

Report of the Medical Officer of Health on defects in the present midden system and on improvements required : ordered by the Health Committee to be printed for the use of members of Council.

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BOROUGH OF LIVERPOOL.

R E P O R T

OF

THE MEDICAL OFFICER OF HEALTH

ON

DEFECTS IN THE PRESENT MIDDEN SYSTEM

AND ON

IMPROVEMENTS REQUIRED.

ORDERED BY THE HEALTH COMMITTEE TO BE PRINTED FOR THE USE OF
MEMBERS OF COUNCIL.

LIVERPOOL:

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R E P O R T .

THE Medical Officer of Health reports that the Trough Water Closet, erected by order of your Committee in No. 3 Court, Hotham Street, has been in use since the 24th October.

It is thus proved that a convenience hitherto restricted to public schools, workshops, and manufactories, may be advantageously adopted in courts and alleys. But before illustrating the consequences which should follow this fact, he wishes to invite the attention of your Committee to certain of the arrangements for disposing of the refuse of the town.

The Lancashire system of middens has been justly reprobated as a sanitary evil; but when social economists blame it, they should remember that no city has ever been able to attain that hygienic perfection which consists in the removal to a distance of all refuse by flushed sewers.

Some substitute for water closets and sewers everywhere obtains, and it is merely a question in degree which of the substitutes is the least inconvenient.

A well-constructed midden, such as is attached to the back yards of our houses, is the best of the imperfections; but it should be drained and perfectly dry. For as animal and vegetable substances are innocuous until fermentation and putrefaction set in, the exclusion of moisture, without which these chemical changes cannot occur, becomes absolutely necessary for safety. But so ignorant or careless are even the educated public of this truth, that we find middens not only open to the rain, but also made the receptacle for the fluid refuse of the house. In many cases the surface drainage of the yards and the rain-fall from the roofs of the privies are also conducted into the midden. It would almost seem as if the first

object was to collect vegetable and animal matter at a few yards from inhabited apartments, and then carefully to manage that moisture be supplied to secure the production of gases prejudicial to health. Such imprudent neglect of ordinary precautions can only require for its correction a knowledge of the danger incurred, and the easy inexpensive means for its removal.

All middens should be covered from the rain, and a free efficient ventilation secured by open spaces below the roof and at the sides. They should be drained, and care taken that no surface or other water finds its way into them. As vegetable and animal matter have a certain amount of fluid inseparable from their composition, the mere exclusion of extraneous moisture would not be sufficient to prevent fermentation, if it were not for the addition of the cinders and coal ashes; these being absorbents of moisture become thereby deodorants and antiseptics, sufficiently powerful to counteract the chemical effects of any unavoidable fluid, and accordingly they should be daily thrown over the other refuse.

If these practicable means are adopted, there is no reason to interfere with the middens in the yards of houses beyond requiring an alteration of structure in all cases where the Inspectors find water.

But there are middens of a construction and position so intrinsically bad, that no care nor precaution can render them innocuous. Such are those built beneath or in close proximity to sleeping and inhabited apartments; those which require to be emptied through the passage or rooms of the house; those erected in singularly confined and close nooks surrounded by buildings; or, lastly, those which, supplying many houses, are familiarly known as tunnels. Hitherto the Medical Officer of Health, following the example of his predecessor, has restricted his certificate to the three first kinds; but a very slight investigation soon convinced him that the last were accompanied by evils of an equal magnitude. As he is not aware that the nature of these tunnels has ever hitherto been brought officially before the notice of the Committee, he ventures to describe them. It is difficult to obtain a full and correct account of their number and position, for, being unobserved from the streets, they escape the attention of the Inspectors; and it is one not the least curious characteristic of their construction that the very residents, though loud in their complaints of abominable nuisance

experienced on the premises, are frequently ignorant of the mode by which the night-soil is removed. The list which he possesses, numbering 76 tunnels for the convenience of 716 houses, is probably far from complete. It was obtained from the servants of Mr. Rose by Mr. Higgins, to whom also he is indebted for valuable assistance in these investigations.

These tunnels may be thus classified :—

1st. Those which are built beneath houses and have the privies as their ventilating shafts.

2nd. Those which, being either covered or partly or altogether open, fill up the narrow space between the backs of contiguous houses, and have for their enclosing sides the walls of cellar kitchens.

3rd. Those which run intricately through blocks of buildings, being partly exposed in intervening spaces, and partly built beneath the houses.

4th. Those which are placed at the distance of a few feet from the residence, and which do not abut on any wall of the houses.

