

[Report of the Medical Officer of Health for Rotherhithe].

Contributors

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METROPOLIS LOCAL MANAGEMENT ACT, 1855.

REPORTS

OF THE

MEDICAL OFFICER OF HEALTH

TO

The Vestry

OF

THE PARISH OF ROTHERHITHE,

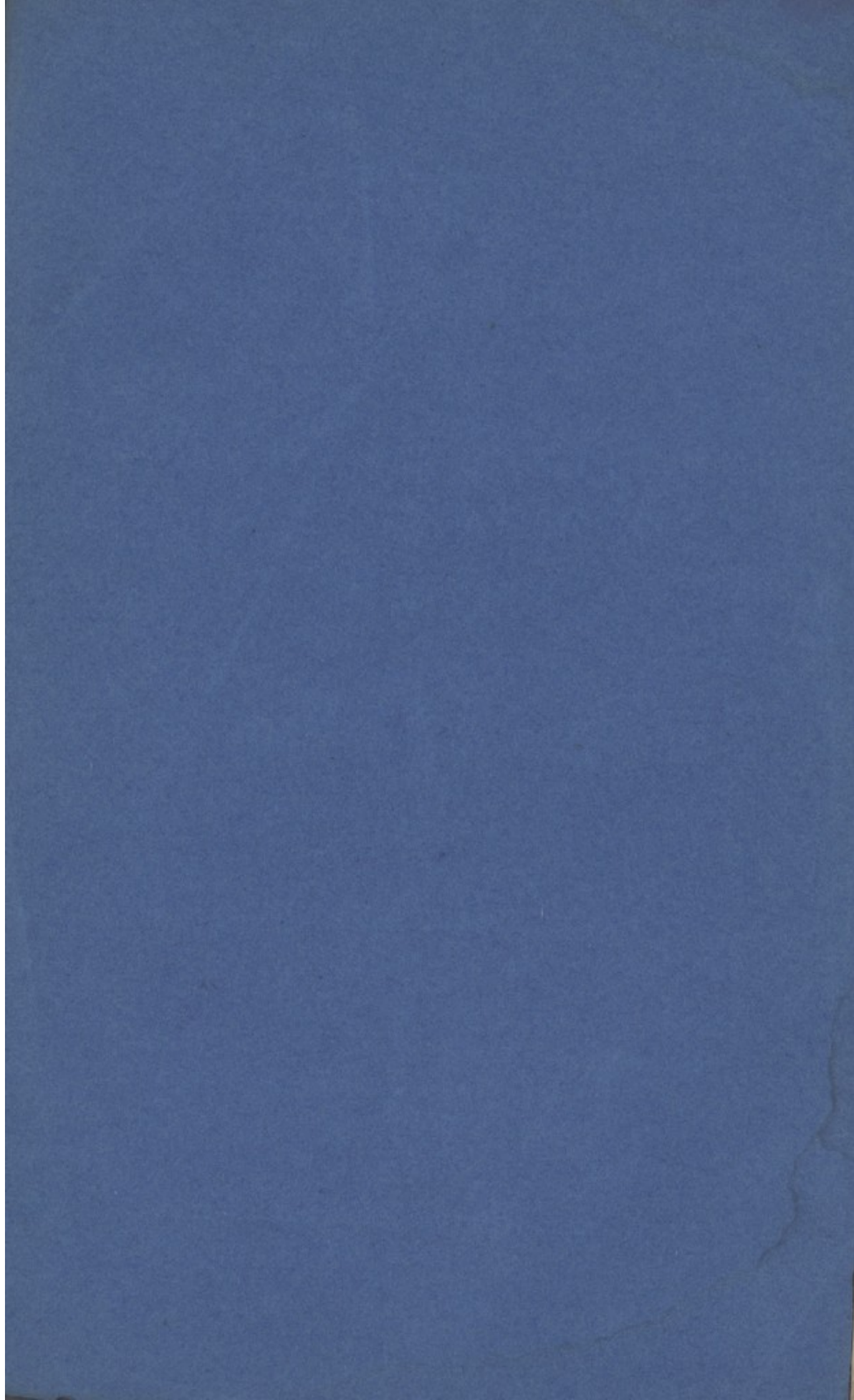
SURREY.

From February, 1856, to March, 1857.

London :

PRINTED BY B. BATT, POST OFFICE, ROTHERHITHE.

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B. M. Muddock M.D.

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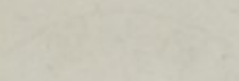
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REPORT OF THE MEDICAL OFFICER

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REPORT

MEDICAL OFFICER OF HEALTH

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THE BOARD OF HEALTH

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THE FIRST REPORT OF THE MEDICAL OFFICER OF HEALTH.

THE parish of St. Mary, Rotherhithe, extending over an area of eight hundred and eighty-six statute acres, the greater part of which are considerably below Trinity high-water mark, possesses some advantages of which many of the surrounding parishes are deprived. The population not being so numerous in proportion to the extent of its surface, the dwellings of the inhabitants are not so crowded together as in the neighbouring districts of Bermondsey and St. John's, large open spaces existing which allow free circulation of the atmosphere and the dilution of any miasms that may be exhaled from the various ditches and uncovered sewers by which it is intersected. Some of the above-mentioned open spaces are Canals or Docks; others are under culture, as meadows, orchards or gardens, whose active vegetation tends to purify the air and exercise a healthy influence upon the place. Rotherhithe, however, acquired, during the epidemic of cholera, which prevailed in 1849, a most unenviable notoriety; the mortality, at that period, having been greater, in ratio of the population, than that of any other metropolitan parish. But if we analyze the facts, and seek the causes of them, they may be easily explained. The lower, or eastern part of Rotherhithe (which furnished the largest number of deaths) was at that period almost without drainage, without sewage, and without proper water supply. The inhabitants used the water of the Thames without even filtering it, dipping it from the stream or from tidal wells, generally in a filthy condition. Some favoured few used water from springs, of which there are three or four in the district.

The attention of the authorities having been called, by the fearful ravages of the epidemic, to this state of things, a sewer was constructed, and an abundant supply of excellent water was obtained from the Kent Waterworks. The consequences may be easily foretold. When the cholera again appeared in 1854, the eastern districts, if I may so express myself, was prepared to receive it. Very few cases occurred, and no part of the metropolis south of the Thames enjoyed a greater immunity from the complaint than the eastern part of Rotherhithe, while the newly-built streets on the Deptford Lower Road, erected on undrained garden ground, suffered severely from the disease.

Open Sewers and Ditches.

The first thing that strikes any person making a tour of sanitary inspection in Rotherhithe, is the number of uncovered ditches; its very boundary-line, for a long distance, being a wide, filthy, black, open sewer. Now, there is no fact more clearly proved in medical science than that the inhalation, for any length of time, by human beings, of the exhalations or effluvia from ditches, drains or sewers, is injurious to the health, and undoubtedly would be much more so in Rotherhithe than it has been, but for the causes I have already explained.

The first duty then of a sanitary officer is to report such nuisances to the Vestry. To report them all at once, would, however, be bewildering both you and myself, and I shall be content on this occasion with directing your attention to two, viz.:—

1. The Cobourg sewer, opposite the Workhouse, running past the end of George Street to the south of Albion Street, and discharging itself into the low level sewer in Swan Lane.

2. The open ditch running between the north side of Albion Street and the south side of Adam Street, certainly the foulest and filthiest in Rotherhithe; situated, too, in a crowded neighbourhood, beginning by a dead head at No 1, Adam Street, and discharging itself also into the low level sewer in Swan Lane, receiving, in its course, the drainage, privies and refuse of a hundred houses. These ditches were examined and inspected by me on the 16th January last.

I might here cite many examples of the great benefit arising to the health of a locality by the covering in of its open sewers; but I cannot give you any better than what has occurred in Rotherhithe itself. A few years ago the upper, or northern part of Swan Lane was intersected by foul open ditches. Typhus fever then reigned constantly on that spot (about Kenning's Buildings and Norfolk Place); as many as ninety cases of fever were attended by the parish medical officer in twelve months; but since the ditches have been arched over the disease has entirely disappeared from the spot, and the place has now become one of the healthiest in the parish.

Drainage.

The next subject upon which I shall venture to make a few observations, is the drainage of Rotherhithe. Whole blocks of houses are badly drained; many have no drainage at all. Nor does this remark apply merely to dwellings that have been long built; but I am sorry to say that many of the new erections, in large streets, are insufficiently drained. I shall report these buildings one by one to the Vestry as they come under my notice.

Connected with drainage are the cesspools and privies, many of which are in a most offensive state. On the 16th January last, in

company with Mr. Sanders, the Inspector, I examined the privies of 380 and 381, Rotherhithe Street, tenanted by Messrs. Clark and Newham; also those of Nos. 2 and 3, on the east side of Clarence Street, tenanted by Collins and Smith. They were all in a filthy state, and at Collins' the privy being near the house, the soil was overflowing into the cellar. I had previously attended bad cases of fever in this house. Notices to the landlords were served next day on the premises.

On the 22nd January I visited alone the house, 20, Lower Queen Street, tenanted by Deane; the soil of the privy was running down the yard and emitting nauseous effluvia. The same state of things existed in the two adjacent houses, 21 and 22. A notice was next day served.

Water Supply.

The water supplied by the Water Companies in the eastern and western divisions of Rotherhithe, is of good quality; but the landlords have but very partially availed themselves of the facility afforded of obtaining water. Many of the houses, particularly in the eastern division, have no water laid on, and some of the inhabitants are still drinking water dipped from the Thames.

