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The - Wood

ANNUAL REPORT

ON THE

HEALTH AND SANITARY CONDITION

OF THE

Metropolitan Borough of Shoreditch,

IN THE COUNTY OF LONDON,

FOR THE YEAR 1902,

BY

LEWIS T. FRASER BRYETT, M.D. (LOND.),

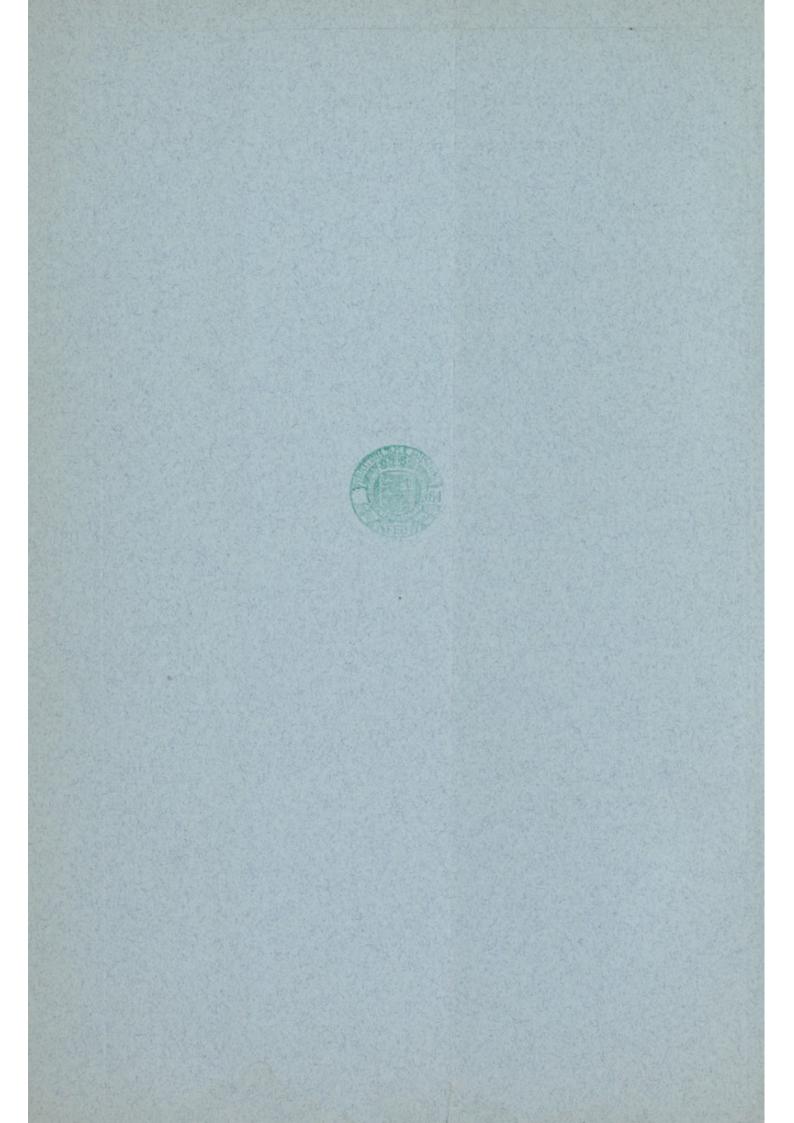
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[Printed by Order of the Public Health Committee.]





Public Health Wepartment,

SHOREDITCH TOWN HALL,

LONDON, E.C.

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LEPHONE Nº 701 LONDON WALL.

29th ellay 1903.



With the compliments of the elledical Officer of Health.





Metropolitan Borough of Shoreditch.

ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH.

HEALTH DEPARTMENT,

TOWN HALL,

OLD STREET, E.C.,

January, 1903.

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

SIR AND GENTLEMEN,

Herewith I beg to submit my report as to the public health, sanitary condition, and vital statistics of the Borough of Shoreditch for the year ending December 31st, 1902.

POPULATION.

The estimated number of persons in Shoreditch for the year under consideration is 117,948, distributed in the four registration sub-districts as follows:—Shoreditch South, 15,927; Hoxton New Town, 29,636; Hoxton Old Town, 26,385; and Haggerston, 46,000. In Hoxton New Town is situate the Holborn Union Workhouse, the inmates of which, numbering at the 1901 census 1,375, are not persons belonging to Shoreditch. For certain statistical purposes the population of the Holborn Union Workhouse is not included in that of Shoreditch, and the number of persons in the Hoxton New Town registration sub-district becomes, therefore, for these purposes 28,261, and the population for the whole borough 116,573.

BIRTHS.

The number of births registered during the year 1902 was 3,992, of which 2,049 were male and 1,943 female. In the Shoreditch Infirmary there were 85 births—44 of males and 41 of females. Of these 37 were entered as legitimate, and 48 illegitimate.

In the Holborn Union Workhouse, there were 102 births, of which 59 were illegitimate, the male births numbering 54, and the female 48. The distribution of the births in the four Registration sub-districts of the Borough was as set out below.

Registration Sub-District.	Males.	Females.	Total.
Shoreditch South	218	249	467
	530	493	1,023
Hoxton Old Town Haggerston	447	418	865
	854	783	1,637
Total	2,049	1,943	3,992

Deducting the births in the Holborn Union Workhouse, as the mothers were not persons belonging to Shoreditch, the birth-rate was 33·3 per 1,000 inhabitants, as compared with 28·5 for the Metropolis. The births in Shoreditch were 1,449 in excess of the deaths. A comparision of the birth-rates in the Registration Sub-Districts is contained in Table VI. (see appendix). Since 1883 the birth-rate of Shoreditch has been decreasing.

MARRIAGES.

The number of marriages registered in Shoreditch during the year 1902 was 1,156 as compared with 1,073 in 1901, 1,157 in 1900, and 1,295 in 1899. The number of persons married was at the rate of 19.8 per 1,000 inhabitants, as compared with 17.7 per 1,000 for the metropolis.

DEATHS.

The deaths of persons belonging to Shoreditch numbered 2,441; their distribution amongst males and females in the four Registration Sub-Districts is as set out in the subjoined table:—

Registration Sub-District.	Males.	Females.	Total.
Shoreditch South Hoxton New Town	179	176	355
	281	299	580
Hoxton Old Town	305	253	558
Haggerston	499	449	948
Total	1,264	1,177	2,441

The deaths of males exceeded those of females by 87. The death-rate for the year was 20.9* per 1000 inhabitants, being 1.6 below the average for the previous ten years. The London death-rate for 1902 was 17.2 and that of England and Wales was 16.3

^{*}Corrected for age and sex distribution, the death-rate was 21.3 per thousand.

per thousand. Tables giving the death-rates and the causes of death at various age periods in Shoreditch and its four registration sub-districts together with other information bearing upon the subject are contained in the Appendix (see Tables IV., V. and VI.). The death-rate locally was highest in Shoreditch South and lowest in Hoxton New Town. The death-rate in Shoreditch was markedly elevated during the months of February and March, chiefly owing to the prevalence of small-pox, measles, whooping cough, and respiratory diseases. During the latter half of February and the first week of March the death-rate averaged over 31 per 1,000 inhabitants. The rate was markedly below the average for the year during the months of May, June and July, but August brought a rise, due to the prevalence of summer diarrhœa, which lasted until the middle of September. This rise was not so marked as usual, however. The death-rate was again considerably above the average in November, mainly the result of diseases of the respiratory organs, and was again below the average during the last month of the year.

The deaths of infants under the age of one year numbered 704, of which 413 were of males and 291 of females. They formed nearly 29 per cent. of the total number of The chief causes of death were: - Bronchitis, pneumonia, deaths for the year. prematurity and debility at birth, diarrhœa which was answerable for more than oneseventh of the deaths of infants under one year, wasting and disorders of the digestive organs probably in most instances the result of injudicious feeding, whooping cough and measles. Accident or negligence resulted in 40 deaths, of which 38 were caused by suffocation in bed. The infant mortality, that is the number of infants under one year dying during the year per 1,000 births during the year, was 181. The infant mortality for the Metropolis was 139. The infant mortality, although not so great as in the previous year in Shoreditch, was nevertheless considerably above that of London, a fact explicable to a large extent by the greater density of the population in Shoreditch. The average number of persons living on each acre in Shoreditch is approximately 180, whilst in London as a whole it is 60 or one third of what it is in Shoreditch. Then again the mass of the inhabitants of Shoreditch belong to the working classes, and when employment is slack, the pinch of poverty is felt in many quarters, health suffers, and young infants succumb more rapidly in consequence.

The deaths of children aged between one and five years numbered 350. The chief causes of death being measles, whooping cough, diphtheria, small-pox, diarrhœa, various forms of tuberculosis, bronchitis, and pneumonia. Violence through accident or negligence resulted in 12 deaths, eight of which were caused through burns or scalds. Altogether 1054 or slightly over 43 per cent. of the total number of deaths were of children under the age of five years.

Of children aged between five and fifteen years 89 died, the chief causes of death being the various infectious diseases including 17 from small-pox, and diseases of the respiratory organs.

Of persons aged from fifteen to twenty-five years there were 100 deaths, the majority of which resulted from infecticus diseases including nine from small-pox, and 24 from consumption of the lungs and diseases of the respiratory organs.

The deaths of persons aged from twenty-five to thirty-five years numbered 124, the chief causes being small-pox, which resulted in 17, consumption of the lungs, which accounted for 37, diseases of the respiratory organs and Bright's disease. Cancer caused two deaths.

Of persons aged from 35 to 45 years 219 died, the chief causes being consumption of the lungs, which resulted in 65 deaths, alcoholism, cancer, which caused 14 deaths, diseases of the nervous system including 8 from apoplexy, heart disease, diseases of the respiratory organs, and Bright's disease.

There were 236 deaths of persons aged between 45 and 55 years. Of these 46 resulted from consumption, 19 from cancer, 20 from apoplexy, 29 from heart disease, 55 from diseases of the respiratory organs, 7 from cirrhosis of the liver, and 12 from Bright's disease.

Of the 238 deaths amongst persons aged between 55 and 65 years, 15 were attributed to consumption, 31 to cancer, 16 to apoplexy, 20 to heart disease, 65 to diseases of the respiratory organs 8 to cirrhosis of the liver, and 17 to Brights' disease.

Of persons aged between 65 and 75 years 230 died, the chief causes being cancer, which resulted in 18 deaths, old age, which was given as the cause in 32, apoplexy, heart disease, diseases of the respiratory organs including 55 from bronchitis, and Bright's disease.

Of 127 persons who died aged between 75 and 85 years, 50 succumbed to the effects of old age, 11 to heart disease, and 34 to diseases of the organs of respiration.

The causes of death in the cases of the 24 persons who died aged 85 years and upwards were: old age in 19, apoplexy in 1, hemiplegia in 1, senile gangrene in 1, and pneumonia in one.

The chief causes of death in the Borough during the year were tuberculosis including consumption, which accounted for 295 deaths, bronchitis causing 256, pneumonia causing 227, diarrhea and zymotic enteritis 132, heart disease 146, atrophy debility and marasmus 108, old age 103, apoplexy 76, and Bright's disease, which resulted in 64 deaths.

Cancer was given as the cause of 87 deaths, 33 of males and 54 of females. With the exception of five, they were all of persons aged between 35 and 75 years. The cancer death-rate was 0.74 per 1,000 inhabitants, as compared with 0.63 in 1901, 0.56 in 1900, 0.63 in 1899, 0.58 in 1898, 0.51 in 1897, 0.45 in 1896, 0.50 in 1895, 0.65 in 1894, and 0.54 in 1893. The rate was therefore in excess of any of those for the previous nine years. In addition to the deaths stated to have been due to cancer there were 28 ascribed to malignant disease. Twelve of these were of males and 16 of females. These have not been included in calculating the cancer death-rate.

The deaths directly attributed to alcohol numbered 18; this figure, however, is very far from indicating the actual number of deaths caused through the abuse of alcohol. The various forms of violence resulted in 110 deaths, 89 being through accident or negligence, 1 through homicide, 19 from suicide, and 1 person was executed for murder.



DEATHS IN PUBLIC INSTITUTIONS.

The numbers and distribution of the deaths of persons, belonging and not belonging to the Borough, in public institutions in Shoreditch, are set out in the subjoined table:—

Institution.	Persons be- longing to Shoreditch.	Persons not belonging to Shoreditch.	Total.
Holborn Union Workhouse Shoreditch Workhouse Hoxton House Asylum Royal Chest Hospital Convent Hospital	5 432 1 11	247 7 61 65	252 439 62 76
Total	449	387	836

Elsewhere than in public institutions six persons not belonging to Shoreditch died within the Borough. In the subjoined table are set forth the various public institutions outside Shoreditch with the numbers of persons belonging to the Borough dying therein:—

No. of Deaths. Banstead 5	General Hospitals—continued. Middlesex Middlesex Mildmay 10 North Eastern (Children) Royal Free. 4 St. Bartholomew's. 72 St. Thomas's 1 Spanish and Portugese. 1 Temperance 2 Westminster 1 Hospitals for Special Diseases. Disease of the Chest, City of London 2 Lying-in, City of London 8 Hospital for Women, Soho 1 Hospital for Women, Euston Mount Vernon Consumption Infirmary 3 Camberwell Infirmary 1 Hackney Infirmary 2 Islington Infirmary 2 Islington Infirmary 2 St. Pancras Infirmary 1 OTHER Institutions. Aged Pilgrim's Asylum 1 H.M. Prison, Wormwood Scrubbs 1 H.M. Prison, Newgate 1 St. Peter's Home 1 St. Anne's House, Stoke Newington 1 Salvation Army Maternity Home 1

Of some 432 persons belonging to Shoreditch dying in public institutions situate without the Borough, 232 died in general hospitals including 34 in hospitals for children, 110 died in the hospital for infectious disease belonging to the Metropolitan Asylums Board, including 74 in the hospitals for small-pox, 62 died in asylums, 13 in hospitals for special diseases, 9 in workhouse infirmaries, and 6 in other institutions. Elsewhere than in public institutions, 19 persons belonging to Shoreditch died beyond the limits of the Borough.

Altogether during the year under consideration the deaths of some 881 persons belonging to Shoreditch, that is to say 36 per cent. of the total number of deaths, occurred in public institutions.

SICKNESS AMONGST THE POOR.

During the year 1902 some 3,403 cases of illness came under the treatment of the district medical officers at the public dispensary, as compared with 3,383 cases in 1901 and 3,267 cases in 1900. An analysis of the cases is contained in Table VII. (see Appendix). Diseases of the respiratory organs were responsible for a large proportion of the cases; other common complaints were rheumatism, consumption, disease of the circulatory system, brain and nervous system, digestive system, and of the locomotive system. The latter were chiefly cases of ulcerated legs. Diseases of the skin were common, 85 cases being dealt with. Some 94 cases resulted from accidents. The cases diagnosed as cancer numbered 12, as compared with 31 in 1901, 33 in 1900, 18 in 1899, 9 in 1898, 15 in 1897, 21 in 1896, 15 in 1895, 27 in 1894, and 23 in 1893.

INFECTIOUS DISEASES.

The various infectious diseases, numbered 1 to 35 in Table V. (see Appendix) caused 767 deaths, as compared with 762 in 1901, being just over 31 per cent. of the total number of deaths from all causes. The small-pox outbreak markedly raised the number of deaths from infectious diseases. The death-rate due to these diseases was 6.5 per 1,000 inhabitants. The distribution of the deaths according to ages is as shown in the subjoined table:—

Age period	Under 1	1-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65	65-75	75-85
No. of deaths	213	205	29	22	25	30	66	84	51	26	12	4

With respect to the above table the remarks contained in the report for 1901 apply. Of the 762 deaths from infectious diseases 418 were of children under five years of age.

Deaths from small-pox, measles, scarlet fever, diphtheria, including membranous croup, whooping cough, enteric fever and diarrhea, together numbered 420, and the death rate due these diseases, which is termed the zymotic death-rate, was 3.6 per 1000 inhabitants as compared with 2.9 in 1901, 3.1 in 1900, 3.6 in 1899, 4.2 in 1897, 4.3 in 1896 and 3.8 in 1895. If it had not been for the mortality from small-pox the zymotic death-rate would have been as low as in 1901. A comparison of the zymotic death-rates of London and Shoreditch and its registration sub-districts is contained in Table VI, (see Appendix).

The cases of notifiable infectious disease certified during 1902 numbered 1,993. This figure includes 754 cases of chicken-pox, which disease was made notifiable in Shoreditch by the Borough Council for the period of one year commencing with the first March. The London County Council also made chicken-pox a notifiable disease for the whole metropolis about the same time but for a shorter period, which period was extended two or three times until the beginning of the year 1903 when chicken-pox ceased to be notifiable generally in London, though it remained notifiable in Shoreditch until February 28th of the current year. The notification of chicken-pox was considered necessary with a view to the prevention of cases of mild small-pox being overlooked, the two diseases not infrequently being mistaken for each other. So far as the experience in Shoreditch is concerned the notification of chicken-pox was, although helpful in this direction, not of very great value.

Excluding the cases of chicken-pox the number of cases of infectious disease notified was 1,239. The number of cases certified since 1889 when the notification of certain infectious diseases became compulsory, together with the attack-rates per 1000 inhabitants are as contained in the subjoined table:—

Year.	Number of cases.	Attack-rate per 1,000 inhabitants.
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
1901	1146	9.8
1902	1239	10.5

If it had not been for the outbreak of small-pox the number of cases of infectious disease notified and the attack-rate per 1000 inhabitants would have been as low as in 1891. The cases notified in the Metropolis during the year under consideration excluding 25,708 cases of chicken-pox which were certified, numbered 46,082 and the attack-rate was 10.0 per 1000 inhabitants.

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

Diseace	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Total.	Deaths
Small Pox	309	113	7	4	433	78
Scarlet Fever or Scar-	68	52	72	57	249	8
Diphtheria & Membra-) nous Croup	60	66	54	43	223	24
Typhus						
Enteric Fever (Typhoid)	11	22	52	64	149	23
Continued Feyer	2		1		3	20
Relapsing Fever					~	
Puerperal Fever Erysipelas	25	35	53	5	9 173	3 8
22 youponus	20	99	99	60.	110	0
Totals	475	290	241	233	1239	144
Numbers and percentages of cases removed to hospitals	421 88·6%	237 81·5%	169 70·1%	155 66·5%	982 79·2%	

The cases of chicken-pox were distributed through the year as follows:—64 in the first quarter, 269 in the second, 160 in the third, and 261 in the fourth. The disease was only notifiable during the first quarter for one month.

As compared with the figures of 1901 there was a marked decrease in the numbers of cases of scarlet fever and diphtheria, and an in rease in the numbers of cases of small-pox, typhoid fever, erysipelas, and puerperal fever. The most striking figures are those relating to the cases of small-pox, which for a time were very numerous in Shareditch during the first quarter of the year. The deaths from notifiable infectious disease numbered 144, more than half of which resulted from small-pox. The figures for previous years were 72 in 1901, 99 in 1900, 121 in 1899, 96 in 1898, 136 in 1897, 135 in 1896, and 117 in 1895. A very marked decrease is observable as to the number of deaths from scarlet fever, and the number of deaths from diphtheria also shew a decrease as compared with the figures for 1901. The deaths from enteric or typhoid fever and erysipelas show an increase. The deaths from infectious diseases which are notifiable were at the rate of 1·2 per 1000 inhabitants, as compared with 0·6 for last year. Deaths from the principal zymotic diseases which are not notifiable were at the rate of 2·4 per 1000 inhabitants.

METROPOLITAN ASYLUMS BOARD.

Practically the whole of the cases removed to hospital for treatment were taken into the various hospitals of the Metropolitan Asylums Board. The infectious diseases which are receivable into the hospitals of the Board are small-pox, scarlet fever, diphtheria, and enteric fever. Including three cases certified as continued fever, a disease which frequently turns out to be enteric fever, the number of cases of these diseases certified was 1,054, and the number removed to hospital was 982. The percentage of removals during 1902 was 93·1, as compared with 86·3 in 1901, 84·7 in 1900, 82·4 in 1899, 81·4 in 1898, 71·4 in 1897, 65 in 1896, 57 in 1895, and 61 in 1894. The marked increase observable in the figures for the year 1902 is due to the fact that practically the whole of the cases of small-pox certified were removed to hospital.

Five instances of recurrence of infectious disease in houses shortly after patients who had been treated in the fever hospitals of the Board returned home, came under my notice during the year. In four of these the disease was scarlet fever, and in the fifth it was small-pox. The latter is referred to further on in this report.

SMALL-POX.

The prevalence of small-pox in Shoreditch from the occurrence of the first case in September until the end of the year 1901 is dealt with in my report for that year. The story of the outbreak has, unfortunately, to be continued in the report for this year. During the greater part of January, although there was considerable prevalence of the disease in adjoining boroughs, there were comparatively few cases in Shoreditch. Two or three occurred in the Holborn Union Workhouse, and a few others were scattered about the Borough. In most of these, infection was traceable to sources outside Shoreditch. With the last few days of the month, however, there came an unwelcomed change. Cases began to be certified in numbers in the neighbourhood of Nile-street, and it soon became obvious that a serious outbreak had to be faced.

Between January 25th and February 3rd, some sixty-two houses were invaded by small-pox, the majority during the four days ending January 30th. These houses were mostly situate in the New Town Registration Sub-district, towards the western boundary of the Borough, in streets leading from or in the near neighbourhood of Nile Street, which is one of the busiest market streets in Shoreditch. From February 8th to 21st, a fresh series of houses was invaded. These houses were not confined to the neighbourhood of Nile Street to the same extent as those first invaded. A third series of houses was invaded from February 24th to March 11th, and the invasions continued showing more or less a tendency to grouping until the middle of May, after which the houses invaded were few. After the second series of invasions, the houses were distributed pretty generally about the Borough, but almost entirely to the north of Old Street. Towards the end of the outbreak the neighbourhood of Nile Street became practically free from the disease. In Table VIII (see Appendix) are shewn the numbers of houses daily invaded by small-pox, and the dates when they were recognised as invaded.

The distribution of the houses in the four Registration Sub-districts was as follows: In Shoreditch South 15, Hoxton New Town 98, Hoxton Old Town 40, and Haggerston 64. In three instances houses were invaded a second time, but in each instance the second invasion resulted through the re-introduction of infection derived from the first. The Holborn and Shoreditch Workhouses are not included in the above figures.

A note may be added with respect to the sanitary condition of the houses in which small-pox occurred. As the result of the observations made, 167 may be stated to have been in a satisfactory or fairly satisfactory condition with respect to cleanliness, and in the remaining 50 the conditions were unsatisfactory in this respect. Moreover, in several of the unsatisfactory houses, overcrowding was found to exist. The proportion of small-pox attacks in the satisfactory and fairly satisfactory houses was at the rate of not quite 1.5 per house, whilst in the case of the unsatisfactory houses, it was slightly in excess of 2.5 per house. In 115 of the cleanly houses only one case occurred in each, that is, there were no secondary cases; in 35 two cases occurred, in 10 three, in 3 four, in 3 five, and in 1 six cases occurred. In the dirty houses single cases occurred in 25, two cases each in 7 instances, three cases in 4, four cases in 3, five cases in 5, six in 3, seven in 2, and in one instance eight cases occurred in the same house. In the great majority of houses in which more than one occurred, there were secondary cases. In eleven instances the primary cases were more than one. In eight of these the houses were in a cleanly condition and in the remainder they were dirty. Secondary cases occurred in 50 per cent. of the dirty houses invaded as compared with 30 per cent. of the cleanly houses.

The streets which suffered most severely were Britannia Street, in which 10 houses were invaded, Chatham Avenue, where nine dwellings were infected, Westmoreland Place, Haberdasher Street, Underwood Street and Underwood Place and Wellington Place, situate in the New Town Registration Sub-district, and Wilmer Gardens situate in Haggerston. Wellington Place, which contains six six-roomed houses, became for a time a terrible nest of infection. In four of the six houses 21 cases occurred with four deaths. When the disease broke out the houses in Wellington Place were over-crowded, and many of the rooms were dirty. It is hardly necessary to state that these are conditions which are highly favourable to the spread of infection of a disease like small-pox. It may be mentioned that although situate in the neighbourhood of Nile Street, and within an area in which there was much infection, the dwellings in Provost and Britannia Streets belonging to the Borough Council remained during the outbreak free from infection.

And now to direct attention to the results of the investigations made in respect to the cases themselves. In Table IX. (see Appendix) is contained a list of the cases, showing the ages and sexes of the patients, the dates of the beginning of illness, the observation of the rash and the removal of the patients to hospital, the occupations of the patients, the state as to vaccination, the probable source of infection, the sanitary

condition of the houses, and the result of the illness. In Table VIII. (see Appendix) are shown the number of cases occurring, and the removals to hospital effected from day to day. Upon these tables my remarks are mainly based.

The cases certified as small-pox, but subsequently found not to be of that disease, numbered 22, or slightly more than five per cent. of the certificates received. The sufferers practically all belonged to the wage-earning class. Their callings and occupations may be roughly classified as follows: School children, 70; housewives, 66; wearing apparel and bootmaking, 23; carmen and stablemen, 14, labourers, 13; furniture making, 10; building trade, carpenters and house painters, 5; printing and stationery, 4; clerks, 3; domestic servants, 2; rope making, 3; laundrywork, 3; waitresses, 3; warehousemen, 3; theatrical, 2; apprentices, 2; operative bakers, 2; publicans and potmen, 3; hawkers, 5; cardboard box making, 5; engine driving 4; leather work, other than boot making, 3; provision trade, 4; feather trade, 2; various miscellaneous occupations, 35; casual employment, 3; unemployed, 19; inmates of workhouses, 34; and occupation not stated, including infants and young children not attending school, 68.

Including the cases in the Holborn Workhouse and the Shoreditch Workhouse and Infirmary, which are dealt with more particularly later in this report, the total number of small-pox cases in Shoreditch during the year was 410.

Including the cases from the beginning of the outbreak in September last year the total number was 429.

The distribution of the cases, and deaths amongst males and females in the Registration Sub-Districts during the year 1902, is shown in the subjoined Table:

Registration Sub-Districts.		Cases.		DEATHS.				
Registration Sub-Districts.	Male.	Female.	Total.	Male.	Female.	Total.		
Shoreditch South	16	9	25	2	3	5		
Hoxton New Town	105	100	205	24	18	42		
Hoxton Old Town	31	- 32	63	4	2	6		
Haggerston	50	67	117	11	14	25		
Total	202	208	410	41	37	78		

Shoreditch suffered from small-pox at the rate of 34·7 cases per 10,000 inhabitants during the year. The attack-rate was 15·7 per 10,000 in Shoreditch South, 69·2 in Hoxton New Town, in which sub-district the Holborn Union Workhouse is situate, 23·9 in Hoxton Old Town and 25·4 in Haggerston. The death-rates were: For the whole Borough, 0·66 per 1,000 inhabitants; for Shoreditch South, 0·31; Hoxton New Town, 1·41; Hoxton Old Town, 0·22; and for Haggerston, 0·54. Excluding the population and deaths of inmates of the Holborn Workhouse, the death-rate for Hoxton New Town was 1·3 per 1,000 inhabitants.

Excluding the cases in the Holborn Workhouse and the persons attacked in the Shoreditch Workhouse and Infirmary, 373 cases of small-pox occurred during the year in Shoreditch. Of these 61 fell ill in January, most of them during the last four days of the month, 126 in February, 82 in March, 41 in April, 36 in May, 18 in June, 2 in July, 3 in August, 1 in October, and 3 in November.

Of the 373 cases 172 were amongst males and 201 females; of the former 37 or 21.5 per cent. and of the latter 36 or 17.9 per cent. terminated fatally.

The distribution of the cases and deaths amongst males and females at certain age periods is shewn in the following Table:

GE PERIODS.	MA	ALES.	FE	MALES.
GE PERIODS.	Cases.	Deaths.	Cases.	Deaths.
Under 1 year 1 to 5 years 5 to 10 ,, 10 to 15 ,, 15 to 20 ,,	5 14 23 25 21	3 4 5 7 3	6 21 23 25 26	5 9 7 2 3
Totals under 20	88	22	101	26
20 to 25 years 25 to 30 ", 30 to 35 ", 35 to 40 ", 40 to 50 ", 50 to 60 ", 60 to 70 ", 70 to 80 ",	21 22 12 7 15 5 2	1 5 4 1 3	18 32 19 13 15 1 1	2 4 2 1 1
Totals 20 to 80	84	15	100	10
Total all ages	172	37	201	36

Of the 373 cases 73 terminated fatally, the case mortality bring 19.5 per cent. With respect to the sources of infection and the spread of the disease in the Borough, a reference to the particulars given in Table IX. will enable a furly accurate idea being formed on these important points. As has already been indicated a few isolated cases and groups of cases occurred in Shoreditch during the last four months of 1901, in which there is no doubt that the infection was imported from various sources outside the Borough. Such cases continued to occur throughout the epidemic in 1902.

