

of disposing of such drainage—experiments that will be watched with a great deal of interest as affecting one of the staple industries of the colony.

SMOKE NUISANCES.

A few complaints have been made, and with good reason, concerning the nuisance caused by smoke from certain industries in Wellington. There is no doubt that some of the owners are not taking the "best practicable means" to abate the nuisance. But recently some of them have signified their readiness to adopt any suggestion that the Department may make, as much of the nuisance is occasioned by inefficient stoking. A form of mechanical stoker would remedy some of these offences, but in others a "fume-cremator" may be necessary, the description of which is now being awaited by the Department. Among other advantages, it is claimed by the proprietors that this apparatus will effect a great saving in coal.

MATCH-FACTORY.

A match-factory was inspected where some 120 persons of both sexes are employed. The various processes of the industry were carried out in separate buildings. Only one man is engaged in mixing the explosive material—white phosphorus, chlorate of potash, and gum. He appeared to enjoy good health. A separate dining-room is provided for the females employed, and no food is allowed to be partaken of in the workshops. In the large workroom, where some eighty women are employed, some 1,500 cubic feet of air-space is provided. The ventilating-arrangements of the room are satisfactory. From a glance at the employees it was impossible to imagine that the trade had any deteriorating effect on their health.

GENERAL SANITATION OF TOWNS.

During the year every borough and town district and many townships under the control of County Councils have been visited and reported on either by the writer or one of the two Sanitary Inspectors under his control. Inspection revealed varying degrees of insanitation. In some boroughs water and sewage schemes of modern design have been installed; in others extensive works of a similar nature are now in process of completion. For the purposes of this report it will be sufficient to consider the chief sanitary defects found common to those towns visited.

1. *Badly Laid Drains and Connections.*—In some of those towns where a drainage scheme has been in vogue for some years the drains are often found to be ill-laid, and in one instance the work has been scamped in a truly scandalous manner. The sewers are often too large, being laid under the old "combined system" to accommodate both sewage and storm-waters. The consequence of this is that in dry weather the flow in these sewers is very small compared to their size. They therefore become foul, as it is impossible to flush them adequately.

2. *Insufficient Ventilation of Sewers and Drains.*—Though authorities are by no means undivided as to whether or not sewers should be ventilated, the consensus of opinion is distinctly in favour of sewer-ventilation, for it can easily be understood that the better a sewer is ventilated the less chance there is of sewer-air gaining access to a building. It is hardly necessary to dilate upon the danger to the inmates of a dwelling exposed to drain-emanations. It is enough to say that such inhalation materially depreciates the resisting-powers of the body to disease—especially those of an infectious nature. Ventilation of sewers can be effected either by ventilating-grids in the streets, or by running vents up trees, lamps, or poles, or by relying solely on the house-vents. Opinion is divided as to the best means of accomplishing this desirable end.

Ventilation of house-drains: The soil-pipe from a house should be ventilated by continuing the pipe full bore above the roof of the house without any intervening bends, and well away from the windows. The practice of bending these vent-pipes to suit the eave or roof is far too common, as each bend increases the friction of the outgoing air.

3. *The Removal of Rubbish.*—In some towns the removal of rubbish is very properly undertaken by the municipal authorities, but in others it is left to the householder to dispose of it at his own convenience. This means that the refuse is allowed to accumulate until it becomes a nuisance, or it is worth the householder's while to remove it. From a public-health point of view efficient scavenging is just as important as main drainage. In all towns in the district—with the exception of Wellington, which is provided with a destructor—refuse is carted to a section set apart for its reception, and there allowed to accumulate. Occasionally some of the refuse is burnt, if opportunity offers.

4. *The Keeping of Animals.*—In many towns the keeping of swine has been very wisely prohibited; but here, again, fowl-keeping is productive of almost as great a nuisance, especially in hot, moist weather, when the refuse in which the fowls are fed accumulates and putrefies about the yards.

5. *The Flushing of Closets and Sewers direct from the Water-main.*—This is a serious defect, and one that is often found, especially the latter. Many epidemics of typhoid have been attributed to this practice.

6. The other common mistakes of using rain-water pipes as vent-pipes, or allowing the overflow from cisterns to flow direct into the drains, are very commonly met with, as is also the direct discharge of bath and sink wastes into the house-drains.

In the smaller towns where no drainage scheme is in vogue, in addition to some of the defects above mentioned the chief are:—

1. *The Existence of Cesspools.*—The majority of these abominations are unlined, so that the contents are liable to pollute the water in the adjoining wells. In a community that is dependent upon wells for its water-supply the existence of cesspools is a constant menace to the health of