Report on the health of the Metropolitan Borough of Battersea for the year 1908.

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Metropolitan Borough of Battersea.

REPORT

ON THE

HEALTH

OF THE

Metropolitan Borough of Battersea,

FOR THE YEAR 1908.

BY

G. QUIN LENNANE, F.R.C.S., L.R.C.P., D.P.H.,

MEDICAL OFFICER OF HEALTH.


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BAT 14

Health Committee.

Chairman :

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HIS WORSHIP THE MAYOR
(COUNCILLOR W. WILLIS, J.P.)

COUNCILLOR W. A. ANDREWS.

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Miss L. M. FAIRBAIRN ,,

Food Inspector.

A. CHUTER, Cert. San. Inst. and Meat Insp. Cert.

Workshop Inspector.

W. E. BENJAMIN, Cert. San. Inst.

District Sanitary Inspectors.

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,, 2 ,, .. J. J. BURGESS, San. Insp. Board's Cert.

,, 3 ,, .. J. LAWRENCE, Cert. San. Inst. and Meat Insp. Cert.

,, 4 ,, .. A. E. PURNELL, Cert. San. Inst.

,, 5 ,, .. J. T. BAXTER ,, ,,

,, 6 ,, .. H. MARRABLE ,, ,,

,, 7 ,, .. A. ODELL, Cert. San. Inst. and Meat Insp. Cert.

,, 8 ,, .. H. H. May, Cert. San. Inst.

Clerks.

Second-Class Clerks B. W. SEARS. F. H. PRESTON, Cert. San. Inst.

Third-Class Clerks E. COLE. J. H. LLOYD.

Office Youth .. B. HAYMAN.

Manageress of Milk Depôt.

Miss A. LOWE.

Superintendent of Disinfecting Station.

C. H. WOODHOUSE.

Mortuary Keeper.

G. STREAT.

Medical Officer of Health.

G. QUIN LENNANE, F.R.C.S., L.R.C.P., D.P.H.

To the Mayor, Aldermen and Councillors
of the Metropolitan Borough of Battersea

MR. MAYOR AND GENTLEMEN,—

I have the honour to submit the Annual Report on the Health and Sanitary conditions of the Borough of Battersea for the year 1908.

The Report is more voluminous than usual. This is due to the fact that in accordance with the instructions issued to the Medical Officers of Health by the Local Government Board it has been necessary to report fully on two outbreaks of Diphtheria which ocurred during the year in Institutions in the Borough.

The death and infantile mortality rates are the lowest ever previously recorded in the Borough or the old Parish of Battersea.

Although the incidence of infectious disease, owing mainly to the continued prevalence of scarlet fever, was higher than in the previous year, on the other hand, it is satisfactory to be able to record that the death rate from these diseases was the lowest ever recorded in the Borough.

It is again my privilege to draw attention to the good work carried out, and the satisfactory results obtained during the year 1908 in connection with the Battersea Municipal Milk Depôt.

The Sanitary Staff, both individually and collectively, has worked well, as the records tabulated in this Report testify.

I desire to take the opportunity of expressing my grateful appreciation of the continued support and assistance I have received from the Health Committee during the year. To the Heads of Departments my thanks are also due for assistance always readily given.

I am,

MR. MAYOR AND GENTLEMEN,

Your obedient servant,

G. QUIN LENNANE.

Public Health Department,
Town Hall, Lavender Hill, S.W.
February, 1909.

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Summary of Vital Statistics for 1908.

Area of Borough (excluding water)	2,139·9 acres.
Population (Census 1901)	168,907
„ Estimated to middle of 1908	183,873
Density	85·4 persons per acre.
Inhabited Houses (Census 1901)	23,462
Marriages	1,292
Births	4,629
Birth-rate	25.1
Deaths	2,272
Death-rate	12·3
Infantile Mortality	107 per 1,000 births.

Births, Marriages, Deaths.

Births, Marriages and Deaths.

Population.

The population of the Metropolitan Borough of Battersea (created in November, 1900, under the provisions of the London Government Act, 1899, and formed from the old Parish of Battersea, after some rearrangement between the two districts of Wandsworth and Battersea, to define the boundary line) as estimated by the Registrar-General at the middle of 1908, was 183,873, made up as follows:—

East Battersea	76,321
North-West Battersea	49,453
South-West Battersea	58,099
	183,873

The estimate of the Registrar-General is based on the assumption that the rate of increase of population during the last intercensal period was maintained during the subsequent years. It is probably somewhat too high, but it has been adopted in this report so that the Battersea statistics may be comparable with those of other districts.

The numbers of the population of each sex and at various ages (at the Census, 1901) were as follows:—

	Totals at all ages.	Under 5.	5—14.	15—19.	20—49.	50—75.	Above 75.
Males ..	81,749	10,140	17,842	7,911	39,601	5,782	473
Females	85,158	10,207	17,974	8,239	42,646	7,107	985
	168,907	20,347	35,816	16,150	82,247	12,889	1,458

Births.

The total number of births belonging to the Borough of Battersea during 1908 was 4,629. Of the total births, 2,385 were males and 2,244 females, showing an excess of 141 males. The number of births was slightly higher (55) than in 1907, but was 296 below the decennial average 1898-1907, and 646 less than the number in 1884, when the population was only 121,299. The births in the sub-districts were as follows:—

	Males.	Females.	Total.
East Battersea ..	1,080	1,007	2,087
North-West Battersea ..	825	800	1,625
South-West Battersea ..	480	437	917
Borough	2,385	2,244	4,629

The birth rate—*i.e.*, the number of births per 1,000 of the population—was 25.1, exactly the same rate as in 1907, which was the lowest birth rate ever recorded in Battersea, and is 3.4 below the average for the previous ten years. Whilst it is satisfactory to note that the decline in the birth rate, which has been steadily taking place in recent years in the Borough (in common with the rest of the country, and, in fact, in all civilised countries) was not maintained at the same rate as in the past five or six years, the explanation that the birth rate during 1908 was the same as that in 1907 is accounted for by the fact that the returns for the former year include an extra week. In reality, therefore, the birth rate for 1908 is slightly lower than in the previous year. To those, therefore, who believe that a falling birth rate is a source of danger to the future of the race, the birth statistics for 1908 are not encouraging.

The decline in the birth rate in Battersea, as compared with that in London and in England and Wales, is shown in the following table:—

BIRTH-RATE PER 1,000 POPULATION.

Years.	England and Wales.	London.	Battersea.
1877–81	34·9	35·3	40·5
1882–86	33·3	34·0	40·0
1887–91	33·2	33·9	36·1
1892–96	30·1	30·6	32·4
1897–1901	29·0	29·5	30·8
1902–06	27·8	27·7	27·5
1907	26·3	25·8	25·1
1908	26·5	25·2	25·1

The next table shows the birth rate in the Borough, and in each of the sub-districts, during the ten years 1898-1907, and in 1908.

BIRTH-RATE PER 1,000 POPULATION.

Year.	The Borough.	East Battersea.	North-West Battersea.	South-West Battersea.
1898	30·9	33·6	35·0	21·9
1899	30·9	33·6	36·0	21·0
1900	30·6	33·5	35·2	21·3
1901	29·7	32·6	33·3	21·3
1902	28·2	30·3	33·1	20·2
1903	28·6	31·3	34·1	19·4
1904	27·5	30·4	31·9	19·5
1905	27·3	30·5	32·7	17·7
1906	25·9	28·6	31·7	17·0
1907	25·1	28·2	31·3	15·6
Average 1898-1907	28·5	31·3	33·4	19·5
1908	25·1	27·3	32·8	15·8

The slight increase in the number of births during 1908, viz., 55, is accounted for by the fact that the Registrar-General's Returns for the year relate to 53 weeks.

In the above table it will be noted that very little change is to be observed during 1908 in the rates in the sub-districts as compared with 1907. While in East Battersea, the largest and most populous sub-district of the Borough, there has been a marked decline, on the other hand, there has been a slight increase in North-West, and an almost negligible increase in South-West Battersea.

Marriages.

The marriages registered in Battersea during 1908 number 1,292, or 134 less than the decennial average. The marriage rate —*i.e.*, the number of persons married per 1,000 of the population—was 14.0, or 2.5 below the decennial average. The following table shows the variation in the marriage rate in Battersea and London since 1898:—

MARRIAGES.

YEAR.	Battersea.		London.
	No. of Marriages.	Marriage-rate.	Marriage-rate.
1898	1,441	17·2	18·8
1899	1,429	17·0	18·6
1900	1,451	17·2	18·0
1901	1,407	16·6	17·6
1902	1,372	16·0	17·8
1903	1,442	16·6	17·4
1904	1,465	16·7	17·0
1905	1,412	15·9	16·9
1906	1,420	15·8	17·1
1907	1,427	15·7	17·0
Average 1898–1907	1,426	16·5	17·6
1908	1,292	14·0	15·9

Deaths.

The total number of deaths registered in the Borough of Battersea during the year 1908 was 2,265, as compared with 2,431 during 1907, and a yearly average of 3,049 in the old Parish of Battersea for the decennium 1891-1900. Of the total deaths, 1,191 were males and 1,074 females, showing an excess of 117 males.

The death rate for Battersea is, therefore, 12.31 per 1,000 inhabitants, as compared with 13.8 for London. This rate is, however, uncorrected, and, on analysing the 2,265 deaths registered in the Borough of Battersea, it is found that 408 represent deaths occurring within the Borough amongst persons not belonging thereto. These deaths are to be deducted ; but, on the other hand, there are 415 deaths registered outside the Borough of Battersea residents, and these must be added, giving a corrected number of deaths for Battersea during 1908 of 2,272 (1,190 males and 1,082 females), an excess of 108 males and a corrected death rate of 12.35, as compared with 13.8 for London (the total corrected number of London deaths being 67,353).

Again, therefore, it is my pleasing duty to be able to record a satisfactory decrease in the death rate of Battersea during 1908. The rate is the lowest ever recorded in the Borough, and is 3 per 1,000 below the average for the ten years 1898-1907.

Subdividing the death rate amongst the three registration sub-districts, it will be noted that in South-West Battersea an increase has been recorded ; while, on the other hand, in East Battersea and North-West Battersea a marked decline has taken place, that in East Battersea being specially noteworthy, amounting to nearly 2 per 1,000 as compared with 1907, and 3 per 1,000 less than the average for the ten years 1898-1907. This is a highly satisfactory feature of this year's Annual Report, regard being had to the fact that these two districts are in the main inhabited by the less prosperous class of the inhabitants of the Borough.

DEATH-RATE PER 1,000 POPULATION.

Year.	The Borough.	East Battersea.	North-West Battersea.	South-West Battersea.
1898	17·3	19·4	20·4	10·5
1899	17·3	19·6	19·1	11·7
1900	17·6	18·9	21·0	12·1
1901	16·3	16·4	18·7	11·9
1902	15·0	15·5	18·3	10·9
1903	14·2	15·0	17·1	10·3
1904	14·4	15·6	17·0	10·3
1905	14·4	15·5	17·6	9·9
1906	13·2	14·7	15·5	9·5
1907	13·2	14·8	16·0	8·6
Average 1898-1907	15·3	16·5	18·1	10·6
1908	12.3	13.0	15.1	9.1

In the following table is shown the number of deaths and the death rate in the nine wards into which the Borough is divided:—

Ward.	Population Estimated to middle of 1908.	Number of Deaths.	Death Rates.
Nine Elms ..	31,511	420	13.3
Park	19,834	242	12.2
Latchmere ..	22,440	301	13.4
Shaftesbury ..	17,496	204	11.6
Church	21,333	302	14.1
Winstanley ..	22,444	294	13.0
St. John	9,024	103	11.4
Bolingbroke ..	20,409	231	11.3
Broomwood ..	19,382	175	9.0

In the above table it will be seen that Church Ward has the highest and Broomwood Ward the lowest general death rate, and, on comparing with the table on page 45, it will be seen that Church Ward has the highest and St. John's Ward the lowest zymotic death rate.

It is only by subdividing the rates up in this way that it is possible to see where the (sanitarily) unsatisfactory parts of the Borough are situated, and where, consequently, most care and attention are still required at the hands of the Borough Council.

A comparison of the Ward death rates during 1907* and 1908 will be found of interest. In all the poorer Wards of the Borough a decrease has been recorded, while, on the other hand, with one exception (Broomwood) the three Upper Wards, in which the standard of living is, on the whole, much higher, show an increase.

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* *Vide Annual Report, 1907.*

This would seem to indicate that there is a tendency towards uniformity in the death rates of the various districts of the Borough. Thus, while the death rates in the less favoured districts have steadily decreased, the rate in South-West Battersea has not shown, at least to anything like the same extent (during 1908 the rate actually increased), this progressive decline. If the decennial averages for the ten years 1898-1907, shown in the table on page 16, of the three registration sub-districts of the Borough be compared, it will be seen that the death rates in East and North-West Battersea exhibit a marked and steady decline, as compared with the decennial averages; while in South-West Battersea no such marked decrease is manifest, the rates in individual years showing little divergence from the decennial average. The causes responsible for this satisfactory condition of affairs are to be found, I think, in the increased attention devoted by the Council in recent years to those districts most requiring attention, with the object of levelling up those districts to a fair uniform standard of sanitation. Thus, while in 1898, for example, one finds the death rate in East and South-West Battersea standing at 19.4 and 10.5 respectively, in 1908 these 26.5; death rate, 14.7; infantile mortality, 121.

It is interesting to note the place that the Borough of Battersea takes during 1908 in the Registrar-General's corrected returns amongst the twenty-nine Metropolitan Boroughs. There are only four Boroughs with a less general death rate, sixteen with a less zymotic death rate, and ten with a less infantile mortality rate. Taking the ten South Metropolitan Boroughs, Lewisham has the lowest general death rate, viz., 11.0, and Bermondsey the highest, 18.8, only three of the ten Southern Boroughs having a lower death rate than Battersea.

London as a whole has a birth rate of 25.2, a corrected death rate of 13.8, a corrected zymotic (death) rate of 1.35 per 1,000 population, and an infantile mortality (corrected) rate of 113 per 1,000 births. For England and Wales the figures are: Birth rate, 26.5; death rate, 14.7; infantile mortality, 121.

The corrected number of deaths of males and females registered in each quarter of the year is set out as follows:—

	Males.	Females.	Total.
First quarter ..	374	336	710
Second quarter ..	294	250	544
Third quarter ..	230	210	440
Fourth quarter ..	292	286	578

Deaths in Public Institutions.

During the year 1908 the deaths of Battersea residents occurring in public institutions numbered 747, as compared with 816 in 1907. Of this number 332 occurred within and 415 outside the Borough. Three hundred and eighty-three occurred in workhouses or union infirmaries, as against 444 in 1907, and 373 in 1906.

The table on page 21 gives a list of the institutions in which the deaths occurred.

The following table shows the number of deaths of Battersea residents occurring in public institutions in the years 1898-1907, and the proportion in each year of such deaths to the total number of deaths:—

Year.	Total Deaths.	Deaths in Public Institutions.	Proportion per cent. of Deaths in Public Institutions to Total Deaths.
1898	2,892	625	21·6
1899	2,905	644	22·1
1900	2,978	625	20·9
1901	2,766	640	23·1
1902	2,581	731	28·3
1903	2,476	673	27·1
1904	2,543	751	29.5
1905	2,561	777	30·3
1906	2,384	745	31·7
1907	2,406	816	33·9
Average 1898-1907	2,649	703	26·8
1908	2,272	747	32·4

Deaths of Battersea Residents in Public Institutions, 1908.

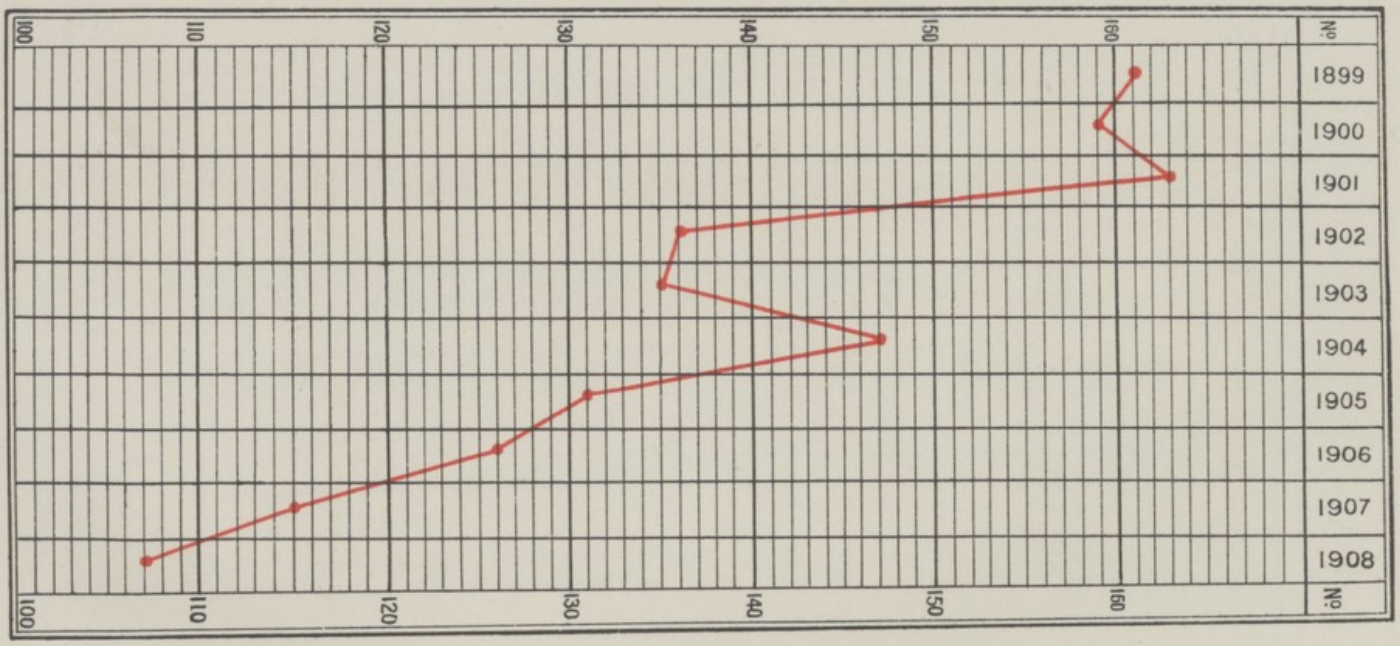
Institution.	Total.	Group Totals.
Infirmaries and Workhouses :—		
Camberwell Infirmary	1	
Chelsea ,,	1	
Hammersmith ,,	1	
Lambeth ,,	2	
,, Workhouse	1	
St. George's Infirmary	5	383
St. Marylebone Workhouse	2	
St. Pancras Infirmary	1	
Tooting Home	62	
Wandsworth and Clapham Union Infirmary	298	
,, ,, ,, Workhouse	8	
,, ,, (St. James Rd. Branch)	1	
Metropolitan Asylums Board Hospitals :—		
Fountain	11	
Grove	22	43
South-Western	2	
Western	8	
General Hospitals :—		
Anti-Vivisection	4	
Belgrave	5	
Bolingbroke	29	
Brompton	3	
Cancer	6	
Charing Cross	6	
Evelina	2	
General Lying-in	3	
Grosvenor	2	
Guy's	8	
Hostel of God	4	
Infants', Vincent Square	5	242
London	2	
Middlesex	3	
St. Bartholomew's	6	
St. George's	22	
St. Luke's House	4	
St. Peter's Home	2	
St. Thomas'	47	
University College	2	
Victoria	49	
Westminster	11	
Other Hospitals	17	
County and other Lunatic Asylums	—	60
Elsewhere	—	19
		747

Comparative Statistics of Births, Mortality, &c.

Year.	Mean population for year.	Births.	Birth Rate.	Deaths.	Death Rate.	Zymotic Deaths.	Natural Increase.
1857	15,970	582	36·0	343	21·4	46	239
1858	16,872	562	33·3	380	22·5	100	182
1859	17,774	685	38·5	394	22·1	96	292
1860	18,676	680	36·4	399	21·3	62	281
1861..	19,582	750..	38·3..	595..	25·7..	112..	245
1862	23,108	784	33·9	491	21·2	106	293
1863	26,635	1,042	39·1	522	19·5	86	520
1864	30,161	1,140	37·7	669	22·1	129	471
1865	33,688	1,357	40·2	785	23·3	177	572
1866	37,145	1,386	37·3	1,002	26·9	244	384
1867	40,741	1,734	42·5	870	21·3	122	864
1868	44,267	1,975	44·6	1,046	23·6	194	929
1869	47,749	2,096	43·8	1,121	23·4	247	975
1870	51,320	2,170	42·2	1,375	26·7	404	795
1871..	54,847..	2,220..	40·4..	1,472..	26·8..	463..	748
1872	60,244	2,349	38·9	1,202	19·9	220	1,147
1873	65,614	2,659	40·5	1,307	19·9	205	1,352
1874	70,984	2,865	40·3	1,387	19·5	238	1,478
1875	76,354	3,080	40·3	1,724	22·5	307	1,356
1876	81,704	3,455	42·2	1,745	21·3	340	1,710
1877	87,094	3,481	39·9	1,725	19·8	280	1,756
1878	92,464	3,748	40·5	1,803	19·4	322	1,945
1879	97,834	4,001	40·8	1,980	20·2	355	2,021
1880	103,204	4,095	39·6	2,040	19·7	383	2,055
1881..	108,342..	4,452..	41·8..	2,033..	18·7..	381..	2,419
1882	112,661	4,504	39·9	2,214	19·6	353	2,190
1883	116,980	4,711	40·2	2,344	20·0	369	2,367
1884	121,299	5,275	43·4	2,569	21·1	568	2,706
1885	125,618	4,654	37·0	2,566	20·4	432	2,088
1886	129,937	5,140	39·5	2.477	19·0	398	2,663
1887	134,256	5,186	38·6	2,451	18·2	502	2,735
1888	138,565	5,061	36·5	2,187	15·7	363	2,874
1889	142,884	5,161	36·1	2,240	15·6	366	2,921
1890	147,203	5,105	34·6	2,854	19·3	543	2,251
1891..	150,880..	5,237..	34·7..	2,697..	17·9..	398..	2,540
1892	153,778	4,990	32·4	2,782	18·1	439	2,208
1893	156,719	5,225	33·3	2,974	18·9	614	2,251
1894	159,724	5,024	31·4	2,577	16.1	526	2,447
1895	162,787	5,264	32·3	2,961	18·1	460	2,303
1896..	165,309..	5,358..	32·4..	2,994..	18·1..	642..	2,364
1897	166,059	5,266	31·7	2,737	16·4	486	2,529
1898	166,814	5,157	30·9	2,892	17·3	531	2,265
1899	167,570	5,179	30·9	2,905	17·3	418	2,274
1900	168,339	5,161	30·6	2,978	17·6	435	2,183
1901..	169,100..	5,025..	29·7..	2,766..	16·3..	491..	2,259
1902	171,401	4,844	28·2	2,581	15·0	367	2,263
1903	173,422	4,973	28·6	2,476	14·2	347	2,497
1904	175,465	4,849	27·5	2,543	14·4	353	2,306
1905	177,532	4,843	27·3	2,561	14·4	375	2,282
1906	179,622	4,654	25·9	2,384	13·2	338	2,270
1907	181,736	4,574	25·1	2,406	13·2	255	2,168
1908	183,873	4,629	25·1	2,272	12·3	238	2,357

The years marked thus .. were census years.

CHART showing the Infantile Mortality in the Borough of Battersea during the last ten years.



INFANT MORTALITY.

Infant mortality has reference to the deaths of children under one year of age—*i.e.*, the proportion which the deaths of such infants in any given year bears to every thousand children born in the same year. Infant mortality varies widely in different districts, being as low as 80 per 1,000 in some localities, and as high as 250 per 1,000 in others. It is not difficult to understand, therefore, that the infant mortality of a district has come to be recognised as a sensitive index of the sanitary condition of that district, as at this period of its life the infant is very susceptible to its environment, a low rate indicating (other things being equal) a healthy community, a high rate the reverse.

In my Annual Report for 1907 the subject of infant mortality was dealt with very fully, with the object of setting forth the position of Battersea in relation thereto, and the measures which had been adopted by the Council, and the results obtained, in their efforts to reduce the infantile death rate in their district. I purpose restricting, therefore, the report on this subject during 1908 to a statement as to the results obtained during that year.

Infant Mortality in Battersea in 1908.

During the year 1908, 494 deaths of infants were registered in the Borough of Battersea. The total number of births recorded during the year was 4,629, and the infant mortality rate was 107 per 1,000 births. In 1907 the rate was 115 per 1,000 births, which had been the lowest infant death rate ever previously recorded in Battersea.

Since the formation of the Borough and for the previous decennium, the infantile mortality in Battersea and in London had been as follows:—

	London.	Battersea.
1891–00	158	162
1901	148	163
1902	139	136
1903	130	135
1904	144	147
1905	129	131
1906	129	126
1907	116	115
1908	113	107

In the above table, while the average rate in Battersea for the quinquennium 1901-5 was 142.4 per 1,000, the average for the three subsequent years 1906-8 had fallen to 116 per 1,000.

In the County of London during 1907 there was a total of 13,943 infant deaths, giving an infantile mortality rate of 113 per 1,000.

In the next table is shown the distribution of the 494 infant deaths in the sub-districts.

Registration Sub-Districts.	Deaths of Infants under 1 year of age.	Infantile Mortality per 1,000 births.
East Battersea ..	217	103·9
North-West Battersea	198	121·9
South-West Battersea	79	86·0
The Borough ..	494	107

In the next table is shown the distribution in the wards:—

Wards.	Deaths of Infants under one year.	Infantile Mortality per 1,000 births.
1. Nine Elms ..	100	108·9
2. Park	52	100·6
3. Latchmere ..	64	117·5
4. Shaftesbury ..	39	82·9
5. Church ..	95	144·4
6. Winstanley ..	70	105·4
7. St. John ..	16	122·1
8. Bolingbroke ..	37	100·3
9. Broomwood ..	21	58·8

Infant mortality diminishes from the first month onward to the twelfth. The following tables show the age incidence and the chief fatal diseases distributed in the sub-districts during 1908:—

Registration Sub-Districts.	Age in Months.												Totals.
	0–	1–	2–	3–	4–	5–	6–	7–	8–	9–	10–	11–	
East Battersea	61	26	22	14	10	10	14	13	13	11	11	12	217
North-West Battersea	65	21	15	16	15	12	5	9	11	7	14	8	198
South-West Battersea	32	4	8	4	7	4	4	5	5	2	1	3	79
The Borough	158	51	45	34	32	22	20	22	26	16	19	17	494

Registration Sub-Districts	Causes of Death.												Totals.
	Diarrhœa.	Prematurity.	Marasmus.	Bronchitis.	Pneumonia.	Convulsions.	Measles.	Whooping Cough.	Accidents.	Tuberculosis.	Diphtheria Erysipelas, &c.	Miscellaneous.	
East Battersea	51	30	28	17	25	6	5	11	2	5	3	34	217
North-West Battersea	51	34	31	27	16	2	4	4	—	5	1	23	198
South-West Battersea	15	20	10	4	9	1	1	6	1	2	—	10	79
The Borough	117	84	69	48	50	9	10	21	3	12	4	67	494

In the next table is shown the incidence of mortality from the chief diseases of infancy in the first and second trimesters and the last six months of the first year respectively:—

Certified Causes of Death.	Months. 0–3.	Months. 3–6.	Months. 6–12.	Total.
Diarrhœa	35	47	35	117
Prematurity ..	81	1	2	84
Marasmus and debility	28	6	11	45
Developmental disease	16	1	3	20
Bronchitis	28	12	8	48
Pneumonia ..	13	9	28	50
Convulsions	5	1	3	9
Suffocation	—	—	—	—
Measles	—	—	10	10
Whooping cough ..	3	4	14	21
Tuberculosis	2	2	8	12
Meningitis	—	1	6	7
Miscellaneous ..	43	8	20	71
	254	92	148	494

It will be noted in the above table that the mortality is heaviest in the first three months of life, more than half the deaths occurring during that age period. It will further be noted that three groups of diseases between them account for 366 (or 74 per cent.) of the total deaths of infants during 1908, viz., prematurity, respiratory diseases and diarrhœa.

Looking more in detail into these figures, it will be seen that, of the 494 deaths of infants, 149 (or 30 per cent.) were due to congenital or developmental diseases (which include prematurity, marasmus, atrophy, debility, etc.), such infants not having had the necessary vitality to survive.

The number of deaths in this group, it is satisfactory to be able to report, show a marked decrease as compared with 1907, so far as East and North-West Battersea are concerned. These two districts are in the main inhabited by the industrial class, and, in 1907, the highest infant mortality rates were shown to exist in certain wards in these districts. The birth rates in these two districts during 1908 are about the same as in the previous year. The decrease in the death rate from this group of diseases (*i.e.*, 22.4 per cent.) is interesting. In South-West Battersea, on the other hand, a district inhabited by a more prosperous class, and in which the birth rate is practically the same as in 1907, there was an increase (10 per cent.) in the number of deaths from this group of diseases.

The diarrhœal group of diseases were responsible during 1908 for an increased number of deaths amongst infants as compared with 1907. The meteorological conditions prevailing during the summer of 1908 were to some extent, doubtless, responsible for these deaths, amounting to 23.6 of the total infant mortality.

The third group of diseases, giving rise to a large number of infant deaths in Battersea during 1908, was the respiratory group, 98, or nearly 20 per cent., of the total infant deaths being due to bronchitis and pneumonia. As compared with 1907, there was a slight improvement so far as these diseases are concerned, there being a decrease of 2 per cent.