Considering the extent to which small-pox infection was distributed over the Metropolis this was what was only to be expected. The sudden outburst of the disease in the neighbourhood of Nile Street during the last week of January, however, points to some very potent source of infection within the Borough itself, and in all probability in Nile Street. There was some indefinite information as to a stranger having been observed selling, in Nile Street, with an eruption out on his face, but no reliable information could be obtained in verification of this. It is not an uncommon thing for a person suffering from small-pox to go about and mix with other persons for several days before the nature of the malady is recognized. If a person so suffering had been in a crowded busy market street like Nile Street for four or five days carrying on his trade, it is highly probable a large amount of infection would have been disseminated. The source of infection unfortunately remains a matter of conjecture. However, the infection may have been introduced the almost simultaneous development of small-pox in such a large number of different houses in the same neighbourhood, rendered that neighbourhood highly charged with infection and a serious menace to the Borough generally. As was only to be expected, notwithstanding all efforts made to stamp it out, the infection was carried to other parts of Shoreditch, though fortunately not to the extent it was feared it would have been. The original cases in houses in the Nile Street neighbourhood, that is to say, the cases which occurred during the last few days of January and the first few days of February, were 47 in number. The cases in the neighbourhood of Nile Street which were secondary to these numbered 104, and 92 of them were clearly traceable to infection from the original cases. Some 38 cases were traceable to infectious sources outside the Borough; these resulted in some 27 secondary cases, most of which occurred in the Holborn Workhouse. In 111 cases nothing definite was ascertained as to the source of infection, but it is very probable that in many of these, infection was derived from the original cases in the neighbourhood of Nile Street; these cases resulted in some 76 secondary cases. The foregoing figures are given as been fairly approximate and include the cases in the Shoreditch Workhouse and Infirmary and the Holborn Union Workhouse. The large proportion of cases in which no definite information was obtained as to the source of infection is to a considerable extent due to the patients having been removed to hospital before the necessary enquires could be made, the patients' friends being unable to supply the information.

Amongst those who contracted the disease outside the Borough were four persons who were employed in connection with the erection of small-pox hospitals in the neighbourhood of Dartford. They in all probability became infected at the place where they were employed. In two other cases there is very little doubt that the patients were infected whilst attending the funerals of relatives dead from small-pox. One of the temporary officers employed in disinfecting had a mild attack of the disease. He gave it to his wife who unfortunately died.

One instance occurred in which there are grounds for believing that a patient returning from the small-pox hospital was the means of introducing infection a second time into the house in which he resided. On March 9th a young man who had been away with small-pox returned to his home. On the day of his return and the day following he was in conversation with two young girls living in the house. Both these girls developed small-pox after an interval indicating that infection had taken place about the date of the young man's return. The girls were employed at different places, one at business, the other at school, and it is unlikely that they received infection where they were employed (see Table 1X. cases 201, 301 and 302)

As is the case with other diseases, the occurrence of small-pox, especially at the commencement of an outbreak, is accompanied by more or less risk of delay in the recognition of cases. In a large proportion cases of small-pox are diagnosed on the third and fourth days of the disease, when the eruption has developed sufficiently to enable the medical attendant to pronounce it that of small-pox. Sometimes, however, owing to various reasons, it may be a week or even longer before the nature of the illness is recognised and measures as to preventing the spread of the disease can be taken. On the other hand, in a fair number of cases the diagnosis may be made and the necessary precautions taken in less than three days. It is hardly necessary to observe that early isolation of small-pox cases is of the greatest importance in preventing the spread of infection. In a district like Shoreditch isolation is practically impossible, except by the removal of the patient to hospital. It is satisfactory to state that every certified case of small-pox which occurred during the outbreak with the exception of one or two which terminated fatally, the bodies being removed with proper precautions to the Mortuary, was removed to the hospital of the Metropolitan Asylums Board, and that the admirable arrangements made by the Board for the removal of the cases, so far as the experience in Shoreditch went, worked without a hitch. In the subjoined Table are shown the days of the disease on which the removals of cases were effected, the day of invasion being numbered 1:-

Day of the disease	1	2	3	4	5	6	7	8	9	10	12	21	28
Cases removed	2	27	82	84	76	42	23	9.	2	1	1	2	1

In one of the cases, removed on the 21st day from the beginning of the illness, the eruption was observed 19 days before removal. Although the history of the commencement of the attack is not quite definite, the patient appears to have been ill two days before the eruption was noticed. The patient, who had been vaccinated on account of having been exposed to small-pox, was thought at the time the eruption came out to be suffering from the effects of the vaccination. In the other case the patient was thought to have chicken-pox, and the case was certified as being chicken-pox. The nature of the illness was recognised when three other members of the family developed small-pox. The case removed on the 28th day of the disease was brought to light on the occurrence of several well-marked cases of small-pox in the patient's family. It was a very slight case. In addition to the cases dealt with in the above table, some 21 others occurred, in which the histories were not sufficiently definite to admit of their being included in the table.

The cases in the Shoreditch Workhouse and Infirmary are not included in the above table. One of these was removed on the second day of illness, and four on the third day. Two were brought to the infirmary ill, and were removed within 24 hours of being so brought, and in three instances the histories of invasion were too indefinite for the day of the disease to be stated with anything like certainty. One case terminated fatally before removal could be effected, the patient dying within 24 hours of the onset of symptoms. The cases in the Holbern Workhouse are also not included in the table. With respect to twelve of them, the removals were effected on the second day of illness, in nine on the third day, in one case on the fourth day, and in one on the fifth day. One case was removed about the ninth day, but the history was not quite conclusive as to the day of illness. In three other cases the date of invasion was not sufficiently definite for the day of the disease to be stated.

According to the foregoing figures, isolation in the majority of cases was effected on the third, fourth and fifth days of the disease. Of the 352 cases in the table, 29, or 8·2 per cent. were removed to hospital on or before the second day of illness; whilst of 29 cases in the two Poor Law Institutions, concerning which reliable information as to the day of the disease was obtained, 13, or about 45 per cent., were removed to hospital during the first two days of illness. This difference is attributable to the fact that the medical officers of these institutions are able to keep the inmates under closer observation than is as a rule practicable in private life. I may mention that I had opportunities, both in private and in the public institutions above referred to, of seeing cases within a few hours of the onset of symptoms and watching for the appearance of the eruption. In several cases the eruption was sufficiently characteristic to warrant a diagnosis of small-pox twenty-four hours after the illness commenced, and in a few cases the eruption was sufficiently marked in less than 24 hours to admit of the cases being certified and removed to the hospital as small-pox.

A few observations are necessary respecting the outbreak as it affected the Shoreditch and the Holborn Union Workhouses. Institutions such as workhouses are much exposed to the introduction of infection of a disease like small-pox. Owing to the conditions of life in a workhouse, every case occurring amongst the inmates becomes naturally a source of anxiety to the officers of the institution, and the most stringent precautions are always required to prevent the spread of the disease, the sheet anchors being prompt diagnosis and removal to hospital of the cases, thorough disinfection, and the early vaccination or re-vaccination of all who, having been exposed to infection, have not recently undergone the operation.

The cases in the Shoreditch Workhouse and Infirmary numbered 11, excluding that of the baker to the institution. He did not reside on the premises, and probably contracted the disease through infection brought from Islington. The first case was that of a man aged 34, who was admitted to the infirmary from a common lodging-house in the neighbourhood on January 13th. The eruption was observed on the following day, and he was at once removed to hospital. His case was of the

hæmorrhagic or "black" variety of the disease, and terminated fatally. No secondary cases in the infirmary or elsewhere were traced to this case. The next case was on February 12th. A man aged 59 was picked up in the street by the police and taken to the police station, whence he was removed to the infirmary, where he was found to have sma'l-pox and forthwith removed to hospital. There were no secondary cases traceable to this one. The third case was that of a man aged 58. He had been an inmate on and off for some considerable time. He was taken ill on February 14th, and removed to hospital on February 16th, and probably contracted the disease whilst visiting friends in the neighbourhood of Nile Street. On February 21st a fourth case came under observation, that of a man aged 35, who had been an inmate since January 13th. It is not known how he became infected. The fifth case was removed on March 2nd, the patient being a woman aged 33, and an inmate of the workhouse for some time. Whilst visiting friends at No. 4, Wellington Place, she came into contact with a case of small-pox, which was doubtless the source of infection in her case. From March 7th to 9th two of the inmates in the infirmary and one in the workhouse were found to be suffering from small-pox. These cases probably resulted through infection from a previous case in the institution. Although a considerable number of persons must have been exposed to infection from these three cases, no one in the institution contracted small pox from them. On April 15th a girl aged seven, who had recently been sent to a branch school in London from the schools at Hornchurch, in Essex, belonging to the Guardians of Shoreditch, was taken ill and removed to the Shoreditch Infirmary, where she was found to be suffering from a mild attack of small-pox. Two days later another girl, aged 13, recently come from the schools at Hornchurch, was found to have the disease. These children were infected before coming to London. The last case in the institution was in May; an infant was received whilst incubating the disease and developed it shortly after admission.

The measures for preventing the spread of the disease taken by the medical officer, Dr. E. Norton, included the disinfection of the bedsteads and the floors and woodwork in the vicinity where the small-pox patients had been lying, and the free ventilation of the wards in which the cases had occurred. The bedding, clothing and textile articles which had been exposed to infection were removed and disinfected at the Borough disinfecting station. All persons who had been in contact with or in the same wards as the patients were kept under observation until the period of incubation of the disease was past. Isolation wards were set apart for suspected cases. All persons who had been or were likely to have been exposed to infection, and who raised no objection, were vaccinated or re-vaccinated. The number of persons thus vaccinated or re vaccinated in the institution was 282. So far as is known the number of persons who were infected within the workhouse and infirmary was limited to three, a result which speaks well for the efficiency of the measures adopted to prevent the spread of infection.

In the Holborn Workhouse the cases were more numerous. On November 4th, 1901, two cases referred to in my Annual Report for that year were, through an error, sent to the workhouse from Holborn. They were at once recognized to be small-pox,

and were removed to hospital, the necessary precautions being taken to prevent the spread of infection. There were no cases secondary to these. On December 18th, 1901, a woman aged 39 was admitted to the receiving ward with symptoms of an indefinite character, and died there on December 20th. A post-mortem examination showed that hæmorrhagic small-pox was the cause of her death. Precautions were at once taken, but four inmates of the institution took the disease and one of them died. These patients were removed to hospital, two on January 2nd, 1902, a third on January 3rd, and the fourth on January 4th. No further cases were traceable to this source of infection.

On January 11th a man aged 47 was admitted to the institution. He is believed to have come to London from somewhere in Norfolk, but nothing definite was obtainable as to his history. He was very ill on admission, and was placed in an isolation ward. His case was recognised to be one of hæmorrhagic small-pox on January 15th, and he was forthwith removed to hospital, where he died. On January 25th a man came to the workhouse with the eruption of small-pox out on him. He was at once removed to hospital, and there is no reason for believing that any of the inmates were infected by him. Then followed a series of cases amongst the inmates of the institution, in all probability resulting through infection from the man admitted on January 11th. One of these was removed to hospital on January 26th, one on January 28th, three on January 29th, six on January 30th, three on January 31st, three on February 1st, three on February 2nd, and one on February 3rd. Two only of this series of cases terminated fatally. The attacks were chiefly amongst old and middle aged inmates. One of the patients was 71 years of age, two were 72, one 74, one 76, and two 78. One of the latter two died. Death in this case was probably largely the result of old age, as the attack itself was a very mild one. Several of the patients were from 60 to 70 years of age. These old people had remarkably slight attacks, and in several of the cases the eruption was observed and recognised as that of small-pox and the patients were removed to hospital within 24 hours of the onset of symptoms. There were two other cases at the workhouse which were not connected with the above series. One was that of a woman who came to the institution on February 5th with the eruption out, and was at once removed to hospital. The other was that of a man who was admitted to the workhouse on February 8th; he developed small-pox, and was removed to hospital on February 28th. This patient may have contracted the disease through infection within the workhouse, but as he was allowed out from time to time, there is the probability of his having been infected outside, for there was just then a good deal of infection in the neighbourhood of the workhouse. The total number of cases in the Holborn Workhouse was 32, three of which occurred during the last two months of 1901. The whole of the patients have been taken as belonging to the districts forming the Holborn Union. Those who came to the workhouse with the disease upon them were certified as suffering from small-pox to the medical officers of health for the districts from which they had come. Those who had been inmates of the workhouse sufficiently long for them to have been infected therein are included in the list of cases belonging to Shoreditch. The deaths of

inmates of the workhouse from small-pox numbered six, of which one occurred in December, 1901. The case-mortality during the outbreak was therefore 18.7 per cent.

The occurrence of so many cases in the Holborn Workhouse was a real danger to the inmates and for a time the aspect was very threatening. The energetic action of the officers of the institution, however, saved the situation and a more serious outbreak was averted. The measures for preventing the spread of the disease adopted by Dr. Evans, the medical officer to the Workhouse, included the prompt isolation of any cases of illness raising the least suspicion of small-pox, suitable isolation wards being provided for this purpose; the removal to hospital of all cases of small-pox as soon as the eruption was sufficiently pronounced for the diagnosis to be made; the destruction of all infected bedding in a destructor on the premises; the disinfection of the wards where the cases had been; and, the vaccination and re-vaccination of all inmates who were willing to submit to the operation. Of some 1400 persons in the institution 1155 were vaccinated or re-vaccinated in consequence of the outbreak. It may be remarked that none of the inmates who had been re-vaccinated before exposure to infection took the disease. The rapid cessation of the outbreak in February was without doubt mainly due to the prompt isolation of the cases and the activity displayed in respect to vaccination.

A few remarks bearing upon the severity of the attacks so far as they were observed in Shoreditch will perhaps not be out of place. As a rule the attacks were much less severe in the vaccinated than in the unvaccinated. Several extremely mild cases were noticed in which the eruption was limited to less than a dozen spots. All these cases were amongst vaccinated persons. The most striking instance of scanty eruption which came under observation was that of a lad who had been vaccinated in infancy and re-vaccinated about three days after exposure to infection, his father having been removed with small-pox. The eruption at the time of the lad's removal was limited to one typical spot on the back of one of his fingers and two abortive, one on one of his legs and the other on his right side. The following case is also worthy of note: A woman who had been exposed to infection was, at the end of the time corresponding to the period of incubation, taken ill with symptoms which usually precede the appearance of the eruption of small-pox. She was at the time at the temporary shelter whilst her dwelling was undergoing disinfection for the second A rash developed on both arms and on her legs in the neighbourhood of her ankles, which was without doubt the characteristic measly prodromal eruption of small-pox. She was then feeling better. She was kept under observation for four or five days at the shelter and examined two or three times for the eruption of small-pox, the measly rash having disappeared, but no trace of a spot could be discovered. She was then feeling quite well and was allowed to return home after a bath, having had her clothing disinfected. This case was probably one of small-pox without eruption.

Cases of a severe type were unfortunately numerous and, as can be seen by reference to Table VIII. some eighteen or nineteen, all of which were fatal, were of the extremely severe form known as hæmorrhagic or "black" small-pox. This terrible variety of the disease is characterised by bleedings under the skin and in the various organs

of the body and is practically always fatal. In two or three instances the cases were so malignant that the patients died before the characteristic eruption shewed itself. In one case death occurred with great rapidity. A young man, aged 18, an inmate of the Shoreditch Infirmary was convalescent from a febrile complaint of a doubtful nature, probably typhoid fever. He was noticed to be not so well one day and died somewhat suddenly the next, within 24 hours from the onset of symptoms. There were observable two or three faint bluish marks over his shins and one or two over the lower part of his abdomen. A post mortem examination was made which left no doubt as to the cause of death. There was scarcely an organ in his body in which hæmorrhage or bleeding had not occurred. It is hardly necessary to state that this malignant rapidly fatal form of small-pox is very liable to be mistaken for something else and when such a mistake is made, the consequences may be very grave, for this form of the disease is very infectious.

With respect to the measures adopted in the Borough to prevent the spread of infection the following summarises the steps taken: As soon as possible after cases were reported they were removed to hospital. The necessary arrangements were made for securing the removal of cases reported after the usual office hours and on Sundays when the offices were closed. To cope with the increased work the number of men employed in disinfecting was increased from three to six. Disinfections were carried out as soon after the removals of cases as possible, in accordance with the instructions of the medical officer of health and under the supervision of the sanitary inspectors. All disinfections, with a few exceptions in special cases, were effected the same days cases were removed, Sundays included.

Infected rooms were stripped of all textile articles and fumigated with sulphur dioxide evolved from burning sulphur in iron pans. The time allowed for fumigation varied from about six hours to forty eight-hours according to circumstances. After fumigation the rooms in which cases had been were thoroughly ventilated and the floors and woodwork generally, including that of all landings and stairs, were washed down by the occupiers of the rooms with soap and water mixed with carbolic acid. In cases in which it appeared necessary the walls were stripped of paper by the officers of the Borough Council and the paper so removed was burnt in the fireplace belonging to the room. Walls were allowed to stand bare of paper until it was deemed safe for workmen to enter for the purpose of repapering, that is until the period of incubation of the disease was safely passed. In some cases walls were rubbed down with bread crumbs and carbolic powder which were swept up and burnt. In cases where the wall papers were clean and in good condition, under ordinary circumstances fumigation with free ventilation were considered sufficient.

Textile articles, including bedding, carpets, curtains and the like, were removed from the infected rooms with the usual precautions and disinfected by steam under pressure at the disinfecting station belonging to the Borough. The disinfecting apparatus used was manufactured by Messrs Goddard Massey and Warner (Washington Lyon's Patent). The clothing of the inhabitants of the infected dwellings and of any other persons who were found to have been exposed to infection was also

removed and disinfected at the disinfecting station. In cases in which it was impossible to carry out efficient measures whilst the dwellings were in occupation, the inhabitants thereof were sent to the shelter provided for the purpose. Whilst at the shelter all clothing was disinfected and the people had the use of the baths provided at the shelter. People were permitted to remain at the shelter until their own dwellings were ready for them again, fire, light, cooking utensils etc., being provided and in necessitous cases food also. The average length of stay at the shelter was about twenty-four hours. Altogether, on account of small-pox, the shelter, which affords accommodation for three families at one time, was made use of by the members of 104 families comprising some 335 persons. The shelter proved of very great service during the outbreak; in fact, in many cases, it would have been impossible to carry out, with anything like the necessary despatch, the proper measures as to disinfection without it.

The authorities of the public baths and libraries in Shoreditch and certain other bodies were furnished daily with lists of the houses in which small-pox had occurred. The schools attended were notified in accordance with the law, and information was sent to the medical officers of health of districts in which persons who had been exposed to infection resided or were employed. All persons dwelling in houses in which cases of small-pox had ocurred or who had been exposed to infection were recommended to lose no time in getting vaccinated or re-vaccinated. A list of infected houses was sent every day to the vaccination officer, and whenever possible, in order to save time, the public vaccinators were communicated with directly from the health department. In many instances recommendations as to vaccination were adopted at once; in other cases valuable time was lost through people having to make up their minds; some refused to submit to the operation and others after refusing changed their minds when secondary cases occurred. It is needless to point out that the public vaccinators were frequently obliged to pay several visits to the same house for the purpose of vaccinating the inmates, where in most cases one visit ought to have been sufficient for the purpose.

Infected houses were kept under observation until it was considered that the danger of the recurrence of the disease was past. During the outbreak special attention was given to the removal of house refuse and the general cleanliness of the streets in which the disease was prevalent. So far as can be judged there is no reason for believing that the measures taken as to disinfection were ineffectual. In practically the whole of the secondary cases infection occurred during the period which elapsed between the time the primary cases became manifest and the time the necessary disinfection was carried out.

It is now necessary to say a few words respecting the influence of vaccination in connection with the outbreak. As is well known it is claimed that efficient vaccination exerts a very powerful influence in preventing attacks of small-pox and in mitigating the severity of the attacks. Persons who have recently been vaccinated very rarely take small-pox. With the lapse of time from the date of vaccination the protection

gradually diminishes until the persons become again liable to take the disease. These attacks in vaccinated persons are generally slight if they occur within from ten to fifteen years after vaccination; if, however, they occur later on in life when the effect of the vaccination has entirely disappeared they may be, and frequently are, just as severe as those in unvaccinated persons. Re-vaccination renews the protection which, however, as after primary vaccination tends to diminish with the lapse of time.

Enquiry was made in every case as to whether the patient had been vaccinated or not. The word of the patient or patient's friends has been taken, though in many instances the patients' arms were examined for the presence or absence of scars. The information obtained may be taken as being practically correct. The cases have been divided into three classes: one including the patients who had been vaccinated prior to exposure to infection; a second including the patients concerning whom it was doubtful as to whether they had been vaccinated or not; and the third including the patients who had not been vaccinated before exposure to infection. The results of the enquiries made are set forth in the subjoined Table:—

Age Periods.		nated pure to in			ubtful a accinati				prior to fection.	Total Cases and Mortality.			
	Cases.	Deaths.	M'rtal'y per c'nt.	Cases.	Deaths.	M rtal'y per c'nt.	Cases,	Deaths.	M'rtal'y per c'nt.	Cases.	Deaths.	M'rtal'y per c'nt	
Under 1 1 to 5 5 to 10 10 to 15 15 to 20	- 6 23 40	_ _ _ 1 _	_ _ _ 4·3 _	- 1 1	_ _ _ _ 1	_ _ _ _ 100	12 37 40 27 13	9 14 12 8 7	75 37·8 30 29·6 53·8	12 37 47 50 54	9 14 12 9 8	75 37·8 25·5 18 14·8	
Total under 20	69	1	1.4	2	1	50	129	50	38.7	200	52	26	
20 to 25 25 to 30 30 to 35 35 to 40 40 to 50 50 to 60 60 to 70 70 to 80	38 51 31 29 35 11 11 10	3 7 7 2 3 1 1	7·8 13·7 22·5 6·9 8·5 9·0 9·0 10	1 1 1	- - 1 - -	100	4 3 2 - 1 - -	2 2 - 1 - -	50 66·6 — 100 — —	43 54 33 29 37 12 11	5 9 7 2 5 1 1	11·6 16·6 21·2 6·9 13·5 8·3 9·0 10	
Total from 20 to 80	216	25	11.5	3	1	33.3	10	5	50	229	31	13.5	
Grand Totals.	285	26	9.1	5	2	40	139	55	39.5	429	83	19.3	

In the above table are included the 19 cases which occurred amongst the inhabitants of Shoreditch during the last four months of 1901, the particulars concerning which are contained in the annual report for that year.

The figures are in accordance with results which have so frequently been obtained elsewhere in connection with small-pox outbreaks, and shew that in Shoreditch there was no exception to the rule that the unvaccinated suffer from small-pox far more severely than the vaccinated.

Of infants under the age of one year who had been vaccinated prior to exposure to infection not one had small-pox. Five infants under one year who were vaccinated after exposure to infection, whilst they were incubating the disease, took small-pox and of these three died. Of seven infants under one year who were not vaccinated at all and who contracted the disease six died. Of children aged between one and five years who had been vaccinated before exposure to infection none had small-pox. There were four cases amongst children aged from one to five who were vaccinated whilst they were incubating the disease, but none of these terminated fatally. Of the 37 unvaccinated children belonging to the same age period who took small-pox fourteen died. The whole of the children under five years of age who took small pox were at the time of exposure to infection unvaccinated.

With respect to the age period, 5 to 10 years, there were six cases amongst children who had been vaccinated prior to exposure to infection. None of these were fatal. There were eleven cases with one death amongst children who had been vaccinated after exposure to infection, and 29 cases with eleven deaths amongst unvaccinated children.

Amongst persons aged between 10 and 15 years, there were 23 cases with one death amongst those vaccinated prior to infection, three cases with one death where vaccination had been performed after exposure to infection and 24 cases with seven deaths amongst those who were unvaccinated. Of persons aged from 15 to 20 who had been vaccinated prior to exposure to infection, 40 had small-pox, but there were no deaths. There were two persons vaccinated during the incubation period who took the disease, both of whom died, and there were 11 unvaccinated of whom five died.

With respect to small-pox amongst persons who had been re-vaccinated, taking the cases under 20 years of age, 17 had been re-vaccinated. In all cases the re-vaccinations were performed after exposure to infection, and in consequence of the patients having been exposed to infection. In several instances the operation was performed within a very short time of the onset of symptoms. None of these cases however, terminated fatally. Of 216 cases amongst persons over 20 years of age, 25 had been re-vaccinated. In 19 of these the re-vaccinations were performed after exposure to infection, in a few instances just before the onset of symptoms. Three of these terminated fatally. As regards the other re-vaccinated cases all of which were amongst persons over 35 years of age, in one instance the re-vaccination was performed 7 years before the attack, in one 18 years, in one 15 years, in one 30 years, in one the length of time was doubtful, but it was several years prior to the attack, and in the remaining case the patient had been twice re-vaccinated, the last time about 17 years prior to his attack of small-pox. None of these cases ended fatally.

Amongst the 19 persons who were re-vaccinated after exposure to infection, and who suffered from small-pox was one of the three temporary disinfecting officers. He was advised to get re-vaccinated the morning he commenced work. He was not re-vaccinated until 48 hours had elapsed. He commenced work on February 3rd, and the eruption was out on him on February 16th. He must have been infected the very first case he went to. His was a very slight attack, the eruption being limited to a few spots on the arms and back, and one or two on the face. He went about his work thinking he had a cold, and it was only when he was stripped that the nature of his disorder became apparent. He was back at work in a fortnight. This was the only case amongst the members of the sanitary staff consisting of 18 persons who were more or less exposed to infection daily. When the outbreak occurred those who had not had small-pox or been recently re-vaccinated, submitted themselves to the operation.

The occurrence of the small-pox outbreak naturally led to great activity with respect to vaccination and for two or three months the public vaccinators were extremely busy. From information furnished by those officers, it appears that the number of vaccinations and re-vaccinations performed by them in their official capacity in Shoreditch during the period of the outbreak was 8,533 not including the primary vaccinations of children under two years of age. Including the vaccinations and re-vaccinations in the Shoreditch and Holborn Union Workhouses close upon 10,000 persons submitted to the operation. This figure, however, is probably considerably under the mark as there were numbers of persons belonging to Shoreditch who were vaccinated without the Borough, and also persons vaccinated by medical men other than the public vaccinators concerning whom a reliable estimate cannot be formed.

In conclusion a word or two may be said respecting the cost of the outbreak. So far as the Sanitary Authority is concerned, the amount expended was £285 approximately, made up of the following items:—

			£	s.	d.
Wages for additional disinfecting officers			157	19	5
Disinfecting officers' extra services	,		48	11	5
Extra scavenging in infected neighbourhoo	od		40	0	0
Clerks for extra services			3	8	0
Compensation for disinfection and loss of	yment	12	8	0	
For bedding destroyed and replaced			8	11	5
Coals for disinfection and the shelter			6	1	9
Food for inmates at shelter			- 1	0	4
Printing, postage and stationery			7	0	0

The cost of the vaccination performed by the officers of the Shoreditch Guardians on account of the outbreak may be taken as being approximately from £1,600 to £1,700.

The cost of the outbreak however mainly falls on the shoulders of the Metropolitan Asylums Board. In the Board's Annual Report for 1901, the cost for the whole of

London is estimated at the round figure of £500,000. This large sum, however, when the huge size of the Metropolis is taken into account, appears on the whole to be a moderate expenditure, and taking into consideration the results obtained—for I doubt if there has ever been an outbreak of small-pox in London or elsewhere, dealt with more effectively with respect to the isolation of the cases—it must be regarded as money well laid out. The payment of the greater part will be spread over a term of years, but if the whole cost were at once defrayed, it would mean about a 3d. rate for the Metropolis. A 3d. rate in Shoreditch would yield a little over £9,000.

The cost of such epidemics as the one just past in suffering, through death, loss of employment, and interference with business can never be known.

SCARLET FEVER (SCARLATINA).

The cases of scarlet fever certified during the year numbered 249, which is the smallest number in any year since the notification of the disease became compulsory. Intimations were received from the Metropolitan Asylums Board that in eight of these cases the patients were not suffering from scarlet fever. In the report for last year (1901) is given a table shewing the number of cases yearly certified from 1889 to 1901.

The distribution of the cases certified, and the deaths amongst males and females during the year 1902 in the Borough and its four Registration Sub-Districts, is as shown in the subjoined table:—

	SCARLET FEVER.								
Sub-District.	- 1	Notification	īs.	FATAL CASES.					
	Male.	Female.	Total.	Male.	Female.	Total.			
Shoreditch South	11	10	21	_	_				
Hoxton New Town	32	34	66	2	1	3			
Hoxton Old Town	27	31	58	1	2	3			
Haggerston	51	53	104	-	2	2			
Total for the whole Borough	121	128	249	3	5	8			

Of the cases certified nearly 94 per cent. were removed to hospital for treatment as compared with 88 per cent. in 1901, 83 per cent. in 1900, 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 per cent. in 1893*.

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

The deaths numbered 8, and the death-rate due to scarlet fever during 1902 was 0.06 as compared with 0.17 per 1,000 in 1901. The figures for 1902 are exceptionally low for Shoreditch, and are the lowest recorded for more than 40 years in the Borough. The mortality was nil in Shoreditch South and very low in Haggerston. The number of persons who suffered from scarlet fever was at the rate of 2.1 per 1,000 inhabitants, as compared with 4.7 in 1901 and 2.7 in 1900. The mortality was at the rate of 3.3 per cent. of the attacks, as compared with 3.5 in 1901, 5.4 in 1900, 4.1 in 1899, 4.7 in 1898, 4.9 in 1897, and 5.4 in 1896. Amongst children under five years of age there were 93 cases certified, with five deaths, the mortality being 5.3 per cent. (5.7 allowing for the cases not regarded as being scarlet fever at the fever hospitals), as compared with 6.8 per cent. in 1901, 12 per cent. in 1900, and 9.1 per cent. in 1899. Amongst those who had the disease aged five years and upwards there were 3 deaths, the mortality being just under 2 per cent., as compared with 1.7 per cent. in 1901 and 1.5 per cent in 1900.

