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ANNUAL REPORT

ON THE

HEALTH AND SANITARY CONDITION

OF THE

Metropolitan Borough of Shoreditch,

IN THE COUNTY OF LONDON,

FOR THE YEAR 1900,

BY

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TO WHICH ARE APPENDED THE REPORTS OF

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Public Analyst.

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1901.

BOROUGH OF SHOREDITCH

ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH.

PUBLIC HEALTH DEPARTMENT,
TOWN HALL,
OLD STREET, E.C.,
January, 1901.

To the Mayor, Aldermen and Councillors of the Metropolitan Borough of Shoreditch.

GENTLEMEN,

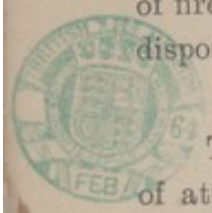
In submitting my annual Report on the public health, sanitary condition and vital statistics of Shoreditch for the year ending December 31st, 1900—the last year of the existence of the Shoreditch Vestry—I venture to think that it will not be unappropriate to briefly refer to some of the main features of the public health work carried out in Shoreditch during the 45 years that the administration of local affairs was in the hands of the Vestry of the Parish of St Leonard, Shoreditch. It can with justice be claimed from past records that a very large amount of money, time and labour have been expended in improving the sanitary condition of the district and promoting the comfort, convenience and health of the people; more especially has this been the case during the last 12 or 15 years. It may be stated generally that a great deal of improvement has been effected as regards the dwellings of the people of Shoreditch; many are the unhealthy houses which have disappeared to make way for dwellings constructed in accordance with sanitary principles, and it can now be said that a large proportion are most excellent from a sanitary point of view. When the Vestry of Shoreditch in 1856 took over the duty of looking after the sanitary welfare of the district most of the houses were drained into cesspools; such sewers and drains as existed, were usually faulty in their construction and very defective; at the present time cesspools are comparatively seldom met with, and Shoreditch generally, may be regarded as a district having good sewers and good drains

The public water supply was the subject of much attention at the hands of the Vestry of Shoreditch. The great importance of safe-guarding the public health in this direction soon came to be recognised and great activity was exercised in securing as pure a supply of water as possible for the people. Formerly pumps, drawing water from dubious sources, were fairly numerous throughout the district. The water obtained from them was suspected and examined. It was found to be quite unfit for human consumption. and the pumps were abolished, as were also the filthy water butts and cisterns, which fifteen or twenty years ago abounded everywhere in Shoreditch. As the result of the representations which were made—eventually a constant supply of water was secured from the water companies.

The records of the Vestry's surveyors show that an immense amount of work has been carried out in connection with the construction, repairing and cleansing of roads and footways, and the construction and re-construction of public sewers. Special importance has been attached to the paving of narrow streets, courts, and alleys, with impervious material, with a view to facilitating the cleansing of such places. All these are matters which have a great influence in promoting the health of the district.

Careful supervision has been exercised over the public sanitary conveniences which have been erected from time to time in various parts of Shoreditch, and it may be mentioned, that several fine modern underground conveniences and lavatories, constructed in accordance with the latest sanitary improvements, have been within the past five years constructed at suitable spots in the district.

Up to about ten years ago, the removal of house and street refuse was effected through the medium of a contractor. The Vestry then took this important sanitary duty in hand, and in order to ensure it being carried out in a satisfactory manner constituted a special department for the purpose. Within the past few years a distructor for burning house and trade refuse has been erected, and nearly 30,000 tons of such refuse are annually burnt. It is hardly necessary to dwell upon the fact which is generally recognised, that the destruction of house and trade refuse by means of fire, is from a public health point of view the most rational and sanitary method of disposing of it.



The great question of the housing of the working classes has received a good deal of attention in Shoreditch; the Moira Place and Plumbers Place improvement scheme which has been carried out during the past 10 years may be mentioned as an important piece of sanitary work satisfactorily accomplished for the benefit of the district. Some of the worst slum property in Shoreditch was thus swept away. Where formerly there existed narrow streets and courts, with houses back to back, small, dirty, badly ventilated, insufficiently lighted and mostly worn out, with sanitary arrangements generally bad, now, broad well paved streets with most excellent blocks of model dwellings erected by the Vestry in accordance with modern sanitary require-

ments, are to be found. The open spaces and recreation grounds which have been laid out and secured for the use of the inhabitants may also be pointed to as indicating that the value of such in promoting health were thoroughly appreciated by the Vestry.

The magnificent public baths, possessed by the Borough Council, may be alluded to as not one of the least amongst the works of the Vestry for promoting the comfort and convenience of the inhabitants. Shoreditch, moreover, possesses a well equipped public mortuary and disinfecting station, and a new shelter for the temporary accommodation of persons having to vacate their dwellings, to allow of effectual measures being taken as to disinfection, is now approaching completion.

Were space to permit, the excellent work which has been carried out in dealing with the sanitary conveniences provided at the Public Elementary Schools and the condition of the bakehouses, cowhouses, slaughterhouses, workshops and work-places might be dwelt upon at length ; it must, however, be sufficent here to say that a large amount of work has been done and a great improvement effected in connection with them.

A few words may be said as to the personnel of the sanitary staff. Forty years ago the sanitary officers in the permanent service of the Vestry numbered three or four persons, including a medical officer of health who gave part only of his time to the duties, and two sanitary inspectors, or inspectors of nuisances as they were then termed. At the present time the sanitary staff consists of 16 officers in the permanent service of the Borough Council, including a medical officer of health, devoting the whole of his time to the duties of his office, six sanitary inspectors, a public analyst, two clerks and a messenger or general assistant, three disinfecting officers, a mortuary keeper and a caretaker for the temporary shelter. The sanitary staff has been considerably strengthened during the past ten years since the Public Health (London) Act, 1891, came into operation.

This brief retrospect will, I think, be sufficient to indicate to some extent the great amount of activity which was displayed, during the period the Vestry had the management of local affairs, in looking after the public health interests of Shoreditch. From what has been said I think it may be gathered that Shoreditch of the present day is a greatly improved place from a sanitary point of view as compared with what it was 45 years ago. The work of improvement has steadily progressed, it has been especially marked during recent years, and there is no reason to doubt that under the Borough Council this good work will continue.

In dealing this year with the statistics relating to the health of Shoreditch I have given tables of births and of some of the commonest causes of death, covering as far as possible the whole of the period of the administration of the Shoreditch Vestry, so that the figures of late may be compared with those of earlier years. It is probable that those of later years, owing to greater facilities for obtaining information, may be more accurate than those of earlier years, and some allowance should be made for this in any conclusions which may be drawn from a comparison of them. The figures in

the tables have been collated from the reports of the medical officers to the Privy Council and Local Government Board, the Census returns, the annual summaries of births and deaths published by the authority of the Registrar General, the reports of my predecessors, Drs. Robert Barnes, Gawen Sutton and F. J. Allan, and from my own annual reports.

The London Government Act, 1899, which came into operation in November 1900, caused certain changes to be made in the boundaries of the Borough resulting in some slight increase in the population and the number of houses in Shoreditch. These changes, taking place as they did late in the year, so far as the statistical portion of this year's report is concerned have been disregarded.

POPULATION.

My estimate of the number of persons in Shoreditch for the year 1900 is 121,335 distributed in the four registration sub-districts as follows:—

Registration Sub-District.	Population.	Area in Acres.	Estimated Number of Persons per acre.
Shoreditch South	16,755	150	111
Hoxton New Town	29,860	133	224
Hoxton Old Town	27,020	122	221
Haggerston	47,700	243	196

The registration district of Hoxton New Town contains the Holborn Union Workhouse. The inmates of the Institution averaging 1,385 for the year 1900 are not persons belonging to Shoreditch, and for certain statistical purposes they are not included in the population of Hoxton New Town and Shoreditch, which become therefore 28,475, and 119,950 respectively.

From the time of the first census to that of 1861, the population of Shoreditch increased rapidly. Since then there has been a gradual decrease owing probably to a very great extent to the erection of warehouses, workshops, factories and other larger business premises upon sites formerly occupied by dwelling-houses which have been cleared away to make room for them. In 1851 the population of Shoreditch was 109,257; in 1861, it was 129,364; in 1871 it was 127,164; in 1881 it was 126,591; in 1891 it was 124,009, and in 1896 the London census gave 122,358 as the population of Shoreditch.

BIRTHS.

The births registered in 1900 numbered 4,023, of which 2,058 were male and 1,965 female. In the Shoreditch Infirmary 68 births took place, 35 of male, and 33 of females, 29 being legitimate and 39 illegitimate. In the Holborn Union Workhouse

there were 76 births of which 52 were illegitimate, the male births nnmbering 34 and the females 42. The distribution of the births in the four registration sub-districts is shewn in the following table :—

Registration Sub-District.	Males.	Females.	Total.
Shoreditch South.....	255	242	497
Hoxton New Town	481	480	961
Hoxton Old Town	471	458	929
Haggerston	851	785	1,636
Total	2,058	1,965	4,023

Deducting the births in the Holborn Union Workhouses the mothers not belonging to Shoreditch, the birth-rate was 32·9 per 1000 inhabitants as compared with 28·6 for the Metropolis. A comparision of the birth-rates in the several registration sub-districts is contained in table VII. (see Appendix). During 1900 the births in Shoreditch were 1,371 in excess of the deaths.

In the subjoined table is contained a comparison of the birth-rates per 1000 population of Shoreditch and London, during the years 1859 to 1899 inclusive :—

Year.	Shoreditch	London.	Year.	Shoreditch	London.	Year.	Shoreditch	London.
1859	40·0	33·0	1873	40·0	35·3	1887	37·4	31·7
1860	40·0	33·1	1874	41·0	35·6	1888	37·1	30·7
1861	37·6	34·2	1875	40·3	35·4	1889	36·3	30·3
1862	42·7	33·7	1876	41·9	35·9	1890	35·9	29·1
1863	40·3	35·7	1877	40·2	36·1	1891	36·7	31·8
1864	39·4	34·6	1878	40·0	36·2	1892	35·7	30·9
1865	40·7	35·5	1879	41·2	36·5	1893	35·5	31·0
1866	40·0	35·6	1880	40·4	36·2	1894	34·5	30·1
1867	42·3	36·5	1881	40·3	34·7	1895	34·8	30·5
1868	41·2	36·4	1882	40·5	34·3	1896	35·5	30·2
1869	40·3	35·4	1883	40·4	33·9	1897	35·0	30·0
1870	42·2	35·3	1884	38·8	33·7	1898	35·1	29·5
1871	40·3	34·5	1885	38·4	32·6	1899	33·7	29·4
1872	42·1	35·6	1886	38·1	32·3	1900	32·9	28·6

There has been a distinct decrease in the Shoreditch birth-rate since 1883, and in that of London since 1880.

MARRIAGES.

The marriages registered in Shoreditch during 1900 numbered 1,157, as compared with 1,295 in 1899. The marriages were at the rate of 9·6 per 1,000 inhabitants, as compared with 10·7 for last year. The number of marriages in the Metropolis were at the rate of 8·8 per 1000 inhabitants, and the number of persons married 17·6 per 1,000 inhabitants.

DEATHS.

The deaths of persons belonging to Shoreditch numbered 2,576; their distribution amongst males and females in the four registration sub-districts is contained in the subjoined table:—

Registration Sub-District.	Males.	Females.	Total.
Shoreditch South	244	199	443
Hoxton New Town.....	320	277	597
Hoxton Old Town	270	266	536
Haggerston	549	451	1,000
Total.....	1,383	1,193	2,576

The deaths were at the rate of 21·4 * per 1,000 inhabitants, being 1·7 under the average for the previous ten years. The London death-rate for 1900 was 18·8 per 1,000 population, and that of England and Wales was 19·5. In the subjoined table is a comparison of the death-rates of Shoreditch and the Metropolis, during the period 1856 to 1900 inclusive:—

Year.	Shoreditch	London.	Year.	Shoreditch	London.	Year.	Shoreditch	London.
1856	22·8	22·0	1871	26·8	24·7	1886	25·6	19·9
1857	24·3	22·4	1872	23·5	21·4	1887	24·5	19·6
1858	25·8	23·9	1873	24·0	22·5	1888	23·6	18·5
1859	23·4	22·6	1874	23·5	22·6	1889	19·3	17·4
1860	23·4	22·4	1875	25·9	23·7	1890	25·0	20·3
1861	24·5	23·1	1876	22·1	22·3	1891	24·8	21·4
1862	25·7	23·5	1877	22·7	21·9	1892	23·0	20·6
1863	25·9	24·4	1878	24·7	23·5	1893	25·7	21·3
1864	28·4	26·5	1879	24·2	23·3	1894	20·1	17·8
1865	25·9	24·6	1880	23·3	22·2	1895	23·4	19·8
1866	26·6	26·4	1881	23·7	21·2	1896	21·6	18·6
1867	23·1	22·9	1882	25·7	21·4	1897	21·7	18·2
1868	25·3	23·5	1883	23·9	20·4	1898	22·4	18·7
1869	27·1	24·6	1884	22·8	20·3	1899	24·2	19·7
1870	24·9	24·1	1885	23·5	19·7	1900	21·4	18·8

From the above figures, it is observable that there has been a distinct decrease in the death-rate, both of Shoreditch and the Metropolis, the decrease being more marked in the case of the latter. Taking the fifteen years 1856-70, the deaths were at the rate of 25 per 1,000 inhabitants in Shoreditch, as compared with 24 for the Metropolis; during the next fifteen years the death-rate for Shoreditch and the Metropolis

* The death-rate corrected for age and sex distribution was 22·2.

averaged 24 and 22 per 1,000 respectively; during the fifteen years ending 1900, the rates for Shoreditch and London have averaged 23·0 and 19·4 respectively. There thus appears a total decrease for Shoreditch of 2·0 and for London of 4·6 per 1,000 in the average death-rate of the last as compared with the first fifteen years of the period embraced in the above table. An analysis and comparison of the death-rates for the year 1900, in Shoreditch and its sub-districts, and the age distribution and causes of death in the Borough and its sub-districts are contained in the appendix. (See tables I., II., IV., V., VI., VII.)

According to the figures the death rate was highest in Shoreditch South, and lowest in Hoxton Old Town. The Borough death-rate was, owing mainly to the prevalence of chest diseases and influenza, above the average for the year during the months of January, February, and March; it was below the average from the middle of April until the middle of July; diarrhœa caused an elevation until the middle of August, when it again sank below the average and remained low until the beginning of November; diseases of the respiratory organs, and measles, sent the rate up during November, but it was again below the average during December.

There were 741 deaths of infants under one year, 421 being males and 320 females. The principal causes of death were diarrhœa, tuberculous affections, bronchitis, pneumonia, prematurity and debility at birth, and marasmus. Accident or negligence resulted in 35 deaths, of which 32 were attributed to suffocation in bed. Deaths of infants under one year formed 28·4 per cent. of the total number of deaths in Shoreditch. During the year 1900 the infant mortality was 187 per 1,000 births. In the subjoined table are contained the infant mortalities of Shoreditch and London, during the period 1870 to 1900:—

Year.	Deaths of Infants under 1 year per 1000 births.		Year.	Deaths of Infants under 1 year per 1000 births.	
	Shoreditch.	London.		Shoreditch.	London.
1870	165	163	1886	185	159
1871	172	170	1887	188	158
1872	164	159	1888	165	146
1873	160	159	1889	158	141
1874	151	155	1890	179	154
1875	166	161	1891	174	162
1876	148	156	1892	169	154
1877	151	146	1893	186	156
1878	166	164	1894	166	142
1879	139	148	1895	203	166
1880	164	158	1896	183	161
1881	151	148	1897	186	159
1882	165	151	1898	199	167
1883	160	146	1899	210	167
1884	162	155	1900	187	160
1885	164	148			

The foregoing figures shew that, as compared with London generally, Shoreditch has a high infant mortality, such as is to be expected in a densely populated working-class district; also, that whilst the infant mortality of London has remained steady there has been a marked increase in that of Shoreditch, comparing the figures of the last 15 years with those of the preceding 16 years. As has, however, been pointed out, some allowance should be made for the fact that the later figures are probably more accurate than the earlier, and the actual increase is perhaps not quite so marked as would appear from the foregoing figures.

There were 412 deaths of children aged from 1 to 5 years the chief causes of death being measles, scarlet fever, diphtheria, whooping cough, diarrhœa, various forms of tuberculosis, bronchitis and pneumonia. Violence resulted in 14 deaths, 10 of which were the result of burns and scalds. The deaths of children under 5 years of age altogether amounted to 1,153, and formed 44·7 per cent. of the total number of deaths.

Of children aged from five to fifteen 86 died, the principal causes of death being diphtheria, tuberculosis, heart disease and pneumonia.

There were 101 deaths of persons aged from 15 to 25 years. The chief causes of death were consumption, heart disease, pneumonia and enteric fever.

The deaths of persons aged from 25 to 35 numbered 128, the chief causes being consumption, heart disease and pneumonia.

The deaths of persons aged between 35 and 45 years numbered 184. The chief causes of death were consumption, apoplexy, heart disease, influenza, bronchitis and pneumonia; cancer resulted in seven and cirrhosis of the liver in five deaths.

Of persons aged between 45 and 55 years 260 died, the principal causes of death being consumption, cancer, heart disease. apoplexy, bronchitis, pneumonia and Bright's disease; cancer caused 14, and cirrhosis of the liver 8 deaths, Of persons aged between 55 and 60 years, 110 died, the chief causes being consumptlon, cancer and bronchitis; cancer caused 10, and cirrhosis of the liver 4 deaths. The deaths of persons aged from 60 to 65 years numbered 128, and were chiefly the result of apoplexy, heart disease, bronchitis and pneumonia; cancer caused 8 deaths.

The deaths of persons aged from 65 to 85 years numbered 403. The chief causes of death were apoplexy, cancer, heart disease, bronchitis, pneumonia, influenza, Bright's disease, and old age; cancer caused 24 deaths.

There were 23 deaths of persons aged 85 years and upwards; 10 of which were attributed to old age, 1 to influenza, 1 to cancer, 4 to apoplexy, 1 to heart disease, 3 to bronchitis, 1 to disease of the liver, and 2 to senile gangrene.

The chief causes of death during the year 1900 were the various forms of tuberculosis, including consumption, bronchitis, pneumonia, diarrhœa and enteritis, disease of the heart, prematurity and debility at birth, violence, apoplexy and hemiplegia, Bright's disease, marasmus, measles, convulsions, old age, cancer, diphtheria, influenza, and whooping cough.

Cancer was the cause of 67 deaths, including 18 of males and 49 of females—63 were of persons aged between 35 and 85 years. Of the three cases in which the patients were under 35 years, one was of an infant under one year old. The death-rate due to cancer was 0·56 per 1,000 inhabitants: somewhat less than that of last year. In addition to the deaths stated to have been due to cancer there were six deaths due to malignant disease, some of which may have been attributable to cancer; these have not been included in calculating the death-rate from cancer.

Eighteen deaths were directly attributed to alcoholism. The abuse of alcohol is a factor in the causation of some diseases, besides being productive of conditions of health unfavourable for persons addicted to alcohol when attacked by other diseases, and is, without doubt, responsible directly or indirectly for a much larger number of deaths than would appear on the face of it from the number actually attributed to alcohol.

DEATHS IN PUBLIC INSTITUTIONS.

The numbers and distribution of the deaths of persons, belonging and no belonging to the Borough, in public institutions in Shoreditch, are set out in the subjoined table :—

Institution.	Persons belonging to Shoreditch.	Persons not belonging to Shoreditch.	Total.
Holborn Union Workhouse	5	327	332
Shoreditch Workhouse	423	8	431
Hoxton House Asylum	1	21	22
North Eastern Children's Hospital	12	89	111
Convent Hospital	1	8	9
Total	452	453	905

Elsewhere than in public institutions 8 persons not belonging to Shoreditch died within the Borough.

In the following table are set forth the various public institutions outside Shoreditch, with the number of persons belonging to the Borough dying therein :—

Asylums.	No. of Deaths.
Banstead	8
Colney Hatch	5
Cane Hill	3
Castle Hill	1
Caterham	3
Darenth	7
Dartford Heath	3
Hanwell	12
Ilford	8
Leavesden	20
Manor, Epsom	1
Hospitals for Infectious Disease.	
Eastern, Homerton	34
North Eastern	8
South Eastern	8
South Western	1
North Western	6
General Hospitals.	
Charing Cross	1
Fridenheim	2
German	8
Guy's	5
Great Northern Central	2
King's College	1
London	16
London Temperance	1
Mildmay Mission	4

General Hospitals—*continued.*	No. of Deaths.
Miller Hospital	1
Middlesex	1
Metropolitan	45
St. Bartholomew's	69
St. Thomas's	1
University College	1
Hospitals for Special Diseases.	
Brompton	3
City of London Chest	3
City of London Lying-in	3
Hospital for Women, Soho	1
Royal Chest	5
Royal Free	1
Great Ormond St. (Children)	17
Infirmaries and Workhouses.	
Hackney Infirmary	3
City of London Workhouse	1
Bethnal Green Workhouse	6
St. Olave Infirmaay	1
Islington Infirmary	1
Other Institutions.	
H.M. Prison, Pentonville	1
H.M. Prison, Wormwood Scrubbs	1
H.M. Prison, Holloway	1
St. Peter's Home	2
St. Luke's House	1
Butcher's Almshouses	1

Of 338 persons belonging to Shoreditch dying in public institutions without the Borough, 159 died in general hospitals, 71 in asylums, 57 in fever hospitals belonging to the Metropolitan Asylums Board, 32 in hospitals for special diseases, 12 in workhouses and infirmaries, and 7 in other institutions. Elsewhere than in public institutions, 12 persons belonging to Shoreditch died beyond the limits of the Borough.

Altogether 790 persons belonging to Shoreditch died during 1900 in public institutions.

SICKNESS AMONGST THE POOR.

The cases treated by the District Medical Officers in connection with the parish dispensary during the year 1900 numbered 3,355. An analysis of the cases is contained in table VIII. (see Appendix). The numbers of cases treated in previous years are contained in last year's Annual Report. The number of patients, who are drawn

from the poorest of the population of the Borough, coming under the treatment of the Poor Law medical officers now-a-days shew a marked decrease when compared with the numbers of forty years ago. During the five years 1859, 1861, 1862, 1863 and 1864, the average number of cases treated amounted to 7,283 yearly, as compared with an average of 4,100 for the years 1893 to 1899 inclusive. During the former period on an average 180 cases of small-pox, 166 of measles, 185 of scarlet fever, 117 of whooping cough, 71 of erysipelas, 529 of diarrhœa, 181 of rheumatism, 6 of cancer, 214 of tuberculosis including consumption, 839 of various forms of respiratory disease, and no less than 1,032 of "fever" came under the care of the district medical officers. During the latter period the averages have been for measles 64 cases, scarlet fever 32, whooping cough 47, erysipelas 21, diarrhœa 125, rheumatism 256, cancer 22, tuberculosis 178, diseases of the respiratory organs 1,069, and "fever" 31 cases. Only two cases of small-pox have been notified by the district medical officers during the seven years ended 1899. The reasons for the decrease in the number of cases coming under the treatment of the district medical officers, are, I believe, mainly as follows:—decrease in the amount of poverty, improved conditions as to trade and greater cheapness of food, the provision of hospital accommodation for infectious cases and increased facilities for obtaining treatment at the various hospitals in the Metropolis, and the great sanitary improvements which have been effected as to the conditions under which the people work and live.

INFECTIOUS DISEASES.

The infectious diseases classed under the heading "Zymotic," (see Appendix, table VI.) caused during the year 1900, 801 deaths, being 31·0 per cent. of the total number of deaths from all causes, and the death-rate was 6·6 per 1,000 inhabitants. Of these deaths, 454 were of children under five years of age. The deaths from measles, scarlet fever, diphtheria, including membranous croup, whooping cough, enteric fever (including continued fever), and diarrhœa numbered 374. There were no deaths from small-pox. The zymotic death-rate due to the diseases above-mentioned, which are termed the principal zymotic diseases, was 3·1 per 1000 inhabitants, as compared with 3·6 in 1899, 4·1 in 1898, 4·2 in 1897, 4·3 in 1896, and 3·8 in 1895. A comparison of the zymotic death-rates of London and Shoreditch with its sub-districts, is contained in table VII. (see Appendix)

In the subjoined table is contained a comparison of the number of deaths from the principal zymotic diseases during the two periods 1859 to 1868 and 1890 to 1899:—

Year ...	1859	1860	1861	1862	1863	1864	1865	1866	1867	1868
No. of Cases	760	522	716	894	885	890	704	707	484	680
Year ...	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899
No. of Cases	552	467	417	575	340	469	532	513	487	440

During the earlier the deaths averaged 724 per annum as compared with 479 during the later of these two periods, and the zymotic death-rates averaged 5·6 and 3·9 per 1,000 inhabitants. This reduction in the zymotic death-rate is mainly the result of a decrease in the numbers of deaths from small pox, scarlet fever, typhus, typhoid, and continued fevers.

The cases of infectious disease certified during the year 1900, numbered 989. The number of cases certified since 1889, together with the attack rates per thousand inhabitants, are contained in the following table :—

Year.	Number of cases Certified.	Attack rate per 1,000 population.
1890	1158	9·4
1891	862	7·0
1892	1478	12·0
1893	1987	16·2
1894	1104	9·0
1895	1157	9·4
1896	1473	12·1
1897	1331	10·9
1898	960	7·8
1899	1116	9·2
1900	989	8·1

The cases of infectious disease certified in London during 1900 numbered 35,304 and the attack-rate was 7·7 per 1,000 inhabitants.

Subjoined is a list of the infectious diseases which are notifiable to the medical officer of health, together with the numbers of cases certified during the four quarters of the year, and the numbers and percentages of such cases which were removed to hospital for treatment :—

Disease	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Total.	Deaths.
Small Pox	2	1	...	...	3	..
Scarlet Fever or Scarlatina	64	91	81	94	330	18
Diphtheria & Membranous Croup	66	100	87	100	353	54
Cholera	...	...	...	...	...	...
Typhus	...	...	...	...	...	...
Enteric Fever (Typhoid)	28	19	23	52	122	14
Continued Fever	...	...	...	2	2	...
Relapsing Fever	...	...	...	...	...	...
Puerperal Fever	4	2	2	1	9	3
Erysipelas	36	36	44	54	170	10
Plague	...	...	...	...	...	...
Totals	200	249	237	303	939	99
Numbers and percentages of cases removed to hospitals	123 61·5%	177 71·0%	169 71·3%	214 70·6%	685 69·0%	

As compared with the figures of 1899, there was a decrease in the number of cases of infectious diseases certified, except in the case of small-pox which shews an increase of 2. The deaths from notifiable infectious disease numbered 99 as compared with 121 in 1899, 96 in 1898, 136 in 1897, 135 in 1896, 117 in 1895. Deaths from scarlet fever and puerperal fever shew a slight increase, whilst the deaths from diphtheria, enteric fever and erysipelas are decreased in numbers. Deaths from infectious diseases which are not notifiable were at the rate of 0·8 per 1000 inhabitants; deaths from the principal zymotic diseases which are not required to be notified were at the rate of 2·4 per 1000.