As an example of the first class, he will instance a block of terraced houses, into the court-yard of which your Committee constructed a branch sewer at the public expense. The description, taken from notes made at the period of inspection, will soon belong to things of the past; for the owners, on their attention being called officially to the subject, agreed at once, with good feeling and excellent propriety, to fill up the tunnel, to convert the privies into water closets, and to adopt other plans suggested by the Borough Engineer. His notes state: "This locality is a parallelogram, bounded and enclosed on the west by the front houses of a street; on the north and east by a high wall reaching beyond the windows of the lower tier of terraces; on the south by oil mills. The entrance is a passage 15 feet in width; thus, though not ranked as a closed court, it is without any thorough ventilation."

Here ingenuity has accumulated 76 houses, containing, at the period of inspection, families consisting of 529 souls, on a superficial area of 2,346 superficial yards. Beneath these houses are tunnels of the following dimensions, viz., one under the south side 160 feet in length by 6 feet 4 inches in height and 3 feet in width; one under the north side 145 feet in length by 6 feet 4 inches in height

and 3 feet in width; one under two ranges of houses in the centre terrace, 135 feet in length by 6 feet 4 inches in height and 3 feet in width. The total area thus occupied by middens is 192 superficial yards; their cubical content 384 yards. In other words, the area of the middens is to the whole area of ground occupied as 1 to 12·2; the area of tunnel and middens is to the area occupied by buildings as 1 to 9·25. A rough estimate given by a competent authority of the contents of these middens before thought full enough for emptying is 225 tons.

The only exit for the gases of this vast accumulated sewage is through privies which, in the centre terrace, are so placed between two lines of double-terraced houses, that effluvium constantly and necessarily pervades every room of the building; and in the side terraces on ledges abutting on sleeping and inhabited apartments where the like noxious effect is unavoidably obtained. The rain, as well as all the water escaping from taps or used for household purposes, find their way into the tunnels; so that at every period of the day there is disturbance of contents which stimulates the escape of the gases. No breath of air can reach the unhappy residents which is not fraught with offensive and deleterious compounds; no fire can be lighted in any household without attracting the influx of pestiferous miasm.

The block of buildings referred to in this description having been previously brought before the notice of the General Purposes Sub-Committee, and being now in course of alteration, serves, without any invidious selection, as a correct illustration of the first class of tunnels; but it would be easy to particularise similar and worse cases in blocks of terraced houses and in contiguous houses of streets, if it were not desirable to refrain from what might unnecessarily affect the interests of property.

The second class of tunnels, or those filling up the whole narrow passages between contiguous houses, is the most numerous of these ingenious devices to economise building land without any heed for the health and comfort of the residents or the neighbourhood. As a very perfect example of this arrangement may be mentioned one street in the north of the town, where there are eight tunnels running parallel to each other between two streets, and filling up the whole narrow space between the backs of the houses in seven courts, amounting to 101 houses.

These are not middens in the Lancashire acceptation of the term; they are foul, wet ditches of noisome, fetid sewage, resting on the outer walls of houses, and so enclosed by buildings that, while the rain and refuse water find ready passage to their contents, the effluvium of the amassed pollution rises with unventilated concentration into the inhabited rooms of the houses. In most of this class of tunnels the sides are, as has been previously stated, the walls of kitchen cellars. These apartments are used either as sleeping rooms or otherwise occupied by the family. In only four instances (and the inspection extended over a very great number) were the tunnel walls of these kitchens found dry. In all the others they were damp and discoloured. During one of the days in which these enquiries were being prosecuted, information was received of the contents of two middens having burst into the kitchens, and there is every reason to believe that the accident is a common one.

The third and fourth classes of tunnels require no separate notice, being in principle, though not in position, similar to the kind just described.

The Medical Officer of Health is very sensible that the reform which he wishes your Committee to inaugurate by the conversion of all the privies of tunnels into water-closets is one which will press heavily on individuals. Though the object which prompted their erection was selfish, unheeding cupidity, yet the present owners, being so by purchase, without the responsibility of the construction, may now plead the prescription of years, and very naturally object to improvements instituted and perfected solely at their expense. It is, indeed, from a wish that no undue advantage should be taken of them in this matter, and that they might have opportunity of appeal to your Committee, that the Medical Officer of Health is induced to give publicity to the subject by the present Report, before bringing the cases separately before the Justices under certificate. He is no judge whether public assistance can be justly extended to remedy private error; but he is convinced that the rectification of nuisances so prejudicial to health should be no longer postponed. The munificent efforts made to improve the well-being and sanitary condition of the town by widening streets, opening courts, extending drainage, and carefully cleansing

thoroughfares, are to a great degree counteracted; while, resting on the walls of the people's homes, and within a few inches of their beds, there are impure canals of pestiferous sewage.