Factories.

It was not originally my intention to mention in this Report any of the factories or chemical works carried on in the parish of Rotherhithe, but in consequence of a letter written to me by the Clerk of the Vestry, Mr. Hawks, complaining of certain nuisances at the Surrey Consumers' Gas Works, in Rotherhithe Street, I proceeded there on the 23rd January, at noon, accompanied by the Inspector, Mr. Sanders, and having obtained leave from the Secretary of the Company, Mr. Boddy, went on to examine the works. The former Engineer to the Company, Mr. G. Anderson, and the present foreman, Mr. Hunter, went round with us.

Hitherto no means have been discovered by which gas works can be carried on without emitting offensive effluvia.

The nuisances complained of, however, were the following:—

1. *The manufacture of the sulphate of ammonia.* Sulphuric acid is mixed in a closed vessel with crude ammoniacal gas liquor, the unpurified gas passing through the mixture to part with any ammonia it may still contain. The mixture is afterwards brought up into three shallow evaporating vessels, about nine or ten inches deep, each being about 18 feet long; one is $4\frac{1}{2}$, another 3, and the third $2\frac{1}{2}$ feet wide, or thereabouts—to be evaporated. During the evaporation sulphuretted gases are given off into the air, but not in large quantity. The rising steam had an acid reaction, reddening litmus paper, but did not blacken white paper impregnated with a solution of acetate of lead. When I visited the works, the process

was in active operation, the smell was faint and disagreeable, but not very strong.

2. *The emptying the purifiers into a pit.* After the gas has passed the mixture of ammoniacal liquor and sulphuric acid, it traverses the purifiers, containing wet lime. The object of this process being to take from the gas the carbonic acid and the sulphuretted hydrogen. When the wet lime of the purifiers becomes charged, (that is to say, incapable of taking from the gas any more sulphuretted hydrogen and carbonic acid,) the contents of the purifiers, viz.: wet lime loaded with sulphuretted hydrogen, are discharged into an open pit, having an area of about thirty feet square, which is continually sending forth an effluvium of sulphuretted hydrogen, and at the time of the discharge of the purifiers the nuisance is so great that the persons residing near the works declare that they have suffered from headache, giddiness, and sickness in consequence of it. All metallic objects in their houses have become tarnished, and a clean silver spoon will become black in twenty-four hours. The emptying of the two purifiers takes place alternately every eight or nine hours.

The only way of putting an end to this nuisance would be to closely cover the pit, and carry the noxious fumes into the shaft, or to use oxyde of iron instead of wet lime as a purifier. I must add, that within the last few days, according to the statement of the wife of one of the complainants, made to me on the 31st January, and repeated by the complainant himself on 3rd February, the nuisance has, since my visit to the works, been much abated.

Mortality in Rotherhithe during the month of January, 1856.

The average number of deaths in Rotherhithe from all causes, according to the statement of the Registrar is about one hundred and ten in three months, making thirty-six and a fraction $\frac{1}{3}$ per month. I am happy to say that during the last month the mortality was under the average, the death of thirty-two persons only having been registered. Indeed, the parish during the past month has been much healthier than it usually is at this season of the year. The death of only one person above the age of 70 has been recorded, (a man in Clark's Orchard, aged 81). Now, January being the coldest month in the year, is generally considered a dangerous month to old people, for the number of deaths among the aged invariably increases with the lowering of the temperature. The weather in the middle of the month was much milder than usual.

The prevalent diseases have been, pneumonia, bronchitis and acute rheumatism. There have been four deaths from scarlatina, three from hooping cough, and two from small pox, one a female, aged 40, near the "Jolly Caulkers," the other a child, aged twelve months, in Upper Queen Street. I could not ascertain whether these persons had been vaccinated or not. There has also been a death from

typhus at 9, Stanley Terrace. The person was 66 years old. No death either from diarrhoea or measles. There are still in the parish cases of small pox under treatment.

W. MURDOCH.

4th February, 1856.

SECOND REPORT.

Gas Works.

Complaints having been made relative to the state of the Kings Mills Stream at its southern extremity where it flows past the premises of the Surrey Consumers' Gas Works before discharging itself into the Thames, I proceeded, on the 12th February, 1856, to examine it. At the time of my visit, the pond was about half full of water, which was perfectly still, and completely covered with mud.

The surface of the water was here and there studded with large patches of oily matter, but no disagreeable smell was perceptible.

On the following day, 13th February, 1856, I inspected the place when the tide was out and the mud bare. The surface of the latter to a considerable extent, on the western side more particularly, was in many places marked by stains of oily and tarry fluid, three black streamlets of tar evidently proceeding from the planking of the western embankment to the middle of the bed of the watercourse contrasted with the grey colour of the mud. The whole emitted a faint and nauseous smell. I have reason to believe that this state of things is occasioned by the leakage of the tanks or vessels containing the tar deposited by the gas, and might be easily remedied by constructing these vessels of proper materials and keeping them fluid tight.

On the 20th February, 1856, about four in the afternoon, I visited the premises of the Surrey Consumers' Gas Works. Mr. Hunter the foreman accompanied me. I found neither of the nuisances mentioned in my first report abated. The fabrication of the sulphate of ammonia was still in full operation, and the pit receiver of the wet lime from the purifiers still in the same state. One of the purifiers, according to the statement of the foreman, had been emptied about two hours before. The air in the neighbourhood of the pit was however still strongly impregnated with sulphuretted hydrogen.

Ditches and Sewers.

On the 14th February I inspected the ditch opposite the China Hall on the Deptford Lower Road. The ditch was then without water, and in a foul state. This nuisance is in a conspicuous part of the parish, being near a road much frequented by the inhabitants both for business and recreation.

I beg particularly to call the attention of the Vestry to the open

sewer running south of Globe Street and Lavender Lane and thence eastward towards Trinity Road. This ditch in its passage from Lavender Lane to Jasmine Cottages, traverses a piece of land belonging to the Commercial Dock Company. In that part of its course it has been filled up by mud thrown into it, the consequence of which proceeding is, that the part of the sewer immediately below and over which the privy of Jasmine Cottages stands, has received no water for several weeks, and the soil there accumulated forms a filthy nuisance.

Waterclosets and Privies.

The block of houses called Jasmine Cottages seems to be in the worst condition possible for the health of the inhabitants. There being no drainage, and the filth from the houses is thrown into the above-named sewer. There is also no water supply; the inhabitants being forced to fetch all water for household use either from the pump in Lavender Lane, or to dip it from the Thames. The three houses, containing seventeen inmates, have but one privy.

In that part of Seven-step Alley called Fisher's Court, I found but one privy for eight dwellings, tenanted by upwards of forty people. This privy is always open. I consider such a state of things improper, indecent, and immoral.

On the 6th February I visited the privy of the house adjacent to the premises of Mr. Thompson, the boat builder, in Rotherhithe Street, tenanted by Nash. The same was in a foul state, the liquid matter overflowing. A notice was duly served.

On the 7th, 11th and 14th February I inspected the privies of the houses, 19, 20, 21 and 22, in Paradise Row, tenanted respectively by Mr. Goddard, Mrs. Bews, and Messrs. Milton and Burcham. They were all full. Notices were served.

On the 15th February I examined the privy of the house, 5, Lavender Lane; the fluid matter was overflowing and running into the street. The landlord emptied the bog a day or two after.

On the 16th February I was requested to visit the privy of the house, 140, Rotherhithe Street. I have rarely seen a worse nuisance; the soil was not only up to the boards, but closely packed to the top of the seat. A notice was served.

On the 20th February I visited the privies of 12 and 13, Church Street, tenanted by Harris and Platten. They were both full. Notices were served.

On the 23rd February I examined the privies of the houses, 7 and 8, Stringer's Row, tenanted by Hill and Dyer. At 7, the privy was full, and at 8, overflowing. Notices have been served.

On the 27th February I inspected the privy of 3, Searn's Alley, tenanted by Hurley, and that of 11½, Silver Street, tenanted by Button. Both were filthy. Notices have been served.

Warehouses.

On the complaint of Mr. Perks I went to his house, in Rotherhithe Street, on the 21st February. A most nauseous and disgusting stench of putrefying vegetable matter pervaded the whole dwelling, and was particularly offensive in the drawing-room, situated on the first floor. The next building to the house being used as a warehouse for oil-cake and other matters, I was led to examine it, and there found a large quantity of damaged rape-seed in a state of fermentation and much heated. A notice was duly served on Mr. Fisher, the occupier of the warehouse, and the rape-seed was in consequence removed. On the 23rd February I again proceeded to the house of Mr. Perks, and found the smell much diminished, but not altogether gone. I shall again give my attention to this matter.

Dwellings of the Poor.

On the 22nd of February, I proceeded to view a two-roomed tenement in Seven-Step Alley, (No. 1) reported to be in a filthy state. I entered the ground floor only, I counted ten individuals in the room when I went in, (one being absent) three adults and seven children. One woman was lying on the ground on a wretched bed, with two half naked children beside her, one of which appeared to be sick. I have seldom, in the practice of my calling, witnessed such a scene of filth, squalid wretchedness, and degradation.