METROPOLITAN ASYLUMS BOARD.

The cases of small-pox, scarlet fever, diphtheria and enteric fever numbered 808 and of these 685* or 84·7 per cent. were removed to hospital for treatment, mainly to the hospital of the Asylums Board. The percentages of removals to hospitals for previous years were :—82·4 per cent. in 1899, 81·4 in 1898, 71·4 in 1897, 65 in 1896, 57 in 1895, and 61 in 1894. From these figures it is apparent that the use of hospital treatment and isolation by the people of Shoreditch is still increasing.

Two instances of "return" cases came under my notice during the year, one of diphtheria and the other of scarlet fever. In the latter the circumstances of the case pointed to the recurrence of the disease being due to infection through the return of the patient from the fever hospital. Dr. W. J. R. Simpson, who made investigation with respect to "return" cases of scarlet fever and diphtheria on behalf of the Metropolitan Asylums Board during the six months from October 1898 to March 1899, found that during that period 1·3 per cent of the total discharges from the Boards' hospitals were sources of infection in the case of scarlet fever and 0·5 per cent. in the case of diphtheria, proportions which, considering all circumstances, are hardly to be regarded as excessive.

SMALL-POX.

Three cases of small-pox were notified: one on January 17th, the patient being a widow named D—— M——, aged 29, living at No. 8, H—— Road, and working at a baby-linen establishment in St. Luke's; she was taken ill on January 13th, the eruption showing itself on the 16th; vaccination had been performed in infancy and two sears were visible, one good and one indifferent. From Christmas until January 1st, this patient had been staying at a house in C—— Road, Hackney; next door, some cases of small-pox had occurred and there had been others also in the same street. The probability is that D—— M—— contracted the disease in this neighbourhood. The patient, who made a good recovery, was promptly removed to hospital, precautions as to disinfection, vaccination, and re-vaccination were taken, and the

* Of these cases, 33—namely, 12 of enteric fever, 6 of scarlet fever, and 15 of diphtheria—were found, after sojourning in the hospitals, not to be, in the opinion of the medical officer, suffering as certified.

persons who had been exposed to infection were kept under observation until all danger of the occurrence of further cases amongst them was at an end. The second case was that of a young man belonging to Shoreditch, who contracted the disease whilst he was a patient in the Eastern Fever Hospital. His case probably forms one of a series to which that of D—— M—— belongs. The third case certified turned out, on investigation, not to be one of small-pox.

During the year 1900, altogether 87 cases of small-pox were certified in London, and 4 deaths from the disease were registered.

The sub-joined table shows the deaths from small-pox in Shoreditch from 1856 to 1899:—

Year.	Deaths.	Year.	Deaths.	Year.	Deaths.	Year.	Deaths.
1856	13	1867	37	1878	28	1889	—
1857	7	1868	34	1879	1	1890	—
1858	22	1869	1	1880	27	1891	—
1859	105	1870	112	1881	180	1892	4
1860	29	1871	439	1882	4	1893	3
1861	13	1872	32	1883	2	1894	2
1862	8	1873	5	1884	69	1895	2
1863	125	1874	3	1885	37	1896	1
1864	8	1875	1	1886	—	1897	1
1865	22	1876	2	1887	—	1898	—
1866	74	1877	51	1888	—	1899	—

It will be readily seen from the above figures that during the last 11 years deaths from small-pox have been insignificant in numbers as compared with those of the previous 33 years. During the 11 years ending 1886 on an average 38 persons died annually from small-pox, during the next 11 years the annual average was 65, for the 11 years ending 1888 it was 31, whilst during the 11 years ending 1899 about 1 person per annum has died from small-pox.

Judging from the numbers of deaths, small-pox was prevalent in Shoreditch during the years 1859, 1863, 1866, 1870 and 1871, 1877, 1881 and in 1884 and 1885. From 1886 to 1892 no deaths occurred. During the 8 years 1892 to 1900 13 deaths have been registered, and the numbers of cases of small-pox certified were 73 in 1892, 25 in 1893, 27 in 1894, 14 in 1895, 1 in 1896, 1 in 1897, 2 in 1899 and 3 in 1900.

As to the extent to which the disease prevailed from year to year in Shoreditch, prior to the coming into operation of the Notification Act, 1899, no reliable estimate can be formed as to the numbers of cases which occurred. During the years 1859, 1861, 1862, 1863 and 1894 the cases of small-pox treated by the Poor Law medical officers of Shoreditch numbered 402, 21, 17, 415 and 49 respectively. Writing on the subject of the 402 cases treated by the Poor Law medical officers in 1859,

Dr. R. Barnes, at that time medical officer of health for Shoreditch, states that they far from represented the extent to which the disease had prevailed and he estimated the number of persons who took small-pox in Shoreditch that year to have exceeded a 1000. There is no doubt that of late years a very great decrease has taken place, not only in Shoreditch but throughout the country generally, with respect to the prevalence of small-pox, notwithstanding the occurrence of serious outbreaks here and there, such as that which Gloucester suffered from a few years ago. The question arises, what is this decrease due to? It may be that the great strides in sanitation which have been made during the past 20 years or so, more especially in the direction of improving the sanitary condition of the dwellings of the poor, have exerted some influence in the prevention of the spread of infection, but I am not in a position to say anything as to the extent this influence may have been operative in the prevention of small-pox.

It will be perhaps as well here to make a few remarks respecting the practice of

VACCINATION

in Shoreditch in the past and during recent years. Fifty years ago there is no doubt that large numbers of persons went unvaccinated. On the authority of Dr. R. Barnes, and figures given in the reports of the medical officer to the Privy Council nearly 50 per cent. of the children born in Shoreditch during the years 1856 to 1864 were not vaccinated. In his annual report for the year 1860 Dr. Barnes stated that vaccinations bore yearly a smaller proportion to the births, that there was no means of ascertaining the extent private vaccinators made up for the deficiency, and that there existed a large residuum of unvaccinated or unprotected persons. After the great outbreak of small-pox, during 1870-71, there was a great increase in the activity with which the practice of vaccination was carried out in Shoreditch. In the following table are contained the percentages of children born, not finally accounted for as regards vaccination, including postponed cases, each year from 1872 to 1897, for Shoreditch, the Metropolis and the rest of England.

Year.	Shoreditch	Metropolis.	Rest of England.	Year.	Shoreditch	Metropolis.	Rest of England.
1872	10·9	8·8	4·5	1885	5·6	7·0	5·5
1873	9·7	8·7	4·2	1886	6·3	7·8	6·1
1874	12·9	8·8	4·1	1887	5·6	9·0	6·7
1875	12·9	9·3	3·8	1888	3·7	10·3	8·2
1876	11·8	6·5	4·0	1889	5·5	11·6	9·6
1877	14·5	7·1	4·1	1890	9·3	13·9	10·9
1878	12·2	7·1	4·3	1891	8·8	16·4	12·9
1879	12·8	7·8	4·5	1892	10·8	18·4	14·3
1880	12·2	7·0	4·5	1893	16·2	18·2	15·7
1881	10·3	5·7	4·3	1894	33·9	20·6	19·0
1882	12·0	6·6	4·5	1895	47·5	24·9	19·8
1883	7·6	6·5	4·9	1896	55·5	26·4	22·3
1884	6.5	6·8	5·3	1897	67·4	29·1	21·6

Between the years 1882 and 1892 Vaccination was most actively carried out with regard to the children born in Shoreditch. Since 1892 there has been a rapid falling off in the numbers of children vaccinated, so that at the present time we have with respect to the numbers of unvaccinated children in Shoreditch a condition of things approximating to that mentioned by Dr. Barnes some forty years ago. So far as Shoreditch is concerned I am unable to come to any conclusion as to what extent vaccination has assisted in bringing about the reduction in the amount of small-pox which has become apparent during the past fourteen or fifteen years. This period coincides with that during which great improvement has taken place in the means for the isolation of cases of small-pox. The practice of prompt isolation in proper hospitals has I believe been very effective in preventing or cutting short outbreaks of small-pox in London, and there is no doubt that it has been a very potent factor in reducing the prevalence of the disease in Shoreditch. Formerly, there was no notification of Infectious Diseases Act in operation; but few of the cases of small-pox occurring in Shoreditch were treated in hospital, the vast majority being retained in their own homes under conditions mostly precluding any possibility of isolation; and the means for efficient disinfection were inadequate. Now-a-days cases of small-pox have to be certified to the medical officer of health; they are forthwith removed to hospital and so far as I am aware no cases of small-pox have during the past 10 years been retained at home for treatment in Shoreditch; the necessary precautions are taken for the disinfection of the infected houses, and persons who have been exposed to infection are vaccinated or re-vaccinated, if they are willing to submit to the operation, and kept under observation until it is deemed safe for them to resume their avocations.

The reduction in the prevalence of small-pox in Shoreditch may I think be regarded as one of the beneficial results of Public Health legislation, but the fact ought not to be overlooked that there are periods when infectious diseases tend to spread far and wide, to possess greater powers of infection and to be more difficult to control. Small-pox has in the past exhibited this tendency at intervals; it remains to be seen whether the present methods of dealing with it will be as efficacious under such conditions as they are now.

SCARLET FEVER (SCARLATINA).

The cases of scarlet fever certified during 1900, numbered 330, including six which were found subsequently not to be cases of the disease. Eighteen of the cases erminated fatally. The numbers of deaths yearly recorded as due to scarlet fever from 1859 to 1899 are as set out in the following table :—

Year.	Deaths.	Year.	Deaths.	Year.	Deaths.	Year.	Deaths.
1860	73	1870	202	1880	65	1890	45
1861	71	1871	58	1881	49	1891	17
1862	162	1872	67	1882	109	1892	36
1863	244	1873	80	1883	117	1893	38
1864	236	1874	141	1884	68	1894	26
1865	130	1875	179	1885	62	1895	29
1866	75	1876	72	1886	38	1896	38
1867	51	1877	65	1887	48	1897	31
1868	103	1878	112	1888	34	1898	20
1869	358	1879	66	1889	33	1899	15

The mortality from scarlet fever has markedly lessened during the past fifteen or sixteen years, the decrease being probably, to a large extent, the result of a diminution in the severity of the cases. Epidemics of scarlet fever vary considerably with respect to the fatality of the cases.

The number of cases of scarlet fever which have been yearly certified since 1889, when the Notification of Infectious Disease Act came into operation, are as follows:—

Year.	Cases.	Year.	Cases.	Year.	Cases.
1890	639	1894	487	1898	426
1891	369	1895	592	1899	362
1892	834	1896	697	1900	330
1893	1,007	1897	628		

During the past few years cases of the disease have become less numerous; as to how far this reduction may have resulted from the increase in the amount of isolation of the cases which has been practised during recent years it is impossible at present to say, although it is highly probable that it has had a great deal to do with it. During the year 1900 nearly 83 per cent. of the cases certified were removed to hospital for treatment, as compared with 85 per cent. in 1899, 86 per cent. in 1898, 75 per cent. in 1897, 70 in 1896, 60 in 1895*, 65 in 1894 and 37 in 1893.*

The death-rate from scarlet fever was 0·15 per 1,000 population as compared with 0·12 in 1899. The rate was highest in Hoxton New Town and lowest in Shoreditch South. Cases of scarlet fever occurred in Shoreditch at the rate of 2·7 per 1,000 inhabitants, as compared with 2·9 in 1899.

Of the cases, 5·4 per cent. terminated fatally, as compared with 4·1 per cent. in 1899, 4·7 in 1898, 4·9 in 1897 and 5·4 in 1896. Of 125 children under 5 years of age who were attacked, 15, or 12 per cent., died, as compared with 9·1 per cent. in 1899, 7·7

* During portions of these years, owing to lack of accommodation at the fever hospitals, many cases were treated at home which would otherwise have been removed to hospital.

in 1898, 11 in 1897, and 12 in 1896. Of children over 5 years of age, 3 died from scarlet fever, the mortality being 1·5 per cent. of the cases, as against 1·3 in 1899, 2·5 in 1898 and 1 per cent. in 1897.

In the subjoined table are contained the distribution of the cases certified and the deaths amongst the males and females in the Borough and the four registration sub-districts :—

Sub-District.	SCARLET FEVER.					
	Cases Certified.			Fatal Cases.		
	Male.	Female.	Total.	Male.	Female.	Total.
Shoreditch South	13	14	27	—	—	—
Hoxton New Town.....	55	47	102	3	5	—
Hoxton Old Town	32	33	65	3	3	6
Haggerston	58	78	136	2	2	4
Total for the whole Borough	158	172	330	8	10	18

Cases of scarlet fever were least numerous in Shoreditch during the first quarter of the year, they were fairly equally distributed over the other three quarters.

During 1900 13,812 cases of scarlet fever were certified in the whole of London, the attack-rate being 3·0 per 1,000 population, as compared with 3·9 in 1899 and 3·7 in 1898. The deaths numbered 361, as compared with 398 in 1899, and the death-rate form the disease was 0·08 as compared with 0·09 in 1899 and 0·13 in 1898.

DIPHTHERIA (INCLUDING MEMBRANOUS CROUP).

There was 353 cases of the above disorder certified during the year 1900, including 15 which were subsequently stated not to be suffering from diphtheria. The deaths numbered 54.

The numbers of cases and deaths since 1890 are set out below :

Year.	Cases.	Deaths.	Year.	Cases.	Deaths.
1891	237	65	1896	356	75
1892	213	50	1897	361	80
1893	513	149	1898	259	45
1894	303	76	1899	369	63
1895	244	59	1900	353	54

I am unable to give any reliable figures relating to the numbers of deaths from diphtheria and croup during the period between 1864 and 1891, but so far as the figures at my disposal go the deaths would appear to have been fewest in Shoreditch from 1869 to 1875. From about the year 1876 there was an increased number of deaths until 1893; since then, although the numbers of deaths have been high, there would appear to be a tendency to decrease. For the years prior to 1865 the figures set forth in the subjoined table are of interest:

Year	1859	1860	1861	1862	1863	1864
Diphtheria ...	26	21	37	25	26	17
Laryngitis (croup)	34	27	57	58	60	75
Totals ...	60	48	94	83	96	92

In the above table the deaths from laryngitis are of children under 10 years. It is to be observed how much commoner laryngitis was, during 1859 to 1864, given as a cause of death than is the case at the present day. If it be allowed that these deaths from laryngitis were deaths from laryngreal diphtheria or membranous croup, it would seem that the deaths from diphtheria were somewhat more numerous than they have been since 1893.

Of the cases of diphtheria certified during 1900, 15·3 per cent.* terminated fatally, as compared with 17·0 per cent. in 1899, 17·3 in 1898, 22·1 in 1897, 21·0 in 1896, 24·1 in 1892, 25·0 in 1894 and 29·0 in 1893.

Of the children attacked who were under the age of 5 years, 22·7 per cent. died, as compared with 34·2 per cent. in 1899, 29·5 in 1898, 36·0 in 1897, 31·8 in 1896, 47·5 in 1895, 43·0 in 1894, and 61·0 in 1893.

Of the cases certified amongst persons over 5 years of age, 7·1 per cent. terminated fatally, as compared with 5·4 per cent. in 1899, 6·5 per cent. in 1898, 9·9 in 1897, 7·0 in 1895, 12·8 in 1896, 11·5 in 1894 and 11·4 in 1893. The whole of the deaths from diphtheria in Shoreditch during 1900 were of children under the age of 15 years.

The death-rate due to diphtheria was 0·45 per 1,000 inhabitants, as compared with 0·52 in 1899 and 0·37 in 1898 (see appendix, Table VII.) The disease was more prevalent in Shoreditch during the second and fourth quarters of the year.

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* Allowing for the cases not regarded as diphtheria by the Medical Officers of the Metropolitan Asylums Board, the case-mortality was slightly higher than this figure, being nearly 16 per cent.

The numbers of cases and the deaths amongst males and females in the Borough and its four registration sub-districts are as follows:

Sub-District.	DIPHTHERIA.					
	Cases Certified.			Fatal Cases.		
	Male.	Female.	Total.	Male.	Female.	Total.
Shoreditch South	26	34	60	7	3	10
Hoxton New Town.....	48	46	94	11	7	18
Hoxton Old Town	20	31	51	3	3	6
Haggerston	73	75	148	9	11	20
Total for the whole Borough	167	186	353	30	24	54

The cases certified were at the rate of slightly under 3 per 1,000 inhabitants. The cases removed to hospital for treatment numbered 305, or just over 86 per cent. of the cases certified, as compared with 80 per cent. in 1899, 77·2 per cent. in 1898, 67 in 1897 and 55·6 in 1896. The number of cases of diphtheria certified in the Metropolis was 11,788 and the attack-rate was 2·5 per 1,000 inhabitants; the deaths in the Metropolis from diphtheria numbered 1,558, and the death-rate due to this cause was 0·34 per 1,000 population.

During the year, enquiries were made as to the circumstances connected with 297 of the cases of diphtheria certified, and the distribution of the cases amongst males and females at certain age periods was as follows:—

Age Period.	Male.	Female.	Total.
Under 1 year	4	7	11
From 1 to 2 years	16	11	27
,, 2 ,, 3 ,, ...	14	18	32
,, 3 ,, 4 ,, ...	21	17	38
,, 4 ,, 5 ,, ...	20	20	40
,, 5 ,, 10 ,, ...	39	60	99
,, 10 ,, 13 ,, ...	9	5	14
Over 13 years	19	17	36
Total.....	142	155	297

In 153 of the above cases the patients were school-going children, and in 132 instances had been attending school within one week of the onset of symptoms. In 100 of the cases, although the patients themselves had not been attending school, other children, members of the patients' families or dwelling under the same roof, were attending school. In some cases there were reasons for believing that the patients must have been attending school whilst suffering from diphtheria before the nature of the illness was recognised. In 180 of the cases the houses in which the patients dwelt were in a satisfactory condition so far as the sanitary arrangements were concerned, in

the remaining 117 unsanitary conditions of major or minor importance were discovered. In 42 instances there were histories of throat-illness in the houses in which the patients lived, and in 54 of the cases there was evidence of infection from previous cases.

From my observations of diphtheria in Shoreditch, I am strongly inclined to the belief that the disease is frequently spread through the medium of persons suffering from what are regarded simply as sore throats, but which nevertheless are really diphtheric in nature. Diphtheria, amongst adults especially, may be attended by but slight constitutional symptoms and a person suffering from diphtheria may go about his or her usual occupation without there being the least suspicion aroused as to the true nature of the throat affection. It is unnecessary to dwell upon the danger of infection in such a case. All cases of "sore throat" should be regarded as infectious and possibly diphtheric until their true nature has been definitely ascertained. They should in all cases be treated as infectious so far as spoons, forks, cups, &c., used by the patient are concerned; and, under no circumstances should a child suffering from "sore throat" be allowed to attend school.

The following instances may be mentioned of local prevalence of diphtheria in which there were strong grounds for believing that school-attendance played a prominent part in the dissemination of infection. From October 10th to December 20th, 18 cases of diphtheria were certified in the neighbourhood of Scrutton Street Board School. They mostly occurred amongst children living in artizans' dwellings, and altogether 13 households were invaded. From enquiries made there were no reasons for suspecting that the sanitary conditions of the invaded dwellings could in any way be called into question. The principal thing in common amongst those attacked was attendance at the infants' department of the Scrutton Street School, for practically the whole of the sufferers were children attending the department or had been brought into contact with children attending the department. Upon the school closing for the Christmas holidays the cases ceased.

Towards the end of November my attention was attracted by the occurrence of several cases of diphtheria in households from which there were children attending the Mintern Street Middle-Class School, and upon enquiry I ascertained that there had been, besides the cases certified as diphtheria, several other cases of "sore throat." The cases amongst the school children were practically confined to those attending the infants' department, which numbered, at the time of the outbreak, 110. The history of the outbreak shewed that during the first fortnight of November a case or two of "sore throat" had occurred amongst the members of a family living in a house in Cavendish Street. On or about November 19th, a little boy belonging to this family, was taken ill with a "sore throat" and was subsequently certified to be suffering from diphtheria. At the time he was taken ill he was attending the infants' department of the school mentioned. On November 21st or 22nd, one of the teachers in the infants, department was taken ill with a "sore throat." She taught in the school, however, until mid-day on November 23rd, when she became too ill to continue. This teacher was subsequently certified to be suffering from diphtheria. Then followed a series of 15 cases of throat illness in houses from which children were attending the infants' department of the school. The majority of the cases were certified to be diphtheria. In one instance, in which a bacteriological examination was made, the specific

micro-organism of diphtheria was present. The cases were distributed as follows : two, one of diphtheria and one of "sore throat" at houses in St. John's Road; one of dipththeria at a house in Mintern Street; two, one of "sore throat" and one of diphtheria at a house in Buckland Street; six, all of diphtheria, at a house in the New North Road; one case of "sore throat" at a house in Balmes Road, Hackney, and three cases of diphtheria at a house in Bevenden Street. Of the six cases at the house in the New North Road, three were of children attending the infants' department and the other three were adults who were probably infected through contact with the children. Of the three cases in Bevenden Street, two doubtless resulted through infection from a child, a member of the family, who was attending the infants, department and had been home from school for several days suffering with what was at first regarded as a "sore throat," but which was afterwards found bacteriologically to be diphtheria.

The sanitary conditions of the invaded houses were generally satisfactory. The drainage arrangements, however, of the house in the New North Road were found to be in a very defective condition, and there may possibly have been some connection between this fact and the heavy incidence of the disease upon the persons dwelling in the house. The sanitary arrangements at the school were inspected and tested, but so far as could be ascertained, they were satisfactory.

The indications were that infection from person to person, direct and indirect, was the chief factor in the dissimination of the disease, and that the infants' department of the school was the principal medium of transferring the infection from family to family, so, acting under my advice, the school authorities closed the infants' department on December 10th, with the result that the cases at once ceased.

ENTERIC OR TYPHOID FEVER.

The above disorder, together with typhus fever and continued fever, are grouped together under the term "fever." A few words respecting the past history of "fever" in Shoreditch will not be out of place here, and in the subjoined table are contained the numbers of deaths which have been yearly ascribed to "fever" in Shoreditch, during the period 1856 to 1900 :

Year.	Deaths.	Year.	Deaths.	Year.	Deaths.
1856	225	1871	75	1866	35
1857	184	1872	52	1887	25
1858	135	1873	64	1888	20
1859	108	1874	50	1889	19
1860	94	1875	46	1890	24
1861	110	1876	41	1891	19
1862	206	1877	61	1892	15
1863	146	1878	46	1893	18
1864	140	1879	24	1894	12
1865	156	1880	22	1895	21
1866	114	1881	39	1896	18
1867	105	1882	32	1897	19
1868	98	1883	14	1898	17
1869	113	1884	33	1899	25
1870	86	1885	15	1900	14

These figures shew that the average number of deaths annually attributed to "fever" in Shoreditch, during the 15 years ending 1870, was 134, during the 15 years ending 1885 it was 41, and during the last 15 years it has fallen to a little over 20.

On the authority of Dr. Barnes, typhus fever was unusually prevalent in Shoreditch during the years 1862 to 1864. A reference to the foregoing table will shew that the deaths from "fever" during that period were more than usually numerous. Contrasting the numbers of cases of "fever" coming under the treatment of the district medical officers in Shoreditch at the present day with those of 40 years ago (see page 11), the great decrease which has taken place is very striking. Probably many of the cases formerly described as "fever" would now be classed otherwise. In his Annual Report for 1864, Dr. Barnes remarks that the "fever" cases returned by the Poor Law medical officers "include necessarily many cases of very different type, and even many which it would be impossible to range under the specific heads of typhus or typhoid." But making every allowance for this, I do not think that there can be any question as to the fact that a great decrease in the prevalence of typhus and typhoid fevers has taken place in Shoreditch.

The deaths from enteric, typhus and continued fevers separately, since 1869, are set out below :

Year.	Enteric Fever.	Typhus Fever.	Continued Fever.	Year.	Enteric Fever.	Typhus Fever	Continued Fever.
1870	40	20	26	1886	32	2	1
1871	44	16	15	1887	25	...	...
1872	32	4	16	1888	20	...	...
1873	42	9	13	1889	17	1	1
1874	25	13	12	1890	20	1	3
1875	30	6	10	1891	19	...	...
1876	25	5	11	1892	13	1	2
1877	42	2	17	1893	17	...	1
1878	40	2	4	1894	12	...	...
1879	18	3	3	1895	21	...	...
1880	17	1	4	1896	18	...	...
1881	31	5	5	1897	19	...	...
1882	27	1	4	1898	17	...	...
1883	13	...	1	1899	25	...	...
1884	27	4	2	1900	14	...	...
1885	15	...	...				

The above figures are distinctly satisfactory ; no deaths from typhus fever or continued fever have been registered for several years past, and I think that it may be claimed that the past activity of the Sanitary Authority, in the exercise of their powers under the statutes relating to Public Health, has been very largely instrumental in bringing about the decrease in the mortality from "fever" which has taken place during the past 30 years.

During the year 1900, the cases of enteric fever certified numbered 122*, slightly above the average for the previous ten years. The number of cases certified since 1889 are as follows :

Year.	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899
Number of cases certified	202	111	91	111	85	99	114	107	91	171

The cases certified were at the rate of 1·0 per 1,000 inhabitants for the whole Borough, the rate being highest in Hoxton Old Town and lowest in Shoreditch South. In 1899 cases were certified at the rate of 1·4 per 1,000 inhabitants. Of the cases certified, 107 were of persons over 5 years of age. The deaths numbered 14, 11 of which occurred in hospitals beyond the limits of the Borough. The death-rate from the disease was 0·11 per 1,000 inhabitants, as compared with 0·20 for 1899, 0·14 for 1898, 0·15 for 1897, 0·14 for 1896, and 0·17 for 1895. Deducting 12 cases which were not regarded at the fever hospitals as being enteric fever, the attacks were fatal in the proportion of 12·7 per cent., as compared with 16·1 per cent. in 1899, 18·6 in 1898, 17·7 in 1897, 15·7 in 1896, 21·2 in 1895, 14·1 in 1894, and 15·8 in 1893 ; the mortality was therefore considerably below the average.

The distribution of the cases and the deaths amongst males and females in the four registration sub-districts are shewn in the following table :—

Sub-District.	TYPHOID FEVER.					
	Notifications.			Fatal Cases.		
	Male.	Female.	Total.	Male.	Female.	Total.
Shoreditch South	8	2	10	—	—	—
Hoxton New Town.....	9	14	23	2	2	4
Hoxton Old Town	22	15	37	1	3	4
Haggerston	29	23	52	3	3	6
Total for the whole Borough	68	54	122	6	8	14

Of the cases certified in Shoreditch, just over 86 per cent were removed to hospital for treatment.