The number of cases of scarlet fever certified in London during the year under consideration was 18,246, the attack-rate being 3·9 per 1,000 inhabitants, as compared with 4·4 in 1901, 3·0 in 1900, 3·9 in 1899, and 3·7 in 1898. The deaths numbered 560, as compared with 584 in 1901 and 361 in 1900, the death-rate being 0·12 per 1,000, as compared with 0·13 in 1901, 0·08 in 1900, 0·09 in 1899, and 0·13 in 1898.

DIPHTHERIA (INCLUDING MEMBRANOUS CROUP).

Of the above disorder 223 cases were certified. Intimations were received from the Metropolitan Asylums Board that in 27 of these the patients were not suffering from diphtheria. The cases were fewer in number than in any year since 1892. The deaths numbered 24, the smallest number in any year since the notification of the disease became compulsory. A table showing the numbers of cases and deaths from 1890 to 1901 is contained in the report for 1901. The death-rate due to diphtheria was 0.18 per 1,000 as compared with 0.23 in 1901, 0.45 in 1900, and 0.52 in 1899 (see Appendix, Table VI.)

The disease during 1902 was of a somewhat severer type than in 1901, the case mortality being 10·7 per cent. of the cases certified. Excluding the cases not regarded as diphtheria by the authorities at the fever hospitals the case mortality was 12·2 per cent. The case mortalities for previous years were:—8·8 in 1901, 15·3 in 1900, 17·0 in 1899, 17·3 in 1898, 22·1 in 1897, 21·0 in 1896, 24·1 in 1895, 24·0 in 1894, and 29·0 in 1893. Where the patients were under five years of age, of the cases certified 20·5 per cent. (22·3 allowing for cases not regarded as diphtheria by the hospital authorities). terminated fatally as compared with 15·4 per cent. in 1901, 22·7 in 1900, 34·2 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 aged five years and upwards 0.9 per cent. (1.0 allowing for the cases not regarded as diphtheria at the hospitals) terminated

fatally. The case mortalities for previous years were: 4.4 per cent. in 1901, 7.1 in 1900, 5.4 in 1899, 6.5 in 1898, 9.9 in 1897, 12.8 in 1896, 7.0 in 1895, 11.5 in 1894, and 11.4 in 1893. The whole of the deaths from diphtheria were amongst children under 10 years of age.

The number of cases and the deaths amongst males and females in the Borough and its four Registration Sub-Districts are as follows:—

	DIPHTHERIA (Including Membranous Croup.)								
Sub-District.	CA	SES CERTIFI	ED.	FATAL CASES.					
	Male.	Female.	Total.	Male.	Female.	Total.			
Shoreditch South	16	12	28	2	_	2			
Hoxton New Town Hoxton Old Town	28 23	20 26	48 49	1 3	3 3	4 6			
Haggerston	44	54	98	3	9	12			
Total for the whole Borough	111	112	223	9	15	24			

The cases certified were at the rate of slightly under 2 per 1,000 inhabitants. Just over 84 per cent. of the cases certified were removed to hospital for treatment as compared with 83 per cent. in 1901, 86 in 1903, 80 in 1899, 77 in 1898, 67 in 1897, and 55 in 1896.

In connection with special enquiries made into the circumstances as regards 183 of the cases certified during the year the distribution of the cases amongst males and females at certain age periods was as follows:—

AGE PERIOD.	MALE.	FEMALE.	TOTAL.
Under 1 year	5	2	7
From I to 2 years	12	1 7	19
,, 2 ,, 3 ,,	12 9	10	19
,, 3 ,, 4 ,,	16	11	27
,, 4 ,, 5 ,,	8	10	18
,, 2 ,, 3 ,,	23	18	41
,, 10 ,, 10 ,,	2	12	14
Over 13 years	13	25	38
Total	88	95	183

With respect to the above cases in 70 the patients were children attending school, and in 59 they were at school within a week of the onset of symptoms. In a few instances there is little doubt that the patients were actually at school whilst suffering

from the disease before it was recognised to be diphtheria. In 78 other cases, although the patients themselves were not attending school, children, members of the same families as the patients or dwelling in the same houses, were attending school at the time the patients were taken ill. In 12 instances there were histories of throat illness in the houses invaded and in 17 cases there was clear evidence as to infection from previous cases. In 103 of the cases the houses in which the patients resided were found to be in a satisfactory sanitary condition, and in the remaining 80 insanitary conditions of major or minor importance were met with. In 35 of the latter the conditions of the houses was distinctly unsatisfactory, the houses being in many instances dirty, and defects were found in connection with the drains.

The cases of diphtheria certified in London during 1902 numbered 10,542, and the attack-rate was 2.8 per 1,000 population; the deaths numbered 1,159 and the death-rate was 0.25 per 1,000 inhabitants.

ENTERIC OR TYPHOID FEVER.

The cases certified as enteric or typhoid fever numbered 149, which is considerably above the average for the previous 12 years. Thirteen of the cases were found after being under observation at the fever hospitals not to be suffering as certified. The numbers of cases yearly certified since 1889 are shewn in the subjoined Table.

Year.	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902
No. of cases	202	111	91	111	85	99	114	107	91	171	122	96	149

The cases were most numerous in the Shoreditch South Registration Sub-District, being at the rate of 2·5 per 1,000 inhabitants, as compared with 0·9 in Hoxton New Town, 1·0 in Hoxton Old Town, and 1·1 in Haggerston. Eight only of the cases were of persons under five years of age, and three of these were not regarded as enteric fever by the hospital authorities. In addition to the cases certified as enteric fever, there were three cases of continued fever notified. Twenty-three of the cases of enteric fever, and one of continued fever, terminated fatally. The death-rate due to the disease was 0·20 per 1,000 as compared with 0·08 in 1901, 0·11 in 1900, 0·2 in 1899, 0·14 in 1898, 0·15 in 1897, 0·14 in 1896, and 0·17 in 1895. Deducting the thirteen cases not regarded as enteric fever at the fever hospitals, the attacks proved fatal in 17·2 per cent. of the cases, as compared with 11·3 in 1901, 12·7 in 1900, 16·1 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 distribution of the cases and deaths amongst males and females in the four Registration Sub-Districts during 1902, is as shewn in the subjoined Table :—

	TYPHOID FEVER.							
Sub-District.	1	Notification	NS	FATAL CASES.				
	Male.	Female.	Total.	Male.	Female.	Total.		
Shoreditch South	18	22	40	4	3	7		
Hoxton New Town	18	10	28	1	2	3 7		
Hoxton Old Town	20	8	28	6	1			
Haggerston	25	28	53	3	3	6		
Total for the whole Borough	81	68	149	14	9	23		

Nearly 86 per cent. of the cases certified were removed to hospital for treatment. The cases certified as enteric fever in London during 1902 numbered 3,405, as compared with 3,193 in 1901, 4,309 in 1900, and 4,460 in 1899, the attack-rate being 0.74 per 1,000 inhabitants, as compared with 0.70 in 1901, 0.93 in 1900, and 0.97 in 1899. The deaths due to enteric fever in the metropolis numbered 537, and the death-rate was 0.11 as compared with 0.12 in 1901, and 0.17 in 1900.

From time to time, during the last ten years or so, outbreaks of typhoid fever have been observed in this country, in France, and in America, which have been attributed to the consumption of infected shell fish. Several observers, amongst others may be mentioned Sir Charles Cameron, the medical officer of health of Dublin, Sir W. Broadbent and Dr.W. A. Newsholme, have directed attention to the risks attending the consumption of shell-fish, more especially oysters obtained from layings exposed to sewage contamination. Recently, Dr. Klein has shewn that there are good reasons for believing that the specific micro-organism of typhoid fever—the bacillus typhosus—is capable of preserving its vitality in the interiors of oysters and cockles for a considerable length of time, even after the outside of these molluscs have been subjected to the influence of boiling water.

Beyond the occasional occurrence of a case in which the illness was attributed by the patient or the friends of the patient to the consumption of oysters until the summer of the year under consideration, there has been no evidence during recent years that shell-fish has played any part as a vehicle of infection in connection with typhoid fever in Shoreditch. This year, however, during the months of June, July, August and September, the subjoined series of cases, concerning which brief particulars are given, occurred in the Borough, the patients having partaken of cockles whilst staying at Southend-on-Sea:—

No.	Name.	Age.	Sex.	Date of Visit to Southend.	Probable date of invasion. Date of removal to Hospital.
1	J. H.	29	F.	1902. May 19th	1902. 1902 May 26th June 16th
2	T. F.	31	M.	,, 19th	. ,, 27th July 3rd
3	W.C.	16	M.	June 26th & 27th	July 8th ,, 24th
4	J. H.	36	M.	,, 28th	. ,, 7th ,, 28th
5	т. В.	21	M.	,, 29th	. " 13th " 31st
6	L. S.	28	F.	Aug. 4th	. Aug. 20th Aug. 29th
7	C. C.	11	M.	,, 4th	. ,, 20th ,, 28th
8	J. B.	15	M.	,, 9th	,, 21st ,, 29th
9	T. F.	6	M.	,, 4th .	. ,, 20th Sep. 4th
10	G.S.	28	M.	,, 4th .	., 30th ,, 5th
11	T. L.	23	M.	,, 4th .	., 16th *Not remove
12	M.M.	15	M.	,, 23rd .	Sep. 4th Sep. 23rd

*Certified 9th September.

With respect to case No. 11 it may be mentioned that a brother of this patient living in the same house developed symptoms of enteric fever, on October 16th, and was subsequently removed to hospital. There is very little doubt that he contracted the disease through infection from his brother.

The circumstances connected with the above cases pointed very strongly to the consumption of the cockles having been associated with the occurrence of the attacks. Information afforded by Dr. Nash, the medical officer of health for Southend, strengthens the evidence as to the implication of the cockles. It may also be mentioned that Dr. Allan, the medical officer of health for the City of Westminster, has reported on a number of cases of enteric fever which he believed were attributable to the consumption of infected cockles in Southend. The cockles suspected of conveying the infection appear to have come from the Leigh layings which are situate in the Leigh Creek, about a quarter of a mile from the outfall of the Leigh Sewage Works. A special report on the cases in Shoreditch was presented to the Health Committee who recommended the Council to bring the facts under the notice of the Local Government Board, and the London County Council, which recommendation was adopted. It appears that legislation is necessary for the prevention of the sale of shell-fish which have been grown under conditions exposing them to sewage contamination, thus rendering them dangerous to the consumers.

In previous reports I have remarked on the occurrence of cases of enteric fever in Shoreditch, in which there were strong reasons for believing that infection from patient to patient directly or indirectly was the chief factor in connection with their causation. The following series of cases which came under observation during the year may be recorded as further illustrations of the part played by personal infection in the spread of enteric fever:—

- (1.) M. B., female, aged 5, residing at No. 8 U—Buildings, became ill about October 10th. She was ill for six or seven weeks, and was considered to be suffering from consumption of the bowels. She gradually recovered and was practically well by December 3rd.
- (2.) W. B., aged 13, brother to the above patient was taken ill about November 13th, and
- (3.) E. B., aged 15, a sister was taken ill about November 20th. On December 3rd the above cases were regarded by the medical attendant as being enteric fever and were certified accordingly.
- (4.) W. B., aged 38, father of the above patients, a carman by occupation, was taken ill about November 17th, and was certified to have enteric fever on December 15th.

The cases were all removed to hospital, but No. 1 was not retained as she had recovered. Beyond a few slight defects in the drainage arrangements, the house in which the above cases occurred was in good condition sanitarily.

The subjoined series of cases occurred at No. 58 C—— Street, a house at which there is a small general shop. The premises were in a very fair sanitary condition, and nothing amiss was detected in connection with the drainage arrangements:—

- (1.) E. P. aged fifteen, first showed signs of not being in her usual health about the second week in September. During the third week she was at Margate for five days for the benefit of her health, but her condition was worse on her return. She took to her bed on October 1st, and died on October 16th, her death being attributed to tuberculous ulceration of the intestines. She is stated to have been delerious during her illness and to have suffered from diarrhæa and sickness. She was nursed at home by her mother, and the father stated that she was kissed when dying by members of the family.
- (2.) R. P. aged seven, sister of E. P., was ailing from about October 17th, and was certified to have enteric fever on October 23rd.
- (3.) C. P. aged eleven, a brother, after ailing for a few days, was certified to have enteric fever on October 25th.
- (4.) E. P. aged thirty-five, the mother of the family, was ailing from about October 16th, and certified to have enteric fever on October 28th.

- (5.) E. M. aged twenty-three, a married woman, and a relative of the P. family, residing at No. 24, H—— Road, was taken ill about the middle of October, took to her bed on November 4th, and was certified to have enteric fever on November 6th. This patient helped in nursing case (1), at No. 58, C—— Street, and also in the housework there.
- (6.) G. P. aged 36, father of the family, was taken ill about November 2nd, and was certified to have enteric fever on November 6th.

Two younger children belonging to the P. family, were sent from No. 58, C——Street, to stay with some friends at Norwood early in November. As I was informed that they were not quite well when they were sent away from 58, C——Street, I communicated with Dr. Meredith Richards, the medical officer of health for Croydon. He wrote to me stating that the children had had some indefinite illness and that he had caused specimens of the blood of the children to be examined for Widal's reaction. In the case of the younger the result of this examination was negative, but in that of the older there was a very slight and incomplete reaction. Neither of the children then manifested any symptoms of illness pointing to enteric fever. About a month later, however, Dr. Richards informed me that an inmate of the house at Norwood, at which the P. children had been staying, had been certified to be suffering from typhoid fever.

With respect to the foregoing cases, I have no doubt that case (1), although not certified as such, was in reality a severe case of enteric fever in which there was a good deal of diarrhœa; no precautions were taken such as should have been taken in connection with a severe case of enteric fever and cases 2, 3, 4, 5, and 6 resulted in consequence. Of the two younger children it is probable that the older of them had a slight attack of the disease, and was the source of infection in the case at the house in Norwood.

ERYSIPELAS.

The cases certified as erysipelas numbered 173; the figures for previous years are contained in last year's report. The deaths were 8, as compared with 6 in 1901, 10 in 1900, 16 in 1899, 11 in 1898, 5 in 1897, 3 in 1896, 5 in 1895, 5 in 1894 and 15 in 1893. The cases and deaths amongst males and females in the four Registration Sub-Districts, were distributed as set out below:—

	ERYSIPELAS.								
Sub-District.	C	ases Certif	IED.	FATAL CASES.					
	Male.	Female.	Total.	Male	Female.	Total.			
Shoreditch South	10	18	28	_	2	2			
Hoxton New Town	11	9	20	-	1 1	1			
Hoxton Old Town	12	29	41		1	1			
Haggerston	28	56	84	2	2	4			
Total for the whole Borough	61	112	173	2	6	8			

The death-rate was 0.06 per 1,000 inhabitants as compared with 0.05 in 1901, 0.08 in 1900, and 0.13 in 1899. The mortality was at the rate of 4.6 per cent. of the cases certified, as compared with 4.2 in 1901, 5.8 in 1900, 8 in 1899, 6.2 in 1898, 2.1 1897, and 1.0 in 1896.

Blood poisoning (pyæmia and septicæmia) resulted in six deaths, infective endocarditis in four, other allied diseases in three deaths, and

PUERPERAL FEVER,

a disorder grouped with erysipelas and blood poisoning, caused three deaths. The death-rate from puerperal fever was 0.7 per 1,000 births as compared with 0.5 in 1901, and 0.7 in 1900. The cases certified numbered 9, the attack-rate per 1000 births being 2.2, as compared with 1.7 in 1901 and 2.5 in 1900.

DIARRHŒA.

Diarrhœa was prevalent in Shoreditch from the middle of August until the beginning of October. The deaths being most numerous during the month of September. The deaths from diarrhœa numbered five in July, 27 in August, 61 in September, 17 in October, and one in November. The total number of deaths during the year due to this disorder was 132. There were also 35 deaths attributed to enteritis or gastro-enteritis. Of the 132 deaths from diarrhœa, 108 were of infants under the age of one year, 19 of children aged from one to five years, and the remainder were of persons over 25 years of age. The diarrhœa death-rate was 1·12 per 1,000 inhabitants as compared with 1·30 in 1901, 1·40 in 1900, 1·75 in 1899, 1·79 in 1898, and 1·74 in 1897. The rate was highest in Hoxton Old Town and lowest in Shoreditch South.

The deaths from diarrhoea in the Metropolis amounted to 2,483, of which 1,836 occurred during the months of August, September, and October. The death rate due to diarrhoea in London was 0.53 per 1,000 inhabitants, as compared with 0.85 in 1901.

In the subjoined Table is contained a comparison of the mortalities from diarrhoea in Shoreditch and London of infants under one year per 1,000 births during the years 1895 to 1902 inclusive.

Year	1895	1896	1897	1898	1899	1900	1901	1902
Shoreditch	30.5	28.7	38.2	38.9	39.7	35.7	31.5	27.0
London	20.7	18.9	24.2	26.1	25.0	21.8	24.1	_

The chief conditions which favour the high infant mortality in Shoreditch from diarrhœa as compared with London as a whole are the great density of the population per acre in Shoreditch, and the relatively large proportion of persons earning a precarious living.

MEASLES.

Measles caused 84 deaths, 41 of males and 43 of females, all of children under ten years of age. Seven of the deaths belonged to Shoreditch South, twelve to Hoxton New Town, twenty-five to Hoxton Old Town, and forty to Haggerston. The death-rate due to the disease was 0.72 per 1,000 inhabitants as compared with 0.64 in 1901, 0.63 in 1900, 0.69 in 1899, 0.83 in 1898, and 0.91 in 1897. The death-rates for previous years are contained in the report of 1901. The deaths from measles were most numerous during March and least during May.

The deaths from measles in London during the year 1902 numbered 2,360, the death-rate being 0.51 per 1,000 inhabitants.

WHOOPING COUGH.

Whooping cough resulted in 74 deaths, 28 of males and 46 of females. All the deaths were of children under ten years of age, and 71 of them were under five years of age. The death-rate due to this disorder was 0.63 per 1,000 inhabitants as compared with 0.49 for 1901. The figures for previous years are given in the report for 1901.

The deaths from whooping cough in the Metropolis during 1902 amounted to 1,876, and the death-rate was 0.40 per 1,000 inhabitants.

INFLUENZA.

This disease caused 14 deaths during 1902 as compared with 16 in 1901, 52 in 1900, 35 in 1899, 22 in 1898, and 16 in 1897. The figures for previous years are contained in the report for 1901. The deaths mostly occurred during the months of January, February, November and December.

The deaths from influenza in London during 1902, numbered 1,036, as compared with 664 in 1901, 1,950 in 1900, and 1,817 in 1899. The deaths were most numerous during 1902 in the months of February, March and December.

TUBERCULOSIS.

Tuberculosis, (see Appendix Table V. Nos. 29 to 34) caused 295 deaths, as against 363 in 1901 and 343 in 1900. About one-eighth of the total mortality in the Borough during the year under consideration resulted from tuberculosis, in the majority of cases from that form affecting the lungs known as phthisis or consumption. The death-rate due to tuberculosis in Shoreditch during 1902 was at the rate of 2.5 per 1,000 inhabitants, varying from 2.3 in Haggerston to 3.0 in Shoreditch South.

The deaths attributed to consumption numbered 210, the mortality being at the rate of 1.80 per 1,000 inhabitants, the average for the previous ten years being 2.08 per 1,000 inhabitants.

The Borough Council disinfects free of charge after cases of tuberculosis. Whilst the services of the Council's officers are not frequently rejected, there are indications that before long it will become customary for disinfection to be carried out under the supervision of the Sanitary Authority at all houses within the Borough in which cases of tuberculosis have existed. Disinfection is especially important after cases of consumption, and in the great majority of instances it is after such cases that disinfection is effected in Shoreditch. During 1901 disinfection by the officers of the Borough Council was carried out in connection with 61 houses where persons suffering from tuberculosis had resided or died.

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 Street				1	1	212	1	1	4
Catherine Street	***		3	19	3	17	7	1	50
Canal Road			4	65	13	5	7	3	97
Chatham Gardens	13	1	1	2	6		3		26
Curtain Road				4	4	15	4	6	33
Daniel Street	1		1					1	3
Enfield Road				1					1
Gopsall Street		3	1	208	34	42	14	19	321
Haggerston Road		4		35	12	31	4	2	84
Hammond Square				29	1	8	2	3	44
Maidstone Street	1		1	159	28	29	12	21	251
Napier Street	2			35	6		1	14	58
Old Castle Street			1						1
Redvers Street						1			1
Scawfell Street		7	4	92	31	16	6	35	192
Scrutton Street				39	3	3	3	5	53
Shap Street	3762			4					4
Shepperton Road	1		1	2					4
St. John's Road			2	62	2		44		110
Somerford Street					1				1
Trinity Place	200,000			2	30	24	1	1 .	58
Virginia Road				10		1	3		14
Wenlock Road				7	5		1	2	17
							4		Section
TOTALS	22	11	19	776	180	192	113	114	1427

Intimations respecting two exclusions on account of small-pox were received from the Hugh Middleton deaf and dumb centre, Clerkenwell.

During the year attention was especially directed to the schools mentioned below:—

Provost Street School came under observation in February in consequence of the prevalence of small-pox in the neighbourhood of the school. Many of the scholars were patients suffering from small-pox or resided in houses from which cases of small-pox were removed. Beyond the exclusion of children from infected houses until risk of infection was at at end no further steps were necessary in connection with the school.

Napier Street School was visited in March through the number of absences in connection with the infants' department. These were particularly marked in the babies' class and were chiefly the result of measles. A watch was kept on the attendance for a week and as the same showed considerable improvement no further action appeared necessary.

Trinity-place School was visited in June in consequence of the number of absences, notified through various causes, but chiefly measles. No action appeared necessary, as there were only 23 absent out of some 300 attending the infants department.

Gopsall Street School came under notice in July, on account of the number of absences in the infants' department, chiefly from measles. About 60 were away out of some 410 in the department, the babies' class being most affected. As the attendance was improving, it was not thought necessary to take any further action.

Catherine Street School was visited on account of the number of absences from the infants' department. These were found to be mainly the result of measles, chicken-pox and mumps. Observation was kept for a fortnight, during which the attendance markedly improved.

St. John's Road School was visited on November 17th, on account of the number of infants away, chiefly through measles. Under the advice of the medical officer of the School Board, the infants' room was closed on November 20th, and the necessary steps were taken as to disinfection.

BACTERIOLOGICAL EXAMINATIONS.

During the year 17 bacteriological examinations were made by Dr. Bulloch at the London Hospital Medical School in connection with suspected cases of infectious disease in Shoreditch. In ten instances diphtheria was the disease suspected; the results of the examination were negative in nine. In the remaining seven the examinations were for enteric fever, the results being positive in three, and negative in the remainder, The bacteriologist also made a detailed examination of certain samples of ice cream, which is referred to later in this report.

DISINFECTION.

The premises disinfected during the year 1902 numbered 999. The number of articles removed to the Borough disinfecting station for disinfection amounted to

55,025 as compared with 17,226 in 1901, and included 1,274 beds, 1,842 mattresses, 2,721 pillows, 1,247 bolsters, and 47,941 miscellaneous articles. In addition to these 8 beds, 22 palliasses, 6 bolsters and 1 pillow were destroyed and replaced with new. The large amount of disinfection this year was the result of the small-pox outbreak. The number of articles disinfected is enormously in excess of any recorded in previous years. For several weeks in February and March it was necessary to carry on work with only a few hours intermission during the night, and for several months double the usual number of men were employed in the work of disinfection. The results of the steps taken as to disinfection so far as could be judged were satisfactory. I have no reason for believing that they were inefficient in any instance. There was the usual distribution of packets of carbolic powder at the Town Hall during the summer months, and about 26 gallons of carbolic fluid were used for flushing drains and urinals and in connection with the public mortuary.

Owing to the large amount of work and the long hours required to cope with the disinfection in the early part of the year with a single disinfecting apparatus, and in view of the fact that the apparatus has been subject to some ten years' wear and tear, the Council decided to provide an additional apparatus, and a low pressure unjacketed steam disinfector was obtained from Messrs. Manlove, Alliott and Co., Ltd., of Nottingham. The new apparatus has a circular chamber for the reception of articles to be disinfected. Its diameter is 4 feet and its length 8 feet, and the ends are strengthened so as to render it suitable for a maximum working pressure of 10lbs. per square inch in the chamber. The machine is fitted with Alliott and Paton's patent vacuum and hot air apparatus and Gripel's steam trap No. 658. The body of the disinfector is lagged with wood secured by brass bands, and the doors are lagged with sheet steel. Articles for disinfection are placed in an iron truck provided for the purpose and so arranged as to be readily run into or out of the disinfecting chamber. A gauge for recording the time taken in disinfecting and a thermometer for marking the temperature attained within the chamber are connected with the disinfector. Steam is obtained from a 6 h.p. verticle high pressure steam boiler which is provided with the usual fittings, cast iron base plate and ash pan combined, and a special cast iron flue bend. The boiler is specially adapted for burning the foul air from the disinfector, and is fed with water by means of an injector. The total cost of the apparatus was £290. It came into use during December and so far has answered well. In order to permit of the additional disinfector being suitably placed it was necessary to make considerable alterations in and to enlarge building of the disinfecting station. The work in connection therewith was carried out by Messrs. Schooley and Son, of No. 7. Appold Street, under the direction of Mr. J. Rush Dixon, the Borough Surveyor, at a total cost of £141 1s. 2d. The work done consisted of the removal of the old roof, raising the walls and re-roofing, and an addition of some 12ft. Oin. × 4ft. Oin. was made at the north end. The new work is built of stock bricks in cement. The old work was re-pointed. The floor is concrete floated with cement. A doorway was built in the addition to afford entrance to the non-infected side. There are 3 opening skylights provided in the roof and a new window has been placed in the western wall. The work carried out has greatly improved the disinfecting station.

THE SHELTER.

The shelter in Reeve's place, provided for persons obliged to vacate their dwellings to allow of effectual measures being taken as to disinfection, was made use of by members of 105 families, comprising some 340 men, women, and children. A list giving certain details as to the occupation of the shelter during the year is contained in the Appendix. The shelter was in almost constant use for several months during the early portion of the year owing to the prevalence of small-pox, and with one exception its use was solely on account of that disease. It was of inestimable value in facilitating prompt and thorough measures as to disinfection.

THE PUBLIC MORTUARY.

The dead bodies received into the mortuary numbered 444, including nine of persons removed by the Sanitary Authority on account of infectious disease or to prevent nuisance. The number of bodies received at the mortuary during the preceding five years were 420 in 1891, 443 in 1900, 494 in 1899, 446 in 1898 and 421 in 1897. The post mortem examinations made in the post mortem room at the mortuary were 243, as compared with 215 in 1901, 229 in 1900, 232 in 1899, 164 in 1898, 159 in 1897, 128 in 1896, 109 in 1895, 60 in 1894, and 29 in 1893. The number of inquests held was 319 as compared with 298 in 1901, 324 in 1900, 354 in 1899, 339 in 1898, 331 in 1897, 301 in 1896 and 313 in 1895.

WATER SUPPLY.

The rainfall in inches at Oxford during the year 1902, according to the figures given in the monthly reports on the London Water Supply, by Sir William Crookes, F.R.S., and Professor Dewar, F.R.S., amounted to 16:56 inches as compared with 22:16 in 1901. The mean rainfall for 35 years is given at 25:29 inches, the deficit therefore, was 8:73 as compared with 3:13 in 1901. The reports further record a rainfall below the average for every month of the year. No complaints as to shortness of water supply in Shoreditch were received during the year. Communications were received from the Water Companies respecting water supplies cut off at 70 premises on the East London Company's district, and 68 on that of the New River Company. These intimations were sent by the Companies in compliance with section 49 of the Public Health, (Lond.) Act, 1891. In many instances the intimation referred to premises which had become empty.

SANITARY WORK.

Preliminary notices as to insanitary conditions were served in respect to 2,156 premises. The chief sanitary inspector dealt with 262, inspector Lear with 438, inspector Quelch with 245, inspector Firth with 400, inspector Jordan with 311, and inspector Langstone with 500. In connection with the work done, some 908 letters were written to owners, builders, and other parties concerned. Advice to occupiers is verbally given by the sanitary officers where required as to the importance of cleanliness and ventilation in dwellings. It is a very common thing to find a house or dwelling perfectly satisfactory so far as construction, drains and sanitary arrangements generally are concerned, yet the occupants, owing to want of proper attention to the

cleanliness and ventilation of their rooms, are habitually exposing themselves to the injurious effects of a vitiated atmosphere. In many dwellings the windows, which are practically the only means of efficiently purifying the rooms with fresh air, are kept closed from one week's end to another. Hundreds of men, women and children, for many hours out of the 24, breath air highly prejudicial to their healths, and which is not infrequently disgusting fo the sense of smell. If the fact were recognised and acted upon by everybody, that an abundance of fresh air in the dwelling is absolutely essential for the preservation of health, many of the small ailments would not be nearly so commonly met with as they are, and there is not the slightest doubt that the health of the people generally would undergo a marked improvement.

