in the annual saving of many thousands of lives. This addition, we have lately been told, on the highest authority, amounts to a gain of two years added to every individual life, in relation only to the progress of the last ten years. It must, however, always be remembered, and this is a lesson which medical men—who are largely occupied in the homes of the people, as well as being public advisers of local communities—can enforce better than any other persons, that it is to the work of the individual, and to private initiative, that we must look for the major part of the further victories yet to be won. The State can do much in the way of regulation and assistance; but it is for the householder, for the capitalist, for the philanthropist, for the working man, each in his own class and in his own capacity, to realise the vast importance of helping himself and helping his neighbour in this great work."

A SYSTEM OF SCHOOL-SEATS.

Read in the Section of Public Medicine.

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THE increase of myopia is a question which has greatly occupied the attention of oculists. We have sought for the cause of its development during the period of youth, in the arrangement of schools. It has been said that the increase of myopia is a proof of the amount of mental development and school-life of a nation. It would be nearer the truth to say, that myopia is a proof of want of care in the proper construction of the schools. As a principal fault, we regard the bad posture of the pupils. Oculists admit that constant stooping forward of