I must again repeat my conviction, that no cause in a large city tends more to generate disease, than open cesspools, uncovered ditches, foul privies, and such like nuisances. To bear out this assertion, I will cite another example, drawn from the parish of Rotherhithe, in addition to those cited in my last report. During the epidemic of cholera in 1849, ten persons died of the disease in the group of ten houses called Dodd's Place, (Clarence Street), with a population of about fifty souls. There existed then an open ditch before the houses, which had originally been a fish pond, but had become a stagnant morass, from the pipe communicating with the river having become obstructed. After the epidemic, the ditch was filled up, and when the cholera re-appeared in 1854, only three persons were attacked in Dodd's Place, and no one died, and the spot has been since 1849 remarkably free from all disease. This fact is interesting, because Dodd's Place had not then, nor has it now, either drainage or water supply, and the mortality seems to have been entirely connected with the open ditch, the other circumstances remaining unaltered.

Mortality of the Month.

The number of deaths during the month of February, has rather exceeded the average (thirty-three and a third). Thirty-eight deaths

from all causes having been registered. Among them are six of persons above the age of 70, or nearly one-sixth of the whole. One a waterman, aged 70, from diseased stomach; the second, a man aged 73, in the workhouse, from paralysis. The four others are elderly women, aged respectively, 74, 84, 87, and 88, who are all registered as having succumbed to the decay of nature. The month of January being the coldest in the year, is generally more fatal to the aged, than the following month; but in Rotherhithe this has not been the case, there having been in January only one death registered of a person above 70. During the month just elapsed, the parish has been, and I am happy to say, continues still remarkably free from all epidemic diseases, excepting hooping cough. One death occurred from typhoid fever, and two from hooping cough, one of which was complicated with scarlatina. No other case of scarlatina, no measles, no diarrhœa, and finally, no small pox. The latter malady having entirely disappeared from the neighbourhood, and from enquiries made, I am inclined to think that there is not now in Rotherhithe a single case of small pox under treatment.

Eighteen deaths or nearly half the number have been caused by afflictions of the heart and respiratory organs, among them is one case of croup, a child 4 years of age. The prevalent diseases have been acute bronchitis, pneumonia, and hooping cough. The number of rheumatic afflictions has decreased since my last report.

W. MURDOCH.

4th March, 1856.

THIRD REPORT.

To the Vestry of the Parish of St. Mary, Rotherhithe.

GENTLEMEN,

On the 10th of March, and on several other occasions, I examined the open ditch beginning near the back of the house, 44, Lower Queen Street, and running eastward between that street and Surrey Place towards the sewer in Cow Lane. This ditch receives the privies and refuse of twenty houses or thereabouts, and in my inspections of it, it always appeared about one-third full, the water stagnant, and standing at the same level. I consider it a nuisance, injurious to the health of the immediate neighbourhood and deserving the attention of the Vestry.

On the 13th of March, on the complaint of some of the inmates of the block of dwellings known as the "seven houses" in Trinity Street, I examined the drain of these houses. The drain, according to the statement of Mr. Durrant, one of the complainants, is a narrow cutting, about three feet deep and fifteen inches broad, with enlargement of breadth at the points where it receives the privies of some of the houses; its sides are of brick and its upper

cover of wood. It runs southwards from No. 2 to No. 7, where it discharges itself into the sewer in Trinity Road. At Nos. 2, 4, 6, and 7, it traverses the yards at some distance from the back of the houses. All the inmates occasionally perceive a slightly disagreeable odour when water runs along the drain; and at No. 6 (Mr. Luck's), the stench is greater than at any other of the houses above named. During my visit of his premises it was exceedingly nauseous. At No. 3, tenanted by Mr. Thomas Steel, an aged gentleman, the drain runs under the kitchen, and the stench at all times is disgustingly offensive, causing headache and other unpleasant symptoms and sensations from which Mr. T. Steel has much suffered. At No. 5 (Mr. Durrant's), it passes under his outhouse or store-room, and produces effects similar to those noticed at Mr. Steel's.

The only remedy for this state of things would be the substitution of a pipe drain for the one now in existence. Notices were served at the respective houses.

On the 14th March, I examined the drain at the house, 51, Clarence Street, tenanted by Mr. Smith. The foul smell arising from it had caused, according to the certificate of a medical gentleman, fever and other ailments to the inhabitants of the house. A notice was served.

On the same day I inspected the privy of No. 12, Silver Street, tenanted by Reevely, and at the request of the Surveyor, Mr. Legg, that of the house, 65, Paradise Street. Both were nuisances, and notices were served accordingly.

On the 15th March, 1856, I entered the premises of Mr. Hammond, Patent Manure Maker, Rotherhithe Street, with the Inspector, Mr. Sanders, to try to discover the cause of a filthy stench which had pervaded the immediate neighbourhood of the factory on that morning, and at various other times.

On the 17th I returned alone and caused some of the manure to be made before me. The process is as follows:—

Bones are first subjected to the action of steam, in a digester, or steam boiler, by which operation they are deprived of their gelatine, and rendered more friable.

A certain quantity of them thus prepared, say a basketful, is then thrown under powerful revolving steam propelled crushers, with a small portion of impure nitrate of potass, to keep them from sticking to the machinery. To them are added powdered coprolite, previously mixed with sulphuric acid; animal charcoal from the sugar bakers having previously undergone the same preparation of being mixed with sulphuric acid, soot, gypsum, the refuse of the candle factories, and a small quantity of Fuller's earth. The whole are triturated together, and after a certain time of trituration, are sprinkled over with sulphuric acid. The mass is then sifted and is ready for use in the shape of a coarse blackish-grey powder.

Most of the substances used have either of themselves a disagreeable smell, or at any rate, give off one when acted upon by the sulphuric acid; but the fetid effluvium, consisting of phosphuretted and sulphuretted hydrogen, and other stinking gases, arises worst at the moment of the last sprinkling, just before the manure is withdrawn from under the machinery.

Such a manufacture must necessarily give rise to offensive exhalations and cannot be otherwise than injurious to the health of the inhabitants of the neighbourhood. I think that it ought not to be carried on within the precincts of a large city.

On the 17th March I was informed that the houses, 6, 7 and 8, Kenning's Buildings, had but one privy in common. I inspected the place on the same day. These dwellings have large yards in which three privies originally existed, one for each house; but the cesspools having become filled, the landlord thought proper to cause all the yards to communicate, and has built a wooden privy for the three houses, tenanted by twenty-three persons. The door of this privy is always open, and was without fastening of any kind at the time of my visit to it.

It being part of my duty to report to you on the condition of the residences of the humbler classes, I beg to state, that in my various sanitary perambulations throughout this extensive parish, I have not been able to discover a single case in which an underground kitchen or cellar has been let out as a sleeping apartment; so that we are free from *one* nuisance so common in many of the overcrowded parishes of this great metropolis. But I should not be doing justice to you, or to the poor of whose interests you are the legal guardians and protectors, were I not to say, that in no part of my numerous duties can I be more beneficially employed than in trying to improve the state of the dwellings of the lower orders, many of which seem quite unfit for human habitation; persuaded, as I am, that the first step towards the intellectual and moral improvement of the poor is attention to their physical comfort, and that the material and mental advancement of mankind always go hand in hand together, and that the attempt to educate the people will be of little avail so long as they are allowed to inhabit dwellings undrained, waterless, and unventilated, dens of darkness and uncleanness. Can we indeed, expect a labourer or his family to be clean, when they are obliged to beg or steal every drop of water that they use, either for washing the body or for household purposes? Can we expect tidiness in dress or furniture in habitations open to every shower and to all the winds of heaven? Shall we find chastity or even decency in the social relations, where twenty, thirty, or more persons, men, women, boys and girls indiscriminately frequent the same privy? When the pulse is flagging and the vital powers languid from absorption of the fetid exhalations of a neighbouring cesspool, will not a man instinctively take to the stimulus of alcoholic liquids? He derives

therefrom a temporary relief from depression, and education has most probably never taught him how pernicious such a practice is to the health of his body, and how destructive to the faculties of his mind. All teaching must be, and will be of no avail, while such a state of things is tolerated, and to use the eloquent words of Mr. Simon, "No sanitary system can be adequate to the requirements of the time, or can cure those radical evils which infest the under-framework of society, unless the importance be distinctly recognised, and the duty manfully undertaken of improving the *social condition* of the poor."

Following out these principles, on the 14th March, 1856, I visited a row of houses in Kenning's Buildings, popularly nicknamed "Rabbit Hutch Row" on account of their ruinous and dilapidated condition. These tenements are without drainage or water supply. They are eight in number, built of wood and tiled, each consisting of a ground floor only, subdivided by a partition into two rooms with a door and window at each end of the house. The planks composing the outside of the houses have evidently not been painted for years, and are in many places falling asunder. I entered No. 8, tenanted by Cogan, the inside was in worse condition than the out, it was neither wind nor water tight. No. 4, tenanted by Dowsett, was in rather better condition, though still wretchedly bad; but at No. 1 the ceiling had fallen in, and daylight could be seen through the roof and sides of the house. I never saw a more miserable hovel used as a human habitation. Two houses were closed and untenanted, and at the other three I knocked but could not gain admission. The worst part, however, is still to come. The privies are built two together, back to back, immediately behind the houses. At No. 1 the seat of the privy had fallen in, and the whole is in such a dilapidated state, that it cannot be used. At No. 8 the privy has no sides, but consists merely of a seat and a few tiles overhead, so that any person in it would be quite exposed to the view of the passers by. At Nos. 5 and 6 the privies have been pulled down and the bogs left uncovered. Every minute they are sending forth their polluted and poisonous exhalations, and the inmates of the adjoining houses are literally living in an atmosphere of decomposing human excrement. I feel satisfied that such abominations will not be long allowed to survive after being brought under the notice of this Vestry.