In the subjoined Table is contained a summary indicating the nature of the various works carried out for the abatement of nuisances and for the improvement of the dwellings of the people, which have been compiled from the abstracts of their work, prepared by the sanitary inspectors:---

	Chief Insp.	Insp. Lear.	Insp. Quelch.	Insp. Firth.	Insp Jordan.	Insp. Lang- stone.	TOTAL
New drains constructed	. 11	1		11	9	26	58
Dening we constructed on wenting	. 57	41	36	113	38	48	333
Olah masta dan tanah 1 1 2 1 2	. 8	45	23	132	54	13	275
Charle mines on to state 1	. 8	83	37	38	8	35	209
Payas suttons us instated	. 10	82	88	89	6	24	244
Charle wines 31	. 14	19	6	41	10	2	92
Accommulations of some ser Jeelt with	. 6	2	13	5	29	36	91
Commanda aballahad			1	2	_	_	8
Non-makes also to the last	. 102	32	6	10	60	22	232
Old mateu alegate as a state of a state of	. 60	61	65	126	68	88	468
W-4		393	96	60	143	109	801
Water restored or newly laid on to water closes		38	29	68	6	42	203
Obstantians in mater 1 - it 1	. 1	24	14	12	18	9	78
O	. 9	16	15	17	8	30	95
Damp courses in houses mustided		2	4	10	_	3	19
Walls pointed	00	16	6	32	_	2	79
Roofe vanaivad	. 42	63	62	55	11	96	331
Stains noncined	. 69	32	41	87	4	14	197
Floors repaired	TR	76	62	86	4	27	331
Ventilation under floors provided	0	24	47	131	-1	22	233
Doors repaired	00	8	41	29	1	16	164
Door cille provided	115	44	66	107	10	18	360
Sashes repaired	66	102	58	12		29	267
Houses alsonged throughout	. 121	38	28	62	21	27	297
Houses cleansed in part	00	200	114	182	129	149	803
Motel wamber of seems cleaned	. 627	712	514	719	378	681	3631
Vande on avona lime weeked	. 1	377	79	8	86	67	618
Varde naved	. 49	83	72	132	21	57	414
Aware on forcements neved	. 14	22	22	72	2	4	136
Now award constructed				3	_	1	4
Canllanian mana 3	. 2	16	16	55	3	15	107
Dust vecenteeles manided	. 57	65	48	64	25	69	328
Dung receptacles provided		1		8	_	1	5
Inconitory sistems nomened		2		1	-	1	4

In the above summary are included the drains and water closets constructed in new buildings. In addition to the above on 4 premises old brick drains were removed. Some 93 cases in which complaint was made as to nuisance and annoyance from rats or in which the presence of these rodents was observed required the attention of the sanitary officers; in the majority of these cases the drains were found defective and were reconstructed or repaired, the number of such being included in the figures given above. On 156 premises leakages in the water pipes required attention. Urinals were constructed on 18 premises and repaired and cleaned on 17. Some 95 foul accumulations of various description were removed in accordance with the directions of the sanitary officers. On 11 premises, animals were found not properly stabled. In 20 instances stables were paved properly under the supervision of the sanitary officers, and in five cases proper dung receptacles were provided.

In the majority of instances the preliminary notices from the sanitary inspectors setting forth the insanitary conditions requiring attention were complied with. It was necessary for the Sanitary Authority to serve 193 notices under the Public Health (London) Act, 1891, upon persons responsible for the abatement of nuisances, and for non-compliance with these Police Court proceedings were taken in respect to the premises and with the results as set out below:—

Pro	emises.				Result of	Proceedings.	
Brownlow Stree	et, No. 17			Order	for abatemen	t of nuisance	, 1 guinea
Charlotte Street	t, Nos. 35	to 39			mmonses, pe. 2s. costs.	nalties 1/- in	each case,
Curtain Road, 1	Nos. 7 and	19		Order for cost	or abatement s.	of nuisance	, 1 guinea
Hoxton Market	, No. 13				or abatement mmonses,per		
Loanda Street,	No. 42				costs.		
Teale Street, N				Order f	or abatement	of nuisance	, 6/- costs.
	15			"	i, #	"	,,
, ,, ,,	17			,,	,,	,,	,,
,, ,,	19			,,	* ,,	,,	,,
,, ,,	21			,,	,,	,,	,,
	23			,,	,,	,,	"
Williams Place	, No. 1			,,	,,	,,	"
,,	,, 2			,,	,,	,,	11
"	,, 3			,,	"	,,	,,
,,,	,, 4			"	,,	,,	"
11	., 5			,,	11	"	"
,,	,, 6			,,	,,	"	,,
Above Houses		Street					
Williams Pla	ace as to	defec	tive				
drains	N - 1			Oudon f	on abataman	of nyigonas	5/ 'ocata
Watson's Place	Access to the second second			Order I	or abatemen	or nuisance	, o/- costs.
"	,, 2			"	1,	"	"
"	,, 3			11	,,	"	"
"	,, 4			>>	_ ,,,	"	"
"	,, 5			,,	,,	"	"
,,	,, 6			,,	"	- "	"
,,	,, 8			,,		"	. 11

With respect to No. 17, Brownlow Street, the summons was taken out against the owner by inspector Firth in consequence of non-compliance with a notice under the Public Health (London) Act, 1891, the premises being dirty, and the drains and sanitary arrangements generally being in a defective condition.

The proceedings in respect to Nos. 35 to 39 Charlotte Street were taken under the drainage bye-laws made by the London County Council under section 202 of the Metropolis Management Act, 1855, and are worthy of note. The premises Nos. 35 to 39 Charlotte Street were being rebuilt, and plans were submitted shewing a system of drainage in which it was proposed to place the intercepting trap required by bye-law 5 in a well open to the sky, constructed in the rear of the building. From the intercepting trap the main drain was shewn passing under the building to join the sewer in Charlotte Street. The position in which it was proposed to place the intercepting trap would simply render it a useless obstruction in the course of the drain. The plans were approved by the Borough Council, subject to the intercepting trap being placed in a suitable position at the front end of the drain, so that it could fulfil its proper function of intercepting the drain from the sewer. The trap, however, was placed in the rear of the building, and a means of access was constructed in the well above referred to, the contention being that it was impracticable to place it elsewhere so as to comply with the bye-laws, as the front of the building abutted upon the footway of the street. After a good deal of correspondence, in which three methods by which the bye-laws could, in the opinion of the Council's officers, be complied with, were submitted to the owner's representative, two summonses were taken out against the builder by inspector Jordan. One of the summonses was for not complying with bye-law 5, and the other was for failing to provide adequate means of access at each end of the portion of the drain under the building as is required by bye-law 4. On the cases coming before the magistrate, the point at issue in respect to bye-law 5 was the question of the practicability of placing the intercepting trap at the front of the drain, so as to comply with the bye-law. Expert evidence was called on both sides, but that of Mr. J. Rush Dixon, the Borough surveyor, prevailed with the magistrate. The Borough surveyor demonstrated that it was quite practicable to place the trap either under the front wall of the building with access in the basement, or in a specially constructed chamber under the footway approached from the basement, or under the roadway with means of access from the surface of the roadway. With respect to the non-compliance with bye-law 4, it was urged on behalf of the defendant that a means of access was an inlet to a drain, and as such could not be placed within a building without infringing bye-law 9. The magistrate declined to accept the view that a means of access to a drain is an inlet prohibited by bye-law 9, and the defendant was convicted on both summonses.

The summons in respect to Nos. 7 and 9 Curtain Road was taken out by inspector Jordan, under the Public Health (London) Act, 1891. There was an absence of water supply to the water closet, the drains and sanitary arrangements generally were defective, and there were other conditions which, taken altogether, rendered the premises in such a state as to be a nuisance.

With regard to No. 13 Hoxton Market, the summons was taken out by inspector Langstone against the owner for not complying with a statutory notice requiring the replacement of a broken water closet pan. An order was made by the magistrate against the owner for the necessary work to be done. This order not being complied with in the time specified thereon, a fresh summons was taken out against the owner without stating his name. This summons, which was for a penalty was dismissed, the magistrate holding that the name of the owner referred to should have been stated upon the summons. A further summons was then issued against the owner by name, but the work having been carried out, it was not proceeded with.

In the case of No. 42 Loanda Street, the proceedings were taken under the London County Council bye-laws with respect to the construction of water closets, upon summonses by inspector Firth, against a builder for failing to give notice to the Sanitary Authority, as required by bye-law No. 14, and for not complying with the requirements of bye-law No. 5. The offender was convicted and fined in each instance.

The houses in Teale street and Williams place were dealt with under the supervision of the chief sanitary inspector. They were in a very dirty and dilapitated condition, and the drainage system common to the houses was tested and found to be in an extremely defective and very dangerous condition. Thirteen statutory notices were served upon the owner under the Public Health (Lond.) Act, 1891, twelve in respect to the general insanitary conditions of the houses, and one with respect to the drains. As there was a good deal of unnecessary delay in rectifying the insanitary conditions, proceedings were taken before a magistrate who made the necessary orders for the execution of the work. These resulted in more energetic measures being adopted. Nos. 4, 5 and 6 Williams Place, and No. 23 Teale Street, were closed as it was impossible to adequately deal with them whilst in occupation. In the end the work required was carried out, and a very satisfactory improvement was effected in the sanitary condition of the houses.

The houses above mentioned in Watson's Place have been under the notice of the Sanitary Aurhority on several occasions, work has been done in connection with them but it has been of a very rough and unsatisfactory character. Towards the end of the year, after efforts to induce the owner to deal with them in an efficient manner, their condition was brought under the notice of the Health Committee and statutary notices were served upon the owner under the Public Health (Lond.) Act, 1891. The houses, originally constructed of inferior materials, were in a dilapidated and dirty condition. As the owner failed to take any satisfactory steps to comply with the notices he was summoned by inspector Quelch, and orders were made by the magistrate at the beginning of December for the notices to be complied with in three months. Up to the end of the year under consideration nothing of a satisfactory character had been done.

HOUSES CLOSED.

The following houses were closed during the year 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 to put them in a satisfactory sanitary condition to be carried out in an effectual manner:—

Britannia Street, Nos. 1, 2, 3, and 4 Buckland Street, No. 49 City Road, Nos. 153 and 155 Clifton Street, No. 85 Dunloe Street, Nos. 36 and 37 Dove Row, No. 22

Hilcot Street, No. 17 Watson's Place, No. 25 Williams Place, Nos. 4, 5 and 6 Whiston Street, No. 39 Teale Street, No. 23

The houses in Britannia Street and City Road were very old, dirty and dilapidated, and the owner upon receipt of a sanitary notice from inspector Lear closed them as unfit for habitation, and they were subsequently demolished.

No. 49, Buckland Street was in a very dirty and dilapidated condition, and was closed by the owner upon receipt of a sanitary notice from inspector Langstone, in order to carry out the necessary work in an efficient manner.

With respect to No. 85, Clifton Street, this house was closed by the owner on receipt of a sanitary totice from inspector Jordan, in order to effectually carry out the works required which could notbe satisfactorily done whilst the house was in occupation.

No. 22, Dove Row was closed on receipt of a sanitary notice from inspector Firth. Extensive works were necessary in connection with the drains and sanitary arrangements and the house required thorough cleansing throughout. The houses in Dunloe Street were also closed by the owner on receipt of a sanitary notice from inspector Firth. Extensive works were carried out. The drains were reconstructed, the basement of both houses were deepened so as to increase the height of the rooms, properly concreted below and ventilated, and the houses were thoroughly cleaned and repaired from top to bottom. The work could not be carried out whilst the houses were occupied. The house in Hilcot Street was closed under sanitary notice and dealt with throughout. It was necessary to demolish and rebuild the back addition.

No. 25, Watson's Place was in a dirty and dilapidated state, and required to be thoroughly dealt with throughout. It was closed by the owner on receipt of a sanitary notice from inspector Quelch.

The houses in Williams Place and Teale Street have already been referred to. The house in Whiston Street was in a very dirty and dilapidated condition and a good deal of the brickwork was in a dangerous state. On receipt of a sanitary notice from inspector Firth it was closed and demolished as the owner did not think it would be to his advantage to lay out the money on the works required by the notice. The site was cleared and a new house is now in course of erection.

SMOKE NUISANCE.

With a view to preventing the emission of black smoke in such quantity as to be a nuisance, the various shafts and chimneys, other than those of private dwelling houses within the Borough, were kept under observation by inspector Quelch who is charged with this duty. The improvement noted in last year's report has been maintained. Some 19 complaints were received from the London County Council respecting nine premises and 14 complaints relating to 12 premises from the Coal Smoke Abatement Society. In each instance the existence of the nuisances was brought to the notice of the person responsible and steps were taken to prevent the recurrence. It was not necessary to bring any of the cases under the notice of the Health Committee.

FACTORY AND WORKSHOP ACT, 1901.

The above Act requires that special reference shall be made in the annual reports of medical officers of health to the administration of the Act, so far as the sanitary work in connection with worshops and factories, affects the Borough Council. The matters to be specifically dealt with are contained in the provisions relating to sanitation, bakehouses, and home work. It is further required that a copy of the medical officer of health's report on these matters shall be sent to the Secretary of State. In view of these requirements, I beg to submit the following information respecting the sanitary work carried out during the year:

The intimations received from the factory inspector respecting the establishment of workshops within the Borough numbered 36, and referred to 99 workshops. These were mainly used for the purpose of cabinet making, polishing, tailoring, upholstering, boot making, millinery, fancy box making, fancy goods making, dyers-work and wood carving. On inspection 70 of these workshops were found to be in a satisfactory sanitary condition. The remaining 29 more or less required the attention of the sanitary officers for the rectification of insanitary conditions, and the necessary sanitary notices were issued.

The number of written intimations received from the factory inspectors respecting various insanitary conditions and infringements of the law as to public health was 141, relating to 223 workshops and work places. The chief insanitary conditions mentioned by the factory inspectors as requiring attention were want of cleansing in 111 instances, dirt and dilapidations in 33, defective or insufficient water-closet accommodation in 48, absence of water closet accommodation in 2, absence of proper separate water closet accommodation for the sexes in 8, defective drains in 3, over-crowding in 8, and sundry other defects in 10. These workshops and workplaces were all visited and inspected by the officers of the Borough Council. The necessary steps were taken to deal with the insanitary conditions, and the factory inspector was informed of the same in accordance with the statutory requirements. It may be stated that these visits of the sanitary officers were frequently attended by the

discovery of other insanitary conditions besides those to which attention was directed by the factory inspectors in their intimations. Such conditions were also attended to. All the sanitary work in connection with the workshops and work places to which attention was directed by the factory inspectors was completed within a few days after the close of the year.

In addition to those brought under the notice of the Sanitary Authority by the factory inspectors, 139 factories, workshops and work places, excluding bakehouses, were dealt with during the year; the defects and insanitary conditions remedied being similar in character to those referred to above. Special attention was given to cleanliness, air-space, ventilation, drainage of floors in cases where wet processes were carried on, and the provision of suitable and sufficient sanitary accommodation.

Altogether, some 333 sanitary notices were served by the inspectors with respect to 391 factories, workshops and work places. In a number of instances several workshops were dealt with on the same notice. In the majority of cases the insanitary conditions were rectified upon the receipt of the notices from the inspectors.

The following is an abstract of the sanitary work done in connection with factories, workshops and work places in the Borough during the year 1902:—

			0 3	2002			
	. 23	}	Urinals cons	tructe	d		3
New drains constructed	7		Urinals repai				6
Stack pipes disconnected	8		Water supply				28
Stack pipes reinstated			Leaking wate	rning	a rono	inad	
Eave: gutters reinstated	20						18
Sink water pipes disconnecte			Rooms cleane	a ana	white	washed	
V1			Yards	33	"	"	103
Foregourts naved	28		Areas		"	"	7
Forecourts paved			Roofs repaired				47
Areas paved			Damp courses	prov	ided		3
Water closets re-constructed			Floors repaire	ed			16
New water closets constructed	d 80		Stairs ,				8
Water closets cleansed and			D	,			7
limewashed	268		Sashes ,				9
Light and ventilation			Ventilation un				
improved in water closets	3 7		Dust receptac				
Obstructions removed from							13
1	00		Foul accumul				13
	22		Overcrowding	abate	ed	***	4
Water closets repaired	17						

The above abstract includes the work done under the supervision of the chief inspector in connection with four new blocks of warehouses and workshops erected during the course of the year, which afford accommodation for several hundred work people.

It was necessary to bring some 26 of the premises under the notice of the Health Committee by whose orders 31 statutory notices were served upon the parties responsible. It was not necessary in any instance to institute Police Court proceedings.

A few words are required with reference to the provisions contained in Sections 107 to 115 of the Act, dealing with home work, in which are set forth the powers for controlling the conditions under which certain classes of work are done in the homes of the workers. These powers aim at the prevention of home work being done in insanitary dwellings or on premises where dangerous infectious disease exists. The classes of work referred to have been fixed by the Secretary of State as follows:—(a) so far as insanitary dwellings are concerned, any work in connection with wearing apparel, lace, cabinet and furniture making and upholstering, the making of electroplate and files and fur pulling; (b) in the case of infectious disease, the foregoing with the exception of cabinet, furniture and file making. In order that the Borough Council may be kept informed as to the places in its district in which home work of the classes referred to is being done, occupiers of factories, workshops, or any places from which work is given out, and also contractors employed by such occupiers, are required to keep lists shewing the names and addresses of all persons employed by them and the places where they are so employed, and to send to the Borough Council twice a year copies of such lists. The penalty in event of failure to keep such lists and to send copies of the same as required is £2 for the first offence and £5 for the second or subsequent offences It is the duty of the Council to have the list so sent to them examined, and if the place of employment of any outworker included in the list is in another district fo furnish his name and place of employment to the Council of that district. The lists are to be open for inspection by any duly authorised officer of the Council and the copies sent to the Council and any particulars furnished to it by another Council are to be open for inspection by any factory inspector.

With a view to giving effect to the the provisions relating to home work the sanitary inspectors were instructed by the Health Committee to obtain the necessary information as to workshops and work-places, as to outworkers and as to domestic factories and workshops. Steps are being taken in accordance with these instructions. Public notice has been given by means of posters, and handbills are being distributed to parties concerned pointing out the legal obligation of certain occupiers of factories and workshops in respect to keeping lists of persons employed by them outside such factories or workshops in connection with their trade. In accordance with the requirement of the Act during the year some 16 lists referring to 429 outworkers were received from occupiers of factories or workshops. They were duly examined and the addresses of those outworkers not in Shoreditch numbering some 212, were forwarded to the medical officers of health of the respective districts to which they belonged. Communications were received from medical officers of health relating to 480 persons, out-workers, living in Shoreditch.

A register of the workshops in Shoreditch is being compiled. In order to cope with the increased work required by the Act, additional clerical assistance has been provided by the Health Committee which will be referred to later in this report when dealing with the sanitary staff.

THE PROVISIONS RESPECTING BAKEHOUSES

are set forth in sections 97, 98, 99, 100, 101 and 102 of the Act. Sections 97, 99 and 100 are re-enactments of existing provisions. Section 98 is a new provision and makes it unlawful to use a bakehouse which is on sanitary grounds unfit for use. The new provision of most importance, however, is that contained in section 101 which lays down the law as to underground bakehouses. Briefly its requirements may be summed up as follows: - Underground bakehouses not in use as such on August 17th, 1901, are illegal, and after January 1st, 1904, no underground bakehouse shall be used unless certified by the District Council, which in Shoreditch is the Borough Council, to be suitable as regards construction, light, ventilation and in all other respects. the District Council refuse the certificate, complaint may within 21 days of the refusal be made to a Court of Summary Jurisdiction, which if satisfied that the bakehouse is suitable, may grant a certificate having effect, as if the same were granted by the District Council. A Court of Summary Jurisdiction also has the power in cases where structural alterations are necessary to fit an underground bakehouse for use, to apportion the costs of the work between the owner and the occupier. The Court also has power in the alternative to determine a lease of a bakehouse which is underground if so requested by the occupier. For the purpose of section 101, an underground bakehouse is defined as a bakehouse, any baking room of which is so situate that the surface of the floor is more than 3 feet below the surface of the footway of the adjoining street, or of the ground adjoining or nearest to the room. Section 102 deals with the enforcement of the law relating to retail bakehouses by the Sanitary Authorities.

The following is a list of the underground bakehouses as above defined, which are situate in Shoreditch:—

Bevenden Street, No. 2 Bridport place, Nos. 2 and 88 Bristow Street, No. 2 Britannia Street, No. 94 Brunswick Street, No. 126 Clifton Street, Nos. 32, 63 and 94 Cropley Street, Nos. 17 and 58 Dunloe Street, No. 41 Dunstan Street, No. 25 East Road, Nos. 82 and 103 Essex Street, No. 25 Hackney Road, No. 305 Haggerston Road, No. 78 Hoxton Street, Nos. 61, 74, 141, 179, 192, and 271 Hyde Road, Nos. 2, 63 and 73

Kingsland Road, Nos. 77, 164,
200 and 273
Lee Street, No. 33
Leonard Street, No. 91
Marlborough Road, No. 36
Murray Street, No. 92
New North Road, Nos. 59 and 63
Paul Street, Nos. 16 and 26
Pearson Street, Nos. 7 and 78
Philip Street, No. 86
Pitfield Street, Nos. 2, 7 and 76
Pownall Road, No. 102
Shaftesbury Street, No. 87
St. John's Road, No. 16, 39, 86 and
139
Sturt Street, No. 12

The question of the requirements to be complied with as to construction, light ventilation, and in all other respects which shall be deemed necessary, in order that an underground bakehouse may be certified as suitable, came before the Health Committee at the close of the year and is now under consideration.

The number of bakehouses in use in the Borough at present is 84, of which 33 are above ground and 51 underground. There are also two other bakehouses, one above and the other underground, which are not now in use, but which could be brought into use. As the result of inspection, seventeen were found to require limewashing, in a few others some minor sanitary defects needed attention, and in one extensive works were necessary in connection with the drains. The condition of one bakehouse had to be brought under the notice of the Health Committee specially, the premises being in an extremely dirty state, and there being a good deal of unnecessary delay on the part of the occupier in taking the necessary steps to cleanse it, a statutory notice under the Public Health (London) Act, 1891, was served, and the bakehouse was cleansed. Generally it may be stated that, taking the standard of past years, the condition of the bakehouses in the Borough was on the whole satisfactory.

SLAUGHTER HOUSES.

The slaughter houses on the register number 14, or one less than last year, the license of that at No. 59 Weymouth Terrace having been refused by the London County Council. This slaughter house had not been used for slaughtering for several months prior to the refusal of the license. The list of the licensed slaughter houses in the Borough is, with the exclusion of the slaughter house at No. 59 Weymouth Terrace, as contained in the last year's annual report. The slaughter houses were inspected as usual during the year, and their condition may be reported as satisfactory.

COWSHEDS, DAIRIES AND MILKSHOPS.

With the exclusion of the cowshed at No. 1a Clift Street, the license of which was allowed to lapse, the list of cowsheds remains as set forth in the annual report for 1901. The number now on the register is 9, and the number of cows kept in Shoreditch is 103, as compared with 110 in 1901, 114 in 1900, and 135 in 1899. The cowhouses were subject to periodic inspection during the year, and their condition may be described as satisfactory.

The number of dairymen and purveyors of milk on the register for the year was 304. In sixteen cases the sale of milk was discontinued, in 37 the milk shops changed hands, and there were 21 fresh applications to be placed on the register. The milk shops were subject to periodic visitation throughout the year by the sanitary inspectors. In three cases warnings were necessary on account of dirty utensils. In one instance new utensils were required, and were provided. Altogether 8 sanitary notices were served in respect to premises upon which milk was being sold. One of these was in regard to a defective roof and absence of a proper receptacle for house refuse, one as to the drainage arrangements, two as to defective paving of yards, and four on account of want of proper attention to the general cleanliness of the premises.

OFFENSIVE BUSINESSES.

The only premises in Shoreditch upon which an offensive business is carried on now are situate at No. 69 Haggerston Road, where tripe is boiled. The business of tripe boiling has ceased at No. 110 Goldsmith Row.

HOUSES LET IN LODGINGS.

The following houses, let in lodgings, or occupied by members of more than one family, were registered during the year under the bye-laws as to houses let in lodgings or occupied by members of more than one family:

Hows Street, Nos. 9 and 11. Bernales Buildings, Nos. 1, 2, 3, 4 and 5.

The number on the register at the end of the year 1902 was 191.

CUSTOMS AND INLAND REVENUE ACT.

Applications for certificates as to the sanitary fitness of dwellings for the purpose of obtaining exemption from inhabited house duty were received in respect to 33 tenements. These tenements were duly inspected, and the necessary certificates were granted in eight instances at once, and in the remaining 25 after certain works which were required had been carried out.

STREET MARKETS AND FOOD.

The usual daily supervision was exercised by the sanitary officers over the street markets and the food exposed for sale, and frequent inspections were made with a view to the detection of unsound food. Except in a comparatively few instances the quality of the various food stuffs exposed for sale was excellent.

The following articles were destroyed during the year as unfit for food:—1 box and 2 barrels of skate, 1 trunk of plaice, 1 box of hake, 1 box of haddocks, 2 trunks and 1 box of sprats, 1 bag of mussels, 12lbs. of beef pieces, 4cwt. and 24lbs. of rabbits, 2 boxes of sausages, 15 boxes of tomatoes, 3 tons 9cwt. of cabbage, 23 boxes of potatoes, 39 baskets of brussels sprouts, and two barrels of pickled cauliflowers. It was not necessary to prosecute in any instance.

ICE CREAMS.

During the past year there has been some useful legislation for the purpose of controlling the conditions under which the manufacture of ice cream is carried on. Part VIII. of the London County Council (General Powers) Act, 1902, which came into operation on November 1st, 1902, provides as follows:—

Any person being a manufacturer of or merchant or dealer in ice creams or other similar commodity who within the County—

- (a) Causes or permits ice cream or any similar commodity to be manufactured sold or stored in any cellar shed or room in which there is any inlet or opening to a drain or which is used as a living room or sleeping room;
- (b) In the manufacture, sale, or storage of any such commodity does any act or thing likely to expose such commodity to infection or contamination or omits to take any proper precaution for the due protection of such commodity from infection or contamination; or,
- (c) Omits on the outbreak of any infectious disease amongst the persons employed in his business or living or working in on or about the premises in or on any part of which any such commodity as aforesaid is manufactured sold or stored to give notice thereof forthwith to the Medical Officer of the Sanitary District in which such business is carried on or such premises are situate;

shall be liable for every such offence on conviction in a Court of Summary Jurisdiction to a penalty not exceeding Forty Shillings.

Every itinerant vendor of any such commodity as aforesaid, shall, if not himself the manufacturer thereof, exhibit in a legible manner on a conspicuous part of his barrow, a notice stating the name and address of the person from whom he obtains such commodity, and if such vendor is himself the manufacturer of such commodity he shall in the same manner exhibit his own name and address. Every such itinerant vendor, who shall fail to comply with the provisions of this Section, shall be liable for each offence on conviction as aforesaid to a penalty not exceeding Forty Shillings.

Proceedings for the recovery of the penalties shall be instituted by the Sanitary Authority for the District in which the offence was committed or of the District to the Medical Officer of which such notification as aforesaid ought to have been made, or in which such itinerant vendor as aforesaid shall offer any such commodity as aforesaid for sale as the case may be.

Copies of the foregoing provisions in Italian and English were left at the ice cream shops within the Borough by the sanitary inspectors, and the attention of the parties concerned was directed to the new requirements.

In July, by instruction of the Health Committee, three samples of ice cream taken at three shops in which the conditions existing were suggestive of the possibility of contamination were submitted to Dr. W. Bulloch, bacteriologist to the London Hospital, for examination. The results of his investigations are as set out below:—

The samples were numbered I., II., and III., their source being unknown to the bacteriologist.

Sample I.—The highest count on the gelatine plate was 8,000 bacteria per cubic centimetre, the highest agar plate representing 5,000 colonies, pointing to the fact that the majority of colonies were those of saprophytes only. On both agar and gelatine

plates a few colonies of B. Coli were isolated. The gelatine plates were rapidly liquified with the lower dilutions, but the liquified gelatine had not an unpleasant odour. The anaerobic cultures failed to shew the presence of Klein's bacillus.

The centrifugalised deposits showed a few bacteria, milk globules, and starch granules. No gross impurity was seen.

The guinea-pig inoculated shewed no symptoms, and remained alive and well.

Sample II. did not differ much from sample I. The number of bacteria on gelatine plates being about 10,000 per cubic centimetre.

The liquifaction of the plates was not of an unpleasant odour.

No bacillus enteriditis sporogenes was found. An inoculated guinea pig remained well.

Sample III. was not so good as samples I. and II. The number of bacteria was about 45,000 per cubic centimetre. Several of these were B.Coli. The liquified plates had an unpleasant odour. No bacillus enteriditis sporogenes was found, and an inoculated guinea pig remained healthy and well

Dr. Bulloch states that the general results of these examinations would go to shew that the ice creams were of much greater purity than many that have been examined in recent years, and although 10,000 bacteria may seem a large number, it is really not so serious when one considers that relatively few of these were capable of growing at 37° Cent. i.é. body temperature. From a study of these results Dr. Bulloch was of opinion that the ices submitted to him were relatively pure, and he did not consider that the consumption of such samples could endanger health.

