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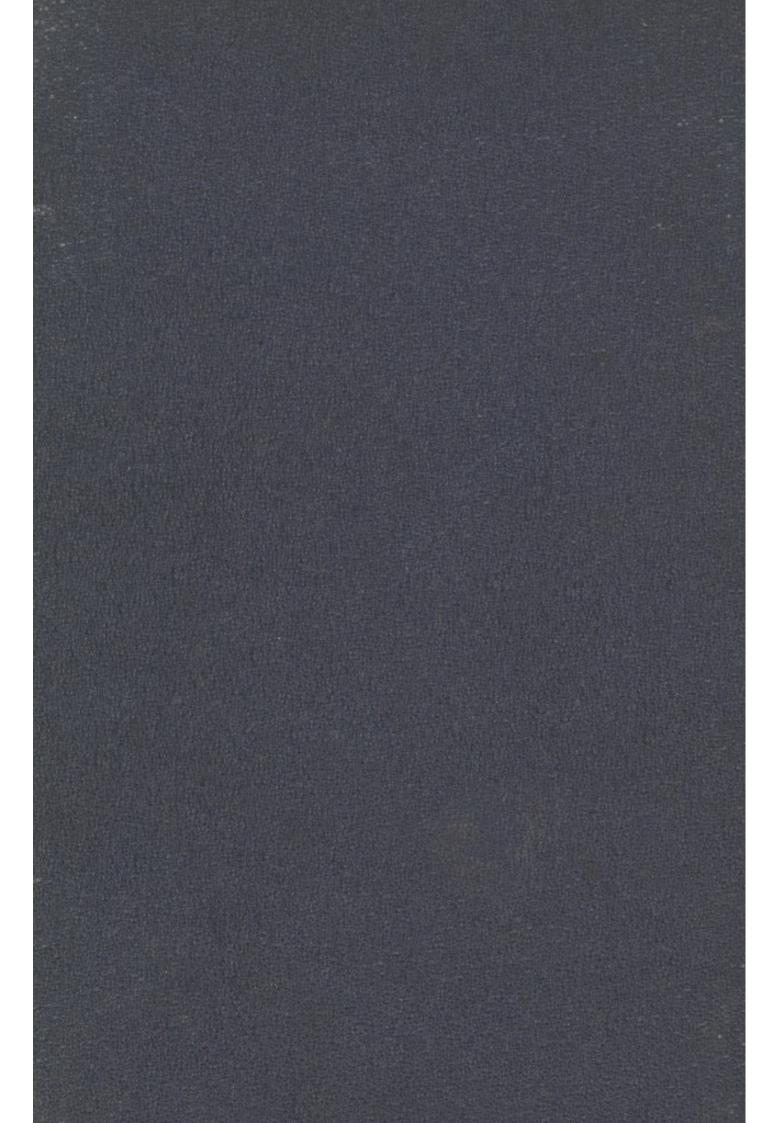
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BOARD OF WORKS,

WHITECHAPEL DISTRICT.

REPORT

ON THE

Sanitary Condition

OF THE

WHITE ECHAPEL DISTRICT,

FOR THE

R ENDING, 4TH APRIL, 1874,

BY JOHN LIDDLE,

MEDICAL OFFICER OF HEALTH.

Mondon:

PRINTED BY WATSON BROTHERS, 31, MINORIES, E. 1874.

May

BOARD OF WORKS

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REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

FOR THE

Quarter ending, 4th April, 1874,

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TO THE BOARD OF WORKS, WHITECHAPEL DISTRICT.

GENTLEMEN,

In the Quarter that ended on Saturday, April 4th, 1874, the births registered in the Whitechapel District were 635; viz., 347 males and 288 females. During the same period the deaths have been 643: of these, 372 have been of males, and 271 of females. In the corresponding Quarter of the previous year the births were 720, and the deaths 628. There has been, therefore, a decrease of 85 in the number of births, and an increase of 15 in the number of deaths. During the last two Quarters the deaths have exceeded the births.

The deaths in the London Hospital have been 164; viz., 108 males and 56 females. Of the total deaths in this institution there were 17 of persons resident within the District, 106 non-residents, and 41 of persons who died either suddenly, or from the result of accident. The total mortality of this District is increased by the deaths of residents within the District which have occurred in other hospitals in the Metropolis; but of those I have no record. There were two deaths from Typhoid fever in the London Hospital during this Quarter both of non-residents.

Four deaths from Pyæmia, and 2 from Erysipelas occurred in this institution during this Quarter.

The deaths in the Workhouse have been 113; viz., 63 males and 50 females.

The deaths from epidemic diseases in the entire District have been 56; viz., 21 from measles, 13 from scarlet-fever, 3 from diphtheria, 9 from hooping-cough, 1 from diarrhæa, and 9 from fever. Three deaths of patients from this District occurred in the Fever Hospital; thus making a total of 12 deaths from fever; but from these there must be deducted 2 deaths of non-residents which occurred in the London Hospital, thus reducing the total number of deaths from fever to 10. There were 5 deaths from erysipelas, one of which occurred in a child 13 days old, after the operation of circumcision, 12 from croup, 3 from puerperal fever, 5 from pyæmia, 1 from ague, 1 from cynanche tonsillaris, and 1 from mumps.

The deaths caused by diseases of the respiratory organs, exclusive of consumption, have been 139; of these, 81 were caused by bronchitis, 53 by pneumonia, 4 by asthma, and 1 by cedema of the glottis.

Consumption was fatal to 64 persons. The deaths from other tubercular diseases were 36; viz., 20 from mesenteric disease, 6 from tubercular meningitis, 9 from hydrocephalus, and 1 from scrofula. In the corresponding quarter of the previous year the deaths from consumption were 77, and from other tubercular diseases 33.

Diseases of the organs of circulation were fatal to 38 persons; of these, 32 died from disease of the heart, 1 from aneurism, and 5 from pericarditis.

Diathetic or constitutional diseases were fatal to 42 persons; of these 6 died from dropsy, 23 from cancer, 5 from mortification, 1 from tumour, 5 from abscess, and 1 (a child) from noma or sloughing, and 1 from ulcer.

Diseases of the nervous system, exclusive of convulsions in children, were fatal to 60 persons. A child died from parasitic disease, viz., thrush.

Convulsions caused the death of 28 children. In the corresponding quarter of last year the deaths by convulsions were 18.

The deaths from diseases of the digestive organs were 12; viz; 1 from perforation of the stomach, causing acute peritonitis, 3 from ascites, 3 from enteritis, 3 from hernia, and 2 from disease of the liver.

The deaths from diseases of the urinary organs were 19; of these, 18 were caused by nephria or Bright's disease, and 1 by disease of the bladder.

During the corresponding quarter of the previous year the deaths from these causes were 17.

Enthetic diseases were fatal to 6 persons; of these, 2 died from congenital syphilis, 2 from syphilis (adults) and two from stricture of the urethra.

There was one death from spinal disease, 4 from disease of the bones, and one from disease of the joints.

There were 3 deaths from premature birth, 11 from teething, and one from malformation (spina bifida).

There was one death from elephantiasis.

Two children died from want of breast-milk, 2 adults died from privation, 1 from purpura, and 1 from lead poisoning.

Ten persons died of old age; of these, 6 were above 80 years of age, one of whom had reached the advanced age of 96, one person died of premature decay at the age of 63.

The deaths from atrophy and debility were 10, while in the corresponding quarter of last year there were 21.

There were 31 deaths from mechanical violence; of these, 3 were caused by horses and vehicles in the streets.

Sixteen persons died from the effect of burns.

The deaths from mechanical violence and from burns were for the corresponding quarter of last year, 41 and 9 respectively.

A child, aged 2 years, died of homorrhage from the lungs caused by drinking boiling water from the spout of a tea kettle.

One person was drowned. Two children were suffocated in bed.

In the corresponding quarter of last year 4 children were suffocated in bed.

Two deaths are recorded by manslaughter

The number of inquests has been 78. In the corresponding quarter of last year the number was 96.

UNCERTIFIED DEATHS.

The deaths which have not been certified by a medical practitioner have been 13; of these, 10 are recorded in the Spitalfields sub-district.

MORTALITY OF YOUNG CHILDREN.

The mortality of children under five years of age was \$17. This is 33.7 per cent. of the total mortality. In the corresponding quarter of the previous year the rate of mortality of children under five was 27.0 per cent. of the total mortality. In the Artillery sub-district, the rate is 46.6 per cent.; in the Spitalfields, 61.0 per cent.; in the Mile End New Town, 25.2 per cent.; in the Whitechapel North, 57.1 per cent.; in the Whitechapel Church, 12.2 per cent.; in the Goodman's Fields, 47.3 per cent.; and in the Aldgate, 39.6 per cent.

PAUPER ILLNESS IN THE DISTRICT.

The Medical Officers of the Union have attended, during the quarter, 1,062 new cases of illness out of the Workhouse; including 39 of measles, 9 of scarlet-fever, 9 of hooping-cough, 13 of diarrhea, 48 of febricula, 15 of fever, and 5 of erysipelas. In the corresponding quarter of the previous year the number of pauper cases of illness was 1387; including 1 of measles, 2 of scarlet-fever, 23 of hooping-cough, 16 of diarrhea, 78 of febricula, 9 of fever, 1 of puerperal fever, and 13 of erysipelas.

The total number of cases of illness in the Workhouse has been 658, including 2 of measles, 7 of diarrhea, 25 of febricula, 62 of rheumatic fever, and 5 of erysipelas. In the corresponding quarter of the previous year the total number of cases in the Workhouse was 802, including 2 of hooping-cough, 14 of diarrhea, and 38 of febricula.

METEOROLOGY OF GREENWICH.

The Returns of the Registrar-General show that the rain-fall in the Metropolis during the quarter has been 2.80 inches. During the corresponding quarter of last year the rain-fall was 5.73 inches. The mean temperature of the air was 41.6°. In the corresponding quarter of last year the mean temperature was 39.5°. The coldest days during this quarter were Friday, the 6th February, Wednesday, 11th February, and Wednesday, the 11th March, when the thermometer indicated respectively 24.1°, 21.0°, and 22.6°. In the corresponding quarter of the previous year the greatest degree of cold was on Tuesday, the 25th February, when the thermometer indicated 25.0°.

The following table, taken from the returns of the Registrar-General, shows the comparative results of the Quarter:—

LONDON.

a samue gallina	Jan. 10th	Jan. 17th	Jan. 24th	Jan. 31st	Feb.	Feb.	Feb. 21st	Feb. 28th	Mar 7th	Mar 14th	Mar 21st	Mar 28th	Λpl 4th
Deaths from Measles	93	87	74	57	48	53	51	75	62	52	64	58	51
Deaths from Fev-	32	27	22	23	20	31	33	34	19	37	20	25	30
Mean Tempera-	40.00	41.60	48.60	41.10	36.50	36.30	40.00	42.20	41.60	35.70	46.50	48.20	48.1
Rain-fall in inches	0.03	0.10	0.61	0.02	0.00	0 02	0.15	0.77	0.03	0.27	0.09	0.00	0.71
Deaths in London Deaths in White-	1615	1557	1492	1449	1411	1597	1616	1754	1578	1524	1611	1530	1349
chapel District } Deaths in ditto	53	40	36	55	56	51	72	49	37	62	41	39	52
from Fever}	1	0	0	1	2	0	1	i	0	1	1	1	0

WATER SUPPLY.

Since my last quarterly report 52 additional water-waste-preventers have been erected in this District, and consequently there has been a considerable diminution in the number of butts and cisterns. There are now 257 water-waste-preventers in this district. From the satisfaction which these machines give to the poor I hope that the time is not far distant when butts and cisterns in the poor localities will be entirely abolished, and that water will be supplied to the poor on the constant service, direct from the main. The time has now arrived, when this mode of supply should be made compulsory.

VACCINATION.

WHITECHAPEL UNION.—Return of the number of Cases Vaccinated by the Public Vaccinator or Medical Officer of the Workhouse, together with the number of Births Registered during the same quarters.

QUARTER-ENI	OING		PUBLIC VA	CCINATOR.	Work	HOUSE	Тот	ALS.	BIRTHS
QUARTER-BAT		1111	Primary Cases.	Re-Vacci nation.	Primary Cases	Re-Vac-	Primary Cases.	Re-Vacci-	REGISTI
March, 1874			335	1	37	0	372	1	640
June, 1872			289	9	32	0	321	9	684
September			306	1	26	4	332	5	640
December			263	0	23	1	286	1	685
March, 1873			290	6	23	0	313	6	720
June			331	2	17	0	348	2	663
September			266	0	36	0	302	0	644
December			256	2	39	1	295	3	673
TOTALS		-	2336	21	(233)	6	2569	27	5349

SANITARY WORKS PERFORMED DURING THE QUARTER.

Number of inspections of houses as shown in the official returns3,6	00
Houses specially visited 1	70
	90
	07
	28
Summonses heard at Police Courts under Sanitary Act	3
Cellars used as dwellings discontinued for such use	5
Cases of overcrowding and indecent occupation discovered	5
	16
Rooms disinfected with sulphurous acid gas after the occurrence of)	0
fever, scarlet-fever, therein	8
Articles disinfected, consisting of beds, bedding, clothing, &c	51
	40
Drains in houses improved	66
Cesspools abolished	3
	11
	99
	11
	52
	20
Area gratings and cellar flaps repaired	7

SANITARY IMPROVEMENTS EFFECTED IN THE NORTH SIDE OF THE DISTRICT, UNDER THE INSPECTION OF MR. WRACK.

Adelaide Place, Heneage Street, Spitalfields.

This Court, which contains four houses, of two rooms each, and was very imperfectly paved with small pebble stones, and was unprovided with a dust-bin; the privy, which is used in common by the inhabitants of the four houses, was in a dilapidated condition. The houses were also in a very dirty state, and the only water supply in the Court was drawn from a dirty uncovered water-butt. The Court, in consequence of notice being served by the Inspector, has been repaved with new York stones, and a covered dust-bin has been provided. The old privy has been pulled down and a new one erected in its stead, which is properly provided with trap and pan, and the houses have been thoroughly cleansed and repaired. The filthy water-butt has been removed, and the tenants are now supplied with water on the constant service by means of a water-waste-preventer.

The Inspector remarks that, upon his visiting the place since the completion of the work, the occupiers expressed their gratification for the alterations effected. This clearly shows that the poor fully appreciate sanitary improvements.

Princes Street, Mile End New Town; Princes Street, Green's Place, John's Place, and Princes Place, Whitechapel.

In all these places there was a defective and insufficient supply of water, which was retained in old and dilapidated butts. These butts were

for the most part unprovided either with covers or taps, so that the water was rendered unfit for use. On complaints being made to the landlords upon the condition of the water receptacles, a water-waste-preventer to each house (51 in number), has been provided.

VEGETABLES UNFIT FOR FOOD.

