traps are rendered useless is the accumulation of gas in the sewers, consequent on the stoppage of the discharging outlets by high water. This may occur, in the case of a river, on any unusual rise in the water, such as a freshet.

In the case of tidal waters it occurs twice every twenty-four hours.

In this manner the gas has frequently been known to accumulate to such an extent as to cause a great pressure in the sewer. A small pressure is sufficient to make the gas bubble up through the water in the trap.

Mr. Latham considers that the only remedy is to "cut off all direct communication between our houses and the sewers."

Cost of maintenance is another matter in which the pneumatic system is vastly ahead of that by water carriage.

Our sewers are constantly breaking, bursting, or getting stopped up, and as for our domestic arrangements, it is needless to remind any housekeeper of the annual expense and inconvenience caused by necessary repairs to their house drainage.

The pneumatic system, by its simplicity, compactness and separation of difficulties, obviates all this.

Let us now draw a few comparisons between the system of water carriage, as used in Montreal, and the pneumatic system:

Firstly. The filth resulting from the life of over 100,000 people is now floated through large and foul sewers, and the sewer gas is continually escaping into our chambers.

By the pneumatic system all this is entirely averted, as any leakage of gas which does occur must necessarily be into the pipes and not out—there being a vacuum in the pipes—and the formerly foul sewers are converted into channels for conveying harmless waters.

Secondly. By the present system, the soil of the streets is poisoned by soakage of water and leakage of gas in all directions out of the sewer, thus furnishing a never-failing reservoir of fever germs to be forced out of the ground into the air by every shower of rain.

By the pneumatic system this evil entirely disappears. All