The number of cases of enteric fever certified in London during the year 1900 was 4,309, as compared with 4,460 in 1899, the attack-rate being 0·93 per 1,000 population, and the death-rate 0·17, as compared with 0·97 and 0·18 respectively in 1899.

*12 of the cases were subsequently found by the medical officers of the Metropolitan Asylums Board not to be suffering from enteric fever.

The following series of cases of enteric fever, coming under my observation during the year, is worthy of note:—

Case 1. Alfred F——, aged eleven, living at No. 3, Smart's Buildings, Hoxton Street. He first showed signs of illness about September 27th, he took to his bed on October 7th, was certified to be suffering from enteric fever on October 19th, and was removed to hospital, the premises being thereupon disinfected. The family of the patient consisted of two adults and one other child beside himself, and they occupied one room in the house.

Case 2. William B——, aged six, also living at No. 3, Smart's Buildings. He was taken ill about October 28th, was certified to be suffering from enteric fever on November 5th and removed to hospital and the premises were again disinfected. The B—— family consisted of two adults and three children, and they occupied three rooms in the house. William B—— was a great deal in the room with Alfred F——, whilst the latter was lying ill, before the nature of his malady was recognised.

Case 3. Gertrude W——, aged five, living at No. 4, Smart's Buildings, was taken ill about October 30th, she was certified to be suffering from enteric fever on November 8th, and was removed to hospital, the premises being thereupon disinfected.

Case 4. Dorothy W——, aged four, a sister to above patient, was observed to be ailing about November 5th. After being treated at home for several days she was removed to the Shoreditch Infirmary and was certified to be suffering from enteric fever on November 19th. The W—— family consisted of two adults and six children, and they occupied the whole of the house. I was informed that Gertrude and Dorothy W——, were not allowed to go into No. 3, Smart's Buildings, but that they played a good deal with the children belonging to that house.

Case 5. Jane B——, aged 40, living at No. 3, Smart's Buildings, mother of William B——; she waited upon him during his illness. She first began to feel unwell about November 11th or 12th, was decidedly ill on November 15th, and was certified to be suffering from enteric fever on November 20th.

Case 6. Daisy W——, aged 19, livng at No. 49, Essex Street, was certified to be suffering from enteric fever on December 20th. This patient left No. 4, Smart's Buildings, with her family, on December 3rd. She began to show signs of ill-health on or about December 8th, and was decidedly ill on December 15th. This patient assisted in waiting upon cases 3 and 4.

The sanitary condition of Smart's Buildings was very unsatisfactory, and the steps taken in connection with them will be referred to later. As to how the first patient became infected I was unable to obtain any evidence, but there is no doubt that he was the source of the infection in the cases which followed, and that the conditions under which the people were living were distinctly favourable for the transmission of the infection of enteric fever.

ERYSIPELAS.

The cases certified as erysipelas numbered 170, as compared with 200 in 1899, 175 in 1898, 231 in 1897, 295 in 1896, 201 in 1895, 195 in 1894, 315 in 1893, and 243 in 1892. The cases certified in the Metropolis during 1900 numbered 4,776 The deaths from erysipelas in Shoreditch numbered 10, as compared with 16 in 1899, 11, in 1898, 5 in 1897, 3 in 1896, 5 in 1895, 5 in 1894, and 15 in 1893. The death-rate was 0·08 per 1,000 inhabitants, as against 0·13 in 1899, 0·09 in 1898, 0·04 in 1897, and 0·02 in 1896. The case-mortality was 5·8 per cent. of the cases certified, as compared with 8 per cent. in 1899, 6·2 in 1898, 2·1 in 1897, 1·0 in 1896, 2·4 in 1895, 2·5 in 1894, 4·7 in 1893, and 4·5 in 1892.

The distribution of the cases and the deaths amongst males and females in the Borough and its four registration sub-districts are as set out below :—

Sub-District.	ERYSIPELAS.					
	Cases Certified.			Fatal Cases.		
	Male.	Female.	Total.	Male.	Female.	Total.
Shoreditch South	8	15	23	1	2	3
Hoxton New Town.....	18	24	42	2	1	3
Hoxton Old Town	11	18	29	...	...	...
Haggerston	28	48	76	2	2	4
Total for the whole Borough	65	95	170	5	5	10

Eight deaths were attributed to blood poisoning (Pyæmia and Septicæmia, see table VI).

PUERPERAL FEVER.

Nine cases of puerperal fever were certified with three deaths, the attack-rates per 1,000 births being 2·5 and the death-rate per 1,000 births 0·7, as compared with 2·4 and 0·4 respectively for last year.

DIARRHŒA.

Diarrhœa was prevalent in Shoreditch from the end of July until the second week in September. It caused 36 deaths in July, 72 in August, 36 in September and 11 during October. The deaths from diarrhœa numbered 169, not including 42 deaths from enteritis. Of the deaths from diarrhœa, 141 were of infants aged under one year, 24 of children aged from one to five years, and the remainder were of persons forty-five years of age and upwards. The death rate due to this cause was 1·40 per 1,000 inhabitants, as compared with 1·75 in 1899, 1·79 in 1898, and 1·74 in 1897. The rate was highest in Hoxton New Town, and lowest in Shoreditch South.

The deaths from diarrhœa in London numbered 2,564, of which some 2,428 occurred during the months of August and September. The death-rate from diarrhœa in London was, 0·78 as compared with 0·92 per 1,000 in 899. In the subjoined table is contained a comparison of the mortalities from diarrhœa in Shoreditch and London, of infants under one year, per 1,000 births during the years 1895 to 1900 inclusive :—

Year	1895	1896	1897	1898	1899	1900
Shoreditch ...	30·5	25·7	38·2	38·9	39·7	35·7
London	20·7	18·9	24·2	26·1	25·0	21·8

In the following table are contained the numbers of deaths from diarrhœa in Shoreditch, year by year, from 1856 to 1900, inclusive :—

Year.	Deaths.	Year.	Deaths.	Year.	Deaths.
1856	107	1871	179	1886	194
1857	146	1872	159	1887	162
1858	146	1873	169	1888	108
1859	194	1874	152	1889	115
1860	76	1875	118	1890	115
1861	149	1876	147	1891	108
1862	90	1877	113	1892	104
1863	133	1878	132	1893	167
1864	132	1879	80	1894	73
1865	157	1880	185	1895	72
1866	145	1881	133	1896	151
1867	142	1882	85	1897	211
1868	181	1883	128	1898	217
1869	153	1884	141	1899	210
1870	176	1885	107	1900	169

From the above figures there has been no appreciable decrease in the mortality resulting from diarrhœa. The variations in the numbers of deaths annually registered are probably dependent upon meteorological conditions which influence the vitality of the micro-organisms causing the disease.

A good deal of confusion has arisen owing to the use of various synonyms in the certification of diarrhœa deaths, which has seriously vitiated the accuracy of statistics relating to the disease. Epidemic diarrhœa is recognised by the Royal College of Physicians to be a general disease of a specific character, in the same sense as enteric and other fevers, and the only authorised names to be used in certifying deaths from this disorder are: epidemic enteritis, zymotic enteritis, or epidemic diarrhœa, and

such synonyms as 'gastro-enterits,' 'muco-enterits,' 'gastric-catarrh,' and the like should be discarded. A memorandum on the subject of the certification of diarrhœa deaths drawn up by the Society of Medical Officers of Health has been circulated amongst the medical practitioners of Shoreditch.

MEASLES.

The above disease during 1900 resulted in 76 deaths, all of children under the age of 15 years, of whom 10 belonged to Shoreditch Sou h, 26 to Hoxton New Town 14 to Hoxton Old Town, and 26 to Haggerston. The death rate from measles was 0·63 per 1,000 population, as compared with 0·69 in 1899, 0·83 in 1898, 0·91 in 1897, 1·10 in 1896, 0·84 in 1895, 0·52 in 1894, 1·04 in 1893, and 0·82 in 1892. The deaths from measles in London during the year 1900 numbered 1,936, the death-rate being 0·42 per 1,000 inhabitants. Deaths were more numerous in Shoreditch from measles during the months of February, June, November and December.

In the subjoined table, are contained the deaths yearly recorded as due to measles in Shoreditch, from the year 1858 down to the present time:

Year.	Deaths.	Year.	Deaths.	Year.	Deaths.
1859	39	1873	15	1887	116
1860	90	1874	66	1888	102
1861	56	1875	94	1889	28
1862	199	1876	19	1890	121
1863	34	1877	144	1891	134
1864	157	1878	41	1892	103
1865	38	1879	148	1893	128
1866	109	1880	30	1894	65
1867	43	1881	101	1895	103
1868	144	1882	60	1896	134
1869	26	1883	86	1897	111
1970	75	1884	46	1898	101
1871	83	1885	134	1899	83
1872	58	1886	86	1900	76

From the above figures it can be seen that the mortality from measles has been quite as great during recent years as it was thirty or forty years ago. Measles is not one of the diseases required by law to be notified to the medical officer of health, so that nothing like an exact estimate as to extent the disorder prevails from year to year can be formed. The numbers of deaths cannot be relied upon for indicating variations in the prevalence of the disease, for, as in the case of other infectious diseases, some epidemics are more fatal in proportion to the number of cases than others. Measles is not usually regarded by the public as a dangerous disorder, and precautions for the prevention of the spread of infection are not taken to anything like the same extent as in the case of scarlet fever or diphtheria. Nevertheless, measles, as is evident from the foregoing table, is accountable for a large number of deaths annually. In some outbreaks the mortality from measles may be very high, especially so is this the case amongst debilitated children. The following instance of a

high mortality from measles came under my notice during the year:—Of eighteen cases of measles, mostly amongst children under three years of age, in the Shoreditch Workhouse, Dr. Norton, the medical officer, informs me that no less than nine ended fatally.

Arising out of a communication from the London County Council upon the subject of including measles amongst the diseases scheduled as dangerous and infectious for the purposes set forth in certain sections of the Public Health (London) Act, 1891, the question as to the Sanitary Authority having the legal powers for enforcing reasonable precautions for the prevention of the spread of the disease came under the consideration of the Borough Council and they were of opinion that for the purposes set forth in sections 60 to 66, 68 to 70, and 72 to 74 inclusive, of the Public Health (London) Act, 1891, measles should be included in the term, "dangerous and infectious disease." There is nothing in the above sections requiring that measles shall be notified.

WHOOPING COUGH.

The deaths from the above disorder numbered 43 during the past year. The deaths from the year 1858 down to the present time are as set out below:—

Year.	Deaths.	Year.	Deaths.	Year.	Deaths.
1859	87	1873	133	1887	137
1860	118	1874	107	1888	128
1861	224	1875	174	1889	31
1862	147	1876	128	1890	170
1863	119	1877	58	1891	124
1864	125	1878	226	1892	105
1865	179	1879	118	1893	72
1866	179	1880	130	1894	86
1867	96	1881	83	1895	83
1868	97	1882	237	1896	115
1869	183	1883	43	1897	60
1870	120	1884	166	1898	79
1871	66	1885	105	1899	44
1872	178	1886	136	1900	43

Whooping cough has been in the past and still remains a very fruitful cause of death amongst infants and young children. During recent years the deaths have not been quite so numerous as formerly. Possibly this decrease may be one of the results of the improvements effected in connection with the sanitary condition of dwellings of the people.

With two exceptions, the deaths from whooping cough during 1900 were all of children under five years of age. The death-rate was 0·35 per 1,000, as compared with 0·36 in 1899, 0·80 in 1898, 0·49 in 1897, 0·94 in 1896, 0·67 in 1895, 0·70 in 1894, and 0·54 in 1893.

Whooping cough was the cause of some 1,948 deaths in the Metropolis during 1900, and the death-rate from it was 0·43 per 1,000, as compared with 0·38 for 1899.

TUBERCULOSIS.

Tuberculosis was responsible for 343 deaths, including 229 due to phthisis or consumption, 20 to tabes mersenterica or consumption of the bowels in infants, 45 to tuberculous meningitis, and 49 to other forms of tuberculosis. About one-eighth of the total mortality amongst the inhabitants of Shoreditch in 1900 resulted from the various forms of tuberculosis, and the death-rate was 2·94 per 1,000 inhabitants.

In the following table are contained, as far as I have been able to obtain them, the deaths yearly registered as due to the various forms of tuberculous disease, from 1856 down to the end of 1900 :—

Year.	Deaths.	Year.	Deaths.	Year.	Deaths.
1856	460	1879	470	1891	402
1857	542	1880	458	1892	392
1858	498	1881	458	1893	384
1859	499	1882	431	1894	362
1860	498	1883	436	1895	394
1861	552	1884	431	1896	301
1862	535	1885	447	1897	321
1863	580	1886	422	1898	342
1864	637	1888	381	1899	353
1877	430	1889	386	1900	343
1878	475	1890	430		

From the above table it would appear that during recent years deaths attributed to tuberculosis have been considerably less numerous than formerly. Taking the nine years 1856 to 1864 on an average 533 deaths were annually ascribed to tuberculosis, the death-rate being 4·2 per 1,000 inhabitants; during the ten years 1877 to 1886 the deaths averaged 445, the death-rate being 3·5 per 1,000; since 1888 the average has fallen to 370 yearly, the death-rate being 3·0 per 1,000 inhabitants.

Doubtless there has been a real decrease in the mortality from tuberculosis, but I am strongly inclined to believe that increasing accuracy of diagnosis during recent years has been to a considerable extent the cause of the decrease in the number of cases which is observable in the above table, deaths which formerly were attributed to some form of tuberculosis being now returned under some other and more appropriate heading.

The Borough Council disinfects free of charge after cases of tuberculosis, and during the year disinfection was carried out in connection with 81 houses in which persons suffering from tuberculosis, principally consumption, had lived or died.

INFLUENZA.

Judging from the numbers of deaths, the above disorder was prevalent in Shoreditch during the months of January, February, March, and April. The deaths numbered 52, as compared with 35 in 1899, 22 in 1898, 16 in 1897, 7 in 1896, 57 in 1895, 15 in 1894, and 36 in 1893.

The deaths from influenza in London during 1900 numbered 1950, as compared with 1817 in 1899. The deaths were most numerous during the months of January, February, March, and April.

PLAGUE.

During the month of August of the year under consideration, cases of plague made their appearance in Glasgow, and gave rise to a good deal of uneasiness throughout the country generally. Thanks, however, to the energetic action of the sanitary authority and its medical officer of health the city was, in the course of a few months, declared free from the disease. In view of the possibility of the disease making its appearance in England and Wales, an order dated September 19th, 1900, was issued by the Local Government Board requiring the immediate notification of any cases of plague which may occur, and the medical practitioners of Shoreditch were informed accordingly that plague had been added to the list of notifiable infectious diseases. A memorandum on the subject of plague, containing a good deal of useful information with respect to administrative considerations and also as to the symptoms of the disease, was issued by the Local Government Board, and to afford assistance in the identification of cases of plague, the Board have made arrangements for bacterologically testing material from any suspected cases of the disease which may occur

The possibility of the occurrence of cases of plague in Shoreditch, and the action to be taken in the event of such cases occurring, were considered by the Public Health Committee, and the Local Government Board, the London County Council, and the Metropolitan Asylums Board were communicated with upon the subject. Instructions were given to the sanitary inspectors respecting such matters as the cleansing and ventilation of dwellings, the cleansing and limewashing of yards, the prompt removal of house refuse, and the flushing and cleansing of courts and alleys. Attention was also directed to the great importance of remedying defects in connection with the drains of houses, especially in cases where rats were found. Numerous competent observers have pointed out that rats suffer from the plague, and are capable of conveying infection to mankind. Inasmuch as rats in dwellings usually come from defective drains, the importance of remedying such defective drains, in view of the possible occurrence of plague, so as to prevent the rats obtaining access to the dwellings at once becomes apparent. It was ascertained from the Metropolitan Asylums Board that one of their hospitals had been determined upon for the reception of persons suffering from the disease, and information was received that arrangements had been made by the London County Council for dealing with suspected cases, and for keeping under observation persons who may have been exposed to infection, and that the services of an eminent plague specialist, and of a distinguished bacteriologist had been engaged to assist in clearing up the diagnosis in suspected cases. As far as can be judged the steps which have been taken for dealing with possible cases of plague in London are such as can reasonably be anticipated to be sufficient to prevent anything like a serious outbreak of the disease ; such steps are, however, to be regarded, not as indicating cause for alarm, but as wise and prudent precautions against a possible danger.

Five intimations were received during the year respecting persons coming into Shoreditch from places in which plague existed, having arrived on board ship at the port of London. One such person came from Lisbon, and the other four from Glasgow. As a matter of precaution the addresses in Shoreditch mentioned were all visited. In two instances the persons referred to had given wrong addresses.

INFECTIOUS DISEASES AND SCHOOLS.

In the following table are set forth the numbers of children, belonging to Shoreditch, who were suffering from various infectious diseases, or were members of households in which such diseases existed, concerning whom intimations of exclusion from school were received from the head teachers, in accordance with the requirements of the regulations of the London School Board :—

SCHOOL.	Small-pox.	Diph-theria	Scarlet Fever	Measles	Chicken-pox	Whoop-ing Cough	Mumps	Other Diseases	Total
Bath Place	...	1	...	1	3	...	...	...	5
Canal Road.....	...	1	1	43	...	...	3	...	48
Catherine Street...	...	...	...	41	3	11	...	5	60
Chatham Gardens	...	..	...	18	9	2	...	7	36
Chicksaw Street ...	...	...	1	...	...	...	...	...	1
Curtain Road	...	...	...	14	6	37	1	...	58
Daniel Street	...	...	...	2	...	1	...	2	5
Gopsall Street ...	...	2	2	122	18	27	30	18	219
Haggerston Road	...	2	1	56	...	2	...	2	63
Hammond Square	...	...	...	5	...	...	...	...	5
Maidstone Street	...	11	3	88	32	25	4	21	184
Napier Street	...	...	...	6	1	3	...	...	10
Oldcastle Street ...	...	...	...	1	1	...	...	...	2
Prichard's Road...	...	1	1	1	3	...	...	...	6
Queen's Road.....	...	...	...	13	3	...	...	...	16
Redvers Street ...	...	...	...	7	...	...	...	...	7
Scawfell Street ...	...	...	1	7	2	...	...	2	12
Scrutton Street ...	...	...	...	3	3	...	...	16	22
Shap Street	...	2	...	42	8	20	3	1	76
Shepperton Road	1	...	...	2	...	2	...	2	7
St. John's Road...	...	4	4	133	9	17	3	4	174
Trinity Place	...	...	1	100	5	17	15	8	146
Wenlock Road ...	...	2	3	3	1	...	1	1	11
Virginia Road.....	...	...	...	2	...	...	...	...	2
TOTALS	1	26	18	710	107	164	60	89	1,175

The exclusions on account of measles were more numerous during the months of June and July, and October, November, and December. The exclusions were most numerous in December. The exclusions from whooping cough were most numerous during the months of April and June.

The following is a summary of the steps taken with respect to the schools in the Borough which have come under observation during the year, in consequence of the occurrence of infectious diseases amongst the scholars :—

Shap Street Board School.—Enquiries were made in consequence of the number of children excluded in June : about 20 per cent. of the children attending the infants' department were absent principally on account of measles. Two of the class rooms in the infants' department were disinfected.

St. John's Road Board School.—In June it was ascertained that 10 per cent. of the children attending the infants' department were absent, chiefly from measles. No action was taken. In October the infants' department of this school again came under notice. A large proportion of the children attending, belonging to the same class-room, were absent mainly on account of measles. The class-room was closed for three weeks, and disinfected by the officers of the sanitary authority.

Haggerston Road Board School.—In June it was found that 14 per cent. of the children attending the infants' department were absent, mainly from measles. In July the proportion of absentees rose to 24 per cent. The majority of the absentees were amongst children belonging to one class-room, which was closed for three weeks and disinfected.

Maidstone Street Board School.—On enquiry in June, 20 per cent. of the children attending the infants' department were found to be absent. About half the absences were due to infectious disease, chiefly measles. There were also several cases of diphtheria amongst the children. Instructions were given as to the ventilation of the class-rooms. The number of absentees declined, and no further action was required.

Trinity Place Board School.—Came under observation in June in consequence of the occurrence of several cases of diphtheria amongst children attending the infants' department. Two of the class-rooms were disinfected. The infants' department of this school again came under notice in December on account of measles. One of the class-rooms was closed, and disinfected about a week before the Christmas holidays.

Hammond Square Board School.—A class-room and cloak-room were disinfected in consequence of the discovery that a case of scarlet fever had been frequenting the rooms.

Catherine Street Board School.—One of the class-rooms in the infants' department was closed for three weeks, and disinfected in October, on account of measles.

Scrutton Street Board School.—The infants' department was disinfected on the school closing for the Christmas holidays. During November and December cases of diphtheria had been occurring amongst the children attending the department.

Mintern Street Middle Class School.—In consequence of the occurrence of an outbreak of diphtheria amongst the children attending the infants' department, it was deemed advisable to close the department early in December. The department was disinfected by the officers of the sanitary authority.

Gopsall Street Board School.—On enquiry in December, 24 per cent. of the children attending the infants' department were found to be absent from all causes. About 12 per cent. of the absences were due to measles. No action appeared necessary.

Canal Road Board School.—Enquiry in December showed that 15 per cent. of the children attending the infants' department were absent. About half of the absences resulted from measles. No action appeared necessary.

As far as can be judged the results of the steps taken were distinctly beneficial in limiting the spread of infection through the medium of the schools.

BACTERIOLOGICAL AID IN THE DIAGNOSIS OF DOUBTFUL CASES OF INFECTIOUS DISEASE.

Towards the latter end of the year the question of affording the assistance of bacteriology in the diagnosis of doubtful cases of infectious disease came under the consideration o the Public Health Committee, and the advisability of entering into an arrangement with one of the institutions accessible within the Metropolis possessing bacteriological laboratories was discussed. It was pointed out that the benefits which could reasonably be expected to be conferred, such as the removal of doubt, which is not unfrequently present in the minds of the patients' friends as to the nature of the malady, especially in mild cases of diphtheria, the earlier diagnosis of doubtful cases of enteric fever, together with a probable reduction in the number of cases wrongly diagnosed as enteric fever and diphtheria which are removed to the various fever hospitals, would be an ample return for the small expenditure incurred. Upon the recommendation of the committee an arrangement was entered into with the authorities of the London Hospital, and Dr. Bulloch, the bacteriologist of that institution, is now carrying out such examinations as may be required for the Borough. All that medical practitioners desirous of obtaining bacteriological examinations in the case of patients resident in Shoreditch have to do, is to apply to the medical officer of health, at the Town Hall, for the necessary outfit, which is furnished together with instructions for the collection of specimens, and the address of the bacteriologist. On the specimen being obtained, it is forwarded by the medical practitioner to the bacteriologist, and the result of the examination is communicated to the practitioner, through the medical officer of health, in the course of about four and twenty hours. The procedure is similar to that already adopted in some of the other Metropolitan sanitary districts.

Up to the end of the year four examinations were made in diphtheria cases, the results in two, being positive as to the presence of the bacillus of diphtheria.

DISINFECTION.

During the year 1900 disinfection was carried out at 909 premises. The number of articles removed to the Borough disinfecting station and disinfected, amounted to 12,285, and included 905 beds, 1,700 pillows, 843 palliases, 639 bolsters, and 8,198 miscellaneous articles. There were 7 beds, 4 palliases, and one pillow, which it was necessary to destroy, as they were so contaminated, and in such bad condition that it was not thought advisable to return them. These were replaced by new ones at the expense of the Borough. No instance of any damage caused by the measures taken for the disinfection of the premises, or articles removed for disinfection, came under my notice during the year, and so far as could be judged the results of the measures as to disinfection taken were satisfactory. The numbers of premises and articles disinfected in previous years are set forth in last year's annual report.

There was the usual distribution of disinfecting powder at the Town Hall, and some 26 gallons of carbolic disinfecting fluid were used for flushing house drains and urinals, and in connection with the public mortuary.

THE SHELTER.

The shelter provided under the Public Health (London) Act, 1891, for members of families obliged to vacate their dwellings, to allow of effectual measures being taken as to disinfection, was in use during the year under consideration on six occasions.

The particulars relating thereto are contained in the subjoined table :—

Date of Admission to Shelter.	Duration of Stay.	Number of Persons.	Address of dwelling disinfected.	Disease.
January 17th	5 nights	3	8, Hyde Road	Small-pox
February 14th	1 day	3	45, ,, ,, ...	Diphtheria
March 21st ...	1 night	1	12, Rushton Street ...	,,
May 14th	1 ,,	10	13, Brunswick Square	Small-pox (?)
July 28th	2 nights	7	31, Underwood Street	Scarlet Fever
August 9th ...	1 night	3	14, Rodney Buildings	,, ,,

Altogether the shelter was made use of by 27 men, women, and children.

The work of erecting the new shelter in Reeves Place is approaching completion, and it is anticipated that it will be ready for use the middle of the current year.

THE PUBLIC MORTUARY.

There were 443 dead bodies received into the mortuary, including the bodies of seven persons removed thereto by order of the sanitary authority, from houses in which it was impossible for them to be retained without risk to the health of the inmates. The numbers of bodies received into the mortuary during the preceding four years were: 494 in 1899, 446 in 1898, 421 in 1897, and 404 in 1896. The post-mortem examinations made in the post-mortem room, attached to the mortuary, numbered 229, as compared with 232 in 1899, 164 in 1898, 159 in 1897, 128 in 1896, 109 in 1895, 60 in 1894, and 29 in 1893. The inquests held on bodies in the mortuary numbered 324, as compared with 354 in 1899, 339 in 1898, 331 in 1897, 301 in 1896, and 313 in 1895.

WATER SUPPLY.

The rainfall in inches, measured at Oxford, was 22·60; the average for 30 years amounts to 25·72 inches; the rainfall was therefore 3·12 inches below the average, as compared with 4·54 in 1899, and 6·48 in 1898, the year when there was a great deficiency of water in a portion of Shoreditch. No complaints were received as to shortness of supply during 1900. Communications were received from the water companies respecting the cutting off of water supplies at 165 premises, 59 in the East London Company's district, and 106 in that of the new River Company. The circumstances in connection therewith were enquired into, and in many of the cases, alterations in connection with the water fittings, and vacation of premises, were the reasons for the action of the companies.

SANITARY WORK.