The following is a brief summary of the inspection of the ice cream shops made during the course of the year. Ten were visited by inspector Lear. Of these, five were in a satisfactory sanitary condition; in four, more or less cleansing was necessary: and in the remaining one, defects in connection with the drainage system required rectification. In four visited by inspector Quelch, insanitary conditions required dealing with in each one. Of thirteen visited by inspector Firth, six were found in a clean and sanitary condition. In the remaining seven, insanitary conditions were found to exist. In three of these the water-closets were in such close proximity to where the ice cream was being prepared as to be distinctly dangerous, and in one case it was discovered that the copper used in the preparation of the cream was utilised for the boiling of dirty underclothing in. Inspector Jordan visited sixteen. Twelve of these were in a satisfactory sanitary condition, and in the remainder, want of proper attention to cleanliness was observed. Inspector Langstone visited twenty. In five of these insanitary conditions, mainly resulting from want of proper attention to cleanliness, existed, and in one instance it was found that the cream was being manufactured in a room used for living and sleeping in.

Altogether, of 63 ice-cream shops inspected, 38 were found in a satisfactory condition, and in the remaining 25 insanitary conditions of major or minor importance required rectification. Sanitary notices were served upon the parties responsible where required, and the necessary measures were carried out to remedy the defects and insanitary conditions found.

COFFEEHOUSES, COOKSHOPS, AND FRIED FISH SHOPS.

In accordance with the instruction of the Health Committee special attention was given during the year to the premises within the Borough whereon food is prepared and cooked for the consumption of the public. The coffee houses and dining rooms, cookshops, fried fish shops, and eel pie shops are numerous throughout the Borough, but more especially so towards the southern and western parts of the district. The following briefly summarises the work done in connection with them:—

Thirty-four were visited and dealt with by inspector Lear, 25 being cookshops and eating houses, and the remaining nine fried fish shops. Of the former, four were found to be kept in a cleanly and satisfactory condition; the remainder all more or less required attention chiefly on account of dirtiness of walls and ceilings of the kitchens and dining rooms. In a few some minor sanitary defects were observed in connection with the drainage arrangements. With respect to the fried fish shops they were found to be kept in a very fair condition as regards general cleanliness, in three instances some limewashing was required and in two others there were no proper dust receptacles.

Inspector Quelch dealt with 20 premises, nine of which were fried fish shops Sanitary defects of major or minor importance required attention in everyone of the cookshops and eating houses, the chief being untrapped sink waste pipes, defective rain water pipes, defective and dirty water closets in one or two instances and defective yard paving. In most instances the premises were kept in a cleanly condition generally. With regard to the nine fried fish shops, two were found in a satisfactory condition, two were in a very unsatisfactory state, and the rest all more or less required attention.

Inspector Firth dealt with 19, of which twelve were cookshops and eating houses. Generally the cookshops were in very fair sanitary condition. Two required cleansing, in three there was an absence of proper receptacles for refuse, and in two the sink waste pipes were defective. The fried fish shops, seven in number, were with one exception found in good sanitary condition. The exception was one in which the walls and ceilings required cleansing.

The number of premises dealt with by inspector Jordan was 71, of which seven were fried fish shops, of the former 36 and of the latter 3 were found in a good or fair sanitary condition. In the remainder insanitary conditions of various descriptions required attention, the chief being uncleanliness in respect to rooms in 38 instances,

dirty conditions of walls of yards, and water closets in 16, defects in the yard paving in 5, defects in the drains in 3, in the water closets in 6, and in soil pipes in 2, sinks untrapped in 2, drains stopped in 2, basements flooded with sewage in one instance, want of proper receptacles for refuse in 3, and covers for offal tins in 2, and defects were found in the roofs in 2 instances.

Inspector Langstone, dealt with 32 premises of which six were fried fish shops. They were found to be generally in a very satisfactory condition. In a few cases some cleansing was required, and in one or two some matters of minor importance required attention. All the fried fish shops were found to be kept in a clean condition.

Altogether 138 cookshops and eating-houses were inspected. Of these 69 were in a satisfactory or fairly satisfactory sanitary condition, and 69 more or less required attention. Of the fried fish shops, 26 out of 38 inspected were found satisfactory or fairly so. The principal insanitary condition in connection with these premises whether cookshops or fried fish shops was want of proper attention to cleanliness. It is hardly necessary to lay stress upon the fact that cleanliness in the preparation of food is one of the greatest safeguards of health. In all cases the necessary sanitary notices were served upon the parties responsible which were complied with in due course.

SALE OF FOOD AND DRUGS ACT.

The reports of the Public Analyst, Dr. Stevenson, for the four quarters of the year 1902, shew that 281 samples were submitted to him for analysis. Inspector Quelch took 175 samples, inspector Lear 22, inspector Firth 33, inspector Jordan 34. and inspector Langstone 17. The samples submitted by the latter four inspectors were taken on Saturdays and Sundays.

The following is a sumi	nary of the res	sults of the work	for the ye	ar 1902 :-
-------------------------	-----------------	-------------------	------------	------------

Article Sampled.	No. of Samples Analysed.	No. of Samples found Adulterated.	No. of Prosecutions.	Fines.	Costs.
Milk Butter Pepper Coffee Lard Mustard	9	46 23 — 1 1	31 32 — — 1 —	£ s. d. 70 10 0 68 5 0 — 2 0 0	£ s. d 4 14 0 20 18 6 — — — — — ——————————————————————————
Total	281	71	. 54	140 15. 0	36 15 0

In two cases in which proceedings were taken in respect to milk, the summonses were dismissed, the magistrate holding that the certificates of the analyst were not in accordance with the requirements of the Act. In one case in which analysis showed

that the milk contained 13 per cent. of added water, evidence satisfactory to the magistrate was given on behalf of the defendant that the milk was sold as supplied by the contractor, there being no warranty and the summons was dismissed. A similar result for a like reason occurred in connection with another case, in which, as a result of analysis, a sample of milk was found to be deficient in fat to the extent of 15 per cent. In one case in respect to milk, the proceedings failed on account of the production of a warranty. In one instance, in which the analysis showed that margarine had been sold in place of butter, the defendant absconded. In a case in which mustard was found to contain 15 per cent. of wheaten flour with traces of tumeric, it was not deemed advisable to prosecute, and in a case of adulterated milk a summons was withdrawn on the production of a warranty. In twelve instances, in which small amounts of water were found to have been added varying from 2 to 4 per cent., and in two instances in which the fat was deficient to the extent of 2 per cent., no proceedings were taken. In sixteen instances in the case of samples sold as butter, and in three instances of milk, traces of boric acid, or a preparation thereof, are mentioned on the analyst's certificates.

SANITARY STAFF.

During the first half of the year the amount of work thrown upon the sanitary staff, in consequence of the outbreak of small-pox, was extremely heavy, and as I have already stated in my remarks on the measures taken for dealing with the outbreak, it was necessary to increase the number of men employed in disinfecting to double the usual number, which increase was maintained until the epidemic came to an end.

Owing to illness inspector Quelch was unable to perform his duty for several weeks during the summer. The work on his district was attended to as far as practicable by the chief inspector and inspectors Firth and Langstone. The increase in the amount of clerical work consequent upon the coming into operation of the Factory and Workshops Act, 1901, rendered additional clerical assistance necessary. The Health Committee accordingly appointed Mr. H. P. Abbot, who has been messenger and general assistant in the Health Department, since midsummer, 1901, to devote the whole of his time to clerical work, and Mr. W. Harris was appointed to fill the vacant post of messenger and general assistant.

The manner in which the officers of the department have discharged their duties during the year has been to my satisfaction; and in conclusion, I beg to express my thanks to the chairman and members of the Health Committee for the consideration and assistance they have given me in connection with my work.

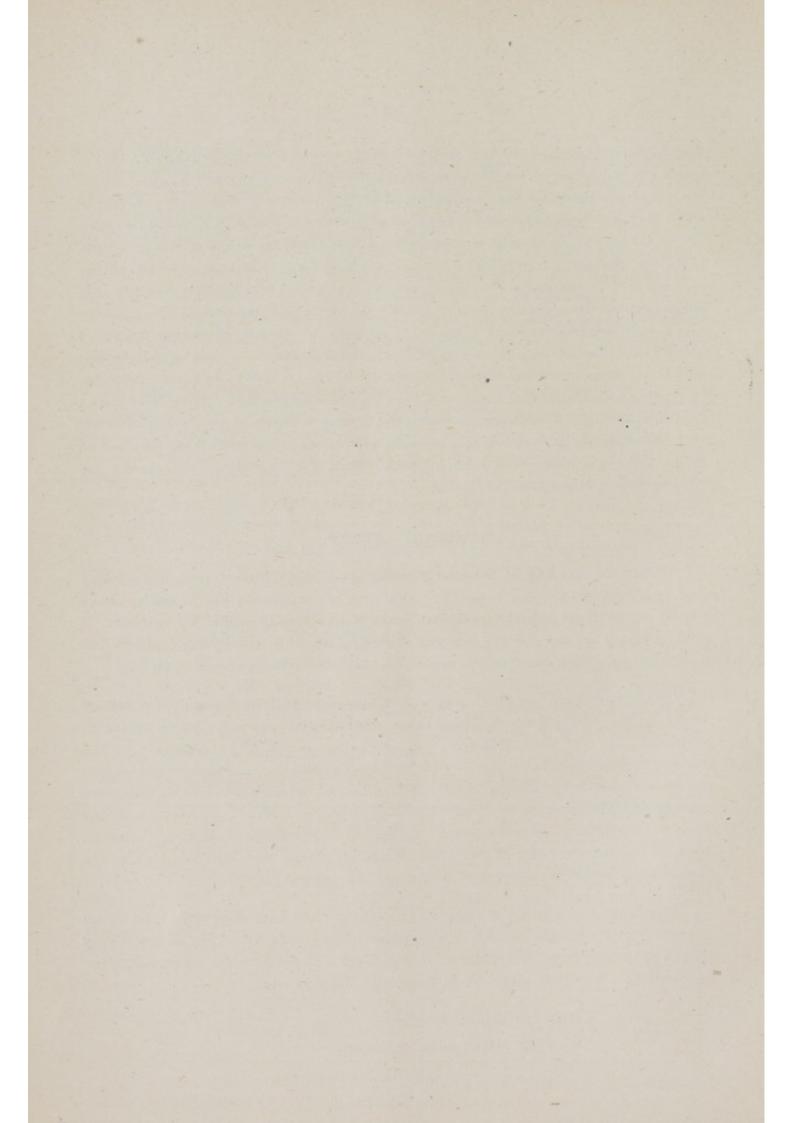
I have the honour to be,

Mr. Mayor and Gentlemen,

Your obedient Servant,

LEWIS T. FRASER BRYETT,

Medical Officer of Health.



APPENDIX

TO THE REPORT

OF THE

MEDICAL OFFICER OF HEALTH.

CONTAINING STATISTICAL TABLES AND PARTICULARS AS TO THE CASES OF SMALL-POX, AND THE USE OF THE BOROUGH COUNCIL'S SHELTER

Tables I., II., and IV. are in accordance with forms of tabulation required by the Local Government Board.

TABLE I. BOROUGH OF SHOREDITCH.

Vital Statistics of whole District during 1902 and previous Years.

		Birti	HS.	Тота		HS REGIS		TOTAL	Deaths of Non-	Deaths of residents	ALL AGES	EATHS AT S BELONG- TO THE
	Population estimated			UNDE YEAR	R ONE OF AGE	AT ALL	AGES.	DEATHS IN PUBLIC	resident regis- tered in	tered in	DIST	RICT.
YEAR.	to middle of each Year.	Number 3	Rate*	Num- ber.	Rat per 1000 Births regis- tered. 6	Number 7	Rate*	INSTITU-	Public Institu- tions in	Public Institu- tions beyond the District.	Number.	Rate.*
1	2		1			-	0	9	10		12	
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	826	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	686	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
1900	121335	4023	32.9	741	187	2689	22.2	790	472	350	2576	21.4
1901	118550	4120	34.3	812	201	2652	22.6	883	427	365	2596	22.1
Averages for years 1893to1901	121928	4264	34.6	800	191	2784	22.8	812	417	354	2723	22.3
1902	117948	3992	33.3	704	181	2383	20.2	836	\$87	432	2441	§ 20·9

^{*} Rates in Columns 4, 8, and 13 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. During 1902 six persons not resident in Shoreditch died within the district, and 19 residents of Shoreditch died beyond the district, but not in public institutions, these have to be added to the figures in columns 10 and 11 respectively in order to get the nett deaths.

By the term "non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and by the term "residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

The "public institutions" taken into account for the purposes of those Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums. A list of the institutions in respect of the deaths in which corrections have been made are given on pages 6 and 7 of the Report.

Area of District in acres (exclusive of area covered by water) 642.5

Total population at all ages, 118,637 Number of inhabited houses, 12,743 Average number of persons per house 9.3

TABLE II. BOROUGH OF SHOREDITCH.

Vital Statistics of separate Localities in 1902 and previous Years.

Names of Localities.		-WHO			2 Sнов	EDITC	н Şо	UTH.		w To			4.—Hox	ron-O	LD To	own.	5.—H	AGGE	RSTO	
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.	a.	. 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		3146		19890	527	399	88	29380	1128	741	182	28850	999	719	196	45400		1287	
1894	123520	4332	2466	704	19890	524	317	66	29380	1133	574	170		984	552		45400		1023	
1895	123190	4352	2860	867	19840	518			29300	1043	715		1 27 2 (100 (27)	989		123	45350		1090	
1896	122308	4364	2622	786	17900	501			29585	1109		192		954				-1800		
1897	122058	4325	2626	789	17575	551	435		29630	1035				990			47348		1006	
1898	121740	4281		846		522			29750	1007		202		1018		216	47525		1072	
1899	121530	4131		854	16950	497	507		29800	974			The second second	947	673		47615			
1900	121335		2576		16755	497	443		29860	961	597	171		929		100	47700		1000	
1901	118550	4120	2596	812	16276	489	379	87	29732	1060	615	193	26480	955	584	204	46062	1010	1010	520
Averages of Years 1892 to 1901.	122131	4286	2733	796	18189	517	409	93	29582	1058	631	190	27837	978	614	187	46511	1732	1078	324
1902	117948	3992	2441	704	15927	467	355	74	29636	1023	580	159	26385	865	558	171	46000	1637	948	300

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 1902.

			CASI	s notifi	ED IN WH	OLE DISTI	RICT.		TOTAL	L CASES N	OTIFED IN	N EACH	No. of C	CASES REM	OVED TO I	HOSPITAL
NOTIFIABLE DI	SEASE.	At all		1	1	-Years.		45. 3	1. Shore-	2. Hoxton	3. Hoxton	4. Haggers-	1. Shore-	2. Hoxton	J. Hoxton Old	4. Haggers
		Ages.	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.	ditch South.	New Town.	Old Town.	ton.	ditch South.	New Town.	Town.	ton.
Small-pox		 433	13	36	105	96	166	17	25	210	67	131	24	209	67	130
Cholera		 														
Diphtheria		 216	10	96	72	30	8		27	48	46	95	24	42	43	78
Membranous ero	oup	 7	1	5	1				1		3	3			1	
Erysipelas		 178	4	14	21	22	102	10	28	20	41	84		1		1
Scarlet fever		 249	5	88	133	21	2		21	66	58	104	17	62	55	100
Typhus fever		 														
Enteric fever		 149		8	47	48	46		40	28	28	53	36	26	26	40
Relapsing fever		 														
Continued fever		 3				1	2			2		1				
Puerperal fever		 9				5	4			2	2	. 5				
Plague		 														
Chicken pox		 754	90	380	280	2	2		84	224	144	302				
Totals		 1993	123	627	659	225	332	27	226	600	389	778	101	340	192	349

200

TABLE IV. BOROUGH OF SHOREDITCH.

Causes of, and ages at, death during Year 1901.

1		DEA	THS IN		BELON	GING	TO W	HOLE	DEAT	HS IN	OR BE	LONGING	TOTAL DEATHS
	CAUSES OF DEATH.	4.17	Under	1	5 and	15 and	1 25 an	d 65 and	Shore	Hox	1	Hag-	INPUBLIC INSTITU- TIONS IN
		All Ages.		5.	15	25.	unde 65.	wards	South	New	Old Town	ston.	DISTRICT
	0 11	2	-	4	5	6	7	8	9	10	11	12	_13
1	Small-pox Measles	75 84	7 23	17 59	17	9	24	1	5 7	39	25	25	1
	Scarlet fever	8	0.000000	5	3				1	3	3	40	3
	Whooping-cough	74	30	41	3				7	11	18	33	5
١	Diphtheria and mem-										1	00	0
١	branous croup	24	2	21	1				2	4	6	12	1
	Croup	1		1							1		
	Typhus	00											
	Fever Enteric	23		2	5	7	9		7	3	7	6	2
	Other contd. Epidemic influenza	14	2	2		2	4	4	ï	2	6	5	
1	Cholera	1.1						+		4		0	1
1	Plague												
1	Diarrhœa (see notes below)	132	108	19			3	2	10	34	37	51	7
١	Enteritis (see notes below)	35	28	4			3		3	1	13	18	8
1	Puerperal fever	3				3				1	1	1	
1	Erysipelas	8	1 3	1 2			3 5	3	2 .	1 5	1 4	4	2
1	Other septic diseases Phthisis	210	5	8	6	24	163	1 4	1 36	45	44	3 85	7
1	Other tuberculous di-	210	0	0	0	24	100	7	90	40	44	00	105
ı	seases	85	32	26	12	4	10	1	12	28	22	23	20
ı	Cancer, malignant di-												20
ı	sease	87					66	21	14	21	17	35	49
ı		256	69	27	2	1	77	80	34	71	52	99	120
ı	Dlamia	227 10	56	57	10	9	67	28	34	49	38	106	42
1	Other diseases of Res-	10	1			1	7	1	3	3	8	1	3
1	piratory organs	6	2	2			2			1	1	4	1
1	Alcoholism)	39			7000				1000			-	
1	Cirrhosis of liver \	99				• • •	37	2	3	10	13	13	20
1	Venereal diseases	277				*							· · · · ·
	Premature birth	74	74						3	13	24	34	10
1	Diseases and accidents	5					5			7	9	,	
	of parturition Heart diseases	147	3	1	5	9	5 85	44	32	35	3 22	58	00
1	Accidents	89	40	12	5	5	22	5	14	23	19	33	86
	Suicides	19			1	1	16	1	2	3	8	6	2
1	All other causes	393	218	44	16	23		183	123		1075	245	336
-	All Causes 2	2441	704 9	350	89	100	817	381	355	580	558	948	836
-			- 1									10	000

Notes.—(a) In this Table all deaths o "residents" occurring in public institutions, whether within or without the district, have been included with the other deaths in the columns for the reveral age groups (columns 2-8). They have also, in columns 9-12, been included among the deaths in their respective "localities" according to the previous addresses of the deceased as given by the registrars. Deaths of "non-residents" occurring in public institutions in the district have been in like manner excluded from columns 2-8 and 9-12 of this Table.

See notes on Table I. as to the meaning of "residents" and "non-residents," and as

to the "Public Institutions" taken into account for the purposes of these Tables.

(c) All deaths occurring in public institutions situated within the district, whether of "residents" or of "non-residents" have, in addition to being dealt with as in note

(a), been entered in the last column of this Table.

(d) Under the heading of "diarrhea" have been included deaths certified as from diarrhea 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 diarrhoa; Choleraic diarrhœa, cholera, cholera nostras (in the absence of Asiatic cholera).

DEATHS FROM ALL CAUSES IN THE BOROUGH OF SHOREDITCH, AND IN EACH REGISTRATION SUB-DISTRICT, DURING THE YEAR ENDING DECEMBER 31st, 1902.

Note.—The deaths of persons not belonging to Shoreditch occurring in the Borough are excluded; and the deaths of persons belonging to Shoreditch in London beyond the limits of the Borough, are included.

					70											IN I	EACH ROM	SUB	-DIST	RICT	
						-	A	GES.							South	Lown	lown.	ston.		Je.	F.
CA	USES OF DEATH.	Under 1	1 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	.25 to 35.	35 to 46.	45 to 55.	55 to 65.	65 to 75.	75 to 85.	- 85 and upwards.	Shoreditch	Hoxton New Tov	Hoxton Old Town.	Haggerston	Male.	Female.	TOTAL.
mall Pox-	Vaccinated	3 4	17	1 6	3 7	1: 4	2	15 2	5		1	1			3 2	15 24	4 2	9 15 1	19 20 1	12 23	31 43 1
leasles .	No statement	23	59	2		1		***	***				***		7	12	25	40	41	43 5	84
carlet fev	er		5	3									· in	****	***	3	8	2:			8
	verinfluenza	2	2				2	2	1	1		4			1	2	6	5	7	7	- 14
	cough		41	3	100			***							7	11	18	38	28	46 15	74 24
Diphtheria	, membraneous croup	2	.21	1		4	3	2	5	1	1	**		333	7	3	7	6	14	9	23
	verolera		2		4	4							***	***		250					
Diarrhœa.	dysentery	86	16					1		. :	2	1	1	3.1	10	26	35	36:	16	56	107
pidemic	or zymotic enteritis		3	**		1						***		***			2	1	10	1	1
other allied	l diseases	1		***	***	1	***				***	***	111								
Hydrophol	bia	***					22.									***		***		***	3.
Handers,	farcy				***			***	***		1		***	***	***	1	***	***	1		1
	splenic fever					***				***				200							
low-pox.	accidents of vaccination														***	***	***				
																		20.00			
	ea	***															1			4.	6
Gomorriio		4																	11.		
Phagedce	na, hospital gangrene				****			***		2	1	3	***		2	1.	1	4	2	6	8
Erysipela	8	1	L	***			3.									1.	1.	1	5	3	3
Puerpera Pyamia	l feversepticæmia	2	****					1	1		1		1.		1	4.	1-	1	2	4	6
Infective	endocarditis						2		1		1	***	***	***	1	1	2	2	2 2	2	3
Other allie	ed diseases	1	. 2		11.00				****	***	****			****	***		1	-	-		
Malarial	fever											-			1000	000	11.00			25	7.0
	ic fever		2.	1	1	3	***	1	3	***	1				1	4	6	1	8	4	12
Rheumat	ism of the heart						***			***	***			4447	***	1	***	***	***		- "
Troppor	T ONTE:																	- 31	100	1	
Tubercu Brain or	meninges, acute hydrocephalus	15	13	5.	1		2				***				2	13	11.	10	22	14	86
Larynx						10	11	1 07	65	46	15	3.	1		36	45,	44	85	121	89	210
Lungs		5	8	3	3.	10	14	37	00	40	10.	3.	1		2	1	1	2	3	3	6
Goneval	s, tabes mesenterica position undefined	9	10	2	2	1	1	3.	1						5	9	7	8	19	10	29
Other for	rms, serofula	4	2		1			1	1	1	2	14.40	1.		3	4	3	3	9.	4	13
						14											1				
Other Inf	ective diseases	***	***	***	***			***	***	***			1		1			189	1		
Thrush			***	***	10000		***				****	1000	***			100					
Actinomy	ycosis					111					****		***		5.2"	1	1.0				
Hydatid	diseases	***	***		***		***		***	***		1	17			1	117	1			
Senryy									42.0	200	***								100		
Other dis	seases due to altered food				***	***						***	***			1		1.	1	1	. 2
Acute ale	coholism, delirium tremens			***				ï	7	4	2	2	100		1	3	6	6	111	5	16
Chronic	alcoholism	***	***	100				1	1	-	-	-		-	1	1					TTY
Chronic	industrial poisoning								***				1					117			***
Other chi	ronic poisonings																	***	***	411	***
			1			Jan B			The same				1	1			1	-	1		1
	thritis, rheumatoid arthritis									***	2	***				1	1		2		2
			10000				100	2	14	19	31	18	2	1	-14	21	17	35	38		87
	mellitus		***		-24					2	1	1000	1			1	1	3	3	2	2
	hœmorrhagicabilia		1							ï	1			1		1			1		1
T. a. barn			***		***					-						- 4	-	-			

DEATHS REGISTERED FROM DEC					URIN 02.	IG !	THE	YE	AR	ENI	OING				IN :	EACE	I SUI	B-DIST CAUS	FRICT	
						A	GES.							South.	own.	lown.	ston.		C.	3
CAUSES OF DEATH.	Under 1.	1 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 35.	35 to 45.	45 to 55.	55 to 65.	65 to 75.	75 to 85.	85 and upwards.	Shoreditch	Hoxton New Town.	Hoxton Old Town.	Haggerston	Male.	Female.	TOTAL.
Lymphadenoma, Hodgkin's disease																				
Premature birth njury at birth Debility at birth Atelectasis Congenital defects	1 26 6 8													3 3	13 8	24 1 4 3 2	34 11 6	46 1 18 2 5	28 8 4 3	74 1 26 6 8
Want of breast milk Atrophy, debility, marasmus Dentition Rickets Old Age, senile decay	100 12 1	8 4 1									32	50	19	14 3 30	26 8 1 20	30 4 1 17	38 6 36	65 12 2 40	43 4 63	108 16 2 103
Convulsions Meningitis Encephalitis Apoplexy Softening of brain	12	5 14 	2	2	ī 			1 8 	20	1 16 2	26	 5 	 1 1	6 .3 17 	11 8 15 	6 14 17 4	13 8 27 5	22 21 84 5	14 12 42 6	36 33 76
Hemiplegia, brain paralysis General paralysis of insane Other forms of insanity Chorea Cerebral tumour Epilepsy				 1	1	2	5 2 1	5	3	ī 1	i 1			5 1	1 2 1	2 1	8 1	12 1	4 8 4	16 4 4
Laryngismus stridulus		1			1			1 2	 2 2	1 1 3	 1	···· ··· ··		1 3 1	2	4 2	 2 3	1 5 2	 2 6	1 7 8
Otitis, otorrhœa Diseases of nose, epistaxis		1		2	1				1	1		1					1			1
Diseases of eye, ophthalmia Pericarditis		1					1				1			1		1	1	2	1	3
Endocarditis, valvular diseases of the eart Hypertrophy of heart Angina pectoris Aneurism Senile gangrene Embolism, thrombosis Phlebitis Varicose veins Other and ill-defined diseases of heart and			1		1	2	3 1 1	3	9 1	5 1 2 	9 1 1 1 1 1	2 1	 1 	9 1 2 1 1 	10 2 1	3 1 1	15 4 1 	20 5 1 	17 1 4 1 1 1	37 1 9 2 1 1
irculatory system, including heart diseas. of stated to be valvular			2	2	2	4	8	19	20	14	23	9		21	25	18	42	46	60	106
Laryngitis Croup Other diseases of larynx and trachea		1 1													1	1	1	1 1	1	1 1 1
Acute bronchitis Chronic bronchitis Lobar, croupous pneumonia Lobular, broncho-pneumonia Pneumonia, form not stated Emphysema, asthma Pleurisy Other and ill-defined diseases of respiratory ystem	28 28 26 	27 36 21 	1 3 5 	 1 2 	2 1 1 	1 1 3 1	3 1 5 1	3 4 2 12 1	9 19 2 4 15 2 4	7 32 2 7 16 1	7 48 1 6 12 	3 22 8 1		8 26 3 17 14 3	39 32 2 19 28 3	29 28 1 16 21 1 3	54 45 5 37 64 1 1	63 51 5 50 68 2 8	67 75 6 39 59 2	130 126 11 89 127 2 10
Diseases of mouth and annexa Diseases of pharynx Diseases of œsophagus Ulcer of stomach and duodenum							 1													7
Other diseases of stomach Enteritis Appendicitis Obstruction of intestine Other diseases of intestine Cirrhosis of liver	9 28 3 2	1 4	1 2				1 1 	1 1 7	1 1 1 8	1 1 1 2 	1	5		3 5 2	3 1 2 2 2 6	13 1 2 7	11 18 1 3 1 6	10 20 1 5 1	4 15 3 7 2 11	14 35 4 12 3 21
ther diseases of liver eritonitis ther and ill-defined diseases of digestive system		2	i		ï	ï	1		 1	3	1 1	3		3 2		3 4	1 2	3 2	6	7 8

_	
6	
6	
65	
65	
65	
65	
65	
65	
65	
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65	
65	
65	
65	
65	
65	
65	
65	

