Editorials

MODERN STREET CLEANING.

On another page of this issue are shown a number of views of the types of machines that are cleaning the streets of many of our large cities in the most modern manner. The old, unsanitary dry hand-brush is being rapidly relegated to the dark ages when the dread power of street germs was not properly appreciated. The only absolutely sanitary method of street cleaning is by flushing, and either motor-driven or horse-drawn flushers should be strenuously advocated by every city and town engineer.

For the last thirteen years, street dust has been the subject of much study by eminent bacteriologists, and the causative connection between street dust and many diseases is now clearly established.

B. coli. comm., B. tuberculosis, the bacterium pneumococcus, staphylococcus and streptococcus, pyogeneus, diphtheria, anthrax, tetanus, have been recognized as permanent inhabitants of street dust. Out of forty-six inoculations of animals with bacteria from city dusts,—an experiment tried by a prominent doctor some years ago,—thirty-two caused infectious diseases.

Another well-known authority states that among the diseases that lurk in the dust on the streets are tonsilitis, quinsy, laryngitis, pneumonia, rhinitis, influenza, tuberculosis, poliomeylitis, asthma, rheumatism, diarrhoea, skin disease, conjunctivitis, trauma of the cornea, nasal catarrh, frontal sinus and middle ear disease. And physicians all say that dust may, by predisposing an irritated condition of the respiratory organs, so lower the vitality of the mucosa that the development of any germ deposited thereon will be favored. In fact, suspicion now points strongly toward street dust as one of the worst etiological mischief makers with which we are afflicted.

Ex-President Theodore Roosevelt said, in a speech at Buffalo some years ago, that we should be sufficiently civilized and intelligent to get rid of our sewage by some other means than by putting it into our drinking water. He might have added that we should get rid of street dusts —which are just as dangerous as human sewage—by some other means than by allowing them to be pulverized and blown into our nostrils, or brushed into the air periodically by the old methods of street cleaning still in force in many of our cities,—even in Toronto!

Flushing is here to stay. It is a proven success for practically all kinds of pavements. It is the only absolutely sanitary method of keeping streets clean. It does away with the white wing and preserves the self-respect of the cleaners, or operators.

An outfit of flushing machines would do three things for any municipality: it would lower the death rate; it would save thousands of dollars for its citizens through loss of time on account of sickness; it would abolish a vile job which someone otherwise must perform.

There are two types of flushing machines which have been developed within recent years which will meet with popular favor. One of them is the combination flusher and sprinkler, so arranged that the machine will throw a sprinkling spray ahead of the flusher, wetting the dirt, and follow up with the flush in such manner that heavy deposits can be carried along the gutter to the catch-basins or deposited at intervals at the operator's will.

The other type is the combination sprinkler, flusher and squeegee, the squeegee carrying the dirt to any given point or catch-basin. The first combination machine on this continent has been constructed under designs by Commissioner Featherston, of New York City. It is a flusher-sweeper-trailer, with an 1,800 U.S. gallon tank, an electrically driven pump and either an electrically driven squeegee or electrically driven broom.

It will interest all city engineers to note the results secured by this machine, which is now being tested. It is problematical whether the squeegee would improve on the flush and clean the gutter and adjacent strip to better advantage, or whether the controlled flush will prove to be the best solution owing to the deposits in cracks and depressions which the squeegee might leave on rough or uneven pavements.

OFFICIAL STANDARDS OF WATER ANALYSIS.

The Chemical and Bacteriological Section of the American Water Works Association, following the recent annual meeting at Richmond, recommended the appointment of a committee to be known as "Committee on Official Standards of Water Analysis." This committee is composed of the following: Messrs. Robert B. Morse, engineer, State Board of Health, Maryland; Wm. J. Orchard, engineer and bacteriologist, New York; Edward Bartow, chemist, State Board of Health, Illinois; C. A. Haskins, engineer, State Board of Health, Kansas; and Joseph Race, city bacteriologist and chemist, Ottawa. The duties of this committee will be to consider official standards of water analysis, their interpretations and methods, also methods for getting the recommendations before the association and the general public.

The effort to arrive at a standard of purity for water is undoubtedly a step in the right direction. While various states "across the line" have at different times made tentative standards, these have been in most instances purely local in their application and have never shown any indication of becoming universally adopted.

The American Public Health and Marine Hospital Service some years ago fixed a standard for the treasury regulations governing the purity of the water carried by interstate traffic and this stated that the water should not contain more than 2 B. coli per 100 c.cms. and not more than 100 bacteria per c.cm. on agar at 37° C. As this applies to all interstate traffic it practically sets a minimum standard for every state and also for water carried into contiguous territory. Regulations are now being prepared for the water carried by international water carriers, *i.e.*, boats on the Great Lakes and on both coasts, and at present it would appear that the American Treasury standard will be the one adopted both by Canada and the United States unless some opposition develops.

In view of these facts this would seem to be the time for all those in Canada interested in the design, construction and operation of waterworks, to consider whether they are satisfied to adopt this standard, for once adopted it will be very difficult to have it altered. Should such