Mortality of the Month.

The number of deaths registered in Rotherhithe during the past month was thirty-nine. As in February, diseases of the chest predominated as causes of death, namely, pneumonia, bronchitis, and phthisis. There was one death from croup in twenty-four hours in a child fourteen months old. One man aged 40, died of carbuncle, complicated with erysipelas of the face. This disease (carbuncle) appears to me to have become more common of late years. No diarrhœa.

No typhus. No measles. One death from scarlatina, and two young children in Castle's Buildings, Russell Street, from small pox. Hooping cough is still prevalent, and four deaths have been registered as originating from that complaint. Four persons above the age of 70 have, during the elapsed month, paid the debt of nature; their ages were respectively 72, 75, 82, and 93. The last two being female inmates of Rotherhithe Workhouse, which has long acquired considerable notoriety for the longevity of its inmates.

The whole number of deaths during the last quarter, has been the average number, exactly one hundred and ten, not one more or less. Thirty-two in January, thirty-nine in February, and thirty-nine in March—fifty-six males and fifty-four females. There have been registered in Rotherhithe one hundred and ninety-eight births, viz., ninety-four males and one hundred and four females. Eighty-eight more births than deaths, leaving a large balance in favour of the living and increasing population. Now one hundred and ten deaths per quarter make four hundred and forty in the year, and if we estimate the inhabitants of the parish at nineteen thousand, we die at the rate of about twenty-three and a fraction annually. To diminish this mortality and prolong the life of man as far as human means can conduce to that desirable end, is the object of the Act of Parliament under which you are now here sitting, and if we find that from your exertions, carried effectually out by your officers, the average mortality of Rotherhithe some years hence has positively diminished, a great object will have been attained, and it will be a comfort and a satisfaction to all therein concerned, that our labours for the benefit of our fellow-men have not been in vain.

Yours respectfully,

W. MURDOCH.

April 1st, 1856.

FOURTH REPORT.

To the Vestry of the Parish of Saint Mary, Rotherhithe.

GENTLEMEN,

SINCE the last Report which I had the honour of addressing you, the time that I have spent in your service has been principally employed in examining cesspools in the eastern and western districts of Rotherhithe. I started with the principle that every cesspool is a nuisance injurious to health; more or less so according to its proximity to the dwellings of the inhabitants and to the walls or buildings surrounding it, and hindering the free diffusion of its gases. The concentration of these gases renders them far more fatal to man than they otherwise would be if allowed freely to diffuse themselves through the atmosphere. It has been said of other parts of the metropolis, and we may safely apply the dictum to our own parish, that they consist of two cities, the one above ground, in which the inhabitants exist and breathe, the other under ground, a subterranean

city of cesspools, sending forth continually through their vent-holes streams of volatile and poisonous miasmata. I trust, however, that this state of things will gradually disappear, and that the day is not far distant when a filthy cesspool in the immediate vicinity of a dwelling will be pointed at only as a remnant of bygone and less enlightened ages.

On the 4th April I was called to the house, No. 2, Augusta Place, tenanted by Mr. Pook, on account of a disagreeable smell of drainage in the front kitchen. From information gleaned on the spot, I believe the following statement to be correct. A large well, between four and five feet in diameter, and five or six feet in depth, has been dug in the kitchen to receive the refuse liquid from a sink placed in one of the corners of the same; the mouth of the well is covered with a stone, and the stone flooring is placed over it. The consequence of such an arrangement is just what might be expected from a stagnant pool of fluid loaded with animal and vegetable matter. It occasions, at all times, an offensive smell, but when the weather is hot, or a fire is lighted, the gases becoming more subtile and more expansive, mix themselves abundantly with the air of the room and give rise to an intolerable stench, which stench remains even after the well has been emptied, because the neighbouring earth has become soddened with its foul contents. The builder has literally constructed a house over a cesspool, and has thereby produced, artificially, within four walls, the climate the most congenial for the generation and propagation of fever and disease. A notice was served.

On the 19th April I examined the privies of the two houses called York Cottages, by the "York" public-house, in eastern Rotherhithe. They were both in an offensive state. The tenant of the cottage furthest from the "York" complains that his front room smells so strongly of drainage that he is often unable to live in it. I suspect that a drain runs under the house. A notice was served.

On the 21st April the privy of No. 14, Upper Queen Street, was brought under my notice; it was full, and the liquid portion of the soil filtering through the wall into Fisher's Court, Seven-step Alley. A notice was served.

On the 17th April I visited a privy in Stroud's Cottages, Mariner's Buildings; the soil was overflowing into a neighbouring garden. A notice was served.

On the same day I proceeded to a small row of houses called Castle's Buildings, in Russell Street. They are five in number, and contain about twenty-five inmates. Before the houses is a paved court, and at the end of the court a stand pipe for water-supply. The privies are two in number, in a corner, approached by a narrow passage, and so small that a man a little above the common size must hesitate before he enters, lest he should get immoveably wedged and fixed in the place. From some defect in the drainage, the soil, when the water is flowing, makes its way up the drain, much to

the annoyance of the population of the court. A notice was served.

It being the intention of your Medical Officer and the Inspector to go gradually and methodically through the parish, and to examine, if possible, every dwelling therein (without any regard to persons, whoever they may be), in order that the provisions of the Act of Parliament may be properly and effectually carried out, on 22nd April I went, in company with Mr. Sanders, along the east side of Love Lane. It would be useless for me to take up your valuable time with the details of all the abominations that came under my notice in that short sanitary tour. I shall, therefore, state matters succinctly. At No. 1, (Rix's) the closets were clean and without smell, the only things wanting were a pan and water. At No. 2, (Goodwin's) everything was in perfect order, and the state of the drains stood out in bright contrast with the rest of the row. At Nos. 18, 19, 20, and 21, Love Court, there were two closets with pan and water. At all the other houses, from 3 to 18, the bogs were generally full, and those that were not full were foul and offensive. The drains, too, were all untrapped. Notices were served.

One house, No. 25, on the west side of Love Lane, tenant, Stanley, was also visited. A notice was served.

On the 15th April I directed my attention to a row of houses in Paradise Street, called Spring Court. The houses are of brick, eight in number, and appear substantially built. Six of them are empty, Nos. 5 and 6 only being tenanted. The windows of nearly all are broken, and the woodwork looks as if it had not felt the renovating touch of the painter for a quarter of a century, the whole row presenting to the eye of the observer the appearance of wretchedness and desolation. I entered the inhabited houses, the doors being all open. The privy of No. 5 is full; that of No. 6, nearly so; they are said to communicate with a drain which has become choked up. The drains are untrapped and the water supply insufficient, a butt containing thirty or forty gallons standing between two yards. I recommend this row to the District Inspecting Committee, as it is a disgrace to the owner, and I was about also to say, a disgrace to the parish. On emerging from the houses into the court I remarked a stream of stinking yellow fluid rushing from a neighbouring cow-house and stable into the drain, of which the grating is out of repair. The cow-house and stables are at the back of the house, 8, Paradise Street, occupied by West. I told this man that it would be much more wholesome for the public if he caused his filth to flow under ground instead of above. A notice was served a few days after.

I then passed on to the house, 10, Paradise Street, Carpenter, tenant; he states that soil from the privies in Pasfield's Rents (of which more hereafter) filters through the wall, and runs into his wash-house. A notice was served.

Pasfield's Rents were next inspected. The row consists of seven

houses. The yards at the back are about two feet wide and each yard extends the length of the corresponding building. In this narrow space the builder has managed to stow a privy a few feet from the back door. The privies in two of the houses were crammed to the boards; in all, in a highly disgusting state, and every time the back door is opened a puff of gas is let in. Well one woman might tell me that she lost two children with the cholera during the last epidemic, and that two other persons in the court died of the same complaint; four out of twenty-four, or one-sixth of the whole population of the place. The privies, however, remain in the same state as they were in 1849 and in 1854, exhaling their successive instalments of putrefaction and death, and waiting quietly till some other epidemic comes to more than decimate the inhabitants of the row, unless the merciful hand of this Vestry interfere to prevent such a calamity.

Since my last Report I have often been told that all endeavours to ameliorate the social condition of the poorer classes will turn out a failure; that there is, was, and always will be, in a large community, an under-current of ignorance and filth, vice and barbarism constantly tearing out the vitals of society, which no education can tame, and no sanitary enactments ever cleanse or amend; that our attempts, like those of our predecessors, will not benefit the people, and that we are ploughing a soil which will never bear any crop but thorns and thistles to those who cultivate it. A ready answer to this obsolete reasoning presents itself. Are the better and educated classes to abandon hopelessly to all the horrors of physical uncleanness and moral degradation, men of the same race living by the side of them, and lighted by the same civilization as themselves? Are they to leave the stagnant mass of humanity that grovels in the dark lanes, alleys, and turnings of the metropolis to fester and rankle in its dirt and obscenity? Does not every generous feeling urge us to help them out of the foul atmosphere in which they have till now been allowed to inhale the breath of life? Hitherto, in all attempts to improve the humbler ranks of society, the school has been thought the only place in which education has been acquired; but alas! the education of the school is too soon forgotten in the filth, discomfort, and bad habits of the home. This Vestry does not undertake to teach the people of Rotherhithe to read, write, or cypher, that must be an arduous task indeed, when we see that the Legislature of the country, cannot agree how it is to be done. This Vestry, working in a humbler sphere, merely seeks to improve the habits of the inhabitants. They introduce water into the dwellings to promote cleanliness which has hitherto been impossible to the people, and in the train of cleanliness follow decency, order, and self-respect, and self-respect leads to the respect of others, their persons and their property. They (the Vestry) wish to ventilate and purify the overcrowded habitations, because they believe that men and women ought not to herd together like swine, or like

beasts of the field. They call up the instinct of self-preservation by proclaiming loudly what everybody ought to know, and few really seem to know, that pure air and pure water are necessary to health, and that everything which leads to contaminate either, must generate disease and shorten human life. They try to help that class which cannot help itself, and to raise them to a higher standard in their social relations. School the lower classes of Rotherhithe who may, our efforts shall be to improve their habits; to humanize them and to civilize them.