3	DEATHS REGISTERED FROM ALL CAUSES DURING THE YEAR ENDING DEATHS REGISTERED IN EACH SUB-DISTRICT FROM ALL CAUSES.																						
Disease of symphatic critem and ductites glouds									GES.							South.	Town	own.	ton.		les,		
Disease of symphatic evitem and duelless glands			Under 1.	- 2	5 to 10:	10 to 15.	2	20 to 26.	2	35 to 45.	15 to 55.	55 to 65.	65 to 75.	75 to 85.	85 and upwards	horeditch	Hoxton New	Hoxton Old T	Haggers	Male	Females.	TOTAL.	
Acute nephritis	-					-11										00						1	
Bright's disease	Disc	ase of symphatic eystem and ductless glands				33					:::												ı
Calculus Disease of bladder and postrate	Acu	te nephritis			1									1		12	21	16	15		31	64	ı
Diseases of testis and penis	Cal	sulus	***									2	3	1			1	1			1	6	ı
Diseases of varies	Oth	er and ill-defined diseases of urinary system			413							1	1	1		1	2			2	1	8	ı
Diseases of uterus and appendages														33.5		***	1	1			2	2 -	1
Diseases of breast	Dis	eases of uterus and appendages						:		1	***	1		10						***	2	2 -	1
Abortion, miscarriage	orgi	ans											***			71		122	***	344			
Penepral mania Penepral mania Penepral mania Penepral months Penepral mont		***************************************		***						***	***	***	***	***	***			***		27.5		***	
Placenta provisa, flooding Placenta provi	Abo	ertion, miscarriage	***							0.00				***		7	***	***		**			
Description	Pue	rperal convulsions	3"													***				10000			ı
Arthritis, ostitis, periositis	Pue	erperal thrombosis															1000					***	ı
Arthritis, ostitis, periostitis	Oth	er and ill-defined accidents and diseases bregnancy and childbirth							1	4					t		T	3	1	1	4	5	ı
A Ulcer, bedsore		101111111111111111111111111111111111111		***	1												I.					1	ı
Secrems	Oth	er and ill-defined diseases of osseous system					444									***	***		***			***	ı
Pemphigus	Ule	er, bedsore												463.4			PRODUCTION IN	77		-	238	2	ı
By Accidented By Accidented By Accidented By By Accidented By By Accidented By By Accidented By	Per	nphigus			***						***					***				/		***	ı
By Accident or Negligence. 138	Oth	er and ill-defined diseases of integumentary	2																2	1	1	2	
138 In mines and quarries		By Accident or Negligence.			1							-				1							ı
140 On railways	38 1	n mines and quarries					100000000000000000000000000000000000000				0.00000		00000	1177	100000	10000				6	1	7	ı
148 By machinery	10 (n railways	***				100000			7230		000	2000			(A) (A)	15000						ı
148 By machinery 148 By machinery 149 By machinery 140 By machinery 140 By machinery 140 By machinery 140 By machinery 141 By machinery 141 By machinery 142 By machinery 143 By machinery 144 By machinery 145 Burns and scalds 1 8 1	42]	n buildings operations				1000	10000					7000 I	000000		20000	200	1000			200		1	ı
145 Burns and scalds 1 8 1	44]	By weapons and implements														0.00	···				7	12	ı
147 Surgical narcosis 1 2 2 2 2 1 1 6 1 1 1 2 2 2 2 1 1 6 1 2 2 2 2 1 1 6 1 2 2 2 2 2 1 1 6 1 2 2 1 1 6 1	45]	Burns and scalds	1										1000	3333			100					···	١
149 Corrosion by chemicals	47 8	Surgical narcosis																					١
151 Suffocation, overlaid in bed	49 (Corrosion by chemicals																				6	١
152 Suffocation, otherwise. 1 2 2 1 2 3 2 4 2 1 3 4 3 10 12 154 Weather agencies 1				200		0.000	13333							***		5		9			15	38	ı
154 Weather agencies	52	Suffocation, otherwise	1	1000		10000									633.0			3	10	12	8	20	ı
156 Homicide	54	Weather agencies			7.40										100000	10000	-					1	ı
Suicides All Forms Suicides S			1				1											1		1		1	ı
157 By poison	.56			1110																			ı
158 By asphyxia	57	By poison						1				1	1			1	1				2	8	١
160 By drowning 1 1 1 2 1	.58	By asphyxia			10000										100000		100000	3	1	2	3	5	ı
162 By cut or stab 163 By precipitation from elevated places	60	By drowning		0.000	1 1 20									1000	1000		1000		3		2	1	ı
163 By precipitation from elevated places .	62	By cut or stab		1 1	9 00000	10000		16383		1000000		2					1	2	10000	4		4	
165 By other and unspecified methods <td>63</td> <td>By precipitation from elevated places</td> <td></td> <td></td> <td></td> <td>35000</td> <td></td> <td>10000</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td></td>	63	By precipitation from elevated places				35000		10000									1					1	
166 Execution	65	By other and unspecified methods		1000					1	***								1					
168 Other ill-defined and not specified causes 1 1 1 1 1 2 1 1 1 3 1 3 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1	166	Execution						1									1			1		1	
168 Other ill-defined and not specified causes 1 1 1 1 3 4 12 4 3 1 7 9 11 12	167	Sudden deaths						1 4	1	1				100000	10000 T		1 200				1 5	1 7	
169 Malignant disease 1 0 9	168	Other ill-defined and not specified causes Malignant disease	8 1	1		100000		100	1							1	7	9	11	12	16	28	
1 2													•••	•••									
Totals 704 850 56 38 42 58 124 219 236 238 280 127 24 855 580 558 948 1264		Totals	. 704	850	56	38	42	58	124	219	236	238	280	127	24	855	580	558	948	1264	1177	2441	

TABLE VI. — ANALYSIS AND COMPARISON OF LONDON AND SHOREDITCH BIRTH AND DEATH RATES FOR THE YEAR ENDING 31st DECEMBER, 1902.

		-			Annua	L RAT	E PER	1000	PERS	ONS L	IVING						ear	PERCI	ENTAG L DEA	
	Estimated		DEATH	S DUDIN	THE Y	PADE.			DE	ATHS	DURI	NG 190	2 FRO	M			Deaths under I year to 1000 Births.	ses.	ablic as.	od sath.
	population	BIRTHS	DEATH	S DUMIN	y Ing I	LAND.	ipal otic ases.	-Pox	20	r et	neria	ping gh.		noea.	sulous	.90	1000 J	st Cases	in Pr itution	s of De
			1899.	1900.	1901.	1902	Principal Zymotic Diseases	Small-Pox	Measles.	Scarlet	Diphtheria	Whooping Cough.	*Fever.	Diarrhœa.	Tuberculous Disease.	Violence.	Deatl	Inquest	Deaths in Public Institutions.	Uncertified Causes of Death.
talling street		00.5	10.5	10.0	15.0	17.2	0.0	0.00	0.51	0.10	0.05	0:40	0.11	0.50			139			
London	4,579,110	28.5	19.7	18.8	17.6	17.2	5.2	0.28	0.91	0.12	0.29	0.40	0.11	0.58			199			
Shoreditch	§ 116,578	33.3	24.2	21.4.	22.1	20.9	3.6	0 64	0.72	0.06	0.18	0.68	0.20	1.12	2:5	0.9	181	12.9	36.0	
Sub-Districts.																				
Shoreditch South	15,927	29.3	29.9	26.4	23.2	22.2	2.3	0.31	0.43		0.12	0.43	0.43	0.62	3.0	1.0	158	12.3	46.1	
Hoxton New Town	§28,261	32.5	21.6	20.9	21.6	20.5	3.4	1.87	0.42	0.10	0.14	0.38	0.10	1.20	2.6	0.9	161	15.4	33.7	
Hoxton Old Town	26,385	32.7	24.7	19.8	22.0	21.1	3.8	0.22	0.94	0.11	0.22	0.66	0.26	1.40	2.5	1.0	197	13.0	32.2	
Haggerston	. 46,000	85.5	22.7	20.9	22:1	20.6	3.8	0.54	0.86	0.04	0.24	0.82	0.15	1.10	2.3	0.8	183	10.4	34.9	

*Fever includes typhus, typhoid, and continued fevers.

§ The inhabitants of the Holborn Union Workhouse, which is situate in Hoxton New Town Sub-District, and the deaths occurring in that institution are excluded.

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 VII.

ANALYSIS OF THE CASES TREATED BY THE DISTRICT MEDICAL OFFICERS OF THE BOROUGH during the Year ending December 31st, 1902.

	DISEASES.		DISEASES.
1 2	Il Causes Small-pox	3,403 28 55	38 Congenital malformations — 39 Old age 102 40 Apoplexy 13
3 4 5	Scarlet fever Typhus Relapsing fever	3 -	41 Epilepsy 20 42 Convulsions 4 43 Other diseases of brain and
6 7 8	Influenza Whooping cough Diphtheria	67 26 4	nervous system 127 44 Diseases of organs of special
9	Simple, continued and ill- defined fever	10 5	sense 8 45 Diseases of circulatory system 168
11 12 13 14 15	Simple cholera Diarrhœa, dysentery Remittent fever Hydrophobia Glanders	34 - -	46 Laryngitis 5 47 Bronchitis 847 48 Pneumonia 33 49 Pleurisy 31 50 Other respiratory diseases 40
16 17 18 19 20 21 22	Cow pox and effects of vaccination Venereal affections Erysipelas Pyæmia and septicæmia Puerperal fever Tabes mesenterica	19 10 — 3 —	51 Dentition 3 52 Quinzy, sore throat 33 53 Enteritis 34 54 Peritonitis 1 55 Diseases of liver 14 56 Other diseases of digestive system 177
23 24 25	Tuberculous meningitis Phthisis Scrofula, tuberculosis Other zymotic diseases	189 9 23	57 Diseases of lymphatic system and ductless glands 7 58 Diseases of urinary system 35
26	Thrush	11	58 Diseases of urinary system 35 59 Diseases of generative system 26
27	Worms and other parasitic diseases	2	60 Accidents of childbirth 14
	C		61 Diseases of locomotive system 139
28 29	Starvation, want of breast-milk Alcoholism	29	62 Diseases of integumentary system 85
30	Rheumatic fever and rheumatism of heart	17	INJURIES.— 63 Fracture and contusion 12
31	Rheumatism	266	64 Gun shot wounds
32 33	Gout	35	66 Burn or scald 2
34 35	Cancer Other constitutional diseases	12. 49	67 Poison 6 68 Drowning 69 Suffocation
36 37	Premature birth Atelectasis	_	70 Otherwise 73 71 Other causes 415

TABLE VIII.—SMALL-POX IN SHOREDITCH—1902.

Date.	invaded.	Small-pox.	Removals.	Date.	New houses invaded.	Cases of Small-pox.	Removals.	Date.	New houses invaded.	Cases of Small-pox.	Removals.	Date.	New houses invaded.	Cases of Small-pox.	Removals.	Date.	New houses invaded	Cases of Small-pox.	Removals.	Date.	New houses invaded.	Cases of Small-pox.	Removals.
,, 28	1 1 1 1 2 12 12 8 17 9 6 4 4 4 1	1 1 1 1 1 1 2 12 18 8 17 9 6 5 4 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Feb. 9 " 10 " 11 " 12 " 13 " 14 " 15 " 16 " 17 " 18 " 19 " 20 " 21 " 23 " 24 " 25 " 26 " 26 " 30 " 31 " 31 " 4 " 15 " 16 " 7 " 8 " 9 " 10 " 11 " 12 " 13 " 14 " 15 " 16 " 17 " 18 " 19	3 4 4 4 2 2 2 2 1 1 3 3 3 2 2 5 1 1 1 2 2 2 2 2 3 3 3 2 2 1 4 4 1 2 2 2 2 3 3 3 2 2 1 4 4 1 2 2 2 2 2 3 3 3 2 2 1 4 4 1 2 2 2 2 2 3 3 3 3 2 2 1 4 4 1 2 2 2 2 2 3 3 3 3 2 2 1 4 4 1 2 2 2 2 3 3 3 3 2 2 1 4 4 1 2 2 2 2 3 3 3 3 2 2 1 4 4 1 2 2 2 2 3 3 3 3 2 2 1 4 4 1 2 2 2 2 3 3 3 3 2 2 1 4 4 1 2 2 2 2 3 3 3 3 2 2 1 4 4 1 2 2 2 2 3 3 3 3 3 2 2 1 4 4 1 2 2 2 2 3 3 3 3 3 2 2 1 4 4 1 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	6 12 10 6 6 6 11 7 7 5 2 5 5 1 2 1 3 5 5 7 7 7 4 6 6 8 5 7 7 2 2 3 3 2 1 1 4 2 2 3 3 8 1 2 2 8 5 5 4 2	3 6 11 7 8 11 7 12 2 8 2 4 4 2 2 3 3 3 3 3 10 4 4 5 5 5 7 7 1 1 4 4 6 6 1 1 4 3 3 1 4 4 2 2 3 3 4 4 4 4	Mar. 20 " 21 " 22 " 23 " 24 " 25 " 26 " 27 " 28 " 29 " 30 " 31 " 4 " 5 " 6 " 7 " 8 " 9 " 10 " 11 " 12 " 13 " 14 " 15 " 16 " 17 " 18 " 19 " 20 " 21 " 22 " 23 " 24 " 25 " 26 " 27	3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 2 2 2 2 1 4 2 2 5 2 1 2 1 3 1 1 1 3 2 1 1 1 2 2 3 1 1 1 2 2 3 1 1 1 2 2 3 1 1 1 2 2 3 1 1 1 2 2 3 1 1 1 2 2 3 1 1 1 2 2 3 1 1 1 1	143 22 434 11 132 3 12 12 2 11 2	April 28	1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 3 2 2 3 3 1 1 2 2 3 3 1 1 1 2 2 1 1 1 2 2 2 1	4 2 2 3 1 4 2 2 2 2 1 6 4 4 2 1 3 1 1 1 2 1 1	June 6 7 8 9 10 11 12 11 12 13 14 15 16 16 17 17 18 19 20 21 22 23 24 25 26 26 27 28 29 30 July 1 22 33 34 35 45 36 36 37 38 39 30 July 1 30 30 July 1 30 30 30 30 30 30 30 30 30 30 30 30 30	1 1 1 1	3 2 · 1 · 1 · 1 · 1 · 1 · 2 · · · · · · ·	2 2 1 1 1 1 1 1 2 2 2	July 15 " 16 " 17 " 18 " 19 " 20 " 21 " 22 " 23 " 24 " 25 " 26 " 27 " 28 " 29 " 30 " 31 Aug. 12 " 24 " 25 " 27 " 28 " 29 " 30 " 31 " 31 " 24 " 25 " 27	1 1 1	1 1 1 1 1	1 1 1 1 1

There was also one house invaded about October 28, one case occurred; subsequently three secondary cases occurred and all four were removed to hospital on November 17.

In the above table the date of invasion of the house means the date on which the primary case (or cases) was recognised to be small-pox from the appearance of the eruption.

69

TABLE IX.—LIST OF SMALL-POX CASES IN SHOREDITCH DURING THE YEAR 1902.

Ref. No.	Sex.	Age.	Address.	Date of Invasion.	Date of Erup'ion	Date of Removal to Hos- pital.	Occupation.	As to Vaccination.	Source of Infection.	Sanitary condition of House.	Remarks.
1	F	63	Holborn Workhouse	Dec. 31/01	Jan. 2	Jan. 2	Inmate of Holborn Workhouse	Infancy	Case in Receiving Ward	Good	
2	M.	63	Holborn Workhouse	Dec. 31/01	Jan. 1	Jan. 2	33 11	Infancy and on Dec 24/01.	" "	. 11	
3	M.	23	Holborn Workhouse	Jan. 2	Jan. 3	Jan. 3	,, ,,	Unvaccinated	,, ,,	,,	Case fatal
4	M.	36	32, Albion Road	?	Jan. 2	Jan. 5	Baker Shoreditch Work'ouse	Infancy	Case in Islington probably	Satisfactory	Case confluent—fatal
5	F.	44	Holborn Workhouse	Dec. 31/01	Jan. 3	Jan. 4	Inmate of Holborn Workhouse	Infancy	Same as Nos. 1, 2,& 3	Good	
6	F.	8	100, Wilmer Gardens	Jan. 6	Jan. 7	Jan. 7	School	Vaccinated Dec 30/01	Previous case in House	Dirty House	Case confluent—fatal
7	M.	14	100, Wilmer Gardens	Jan. 6	Jan. 9	Jan. 9	,,	,,	" "	,,	
8	M.	12	100, Wilmer Gardens	Jan. 6	Jan. 10	Jan. 10	,,	,,	,, ,,	,,	
9	F.	7	29, Gifford Street	Not Small-	pox						
10	M.	2	29, Gifford Street	Not Small	pox						
11	M.	18	29, Dunstan Street	Not Small	- pox						
12	M.	84	277, Kingsland Road	Jan. 11	Jan. 13	Jan. 14	Casual	Infancy	Probably case in Stoke Newington	Satisfactory	Case Hæmorrhagic— fatal
13	M.	47	Holborn Workhouse	?	Jan. 8	Jan. 15	Inmate of Holborn Workhouse	Unknown	Unknown	Good	Case Hæmorrhagic— fatal
14	F.	29	58, Gt. Chart Street	Jan. 17	Jan. 19	Jan. 19	Housewife	Infancy	,,	Fair	
15	M.	74	Holborn Workhouse	Jan. 24	Jan. 26	Jan. 26	Inmate of Holborn Workhouse	,,	Case 13	Good	
16	F.	18	43, Clarissa Street	Jan. 23	Jan. 27	Jan. 27	Makes Collars	,,	Unknown	Fair	
17	F.	12	28, Weymouth Terrace	Jan. 25	Jan. 27	Jan. 28	School	Unvaccinated	,,	Good	
18	M.	19	68, Whiston Street	Jan. 25	Jan. 27	Jan. 28	Cabinet Maker	Infancy	"	Dirty House	

70

TABLE IX.—continued.

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Ref. No.	Sex.	Age.	Address.	Date of Invasion.		Date of Removal to Hos- pital.	Occupation.	As to Vaccination.	Source of Infection.	Sanitary condition of House.	Remarks.
19	M.	19	68, Nile Street	Jan. 25	Jan. 28	Jan. 28	Butcher	Infancy	Neighbourhood of Nile Street	Good	
20	M.	25	76, Britannia Street	Jan. 25	Jan. 27	Jan. 28	Unemployed	Unknown	Case at No. 35, Commercial Street, E.	Dirty House	
21	M.	8	21, Myrtle Street	Jan. 25	Jan. 28	Jan. 29	School	Unvaccinated	Unknown	Satisfactory	
22	M.	28	8, Hyde Road	Jan. 24	Jan. 27	Jan. 29	Artificial Flower Making	Infancy		,,	Case confluent—fatal
28	F.	9	37, Dunstan Road	Jan. 26	Jan. 28	Jan. 29	School	Unvaccinated	**	Dirty House	Case confluent—fatal
24	F.	37	5, Nile Street	Jan. 25	Jan. 29	Jan. 29	Housewife	Infancy	Neighbourhood of Nile Street	,,	
25	M.	17	57, Britannia Street	Jan. 25	Jan. 28	Jan. 29	Apprentice	Unvaccinated	23	Fair	Case confluent—fatal
26	F.	16	30, Bristow Street	Jan. 26	Jan. 29	Jan. 29	Waitress	,,	" "	,,,	Case confiuent—fatal
27	M.	58	Holborn Workhouse	Jan. 26	Jan. 28	Jan. 28	Inmate of Workhouse	Infancy	Case 13	Good	Case fatal
28	M.	68	Holborn Workhouse	Jan. 27	Jan. 29	Jan. 29	"	11	,,	"	
29	M.	76	Holborn Workhouse	Jan. 28	Jan, 29	Jan. 29	"	,,,	"	11	Case discrete—fatal
30	M.	54	Holborn Workhouse	Jan. 28	Jan. 29	Jan. 29	"	,,	2)	,,	
31	M.	15	8, Holywell Lane	Jan. 26	Jan. 28	Jan. 30		"	Unknown	Fair	
32	F.	31	24, Westmorland Place	Jan. 24	Jan. 26	Jan. 29		Unvaccinated	Neighbourhood of Nile Street	"	Case confluent—fatal
33	F.	41/2	251, Chatham Avenue	Jan. 25	Jan. 30	Jan. 30	School	"	" "	Dirty Dwelling	
34	F.	87	55, Haberdasher Street	Jan. 26	Jan. 30	Jan. 30	Housewife	Infancy	21 21	Fair	
35	F.	27	217, Chatham Avenue	Jan. 26	Jan. 29	Jan. 30	Housewife	"	22 21	"	
36	F.	10	4, Underwood Place	Jan. 26	Jan. 29	Jan. 30	School	Unvaccinated	" "	Dirty House	Case Hæmorrhagic— fatal

Ref. No.	Sex.	Age.	Address.	Date of Invasion.	Date of Erup'ion	Date of Removal to Hos- pital.	Occupation,	As to Vaccination.	Source of Infection,	Sanitary condition of House.	Remarks.
37	F.	41	17, Crondall Street	Jan, 26	Jan. 27	Jan. 30	Housewife	Infancy	Neighbourhood of Nile Street	Satisfactory	Case confluent—fatal
38	M.	9	58, Haberdasher Street	Jan. 25	Jan. 27	Jan. 30	School	Infancy but unsuccessfully	,,	Fair	
39	M	$2\frac{11}{12}$	49, Gt. Chart Street	Jan. 27	Jan. 29	Jan. 30	,,	Unvaccinated	,,	,,	Case confluent—fatal
40	M.	81	49, Allerton Street	Jan. 25	Jan, 28	Jan. 30	,,	Infancy	11	Dirty and Dilapidated House	
41	F.	3	1, Fairbank Street	Jan. 25	Jan. 27	Jan. 30	*	Unvaccinated	11	Fair	Case hæmorrhagic— fatal
42	M.	4	4, Underwood Steet	Jan. 26	Jan. 29	Jan. 30	School	,,	n	,,	
43	M.	40	25, Westmorland Place	Jan. 27	Jan. 29	Jan. 30	Unemployed	Infancy	11	Dirty House	Case hæmorrhagic— fatal
44	M.	60	12, Eagle Wharf Road	Jan. 25	Jan. 29	Jan. 31	House Painter	"	1)	Fair	Case hæmorrhagic— fatal
45	M.	24	Shuttleworth Lodging House, Wilmer Gardens	Jan, 26	Jan. 29	Jan. 30	Bookmakers' Runner	**	33	Satisfactory	
46	F.	12	31, Dunstan Road	Jan. 26	Jan. 29	Jan. 30	School	"	Unknown - see Case 23	Dirty House	
47	F.	67	Holborn Workhouse	Jan. 29	Jan. 29	Jan. 30	Inmate of Holborn Workhouse	11	Case 13	Good	
48	M.	55	Holborn Workhouse	Jan. 28	Jan. 29	Jan. 30	"	, "	,,	"	
49	M.	65	Holborn Workhouse	Jan. 29	Jan. 29	Jan. 30	, ,,	,,	,,	,,	
50	M.	78	Holborn Workhouse	Jan. 29	Jan. 29	Jan. 30	,,	,,	,,	,,	
51	M.	71	Holborn Workhouse	Jan. 29	Jan. 29	Jan. 30	11	,,	,,	,,	
52	M.	23	77, Moneyer Street	Jan. 27	Jan. 30	Jan. 31	General Dealer	Unvaccinated	Neighbourhood of Nile Street	Dirty House	
53	F.	28	36, Westmorland Place	Jan. 25	Jan. 30	Jan. 31	Housewife	Infancy	,,	Satisfactory	
54	F.	4	9. New North Road	Jan. 27	Jan. 27	Jan. 31	School	Unvaccinated	,,	Dirty House	Case confluent—fatal

Ref. No.	Sex.	Age.	Address.	Date of Invasion.	Date of Erup'ion	Date of Removal to Hos- pital.	Occupation.	As to Vaccination.	Source of Infection.	Sanitary condition of House.	Remarks.
55	М.	41	4, Windsor Terrace	Jan. 25	Jan. 29	Jan. 31		Unvaccinated	Neighbourhood of Nile Street	Fair	Case confluent—fatal
56	M.	36	48, Chatham Avenue	Jan. 25	Jan. 27	Jan. 31	Yard Foreman	Infancy	"	,,	
57	M.	2	6, Wellington Place	Jan. 25	Jan. 29	Jan. 31		Unvaccinated	,,	Dirty House	
58	M.	2	66, Bevenden Street	Jan. 26	Jan. 28	Jan. 31		"	27	Fair	Case confluent—fatal
59	F.	34	37. Mintern Street	Jan. 24	Jan. 26	Jan. 31	Tailoress	Infancy.	1)	,,	
60	F.	26	84, Britannia Street	Jan. 28	Jan. 31	Jan. 31	Housewife	11	,,	,,	
61	M.	24	54, Buttesland Street	Jan. 24	Jan. 28	Jan. 31	Hairdresser	11	,,	,,	
62	M.	5	8, Dunloe Street	Jan. 27	Jan. 29	Jan. 31	School	Unvaccinated	Unknown	Dirty House	Case hæmorrhagic— fatal
63	M.	1.6		Jan. 28	Jan. 31	Jan. 31		,,	Neighbourhood of Nile Street	Satisfactory	
64	M.	12	10, St. John's Terrace	Jan. 23	Jan. 29	Jan. 31	School	,,	Unknown	Fair	Case confluent—fatal
65	F.	42	88, Britannia Street		Jan. 31	Jan. 31	Cardboard Box Maker	Infancy	Neighbourhood of Nile Street	,,	
66	F.	26	34. Myrtle Street	Jan. 26	Jan. 27	Jan. 31	Unemployed	,,	"	Dirty House	
67	F.	42	99, Britannia Street	Jan. 28	Jan. 30	Jan 31	Housewife	,,	1)	Fair	
68	F.	27	57. Hows Street		Jan. 31	Feb. 1	,,	,,	Unknown	,,	
69	F.	30	73, Chatham Avenue	Jan. 25	Jan. 29	Feb. 1	,,	**	Neighbourhood of Nile Street	,,,	
70	F.	29	18. Custance Street		Jan. 27	Feb. 1	,,	"	11	Dirty House	
70	M.	71	Holborn Workhouse	Jan. 30	Jan. 31	Jan. 31	Inmate of Workhouse	1)	Case 13	Good	
71	M.	36	Holborn Workhouse		Jan. 31	Jan. 31	,,	22	"	,,	

${\tt TABLE\ IX.--} continued.$

Ref. No.	Sex.	Age.	Address.	Date of Invasion.		Date of Removal to Hos- pital.	Occupation.	As to Vaccination.	Source of Infection.	Sanitary condition of House,	Remarks.
73	F.	40	Holborn Workhouse	Jan. 28	Jan. 31	Jan. 31	Inmate of Workhouse	Infancy	Case 13	Good	
74	M.	18	Holborn Workhouse	Jan. 28	Jan. 30	Jan. 30	,,	11	"	23	
75	M.	14	37, Huntingdon Street	Jan. 25	Jan. 30	Feb. 1	Nil	Unvaccinated	Neighbourhood of Nile Street	Satisfactory	
76	M.	10	114, Britannia Street	Jan. 27	Jan. 29	Feb. 3	School	,,	" "	Dirty and dilapidate	Case confluent—fatal
77	F.	8	228, Chatham Avenue	Jan. 27	Jan. 29	Feb. 1	11	,,	" "	Fair	
78	F.	37	14, Fairbank Street	Jan. 28	Jan. 31	Feb. 1	Mantle Maker	Infancy	11 11	Satisfactory	
79	M.	21	92, Albion Road	Not small-	pox.					/	
80	M.	21	5, Underwood Street	Jan. 29	Feb. 1	Feb. 3	Mattress Maker	Infancy	Neighbourhood of Nile Street	Fair	
81	F.	14	12, Audrey Street	Jan. 28	Jan. 30	Feb. 3	School	11	Unknown	Satisfactory	
82	M.	6	194, Chatham Avenue	Jan. 27	Jan. 31	Feb. 2	,,	,,	Neighbourhood of Nile Street.	Fair	
88	M.	21	61, Westmorland Place	Jan. 28	Jan. 30	Feb. 3	Horse Keeper	,,	" "	Dirty House	Case confluent—fatal
84	F.	34	27, New North Road	Jan. 28	Jan. 30	Feb. 3	Housewife	,,	» »	Fair	
85	M.	18	11, Underwood Place	Jan. 30	Feb. 1	Feb. 3	Labourer	,,	,, ,,	Dirty House	
86	F.	6	28, Underwood Street	Jan. 29	Feb. 1	Feb. 3	School	Unvaccinated	" "	Fair	
87	F.	31	10, Underwood Street	Jan. 29	Feb. 2	Feb. 3	Housewife	Infancy	. ,, ,,	,,	
88	F.	66	Holborn Workhouse	Jan. 31	Feb. 1	Feb. 1	Inmate of Workhouse	"	Case 13.	Good	
89	M.	43	Holborn Workhouse	Jan. 31	Feb, 1	Feb. 1	,,	,,	" "	,,	
90	F.	71	Holborn Workhouse	Jan. 31	Feb. 1	Feb. 1	"	,,	23 23	"	