An objection has been made to the erection of water-closets in the houses of the poor from the belief that they would not be appreciated or kept in decent order, and that, through wilful carelessness and neglect, the nuisance would be aggravated instead of removed.

His professional acquaintance with the poor in all the lights and shadows of their humble, enduring life, justifies him in unhesitatingly joining issue with such objectors. But this social problem is contracted to very narrow limits by the fact that the houses served by tunnels are not inhabited by the abject poor, and that hundreds of instances can be mentioned where people of the same rank beneficially enjoy the decencies of water closets.

The Medical Officer of Health purposes, with the consent of your Committee, to defer using his certificate in the cases of tunnels until January, 1864, in hopes that the required alterations may be spontaneously made without his interference.

A more important subject—that of the privy middens in courts and alleys—comes now under review. It is unnecessary to describe the squalid condition of places so familiar to every member of the Committee, especially to those who from duty or philanthropy have given, as members of a useful Sub-Committee, their valuable attention to what is otherwise so repulsive. It would indeed be a repetition of the exhaustive report of the Borough Engineer to dwell, at any length, on this subject, especially as the desire of the Medical Officer of Health is merely to invite the attention of the Committee to the suggestions therein contained, and to give to them his official concurrence.

A great number of these courts are so constructed that nothing but opening them to thorough ventilation will ever render them safely habitable or prevent them being the nurseries of disease; but it is at least due to public safety that every practicable means should be adopted to alter and amend remediable and manifest defects. Such are middens which, placed at the entrance or extremity of closed courts, saturate the houses of the poor residents with pestilential vapours. The magnitude of this evil can only be

judged of by personal inspection, or from the reports of the men employed by Mr. Rose. One Inspector, describing to the Medical Officer the accident by which two men who incautiously opened a midden in Cashier Place, Mann Street, were asphyxiated by the mephitic gases, added that narrow escapes from a similar fate are of frequent, almost nightly, occurrence. Hitherto no effort has been made to remove this state of matters, except by the occasional erection of pan water closets, which are quite unserviceable for the purpose. Hence, therefore, the great benefit obtained by the success of the experiment in No. 3 Court, Hotham Street, is the proof that in the trough water closets we have an inexpensive machinery admirably adapted for the use of courts.

The Medical Officer of Health is prepared to certify against the greater number of the privy middens in courts and alleys, and to ask from the Justices their conversion into trough water closets. He will only except those middens in open thoroughly-ventilated courts which are properly constructed, dry, and removed from the immediate vicinity of inhabited apartments. But, before adopting a reform so sweeping, he submits that it is desirable your Committee meet the question in a liberal and comprehensive spirit, as individual and disconnected action may unfortunately result in partial failure. It will be for the Committee to determine whether, for a purpose so all-important to the health and morals of the labouring poor, the Committee might not with propriety assist the parties by affording them at the public expense the services of a staff of scavengers for superintending the working of the trough system, as is now done with reference to the urinals. An alteration is also required in the arrangement of the day carts; the order to remove rubbish should not be dependent on the application of the residents, but on the report of the scavengers of the district.

A trough water closet is an oblong receptacle made of stone or iron, capable of accommodating two or more conveniences. In a recess shut off and protected by a locked door is the simple machinery for opening both the valves of entrance and exit for the water. Upon raising these valves—an operation as easy as in a common pan water closet—the whole contents are swept away and the trough left filled with water. One removal of contents in 24

hours is all that is required, and there is neither occasion for nor means of interference with it, except this once daily, when the scavenger in charge of the district on coming his round could perform the requisite duty. Therefore, there can be here no objection that the residents would, either from carelessness, ignorance, or maliciousness, waste the water or break the machinery of the valves.

The question of improving the sanitary condition of the houses of the poor is one in which the whole town is deeply interested, even in the mere selfish view of personal safety; for typhus and enteric fevers are migratory. They originate amidst want, overcrowding, and loathsome impurity; but spread by infection, and find their victims among the children and families of the rich.

The Medical Officer of Health purposes, in the case of courts and alleys as in that of tunnels, to defer using his certificate for a reasonable period, in the hope that a sanitary disgrace to the town and an evil so injurious to health, may be remedied by the owners in an amicable spirit, and without the necessity of having recourse to law.

W. TRENCH,

MEDICAL OFFICER OF HEALTH.

PUBLIC OFFICES,
CORNWALLIS STREET,
Nov. 19th, 1863.