Mortality of the Month.

The number of deaths from all causes registered during the month of April was forty-three; and although this number is rather greater than usual, I do not consider that the parish at large has been more unhealthy, the death-rate not always being a perfect representative of the number of cases of disease occurring in a locality. Thus, of the forty-three deaths above named, two were from drowning, and one from an accident, leaving a balance of forty deaths from disease, or only one above the number of last month (thirty-nine). About twenty of the deaths took place from disease of the respiratory organs, which always form so large an item in the mortality of this country. There was one from measles, complicated with pneumonia; and five from hooping cough with various complications. The latter disease has raged as an epidemic in Rotherhithe, and with great severity, during the whole winter.

Two deaths from small-pox have been registered; one in a child two years of age, reported as having been vaccinated. None from scarlatina; none from diarrhoea alone.

Three persons above the age of 70 died in April, the oldest being 83, a male inmate of Rotherhithe Workhouse. But there is one fact to which I wish specially to call the attention of this board, viz.:—that twenty of the deaths registered last month occurred among children under 3 years of age, so that our death register of April might be brought forward as proving the assertion of those who have declared that above half of the children born in large towns die before attaining the age of 5 years; and one quarter before completing the first year. Of course no conclusion can be drawn from the limited experience of one month, nor have I sufficient knowledge of the matter to prove the truth of the above-mentioned assertion. It would require correct observations made for many years to establish this doctrine for any particular locality, but certain is it that it has been clearly established in many places, and among others, the City of London, with all its boasted civilization, and with all its scientific resources of preventive and curative medicine. Let us quote the words of its eloquent medical reporter:—“Lest any undue importance should be ascribed to the influence of bad or inappropriate articles of diet in producing this large infant

mortality. I may inform you that the rate of death is highest during that very early period of life when the child depends for nourishment on its mother; so that, of a thousand male children in the first year of life, there die within the district of the City of London Union, two hundred and forty-two; within that of East and West London, two hundred and seventy-six.

"The causes which thus decimate the young population of the City of London, are the common conditions of district unhealthiness; *the conditions which it lies within the scope of sanitary legislation to amend.* But, inasmuch as the few days of these wretched children are passed mainly within doors, so their high mortality constitutes the readiest and least fallacious evidence of the unwholesomeness of the dwellings in which they die; and hence I am acquainted with no correcter material for estimating the sanitary condition of a district than is afforded by the death-rate of its infant population."

To conclude, Gentlemen. From what I daily witness I make bold to state that this Vestry has a herculean task to perform, to abate all the nuisances of Rotherhithe; nuisances which have grown uninterrupted for ages, and have become inveterate customs with many. When, however, we look at what has been done within the last ten years in respect to the covering foul ditches, cleansing the streets, water supply, and other improvements which have been effected by the local authorities, before this present Act of Parliament was ever thought of, have we not a right to hope that our parish (the fag end of the metropolis, as it has been facetiously called,) contains within itself energy and public spirit enough to place itself on a level with other parishes, and effectively to carry out the great sanitary movement which forms a new and remarkable era in the annals of this country.

Yours respectfully,

6th May, 1856.

W. MURDOCH.

FIFTH REPORT.

To the Vestry of the Parish of St. Mary, Rotherhithe.

GENTLEMEN,

Following up the regular and methodical examination of the various houses in Rotherhithe announced in my last report, on the 21st May, I visited, with the Inspector, the west side of Love Lane, from No. 26 to the north-western corner of the street. At No. 26, (G. Bemis, tenant) the drainage has been carried into the new sewer, and everything is in good order with the exception that there is no water supply to the privy. At Nos. 37, 38, and 39, the drains run into the Thames, they are all untrapped, and the privies have pans without proper water supply. Notices have been served.

Passing onwards to Rotherhithe Wall, we omitted the houses occupied by Messrs. Rix, Newham and Clark, they having already been brought under the notice of this Vestry; and proceeded to Nos. 379, 378, 377, 376, and 375, Rotherhithe Wall. In all these dwellings the privies are without water supply. Some of the drains are untrapped, and where they have trapped, the trap is either broken or not used. I could not help remarking in several cases, the absence of a dust bin or ashpit; the consequence of which is, that the dust mixed with the refuse vegetable matter of the house lies strewn about the premises, making a disgusting appearance, offending the nostrils with foul smells, and generating disease. I think that no house ought to be without an ashpit, which should be removed as far as possible from the dwelling, and often emptied. I have called the attention of the Inspector to this point. At No. 374, tenanted by Russell, the privy is placed in a sort of confined out-house, and consists of a cesspool, without pan or water, and the drainage of the sink has literally been carried into the open street; a state of things much to be condemned.

Two houses in King Street, No. 27 and 28, were next visited. The back premises are here much cleaner and in better condition than in any of the former cases, the buildings being comparatively of much more recent date, the water supply appearing to be abundant, and used as it ought to be used, viz., to wash and cleanse the drains. As, however, there are cesspools and no water to the closets, and the drains are merely five-hole sinks and without trap, notices have been served.

One of the parochial medical officers having informed me that there existed at No. 20, Church Street, a nuisance of imperfect drainage, which had occasioned fever and other severe ailments to an elderly couple inhabiting the house, I went there on the 19th May. On entering the front door, I was met by a very strong smell, evidently proceeding from some drain or cesspool. On approaching the wall between Nos. 20 and 19, the stench was intolerable, particularly round the fire-place. At No. 19, the same nuisance existed on the other side of the wall. I am inclined to think that a drain runs near or under the houses. Notices were served.

On the same day I examined the cesspools at 24, Princes Street; and at No. 13, West Lane. In both cases the liquid portion of the soil was overflowing. Notices have been served.

On the 20th May I visited the back yards of Nos. 3 and 4, on the west side of Clarence Street. The drains (if any exist) appear choked up. At No. 3, there was a stagnant pool of water in the middle of the yard, in which aquatic plants (*confervæ*) had been quietly vegetating for some time; the cesspool was nearly full. At No. 4, the state was still worse, the liquid portion of the privy contents covered nearly the whole of the place, so that the inmates of the house had been obliged to put down boards to pass from one part

of the yard to the other. It was one of the worst cases of the kind that I had witnessed. Notices were served.

On the 21st May, I went to Nos. 4 and 5 on the east side of Clarence Street. The privies were full, and very near the dwellings, the yards being small; there was neither drainage, ashpit, nor water supply; in a word, the houses were wanting (as half the houses in Rotherhithe are) in every appliance necessary for cleanliness, comfort, decency and health. Notices were served.

On the 22nd May I went, on the invitation of the Inspector, Mr. Sanders, to a dilapidated house, No. 2, Victoria Place, Deptford Lower Road. Here again, there was neither drainage, ashpit, or water supply; the cesspool was disgustingly full, and the whole place miserably out of repair. A notice was served.

At No. 15, Lavender Lane, to which my attention had been directed on 23rd May, I found the privy emitting foul effluvia, and without pan or water. A notice has been served.

Mortality of the Month.

The absolute number of deaths from all causes registered in Rotherhithe during the month just elapsed, was forty-nine,—the largest yet registered for the same period of time since I have addressed monthly Reports to this Vestry.

Four deaths however, must be deducted from the above number of forty-nine. One, of a male child, aged two years, from burns, occasioned by his clothes accidentally taking fire—one, of a man not belonging to this parish, who committed suicide by cutting his throat in Rotherhithe—and two, of persons found in the Thames, leaving forty-five deaths from disease. Of these five were above the age of 70: the oldest a male, aged 89: and twenty-three, or more than half, were children under 5 years of age, another proof of the fact advanced in my last Report, that in large cities one half of the individuals born die before the completion of the fifth year. Two females have died in childbed, and one, aged 42, suddenly, from a fit of apoplexy. The hooping cough still continues its ravages, six deaths from it having been registered; one from typhoid fever, one from scarlatina, and one from small pox. There has been no death from measles, although the disease is at present very prevalent in the neighbourhood, but all the cases have hitherto assumed a mild form.

Yours respectfully,

WILLIAM MURDOCH.

June, 1856.

SIXTH REPORT.

To the Vestry of the Parish of St. Mary, Rotherhithe.

GENTLEMEN,

Having received a message from the Vestry Clerk, Mr. Hawks, again to examine the row of wooden tenements in Kenning's Buildings, I went there on the 5th June. Since my previous visit to the place in March, the condition of these hovels has become more ruinous, only three of them being now tenanted. The roof of No. 1 has sunk considerably below the level of the rest, many of the tiles are loose, the door frames of the empty houses broken and falling, the privies still more dilapidated, and the weather being hotter, the exhalations from the uncovered cesspools more volatile and more offensive.