- 7

Ref. No.	Sex	Age	Address.	Date of Invasion.	Date of Erup'ion	Date of Removal to Hos- pital.	Occupation.	As to Vaccination.	Source of Infection.	Sanitary condition of House.	Remarks.
91	F.	28	46, Harman Street	Jan. 23	Jan. 23	Feb. 3	Housewife	Infancy	Unknown	Fair	This patient was supposed to have
92	M.	31	31, Nile Street	Feb. 2	Feb. 2	Feb. 3	Card board box maker	,,	Neighbourhood of Nile Street	Dirty House	'blood poisoning'
93.	F.	6	117, Chatham Avenue	Not Small-	pox					,	
94	F.	25	41, Britannia Street	Jan. 30	Feb. 2	Feb. 3	Housewife	Infancy	Neighbourhood of Nile Street	Fair	
95	M.	78	Holborn Workhouse	?	?	Feb. 2	Inmate of Workhouse	,,	Case 18	Good	
96	M.	69	Holborn Workhouse	?	Feb. 3	Feb. 3	33	,,	"	,,	
97	F.	73	Holborn Workhouse	Jan. 31	Feb. 1	Feb. 2	,,	"	"	"	
98	F.	48	Holborn Workhouse	Jan. 31	Feb. 1	Feb. 2	33	11	,,	,,,	
99	M.	41	49, Great Cambridge Street	?	?	Feb. 3	Casual	Unvaccinated	Unknown	Fair	Case confluent—fatal— infected outside Shore-
100	M.	52	26, Bevenden Streat	Jan. 30	Feb. 1	Feb. 4	Unemployed	Infancy and 18 years ago	Neighbourhood of Nile Street	,,	ditch
101	M.	16	2, Reeves Place	Not Small-	pox	1.					*
102	F.	37	2, Cleeves Buildings	Feb. 1	Feb. 4	Feb. 4	Housewife	Infancy	Unknown	Satisfactory	
103	M.	16	27, Bacchus Walk	Feb. 7	Feb. 8	Feb. 8		Unvaccinated	Eagle Dwellings, Finsbury	Dirty House	Child brought into Shoreditch after infection by its mother
104	F.	81/2	27, Bacchus Walk	Feb. 7	Feb. 8	Feb. 8		"	11 11	,,,	33 33
105	F.	12 days	36, Westmorland Place	?	Feb. 8	Feb. 9		Vaccinated Feb. 1, 1902	Case 53	Satisfactory	
106	F.	46	1, Fairbank Street	Feb. 7	Feb. 10	Feb. 10	Housewife	Infancy, revac- cinated Jan. 31, 1902.	Case 41	Fair	
107	F.	30	4, Windsor Terrace	Feb. 8	Feb. 10	Feb. 10	"	Infancy and re- vaccinated after infection.	Case 55	,,	Case hæmorrhagicfata
108	F	21	77, Marlborough Road	Feb. 7	Feb. 9	Feb. 10	Clerk	Infancy	Unknown	Satisfactory	Case confluent—fatal

Ref. No.	Sex	Age.	Address.	Date of Invasion.		Date of Removal to Hos- pital.	Occupation.	As to Vaccination.	Source of Infection.	Sanitary condition of House.	Remarks
109	M.	8	34, Aske Street	Feb. 5	Feb. 9	Fcb. 9	School	Infancy	Neighbourhood of Nile Street	Fair	
110	F.	13	34, Aske Street	Feb. 5	Feb. 9	Feb. 9	School	,,	" "	,,	
111	M.	17	17, Crondall Street	Feb. 8	Feb. 10	Feb. 10		"	Case No. 37	Satisfactory	
112	F.	32	54, Alma Street	Feb. 8	Feb. 10	Feb. 10	Housewife	,,	Unknown	,,	
113	F.	41/2	53, Provost Street	Feb. 9	Feb. 10	Feb. 11		Unvaccinated	Neighbourhood of Nile Street	Fair	
114	M.	20	251, Chatham Avenue	Feb. 9	Feb. 10	Feb. 11		,,	Case 33	Dirty House	
115	M.	1819	251, Chatham Avenue	Feb. 9	Feb. 11	Feb. 11	Printers' boy	,,	,,	"	Case Hæmorrhagic—
116	M.	20	131, Boston Street	Feb. 8	Feb. 11	Feb. 11	Unemployed	Infancy	Unknown	,,	10001
117	M.	29	228, Chatham Avenue	Feb. 8	Feb. 10	Feb. 11	French Polisher	Infancy and re- vac. 10/2/02	Case 77	Fair	
118	F.	26	228, Chatham Avenue	?	Feb. 11	Feb. 11	Housewife	Infancy	"	,,	
119	F.	7	228, Chatham Avenue	Feb. 11	Feb. 11	Feb. 11		Vaccinated 4/2/02	,,	,,	
120	F.	6 w'ks	228, Chatham Avenue	Feb. 11	Feb. 11	Feb. 11		Unvaccinated when infected	"	"	Case fatal
121	F.	22	5, Underwood Street	Feb. 6	Feb. 11	Feb. 11	Housewife	Infancy	Probably case 80	11	
122	F.	66	30, Dunstan Road	Not Small-	pox						
123	F.	5	24, Westmoreland Place	Feb. 9	Feb. 10	Feb. 11		Unvaccinated	Case 32	Fair	Case confluent—fatal
124	M.	28	7, Trafalgar Road	Feb. 7	Feb. 10	Feb. 12	Labourer	Infancy	Case 61	"	Shaved at 6, Brownlow Street
125	F.	47	25, Westmorland Place	Feb. 10	Feb. 12	Feb. 12	Cook	"	Case 43	Dirty House	
126	M.	29	9, Great Chart Street	Feb. 9	Feb. 11	Feb. 12	Salvationist	"	Unknown	Satisfactory	

TABLE IX.—continued.

75

Ref. No. Sex. Age. Address. Date of Invasion. Da	Remarks.
pital.	
127 M 30 4, Great James Street Feb. 8 Feb. 10 Feb. 12 Engine Driver Infancy Wife, who had an unrecognised attack of Satisfactory	
128 F. 37 21, Teale Street Feb. 10 Feb. 11 Feb. 12 Housewife Inf'cy & re-vac. visited relation with Dirty House	
Sman-pox in Det i-G in Tri-1	Case confluent—fatal
130 M. 3 3, Hyde Road Not Small-pox	
131 M. 38 117, Britannia Street Feb. 7 Feb. 9 Feb. 10 Mason's Labourer Infancy Infancy Garet's near Dover Dirty House	
Garage B	Believed to have had mall-pox when young
133 F. 31 58, Haberdasher Street Feb. 6 Feb. 9 Feb. 13 Housewife Infancy and revac. 30/1/02 ,,	
134 M. 1 2 58, Haberdasher Street Feb. 9 Feb. 10 Feb. 13 Vac. 30/1/02 ,, , ,	
135 F. 26 54, Buttesland Street. Feb. 9 Feb. 12 Feb. 13 Housewife Infancy Case 61 ,,	
136 F. 40 12, Chatham Avenue. Feb. 9 Feb. 12 Feb. 13 ,, Unknown ,,	
187 M. 13 123, Pritchard's Road Feb. 7 Feb. 12 Feb. 12 School ,, , , ,	
138 F. 25 104, Britannia Street. Feb. 11 Feb. 13 Feb. 13 Housewife ,, Case 57 Dirty House	*
139 M. 59 Shoreditch Infirmary ? ? Feb. 12 Found by police in Sh oreditch High S treet and taken to Infirmary	
140 M. 21 114, Britannia Street. Feb. 11 Feb. 12 Feb. 13 Box Maker Infancy Case 76 Dirty and dilapidated	
141 M. 6 114, Britannia Street. Feb. 11 Feb. 12 Feb. 13 School Unvaccinated ,, ,	
142 M. 4 114, Britannia Street Feb. 13 Feb. 14 Feb. 14 Vac. 1/2/02 ,,	
143 F. 33 4, Wellington Place . Feb. 11 Feb. 14 Feb. 14 Housewife Infancy Case 57 Dirty House C	Case hæmorrhagic— fatal
144 F. 27 37, Mintern Street ? Feb. 13 Feb. 14 ,, Case 59 Fair	

Ref. No.	Sex.	Age.	Address.	Date of Invasion.		Date of Removal to Hos- pital.	Occupation.	As to Vaccination.	Source of Infection.	Sanitary condition of House	Remarks
145	F.	23	12, Audrey Street	Feb 12	Feb. 14	Feb. 14	Housewife	Infancy	Case 81	Satisfactory	
146	M.	$14\frac{7}{12}$	9, New North Road	Feb. 11	Feb. 14	Feb. 14	Unemployed	33	Case 54	Dirty House	Case discrete—fatal
147	F.	18	7, Witham Street	Feb. 11	Feb. 13	Feb. 14	Artificial Flowers	,,	Neighbourhood of Nile Street	"	
148	M.	$3\frac{10}{12}$	194, Chatham Avenue	Feb. 13	Feb. 13	Feb, 14		Vac. 3/2/02	Case 82	Fair	
149	F.	7	251, Chatham Avenue	Feb. 12	Feb. 14	Feb. 14		Unvaccinated	Case 38	Dirty Dwelling	Case fatal
150	M.	29	12, Eagle Wharf Road	Feb. 11	Feb. 14	Feb. 15	Boot Fitter	Infancy	Case 44	Fair	. Case confluent—fatal
151	M.	49	27. Bacchus Walk	Feb. 10	Feb. 14	Feb. 14	Unemployed	,,	Eagle Dwellings, Finsbury	Dirty House	See cases 103 and 104
152	F.	7	11, Uunderwood Place	Feb. 10	Feb. 13	Feb. 14	School	Unvaccinated	Case 85	,,	
153	M.	17	61, Westmorland Place	Feb. 12	Feb, 15	Feb. 15	Carman	Infancy	Case 83	,,	
154	F.	6	114, Britannia Street	Feb. 13	Feb. 14	Feb. 14		Vac. 1/2/02	Case 76	Dirty and dilapidated	
155	M.	25	21, Drysdale Street	Feb. 9	Feb. 11	Feb. 15	Rope Maker	Infancy	Unknown	Fair	Case confluent—fatal
156	F.	31	251, Chatham Avenue	?	Feb. 14	Feb. 15	Housewite	Infancy and revac, 14/2/02	Case 33	Dirty Dwelling	•••••
157	F.	9	251, Chatham Avenue	?	Feb. 14	Feb. 15	School	Infancy and revac. 14/2/02	,,,	"	
158	F.	16	2, Branch Place	Feb. 10	Feb. 14	Feb. 15	Charwoman	Infancy	Case 26	Dirty House	
159	F.	21	46, Harman Street	Feb. 13	Feb. 17	Feb. 17	Housewife	,,	Case 91	Fair	
160	M.	58	Shoreditch Workhouse	Feb. 14	Feb. 15	Feb. 16	Inmate of Workhouse		Probably Nile Street neighbourhood	Good	
161	F.	27	49, Allerton Street	Feb. 13	Feb. 16	Feb. 17	Housewife	Unvaccinated	Case 40	Dirty and dilapidated	Case confluent—fatal
162	F.	27	6, Brownlow Street	Feb. 13	Feb. 15	Feb. 15	Hairdresser	Infancy	Case 61	Fair	Case confluent—fatal

Ref No.	Sex.	84 Age.	Address.	Date of Invasion.		Date of Removal to Hos- pital.	Occupation.	As to Vaccination,	Source of Infection.	Sanitary condition of House.	Remarks.
163	F.	41/2	6, Wellington Place	Feb. 13	Feb. 16	Feb. 17		Unvaccinated	Case 57	Dirty House	
164	M.	9	6, Wellington Place	Feb. 16	Feb. 17	Feb. 17		Infancy	"	"	
165	F.	141	4, Wellington Place	Feb. 14	Feb. 16	Feb. 17		,,	3)	. 11	
166	M.	35	3, Suffolk Place	Feb. 14	Feb. 16	Feb. 17	Temporary Disinfector	Infancy and revac. Feb. 5/02.	Whilst disinfecting	Fair	Commenced disinfecting on Feb. 3/02.
167	M.	14	114, Britannia Street	Feb. 15	Feb. 17	Feb. 17		Unvaccinated	Case 76	Dirty and Dilapidated	Case confluent—fatal
168	F.	16	4, Underwood Place	?	Feb. 13	Feb. 17		Infancy and after infection	Case 36	Dirty House	
169	M.	20	10, Haggerston Road	Feb. 13	Feb. 17	Feb. 17		Infancy	Unknown	Fair	
170	M.	23	2, H. George's Square	Feb. 15	Feb. 17	Feb. 17	Carpenter	1)	Dartford	Satisfactory	Employed erecting New Small-pox Hospitals
171	M.	28	84, Britannia Street	Feb. 13	Feb. 16	Feb, 17		,,	Čase 60	Fair	
172	M.	34	23, Marlborough Road	Feb. 15	Feb. 16	Feb. 17	Unemployed	,,	Shaved at 6, Brownlow Street	Satisfactory	See Case 61
173	F.	48	61, Westmorland Place	Feb. 15	Feb. 17	Feb. 18	Housewife	19	Case 83	Dirty House	
174	F.	18	61, Westmorland Place	?	Feb. 10	Feb. 18	,,	Infancy and re- Vac. Feb. 3/02.	,,	**	
175	M.	28	98, Provost Street	Feb. 16	Feb. 18	Feb. 19	Slaters' Labourer	Infancy	Probably Nile Street neighbourhood	Fair	
176	F.	$1\frac{4}{12}$	28, Watson's Place	Feb. 14	Feb. 16	Feb, 19		Unvaccinated	Unknown	Dwelling dirty & dilapidated	Case confluent—fatal
177	M.	6	28, Watson's Place	Feb. 14	Feb. 16	Feb. 19		,,	,,	a diapidated	Case hæmorrhagic— fatal
178	F.	17	28, Watson's Place	Feb. 14	Feb. 16	Feb. 19	Capsule Maker	,,	,,	,,	10001
179	M.	12	49, Allerton Street	Feb. 16	Feb. 18	Feb. 19	School	"	Case 40	Dirty and dilapidated	
180	F.	10	68, Mintern Street	Feb. 14	Feb. 18	Feb. 19	,,	,,	Unknown	Fair	

Ref. No.	Sex.	Age.	Address.	Date of Invasion.		Date of Removal to Hos- pital.	Occupation.	As to Vaccination.	Source of Infection.	Sanitary condition of House.	Remarks.
181	F.	13	15, Norwich Road	Feb. 17	Feb. 19	Feb. 19		Infancy	Unknown	Fair	
182	M.	30	11, Underwood Place	Feb. 16	Feb. 18	Feb. 19	Boot Finisher	"	Case 85	Dirty House	Case discrete—fatal
183	F.	37	48, Chatham Avenue	?	Feb. 16	Feb. 20	Housewife	,,	Case 56	Fair	
184	M.	27	104, Herbert Street	Feb. 17	Feb. 19	Feb. 20	Window Cleaner	Unvaccinated	Probably Nile Street neighbourhood	,,	Case hæmorrhagic— fatal
185	M.	27	41, Gt. Cambridge St.	Not Small-	pox					.,	
186	F.	21	59, Grange Street	Not Small-	pox	6				,	
187	M.	24	22, Penny Bank Bld'gs.	Feb. 17	Feb. 20	Feb. 21	Bookmakers' Clerk	Infancy	Unknown, but not in Shoreditch	Fair	
188	F.	36	21, St. John's Road	Feb. 16	Feb. 17	Feb. 21	Housewife	"	Unknown	,,	
189	F.	4	21, St. John's Road	Feb. 17	Feb. 18	Feb. 21	School	Unvaccinated	"	,,	Case confluent—fatal
190	M.	36	52, Chatham Avenue	Feb. 18	Feb. 20	Feb. 21	Porter at Chatham Avenue	Infancy	Chatham Avenue	,,	
191	M.	85	Shoreditch Workhouse	?	Feb. 21	Feb. 22	Inmate of Workhouse	,,	Unknown	Satisfactory	
192	F.	11	9, New North Road	Feb. 21	Feb. 28	Feb. 23		Infancy, Re- Vac. Feb. 22/02	see Case 54 and 146	Dirty House	
193	F.	15	36, Wilmer Gardens	?	Feb. 21	Feb. 23	Bonbon Maker	Infancy	Unknown	Satisfactory	
194	F.	19	113, Shaftesbury Street	Feb. 17	Feb. 20	Feb. 22	Collar Machinist	,,	,,	Good	
195	F.	9	53, Provost Street	Feb. 21	Feb. 22	Feb. 23		Vaccinated Feb. 15/02.	Case 113	Fair	Case discrete—fatal
196	M.	19	6, Wellington Place	Feb. 19	Feb. 22	Feb. 22	Unemployed	Infancy	Case 57	Dirty House	
197	M.	12	114, Britannia Street	Feb. 23	Feb. 24	Feb. 24	School	,,	Case 129	Dirty and Dilapidated.	\
198	M.	24	3, Baches Street	Feb. 20	Feb. 24	Feb. 24	Carman	33	Probably through Wife who was in contact with a case outside Shoreditch	Fair	· · · · · · ·

	100										
Ref. No.	Sex.	Age.	Address.	Date of Invasion.		Date of Removal to Hos- pital.	Occupation.	As to Vaccination.	Source of Infection.	Sanitary condition of house.	Remarks.
199	М.	35	7, Trafalgar Road	Feb. 22	Feb. 24	Feb. 24	Engineer	Infancy and re- vaccinated after		Fair	Case confluent—fatal
200	M.	35	15, Essex Street	Feb. 17	Feb. 20	Feb. 25	French Polisher	infection Infancy	Unknown	Dirty and dilapidated	
201	M.	25	74, Great Chart Street	Feb. 19	Feb. 20	Feb. 25	Fancy leather worker	"	**	Fair	
202	M.	5	75, Britannia Street	Not Small-	pox						
203	F.	28	48, Angrave Street	w 1 00	Feb. 25	Feb. 25	Mantle machinist	Infancy, revac- cinated Feb. 17 or 18, 1902	Case at No. 115 Albion Road	Fair	
204	M.	5	48, Angrave Street	Feb. 23	Feb. 25	Feb. 26		Vac. Feb. 17 or	,, ,,	,,	
205.	M	5	49, Allerton Street	Feb. 25	Feb. 26	Feb. 26		18, 1902 Unvaccinated	Case 161	Dirty and dilapidated	Case hæmorrhagic— fatal
206	F.	12	49, Allerton Street	Feb. 24	Feb. 25	Feb. 26		Unvaccinated	"	,, \	Case hæmorrhagic— fatal
207	M.	27	142, Shepherdess Walk	Feb. 22	Feb. 25	Feb. 27	Warehouseman	Infancy	Unknown	Fair	
208	M.	29	18, Custance Street		Feb. 25	Feb. 27	Furniture packer	,,	,,		Wife was removed with small-pox on Feb. 1, '02
209	F.	45	2, Wellington Place	Feb 22	Feb. 26	Feb. 27	School	Unvaccinated	Previous cases in Wellington Place	,,	
2:0	F.	10	21, Drysdale Street	Feb. 23	Feb. 27	Feb. 27	,,	Infancy, revacci- nated Feb. 18, '02	Case 155	Fair	
211	F.	19	21, Drysdale Street	Feb. 23	Feb. 26	Dead mortuary Feb. 27		Vaccinated Feb. 18, 1902	"	,,	Case hæmorrhagic— fatal—mortuary
212	M.	48	21, Drysdale Street	Feb. 26	Feb. 27	Feb. 27	Labourer	Infancy, revacci- nated 15 years ago		"	
213	M.	18	4, Underwood Place	Feb. 25	Feb. 27	Feb. 27	Unemployed	Infancy	Case 168	Dirty	
214	F.	13	4, Underwood Place	Feb. 24	Feb. 26	Feb. 27	Unemployed	Unvaccinated	- "	,,	
215	F.	27	63, Buttesland Street	Feb. 23	Feb. 26	Feb. 27	Housewife	Infancy	Unknown	Fair	
216	M.	10	4, Wellington Place	Feb. 25	Feb. 27	Feb. 28	School	Infancy	Case 165	Dirty	

Ref. No.	Sex.	Age.	Address.	Date of Invasion.	Date of Erup'ion	Date of Removal to Hos- pital.	Occupation.	As to Vaccination.	Source of infection.	Sanitary condition of house.	Remarks.
217	F.	4	115, Britannia Street	Feb. 25	Feb. 26	Feb. 27	*****	Unvaccinated	One of the cases 140 to 142	Dirty	
218	F.	5	11, Underwood Place	Feb. 27	Feb. 28	Feb. 28		Vaccinated Feb. 27, 1902	Case 152	,,	
219	F.	15	28, Watson's Place	Feb. 26	Feb. 28	Feb. 28		Infancy and about 22/2/'02	Cases 176-178	Dwell'g dirty & dilapidated	*****
220	F.	1	11, Underwood Place	Feb. 26	Feb. 27	Feb. 28		Unvaccinated	Case 152	Dirty	Case confluent—fatal
221	M.	63	Holborn Workhouse	?	Mar. 1	Mar. 1	Inmate of Workhouse	Infancy	Nothing conclusive	Good	
222	M.	18	83, Westmorland Place			Mar. 1	Feather beater	Unvaccinated	Nile Street and neighbourhood	Fair	
223	М.	12	6, Wellington Place	?		Mar. 1	School	Infancy	Case 163 or 164	Dirty	
224	F.	5	33, Mansfield Steeet	Not small-	pox.						
225	F.	33	Shoreditch Workhouse	Feb. 28	Mar. 1	Mar. 2	Inmate of Workhouse	Infancy	Case 165	Good	Visited 4, Wellington
226	M.	49	49,Gt.Cambridge Street		Mar. 1	Mar. 2	Shoemaker	"	Case 99	Fair	Place on Feb. 17, 1902 Attended funeral of Case 99 on Feb. 15, 1902
227	M.	23	39, Taplow Street	Feb. 27	Mar. 1	Mar. 1	Labourer	"	Unknown	Satisfactory	
228	M.	18	28, Watson's Place	Feb. 28	Mar. 1	Mar. 1		Infancy, revac- cinated 28/2/'02	Uasa 176-178	Dirty & dil'p- idat'd dwell'g	
229	F.	23	6, Wellington Place	Feb. 24	Feb. 27	Mar. 2		Unvaccinated	Case 163		Case confluent—fatal
230	F.	$12\frac{11}{12}$	84, Britannia Street	Feb. 28	Mar. 2	Mar. 2	School	Unvaccinated	Case 171	Fair	
231	M.	12	29, Grange Street	Feb. 25	Feb. 27	Mar. 2	School	Infancy	Unknown	Satisfactory	
282	F.	21	55, Whiston Street	Feb. 27	Mar. 1	Mar. 3	Housewife	Unvaccinated	Outside Shoreditch	Fair	Case confluent—fatal— Patient waited on a relative who died of small-pox.
233	М.	30	25, York Row	Feb. 27	Mar. 2	Mar. 3	Labourer	Infancy	Unknown	Satisfactory	who died of small-pox.
234	F.	22	48, Angrave Street	Mar. 1	Mar. 3	Mar. 3	Mantle maker	Infancy, revac- cinated 27/2/'02	Probably case at 115, Albion Road	Fair	

Ref. No	Sex	Age.	Address.	Date of Invasion.	Date of Erup'ion		Occupation.	As to Vaccination.	Source of Infection.	Sanitary condition of House.	Remarks.
235	F.,	23	61, Westmoreland Place	Mar. 2	Mar. 3	Mar. 3	Housewife	Infancy	Cases 178 and 174	Dirty	
236	F.	1410	84, Britannia Street	Feb. 28	Mar. 3	Mar. 3	Feather stringer	"	Case 171	Fair	
237	M.	28	49, Allerton Street	Mar. 2	Mar. 3	Mar. 3	Unemployed	Infancy, revac. Feb. 26, 1902	Case 161	Dirty and dilapidated	
238	M.	6	62, Custance Street	Feb. 26	Mar. 1	Mar. 3	School	Unvaccinated	Unknown, probably Nile St.neighbourhood	"	
289	F.	30	21, Drysdale Street	Feb. 27	Mar. 1	Mar. 1	,,	,,	Case 155	Fair	
240	F.	30	43, Myrtle Street	Feb. 28	Mar. 3	Mar. 4	Housewife	,,	Unknown Contact with a man	"	
241	M.	25	5, Hows Street	Mar. 3	Mar. 4	Mar. 5	Tea Packer	Infancy	employed on new buil- dings at Gore Farm	,,	
242	F.	15	115, Britannia Street	Mar. 3	Mar. 4	Mar. 5	Collar Ironer	Infancy, revac. Mar. 3, 1902	Probably case 167	Dirty	
243	F.	36	3, Suffolk Place	Mar. 3	Mar. 4	Mar. 5	Housewife	Infancy	Case 166	Fair	Case confluent—fatal
244	F.	40	62, Lyndock Street	Mar. 2	Mar. 4	Mar. 5	Housewife	"	Neighbourhood of Nile Street	,,	
245	F.	14	46, Harman Street	Mar. 1	Mar. 4	Mar. 6		"	Case 159	_ 11	
246	M.	27	1, Salisbury Street	Mar. 1	Mar. 4	Mar. 6	Comedian	,,	Unknown	Satisfactory	
247	M.	2	5, Wellington Place	Mar. 3	Mar. 5	Mar. 6		Unvaccinated	Cases in adjoining houses	Dirty	
248	F.	11	15, Essex Street	Mar. 4	Mar. 6	Mar. 6		"	Case 200	"	Case confluent—fatal
249	F.	22	8, Louisa Square	Mar. 4	Mar. 6	Mar. 6	General dealer	Infancy	Unknown	Fair	
250	M.	14	8, Louisa Square	Mar. 4	Mar. 6	Mar. 6	"	,,	,,	,,	
251	F.	4	117, Phillip Street	Feb. 27	Mar. 2	Mar. 2		Unvaccinated	,,	Dirty and dilapidated	Case confluent—fatal
252	F.	46	53, Broke Road	Mar. 1	Mar. 4	Mar. 7	Housewife	Infancy	"	Satisfactory	

TABLE IX.—continued.

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Ref No.	Sex	Age.	Address.	Date of Invasion.		Date of Removal to Hos- pital.	Occupation.	As to Vaccination.	Source of Infection.	Sanitary condition of House.	Remarks.	
			/11									
258	F.	12	84, Britannia Street	Not Small-	pox			'				-
254	F.	19	4, East Road	Mar. 4	Mar. 7	Mar. 8	Travelling bag stitcher	Infancy	Unknown	Fair		
255	M.	48	Shoreditch Workhouse	Mar. 6	Mar. 7	Mar. 8	Inmate of Workhouse	11	Previous cases in Workhouse	Good		
256	M.	18	Shoreditch Workhouse	?	Died	Mar7	,,	?	Previous cases in Workhouse	"	Case hæmorrhagic— fatal in about 24 hours	
257	F.	22	9, Great Chart Street	Mar. 5	Mar. 9	Mar. 9	Unemployed	Infancy	Case 126	Satisfactory	Infection indirect, through a man who had been exposed to infection	
258	F.	28	4, Lee Street	Mar. 4	Mar. 8	Mar. 8	Housewife	"	Unknown	,,	exposed to infection	
259	F.	19	5, Broadway, London Fields	Mar. 4	Mar. 7	Mar. 8	Domestic servant	,,	,,	"		
260	M.	24	10, Hoxton Market	Mar. 6	Mar. 9	Mar. 9	Carman	, ,,	Possibly cases at No. 21, Drysdale Street	Dirty		
26:	M.	7	7, Hobb's Place	Mar. 4	Mar. 6	Mar. 8	School	Unvaccinated	Unknown	Fair		
269	M.	29	43, Bridport Place	Mar. 6	Mar. 9	Mar. 9	Painter and house decorator	Infancy	,,	"		
268	F.	40	2, Wellington Place	Mar. 6	Mar. 9	Mar. 10	Housewife	**	Case 209	Dirty		
264	M.	74	Shoreditch Infirmary	Mar. 8	Mar. 9	Mar. 9	Inmate of Infirmary	**	Probably previous cases in Institution	Good	See case 191	
265	M.	21	34, Great James' Street	Mar. 8	Mar. 10	Mar. 11	Carman	,,	Unknown	Fair		
266	F.	54	25, Drysdale Street	?	Mar. 10	Mar. 11	Housewife	Infancy, and 7 years ago	Case 211	Satisfactory	Laid out body in case 211	
267	F.	25	42, Albion Road	Mar. 7	Mar. 11	Mar. 11	"	Infancy	Unknown	,,	Case hæmorrhagic— fatal	
268	F.	25	56, Pownall Road	?	Mar. 11	Mar. 11	,,	,,	,,	Fair		
269	M.	6	18, Moye Street	Not Small-	pox							
270	F.	,31	2, Wellington Place	Mar. 10	Mar. 12	Mar. 12	Housewife	Infancy, revac. Mar. 7, 1902	Case 209	Dirty	•••••	

83

Ref. No.	Sex.	Age.	Address.	Date of Invasion.		Date of Removal to Hos- pital.	Occupation.	As to Vaccination.	Source of Infection.	Sanitary condition of House.	Remarks
271	M.	41	2, Wellington Place	Mar. 11	Mar. 12	Mar. 12	Carman	Infancy and revac. 7/8/02	Case 209	Dirty	
272	M.	41	6, Wellington Place	Mar, 11	Mar. 12	Mar. 12	33	Infancy and revac. 6/3/02	Case 223	- ,,	Case confluent—fatal
273	M.	26	74, Pitfield Street	Mar. 7	Mar. 11	Mar. 13	Unemployed	Infancy	Unknown	Satisfactory	
274	M.	14	4, Wellington Place	Mar. 12	Mar. 13	Mar. 13	,,	Unvaccinated	Case 216	Dirty	Case confluent—fatal
275	M.	7	62, Custance Street	Mar. 14	Mar. 15	Mar. 15	School	Vac. on 7/3/02	Case 238	Dirty and dilapidated	
276	M.	11	62, Custance Street	Mar. 14	Mar. 15	Mar. 15	"	,,	,,	"	Case confluent—fatal
277	F.		4, Wellington Place		Mar. 14	Mar. 15		Vac. on 8/3/02	Case 216	Dirty	
278	M.	16	2, Wellington Place	Mar. 14	Mar. 15	Mar. 16	Newspaper lad	Infancy	Case 209	,,	
279	F.	11	5, Wellington Place	Mar. 14	Mar. 16	Mar. 16	School	Infancy and re- vac. 9/8/02	Case 247	1)	
280	F.	47	49, Great Cambridge St.	38 188	Mar. 14	Mar. 16	Housewife	Infancy	Case 226	Fair	
281	F.	39	25, Napier Street	?	Mar. 16	Mar. 17	Domestic Servant	,,	Unknown	Satisfactory	
282	M.	33	91, Haberdasher Street	Mar. 14	Mar. 16	Mar. 17	Stableman	,,	11	Fair	Case confluent—fatal
283	3.5	7	42, Albion Road	?	Mar. 16	Mar. 16		Vac. on 11/3/02	. Case 267	Satisfactory	Case discrete—fatal
284	F.	days 3	123, Pritchard's Road	?		Mar. 17		Vac. on 14/2/02	Case 137	Fair	
285	M.	7	101, Murray Street	Mar. 15	Mar. 17	Mar. 17	School	Believed to h've been unsuc'f'ly	Unknown	Satisfactory	Case confluent—fatal
286	F.	49	5, How's Street		Mar. 17	Mar. 18	Mantle finisher	vac. in infancy Infancy	Case 241	Fair	
287	F.	18	17. Boot Street			Mar. 18	Waitress	Infancy and revac. 8/3/02	Case 244	23	
288	F.	27		Mar. 16	Mar. 18	Mar. 19	Hawker	Infancy?	Case 249—251	Dirty and dilapidated	

TABLE IX.—continued.