The causes responsible for 448 of these 494 infant deaths have been carefully inquired into by the Health Department. During 1907 the plan was adopted of estimating the populations for the nine wards of the Borough, instead of those for the three sub-districts, as heretofore had been the practice. In this way it was possible to localise with greater accuracy the areas in which the highest and lowest rates of infant mortality occurred. Thus the highest rate (158.95) was found to be in Winstanley Ward, and the lowest (51.2) in Bolingbroke. This enabled greater attention being concentrated on those districts which exhibited a high infant mortality, with gratifying results, as will be seen by a glance at the table on page 25, where the infant mortality rate in Winstanley Ward had fallen from 158.5 to 105.4 per 1,000.

The result of the year's work has, on the whole, been of a satisfactory character. It is to be anticipated that better results will follow from the adoption by the Council of the Notification of Births Act, the account of the first ten months' working of which will be found in this part of the report.

The Notification of Births Act, 1907.

This useful Act was passed with the object of removing the delay which, under the Registration of Births Act, arose through late registration of births. Under the latter Act births can be registered within 42 days from the date of birth. The Act, which is a permissive Act, was considered by the Council on the report of the Health Committee at their meeting held on the 25th September, 1907. The Council instructed the Medical Officer of Health to prepare a report* on the Act, which was presented to them at the meeting held on 23rd October, 1907. The "resolution of adoption" was carried at the meeting of the Council held on the 27th November, and the sanction of the Local Government Board was subsequently obtained, and the Board appointed the 2nd March, 1908, as the date on which the Act came into force in the Borough.

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* *Vide* Report for 1907.

The Act provides that the "duty" of notifying to the Medical Officer of Health devolves, in the first instance, upon the *father* of the child, if he be living in the house at the time of the occurrence of the birth; and if not then upon "any person in attendance upon the mother at the time of, or within six hours after, the birth." The notice must "be given by posting a prepaid letter or postcard . . . within thirty-six hours after the birth, or by delivering a written notice of the birth at the office or residence of the Medical Officer within the same time."

The notification is "in addition to, and not in substitution for, the requirements of any Act relating to the registration of births," and it applies to any child born "after the expiration of the twenty-eighth week of pregnancy, whether alive or dead." Liability to a penalty not exceeding twenty shillings is incurred by any person who fails to give notice of a birth in accordance with the Act."

The Act has now been in force in the Borough for nearly ten months, and during that period 2,820 notifications of births were received. 987 births (*i.e.*, 35 per cent.) were notified by medical practitioners, 770 (*i.e.*, 27 per cent.) by midwives, and 1,063 (*i.e.*, 37 per cent.) by other persons. The number of births notified from each of the three registration sub-districts of the Borough were as follows:—

East Battersea	1,114
North-West Battersea	1,077
South-West Battersea	629

The number of births registered during the same period in Battersea was 3,681. The proportion of notified to registered births was, therefore, 76 per cent.

These results are highly satisfactory, having regard to the fact that the Act is new, is permissive, and has as yet not been adopted by some of the Metropolitan Borough Councils.

The object for which the Act was passed is, by giving early information of the occurrence of births, to enable Sanitary Authorities to take steps to prevent the high rate of infant mortality, which has been such a marked feature of the statistics

of Urban localities. Under the Registration Act, a birth need only be registered within 42 days of the occurrence, and it has frequently happened that information of the birth and death were received at the Health Department at the same time, thereby precluding any measures being taken to prevent these deaths, many of which are preventable.

The adoption of the Act in Battersea has enabled a large number of homes in the poorer quarters of the Borough in which births have occurred to be visited, and advice being given by the Health Visitor to the mothers, where such is found necessary, as to the feeding and rearing of their infants. Insanitary conditions which may have been noted at the time at the homes are reported and dealt with in the usual manner. Further, valuable information as to the social and hygienic conditions present have been obtained, and are recorded in the Health Department statistics.

Of the total number (2,820) of births notified up to the end of 1908, 820 (*i.e.*, 29.4 per cent.) have been visited by the Council's Health Visitor. The districts in which these births have occurred have been specially selected, and the following summary of the results of the inquiries made into these 820 births are set out below.

The enquiries made had reference as to the parents :—

(*a.*) To health and occupation of ; character of the labour, whether a doctor or midwife in attendance ; condition of the home and number of rooms occupied.

(*b.*) As to the child: Condition of health at birth and nature of food given.

(*a.*) As to the mothers :—

In 61 instances the character of the labour was described as being "difficult."

In 399 instances a doctor was in attendance at the birth ; in 319 the woman was attended by a midwife ; in 53 cases an uncertified nurse or person was in attendance.

No. of previous Children in family.															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
172	106	97	86	70	55	50	53	29	22	12	9	3	2	3	1

No. of previous Deaths of Children in Family.								
1	2	3	4	5	6	7	8	9
103	72	34	20	9	—	2	—	1

No. of Rooms occupied by Family.						
1	2	3	4	5	6	Caravans.
70	220	276	118	42	13	8

Hygienic condition of homes:—

83 of the 820 homes were *very* dirty.

167 ,, ,, ,, dirty.

In 250 (*i.e.*, 30 per cent.), therefore, there was more or less evidence of neglect of cleanly habits.

Health of children at birth:—

Of the 820 infants visited at their homes, the conditions as regards health were ascertained to be as follows:

235 were at the time they were visited more or less seriously ill.

Of these 820 infants, information as to the feeding was obtained with regard to 711:—

Breast-fed *only*	569
Infants' milk depôt	91
Cow's milk	24
Breast and other food	27

Seventy-six of the mothers of these 820 children had had a previous history of accidents at birth, and 116 of them had "gone out to work" before confinement.

Revisits are paid to the homes of many of these children where it is desirable to do so.

The results obtained, from the working of the Act in Battersea, having regard to the length of time it has been in force, are satisfactory.* The Council have had under consideration the question of an additional Health Visitor owing to the great increase in the work involved in the administration of the Act. It is to be hoped that little delay will be experienced in appointing a suitable woman, as it is not possible to visit more than a third of the homes from which births are notified without an additional Health Visitor being appointed.

Infants' Milk Depôt.

The Infants' Milk Depôt was established by the Council in 1902, with the object of assisting in the efforts undertaken by them to lower the high rate of infant mortality which up to that time had, in common with other industrial districts, been such a regrettable feature of the vital and mortal statistics of the Borough. The institution, which has now nearly completed the seventh year of its existence, has been so fully dealt with in previous annual reports (especially in the report for 1907, *vide* pages 36-47) that it is unnecessary to say more than to describe the work accomplished during the year 1908.

The total number of infants fed from the Milk Depot during 1908 was 632, as compared with 618 in 1907. Of this number 579 were resident in Battersea, and the remaining 53 in neighbouring districts. Of the 632 infants fed during 1908, 211 were already on the books of the Milk Depôt at the beginning of the year, so that the number of children who were admitted during the year was 421.

*** NOTE.—Since the above was written the Council have appointed an additional Health Visitor.**

	Before 1908.			During 1908.			Total.
	In Borough	Out of Borough	Total.	In Borough	Out of Borough	Total.	
Still on ..	25	1	26	165	13	178	204
Discontinued (including dead)	174	11	185	215	28	243	428
Dead ..	14	1	15	34	4	38	53
Total ..	199	12	211	380	41	421	632

The length of time during which these children were fed from the Depôt up to the end of December, 1908, is shown in the following table:—

Age Started.	AGE WHEN STARTING AND PERIOD FED.															Totals.
	Under 1 wk.	1–2 wks.	2–3 wks.	3–4 wks.	1–2 mos.	2–3 mos.	3–4 mos.	4–5 mos.	5–6 mos.	6–7 mos.	7–8 mos.	8–9 mos.	9–10 mos.	10–11 mos.	11–12 mos.	1 year and over.	
Under 1 wk.	4	3	..	2	8	3	7	4	2	2	3	1	2	..	2	6	49
1-2 wks.	1	..	1	2	5	3	2	2	2	1	..	3	1	..	2	9	34
2-3 ,,	3	..	1	1	3	1	4	..	1	3	2	1	2	3	1	3	29
3-4 ,,	3	..	2	..	9	3	5	..	1	2	..	..	1	1	1	5	33
1-2 mos.	4	4	4	6	24	16	7	6	7	7	10	8	8	5	7	25	148
2-3 ,,	2	3	1	4	18	13	4	10	7	7	2	6	6	4	4	12	103
3-4 ,,	3	6	2	1	12	5	8	8	10	3	4	2	3	6	2	8	83
4-5 ,,	2	2	1	3	5	4	3	6	6	3	3	2	3	4	2	6	55
5-6 ,,	2	1	1	..	5	3	5	2	3	..	..	..	..	..	2	3	27
6-7 ,,	..	..	..	..	3	1	3	4	1	2	1	..	..	..	..	1	16
7-8 ,,	2	..	..	..	2	2	1	3	..	3	..	..	..	..	..	..	13
8-9 ,,	1	..	..	..	3	3	..	..	..	1	..	..	1	..	..	..	9
9-10 ,,	1	..	..	..	2	1	2	..	..	..	..	..	..	..	..	2	8
10-11 ,,	2	..	..	..	2	2	..	..	1	..	..	..	..	..	..	..	7
11-12 ,,	2	..	..	..	1	..	2	..	..	..	..	..	1	..	..	1	7
1 year and over.	2	1	..	..	2	2	3	..	..	..	..	..	..	..	..	1	11
Totals ..	34	20	13	19	104	62	56	45	41	34	25	23	28	23	23	82	632

In the above table, as some of the children commenced taking the milk at the end of the previous year, the periods shown in the table are understated.

Of the 632 infants fed from the Milk Depôt, 421 were admitted during the year; 402 of these were admitted on the recommendation of medical practitioners, and the outstanding fact is that over 70 per cent. of the infants admitted during the year were more or less seriously ill, in some instances in a practically dying condition. The nature of the illnesses or diseased conditions from which these children suffered comprised almost all the diseases of infancy, a considerable proportion (33 per cent.) suffering from congenital or developmental diseases. In other cases improper feeding was the cause responsible for the illness from which many of these children suffered.

The total number of deaths amongst the children fed from the Milk Depôt was 53, and the death rate was therefore 83.8 per 1,000.

An analysis of these 53 deaths shows that in only two instances was the child when admitted to the Depôt in good health, and in one of these the death of the child was caused by whooping-cough, which it was unfortunate enough to contract subsequently to admission, and which, in the case of young infants or children, is an especially fatal disease. In all the other 51 cases, the child was, when admitted to the Depôt, in a serious condition of health. In many cases the children were only on the milk a very short time (one day to one week).

A few of these fatal cases taken haphazard will serve to illustrate the state of health in which these children were when admitted:—

J. A.—Admitted 14th March, 1908. Age on admission, 5 days. State of health: Suffering from spina bifida. *On B.C. milk 5 days.*

R. A.—Admitted 17th January, 1908. Age on admission, 15 weeks. Health on admission: Very ill; suffering from diarrhœa. (One of twins.) Died on 27th January. Cause of death certified to be congenital debility, diarrhœa. *On B.C. milk* 10 *days.*

E. B.—Admitted 5th October, 1907. Age on admission, 2 months. Health on admission, bad: Tubercular. Both parents phthisical, and mother suffering from heart disease. Child had bronchitis in December. Weight in October, 9 lb. 8 oz.; in April following, 14 lb. Child taken out on a very cold day on April 3rd, and died on the 10th from broncho-pneumonia. *On B.C. milk* 6 *months.*

F. W.—Admitted 6th January, 1908. Age on admission, $2\frac{1}{2}$ months; died 7th January, 1908. No information obtainable. Child lived out of district. *On B.C. milk* 1 *day.*

K C.—Admitted 1st July, 1908. Age on admission, 4 months. Health on admission, very bad; suffering from gastric catarrh. Child gained 2 lb. 4 oz. in 9 weeks. Taken off milk on 14th September; died 23rd September. Diarrhœa. *On B.C. milk* $2\frac{1}{4}$ *months.*

R. B.—Admitted 25th September, 1908. Age on admission, 7 weeks. State of health on admisssion, *very ill.* Suffering from diarrhœa. Died 26th September, 1908. Convulsions. *On B.C. milk* 1 *day.*

The above examples sufficiently indicate that the children fed on the Borough Council milk do not constitute a normal infant population, and due allowance must therefore be made for this fact when calculating the death rate.

Notwithstanding that the death rate among the infants on the Depôt register was slightly higher than in 1907, the results obtained during 1908 are in the main very satisfactory. Not the least interesting feature of the work was the high percentage of attendances at the weighing room of babies fed on the milk, thus enabling effective supervision to be exercised over the majority of the infants on the Depôt register. Of the 632 infants admitted to the Depôt, 407 were brought to the weighing room to be weighed periodically during the year, and 3,029 weights were recorded. In addition, 361 weights were taken of 180 babies not on the Borough Council milk. This is a most useful adjunct to the work of the Milk Depôt, and possesses a high educational value. Much credit is due to Miss Moss for the success she has been able to attain, in inducing so many of the mothers to bring their babies once a week or fortnight for this purpose.

It is to be hoped that in the new milk Bill which the President of the Local Government Board has promised to introduce into Parliament during the present Session, provision will be made to enable Sanitary Authorities to legally establish Infant Milk Depôts. The success which has attended the Council's Infant Milk Depôt for the last eight years, as a glance at the chart on page 23, relating to infant mortality in the Borough since its establishment, will confirm, should, under such legislative authority, encourage the Council to develop this admirable little institution, which I am convinced has to a considerable extent at least been instrumental, both directly and indirectly, in reducing the infantile mortality in Battersea from 163 per 1,000 in 1901 to 107 per 1,000 in 1908.

The summary of work carried on in connection with the Infants' Milk Depôt during 1908 is as follows :—

Visits paid by Health Visitor to homes of infants admitted to Milk Depôt	1,101
Attendances of Health Visitor at weighing room...	98
Number of infants attending weighing room ...	407
Weights registered	3,029
Number of infants under observation at home ..	102

Senile Mortality.

During the year 1908, in the Borough of Battersea, 564 deaths of persons aged sixty-five and upwards were registered. The age distribution of these deaths in the sub-districts is set out in the following table :—

District.	65 and under 75.	75 and under 85.	85 and upwards.	Total over 65.
East Battersea ..	122	80	18	220
North-West Battersea ..	75	79	12	166
South-West Battersea ..	94	64	20	178
Borough of Battersea ..	291	223	50	564

The 564 deaths over sixty-five were equivalent to 24.8 per cent. of the deaths at all ages.

The deaths over sixty-five in each year during the five years 1903-1907 are :—

1903	..	404
1904	..	508
1905	..	537
1906	..	495
1907	..	510

Vital Statistics of the Latchmere Estate.

During the year 1908 there were 28 births, all of which were legitimate. This gives a birth-rate of 19.01 per 1,000 persons on the Estate. The birth-rate per 1,000 married women at the reproductive ages, viz., from 15 to 45 years, was 131.4. In 1907 the rates were 26.3 and 176.4 respectively.

POPULATION OF THE LATCHMERE ESTATE.

MALES.

	0–	5–	10–	15–	20–	25–	30–	35–	40–	45–	50–	55–	Total.
Single & Widowed	84	102	103	81	55	16	6	2	2	1	1	2	455
Married ..	—	—	—	—	—	27	47	59	59	46	33	23	294
Total ..	84	102	103	81	55	43	53	61	61	47	34	25	749

FEMALES.

	0–	5–	10–	15–	20–	25–	30–	35–	40–	45–	50–	55–	Total.
Single & Widowed	84	101	91	68	33	12	4	1	3	5	3	20	425
Married ..	—	—	—	—	5	33	61	69	45	40	22	17	292
Total ..	84	101	91	68	38	45	65	70	48	45	25	37	717

The number of deaths on the Estate was 6 as compared with 17 in 1907. The causes of death were as follows :—

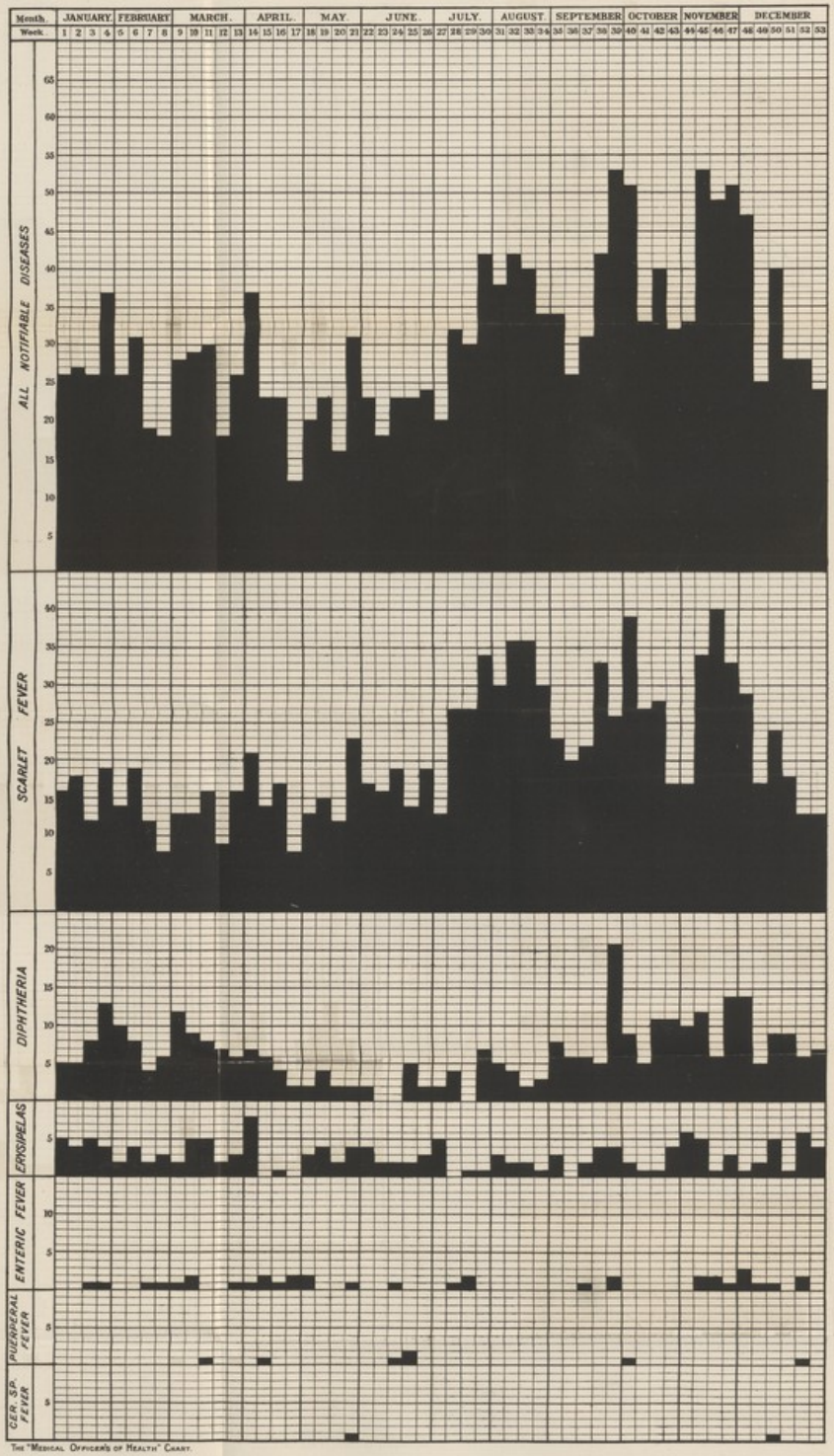
Bronchitis	2
Appendicitis	1
Heart Disease	1
Hemiplegia	1
Congenital defect	1

The death-rate per 1,000 of the population on the Estate was 4.1, as compared with 11.5 in 1907.

It should be remembered, however, that these figures are small, and consequently, for statistical purposes, of little value. It is sufficient to state that, from my own knowledge, the population on this Estate compares favourably with that of the rest of the Borough as regards the standard of health prevailing.

Infectious
and other
Diseases.

CHART indicating the prevalence of notifiable Infectious Disease
during each week of the year 1908.



THE "MEDICAL OFFICER'S OF HEALTH" CHART.

Notes:-



BRITISH MEDICAL ASSOCIATION Library

Infectious and other Diseases.

Zymotic Diseases.

The principal zymotic diseases are seven in number, viz.: small-pox, measles, scarlet fever, diphtheria (including membranous croup), whooping-cough, "fever" (including typhus, enteric or typhoid, and simple or continued), and diarrhœa. The zymotic death rate may be accepted, within certain limits, as an index of the sanitary condition of a community, and the statistics for the Borough of Battersea in 1908 will be found to show a highly satisfactory record as compared with those of former years.

In the Borough of Battersea during 1908 there were registered from the principal zymotic diseases 228 deaths, giving a corrected zymotic death rate of 1.23 per 1,000, the corrected rate for the County of London being 1.35, varying in the different Metropolitan Boroughs from 0.4 in Hampstead to 2.5 in Stepney. The zymotic death rates vary considerably for the three sub-districts, into which, for registration purposes, the Borough is divided. Thus, in the North-West district, the rate was 1.84, in the East District 1.37, while in South-West the rate was only .55 per 1,000. As in past years, North-West Battersea shows the highest, South-West Battersea the lowest, a difference explainable from the crowding and absence of home isolation and nursing in North-West and East Battersea as compared with the latter district, in which the housing accommodation and general standard of comfort of the inhabitants is, on the whole, much superior.

Similar conclusions are to be drawn from a comparison of the death rates from the chief zymotic diseases in the different Wards of the Borough, as shown in the table on page 45, from which it will be seen that of the nine Wards, Church Ward shows the highest and St. John Ward the lowest zymotic death rates.

In the subjoined table are shown the deaths from the chief zymotic diseases for the ten years 1898-1907 and the year 1908 respectively. It will be seen that the number of deaths has been the lowest number ever recorded in the Borough, being no less than 152 fewer than the average for the decennium. It will further be noted that, in the case of only one disease—*i.e.*, scarlet fever—will the figure be found to be higher than the average for the decennium.

	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	Decennial average.	1908
Small-pox ..	..	..	..	4	25	..	..	..	..	..	3	..
Measles	119	103	81	126	99	107	58	124	44	72	93	47
Erysipelas ..	18	17	17	10	11	11	11	24	10	5	13	5
Scarlet Fever ..	28	14	13	9	23	7	11	24	24	20	17	24
Diphtheria ..	120	63	32	20	18	29	14	11	17	38	36	22
Enteric Fever, &c.	15	39	32	18	16	17	12	6	8	4	17	7
Puerperal Fever .	6	7	3	8	14	5	2	9	8	7	7	5
Whooping Cough..	71	52	108	79	63	79	61	49	79	62	70	39
Epidemic Diarrhœa	154	123	149	217	98	92	184	128	149	47	134	89
Totals ..	531	418	435	491	367	347	353	375	339	255	390	238

The next table gives the death rate from each of the chief zymotic diseases compared with the mean death rate for the ten years 1898-1907, the gain or loss in each case being also shown :—

Diseases.	Mean Death-rate per 1,000 1898-1907.	Death-rate per 1,000 1908	Gain in 1908	Loss in 1908
Small-pox	0·01	0·00	0·01	..
Measles	0·52	0·25	0·27	..
Erysipelas	0·07	0·02	0·05	..
Scarlet Fever ..	0·09	0·13	..	0·04
Diphtheria	0·20	0·11	0·09	..
Enteric Fever ..	0·09	0·03	0·06	..
Puerperal Fever ..	0·03	0·02	0·01	..
Whooping Cough ..	0·39	0·21	0·18	..
Diarrhœa	0·76	0·48	0·28	..

In the next table is shown the death rate per 1,000 of the population from the chief zymotic diseases arranged in Wards :—

DEATH RATE PER 1,000 POPULATION FROM THE CHIEF ZYMOTIC DISEASES ARRANGED IN WARDS.

Ward.	Estimated Population.	Small-pox.	Measles.	Erysipelas.	Scarlet Fever.	Diphtheria.	Enteric, &c.	Puerperal Fever.	Whooping Cough.	Epidemic Diarrhœa.	All chief Zymotic diseases.
1. Nine Elms ..	31,511	·00	·34	·06	·22	·25	·03	·03	·15	·57	1·68
2. Park ..	19,834	·00	·25	·00	·20	·00	·05	·05	·30	·65	1·51
3. Latchmere ..	22,440	·00	·17	·04	·17	·13	·04	·00	·35	·44	1·38
4. Shaftesbury..	17,496	·00	·34	·00	·22	·00	·00	·05	·11	·51	1·25
5. Church ..	21,333	·00	·51	·04	·04	·23	·00	·04	·14	·70	1·73
6. Winstanley ..	22,444	·00	·26	·04	·04	·04	·04	·00	·35	·71	1·51
7. St. John's ..	9,024	·00	·11	·00	·11	·00	·00	·00	·11	·22	·55
8. Bolingbroke	20,409	·00	·09	·00	·04	·14	·09	·00	·09	·14	·63
9. Broomwood..	19,382	·00	·05	·00	·05	·10	·05	·05	·20	·15	·67

The seasonal mortality from the different important zymotic diseases is well shown by arranging the deaths quarterly, thus:—

Quarter No.	Small-pox.	Measles.	Whooping Cough.	Scarlet Fever.	Diphtheria.	Fever.			Diarrhœa.	Erysipelas.	Puerperal Fever.	Cholera.	Influenza.	Total.
						Typhus.	Typhoid.	Continued.						
1	—	14	14	9	7	—	2	—	12	1	1	—	22	82
2	—	24	17	6	4	—	1	—	7	1	2	—	7	69
3	—	2	3	6	4	—	2	—	53	—	1	—	—	71
4	—	7	5	3	7	—	2	—	17	3	1	—	4	49
Year	—	47	39	24	22	—	7	—	89	5	5	—	33	271

Drains and sanitary fittings are tested as a routine in all infected houses in cases of diphtheria, enteric and puerperal fevers, and in the case of other diseases in such instances as may be found necessary. It should, of course, be remembered that where defects are found, it does not follow that such defects are the cause of the disease. They may, however, *indirectly* be so.

The tests used are the ordinary smoke test and chemical test (Kingzett's). When a positive result is obtained, the drain (tested) is defective; but when a negative result is obtained, it would be unsafe to assume that therefore the drain (tested) was sound. A negative result proves nothing. The only reliable tests are the hydraulic (water) and the pneumatic (air) tests; but these are considered too severe for the routine testing of drains of old buildings.

Drainage Defects, &c., in Houses in which cases of Infectious Disease were notified.

SUB-DIVIDED ACCORDING TO THE DIFFERENT NOTIFIABLE DISEASES, THE RESULTS SHOW AS FOLLOWS :—

DISEASE.	No. of houses invaded.	Number showing defects as to—			Percentage showing drainage defects.	Percentage showing no drainage defects.
		Drains.	Traps, fittings and appliances.	Total.		
Small-pox.. ..	—	—	—	—	—	—
Cholera	—	—	—	—	—	—
Diphtheria ..	265	25	39	64	24	76
Erysipelas.. ..	150	—	10	10	6	94
Scarlet Fever ..	824	23	120	143	17	83
Typhus	—	—	—	—	—	—
Typhoid	27	—	7	7	25	75
Continued Fever..	—	—	—	—	—	—
Puerperal Fever ..	7	3	—	3	42	58
Total ..	1,273	51	176	227	17	83

COMPARISON OF PREVALENCE OF SICKNESS AND DEATH FROM INFECTIOUS DISEASES (Rates calculated per 1,000 persons on the population estimated to the middle of each year).

Years.	Small-pox.		Erysipelas.		Diphtheria and Membranous Croup.		Scarlet Fever.		Enteric and Continued Fever.		Puerperal Fever.		Cerebro-spinal Fever.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1898 ..	0·00	0·00	1·06	0·10	4·74	0·71	4·84	0·16	0·56	0·08	0·05	0·03	—	—
1899 ..	0·00	0·00	1·21	0·10	3·61	0·37	4·30	0·08	0·93	0·23	0·08	0·04	—	—
1900 ..	0·00	0·00	0·98	0·10	1·81	0·19	3·25	0·07	1·22	0·19	0·03	0·01	—	—
1901 ..	0·30	0·02	0·74	0·04	1·56	0·11	3·60	0·05	0·53	0·10	0·04	0·04	—	—
1902 ..	0·98	0·14	1·14	0·06	1·60	0·10	4·98	0·13	0·51	0·09	0·08	0·08	—	—
1903 ..	0·19	0·00	0·85	0·06	1·62	0·16	2·58	0·04	0·49	0·09	0·04	0·02	—	—
1904 ..	0·03	0·00	0·90	0·06	1·13	0·07	2·13	0·06	0·29	0·06	0·04	0·01	—	—
1905 ..	0·00	0·00	0·99	0·13	0·93	0·06	4·51	0·13	0·15	0·03	0·09	0·05	—	—
1906 ..	0·00	0·00	0·89	0·05	1·39	0·09	5·62	0·13	0·22	0·04	0·07	0·04	—	—
1907 ..	0·00	0·00	0·95	0·02	1·73	0·20	5·07	0·11	0·20	0·02	0·07	0·03	0·01	0·005
Average 1898-1907	0·15	0·01	0·97	0·07	2·01	0·20	4·08	0·09	0·51	0·09	0·05	0·03	—	—
1908	0·00	0·00	0·82	0·02	1·84	0·11	5·97	0·13	0·19	0·03	0·03	0·02	0·01	0·01

This table is recommended for use by the Society of Medical Officers of Health, as a record of "the frequency and mortality of infectious diseases in the whole district for a series of years."

Notifiable Infectious Diseases.