On the 5th June, the houses 29 and 30, Lower Queen Street, on the 13th, the house, 133, Rotherhithe Street, on the 17th, the public house called the "Horns," in Rotherhithe Street, and on the 18th the house, 6, Albert Place, Union Road, were respectively brought under my notice. In every one of these cases the cesspools were full, in some overflowing, and the drainage imperfect. Notices were served.

A licensed maltster has established himself in Clark's Orchard. From a low chimney on his premises volumes of smoke occasionally issue, which are a serious source of annoyance to the inhabitants of the west side of Princes Street, soiling the clothes hung out to dry, spoiling the curtains and furniture of the back rooms, and producing other serious inconveniences. Nor is the smoke the only grievance; there accompanies it a disagreeable smell, which pervades the whole district, and which has been noticed as far as Church Stairs. I have thought it necessary to report this matter to the Vestry.

Mr. Sanders, the Inspector, penetrated, not without some difficulty, into the premises, in Clark's Orchard, and warned the occupiers of the consequences of causing such a nuisance as that complained of. During the last ten days, I have been told by the inhabitants of Princes Street, that it has ceased.

In furtherance of the plan expressed in one of my previous Reports of making a methodical examination of all the houses in Rotherhithe, to carry out as far as possible the provisions of the Act of Parliament, on the 12th and on the 16th of June I visited Spread Eagle Court and four of the houses adjacent to it, namely Nos. 45, 46, 47, and 48, Church Street. Every house was individually and minutely examined, and notes on its state recorded in the Inspector's book.

I will not take up your valuable time by describing to you all the filthy details seen by us, suffice it to say, that almost all the houses were overcrowded with inmates, dilapidated, and swarming with myriads of bugs. Many of the inhabitants complained that the quantity

of water forced on by the Company was not sufficient, and certainly the receptacles for it were not generally large enough, and often dirty and leaky. Half the supply-pipes were broken, the upper or tee piece having been taken off, so that the water is collected in the most inconvenient manner while welling or gushing up from a perpendicular pipe.

The drainage has been originally good, but is everywhere choked up. There is scarcely a privy fit for use. In some the seats are broken, some have no sides, many no fastenings, others no doors, and all are full, one or two being literally packed up to the boards of the seat with hard solid matter. Not a house had an ashpit, the vegetable and animal refuse being strewn about the yards, and mixing their effluvia with those from the overflowing cesspools. I shall not speak much of the wretched condition of the inhabitants, for sober truth might appear like satire. Much of their misery may be undoubtedly attributed to poverty, more to improvident and intemperate habits, and most of all to the want of proper intellectual and moral training in the early period of life. It is not to be wondered that when epidemics make their appearance, they commit fearful ravages in such places, it is more surprising that such localities are ever free from epidemic disease at all. I beg particularly to call the attention of the Visiting Committee to Spread Eagle Court.

On the 6th June, I went to view the mill stream, that I might report upon it at this meeting; and to the best of my belief, I tracked out the maze of its numerous and complicated ramifications. The first fact that strikes the observer, is that time is slowly effecting what many urge that the hand of man ought at once to do, namely, filling up the mill stream. The whole stream in all its divisions and subdivisions, is becoming gradually shallower, partly from the deposit of the solid part of the sewage of the houses which drain into it, and partly from the settlement of the Thames water when allowed to stagnate therein for some hours. The mill pond receives the drainage and sewage of nearly all the east side of West Lane, and of all the west side of Gillam's Court, besides that of the cottages on the Seven Islands, which are not of recent erection. By recent erection, I mean those that have not been constructed within the last twenty years. Some of the privies of the dwellings in Slipper's Row of more modern date, also discharge themselves into the stream. The filthiest part of the mill stream appears to be the smaller or eastern channel (running parallel to the main) where every species of garbage accumulates, from the set of the inflowing tide. The lesser or cross ditches uniting the two channels are also disgustingly foul, there existing a hillock or elevation on the mud at the site of every privy. One of the worst ramifications is that one terminating by a dead head about the middle of the south side of Slipper's Place, which, notwithstanding that it was cast about nine months ago, presents to the eye such a mass of green slime and putrescence as is rarely to be met with.

So great an extent of exposed mud must be injurious to human health. Persons residing near the north end of the pond, where it flows among the houses of a crowded population, complain of a nauseous stench exhaled during the summer months, when the tide is out, and sometimes for a fortnight together the mud will not be all covered. Round Jamaica Level the nuisance is not so great, because the miasmata are emitted into open space, largely diluted, and probably modified or decomposed by the active vegetation of the surrounding gardens. Here, too, the cottages of the inhabitants are far apart, and few in number.

The most common form of complaint connected with the mud of the mill-pond is ague, in all its varieties, intermittent neuralgia, and other diseases of that type; a few cases of which are occasionally seen along the line of the stream, from Cork's gate to its discharge into the river, and also among the cross branches.

As long as the mill-stream continues in its present state, I would venture to suggest that as much water as possible be kept in it, from the simple reason that evaporation from stagnant water cannot be so deleterious to health as the effluvia from mud baking in the sun, and all reeking with organic decomposition.

On the 17th June I went over Mr. Bonnor's Patent Manure Manufactory, at Bull-head Dock. I was accompanied by the principal and the foreman. Mr. Bonnor's process is as follows:—

One hundred weight of bone, imported from Buenos Ayres, and previously to being shipped totally deprived of animal matter by calcination; one hundred weight of animal charcoal; one hundred weight of powdered coprolite; one hundred weight and a half of gypsum (sulphate of lime); one hundred weight and a quarter of strong sulphuric acid, and three pails of water are first well mixed together in an octagonal wooden vessel. The result of the mixture is, that the whole mass is speedily converted into a blackish coarse powder. The object of the addition of sulphuric acid being to transform the insoluble superphosphate of lime of the bone and coprolite into soluble phosphate. During the mixture a slight smell of sulphuretted gases is given off. The powder is then sifted and thrown into heaps, which heaps are directly sprinkled over with common salt (chloride of sodium). By the contact of the salt with the acid mass a chemical action takes place; free chlorine gas is given off and acts as a deodorizer. The result of this last stage of the manufacture is, that there is very little smell in the factory itself, and none whatever in the neighbouring street. In the first part of the process, also, the use of calcined bones, deprived entirely of animal matter, is a great improvement, as the foul stench exhaled in most of the Patent Manure Factories arises from the action of the acid upon the putrid organic substances in the bones. Mr. Bonnor's factory forms a contrast with many others, inasmuch that it proves that patent manure can be made almost inodorously. No smell whatever, as I said before, being perceived outside of

the precincts of the factory. A man has certainly a right to breathe what gases he pleases within his own walls; but not to poison the general atmosphere, which is the common property of all men.

Mortality of the Month.

The absolute number of deaths from all causes registered during the month just elapsed, is thirty-four, and if we deduct from this number two deaths from drowning, one from accident, two from congenital debility, or inborn inability to live, and two others upon which inquests were held, the subjects of both these inquests having been found dead in bed, it reduces the mortality to twenty-seven, the lowest monthly death rate hitherto recorded by me. Only one person above the age of 70 died, a female of 80, from age and decay. Our register bearing out a statement made by me in a previous Report, viz.: that the number of deaths among the aged increases with the fall, and decreases with the rise of the temperature, and is consequently greater in winter than in summer.

Of the thirty-four deaths, nineteen are of children under five years. Two have occurred from measles, and one from typhus fever; the former malady, measles, having been and still continuing rather prevalent in Rotherhithe.

During the last three months, April, May, and June, death has carried off one hundred and twenty-six persons.

There have been on the other side of the account two hundred and eight births; one hundred and sixteen males, and ninety-two females.

According to the statement of the Registrar, Mr. Pitt, made to me verbally this morning, Rotherhithe has been during the last twelve months one of the healthiest, if not the healthiest, parishes in the metropolis; and for many years it has not been so free from epidemic diseases as at this present time, a condition of things which it is to be hoped that the exertions of this Vestry and its officers will tend to conserve and consolidate.

Yours respectfully,

1st July, 1856.

W. MURDOCH.

SEVENTH REPORT.

To the Vestry of the Parish of St. Mary, Rotherhithe.

GENTLEMEN,

My attention having been called to the state of the Kings Mill Stream, at the part where, after traversing the China Hall Fields in a south-westerly direction, it turns abruptly to the north-west, running parallel to the Deptford Lower Road, at the back of Mr. Miskin's and other premises, I proceeded thither in company with

the latter gentleman on the 11th of July. The mud of the pond was bare and dry, and had evidently not been covered with water for some days. A slight stench was perceptible, which according to Mr. Miskin's statement is smelt with certain winds as far as the Deptford Lower Road. A notice was served on the Surrey Canal Dock Company, since which the nuisance has been much abated, by allowing the water of the Thames to enter freely, and cover the bed of the stream.

On the 19th of July, I went to a ditch at the back of Clare Hall Cottages. This ditch receives the drainage of the greater part of Clare Hall Place, and of Clare Hall Cottages, as the open mouths of numerous drain pipes in its course attest. It is in a filthy condition, and appears not to have been flushed for some time, and in its present state is undoubtedly injurious to the health of the inhabitants of the neighbouring dwellings. I would venture to suggest that the ditch be first cleansed, and afterwards that a supply of water be obtained if possible to flush it regularly until some other mode of drainage be practicable.

