the sewers formerly secured by the large volumes of air carried down the soil pipe by the sewage and rainwater leaders was shut off. The usual and constant circulation of air which formerly passed down the surface grates placed at intervals on the streets, and upward through each soil pipe and rainwater leader to the housetops out of everyone's way, was stopped and the public sewers were then changed from purifiers and destroyers of filth, to receptacles for the accumulation of foul matters and the rapid generators of poisonous sewer gases, which are now found to be very difficult to handle.

To try and destroy the evils thus created, various methods have been tried, and amongst a large number a few of the principal ones may be here mentioned, viz.: The flushing of sewers by water wagons and also automatic flushing appliances, and by creating a current of air with the heat from gaslights burning in the sewers; by connecting the head of each line of sewer o a tall ventilating shaft, or to a manufacturer's mill chimney, or into the ashpit under the steam boilers; by building vaults under the surface, ventilating grates in the streets, and installing deodorizing chemical evaporating machines intended to destroy the foul odors. When these artificial means are put in practice it is found they have each disadvantages unknown to the old natural ventilation processes. It is proved that having one ventilation shaft at the terminating head of each line of sewer is not sufficient, that air shafts are needed between each and all the street grates; that gaslights cannot be made reliable, for they occasionally either smother or blow out and then add to rather than reduce the nuisance. Flushing sewers allow plenty of time for the manufacturing of sewer gases between the periods of flushing, and ventilation is needed even when flushing is adopted. When chemical evaporating machines are used they need to be numerous, one for each grate, and even then the pressure in the sewers due to the want of circulation of air is often such that it forces the poisonous gas through the interception traps, which then passes either into the dwelling through the fixture traps or out of the breather pipes in front of the buildings on which they are placed at a level of within one foot of the ground line. All such apparatus are expensive besides and require constant attention and renewal.

The meeting of municipal engineers and surveyors already mentioned, after discussing the advantages and disadvantages of the different artificial methods of deodorizing sewer gases, decided to advise all municipalities to adopt so much of the old system of sewage ventilation as to ventilate each private drain by taking a branch pipe from the sewer side of the interception trap up to and above the top of the buildings. This is very good by just so much as it returns to the former systems of natural and local ventilation, but it still leaves the interception trap in each private drain that forms a catch bag, and often retains the solids of the sewage that passes through them, and in a short time chokes the private drain and totally disorganizes the house sanitary appliances; it also spoils and destroys the ventilation of the house soil pipes, because when there is any interception between the street sewers, and the terminating end of the soil pipe above the roof, it prevents the warm air of the street sewers from constantly moving upward through the vertical soil pipe and carrying along with it any foul gases that might generate in the waste pipes. To rely upon an upward circulation through a breather pipe placed at the foot of a house drain often fails altogether, because the current of air is sometimes changed to pass down from the roof to the ground line in place of passing upwards, first by the sewage passing down the soil pipes and carrying down large volumes of air with it, which is discharged at the ground line by the breather; second, then very often the breather pipe is not in working order through being choked, and third, by the variations in the temperature of the atmosphere.

The result of the surveyors' meeting proves that the expensive sanitary excesses and the interception trap is a total failure, but that the cost of the system has been thus far heavy and the standing and the reputation of the theorists have to be shielded, so that the intricate and obstructive system must be withdrawn slowly, even if by so doing they still further increase the cost of sanitary appliances. Let sanitarians compare the United States sanitary methods which have been adopted by Greater London and a few other towns of Great Britain, with the large stuff manufacturing city of Bradford, England. The authorities of that city have done everything possible to assist nature to keep their sewage sweet and odorless in the sewers until it arrives at the outfall of the sewage disposal works at Frizenall. The city is crowded to excess with large manufactories and dyeworks that discharge an enormous quantity of dirty or greasy water into the common sewers daily. And 90 per cent. of the population are employed in close greasy factories or other workshops; they live in houses closely built together, yet the inhabitants enjoy general good health, and their death and sickness rate will compare favorably with any other town, even where that town enjoys much more favorable circumstances. This can be largely attributed to the plain and efficient sanitary regulations enforced, and to the adoption of nature's laws in carrying out the principle of domestic sanitation. They do not allow bath or other small waste pipes to be connected directly with the street sewers, but each delivers its contents into an open grid and gully trap which conveys the sewage to the street drain. No sewer pipe which is connected in a direct way with the street sewer enters under any building except to serve a w.c.; then it is constructed of heavy lead or other good metal and joints. Soil pipes that serve water closets in upper rooms are run up outside the building when practicable, and the w.c. bend is taken through the outer wall at the nearest point and connected with the soil pipe outside, and the pipes fixed in this way work all right in frosty weather though the city is visited with long and severe frosts and snows in winter. They also put in as short a length of soil pipe as possible to do the work efficiently; weeping tile drains are never connected with any sewer drain, but deliver on to an open gully grate outside at the bottom of an area window if convenient. The sewage collecting sewers are generally taken along the back lane when the whole of sanitary appliances are in the rear rooms of the dwellings. If allowance be made for the smell that must come from the numerous open privy middens and the slop-water closets which Bradford still uses in many houses, then the city of Bradford is about the sweetest and healthiest manufacturing town that can be found. I may also say that they do not as a rule use back air vents to water closets; and it is unnecessary to use them for the traps, serving baths and any other small fixtures, because they are not connected directly with the sewers.

John Burke, Esq., North Bay, has secured a contract for lighting the streets of North Bay by electricity, and has placed an order with the Canadian General Electric Company, for a 25 light wood arc dynamo, and 15-double carbon brush arc lamps.