Mr. Battram reports, that his attention was recently directed to a quantity of turnip tops brought to Spitalfields Market for sale. Upon examination, they were found to be totally unfit for human food. Mr. Battram caused them to be taken before the Magistrate, at the Worship Street Police Court, who, upon viewing them condemned them, and told the Inspector that he could have a summons against the owner. The turnip tops were afterwards seen by the Medical Officer of Health, who considered them unfit for food. A summons was taken out, and after the hearing of the case, the defendant was fined £4 and 2s. costs, or one month's imprisonment; the Magistrate remarking that he had doubts if he ought not to send him to prison without the option of paying a fine. The fine was paid.

Table showing the Area, Population, Density of Population to an Acre, Number of Square Yards to a Person, Elevation in feet above Trinity High Water Mark; also the Number of Births and Deaths in each Sub-district for the Year 1873, (52 weeks.)

Districts.	Area in Statute Acres.	Population in 1871.	of Pop-		Eleva- tion in feet.	Number of births in 52 weeks,	Number of Deaths in 52 weeks.	Deaths in Work house, & Deaths of non-residents and from acci- dents in the London Hospital
Artillery Spitalfields Mile End New T. Whitechapel Nth.	25 53 64 58	6651 15848 15550 11597	299 243 199	18.1 16.1 19.9 24.2	41 36 36 36 36	235 501 646 425	162 362 415 306	340 Wkhouse.
Goodman's Fields	47 51 108	7322 10381 9224	155 203 85	31.0 23.7 56.6	32 28 19	274 347 229	172	393 NON-RESIDTS. 178 accidents 74 residents
Entire District	406	76,573	188.6	AVERAGE 25.6	AVERAGE 32½	2657	1872	645 total deaths in Hospital.

[.] The deaths in the Workhouse and Hospital being allocated to their respective Sub-districts.

The area of London is 75,362 acres. The persons to an acre are 45.1.

† This sub-district is on the whole more sparsely populated than that of any of the other sub-districts, but it must be borne in mind that it contains the Precinct of St. Katharine, which has an acreage of 15 statute acres, with a population of 241 only, the District of the Tower, which contains 27 statute acres, with a population of 1,329, of which 578 form the garrison, and Holy Trinity, Minories, which contains 4 statute acres, or 19,360 square yards, with a population of 417, which gives 46.4 square yards to each person. The Aldgate sub-district contains the Sailors' Home and Sailors' Asylum; the former at the time of the census contained 157 males, and the latter 16 males. Included in the 108 acres, comprising this sub-district, there are 33 acres of water. The numerous narrow streets and courts instances 8.1 square yards to each person.

Table continued, showing the Rate of Mortality per 1,000 in each Sub-district, the Deaths of Children under 1 and under 5 years of age, and the Deathrate in relation to total Deaths, and the Deathrate in relation to total Births.

			Part of	The same	Proportio	n, per cent.	Tel ment
Districts.	ity per	of children under	Deaths of children under 5 years.	of children under 1	Of deaths of children nnder 5 years to total deaths.	children	Of deaths of children under 5 years to total births.
Artillery	24.3 22.7 26.7 26.3 23.4 21.3 25.4	38 104 114 83 47 72 47	69 191 191 130 108 99 85	23.4 28.7 27.4 27.1 27.3 32.7 20.0	42.6 52.7 46.0 42.4 62.8 45.0 36.1	16.1 20.7 17.6 19.5 17.1 20.7 20.5	29.3 38.0 29.5 30.5 39.4 28.5 37.1

On perusing the preceding table, it will be seen that the mortality of children under 1 year and under 5 is very large, both as regards its relation to the total deaths and to the registered births. The rate of mortality of children under 1 and under 5, is lower in relation to the total deaths, in the Aldgate sub-district than in any of the others. Under 1 year, the proportion is 20.0 per cent.; and under 5 it is 36.1. The rate of mortality of children under 1 varies in the other sub-districts, from 23.4 to 32.7 per cent.; and under 5 years from 62.8 to 42.4 per cent. The birth rate varies from 24.8 per 1000 of the population (Aldgate) to 41.5 per 1000 (Mile End New Town); the birth rate in the other sub-districts is as follows: Spitalfields 31.6 per 1000, Goodman's Fields 33.4 per 1000, Artillery 35.3 per 1000, Whitechapel North, 36.6 per 100, and Whitechapel Church, 37.4 per 1000.

The small birth rate in the Aldgate sub-district may be accounted for by there being in it a large proportionate male population, viz., 5014 males and only 4910 females, while in the Artillery, Whitechapel Church, and Goodman's Fields sub-districts the females are in excess of the males.

The deaths of children under 1 year in the entire district during this quarter have been 89, which is 13.8 per cent. of the total mortality, and the deaths under 5 years have been 217, which is 33.7 per cent. The deaths of children under 1 year, in relation to births, have been 14.0 per cent. and under 5 years 34.1 per cent.

The birth rate for the entire district has been during this quarter at the annual rate of 33.7 per 1000.

IMPROVED DWELLINGS FOR THE LABOURING CLASSES.

This subject has lately engaged, and is still engaging, the serious attention of the public, and efforts are being made by memorials and deputations to the Government to induce them to give their earnest attention to this important subject, and bring in one or more bills to

enable the constituted local authorities to purchase, for the purpose of demolishing all such houses as are deemed unfit for habitation, and to empower the authorities to sell or let the ground under proper restrictions to public companies, or private individuals, for the purpose of erecting suitable houses for the use of the working classes. But, unless a sufficiently stringent Building Act is passed which shall prevent the erection of unhealthy houses, very little advantage will accrue, either in the improvement of the physical or moral condition of the classes intended to be benefitted by the pulling down of the existing unhealthy buildings, if houses of an equally unhealthy character can be erected.

I am led to make the above remarks in consequence of having had my attention directed to two new houses which have been built within the last six or eight months in Wood's Court, Norton Folgate.

WOOD'S COURT.

This court, which is about 87 feet long is entered through an archway 5 feet wide. The court, opposite the two houses in question, is only 10 feet wide. These houses, which consist of two rooms each, are situated on the north side of the court, and the opposite side is occupied by workshops. The size of the lower rooms in each house is about 14 feet 6 inches in length, 12 feet in width, and 8 feet in height; the room above is rather larger: as these houses are built against the wall of adjoining premises they are without back vards, and without back ventilation. The closet, water supply, and sink, are situated in the cellar, which is entered by a flight of steps insufficiently lighted, leading directly from the sitting room, and separated only from it by a door, which forms part of the side or wall of the room, so that the offensive smell from the cellar readily enters the sitting room, and makes its way into the room above by means of the staircase. The cellar to each of these houses is 14 feet 6 inches in length, but is only 6 feet in width, and is dark, it being lighted only by means of a grating in the court, 2 feet by 11 feet. Neither of these houses has a dust bin or other place where the tenants can deposit their house refuse, and the slops from the upper room must be carried through the lower room to the privy in the basement. Both at the time of my visit and of that of the Inspector, the smell in the sitting room and in the cellar of one of the houses was very offensive. These houses being, in their present condition, unfit for habitation, it will be my duty to take the necessary steps, either to get them closed, or to compel the landlord so to alter them as to make them fit for habitation. If only one house instead of two houses had been erected on this site, a space would have been left, on which all the necessary conveniences for the house might have been erected.

METROPOLITAN BUILDING AND MANAGEMENT BILL.

As there is a New Building Bill before the House of Commons, which has been prepared by the Metropolitan Board of Works, I have directed my attention to the sanitary clauses which it contains, and I regret to

say that such clauses are so very defective, that if the Bill should unfortunately pass into an Act, nearly all the evils which now beset the dwellings of the poor, will be perpetuated for an indefinite time. Under the provisions of this Bill, houses, similar to those mentioned in Wood's Court can be built, and rows of houses, occupying entire streets, may be built back to back, whereby a free and necessary circulation of air cannot be obtained. As I have so frequently in my quarterly reports strongly insisted on the absolute necessity for passing such a Building Act, as will prevent the further extension of unhealthy houses, I have not deemed it expedient to enlarge upon the subject at the present moment; but I would respectfully urge the Board to examine the sanitary and other provisions of the Building Bill, and take such steps thereon as they may deem expedient to prevent it from becoming an Act.

SLAUGHTER-HOUSES.

The question of continuing the use of private slaughter-houses in the metropolis, has been so fully discussed by the Butchers, Local Boards, Medical Officers of Health, and the Metropolitan Board of Works, as to render it unnecessary for me again to discuss it. The whole subject is now thoroughly understood, and it only remains for the legislature to determine what shall be done in order to prevent that inconvenience to the public which will of course take place, if the private slaughter-houses are abolished, before adequate provision is made for the slaughtering of cattle in public abattoirs. The butchers will certainly have no reason to complain, if the Act, now in force, relating to private slaughter-houses, should expire; for they have had thirty years' notice that, after August, 1874, it shall not be lawful to continue the use of private slaughter-houses, except under such restictions as will virtually prohibit their use in the metropolis. Unfortunately, however, it happens that no provision is at present made for the erection of public slaughter-houses or abattoirs, so that until a sufficient number of public slaughter-houses are provided, the butchers must, of necessity, be allowed to continue for a time the use of those slaughterhouses which are in existence.

This is an evil which has been foreseen by the Association of the Medical Officers of Health, who have on several occasions discussed the subject of private slaughter-houses, and upon the last occasion, at a meeting of the Association, of which due notice was given to all the Members, it was resolved, with only two dissentients, that in the opinion of the Medical Officers of Health, the existence of private slaughter-houses in the metropolis was a nuisance, and that it was desirable that either the Metropolitan Board of Works, or the Corporation of the City of London, should undertake the erection and superintendence of public slaughter-houses in sufficient numbers to meet the requirements of the public. A copy of the resolution was sent to the Secretary of State, the Corporation of the City of London, and the Metropolitan Board of Works. In a long report, passed by the Works and General Purposes Committee of the Metropolitan Board of Works, on the question of slaughter-houses, &c.,

within the metropolis, there is only one paragraph which mentions the inconvenience the public suffer by the existence of private slaughter-houses. This paragraph is as follows: "Your Committee are far from saying that certain advantages would not arise from the abolition of private slaughter-houses. One advantage would be that it would not be necessary to drive cattle through the streets, but any such advantages appear to be slight, when compared with the evils which would attend the abolition of slaughter-houses, in the absence of thoroughly sufficient substitutes."

Now, the providing of thoroughly sufficient substitutes, is what the highest authorities on sanitary science demand; and when such eminent men as Mr. Simon, Dr. Letheby, and Dr. Stevenson, gave evidence before the Select Committee of the House of Commons, on noxious businesses during the last session of Parliament, to the effect that private slaughter-houses in confined situations, are nuisances, and therefore, should be abolished in the metropolis; such evidence is certainly entitled to receive the highest consideration.

Much has been said about the improvement of the condition of private slaughter-houses in London, which has taken place since 1844, but the same remark applies to the houses of the poor, and the streets generally and especially as regards the water supply. It is, therefore, not a sufficient argument to use in favor of the continuance of a nuisance, that because it is not so bad as it was formerly, it should, therefore, be allowed to continue.

Slaughter-houses should be tolerated only in open spaces, and there should be a wide road way surrounding them: they should be thoroughly ventilated, and the use of all slaughter-houses not so arranged, should be prohibited. The want of efficient ventilation in the existing slaughter-houses, the danger to the public by the driving of the animals through the crowded thoroughfares, together with the cruelty which is practised in getting the animals into the slaughter-houses, and the nuisance which is inseparable from all slaughter-houses, and especially from those situated in main thoroughfares, are, in my opinion, strong reasons for prohibiting their use for a longer time than is absolutely necessary; but when to these reasons there are added the facilities which private slaughter-houses afford for killing diseased animals, I think I have said sufficient to show, that, in the interests of the public, private slaughter-houses in London should be abolished.

As the arguments which are set forth in the Butchers' Memorial, in favour of the continuance of private slaughter-houses have been fully answered in my report which was last year presented to the Board, and ordered to be printed, I need not further pursue the subject.

I am,

Gentlemen,

Your obedient Servant,

JOHN LIDDLE.

APPENDIX.

TABLE I.—Cases of Sickness of the Zymotic and Acute Classes, which are recorded in the Books of the Medical Officers of the Union, for the Three Months ending on the 4th April, 1874.

Names of Medical Officers.	Small-Pox.	Measles.	Scarlatina.	Hooping-Cough,	Diarrhœa.	Choleraic Diarrhœa.	Continued Fever, Typhus & Typhoid.	Febricula.	Pyemia.	Erysipelas.	Puerperal Fever.	Croup.	Pulm	Pleuritis and present of the present	Carbuncle.	Rheumatic Fever.	Ague.	Dysentery.	Delirium Tremens.	Lead Poisoning.	All other Diseases.	TOTAL.
Dr. Swyer	0	0	2	5	5	0	1	10	0	2	0	0	14	6	0	5	0	0	1	0	150	201
Mr. Champneys	0	1	3	0	2	0	0	2	0	0	0	0	,6	2	0_	1_	0	1	0	0	169	187
Mr. Sequeira	0	8	0	2	0	0	3	3	0	1	0	0	31	3	0	4	0	0	0	0	97	155
Mr. H. Braye	0	28	0	1,	4	0	1	30	0	1	0	2	35	1	0	3	0	0	0	0	261	367
Mr. Loane	0	2	4	1	2	0	10	3	0	1	0	0	23	3	0	2	1	0	0	0	103	155
TOTAL	0	39	9	9	13	0	15	48	0	5	0	2	109	15	0	15	1	1	1	0	780	1062
Corresponding Quarter of previous Year.	0	1	2	23	16	0	9	78	0	13	1	0	208	17	1	45	4	0	_0	7	962	1387
Workhouse Mr. J. J. Ilott.	0	2	0	0	7	0	0	25	0	5	0	0	137	13	2	62	3	2	5	1	294	658

TABLE II.

Showing the Deaths from Epidemic Diseases, for the Three Months ending 4th April, 1874.

Districts.	Small-Pox.	Measles.	Scarlet Fever	Diphtheria.	Hooping- Cough.	Diarrhosa.	Fever.	Total.	Remarks.
Artillery	0	1	1	0	0	0	3	5	
Spitalfields	0	5	8	0	3	1	1	18	
Mile End New Town	0	4	1	1	1	0	1	8	Workhouse.
Whitechapel, North	0	3	2	0	1	0	1	7	
Whitechapel Church	0	6	1	0	2	0	2	11	Hospital.
Goodman's Fields	0	2	0	- 1	2	0	1	6	
Aldgate	0	0	0	1	0	0	0	1	
Totals	0	21	13	3	9	1	9	56	
Deaths from Epidemics for the corresponding quarter, 1873.	0	1	2	0	23	2	9	37	1 1 1 1 1 1

Five deaths from Pyæmia occurred in the Whitechapel Church sub-district.

Three deaths from Fever occurred in the Fever Hospital, thus making the total deaths from Fever, 12.

TABLE III.

Showing the Ages at Death in the Workhouse, and in the London Hospital for the Quarter ending 4th April, 1874.