During 1908, under the Notification Clauses of the Public Health (London) Act, 1891, 1,635 cases of infectious diseases have been reported, and of this number 1,445—*i.e.*, 88.3 per cent. —were removed to the hospitals of the Metropolitan Asylums Board or to other hospitals, and 190—*i.e.*, 11.7 per cent.—remained under treatment at their homes. It is satisfactory to note that the high percentage of removals to hospital recorded during the past two or three years is still being maintained, the advantages of early removal to hospital for isolation, etc., being considerable, especially in districts like Battersea, where the opportunities for safely retaining these cases for treatment at home are in the vast majority of cases lacking. Indeed, were the facilities provided by the Metropolitan Asylums Board not so generally and intelligently availed of by the inhabitants of the Borough, much greater difficulty would be experienced in preventing the spread of infection in a congested and, as regards the greater part, industrial district such as Battersea, more especially in years when epidemic disease is prevalent.

Examining the removals to hospitals more in detail (*e.g.*, nature of the disease), it is seen that during 1908, in the Borough of Battersea, the following are the percentages:—

Scarlet Fever	96.9
Diphtheria and Membranous Croup ...	86.7
Enteric Fever	83.3
Erysipelas	31.1
Puerperal Fever	71.4

The number of cases notified in the three sub-districts of the Borough, and the proportion per 1,000 of the inhabitants, are as follows:—

	Total Number of cases notified.	Notification per 1,000 of the Population.
The Borough	1,635 ...	8.8
East Battersea	832 ...	10.9
North-West Battersea ...	464 ...	9.3
South-West Battersea ...	339 ...	5.8

The total number of cases of notifiable infectious diseases reported during 1908 was 172 in excess of that notified in 1907, the excess being almost entirely due to Scarlet Fever, which was very prevalent in the Borough during the year. Notwithstanding this increase, it is satisfactory to be able to record that the death rate from these diseases was less than in 1907.

No case of Small-pox was notified during 1908 in Battersea.

The following table gives the number of notifications per 1,000 of the population and percentage of cases removed to hospital during the decennium 1898-1907 and 1908 respectively:—

Year.	No. of Notifications received.	Notifications per 1,000 of the population.	Percentage of cases removed to hospital.
1898	1,887	11·3	62·9
1899	1,702	10·1	70·5
1900	1,231	7·3	68·9
1901	1,148	6·7	72·1
1902	1,597	9·3	78·0
1903	1,003	5·7	74·6
1904	801	4·5	71·6
1905	1,186	6·6	82·5
1906	1,476	8·2	88·3
1907	1,463	8·0	86·5
Average 1898–1907	1,349	7·7	75·5
1908	1,635	8·8	88·3

The fees paid to medical practitioners for notification of infectious disease in Battersea for each year since 1891 are set out below :—

Year.	Amount paid to Medical Practitioners.	Cost per 1,000 Population.
	£ s. d.	£ s. d.
1891	150 1 0 ..	0 19 10
1892	224 18 6 ..	1 9 3
1893	321 2 6 ..	2 0 11
1894	208 12 0 ..	1 6 1
1895	197 19 6 ..	1 4 2
1896	229 16 0 ..	1 7 9
1897	310 3 0 ..	1 17 4
1898	229 0 6 ..	1 7 5
1899	203 17 6 ..	1 4 3
1900	146 12 6 ..	0 17 5
1901	136 10 0 ..	0 16 1
1902(including Chicken-pox)	343 19 0 ..	2 0 1
1903 do.	137 11 0 ..	0 15 10
1904 do.	171 4 0 ..	0 19 5
1905	146 7 6 ..	0 16 5
1906	183 6 6 ..	1 0 5
1907	183 19 6 ..	1 0 3
1908	199 13 6 ..	1 1 8

The increase in 1902 is accounted for by the fact that chicken-pox was very prevalent in that year, and had been temporarily added to the list of notifiable diseases on account of the outbreak of small-pox in that year.

The Chart inserted at page 43 gives a graphic representation of the rise and fall of the chief notifiable infectious diseases. This, studied in connection with the tables on pages 53 and 54, is instructive, as showing the seasonal and other fluctuations peculiar to the incidence of infectious disease.

There was an increase in the number of notifications of Scarlet Fever during 1908, viz., 16 per cent., as compared with

1907, and 12.2 per cent. above the average for the ten years 1891-1900. The 1,099 cases occurred in 824 houses, and in 23 of these sanitary defects were found.

There was a slight increase in the number of notifications of Diphtheria received during 1908, as compared with 1907, and 43.6 per cent. higher than the average for the five years 1901-5, but 31.5 per cent. lower than the average for the ten years 1891-1900. The 340 Diphtheria cases occurred in 265 houses, and in only 25 of these were the drains, on testing, found defective.

Two serious outbreaks of Diphtheria occurred during 1908 in Institutions in the Borough.

The Enteric Fever or Typhoid notifications received were 72.1 per cent. below the average for the ten years 1891-1900. The 36 Enteric Fever cases occurred in 27 houses, in none of which were the drains, on testing, found to be defective.

Weekly Summaries of Cases of Infectious Disease Notified during the Year 1908.

Month.	Week of Year.	Cases of Infectious Disease Notified.										Totals.		
		Small-pox.	Diphtheria and Membranous Croup.	Erysipelas.	Scarlet Fever.	Typhus Fever.	Enteric Fever.	Continued and Relapsing Fever.	Puerperal Fever.	Cholera.	Cerebro-spinal Fever.	1908.	1907.	1906.
January	1	..	5	5	16	..	..	..	..	..	..	26	23	19
	2	..	5	4	18	..	..	..	..	..	..	27	24	29
	3	..	8	5	12	..	1	..	..	..	..	26	37	24
	4	..	13	4	19	..	1	..	..	..	..	37	23	30
February	5	..	10	2	14	..	..	..	..	..	..	26	25	14
	6	..	8	4	19	..	..	..	..	..	..	31	22	24
	7	..	4	2	12	..	1	..	..	..	..	19	38	15
	8	..	6	3	8	..	1	..	..	..	..	18	28	15
March	9	..	12	2	13	..	1	..	..	..	..	28	24	16
	10	..	9	5	13	..	2	..	..	..	..	29	30	15
	11	..	8	5	16	..	..	..	1	..	..	30	24	20
	12	..	7	2	9	..	..	..	..	..	..	18	29	15
	13	..	6	3	16	..	1	..	..	..	..	26	23	16
April	14	..	7	8	21	..	1	..	..	..	..	37	37	23
	15	..	6	..	14	..	2	..	1	..	..	23	26	21
	16	..	4	1	17	..	1	..	..	..	..	23	31	20
	17	..	2	..	8	..	2	..	..	..	..	12	28	22
May	18	..	2	3	13	..	2	..	..	..	..	20	30	18
	19	..	4	4	15	..	..	..	..	..	..	23	30	21
	20	..	2	2	12	..	..	..	..	..	..	16	29	28
	21	..	2	4	23	..	1	..	..	..	1	31	27	24
June	22	..	2	4	17	..	..	..	..	..	..	23	38	19
	23	..	..	2	16	..	..	..	..	..	..	18	25	15
	24	..	..	2	19	..	1	..	1	..	..	23	28	20
	25	..	5	2	14	..	..	..	2	..	..	23	16	38
	26	..	2	3	19	..	..	..	..	..	..	24	22	21

Month.	Week of Year.	Cases of Infectious Disease Notified.										Totals.		
		Small-pox.	Diphtheria and Membranous Croup.	Erysipelas.	Scarlet Fever.	Typhus Fever.	Enteric Fever.	Continued and Relapsing Fever.	Puerperal Fever.	Cholera.	Cerebro-spinal Fever.	1908.	1907.	1906.
July	27	..	2	5	13	..	..	..	..	..	..	20	28	26
	28	..	4	..	27	..	1	..	..	..	..	32	22	14
	29	..	..	1	27	..	2	..	..	..	..	30	34	25
	30	..	7	1	34	..	..	..	..	..	..	42	27	25
August	31	..	5	3	30	..	..	..	..	..	..	38	16	30
	32	..	4	2	36	..	..	..	..	..	..	42	27	26
	33	..	2	2	36	..	..	..	..	..	..	40	21	25
	34	..	3	1	30	..	..	..	..	..	..	34	20	16
September	35	..	8	3	23	..	..	..	..	..	..	34	23	19
	36	..	6	..	20	..	..	..	..	..	..	26	22	39
	37	..	6	2	22	..	1	..	..	..	..	31	14	34
	38	..	5	4	33	..	..	..	..	..	..	42	27	51
	39	..	21	4	26	..	2	..	..	..	..	53	35	48
October	40	..	9	2	39	..	..	..	1	..	..	51	27	54
	41	..	5	1	27	..	..	..	..	..	..	33	34	56
	42	..	11	1	28	..	..	..	..	..	..	40	48	39
	43	..	11	4	17	..	..	..	..	..	..	32	29	45
November	44	..	10	6	17	..	..	..	..	..	..	33	42	39
	45	..	12	5	34	..	2	..	..	..	..	53	41	40
	46	..	6	1	40	..	2	..	..	..	..	49	34	47
	47	..	14	3	33	..	1	..	..	..	..	51	42	41
December	48	..	14	1	29	..	3	..	..	..	..	47	31	35
	49	..	5	2	17	..	1	..	..	..	..	25	37	47
	50	..	9	5	24	..	1	..	..	..	1	40	19	40
	51	..	9	1	18	..	..	..	..	..	..	28	23	38
	52	..	6	6	13	..	2	..	1	..	..	28	23	35
	53	..	7	4	13	..	..	..	..	..	..	24	..	..
Whole Year		..	340	151	1099	..	36	..	7	..	2	1635	1463	1476

Notifications of Infectious Disease received during the Year 1908 arranged in Wards.

Ward.	Diphtheria & Membranous Croup.	Erysipelas.	Scarlet Fever.	Typhoid or Enteric Fever.	Continued Fever.	Puerperal Fever.	Cerebro-spinal Fever.	Totals.
No. 1 (Nine Elms) ..	69	33	250	5	—	—	—	359
,, 2 (Park) ..	32	25	142	4	—	2	2	207
,, 3 (Latchmere) ..	42	25	145	6	—	—	—	218
,, 4 (Shaftesbury)	34	11	116	2	—	1	—	164
,, 5 (Church) ..	31	21	92	10	—	2	—	156
,, 6 (Winstanley)	34	20	147	3	—	—	—	204
,, 7 (St. John) ..	37	4	46	—	—	—	—	87
,, 8 (Bolingbroke)	34	7	102	4	—	—	—	147
,, 9 (Broomwood)	27	5	59	2	—	—	—	93
Totals ..	340	151	1,099	36	—	7	2	1,635

CASE-RATE PER 1,000 POPULATION IN EACH WARD FOR EACH NOTIFIABLE INFECTIOUS DISEASE.

WARD.	Estimated Population.	Diphtheria & Membranous Croup.	Erysipelas.	Scarlet Fever.	Enteric & Continued Fever.	Puerperal Fever.	Cerebro-Spinal fever.	All Notifiable Infecti's diseases.
No 1 (Nine Elms) ..	31,511	2·18	1·04	7·94	0·15	0·06	0·00	11·39
,, 2 (Park) ..	19,834	1·61	1·26	7·15	0·20	0·10	0·10	10·43
,, 3 (Latchmere) ..	22,440	1·87	1·11	6·40	0·26	0·00	0·00	9·71
,, 4 (Shaftesbury)	17,496	1·94	0·62	6·63	0·11	0·05	0·00	9·37
,, 5 (Church) ..	21,333	1·45	0·98	4·31	0·46	0·09	0·00	7·31
,, 6 (Winstanley) ..	22,444	1·51	0·89	6·54	0·13	0·00	0·00	9·08
,, 7 (St. John) ..	9,024	4·10	0·44	5·09	0·00	0·00	0·00	9·64
,, 8 (Bolingbroke) ..	20,409	1·66	0·34	4·99	0·19	0·00	0·00	7·20
,, 9 (Broomwood)...	19,382	1·39	0·25	3·04	0·10	0·00	0·00	4·79

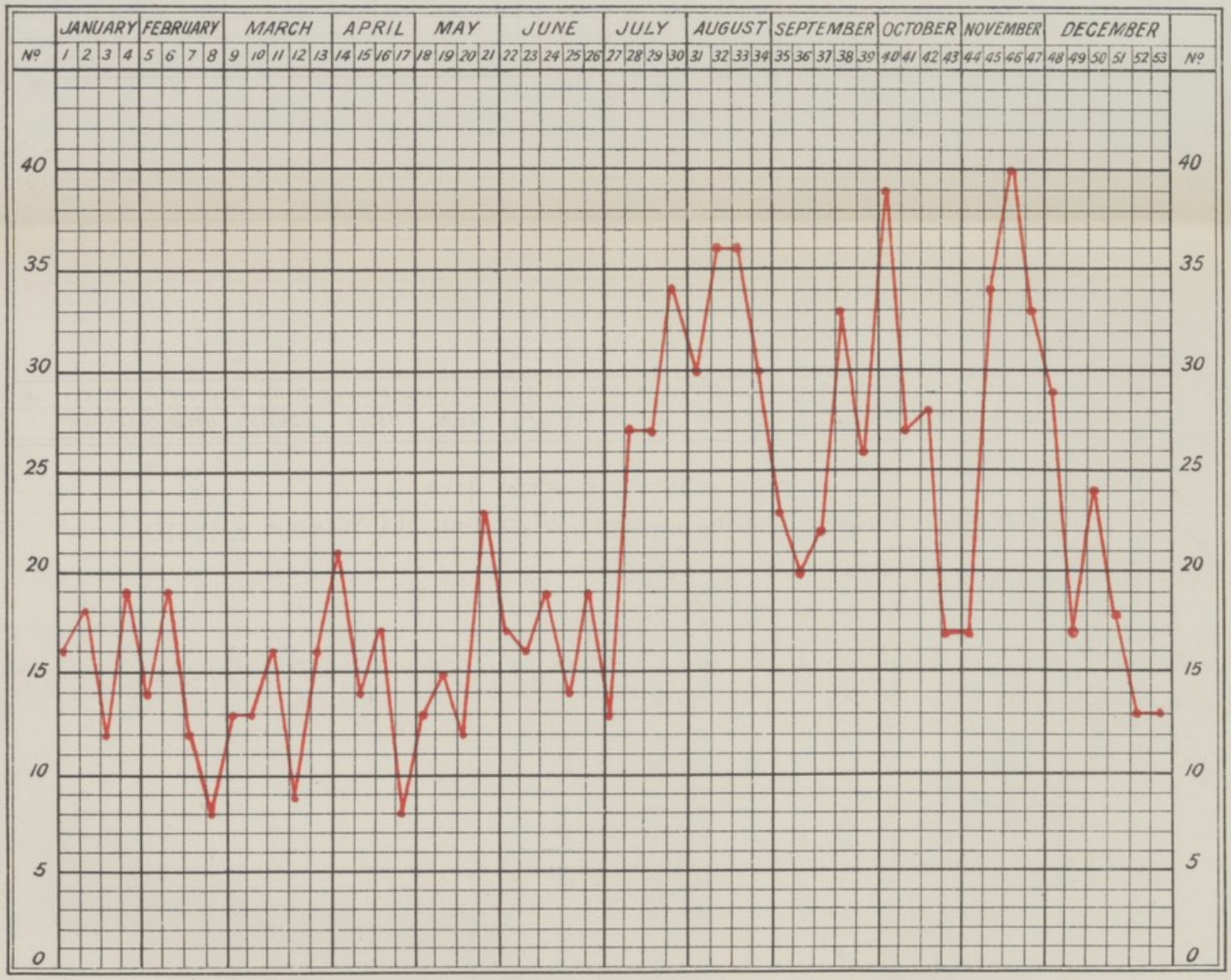
Small-pox.

Again it is satisfactory to record that no case of Small-pox was notified in Battersea in 1908. Three suspected cases were referred to me by Medical practitioners, which, on investigation, proved not to be Small-pox.

In the County of London no case occurred during the year.

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CHART showing the number of cases of Scarlet Fever notified during each week of the year 1908.



The following table gives the number of Small-pox cases and deaths in Battersea and in the County of London since 1891 :—

Year.	Battersea.		London.	
	Cases.	Deaths.	Cases.	Deaths.
1891	—	—	114	8
1892	2	1	425	41
1893	108	12	2,815	206
1894	8	2	1,193	89
1895	20	1	980	55
1896	4	—	225	9
1897	1	—	104	16
1898	1	—	33	1
1899	—	—	29	3
1900	—	—	86	4
1901	51	4	1,700	229
1902	169	25	7,797	1,314
1903	33	—	416	13
1904	7	—	491	25
1905	—	—	74	10
1906	—	—	31	—
1907	—	—	—	—
1908	—	—	—	—

Contacts were watched on their arrival within the Borough during 1908 in connection with Small-pox cases that had occurred on board vessels arriving from abroad. All these were kept under observation for a period of 16 days.

Scarlet Fever.

Scarlet Fever was again very prevalent in Battersea during 1908, 1,099 cases being notified and 24 deaths registered from the disease, giving a case mortality of 2.1 per cent. In 1907, 922 cases were notified and 24 deaths registered—*i.e.*, a case mortality of 2.1 per cent. The annual averages for the ten years (1891-1900) are: (1) Notified cases, 979.3 ; and (2) deaths, 30.4.

In the following table are shown the number of cases and the case mortality per cent. in the Borough and sub-districts during 1908:—

Sub Registration Districts.	East Battersea.	Nth.-West Battersea.	Sth.-West Battersea.	Borough.
No. of Cases	568	313	218	1099
Case-rate per 1,000 population	7·44	6·32	3·75	5·97
No. of Deaths	17	4	3	24
Death-rate per 1,000 population	0·22	0·08	0·05	0·13
Case-mortality per cent.	2·9	1·2	1·3	2·1

In the next table are shown the case rate per 1,000 of the population and the case mortality (*i.e.*, the proportion of deaths to attacks) in 1891 and subsequent years.

Year.	Cases.	Case-rate per 1,000 population.	Deaths.	Death-rate per 1,000 population.	Case-mortality per cent.
1891	738	4·89	38	0·25	5·1
1892	1,171	7·61	42	0·27	3·5
1893	1,407	8·97	32	0·20	2·2
1894	837	5·24	30	0·18	3·5
1895	830	5·09	28	0·17	3·3
1896	1,111	6·72	32	0·19	2·8
1897	1,621	9·76	47	0·28	2·9
1898	809	4·84	28	0·16	3·4
1899	721	4·30	14	0·08	1·9
1900	548	3·25	13	0·07	2·3
1901	609	3·60	9	0·05	1·4
1902	854	4·98	23	0·13	2·6
1903	448	2·58	7	0·04	1·5
1904	375	2·13	11	0·06	2·9
1905	801	4·51	24	0·13	2·8
1906	1,011	5·62	24	0·13	2·3
1907	922	5·07	20	0·11	2·1
1908	1,099	5·97	24	0·13	2·1

It will be noted that the incidence of the disease, and more especially the death rate, were highest in East Battersea.

The next table gives the age distribution of the cases notified and of the fatal cases:—

Age Periods—Years.	Under 1	1–2	2–3	3–4	4–5	5–10	10–15	15–25	25–65	Borough
No. of Cases	6	28	50	76	95	484	230	97	33	1,099
No. of Deaths	—	1	6	1	3	12	—	—	1	24
Case Mortality per cent.	..	3·5	12·0	1·3	3·1	2·4	..	..	3·0	2·1

The above table is instructive, and shows that of the 1,099 persons reported to be suffering from Scarlet Fever during 1908, 255 (*i.e.*, 23.2 per cent.) were under 5 years of age, and 739 (*i.e.*, 67.2 per cent.) under 10 years, while the mortality was greatest among those under 5 years of age (*i.e.*, 4.3 per cent.). Of the 360 persons over 10 years of age, 1 (*i.e.*, 0.27 per cent.) died.

The causes responsible for the spread of infection from Scarlet Fever in 1908 were, as in the two preceding years, twofold in character:—

1. Mildness of the type of infection.
2. The Public Elementary Schools.

With regard to the first-mentioned, there is no doubt that the virulence of Scarlet Fever varies in different epidemics, and it is clear that the epidemic which commenced in 1905, and spread over London, is of a mild type of virulence. This is shown both by the low death rate from the disease and by the large number of mild, unrecognised cases which have been brought to light as a result of secondary cases, showing more pronounced clinical signs

of the disease, occurring among members of the same family or contacts. Great difficulty has been experienced in tracing cases of this nature, and the time of the Sanitary Inspectorial Staff has been much taken up in this important duty.

The Public Elementary Schools have been largely concerned in the spread of infection. This also has been mainly due, there appears to be little doubt, to the presence of mild, unrecognised cases in the schools or occurring in the homes of children attending the schools. It has not been an easy task to definitely or satisfactorily associate the schools with the spread of infection, in a great many instances in which there has been a strong suspicion pointing to them as being the source of infection ; but in a few instances it has fortunately been possible, after excluding every likely source of infection, to definitely trace and prove the origin as being due to this source. It has been found necessary in such cases to take action either by the exclusion of children showing evidence of suspicious illness (sore throat, vomiting, head-ache, malaise), or by closure of certain class rooms. Such action has in most cases been followed by satisfactory results in checking the further spread of infection.

Among other probable sources of infection, there were reasons to suspect the out-patient departments of hospitals. Several cases attending as out-patients at these Institutions for other ailments were attacked by the disease. In such cases special enquiries were made, and after excluding every other possible source of origin, it was impossible to dissociate the hospital from responsibility. When a child, absent from school for some affection which necessitates treatment at the out-patient department of one of the largely attended hospitals, after paying several visits, is brought into contact with other patients in a crowded patients' waiting-room, and kept waiting its turn to be attended to, frequently for long periods of time, it is not difficult to surmise, during periods when Scarlet Fever is prevalent, that considerable risk of infection is likely in this manner to arise.

Carelessness of parents and others having charge of children has again to be referred to as one of the causes responsible for

the spread of infection. Many cases, which might have been prevented had timely medical aid been sought, have been traceable to this cause. There have been a larger number of cases during 1908 than in the preceding two years, in connection with which there has been more or less evidence pointing to a recently discharged patient from one of the M.A.B. hospitals as the source of infection. These so-called "return cases" are, of course, very difficult to trace; but here again the inference has in a large number of these cases been unusually strong, that the returned patient has been the infecting agent. In all such cases special enquiries have been instituted, and the history of a typical suspicious case will be found set out below.

The most satisfactory—one might term it the *only satisfactory*—feature of the report dealing with the incidence of this disease has been the low death rate. While it is clear that the mildness of the type is to some extent responsible for this satisfactory state of things, it is equally clear that the prompt isolation by removal to hospital of such a high percentage (96.9 per cent.) of the cases notified is a contributing factor to this desirable end. Difficulties have at times been encountered in securing removal of patients to hospital through the mistaken opposition of parents and others in some few cases in which such removal, in the interest of the public health, was indicated, but these were in all cases satisfactorily overcome.

Dealing first with the "mild, unrecognised case" as a powerful factor in the spread of infection in Battersea: Of the 1,099 cases notified, in 169 of the 824 houses multiple cases occurred as follows:—

8	Cases in one house	1
7	,, ,, ...	2
6	,, ,, ...	1
5	,, ,, ...	4
4	,, ,, ...	12
3	,, ,, ...	50
2	,, ,, ...	99
	Total	444

It will be seen that in 40 per cent. of the total number of cases notified, two or more persons of the same family or living in the same house were infected. In a very large number of instances, it was found that the source of infection was traceable to a mild, undiscovered case or to some suspicious illness, from which one or more members of the family or families residing in the house was suffering.

In one house (Alfred Street), in which 8 cases occurred, and which was due to this cause, the following is the history of the outbreak. The family, which occupied the whole house of six rooms, comprised twelve persons—father, mother and ten children. The ages of the latter ranged from 19 to 3 years. The two elder children escaped. One of the younger children—a boy, aged 11—came home from school feeling ill on the 2nd November. Next day he complained of headache and malaise, but no sore throat or vomiting. His illness was not considered of sufficient importance to call in a doctor. Between the 11th and the 17th, seven cases were notified. As a result of this outbreak the history and nature of the illness of the boy referred to was enquired into, and on examination he was found to be suffering from scarlatinal sequelæ, and subsequently notified and removed to hospital.

The case in which seven members of the same family, living in Church Road, presents some features of interest. On the 10th February, R. D——, aged 8, was notified to be suffering from Scarlet Fever, and removed to hospital the same day. This child attended Bolingbroke Road L.C.C. School, in connection with which school very few cases were notified from amongst the large number of children attending therein during 1908. An elder sister, aged 18, of this patient was notified, and removed to hospital on the 22nd March. On enquiries being made, it was ascertained that this patient had been employed as a cleaner at the same school, and, in the absence of other evidence, it was surmised that she must have been infected at the school in the course of her occupation. This patient was not discharged from hospital until the 9th May.

The child R. D—— was discharged from hospital on the 6th April. Between the 10th and 16th April four cases, and on the 20th a fifth, were notified and removed to hospital. In view of the recent return of the first case attacked, R. D——, special enquiries were made. She was found to have, in addition to some late "peeling," a sore mouth. The hospital authorities were communicated with and information obtained that, on "the morning of her discharge, she had a slight crack at the angle of the mouth, which had come on in the uninfected block." The recent arrival of this child at her home, taken with the condition of the patient when discharged from hospital, and four days subsequently the occurrence of the first of the second group of cases was a highly suspicious circumstance. It should be stated, however, that one of the last group had attended school on the 10th April, two days previous to the commencement of her illness, and it was not, therefore, possible to exclude the school as a possible source of infection. Of the other four cases none attended school, amongst these latter being the first case attacked.

Four cases occurred amongst two families occupying a house at Stockwood Street on the 15th and 16th June—two in one family and one in another. On making enquiries into these cases it was ascertained that another child in the latter family had been removed to the infirmary a day or two previously, supposed to be suffering from Rheumatic Fever. The Medical Superintendent was immediately communicated with and the history of the case given to him, and he at once notified the case and had the patient removed to the M.A.B. Hospital, where she was detained until the 5th August. This case had probably infected the three other patients.

In practically all instances in which multiple cases have occurred, the source of infection is due to this cause. Most of these cases occur in the poorer quarters of the Borough, where, owing to the frequently inadequate housing accommodation and the inability (financial) of parents (and in many cases carelessness) to call in timely medical assistance. In such circumstances, it is not difficult to understand in times when epidemic disease is prevalent the incidence of such disease rapidly rises, and entails an expenditure

of the time of the Council's officers in following up suspected cases of illness which are reported to the Health Department from the Public Elementary Schools and other sources.

The influence of the schools as a means by which Scarlet Fever and other infectious diseases are spread, is, so far as the incidence of the disease in Battersea is concerned, considerable. With regard to Scarlet Fever, how far this influence is to be considered a factor in its spread, it is difficult, of course, to say. The fact that during the year 1908, for example, that, out of the 1,099 cases notified, 714 of the children attacked were of the *school* age (5-15 years) points to the school as a channel for the dissemination of the disease. The effect of environment in this respect affords additional evidence that schools do play a not inconsiderable part. Invariably, as is to be expected, the incidence of infectious disease is greatest in the poorer quarters of the Borough. In such cases it is, for obvious reasons, not an easy matter to measure to what extent the schools directly play their part in the spread of infection. As has happened frequently during the past three years, local outbreaks have occurred in the more prosperous region of the Borough, and here it has been possible to gauge with some degree of accuracy the influence the schools exercise in connection with such local outbreaks, and where the conditions which render it so difficult to avoid fallacies are to a large extent absent.

During 1908, owing to the prevalence of Scarlet Fever amongst children attending particular schools, it was found necessary to take action in regard to these schools. The schools in question were:—

1. Wix's Lane (girls).
2. Battersea Park Road (infants).
3. Surrey Lane (girls).
4. Mantua Street (junior mixed).
5. Tennyson Street (do.).
6. Plough Road (girls).

By arrangement with the Education Authority, certain class rooms in these schools were closed for short periods. In several other schools exclusion of children showing evidence of suspicious illness (sore throats, sickness, etc.) was the procedure carried out.

The first-named school is a modern, well built school, admirably situated in so far as hygienic surroundings go, and within a few yards of Clapham Common. The children attending this school, in the main, belong to a more prosperous, better cared for and better housed class of the community. During the autumn months an outbreak, which gave rise to considerable trouble, occurred amongst the children in attendance at this school. It was found necessary to close three class rooms, in connection with which there was strong direct evidence pointing to infection taking place among the children therein. This action was followed by satisfactory results. Between 40 and 50 children attending the school were notified to be suffering from Scarlet Fever during the year, the great majority of whom were infected during the autumn outbreak. Thus 4 cases were notified during August (3rd to the 13th). No further case was notified until the 10th September, an interval of a month, soon after the reopening of the school after the summer vacation. During September 5 cases, October 12 cases, November 6 cases, and December 6 cases (the last case being notified on the 14th of that month).

Exclusion of certain suspected children was first tried in connection with this outbreak. Notwithstanding this action, the cases still continued to occur. It was apparent as a result of thorough investigation of the matter that certain class rooms were responsible for the spread of infection. Arrangements were made for the closure of these rooms, a proceeding which was almost immediately followed by gratifying results.

This outbreak is of particular interest, having regard to the situation of the school, its general high standard of sanitation, and the status of the children attending. There could be no question that infection was taking place in the school. In only

two instances were more than one member of the same household attacked. In one case both cases were simultaneously infected.

The other schools affected, and in connection with which, in consequence, it was found necessary to take similar action, were Battersea Park Road, Surrey Lane, Mantua Street, Plough Road, Tennyson Street. The first-mentioned school is situate in an area in which a very large number of cases occurred—*i.e.*, No. 2 Sanitary District. The disease began to rise in this area in June, and continued to rise steadily through July. The closure of two class rooms, as well as the exclusion of all suspicious cases, was followed by satisfactory results.

A similar result followed the closure of class rooms in the other schools mentioned.