I must also recommend to your notice the ditch on the Rotherhithe, or east side of Manor Road, and generally known as Hunt's Ditch. It seems from its present unclean state to want more frequent flushing than it receives. The water in it at my visit being exceedingly foul and putrescent. There are, however, but few dwellings in the vicinity of Hunt's Ditch.

On the same day, 19th July, I inspected a block of houses on the north side of the Plough Bridge, called Lion's Place. No. 1, a beershop, is the only house with water supply. The inmates of the other tenements having to fetch all water used by them from the Surrey canal. Every house has drainage except No. 9. The cesspools of all are dirty and dilapidated. The drains are all untrapped, and there are no ashpits. I must remark here that the humbler classes fully appreciate the advantage of an abundant water supply to their dwellings, and I often hear grateful mention of this Vestry for the benefit conferred.

Complaint having been made to me by Messrs. J. and J. Weeks, linen drapers, of a fetid smell arising at times from the shore of the river opposite their establishment in Rotherhithe Street, I examined the place on the 9th of July, and on many other occasions to investigate the cause of it. The facts of the case are as follows:—About forty feet eastward from the platform, and about fifty feet westward from Rotherhithe Stairs, and at about fifteen or eighteen inches from the shore, in the planking or woodwork forming the inner lining of the embankment of the Thames at this spot, there is a small square opening, the outlet of the drainage of three houses in Love Lane, 37, 38, 39, and of two or more houses in Rotherhithe Street, Nos. 388, 389, and 390, adjacent to Messrs. Weeks.

It happens occasionally the tide in the river being down, and the shore uncovered, that the water supply from the Company over-

flows the butts in the yards of the houses above named, and that the washing of the drains spreads itself over the shore, and causes the effluvium complained of. If the Vestry think this matter worthy of their notice, the remedy of this nuisance is obvious, namely, either to carry a pipe from the outlet of the drains to below the level of low-water mark, or better still, to cause the houses to be drained into the sewer.

On the 28th July, at the request of the relieving officer, Mr. Bayley, I went to a house in Searn's Alley (No. 1), I found a lying-in woman in the lower room, who declared to me that the upper part of the house was not tenanted. The room itself was dirty and out of repair, the back yard in a miserable condition, and the drainage imperfect. I observed there a state of things which I much deprecate, and to which I wish to call the attention of the Visiting Committees of this Vestry. The same existing in many other houses.

The privy has a pan and communicates with the sewer. At the upper part of the pan there is an opening through which the end of a pipe passes. The pipe communicates with the upper part of a neighbouring water-butt, so that when the water is on, all the waste fluid, there being no ball cock, runs down the pipe and washes the privy.

I object much to this arrangement on the following grounds.

1st. Because the washing is intermittent, and takes place only three times a week, or at most once daily, whereas the washing and cleansing should follow whenever the closet is used.

2nd. Because there is useless waste of water which runs during the whole time of supply; waste of water in a parish where many are exclaiming that they cannot obtain a sufficient quantity for their daily consumption; and

3rd. Because in many cases, as in the case referred to above, the waste pipe with a bore of three quarters of an inch, being short (not above six or seven feet in length) allows the sulphuretted and ammoniacal gases to ascend from the soil, to hover over the surface of the fluid in the butt, to be dissolved by it, and impart to it a distinct taste of drainage, unpleasant and unwholesome to those who use it.

On the 21st of July, I entered with the Inspector, Mr. Sanders, the premises of Mr. Hurst, Patent Manure Manufacturer. The stench exhaled from his establishment having been a constant source of annoyance to the inmates of the houses near it. The process of fabrication was not going on when I entered. I shall not again describe to you the making of patent manure, which has already been twice treated upon in my previous Reports. Suffice it to say, that the cause of Mr. Hurst's factory being more odoriferous than those of many of his neighbours, is, that he uses leather and uncalcined bone. I picked up several pieces of bone from the sweepings of the factory, the rib of an ox in the raw state, and the trotter of a calf with hoof and hair, just as it had been cut from the dead

animal. I believe there are no greater nuisances in Rotherhithe than some of these patent manure factories, and that the lower or eastern part of the parish will never enjoy a pure atmosphere so long as persons are allowed to carry on there with impunity the *stinking* and *poisonous* process of making patent manure.

Mortality of the Month.

The absolute number of deaths from all causes registered during the month of July was forty-five; and deducting from that number five cases of death from drowning, there remains a mortality of forty, about three above the monthly average. But as I have before stated, the death rate is not an exact representation of the health of the place, for from the concurrent testimony of the medical practitioners of this parish I have been led to the pleasing conclusion that for many years, Rotherhithe, notwithstanding the great heat of the weather, has not been so free from disease as during the last two months. The only epidemic malady prevalent appears to have been measles, from which six deaths have been registered.

Yours respectfully,

August, 1856.

W. MURDOCH.

EIGHTH REPORT.

To the Vestry of the Parish of St. Mary, Rotherhithe.

GENTLEMEN,

In bringing before you the various nuisances, which, during the just elapsed month, have been examined by myself, I shall try to be brief, as necessarily the subject matter of my Reports being always nearly the same, admits but of little variety of detail.

At No. 58, Lower Queen Street; at No. 2, Six Houses, Trinity Street; at Nos. 165 and 166, Rotherhithe Street, with the two adjoining houses in Chapel Court; at No 18, Crystal Terrace: at No. 2, Goldsworthy Place; at No. 39, Clarence Street, east side; at Nos. 1, 2, 3 and 4, Cross Street, King Street, the nuisances complained of were filthy cesspools and imperfect drainage.

At No. 145, Rotherhithe Street, and at the "Battle of the Nile," Upper York Street, the drains were stopped; in the latter case causing a leakage into the cellar injurious to the health of the inmates.

In Leopard's Court, from the stoppage of the drain, an overflow of water had taken place, exhaling a putrid smell. The place was revisited by me on the 28th August, and the evil appeared to be remedied.

At 395, Rotherhithe Street, a blacksmith's shop, I found a state of things much to be condemned. At the south-east corner of the house, on the ground floor, there stands a privy connected with a

neighbouring cesspool. The floor of this privy was reeking with overflowing soil at the time of my visit. From the upper part of the house descends an iron pipe which discharges itself into the cesspool and conveys there all the drainage from the upper rooms, where the inhabitants reside; the lower part, as I stated before, being a blacksmith's shop. The whole house is built over the privy and cesspool, smells fearfully in hot weather, and the men in the shop declare that they are often ill with sickness and headache from the stench. I have no hesitation in saying that such a dwelling is at all times unhealthy, and in times of epidemic likely to become a hot-bed of disease.

One of the parish Medical Officers, Mr. Nickels, having attended a case of typhus, and also one of severe sporadic cholera, in Napier's Place, Plough Road, called upon me to request that I would report to this board a filthy nuisance existing near that row of houses, and to which he attributed the diseases above mentioned.

Napier's Place consists of eight newly built dwellings, on the left or northern side, as we ascend the Plough Road towards the Plough Bridge, from the Deptford Road, their front being turned eastwards, towards the Surrey Canal. The original owner and builder of the houses drained them in the following manner:—

He carried a brick drain, about eighteen inches in diameter, through the middle of the back yards, to a large cesspool placed at some distance from the northernmost house, or one of the furthest removed from the Plough Road. Over this drain he located the privies, two by two, at equal distances. The property, however, passed into other hands, when, I presume, the drainage became stopped from the filling of the cesspool. Anyone would imagine that the shortest way of restoring the drainage would have been to empty the cesspool; but the new landlord hit on a readier and cheaper expedient. At the back of the row, and a few feet from the palings fencing in the yards is a sandpit, which had been excavated while the houses were being built, for the sand that it supplied. Now, the landlord, instead of emptying the cesspool, tapped the brick drain near the last house, inserted a pipe into it, and carried his drainage into the open sandpit on another man's land. These statements were made to me by the builder and original owner. The pit, now full of decomposing sewage, emits a smell which, in hot weather, may be perceived at some distance down the Plough Road, and of which the inhabitants of Napier's Place complain bitterly. I consider that the sandpit ought immediately to be filled up and the present owner forced to carry his drainage elsewhere. A well thirty feet deep had been sunk by the builder near the palings at the back of the houses to supply them with water. The water, which was originally extremely pure, has become, from the filtration of the liquid portion of the sewage through the earth, as fetid as the contents of the sandpit. The mouth of this well, an opening two feet square, now without

fence or covering, is dangerous to children generally, and to wayfarers during the night, and calls for immediate interference.

Sickness and Mortality.

The absolute number of deaths registered during the last month was forty-nine, of which twenty-eight, or four-sevenths were of children under five years. Deducting from the forty-nine, five deaths from accident, and two from congenital disease, there remains a mortality of forty-two persons. The oldest person registered was a male, aged 90. There have been three deaths from scarlatina and one from measles. The most prevalent complaint, however, during the last month was diarrhœa. It is a remarkable fact that there prevailed but little diarrhœa during the hot weather at the beginning of the month; but about the middle, when the rain came and the temperature rapidly fell, the disease became almost general.

Thus, the mean temperature of the week ending the 16th August was about 67; but it descended during the week ending the 23rd August to 57-8, making a difference of nearly ten degrees, and I believe that diarrhœa reigned more severely during that week (ending 23rd August) than it ever did before during the month, or has done since. Of course I speak of Rotherhithe only. Considering the number of individuals attacked, but few cases terminated fatally; eight deaths from diarrhœa having been recorded, all of them children under one year old, except that of the nonogenarian above mentioned.