Notices as to insanitary conditions were served in respect to 2,047 premises. The chief sanitary inspector dealt with 322 premises, inspector Lear with 439, inspector Quelch with 161, inspector Firth with 391, inspector Jordan with 374, and inspector Lindon with 360. In connection with the work carried out 1,546 letters were written. In the subjoined table is a summary which indicates the character of the various works carried out for the abatement of nuisances, and has been compiled from the abstracts prepared by the inpectors :—

	Chief Insp.	Insp. Lear.	Insp. Quelch.	Insp. Firth.	Insp. Jordan.	Insp. Lindon	Total
New drains constructed	11	4	15	7	11	3	51
Drains re-constructed or repaired	70	71	39	137	44	124	485
Sink waste pipes trapped and disconnected	9	97	41	148	67	100	462
Stack pipes re-instated	32	110	38	107	16	109	412
Eaves gutters re-instated	38	100	37	127	5	100	407
Stack pipes disconnected from drains	8	66	18	103	62	23	280
Accumulation of sewage dealt with	4	10	9	17	36	27	103
Cesspools abolished	—	2	1	10	—	—	21
New water closets constructed	62	62	10	16	71	10	231
Old water closets re-constructed or repaired	47	82	98	149	77	152	605
Water closets cleansed and white-washed	14	278	100	72	176	131	771
Water restored or newly laid on to water closets	9	41	11	90	18	34	203
Obstructions in water closets removed	26	57	4	31	4	20	142
Overcrowding in houses abated	4	9	4	32	5	11	65
Damp courses in houses provided	29	15	12	36	—	5	97
Walls pointed	35	41	26	92	—	43	237
Roofs repaired	34	98	65	90	18	98	403
Stairs repaired	61	28	49	93	3	98	332
Floors repaired	73	54	59	105	2	104	397
Ventilation under floors provided	8	47	61	126	—	95	353
Doors repaired	61	24	42	51	4	96	278
Door Sills provided	195	117	101	197	33	109	752
Sashes repaired	61	112	37	48	—	95	353
Houses cleansed throughout	110	37	6	78	59	92	382
Houses cleansed in part	55	216	—	239	8	124	642
Total number of rooms cleansed	491	712	394	845	417	835	3694
Yards or areas lime-washed	45	354	101	9	112	142	763
Yards paved	78	111	65	182	40	162	638
Areas or forecourts paved	5	52	30	91	3	39	220
New areas constructed	—	4	5	14	—	—	23
Sculleries paved	4	38	34	70	22	48	216
Dust receptacles provided	46	107	44	65	24	99	385
Dung receptacles provided	1	7	—	6	—	—	14
Insanitary cisterns removed	—	3	1	4	—	3	11

In addition to the above, old brick drains were abolished on 29 premises, and on 13 cesspools were found, emptied, and filled in. Cesspools in these days are only occasionally met with. In the early years of the existence of the late Vestry it appears

that on an average between 400 and 500 cesspools were annually abolished in Shoreditch. Their removal must have formed a very large item in the work of the sanitary inspectors of that time.

On 165 premises rats were complained of, or there was evidence of the existence of these animals, and steps were taken to get rid of them. The usual steps taken are the rectification of the house drains which are so frequently found defective in connection with premises upon which rats are met with.

Leaking waterpipes required attention in 62 instances, and 11 insanitary cisterns were abolished. On 10 premises horses and donkeys were found improperly stabled, and the necessary steps were taken in connection with them. Some 60 foul accumulations of various descriptions were removed.

The great bulk of the sanitary work carried out for the abatement of nuisances and the improvement of the conditions under which people were found to be living was the result of written intimations principally. Difficulties and delays with respect to the execution of the necessary works were, however, not infrequently experienced, and in 185 instances notices under the Public Health (London) Act, 1891, were served upon the persons responsible for the abatement of the nuisances, by order of the Sanitary Authority. Usually these notices were complied with, but in a certain number of cases it was necessary to take the police court proceedings set out below.

LEGAL PROCEEDINGS.

The premises in respect to which legal proceedings were taken, together with the results of such proceedings, are as contained in the subjoined list:—

Premises.	Result of Proceedings.
Alma Street, Nos. 1 to 24	Summons dismissed.
Allerton Street, No. 23	Closing Order, with 4/- costs
Boot Street, No. 5	Summons withdrawn, 3s. costs, paid.
Cotton's Gardens, No. 44	Order for abatement of nuisance, £3 3s. costs.
,, ,, ,, 33	Summons withdrawn
Newton Street, No. 34	Order for abatement of nuisance, £2 2s. costs
Pearson Street, London General Omnibus Stables	Order for abatement of nuisance, £3 3s. costs
Regent's Row, No. 23	Order for abatement of nuisance, £1 3s. costs
,, ,, ,, 24	Order for abatement of nuisance, £1 3s. costs
Rushton Street, No. 15	Summons withdrawn, 3s. costs, paid.
Trafalgar Road, Nos. 3 and 5 ...	Summons withdrawn, costs paid.
,, ,, No. 5	Order for abatement of nuisance, 4s. costs.

The proceedings in connection with Nos. 1 to 24, Alma Street, were taken in consequence of the defective condition of the drain common to the houses. The drain being a combined one, the defence was that it was a sewer, and as such was repairable by the Sanitary Authority. The Sanitary Authority were in possession of evidence that application had been made shortly before the year 1856, to the old Commissioners of Sewers, for their sanction as to the construction of the combined drain in question, and that the application had received the sanction of the old Commissioners of Sewers. The requirement of the law on the subject is that a combined drain sanctioned or approved by the old Commissioners of Sewers if it is to remain a drain repairable by the owner, must have been laid or constructed before the 1st January, 1856. The Sanitary Authority were therefore called upon to prove that the drain was constructed in accordance with this requirement, namely before the 1st January, 1856. No such evidence could be procured sufficient to satisfy the magistrate as to the date the combined drain was laid, and it was therefore held to be a sewer, the summons being consequently dismissed.

No. 33, Allerton Street, was closed as the result of a summons taken out by the Chief Sanitary Inspector, the house being without any water supply.

The summonses respecting Nos. 5, Boot Street, 15, Rushton Street, and Nos. 3 and 5, Trafalgar Road, were withdrawn on the owner carrying out the works specified in the notices served.

The summons against the owner of No. 44, Cotton's Garden, was taken out by the chief sanitary inspector for failure to comply with a notice for the abatement of a nuisance caused, amongst other things, by a defective drain common to the houses Nos 33 to 44, Cotton's Gardens. The point in dispute was as to the defective drain, it being claimed that the same was a sewer. The Sanitary Authority were in possession of an unsigned application for the construction of the drainage of the whole of the houses in Cotton's Gardens, the houses to be drained by combined operation into a neighbouring sewer, and the minutes shewing that the application was sanctioned were put in evidence. There was, however, no plan of the combined drain attached to the application. It was contended on behalf of the defendant that the evidence was insufficient to shew that the existing combination of the drains of the houses in question was the one sanctioned by the Sanitary Authority. The magistrate took a different view and held that there was, and made the order for the abatement of the nuisance applied for.

The summons in respect to No. 34, Newton Street, was taken out by inspector Lindon, under the Public Health (London) Act, 1891, for the abatement of a nuisance Amongst other things, the drain was defective. As it formed portion of a combined system the owner contended that it was a sewer, and that the Sanitary Authority were responsible for its repair and maintenance. The drain, however, took only the drainage from one premises, and the necessary nuisance order was made by the magistrate. The proceedings against the London General Omnibus Company were taken in consequence of a nuisance arising through the quantity of manure and stable litter which had been allowed to accumulate in their yard in Pearson Street. Very bad smells, caused through the periodic disturbances of the manure heaps had troubled the neighbourhood of the yard for some considerable time. The Company had been

advised to provide suitable vans which could be loaded direct from the stables and, when full, be removed without disturbing their contents. This method of removal had been adopted elsewhere in Shoreditch by the Company, and with satisfactory results. The suggestion, however, was not acted upon, and the nuisance continuing it became necessary for inspector Quelch to take out a summons. As the result of the magistrate's order for the abatement of the nuisance, the steps suggested have been taken, and no further complaints have been received.

HOUSES CLOSED.

The following houses were closed during the year ending December 31st, 1900, in consequence of the service of sanitary notices, either on account of being unfit for habitation or in order to enable the necessary works required for putting them into a proper sanitary condition being carried out in an effectual manner:—

Allerton Street, No. 33.	Scawfell Street, Nos. 9, 11, 13 and 15.
Boundary Street, No. 17.	Whitmore Road, No. 57.
Branch Place, No. 19.	Watson's Place, No. 36.
Hare Alley, Nos. 1, 2 and 3.	Smart's Buildings, Nos. 1, 2, 3 and 4.

With respect to No. 33, Allerton Street, this house was closed last year with a view to enabling the necessary sanitary work to be effectually carried out. This however was not done. The house was subsequently found to be again in occupation without a proper water supply, and proceedings for its closure were taken before a magistrate, which have already been referred to.

The houses in Hare Alley and Boundary Street have been from time to time under the notice of the Public Health Department, and this year they again came under observation principally on account of dilapidations, a good deal of cleansing being also required. It was also found that the lower rooms were badly lighted and ventilated. The owners, it appears, contemplated clearing the ground for building purposes in the near future, so on receipt of sanitary notices from inspector Jordan they were closed. and shortly after demolished.

The house in Branch Place was closed on receipt of a sanitary notice from inspector Lindon. It was generally dilapidated and very dirty; the drains, moreover, were in an extremely defective condition and extensive works were necessary to put the premises in a proper sanitary condition. It was therefore deemed advisable for the house to be closed, in order to allow of the necessary works being carried out effectually.

The houses in Scawfell Street were closed as the result of the service of sanitary notices by inspector Frith. They were dirty and dilapidated throughout, the water-closet accommodation and sanitary arrangements generally had to be seen to, the brickwork required attention, and altogether works of such an extensive character were found to be necessary that it was practically impossible to proceed whilst the houses were in occupation.

The house in Watson's place was closed in consequence of the service of a statutory notice under the Public Health (London) Act, 1891, the premises being generally very dirty and dilapidated. The necessary work of putting the house into a habitable condition was carried out under the supervision of inspector Quelch.

With respect to Smart's Buildings, these consist of four-roomed cottages situate in a yard off the east side of the narrow end of Hoxton Street. They came under observation in consequence of the occurrence of several cases of enteric fever in Nos. 3 and 4, which have already been referred to. Their condition was found to be such as to require a great deal of attention, and they were reported to the Public Health Committee and statutory notices with respect to the drains, yards, w.c. accommodation, dilapidations and cleansing were served under the Public Health Act. The cottages were thereupon closed, and extensive alterations and improvements are now in course of execution under the supervision of the chief sanitary inspctor, and when completed there will have been a very excellent piece of work carried out in connection with these dwellings.

SMOKE NUISANCE.

During the year the shafts and chimneys, other than those of private dwelling-houses were kept under observation by inspector Quelch, who is especially charged with this duty, with a view to the necessary steps being taken for the prevention of the emission of black smoke. Numerous complaints were received from different sources, including some 67 from the London County Council, referring to shafts and chimneys on 23 premises. In all cases the existence of the nuisances was brought to the notice of the persons responsible, and, as a rule, with beneficial results for the time being. There was, however, a tendency to recurrence of the nuisances in several cases, and notwithstanding the warnings which were given, it was found necessary in 21 instances to report the facts of the cases to the Public Health Committee, by whose orders statutory notices, under the Public Health Act, were served for the abatement of the nuisances. In most cases the notices had the desired effect, but it was necessary to take proceedings before a magistrate in nine instances :—

The proprietor of a wholesale stationer's business at No. 90, Crondall Street, was fined £10.

The proprietor of certain drug mills, in the New North Road, was fined £10 on one occasion, and £5 with 2s. costs on a subsequent occasion.

The contractors to the Great Northern and City Railway Company, at Poole Street, were fined £2 with £1 costs, and for a subsequent offence £5 with 2s. costs.

The London and North Western Railway Company for offence in connection with their shaft, in Appold Street, were fined £10 with £2 2s. costs, and on a repetition of the offence an order to abate the nuisance was made with 2 guineas costs.

The proprietors of certain works at No. 26, Clifton Street, were fined £10 with 2s. costs, and Lipton Ltd., Old Street, £10 with 2s. costs.

I think it may be claimed that the action taken by the Sanitary Authority during the year has resulted in an appreciable improvement with respect to the emission of black smoke in Shoreditch.

COURTS AND ALLEYS.

The importance of the systematic flushing and cleansing of courts and alleys, and narrow streets, in populous neighbourhoods in poor districts, has been dwelt upon in previous reports. During the year some additions were made to the number of such now being dealt with in this manner in the Borough, several asphalted streets in the poorer and more densely populated portion of the district having been added to the list.

FACTORIES AND WORKSHOPS.

Intimations respecting the establishment within the Borough of workshops to the number of 49 were received from the factory inspector. These were in due course visited and inspected by the sanitary inspector; 36 were found to be in a good, or fairly good condition, and with regard to the remainder, matters of major or minor importance required attention. In addition to the above, 75 written intimations were received from the factory inspector, relating to various insanitary conditions and infringements of the Public Health Act, in connection with 128 workshops and workplaces. These were duly visited and inspected by the officers of the Borough Council, and the factory inspector was informed of the steps taken in each case, in accordance with the requirements of the law.

Besides those brought under the notice of the Sanitary Authority by the officers of the Factory Department, numerous other workshops, workplaces, and factories, received attention at the hands of the officers of the Sanitary Authority during the course of the year.

BAKEHOUSES.

The bakehouses on the register number 91, two additional ones situate at No. 15, Paul Street, and 59, Queen's Road, having been placed on the list during the year. Both these bakehouses are below the level of the ground, and both have been in existence for a number of years. In that in Paul Street, baking is done on a large scale, and machinery is used; that at No. 59, Queen's Road, had been out of use for several years, but was brought into use again during the year.

As the result of inspection, 79 of the bakehouses may be stated to be in a satisfactory condition. Nine were fairly so, one was unsatisfactory, one was on premises which were unoccupied, and one was not being used for baking; 59 are situate under ground, 26 above ground, and 6 partly under ground, that is below the level of the street, but on a level with the yard in the rear. In twelve instances various matters, mostly of minor importance, in connection with them required attention. In three cases, owing to unnecessary delay in the execution of the sanitary works required, notices for the abatement of the nuisances were served on the persons responsible, by order of the Sanitary Authority, under the Public Health Act. In each case the nuisance was abated.

In accordance with instructions from the Public Health Committee, some inquiries were made as to how far the practice of sleeping in bakehouses was indulged in in Shoreditch. Some twenty of the bakehouses were visited for the purpose, and the masters and men were questioned upon the subject. From the information obtained the practice would appear to have been quite customary years ago, but so far as could be ascertained such was not the case at the present time, at least to anything like the extent it was formerly. In seven of the bakehouses visited the men employed lived and slept in rooms on the premises, in two no men were employed, in two the men employed lived in dwellings situate close to the bakehouse, and in one case the man had the use of a sitting-room on the premises, if at any time he wanted to rest. With respect to the remainder, the bakehouses were stated not to be used as sleeping places, those employed having ample time to get sleep during the day when they were off duty, and the arrangements for carrying on the work were such as to render it impossible for the men employed to rest for more than an hour during the night. This is probably correct with regard to most of these bakehouses, but in some instances there appeared to be reason for believing that the men had much longer times at night when there was nothing for them to do and in such cases there is the probability of them going to sleep in the bakehouses. By order of the Sanitary Authority a circular letter on the subject was sent to the bakers carrying on business in Shoreditch, directing attention to the risk of injury to the health of those who are in the habit of sleeping in bakehouses, and pointing out the illegality of the practice.

SLAUGHTERHOUSES.

The slaughterhouses to the number of 16 were inspected during the year, and on the whole their sanitary condition was found to be satisfactory, a few matters only requiring attention. The licences were all renewed by the London Connty Council.

Under the London Government Act, 1889, the Borough Council of Shoreditch, in addition to looking after the general sanitary condition of the slaughterhouses in the Borough, is now charged with the duty of enforcing the bye-laws for the regulation of the business of slaughte er of cattle, and the structure of the premises upon which such business is carried on with respect to such matters as the keeping of animals for slaughtering, cleansing, ventilation and drainage, the manner of use of the slaughter-house and the like. These additional duties, of course, necessitate more frequent visitation of the slaughterhouses on the part of the officers of the Borough Council. The licensing of slaughterhouses remains in the hands of the London County Council.

COWHOUSES.

The cowhouses in Shoreditch number 12, two having gone out of use since last year. The cows kept in them numbered 114, as compared with 135 last year.

In connection with the subject of cowhouses it may be mentioned that the Borough Council under the London Government Act, 1899, has now the duty of seeing that the bye-laws and regulations for the time being in force are duly carried out within the Borough, with respect to dairies and milk. These regulations contain provisions (*a*) for the inspection of cattle in cowsheds ; (*b*) for prescribing and regulating the lighting

and ventilation, cleansing, drainage, and water supply of dairies and cowsheds in the occupation of persons following the trade of cowkeepers or dairymen ; (*c*) for securing the cleanliness of milk shops and milk vessels used for containing milk for sale by such persons, and ; (*d*) for prescribing precautions to be taken by purveyors of milk and persons selling milk by retail against infection and contamination. There are in Shoreditch at the present time 303 premises in which milk is sold. The number is however liable to frequent variations. Many of the milk vendors in the Borough are in a small way of business, and milk in small quantities is frequently sold at little general shops, such being likely to require a good deal of attention. Without dwelling upon the extreme importance which should be attached to the preservation of the purity of the milk supply of a community, it may be pointed out that outbreaks of infectious disease attributable to lack of proper precautions with respect to the milk supply have been by no means uncommon in various parts of the country, and there are grounds also for believing that milk may play an important part as a vehicle of infection for the diarrhœa, which in the summer played such havoc amongst infants. It therefore becomes a matter of considerable moment in the interests of the health of the people that all proper steps should be taken for the preservation of the purity of the milk supply, and this can only be properly and effectually carried out by a systematic visitation of the premises upon which milk is sold.

OFFENSIVE BUSINESSES.

The following offensive businesses may be established anew in London, or the premises on which such businesses are carried on may be enlarged if sanctioned by the County Council :—fellmonger, tripe boiler, slaughterer of cattle or horses, soap boiler under certain conditions, animal charcoal manufacturer, blood drier, catgut maker, fat melter or fat extracter, glue and size manufacturer, and gutscraper. The only offensive businesses registered in Shoreditch, besides the slaughterers of cattle which have already been dealt with in this report, are two tripe boilers, one at No. 69, Haggerston Road, and the other at 110, Goldsmith Row. The duty of enforcing the bye-laws and regulations with respect to these has been transferred to the Borough Council by the London Government Act, 1899.

HOUSES LET IN LODGINGS.

The following houses let in lodgings, or occupied by members of more than one family, were registered under the bye-laws in force relating to them :—

Westmoreland Place, Nos. 60, 61, 62, 68, 69, 76, 78, 80, 82, 84, 86, 89, 90, and 92.
New North Road, Nos. 3, 5, 9, 11, and 13.
Branch Place, No. 20.
Allerton Street, No. 33.
Britannia Street, Nos. 66, 67, and 70.
Cavendish Street, Nos. 4 and 6.
Bookham Street, Nos. 26, 31, and 32.

Altogether 31 houses were registered during the year, and the number on the register is 156.

CUSTOMS AND INLAND REVENUE ACTS.

Applications for certificates for the purpose of obtaining exemptions from the payment of inhabited house duty waa received respecting 115 dwellings, 75 of which belonged to the Borough Council. They were all inspected, and found in a sanitary condition and the necessary certificates granted.

STREET MARKETS AND FOOD.

The usual supervision was exercised by the sanitary officers over the street markets and the food exposed for sale. Steps were taken as far as practicable with a view to the prevention of animal and vegetable refuse being deposited and allowed to remain in the roadway and on the footpaths. Frequent inspections were made for the detection of unsound food. Generally, it may be stated, that the quality of the various food stuffs exposed for sale was excellent.

The following articles of food were destroyed as unfit for food during the year:—mutton, 3 legs, 11 necks, and 2 pieces; beef, 9 legs; pork and mutton, 2½ cwt.; beef and mutton, in joints, half-a-ton; 1 barrel of conger eels; 63 lbs. of roes; over 2½ cwt. of cheeses; 15 boxes of bananas; 24 baskets of cherries; besides sundry other articles, including kidneys, rabbits and bacon.

In several instances the unsound articles were brought under the notice of the Council officers by the tradesmen themselves. With respect to the cheeses which were seized they were found in a shed in Bacchus Walk and were taken before a magistrate for condemnation. An order was made and they were destroyed. No proceedings were taken, as the owner absconded and could not be found.

The following case of food poisoning through the accidental contamination of a summer drink, fortunately without serious results, came under my observation and is worth recording:—On September 6th complaint was received that some six or eight men employed in the Whiston Street Gas Works had been suddenly taken ill with symptoms of poisoning after drinking of a temperance beverage which they were in the habit of consuming in the summer time. The chief symptom complained of was vomiting. Enquiry shewed good reason for believing that the drink was the cause of the symptoms, and the manufacturer thereof was at once communicated with and the necessary steps were taken to prevent any further sale of the beverage and to recall what had already been distributed for sale. The contents of some of the bottles containing the drink were submitted to Dr. Stevenson, the Public Analyst, and it was found that water, tartaric acid, sugar, flavouring and colouring matters entered into the composition of the beverage. It was found also to contain an injurious proportion of salt of copper. The Analyst stated that the copper salt had not been introduced as an ordinary soluble salt of copper, but had doubtless been formed by

allowing the liquid to remain in contact with metallic copper in the presence of air, the sugar in the liquid rendering the salt soluble. The explanation of the presence of the copper, from what the manufacturer stated, appeared to be, that on a certain date a portion of the drink had been made in an apparatus, constructed partly of copper, which had not been in use for several months ; during the time the apparatus was out of use some of the copper salt referred to by Dr. Stevenson had doubless collected on the interior of the apparatus and had been taken into solution in the portion of the drink manufactured in the apparatus when it was brought into use again. The remainder of the drink made on the particular date in a different apparatus was found not to give rise to any of the symptoms complained of.

SALE OF FOOD AND DRUGS.

The reports of the Public Analyst, copies of which are appended, shew that during the year 207 samples were submitted to him for analysis by inspector Quelch. Of these 90 were samples of milk, 45 of butter, 18 of coffee, 12 of linseed meal, 9 of ale, 9 of porter, 6 of pepper, 6 of mustard, 6 of cocoa, and 6 of cheese.

Eighteen of the samples of milk taken, or 20 per cent., were found to be adulterated, or not of proper quality, and in ten other instances the samples were found to contain water beyond the normal amount, varying from three to seven per cent. In two instances traces of boracic acid, or a preparation thereof, were found, and in two other cases artificial colouring matter had been added. Proceedings before the magistrate were taken in 17 cases, and in 14 cases the offenders were convicted. Of the samples of butter taken, 10, or just over 22 per cent., were found to be adulterated. In nine instances legal proceedings were taken, and in eight convictions were obtained.

Two of the samples of coffee taken were found to be adulterated with chicory. In one of these cases proceedings were taken, resulting in a conviction, and in the other it was considered that the vendor could be held to be protected by a label to the effect that the coffee was sold as a mixture, and it was not deemed advisable to institute proceedings.

In consequence of the large number of cases of arsenical poisoning in the Midlands, through the consumption of beer, in the manufacture of which chemicals containing arsenic as an impurity had been used, it was thought advisable to sample the beers consumed in Shoreditch, and samples of the ales and porters supplied by the various breweries were taken. The results on analysis are as set forth in the Analyst's reports. No arsenic was found.

In one case, in which proceedings were taken against a woman, a shopkeeper in a small way of business, it came out in the evidence that she had sold the article, which

was purchased for butter, just as it had been supplied to her by a shopkeeper in a large way of business in the district of a neighbouring Sanitary Authority. The case was adjourned, and, on instructions from the magistrate, Mr. Quelch visited the shop from which the woman had been supplied and obtained samples of butter and milk. These were submitted to the Analyst for the district in which they had been purchased, and were found to be adulterated. The offender was summoned and convicted, being fined £20, with five guineas costs in the case of the butter, and £1 with £1 12s. 6d. costs in the case of the milk, and the summons against the woman was dismissed. In this case the real offender was undoubtedly the one who was punished. In these prosecutions the penalties were not recoverable, but the costs came to the Borough Council.

Altogether, of the samples taken, without including the ten samples of milk containing more than the normal amount of water, 33, or nearly 16 per cent., were found to be adulterated, or not of the nature, substance, and quality demanded by the purchaser, proceedings were instituted in 29 instances, convictions were obtained in 25, fines were inflicted amounting to £129 13s., and costs were allowed to the amount of £29 2s.

In accordance with the requirements of the Sale of Food and Drugs Act, 1899, the necessary steps were taken for the registration of wholesale dealers in margarine and margarine cheese. There are at present in Shoreditch 1 manufacturer and 4 wholesale dealers in margarine.

SANITARY STAFF.

The arrangements for the performance of the duties respecting cowsheds, dairies, and milk-shops, slaughter-houses, and offensive businesses, transferred by the London Government Act, 1899, to the Borough Councils, came under consideration towards the end of the year. Upon the recommendation of the Public Health Committee, it was resolved that these duties should be distributed amongst the five district inspectors, for each inspector to carry out those relating to his own district.

Early in the year the Public Health Department lost the services of Mr. H. C. Rodford, who was appointed chief clerk in the Public Health Department, under the Poplar Board of Works. Mr. A. Hayes, the junior clerk, was promoted to fill his place, and Mr. G. Pratt was appointed junior clerk.

Owing to ill-health, inspector Quelch was absent from duty for several weeks, during the latter half of the year. The work in his district was as far as possible undertaken by the chief sanitary inspector, and the inspectors of the adjoining districts, Messrs. Firth and Lindon.

A large amount of excellent work has been carried out during the year, and I beg to express my satisfaction as to the manner in which the various officers of the Public Health Department have discharged their duties, and my thanks to the Chairman and members of the Public Health Committee for the assistance they have rendered in connection with the work during the year.

I have the honour to be, Gentlemen,

Your obedient Servant,

LEWIS T. FRASER BRYETT,

Medical Officer of Health.

APPENDIX

TO THE REPORT

OF THE

MEDICAL OFFICER OF HEALTH.

Tables I., II. III., and IV. are forms required by the Local Government Board.

TABLE I.

BOROUGH OF SHOREDITCH.

For Whole District.

