

population, or not, there is no doubt that the average rate here is much higher, and a reduction of only 25 per cent on \$70,000 would effect an annual saving greater than the interest upon the cost of the works.

Mr. PERRY (whose practical experience as a Fireman is unsurpassed) fixes the quantity of water required for a large fire at 1,500 gallons per minute, or at the rate of a daily supply of little over two million gallons; but, he says if got at early, 500 gallons per minute would do. This would be about three streams. Mr. BERTRAM, Chief of the Montreal Fire Brigade, who keeps a record of the number of hydrant streams played at each fire, states that the majority of fires are extinguished with two or three streams. This is due altogether to the Fire-Alarm Telegraph.

But there are considerations connected with such a water supply to which no value can be attached. In all cities so much of the ground becomes covered with buildings, paved roads and court yards, that natural filtration is prevented, and the rains wash all the street and yard impurities, unfiltered, into the wells, soon rendering them unfit for use.

In Ottawa the building lots are only 99 feet in depth, and where houses, stables, cesspools, drains, &c. are established on every chain of frontage, wells cannot be used with impunity. There is no more insidious or dangerous enemy to the public health than impure water, and well water, though clear, and apparently pure, may contain pestilential matter in solution. The ravages of Cholera have been observed to vary with the efficiency or otherwise of the Water supply in different parts of London. Dr. STERRY HUNT, in his analysis of the Ottawa and St. Lawrence waters, (see Appendix), shows that in 1854 (when the population of Montreal was but one half its present number) the local impurities caused by the sewage could be easily detected in the water pumped from the river in front of the city—and this was one of the chief reasons for going to the head of the Lachine Rapids for a pure supply. If Montreal in that day could poison the St. Lawrence on her front, the same result may be expected here.

Finally, there will be in all cities a class to whom the water must be taken to induce them to use it—a class which generally congregates together, and amongst whom sanitary regulations are powerless, unless backed by an efficient supply of water. Where water has to be carried up a hill nearly 100 feet high, it is practically out of the reach of thousands, although living on the banks of a mighty river—the widow, the cripple, the tired laborer, cannot or will not carry more than is absolutely necessary—and hence, in these districts, epidemic diseases obtain a foot-hold, from which they cannot easily be dislodged, and within which they cannot be confined.

THOS. C. KEEFER.