The "mild, unrecognised case" was no doubt largely responsible for spread of infection in the schools as in the homes. It was of frequent occurrence to find that a child, through some slight indisposition, was kept at home for a day or two, and then allowed to return. The subsequent discovery that the child was "peeling" disclosed the nature of the illness, while immediate exclusion followed—an excellent example of the old proverb, locking the stable door when the steed is stolen.

There are, in round numbers, 800,000 children attending the public Elementary Schools within the Administrative County of London. During the past three years an average of considerably over 20,000 children have been annually notified. There can be no doubt that a large majority of these cases might have been prevented by a systematic and routine medical examination of the school children.

It is to be hoped that the Education Authority will at once make use of the new powers conferred upon them under the provision of the Education (Administrative Provisions) Act of 1897 in carrying out systematic medical inspection of *all* children attending Public Elementary Schools. Such action would, in my opinion, be followed by gratifying results in checking the spread

of infection, and in the long run would be found more efficient and, from the ratepayer's point of view, more economical, the great reduction that would necessarily follow such action being reflected in the decreased cost of maintenance of these cases, the average detention of which in hospital amounts to a period of six weeks.

A small outbreak of Scarlet Fever occurred amongst the children attending the Royal Masonic Institute for girls, the infection having probably been introduced from without. Only seven cases altogether occurred during the year, the prompt measures taken to prevent the spread of infection proving completely successful.

Another small outbreak occurred amongst the children attending a private school in the Borough, and the spread of the disease was prevented by the closure of the school for three weeks, on representations made by me to the Principal.

In several instances there was reason to suspect that cases attending the out-patient departments of several hospitals outside the district for other ailments were infected while waiting their turn to be attended to. In times when epidemic disease is prevalent, such an obvious channel of infection should not be overlooked. In such cases I have drawn the attention of the hospital authorities thereto.

So-called "return cases" were slightly more numerous during 1908 than in the two preceding years. It is, however, a difficult matter to definitely associate the discharged patient as the source of infection. In all such cases special enquiries were made (an example being referred to earlier in this report), with results which were more or less suggestive of the returned patient having infected the new case. While in many of these cases there was a strong presumption that this was so, it was impossible to entirely exclude the possibility of school infection or personal contact.

Milk as a factor in the spread of infection gave rise in not a single instance to suspicion among the large number of cases of Scarlet Fever notified in Battersea in 1908.

The following are the numbers and percentages to total cases of "return" cases of Scarlet Fever since 1905:—

	Total cases.	"Return" cases.	Per cent.
1905	... 801	... 23	... 2.87
1906	... 1,011	... 34	... 3.36
1907	... 922	... 47	... 5.09
1908	... 1,099	... 52	... 4.73

The number of cases sent back from hospital notified as Scarlet Fever, and in which the diagnosis was found to be erroneous, was 54, or 4.9 per cent., as compared with 5.9 per cent. in 1907.

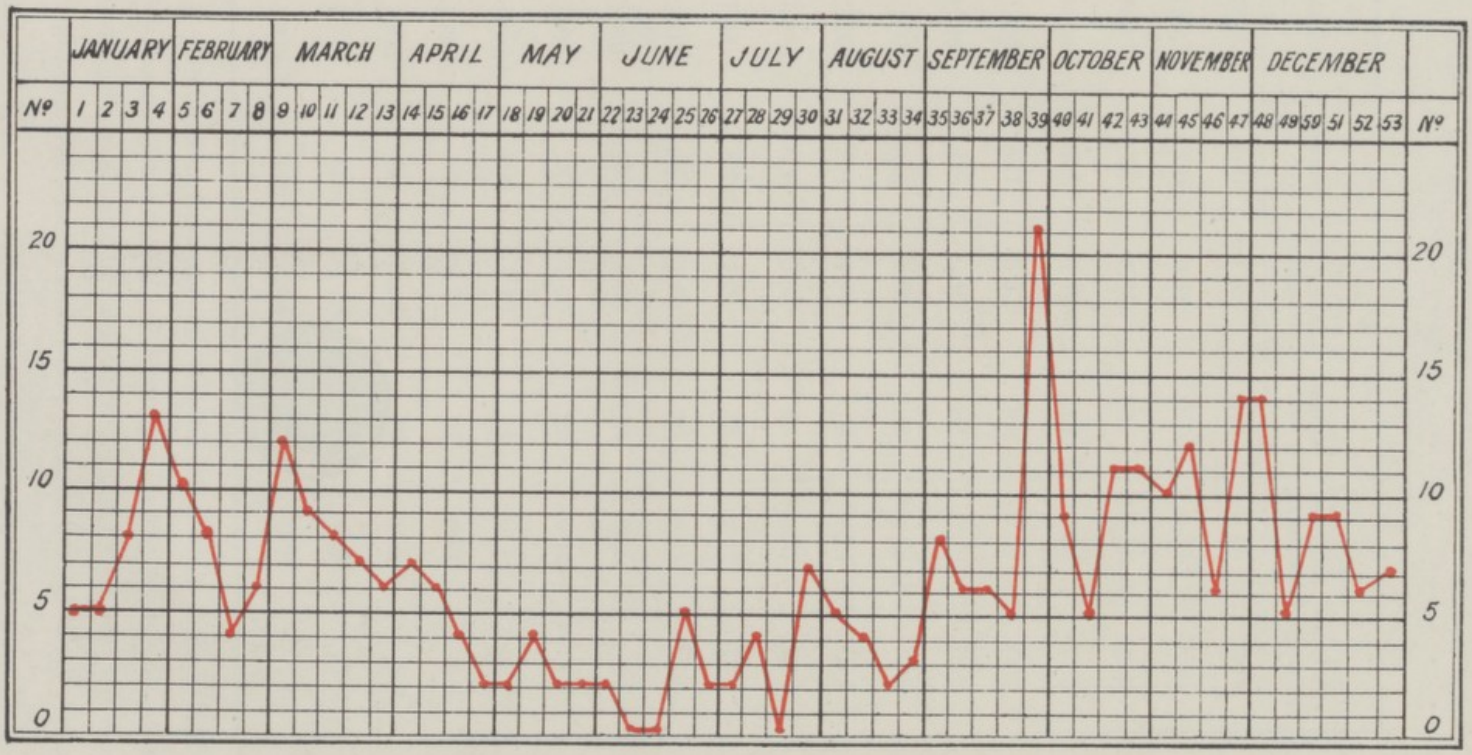
No legal proceedings were taken for contraventions of the infectious disease provisions of the Public Health (London) Act, 1891, during 1908. It was found necessary, however, to caution persons for carelessness in several instances.

Diphtheria.

The number of Diphtheria notifications received during 1908 (including Membranous Croup) in the Borough of Battersea was 340. A slight increase as compared with 1907, when the figures were 315. After a period of quiescence, the disease has during the past two or three years shown evidence of again becoming prevalent. In 1905 the lowest number of cases ever previously recorded in the Borough of Battersea were notified, but during the following year a decided increase in the number of cases notified in Battersea, in common with the County of London, and it may be that we are to experience another epidemic wave of incidence.

The case rate, death rate and case mortality from Diphtheria and Membranous Croup since 1891 are set out in the following table:—

CHART showing the number of cases of Diphtheria notified during each week of the year 1908.




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Year.	Cases.	Case-rate per 1,000 population.	Deaths.	Death-rate per 1,000 population.	Case-mortality per cent.
1891	260	1·72	68	0·45	26·1
1892	366	2·38	57	0·37	15·6
1893	682	4·35	176	1·12	25·8
1894	505	3·16	118	0·73	23·3
1895	411	2·52	94	0·57	22·8
1896	426	2·57	82	0·49	19·2
1897	614	3·69	108	0·65	17·6
1898	791	4·74	120	0·71	15·1
1899	606	3·61	63	0·37	10·4
1900	306	1·81	32	0·19	10·4
1901	264	1·56	20	0·11	7·5
1902	275	1·60	18	0·10	6·5
1903	282	1·62	29	0·16	10·3
1904	199	1·13	14	0·07	7·0
1905	166	0·93	11	0·06	6·6
1906	251	1·39	17	0·09	6·7
1907	315	1·73	38	0·20	12·0
1908	340	1·84	22	0·11	7·0

It will be seen from the above table that while during 1908 there was a small increase (*i.e.*,6.7 per cent.) in the number of cases notified, there was a considerable decrease (nearly 50 per cent.) in the death-rate and case mortality as compared with 1907. Taking

the averages for the ten years 1891-1900 it will be found that these are considerably higher than the figures for 1908.

In the County of London the death-rate per 1,000 of the population was .15.

The distribution of the disease in the three registration sub-districts of the Borough, together with the number of deaths among both hospital and home-treated patients during 1908, is shown in the following table :—

Registration Sub-Districts.	No. of cases notified.	Cases treated at home.	Cases removed to hospital.	No. of Deaths.			Case-mortality per cent.	Case-rate per 1,000 population.
				At home.	At hospital.	Total.		
East Battersea	162	3	159	1	6	7	4·3	2·12
North-West Battersea ..	79	4	75	1	9	10	12·6	1·59
South-West Battersea ..	99	38	61	1	4	5	5·0	1·70

It will be noted that the disease has been fairly uniformly distributed over the Borough, though on the whole East Battersea has suffered more than the other two registration districts of the Borough. This is in accordance with the rule that generally speaking the incidence of the disease is heavier in the poorer and more congested parts of the district.

Two hundred and ninety-five of the cases notified were removed to hospital, or 86.7 per cent. of the total. In 1907 the percentage of cases removed to hospital was 94.6, and in 1906 89.6 In the sub-districts the percentages of cases removed to hospital were as follows:—East Battersea 98.1, North-West Battersea 94.6, South-West Battersea 61.6.

Nineteen deaths occurred in hospital and 3 at home. The case mortality amongst the patients treated in hospital and at home being 6.4 and 6.6 per cent. respectively.

The following table gives the age distribution of the cases notified. and of the fatal cases.

	Age Periods—Years.										Boro'.
	Under 1	1-2	2-3	3-4	4-5	5-10	10-15	15-25	25-65	65—	
No. of Cases ..	7	19	26	38	34	134	53	14	14	1	340
No. of Deaths	2	3	5	4	3	4	1	..	..	..	22
Case Mortality per cent.	28·5	21·0	19·2	10·5	8·8	2·9	1·8	..	..	..	0·11

The total number of houses invaded by Diphtheria was 265. In 25 houses (*i.e.*, 9.4 per cent.) the drainage was found defective, and in 83 (*i.e.* 31.3 per cent.) insanitary conditions other than drainage defects were discovered.

The source of infection in the majority of cases was merely conjectural. In 37 instances there was evidence pointing to personal contact, in 20 to schools. Five were post-scarlatinal cases which developed in hospital while the patient was recovering from scarlet fever. In three instances the patients were infected outside the Borough, and in two cases there were reasons to suspect that the house drains may have been the source of infection.

During 1908, 27 cases notified as suffering from Diphtheria (or 7.9 per cent.) and removed to hospital, were found not to be suffering from the disease and were returned to their homes.

Two thousand three hundred and nineteen bacteriological examinations were made during 1908, as compared with 386 in 1907 and 235 in 1906. In 342 a positive and in 1977 a negative result was obtained. The great increase in 1908 was due to the two outbreaks of Diphtheria which occurred at institutions in the Borough.

Outbreak of Diphtheria at the Wandsworth Infirmary St. Johns Hill, January to May, 1908.

An outbreak of Diphtheria occurred at the Infirmary, St. John's Hill, which is under the control of the Wandsworth Guardians, during the months of January, February, March, April and May, 1908. The outbreak was characterised, in the majority of the cases by the mildness of the type of infection, a large number of the patients notified presenting little or no apparent clinical evidence of the disease, yet presenting, in the swabs taken from their throats or noses, bacteriological evidence of the presence of the Klebs-Loeffler bacillus, the Specific Germ generally recognised as associated with the disease. This fact gave rise to considerable difficulty in dealing with the outbreak, necessitating, as it did, the taking of a vast number of swabs from the throats or noses of "suspects" (*i.e.*, persons presenting doubtful diphtheria symptoms) and "contacts" (*i.e.*, persons who had been in contact with genuine Diphtheria). These bacteriological examinations were carried out, in the majority of instances, at the expense of the Borough Council, but a considerable number of examinations were also carried out for the Guardians by an independent bacteriologist, the results in most cases confirming those obtained by the bacteriologists employed by the Borough Council. The latter course was considered advisable, as some difficulty (which, happily, was later overcome when the difficulties associated with isolation of cases at the Infirmary was recognised) arose with the Metropolitan Asylums Board Hospital Authorities in connection with some of the children who, by order of the Medical Superintendent of the Infirmary, were sent to the Board's Hospital for isolation purposes, although such children appeared at the time to show no clinical evidence of the disease, but who showed, on bacteriological examination of swabs taken from their noses or throats (or both), the presence of the Klebs-Loeffler Bacilli. The removal of these cases was rendered absolutely necessary owing to the overcrowded state of the Infirmary, and the absence of even the most elementary means of isolation. To retain these cases, under the circumstances, in the Infirmary would have been to invite disaster, as it is well known that these

"carrier" cases are capable at times of conveying diphtheria to others susceptible to the disease. Were it not for the course taken in connection with these cases, it would have been impossible to have stamped out the outbreak, and the result, too, might have proved of far greater danger to the lives of the patients and nurses at the infirmary.

It is a well-known fact that Diphtheria varies, as is the case with other diseases (*e.g.*, Scarlet Fever), in severity of type from the mild, clinically unrecognisable to the most severe. The clinically obvious attack presents little difficulty in diagnosis, but this is not the case when the well-known local lesions characteristic of the disease are absent, or present in such slight degree as to give rise to considerable doubt as to their nature. Again, it has to be borne in mind that there is no relation between severity of clinical symptoms and the local (throat) lesions, or *vice versa*. The only certain test to employ, therefore, is the bacteriological, and in all "suspects" and in the case of contacts the only safe course to pursue is to apply this method as a routine aid to diagnosis. Especially is this procedure to be carried out in outbreaks such as this, with the rigid enforcement of immediate isolation in all cases in which the bacillus is found on bacteriological examination of the secretions from the nose or throat of persons, whether clinical symptoms be present or not. It has been over and over again established beyond doubt that outbreaks of diphtheria have occurred through the fact that these clinically-mild cases and cases presenting no symptoms have been overlooked often with disastrous results, so far as the danger to life is concerned.

The outbreak at the Infirmary was characterised by the large number of mild cases, and of cases presenting no clinical symptoms of the disease. The specific organism or true Klebs-Loeffler bacillus was, however, found to be present in the secretions from the oral or nasal (or both) passages of all the 76 cases notified.

The patients, according to the severity of type, may be classified as follows:—

1. Those with clinlcal symptoms of the disease (more or less severe), showing evidence of the Klebs-Loeffler bacillus on bacteriological examination.

2. Those with nasal catarrh or mild pharyngitis, showing evidence of the presence of Klebs-Loeffler bacillus on bacteriological examination.

3. Those exhibiting no apparent clinical symptoms whatever of the disease, but showing on bacteriological examination the presence of the Klebs-Loeffler bacillus in the secretions of the nose or throat (or both).

Details of the Outbreak.

The source of the outbreak at the Infirmary was, owing to the difficulties to be presently described, impossible to definitely trace. This is not, under the circumstances, a matter for reproach, and while it is to be regretted that one cannot trace, link by link, the means by which the disease gained access to the Institution, it will be acknowledged that the difficulties of determining this definitely were insurmountable.

The history of the outbreak is as follows:—On the 27th December, 1907, a probationer nurse, named Margaret G——, was notified as suffering from Diphtheria, the case having been removed to the Metropolitan Asylums Board's Hospital on the previous day. On the 14th January, 1908, a second case—another nurse, Sister Eveline K——, was notified, and she was removed to hospital the same day. In consequence of this second case arising amongst the nursing staff at the Institution, there appeared to be evidence pointing to infection taking place in the Institution, and I at once put myself into communication with the Medical Superintendent. As a result of the information supplied, it was arranged to examine the children in the Ward (I.B. Block) in which this nurse had been employed. Two of the children in this Ward were found to be suffering from a nasal discharge, and swabs were taken from each and bacteriologically examined. The swab taken from one of these, a boy named Leonard N——, was found to contain the Klebs-Loeffler bacillus, and the child was at once removed to the Isolation Hospital.

On the 17th all the children in this Ward were bacteriologically examined, and one child, Ellen J——, was found to be suffering from Diphtheria. (Gertrude C——, one of the children swabbed on this date, was again swabbed on the 21st, and removed to Hospital on the 22nd, the second examination disclosing the presence of the Diphtheria bacillus.) On the same day, a child named Alfred D——, in the Ward opposite, viz., B. II., who was noticed to be suffering from a nasal discharge, had a swab taken for bacteriological examination, which proved to be positive. He was also immediately removed to Hospital.

It therefore became at once evident that the disease was more widespread than had been anticipated. It was accordingly arranged to have all the children in the three Children's Wards in "B" Block examined, and swabs were taken from all of them and submitted for bacteriological examination. In a large number of cases the pseudo-diphtheria (Hoffman's bacillus) and other suspicious organisms were found to be present. As the Infirmary at the time was very much overcrowded, and consequently no Isolation Ward was available, it was arranged to turn out all the children from No. 1 Ward in whom the results of the bacteriological examination proved negative, and remove from Wards II. and III. all "suspects" into that Ward. All these cases were kept under observation, and the more suspicious cases had further bacteriological examinations made of the discharge from throat or nose (or both), with the result that another case, in the person of a child named Rose P——, was notified, and removed to Hospital on January 24th.

On the 31st January swabs were again taken from the children isolated in No. I. Ward. Four children: Theodora C——, Henry P——, Joseph M—— and William H——, were found to have Diphtheria, and at once removed to Hospital. The mother of the child P——, an infant at the breast, who was with her child in this Ward, was also bacteriologically examined, and found to have the Klebs-Loeffler bacillus present in discharge taken from her nose. She was also at once removed to the Isolation Hospital. The nurses in the three Wards, who had been exposed to

infection, were also examined, but the result of the examination was found to be negative.

Including Nurse G——, sent to Hospital on the 26th December, 1907, there were 12 cases notified to be suffering from Diphtheria up to the 3rd February, 1908. These cases are set out as follows:—

	Age
Probationer Margaret G——	27
Sister Eveline K——	26
Leonard N——	$\frac{9}{12}$
Ellen J——	1
Alfred D——	1
Gertrude C——	2
Rose P——	1
Henry P——	$\frac{6}{12}$
William H——	1
Joseph M——	4
Theodora C——	2
Kate P——	33

Most of these children had been in the Infirmary for some time, the periods since admission up to the time of their removal to the Fever Hospital ranging from 5 months to 7 days.

From the 3rd to the 28th February, 26 cases were removed to the Metropolitan Asylums Board Hospital, as follows:—

	Number removed.*	Ages.
Feb. 8 ...	2 ...	3, $\frac{8}{12}$
,, 10 ...	3 ...	1, 4, 2
,, 21 ...	1 ...	1
,, 22 ...	2 ...	5, 2
,, 23 ...	5 ...	$\frac{7}{12}$, 4, 12, 5, 2
,, 26 ...	8 ...	4, $\frac{4}{12}$, 1, 2, $3\frac{1}{2}$, 1, $2\frac{1}{2}$, 5
,, 27 ...	5 ...	12, 10, 1, $\frac{7}{12}$, 13

* Two of these cases were patients sent back from Hospital and re-notified.

During March 32 patients were removed to the Metropolitan Asylum's Board Hospital, as follows:—

		Number removed.	Ages.
March	1 ...	2 ...	4, $\frac{9}{12}$
,,	2 ...	4 ...	4, $\frac{4}{12}$, $\frac{6}{12}$, 1
,,	4 ...	1 ...	$\frac{4}{12}$
,,	9 ...	3 ...	3, 2, 3
,,	10 ...	2 ...	4, $1\frac{2}{12}$
,,	13 ...	3 ...	$\frac{3}{12}$, 14, 2
,,	16 ...	2 ...	$\frac{9}{12}$, 5
,,	17 ...	1 ...	3
,,	18 ...	1 ...	4
,,	19 ...	1 ...	$\frac{5}{12}$
,,	20 ...	2 ...	3, $\frac{6}{12}$
,,	24 ..	3 ...	$\frac{4}{12}$, 2, 31
,,	28 ...	2 ...	7, 10
,,	29 ...	1 ...	3
,,	30 ...	4 ...	$1\frac{1}{2}$, 7, 1, $1\frac{1}{2}$

During April 7 cases were notified and removed to the Metropolitan Asylums Board Hospital, as follows:—

		Number of cases.	Ages.
April	1 ...	1 ...	$\frac{9}{12}$
,,	8 ...	2 ...	1, $\frac{8}{12}$
,,	11 ...	1 ...	4
,,	12 ...	1 ...	14
,,	13 ...	2 ...	5, 3

During the month of May (13th), Nurse B—— was notified to be suffering from Diphtheria, and was removed to the Metropolitan Asylums Board Hospital. As the disease had, owing to the measures taken by the middle of April, shown marked evidence of abatement, and that although some cases still were under isolation in which Diphtheria organisms were present without any clinical evidence of Diphtheria, these cases were isolated in a separate Ward at the top of Block "C," from which they were not discharged until repeated bacteriological examination failed to

show the presence of organisms resembling the Diphtheria bacillus. This course was at this time rendered possible owing to the action taken by the Guardians in removing a large number of adult patients to other Institutions under their control. All these cases were liberated by the end of June.

The total number of cases in the outbreak notified to be suffering from Diphtheria was 76. All of these cases were removed to the Metropolitan Asylums Board Hospital, and were detained in hospital for periods ranging from 2 weeks to 21 weeks.

Origin of the Outbreak.

For reasons which will be apparent from a description of the details of this outbreak, the difficulties associated with the tracing of the origin of the infection, or the means by which the disease gained access to the Infirmary, were insurmountable, and the deductions drawn from the material at one's disposal must be accepted as being largely conjectural.

The Infirmary is an irregular structure, part of which dates back to 1833. It consists of three Main Blocks, which are known as "A," "B," and "C." The first-mentioned runs north and south, the greater portion of which is a fairly modern building, which was opened in 1871. There are several Wards in this part of the building. The majority of these Wards are large, lofty, well lighted and airy. The other two Blocks, "B" and "C," run east and west at right angles to "A" Block, each Block consisting of six Wards. These Wards are in all respects much inferior to those in "A" Block, and although attempts have been made from time to time to improve them, they are structurally incapable of being made adaptable to modern requirements. These Wards had originally been part of the old Workhouse, and whatever their suitability as dormitories for inmates of a Workhouse, they cannot be considered satisfactory as Wards for the reception of patients. In addition to these three Blocks there are Receiving Rooms (a recently constructed and useful addition) and a Nurses' Home. The planning of the building is therefore defective, and it further suffers from the absence of a separate Isolation Block

away from the main building, to which infectious or "suspect" cases might be sent. There is an entire lack of convenience for dealing with an outbreak of this character, and this is still further emphasised by the inadequacy of the accommodation to meet the demand put upon it from time to time. The Infirmary is certified to accommodate 658 patients, and at the time this outbreak of Diphtheria commenced, the number of patients in the Institution was considerably over 800. (On the 26th January, 1908, the official numbers supplied to me were 833.) To meet this pressure, in addition to finding it necessary in a large number of cases to put two patients in one bed, a number of beds had to be made up on the floor.

The state of the overcrowding prevailing at the Infirmary at this time was reported to the Council, and the following resolution was passed at this meeting held on the 12th February:—

> "That the attention of the Local Government Board be called to the inadequacy of the accommodation at the Infirmary, and informed that the Council are of opinion that the time has arrived when steps should be taken for the provision of a new building, and that the Guardians be informed of the action of the Council in the matter."

Patients are received from any part of the Borough of Battersea or Wandsworth. Children are accommodated mainly in the old part of the building in "B" and "C" Blocks, but one Ward (Livingstone) is set aside in "A" Block as a Convalescent Ward for their use. One very bad arrangement that, owing to the defective planning of the Institution and the inadequacy of the accommodation, was unavoidable. Many of the children sent in to the Infirmary were suffering from the various common infectious diseases of childhood—*e.g.*, measles, whooping-cough, chicken-pox, etc., and to secure some form of isolation these cases had to be distributed throughout the Adult Wards in "B" and "C" Blocks.

Having regard to the importance of the Institution as an Infirmary for the sick poor of the district, with a united popula-

tion of about half a million, it is difficult to understand why steps have not been taken to meet this insanitary state of affairs.*

The outbreak began undoubtedly in "B" Block, both of the nurses who were the first cases attacked having been engaged in the Children's Wards in this Block. As a result of enquiries made into the cause of the illnesses of these nurses, it was ascertained that certain children in Wards I. and II. in "B" Block were suffering from purulent discharges from the nose. Nurse K—— provides an instance of direct infection from one of these children. She was very severely attacked with the disease, and she was detained in the Metropolitan Asylums Board Hospital for a very long period (76 days) before she recovered from the paralytic and other sequelæ of the disease.

Leonard N——, a patient in Ward II., "B" Block, was noted to have a purulent discharge from his nose at the time of my visit to the Institution on the 17th January. The bacteriological examination of this discharge showed the presence of the Klebs-Loeffler bacillus, and he was, as already stated, one of the earliest cases removed to Hospital. It was ascertained, on enquiry, that Nurse K—— had charge of this patient, and had, in the course of her duty, to syringe his nose, and it was doubtless in this way that she was attacked with the disease.

Nurse G——, the first case attacked (26th December, 1907), was probably attacked in the same way. She was engaged as a probationer in Ward IV., "B" Block. The disease must therefore have been existent for some time, until the second Nurse's illness directed attention to the condition of the children in Wards I. and II., "B" Block. As already has been stated, the length of time during which many of these children had been patients in the Infirmary rendered it impossible to trace the medium by which the disease first gained entrance.

Nurse G—— was engaged in Ward IV., "B" Block. This Ward was occupied by adults (chronic infirm). There was only one child (George G——, age 5) amongst the patients in this Ward.

* Since this was written the building of a new Infirmary has been started.

He was admitted to the Infirmary on the 9th September, 1907. While in the Infirmary he developed Scarlet Fever on the 24th September, and was at once removed to the Metropolitan Asylums Board Hospital. He was discharged from Gore Farm (M.A.B.) Convalescent Hospital on the 27th November, and was sent to the Workhouse on the 2nd December. He was readmitted to the Infirmary on the 16th December, and placed in Ward IV., "B" Block, where he remained until convalescent from Febricula and Ophthalmia. On the 14th January, 1908, he was transferred to the Livingstone Ward in "A" Block. On the 22nd February, a child named Ada G——, in Livingstone Ward, was noticed to be suffering from a nasal discharge. A swab was taken from her, and, on bacteriological examination, was found to be positive, and the patient was immediately removed to Hospital. It was then arranged to (bacteriologically) examine all the children in this Ward, and 5 of them were found to be suffering (clinically or bacteriolegically) from Diphtheria, and removed to Hospital.

Seven other children, including the child George G——, were found, on bacteriological examination, to have Diphtheroid organisms in their throats or noses, and were transferred to the Isolation Ward in "B" Block. George G—— was subsequently found, on bacteriological examination, to have Diphtheria, and was notified and removed to the Metropolitan Asylums Board Hospital on the 16th March, from which he was discharged on the 13th April.

It is significant that this was the only child in Nurse G——'s Ward. He was under her charge up to the time she was attacked with Diphtheria, and removed to Hospital. After her return from Hospital, she states this child had a sore throat, but this does not appear to have been noted, the patient being isolated for Ophthalmia amongst the adult patients in "B" Block, Ward IV. Further, after his removal to Livingstone Ward, "A" Block, the fact that several cases of clinical or bacteriological Diphtheria were removed to the Metropolitan Asylums Board Hospital, and he with 7 others were at the same time "suspects," and transferred to the Isolation Ward for such patients, and that

later he was removed suffering from Diphtheria, suggests that it was from him that Nurse G—— contracted the disease, and that he may also have been the medium by which the children in Livingstone Ward contracted the disease.

The case of Nurse B—— is peculiar. She had been engaged as a probationer Nurse in Ward III., "B" Block, up to the 27th April, 1908. She had been swabbed two or three times while in the infected zone, but with negative results. She was transferred (27th April) to "C" Block for a day or two, and then to a different sphere of duty in another part of the building. She developed clinical Diphtheria, and was notified and removed to the Metropolitan Asylums Board Hospital on the 13th May. It is possible, if not probable, that she was suffering from the disease in a latent form during the time she was in the infected zone in "B" Block.

Preventive Measures Taken.

The preventive measures taken in connection with the outbreak were (1) notification, (2) isolation, (3) disinfection, (4) medical inspection of all "suspects" and "contacts," and (5) anti-toxin. Bacteriological examinations were found absolutely essential as an aid to notification and medical inspection. These examinations were systematically carried out, and resulted in the gradual elimination of all Diphtheria cases (clinical or bacteriological), and the exclusion of cases, and segregation in the Isolation Ward, which, by the action of the Guardians in removing a large number of adult patients to other Institutions under their control, was possible at length to obtain. All these pseudo-diphtheria cases were put into this Ward, and not allowed to return to the other Wards of the Infirmary until after consecutive bacteriological tests had given negative results

The Infirmary was placed in quarantine, visits of patients' friends being entirely stopped. The overcrowding, which was at first such a regrettable feature, was gradually abated, a large number of adults, mostly chronic infirm cases, being sent to the

Workhouse or to the Tooting Home, etc. This allowed of other Wards in "B" and "C" Blocks being made available for children.

The milk supply to the Infirmary was tested, and found to be free from evidence of infection.

Disinfection was carried out by the Borough Council, all suspected clothing, bedding, etc., being disinfected at the Council's Disinfecting Station. This work took up a large amount of the time of the Council's Disinfectors.

The drains of the Infirmary were tested, and found to be defective. Notice was served, by order of the Health Committee, on the Guardians to remedy the nuisance, which, after protracted negotiation, was at last complied with.