Year.	Population estimated to middle of each Year.	Births.		Deaths under one Year of Age		Deaths at all Ages. Total.		Deaths in Public Institutions.	Deaths of Non-residents registered in District.	Deaths of residents registered beyond District.	Deaths at all Ages. Nett.	
		Number	Rate*	Number.	Rate per 1000 Births registered.	Number	Rate*				Number.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1893	123520	4446	35·5	807	186	3198	26·1	862	436	384	3146	25·7
1894	123520	4332	34·5	704	166	2582	21·0	825	428	312	2466	20·1
1895	123190	4352	34·8	867	203	2968	24·3	813	434	326	2860	23·4
1896	122308	4364	36·0	786	183	2620	21·6	680	367	369	2622	21·6
1897	122058	4325	35·0	789	186	2662	21·8	783	392	356	2626	21·7
1898	121740	4281	35·1	846	199	2709	22·2	761	371	366	2704	22·4
1899	121530	4131	33·7	854	210	2982	24·5	905	429	358	2911	24·2
Averages for years 1893-99	122079	4318	34·8	807	190	2817	23·0	775	402	353	2762	22·7
1900	121335	4023	32·9	741	187	2689	22·2	790	472	350	2576	21·4

* Rates calculated per 1,000 of estimated population.

Note.—The deaths included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-residents" is meant persons brought into the district on account of illness, and dying there; and by the term "Residents" is meant persons who have been taken out of the district on account of illness, and have died elsewhere.

In calculating the birth-rate and the net death-rate the inmates of the Holborn Union Workhouse, as they belong to other sanitary areas, have been excluded from the populations estimated above.

Area of District in acres (exclusive of area covered by water) } 648.

Total population at all ages, 124,009
Number of inhabited houses, 13,768
Average number of persons per house ... ... 9·0
} At Census of 1891.

TABLE II.

BOROUGH OF SHOREDITCH.

Names of Localities.	1.—Whole Borough.				2.--Shoreditch South.				3.—Hoxton, New Town.				4.—Hoxton, Old Town.				5.—Haggerston.			
Year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each Year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
	a.	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*
1892 ...	123563	4487	2828	760	19720	546	423	99	29410	1134	645	184	28803	1016	656	157	45530	1791	1104	320
1893 ...	123520	4446	3146	807	19890	527	399	88	29380	1128	741	182	28850	999	719	196	45400	1792	1287	341
1894 ...	123520	4332	2466	704	19890	524	317	66	29380	1133	574	170	28850	984	552	158	45400	1691	1023	303
1895 ...	123190	4352	2860	867	19840	518	410	99	29300	1043	715	220	28700	989	645	198	45350	1802	1090	350
1896 ...	122308	4364	2622	786	17900	501	380	80	29585	1109	591	192	27635	954	552	184	47188	1800	1099	330
1897 ...	122058	4325	2626	789	17575	551	435	103	29630	1035	575	185	27505	990	610	188	47348	1749	1006	313
1898 ...	121740	4281	2704	846	17100	522	400	88	29750	1007	611	202	27365	1018	621	216	47525	1734	1072	340
1899 ...	121530	4131	2911	854	16950	497	507	119	29800	974	646	200	27165	947	673	218	47615	1713	1085	317
Averages of Years 1892 to 1899.	122685	4340	2770	789	18617	523	409	93	29528	1070	637	193	28110	987	628	189	46416	1759	1096	327
1900 ...	121335	4023	2576	741	16755	497	443	105	29860	961	597	171	27020	929	536	160	47700	1636	1000	305

Note.—(*a*) The separate localities adopted for this table are the registration sub-districts. Block 1 has been used for the whole district.

(*b*) Deaths of residents occurring beyond the district are included in sub-columns *c* of this table, and those of non-residents registered in the district excluded. (See note on Table I. as to meaning of terms "resident" and "non-resident.")

(*c*) Deaths of residents occurring in public institutions have been allotted to the respective localities, according to addresses of the deceased.

TABLE III.

BOROUGH OF SHOREDITCH.

Cases of Infectious Disease notified during the Year 1900.

Notifiable Disease.	Cases notified in Whole District.							Total Cases Notified in each Locality.				No. of Cases removed to Hospital from each Locality.			
	At all Ages.	At Ages—Years.						1. Shoreditch South.	2. Hoxton New Town.	3. Hoxton Old Town.	4. Haggerston.	1. Shoreditch South.	2. Hoxton New Town.	3. Hoxton Old Town.	4. Haggerston.
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.								
Small-pox	3	...	...	...	1	2	...	...	...	2	1	...	...	2	...
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria	344	14	161	134	24	11	...	60	92	50	142	54	78	47	122
Membranous croup ...	9	1	8	...	...	...	...	...	2	1	6	..	1	...	3
Erysipelas	170	12	9	10	22	102	15	23	42	29	76	...	...	...	...
Scarlet fever	330	6	121	171	26	6	...	27	192	65	136	25	80	52	116
Typhus fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric fever	122	...	14	45	33	30	...	10	23	37	52	9	19	34	43
Relapsing fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued fever	2	...	...	...	...	2	...	...	...	1	1	...	...	...	...
Puerperal fever	9	...	...	...	4	5	...	...	1	6	2	...	...	...	...
Plague	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...
Totals...	989	33	313	360	110	158	15	120	262	191	416	88	178	135	284

TABLE IV.

BOROUGH OF SHOREDITCH.

Causes of, and Ages at, Death during Year 1900.

Causes of Death.	Deaths in whole District at subjoined Ages.							Deaths in Localities (at all Ages).				Deaths in Public Institutions.
	All Ages.	Under 1.	1 and under 5.	5 and under 15	15 and under 25.	25 and under 65.	65 and upwards	Shoreditch Union	Hoxton New Town.	Hoxton Old Town.	Haggerston.	
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...
Measles	76	12	62	3	...	...	...	10	26	14	26	9
Scarlet fever	18	...	15	3	...	...	...	...	8	6	4	13
Whooping-cough	43	10	31	2	...	...	...	5	10	8	20	...
Diphtheria and membranous croup	54	4	38	12	...	...	...	10	18	6	20	44
Croup (laryngitis)	7	3	3	1	...	...	...	1	2	2	2	...
Fever — Typhus	...	...	...	...	...	...	...	...	...	...	...	...
Fever — Enteric	14	...	...	1	9	4	...	...	4	4	6	11
Fever — Other contd.	...	...	...	...	...	...	...	...	...	..	...	...
Epidemic influenza	52	1	4	...	2	30	15	11	14	11	16	11
Cholera	...	...	...	...	...	...	...	...	...	...	...	...
Plague	...	...	...	...	...	...	...	...	...	..	...	...
Diarrhœa (see notes below)	169	141	24	...	...	2	2	20	50	35	64	10
Enteritis (see notes below)	42	29	6	2	...	3	2	8	5	4	25	7
Puerperal fever	3	...	...	...	1	2	...	...		2	1	...
Erysipelas	10	3	...	1	1	4	1	3	3	...	4	3
Other septic diseases	11	4	...	...	1	5	1	2	3	2	4	8
Phthisis	229	5	5	7	33	171	8	29	59	43	98	99
Other tuberculous diseases	114	46	40	8	6	14	...	15	23	30	46	24
Cancer, malignant disease	73	1	...	...	1	43	28	11	13	19	30	36
Bronchitis	299	60	51	1	...	95	92	52	71	65	111	92
Pneumonia	241	51	61	7	11	86	25	55	38	34	114	72
Pleurisy	6	1	...	...	...	2	3	...	2	4	...	3
Other diseases of Respiratory organs	7	...	...	...	...	4	3	3	1	...	3	1
Alcoholism / Cirrhosis of liver	42	...	...	...	...	36	6	7	15	7	13	11
Venereal diseases	8	7	...	...	...	1	...	2	...	1	5	2
Premature birth	124	124	...	...	...	...	...	14	22	37	51	6
Diseases and accidents of parturition	5	...	...	...	2	3	...	..	1	2	2	...
Heart diseases	151	2	2	13	16	86	39	23	38	29	68	66
Accidents	94	35	15	9	5	20	10	18	28	17	31	46
Suicides	...	...	...	...	...	10	...	1	1	2	6	1
All other causes	667	203	55	16	13	189	191	143	142	152	230	215
All causes	2576	741	412	86	101	810	426	443	597	536	1000	790

Notes.—(*a*) The deaths of residents occurring beyond the limits of the district are included in this table, and deaths of non-residents occurring in the district are excluded. *See* note on Table I. as to meaning of "Residents" and "Non-residents."

(*b*) Deaths of residents occurring in public institutions have been allotted to the respective localties according to the addresses of the deceased as given by the Registrars, and, in addition, have been classified under "Public Institutions."

(*c*) Under the heading of "Diarrhœa" have been included deaths certified as from diarrhœa, alone or in combination with some other cause of ill-defined nature; and also deaths certified as from

Epidemic enteritis;
Zymotic enteritis;
Epidemic diarrhœa. Summer diarrhœa;
Dysentery and dysenteric diarrhœa;
Choleraic diarrhœa, cholera, cholera nostras (in the absence of Asiatic cholera).

Under the heading of "Enteritis" are included those certified as from Gastro-enteritis, Muco-enteritis and Gastric catarrh.

Deaths from diarrhœa secondary to some other well-defined disease have been included under the latter.

TABLE V.

DEATHS REGISTERED FROM ALL CAUSES IN THE METROPOLITAN BOROUGH OF SHOREDITCH, AND IN EACH SUB-DISTRICT, DURING THE YEAR ENDING DECEMBER 31ST, 1900.

NOTE.—The Deaths of Persons not belonging to Shoreditch occurring in Hospitals, &c., in the Borough are excluded; and the Deaths of Persons belonging to Shoreditch occurring in Hospitals, &c., situated in London beyond the limits of the Borough, are included.

DEATHS REGISTERED FROM ALL CAUSES DURING THE YEAR ENDING DECEMBER 31ST, 1900.													DEATHS REGISTERED IN EACH SUB-DISTRICT FROM ALL CAUSES.				
CAUSES OF DEATH.	AGES.											Total Deaths under Five.	Shoreditch South.	Hoxton New Town.	Hoxton Old Town.	Haggerston.	TOTAL.
	Under 1	1 to 5.	5 to 15.	15 to 25.	25 to 35.	35 to 45.	45 to 55.	55 to 60.	60 to 65.	65 to 85.	85 and upwards.						
(Classes.)																	
I.—ZYMOTIC DISEASES	234	220	37	52	66	67	62	23	13	26	1	454	107	219	162	313	801
II.—PARASITIC ,,	1	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1
III.—DIETETIC ,,	2	...	...	...	4	3	4	2	4	1	...	2	3	8	4	5	20
IV.—CONSTITUTIONAL DISEASES	2	3	2	2	3	10	20	11	10	25	1	5	14	18	22	35	89
V.—LOCAL ,,	249	158	36	42	46	96	155	67	95	269	9	407	243	258	244	477	1222
VI.—DEVELOPMENTAL ,,	140	...	1	...	...	...	...	1	1	61	10	140	45	32	54	83	214
VII.—VIOLENT DEATHS	35	15	9	5	8	5	9	5	3	10	...	50	19	29	19	37	104
VIII.—NOT SPECIFIED	78	16	1	...	1	3	10	1	2	11	2	94	12	33	30	50	125
TOTAL	741	412	86	101	128	184	260	110	128	403	23	1153	443	597	536	1000	2576

I.—ZYMOTIC DISEASES.																	
(1) Miasmatic.																	
Small Pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	11	62	3	...	...	...	...	...	...	...	...	73	10	26	14	26	76
Scarlet Fever (Scarlatina)	...	15	3	...	...	...	...	...	...	...	...	15	...	8	6	4	18
Diphtheria (including Membranous Croup)	4	38	12	...	...	...	...	...	...	...	...	42	10	18	6	20	54
Influenza	1	4	...	2	2	11	7	5	5	14	1	5	11	14	11	16	52
Whooping Cough	10	31	2	...	...	...	...	...	...	...	...	41	5	10	8	20	43
Typhus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric or Typhoid Fever	...	...	1	9	2	1	1	...	...	...	...	...	...	4	4	6	14
Simple Continued Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Miasmatic Diseases	2	1	...	...	...	...	...	...	...	...	...	3	...	1	2	...	3
(2) Diarrhœal Diseases.																	
Diarrhœa and Dysentery	141	24	...	...	...	...	1	...	1	2	...	165	20	50	35	64	169
Simple Cholera (Choleraic Diarrhœa)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Asiatic Cholera	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...
(3) Malarial Diseases.																	
Ague	...	..	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...
Remittent Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(4) Zoogenous Diseases.																	
Hydrophobia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Glanders	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cowpox and effects of Vaccination	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Diseases	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...
(5) Tuberculous Disease.																	
Tabes Mesenterica	15	5	...	...	...	...	...	...	...	...	...	20	2	2	8	8	20
Phthisis	5	5	7	33	51	48	50	16	6	8	...	10	29	59	43	98	229
Tuberculous Meningitis	17	20	5	1	2	...	...	...	...	...	...	37	8	8	14	15	45
Other forms, Scrofula	14	15	3	5	6	4	1	1	...	...	...	29	5	13	8	23	49
(6) Venereal Diseases.																	
Syphilis	7	...	...	...	...	1	...	...	...	...	...	7	2	...	1	5	8
Gonorrhœa, Stricture of Urethra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(7) Septic Diseases.																	
Erysipelas	3	...	1	1	1	...	1	1	1	1	...	3	3	3	...	4	10
Pyæmia, Septicæmia	4	...	...	...	...	2	1	...	...	1	...	4	2	3	...	3	8
Puerperal Fever	...	...	...	1	2	...	...	...	...	...	...	...	...	...	2	1	3
Carbuncle	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...

DEATHS REGISTERED FROM ALL CAUSES DURING THE YEAR ENDING DECEMBER 31st, 1900.

CAUSES OF DEATH.	AGES.											Total Deaths under Five.	DEATHS REGISTERED IN EACH SUB-DISTRICT FROM ALL CAUSES.				
	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 35.	35 to 45.	45 to 55.	55 to 60.	60 to 65.	65 to 85.	85 and upwards.		Shoreditch South.	Hoxton New Town.	Hoxton Old Town.	Haggerston.	Total.
II.—PARASITIC DISEASES.																	
Thrush and other Vegetable Diseases	1	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1
Worms, Hydatids, and other animal parasites	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
III.—DIETETIC DISEASES.																	
Privation	2	...	...	...	...	...	...	...	...	...	...	2	...	1	1	...	2
Want of Breast Milk	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scurvy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Alcoholism *a.* Del. Tremens	...	...	...	...	1	2	...	...	...	...	...	...	1	1	1	...	3
Alcoholism *b.* Intemperance	...	...	...	...	3	1	4	2	4	1	...	...	2	6	2	5	15
IV.—CONSTITUTIONAL DISEASES.																	
Gout	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rheumatic Fever and Rheumatism of Heart	...	...	...	1	...	3	1	...	...	1	...	...	1	3	1	1	6
Rheumatism	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cancer	1	...	...	1	1	7	14	10	8	24	1	1	10	13	17	27	67
Rickets	...	3	...	...	...	...	...	...	...	...	...	3	2	1	...	...	3
Anæmia, Chlorosis, &c.	...	...	2	...	...	...	2	...	...	...	...	...	...	1	...	3	4
Leucocythæmia	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...
Diabetes	...	...	...	...	2	...	3	1	1	...	...	...	1	...	3	3	7
Other Constitutional Diseases	1	...	...	...	...	...	...	...	1	...	...	1	...	...	1	1	2
V.—LOCAL DISEASES.																	
(1) Diseases of the Nervous System.																	
Inflammation of the Brain or Membranes	13	13	1	...	1	1	1	2	...	2	...	26	5	7	8	14	34
Hydrocephalus	2	1	1	...	...	...	...	...	...	...	...	3	...	1	1	2	4
Apoplexy, Brain Paralysis, Hemiplegia	...	...	...	1	...	13	11	6	17	49	4	...	27	20	26	28	101
Insanity, General Paralysis of the Insane	...	1	1	1	2	2	5	2	2	5	...	1	8	5	1	7	21
Chorea	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..
Epilepsy	...	...	1	...	3	1	2	1	...	2	...	...	4	2	2	2	10

V.—LOCAL DISEASES—*continued.*																	
(1) Diseases of the Nervous System—*cont.*																	
Convulsions	63	7	2	1	...	...	...	...	...	...	...	70	9	15	21	28	73
Dentition	6	3	...	...	...	...	...	...	...	...	...	9	2	...	6	1	9
Diseases of Spinal Cord	...	...	...	...	1	1	1	2	...	3	...	...	4	2	1	1	8
Other Nervous Diseases	...	2	...	...	...	...	2	1	2	1	...	2	1	1	3	3	8
(2) Diseases of Circulatory System.																	
Pericarditis	...	1	1	1	...	...	1	...	...	...	...	1	...	...	1	3	4
Acute Endocarditis	1	...	1	2	...	1	...	...	...	...	...	1	...	...	3	2	5
Valvular Disease of the Heart	...	...	6	2	6	7	10	5	3	7	...	...	10	10	15	11	46
Other Diseases of the Heart	1	1	5	11	3	10	23	3	14	31	1	2	13	28	10	52	103
Aneurism	...	...	...	...	1	1	1	...	...	...	...	...	...	1	...	2	3
Other Diseases of Blood Vessels	...	...	...	...	...	1	2	...	1	...	...	...	1	2	1	...	4
(3) Respiratory Organs.																	
Laryngitis	3	3	1	...	...	...	..	...	...	...	...	6	1	2	2	2	7
Bronchitis and Emphysema	60	51	1	...	1	13	32	24	25	89	3	111	52	71	65	111	299
Pleurisy	1	...	...	...	...	...	2	...	...	3	...	1	...	2	4	...	6
Pneumonia	51	61	7	11	15	23	27	6	15	25	...	112	55	38	34	114	241
Asthma	...	...	...	...	...	...	...	1	2	2	...	...	2	...	...	3	5
Other Lung Diseases	..	...	...	...	1	...	...	...	...	1	...	...	1	1	...	...	2
(4) Digestive Organs.																	
Quinsy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of Gullet and Stomach	11	2	...	1	...	2	...	...	1	4	...	13	3	6	7	5	21
Enteritis	29	6	2	...	1	2	...	...	...	2	...	35	8	5	4	25	42
Peritonitis	...	1	...	1	5	1	...	1	...	3	...	1	2	1	2	7	12
Hernia	...	...	...	...	1	...	...	...	1	1	...	...	...	3	...	...	3
Obstruction of Intestines	4	2	1	2	1	...	...	...	1	3	...	6	4	2	1	7	14
Disease of Pancreas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver	...	...	...	...	1	5	8	4	1	5	...	...	4	8	4	8	24
Ascites	...	...	...	...	...	1	1	1	...	...	...	...	...	1	2	...	3
Other Liver Diseases and Jaundice	...	...	...	...	...	...	2	1	...	1	1	...	1	2	1	1	5
Disease of Spleen	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(5) Urinary Organs.																	
Bright's Disease (Nephritis)	2	2	2	4	1	9	22	6	8	27	...	4	20	18	14	31	83
Other Diseases of the Urinary System	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	1
Diseases of Bladder or Prostate	...	...	...	...	...	...	1	1	...	2	...	...	1	1	1	1	4

DEATHS REGISTERED FROM ALL CAUSES DURING THE YEAR ENDING DECEMBER 31ST, 1900.

CAUSES OF DEATH.	AGES.											Total Deaths under Five.	DEATHS REGISTERED IN EACH SUB-DISTRICT FROM ALL CAUSES.				
	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 35.	35 to 45.	45 to 55.	55 to 60.	60 to 65.	65 to 85.	85 and upwards.		Shoreditch South.	Hoxton New Town.	Hoxton Old Town.	Haggerston.	TOTAL.
V.—LOCAL DISEASES—*continued.*																	
(6) DISEASES OF REPRODUCTIVE SYSTEM.																	
a. Organs of Generation—																	
Male	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...
Female	...	...	...	1	...	...	...	...	...	1	...	...	1	1	...	...	2
b. Parturition—																	
Abortion, Miscarriage	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Convulsions	...	...	...	2	1	...	...	...	...	...	...	...	...	1	1	1	3
Placenta Plævia, Flooding	...	...	...	...	1	1	...	...	...	...	...	...	...	...	1	1	2
Other accidents of child-birth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(7) DISEASES OF BONES AND JOINTS.																	
Synovitis, Arthritis, Ostitis, Periostitis	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...
Caries and Necrosis	...	...	1	...	...	...	...	...	1	...	...	...	...	...	1	1	2
Other Diseases of Bones and Joints	...	...	1	...	...	..	...	...	1	...	...	...	2	...	...	...	2
(8) DISEASES OF INTEGUMENTARY SYSTEM.																	
Ulcer	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Skin Diseases	2	...	...	...	...	...	...	...	...	...	...	2	...	..	...	2	2
(9) DISEASES OF ORGANS OF SPECIAL SENSE.																	
Ear	...	1	1	1	...	...	...	...	...	...	...	1	1	...	1	1	3
Eye	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(10) DISEASES OF GLANDULAR ORGANS	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	1
VI.—DEVELOPMENTAL DISEASES.																	
Premature Birth (Debility at Birth)	124	...	...	...	...	...	...	...	...	...	...	124	14	22	37	51	124
Atelectasis	8	...	...	...	...	...	...	...	...	...	...	8	...	2	1	5	8
Congenital Malformations	8	...	1	...	...	...	...	...	...	...	...	8	1	1	4	3	9
Old Age	...	...	...	...	...	...	...	1	1	61	10	...	30	7	12	24	73

VII.—VIOLENT DEATHS, &c.																	
(1) Accident or Negligence.																	
By Falls	1	2	...	3	1	2	3	1	1	5	...	3	5	7	3	4	19
,, Railways	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
,, Horses and Vehicles	...	2	4	...	1	1	2	...	...	2	...	2	2	4	2	4	12
,, Wounds—Gunshot, Cut, and Stab	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	1
In Building operations	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	1
,, Conflagrations	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
By Burns and Scalds	1	10	5	...	1	...	1	...	1	...	...	11	3	5	3	8	19
,, Poison	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	1
,, Drowning	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	1
,, Suffocation	1	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	1
,, Suffocation (in bed)	32	...	...	...	...	...	...	...	...	...	...	32	7	8	5	12	32
,, Negligence at Birth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Otherwise	...	1	...	1	...	...	1	1	...	3	...	1	1	2	2	2	7
(2) Homicide.																	
Murder	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Manslaughter	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...
(3) Suicide.																	
Wounds—Gunshot, Cut, Stab	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Poison	...	...	...	...	1	1	1	...	...	...	...	...	...	1	1	1	3
Drowning	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	2	2
Hanging	...	...	...	...	3	...	...	...	1	...	...	...	1	...		2	4
Otherwise	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	1
(4) Execution.																	
Hanging	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
VIII.—DEATHS FROM ILL-DEFINED AND NOT SPECIFIED CAUSES.																	
Marasmus	69	12	...	...	...	...	1	...	...	...	...	81	6	24	18	34	82
Debility, Atrophy, Inanition	1	1	...	...	...	...	...	...	...	...	...	2	...	...	1	1	2
Mortification	...	...	...	...	...	...	...	...	...	3	2	...	2	..	1	2	5
Dropsy	...	...	...	...	...	...	1	...	..	...	...	...	...	1	...	...	1
Hæmorrhage	1	...	...	...	...	...	2	...	...	...	...	1	1	1	...	1	3
Malignant Disease	...	...	...	...	...	1	1	...	1	3	...	...	1	...	2	3	6
Tumour	...	...	1	...	...	..	1	...	...	1	...	...	...	2	...	1	3
Abscess	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1
Other causes not specified	6	3	...	...	1	2	4	1	1	4	...	9	2	5	8	7	22
Total	741	412	86	101	128	184	260	110	128	403	23	1153	443	597	536	1000	2576

TABLE VI.

SUMMARY OF THE DEATHS IN THE METROPOLITAN BOROUGH OF SHOREDITCH, AND IN EACH OF THE REGISTRATION SUB-DISTRICTS, FOR THE YEAR 1900.

CAUSES OF DEATH.	DEATHS IN EACH SUB-DISTRICT.				
	Shoreditch South.	Hoxton New Town.	Hoxton Old Town.	Haggerston.	Total.
I.—ZYMOTIC DISEASES.					
1. Miasmatic Diseases	36	81	51	92	260
2. Diarrhœal ,,	20	50	35	64	169
3. Malarial ,,	...	...	...	...	...
4. Zoogenous ,,	...	...	...	...	...
5. Tuberculous ,,	44	82	73	144	343
6. Venereal ,,	2		1	5	8
7. Septic ,,	5	6	2	8	21
Total Zymotic Diseases	107	219	162	313	801
II.—PARASITIC DISEASES	...	...	1	...	1
III.—DIETETIC ,,	3	8	4	5	20
IV.—CONSTITUTIONAL ,,	14	18	22	35	89
V.—LOCAL DISEASES.					
1. Diseases of the Nervous System	60	53	69	86	268
2. ,, ,, Circulatory ,,	24	41	30	70	165
3. ,, ,, Respiratory Organs	111	114	105	230	560
4. ,, ,, Digestive ,,	22	28	21	53	124
5. ,, ,, Urinary ,,	21	20	15	32	88
6. ,, ,, Generative System	1	2	2	2	7
7. ,, ,, Bones and Joints	2	...	1	1	4
8. ,, ,, Integumentary System	...	...	...	2	2
9. ,, ,, Organs of Special Sense	1	...	1	1	3
10. ,, ,, Glandular Organs	1	...	...	...	1
Total Deaths Local Diseases	243	258	244	477	1222
VI.—DEVELOPMENTAL DISEASES	45	32	54	83	214
VII.—VIOLENT DEATHS					
1. Accident or Negligence	18	28	17	31	94
2. Homicide	...		...	...	
3. Suicide	1	1	2	6	10
Total Violent Deaths	19	29	19	37	104
VIII.—CAUSES ILL-DEFINED	12	33	30	50	125
Total Deaths from all causes	443	597	536	1000	2576

TABLE VII. — ANALYSIS AND COMPARISON OF LONDON AND SHOREDITCH BIRTH AND DEATH RATES FOR THE YEAR ENDING 31ST DECEMBER, 1900.