	0 and under 1.	1 and under 5.	5 and under 20.	20 and under 40.	40 and under 60.	60 and under 80.	80 and upwards.	Total Males, 63. Females, 50.	Corresponding Quarter of 1873,
Workhouse	8	3	0	29	30	42	1	113	111
London Hospital	0	13	22	47	55	26	1	Males, 108 Females, 56	163

TABLE IV .- Ages at Death in each Registration District, for the Three Months ending 4th April, 1874.

Districts.	0 and under 3.	l and under 5.	5 and under 20.	20 and under 40.	40 and under 60.	60 and under 80.	80 and upwards.	Total.	Remarks.
Artillery	9	5	4	1	6	3	2	30	
Spitalfields	18	32	_4	10	11	6	1	82	
Mile E. N. Town	26	19	8	33	39	52	1	178	Workhouse.
Whitechapel, N.	19	17	6	3	7	7	4	63	
Whitechapel Ch.	7	28	23	53	55	35	8	204	Hospital.
Goodman's Fields	6	12	2	3	5	8	2	38	
Aldgate	4	15	2	6	11	9	1	48	
Totals	89	128	49	109	134	120	14	643	

TABLE V.-The Births and Deaths in each Registration District, for the Three Months Ending 4th April, 1874.

Districts.	Births.	Total.	Deaths.	Total.	Excess of Births over Deaths.	Excessof Deaths over Births,	Remarks.
Artillery	M. F. 3021	51	M. F. 1713	30	21	0	
Spitalfields	6248	110	4933	82	28	0	
Mile E. N. Town	7390	163	9583	178	0	15	Workhouse.
Whitechapel, N .	6246	108	3330	63	45	0	
Whitechapel Ch.	3218	50	12777	204	0	154	London Hospital.
Goodman's Fields	4846	94	2513	38	56	0	100 Non peridont
Aldgate	4019	59	2622	48	0	11	106 Non resident died in the London Hospital.
Totals	347-288	635	372-271	643	150	180	Excess of Births over Deaths, deducting the 106 Deaths of non-residents, 98.

Population in 1871, 76,573. Population in 1861, 78,970.

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TABLES V.-The Births and Deaths in Main Registration District, for the Times

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BOARD OF WORKS,

WHITECHAPEL DISTRICT.

REPORT

ON THE

Sanitary Conditil

OF THE

WHITECHAPEL DISTRICT,

FOR THE

QUARTER ENDING, 4TH JULY, 1874,

BY JOHN LIDDLE,

MEDICAL OFFICER OF HEALTH.

Mondon:

PRINTED BY WATSON BROTHERS, 31, MINORIES, E.

1874.

BOARD OF WORKS.

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QUARTER INVOING MAY JULY, 1874,

STUDY THAT AMOUNT

MEDICAL OFFICER OF HEALTH.

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PRINTED BY WASHINGTON BROWNING BI, MINORIES, E.

REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

FOR THE

Quarter ending, 4th July, 1874.

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TO THE BOARD OF WORKS, WHITECHAPEL DISTRICT.

GENTLEMEN,

In the Quarter that ended on Saturday, July 4th, 1874, the births registered in the Whitechapel District were 727; viz., 401 males and 326 females. During the same period, the deaths have been 594: of these, 359 have been of males, and 235 of females. In the corresponding Quarter of the previous year the births were 655, and the deaths 538. The number of births is greater by 72 than in the corresponding quarter of last year, and an increase of 56 has taken place in the number of deaths.

The deaths in the London Hospital have been 159; viz., 108 males and 51 females. Of the total deaths in this institution there were 18 of persons resident within the District, 105 of non-residents, and 36 of persons who died either suddenly, or from the result of accident. The total mortality of this District is increased by the deaths of residents within the District which have occurred in other hospitals in the Metropolis; but of those I have no complete record.

It is a matter for regret to all persons who are interested in estimating the rate of mortality in small districts, inhabited by the poorer classes, that the records of the deaths which occur in the public institutions are not forwarded to the sanitary authorities of the Districts from which the patients had been removed. I obtain the addresses of all the patients who die in the London Hospital, and by the courtesy of Mr. Vallance, the Clerk to the Board of Guardians, I receive a list of the deaths of those patients belonging to this District, and of their addresses, before they were removed to the Small Pox and Fever Hospitals; but, as a great many of the poor in this District avail themselves of the advantages so freely offered by the several great Hospitals in London, it is much to be desired that such arrangements should be made with the several Hospital authorities as will enable the Medical Officer of Health to record, with accuracy, the actual mortality of his District.

There were 4 deaths from pyæmia, and 4 from erysipelas in the London Hospital.

The deaths in the Workhouse have been 104; viz., 64 males and 40 females. One death from pyæmia occurred in this establishment.

The deaths from epidemic diseases in the entire District have been

64; viz., 3 from measles, 42 from scarlet-fever, 3 from hooping-cough, 13 from diarrhœa, and 3 from fever. One death from fever occurred in the Fever Hospital; thus making a total of 4 deaths from fever. There were 5 deaths from erysipelas, 8 from croup, 3 from puerperal-fever, 5 from pyæmia, 1 from carbuncle, and 3 from cynanche tonsillaris.

In the corresponding quarter of the previous year the deaths from epidemic diseases were 61; viz., 1 from small-pox, 3 from measles, 4 from scarlet-fever, 31 from hooping-cough, 11 from diarrheea, and 11 from fever.

The deaths caused by diseases of the respiratory organs, exclusive of consumption, have been 82; of these, 40 were caused by bronchitis, 39 by pneumonia, 1 by laryngismus, and 2 by asthma.

Consumption was fatal to 80 persons. The deaths from other tubercular diseases were 39; viz., 27 from mesenteric disease, 9 from tubercular meningitis, 2 from hydrocephalus, or water on the brain, and 1 from scrofula.

Diseases of the organs of circulation were fatal to 42 persons; of these, 38 died from disease of the heart, and 4 from aneurism.

Diathetic, or constitutional diseases, were fatal to 27 persons; of these 6 died from dropsy, 13 from cancer, 2 from mortification, and 6 from abscess.

Diseases of the nervous system, exclusive of convulsions in children, were fatal to 29 persons.

Convulsions caused the death of 13 children. In the corresponding quarter of last year the deaths by convulsions were 18.

The deaths from diseases of the digestive organs were 33; viz; 6 from peritonitis, 3 from ascites, 1 from ileus, 6 from hernia, 12 from disease of the liver, 2 from disease of the stomach, 1 from ulceration of the intestines, 1 from fistula, and 1 from disease of the rectum.

The deaths from diseases of the urinary organs were 33; of these, 16 were caused by nephria or Bright's disease, 11 by disease of the kidneys, 4 by nephritis, 1 by retention of the urine, and 1 by disease of the prostate gland.

During the corresponding quarter of the previous year the deaths from these causes were 22.

Enthetic diseases were fatal to 7 persons; of these, 3 died from congenital syphilis, 2 from syphilis (adults) and 2 from stricture of the urethra.

There was 1 death from disease of the bones.

There were 6 deaths from premature birth, 3 from teething, and 1 from pressure on the head during labour.

4 children died from want of breast-milk, 1 adult from privation, and 3 from intemperance.

7 persons died of old age; of these, 3 were above 80 years of age, one of whom had reached the advanced age of 88.

The deaths from atrophy and debility were 25, while in the corresponding quarter of last year there were 20.

There were 31 deaths from mechanical violence; of these, 8 were caused by horses and vehicles in the streets. In the corresponding quarter of last year the deaths from mechanical violence were 36, including 7 caused by horses and vechicles in the streets.

The Registrar-General, in his last annual summary of deaths, &c., in London, states," that the deaths by violence in the streets of the metropolis, in four years were 1,028. Of this number, 50 were caused, in one way or another, by horses; 55 by carriages; 94 by omnibuses; 130 by cabs. But these lighter carriages are far out-done by heavy vehicles, often driven unskilfully, and without efficient breaks; thus 353 persons were killed by vans and waggons; 26 by drays; and 289 by butchers', bakers', and other carts. In the last year, the tram-carriages killed 17, against 12 killed by omnibuses. On an average, 45 persons are killed by negligence or accident every week in London."

Burns and scalds were fatal to 5 persons.

One person, a watchmaker, aged 19, committed suicide by taking prussic acid. 3 children were suffocated in bed.

3 women died in childbirth, and 1 from extra uterine fætation.

The number of inquests has been 62. In the corresponding quarter of last year the number was 68.

UNCERTIFIED DEATHS.

The deaths which have not been certified by a medical practitioner have been 7.

MORTALITY OF YOUNG CHILDREN.

The mortality of children under five years of age was 191. This is 32.1 per cent. of the total mortality. In the corresponding quarter of the previous year the rate of mortality of children under five was 34.7 per cent. of the total mortality. In the Artillery sub-district, the rate is 47.7 per cent.; in the Spitalfields, 36.3 per cent.; in the Mile End New Town, 31.1 per cent.; in the Whitechapel North, 56.1 per cent.; in the Whitechapel Church, 12.5 per cent.; in the Goodman's Fields, 48.0 per cent.; and in the Aldgate, 52.1 per cent.

PAUPER ILLNESS IN THE DISTRICT.

The Medical Officers of the Union have attended, during the last quarter 889 new cases of illness out of the Workhouse; including 1 of small-pox, 7 of measles, 28 of scarlet-fever, 6 of hooping-cough, 21 of diarrhæa, 76 of febricula, 7 of fever, and 1 of puerperal fever. In the corresponding quarter of the previous year the number of pauper cases of illness was 1,143; including 1 of small-pox, 6 of measles, 6 of scarlet-fever, 40 of hooping-cough, 22 of diarrhæa, 109 of febricula, 4 of fever, and 10 of erysipelas.

The total number of cases of illness in the Workhouse has been 554, including 8 of diarrhœa, 4 of erysipelas, and 21 of febricula. In the corresponding quarter of the previous year the total number in the Workhouse was 588; including 6 of hooping-cough, 11 of diarrhœa, and 34 of febricula.

METEOROLOGY OF GREENWICH.

The Returns of the Registrar-General show that the rain-fall in the Metropolis during the quarter has been 3.61 inches. During the corresponding quarter of last year the rain-fall was 3.94 inches. The rain-fall in the first six months of this year only amounted to 6.6 inches, whereas, the average amount during this period in fifty-eight years was 11.2 inches. The mean temperature of the air was 50.7°. In the corresponding quarter of last year the mean temperature was 50.7°. The hottest days during the quarter were Tuesday, 2nd June, Friday 5th June, and Thursday 2nd July, when the thermometer indicated respectively 83.7°, 83.2°, 86.7°. The hottest day during the corresponding quarter of last year was on Friday, the 27th June, when the thermometer indicated 81.2°.

The following table, taken from the returns of the Registrar-General, shows the comparative results of the Quarter:—

LONDON.

m del per en iniua	Apl.	Apl. 18th	Apl. 25th	May 2nd	May 9th	May 16th	May 23rd	May 30th	Jne. 6th	Jne. 13th	Jne. 20th	Jne. 27th	Jly 4th
Deaths from Fever	29	23	22	21	27	18	21	30	23	33	27	23	26
Deaths from Scar- let Fever	14	18	22	16	16	23	17	26	32	38	33	34	31
Mean Tempera-	45.10	47.10	57.60	50.60	44.20	46.60	51.60	59.50	63.30	57.10	53.70	57.40	61.8
Rain-fall in inches	0.37	0.33	0.00	0.01	0.02	0.08	0.04	0.27	0.81	0.05	0.56	0.87	0.20
Deaths in London Deaths in White-	1387	1339	1300	1256	1337	1288	1326	1385	1257	1204	1242	1216	1336
chapel District { Deaths in do. from }	46	38	45	43	45	53	50	52	29	43	48	43	59
Scarlet Fever	0	1	2	2	1	7	2	2	4	2	5	10	4

VACCINATION.

WHITECHAPEL UNION.—Return of the number of Cases Vaccinated by the Public Vaccinator or Medical Officer of the Workhouse, together with the number of Births Registered during the same quarters.

QUARTER-ENDING -	PUBLIC V	ACCINATOR.	WORK	HOUSE	Тот	BIRTHS		
	Primary Cases.	Re-Vacci-	Primary Cases	Re-Vac-	Primary Cases.	Re-Vacci-	REGISTI	
March, 1874	. 335	1	37	0	372	1	640	
June	411	2	30	0	441	2	727	
September, 1872 .	. 806	1	26	4	332	5	640	
December	263	0	23	1	286	1	685	
March, 1873	290	6	23	0	313	6	720	
June	. 331	2	17	0	348	2	663	
September	266	0	36	0	302	0	644	
December	256	2	39	1	295	3	673	
TOTALS	. 2458	14	231	6	2689	20	5392	

SANITARY WORKS PERFORMED DURING THE QUARTER.

The following return shows the amount of work done by the Sanitary Inspectors during the Quarter ending 4th July, 1874 :-Number of inspections of houses as shewn in the official returns......3.402 Houses specially visited 192 Ditto specially re-visited...... 768 Preliminary notices served, such notices embracing 354 premises 217 Summonses heard at Police Courts under Sanitary Act ditto Adulteration of Food Act ... Cellars used as dwellings discontinued for such use Cases of overcrowding and indecent occupation discovered and abated 18 Houses in which the rooms or passages have been whitewashed 187 Rooms disinfected with sulphurous acid gas after the occurrence of \. fever, and scarlet-fever, therein Articles disinfected, consisting of beds, bedding, clothing, &c..... 46 Yards of houses paved or the pavement repaired Drains in houses improved 70 Cesspools abolished Dust-bins provided..... 22 Privies lime-washed, cleansed, and repaired Water-butts and cisterns provided or repaired Nuisances from dung and other offensive matter removed 26 Area gratings and cellar flaps repaired 3

The cow-houses in the District, 24, the slaughter-houses, 35, and the bakehouses, 71 in number, have been visited during the quarter.

In addition to this return, the Inspectors report that they have forwarded to the Metropolitan Board of Works several notices of dangerous structures, which notices the Metropolitan Board have promptly attended to.

SANITARY IMPROVEMENTS EFFECTED IN THE NORTH SIDE OF THE DISTRICT, UNDER THE INSPECTION OF MR. WRACK.

Spitalfields Market.

The West side of the Market which was in a most filthy and offensive state, arising from defective drainage and the want of a urinal, has, in consequence of notice served upon the Owner, been properly drained into the sewer, and a urinal, provided with a water supply, erected for the convenience of persons frequenting the Market. Upon the recommendation of the Medical Officer, the Board constructed a sewer in West Street, to enable the owner of the Market to effectually carry out the work.

SCHOOL ROOM OVERCROWDED.

Upon inspecting the houses in Green Dragon Yard, Whitechapel, the Inspector found the ground floor room of No. 6 to be occupied as a School

Room. The room contains a cubic space of 825 feet, and at the time of his visit, there were in it 34 children, and the School Master and his Wife (who are foreigners). The space for each person was barely 23 cubic feet. The room was in a very dirty state. The privy was situated in a small yard adjoining the room, and was in a filthy condition. The smell on entering the house was most sickening. Notice was at once served for the abatement of the overcrowding, and the other nuisance complained of.