Bacteriological Examinations.

The special feature in connection with this outbreak was the use made of bacteriological methods in connection with the stamping out of the disease. The total number of examinations made reached the large figure of 1,238, and it was only by the systematic use of this aid to preventive medicine that, having regard to the conditions prevailing at the Infirmary, to which attention has been already drawn (and which reflect anything but credit upon those responsible), that the disease was so effectively and so quickly stamped out. This is shown in the great decline in the number of cases notified after the end of March. The results unmistakeably point to the absolutely vital necessity of the method of dealing with Diphtheria outbreaks in public institutions, schools and other places where large numbers of susceptible persons are aggregated. The costly nature of these examinations, when conducted on the scale that an outbreak of this character demands, should induce the Council to consider the advisability of establishing their own bacteriological Laboratory, where examinations could be made at a minimum cost and minimum loss of time.

Summary.

The considerations associated with the outbreak at the Infirmary point conclusively to the need for greater care in dealing with children sent in as patients from other Institutions where children are aggregated, and from outside. The absence of precautions under such circumstances only invites disaster, more especially when infectious disease is prevalent. It can hardly be expected that, under such circumstances, these Institutions, fed as they are from a casual and destitute population, who form, moreover, a suitable soil for the reception of disease germs, such as the Diphtheria germ, can escape. The absence of even elementary precautions for dealing with an emergency, which at any time may arise, is greatly to be deplored, and exhibits an utter lack of appreciation of the danger of such neglect on the part of those responsible. There can be no doubt, in my opinion, that the Institutions which feed the Infirmary with patients are to some extent, at least, responsible for the late outbreak. To what extent the responsibility, when conditions at the Infirmary are remembered, can be divided between them, it is difficult to say. It is clear that the disease had been in the Infirmary for some time (probably in a latent form), and it is equally clear that patients had from time to time been sent in from the various Institutions in the Guardians' care, and some of whom may have been responsible for this outbreak.

It was manifestly impossible, therefore, to come to any other conclusion at that time than that the disease had been in the Infirmary for some time prior to Nurse G—— being attacked at the end of December, 1907. Attention was therefore concentrated on stamping out the disease, and precautions taken to ensure that no fresh cases were admitted to the Infirmary from outside, or from the Workhouse or other Institutions under the care of the Guardians.

With the object of thoroughly exterminating the disease, the entire child population in the Infirmary was examined, and a regular systematic swabbing was carried out. At the same time,

those children who had shown evidence of harbouring other suspicious organisms morphologically resembling Diphtheria bacilli were removed to the "suspect" Ward in "B" Block for isolation and further bacteriological examination. A similar procedure was adopted with the children scattered throughout the various Wards in "A" Block and in "B" and "C" Blocks. In this way it was possible to exclude the "suspects" from the "contacts" after the latter had been pronounced free, on bacteriological examination, from Diphtheria or diphtheroid organisms.

The plan adopted of swabbing all fresh admissions to Infirmary, after the children already in the Institution at the time the outbreak began, resulted in a proportion of these fresh admissions showing, on bacteriological examination, evidence of Diphtheria bacilli being present in their noses or throats (or both). These cases were not allowed beyond the Receiving Ward, and were at once removed to the Metropolitan Asylums Board Hospital on the order of the Medical Superintendent. It was apparent, therefore, that to some extent, at least, children admitted from other Institutions under the Board of Guardians control for other complaints were sent to the Infirmary while harbouring Diphtheria bacilli. In the absence of any proper means for dealing with these cases at the Infirmary, it seemed most advisable that some steps should be taken to ascertain their freedom from either clinical or bacteriological evidence of Diphtheria before sending them to that Institution from the Workhouse and other Institutions under the Guardians' control. Representations were accordingly made to the Board that this was probably one of the channels by which infection gained entrance to the Infirmary, and suggesting the means by which this risk would be minimised.

The Guardians, however, on the advice of the Medical Officer of the two Workhouses from which most of these children came to the Infirmary, did not see their way to carry out these suggestions. Owing to the impossibility of retaining these cases in the Receiving Room, while awaiting the result of the examination of the swabs taken on their arrival at the Infirmary (many of these

fresh admissions suffering from measles, whooping-cough and other infectious diseases), much difficulty was experienced in isolating these cases temporarily.

It is to be regretted that, amongst the other suggestions made to the Guardians by the Medical Superintendent and myself (all of which, with this exception, were adopted by them), this was not considered practicable. As showing the necessity, in my opinion, for this course of action, an extract from my report to the Health Committee, dealing with this matter, may be quoted :—

> ". . . . For some time past I have advised that all suspicious cases and patients sent to the Infirmary from the Workhouse in Swaffield Road should have swabs taken (from them) for bacteriological examination at the Receiving Room at the Infirmary. Of 27 patients examined on admission since this arrangement was made, 12 were found to be (clinically or bacteriologically) suffering from Diphtheria, and removed to the Metropolitan Asylums Board Hospital, and in the remainder organisms morphologically simulating the true diphtheria germ were found to be present. These suspect cases were isolated in the Isolation Ward, and one of them to-day has been reported to be a positive case. It is clear that these cases could not have been infected at the Infirmary, and I have made careful enquiries, from which it would appear that some of them at least may have probably been infected at the Workhouse. I wrote to the Guardians on the 16th instant (March), drawing attention to the fact that the disease may have been introduced, at least in part, from the Workhouse, and suggesting it would be desirable from the evidence in my possession, and having regard to the difficulties experienced in securing adequate isolation at the Infirmary, to stop all further admissions from the Workhouse, Branch Workhouse and Intermediate Schools until the patients are pronounced to be, upon evidence based on bacteriological examination, free from Diphtheria.
>
> "I have received a reply from the Guardians, enclosing at the same time an extract from the Report of their Work-

house Committee, who, however, do not appear to consider this course necessary, but which, in my opinion, would have been an additional precaution to these measures which have already been or are being carried out by the Guardians since the outbreak began."

The importance of this probable channel of infection in the earlier cases cannot be overlooked. The majority of the children admitted to the Infirmary come from other Institutions over which the Guardians have control, and it is quite probable that some of the patients admitted with other affections are at the same time harbouring either in a mild or latent (clinical or bacteriological) form the Diphtheria bacillus. Under the adverse conditions which prevailed at the time at the Infirmary amongst a diseased population—*e.g.*, overcrowding and its attendant evils—the disease may assume greater virulence, and affect others who are more susceptible to its effects.

Of the 76 cases of Diphtheria removed to the Metropolitan Asylums Board Hospital, 54 (*i.e.*, 71.0 per cent.) were admitted to the Infirmary from the Workhouse or the Branch Workhouse. This is significant, and, when taken in connection with the fact that 12 of the new patients admitted to the Infirmary Receiving Room were found, on bacteriological examination, suffering from Diphtheria, there would appear to be strong grounds for suspecting that the disease may have gained access to the Infirmary from the Workhouse or Branch Workhouse.

The risk of infection reaching the patients from without is still further emphasised, from the fact that at the Infirmary there is no "probation" or "observation" Ward available in which doubtful cases might be retained until the result of a bacteriological examination has been ascertained. It is to be hoped that some steps will be taken to remedy this drawback at the new Infirmary, which is in course of erection, by the provision of a suitable Isolation Block away from the main building, into which such cases might be quarantined pending result of diagnosis.

Conclusion.

I cannot conclude the account of this trying outbreak, extending as it did over a period of six months, and entailing a vast amount of time, care and responsibility on the part of those responsible for the stamping out of the disease, without expressing my thanks to Dr. Neal (Medical Superintendent at the Infirmary) and his Medical Assistants for the assistance that they rendered me in my official duties, and for the readiness with which they carried out my suggestions. Dr. Neal was at all times and all hours, notwithstanding the heavy strain and anxiety to which at the time he was subjected, most helpful, and in this respect also I desire to couple the name of his Chief Assistant, Dr. MacCormac. Were it not for this ready co-operation and good feeling shown by these gentlemen, my task would have been most difficult. Dr. Neal's administrative ability in dealing with this difficult outbreak, having regard to the seriously overcrowded state of the Infirmary at the time, and the lack of any proper means of isolation, commanded my warmest admiration, and to him is due in no small degree the successful ending to what threatened to become a formidable epidemic.

LIST OF CASES OF DIPHTHERIA AT THE WANDSWORTH UNION INFIRMARY.

No.	Date admitted to hospital.	Name.	Age.	Date admitted to Infirmary.	Address on admission.	Date discharged from hospital.	No. of days in hospital.
	1907.						
1	December 26 ..	Margaret G. ..	27 years	(Nurse)	—	23 Jan., 1908 ..	29
	1908.						
2	January 14 ..	Eveline K.. ..	26 years	(Nurse)	—	29 March, 1908 ..	76
3	January 17 ..	Leonard N. ..	1 year	12/10/07	Workhouse	25 March, 1908 ..	69
4	January 18 ..	Ellen J.	1 year	3/ 1/08	12, Groton Road ..	Died 15 February	—
5	January 20 ..	Alfred D.	1 year	17/ 9/07	Workhouse	25 March	66
6	January 20 ..	Gertrude C. ..	2 years	27/ 9/07	ditto ..	25 February ..	35
7	January 24 ..	Rose P.	1 year	17/ 1/08	ditto ..	25 March ..	62
8	February 1 ..	Henry P.	9 months	6/11/07	ditto ..	20 April ..	80
9	February 1 ..	William H. ..	1 year	8/11/07	ditto ..	25 February ..	25
10	February 1 ..	Joseph M	4 years	5/ 8/07	ditto ..	25 Feb.&.19 Mar...	48
11	February 1 ..	Theodora C. ..	2 years	19/11/07	ditto ..	25 Feb & 13 Apr...	73
12	February 3 ..	Kate P.	33 years	6/11/07	ditto ..	20 April	78
13	February 8 ..	Ethel B.	3 years	30/ 7/07	ditto ..	4 April	57
14	February 8 ..	Arthur R.	8 months	2/ 9/07	ditto ..	Died 23 Feb. ..	—
15	February 10 ..	Nathan J... ..	1 year	29/10/07	36 Lyden Road ..	27 March	47
16	February 10 ..	Rose B.	4 years	15/ 1/08	Branch Workhouse ..	25 March	45
17	February 10 ..	Doris B.	2 years	12/11/07	Workhouse	5 May	80
18	February 21 ..	Charles G... ..	1 year	27/11/07	ditto ..	4 May	74
19	February 22 ..	Annie G.	5 years	27/12/07	Branch Workhouse ..	6 April	45
20	February 22 ..	Robert L.	2 years	26/ 7/07	Workhouse	16 April	55
21	February 23 ..	Annie N.	7 months	30/11/07	19, Etruria Street ..	10 April	48
22	February 23 ..	Maud R.	4 years	9/12/07	Workhouse	25 May	93
23	February 23 ..	Mary S.	12 years	29/10/07	148 Wellfield Road ..	10 April	48
24	February 23 ..	Emily D.	5 years	6/12/07	Branch Workhouse ..	8 May	76
25	February 23 ..	William K. ..	2 years	17/ 1/08	22 Aslett Street ..	— May	72
26	February 26 ..	W.	4 months	9/ 1/08	82 Wycliffe Road ..	16 April	51
27	February 26 ..	Morris O'S. ..	1 year	17/ 2/08	Workhouse	10 April	45
28	February 26 ..	Benjamin A. ..	2 years	26/11/07	ditto ..	19 March	23

No.	Date admitted to Hospital.	Name.	Age.	Date admitted to Infirmary.	Address on admission.	Date discharged from hospital.	No. of days in hospital.
29	February 26 ..	William U. W. ..	3½ years	30/11/07	12 Hoyle Road	19 March	23
30	February 26 ..	Herbert W. ..	4 years	27/12/07	Workhouse	6 April	41
31	February 26 ..	W.	1 year	30/ 1/08	ditto ..	13 April	48
—	*February* 26	*Theodora C.* ..	2½ years	(*See above*)	(*See above*)	—	—
—	*February* 26 ..	*Joseph M...* ..	5 years	(*See above*)	(*See above*)	—	—
32	February 27 ..	Chris. H.	12 years	30/ 1/08	Workhouse	5 May	69
33	February 27 ..	Albert M.	10 years	14/ 1/08	ditto ..	5 May	69
34	February 27 ..	Albt. J. N.. ..	1 year	26/ 2/08	ditto	10 April ..	44
35	February 27 ..	Amelia H... ..	7 months	26/ 2/08	Workhouse	6 May	70
36	February 27 ..	Gertrude T. ..	13 years	28/11/07	Lambeth Infirmary ..	7 April	41
37	March 1	Walter S.	4 years	15/ 2/08	Branch Workhouse ..	19 March	19
38	March 1	Florence J. ..	9 months	16/12/07	Workhouse	21 March	21
39	March 2	Herbert G. ..	4 years	16/ 2/08	8a Delia Street ..	22 July	143
40	March 2	Thomas C... ..	4 months	21/ 2/08	9 Stockdale Road ..	15 April	45
41	March 2	Elsie S.	6 months	8/ 2/08	17 Crichton Street ..	15 April	45
42	March 2	Kathleen E. ..	1 year	26/ 2/08	Workhouse	21 March	20
43	March 4	Beatrice G. ..	4 months	1/ 3/08	ditto ..	27 April	55
44	March 9	Harry F.	3 years	8/ 1/08	18 Lemuel Street ..	27 April	49
45	March 9	Margaret S. ..	2 years	14/ 2/08	Workhouse	16 April	39
46	March 9	David H	3 years	5/ 8/07	Branch Workhouse ..	22 April	45
47	March 9	Frederick N. ..	4 years	14/ 2/08	Workhouse	16 April	39
48	March 9	Ada S.	14 weeks	17/ 1/08	14 Aslett Street ..	13 April	36
49	March 12	Ethel H.	2 months	10/ 3/08	Workhouse	28 March	17
50	March 12	Mary K.	14 years	10/ 1/08	8 Summerley Street ..	28 March	17
51	March 12	Nellie P	2 years	10/ 3/08	72 Aslett Street ..	27 April	47
52	March 15	Edwin H. C. ..	9 months	19/ 2/08	19 Lemuel Street ..	16 April	33
53	March 16	George G.	5 years	16/12/07	Branch Workhouse ..	13 April	29
54	March 16	Emma H.	3 years	14/ 3/08	Workhouse	6 April	22
55	March 17	Fredk. T.	4 years	16/ 3/08	ditto ..	7 April	22

No.	Date admitted to Hospital.	Name.	Age.	Date admitted to Infirmary.	Address on Admission.	Date discharged from Hospital.	No.of days in hospital.
56	March 19	William N. ..	5 months	17/ 3/08	Workhouse ..	28 May	71
57	March 20	John R.	3 years	18/ 3/08	ditto ..	22 April	33
58	March 20	Dorothy T. ..	6 months	18/ 3/08	ditto ..	2 May	44
59	March 23	Frances W. ..	4 months	19/12/07	ditto ..	27 April	36
60	March 24	George W... ..	2 years	8/ 1/08	ditto ..	2 June	70
61	March 24	Nellie C.	31 yaers	21/ 2/08	7 Stockdale Road ..	16 April	23
62	March 28	Edward K. ..	7 years	13/ 3/08	Workhouse	4 May	38
63	March 28	Fredk. S.	10 years	10/ 1/08	ditto ..	11 June	75
64	March 29	Eliz. P.	3 years	27/ 3/08	ditto ..	27 April	30
65	March 30	Clara S.	1½ years	13/12/07	25 Duffield Street ..	14 April	16
66	March 30	Hilda W.	7 years	28/ 3/08	Workhouse	14 April	16
67	March 30	Edna M.	1 year	20/ 3/08	ditto ..	14 April	16
68	March 30	Edith W.	1½ years	20/12/07	ditto ..	14 April	16
69	April 1	Arthur P.	9 months	31/ 3/08	ditto ..	6 May	36
70	April 8	Jessie F.	1 year	4/ 4/08	ditto ..	4 May	27
71	April 8	Violet S.	8 months	28/ 3/08	ditto ..	20 July	105
72	April 11	Cecilia P.	4 years	9/ 4/08	ditto ..	2 June	53
73	April 12	Daisy G.	14 years	7/ 4/08	ditto ..	15 May	35
74	April 13	Margaret W. ..	5 years	27/12/07	ditto ..	26 June	75
75	April 13	George M... ..	3 years	2/ 4/07	—	28 May	47
76	May 13	Nellie B.	25 years	(Nurse)	—	11 June	29
						TOTAL.. ..	3539

Number of patients		76
*Number died		2
Average period of detention in hospital of the 74 discharged cases ..	days	47·8
Shortest period of any case in hospital,	days	16
Longest period of case in hospital	days	143
Cases notified during—		
December, 1907		1
January, 1908		6
February, 1908		31 (Including 2 cases re-notified)
March, 1908		32
April, 1908		7
May, 1908		1
Total		78 (Including 2 cases re-notified).

TABLE SHOWING LENGTH OF STAY OF PATIENTS IN HOSPITAL.

2- 3 weeks' stay	10
3- 4 ,, ,, ...	7
4- 5 ,, ,, ...	9
5- 6 ,, ,, ...	8
6- 7 ,, ,, ...	14
7- 8 ,, ,, ...	6
8- 9 ,, ,, ...	2
9-10 ,, ,, ...	5
10-11 ,, ,, ...	9
11-12 ,, ,, ...	2
12-13 ,, ,, ...	1
13-14 ,, ,, ...	1
14-15 ,, ,, ...	1
20-21 ,, ,, ...	1
Total	76

* Cause of death in each of these cases not being certified as due to Diphtheria.

Outbreak of Diphtheria at the Royal Masonic Institute for Girls, September to December, 1908.

An outbreak of Diphtheria occurred at the Royal Masonic Institute for Girls, Wandsworth Common, during the months of September, October, November, and December, 1908. The majority of the cases notified were of a mild type, the clinical symptoms being slight, and in one or two cases apparently absent, but the bacteriological examinations carried out disclosed the presence of the true Klebs-Loeffler Diphtheria bacillus in every case.

The cases were isolated and kept under observation, and were not allowed to mix with the other children until they were pronounced on bacteriological evidence to be free.

The necessity of "weeding out" all these suspicious cases was, having regard to the large number (267) of children in the Institute, a matter of primary importance, and was only accomplished by a systematic medical inspection and bacteriological examination of all suspects and contacts.

The disease first started in the Junior School. A child named Alice D—— being noticed on the 28th August to be suffering from enlarged glands in the neck. She was isolated until the 3rd September, and was then allowed to return to school apparently recovered.

On the 7th September a child named Julia G——, a pupil in the Junior School, was found to be suffering from a sore throat. She was isolated and kept under treatment until 17th September, and was then discharged apparently recovered.

The nature of these two children's illness was not suspected to be, at the time, Diphtheria.

On the 18th September Edith L——, also a pupil in the Junior School, complained of a sore throat. On the same date two other children, Marjorie S—— and Mary L——, were found to be suffering from sore throats. As there appeared to be evidence of infection taking place in the schools, swabs were taken from the

throats of these five children, and all of them, on bacteriological examination, were found to be suffering (clinically or bacteriologically) from true Diphtheria.

These patients were immediately removed for isolation to the School Infirmary (a separate building admirably fitted for the reception of infectious cases).

One of these patients was a pupil in the Senior School (Marjorie S——), and in consequence of her illness proving to be Diphtheria it was decided to medically inspect and swab all the children in the dormitory in which she slept. As a result another child (Edith R——) was found, on bacteriological examination, to be suffering from Diphtheria. These were the only cases which occurred in the Senior School during the course of the outbreak.

As a result of the presence of Diphtheria having been discovered amongst some of the children in the Junior School it was arranged to inspect and swab, for bacteriological examination, all the children, teachers and attendants in that part of the Institute. The Junior School is a recently erected building, situate at the opposite side of the grounds from the main building which accommodates the senior girls. The Junior School is admirably planned, and contains all the latest improvements; the classrooms, dining rooms, and dormitories being well lighted and ventilated; and the sanitary fittings being of the most modern pattern.

During the course of the outbreak the total number of cases notified as suffering from Diphtheria was 27 (25 pupils and 2 attendants). The former were all treated in the School Infirmary, and the latter were removed to the Metropolitan Asylums Board Hospital. In addition to these, 11 other children, in whom no clinical symptoms of the disease were apparent, but in connection with whom bacteriological examination showed the presence of Diphtheria bacillus, were isolated and injected with antitoxin, and were not allowed to return to school until after repeated bacteriological examinations of swabs taken from their throats or noses had failed to disclose the presence of the Diphtheria bacillus or other suspicious organisms.

The distribution of the cases notified during the period when the disease was prevalent is as follows :—

September	14
October	7
November	5
December	1

Origin of the Outbreak.

The origin of the outbreak is, of course, difficult to prove, but there is strong evidence pointing to the disease having been introduced from without by one of the pupils after her return to the school after the summer vacation.

Alice D—— is the child to which most suspicion attaches. At the break-up of the school for the summer holidays, on the 5th July, she returned to her home, a flat in a block of dwellings in Westminster. While she was home she complained of a sore throat for which she was not medically attended. On the 28th August she was noticed to have swollen glands, and it was thought advisable to isolate her for a week, but no bacteriological examination was then made.

On the other cases coming to light attention was drawn to Alice D——, and a swab taken from her throat was found to be positive on bacteriological examination, and she was with the other patients at once isolated.

Alice D—— returned to her home, in Westminster, at the break-up for the summer vacation on the 5th July. While at home she suffered from a sore throat, but was not medically attended at the time; but before her return to school she was seen by a doctor who found her apparently well. She was the only member of her family, it is said, who complained of illness while she was at home. On the same staircase in this block of flats, but lower down, a case of scarlet fever was notified on 26th July, and on a lower floor on 16th July, a boy aged 5 was notified with diphtheria. Neither of the families in which these two cases of infectious disease occurred went to the same school, but there

may have been some connection between these two cases and Alice D——.

There would thus appear to be strong evidence pointing to Alice D—— as the probable channel by which the disease gained access to the Institute. This child suffered with sore throat shortly after her return home for the summer holidays. She returned to the school on the 18th August and on the 28th was noticed to have swollen glands in the neck (probable signs of her recent illness). She was isolated for a week, and later (after the commencement of the outbreak) was found, on bacteriological examination, to have the Klebs-Loeffler diphtheria bacillus present in her throat.

How the disease reached the senior school it is impossible to say definitely. Only 2 cases occurred amongst the 200 pupils in this part of the Institute. Marjorie S——, one of the 2 patients attacked, had been, prior to the summer vacation, a pupil in the Junior School. She had on her return been admitted straight away to the Senior School. She had a sister (Violet S——) who was already a pupil in the Senior School. Swabs taken from the latter were found to be negative. Whether, therefore, Marjorie S—— had the disease germ, in a latent form, in her throat prior to leaving for the summer vacation, or contracted the disease after her return, it is difficult to say. The latter hypothesis is, I think, the more likely.

Four of the patients, while lying in the Infirmary, contracted scarlet fever. In addition two other children in the Junior School, during the diphtheria outbreak, contracted scarlet fever. How the disease reached the Institute could not be definitely traced. It is probable, however, that it was introduced from without, the disease being prevalent in Battersea at the time.

Preventive Measures Taken.

The preventive measures taken were as follows:—(*a*) Notification, (*b*) isolation, (*c*) disinfection, (*d*) medical inspection of "contacts" and "suspects," (*e*) antitoxin.

Bacteriological examinations were used as an aid to diagnosis. In this way it was possible, in the first place, to definitely recognise as diphtheria those patients presenting clinical symptoms suggestive of the disease, and secondly to isolate "carrier" cases, *i.e.*, cases presenting, on bacteriological examination, evidence of the presence of the diphtheria bacillus, but showing no apparent clinical symptoms. In addition all cases presenting evidence of the presence of pseudo-diphtheria organisms, were also isolated and kept under observation, and systematic clinical and bacteriological examinations carried out in connection therewith.

All cases presenting evidence of the presence (either clinical or bacteriological) of diphtheria were immediately removed to the Infirmary. Other suspects were isolated in the rooms (of which there are several available) in the Junior School, and given an injection of antitoxin. As a prophylactic measure a small dose was injected into every child in the Junior School. Elaborate precautions were taken to prevent the further spread of the disease to the Senior School, and these proved entirely successful.

The milk supply to the school was bacteriologically examined and found to be satisfactory.

Disinfection was carried out by the Borough Council, all infected and suspected clothing being collected and removed to the Council's Disinfecting Station for the purpose. The dormitories and class-rooms in both the Junior and Senior Schools were disinfected from time to time, as required, by the Council's officers.

All vessels, spoons, forks, towels, and other articles used by the children in the Junior School were carefully sterilised each time after use.

The drains of the Institute were examined and found to be defective, and are now being reconstructed.

Bacteriological Examinations.

The nature of the outbreak and the circumstances under which it arose necessitated a large number of bacteriological examinations for stamping out the disease. Some hundreds of swabs were taken and submitted for bacteriological examination, and it was to the aid derived from these examinations that the disease was prevented from spreading.

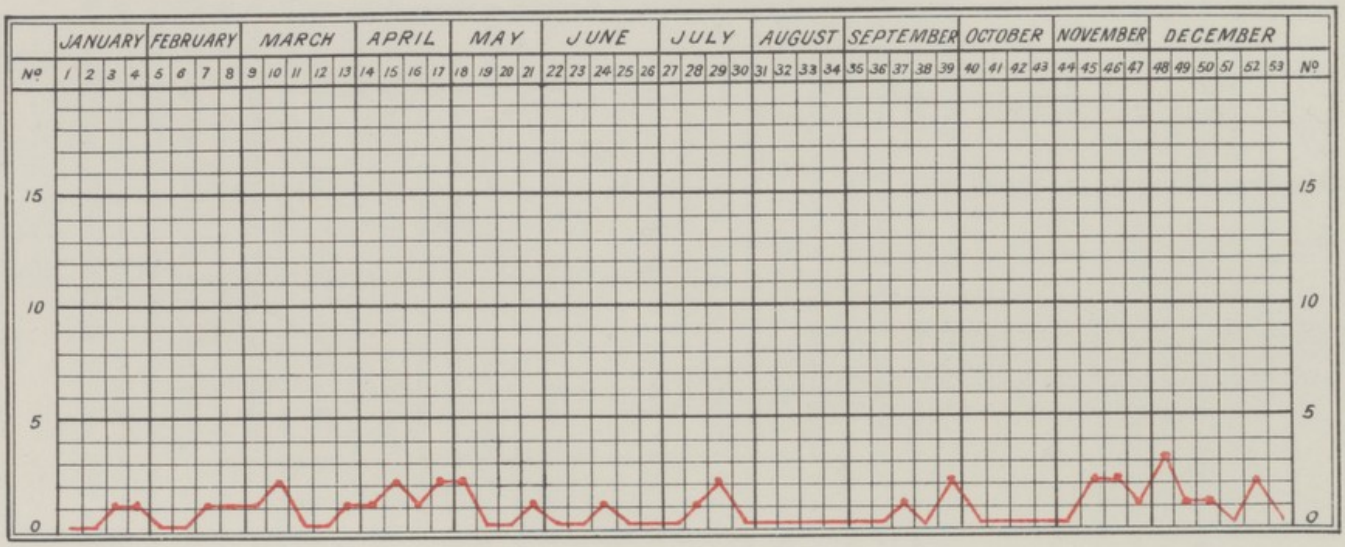
No death occurred amongst the patients.

Conclusion.

The conclusion to be drawn from the history of this outbreak is that in Institutions of this character there is always the risk of infectious disease being introduced from without and spreading amongst the pupils unless they are, preparatory to admission, especially after the holidays and when infectious disease is prevalent, medically examined, and in all doubtful cases a bacteriological examination made. Children removed to the Infirmary, for any affection of the throat, should also, as a routine practice, be allowed to return to the school buildings only after they have been proved, on repeated bacteriological evidence, to be free from infection. It is, I think, clear, that so far as this outbreak is concerned, the weight of evidence points to the child Alice D—— as being the medium by which the disease first gained access to the schools. Had this child had a bacteriological examination made of a swab from her throat, before returning to school after the summer holiday, it is possible this outbreak would not have occurred. At any rate it would be, in my opinion, a wise precaution to adopt in connection with such Institutions, in which highly susceptible populations are aggregated.

My thanks are due to Dr. Howell, the Medical Officer to the Institution, for the help he rendered me in my official investigations, and for the readiness with which he carried out any suggestions I found it necessary to make. Dr. Howell availed himself most fully of the facilities provided by the Council for carrying out bacteriological examinations, and this necessitated a very large amount of work and time. I have also to thank the matron of the Institution (Miss Flintoff) for her courtesy and kindness.

CHART showing the number of cases of Enteric Fever notified during each week of the year 1908.



BRITISH MUSEUM FEB 7 1909

Enteric Fever.

During 1908, 36 cases of Typhoid Fever were notified in the Borough of Battersea, as compared with 37 in 1907 and 40 in 1906 ; and 7 deaths were registered, giving a case mortality of 19.4 per cent. In the following table are set out the case rate, death rate and case mortality from Enteric Fever since 1891.

Year.	Cases.	Case-rate per 1,000 population.	Deaths.	Death-rate per 1,000 population.	Case mortality per cent.
1891	118	0·78	23	0·15	19·5
1892	82	0·53	10	0·06	12·1
1893	138	0·88	22	0·14	16·0
1894	154	0·96	29	0·18	18·8
1895	140	0·86	23	0·14	16·4
1896	111	0·67	17	0·10	15·4
1897	95	0·57	18	0·10	19·0
1898	94	0·56	15	0·08	16·0
1899	157	0·93	39	0·23	24·9
1900	206	1·22	32	0·19	15·5
1901	90	0·53	18	0·10	20·0
1902	88	0·51	16	0·09	18·2
1903	85	0·49	17	0·09	20·0
1904	51	0·29	12	0·06	23·5
1905	27	0·15	6	0·03	22·2
1906	40	0·22	8	0·04	20·0
1907	37	0·20	4	0·02	10·8
1908	36	0·19	7	0·03	19·4

On inspection of the above table, if a comparison be made between the number of cases notified, and the number of deaths registered from the disease in the Borough of Battersea during 1908, on the one hand, and the yearly averages for the ten years (1891-1900) in the old Parish of Battersea on the other, it will be noted that there is a very notable decrease. The yearly average of cases notified in the Parish is 129.5, and the yearly average of deaths registered was 22.8, as compared with 36 and 7 respectively, the number of cases notified and deaths in the Borough of Battersea during 1908.