Districts.	Estimated population 1900	Annual Death-Rates per 1000 persons living.														Deaths under 1 year to 1000 Births.	Percentage to total deaths.		
		Birth-rates per 1000 population	During the years:				During 1900, from:										Inquest Cases.	Deaths in Public Institutions.	Uncertified Causes of Death.
			1897.	1898.	1899.	1900.	Principal Zymotic Diseases.	Small-Pox	Measles.	Scarlet Fever.	Diphtheria	Whooping Cough.	*Fever.	Diarrhœa.	Tuberculous Disease.	Violence.			
London	4,589,129	28·6	17·7	18·3	19·7	18·8	2·19	0·00	0·42	0·08	0·34	0·42	0·16	0·77	2·4	0·79	158	9·4	30·5	0·6
Shoreditch	§119,950	32·9	21·7	22·4	24·2	21·4	3·1	—	0·63	0·15	0·45	0·35	0·11	1·40	2·9	0·86	187	12·1	30·6	0·1
Sub-Districts.																			
Shoreditch South	16,755	29·0	24·7	23·3	29·9	26·4	2·7	—	0·59	—	0·59	0·29	—	1·18	2·6	1·1	211	12·6	44·9	0·2
Hoxton New Town	28,475	31·0	20·3	21·5	21·6	20·9	4·0	—	0·91	0·28	0·63	0·35	0·14	1·75	2·8	1·0	181	14·5	26·3	0·3
Hoxton Old Town	27,020	34·3	22·1	22·7	24·7	19·8	2·7	—	0·51	0·22	0·22	0·29	0·14	1·28	2·7	0·70	172	11·9	25·3	—
Haggerston	47,700	34·2	21·2	22·5	22·7	20·9	2·9	—	0·54	0·08	0·41	0·41	0·12	1·28	3·0	0·77	186	10·6	30	—

*Fever includes Typhus, Typhoid, and continued Fevers.

§ The inhabitants of the Holborn Union Workhouse, which is situate in Hoxton New Town Sub-District, are not included.

NOTE.—Where the deaths under any heading are too few to express as a rate per 1000 within two places of decimals, 0·00 is inserted; where no deaths have occurred, a line is placed in the space under the heading.

TABLE VIII.

ANALYSIS OF THE CASES TREATED BY THE DISTRICT MEDICAL OFFICERS OF THE BOROUGH *during the Year ending December* 31*st*, 1900.

	Diseases.	
	All Causes	3,267
1	Small Pox (Vaccinated ...	1
	Small Pox (Unvaccinated ...	—
	Small Pox (No Statement ...	—
2	Measles	63
3	Scarlet fever	6
4	Typhus	—
5	Relapsing fever	—
6	Influenza	132
7	Whooping Cough	27
8	Diphtheria	5
9	Simple, Continued and ill-defined fever	8
10	Enteric fever	3
11	Simple cholera	—
12	Diarrhœa, Dysentery ...	52
13	Remittent fever	—
14	Hydrophobia	—
15	Glanders	—
16	Cow pox and effects of vaccination...	—
17	Venereal affections	22
18	Erysipelas	—
19	Pyæmia and Septicæmia ...	4
20	Puerperal fever	—
21	Tabes Mesenterica	1
22	Tubercular Meningitis ...	2
23	Phthisis	143
24	Scrofula, Tuberculosis ...	21
25	Other Zymotic diseases ...	25
26	Thrush	—
27	Worms and other parasitic diseases	4
28	Starvation, want of breast-milk	1
29	Alcoholism	9
30	Rheumatic fever and Rheumatism of heart	20
31	Rheumatism	253
32	Gout	46
33	Rickets	1
34	Cancer	33
35	Other constitutional diseases	61
36	Premature birth	—
37	Atelectasis	—

	Diseases.	
38	Congenital malformations ...	1
39	Old age	135
40	Apoplexy	9
41	Epilepsy	33
42	Convulsions	3
43	Other diseases of brain and nervous system	133
44	Diseases of organs of special sense	12
45	Diseases of circulatory system	135
46	Laryngitis	5
47	Bronchitis	809
48	Pneumonia	58
49	Pleurisy	7
50	Other respiratory diseases ...	42
51	Dentition	5
52	Quinzy, sore throat	26
53	Enteritis	21
54	Peritonitis	2
55	Diseases of liver	16
56	Other diseases of digestive system	162
57	Diseases of lymphatic system and ductless glands ...	5
58	Diseases of urinary system ...	35
59	Diseases of generative system	18
60	Accidents of childbirth ...	5
61	Diseases of locomotive system	153
62	Diseases of integumentary system	71
	INJURIES.—	
63	Fracture and contusion ...	10
64	Gun shot wounds	—
65	Cut, stab	2
66	Burn or scald	2
67	Poison...	5
68	Drowning	—
69	Suffocation	—
70	Otherwise	88
71	Other Causes	316

Metropolitan Borough of Shoreditch.

THE SALE OF FOOD AND DRUGS ACTS, 1875 to 1899.

The Report of the Public Analyst appointed under the above Act for this Borough, of the number of articles of Food, Drink, and Drugs, which have been received and Analysed by such Analyst, specifying the nature and kind of foreign ingredients detected in such articles, &c., during the Quarter ending the 31st day of March, 1900.

Date of receipt by Analyst of the Article to be Analysed.	Name of Person from whom the Article was received.	Number marked on the parcel containing the Article by which it is to be identified by the Inspector in lieu of the name of the person from whom it was procured.	Article received.	Fines and Costs imposed.	Result of Analysis specifying the nature and kind of Foreign Ingredients detected in such Article (if any).	Observations.	Fee payable for Analysing such Article.
1900.				£ s. d.			£ s. d.
Feb. 1	C. H. Quelch	V 78 ..	Milk	F10 0 0	Added water 12 per cent.	Not decomposed....	0 10 0
,, ,,	,, ,, ...	V 79 ..	Milk		Genuine	Not decomposed ..	0 10 0
,, ,,	,, ,, ...	V 80 ..	Milk		Genuine	Not decomposed...	0 10 0
,, ,,	,, ,, ...	V 81 ..	Milk		Genuine	Not decomposed ..	0 10 0
,, ,,	,, ,, ...	V 82 ..	Milk		5 per cent. of water beyond the normal	Not decomposed....	0 10 0
,, ,,	,, ,, ...	V 83 ..	Milk	dism'ssd	Deficient in butter fat 16 per cent. ..... Water beyond the normal 3 per cent. ..	Not decomposed..	0 10 0
Feb. 28	,, ,, ...	V 84 ..	Milk		Genuine	Not decomposed ...	0 10 0
,, ,,	,, ,, ...	V 85 ..	Milk		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	V 86 ..	Milk		Genuine	Not decomposed ...	0 10 0
,, ,,	,, ,, ...	V 87 ..	Milk		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	V 88 ..	Milk		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	V 89 ..	Milk		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	V 90 ..	Butter		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	V 91 ..	Butter ..	F0 10 0 C0 12 6	Foreign fats, *i.e.*, fats other than butter fat 84 per cent. Water, curd and salt 15 per cent. Butter fat not exceeding 1 per cent.	A sample of margarine	0 10 0
,, ,,	,, ,, ...	V 92 ..	Butter		Genuine	Not decomposed...	0 10 0
,, ,,	,, ,, ...	V 93 ..	Butter		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	V 94 ..	Butter		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	V 95 ..	Butter		Genuine	Not decomposed....	0 10 0
March 7	,, ,, ...	W 1 ..	Pepper		Genuine	Not decomposed....	0 10 0

Analyst's Report for the Quarter ending the 31st day of March, 1899—continued.

Date of receipt by Analyst of the Article to be Analysed.	Name of Person from whom the Article was received.	Number marked on the parcel containing the Article by which it is to be identified by the Inspector in lieu of the name of the person from whom it was procured.	Article received.	Fines and Costs imposed.	Result of Analysis specifying the nature and kind of foreign ingredients detected in such article (if any).	Observations.	Fee payable for Analysing such Article.
				£ s. d.			£ s. d.
1900.							
March 7	C. H. Quelch	.. W 2 ..	Pepper		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 3 ..	Pepper		Genuine, of low quality	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 4 ..	Pepper		Genuine, of low quality	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 5 ..	Pepper		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 6 ..	Pepper		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 7 ..	Mustard		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 8 ..	Mustard.....		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 9 ..	Mustard		Genuine	Not decomposed...	0 10 6
,, ,,	,, ,, ...	.. W 10 ..	Mustard.....		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 11 ..	Mustard....		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 12 ..	Mustard....		Genuine	Not decomposed....	0 10 0
March 31	,, ,, ...	.. W 13 ..	Coffee		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 14 ..	Coffee		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 15 ..	Coffee		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 16 ..	Coffee		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 17 ..	Coffee		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 18 ..	Coffee		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 19 ..	Cocoa		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 20 ...	Cocoa		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 21 ..	Cocoa		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 22 ..	Cocoa		Foreign starchy farina sago, tapioca, and arrowroot not exceeding 1 per cent.	Probably an accidental mixture	0 10 0
,, ,,	,, ,, ...	.. W 23 ..	Cocoa		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 24 ..	Cocoa		Genuine	Not decomposed....	0 10 0

CHEMICAL LABORATORY,
GUY'S HOSPITAL, S.E.

THOMAS STEVENSON, M.D.,
Public Analyst.

NOTE.—Total number of samples analysed during the Quarter, 42.

THE SALE OF FOOD AND DRUGS ACTS, 1875 to 1899.

The Report of the Analyst appointed under the above Act for this County, of the number of articles of Food, Drink, and Drugs which have been received and analysed by such Analyst, specifying the nature and kind of foreign ingredients detected in such articles, &c., during the Quarter ending the 30th day of June, 1900.

Date of receipt by Analyst of the Article to be Analysed.	Name of Person from whom the Article was received.	Number marked on the parcel containing the Article by which it is to be identified by the Inspector in lieu of the name of the person from whom it was procured.	Article received.	Fines and Costs imposed.	Result of Analysis specifying the nature and kind of foreign ingredients, detected in such article (if any).	Observations.	Fee payable for Analysing such Article.
				£ s. d.			£ s. d
April 10	C. H. Quelch	W 25	Milk		Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	W 26	Milk		Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	W 27	Milk	F20 0 0	Added water 9 per cent.	Not decomposed	0 10 0
,, ,,	,, ,,	W 28	Milk		Genuine of low quality	Not decomposed	0 10 0
,, ,,	,, ,,	W 29	Milk		Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	W 30	Milk		Genuine, of low quality	Not decomposed	0 10 0
April 25	C. H. Quelch	W 31	Butter		Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	W 32	Butter		Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	W 33	Butter	F10 0 0 c2 12 6	Foreign fats, *i.e.* fats, other than butter fat, 85 per cent. Water, curd, and salt, 14 per cent. Butter fat not exceeding 1 per cent.	A sample of margarine.	0 10 0
,, ,,	,, ,,	W 34	Butter		Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	W 35	Butter		Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	W 36	Butter		Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	W 37	Milk		Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	W 38	Milk		5 per cent. of water beyond the normal	Not decomposed	0 10 0
,, ,,	,, ,,	W 39	Milk	Case dismissed.	Deficient in butter fat 12 per cent.	Not decomposed	0 10 0
,, ,,	,, ,,	W 40	Milk		Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	W 41	Milk		Deficient in butter fat 6 per cent.	Not decomposed	0 10 0
,, ,,	,, ,,	W 42	Milk		Genuine	Not decomposed	0 10 0
May 17	C. H. Quelch	W 43	Milk		Artificial colouring matter traces	Not decomposed	0 10 0
,, ,,	,, ,,	W 44	Milk		Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	W 45	Milk	F2 0 0 c0 12 6	Added water 21 per cent.	Not decomposed	0 10 0
May 25	C. H. Quelch	W 46	Cheese		Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	W 47	Cheese		Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	W 48	Cheese		Genuine	Not decomposed	0 10 0

Analyst's Report for the Quarter ending the 30th day of June, 1900—cotinnued.

Date of receipt by Analyst of the Article to be Analysed.	Name of Person from whom the Article was received.	Number marked on the parcel containing the Article by which it is to be identified by the Inspector in lieu of the name of the persons from whom it was procured.	Article received.	Fines and Costs imposed.	Result of Analysis specifying the nature and kind of foreign ingredients detected in such article (if any).	Observations.	Fee payable for Analysing such Article.
				£ s. d.			
May 25	C. H. Quelch	.. W 49 ..	Cheese.....		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 50 ..	Cheese.....		Genuine		
,, ,,	,, ,, ...	.. W 51 ..	Cheese.....		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 52 ..	Butter		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 53 ..	Butter	Dismis'd	Foreign fats, *i.e.* fats, other than butter fat, 86 per cent. Water, curd, and salt, 13 per cent. Butter fat not exceeding 1 per cent.	A sample of margarine.	0 10 0
,, ,,	,, ,, ...	.. W 54 ..	Butter		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 55 ..	Butter	F5 0 0 C0 12 6	Foreign fats, *i.e.* fats, other than butter fat, 85 per cent. Water, curd, and salt, 14 per cent. Butter fat not exceeding 1 per cent.	A sample of margarine	0 10 0
,, ,,	,, ,, ...	.. W 56 ..	Butter	F5 0 0	Foreign fats, *i.e.* fats, other than butter fat, 86 per cent. Water, curd, and salt, 13 per cent. Butter fat not exceeding 1 per cent.	A sample of margarine	0 10 0
,, ,,	,, ,, ...	.. W 57 ..	Butter		Genuine	Not decomposed....	0 10 0
June 7	C. H. Quelch	.. W 58 ..	Milk		7 per cent. of water beyond the normal	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 59 ..	Milk		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 60 ..	Milk		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 61 ..	Milk		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 62 ..	Milk	F3 0 0 C4 0 0	Deficient in butter fat 17 per cent. ..	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 63 ..	Milk		Genuine, of low quality	Not decomposed....	0 10 0
June 29	C. H. Quelch	.. W 64 ..	Milk		3 per cent. of water beyond the normal	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 65 ..	Milk		Genuine	Not decomposed.....	0 10 0
,, ,,	,, ,, ...	.. W 66 ..	Milk		Genuine	Not decomposed.....	0 10 0
,, ,,	,, ,, ...	.. W 67 ..	Milk		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 68 ..	Milk		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 69 ..	Milk	F2 0 0 C2 0 0	Added water 14 per cent. Boracic acid or a prepartion thereof traces.	The boracic acid or preparation thereof is an added preservative.	0 10 0

CHEMICAL LABORATORY,
GUY'S HOSPITAL, S.E.

THOMAS STEVENSON, M.D.,
Public Analyst.

NOTE.—Total number of samples analysed during the Quarter, 45.

THE SALE OF FOOD AND DRUGS ACTS, 1875 to 1899.

The Report of the Public Analyst appointed under the above Act for this Borough, of the number of articles of Food, Drink, and Drugs, which have been received and analysed by such Analyst, specifying the nature and kind of foreign ingredients detected in such articles, &c., during the Quarter ending the 30th day of September, 1900.

Date of receipt by Analyst of the Article to be Analysed.	Name of Person from whom the Article was received.	Number marked on the parcel containing the Article by which it is to be identified by the Inspector in lieu of the name of the person from whom it was procured.	Article received.	Fines and Costs imposed.	Result of Analysis specifying the nature and kind of foreign ingredients detected in such article (if any).	Observations.	Fee payable for Analysing such Article.
1900				£ s. d.			£ s. d.
July 5	C. H. Quelch	W 70	Milk		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	W 71	Milk		Genuine	Sour when received	0 10 0
,, ,,	,, ,, ...	W 72	Milk		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	W 73	Butter	c2 2 0	Foreign fats, *i.e.*, fats other than butter fat 82 per cent. Water, salt and curd 16 per cent. Butter fat not exceeding 2 per cent.	A sample of margarine	0 10 0
,, ,,	,, ,, ...	W 74	Butter.....		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	W 75	Butter.....		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	W 78	Butter.....	c0 2 0	Foreign fats, *i.e*, fats other than butter fats 83 per cent., water, salt and curd 12 per cent. butter fat not exceeding 5 per cent.	A sample of margarine	0 10 0
July 23	,, ,, ...	W 79	Butter		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	W 80	Butter		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	W 81	Butter		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	W 82	Butter		Genuine	Not decomposed ...	0 10 0
,, ,,	,, ,, ...	W 83	Butter		Genuine	Not decomposed....	0 10 0

CHEMICAL LABORATORY,
GUY'S HOSPITAL, S.E.

THOMAS STEVENSON, M.D.,
Public Analyst.

NOTE —Total number of samples analysed during the Quarter, 12.

THE SALE OF FOOD AND DRUGS ACTS, 1875 to 1899.

The Report of the Public Analyst appointed under the above Act for this Borough, of the number of articles of Food, Drink, and Drugs, which have been received and analysed by such Analyst, specifying the nature and kind of foreign ingredients detected in such articles, &c., during the Quarter ending the 31st day of December, 1900.

Date of receipt by Analyst of the Article to be Analysed.	Name of Person from whom the Article was received.	Number marked on the parcel containing the Article by which it is to be identified by the Inspector in lieu of the name of the person from whom it was procured.	Article received.	Fines and Costs imposed.	Result of Analysis specifying the nature and kind of foreign ingredients detected in such article (if any).	Observations.	Fee payable for Analysing such Article.
1900.				£ s. d.			£ s. d.
Nov. 7	C. H. Quelch	.. W 84 ..	Milk	....	Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 85 ..	Milk	F2 0 0 C0 12 6	Added water 17 per cent.....	Not decomposed....	0 10 0 0 10 0
,, ,,	,, ,, ...	.. W 86 ..	Milk	....	6 per cent. of water beyond the normal	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 87 ..	Milk	....	Genuine of low quality.....	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 88 ..	Milk	....	Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 89 ..	Milk	....	Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 90 ..	Butter.....	....	Genuine	Not decomposed...	0 10 0
,, ,,	,, ,, ...	.. W 91 ..	Butter.....	....	Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 92 ..	Butter.....	....	Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 93 ..	Butter.....	....	Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 94 ..	Butter.....	F2 0 0 C0 12 6	Foreign fats, *i.e.* fats other than butter fat 80 per cent. Water, curd and salt, 16 per cent. Butter fat not exceeding 4 per cent.	A sample of margarine	0 10 0
,, ,,	,, ,, ...	.. W 95 ..	Butter.....	....	Genuine	Not decomposed....	0 10 0
Nov. 8	C. H. Quelch	.. W 96 ..	Milk	....	Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 97 ..	Milk	F5 0 0 C0 12 6	Added water 10 per cent.....	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. W 98 ..	Milk	....	Genuine	Sour when received	0 10 0

Analyst's Report for the Quarter ending the 31st day of December, 1900—continued.

Date of receipt by Analyst of the Article to be Analysed.	Name of Person from whom the Article was received.	Number marked on the parcel containing the Article by which it is to be identified by the Inspector in lieu of the name of the person from whom it was procured.	Article received.	Fines and Costs imposed.	Result of Analysis specifying the nature and kind of foreign ingredients detected in such article (if any).	Observations.	Fee payable for Analysing such Article.
1900.				£ s. d.			£ s. d.
Nov. 8	C. H. Quelch	W 99	Milk	....	6 per cent. of water beyond the normal	Not decomposed	0 10 0
,, ,,	,, ,,	X 1	Milk	....	Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	X 2	Milk	...	Genuine	Not decomposed	0 10 0
Nov. 13	,, ,,	X 3	Milk	....	Genuine	Sour when received.	0 10 0
,, ,,	,, ,,	X 4	Milk	....	Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	X 5	Milk	....	Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	X 6	Milk	....	Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	X 7	Milk	....	Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	X 8	Milk	....	4 per cent. of water beyond the normal	Not decomposed	0 10 0
,, ,,	,, ,,	X 9	Butter	....	Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	X 10	Butter	....	Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	X 11	Butter	....	Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	X 12	Butter	....	Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	X 13	Butter	....	Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	X 14	Butter	F 20 0 0 C 5 12 6	Foreign fats, *i.e.*, fats other than butter fat 75 per cent. Water, curd and salt 16 per cent. Butter fat not exceeding 9 per cent.	A sample of margarine.	0 10 0
Nov. 14	C. H. Quelch	X 15	Milk	....	Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	X 16	Milk	....	Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	X 17	Milk	....	Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	X 18	Milk	F 0 1 0 C 0 12 6	Added water 11 per cent.	Not decomposed	0 10 0
,, ,,	,, ,,	X 19	Milk	F 1 0 0 C 0 12 6	Added water 19 per cent.	Not decomposed	0 10 0
,, ,,	,, ,,	X 20	Milk	....	Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	X 21	Milk	....	Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	X 22	Milk	....	Artificial colouring matter traces	Not decomposed	0 10 0
,, ,,	,, ,,	X 23	Milk	....	Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	X 24	Milk	....	Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	X 25	Milk	....	Genuine	Not decomposed	0 10 0
,, ,,	,, ,,	X 26	Milk	....	Genuine	Not decomposed	0 10 0

Analyst's Report for the Quarter ending the 31st day of December, 1900—continued.

Date of receipt by Analyst of the Article to be Analysed.	Name of Person from whom the Article was received.	Number marked on the parcel containing the Article by which it is to be identified by the Inspector in lieu of the name of the person from whom it was procured.	Article received.	Fines and Costs imposed.	Result of Analysis specifying the nature and kind of Foreign Ingredients detected in such Article (if any).	Observations.	Fee payable for Analysing such Article.
1900.				£ s. d.			£ s. d
Nov. 27	C. H. Quelch	X 27	Butter		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	X 28	Butter		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	X 29	Butter		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	X 30	Butter	No prosecution.	Foreign fats, *i.e.*, fats other than butter fat 80 per cent. Water, curd and salt, 14 per cent. Butter fat not exceeding 6 per cent.	A sample of margarine	0 10 0
,, ,,	,, ,, ...	X 31	Butter		Genuine	Not decomposed	0 10 0
,, ,,	,, ,, ...	X 32	Butter		Genuine of low quality.....	Not decomposed	0 10 0
,, ,,	,, ,, ...	X 33	Milk		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	X 34	Milk		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	X 35	Milk		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	X 36	Milk		9 per cent. deficient in butter fat	Not decomposed....	0 10 0
,, ,,	,, ,, ...	X 37	Milk		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	X 38	Milk		Genuine	Not decomposed....	0 10 0
Nov. 30	C. H. Quelch	X 39	Linseed Meal		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	X 40	Linseed Meal		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	X 41	Linseed Meal		Genuine	Not decomposed ...	0 10 0
,, ,,	,, ,, ...	X 42	Linseed Meal		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	X 43	Linseed Meal		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	X 44	Linseed Meal		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	X 45	Coffee		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	X 46	Coffee	£1 0 0 c0 12 6	Chicory 70 per cent., Coffee 30 per cent.	Not decomposed....	0 10 0
,, ,,	,, ,, ...	X 47	Coffee		Chicory 20 per cent., Coffee 80 per cent.	Not decomposed...	0 10 0
,, ,,	,, ,, ...	X 48	Coffee		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	X 49	Coffee		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	X 50	Coffee		Genuine	Not decomposed....	0 10 0
Dec. 1	C. H. Quelch	X 51	Ale		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	X 52	Ale		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	X 53	Ale		Genuine	Not decomposed....	0 10 0

Analyst's Report for the Quarter ending the 31st day of December, 1900—continued.

Date of receipt by Analyst of the Article to be Analysed.	Name of Person from whom the Article was received.	Number marked on the parcel containing the Article by which it is to be identified by the Inspector in lieu of the name of the person from whom it was procured.	Article received.	Fines and Costs imposed.	Result of Analysis specifying the nature and kind of foreign ingredients detected in such article (if any).	Observations.	Fee payable for Analysing such Article.
1900.							£ s. d.
Dec. 1	C. H. Quelch	X 54 ..	Ale		Genuine	Not decomposed....	0 10 0
" "	" "	X 55 ..	Ale		Genuine	Not decomposed....	0 10 0
" "	" "	X 56 ..	Ale		Genuine	Not decomposed	0 10 0
" "	" "	X 57 ..	Porter		Genuine	Not decomposed....	0 10 0
" "	" "	X 58 ..	Porter		Genuine	Not decomposed....	0 10 0
" "	" "	X 59 ..	Porter		Genuine	Not decomposed....	0 10 0
" "	" "	X 60 ..	Porter		Genuine	Not decomposed....	0 10 0
" "	" "	X 61 ..	Porter		Genuine	Not decomposed....	0 10 0
" "	" "	X 62 ..	Porter		Genuine	Not decomposed....	0 10 0
Dec. 5	C. H. Quelch	X 63 ..	Linseed Meal		Genuine	Not decomposed....	0 10 0
" "	" "	X 64 ..	Linseed Meal		Genuine	Not decomposed....	0 10 0
" "	" "	X 65 ..	Linseed Meal		Genuine	Not decomposed....	0 10 0
" "	" "	X 66 ..	Linseed Meal		Genuine	Not decomposed....	0 10 0
" "	" "	X 67 ..	Linseed Meal		Genuine	Not decomposed....	0 10 0
" "	" "	X 68 ..	Linseed Meal		Genuine	Not decomposed....	0 10 0
" "	" "	X 69 ..	Coffee		Genuine	Not decomposed....	0 10 0
" "	" "	X 70 ..	Coffee		Genuine	Not decomposed....	0 10 0
" "	" "	X 71 ..	Coffee		Genuine	Not decomposed....	0 10 0
" "	" "	X 72 ..	Coffee		Genuine	Not decomposed....	0 10 0
" "	" "	X 73 ..	Coffee		Genuine	Not decomposed....	0 10 0
" "	" "	X 74 ..	Coffee		Genuine	Not decomposed....	0 10 0
Dec. 7	C. H. Quelch	X 75 ..	Milk	Dismis'd	Boracic acid or a preparation thereof, traces. Added water 12 per cent.	Boracic acid or a preparation thereof, traces Added water 12 per c't	0 10 0
" "	" "	X 76 ..	Milk		Genuine	Not decomposed....	0 10 0
" "	" "	X 77 ..	Milk	F6 0 0 c0 12 6	Deficient in butter fat 11 per cent.	Not decomposed....	0 10 0
" "	" "	X 78 ..	Milk		Genuine	Not decomposed....	0 10 0
" "	" "	X 79 ..	Milk	F1 0 0 c0 12 6	Added water 12 per cent.....	Not decomposed....	0 10 0
" "	" "	X 80 ..	Milk	F5 0 0	Added water 11 per cent.....	Not decomposed....	0 10 0
" "	" "	X 81 ..	Four Ale....		Genuine	Not decomposed....	0 10 0

Analyst's Report for the Quarter ending the 30th day of December, 1900—continued

Date of receipt by Analyst of the Article to be Analysed.	Name of Person from whom the Article was received.	Number marked on the parcel containing the Article by which it is to be identified by the Inspector in lieu of the name of the person from whom it was procured.	Article received.	Fines and Costs imposed.	Result of Analysis specifying th nature and kind of foreign ingredients detected in such article (if any).	Observations	Fee payable for Analysing such Article.
							£ s. d.
1900.							
Dec. 7	C. H. Quelch	.. X 82 ..	Four Ale ...		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. X 83 ..	Four Ale....		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. X 84 ..	Porter		Genuine	Not decomposed ...	0 10 0
,, ,,	,, ,, ...	.. X 85 ..	Porter ..		Genuine	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. X 86 ..	Porter		Genuine	Not decomposed....	0 10 0
Dec. 19	,, ,, ...	.. X 87 ..	Milk		5 per cent of water beyond the normal	Not decomposed....	0 10 0
,, ,,	C. H. Quelch	.. X 88 ..	Milk		5 per cent. of water beyond the normal	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. X 89 ..	Milk		Genuine of low quality....	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. X 90 ..	Milk		Deficient in butter fat 42 per cent. ..	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. X 91 ..	Milk	£4 0 0	Boracic acid, or a preparation thereof, an added preservative, traces. Added water 9 per cent.	Not decomposed....	0 10 0
,, ,,	,, ,, ...	.. X 92 ..	Milk	£2 0 0	Genuine	Not decomposed....	0 10 0

CHEMICAL LABORATORY,
GUY'S HOSPITAL, S.E.,

THOMAS STEVENSON, M.D.
Public Analyst.