The School Master has since reduced the number of his scholars, and

he is about to take a more convenient place for a School.

TRADE NUISANCE.

A complaint having been made at this office of a nuisance in Cobb's Yard, caused by the boiling of dirty rags, notice was served upon the owner to abate the nuisance. Upon receipt of the notice, the owner constructed a shaft from the coppers, and carried it above the roofs of the adjoining houses, but as the erection of this shaft has not materially abated the nuisance further improvements are required.

FEVER AND SCARLET FEVER IN MAYPOLE COURT.

Between the 24th April and the 4th July, 1874, 2 cases of typhus fever, and 9 of scarlet-fever, have occurred in this court. The first case, of scarlet-fever, occurred at No. 4. Upon making an inspection of the premises, it was found that the drainage was defective, and there was an accumulation of liquid filth in the cellar, which had percolated from the drain.

Notice was given to the landlord to remedy the defects noticed by Mr. BATTRAM. Upon examining the drain a large cesspool was found in the centre of the Court, this the landlord immediately abolished, and provided a proper drain to the main sewer. This Court, which is about 80 feet long, and 9 feet wide, contains 10 houses, in which there are 27 rooms; nearly the whole of them are without thorough ventilation. There are four public privies for the use of the tenants, situated at the North side of the Court. The water supply is drawn from a cistern which is placed over the privies. This cistern is too small, and as it is the only mode of supply, the tenants have not a sufficient supply of water for their daily use. Notice was given to the owner to provide a water supply on the constant service, to remove the the cistern, and to erect a ventilating shaft through the roof of the privies to carry off the foul air. This Court is so constructed as to render it impossible for a current of fresh air to pass through it. The South end of the Court is blocked by the Saint Katherine Hotel, and other large buildings; and at the North end there is a high wall. The Court is entered from Sun Court, which is also a cul-de-sac; and Sun Court is entered from Upper East Smithfield, by a narrow arched passage, about 30 feet long, 8 feet high, and less than 3 feet wide. The building in Maypole Court was

said to have been used as a depôt for emigrants, afterwards it became a registered common lodging-house, and is now converted into dwelling houses.

The owner has expressed his willingness to carry out any improvement that may be suggested, if it is practicable to do so.

WATER SUPPLY, CONSTANT SERVICE.

The water supply on the constant service is now general in the Northern part of the district, which is within the water limits of the East London Company. From inquiries which the Inspectors have made of the inhabitants, it appears that the change from the intermittent to the constant service has given satisfaction; and no inconvenience has been experienced by the inhabitants while the alterations in the fittings were in progress, and the expense has not been complained of, either to the Board or its Officers. The cost to the owners, in making the alterations, ranges from 7/6 upwards; the amount depending upon the length of new pipe required. In some cases there has been no occasion to disturb the old fittings. The supposed cost of alterations has not been nearly so great as was anticipated, and I may add, that the companies are desirous to lessen as much as possible the expense to the owners of property. The screw-down taps are in general use, and they appear to be the best for private dwellings. The Kilmarnock machine, Kennedy's and Guest & Chrimes' patents, are probably the best adapted for Courts; but no doubt further improvements in the course of a short time will be made in the several apparatuses now in use. Every house in the district where a constant supply is given will be provided with a stop cock, situated in the street, so that in the event of the fittings getting out of repair, the occupiers can turn off the water pending the repairs.

The constant water supply is a question of so much importance to the public health that I purpose making a few remarks upon the subject; and before doing so, it may not be uninteresting to give a brief history of the water supply in this district since the formation of the Union in 1834.

In the first volume of the report of the Commissioners, for inquiry into the state of large towns and populous districts, 1844, it is stated in evidence that the water supply was generally given only three times a week. A few years after (1847) it was given daily, Sundays excepted. This, I am informed, was a voluntary move on the part of the Companies; and in the year 1871, by the provision of the Metropolis Water Act, (section 6,) it was made compulsory on the Water Companies to supply water every day, Sundays included. Several Courts in this district were before the year 1844, either entirely without any water supply, or water was provided for the inhabitants by means of a pump, the water from which was unfit for drinking purposes; and where a pump did not exist, the people had to fetch the water from a distance. The majority of the Courts were, at the formation of your Board, supplied with water by means of stand-pipes, from which the water flowed for about one hour each day, when the inhabitants had to wait for their turn, to fill such vessels as they might be possessed of, and store the same in their rooms until the next day, when the water was again turned on. In the year 1864, the first water-waste-preventer was erected in this district, by means of which the inhabitants could obtain water at all hours of the day and night, direct from the main, without the intervention of either a butt or cistern. The question of a constant supply has been agitated in London for upwards of thirty years, and was strongly dwelt on in the report of the Committee of the Health of Towns Association on Lord Lincoln's Sewerage and DrainageBill, which was published in 1847; yet it is only within the last few months that the Companies which supply this district, have made preparations for giving to all places under their respective water limits a constant supply. We may now expect that before the termination of the year 1875, the whole of this district will be so supplied, and that all the butts and cisterns which are now in use in the poor localities will be abolished, and that the inhabitants will be able at all times to obtain a glass of cool, pure water, direct from the main.

It is highly satisfactory to be able to record the progressive improvement which has taken place in the water supply in this district since the formation of your Board.

1.—All the pumps are now abolished.

2.—Not one of the old stand-pipes exist now which were erected in several of the Courts, from which a limited quantity of water was supplied 6 days in the week to those persons who were so fortunate as to be at home when the water was turned on, and who possessed suitable vessels to hold and convenient places to stand such vessels, whereby the water kept for the next day might not become contaminated.

3.-In my evidence given before the Commissioners in 1844, when speaking of the mode of water supply to the poor, I referred to a place in Cartwright Street, where there were a number of tenements surrounding a piece of waste ground, in which a well had been sunk by the landlord, and a large tank erected over the well. This tank was filled by horse-power, from which pipes were carried, into the several houses. The water was turned on three times a week. The waste ground abovementioned is now built over, but the tank is still there, which has for some years past, been supplied by the Water Company, and from it some of the houses receive the water in butts, which are situated in the cellars adjoining the privies. As this tank is raised about 18 feet above the level of the ground, it is difficult of access for the purpose of cleansing, and the probability is that it is seldom cleansed. It is also unprovided with a cover, and is moreover exposed to the heat of the sun. Under these circumstances, I am of opinion that the use of the tank should be discontinued, and that all the houses in its vicinity should be supplied with water on the constant service.

4.—Water is now supplied to every house where there is a receptacle for it, and the complaints of an insufficient supply are very few. In those houses in which it is impossible either to fix a butt or cistern, water-waste-preventers are in use.

5.—Since the year 1871 the public has been supplied with water daily, but to the credit of the New River Company, at my earnest solicitation,

they gave a Sunday supply to all Courts in Blue Anchor Yard in 1863, which they continued to do voluntarily until the Water Act of 1871 came in force.

Although the abovementioned improvements have been effected in this district as regards the water supply, much more is yet required to be done before a satisfactory result will be arrived at. Butts still exist, some of which are placed in cellars alongside of the privies; many of the butts are without covers and taps; some are too small, and the majority of them are in bad condition, the sides being generally found covered with a green slimy matter, and the bottom covered with dirt and rubbish; while, on the top of the water, there is usually found a film of dust and soot, so as to render the water most repulsive to the sight. But I am in hopes, that owing to the regulations of the Water Companies, rendering is necessary for all butts to have a metallic lining, the storing of water for household and drinking purposes in the existing recepacles will soon cease.

In all the reports which have been made upon the subject of water supply to the Metropolis, it is recommended that the constant service should be adopted. But in adopting this system of water supply, it is necessary for the protection of the public health, to lay down such rules, as regards the fittings, as will prevent any contamination of the water, for unless due care is taken by all householders receiving water on the constant service, not only will there be danger to the health of the inmates of any particular house, but the danger may extend to all those householders who

are supplied by the same service pipe.

In a most valuable report, dated May 13, 1874, made by Dr. Buchanan to the Local Government Board, on an outbreak of enteric fever in Caius College, Cambridge, the cause of such outbreak, after a long and careful inquiry conducted by that gentleman, aided with the valuable assistance of the Rev. John Lamb, Bursar of Caius College, the Rev. N. M. Ferrers, Dr. Paget, and Dr. Bradbury, was traced "to the contamination of a

particular section of the College Water Service."

"As a matter of fact," Dr. Buchanan states that, "most of the students' servants about the College, and notably those of Tree Court Staircases, (the locality principally affected,) spoke of the occasional absence of water from their pantry taps. In Tree Court, (which out of a population of 63 persons, 12 were attacked with fever.) two or three servants said, that after such an absence, the water would come on 'with a vengeance,' 'like soda water,' evidently having become mixed with air, with which the pipes had become charged. The failure of water was mentioned by some servants as occurring once a month or so; by others as being more frequent; and the servant having charge of the first floor and higher floors of staircase O, spoke of it as a thing that happened two or three times a week.

"Under a really constant system of high pressure water-service it is plain that pipes could not have thus got filled with air. * * * * * * This intermission must have gone on to the extent of allowing the whole horizontal service-main of Tree Court to have become emptied of water, if

any hypothesis of mischief resulting from this air in the water pipes is to be upheld.

"Complete intermission of supply was found to have actually occurred on two occasions at least, during the last term." The first took place on the 25th October, and the second on the 1st November.

"Now, a fortnight is about the incubation time of enteric fever; a fortnight after October 25, is the date of the first attack in Tree Court. A fortnight after November 1, is the date of the second, third, and fourth attacks. And though it was known that other cases of fever kept dropping in till the end of November, the coincidence of the early fever, with these ascertained intermissions, was not the less suggestive as indicating the direction that further inquiry should take."

"It is the rule with the Cambridge Water Company to supply water closets, not directly from the high-pressure pipes, but from an interposed cistern or service-box. This arrangement, besides preventing waste of water, has the following advantages: that, if there should ever be any foul vapours from a water-closet, and these should under any circumstances pass through the closet supply-valve, their passage backwards along the water-pipe must be interrupted at the cistern or service-box." This important arrangement was not observed in the water-closets in Tree Court, but these conveniences were served direct from the high-pressure pipes.

It was ascertained on analysis that the supply-pipe contained a large proportion of nitroginized organic matter and an appreciable amount of phosphoric acid. It would seem, therefore, that water impregnated with feecal matter must have entered these pipes, and so helped to produce these deposits.

The water impregnated with feecal matter came from the closet taps. The trapping water, then, had been sucked into the water-service pipes, so that, as Dr. Buchanan adds, "if the consideration be of importance, it is now further seen that last October, not only in air but actually in water, fever poison may have entered the water pipes of Tree Court."

Dr. Buchanan toward the conclusion of his most valuable and interesting report, remarks that "in the pathology of enteric fever, and similar diseases, we know that a very minute quantity of infectious matter can, under favorable circumstances of distribution, produce very large and intense results. And, moreover, the present case does not stand alone as an instance of the spread of enteric fever by means of a so called constant water supply that in practice has intermissions in its service."

The water supply on the constant service has been in operation in Manchester, since the year 1851. The water limits of the Corporation, embrace an area of about 84 square miles, and contain therein 137,250 houses, with a population of about 685,000.

The constant supply, says Mr. Berrey, the manager of the internal distribution of water at Manchester, has given very great satisfaction. From inquiries which I have made of Dr. Martin, the Medical Officer of Health for Manchester; I learn,

1st.—That all the houses of the poor, as well as of the rich, are supplied

on the constant system.

2nd.—Cisterns are used for storing water for baths and water-closets in all houses under £20 per annum

3rd —In only a few old houses are the closets supplied from the same receptacle supplying water for drinking purposes.

4th.—Stand-pipes constantly charged with water, are used in courts,

one pipe supplying about 12 cottages.

5th.—There are no complaints respecting the quantity of water supplied, or of inconvenience arising from the mode of supply. The water is said to be, next to Glasgow, the purest in the kingdom. It is spring water, and is passed through wire strainers about 60 strands to an inch.

6th.—There is very little waste of water; the consumption averages 21

gallons per head.

7th.—The supply of water is principally within the curtilage of each house.

Mr. Berrey says, that cisterns are required only in those houses where there are baths and water closets, the service cistern for water closets is supplied from the main cistern, a tap carried into each house and into each apartment occupied by the poor, is the plan most approved of by that gentleman.

The practical application and usefulness of the constant supply is now about to be tested in this district, as will be seen by the following extract from a report of an examination made by Major Bolton during the month of April 1874, of the water supplied by the Metropolitan Water Companies:—

"The New River Company have the power of affording effective constant service in their district. They have also erected a new high service covered reservoir to contain 1,000,000 gallons at Southgate, in anticipation of the requirements of the water supply to Edmonton parish. The Company have in a number of cases afforded constant supply by means of stand-pipes and have agreed with a Committee of the Corporation of the City of London to furnish constant supply at once to a large number of the houses of the poor situated in courts within the city bounds; negociations are also pending for the erection of a number of fire hydrants in the city.

"The East London Company are extending the constant system of supply in their district, and have given formal notice to the Metropolitan Board of Works, and to the Corporation of the City of London that they propose within the next six months to give a constant supply of water throughout the district, or area, bounded by, and contained within imaginary lines drawn along the respective centres of the Bethnal Green Road, of Brick Lane, Spitalfields, of Osborn Street, and High Street, Whitechapel, of High Street, Shoreditch, of Norton Folgate, of Bishopsgate Street Without, of Artillery Lane, of Sandy's Row, and of Middlesex Street, and situate within the parishes of St. Matthew, Bethnal Green, Christ Church, Spitalfields, St. Leonard's, Shoreditch, and St. Mary, Whitechapel, and the parishes or liberties of Norton Folgate, and the Old Artillery Ground,

in the county of Middlesex, and the parish of St. Botolph Without Bishopsgate, in the City of London, or within some or one of those several parishes and liberties, except in respect of such houses, lands, buildings, and premises within that area which now take, or from time to time shall take, their respective supplies of water from the New River Company, or are beyond the district of the East London Waterworks Company. This extensive and densely populated area, containing upwards of 3,000 houses, is divided into three sections, in the first of which the constant supply will commence on the 1st of May, in the second, on the 1st of June, and in the third, on the 1st of July. This company retain their previously announced intention of bringing their whole district, section by section, under constant supply."

From the above remarks of Major Bolton, the sections Nos. 8, 9, 10, 11, 12, 13 and 14, of the Metropolis Water Act, which relate to the application of the Local authority to the Board of Trade, to compel the Companies to give a constant supply of water, are rendered unnecessary, as the Companies which supply this district have expressed their willingness to give to all places within their respective limits a constant supply, provided

that arrangements to prevent waste are made.

As the question of constant supply is not universally, or perhaps not even generally understood, a few practical suggestions relating thereto may be useful.

In the first place it is necessary to define what is meant in the Act of Parliament by the word district. The term "District," shall mean the area selected for the purpose of constant supply, such area being within the jurisdiction of a Metropolitan authority, and also within the water limits of a Company, and being co-terminous with one or more services of such Company.