The age distribution of the cases was as follows:—

Ages.	Under 5.	5–15.	15–30.	Above 30.	Totals.
Males ..	1	3	9	5	18
Females ..	1	3	6	8	18
Totals ..	2	6	15	13	36

The death rate, case rate and case mortality in the Borough and in the sub-districts are as follows:—

	Case-rate per 1,000 population.	Death-rate per 1,000 population.	Case-mortality per cent.
East Battersea ..	0·17	0·02	15·3
North-West Battersea ..	0·34	0·04	11·7
South-West Battersea ..	0·10	0·05	50·0
The Borough	0·19	0·03	19·4

In the County of London the case-rate was 0.28, and the death-rate 0.05 per 1,000.

Of the 27 typhoid-infected houses, 7 (*i.e.*, 25 per cent.) showed on inspection defective traps, fittings or appliances. In none of the houses were the drains themselves found to be defective.

The source of infection in 5 cases, there was reason to believe, was due to consumption of shell fish. Two cases were infected outside the Borough. Seven cases were probably due to personal infection. In 3 cases it was ascertained that fried fish

had been partaken of during the "critical" period, and may have been the cause of the disease.

An outbreak which occurred in a house in Harley Street towards the end of the year is of interest as exhibiting one of the many channels by which the disease may be spread. So far as the Metropolis is concerned, probably the most frequent medium by which the disease is contracted is from eating infected food, and in this connection shell fish (oysters, mussels, cockles, etc.) have from time to time been proved to have been the infecting agent. In this outbreak, however, the source of infection was traced to personal contact.

Between the 12th and 28th November, five members of a family were successively attacked and removed to hospital. Careful enquiries were made with a view to tracing the source of infection. It was ascertained that another member of the family had left London for a village near Newport, in Monmouthshire, on the 12th September, and returned to London on the 9th October. When he arrived at his home in Battersea, he was feeling ill and suffering from diarrhœa. He did not see a doctor, and at the time that enquiries were being made into the first cases he had apparently recovered. He stated that while staying at the village of Cwmfelinfach, where he had gone to work as a labourer on a building, he fell ill, and was treated for influenza. On this information coming to my knowledge, I communicated with the medical attendant, suggesting the advisability of taking a specimen of this man's blood for bacteriological examination. The result of the examination showed a positive reaction, and he was notified and removed to the Metropolitan Asylums Board Hospital for isolation purposes, and discharged on the 9th January, 1909. Three other members of his family, as already stated, developed the disease, making in all 5 cases infected by the man.

Through the courtesy of the County Medical Officer of Health for Monmouthshire (Dr. Rocyn Jones), to whom I wrote asking whether Enteric Fever had been prevalent in the village of Cwmfelinfach or its vicinity during the autumn, I was informed that 5 cases had occurred, 4 in Cwmfelinfach and 1 in the neigh-

bouring village of Ynysddu during September and October. Two of these cases had occurred in the same street in which this "carrier" case had resided while staying at Cwmfelinfach, and in connection with these cases the Local Medical Officer of Health's report states: "The water supply at this time was very bad. It was intermittent and badly filtered."

A review of the facts connected with this outbreak points conclusively to the source of infection as being due to personal infection conveyed by this man to other members of his family. None of the cases proved fatal. The ages of the patients ranged from 52 to 10½ years.

Three cases in the same family occurred in a house in Latchmere Grove. E. S——, aged 31, a cook out of employment, was staying with her married sister. Not feeling well she attended St. Thomas's Hospital, where she was admitted on the 7th April, and the case was notified as Enteric Fever on the 11th April. On enquiries being made, it was ascertained that her nephew, H. T——, was taken to the Victoria Hospital, Chelsea, on the 30th March. He attended again on the 2nd April, when he was admitted to the wards. The hospital authorities were communicated with as to the nature of this boy's illness, and it was ascertained from them he was admitted on the 2nd April suffering from "indefinite malaise and pyrexia," and no more definite signs developed for seven days, though the nature of the illness was suspected to be Enteric Fever. Widal's reaction on the 7th day day proved negative. No information had been given by the father, when he visited the boy in hospital, that a previous case of Enteric Fever had occurred at his house.

The case, I was further informed, was undoubtedly one of Enteric Fever, as the boy had subsequently developed typical spots, and the notification certificate was received on the 14th April.

A sister of this patient, L. T——, subsequently developed the disease, and was removed to hospital on the 23rd April.

The only possible source of infection that could be traced in these cases was that the family had partaken of mussels on one occasion some two or three weeks previously ; but the information was vague as to how many members of the family had eaten the mussels, and where they had been obtained. No further cases occurred in this family, which numbered nine persons, including the aunt, C. V——, the first case notified.

Forty-two samples of blood were submitted for bacteriological examination for the Widal reaction for Typhoid, and in eight (*i.e.*, 19.0 per cent.) a positive result was obtained.

The value of the Widal reaction as a test in suspected cases of Typhoid Fever is considerable. Owing to the insidious onset of this disease, cases are sometimes mistaken for less infectious and dangerous diseases. Advantage, I am glad to report, is being generally taken of the facilities which the Council have provided for the use of the medical men residing in the Borough, and with satisfactory results, as the records of this disease in Battersea testify.

Puerperal Fever.

During 1908, in the Borough of Battersea, 7 cases of Puerperal Fever were notified and 5 deaths were registered, giving a case mortality of 71.4 per cent. The case rate was .03, or .02 below the mean case rate for the preceding ten years. The death rate was .02 per 1,000, or .01 below the decennial average. The death-rate for London was .03. Three deaths occurred in East Battersea, and one each in North- and South-West Battersea.

In 1907, 13 cases of Puerperal Fever were notified, and 7 deaths were registered, giving a case mortality of 53.8 per cent. and a death rate of 0.03 per 1,000.

Puerperal Fever is a preventable disease, and is caused by want of care by those in attendance on the lying-in woman. During 1908, 4,629 births were registered in Battersea, and in only 7 cases was Puerperal Fever notified—a highly satisfactory record. In each case enquiries were made, and the midwives in

attendance were visited at their homes. Arrangements were at once made for their personal attendance at the reception shelter in Sheepcote Lane, where each of them had a sanitary bath, and her clothing and instruments sterilised by steam at the disinfecting station adjoining. The cases are at once reported to the London County Council, who are the Local Supervising Authority under the Midwives Act, 1902. The duty of disinfection, however, devolves on the Council as the Local Sanitary Authority.

21 Nurses and midwives who had been in attendance on Puerperal Fever cases during the year attended at the Reception Shelter for purposes of disinfection.

Erysipelas.

During 1908, in the Borough of Battersea, 151 cases of Erysipelas were notified, and 5 deaths were recorded, as compared with 173 cases and 5 deaths in 1907. The case mortality was 3.31 per cent., as compared with 2.89 per cent. in 1907 and 6.02 per cent. in 1906. The case rate was 0.82 and the death rate 0.15, or 0.15 and .05 below the decennial average respectively.

Fifty-seven cases were removed to hospital, the majority going to union infirmaries and the remainder to general hospitals.

In London during 1908, 4,203 cases of Erysipelas were notified, and 160 deaths registered from the disease, giving a case mortality of 4.2 per cent.

Epidemic Cerebro-spinal Fever.

During the year 1908 only 2 cases of Epidemic Cerebro-spinal Meningitis were notified, as compared with 10 cases in 1907, in the Borough of Battersea. Both these cases were notified from the Victoria Children's Hospital, Chelsea.

The history of these two cases is as follows:—

1. The death of an infant, aged 11 months, was registered as having occurred from Posterior Basic Meningitis on the 12th May. The hospital authorities were communicated with, and a

notification was received on the 16th May, the notification certificate stating, in addition, that the Diplococcus Meningitidis Intracellularis had been found *post mortem*. On enquiries being made at the house from which the child had been removed to hospital, it was ascertained that it was a nurse child, and had been taken to the doctor on the 3rd April. On the 10th April it was removed to the Victoria Children's Hospital, and died there on the 12th May.

The woman who had been entrusted with the care of the child had only had it since the 20th February. She stated that its illness dated from about the 20th March, the symptoms noted being diarrhœa sickness and "crying a good deal."

The father's occupation was given as a labourer.

No previous case of illness had occurred at the house at which the child had been put out to nurse, and from which it had subsequently been removed to hospital, the sanitary condition of the premises being fairly satisfactory.

2. H. E. B——, aged 1 year, was admitted to the Victoria Children's Hospital on the 3rd December from an address in Rollo Street, where he died on the 7th December. The case was notified on the 8th December. As a result of enquiries made at the home in Rollo Street, it was ascertained that the patient, the son of a labourer, was first taken ill on the 2nd December.

On communicating with the hospital authorities, the following information as to the history of the case was obtained. The child had been ill five days, and was brought to hospital on the second day of its illness (December 3rd). He was a pale, flabby, ricketty child, and at the time of his admission was feverish and restless (temperature 102, pulse 130, respirations 42).

There were no definite symptoms until the 4th, when the restlessness increased greatly, and it was noticed that he had some retraction of the head, and vomited four or five times during the day. The retraction became more marked, and the knee-jerks greatly exaggerated.

He had no definite convulsions, but occasionally the arms and legs became quite rigid for two or three minutes at a time. During the next two days he became more comatose, and continued to vomit repeatedly; the retraction became more marked. The temperature throughout only varied from 100-102, being generally at the higher level.

On the morning of the 6th December, two or three drops only of turbid yellow fluid were removed for bacteriological examination. Unfortunately, the tube containing the fluid was broken during transit to the laboratory, and the child died on the same day before a second specimen could be obtained. The temperature just before death was 100.6 deg. On the second day an indefinite purplish erythema was noticed on the legs, but this disappeared subsequently, and was barely discernible at any time.

The diagnosis in this case was made entirely on clinical grounds, but there does not appear to have been much doubt as to the nature of the disease, and the case would seem to be of the "fulminating" type of infection, occurring sporadically.

Cerebro-spinal Fever has not, fortunately, made much headway in London or in the country generally since the outbreaks in Belfast and Glasgow during 1907. The precaution taken by the London County Council in making the disease notifiable is a wise one, having regard to the history of past epidemics and the uncertainty that exists as to the degree of virulence and the channels through which the disease is spread.

In the County of London 85 cases of Cerebro-spinal Fever were notified during the year 1908.

Measles.

As Measles is not a notifiable disease, we are dependent on the school returns and the death returns for our knowledge of its prevalence and severity. During 1908 there were 47 deaths recorded from the disease, or 46 below the average for the ten years 1898-1907, as compared with 72 in 1907 and 44 in 1906.

The death rate was 0.25 per 1,000 population, as compared with 0.52 per 1,000, the mean death rate for the preceding ten

years. The death rate in East Battersea was 0.28, North-West Battersea 0.42, South-West Battersea .06.

The London death-rate for Measles was .32 per 1,000, there being 1,524 deaths registered from this cause. It is probable that these figures do not fully represent the total loss of life due to this disease, many deaths being registered as due to bronchitis and other respiratory diseases which are common complications and sequelæ of Measles. Measles and Whooping-cough between them caused many more deaths in Battersea than all the other notifiable diseases put together, the figures being: Measles and Whooping-cough, 86; all other notifiable diseases, 65.

The number of deaths registered in each of the registration sub-districts in 1906, 1907 and 1908:—

	1908.	1907.	1906.
East Battersea	22	36	28
North-West Battersea ...	21	27	14
South-West Battersea ...	4	9	2

The variability of incidence in mortality during the last three years is exhibited in the above figures.

Ten deaths were of infants under one year, and 34 of children aged one to five years. Only three deaths occurred among children over five years of age.

The deaths in each of the four quarters of the year were as follows:—

First quarter	14
Second quarter	24
Third quarter	2
Fourth quarter	7

Measles is usually spread through the medium of schools, especially the infant departments. Closure of these latter should, during the earlier stages of an outbreak, be more freely resorted to, and would tend to reduce the high rate of mortality from this disease in London. There are indications that this procedure is being more generally recognised and followed.

Below will be found a table giving a list of schools, and showing the number of cases of non-notifiable infectious diseases reported during 1908:—

INFECTIOUS ILLNESS REPORTED FROM SCHOOLS DURING THE YEAR 1908.

SCHOOLS	Measles.		Mumps.		Whooping Cough.		Chicken-pox.		Other diseases.		Total.	
	*S	NS	S	NS	S	NS	S	NS	S	NS	S	NS
Basnett Road ..	11	7	1	1	—	—	2	2	10	1	24	11
Battersea Park Road ..	8	2	7	5	10	2	32	8	36	—	93	17
Belleville Road ..	14	27	5	1	37	17	33	17	33	2	122	64
Bolingbroke Road ..	5	4	5	8	5	—	9	4	12	—	36	16
Ethelburga Street ..	27	6	5	1	28	2	18	11	43	—	121	20
Gideon Road ..	40	21	1	—	2	—	5	3	31	—	79	24
Holden Street ..	7	4	4	2	9	—	11	5	15	—	46	11
Honeywell Road ..	80	20	—	—	8	—	95	31	32	2	215	53
The Latchmere ..	29	28	34	6	48	11	17	18	109	—	237	63
Lavender Hill ..	64	34	6	5	34	1	21	2	36	1	161	43
Mantua Street ..	9	16	69	19	18	3	14	5	27	—	137	43
New Road ..	2	8	5	3	3	1	19	13	4	—	33	25
Plough Road ..	27	14	17	3	5	3	37	14	27	—	113	34
Ponton Road ..	—	—	—	—	1	—	—	—	—	—	1	—
Raywood Street ..	8	7	23	9	9	13	12	12	162	—	214	41
St. Andrew's Street ..	1	2	3	—	—	—	3	—	3	—	10	2
St. George's ..	—	—	—	—	—	—	1	—	—	—	1	—
St. John's ..	2	—	2	—	—	—	—	1	1	—	5	1
St.Mark's ..	1	1	—	—	2	—	10	2	2	—	15	3
St. Mary's (Green Lane)	9	10	15	13	7	2	5	5	28	—	64	30
Shillington Street ..	2	2	4	2	1	1	11	8	7	—	25	13
Sleaford Street ..	40	24	5	—	28	10	27	27	118	1	218	62
Surrey Lane ..	—	—	—	—	—	—	—	—	4	—	4	—
Tennyson Street ..	6	9	9	2	12	—	10	1	22	3	59	15
Winstanley Road ..	8	9	33	5	28	9	10	9	45	2	124	34
Wix's Lane ..	35	8	2	2	7	1	32	6	7	—	83	17
Wycliffe Road ..	—	—	—	—	—	—	—	—	3	—	3	—
SCHOOLS OUT OF THE BOROUGH.												
Cooks Ground,Chelsea	1	—	—	—	—	—	—	—	—	—	1	—
Eltringham Street ..	—	5	1	—	—	—	—	1	4	—	5	6
Hearnville Road ..	—	—	—	1	—	—	—	—	—	—	—	1
Springfield Road ..	—	—	—	—	—	—	1	—	3	—	4	—
Worple Way ..	1	—	—	—	—	—	—	1	—	—	1	1
Clapham Parochial ..	—	1	—	—	—	—	—	—	1	—	1	1
Holy Trinity ..	—	—	—	—	—	—	—	—	1	—	1	—
Total ..	437	269	256	88	302	76	435	206	826	12	2,256	651

* NOTE.—S = Suffering. NS = Excluded owing to infection in house.

Every care is taken, so far as it is possible to do, to prevent the spread of infection. All houses in which cases are notified by the schools or from other sources of information are visited, and leaflets calling attention to the dangerous nature of the disease, and precautions to be taken, are left at the houses. Disinfection of the rooms is carried out when the patient has recovered.

Whooping Cough.

Whooping-cough, like Measles, is a very fatal disease of childhood, especially to very young children. During 1908, in the Borough of Battersea, 39 deaths from this disease were registered, as compared with 62 in 1907. The deaths were 31 below the average for the preceding ten years, and were equivalent to a death rate of .21 per 1,000, as compared with .39, the mean death rate for the previous ten years.

In the sub-districts the number of deaths and the death rate per 1,000 of the population were as follows:—

	No. of Deaths.	Death-rate per 1,000 of the population.
East Battersea	18	... .23
North-West Battersea ...	14	... .28
South-West Battersea ...	7	... .12

In this disease, as in Measles, the influence of environment is well shown in the above figures. North-West Battersea suffered most, and South-West Battersea least from the disease.

The death rate per cent. under one year of age was 53.8 per cent., and from one to five years 46.2 per cent., the total percentage fatality under five years of age being 100.

The need that exists for the protection of young children from the risk of exposure to infection is strikingly shown in the above figures, as well as in those relating to deaths from Measles. In both diseases the schools are the medium, especially as regards Measles, by which infection is spread. The infant departments of the public Elementary Schools contain a large number of children under five years of age aggregated in large classes, and these form a most *susceptible*

channel for the spread of infection. The danger is intensified by the absence of some satisfactory system of notification. It is a deplorable fact that while the death rate in all forms of notifiable disease in London has greatly decreased in recent years, no such satisfactory state of things can be shown as regards these two diseases. It cannot be urged in extenuation that these deaths are inevitable. It is only in the poorer quarters that such a high percentage of fatality occurs, and it is perfectly evident therefore that most of these deaths are preventable, and that one of the preventive measures which should be insisted on is that children under at least five years of age should not be permitted to attend school. The report of the recent enquiry by the Consultative Committee of the Board of Education, at which I had the honour of giving evidence, while admitting that it was undesirable that such children should attend school, were not prepared to advise their exclusion on the ground that social and economical exigencies rendered this course impossible.

It is regrettable that the Committee could not see their way to recommend the exclusion of these very young children. On other grounds as well (educational and social) their attendance at school cannot be defended. When it is remembered that some 3,000 deaths of children from the two diseases annually occur in London, the majority of which it may safely be said are preventable, it is a serious reflection on the sanitary administration of the Metropolis that some more effective steps cannot be taken to prevent this great annual loss of life.

The deaths in each of the four quarters of the year were as follows :—

First quarter	..	..	..	14
Second quarter	..	..	..	17
Third quarter	..	..	..	3
Fourth quarter	..	..	..	5

Diarrhœa.

During the year 1908 the number of deaths from Diarrhœa registered in the Borough of Battersea was 89, as compared with 47 in 1907. Forty of these deaths were registered as being due to Epidemic or Zymotic Enteritis. The death rate was 0.48 per 1,000, or 0.28 below the decennial average, 0.76. The death rate in the County of London was 0.53. Of the 89 deaths, 83 (*i.e.*, 93 per cent.) were of children under 5 years of age, and 72 (*i.e.*, 80 per cent.) of infants under 1 year of age. During 1907, 47 deaths from Diarrhœa were registered, of which 36 (*i.e.*, 76 per cent.) were of infants under 1 year.

The number of deaths and the death rate in the sub-districts in 1906, 1907 and 1908 were as follows:—

Registration Sub-District.	No. of Deaths.			Death-rate per 1,000 population.		
	1908.	1907.	1906.	1908.	1907.	1906.
East Battersea ..	39	28	85	·51	·36	1·13
North-West Battersea	40	15	49	·80	·30	·98
South-West Battersea	10	4	15	·17	·07	·27

In the next table are set out the deaths registered in each of the four quarterly periods in 1906, 1907 and 1908:—

	1908.	1907.	1906.
First quarter	12	6	8
Second quarter	7	5	9
Third quarter	53	16	117
Fourth quarter	17	20	15

Of the 72 deaths of infants under 1 year from Diarrhœa or Epidemic Enteritis, 43 occurred in the third quarter of the year, distributed as follows in the three sub-districts: East Battersea, 18; North-West Battersea, 23; South-West Battersea, 2.

The following table gives the age periods at which these 72 infants died during 1908:—

Deaths of Infants under 1 year of age from Zymotic Diarrhœa and Epidemic Enteritis.				
1-3 months.	3-6 months.	6-9 months.	9-12 months	Total.
13	34	15	10	72

A glance at the above table shows that of the total number of infant deaths from this cause, 49 (*i.e.*, 68 per cent.) were between three and nine months old.

The results of the inquiries made into the surroundings and feeding of these 72 infants are set out in the following table:—

Families Living in		Method of Feeding	
1 Room	5	Breast	10
2 Rooms..	19	Breast & other Food ..	44
3 Rooms..	24	Cows' Milk	10
4 Rooms..	19	Tinned & Patent Food ..	8
Over 4 Rooms	5	Total	72

As regards the health and occupation of the mothers of these 72 infants, it was ascertained that 37 were in bad health and 26 went out to work. In 43 cases the occupation of the father was given as that of a labourer.

The conclusions to be drawn from a consideration of the facts presented in the above statistics relating to these 72 infant deaths from Diarrhœa are that the

(1) Influence of season,
(2) Feeding and surroundings,
(3) Health and occupation of mothers,

are the predisposing factors responsible for the mortality from summer Diarrhœa.

Of these causes the first-mentioned cannot be overlooked. This will be at once evident from a comparison of the statistics relating to deaths from Diarrhœa for a number of years. For example, taking the last three years, it will be noted that the mortality returns from the disease vary very considerably. On examining the meteorological conditions which were prevalent in each of these three years, it will be found that these also varied to a very considerable extent. The summer of 1906 was remarkable as being probably one of the warmest and most prolonged for a great number of years. On the other hand, the summer of 1907 was very cold and wet, while that of 1908 was what might be termed midway between these two extremes. On looking at the mortality returns from Diarrhœa in the third quarter of each of these years, it will be seen that these figures were as follows:—

	No. of Deaths.
1906...	117
1907...	16
1908...	53

The influence of season is, therefore, a factor of considerable importance.

Much has been written on this subject, but the exact manner in which this influence is exercised has not been proved. Diarrhœa, it is generally believed, is a disease of microbial origin. The "identity," however, of the specific organism has not as yet been definitely recognised. On the analogy of other diseases the "causal organisms" of which have been isolated and identified, there can be no reasonable doubt that in this disease as well there is associated a specific germ, by means of which the infection

is spread. It is believed, further, that the organism exists in the soil, and that its development is dependent on two factors—a high atmospheric temperature and deficient rainfall.

That there are other factors equally, if not even more so, important is apparent from an inspection of the mortal statistics from the disease in different localities in the Borough. These factors are associated with insanitary conditions prevailing in the homes—*e.g.*, dirt, destitution, bad housing, etc. In those parts of the Borough, therefore, where these conditions are more or less present, the death rate, as is to be expected, will be found to be greater than in those in which the standard of comfort and living are higher.

To sum up, therefore, summer Diarrhœa of infants is dependent on certain factors, or, rather, a combination of them, viz., an exciting cause—*i.e.*, the presence of a specific microbe or germ, the development of which is influenced favourably or adversely, according as the meteorological conditions are either warm and dry or cold and wet ; and predisposing causes, viz., those associated with defective hygienic conditions.

In considering, therefore, the preventive measures for dealing with this scourge of infant life in towns and cities, it is to the predisposing causes that Sanitary Authorities have to direct their attention. The removal, therefore, of conditions which prepare the way for the reception of the germ, and provide a suitable soil for its rapid development, is the prime essential to be aimed at.

In connection with the preventive measures which are carried out in Battersea, this has been fully recognised by the Health Committee. These preventive measures are general and special. The general measures include house-to-house inspection for the removal of insanitary conditions, especially in those parts of the district most requiring attention ; the paving of side streets with impervious material, which in past Annual Reports I have shown has been followed by satisfactory results in this connection ; rigid supervision and systematic inspection of milk shops, and the enforcement of the Sale of Food and Drugs and the Public Health Acts for the protection of the food supply, etc. ; and special visits

of the Health Visitor and the distribution of cards containing information as to the feeding and rearing of infants; establishment of a Milk Depôt for the supply at a low price of sterile milk. That these measures have, during 1908, been followed by success will, I think, be evident from the infant mortality statistics so graphically shown in the chart on page **23.**

Tuberculosis.

During 1908, 306 deaths from Tuberculosis were registered in the Borough of Battersea. Of this number 220 (*i.e.*, 71 per cent.) were due to Phthisis (tuberculosis of the lungs), 34 to Tubercular Meningitis, 37 to General Tuberculosis, 1 to Tubercular disease of the Larynx, and 9 to other forms of the disease. In 1907 the total number of deaths from Tuberculosis was 304; in 1906, 308; and 1905, 323.

The following table shows the death rate from Phthisis and other Tubercular diseases per 100,000 persons in each year since 1892:—

Year.	Deaths from Phthisis per 100,000 persons.	Deaths from other Tubercular Diseases per 100,000 persons.
1892	135	18
1893	143	82
1894	137	53
1895	151	65
1896	146	79
1897	151	62
1898	154	71
1899	162	56
1900	155	53
1901	146	60
1902	129	44
1903	128	51
1904	139	41
1905	132	50
1906	122	48
1907	120	46
1908	119	46

The number of deaths from Phthisis and other Tubercular diseases, and the death rate per 1,000 of the population in each of the sub-districts and the Borough, is set out in the following table:—

District.	Phthisis.		Other Tubercular Diseases.		Total.	
	No. of Deaths.	Rate.	No. of Deaths.	Rate.	No. of Deaths.	Rate.
East Battersea	108	1·41	38	0·49	146	1·91
Nth.-West Battersea	61	1·23	33	0·66	94	1·90
Sth.-West Battersea	51	0·87	15	0·25	66	1·13
The Borough	220	1·19	86	0·46	306	1·66

The deaths from Tuberculosis were 13.4 per cent. of the total deaths, and the disease caused a higher mortality than all the Zymotic diseases put together. It should be noted, however, that the death rate from Phthisis (the most common form of Tuberculous disease) was, in 1908, 1.19, or 0.01 lower than in 1907, and 0.03 lower than in 1906.

While it is satisfactory to note that there is a slight improvement in the mortality figures from Tuberculosis in Battersea, it cannot be said that much progress has been made in checking the spread of the disease in Battersea in recent years.

The reasons for this are not far to seek, as, in the absence of some satisfactory system of notification, it was impossible to ascertain except in a small number of cases reported to us by philanthropic bodies working in the Borough, and by the Sanitary

Inspectors or Health Visitor. In the majority of cases it was only from the death returns that information as to the existence of the disease came to our knowledge.

The Health Committee, bearing these facts in mind, instructed the Medical Officer of Health to ascertain and report on the steps that were being taken by other Sanitary Authorities throughout the United Kingdom to deal with Tuberculosis. The report submitted to the Committee, and ordered by them to be sent to members of the Council, will be found in the Appendix. As a result the Committee authorised me to supplement the measures already being taken by supplying pocket spittoons, free of cost, to persons who were notified to us by philanthropic bodies and from other sources, and to distribute leaflets giving precautions to be adopted by patients and those living with them against the spread of infection.

By order of the Council, posters drawing attention to the dangers of promiscuous spitting in public places were also posted throughout the Borough.

The action of the Committee has been greatly facilitated by the issue of the new regulations made by the Local Government Board, making the disease compulsorily notifiable by the Medical Officers of Poor Law Institutions and District Medical Officers in attendance on poor persons at their homes within 48 hours of becoming aware of the presence of the disease.

The circular letter sent by the Board to Sanitary Authorities in connection with the Public Health (Tuberculosis) Regulations, 1908, is as follows :—

LOCAL GOVERNMENT BOARD,
WHITEHALL, S.W.,
18*th December*, 1908.

SIR,—I am directed by the Local Government Board to state that they have had under consideration the desirability of affording facilities for the extension of administrative action for the prevention of tuberculosis, and that with this view they have issued an Order in pursuance of Section 130 of the Public Health Act, 1875, as amended and extended

by the Public Health (London) Act, 1891, and the Public Health Act, 1896, to provide for the notification to the Medical Officers of Health of Sanitary Authorities of cases of pulmonary tuberculosis occurring amongst the inmates of Poor Law Institutions, or amongst persons under the care of District Medical Officers, and for the taking of certain measures in such cases.

Notification by Medical Officers of Poor Law Institutions.

Article IV. of the Order directs that the Medical Officer of a Poor Law Institution, as defined by Article I., shall, within 48 hours after his first recognition of the symptoms of pulmonary tuberculosis in the case of a poor person who is an inmate of the institution, post to the Medical Officer of Health for the sanitary district in which the person resided immediately before he became an inmate of the institution a notification of the case.

The notification must be made on a printed form as set out in the Schedule to the Order.

Notification by District Medical Officers.

Article V. directs that a similar notification shall be posted to the Medical Officer of Health by the District Medical Officer in the case of any poor person suffering from pulmonary tuberculosis on whom he is in medical attendance according to his agreement with the Board of Guardians.

The notification must be posted within 48 hours after the District Medical Officer has first recognised the symptoms of pulmonary tuberculosis, and must be addressed to the Medical Officer of Health acting for the sanitary district in which the residence of the poor person is situate.

Notification by Superintending Officers of Poor Law Institutions.

Under Article VI. it will be the duty of the Superintending Officer of a Poor Law Institution to post to the Medical Officer of Health on a printed form as set out in the Schedule to the Order a notification of the actual or intended place of destination and address at that place of any person leaving the institution in respect of whom a noti-

fication has been made by the Medical Officer of the institution under Article IV.