NOTE.—Total number of samples analysed during the Quarter, 108.

METROPOLITAN BOROUGH OF SHOREDITCH.

REPORT

on an outbreak of Scarlet Fever in Shoreditch during April and May, 1901, attributed to Infected Milk,

BY

LEWIS T. FRASER BRYETT, M.D., D.P.H.,

MEDICAL OFFICER OF HEALTH.

(Printed by order of the Public Health Committee.)

REPORT

ON AN OUTBREAK OF SCARLET FEVER IN SHOREDITCH DURING APRIL AND MAY, 1901, ATTRIBUTED TO INFECTED MILK.

To the Chairman and Members of the Public Health Committee

GENTLEMEN

My remarks respecting this outbreak are confined to Shoreditch, it may however be stated that the neighbouring Borough of Bethnal Green in the vicinity of the invaded area in Shoreditch suffered severely. There were also some twenty-four cases of scarlet fever in the Borough of Finsbury, and two other groups, one in St. Pancras and the other in Islington, which were traced to the same infected milk supply. The milk implicated in the outbreak was supplied by a milk contractor who may be referred to as X. He is in a large way of business, and supplies many milk vendors in the northern and eastern districts of the metropolis; his milk is obtained from numerous farms, some of which are situate in the counties of Bucks, Derbyshire and Staffordshire.

Until April 30th there was no suspicion as to any milk supply being concerned in the propagation of scarlet fever in Shoreditch, and the enquiries which have been made afford no ground for believing that any of the cases of scarlet fever certified prior to April 22nd resulted from infected milk.

During the morning of April 30th, seven certificates were received relating to cases of scarlet fever at houses situate in the Hackney Road, Basing Place, Weymouth Terrace, Harwar Street and Hows Street. Consideration of the situation of the houses invaded and the dates of the notification certificates gave rise to the suspicion

of the existence of some common cause connected with the occurrence of these cases. Although the possibility of other causes was not overlooked, there were two which suggested themselves as being most likely, one was school influence and the other milk infection. Enquiry into the circumstances connected with the cases was made during the afternoon of the same day ; no reason was found for suspecting any school of giving rise to the outbreak, the fact was however, elicited that six of the seven patients lived in houses in which milk was received from M. a milk vendor, whose shop is situate in the Hackney road, in Bethnal Green, about opposite the middle of the eastern boundary of Shoreditch. The other patient lived in a house where the milk was received from a vendor P whose shop is in the Kingsland Road. Enquiry was made of the Public Health Department of Bethnal Green, and it was ascertained that there had been that day an unusual number of cases of scarlet fever in that borough and that the houses invaded were supplied with milk by M. This milk vendor was then informed that there were grounds for suspecting the milk which was being distributed by him of conveying the infection of scarlet fever. Enquiry was then made as to whether any cases of scarlet fever had been recently certified on his premises, and also as to the existence of any cases of throat illness amongst the persons living on his premises or engaged in his business. The result was negative.

It was ascertained from M. that the milk he sold came from two contractors, namely X., and another who may be alluded to as Y. From X. about four churns were obtained, and from Y. one churn daily. According to the information given by M. respecting his milk rounds and the houses supplied by him, there appeared at first some grounds for suspecting that Y's. was the milk implicated, and M. at once undertook to cease supplying this milk. He was informed, however, that it might be necessary to stop the milk he was receiving from the other contractor X., and he was warned to make his arrangements accordingly.

On the following day, May 1st, the cases were rapidly being notified, and it was evident that a serious outbreak had to be contended with. I had a conference with Dr. Bate, the medical officer of health for Bethnal Green, and we were agreed that there were very strong grounds for believing that the milk supplied to M. by one or other of the two milk contractors above referred to was infected and disseminating the disease. As the result of our conference, Dr. Bate undertook to interview the milk contractors on the subject, whilst I proceeded to interview the medical officer of health to the London County Council, and acquaint him with the facts up-to-date, as it appeared not improbable that some of the infected milk, in consequence of steps taken to stop its sale locally, might be diverted elsewhere into other sanitary districts in the Metropolis. This actually happened though fortunately only to a comparatively small extent. It is hardly necessary to state that measures were at once taken by the medical officer of the County Council to ascertain the source of the infected supply. Meanwhile, it had been observed that several of the cases certified were in houses supplied with milk by the

vendor P. already referred to. Enquiry showed that P. was also supplied with milk by the contractor X., and was wholly supplied by him. It was also found that there were other cases amongst P's customers in Bethnal Green, and taking all the circumstances into consideration there was now very little room for doubting that X. was supplying the milk implicated in the outbreak. Instructions were accordingly given to both M. and P. to cease the sale of X's. milk in Shoreditch.

On May 2nd it was becoming evident that there were cases amongst the customers of other milk vendors supplying X's milk. Steps were taken as far as possible to stop the infected supply locally and hand bills warning people to boil all milk before use were left at the houses in the neighbourhood of the outbreak. It was, however, obvious that the only effective measure for cutting short the outbreak was the stoppage of the infected supply at its source. This task under existing conditions one of no inconsiderable difficulty, was as stated, being undertaken by the medical officer of the London County Council, Mr. Shirley Murphy. The steps taken are briefly referred to in a report of the Public Health Committee of the County Council, dated May 9th. The circumstances of X's business were investigated with results which pointed to the infected milk coming from one of some half-a-dozen farms situate in Derbyshire, Bucks, and Staffordshire. The medical officers of health of the districts in which the farms were situate having been communicated with, a letter was received on the morning of May 4th by the Council's medical officer stating that on one of the farms in question, situated in Staffordshire, the milk from which had been chiefly suspected, some cases of throat illness suggestive of scarlet fever had occurred. The enquiries of Dr. Hamer at the farm the same day resulted in the provisional diagnosis of scarlet fever being made, which was subsequently confirmed by the peeling of one of the patients. The milk from this farm was stopped on May 4th and, with the exception of a small quantity which was not distributed in Shoreditch, none of the infected milk was supplied after May 3rd.

Having thus dealt generally with the steps taken during the early days of the outbreak, I will now give some details respecting the numbers of cases, their distribution, the houses invaded, the various milk supplies, and other particulars bearing upon the story of the outbreak.

Appended is a list of the cases of scarlet fever certified during the last week of April and the month of May, giving the ages, sex, and addresses of the patients, the dates of the certificates and the onset of symptoms in each case, together with the milk supply and other particulars (see appendix, p. 14). This list shows what a large proportion of the cases occurring during the early days of the outbreak was amongst persons supplied with X's milk. Upon this list the tables hereinafter given are to a large extent based.

The numbers of certificates of cases of scarlet fever received daily from April 1st to the end of May are as set out below:—

April 1	...	...	April 21	...	...	May 11	...	8
,, 2	...	...	,, 22	...	...	,, 12	...	9
,, 3	...	1	,, 23	...	...	,, 13	...	
,, 4	...	...	,, 24	...	...	,, 14	...	4
,, 5	...	...	,, 25	...	1	,, 15	...	3
,, 6	...	...	,, 26	...	...	,, 16	...	2
,, 7	...	...	,, 27	...	2	,, 17	...	3
,, 8	...	...	,, 28	...	...	,, 18	...	5
,, 9	...	1	,, 29	...	1	,, 19	...	6
,, 10	...	...	,, 30	...	11	,, 20	...	
,, 11	...	...	May 1	...	15	,, 21	...	5
,, 12	...	...	,, 2	...	9	,, 22	...	1
,, 13	...	...	,, 3	...	12	,, 23	...	4
,, 14	...	...	,, 4	...	10	,, 24	...	4
,, 15	...	3	,, 5	...	19	,, 25	...	1
,, 16	...	...	,, 6	...		,, 26	...	9
,, 17	...	1	,, 7	...	22	,, 27	...	
,, 18	...	...	,, 8	...	15	,, 28	...	
,, 19	...	...	,, 9	...	14	,, 29	...	3
,, 20	...	...	,, 10	...	17	,, 30	...	5
						,, 31	...	3

In the subjoined table are contained the numbers of cases according to the dates on the certificates certified each day from April 25th to May 31st.

April 25	...	1	May 9	...	15	May 21	...	1
,, 26	...	2	,, 10	...	8	,, 22	...	3
,, 29	...	8	,, 11	...	5	,, 23	...	4
,, 30	...	10	,, 12	...	6	,, 24	...	2
May 1	...	19	,, 13	...	5	,, 25	...	4
,, 2	...	11	,, 14	...	2	,, 26	...	1
,, 3	...	15	,, 15	...	4	,, 27	...	4
,, 4	...	6	,, 16	...	1	,, 28	...	4
,, 5	...	5	,, 17	...	4	,, 29	...	1
,, 6	...	14	,, 18	...	4	,, 30	...	4
,, 7	...	22	,, 19	...	3	,, 31	...	2
,, 8	...	18	,, 20	...	5			

The above tables show that after May 10th there was a very marked reduction in the numbers of cases certified. Taking into consideration the incubation period of scarlet fever, which varies from one day to a week, the illness in most cases beginning between the second and fourth day after infection, if the milk suspected was conveying the infection, on or about the eleventh of May there should be a reduction in the number of certificates received, in view of the fact that the milk was stopped on May 3rd. Inasmuch, however, as the dates on which the certificates were received, and the cases certified, were frequently several days subsequent to the dates of the beginning of the attacks, in order to get a clear idea of the association of the stoppage of the suspected milk with the decline in the numbers of the cases, the dates of the beginning of the illnesses have been tabulated, and the results are as set forth in the following table:

	1.					2.	3.	4.
	X's. Milk.					Total X's. Milk.	No evidence as to X's. Milk.	Total Cases.
	M.	P.	J.	D.	Other Vendors.			
						A.		
April 22	1	...	...	...	..	1	...	1
,, 23	...	...	...	...	...	...	...	...
,, 24	1	...	...	...	...	1	...	1
,, 25	3	...	1	...	...	4	...	4
,, 26	2	...	...	..	...	2	3	5
,, 27	2	1	...	1	...	4	...	4
,, 28	6	1	1	...	1	9	...	9
,, 29	9	4	2	...	2	17	2	19
,, 30	8	1	2	...	...	11	4	15
May 1	...	6	2	...	...	8	3	11
,, 2	3	2	...	...	...	5	1	6
,, 3	3	...	1	1	1	6	1	7
,, * 4	...	2	..	...	2	4	2	6
,, 5	2	...	1	8	5	16	4	20
,, 6	3	3	1	4	10	21	7	28
,, 7	...	...	3	1	8	12	4	16
,, 8	2	...	1	...	1	4	2	6
,, 9	...	...	1	...	...	1	2	3
,, 10	1	...	1	...	...	2	4	5
,, 11	...	...	...	...	...	1	2	3
Totals	46	20	17	15	31	129	41	170
						B.		
May 12	...	...	...	...	...	...	2	2
,, 13	...	...	...	...	1	1	...	1
,, 14	...	...	1	...	...	1	4	5
,, 15	...	...	1	...	...	1	2	3
,, 16	1	...	...	...	...	1	3	4
,, 17	...	...	...	...	...	...	3	3
,, 18	...	...	...	...	2	2	1	3
,, 19	...	...	1	2	1	4	2	6
,, 20	...	...	...	...	...	...	2	2
,, 21	...	...	...	...	1	1	1	2
,, 22	...	...	...	...	...	...	2	2
,, 23	...	...	...	...	...	...	4	4
,, 24	...	...	...	...	...	...	...	...
,, 25	...	...	...	...	1	1	3	4
,, 26	...	...	...	...	...	...	4	4
,, 27	...	...	...	...	...	...	2	2
,, 28	...	...	...	...	...	...	1	1
,, 29	...	...	...	...	...	...	1	1
,, 30	...	...	...	...	...	...	2	2
,, 31	...	...	...	...	...	...	1	1
Totals	1	...	3	2	6	12	40	52

The foregoing table is divided into two portions A and B, each of which covers a period extending over twenty days. During the period covered by A, the suspected milk may be taken as being directly operative in the causation of the cases, during that covered by B it was indirectly the cause of the cases. In column 1 are shown the numbers of cases in which X's milk was implicated distributed amongst the customers of the four local vendors who were chiefly instrumental in delivering it, namely, M., P., J. and D., the rest of the vendors of X's milk, some 19 in number, amongst whose customers fewer cases occurred, being included under the heading 'other vendors.' In column 2 the total numbers of cases daily occurring amongst the consumers of X's milk are shown, and in column 3 the numbers of cases in which no evidence was obtained implicating the milk in question are given.* The total numbers of cases daily occurring, whether X's milk was implicated or not are given in column 4. The date of the stoppage of the suspected milk is marked by the asterisk in the table. It will be noticed that on May 2nd, 3rd, and 4th there was a marked reduction in the number of cases. I am informed that in Bethnal Green there was on these dates an increased number of cases. The figures given under A show that of 170 cases occurring during this period, 129 or nearly 76 per cent. were ascertained to be amongst persons obtaining X's milk, whilst during the period B, twelve out of 52 cases, or just over 23 per cent. were amongst those obtaining X's milk. If five of the twelve cases during the period B which were ascertained to be contact cases, that is cases infected from previous cases which were directly due to the milk, be excluded the 23 per cent. is reduced to 13 per cent. I do not think from consideration of the foregoing table that there can be any question as to the stoppage of the infected milk being associated with a very marked reduction in the number of scarlet fever cases in Shoreditch.

It is not, however, to be taken that the stoppage of infected milk was at once followed by the reduction of the weekly average of scarlet fever cases to what it was prior to the outbreak. This did not occur until several weeks later. In the following table are contained the numbers of cases of scarlet fever certified each week since the beginning of the current year:

Week ending—	No. of Cases.	Week ending—	No. of Cases	Week ending	No. of Cases
January 5	4	March 16	2	May 25	21
,, 12	...	,, 23	3	June 1	23
,, 19	3	,, 30	...	,, 15	25
,, 26	3	April 6	1	,, 22	23
February 2	4	,, 13	1	,, 29	13
,, 9	...	,, 20	4	July 6	16
,, 16	1	,, 27	3	,, 13	5
,, 23	3	May 4	60		
March 2	6	,, 11	90		
,, 9	3	,, 18	26		

* It should not be forgotten that during both the periods A. and B. a certain number of the cases of scarlet fever occurring in the ordinary course of events, having nothing whatever to do with milk infection are included in the figures given in the table. They are probably few in number.

From the above figures it will be seen that since the outbreak the weekly average of scarlet fever cases has been markedly higher than it was prior to the outbreak, although there exists now no reason to suspect any particular milk supply. The numbers during the last three weeks given above, however, shew a decrease and are perhaps, considering all things, hardly to be regarded as excessive. The explanation of the increased numbers since the outbreak as compared with those of the earlier portion of the year is that local centres of infection were left behind it, which under the circumstances were only what were to be expected. Instances came under observation in which the nature of the disease had been overlooked or mistaken, and it was not until the patients were discovered to be peeling several weeks after the date of the commencement of their illness that the true nature of the malady was detected. The probability of such cases spreading infection is very great.

It may be mentioned here that during the period April 22nd to May 18th the number of cases certified as diphtheria under went a marked increase. From enquiries made it was found that of some 35 cases certified, in 18 X's milk was implicated. Of these 18 cases seven were subsequently certified to be cases of scarlet fever and are included in the list of scarlet fever cases. Altogether I am inclined to believe that twelve at least of these cases were really cases of scarlet fever, and it is not impossible that some of the others may have been scarlatinal in their nature. On the whole I do not think that there was any real increase in the amount of diphtheria prevalent during the period above given.

Now, as to the distribution of the cases, the invaded houses and the milk vendors who distributed the milk implicated : in the subjoined table are shewn the distribution of the cases in the four registration sub-districts of the Borough :—

Registration Sub-District.	A. (April 22nd—May 11th).			B. (May 11th—May 31st).		
	X.'s Milk supplied.	No evid'n'e *re* X's Milk	TOTAL.	X's Milk supplied.	No evid'n'e *re* X's Milk	TOTAL.
Shoreditch, South ...	26	9	35	—	10	10
Hoxton, New Town ...	5	3	8	1	5	6
Hoxton, Old Town ...	8	2	10	1	3	4
Haggerston	90	27	117	10	22	32

The cases were most numerous in the northern portion of Shoreditch South and the eastern half of the Haggerston registration sub-districts.

A general idea as to the situation of the houses invaded can be obtained from the sketch map which is appended. The red dots thereon indicate the houses invaded during the period A, the black those invaded during the period B; the situation of the premises of the milk vendors amongst whose customers the cases mainly occurred are indicated at M., P., J. and D. The shops of the other vendors of X's milk, amongst whose customers fewer cases occurred, are not located on the map; they are situate as follows:—one in Fanshaw Street, two in East Road, one in St. John's Road, one in Charles Square, one in Cliff Street, two in Hoxton Street, one in Pownall Road, one in the Broadway, London Fields, one in Goldsmith Row, one in Luke Street, one in Kingsland Road, one in Union Street, one in Tuilerie Street, one in Harwar Street, one in Pearson Street, one towards the south end of Columbia Road, Bethnal Green, and one in Brick Lane, Bethnal Green. It may be mentioned that in connection with the scarlet fever cases occurring during the period April 22nd to May 11th, there were some 89 milk vendors supplying milk to the invaded houses, and of these 22 were supplying X's milk. Appended will also be found a table giving the names of the streets, the numbers of the houses invaded in each street during the two periods A and B, those to which X's milk was supplied being indicated by darker type, and the numbers of cases of scarlet fever occurring in each street.

The distribution of the houses invaded was as follows: during the period A in Shoreditch South there were 30, in Hoxton New Town 6, in Hoxton Old Town 8, and in Haggerston 83; of the houses in Shoreditch South 23 received X's milk, of those in Hoxton New Town 4 received it, and the numbers for Hoxton Old Town and Haggerston were 6 and 60 respectively. During the period B of seven houses invaded in Shoreditch South none received X's milk, of 4 in Hoxton New Town one received the milk, of 4 in Hoxton Old Town the number was one, and in Haggerston X's milk was taken at 7 out of the 28 houses invaded during this period.

As can be seen from the map the houses invaded were most numerous towards the eastern border of the Borough, that adjoining Bethnal Green. The area more especially affected during the period A. is that lying to the south of the Regents Canal, and the east of the Kingsland Road. The houses invaded may be roughly grouped along two lines, one continuing Shoreditch High Street northwards, about halfway along that portion of the Kingsland Road within Shoreditch, and the other following the course of the Hackney Road and Goldsmith Row. There were however a number of houses invaded in the Borough elsewhere, and in the subjoined table the invaded houses are grouped for comparison during the periods A. and B.:—

		A.		B.	
		Houses Invaded.	To which X's Milk sup'li'd	Houses Invaded.	To which X's Milk sup'li'd
1	Area South of the Regents Canal, and East of and including the Kingsland Road, and also including Hackney Road and Goldsmith Road	91	69	16	4
2	Streets and Courts off the West side of Kingsland road	8	4	1	—
3	Shoreditch, High Street, and neighbourhood	4	2	2	1
4	Haggerston, North of the Canal ..	7	5	13	3
5	Elsewhere within the Borough ...	17	13	12	2

Of 127 houses invaded during the period A., 93 or just over 73 per cent. received X's. milk; of 44 houses invaded during the period B., 10 or just under 23 per cent. received X's milk. Comparing the figures in the above table it will be seen that the houses invaded during the period B. tended to become more scattered in the Borough. This can be better understood from a glance at the sketch map.

I have no reason for believing that the incidence of the disease was in anyway influenced by the condition of the houses invaded or the neighbourhood from a sanitary point of view. The dwellings of the very poor were not especially invaded, the incidence of the attacks rather appeared to be heavier upon the dwellings of people in comfortable circumstances.

With respect to the incidence of the attacks amongst males and females there does not appear to be anything specially calling for remark. The age incidence, however, requires a few words, and was as set forth in the subjoined table:—

Age Periods.	A. (April 22—May 11)	B. (May 11—May 31)	TOTAL.
Under 1 Year	1	—	1
1— 5 Years	63	18	80
5—15 ,, ...	65	30	95
15—25 ,, ...	25	3	28
25—65 ,, ...	16	1	17

Comparing the two periods A. and B. some considerable difference is observable in the proportions of the attacks as distributed under the age periods given above. This is more clearly seen from a comparison of the percentages of the total number of cases for the several age periods. These percentages are as set forth below :—

Age Period.	Under 1 Year	1—5.	5—15.	15—25.	25—65.
Period A.	0·59	36·6	38·4	14·8	9·4
Period B.	—	34·6	57·6	5·7	1·9
Year 1900	1·8	36·6	51·8	7·8	1·8

The percentages for the year 1900 in the above table relate to 330 cases. The figures show that during the period A, that is during the time the milk from the farm in Staffordshire would be directly operative, the percentage of persons attacked aged from 5—15 years was lower than that of persons belonging to the same age group during the period B, and also lower when compared with the figures for the same age period during the year 1900. For the age periods 15—25 and 26—65 on the other hand the percentages were markedly higher than during the period B and the year 1900. It may be also observed that the percentages for the period B generally approximate more closely to those for the year 1900. Briefly, during the time the suspected milk was operative there was a larger proportion of attacks amongst adults than is usual with the ordinary run of scarlet fever cases, a fact in all probability to be accounted for by the manner in which the infection was distributed.

The deaths from scarlet fever during the two periods A and B were 8 and 2 respectively. Of the former seven and of the latter one were amongst persons taking X's milk. The case mortality during the first period was 4·7 per cent. of the attacks, during the second period 3·8 per cent. of the attacks terminated fatally. From April 22nd to May 31st 4·5 per cent. of those attacked during this period died. The case mortality amongst scarlet fever cases during 1899 was 4·1 per cent., in 1898 it was 4·7 per cent., in 1897 4·9, and in 1896 it was 5·4 per cent. Judging from the fatality of the outbreak, so far as has been ascertained, there is no reason for believing that the type of the disease was severer than usual. From information, however, received from the medical superintendents of the hospitals of the Metropolitan Asylums Board, in which most of the cases were treated, it would appear that the cases during the outbreak were of a somewhat severer type than the general run of cases during the past few years.

The steps taken with a view to removing the cause of the outbreak, that is to stop the supply of the infected milk at its source, have already been mentioned ; it remains to refer to the measures taken to deal with the cases, and prevent the spread of infection locally. In the great majority the cases were removed to the fever hospitals of the Metropolitan Asylums Board, in a few instances the cases were sent to the

London Fever Hospital, and a few of the cases were treated at home where the circumstances were such as admitted of effective measures being carried out for proper isolation. Of the cases certified, 207 or 94 per cent. were removed to hospital for treatment. A few of the cases, which are noted in the list appended, were found, after being kept under observation at the hospital, not to be suffering from scarlet fever in the opinions of the medical officers of the Board. It may be stated that there was at no time any difficulty or delay on the part of the authorities of the Metropolitan Asylums Board in securing the prompt removal of any of the cases.

The disinfection of the premises was carried out with as little loss of time as possible as soon as was convenient after the removal of the cases. Efforts were made to deal with all premises notified as ready for disinfection the same day that they were so notified. During the early days of the outbreak, when the work of disinfection was extremely pressing, we were fortunate in securing the assistance of the disinfecting officers of the Borough of Finsbury. Afterwards, by dint of employing an extra man and working from 6 a.m. to 1 or 2 o'clock the following morning, each day's work of disinfection was carried out, and in a few instances only had cases to stand over until the next day.

Altogether during the outbreak disinfection for scarlet fever cases was carried out 199 times; some 215 beds, 180 mattresses, 397 pillows, 154 bolsters, and 2,388 textile articles of various descriptions were removed and disinfected at the Borough Disinfecting Station. This work is of course in addition to the usual amount of disinfection carried out in connection with cases of infectious disease other than scarlet fever, which, however, fortunately happened not to be very heavy at the time.

For about a fortnight the ordinary course of the sanitary work was considerably retarded, more especially in the sanitary districts of Messrs. Firth, Jordan and Quelch, which were chiefly affected. The enquiries which had to be made and the steps taken in connection with the cases necessarily consumed much time, and whilst the outbreak lasted it took precedence of everything except the most urgent matters. The manner in which the sanitary inspectors, clerks and disinfecting officers performed their duties during the period of the outbreak was of a praiseworthy character, and I have much pleasure in expressing my satisfaction therewith.

Although what I have stated in this report has reference to the outbreak only so far as it affected Shoreditch, and the story must therefore be incomplete, yet taking the broad facts, firstly, that there was a sudden occurrence of unusual numbers of cases of scarlet fever amongst the customers of certain milk vendors; secondly, that these milk vendors were supplied by a particular milk contractor who obtained the milk he supplied them with from a limited number of farms; thirdly, that on one of these farms, the milk from which was ascertained to have been supplied to the milk vendors in question, cases of throat illness, of which one at least was a case of scarlet fever, were found to have existed at the time of the commencement of the outbreak in Shoreditch; and lastly, that the stoppage of the milk from this farm was followed by, allowing for the period of incubation of the disease, a sudden drop in the number of cases occurring,

I think the evidence is sufficiently strong to warrant the statement that this outbreak of scarlet fever was the result of milk-borne infection. Milk has on numerous occasions been found to have played an important part in the propagation of infectious disease, and serious outbreaks of scarlet fever have been traceable to infected milk. The infection of scarlet fever may be imparted to milk by persons suffering from the disease milking cows or manipulating milk utensils. It may also be stated that investigations carried out by Klein and Power, in connection with an outbreak of scarlet fever in London during 1885, afford grounds for believing that the cow itself may suffer from scarlet fever, and that the milk from cows so suffering is capable of causing extensive outbreaks of the disease.

As to the precise manner in which the milk implicated in the recent outbreak became infected I have no information to give, but I understand that eminent authorities have been engaged in investigating this important point.

It is beyond the scope of this report to enter upon the very important subject of the milk supply of the Metropolis in relation to infectious disease. I would, however, direct attention to the need which exists, and which the recent outbreak has emphasised, for legislation making it a statutory obligation upon all milk vendors in the Metropolis whether wholesale or retail, to be in a position to give forthwith, when required to do so by a medical officer of health, reliable information both as to the farm or farms from which any particular day's supply of milk is received and the customers to whom it is delivered. Had such information in connection with the outbreak dealt with in this report been obtainable forthwith on application to the milk vendors, I believe that valuable time would have been saved in stopping the infected milk at its source and some scores of cases might have been prevented, for there is little doubt that when the infected milk was stopped on May 4th it was still in a highly infectious condition.