The term "Premises" shall mean and include any dwelling house, or any part of a dwelling house, and any stable, yard, or other offices, used together, or in connection with any dwelling house or other part of a dwelling house, and the term "Premises" shall be deemed to be on the same service or on a service, when water is supplied to them by a company

from the same service pipe.

1.—By general consent it is deemed desirable to supply water on the Constant Service.

2.—In poor neighbourhoods, stand-pipes one to about every four or five houses, outside the houses in each court and alley; and as a matter of convenience to the landlords, and of benefit to the tenants, it is desirable that arrangements be made for the Water Company to keep in repair at their own expense, all the stand-pipes which are fixed outside the houses.

3.—That it is impracticable to have without a very large additional cost, a constant and an intermittent service in the same court or alley, inasmuch as the two services must involve two distinct systems of pipes. Moreover, it was not contemplated, that the two services should co-exist, but that the one should supersede the other.

4. - That if outside stand-pipes be erected in any court in which the houses are supplied severally by an intermittent service, it will be necessary that the inside receptacle and fittings to the several houses should be removed previously to the outside stand-pipes being erected.

5.—In all cases where the inside supply is such that the same cistern is used both for flushing the closet and for domestic and drinking purposes, such inside receptacle should be removed, and outside stand-pipes

substituted for them.

6.—From personal interviews and written communications which I have had with the Engineer of the New River Company, I learn that no additional cost for water rate will be incurred by the Landlord for changing the intermittent to the constant supply; and that no additional expense will be incurred by the erection of several stand-pipes in the same court, excepting the necessary cost that erecting the several stand-pipes will involve.

7.—The best mode of flushing the closets in the poorer neighbourhoods is that which has been for many years adopted in this district, viz:-by throwing down a pail or pails of water, the force of which will more effectually cleanse the pan and remove obstructions than the very ineffective apparatus in general use in such places, and which apparatus is seldom found to be in good working order. This plan is considered by Mr. Pole, a civil engineer of large experience, to be the best adapted for the poorer class of houses, and also by Captain TYLER, who says "that the apparatus of the water-closet is seldom in proper order, and it is probably better to leave it to be flushed by pails of water, than to attempt any more complicated arrangement."

8.—Owing to the faulty construction of a great many of the houses occupied by the poor, the same being built without back yards, without landings, and without sinks, it is unadvisable to supply the tenants with water except by means of stand-pipes constantly charged with water outside the houses; although it appears that in Manchester the water supply is given in the inside of the houses.

When butts and cisterns are used for the supply of courts, which is necessarily the case where there are no back yards and the water is on the intermittent service, these receptacles are exposed to the contamination of atmosphere which is generally loaded with impurities, and to the heat of the sun, which not only render the water unpalatable but unwholesome. Besides, butts and cisterns so placed, are seldom cleansed. I may here add that it will be necessary entirely to reconstruct most of the houses occupied by the poor in this district before they can be supplied with water on the constant service, in the interior of their houses.

After what Dr. Buchanan has said respecting the outbreak of fever in Tree Court, Caius College, Cambridge, the importance of the following

regulations of the Water Companies will be fully appreciated.

Every boiler, urinal, and watercloset, in which water supplied by the Company is used (other than waterclosets in which hand flushing is employed), shall, within three months after these regulations come into

operation, be served only through a cistern or service-box, and without a stool-cock, and there shall be no direct communication from the pipes of the Company to any boiler, urinal, or watercloset.

No pipe by which water is supplied by the Company to any watercloset shall communicate with any part of such watercloset, or with any

apparatus connected therewith, except the service-cistern thereof.

As the question of drinking pure water and the prevention of sewer gases, from passing either into the water receptacles or houses, is perhaps the most important that can engage the attention of the public, I shall conclude this report with the following observations:—

1.—All cisterns which are used for holding water for drinking and cooking purposes should be so placed, as to be of easy access for the purpose of cleansing them. This process should be performed once at least in every six weeks.

in every six weeks.

2.—Where there is a cistern for holding water for drinking purposes, another cistern should be used for the supply of the closet. The danger of drinking water from a cistern which supplies a water-closet is so great, that the same should be carefully avoided.

3.—If a wash-hand-basin be fixed in the closet, the out-flow pipe should be trapped if the same should empty itself into the soil pipe, and water should always be kept in the wash-hand-basin, so as to form another trap, whereby the foul air from the soil pipe may be prevented from entering the closet and from thence into the house.

I am, Gentlemen, Your obedient Servant;

JOHN LIDDLE.

15, Great Alie Street.

APPENDIX.

TABLE I.—Cases of Sickness of the Zymotic and Acute Classes, which are recorded in the Books of the Medical Officers of the Union, for the Three Months ending on the 4th July, 1874.

Names of			9	h.		nd rhœa.	ver,				ar.		Pulm	ute ionary mation		er,			sns.		ses.	
Medical Officers.	Small-Pox.	Measles.	Scarlatina.	Hooping-Cough,	Diarrhœa.	Cholera and Choleraic Diarrhœa.	Continued Fever, Typhus & Typhoid.	Febricula.	Pyæmia.	Erysipelas.	Puerperal Fever.	Croup.	Bronchitis and Catarrh	Pleuritis and Pneumonia.	Carbuncle.	Rheumatic Fever,	Ague.	Dysentery.	Delirium Tremens.	Lead Poisoning.	All other Diseases.	TOTAL.
Dr. Swyer	0	0	5	3	6	0	0	18	0	0	0	0	1	5	0	2	0	0	0	1	95	136
Mr. Champneys	0	0	.1	0	2	0	2	1	0	0	0	0	8	1	0	4	0	0	0	2	142	163
Mr. Sequeira	0	4	4	3	6	0	0	11	0	0	0	ō	5	1	0	1	2	0	0	1	115	153
Mr. H. Braye	0	- 3	2	0	5	0	2	31	0	0	1	1	22	3	0	5	1	0	0	3	203	282
Mr. Loane	1	0	16	0	2	0	3	15	0	0	0	1	15	0	1	4	2	0	0	0	95	155
TOTAL	1	7	28	6	21	0	7	76	0	o	1	2	51	10	1	16	5	0	0	7	650	889
Corresponding Quarter of previous Year.	1	6	6	40	22	0	55	109	0	5	1	2	93	23	3	14	8	2	1	0	752	1143
Workhouse Mr. J. J. Ilott.	0	2	0	0	8	0	0	21	0	4	0	0	131	12	2	57	3	3	3	1	307	554

TABLE II.

Showing the Deaths from Epidemic Diseases, for the Three Months ending 4th July, 1874.

Districts.	Small-Pox.	Measles.	Scarlet Fever	Diphtheria.	Hooping- Cough.	Diarrhœa.	Fever.	Total.	Remarks.
Artillery	0	0	2	0	0	1	1	4	
Spitalfields	0	0	6	0	1	2	1	10	
Mile End New Town	0	1	7	0	0	3	0	11	Workhouse.
Whitechapel, North	0	0	5	0	0	1	0	6	
Whitechapel Church	0	2	1	0	0	2	1	6	Hospital.
Goodman's Fields	0	0	14	0	2	1	0	17	
Aldgate	0	0	7	0	0	3	0	10	
Totals	0	3	42	0	3	13	3	64	
Deaths from Epidemics for the corresponding quarter, 1873.	1	3	4	0	31	11	11	61	

5 deaths from pyæmia, 5 from erysipelas, 3 from puerperal fever, and 3 from cynanche tonsillaris occurred in the District. A patient, sent from this District, died from fever in the Fever Hospital. The total number of deaths from fever, belonging to this District has been 4.

TABLE III.

Showing the Ages at Death in the Workhouse, and in the London Hospital for the Quarter ending 4th July, 1874.

	0 and under 1.	1 and under 5.	5 and under 20.	20 and under 40.	40 and under 60.	60 and under 80.	80 and upwards.	Total Males, 64. Females, 40.	Corresponding Quarter of 1873.
Workhouse	8	6	3	22	27	29	9	104	76
London Hospital	2	10	17	44	57	27	2	Males, 108 Females, 51	144

TABLE IV.—Ages at Death in each Registration District, for the Three Months ending 4th July, 1874.

Districts.	0 and under 3.	1 and under 5.	5 and under 20.	20 and under 40.	40 and under 60.	60 and under 80.	80 and upwards.	Total.	Remarks.
Artillery	6	5	3	3	0	5	1	23	
Spitalfields	12	12	14	9	13	6	0	66	
Mile E. N. Town	26	25	. 8	29	32	35	9	164	Workhouse.
Whitechapel, N.	20	12	1	7	10	5	2	57	
Whitechapel Ch.	8	15	20	44	63	31	3	184	Hospital.
Goodman's Fields	12	14	12	3	8	5	0	54	
Aldgate	8	16	4	4	7	6	1	46	
Totals	92	99	62	99	133	93	16	594	

TABLE V.—The Births and Deaths in each Registration District, for the Three Months Ending 4th July, 1874.

Districts.	Births.	Total.	Deaths.	Total.	Excess of Births over Deaths.	Excess of Deaths over Births.	Remarks,
Artillery	M. F. 2929	58	M. F. 158	23	35	0	
Spitalfields	8161	-142	3531	66	76	0	
Mile E. N. Town	8482	166	9371	164	2	0	Workhouse.
Whitechapel, N .	7062	132	3324	57	75	0	
Whitechapel Ch.	5432	86	12757	184	0	98	London Hospital.
Goodman's Fields	5035	85	3024	54	31	0	105 Non residents
Aldgate	3325	58	2620	46	12	0	died in the London Hospital.
Totals	401–326	727	359-235	594	231	98	Excess of Births over Deaths, deducting the 105 Deaths of non-residents, 238.

Population in 1861, 78,970. Population in 1871, 76,573. Decrease in Population between the Censuses of 1861 and 1871, 2,397.

TABLE IV. - Ages at Peatle in cash a gistmilen Fishelich for the Three
Months end with John 1874.

and the Blander was	-								
afa i	Total.	hea 08		Jens Co	Second Second	Lander 5.	ferre 0	Districte.	
* "	8.2	1	0			3	0 8	Artillary	
	99	0		0	14	12	21	Epitalfields	
Worldous	104	6		ce					
	78			70	L	13	20	Widteshopel, N.	
inigall	184	8			002	1.5	8	Whileolapel Cb.	
	15	9		8		14	EI	Goodman's Mold	
4 1 4	21	1			±.	16	8	Aldgale	
	100	51					20	sfaloT	

TARKE V.—The Births and Deaths in only Registration District, for the Three Months Bushing the John 1874.

	Remarks	Restins Parties Pitchs,		Destina	Tutal.	Dirite	Di triota
		0		M-1 .7	85		T. III.II
	* 1	0		1030	112	1913	ablahlatiqa
	Worksonse.	_0		17	101		HILD M. N. Town
		0		1202	103		Wishenbard, M.
	.fatigaell robust				28 -	2015	White charel Ch
	135 Non residents	0			43	5865	dodmana lelle
	edt ni beib Jerigu il nobnod	0		0232	88	3325	afaghta
- Comments	Process of Edition over Danies desirables of the 165 Database of Non-residents, 214	80			787	027-101	Totals

Population in 1801, 70,070. Population March 70,573. Decrease in Penglation between the Common of Address 1971, 2,507.

BOARD OF WORKS,

WHITECHAPEL DISTRICT.

REPORT

ON THE

Sanitary Condition

OF THE

WHITECHAPELEDANTRIC

FOR THE

QUARTER ENDING 3RD OCTOBER, 1874,

BY JOHN LIDDLE,

MEDICAL OFFICER OF HEALTH.

London:

PRINTED BY T. PENNY & Co., 121, LEMAN STREET, WHITECHAPEL, E. 1874.

REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

For the Quarter ending 3rd October, 1874.

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To the Board of Works, Whitechapel District.

GENTLEMEN,

In the quarter that ended on Saturday, October 3rd, 1874, the births registered in the Whitechapel District were 631; viz., 328 males and 303 females. During the same period the deaths have been 645; of these, 363 have been of males and 282 of females. In the corresponding Quarter of the previous year the births were 633, and the deaths were 573. There has been, therefore, a decrease of 2 in the number of births, and an increase of 72 in the number of deaths. In this Quarter the deaths have exceeded the births by 14, but if we deduct the deaths of non-residents in the London Hospital the births exceed the deaths by 59.

The deaths in the London Hospital have been 153; viz., 103 males and 50 females. Of the total deaths in this institution there were 22 of persons resident within the District, 86 of non-residents, and 45 of persons who died either suddenly or from the result of accident. The total mortality of this District is increased by the deaths of residents within the District which have occurred in other hospitals in the Metropolis; but of those I have no record. There were 2 deaths from typhoid fever in the London Hospital during this Quarter, and 1 from diarrhoea; all of which were of residents within the district. There was also 1 death from diphtheria,* which was of a non-resident.

Eight deaths from pyæmia,† and 2 from erysipelas occurred in this institution during this Quarter.

The deaths in the Workhouse have been 48; viz., 29 males and 19 females. One death from diarrhoea occurred in this establishment.

^{*} Diphtheria is thus defined:—a specific disease with membranous exudation on a mucous surface, (generally of the mouth, fauces, and air passages) or occasionally on a wound.

[†] Pyæmia:—a febrile affection resulting in the formation of abscesses in the viscera and other parts.

The deaths from epidemic diseases in the entire District have been 167; viz., 1 from small-pox, 4 from measles, 78 from scarlet-fever, 1 from diphtheria, 3 from hooping-cough, 59 from diarrhœa, 18 from fever, and 3 from choleraic-diarrhœa; of the 18 deaths from fever, 4 were from typhus, 12 from enteric and 2 from continued fever. Five deaths of patients from this District occurred in the Fever Hospital; thus making a total of 23 deaths from fever. There were 2 deaths from scarlet fever in the Homerton Hospital; thus making a total of 80 deaths from scarlet-fever. There were 3 deaths from erysipelas, 13 from croup, 1 from puerperal-fever, 1 from cerebro-spinal-fever,* 1 from rheumatism, 9 from pyæmia, 1 from dysentery, 1 from mumps, 1 from cynanche tonsillaris or quinsey, and 1 from malignant pustule.†

In the corresponding quarter of the previous year the deaths from epidemic diseases were 128; viz., 3 from measles, 6 from scarlet-fever, 3 from diphtheria, 10 from hooping-cough, 87 from diarrhœa, 13 from fever and 6 from choleraic-diarrhœa.

The deaths caused by diseases of the respiratory organs, exclusive of consumption, have been 54; of these, 20 were caused by bronchitis, 32 by pneumonia, 1 by laryngitis, and 1 by pleuritis.

Consumption was fatal to 69 persons. The deaths from other tubercular diseases were 44; viz., 21 from mesenteric disease, 13 from tubercular meningitis, ‡ 4 from hydrocephalus, or water on the brain, 4 from scrofula, and 2 from purpura. In the corresponding quarter of the previous year the deaths from consumption were 70, and from other tubercular diseases 44.