Ref. No.	Sex.	Age.	Address.	Date of Invasion.	Date of Erup'ion	Date of Removal to Hos- pital.	Occupation.	As to Vaccination.	Source of Infection.	Sanitary condition of House.	Remarks.
289	F.	4	2, Parr Street	Mar. 16	Mar. 18	Mar. 19		Unvaccinated	Bethnal Green	Fair	Case confluent—fatal
290	M.	33	46, Essex Street	Mar. 14	Mar. 17	Mar. 19	Labourer	Infancy	Unknown	Dirty and dilapidated	
291	M.	40	7, Bracklyn Street	Mar. 19	Mar. 20	Mar. 20	"	11	Probably at Dartford	Fair	Was employed at M.A.B. new hospit'ls for sm'l-p'x
292	M.	43	16, Buckland Street	Mar. 19	Mar. 20	Mar. 21	Cellarman	,,	Unknown	Satisfactory	
293	F.	10	32, Hilcott Street	Mar. 12	Mar. 16	Mar. 21	School	Unvaccinated			
294	M.	22	21, Britannia Street (No such pe	rson resi	ded at th	e address given. The	case could not	be traced).		
295	F.	26	4, East Road	Mar. 17	Mar. 21	Mar. 21	Travelling bag stitcher	Infancy Infancy and re-	Case 254	Fair	
296	F.	39	7, Little Essex Street	Mar. 19	Mar. 20	Mar. 21		vac. at the age of 9 years	Unknown	Satisfactory	
297	F.	29	73, Custance Street	Mar. 19	Mar. 22	Mar. 22	Housewife	Infancy	Case 238	Dirty	Case confluent—fatal
298	M.	52	30, Haberdasher Street	Mar. 19	Mar. 21	Mar. 22	Publican	,,	Unknown	Satisfactory	
299	M.	38	1, Aubert Buildings	Mar. 20	Mar. 22	Mar. 22	General labourer	,,	,,	,,,	
300	F.	24	34, Great James Street	Mar. 21	Mar. 23	Mar. 24	Housewife	,,	Case 265	Fair	
301	F.	14	74, Great Chart Street	Mar. 22	Mar. 24	Mar. 25	Milliner	,,	Case 201	,,	
302	F.	13	74, Great Chart Street	Mar. 23	Mar. 24		School		"	,,	
303	M.	17	123, Pritchard's Road	Mar. 24	?	Mar, 27	Pte. in 5th Batt. Mid- dlesex Regt., Houns'w	Unvaccinated	Case 284	,,	Case confluent—fatal
304	M.	26	34, Great James Street	Mar. 25	Mar. 27	Mar. 27	Carman	Infancy	Case 265	,,	Case confluent—fatal
305	M.	26	17, Buckland Street	Mar. 21	Mar. 23	Mar. 24	,,	,,	Probably in Finsbury	Satisfactory	
306	F.	141	2°, Baches Street	Mar. 25	Mar. 27	Mar. 27	Work girl	Unvaccinated	Unknown	11	

85

Ref. No.	Sex.	Age.	Address.	Date of Invasion.	Date of Erup'ion	Date of Removal to Hos- pital.		As to Vaccination.	Source of Infection.	Sanitary condition of House.	Remarks.
307	F.	18	92, Chatham Avenue	Mar. 24	Mar. 27	Mar. 27	Machinist	Unvaccinated	Case of illness, probably Small-pox, which died at 42, Wimborne Street.	Fair	
308	F.	5	42, Wimbourne St.	Mar. 25	Mar. 27	Mar. 28	School	Unvaccinated	Same source as 307	33	Case confluent—fatal
309	M.	18	21, Charles Square	?	Mar. 28	Mar. 28	Collar cutter	Infancy and March 18/02.	Probably in Lewisham	Satisfactory	
310	F.	23	34, Gt. James Street	Mar. 27	Mar. 28	Mar. 28	Housewife	Infancy	Previous cases in the house—265 probably	Fair	Infection possibly through clothing
311	F.	15	32, Hilcott Street	?	Mar. 29	Mar. 29		Infancy, Re- Vac. Mar.24/02	Case 293	Dirty	
312	F.	19	32, Hilcott Street	?	Mar. 29	Mar. 29		Infancy, Re- Vac. Mar.24/02.	,,	"	
313	М.	7	32, Hilcott Street	?	Mar. 29	Mar. 29		Primary Vac. March 24/02.	"	,,	
314	M.	18	16, Buckland Street	Mar. 28	Mar. 30	Mar. 31	School	Infancy and Re- Vac. Mar. 22/02.	Case 292 probably	Satisfactory	
315	M.	38	197, High Street	Mar. 28	Mar. 80	April 1	Publican	Infancy	Unknown	"	
316	M.	5	56, Grange Street	Not Small-	pox						
317	F.	17	32, Hilcott Street	?	Mar. 29	Mar. 29		Infancy and March 24/02.	Case 293	Dirty	
318	M.	19	44, Harman Street	Mar. 28	April 1	April 1	Glass beveller	Infancy	Unknown	Fair	
319	M.	22	37, Taplow Street	Mar. 30	April 3	April 8	Cloth working and packing	Infancy	"	Satisfactory	
320	F.	26	2, Parr Street	?	April 3	April 4	Housewife	Infancy and March 25/02.	Case 289	Fair	
321	F.	24	27, Aske Street	April 8	April 6	April 6	,,	Infancy	Unknown	,,	
322	F.	25	24, Westmorland Place	April 5	April 6	April 7	Button upholstering	,,	From 53, Baldwin Street, orignally from Case 32, per Case 123	,,	
323	F,	30	46, Essex Street	April 2	April 6	April 7	Boxmaker	11	Case 290	Dirty and Dilapidated	·····
324	F.	141	112, Provost Street	April 5	April 7	April 7	Envelope maker	,,	Unknown	Fair	

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Case hæmorrhagic-fatal

,,

,,

At Hornchurch in

Case 329

Essex

,,

Satisfactory

,,

Fair

Ref. Date of Date of Removal Invasion. Erup'ion to Hos-Sanitary Sex. Age. Address. As to Occupation. Source of Infection. condition of Remarks. Vaccination. House. pital. Probably disinfecting Station at Homerton, where he was employed 325 M 31 55, Taplow Street April 5 April 8 April 8 Labourer Infancy Fair 326 M 47 23, St. John's Road . April 4 April 1 April 8 Furrier Unknown ,, 327 M 5 64, Whiston Street ... Not Small 328 M 16 9, Queen's Road .. Not Small-.. 329 M 4 105, Goldsmith's Row April 6 April 9 April 10 Unvaccinated Unknown Fair 380 M 44 80, Haberdasher Street April 9 April 7 April 10 Compositor Infancy Probably Case 298 " 331 M 33 1. Aubert Buildings .. April 9 April 9 April 10 Potman Case 299 Satisfactory 332 F 8 8, Sylvia Street April 10 April 12 April 13 School Unvaccinated Unknown Dirty 333 F 12 8, Sylvia Street .. April 12 April 14 April 14 " ,, Rotherham's 334 M 28 April 9 April 14 April 14 Boundary S ... Warehouseman Infancy Satisfactory 335 Infancy and on April 2/02. M 18 64, Bevenden Street ... April 8 April 12 April 14 Engineer Small-pox Hospital, where he was employed Fair 336 M 16 13, Rodney Buildings April 11 April 13 April 13 Van boy Infancy Unknown Dirty April 15 Inmate of Guardians' School at Clapton F 337 7 Shoreditch Workhouse ? April 15 At Hornchurch in Satisfactory 338 M 17 8, Sylvia Street April 11 April 16 April 16 Van boy Unvaccinated Unknown Dirty

School

Unemployed

Inmate

Infancy

Unvaccinated

Vaccinated

Unsuccessfully

TABLE IX .- continued

Date of

339 F 7

340 M 56

341 F

342 F 13

14

28, Hertford Street ..

Wilmer House

Shoreditch Workhouse

105, Goldsmith's Row

April 15

April 14

April 15

2

April 17

April 16

April 17

April 18

April 17

April 17

April 17

April 18

TABLE IX.—continued.

Ref. No.	Sex.	Age.	Address.	Date of Invasion.		Date of Removal to Hos- pital.	Occupation.	As to Vaccination.	Source of Infection.	Sanitary condition of house.	Remarks.
343	M.	6	89,Gt.Cambridge Street	Apr. 15	Apr. 16	Apr. 19	School	Stated to have been vaccinated but no scars.	Unknown	- Fair	
344	F.	21	21, Hertford Street	Apr. 17	Apr. 19	Apr. 19	Cork sorter	Infancy	"	,,	
845	F.	16	27, Turners Square	Apr. 18	Apr. 20	Apr. 22	Maker-up at rope works	,,	Case 349	***	
346	F.	25	30, Taplow Street	Apr. 18	Apr. 22	Apr. 22	Housewife	,,	Unknown	,,	
347	F.	7	28, Hertford Street	Apr. 22	Apr. 23	Apr. 23		Vaccinated on April 19, 1902	,,	Dirty	
348	M.	37	27, Turners Square	Apr. 20	Apr. 23	Apr. 23	Foreman	Infancy	Case 349	Fair	
849	F.	14	27, Turners Square	Mar. 26	Mar. 29	Apr. 23	School	Unvaccinated	Unknown	,,	
350	M.	12	27, Turners Square	?	?	Apr. 23	School	Infancy	Case 349	,,	
351	M.	2	27, Turners Square	?	Apr. 21	Apr. 23		Unvaccinated	, ,,	"	.,,,,,
352	F.	16	87, Rivington Street	Apr. 20	Apr. 21	Apr. 23	Work girl in a potted meat factory	"	In Islington	,,	Case confluent—fatal
353	F.	39	29, Drysdale Street .	. Apr. 17	Apr. 20	Apr. 23	Laundress	Infancy	Unknown		1
354	F.	40	12, Turners Square .	. Apr. 21	Apr. 23	Apr. 23	General shop keeper	,,	Case 349	"	
355	M.	. 13	1, Busk Street	. Apr. 23	Apr. 24	Apr. 24	School	Unvaccinated	In Bethnel Green	,,	
356	F.	38	23, St. John's Road .	. Apr. 19	Apr. 21	Apr. 25	Housewife	Inlancy	Case 326	,,	
357	F.	4	139, St. John's Road.	. Apr. 22	Apr. 25	Apr. 26	School	Unvaccinated	Unknown	,,	•••••
358	M	. 22	29, Holmes Street .	. Apr. 20	Apr. 25	Apr. 26	Carman	Infancy	11	"	
359	F.	. 15	95, Mansfield Street .	. Apr. 26	Apr. 29	Apr. 29	Fancy box maker	Unvaccinated	,,	Dirty and dilapidated	
360	M	. 5	109, Goldsmith's Row	Apr. 25	Apr. 28	Apr. 29		"	,,	Fair	

88

${\tt TABLE\ IX.-} continued.$

Ref. No.	Sex.	Age.	Address.	Date of Invasion.		Date of Removal to Hos- pital.	Occupation,	As to Vaccination.	Source of Infection.	Sanitary condition of House.	Remarks.
361	F	71	20, Windsor Terrace	Apr. 25	Apr. 29	Apr. 29	Housewife	Infancy	Unknown	Fair	
362	F	32	109, Goldsmiths' Row	Apr29	Apr. 30	Apr. 30		,	,,	"	
368	M	40	109, Goldsmiths' Row	Apr. 22	Apr. 29	Apr. 29	Baker	, ,,	"	"	
364	M	60	67, Bevenden Street	Apr. 26	Apr. 30	Apr. 30	Chairmaker	"	,,	"	
365	F	9	90, Wilmer Gardens	Not Small-	pox						
366	м	12	109, Goldsmiths' Row	Apr. 29	May 1	May 1		Unvaccinated	Unknown	Fair	
367	F	7	25, Gt. Cambridge St.	Apr. 29	May 1	May 1	School	17	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	19	
368	F	5	25, Gt. Cambridge St.	May 1	May 2	May 3		,,	***	,,	
369	F	49	8, Sylvia Street	Apr. 30	May 1	May 3	Housewife	Infancy	Case 332 or 333	Dirty	
370	M	20	2, Nichols Street, Bethnal Green	(Infected	by case	334 Th	rough infected room,	source of case	404)		Bethnal Green case
371	F	24	20, Dunstan Street	May 1	May 3	May 3	Milliner	Infancy	Unknown	Fair	
372	M	7	68, Gt. Cambridge St.	Apr. 30	May 4	May 4	School	Unvaccinated	Mother of patient at- tended funeral of brother who died of smallpox	"	
373	F	45	47, Upper John Street	May 2	May 4	May 5	Housewife	Infancy	Case 354	"	
374	F	25	47, Upper John Street	May 3	May 4	May 5	Boot Trade	,,	Case 354	,,	
375	F	26	11, Arlington Street	May 3	May 5	May 5	Housewife	.,11	Islington	Satisfactory	
376	M	50	137, New North Road	Apr. 30	May 3	May 5	Counter man	Vaccinated 3 times, last time	Probably indirectly from 43, Myrtle Street	,,	
377	F	11	85, Wilmer Gardens	May 2	May 5	May 6	School	17 years ago Unvaccinated	Unknown	Dirty	
878	M	31	26, Lee Street	May 3	May 5	May 6	Steel binding for ladies' dresses	Infancy	,,	Fair	Case confluent—fatal

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Ref. No.	Sex	Age	Address.	Date of Invasion.		Date of Removal to Hos- pital.	Occupation.	As to Vaccination.	Source of infection.	Sanitary condition of house.	Remarks.
379	M	26	23, Hertford Street	May 3	May 6	May 7	House painter	Unvaccinated	Case 344 or 347	Fair	
380	M	5	47, Upper John Street	May 6	May 7	May 7	School	,,	Case 354	,,	Case confluent—fatal
381	F	17	15, Napier Street	May 7	May 9	May 10	Machinist	Infancy	Unknown	33	
382	F	65	29, Holms Street	May 6	May 9	May 10	Housewife	Infancy and on April 28, '02	Case 358	,,	
383	M	wks.	109, Goldsmiths' Row	?	May 15	May 16		Vaccinated on April 30, '02	Case 362	"	Case discrete—fatal
384	F.	14	12, Ilva Place	May 11	May 14	May 16	School	Infancy but not successfully	Unknown	Dirty	Case confluent—fatal
385	F	30	26, Lee Street	May 16	May 18	May 18	Housewife	Infancy and re vac. May 9, '02	Case 378	Fair	
386	M	23	39, Harman Street	May 17	May 19	May 19	Furniture remover	Infancy	Unknown	,,	
387	M	28	89, Gt. Cambridge St.	May 15	May 19	May 19	Cabinet maker	Infancy	Probably connected with case 343	,,,	
388	M	12	85, Wilmer Gardens	May 17	May 18	May 19		Unvaccinated	Case 377	Dirty	Case discrete—fatal
389	F	4	85, Wilmer Gardens	May 16	May 18	May 19	School	"	Case 377	"	Case confluent—fatal
390	F	8	85, Wilmer Gardens	May 17	May 19	May 19	School	,,	Case 377	"	
391	F	23	44, Aske Street	Not Small-	pox						
392	M	42	54, Crondall Street	May 15	May 18	May 19	Stoker	Infancy	In Bethnal Green	Satisfactory	
393	M	18	86, Gopsall Street	May 18	May 20	May 20	School	Unvaccinated	Unknown	Fair	
394	M	42	59, Haberdasher Street	May 14	May 18	May 20	Carpenter	Infancy	Unknown	,,	
395	F	34	48, Myrtle Street	May 17	May 19	May 20	Washerwoman	"	Case 376	Satisfactory	House dealt with since last case therein
396	F	39	109, Goldsmiths' Row	May 14	May 19	May 20	Domestic servant	,,	Case 362	Fair	

Ref. No.	Sex.	Age.	Address.	Date of Invasion.		Date of Removal to Hos- pital.	Occupation.	As to Vaccination.	Source of Infection.	Sanitary condition of house.	Remarks.
397	М	9	37, Wilmer Gardens	May 18	May 20	May 21	School	Unvaccinated	Case 378	Fair	
398	F	38	49, Lee Street	May 19	?	May 21	Book folder	Infancy	Unknown	,,	
399	F	21	15, Napier Street	May 21	May 24	May 24	Machinist	Unvaccinated	Case 381	"	
400	M	43	1, Witchampton Street	May 20	May 22	May 25	Carpenters' labourer	Infancy	Unknown	Satisfactory	
401	F	33	25, Holms Street	May 22	May 23	May 26	Housewife	,,	Case 382	Fair	
402	M	10	4, Crooked Billet Yard	May 19	May 23	May 25	School	Unvaccinated	Unknown	Dirty and overcrowded	
403	M	27	7, Rushton Street	May 21	May 22	May 25	Electrotyper	Infancy	Unknown	Fair	
404	M	20	44, Tuilerie Street	Not Small-	pox						
405	M	17	31, Boundary Street	June 1	June 3	June 3	Waiter	Infancy	Thro' infection trac- able to case 334.	Satisfactory	
406	M	36	37, Wilmer Gardens	June 1	June 4	June 4	Packer	"	Case 397	Fair	
407	F	7	37, Wilmer Gardens	June 2	June 3	June 4	School	Vac. May 28,'02	Case 397	"	
408	M	16	6, Windsor Place	May 30	June 1	June 2	Drug Manufacturer's Assistant	Infancy	Unknown	"	Case certified and removed as scarlet fever subsequent-
40)	F	19	13, Hemsworth Street	June 1	June 4	June 5	Milliner	11	Unknown, probably in Islington	Satisfactory	ly recognised to be small-pox
410	M	6	4, Crooked Billet Yard	June 4	June 6	June 6	School	Vac. May 28,'02		Dirty and overcrowded	
411	F	7	4, Crooked Billet Yard	June 4	June 6	June 6	School	Vac. May 28,'02	Case 402	,,	
412	F	18	8, Alma Street	June 3	June 6	June 9	Milliner	Infancy	Unknown, probably in Islington	Fair	
413	M	10	4, Crooked Billet Yard	June 4	June 8	June 9	Schoo	Unvaccinated	Case 402	Dirty and overcrowded	
414	F	8	101, Maidstone Street	Not Small-	pox			,			, to

Ref. No.	Sex.	Age.	Address.	Date of Invasion.	Date of Erup'ion		Occupation.	As to Vaccination.	Source of Infection.	Sanitary condition of House.	Remarks.
415	м	25	10, Cropley Street	June 7	June 8	June 10	Polisher	Infancy	Unknown	Fair	
416	F	28	43, Cavendish Street	June 10	June 11	June 12	Housewife	"	Case 403	Satisfactory	
417	F	21	28, Myrtle Street	June 13	June 15	June 16	"	,,	Probably through case 395	Fair	·····
418	M	18	10, Cropley Street	June 16	June 18	June 19	Drummer in a band	Infancy and Revac, on June 10/02.	Probably case 415	,,	
419	M	15	4, Crooked Billet Yard	June 20	June 21	June 21	Van boy	Unvaccinated	Case 410, 411	Dirty and overcrowded	
420	M	5 12	4, Crooked Billet Yard	June 21	June 22	June 22		,,	Case 410, 411	"	
421	M	52	8, Alma Street	June 20	June 24	June 25	Packing case maker	Infancy and Re- Vac. unsuccess- fully 25 years ago.	Case 412	Fair	
422	F	28	8, Alma Street	June 21	June 24	June 25		Infancy	"	"	*******
423	F	10	209, New North Road	June 22	June 25	June 26	School	Unvaccinated	Unknown	,,	
424	M	8	209, New North Road	June 22	June 25	June 26	,,	,,	,,	7,1	
425	F	6	27, Wilmer Gardens	July 6	July 8	July 8,(to Mortuary dead).		"	,,	Dirty	Case hæmorrhagic—fatal, died at home, body removed to Mortuary
426	M	22	6, St. John's Terrace	July 28	July 30	July 31	Unemployed	Infancy	"	Fair	
427	F	23	1, Ware Street	Aug. 9	Aug. 12	Aug. 15	General dealer	,,	,,	,,	
428	F	28	44, Shaftesbury Street	Aug. 22	Aug. 24	Aug. 24	Housewife	,,	In Finsbury	Dirty	
429	M	21	1, Ware Street	Aug. 25	Aug. 26	Aug. 27	Unemployed	,,	Case 427	Fair	*******
430	M	13	58, Essex Street	Not Small	- pox						
431	F	34	15, Clinger Street .	Nov. 13	Nov. 14	Nov. 17	Housewife	Infancy	Case 434	Fair	
482	F	12	15, Clinger Street .	Nov. 14	Nov. 16	Nov. 17	School	Unvaccinated	,,	,,	
433	F	6	15, Clinger Street .	Nov. 14	Nov. 16	Nov. 17	,,	,,	,,	,.	
434	F	3	15, Clinger Street .	Oct. 27	Oct. 28	Nov. 17	, ,,	,,	Unknown	"	Certified Chicken-pox on Oct. 31/02.

PARTICULARS AS TO THE OCCUPATION OF THE TEMPORARY SHELTER

Date of admission to shelter.	Duration of stay.	Number io persons fu family.		Disease.
Jan. 1	4 days	4	10 Great Cambridge Street	Small-pox
,, 10	3 ,,	6	100 Wilmer Gardens	,,
,, 13	1 night	8	39 Dunstan Street	,,
,, 20	3 days	8	58 Great Chart Street	,,
,, 29	2 - ,,	3	3 Hyde Road	1)
,, 29	2 ,,	8	7 Westmorland Place	,,
,, 31	1 day	3	4 Underwood Row	,,
,, 31	4 days	1	34 Crondall Street	
			00 D	. "
Feb. 4	1 day	1	26 Bevenden Street	"
,, 4	1 ,,	1	3 Nile Street	"
,, 10	1 ,,	3	47 Bacchus Walk	"
,, 10	1 ,,	2	34 Aske Street	"
	1 ,,	4	53 Provost Street	"
	1 ,,	2	24 Westmorland Place	- 11
,, 13	3 hours	2	4 Great James Street	"
	1 day	5	114 Britannia Street	"
	4 hours	6	9 Wellington Place	"
22 3 3 3 3 3 3	1 night	6	79 New North Road	,,
and the same of	1 ,,	2	47 Bacchus Walk	"
	1 day	2	7 Witham Street	"
	4 hours	2	46 Harman Street	"
	1 night	3	6 Wellington Place	"
7.55	2 days	2	4 Underwood Place	"
1000000	1 night	2	Limehouse Wharf (Barge)	"
	5 days	6	28 Watson's Place	"
	4 hours	3	42 Chatham Avenue	,,
	4 ,,	4	52 Chatham Avenue	,,
,, 24	9 ,,	3	52 Provost Street	33

PARTICTLARS AS TO THE OCCUPATION OF THE TEMPORARY SHELTER—Continued.

Date of admission to shelter.	Duration of stay.	Number of persons in family.	Address of dwelling disinfected.	Disease
Feb. 27	1 day	1	4 Underwood Place	Small-pox
,, 24	9 hours	6	86 Wilmer Gardens	,,
,, 24	1 day	3	3 Bacchus Street	,,
,, 25	7 hours	3	15 Essex Street	"
,, 26	1 day	1	18 Allerton Street	,,
,, 27	3 hours	2	142 Shepherdess Walk	"
,, 27	5 ,,	5	2 Wellington Place	,,
,, 27	1 day	1	13 Custance Street	,,,
,, 28	4 hours	5	28 Watson's Place	,,
,, 28	4 ,,	4	4 Wellington Place	"
Mar. 1	51,	5	6 Wellington Place	"
,, 2	4 ,,	1	Wilkes' Court	,,
,, 3	4 ,,	1	29 Grange Street	"
,, 3	5 .,	6	6 Wellington Place	"
,, 3	8 ,,	4	28 Watson's Place	"
,, 4	2 ,,	1	55 Whiston Street	"
,, 4	3 ,,	1	62 Custance Street	"
,, 5	1 night	3	62 Lyndoch Street	,,
,, 6	2½ hours	2	117 Phillip Street	,,
,, 6	6 ,,	1	46 Harman Street	,"
,, 6	4 nights	2	15 Essex Street	"
,, 6	3 ,,	3	1 Salisbury Street	"
,, 6	1 night	4	5 Wellington Place	,,
,, 10	7 hours	5	6 Wellington Place	"
,, 12	3 ,,	1	56 Pownall Road	, ,,
,, 12	3 ,,	1	42 Albion Road	"
,, 12	1 night	14	6 Wellington Place	"
,, 13	2 hours	2 .	4 Wellington Place	"
,, 16	4 ,,	4	5 Wellington Place	,,
,, 17	1 night	4	91 Haberdasher Street	,,
,, 18	1 ,,	1	5 Hows Street	"

PARTICULARS AS TO THE OCCUPATION OF THE TEMPORARY SHELTER—Continued.

Date of admission to shelter.	Duration of stay.	Number of persons in family.	Address of dwelling disinfected	d. Disease.
Mar. 18	1 hour	3	17 Boot Street	Small-pox
,, 19	3 hours	1	12 Wilkes' Place	"
,, 15	5 ,,	3	4 Wellington Place	"
,, 21	1 night	5	32 Hilcott Street	,,
,, 22	2 hours	1	73 Custance Street	"
,, 22	1 night	1	7 Little Essex Street	11
,, 25	1 ,,	2	62 Great Chart Street	"
,, 28	1 ,,	2	92 Chatham Avenue	,,
,, 28	1 ,,	4	42 Wimbourne Street	"
,, 31	1 ,,	1	32 Hilcott Street	,,
Apr. 1	4 hours	3	56 Grange Street	,,
,, 1	3 ,,	3	44 Harman Street	,,
,, 3	1 night	2	47 Taplow Street	,,
,, 7	2 hours	2	27 Aske Street	,,
,, 7	4 ,,	1	24 Westmorland Place	,,
,, 7	1 night	6	46 Essex Street	"
,, 8	2 hours		55 Taplow Street	"
,, 13	1 night	2	13 Rodney Buildings	"
,, 23	1 ,,	5	29 Drysdale Street	,,
,, 23	6 days	4	27 Turner's Square	,,
,, 30	3 hours	1	109 Goldsmith Row	,,
May 1	5 ,,	7	90 Wilmer Gardens	"
,, 1	4 days	7	47 Great Cambridge Street	,,
,, 4	3 hours	2	68 Great Cambridge Street	,,
,, 5	21/2 ,,	4	11 Arlington Street	,,
,, 5	3 days	6	47 Upper John Street	,,,
,, 7	2 hours	1	26 Lee Street	,,
,, 20	4 ,,	1	28 Myrtle Street	"
,, 20	1 day	2	109 Goldsmith Row	"
,, 20	3 nights	4	68 Gopsall Street	,,
,, 23	1 night	4	89 Great Cambridge Street	"

PARTICULARS AS TO THE OCCUPATION OF THE TEMPORARY SHELTER—Continued.

Date of admission to shelter.		Number of persons in family.	Address of dwelling disinfected.	Disease.
June 1	1 day	4	6 Windsor Place	Small-pox
,, 5	1 hour	1	34 Clinger Street	,,
,, 6	2½ hours	3	4 Crooked Billet Yard	, ,,
,, 10	1 day	5	4 Crooked Billet Yard	,,
,, 11	3 hours	2	101 Maidstone Street	,,
,, 12	6 ,,	2	4 Cavendish Street	,,
,, 16	1 night	1	38 Myrtle Street	,,
,, 21	2 days	4	4 Crooked Billet Yard	
,, 25	6 ,,	6	8 Alma Street	,,
,, 26	1 night	2	209 New North Road	"
July 8	1 ,,	8	27 Wilmer Gardens	,,
Sept 15	1 ,,	1	55 Essex Street	1)
Nov 17	1 ,,	3	15 Clinger Street	,,,
,, 18	6½ hours	3	15 Clinger Street	"
,, 24	5 ,,	5	16 Wenlock Road	Diphtheria
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