I have the honour to be, Gentlemen,
Your obedient Servant,
LEWIS T. FRASER BRYETT,
Medical Officer of Health.

TOWN HALL, OLD ST., E.C.
July 24th, 1901.

APPENDIX.

CASES OF SCARLET FEVER CERTIFIED IN SHOREDITCH FROM APRIL 25th TO MAY 31st

Age.	Sex.	Address.	Date of Certificate.	Date of Onset of Symptoms.	Milk Supply.		Whether primary or secondary case.	Remarks.
					Retail Vendor	Wholesale Vendor		
4	F	44, Ormsby Street	April 25	April 22	M	X	primary	
12	F	171, Hackney Road	,, 26	,, 24	M	X	primary	
20	F	36, Dunloe Street	,, 26	,, 25	M	X	primary	
10	F	14, Brunswick Square	,, 29	,, 26	—	—	—	
4	F	35, Goldsmiths Bldgs.	,, ,,	,, ,,	—	—	secondary	Contact with cases 40, Goldsmith Bldgs.
$1\frac{5}{12}$	M	7, Scawfell Street	,, ,,	,, ,,	M	X	primary	
6	F	2, Kingsland Road	,, ,,	,, 28	P	X	primary	
$2\frac{4}{12}$	M	8, Harwar Street	,, ,,	,, ,,	M	X	primary	
$1\frac{7}{12}$	M	7, Scawfell Street	,, ,,	,, 25	M	X	primary	
3	M	49, Weymouth Terrace	,, ,,	,, 28	M	X	primary	
4	M	,, ,, ,,	,, 30	,, 29	M	X	primary	
$2\frac{1}{2}$	F	113, Hackney Road	,, 29	,, 27	M	X	primary	
$9\frac{1}{2}$	F	10, Basing Place	,, 30	,, 29	P	X	primary	
$9\frac{1}{2}$	F	5, Weymouth Terrace	,, ,,	,, ,,	M	X	primary	
15	M	50, Hows Street	,, ,,	,, ,,	M	X	primary	
$2\frac{1}{2}$	F	14, Fairbank Street	,, ,,	,, ,,	Jk.	X	primary	
$4\frac{1}{2}$	F	17, Cleeves Buildings	May 1	,, 28	Sr.	X	primary	
$2\frac{1}{2}$	M	126, Mansfield Street	April 30	,, 27	D	X	primary	
5	F	33, Scawfell Street	,, ,,	,, ,,	M	X	primary	
7	F	,, ,, ,,	,, ,,	,, 28	M	X	primary	
$1\frac{1}{14}$	M	64, Nicholls Square	,, ,,	,, 26	M	X	primary	
7	M	76, Wenlock Street	May 1	,, 29	—	—	—	Occasionally a little from shop in the New North Road, supplied by Y.
9	F	72, Kingsland Road	,, ,,	,, ,,	P	X	primary	
$2\frac{5}{12}$	M	41, Ceasar Street	,, ,,	,, 30	—	—	—	Pennyworth daily from vendor in street
31	F	96, Nicholls Square	,, ,,	,, 29	M	X	primary	
37	M	171, Hackney Road	April 30	April ,,	M	X	primary	Possibly contact
33	F	36, Kingsland Road	May 1	,, ,,	P	X	primary	

Age.	Sex.	Address.	Date of Certificate.	Date of Onset of Symptoms.	Milk Supply.		Whether Primary or Secondary case.	Remarks.
					Retail Vendor	Wholesale Vendor		
4	M	50, Hows Street	May 1	April 29	M	X	primary	
11	F	„ „ „	„ „	„ „	M	X	primary	
16	F	21, Nichols Square	„ „	„ „	M	X	primary	
10	M	12, Appleby Street	„ „	„ „	M	X	primary	
20 7/12	F	123, High Street	„ „	„ 30	M	X	primary	
4	M	39, Goldsmith B'ld's	„ „	„ 28	J	X	primary	
35	F	123, High Street	„ „	„ 30	M	X	primary	
10	M	53, Goldsmith Row	„ „	„ „	J	X	primary	
33	M	33, Scawfell Street	„ „	„ „	M	X	primary	possibly contact
5	M	131, Hackney Road	„ „	„ „	M	X	primary	
4 1/2	M	86, Brunswick Street	„ „	„ 28	M	X	primary	
11	F	110, Kingsland Road	„ 2	„ 30	P	X	primary	
12	F	35, Goldsmith B'ld's	„ 1	„ 29	—	—	secondary	Contact with cases at No. 40, Goldsmith Buildings.
1 7/12	F	32, Appleby Street	„ „	„ 30	—	—	—	possibly contact
2 1/2	M	54, Tuilerie Street	„ 2	May 1	J	X	primary	
6	F	36, Kingsland Road	„ „	„ „	P	X	primary	possibly contact
9	F	1, Gt. Cambridge St.	„ „	April 29	J	X	primary	
13	M	100, Brunswick Street	„ „	„ 30	M	X	primary	
36	M	73, Kingsland Road	„ 3	„ 29	P	X	primary	
16	M	13, Harman Street	„ „	May 2	P	X	primary	
3	M	2, Kingsland Road	„ „	„ 1	P	X	primary	possibly contact
1 8/12	F	10, Appleby Street	„ 2	April 30	M	X	primary	
17	M	36, Dunloe Street	„ 3	May 2	M	X	primary	possibly contact
15	M	58, Tuilerie Street	„ „	„ 1	J	X	primary	
4	M	74, Kingsland Road	„ „	„ 1	P	X	primary	
10	M	66, Kingsland Road	„ 2	„ 1	P	X	primary	
8	F	40, Cæsar Street	„ 3	„ 2	—	—	—	Possibly contact with cases connected with outbreak.
2	F	„ „ „	„ „	„ 1	—	—	—	
43	M	1, Union Walk	„ „	„ 1	P	X	primary	
5 1/2	M	42, Albion Road	„ 2	„ 1	—	—	—	
8	F	35, Goldsmith B'ld's	„ 3	„ 2	—	—	secondary	Contact with previous cases.
5	F	39, „ „	„ „	April 30	J	X	primary	
5	F	47, Tuilerie Street	„ „	„ 30	M	X	primary	

Age.	Sex.	Address.	Date of Certificate.	Date of Onset of Symptoms.	Milk Supply.		Whether Primary or Secondary case.	Remarks.
					Retail Vendor	Wholesale Vendor		
16	M	25, Union Crescent	May 6	May 5	B	X	primary	
6	F	1 Bacchus Walk	,, 4	April 29	B	X	primary	
5	F	134b, Kingsland Road	,, 5	May 4	P	X	primary	
2½	F	,, ,, ,,	,, ,,	,, ,,	P	X	primary	
32	F	127, Hackney Road	,, ,,	,, 3	M	X	primary	
27	F	96, Kingsland Road	,, ,,	,, 2	P	X	primary	
25	F	173, Hackney Road	,, 4	,, ,,	M	X	primary	
17	F	24, Pownal Road	,, ,,	,, 3	M	X	primary	
16	F	11, Clift Street	,, 6	,, 5	R	X	primary	
1 8/12	F	24, Holms Street	,, 4	April 28	M	X	primary	
5	F	126, Mansfield Street	,, ,,	May 3	D	X	secondary	possibly primary
30	M	51, Hackney Road	,, ,,	,, ,,	B	X	primary	
18	F	Eastern Hospital, 167, Hackney Road	,, 2	April 28	M	X	primary	
15	M	Eastern Hospital, 2, Busk Street	,, 3	,, 29	J	X	primary	
3½	F	Eastern Hospital 12, Scawfell Street	,, 2	,, 25	M	X	primary	
3	F	105, Kingsland Road	,, 2	May 1	P	X	primary	
2½	M	76, Wenlock Street	,, 6	,, 4	—	—	—	Contact with previous case in the house.
6	M	10, Brunswick Street	,, ,,	,, 3	—	—	—	
9	F	17, Cleeves Buildings	,, ,,	,, 4	Sr	X	secondary	possibly primary
21	M	21, East Road	,, 7	,, 6	O	X	primary	
1 3/12	M	,, ,, ,,	,, ,,	,, 6	O	X	primary	
6	M	25, Essex Place	,, 6	,, 3	M	X	primary	
6	F	173, Gt. Cambridge St.	,, 6	,, 5	D	X	primary	possibly secondary
6	F	24, Windsor Place	,, 7	,, 5	—	—	—	
3	M	110, Kingsland Road	,, ,,	,, 6	P	X	secondary	possibly primary
5	M	14, Queens Road	,, 6	,, 5	D	X	primary	
2	F	36, Gt. Cambridge St.	,, ,,	April 26	—	—	—	Certified not scarlatina, Eastern Hospital M.A.B., July 23rd.
11	F	126, Mansfield Street	,, 6	May 5	D	X	secondary	possibly primary
3	F	40, Goldsmiths Blds.	,, 3	April 28	J	X	primary	

Age.	Sex.	Address.	Date of Certificate.	Date of Onset of Symptoms.	Milk Supply.		Whether primary or secondary case.	Remarks.
					Retail Vendor	Wholesale Vendor		
7	M	40, Goldsmiths Blds,	May 6	May 5	J	X	secondary	
5	M	114, Mansfield Street	,, ,,	,, ,,	D	X	primary	
$\frac{3}{12}$	F	24, Holms Street	,, ,,	,, ,,	M	X	secondary	
4	M	77 Nile Street	,, ,,	,, 4	—	—	—	
2	M	124, Mansfield Street	,, 7	,, 5	D	X	primary	
19	F	106, Gt. Cambridge St.	,, ,,	,, 6	D	X	primary	certified May 29th, not scarlatina, M.A.B Hospital
4	M	,, ,, ,, ,,	,, ,,	,, ,,	D	X	primary	
5	F	,, ,, ,, ,,	,, ,,	,, 5	D	X	primary	
16	M	23, Shap Street	,, 6	,, 5	M	X	primary	
23	F	106, Gt. Cambridge St.	,, 7	,, 6	D	X	primary	certified May 29th, not scarlatina, M.A.B. Hospital
3	M	5, Hackney Road	,, ,,	,, ,,	P	X	primary	
5	F	43, St. John's Road	,, ,,	,, ,,	Ms.	X	primary	
7	F	,, ,, ,,	,, ,,	,, ,,	Ms.	X	primary	
$1\frac{7}{12}$	F	43, Pearson Street	,, 8	,, ,,	D	—	—	
13	M	21, Nichols Square	,, ,,	,, ,,	M	X	secondary	possibly primary contact with previous case.
5	M	,, ,, ,,	,, ,,	,, ,,	M	X	secondary	possibly primary contact with previous case.
14	F	,, ,, ,,	,, ,,	,, ,,	M	X	secondary	possibly primary contact with previous case.
12	F	21, Murray Street	,, ,,	,, ,,	Pe.	X	primary	
3	M	19, Kingsland Road	,, ,,	,, 7	S	X	primary	
9	F	125, High Street	,, 7	,, 6	—	—	—	possibly contact with cases at No. 125 High Street.
16	M	64a, Goldsmiths Row	,, ,,	,, ,,	P(1)	X	primary	
17	M	30, Bookham Street	,, ,,	,, 5	Ms.	X	primary	
26	F	131, Kingsland Road	,, ,,	April 27	P	X	primary	
14	F	97, Whiston Street	,, ,,	May 6	—	—	—	
7	F	1, Dunloe Street	,, ,,	,, 7	J	X	primary	
3	F	43, St. John's Road	,, ,,	,, 6	Ms.	X	primary	
32	F	St. Chad's Vicarage, Nichols Square	,, 8	,, 2	M	X	primary	
30	M	Union Tavern, Union Street	,, ,,	,, 7	J(1)	X	primary	

Age.	Sex.	Address.	Date of Certificate	Date of Onset of Symptoms.	Milk Supply.		Whether Primary or Secondary case.	Remarks.
					Retail Vendor	Wholesale Vendor		
11	F	111, Goldsmith's Row	May 8	May 6	—	—	—	
1	F	36, Gt. Cambridge Street	,, ,,	,, 7	—	—	—	Contact with previous case
36	M	114, Mansfield Street	,, ,,	,, 7	D	X	primary	Certified not scarlatina June 13th, N. E Hospital.
7½	M	32, Bookham Street	,, 8	,, 6	Ms	X	primary	
1 8/12	M	106, Gt. Cambridge Street	,, ,,	,, 5	D	X	primary	
6	F	7, Church Street	,, 9	,, 8	—	—	—	
5	F	11, Harriett Square	,, ,,	,, 6	Js	X	primary	
24	M	125, Gt, Cambridge Street	,, 8	,, 6	—	—	—	
3	M	28, Huntingdon St.	,, ,,	,, 5	—	—	—	
17	M	96, Pownall Road	,, 9	,, 7	Mn	X	primary	
14	F	16, Basing Place	,, 8	,, 6	P	X	primary	
1¾	M	3, Crooked Billet Yard	,, ,,	,, 7	J(1)	X	primary	
1½	M	3, Dunloe Street	,, 9	,, 8	J	X	primary	
2½	M	1, Little John St.	,, ,,	,, 5	Pe	X	—	
5	M	134e, Kingsland Road	,, ,,	,, 6	—	—	—	
3	M	173, Great Cambridge Street	,, 8	,, 6	D	X	primary	possibly secondary
1 2/12	M	,, ,, ,,	,, ,,	,, 6	D	X	primary	possibly secondary
8	M	49, Goldsmith Row	,, ,,	May 6	J	X	primary	
4	M	15, Pitfield Street	,, 10	,, 8	Jn.	X	primary	
1 7/12	F	18, Cæsar Street	,, ,,	,, 7	Rc.	X	primary	Rc. is the manager of shop
8	M	11, Harriett Square	,, ,,	,, 6	Js.	X	primary	
8	F	Eastern Hospital, 21, Talavera Place	,, 9	,, 5	—	—	—	
9	F	64a, Goldsmiths Row	,, ,,	,, 7	P)	X	primary	
2	F	67, Marlborough Rd.	,, ,,	,, 7	Md.	X	primary	Certified June 4th not scarlatina in M.A.B. Hospital
4	M	17, Brunswick St.	,, ,,	,, 8	M	X	primary	
11	F	4, Cester Street	,, ,,	,, 7	—	—	—	
14	F	22, Dove Row	,, ,,	,, 5	—	—	—	
4½	F	130, Hoxton Street	,, ,,	,, 4	Ht.	X	primary	
8	F	9, Harriett Square	,, ,,	,, 6	—	—	secondary	probably contact
19	M	16, Boston Street	,, 10	,, 7	J	X	primary	

Age.	Sex.	Address.	Date of Certificate.	Date of Onset of Symptoms.	Milk Supply.		Whether Primary or Secondary case.	Remarks.
					Retail Vendor	Wholesale Vendor		
13	F	39, Goldsmith B'ld's	May 10	May 3	J	X	primary	possibly secondary
3	F	118, Mansfield Street	,, ,,	,, 10	—	—	—	
2½	M	128, Hoxton Street	,, ,,	,, 5	Ht.	X	primary	
12	F	133, Pritchards Row	,, ,,	,, 7	—	—	—	
21	F	40, Regents Row	,, 11	,, 6	P(1)	X	primary	
5	M	7, Alfred Terrace	,, ,,	,, 9	—	—	—	
12	F	69, Pritchards Road	,, 12	,, ,,	—	—	—	
3	F	74, Gt. Cambridge St.	,, 11	,, 7	—	—	—	
16	M	Eastern Hospital, 23, Goldsmiths Row	,, ,,	,, ,,	J	X	primary	possibly secondary cases, 40, Goldsmith Buildings.
3	M	106, Mansfield Street	,, ,,	,, 10	M	X	primary	possibly secondary
1 7/12	F	2, Busk Street	,, 12	,, 9	J	X	secondary	possibly primary
16	M	34, Caroline Place	,, ,,	,, 8	—	—	—	
4½	F	8, Crooked Billet Yd.	,, ,,	,, 11	—	—	—	
5	M	4, Ipswich Road	,, ,,	,, 10	—	—	—	
11	F	68, Granville Build'gs	,, 13	,, 11	R(2)	X	primary	possibly contact
17	M	33, St. Agatha Square	,, ,,	,, 12	—	—	—	
21	M	81, Cambridge Street	,, ,,	April 30	M	X	primary	Certified at first to be diphtheria, subsequently desquamated
6	M	38, Scawfell Street	,, ,,	May 11	—	—	—	
5	M	Eastern Hospital, 45, Maria Street	,, ,,	This case	was	contracted		disease in Hospital.
13	M	120, Laburnam Street	,, ,,	May 1	—	—	—	
7	M	17, Ipswich Road	,, 15	,, 12	—	—	secondary	probably contact
5½	M	76, Wenlock Street	,, ,,	,, 14	—	—	—	contact with previous cases in house.
6	F	23, Ipswich Road	,, 14	,, 13	P(1)	X	secondary	probably contact
3	M	5, Ipswich Road	,, 15	,, 14	—	—	secondary	probably contact
4 11/12	F	36, Scawfell Street	,, ,,	,, ,,	—	—	—	probably contact
11	M	11, Hertford Street	,, 11	,, ,,	—	—	—	
19	F	39, Goldsmiths B'ld'gs	,, 16	,, 15	J	X	secondary	contact with previous case.
4	F	16, Nichols Square	,, ,,	,, 8	M	X	primary	
9	M	8, Collingwood Street	,, 17	,, 16	—	—	—	
3	M	105, Scawfell Street	,, ,,	,, 15	—	—	secondary	probably through case at No. 24, Pownell Road.

Age.	Sex.	Address.	Date of Certificate.	Date of Onset of Symptoms.	Milk Supply.		Whether Primary or Secondary case.	Remarks.
					Retail Vendor	,, hole-sale Vendor		
5	M	105, Scawfell Street	May 17	May 16	—	—	secondary	probably through cases at 24, Pownall Road.
5	M	100, Pitfield Street	,, 18	,, 10	—	—	—	
15	M	7, Hackney Road	,, ,,	,, 16	—	—	—	
1 3/12	M	87, Gt. Cambridge St.	,, 12	,, 10	—	—	—	
2	M	56, Whiston Street	,, 18	,, 15	—	—	—	
3½	F	28, Scawfell Street	,, ,,	,, 16	M	X	secondary	probably contact
5	F	41, Arlington Street	,, ,,	,, 17	—	—	—	
9	M	63, Pitfield Street	,, 19	,, 18	J	X	—	probably contact with a case in the house treated at home
8	F	4, Willow Chambers	,, ,,	,, 17	—	—	—	
7	F	159, Gt. Cambridge St.	,, ,,	,, 19	D	X	—	
4	F	136, High Street	,, 20	,, ,,	—	—	—	
9	M	34, Wimbourne St.	,, ,,	,, 17	—	—	—	
5	F	40, Cæsar Street	,, ,,	,, 18	—	—	—	contact with previous case
3	M	48, Goldsmiths Blds.	,, ,,	,, 14	J	X	secondary	contact with previous case
2	F	26, Alma Street	,, ,,	,, 18	W	X	—	
14	F	39, Goldsmiths Blds.	,, 21	,, 19	J	X	secondary	contact with previous case
6	M	42, Regents Row	,, 22	,, 20	—	—	—	
5	F	14, Waterloo Street	,, ,,	,, 21	—	—	—	
2	F	7, Albion Square	,, ,,	,, 19	Md.	X	—	
8	M	16, Aske Street	,, 23	,, 20	—	—	—	
7	F	104, Gt. Cambridge St.	,, ,,	,, 19	D	X	—	possibly contact
25	F	26, Charles Square	,, ,,	,, ,,	—	—	—	
9	F	132, Broke Road	,, ,,	,, 22	—	—	—	
1 3/12	F	7, Albion Square	,, 24	,, 21	Md.	X	—	possibly contact with previous case
4	F	90, Whiston Street	,, ,,	,, 23	—	—	—	
9	F	42, Regents Row	,, 25	,, ,,	—	—	—	
1 1/12	F	25, Regents Row	,, ,,	,, ,,	—	—	—	
4	F	48, Clarissa Street	,, ,,	,, 22	—	—	—	
3	M	5, Royal Oak Walk	,, ,,	,, 23	—	—	—	
2½	M	49, Dunloe Street	,, 26	,, 25	—	—	—	
6½	F	21, Pownall Road	,, 27	,, ,,	Md.	X	—	
2	F	4, Alfred Place	,, ,,	,, 26	—	—	—	

Age.	Sex.	Address.	Date of Certificate.	Date of Onset of Symptoms.	Milk supplied.		Whether Primary or Secondary case.	Remarks.
					Retail Vendor	Wholesale Vendor		
10	F	9, Trafalgar Road	May 27	May 26	—	—	—	
6	M	28, Lee Street	,, 27	,, 26	—	—	—	
8	F	14, Laburnum Street	,, 28	,, 25	—	—	—	
7 5/12	F	45, Red Lion Street	,, ,,	,, 26	—	—	—	
20	M	47, Cæsar Street	,, ,,	,, 25	—	—	—	
2	F	8, Collingwood Street	,, ,,	,, 27	—	—	—	
5	F	26, Kingsland Road	,, 29	,, 27	—	—	—	
5	F	10, Hoxton Market	,, 30	April 30	—	—	—	
11	M	60, Paul Street	,, ,,	May 29	—	—	—	
4 1/2	F	100, Scawfell Street	,, ,,	,, 28	—	—	—	
14	F	25, Finsbury Market	,, ,,	,, 30	—	—	—	
36	F	35, Gt. Cambridge St.	,, ,,	,, 10	J	X	primary	
8	M	7, Scawfell Street	,, 1	,, 30	—	—	—	
10	M	19, Holywell Road	,, ,,	,, 31	—	—	—	

List of the houses invaded: Those to which X's milk was delivered are indicated by the darker type. The numbers of cases in the several streets are given.

Name of Street.	Houses Invaded.		No. of cases.			
	A. From April 22nd to May 11th. Addresses.	B. From May 11th to May 31st. Addresses	TOTAL A.	TOTAL B.	TOTAL A.	TOTAL B.
Alma Street		**26**		1		1
Aske Street		16		1		1
Albion road	42		1		1	1
Arlington Street		41		1		1
Alfred Terrace	7		1		1	
Alfred Place		4		1		1
Albion Square		**7**		1		2
Appleby Street	**12, 10,** 32		3		3	
Broke Road		132		1		1
Brunswick Square	14		1			
Busk Street	**2**		1		2	
Basing Place	**10, 16**		2		2	
Brunswick Street..	10, **17, 86, 100**		4		5	
Boston Street	**16**		1		1	
Bacchus Walk	**1**		1		1	
Bookham Street	**30, 32**		2		2	
Clarissa Street		48		1		1
Cester Street	4		1		1	
Cliff Street..	**11**		1		1	
Church Street	7		1		1	
Cæsar Street	**18,** 40, 41	47	3	1	4	2
Cleeve's Buildings	**17**		1		2	
Collingwood Street		8		1		2
Caroline Place	34		1		1	
Charles Square		26		1		1
Crooked Billet Yard	**3,** 8		2		2	
Dunloe Street	**1, 3, 36**	49	3	1	4	1
Dove Row	22		1		1	
East Road	**21**		1		2	
Essex Place	**25**		1		1	
Fairbank Street	**14**		1		1	
Finsbury Market..		25		1		1

Name of Street.	Houses Invaded.		No. of cases.			
	A. From April 22nd to May 12th. Addresses.	B. From May 12th to May 31st. Addresses.	TOTAL A	TOTAL B	TOTAL A	TOTAL B
Goldsmith Buildings, Goldsmith Row	**35, 39, 40,**	**48**	3	1	8	2
Goldsmith's Buildings	**53, 23, 49, 64**a 111		5		6	1
Granville Row	**68**		1		1	
Gt. Cambridge Street	**1, 35**, 36, **106**, 74 87, 125, **173, 81**	**104, 159**	9	2	16	2
Huntingdon Street	28		1		1	
Holms Street	**24**		1		2	
Harriett Square	**11**, 9		2		3	
Hoxton Market	10		1		1	
Hoxton Street	**130, 132**		2		2	
Harman Street	**13**		1		1	
High Street	**123**, 125	136	2	1	3	1
Harwar Street	**8**		1		1	
Hollywell Row		19		1		1
Hackney Road	**5, 51, 113, 127, 131, 167, 171, 173**	7	8	1	9	1
Hows Street	**50**		1		3	
Hertford Street		11		1		1
Laburnum Street..	120	14	1	1	1	1
Ipswich Road	4	5, 12, **23**	1	3	1	3
Kingsland Road	**2, 19, 36, 66 73, 74, 96, 105 72, 110, 131, 134**b 134c	26	13	1	17	1
Little John Street	**1**		1		1	
Lee Street		28		1		1
Murray Street	**21**		1		1	
Marlborough Road	**67**		1		1	
Mansfield Street	**106, 114, 124**, 118, **126**		5		8	
Nichols Square	**16, 21, 64, 96, Vicarage**		5		8	
Ormsby Street	**44**		1		1	
Pearson Street	43		1		1	
Nile Street..	77		1		1	
Paul Street		60		1		1

Name of Street.	Houses Invaded.				No. of cases.	
	A. From April 22nd to May 12th. Addresses.	B. Fron May 12th to May 31st. Addresses.	TOTAL A.	TOTAL B.	TOTAL A.	TOTAL B.
Pownell Road	**24, 96**	**21**	2	1	2	1
Pitfield Street	**15**, 100	**63**	2	1	2	1
Pritchards Road	133, 69		2		2	
Queens Road	**14**		1		1	
Red Lion Street		45		1		1
Royal Oak Walk		5		1		1
Regents Row	**40**	25, 42	1	2	1	3
Scawfell Street	**7, 12, 33**	**28**, 38, 36, 100, 105	3	5	7	6
St. Agatha Square		33		1		1
St. Johns Road	**43**		1		3	
Shap Street	**23**		1		1	
Talavera Place	21		1		1	
Trafalgar Road		9		1		1
Tuilerie Street	**47, 54, 58**		3		3	
Union Crescent	**25**		1		1	
Union Street	**Public House**		1		1	
Union Walk	**1**		1		1	
Waterloo Street		14		1		1
Whiston Street	97	56, 90	1	2	1	2
Willow Chambers..		4		1		1
Windsor Place	24		1		1	
Wimbourne Street		34		1		1
Wenlock Street	76		1		2	1
Weymouth Terrace	**5, 49**		2		3	

MAP OF THE BOROUGH OF SHOREDITCH.

Shewing Boundries and chief thoroughfares and the distribution of the houses invaded during the period A. April 22nd to May 11th in Red dots and during the period B from May 11th to 31st in Black dots, The four milk vendors chiefly implicated are indicated at M P J and D.