Diseases of the organs of circulation were fatal to 45 persons; of these, 33 died from disease of the heart, 5 from aneurism, 2 from diseases of the arteries, and 5 from pericarditis.

Diathetic, or constitutional diseases, were fatal to 24 persons; of these, 2 died from dropsy, 12 from cancer, 1 from mortification, 8 from abscess or from tumour, and 1 from cancrum oris, or gangrene of the mouth.

Diseases of the nervous system, exclusive of convulsions in children, were fatal to 28 persons; of these, 2 died from epilepsy, 13 from apoplexy, 10 from paralysis, and 3 from diseases of the brain.

Convulsions caused the death of 18 children. In the corresponding quarter of last year the deaths by convulsions were 27.

The deaths from diseases of the digestive organs were 15; viz., 3 from peritonitis, 3 from enteritis, 1 from hernia, 2 from disease of the liver, 2 from

^{*} Synonyms: Malignant purpuric fever; Epidemic-cerebro-spinal-meningitis. Definition:—A malignant epidemic fever attended by painful contraction of the muscles of the neck, and retraction of the head.

[†] Malignant Pustule:—A spreading gangrenous inflammation commencing as a vesicle on exposed skin, attended with peculiar hardness and fætor, and derived from cattle similarly diseased.

[‡] Tubercular meningitis or acute hydrocephalus.

disease of the stomach, 1 from ulceration of the intestines, 1 from disease of the rectum, and 2 from cirrhosis, or diminution and deformity of the liver.

The deaths from diseases of the urinary organs were 22; of these, 11 were caused by nephria or Bright's disease, 1 by disease of the kidneys, 6 by nephritis, 2 by retention of the urine, 1 by disease of the bladder, and 1 by Addison's disease. *

During the corresponding quarter of the previous year the deaths from diseases of the urinary organs were 21.

Enthetic diseases were fatal to 3 persons; of these, 1 died from congenital syphilis, 1 from syphilis, (adult), 1 from stricture of the urethra.

One child died from thrush.

There was 1 death from disease of the bones.

There were 7 deaths from premature birth, and 4 from teething.

Two adults died from privation, and 4 from intemperance.

Nine persons died of old age; of these, 8 were above 80 years of age, the ages varying from 82 to 93, and 1 from premature decay.

The deaths from atrophy and debility were 26, while in the corresponding quarter of last year they were 16. Child-birth was fatal to 3 persons, 1 person died from mis-carriage (flooding).

There were 44 deaths from violence; of these, 7 were caused by horses and vehicles in the streets.

One death occurred from psoas-abscess, 2 from malformation, 1 from disease of joint, 1 from spinal disease, and 1 from disease of the skin.

Four persons committed suicide; 1 by poison, 1 by wound, 1 by hanging and 1 by drowning.

Three persons died from the effects of burns.

The deaths from mechanical violence and from burns were, for the corresponding quarter of last year, 34 and 1 respectively.

Two persons were drowned accidentally.

Four children were suffocated in bed. In the corresponding quarter of last year one child was suffocated in bed.

One death is recorded by manslaughter.

The number of inquests has been 86. In the corresponding quarter of last year the number was 65.

A child, 2 days old, was suffocated through rupture of an abscess on the lungs.

UNCERTIFIED DEATHS.

The deaths which have not been certified by a medical practitioner have been only 3 during this quarter.

^{*} Addison's disease. Synonyms, bronzed skin, melasma addisoni. Definition:—disease of the supra-renal capsules, with discoloration of the skin.

MORTALITY OF YOUNG CHILDREN.

The mortality of children under five years of age was 274. This is 50·2 per cent. of the total mortality. In the corresponding quarter of the previous year the rate of mortality of children under 5 was 46·9 per cent. of the total mortality. In the Artillery sub-district the rate is 53·1 per cent.; in the Spitalfields, 50·5 per cent.; in the Mile End New Town, 44·2 per cent.; in the Whitechapel North, 55·4 per cent.; in the Whitechapel Church, 16·5 per cent.; in the Goodman's Fields, 53·3 per cent.; and in the Aldgate, 66·1 per cent.

PAUPER ILLNESS IN THE DISTRICT.

The Medical Officers of the Union have attended, during the quarter, 939 new cases of illness out of the Workhouse; including 5 of measles, 91 of scarlet-fever, 2 of hooping-cough, 104 of diarrhea, 79 of febricula, 42 of fever, and 5 of erysipelas. In the corresponding quarter of the previous year the number of pauper cases of illness was 1110; including 24 of measles, 10 of scarlet-fever, 13 of hooping-cough, 160 of diarrhea, 79 of febricula, 45 of fever, 2 of choleraic-diarrhea, and 5 of erysipelas. The total number of cases of illness in the Workhouse has been 571; including 2 of measles, 32 of diarrhea, 31 of febricula, 1 of fever, 51 of rheumatic-fever, and 7 of erysipelas. In the corresponding quarter of the previous year the total number of cases in the Workhouse was 554; including 2 of fever, 48 of diarrhea, 12 of hooping-cough, 28 of febricula, 1 of carbuncle, 49 of rheumatic-fever, and 10 of erysipelas.

TABLES OF MORTALITY AND SICKNESS.

On referring to the tables of mortality and sickness, in the Appendix, it will be seen that scarlet-fever, fever (consisting of cases of typhus, enteric, and continued fever), and diarrhea, have been the most prevalent. There have been also recorded in the books of the medical officers of the Union nine cases of lead poisoning, a disease which of late years has been very prevalent. Although I have instituted inquiries in nearly every case of lead poisoning which has occurred in this district, which had been attended by the medical officers, I have not been able satisfactorily to account for it. At all events, I have been unable in all cases to trace its origin to the patient working in a lead factory. Although this painful disease is fortunately not very frequently fatal, it would be most desirable for the public good that every medical practitioner, who has a case of this disease under his care, should trace it, if possible, to its cause, and communicate the result of his experience to the public press. By this means it is probable that the frequency of lead colic may be diminished.

METEOROLOGY OF GREENWICH.

The Returns of the Registrar-General show that the rain-fall in the Metropolis during the quarter has been 6.72 inches. During the

corresponding quarter of last year the rain-fall was 7.41 inches. The mean temperature of the air was 60.5°. In the corresponding quarter of last year the mean temperature was 56.3°. The hottest days during the quarter were Thursday, 9th July, Monday, 20th July, and Sunday, 19th July, when the thermometer indicated respectively 92.0°, 91.8°, 88.7°. The hottest day during the corresponding quarter of last year was on Friday, the 8th August, when the thermometer, in the shade, indicated 88.7°.

The Registrar General, in his report of births and deaths for the quarter ending June 30th, 1874, says, "that the rainfall of the quarter was 4.2 inches at Greenwich, which was an inch and a half below the average for the corresponding period in 59 years; of this amount, 1.4 inches fell in April, only 0.4 in May, and 2.4 inches in June. In the six months ending May, the rainfall was only 4.49 inches, and was 6.40 below the average. This remarkably small rainfall in these six months is without precedent, the nearest approach to it being in 1847, when the amount measured in the same period was 7.1 inches."

The following table, taken from the returns of the Registrar-General shows the comparative results of the Quarter:—

					-	-	T-LORESTON NAME AND		-	-	TO SECURE		
	July 11		July 25	Aug.	Aug.	Aug.	Aug. 22	Aug.	Sep.		Sep. 19	Sep. 26	Oct.
Deaths from Fever	23	41	26	27	35	30	32	28	31	23	30	33	25
Deaths from Scar-	43	24	52	41	58	52	62	72	68	87	105	75	107
Mean Tempera-	66-8°	65·7°	64'4°	61·2°	60-6°	58·2°	61.9°	59-4°	60 · 3°	56.40	55.4°	60.18	56.88
Rain-fall in inches	1.32	0.00	0.20	1.00	0.12	1.04	0.00	0.23	0.66	0.80	0.00	0.21	1.14
Deaths in London Deaths in White- chapel District.	1293 45	1534 43	1640 51	1651 60	1505 45	1368 43	03 54	1234 59	1207 51	1209 59	1242 49	1137 32	1163 54
Deathsin do.from Scarlet Fever	4	2	7	6	4	5	6	8	9	13	5	3	6

LONDON.

WATER SUPPLY.

In the last report of Major Bolton, addressed to the Secretary of the Local Government Board, dated 1st October, 1874, it is stated that the East London' Company had completed the extension of the constant system of supply in a considerable part of their district, which is densely populated, and retain their previously announced intention of bringing the whole district, section by section, under constant supply.

The first water-waste-preventer erected in this district was in Pool's Place, Spitalfields, in the spring of the year 1864.

VACCINATION.

WHITECHAPEL UNION.—Return of the number of Cases Vaccinated by the Public Vaccinator and the Medical Officer of the Workhouse, together with the number of Births Registered during the same quarters.

QUARTER ENDING	PUBLIC V	ACCINATOR	WORK	HOUSE.	Тот	ALS.	BIRTHS
COARIER ENDING	Primary Cases.	Re-Vacci- nation.		Re-Vac- cination	Primary Cases.	Re-Vacci nation.	REGISTD
December, 1872	 263	0	23	1	286	1	685
March, 1873	 290	6	23	0	313	6	720
June	 331	2	17	0	348	2	663
September,	 266	0	36	0	302	0	644
December,	 256	2	39	1	295	3	673
March, 1874	 335	1	37	0	372	1	640
June	 411	2	30	0	441	2	726
September, 1874	 329	0	30	0	359	0	630
TOTALS	 2481	13	235	2	2716	15	5381

Typhoid or Enteric Fever, Typhus, and Scarlet Fever.

These diseases have, during the last nine months, been very fatal in this District. The deaths from typhoid and typhus, which in the returns are not always separated, but are classed under the generic term "Fever," were, in the quarters ending January, April, July, and October, respectively, 11, 9, 4, 23; and the deaths from scarlet-fever during the same quarters were 9, 13, 42, 80.

Typhoid or enteric fever has been designated by Dr. Murchison "Pythogenic," signifying putrescent fever, or fever generated by putrescence. The word pythogenic, as applied to this kind of fever, is not now often used, for it is denied that the disease is caused by filth, even when filth is in a state of putrefaction, and is only propagated by contagion.

This may be true, nevertheless, as dirt and decomposing filth, when the same are contiguous to inhabited houses situated in confined localities, tend to lower the vitality of the inmates, and thus render them more liable to receive the poison of epidemic disease, it is the duty of all persons engaged in carrying out the sanitary laws to cause to be removed, without any unnecessary delay, all nuisances in the vicinity of dwelling-houses; and especially to see that every house is properly drained, and the drains provided with efficient traps; for as London is never entirely free from epidemic disease, and as the discharges from the sick are usually, without previous disinfection, passed into the house drains, and so conveyed into the sewers, these conduits of filth are always more or less charged with the poison of epidemic disease, and persons inhaling the emanations from the sewers are particularly liable to suffer from any prevailing epidemic. It is

estimated, as I pointed out in a former report, that in London there are seldom less than 2000 deaths annually from fever, and about 14,000 cases; and the average number of deaths annually in London from scarlet fever, from 1838 to 1872, has been 2552, the lowest number of deaths in any one year having been (1841) 663, and the highest in 1870, when the deaths were 5803.

SANITARY WORKS PERFORMED DURING THE QUARTER.

The following return shows the amount of work done by the Sanitary Inspectors during the Quarter ending October 3rd, 1874:-Number of inspections of houses as shown in the official returns......2424 Houses specially visited 247 Ditto specially re-visited......1152 Preliminary notices served, such notices embracing 304 premises 274 Summonses heard at Police Courts under Sanitary Act ditto Adulteration of Food Act..... 0 Cellars used as dwellings discontinued for such use Cases of overcrowding and indecent occupation abated Houses in which the rooms or passages have been whitewashed...... 196 Rooms disinfected with sulphurous acid gas after the occurrence of) 15 Trades' Nuisances abated 0 Yards of houses paved or the pavement repaired 70 Drains in houses improved 50 Cesspools abolished Dust-bins provided 28 Privies lime-washed, cleansed and repaired 115 Nuisances from dung and other offensive matter removed Area gratings and cellar flaps repaired

It appears from the above returns that the quantity of bedding, &c., which has been removed and disinfected has been small, in relation to the large number of cases of scarlet fever, and of fever, which have occurred in this District. Mr. Battram informs me that in nearly all cases objections are made by the parties concerned to the removal of their clothes to the disinfecting apparatus, preferring to adopt such means as they think will accomplish the end in view. The plan which, in many cases, the parties adopt is, when their beds consist of old ticks stuffed with straw or shavings, either to empty the contents into a public dust-bin, or burn them, and wash the old ticks. They also wash the few clothes which they possess, and so prevent the exposure of their poverty. They would be very willing to have all their clothes and bedding destroyed by the officers of the Board, if the Board would replace them with new clothes, &c. The Board can, under the provisions of the amended Public Health Act, replace with new all the infected bedding and clothes which it is deemed necessary to destroy.

DISINFECTION.

Although we are not able satisfactorily to state how the several disinfectants now in use operate in destroying contagious matter, yet, from the experience of many learned and practical physicians, we have no reason to doubt that the proper use of certain agents, known as disinfectants, will destroy the infection which may be contained in articles of clothing, bedding, rooms, sewer gases, and the excreta of patients suffering from contagious disease. We are, nevertheless, bound to use, to the best of our ability, such means as are known to us, whereby the spreading of contagious diseases will be prevented. Notwithstanding that our knowledge is limited, as to the causes of epidemic diseases, and that we are unable to account for the rise, culmination, and decline of epidemic diseases, and cannot assert with confidence that any one particular agent will effectually destroy contagious matter, we may probably prevent the development of typhoid fever and other epidemic diseases, by the adoption of the following means:—

Firstly-By the practice of cleanliness in our houses and persons. Secondly-By efficient ventilation in our houses, and especially in our bedrooms. Thirdly-By complete drainage, whereby all refuse matter in a fluid state shall be immediately carried away from our habitations. The drains should be so constructed as to prevent the noxious gases which they contain from making their way into our houses. I may here observe, that unless the public sewers, and house drains which communicate with them, be properly constructed, they may be the means of diffusing the germs of disease, by allowing their contents to soak into the ground, and so contaminate the sources of the water supply; and they may also, through their imperfect construction, diffuse their poisonous emanations through the atmosphere, and thus spread disease among the people. Fourthly-By the Local Boards causing all the streets to be cleansed daily. This should be done uniformly throughout the Metropolis. Fifthly-By the prompt removal of all nuisances from the vicinity of dwelling houses. Sixthly-By the use of pure drinking water; and, lastly, by so observing the laws of health, as regards the avoiding of overcrowding, by temperance, by proper food, by warm clothing, by exercise in the open air, &c., that the body may be preserved in health, and thereby enabling it to a great extent to resist disease. As the poor cannot, by means of their poverty, carry out in their persons all that is above stated as being necessary to be done to preserve the body in health, it may be expected that they will suffer more from the ravages of an epidemic disease than their richer brethren. I will conclude this part of the subject by reiterating the aphorism, that "Prevention is better than cure;" and that it will be found in every respect more conducive to the welfare of the people to oppose the attack of an epidemic disease by adopting such sanitary means as will prevent the contamination of the water supply, and the pollution of the air, and to preserve the soil in the vicinity of human dwellings from all refuse matter and filth. I say that it would be better to do these things, and not rely on the value of any disinfectant to stay the ravages of disease when it has obtained admission into the houses of the people.