The notification must be posted within 48 hours after the departure of the person to whom it relates, and must be sent to the Medical Officer of Health of the Sanitary district in which the intended destination of the person is situate.

Notification of changes of address by Relieving Officers.

Article VII. provides that a Relieving Officer shall notify any change of address (other than by admission to a Poor Law Institution) of a person in respect of whom a notification has been made under Article V. by a District Medical Officer.

The notification must be made on a printed form as set out in the Schedule to the Order, and must be sent to the Medical Officer of Health for the sanitary district in which the address to which the person moves is situate.

The notification must be posted within 48 hours after the Relieving Officer has obtained accurate information respecting the change of residence.

Remuneration to be allowed.

Provision is made by Article VIII. for the remuneration of the Officers who have to make notifications under the Order. In the case of the Medical Officer of a Poor Law Institution or a District Medical Officer, the remuneration will be at the rate of one shilling for every notification, but where in relation to any one case two or more notifications have been posted by the Medical Officer to the same Medical Officer of Health, his remuneration will be at the rate of sixpence for every such notification after the first.

In the case of a Superintending Officer of a Poor Law Institution or a Relieving Officer, the remuneration will be at the rate of threepence for every notification.

The remuneration will be payable by the Council of the sanitary district for which the Medical Officer of Health acts, it will be deemed to cover the cost of postage, and it will

be payable in the manner and subject to the conditions prescribed by the Article.

Supply of Forms.

It will be the duty of the Poor Law Authorities referred to in Article III. to supply to the officers concerned printed copies of the appropriate forms set forth in the Schedule to the Order.

Exception and Application of Enactments.

Some of the provisions of the Public Health Act, 1875, and of the Public Health (London) Act, 1891, relative to infectious disease are not usually appropriate in cases of pulmonary tuberculosis.

The Board have, therefore, provided by Article IX. (1) that nothing in the Regulations shall have effect so as to apply or to authorise any one to put in force with respect to a person in relation to whom a notification has been made any enactment which renders him or any other person liable to a penalty or subjects him to any restriction, prohibition, or disability affecting him or his employment, occupation, means of livelihood, or residence on the ground of his suffering from pulmonary tuberculosis.

Special Powers of Councils.

Subject to what is stated in the preceding paragraph, it is desirable that Sanitary Authorities acting on the advice of their Medical Officers of Health should utilise their powers for the purpose of preventing the spread of infection from pulmonary tuberculosis. The Order confers some special powers which the Board are advised are suitable for this purpose, and which are set out in Article IX. (2) of the Order.

The Board propose to issue for the use of Sanitary Authorities and Medical Officers of Health a memorandum by their Medical Officer setting out the appropriate action that can be taken under these powers. Copies of the memorandum will be sent to the Council in due course.

Determination of Questions or Differences.

Article XI. will enable the Board to determine any question or difference in relation to anything done under the Order on the application of any of the parties affected.

Pulmonary Tuberculosis Notifiable under Local Acts.

Article XII. deals with those cases in which powers have been obtained with respect to pulmonary tuberculosis by a Local Act. Nothing in the Regulations will have effect in derogation of any power or obligation under any such Act, but subject to this the Regulations will apply to any district in which a Local Act containing provisions with respect to pulmonary tuberculosis is in force.

The Board may, however, on the application of the Council of the district direct that so much of the Regulations as relates to a notification by a Medical Officer of a Poor Law Institution or a District Medical Officer shall not have effect in relation to that district.

Date on which the Order comes into effect.

The Order will take effect on and after January 1st next, and it is desirable that the arrangements which are necessary to facilitate carrying it out should be made without any delay. In fixing January 1st as the date when the Order shall come into operation the Board have had regard to the convenience, from a statistical point of view, of the Order taking effect at the commencement of a calendar year. If, however, any delay occurs in the printing of the forms, it may be understood that it will not be necessary to carry out the Regulations until these can be obtained.

I am, Sir,

Your obedient Servant,

(Signed) S. B. Provis.

It is to be anticipated that important results will follow on the action taken by the Board. Valuable information will be obtained of the extent to which the disease exists amongst the poorer classes, and the causes responsible for its incidence and spread. Better methods for preventing the spread of infection must neces-

sarily follow the information so obtained, and at no distant date it is to be hoped that a great decrease will have taken place in the death rate from this formidable and insidious disease, which has been the reproach of sanitary administration in this country.

During 1908, 123 houses where deaths had occurred from Pulmonary Tuberculosis were disinfected, representing 86 per cent. of the houses in which fatal cases occurred. By arrangement with the District Registrars, information of the deaths of patients from Phthisis is immediately sent to the Medical Officer of Health, and steps are at once taken to have the houses in which patients died disinfected.

During 1908, 118 samples of sputum were bacteriologically examined, 30 of which were found to give a positive and 88 a negative result.

Cancer.

The number of deaths from Cancer registered of persons belonging to Battersea during the year 1908 was 156, as compared with 153 in 1907, and 172 in 1906. In the subjoined table will be found the number of deaths and the death rate per 100,000 of the population since 1893:—

Year.	Deaths.	Deaths per 100,000 persons.
1893	85	54
1894	110	62
1895	114	70
1896	105	63
1897	104	62
1898	122	73
1899	113	67
1900	130	77
1901	117	69
1902	151	88
1903	141	81
1904	164	93
1905	171	96
1906	172	95
1907	153	84
1908	156	84

Taking the average annual number of deaths for the ten years 1898-1907, viz., 143.4, as compared with 156 deaths during 1908, there would appear to be an increase in the mortality from this disease during the decennium. This may to some extent, at least, be due to improved methods of diagnosis and certification.

In the following table the anatomical distribution of the disease in both sexes is shown:—

Situation.	Males.	Females	Total.
Mouth and Jaw	6	2	8
Tongue	6	1	7
Stomach and Œsophagus ..	24	13	37
Liver	6	8	14
Bowels	7	10	17
Rectum	6	2	8
Breast	—	15	15
Chest	—	—	—
Uterus	—	20	20
Ovary	—	1	1
Abdomen	1	1	2
Other situations	13	14	27
Totals ..	69	87	156

Alcoholism.

During 1908, in the Borough of Battersea, 3 deaths were registered from acute and chronic alcoholism (males 2, females 1). In addition to these, 22 deaths were registered from cirrhosis of the liver (males 8, females 14), a disease mainly due to alcohol.

The total number of deaths, therefore, to be ascribed to alcohol is 25, as compared with 27 in 1907 and 20 in 1906. This

shows a slight decrease in the number of deaths from this cause registered during the year under report. Probably these do not really represent the total number of deaths from this cause, many deaths due to alcohol being, it is well known, registered under less invidious headings, so that records of deaths from alcoholism have to be accepted with this reservation. At the same time, it is clear that, so far as Battersea is concerned, there is a distinct improvement to be noted in recent years in the habits of the people as regards the use of intoxicants.

Bacteriological Examinations.

In 1903 the Council provided, for the use of Medical Practitioners practising in the Borough, facilities for the bacteriological examination of specimens from suspected cases of Diphtheria, Enteric Fever and Pulmonary Tuberculosis. The cost of these examinations are borne by the Council. Practitioners may also, by arrangement with the Medical Officer of Health, submit for examination specimens from patients suffering from diseases other than those mentioned.

The following table gives particulars as to the examinations made during 1908:—

Suspected disease.	Positive Results.	Negative Results.	Total
Diphtheria ..	342	1,977	2,319
Enteric Fever ..	8	34	42
Tuberculosis ..	30	88	118
Cerebro-spinal fever	—	4	4
Anthrax ..	—	1	1
Milk	—	2	2
Total ..	380	2,106	2,486

It will be noted that there has been a great increase in the number of specimens examined during the year. This increase has mainly been caused by the outbreaks of Diphtheria at the Infirmary and the Royal Masonic Institute for Girls. Apart from these, however, there has been a considerable increase in the number of specimens sent for examination by private medical practitioners as compared with 1907. Thus the number of Tuberculosis specimens submitted for examination were nearly twice as many as in 1907 :—

There is no doubt that this procedure has been of great assistance in the diagnosis of doubtful cases of these dangerous infectious diseases. It has been largely availed of by the medical men of the district during 1908, the total number of specimens examined during the year being 2,486, as compared with 508 in 1907.

General Sanitary Administration.

General Sanitary Administration.

The following table gives a summary of the work of the sanitary inspectors, as far as the work admits of tabulation :—

SUMMARY OF SANITARY OPERATIONS FOR THE YEAR 1908.

Total Sanitary Operations	83,379	Dust receptacles provided	582
Number of house inspections	45,758	Leaky house-roofs and gutters repaired	535
Bakehouse inspections	238	Houses supplied with water, and fittings repaired	240
Bakehouse nuisances abated	44	Water closets supplied with water or supply disconnected from drinking water cisterns	853
Urinals—inspections	143	Cisterns covered, cleansed and repaired	617
Do. altered, repaired or water laid on	33	Keeping of animals in unfit state discontinued	54
Intimations served under Sec. 3	4,511	Smoke observations	42
Notices served under Sec. 4, &c.	1,489	Certificates of disinfectiongranted	3,662
Notices served under Sec. 62 &65	2,124	Houses inspected and certificates granted (Sec. 48)	32
Complaints received &attended to	3,756	Proceedings ordered by Council and Health Committee	4,576
Number of houses disinfected	2,418	Summonses issued	194
Houses supplied with disinfectants	6,053	Magisterial Orders obtained and enforced	105
House drains flushed with disinfectants after infectious disease	2,437	Factories, Workshops, &c., inspections	3,564
Overcrowding abated	88	Sanitary conveniences provided or improvements effected in Factories&Workshops (Sec. 38)	246
Premises cleansed and repaired	3,498	Underground sleeping rooms disused	6
Drains tested .. By smoke.	1,019	Gipsy van inspections	121
,, water.	5,293	Drains laid to new houses and tenements	32
Drains cleansed and repaired	153	Samples taken under the Sale of Food and Drugs Acts	1,000
Drains relaid	788	Miscellaneous	323
Frontage drains constructed or re-constructed	85		
Soil-pipes and drains ventilated	165		
Sink and rain water pipes disconnected or repaired	676		
Water Closets cleansed&repaired	159		
Cesspools abolished	—		
Mews & Stables drained&paved			
Yards and forecourts paved	1,022		
Accumulations of manure and other obnoxious matter removed or proper receptacles provided	132		

Sanitation of House Property.

The sanitation of existing houses is one of the most important duties of Sanitary Authorities, intimately bound up as it is with the housing question. The difficulties associated with the housing question in London to-day are largely due to the imperfect sanitary supervision which in the past appears to have

been exercised in this direction. A good deal of attention has in recent years been devoted to this important subject in Battersea, and while it has not been possible to repair the evil due to neglect of effective supervision in the earlier years of its history, much good work has been done owing to the activity displayed, especially during the past 6 or 7 years. Systematic house-to-house inspection is the only satisfactory way to carry out this sanitary supervision, and it is a duty put upon Sanitary Authorities by Sec. I. of the Public Health (London) Act, 1891, and by Sec. 30 of the Housing of the Working Classes Act, 1890.

The total number of houses inspected in house-to-house inspection during 1908 was 3,609. This is a considerable decrease as compared with 1907, and is accounted for by the fact that a very large part of the time of several of the Sanitary Inspectors was taken up in connection with enquiries into cases of infectious disease, which on a reference to the section of this Report dealing with that subject will show, was, particularly in the case of scarlet fever, very prevalent in Battersea during 1908. Moreover, the type of the disease, being of a mild character, very many mild unrecognised cases of the disease were continually coming to light, and it was consequently found necessary to devote very special attention to tracing them, and in this way prevent the spread of infection to others.

Notwithstanding this drawback, however, the results of the year's work in this direction compares favourably with past years, and was about equal to the average number of houses inspected in each year for the eight years 1900-08. The number of houses inspected during each year since 1900 is as follows :—

1900	3,009	
1901	3,116	
1902	1,740	
1903	2,670	
1904	3,020	
1905	4,503	
1906	3,609	
1907	4,101	
Average for 8 years 1900-1907 ...	=	3,672
1908	3,609	

For administrative purposes the 9 wards of the Borough are divided into 8 sanitary districts, to each of which a Sanitary Inspector is attached. The sanitary districts are not, therefore, co-terminous with the wards, but for practical purposes may be considered so, as one of the wards is comparatively very small both in area and population, and is included with portions of two other wards in No. 6 District.

The following is the number of house inspections carried out, and the number of defects found in each of the sanitary districts :—

	Number of houses inspected.	Number in which defects found.
No. 1 District ...	378 ...	192
No. 2 ,, ...	507 ...	351
No. 3 ,, ...	514 ...	383
No. 4 ,, ...	485 ...	361
No. 5 ,, ...	576 ...	327
No. 6 ,, ...	267 ...	161
No. 7 ,, ...	364 ...	228
No. 8 ,, ...	518 ...	167
Total ...	3,609 ...	2,170

The percentage of houses in which sanitary defects were found to exist was 60 per cent., and varied from 32.8 per cent. in No. 8 district to 74.5 per cent. in No. 3. district.

The small number of houses inspected in districts No. 6 and 7 is accounted for by the large amount of drainage work at the Infirmary and the new estate being built in South-West Battersea; the time of the Sanitary Inspectors being much occupied in supervising the work. To this cause and the prevalence of infections already referred to, are to be attributed the decrease in the number of house inspections carried out during 1908, as compared with the previous year.

Preliminary and statutory notices were served to remedy these 2,170 defects.

The following table gives particulars as to the number of houses inspected during 1908 :—

House-to-House Inspection.

EAST BATTERSEA.			NORTH-WEST BATTERSEA.			SOUTH-WEST BATTERSEA.		
Name of Road.	No. of houses inspected.	No. of houses in which defects existed	Name of Road.	No. of houses inspected.	No. of houses in which defects existed	Name of Road.	No. of houses inspected.	No. of houses in which defects existed
Alfred Street ..	62	49	Balfern Street .	60	43	Althorp Road ..	44	13
Anerley Street ..	33	24	Bournes Place .	14	6	Amies Street ..	40	36
Arden Street ..	27	17	Darien Road ..	32	22	Balham Park Road	34	8
Arthur Street ..	54	46	Este Road	67	55	Belle Vue Road ..	25	4
Basnett Road ..	74	31	Europa Place ..	37	37	Boundaries Road ..	77	33
Battersea Park Road	63	18	Fords Place ..	35	35	Chatham Road ..	18	16
Beaufoy Road ..	18	6	Goulden Street ..	48	32	Didcot Street ..	29	26
Broughton Street ..	70	21	Green Lane ..	12	12	Eccles Road ..	86	50
Chatham Street ..	90	60	Gwynne Road ..	88	72	Gowrie Road ..	21	10
Culvert Place ..	11	1	Harroway Road ..	33	19	Heslop Road ..	13	2
Culvert Road ..	10	5	Hart Street ..	10	8	Hillier Road ..	29	6
Eland Road ..	16	7	Home Road ..	103	49	Kelmscott Road ..	10	8
Elsley Road ..	201	121	Inworth Street ..	57	139	Lavender Hill ..	18	13
Kennard Street ..	35	26	Latchmere Grove ..	129	12	Lavender Sweep ..	119	71
Kilton Street ..	73	42	Livingstone Road ..	75	40	Mossbury Road ..	47	23
Knowsley Road ..	69	50	Maysoule Road ..	112	61	Nottingham Road ..	11	6
Latchmere Street ..	33	23	Meyrick Road ..	41	21	Ouseley Road ..	37	13
Millgrove Street ..	34	20	Orville Road ..	74	74	Parma Crescent ..	64	49
Oulton Street ..	19	11	Somerset Street ..	14	9	St. James Road ..	56	18
Palmerston Street ..	11	8	Stockwood Street ..	19	12	Sarsfeld Road ..	67	24
Patmore Street ..	44	28	Trott Street ..	24	24	Sisters Avenue ..	46	27
Poyntz Road ..	32	24	Wayford Street ..	40	31	Wiseton Road ..	20	6
Queens Road ..	14	1	Winstanley Road ..	14	7	Wroughton Road ..	87	18
Radstock Street ..	26	15	Wye Street ..	56	29			
Raywood Street ..	26	22	Yelverton Road ..	17	15			
Savona Street ..	35	25						
Shirley Grove ..	40	18						
Southolm Street ..	37	20						
Tennyson Street ..	39	14						
Wadhurst Road ..	100	69						
Wycliffe Road ..	4	4						
Totals ..	1,400	826	Totals ..	1,211	864	Totals ..	998	480

Houses let in Lodgings.

In the Borough of Battersea there are a number of houses let in lodgings under circumstances and conditions whch render it desirable in the interests of public health that they should be registered and inspected at regular intervals.

By the end of 1907, 123 premises were on the register, and no additional houses were placed on the Register during the year.

The bye-laws were revised in 1904, and having been duly sanctioned by the Local Government Board, are now in force in the Borough. Provisions exist in the bye-laws :—

(*a*) For fixing the number of persons who may occupy a house, or part of a house, which is let in lodgings or occupied by members of more than one family.

(*b*) For the registration of houses so let or occupied.

(*c*) For the inspection of such houses.

(*d*) For enforcing drainage for such houses, and for promoting cleanliness and ventilation in such houses.

(*e*) For the cleansing and limewashing, at stated times, of the premises.

(*f*) For the taking of precautions in case of infectious disease.

The two main objects of the bye-laws are the maintenance of sanitation and the prevention of overcrowding. The former is attained by a variety of bye-laws (9-17) and the latter by bye-laws 3 and 4, which lay down the following standard :—

3. A lodger in a lodging-house and, subject to the provisions of these bye-laws the keeper of the lodging-house or, where there is no keeper and the landlord resides on the premises, the landlord of the lodging-house shall not knowingly cause or suffer

a greater number of persons than will admit of the provision of *three hundred and fifty cubic feet* of free air space for each person of an age exceeding *ten years*, and of *one hundred and seventy-five cubic feet* of free air space for each person of an age not exceeding *ten years* to occupy, at one time, as a sleeping apartment, a room which is exclusively used for that purpose, and which in the case of the lodger has been let to that lodger.

4. A lodger in a lodging-house and, subject to the provisions of these bye-laws, the keeper of the lodging-house or, where there is no keeper and the landlord resides on the premises, the landlord of the lodging-house shall not knowingly cause or suffer a greater number of persons than will admit of *four hundred and fifty cubic feet* of free air space for each person of an age exceeding *ten years*, and of *two hundred and twenty-five cubic feet* of free air space for each person of an age not exceeding *ten years* to occupy, at one time, as a sleeping apartment, a room which is not used exclusively for that purpose, and which in the case of the lodger has been let to that lodger.

Smoke Nuisance.

Emissions of black smoke were reported on 42 occasions. Ten reports were made by the Council's Inspectors, 29 by the Coal Smoke Abatement Society and 3 by the London County Council. Twenty-one intimations and one statutory notice were served but no legal proceedings were taken during 1908.

Paving of Yards and Forecourts.

The following table shows the number of back-yards and forecourts wholly or partly paved during 1908:—

Sanitary District.	Backyards.			Forecourts.	
	Wholly paved.	Partly paved.		Wholly paved.	Partly paved.
		12 ft. or more from back addition.	Less than 12 ft. from back addition.		
1	6	18	23	21	19
2	24	—	53	8	1
3	15	40	70	5	4
4	35	67	53	7	5
5	—	—	414	1	23
6	21	—	32	4	6
7	6	1	—	14	7
8	7	—	7	—	5
Totals	114	126	652	60	70

In connection with the paving of yards, etc., in the Borough of Battersea, the Medical Officer of Health reported to the Health Committee, and the Committee gave instructions for notices *re* paving of yards to be referred to the Solicitor for enforcement if thought advisable by him, and not to be allowed to lapse as had hitherto been the case; the Medical Officer's report was as follows:—

". . . . The question of the paving of yards and forecourts is a very important one, which has been engaging my attention for some time, and I find that there are at present a large number of notices in different parts of the Borough not

complied with, which your Chief Sanitary Inspector has allowed to lapse, and I have had prepared for the information of the Committee a return of the outstanding notices, many of which are now out of time. The larger number are in connection with premises in North-West Battersea. This district, as the Committee are aware, is the most insanitary in the Borough, and calls for the most active supervision on the part of the Council's officers. The yards are in a large number of cases kept in a filthy condition, and in wet weather become quagmires. The Committee will readily understand the danger to health to children and others of such conditions.

"There is another aspect of the question which must be considered unsatisfactory, and which requires the consideration of the Committee with regard to the service of statutory notices. In many instances the owners, either because they consider the requirements of the Council reasonable, or in some cases rather than contest the matter with the Sanitary Authority, comply with the notices as to paving, and the work is accordingly done. On the other hand, as the return herewith will show, on various grounds some owners have refused or neglected to carry out the notices, and no legal action to enforce these notices appears to have been taken, apart from the fact that the issuing of (in my opinion) a statutory notice should necessarily imply its being complied with. It seems to be unjust, and in the highest degree unsatisfactory from the point of view of sanitary administration, where an owner who is served with a notice to pave the yard of his yard carries out the requirements of the Sanitary Authority; another owner declines to do so because he presumes no further action will be taken. In the appended return hereto, it will be found, for instance, that in a certain street in the Borough the notices as to paving have been complied with on one side of the street, with two exceptions, while on the other side not one notice appears to have been complied with in this respect.

"I shall be glad, therefore, if the Committee will give me their instructions as to this important question, and the interpreta-

tion to be placed in future on the by-laws, so that some uniformity of action may be carried out in all cases where it is found necessary to serve notices for the paving of yards.

I am, Gentlemen,

Your obedient servant,

15th September, 1908. G. Quin Lennane."

Hygienic Street Paving.

The attention which has been devoted to this important matter by the Council during the past five years has resulted in a large number of the side streets of the Borough baving been paved with impervious material, and the success which has attended the Council's efforts in this direction, as shown by the great decline in the mortality rates, both general and infantile, in the Borough during that period, should encourage the Council to continue this useful work. I have in past annual reports drawn attention to the decrease in summer diarrhœa in that part of the Borough in which most of this paving work was first carried out, and in which in past years a high rate of infant mortality prevailed.

In 1904 the work was first started, and in that year 14 streets were paved with impervious material. In 1905, 21 more streets were dealt with in this way. The Council then suspended the work for twelve months to test the utility of the new paving.

After a period of 18 months the Council decided to continue this useful work, and during 1907 13 additional streets were paved with this material, and during 1908 14 additional streets were similarly dealt with.

The following is a list of the streets that were paved with impervious material in 1908.

Street.	Square Yards.
Berkeley Street	595
Brougham Street	1,828
Bullen Street	1,613
Canterbury Place	345
Chesney Street	1,225
Chivalry Road	2,630
Elcho Street	1,271
Emma Street	420
Gladstone Street	1,414
Hibbert Street	1,140
Leitrim Grove	635
Orville Road	1,043
Savona Place	342
Warsill Street	653
Total	14,554 square yards

Since 1904 this kind of paving has been carried out in 52 streets, mostly situate in the most crowded and insanitary parts of the Borough. That the innovation has proved successful there can be no manner of doubt. In the parts of the Report dealing with vital and morbid statistics it will be noted that a great decrease has taken place in the mortality rates both general and infantile, in those districts in which most of this work has been carried out, and to which, to some extent at least, this desirable result may be attributed.

It is, of course, not difficult to anticipate that a result of a beneficial character must accrue from the use of impervious material in streets in the poorer parts of the Borough, forming as they do the playgrounds for the children living in them. They are much less likely to harbour offensive matter which would prove injurious to the health of children playing therein. These streets are, moreover, more readily scavenged than ordinary macadam roadway, and at the same time, in dry weather, less dust accumulates, to be blown into the open windows and doors

of the adjoining houses and pollute the milk and other food which may be stored therein.

I have dealt so fully with the question in previous Annual Reports that it will be unnecessary to do more than reiterate the beneficial results that are apparent since this form of street paving was introduced, and of the value of which, from the health standpoint, I am firmly convinced.

Sewer Ventilation.

During the year 1908 13 ventilating columns were erected, one of which was erected by the London County Council for the purpose of ventilating the London County Council's sewer in Nine Elms Lane. The remaining 12 were erected by the Borough Council to ventilate their sewers situate as follows:—

Alfriston Road (2).
Albert Bridge Road (2).
Church Road
Clapham Common West Side (3).
Culmstock Road.
Jedburgh Street.
Muncaster Road.
Wakehurst Road.

During the year complaints were fairly frequent as to the nuisance arising from sewer ventilators on the surface of the roadway. These complaints were in every case enquired into, and ventilating columns were erected to mitigate the nuisance in the localities which gave cause for complaint.

During the past three years a good deal of attention has been devoted to the subject by the Health Committee, and in that period 52 ventilating shafts have been erected by the Council in various parts of the Borough to ventilate the Borough Council's sewers.

Notwithstanding these efforts of the Council to minimise the nuisance from sewer emanations, complaints continue to come in during the past year, and it is clear that while the steps which have already been taken have to some extent improved the

condition of the ventilation in the sewers, something further will have to be done to prevent this kind of nuisance from periodically arising. The use of upcast shafts can, in my opinion, at best prove but a palliative, and of themselves are quite incapable of fulfilling the object for which they are, at considerable cost, erected.

Van Dwellings.

The number of these dwellings in Battersea in 1908 was 73 as compared with 81 in 1907. In the following table are set out the situation and number of occupants :—

Situation of Vans.	No. of Vans.	No. of Occupants.	
		Males.	Females.
Mill's Yard, 88 Sheepcote Lane ..	5*	7	6
,, 80 ,, ..	4*	4	3
Gurling's Yard, High Street ..	7	10	10
Manley's Yard, Falcon Road ..	5	8	6
,, Cabul Road ..	20†	17	25
Donovan's Ground, Cabul Road ..	14†	23	17
Mill's Yard, Culvert Road ..	14*	18	26
'Gray's Fair," Lavender Hill ..	4	5	8
Total ..	73	92	101

* Including 1 shed.

‡ Including 1 cottage.

There is also a structure at the rear of 55, Cabul Road, occupied by a Mr. Sprat.

These vans are frequently inspected by night as well as day. Eighteen vans were found to be overcrowded during the year, and summonses were taken out against the owners, 11 for overcrowding and 2 for other nuisances. The cases were heard at the South-Western Police Court on March 25th, April 8th and 22nd, and orders for abatement were made, and fines and costs amounting to £8 5s. imposed.

Only 2 cases of infectious diseases were notified from van dwellings during the year.

Common Lodging Houses.

The following table gives a list of the Common Lodging Houses in the Borough:—

Premises.	Authorised Number of Lodgers.	Whether Males or Females	Date registered
75 Falcon Road ..	78	Males	March, 1900
5 Sheepcote Lane ..	11	Males	July, 1901
7 ,, ,, ..	10	Males	,, ,,
53 Surrey Lane ..	39	Females	May, 1885
55 ,, ,, ..	36	Females	,, ,,
57 ,, ,, ..	22	Males and Females	July, 1895
59 ,, ,, ..	24	Males and Females	June, 1903
89 ,, ,, ..	28	Males	August, 1885
91 ,, ,, ..	30	Males	Nov., 1887
6 Orville Road ..	18	Males	June, 1902

Under the Common Lodging Houses Acts, 1853-5, the London County Council has control of all the Common Lodging Houses situate within the Metropolis. All Common Lodging Houses must be licensed by the London County Council annually, in accordance with the provisions of the London County Council (General Powers) Act, 1902, Part IX., Sec. 46. The Common Lodging Houses in the Borough are visited from time to time in connection with drainage defects, infectious diseases, etc.

Block Dwellings.

The following is a list of the artizans' dwellings of the "block" type in the Borough of Battersea, with the number of tenements in each :—

Name of Buildings.	Situation.	Owner.	No. of tenements.
Battersea Bridge Buildings	Bridge Road	London County Council	69
Durham Buildings	York Road	,,	108
Victoria Dwellings	Battersea Park Road	Victoria Dwellings Asso., Ltd.	189
Lombard Dwellings	Lombard Road	Exors. of Francis Ravenscroft	36
Shaftesbury Chambers	Ashbury Road	Artizans, &c., Dwellings Co.	22

These dwellings are frequently inspected and any insanitary conditions found are remedied. It is satisfactory to be able to record the fact that few cases of infectious disease have been notified during 1908 from these dwellings, the total number of cases notified for the year being 18, as compared with 9 in 1907 and 16 in 1906.

Effluvium Nuisances.

London County Council Pumping Station, Battersea Creek.

On the 18th November, 1907, a complaint was received from Price's Candle Works of an effluvium nuisance from the Creek within their premises, and which is known as Battersea Creek. On inspection it was found that the storm outfall was discharging into the Creek an offensive effluent, and causing, in consequence, a nuisance of a very offensive character. The London County Council's attention was drawn to the matter with a request that such steps should be at once taken as might appear necessary to abate the nuisance.

The matter was reported to the Health Committee at their meeting on the 19th inst., and authority given for the service of a Statutory Notice to be served on the London County Council in the event of non-compliance with the preliminary notice already served, and such other steps to be taken as might be necessary to abate the nuisance. The Committee's action was reported to the Council, who decided on November 27th as follows:—

> "That the Council views with considerable alarm the serious state of Creek at Price's Candle Works caused by the water mixed with sewage which is pumped into it from the pumping station situate in Creek Street, and belonging to the County Council, thereby converting the Creek into an open sewer; that, in view of the extreme danger to the health of thousands of employees at Price's Works, this Council hereby directs and authorises the Health Committee and the Medical Officer of Health to take all necessary steps in their power to compel the London County Council to immediately remove the danger."

No reply having meanwhile been received from the London County Council as to the action they proposed to take to abate the nuisance, a Statutory Notice was served under the Public Health (London) Act, 1891, and Metropolis Management Act on the 2nd December.

