

It does seem that, with the many plans of reducing the foul air and completely deodorizing all kinds of filth, any person of ordinary intelligence should live in a clean and decent manner without any legal compulsion. In our suburban houses and country places there does not seem to be any excuse for evil effects from house sewerage, privies, &c., where dry earth and ashes are always at hand. The writer, when building his house in 1852, arranged in a rude way for using marl, with a very little trouble, for privy and other filth, thereby keeping down all odors, &c. The plan works well at a nominal cost; in fact, the compost made as a fertilizer more than pays for the trouble. But many say that while their neighbors have all kinds of decaying matter about their premises there is little use of their doing much with the nuisance just alongside. We have had many such complaints, some of which have been published. It seems as if our State must take notice of such evils and by legislation have the same abated; and our Legislature make such laws as will conduce to the public good by summary abatement of filth nuisances. The sanitary care of premises is best said in a single suggestion of J. C. Bayles, author of "House Drainage and Water Service:" "The first essential condition of healthfulness is cleanliness. The shovel, the broom, soap and water, sunshine and ventilation are the agents upon which we must mainly rely in guarding against unhealthful conditions in our surroundings. How, when and where the broom, shovel and scrubbing brush need to be employed the reader must decide for himself. I can only say in a general way that anything and everything which can be properly classed as "dirt" should be put where it belongs. It will then cease to be dirt. There are few things so dangerous that we cannot rob them of their power for mischief by putting them in their proper places."

Correspondence.

To the Editor of the SCIENTIFIC CANADIAN, Montreal.

DEAR SIR,—I congratulate you on your persevering energy in bringing before your readers, in your excellent MAGAZINE, the varied and numerous articles you presented to them last year. With regard to your sanitary articles I desire to make a few remarks on trapping pipes. Where two traps are put on one pipe, long or short, there should always be a ventilating pipe, because gas will form from the face of water in a pipe no matter if it be clean or dirty, and ought to be let off or the seal will be in danger of being broken or a weak trap become useless. Again, all main sewers should have pipes or towers rising above the buildings in the streets, and not allowed to puff up the street gratings into people's faces as they pass by, or into their windows in summer, for the foul gas must escape by some outlet.

Long experience has taught me that the day of lead pipes, traps, tanks, &c., should have passed away long ago for service in dwelling-houses, and that cast, or wrought iron pipes, traps, &c., should be put in and sewered together, so that all traps, could be opened by the inmates of the house, cleaned and put in working order without waiting for a plumber or any other person to come at his leisure whilst the house is filling with deadly gas. If such plans were adopted, plumbers would not have such a bad reputation and a great deal of money would be saved to both landlord and tenant, besides many more people would have their dwellings fitted up with sinks, pipes traps, &c., which would add greatly to their comfort were it not for the dread of being obliged to have plumbers so often in the house.

All pipes, sinks, traps, &c., should be left fully exposed above the floor, or below the ceiling, and painted so as to be easily got at without tearing the floors, and walls to pieces. Lead pipes when boxed in or covered become a resort for vermin, dirt, and foul gas. It is well known that rats will eat a hole through lead pipes and lead traps. Within the last twenty years I have removed many tons of lead pipes, traps, &c., and put iron ones in place of them which worked well. The closet traps were of cast iron, a square box sitting on the floor, with a cover bolted on, a rubber joint, inside a bridge drops down, and another bridge or dam stands up, which forms the trap, the hopper bolted on, not put on with putty as the plumbers do; but all faces are planed and joints made gas-tight, and easily taken apart, with a two-inch ventilating pipe carried into a chimney flue from the face of the water of each closet trap. Although our plumbers may be called "ignorant, dirty," &c., and do a great many sinful jobs, as well as carrying about with them a great many sins of the people as the goat of old did, yet I think all blunders in that line ought not to be laid to their account.

Our architects are not free from many of the bad plans to be found in Montreal houses, as well as in this city, they are not the wisest of men to be found in the world. Just look at many of our fine costly houses in this city; very nicely decorated off in front or outside; showy and expensive too; but go inside and look at them, the front rooms are very nicely laid out, but what of the kitchen, and servants' rooms, where so much of the work of the house has to be done? Small, low ceilings and very dark rooms, and no ventilation. I do not feel surprised to hear of cooks being sick and the whole house being filled with gas arising from the stove or meats being cooked. Unfortunate domestics are expected to live in these dark, unventilated rooms and never get sick; they lead a life more like a criminal at hard labour than a person on whom depends the cooking of the food, as well as many of the comforts of the whole house. In these places we frequently find the plumber at work, with scarcely room to turn himself around, or light enough to find his tools; here we find him pulling down the pipe casing, brooming away rats, dirt, bones, &c., to find a hole in the lead pipe, or clearing, the choked, and running over closet. To clear it, he cuts a hole in the lead trap, hammers it up, rubs a little putty over the wound, nails up the casing, and goes away.

Such is the state of our sanitary doings in this city. Whose fault is this? Not the man who pays the rent of the house, but the man, who gives the plan and superintends the work, and who instructs the plumber how to do his work, and then throws the onus on him for all bad plans and work. Let each man, I say, bear his own sins, and both architect and plumber are to blame if poor tenants suffer from their ignorance and folly. Now, Mr. Editor, I would like to see, in your valuable MAGAZINE, a few kind words directed towards these men—the plumbers—for their future benefit and that of the public.

Another class of men allow me to ask you not to forget, also, to give a word of advice to is, that those poor unfortunate men who are put in very responsible positions to drive engines, for every poor mill, and engine owner, who cannot afford to pay men who understand what they are engaged to do, but men who have not been taught, but are quite willing to learn if their employer is able to teach them.

It is painful to read how often so many men and their employers and machinery are found scattered by an explosion in every direction, from the want of knowledge of the nature and power of the machine put into their hands to work, and then we are told, for our consolation, by a coroner's jury, that they lost their lives by the visitation of God, when the accident was really the fruit of ignorance. Now, sir, if employers cannot afford to pay skilled labour, and must, or will run a risk of every dollar they possess, and, perhaps, other people's money too, then I would say, Mr. Editor, that you can confer a very great boon on employer and men, if you will devote a small space of your valuable journal to their instruction, with a few simple lessons on the nature and management of the steam boiler, engine and machinery. I was much pleased to find, in your last number, a few words about Mechanics' Societies, or Mechanics from the various cities and towns joining together in one band, and circulating to each other their little mite of knowledge and experience in the columns of one recognized journal, or MAGAZINE, so that each one may have an opportunity of gathering what Canadian Mechanics are benefitting by practical taught experience and also to give each one the liberty of asking questions through your MAGAZINE, which is equivalent to receiving help or assistance from each other.

The Mechanics' Institutions to be found in our cities and towns are not generally managed for the benefit of the working mechanic. I would, therefore, advise all who wish to acquire a little practical knowledge, and make the best use of the few hours they have to spare, during the week, to fit up their own homes with a workshop and buy a few books, and have a library and an institute of their own; also to take the SCIENTIFIC CANADIAN AND MECHANICS' MAGAZINE, and read it, and ask of the Editor what they cannot get from their library, and do as I am willing to do, support such by pen and money.

TORONTO.

RESTORING THE BLACK COLOUR OF CLOTH.—It is a very common and easy practice to restore faded black colours by simply brushing them over in succession, first with a solution of logwood extract, and then a weak solution of bichromate of potash. Another way is to take first a decoction of crushed nutgalls, and then a solution of sulphate of iron. In either case the black colour is easily restored by a brush or sponge. We prefer a stiff brush