DIFFICULTY IN CARRYING OUT DISINFECTION IN A SATISFACTORY MANNER.

Mr. Battram, the Senior Sanitary Inspector of this District, who has had considerable experience in the use of disinfectants in the houses of the poor, says that the difficulties in carrying out disinfection in a satisfactory manner are very great;

Because the friends of the patients sometimes object to have them removed to the hospital, or the patients themselves often refuse to go there, thereby preventing the disinfecting of the rooms from being carried out until they are sufficiently recovered to be able to leave the house with safety, which, perhaps, they are unable to do for ten days or more. A case of epidemic disease frequently occurs in a room in which four or five other persons live and sleep; and it sometimes happens that before the patient has recovered another person in the same room is taken ill with the same disease. Under these circumstances it is impossible to disinfect the room, or the bedding, as they ought to be done. cases persons object to have their clothes removed, because they are so old and dirty, and consequently they do not like to have them exposed. Besides, it is in many cases impossible to obtain possession of the rooms for a sufficient length of time so as to properly stop up the windows, fire-places, &c., in order to prevent the rapid escape of the fumes of the disinfecting gas from the rooms, as the rooms can seldom be obtained for the purpose of using disinfectants for more than an hour, as the occupants have no other room to remain in during the operation. They are therefore compelled to remain in the streets, which, during a cold and damp season, would perhaps be very injurious to such as are in a debilitated condition.

Mr. Battram has accordingly acted very cautiously in this matter. Again, a sick person may be visited by friends or neighbours, and it sometimes occurs that as many as six or seven persons are at the same time in a room, in which a patient is suffering from an epidemic disease.

If a death take place in an Irish Roman Catholic family, a Wake is held over the body, when, perhaps, twenty or more persons will be present in the small room in which the patient died. This is no doubt a cause of extending the disease, and carrying the contagion into other homes. Further, the father, and perhaps some of the family, go out to work, and the children mix with other children at play, the mother, perhaps, taking in washing and mangling. Again, some of the rooms in which patients are suffering from contagious disease are occupied by tailors, bag makers, &c., who have work given them from shops or warehouses to do at home, and thus the germs of the disease may be extensively spread. In order, therefore, to prevent the diffusion of the germs of contagious diseases, when the patient cannot be isolated, it is necessary to cause him to be removed under the advice of the medical attendant to a hospital.

If the Board had vacant houses at their disposal in different parts of the District, to which the healthy could be removed, much, in the way of imiting the ravages of disease, might be done; but in such a place as London, I am afraid this plan is almost impracticable. It has been often spoken of and written about, but no attempt that I am aware of has been made to carry out the suggestion. Mr. Battram further says, that he visited a house fifteen or twenty times before he could get the rooms and clothes disinfected.

Mr. Battram adds, that he has been informed that persons who have died from fever, in the Fever Hospital, are taken from thence to the residence of their relations, where they remain until they are buried. In such cases means should be adopted to prevent this fertile source of spreading disease. All patients dying of contagious disease in hospitals should be buried from the hospital, or the corpses should be removed, under approved regulations, to a mortuary, and kept there until they are buried.

SANITARY CONDITION OF THE WHITECHAPEL DISTRICT IN 1852.

As I thought it might be interesting to some of the inhabitants of this District to know its sanitary condition in 1852, in order to enable them to compare it with that which it now presents, I have added to this Report the following extracts from the Report of Dr. Sutherland, Medical Superintending Inspector to the General Board of Health, on the Sanitary Condition of the Epidemic Districts in the Whitechapel Union, dated 12th October, 1852.

WHITECHAPEL UNION.

"The annual deaths in the Union, from all causes, on an average of years from 1838 to 1844, amounted to 29 in 1,000, showing it to be the most unhealthy of all the 38 metropolitan districts except two, West London and St. Saviour's. In the year 1839 the proportion of deaths from epidemic disease was nearly 20 per cent. of the whole mortality; nearly one half of the total deaths occurred in children under 10 years of age: the excess of deaths in that year over those incident to healthy localities was 768, or above 33 per cent. of the whole 'mortality." In the year 1873, the rate of mortality in this District, deducting from the total deaths the 393 of non-residents, which occurred in the London Hospital, was 26.5 per 1000. In the preceding year the rate of mortality, after making the deduction of the deaths of non-residents was 26.3.

"In 1832, at the period of the first epidemic of Cholera, Whitechapel District contained a population of 52,848, and there were 470 deaths from Cholera, or about 1 death in 113 of the population.

"In 1849, the next epidemic year, the population had increased to 78,590, and the deaths from Cholera were 506, or 1 in 155, besides 155 deaths from Diarrhœa, which raised the whole mortality from the epidemic to 661, or 1 in about 119.

"Swallow's-gardens.—This place is inhabited by very poor people; there are no drains, and each house has a cesspool."

"St. Mark's-terrace, Tenter-ground.—In this ground there are 15 dungheaps, and it is a receptacle for all sorts of decayed vegetable matter and fish guts. There is no surface drainage, and the water lies in stagnant pools." The whole of the Tenter Ground was improved under the provisions of the Whitechapel Improvement Act.

"Shorter's-rents, Dock-street.—This court is close and crowded. There is a large privy opposite the doors of the centre houses, also at the entrance of the court, the refuse from a soap work runs down as surface drainage." The soap work is now abolished.

"Queen-street.—A very close confined street. The houses without ventilation." Very little improvement has been effected in this street.

"Crown-court, Glasshouse-street.—This court is very densely populated by persons of dirty, intemperate habits." Pavement is now improved, and the court is less crowded.

"Cooper's-court, Blue Anchor-yard.—In this court there are about 200 persons closely packed. In one house containing three rooms there are 19 persons living." This court is now less crowded.

"Darby-street, Royal Mint-street.—Open street, but surrounded by a bad locality." This street is but very little improved.

"In the Fourth Annual Report of the Poor Law Commissioners, published in 1838, there is a description given of the sanitary condition of some parts of Whitechapel Union by Dr. Southwood Smith, which I shall introduce for the sake of comparison with the condition of the same localities at the present time. He says, "The greater part of Whitechapel is very badly drained: in many places the population is densely crowded: the streets, courts, and alleys, as at present constructed, admit of no current of air: large collections of putrefying matters are allowed constantly to remain in the neighbourhood of the houses, and the houses themselves are extremely filthy."

"The following illustrations of this are given:

"Baker's Arms-alley.—A narrow court with a dead wall about two yards from the houses, the wall as high as the houses. The principal court is intersected by other courts extremely narrow, into which it is scarcely possible for air to penetrate. Close to the dead wall, between the wall and the houses, is a gutter in which is always present a quantity of stagnant fluid full of all sorts of putrefying matter, the effluvia from which at the present moment are most offensive, and the sense of closeness extreme. All the houses are dark, gloomy, and extremely filthy; at the top of the innermost courts are the privies, which are open and uncovered, the soil of which is seldom removed, and the stench of which at the present moment is abominable. The fever here has been extremely mortal, and has raged in almost every house." This place is now entirely demolished.

"Johnson's Change, front and back.—A cluster of four courts opening into each other; the houses are crowded with inhabitants. Some time ago a cesspool overflowed in one of these courts, and its contents were allowed to remain upon the surface for several weeks. After a time fever of a malignant character broke out in the house next the cesspool, and has since

extended to almost every house in all the courts. There is here no drainage of any kind, there is consequently a great accumulation of filth, and the sense of closeness is stifling."

"Cartwright-street.—A long street with an open gutter in the centre; in this street fever has been prevalent in every house. In Walton-court, a narrow and close court, terminated at the extremity by a dead wall as high as the houses, fever has prevailed in every house."

"Blue Anchor-yard.—An open gutter in the centre always full of putrefying matter; abounds with narrow courts, in which the accumulation of filth is excessive, and it is scarcely possible for any air to penetrate. In the whole of this street fever has been extremely prevalent, but in the courts scarcely a house has escaped. At one extremity Blue Anchor-yard making a sudden turn terminates in a street called New Martin-street, through which the same gutter runs or rather stagnates; fever has been in every house in this street without exception."

"The streets on the northern side of Whitechapel, as Essex-street, Castle-street, Castle-alley, Goulston-street, Petticoat-lane, Tewkesbury-court, George-yard, New-court, and the whole of Wentworth-street, and all the courts, alleys, and passages in the neighbourhood, are without any drainage, and extremely filthy and close. Fever has raged dreadfully in the whole of this district; in some cases six persons of a family have been ill of it together, all in one room, and four in one bed." Some of the above named places have been pulled down and most of the others are improved, but much more is required to be done to them.

"In the year ending March 20th, 1838, Whitechapel had no fewer than 2,405 cases and 214 deaths from zymotic disease among its 5,856 paupers.

"I have made an inspection of a considerable portion of Spitalfields, a part of Mile-end New Town, most of the north part of Whitechapel, and the neighbourhood of Rosemary Lane, and have witnessed scenes that would have appeared almost incredible without personal examination. I have seen court after court, and house after house, which in a sanitary point of view are scarcely fit in their present state for the abode of man.

"The history of populous courts and neighbourhoods may be summed up in a very few words,—no paving or bad paving, cleansing defective, no efficient drainage, bad water badly distributed, cesspools or open privies over drains loaded with putrescent deposit, filth within and without the houses, no ventilation." The above remarks are not now applicable to the courts in this District.

"I visited a number of courts out of Quaker-street, Spitalfields, and streets adjoining, and found them in a most deplorable condition. They are unflagged, the surface broken up into hollows, or having trenches dug in them, filled with foul water and putrescent refuse; the whole surface wet, exhaling unwholesome vapours; the foul water sometimes standing in pools before the doors, and heaps of refuse in corners. I entered one of these

courts and saw an open butt standing close to an open privy, and under the same roof. It was half full of a yellowish fluid, which I was desirous of knowing the use of, for it never struck me that it was the water belonging to a household. I knocked at the door and asked what it was used for. The people seemed surprised, and said that it was the water which had only been collected that morning. There was a standpipe in the yard, which was stated to give out this fluid for about an hour a day. There was evidence of the fact in the water-logged surface of the court, into which the waste water had sunk so as to add another cause of disease to the already unhealthy court. I asked a woman if she got the water supply for her family out of the butt. She replied that she had a store of her own, and produced a gallon stone bottle half full, which would have to last her till next day.

"In another court where there was a standpipe I asked a woman who was hard at work what she collected the water in when it came on: she gave an evasive answer, and at last said she would show me, and produced a small tub capable of containing about a gallon, but it was empty. She had no water in the house.

"The other courts I visited in this neighbourhood were in much the same state. They have all open privies, in a loathsome condition; they are all undrained, and have the surface filthy, and without flagging or cleansing.

"There are a number of houses in Wilks-street, the back yards of which are in a similar dirty and unwholesome condition. The water supply is chiefly received in open butts, and has the same disgusting appearance already described. While in one of the houses I heard a sound of running water, which I followed down a flight of steps into a dark noisome cellar. A boy had followed with a small pitcher in his hand. I asked him where the sound came from. He replied that it was only the water that had come on. It was running over the floor, and I asked if there was no way for its escape. He said there was a hole in the floor somewhere, and it got away somehow. This was under a densely-peopled house. The houses are supplied with open privies, the exhalations from which were extremely offensive. In a court in the same neighbourhood the water was jetting out of the pipe in curve over the surface. There was a deep trench, full of water and vegetable refuse, cut across the court, which was unflagged and perfectly soaked. The water was escaping down a hole close to the privy, either into a cesspool or by a drain."

All the abovementioned places are now in every respect much improved.

"I visited the courts along Wentworth-street, Old Montague-street, Princes-street, Duckingpond-row, Petticoat-lane, and Rosemary-lane, with Mr. Taylor, assistant relieving officer. A few are well flagged, and wherever this improvement is efficiently done the courts present a remarkable contrast to others in the neighbourhood.

"In one instance there were two courts, about the same length and breadth, next to each other. Both were inhabited by the same class of people, chiefly Irish, the only apparent difference being that one court was

flagged and the other not. The flagged court and the houses were dry and clean; the unflagged court and houses were both filthy. In one of these courts the water happened to be on at the time. The people had filled a few small tubs, and the water was running to waste. I measured the quantity, and found it to be about four gallons a minute.

"With few exceptions, all the courts I inspected along the line of streets already mentioned are in an unhealthy condition. They have either no flagged surface, or it has been broken up. The water supply is very defective. There is no house drainage. There are open privies and cesspools which the people said they could never keep clean. There are numerous nuisances on the surface of the courts, such as refuse, house soil, foul water in holes, trenches, and channels. The structure of many of these courts is so complicated, and so opposed to the possibility of ventilation, that it is surprising to witness the amount of perverse ingenuity which has been spent in their erection. Such places as Three-tun-alley, Goulston-court, and Irish-court, at the top of Goulston-street, Boar's-head-yard, and the courts out of Petticoat-lane, and many others, are hardly suitable for human dwellings in their existing state.

"At the present time scarlet fever of a typhoid character prevails to some extent over the northern portion of Whitechapel Union, and is traced by the medical officers to distinct localising causes in not a few instances.

"Mr. Hart mentioned an instance in which he had had five cases and one death from this disease in a house over a stable in a court.

"Mr. Champneys stated that scarlet fever prevails where the cleansing is defective, and he mentioned that the disease had been prevalent in Princesstreet, near the gulley grates of the sewers.

"Mr. Nash, who attends in the opposite side of Princes-street, mentioned the same fact to me, and attributed it to the same cause. He also connected the prevalence of scarlet fever with nuisances, and gave as an illustration that he had several cases in a house behind which pigs are kept.

"It is not only the poorest class of property which presents defective sanitary conditions. There are a number of streets of a better class at the east end of this same division of Whitechapel called Finch-street, Little Halifax-street, John's-street, Luntley-place, Dowson's-place, &c., which are wide and well ventilated, but there is no drainage and no paving. The surface of the street consists of earth, and was covered with ruts in which water was laying. The lowest rooms are entirely below the level of the street. The houses are furnished with cesspools." The cesspools are now all abolished, the courts are better paved, and the water supply is very good.

"Another illustration of the same kind exists in the south part of Whitechapel. A number of very good well-built houses, with wide well-arranged streets, called Tenter-street, of which there are four of the same name, Newnham-street, &c., are unpaved, and some cannot be cleansed because there is no paving, and the surface is covered with ruts and hollows." These streets are now well paved and drained.

"On inspecting the courts along Rosemary-lane, I found that several of the worst of them had been improved since the last epidemic cholera. I have already mentioned Blue-anchor-yard and courts amongst the number, but some are as bad in a sanitary point of view as they were in 1849." All these Courts, although still in a very unsatisfactory condition, have been improved.

