

It may pertinently be asked why such an unsuitable site has been chosen for a nightsoil depot. In extenuation, it must be admitted that the Borough Council has been greatly handicapped in its choice of a site by the position of Napier and the nature of its environs. These are formed of alluvial flats, scarcely above sea-level, and very little removed from what was a few years ago an extensive swamp. The present depot is three miles from the post-office, and quite two miles further away from some portions of the borough. To obtain more suitable land for the deposit of the filth, where rapid nitrification would take place, would necessitate a journey of some four miles further out—that is, seven miles from the post-office, and something like nine miles from certain portions of the borough. Great as the nuisance has been in the past, and to a certain extent still is, it is difficult to see how it could have been or can be remedied, except by the universal introduction of water carriage for the sewage, and the consequent abolition of the nightcart, or, as was recommended by me to the Council many years ago, the purchase of a destructor capable of dealing with nightsoil.

The drainage scheme was designed about twenty-five years ago, and was intended to be worked on the combined system. This was abandoned for the separate system, on the recommendation of the then Municipal Engineer, Mr. Peppercorn. But, unfortunately, when the system was altered the size of the sewers was not, and the consequence is that they are too large for the amount of sewage to be carried, hence there is a sluggish flow and the consequent deposition of sewage-mud. In the past the house-drains have been badly laid, and on examination rarely, if ever, stand the water test, and the house-connections in the past have been defective. Before the days of sewerage the drainage of Napier percolated to the flats and into the swamps immediately adjoining, which have now been reclaimed, and this has caused these portions of the borough to be "sewage-sick." This condition has been kept up by the defective drains, and the consequence is that the opening-up of the streets for any purpose frequently leads to an outbreak of typhoid fever in the vicinity. When, in 1880 and 1881, the streets were opened up for the purpose of laying the drains and sewers we had two of the worst epidemics of typhoid the town has ever known, both in extent and virulence.

While on this point I may say that typhoid is gradually becoming less in Napier. Some years ago it used to be my lot to attend about a hundred cases of typhoid in a year, besides the cases that fell to the lot of the other practitioners; but during the year ending the 31st March, 1902, with a much larger population, only fifty-eight cases were notified, and this was considered a heavy typhoid year. During the year ending the 31st March, 1903, the number of cases notified was only thirty-five. I consider that the reduction of the number of cases during the past year is due to the meteorological conditions being unfavourable to the production of the disease. I have observed during my long residence here that the meteorological conditions play an important part in the causation of the epidemic. I am led to hope that when the improved sanitation that we are now effecting is completed typhoid, if not a thing of the past, will become still further reduced. There were some insanitary houses in Napier, where typhoid was an annual occurrence, on which I reported adversely when I held the appointment of Health Commissioner in 1900, and in which the Borough Council insisted on my recommendations being carried out, that have been free from typhoid since.

The area set apart as a cemetery in Napier is limited, and the ground is rapidly filling up, and it will not be possible to use this site as a burying-ground for many years longer. The choice of another piece of land for the purpose will soon become acute, and presents many difficulties. The amount of suitable land in and around Napier is limited, and the horns of the dilemma are a section that will conform to sanitary requirements and will not penalise the public on the score of expense.

The lectures on sanitary plumbing instituted by Mr. Kershaw, the Sanitary Inspector, under the auspices of my *locum tenens*, Dr. Finch, are still in evidence. They are well attended, and are bearing good fruit.

Whenever opportunity offers, the water test is applied to the house-drains that have been laid in previous years, and when found to be faulty, as is too often the case, the defects are made good. All newly laid drains are thoroughly tested before they are passed. All house connections are carefully inspected, and all incompetent and slovenly work is condemned. Bell traps and catch-pits, that were once the rule in the borough, are now the exception, and are rapidly being superseded by traps of an approved and up-to-date pattern.

The Borough Council have lately passed a sanitary by-law embodying many of the recommendations made to that body by Dr. Finch and myself, which must be productive of some good, and is an earnest of what will be accomplished in time by persistency.

The Council in the past have connected houses with the sewers in a manner that cannot be commended, and I regret to add that the evil that has been accomplished can only be remedied gradually, and will take some years to complete. It has been the practice when connecting the house-drain with the sewer to place the Buchan well inside the boundary, sometimes within 2 ft. or 3 ft. of the terminal shaft. This terminal shaft is intended to ventilate not only the short length of drain between the Buchan and it, but the whole length of the sewer also, and by this practice the sewer is brought on to the premises. I have pointed out to the Borough Council that it is incumbent on them to ventilate their own sewers, which should be disconnected from the house-drains on the sewer-side of the Buchan, which should be at the boundary of the premises, and that the property-owner should ventilate his own drain only. The method that has been in vogue here in the past has rendered efficient ventilation in a great measure nugatory.

The sewer-outfall is unfortunately placed, and requires attention. The sewage empties itself into a tidal river, close to a much-used road, and near the railway-line. At the time that our drainage was designed, and the present site chosen for the outfall, the local conditions were different, and the water carriage of nightsoil was not at the time contemplated. Several methods