

sewers. To secure this, great care should be taken during the laying of stoneware pipes to see that they are properly bedded in concrete, and also that the pipes themselves are from a good firm of manufacturers. The bore of the pipe, when laid, should be tested both by the smoke and also by the mirror test; the former is done by burning grass and wood shavings at one end of the pipe and carefully watching to see if the smoke escapes at any of the joints along its entire length, for, where smoke escapes, water is also likely to leak out and foul the ground around that point. The gradient of a pipe is another matter to which thoughtful attention should be given, for the steeper that gradient is the stronger will be the flow. The tendency of plumbers, so far as my experience goes, is to lay pipes as horizontal as possible, instead of taking advantage of every inch available for increasing the gradient. With reference to vertical down-take pipes, it is not at all uncommon to find them leaking at the joints. This is clearly a sign of bad workmanship, and as it is easily noticeable, the plumber who is found guilty of neglect of this kind should be brought to book by the municipal authorities. If plumbers were to feel that their licenses are likely to be cancelled when defects of this nature are found in their work they would probably be more careful in seeing that the work is properly done. I particularly urge this matter, because where water escapes foul gases also more readily escape, and the whole atmosphere around the building is likely to be vitiated thereby. The facility provided by cleansing screws for the cleaning of down-take pipes is one to which I would like to draw your special attention. Were the cleansing screws of Bombay pipes examined, it would probably be found that almost all of them are painted over, and no thought whatever is given to ever having them opened up. I would be strongly in favor of the municipal health authorities insisting that these brass screws be left unpainted, and also that at the final inspection made by the municipal authorities, before the usual occupancy certificate is given, each of these screws be opened up to see if they are in working order.

School Buildings in Bath.

With reference to the school buildings in Bath, England, Dr. W. H. Symons, school

and medical officer, notes in his report that "we are very much behind the Continental standard in our school structures and in our standard of cleanliness for school children. The school bath has become a recognized feature in many countries." In Germany, it appears, there is no town having a public water supply, where some of the schoolhouses are not furnished with baths, and the children in schools not having a bath of their own are sent to other schools for their weekly cleansing. "An installation of shower baths need not be any great expense," writes Dr. Symons, "and I hope that Bath will follow the example of Bradford, St. Pancras, Manchester, Norwich and other towns in making arrangements for the regular bathing of all school children." The influence of the bath on the general health and capacity is too obvious and there can be no doubt about bathing being a true economy. With reference to the ventilation of schools, Dr. Symons advocates large window spaces in the school walls that can be opened. These should be so large that drafts will be avoided, there being a choice of openings so that a wind blowing directly in may be avoided. "We should make our schools approach the open-air school as nearly as possible."

"By attending to the personal cleanliness of the children," continues Dr. Symons, "including their teeth, and by letting them work in the fresh air, we shall do much to remedy those defects of nutrition and the incapacity for work and pleasure that the school inspections have brought so prominently before us." About two-thirds of the school children at Bath are poorly nourished, and it is not the children of the poorest families that are in this condition, but the children of parents who attempt to keep them respectable by keeping them in the house. A great benefit of fresh air in the school room is that when the children get used to it, they will soon demand of their parents fresh air in the home, and the parents themselves will be educated and the open window be in use everywhere. The common mistake is shown by this physician of keeping the windows open during the time the room is empty.

The air should be changed after the room has been occupied, but when the flushing is complete, the windows may be shut to let the walls and the furniture get warm. When these are of good temperature they will radiate gently for some