"I went into a court called Peter's-court, and began to look about, whereupon a number of women came round and began to complain of the wretched condition of their houses. They said they had no water, and one woman asserted that she had been glad to go to an adjoining court and lift the water off the paving stones. Others said they had an irregular supply of about a pint a day each from a tap which gave out water three times a week from an iron tank. In Peter's-court and Wells-court, containing in all 33 houses, there is no water supply. I went to a man of the name of Solomon, who keeps a shop in a narrow street adjoining, and he said he had made inquiries on the subject, the result of which was that on an estate of 100 houses, in Cartwright-street, Turner-street, Darby-street, Peter's-court, Wells-court, &c., with a population of 1,200 persons, there was no water except from a well, and that it furnished no more than from a pint to a quart a day to each inhabitant. He stated that a steam engine had been ordered to pump up the water; but such is the present condition of these poor people with the prospect of another epidemic of Cholera before them.

As might have been anticipated, the houses in Peter's-court are in a very deplorable condition. They have neither drainage nor water supply, and the cesspools are in dark underground cellars directly under the living rooms. I descended into one of these, but the odour was so horrible that I had to make a precipitate retreat."

This locality is now improved, and all the houses are supplied with water chiefly on the constant service, but such is the condition of most of the houses, owing to their age and faulty construction, that they cannot be made into healthy habitations.

"The courts running up behind the docks are generally well flagged and clean, although they are very narrow, dark, and badly ventilated. As a whole, the flagged courts all over the Union present a remarkable contrast, in a sanitary point of view, with those which are either unflagged or only partially or imperfectly done. The immediate effect is visible in the removal of a filthy evaporating surface covered with soil, house refuse, and pools of foul water, keeping the atmosphere constantly charged with fœtid vapours, and rendering cleanliness in the houses impossible, and substituting for it a smooth, even, properly levelled surface, adapted for surface drainage, and on which the least impurity is at once detected, and can be easily removed by water. In several instances large gutters have been made in the flagging for the purpose of facilitating the surface drainage; this, however, is an error in construction. In nearly every case where it has been adopted water and filth have accumulated in the gutter. The best practical result I have found

to be obtained simply by inclining the pavement so that the water flows towards the middle line, and so to the entrance of the court.

"The medical and other officers with whom I conversed agreed in stating that there had been some improvement effected in the Union generally, since the last epidemic cholera. The pulling down of houses for new streets has opened up the ventilation in a few close epidemic localities.

"The cleansing has been improved, and there are fewer nuisances. But bone-boiling and starch-making are still carried on in populous neighbourhoods, and there are many slaughter-houses and filthy ill-kept stable-yards and similar places." All the bone-boilers have removed from this district.

"In proof of the manner in which these nuisances injure the health and destroy the lives of the working classes, I may cite the following examples from the Registrar General's Report for the week ending October 9th, 1852:—

"The son of a labourer, aged one year, died on the 4th October, at 16, John-street, Whitechapel, North, from 'inhaling a poisonous atmosphere, congestion of both lungs (30 hours).' Dr. Godfrey subjoins on his certificate, 'I was only called to attend this child when it was dying. It is probable that it had also some sudden inflammation of the coats of the stomach and intestines. The air is poisoned by bone-boilers and stinks of a most disgusting and unwholesome nature. In this close, over-populous and dirty neighbourhood, fever and all malignant and contagious diseases constantly exist, and are propagated through the surrounding districts.'

"As Whitechapel does not suffer from natural defects of position, like some other districts of the metropolis, I consider that the public health may be materially improved by active perseverance in the removal of everything that can injure the purity of the atmosphere.

"All courts should be very carefully attended to. At present many of them are in an extremely unhealthy condition, and this should be amended as far as practicable by continuous surface cleansing, and removing all surface water from them. The most marked and immediate benefit of a sanitary kind would be effected by flagging the whole of them, were there the necessary powers and means to do so.

"A careful inspection should be made of dilapidated filthy houses, which abound in many localities. These should be carefully cleansed and limewashed. This is a most valuable preventive measure, and would be of great use against the scarlet-fever now prevailing in the epidemic localities, as well as against cholera.

"Above all, these cleansing measures should be persevered in so as not to allow the unhealthy districts to fall back into their present condition. It will be of little use to go over all the districts once and then to leave them. What is wanted is constant inspection, and the constant removal of every removable cause of atmospheric impurity."

As the following Petition, which, in 1845, was presented to the House of Lords by the Marquis of Normanby, gives a description of Blue Anchor Yard and the Courts therein, I have set forth the same in full:—

The humble petition of the undersigned sheweth:

That your petitioner, in the capacity of Medical Officer of the Whitechapel Union, is called by his professional duties to visit daily the dwellings of the poorer classes in this Union; many of which dwellings are at the present moment in so filthy and poisonous a condition as to endanger the lives of those who reside in them, and the health of the neighbourhood.

That an account of the condition of the streets, courts and alleys in this District, which made a powerful impression on the public mind and published six years ago by the Poor Law Commissioners, from a report by the Physician of the Eastern Dispensary, Dr. Southwood Smith, the accuracy of whose description was verified by the personal inspection of the Marquis of Normanby, Lord Ashley, and several other members of both Houses of Parliament.

That not only has nothing been done from that time to the present to improve the condition of most of these streets, courts, and alleys, but they have been progressively getting worse and worse. That in Blue Anchor Yard, for example, which is described in the report just referred to as a "street abounding with narrow courts, where it is scarcely possible for anyone to penetrate, there being in the centre of the street an open gutter, which is always full of putrifying matter," there are now in addition, large holes, which, as well as the gutter, are constantly filled with all sorts of refuse and filth. There is no footpath, and the houses, which are dilapidated and filthy to the last degree, without drainage, without water, and we without privies.

That among the houses in one of the small courts in this street—Cooper's-court, one was in such a dilapidated condition that it was necessary to take it down some time ago, and the site is now occupied by a large dung-hill, formed of every description of refuse matter mixed with the contents of privies and the filth of adjoining pigsties, several of the rooms in the immediate neighbourhood of this court being inhabited by pigs. Again, in Rose Court, another court in this street, some of the old dilapidated wooden houses which formed one side of this court have been recently pulled down. Into the vacant space the contents of the privies of Crown Court empty themselves, forming a large reservoir of most filthy fluid composed of the contents of the privies and rain-water, from which a noisome stench exhales, and into which the children, many of whom are always found at play near this dangerous spot, may readily fall and perish instantaneously from suffocation.

That it was stated, six years ago, that fever had been extremely prevalent in the whole of Blue Anchor Yard, that in its narrow courts scarcely a house had escaped, and that in the extremity of this street, where it makes a sudden curve, fever had been raging in every house without exception.

That your Petitioner, from his own personal knowledge, can testify that fever has been more or less prevalent in all those places ever since, and that a few days ago the wretched and squalid inhabitants expressed to your Petitioner the utmost apprehension at the setting in of the warm weather, conceiving that their children must inevitably become the victims of fever; yet they know not how or where to seek for redress.

That your Petitioner, well aware that these apprehensions are but too well founded, has used his best exertions to get this street placed under a paving commission, and that he did succeed in getting a plan drawn at the expense of the Ratcliff Commission; but when it was found that the property was so bad as to be capable of affording no return in the shape of rates, the plan was abandoned, the Commission

assigning as a reason for so doing nothing that they were not a Board of Health, and that they could undertake no improvements that would not pay.

That your Petitioner believes that this difficulty in improving the condition of the most noisome localities in which the poor are obliged to take up their abode, is by no means confined to the Eastern district of this Metropolis; but that this case is only one example among the innumerable others which shows the absolute necessity of legislative sanitary regulations.

That your Petitioner trusts that in any legislative sanitary regulations which the wisdom of Parliament may adopt, your Honorable House will make provision for the appointment of a District Medical Officer of Health, whose special duty it may be to take cognizance of the condition, and to report thereon to some competent authority, of places and habitations so dangerous and destructive to the public health as those which your petitioner has now sought to bring under the notice of your Honorable House.

And your Petitioner will ever pray.

JOHN LIDDLE.

March, 1845.

After the publication of this Petition in some of the daily newspapers, the Trustees of Whitechapel Parish made a proposal to the Ratcliff Commission to pay to them the sum of £250 to take under their jurisdiction this locality, which was adjacent to their District. This offer was accepted, and the Ratcliff Commission paved the street and those courts therein which their respective landlords were willing to place under the control of the Commission. Before, however, the street was paved, I presented a Petition to the Tower Hamlets Commission of Sewers praying them to construct a sewer therein. The Prayer to this Petition was granted, and no charge was made to the owners of the property on either side of the street.

I am, GENTLEMEN,

Your obedient Servant,

15, GREAT ALIE STREET.

JOHN LIDDLE.

APPENDIX.

TABLE I.—Cases of Sickness of the Zymotic and Acute Classes, which are recorded in the Books of the Medical Officers of the Union, for the Three Months ending on the 3rd October, 1874.

Names of				1.		ıd hœa.	ver, hoid.						Pulm	onary mation.		er.			ans.		les.	
Medical Officers.	Small-Pox.	Measles.	Scarlatina.	Hooping-Cough.	Diarrhea.	Cholera and Choleraic-Diarrhœa.	Continued Fever, Typhus & Typhoid.	Febricula,	Pyæmia.	Erysipelas.	Puerperal Fever.	Croup.	Bronchitis and Catarrh.	Pleuritis and Pneumonia.	Carbuncle,	Rheumatic Fever.	Ague.	Dysentery.	Delirium Tremens.	Lead Poisoning.	All other Diseases.	TOTAL.
Dr. Swyer	0	0	20	0	25	0	2	8	0	0	0	0	2	6	0	3	0	0	2	3	84	155
Mr. Champneys	0	1	2	0	19	0 -	0	18	0	0	0	0	17	0	1	4	0	0	0	0	128	190
Mr. Sequeira	0	2	19	2	18	0	17	9	0	2	0	0	6	0	0	4	1	0	1	2	77	160
Mr. H. Braye	0	2	21	0	27	0	2	28	0	2	0	0	14	3	0	1	0	0	1	4	159	264
Mr. Loane	0	0	29	0	15	0	21	16	0	1	0	0	10	0	0	1	0	0	1	0	76	170
TOTAL	0	5	91	2	104	0	42	79	0	5	0	0	49	9	1	13	1	0	5	9	524	939
Corresponding Quarter of previous Year.	0	24	10	13	160	2	45	79	0	5	0	1	63	22	1	11	2	3	1	4	664	1110
Workhouse Mr. J. J. Ilott.	0	2	0	0	32	0	1	31	0	7	0	0	52	10	2	51	1	1	7	3	370	571

No case of Scarlet-fever or of Dropsy after Scarlet-fever has been admitted into the Workhouse during this Quarter.

TABLE II.

Ages at Death in each Registration District, for the Three Months ending 3rd October, 1874.

Districts.	0 and under 1.	1 and under 5.	5 and under 20.	20 and under 40.	40 and under 60	60 and under 80.	80 and upwards.	Total.	Remarks.
Artillery	8	9	2	4	5	2	2	32	
Spitalfields	28	19	7	0 6	20	11	2	93	
Mile E. N. Town	32	25	8	14	26	23	1.	129	Workhouse,
Whitechapel, N	26	23	13	4	8	4	4	82	
Whitechapel Ch	16	15	27	56	56	16	1	187	Hospital.
Goodman's Fields	17	15	7	8	7	5	1	60	
Aldgate	14	27	5	0.5	9	2	0	62	
Totals	141	133	69	-97	131	63	11	645	

It appears, on perusal of the above Table, that the rate of mortality of children under 5 years of age, in relation to the total deaths in the entire District is 50.2 per cent. It varies, however, in the several sub-districts. Thus in the Artillery sub-district it is 53.1 per cent.; in the White-chapel North it is 55.4 per cent.; in the Goodman's Fields it is 53.3 per cent.; in the Spitalfields it is 50.5 per cent.; in the Aldgate it is 66.1 per cent.; while in the districts of Mile End New Town and of Whitechapel Church, the rate is respectively 44.2 and 16.5 per cent.; the former district contains the Workhouse, and the latter the London Hospital.

TABLE III.

The Births and Deaths in each Registration District, for the Three Months ending on the 3rd October, 1874.

Districts.	Births.	Total.	Deaths.	Total.	Excess of Births over Deaths.	Excess of Deaths over Births.	Remarks
The right with the	M. F.		M. F.				
Artillery	2229	51	1715	32	19	0	
Spitalfields	5760	117	5142	93	24	0	
Mile End N. Town	7280	152	7059	129	23	0	Workhouse.
Whitechapel, N.	5745	102	4735	82	20	0	
WhitechplChurch	4226	69	11770	187	0	118	London Hospital.
Goodman's Fields	4637	83	3228	60	23	U	86 Non-residents
Aldgate	3126	57	2933	62	0	5	died in the London Hospital.
Totals	328 303	631	363 282	645	109	123	Excess of Births over Deaths, deducting the 86 Deaths of non-residents, 59

Population in 1871, 76,573. Population in 1861, 78,970. Decrease in Population between the censuses of 1861 and 1871, 2,397.

TABLE IV.

Showing the Deaths from Epidemic Diseases, for the Three Months ending 3rd October, 1874.

Districts.	Small-Pox.	Measles.	Scarlet Fever.	Diphtheria.	Hooping- Cough.	Diarrhœa.	Fever.	Cholera & Choleraic Diarrheas.	Total.	Remarks.
Artillery	0	0	6	0	0	6	3	0	15	
Spitalfields	1	1	9	0	1	10	3	2	27	
Mile End New Town	0	0	13	0	2	15	3	0	23	Workhouse.
Whitechapel, North	0	2	15	0	0	15	1	0	33	
Whitechapel Church	0	0	5	1	0	5	3	0	14	Hospital.
Goodman's Fields	0	1	13	0	0	3	3	1	21	
Aldgate	0	0	17	0	0	5	2	0	24	
Totals	1	4	78	1	3	59	18	3	167	
Deaths from Epidemics for the corresponding Quarter, 1873.	0	3	6	3	10	87	13	6	128	

The deaths from Pyæmia were 9, from Erysipelas 3, from Croup 13, from Rheumatism 1, from Dysentery 1, from Cerebro-spinal Fever 1, from Mumps 1, from Quinsey 1, from Puerperal Fever 1, and from malignant pustule 1. Five deaths from Fever of persons belonging to this District and 2 from Scarlet-fever occurred in the Fever and Small-pox Hospitals.

TABLE V.

Showing the Ages at Death in the Workhouse, and in the London Hospital, for the Quarter ending 3rd October, 1874.

	0 and under 1.	1 and under 5.	5 and under 20.	20 and under 40.	40 and under 60.	60 and under 80.	80 and upwards.	Total Males, 54 Females, 45	Corresponding Quarter of 1873.
Workhouse	6	2	1	8	16	14	1	48	54
London Hospital	3	12	21	51	52	14	0	Males, 103 Females, 50	144

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