A death from cholera infantum occurred in a child, in Chilton Street, No. 9, near the "black ditch," and I have appended to this Report the certificate of the medical gentleman who attended the patient, that a remark at the end of the certificate may be read to this Vestry. I must express to you, Gentlemen, that cholera infantum was a disease known to the profession of this country, and described in medical works long before epidemic or Asiatic cholera made its appearance in the year 1832, and from my own personal observation, and from diligent inquiries made, I make bold to assert here, with full consciousness of my official responsibility, that there has not been in Rotherhithe during the summer months up to this day, a single case resembling Asiatic cholera.

2nd September, 1856.

Yours respectfully,

W. MURDOCH.

A COPY OF THE CERTIFICATE REFERRED TO IN REPORT.

"To the Registrar of the Sub-district in which the death took place.

"I hereby Certify, that I attended James Joseph Humphreys, aged ten months last birthday; that I last saw him on August 10th,

1856, that he died on August 10th, at 9, Chilton Street, and that the cause of his death was—

	Cause of Death.	Duration—Diseases	
(a) First.	Cholera Infantum.	2 days.	<i>Signed, J. J. CREGEEN,</i>
			<i>Prof. Title, M.D.</i>
(b) Second.			<i>Address, Rotherhithe.</i>

“The stygian ditch to which I have had too frequently to refer before, adjoins the garden at the back of this house. It is certainly a disgrace to any country, however poor, then how much more to a wealthy one like ours!”

NINTH REPORT.

To the Vestry of the Parish of Saint Mary, Rotherhithe.

GENTLEMEN,

THE time that I have spent in your service during the just elapsed month, has been nearly wholly employed in visiting the various slaughter-houses in this parish. I have personally inspected them all, and have appended to this report a supplementary document containing my remarks upon them individually at the time of my examination, several being in sufficiently good order have been at once recommended to the favourable consideration of this Vestry; others may be easily put into such a state as to merit it, and a few I consider as quite unfit for the purpose for which they have hitherto been used, as they cannot be made to comply with the regulations delivered to me by your order.

My own opinion is, that the slaughtering of cattle in a city is always a nuisance, and ought only to be allowed under the most rigid surveillance of the officers of the various Vestries.

In carrying out these unpleasant duties, my mind naturally reverted to the splendid *Abattoirs* of certain cities of the Continent, generally far removed from all dwellings. I compared their lofty, well-lighted and well-ventilated domes, their free drainage and abundant water supply, with the dark, dirty sheds, outhouses, back yards and washhouses used in Rotherhithe and other parts of London for slaughtering cattle, and I ventured to hope that the day was not far distant, when some of the remote suburbs of London might become the place of such useful establishments.

Sickness and Mortality of the Month.

The absolute number of deaths registered during the month of September was thirty-seven—exactly the average number—of these, twenty-four, or two-thirds were of children under 3 years of age, a state of things to which I have often before called the attention of this Vestry.

Scarlatina and measles have been both prevalent, two deaths from the former and one from the latter having been registered. The most prevalent disease, however, has been diarrhœa, which has carried off seven persons, six children under 2 years, and a woman aged 79.

The parish has been entirely free from small pox, nor has there been a solitary case of epidemic cholera. The number of cases of sickness has certainly during the month been considerably under the general average at this season of the year.

At this present moment I consider the parish healthy. During the last three months the number of deaths have been one hundred and thirty-two, viz, sixty-five males and sixty-seven females, and the number of births one hundred and ninety-nine, namely, ninety-four males and one hundred and four females, sixty-seven more births than deaths.

Nuisances.—Nuisances from full cesspools and imperfect drainage having been complained of at 47, Paradise Street, 13, Love Lane, and No. 2, Frederick Place, Cobourg Lane, these places were respectively visited by me and notices served.

Yours obediently,

October 7th, 1856.

W. MURDOCH.

SUPPLEMENTAL REPORT AS TO SLAUGHTER-HOUSES IN THE PARISH.

On the 4th September, 1856, I visited Record's slaughter-house, in Lower Queen Street, a sort of out-house at the back of his dwelling. A space of above ten feet existing between them; drainage in good order and trapped; good implements, abundant water supply, place lofty, well ventilated, without smell and clean, neighbourhood populous but not crowded, the only thing wanting is the receptacle for refuse, which Mr. R. is about constructing. Recommended.

On the 9th I went to Brackenbury's slaughter-house, in Seven-Step Alley; it was undergoing repair; I in consequence revisited it on the 26th; no dwelling house near it, drainage in good order and trapped, implements and water supply good, an excellent receptacle in brick with a cover. Recommended.

On the same day I inspected Poulton's slaughter-house in Paradise Street. It is a sort of stone floored-wash-house, at the back of his dwelling under the same roof and forming part of it, consequently

there is *no space* between it and the dwelling ; no receptacle ; drainage, tackle, and water supply right ; the whole place is without smell, and remarkably clean ; there is a wood-yard at the back ; the neighbourhood is populous, but not crowded.

On the same day I went to Eames's slaughter-house, Rotherhithe Wall. Drainage good, untrapped then, but trapped on my second visit, 26th September ; ample space between the house and the slaughter-house ; this space is covered, but the roof is exceedingly high, (the building having been a warehouse formerly) tackle and water supply right ; a large covered tub for a receptacle, which I thought too small, but may do as sheep only are slaughtered here ; place clean and without smell ; neighbourhood populous, but not crowded. Recommended.

On the same day I called in at Hetherington's slaughter-house, at the corner of Manor Lane, evidently fitted up for a stable, and not for slaughtering cattle. I could see no apparatus ; good drainage, but not in order ; no water supply ; no receptacle ; the situation of the shed is good, because it is not near any houses ; everything else is out of order.

I passed on to Seare's slaughter-house, a building in a small turning at the back of Crystal Terrace ; good drainage, but not in order ; good apparatus ; no water supply ; no receptacle ; situation good ; being removed from the houses.

10th September.—Cresswell, in Seven-step Alley. Slaughter-house a detached building ; stone flooring ; clean and well ventilated ; abundant water supply in the yard adjoining ; a tidal well and good drainage in the slaughter-house itself ; good apparatus, and receptacle ; no dwelling within ten feet of it ; the fittest building for slaughtering cattle yet visited by me. Recommended.

11th September.—Knapps, in Russell Street. A shed ten or twelve feet from the house ; *the space between the two, roofed and covered* ; water supply close to the door of, but not in the slaughter-house ; good drainage ; not trapped ; no receptacle ; good apparatus, neighbourhood populous.

Same day.—Mrs. Saul, Plough Road. No slaughter-house at all, merely a part of the yard covered in with a wooden roof, about ten or twelve feet from the ground. A journeyman butcher was in the act of killing sheep when I entered ; no drainage ; water supply ; neighbourhood not crowded ; recommended to build a slaughter-house at the bottom of the garden.

On the 16th September I examined Mr. Kilsby's premises, Bedford Place, Deptford Lower Road. Slaughter-house a large shed at the back of the house, above ten feet clear of the dwelling. No drainage ; no water supply inside the slaughter-house, but in the yard close at hand ; good tackle ; slaughters only sheep ; small receptacle or well, about eighteen inches in diameter and two feet deep, for garbage. The situation is good if everything were in order.

Same day.—Smith, Albion Street. No slaughter-house at all,

kills in the yard; good tackle and water supply; drain untrapped; populous neighbourhood; place quite unfit for the purpose for which it is used.

I left Adams's, Lower York Street, and Gray's, Lower Queen Street, unvisited, as neither of these persons had given notice to the Vestry.

W. MURDOCH.

French, Medway Place. A building at the back of same. Excellent situation, because removed from the houses; no water supply; no receptacle for garbage; good drainage, untrapped.

W. MURDOCH.

Onion's Slaughter-house. At some distance from the house at the back, above ten feet, paved; good water supply; well ventilated; receptacle good; drainage good, trapped. In good order. Neighbourhood populous, but not crowded. Recommended.

W. MURDOCH.

Smith and Saul. Both in good order, and recommended.

W. MURDOCH.

TENTH REPORT.

To the Vestry of the Parish of St. Mary, Rotherhithe.

GENTLEMEN,

The inmates of the house, 137, Rotherhithe Street, and of the houses adjoining, having made frequent complaints about the offensive effluvia exhaled from the factory at Sunderland Wharf, on the opposite side of the way, I entered the premises on the 10th October last, and found that the filthy smell was occasioned by the boiling of linseed oil in a copper placed at the northern part of the yard. A nauseous vapour pervaded the whole place and could be smelt for a considerable distance along Rotherhithe Street. I told the foreman that the practice must be discontinued, and I have reason to believe that no linseed oil has since been boiled on the premises. An elderly couple residing at 137, Rotherhithe Street have much suffered in health from the stench emitted at Sunderland Wharf.

On the 17th October I visited No. 2, Paxton's Alley, in consequence of the inconvenience arising from the stoppage of a drain connected with the watercloset. The drain had been cleared before my visit; but the pan of the closet was without water supply.

Notices have been served at No. 31, Lower Queen Street, and at 39 and 40, Church Street, on account of the foul state of the cesspools and the imperfection of the drainage at each of those places respectively.

Sickness and Mortality.

The number of deaths registered during the past month was