On the 2nd December an interview took place between Price's legal representative, the Chairman of the Health Committee, the Town Clerk and the Medical Officer of Health, and at the interview it was stated that Messrs. Price were taking action on their own account against the London County Council. When their private action was heard, the Borough Council's Medical Officer was subpœnaed by Messrs. Price's Solicitors to give evidence.

The case was heard before Mr. Justice Neville in the High Court of Chancery on 30th April, 1908, and subsequent days, and judgment was given in favour of Messrs. Price, the Court holding that a nuisance of a serious and even dangerous character resulted from the discharge of the storm poluted waters into the Creek ; that the powers possessed by the London County Council with regard to the sewerage of London under the Metropolis Management Acts did not entitle the Council to cause a nuisance.

This judgment was appealed against by the London County Council, but the Court of Appeal upheld the judgment of Mr. Justice Neville. Further legal action by the Borough Council was consequently unnecessary.

Gas Light and Coke Company, Nine Elms Lane.

A complaint (signed by 273 inhabitants of the adjoining houses) was received during 1908 as to nuisance from smoke and grit in connection with the works of the Gas Light and Coke Company at Nine Elms Lane. The Company have recently erected a coke conveyor at that side of their premises adjoining Balfour Street, and the grit, etc., from the coke is, especially in windy weather, carried to the adjoining houses.

The matter was referred by the Law and Parliamentary Committee to the Medical Officer of Health.

The report of the Law and Parliamentary Committee (*vide* Minutes, 28th February, 1908) is as follows :—

Extract from Minutes of Meeting of Law and Parliamentary Committee, on 28th February, 1908.

The Committee further considered reference by Council of petition signed by 273 persons resident in the Nine Elms District

complaining of nuisance caused by a coke conveyor recently erected by the Gas Light and Coke Co.

The Medical Officer of Health attended, and reported upon the subject as follows:—

MR. CHAIRMAN AND GENTLEMEN,—

I have considered the reference of the Committee asking for my opinion as to whether a nuisance injurious or dangerous to health arises in connection with the Coke Conveyor at the Gas Light and Coke Company's Works at Nine Elms.

I have had the matter under constant observation by Inspector Benjamin, who reported to me the existence of a nuisance from the deposit of coke dust, which is carried by the wind into the houses in the vicinity. I have, in consequence, personally visited the Company's works and inspected the plant. Although no nuisance was observable at the time of my visit, I have no doubt, from the inspection which I subsequently made of some of the adjoining houses and yards, that the Inspector's report is correct, and that the dust is carried by the wind, when the conveyor is in use, into those houses and yards—a condition of things which manifestly must be inseparable from the use of such an apparatus in the vicinity of inhabited dwellings.

Should the Council's Solicitor be of opinion that the matter is one that can be dealt with under Section 21 of the Public Health (London) Act, 1891, the Council will have no option but to take immediate action. In my opinion, however, no nuisance exists to which Section 2 of the Public Health (London) Act, 1891, can be made applicable.

I am, Mr. Chairman and Gentlemen,

Your obedient servant,

G. QUIN LENNANE,
Medical Officer of Health.

The Medical Officer of Health further stated that he had written to the Gas Company upon the question of the dust, and

they had provided screens which would remedy the matter to some extent ; further, that he was continuing to keep the premises under observation.

Resolved : That the matter be left in the hands of the Medical Officer of Health.

Morgan Crucible Company.

A complaint was received from the London County Council as to nuisance from effluvium from the Morgan Crucible Works. I instructed the Sanitary Inspector to keep the premises under observation, but the kilns from which the nuisance had arisen were not working at the time of his visit. A letter was subsequently received from the Works Manager promising to give the matter immediate attention, and a further communication a day or two later, in which the Company expressed regret, and stated that "certain materials had been the cause of the trouble in this instance," and, further, that they had issued stringent instructions with regard to the use of these materials, which would entirely prevent a recurrence of this nuisance.

No further complaint was received, though the premises were kept under observation for some time.

Customs and Inland Revenue Acts.

During 1908, 11 applications were received (2 of which were withdrawn) for certificates, under the Customs and Inland Revenue Acts, in connection with tenements (or dwellings) so constructed as to afford suitable accommodation for such of the families inhabiting the same, and, after inspection by the Medical Officer, have been refused or postponed.

The Act provides that the owners of dwellings of a certain class may claim exemption from inhabited house duty on producing a certificate from the Medical Officer of Health that the

dwellings afford proper and suitable sanitary conditions for the inhabitants of these dwellings. On receipt of an application a detailed inspection is made, and if found not to be satisfactory, a list of requirements is drawn up and sent to the owner. Should these requirements be carried out, the necessary certificate is granted.

The number of tenements inspected by the Medical Officer during 1908 was 129. In all cases, on various grounds, the certificate was postponed or refused.

The following is a list of certificates for exemption from inhabited house duty granted by the Medical Officer of Health in each year since 1890 :—

Year.	No of Certificates Granted.	Year.	No. of Certificates Granted.
1890	243	1900	93
1891	113	1901	32
1892	165	1902	28
1893	201	1903	97
1894	91	1904	232
1895	91	1905	61
1896	120	1906	11
1897	27	1907	8
1898	82	1908	nil.
1899	68		

Water Supply.

No samples were examined during 1908. Complaints were received on two occasions during the year as to the condition of the water and enquired into. At the request of the Medical Officer of Health samples were taken by the Metropolitan Water Board. The cause for the complaint was ascertained to have been due to the laying down of a new main, and the consequent resulting turbidity of the water, but which was only of a temporary character.

Disinfecting Department.

The work carried out during the year 1908 in connection with this branch of the Public Health Department was of a very arduous character. The continued prevalence of infectious disease during 1908 in the Borough in common with the Metropolis generally imposed a heavy strain on the Superintendent (Mr. Woodhouse) and his staff, and it is satisfactory to be able to record that, notwithstanding this heavy pressure of work, no cause for complaint has arisen.

During the year 4,583 infected rooms and 77,425 infected articles have been disinfected, as compared with 5,085 rooms and 66,181 infected articles.

The disinfectant employed for disinfecting rooms was, in the majority of instances, formaldehyde, applied either in the gaseous form by means of the Schering Alformant lamp, or in solution as "formalin," by means of a spray. Verminous rooms were fumigated with sulphur dioxide, and bedding, wearing apparel, etc., from infected rooms were subjected to steam disinfection in the Equifex disinfecting machine at the Council's Disinfecting Station. Infected articles, which from their nature would have been damaged if subjected to steam disinfection, were disinfected in the specially constructed chamber at the Disinfecting Station by means of formaldehyde.

A total number of 1,635 cases of notifiable infectious diseases were reported during the year 1908, but in addition to these a large amount of disinfection was carried out in connection with measles, tuberculosis, cancer, verminous houses, etc.

The outbreaks of diphtheria at the Infirmary and the Royal Masonic Institution for Girls also gave rise to a large amount of disinfecting work.

Of the compulsorily notifiable diseases, 1,635 have been dealt with, and 115 schools have been disinfected in connection with outbreaks of infectious diseases.

The following table shows the number of premises and rooms disinfected during each month of 1907 :—

Month.	Scarlet Fever.		Diphtheria		Enteric Fever.		Erysipelas.		Puerperal Fever.		Phthisis.		Measles.		Other Diseases.		Totals.	
	Premises.	Rooms.	Premises.	Rooms.	Premises.	Rooms.	Premises.	Rooms.	Premises.	Rooms.	Premises.	Rooms.	Premises.	Rooms.	Premises.	Rooms.	Premises.	Rooms.
January ..	72	135	41	82	1	1	14	15	..	..	20	21	35	44	5	10	188	308
February ..	58	136	31	57	4	4	10	11	..	..	11	13	36	37	6	10	156	268
March ..	65	163	31	61	2	4	11	12	1	3	15	15	79	82	13	22	217	362
April ..	64	142	19	34	6	8	10	10	1	1	14	15	50	89	11	45	175	344
May ..	74	169	14	33	2	3	12	12	..	..	17	27	72	78	23	44	214	366
June ..	75	185	10	15	5	8	11	12	3	3	12	20	48	57	14	33	178	333
July ..	117	402	16	36	4	8	10	10	..	..	14	14	29	32	13	14	203	516
August ..	135	285	20	33	..	..	8	8	..	..	12	14	11	11	9	19	195	370
September	130	284	27	79	4	4	7	7	1	1	13	15	4	4	4	10	190	404
October ..	115	280	42	92	..	..	11	11	..	..	15	17	11	12	6	10	200	422
November	146	287	48	83	7	13	12	12	..	..	17	17	22	25	11	15	263	452
December	82	150	38	123	5	11	12	12	1	1	15	18	76	110	10	13	239	438
TOTALS	1,133	2,618	337	728	40	64	128	132	7	9	175	206	473	581	125	245	2,418	4,583

The next table shows the number of articles removed and disinfected by steam at the disinfecting station:—

Articles.	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Totals for Year 1908.
Beds ..	417	376	630	543	1,966
Blankets ..	1,165	887	979	1,360	4,391
Bolsters ..	367	323	480	508	1,678
Carpets ..	420	328	480	516	1,744
Cushions ..	365	355	420	453	1,593
Mattresses ..	367	270	338	433	1,408
Palliasses ..	355	259	457	512	1,583
Pillows ..	1,071	833	1,121	1,196	4,221
Quilts ..	819	624	852	1,011	3,306
Sheets ..	1,046	788	1,141	1,416	4,391
Wearing Apparel, &c.	11,326	9,402	14,433	15,983	51,144
Totals ..	17,718	14,445	21,331	23,931	77,425

The following is a list of the articles removed and destroyed at the request of the owners:—

Beds	35
Sheets	34
Blankets	22
Bolsters	25
Carpets	34
Cushions	65
Mattresses	31
Palliasses	64
Pillows	41
Quilts	15
Articles of wearing apparel	412
Total	778

The new Laundry which the Council erected at the Disinfecting Station, and which was completed and opened for use on 2nd April, 1907, was extensively utilised during 1908.

The following is a list of articles which, after previous disinfection, have been washed in the Laundry before being returned to the owners:—

Blankets	1,008
Bolster cases	374
Bed covers	454
Pillow cases	1,911
Quilts	518
Sheets	2,806
Towels	5,049
Table cloths, etc.	699
Wearing apparel, etc.	9,355
Total	22,174

The total weight of articles removed for disinfection during the year 1907 was 172 tons 15 cwt. 3 qrs. 10 lb.

In addition to the work set out in the above tables, the bedding belonging to the Council was on 331 occasions lent out to persons whose bedding had been removed for disinfection. As soon as this has been effected it is returned, and the Council's bedding is collected and brought back to the Disinfecting Station, where, after being disinfected, it is returned to the storeroom at the "clean" side of the building. This procedure has proved of great utility, especially during periods of epidemic prevalence, when the pressure on the staff at the Disinfecting Station is considerable, and has entailed a minimum of inconvenience to the owners of infected bedding which has been removed to the Station for disinfection. The total weight of the bedding belonging to the Council, which was dealt with in this way during 1908, and which is not included in the tables, amounted to 7 tons 7 cwt. 3 qrs. 2 lb.

Verminous clothing belonging to persons who attended the Personal Cleansing Station adjoining, weighing 6 tons 16 cwt.

1 qr. 22 lb., was removed to the Station for disinfection, and is not included in the amount shown in the above tables.

A great deal of additional work has in this way been performed by the staff of the Disinfecting Station, all of whom individually and collectively have worked well during the year.

Temporary Shelter or House Accommodation.

The Public Health (London) Act, 1891 (Sec. 60, Sub-sec. 4), imposes an obligation on Sanitary Authorities to provide accommodation for persons who have been compelled to leave their dwellings on account of disinfection being carried on therein.

The Reception Shelter in Sheepcote Lane was completed in 1904. In 1905 it was occupied by 33, in 1906 by 31, in 1907 by 33, and during 1908 by 28 persons whose homes were undergoing disinfection after infectious disease. During 1908, in addition, 5 midwives and 16 nurses, who had been in attendance on cases of Puerperal Fever or in contact with cases of other forms of dangerous infectious disease, had the use of one of the tenements at the shelter for purposes of personal disinfection.

Five hundred and seven persons, including laundry workers, milk vendors, dressmakers, etc., whose occupation rendered it desirable, attended for personal disinfection at the Reception Shelter on account of exposure to infectious disease.

Cleansing of Persons Act, 1897.

Personal Cleansing Station.

The Personal Cleansing Station, which was opened in July, 1906, under the provisions of the Cleansing of Persons Act, 1897, has been largely availed of during the year 1908 by persons requiring the facilities therein provided by the Council. During the year, 1,662 persons who were infested with vermin attended at the Station, and were cleansed and had their clothing disinfected in the Disinfecting Station adjoining. In the following table are set out the numbers of adult persons of each sex, and of children, who took advantage of this useful provision during each month of 1908:—

Table shewing the number of adult persons of each sex, and of children, cleansed, &c., during the year 1908, at the Personal Cleansing Station :—

	Jan.	Feb.	Mar.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Totals.
Men ..	72	58	52	50	71	82	101	91	105	105	118	88	993
Women ..	..	..	..	..	..	1	1	2	2	2	4	1	13
School Children ..	52	87	132	127	111	35	27	2	20	13	9	41	656
Totals ..	124	145	184	177	182	118	129	95	127	120	131	130	1,662

Of the total number who were cleansed, it will be noted that 993 were men, 13 women and 656 children, the latter coming mainly from the Public Elementary Schools. In connection with the cleansing of these 1,662 persons, 15,334 articles of clothing, weighing 6 tons 16 cwt. 1 gr. 22 lb., were removed for disinfection to the Disinfecting Station.

As showing the extent to which the work at the Personal Cleansing Station is growing, it will be useful to compare the annual figures representing the numbers of persons using the Station. In July, 1906, the Station was first opened, and up to the 31st December in that year 141 persons had attended and been cleansed. During 1907 the numbers rose to 621—500 men, 4 women and 117 children—and during the past year these figures had nearly trebled. The growing popularity of the Station has accordingly become embarrassing, the accommodation provided proving inadequate to cope with the work. The Station is, in addition, unsuitable in other respects for the purpose, and the time has arrived when it is absolutely necessary to make other arrangements.

The subject has been under the consideration of the Health Committee for some time. As considerable use has been made of the station by the children attending the Public Elementary Schools, the duty of enforcing the cleansing of these children devolves on the London County Council as the Education Authority, under the provisions of the Children's Act, 1908. The Act, which comes into force on the 1st April, 1909, empowers the London County Council for this purpose to make use of the apparatus, etc., of the Local Sanitary Authority on terms to be agreed on. The Committee have recommended the Council to approach the London County Council before extending the present station, with the object of ascertaining the extent to which they (the L.C.C.) would be prepared to contribute to the expense of the Station. This the Council resolved to do, and negotiations are still pending.

The work carried out at the Personal Cleansing Station has proved a great boon to those unfortunate persons who, owing to their destitute condition, are unable to provide themselves with a bath and clean clothing. Many of them have been able, as result, to obtain employment, which in their previous condition would have been an impossibility.

It should be stated that, in carrying out this useful hygienic work, the Council is performing a purely voluntary duty. The Act is not in any sense compulsory. A Local Authority is not under a statutory obligation to administer the Act, nor, should the Authority so decide, is there any power to compel any person to avail himself of its provisions. The experience of those (it is to be regretted) few Sanitary Authorities in the County of London has been similar to that of Battersea, the facilities provided under the Act being largely availed of. Thus in St. Marylebone, from March, 1898, to November, 1904, 32,500 persons had been cleansed.

Under the provisions of the Cleansing of Persons Act, 1897, "Local Authorities may expend any reasonable sum on buildings, appliances and attendants that may be required for the carrying out of this Act, and any expenses for these purposes may be defrayed out of any rate for general sanitary purposes or for the relief of the poor."

It is, therefore, clear that the Council have full powers to extend this useful work, which in the short period that it has been carried on in the Borough has been attended with such conspicuous success. This should encourage the Council to further develop their initial and, so far, inexpensive attempt to promote personal cleanliness amongst the less fortunate members of the community in the interest of the Public Health.

The Midwives Act, 1902.

This Act, which contains important provisions dealing with infectious disease, is administered in London by the London County Council, who are the local Supervising Authority; but

the important duty of disinfection devolves upon the Borough Councils, in accordance with Rule V. of the Rules framed by the Central Midwives Board, and which is as follows:—

> "Whenever a midwife has been in attendance upon a patient suffering from Puerperal Fever, or from any other illness supposed to be infectious, she must disinfect herself and all her instruments and other appliances to the satisfaction of the Local Sanitary Authority, and must have her clothing thoroughly disinfected before going to another labour. Unless otherwise directed by the Local Supervising Authority, all washable clothing should be boiled, and other clothing should be sent to be stoved (by the Local Authority), and then exposed to the open air for several days."

In Battersea one of the tenements in the Reception Shelter is used for the disinfection of midwives and monthly nurses who have been in attendance on patients suffering from Puerperal Fever and other infectious cases. The nurse has a disinfectant bath, and her clothing, bag, instruments and other appliances are disinfected at the Disinfecting Station which adjoins the shelter. During 1908, 5 midwives and 16 nurses attended at the Reception Shelter for purposes of disinfection.

Mortuary.

The total number of bodies received at the mortuary in Sheepcote Lane during 1908 was 259, as compared with 302 in 1907, and an annual average for the Parish of Battersea for the five years 1896-1900 of 288. On 247 of these bodies inquests were held, and 12 were received for sanitary or other reasons.

The following table gives the number of bodies received at the Mortuary in each week during the year:—

Week ending	No. of bodies removed.	Week ending	No. of bodies removed.
Jan. 4	5	July 4	1
,, 11	10	,, 11	2
,, 18	13	,, 18	6
,, 25	15	,, 25	7
Feb. 1	4	Aug. 1	1
,, 8	5	,, 8	3
,, 15	7	,, 15	2
,, 22	4	,, 22	4
,, 29	3	,, 29	6
Mar. 7	8	Sep. 5	2
,, 14	9	,, 12	6
,, 21	9	,, 19	4
,, 28	7	,, 26	3
April 4	9	Oct. 3	6
,, 11	—	,, 10	2
,, 18	3	,, 17	1
,, 25	6	,, 24	3
May 2	5	,, 31	2
,, 9	2	Nov. 7	5
,, 16	4	,, 14	5
,, 23	4	,, 21	3
,, 30	5	,, 28	2
June 6	9	Dec. 5	5
,, 13	1	,, 12	9
,, 20	4	,, 19	4
,, 27	1	,, 26	8
—	—	Jan. 2	5

The next table gives the number of bodies received at the Mortuary in each year since 1892:—

Year.	Number of bodies received in the Mortuary.	Number of bodies upon which *post-mortem* examinations were held.	Number of bodies upon which Coroners Inquests were held.
1892	193	163	187
1893	243	200	237
1894	224	197	208
1895	259	210	232
1896	293	242	278
1897	289	246	273
1898	294	238	267
1899	274	221	260
1900	291	234	273
1901	321	271	304
1902	239	198	224
1903	223	207	213
1904	221	161	204
1905	253	176	236
1906	244	167	239
1907	302	204	288
1908	259	174	247

Inquests.

During the year 1908 inquests were held in 247 cases, with the following results:—

Natural causes		182
Open verdict—		
Found dead	5	
Found drowned	3	
	—	8
Accidental causes—		
Burns and scalds	12	
Drowning	1	
Falls, etc.	18	
Run over (in street and on railway)	9	
Suffocation	1	
Other injuries	5	
	—	46

Suicide—		
Cut throat	6	
Drowning	2	
Gun shot	1	
Hanging and strangulation ...	7	
On railway	2	
Poison	5	
Other methods	1	
	—	24
Homicide—		
Fractured skull	1	
	—	1
Total		247

Ambulances.

The Council have for some years past provided a wheeled Ambulance at each of the following six points in the Borough:—

Queen's Road (at Queen's Circus).

Clapham Junction (at junction of Falcon Road and Lavender Hill).

Bridge Road (at junction of Cambridge Road and Bridge Road).

York Road (at junction of York Road and Plough Road).

Battersea Park Road (outside Christ Church).

Nightingale Lane (Wandsworth Common end).

These Ambulances are freely accessible to the public. They are frequently availed of by the police, and have been found most serviceable for the speedy and humane removal to hospital of persons meeting with accident or illness in the street. Each Ambulance is provided with the necessary surgical appliances and dressings for rendering "first aid" to the injured.

Protection of the Food Supply.

Protection of the Food Supply.

During the year 1908, as in past years, a good deal of attention has been devoted to the protection of the food supply. The work has comprised meat inspection and seizure, registration and strict supervision of milk-shops, dairies and cowsheds, and the administration of the Sale of Food and Drugs Acts. Attention has also been given to the sanitation of bake-houses (vide section dealing with administration of Factory and Workshops Act), and to premises wherein food is prepared, *e.g.*, sausage manufacturers, potted meats, etc. Other premises in which the sale and preparation of food in various ways is carried on, such as ice-cream shops, butchers' shops, restaurant kitchens, etc., have been visited and inspected systematically by the Council's Officers.

Unsound Food.

During the year 1908 the following seizures of unsound food were made :—

Unsound meat	3
Unsound provisions (bacon, cheese, etc.)	1
Unsound fruit and vegetables	2
Total	6

Legal proceedings were taken in all but one case. Of the five cases in which proceedings were taken : in one, the case was dismissed ; in the other four, fines and costs amounting to £16 14s. were imposed.

With regard to the three unsound meat cases : in the case in which no proceedings were taken a small quantity of unsound

meat was seized at a butcher's shop on Lavender Hill which the manager of the business stated was put aside for removal. The Health Committee accepted this explanation and instructed me to caution the proprietor as to his future conduct in this respect.

Of the remaining two cases: one was dismissed, and in the other a conviction was obtained. Both cases referred to the same premises but were at the time the offences were committed in different ownerships. With regard to the first case, the circumstances in connection with the case were as follows:—On Sunday, May 17th, about 11 a.m., the Food Inspector, while inspecting butcher's shops, entered the premises of one of them at 68, York Road. The Inspector found in a dish in the chopping room, in which sausages are manufactured, a quantity of small pieces of meat: beef, mutton, ox and mutton kidneys, weighing about 21 lb., the whole of which was more or less unsound. As the meat was such as might have been used for making sausages the Inspector seized the lot, and it was submitted to the magistrate next morning and condemned. The proprietor of the business came to see me at the office next morning and expressed his regret, and said he had no intention of using the meat, which had been left over from the preceding evening (Saturday night).

The facts were reported to the Health Committee, who after giving the matter careful consideration, ordered that proceedings should be taken against the owner of the shop. The case was heard before Mr. Garrett, who dismissed the summons on the ground that he was not satisfied that the meat was intended for human food, but that the Council were right in prosecuting as there were very suspicious circumstances.

The second case referred to a seizure from the same premises, which in the meantime had changed ownership. On October 20th a quantity of unsound meat found by the Inspector was seized and later condemned by the Magistrate.

The case was heard on December 16th and 30th, the defendant being convicted and fined £5 and 4s. costs.

A large quantity of unsound food, consisting of bacon, cheese, margarine, tinned meat and milk, etc., was on July 2nd at the premises of a grocer and provision dealer, in Tennyson Street. The food was found in a room at the back of the shop, and forthwith seized and removed to the Town Hall, and after being inspected by me, conveyed to the South-Western Police Court and condemned by the Magistrate.

On the 11th July, from information received by the Inspector, which he at once reported to me, that the owner of the premises was getting rid of his business and about to leave the neighbourhood, I immediately got into communication with the Solicitor, who took out the summons at once without waiting for the next meeting of the Health Committee, and I informed the Chairman of the Committee, who agreed to the action taken.

The owner of the premises had, however, absconded before the summons was served, and no trace of his whereabouts could be found.

The facts were subsequently reported to the Health Committee, who approved of the action taken.

The following table gives particulars of the quantities and nature of the unsound food brought to the Health Department for inspection and destruction during 1908 :—

Food.	Quantity.	Where purchased.
Apples ..	1 barrel ..	Covent Garden Market
Bananas ..	1 crate ..	Borough Market
,, ..	1 ,, ..	Covent Garden Market
,, ..	1 ,, ..	Borough Market
,, ..	104 crates ..	—
BrusselsSprouts	5 bags ..	Covent Garden Market
Coal-fish ..	1 case ..	Billingsgate Market
,, ..	1 trunk ..	,, ,,
Codling ..	1 ,, ..	,, ,,
,, ..	1 box ..	,, ,,
Grapes ..	14 lbs. ..	Spitalfields
,, ..	14 lbs. ..	Borough Market
Hake ..	1 box ..	Billingsgate Market
,, ..	1 ,, ..	,, ,,
Herrings ..	2 cases ..	,, ,,
,, ..	2 ,, ..	,, ,,
,, ..	1 box ..	,, ,,
,, ..	1 barrel ..	,, ,,
Kippers ..	16 boxes ..	,, ,,
Lemon Soles	1 box ..	,, ,,
Ling ..	1 trunk ..	,, ,,
Mackerel ..	1 box ..	,, ,,
Oranges ..	650 ..	321 York Road
Pears ..	458 barrels ..	—
,, ..	5 bushels ..	Covent Garden Market
,, ..	1 box ..	,, ,, ,,
Plaice ..	5 stone ..	Billingsgate Market
Plums ..	11 baskets ..	Borough Market
,, ..	1½ bushels ..	Covent Garden Market
Potatoes ..	1 barrel ..	Borough Market
,, ..	4 bags ..	,, ,,
Rabbits ..	28 ..	Smithfield Market
,, ..	12 ..	,, ,,
Strawberries..	37 baskets ..	Borough Market
Tomatoes ..	20 boxes ..	Covent Garden Market
,, ..	10 ,, ..	,, ,, ,,
,, ..	4 ,, ..	Borough Market
,, ..	8 ,, ..	Covent Garden Market
,, ..	8 ,, ..	,, ,, ,,
,, ..	64 ,, ..	,, ,, ,,
Winkles ..	1 bag ..	Billingsgate Market

In relation to the above-mentioned articles of food, it is the practice in cases where the retail vendor has unknowingly purchased articles which are unfit for human food, and where he has made no attempt to sell the articles, to grant a certificate which enables him to claim the return of his money. The food is destroyed at the Council's destructor. During 1908, 41 certificates were granted in connection with the articles shown in the table.

Slaughterhouses.

The following are the five slaughterhouses situated in the Borough of Battersea :—

205, St. John's Hill.
351, York Road.
345, Battersea Park Road.
235, Battersea Park Road.
96, Falcon Road.

These premises have been frequently inspected during the year. The premises are, comparatively speaking, small, and are, generally speaking, not well situated. They are, however, usually kept clean, and the paving and drainage are satisfactory.

The usual annual inspection of these premises is carried out prior to the annual licensing session held by the London County Council. The premises are licensed annually by that Body, who are the licensing authority, but the duty of inspection, which was formerly carried out by the Licensing Authority, has been transferred to the Borough Councils by the London Government Act, 1899. This is a very important duty, consisting as it does of the enforcement of the by-laws and regulations made for the sanitation of these premises.

85 special inspections in connection with the inspection of food were made at these premises during the year.

Cowhouses.

There are only three licensed cow-sheds in the Borough of Battersea situated as follows :—

14, Belle Vue Road.
122, Usk Road.
17, Wiseton Road.

These premises are licensed by the London County Council, but the duty of enforcement of the regulations and bye-laws made under the Dairies, Cowsheds and Milkshops Order in connection with these premises devolves on the Borough Councils, but which was formerly (prior to the passing of the London Government Act of 1899) carried out by the London County Council. In Battersea these premises are frequently inspected, and any insanitary conditions found are remedied.

Ice Cream.

During the year 1908 there were 108 registered premises, as compared with 110 in 1907, from which ice cream was sold in the Borough. Systematic supervision is exercised over these premises by Inspector Benjamin, and during the period under report 54 defects under the Public Health Act, in connection with the premises, were discovered and remedied. In addition, 6 cautionary letters for breaches of the Regulations made by the London County Council under the London County Council (General Powers) Act, 1902.

Of the 108 premises registered 8 are occupied by Italians who employ 24 barrows in the sale of the article. Owing to the strict supervision exercised over these persons, the conditions under which the article is manufactured and sold by them in the Borough are now much better.

The 54 defects found had reference mainly to dirty condition of premises, defective sanitary fittings, etc. 36 intimation notices and 10 statutory notices were served to remedy these defects, all of which were complied with.

In two cases, in premises which had just started the making of ice cream, but had not been registered, the article was found being made in rooms used for sleeping purposes. The occupants, who pleaded ignorance and immediately discontinued the objectionable practice, were strongly cautioned as to their future action in this respect.

Restaurants and Eating Houses.

The annual inspection of these premises was systematically commenced in 1902, and since then a general sanitary supervision has been exercised over them by Inspector Benjamin. The total number on the register at the end of 1908 was 90, as compared with 93 in 1907.

During the year it was found necessary to take action in connection with sanitary defects in 35 instances. In the majority of cases these defects were not of a serious nature, and there is evidence that the strict sanitary supervision has effected a salutary improvement.

The defects found had reference to dirty condition of premises (walls, floors, ceilings), defective sanitary appliances, etc.

On the whole, while there is still room for improvement, the conditions under which food is prepared and sold in eating-houses in Battersea are better than they have been in past years.

Restaurant Kitchens.

Premises.	Premises.
4 Abercrombie Street	266 Lavender Hill
24 Battersea Park Road	1 Lombard Road
34 ,, ,, ,,	23 New Road
35 ,, ,, ,,	64 ,, ,,
55 ,, ,, ,,	10 Nine Elms Lane
126 ,, ,, ,,	85 ,, ,, ,,
141c ,, ,, ,,	93 ,, ,, ,,
157 ,, ,, ,,	4 Northcote Road
160 ,, ,, ,,	8 ,, ,,
178 ,, ,, ,,	14 ,, ,,
183 ,, ,, ,,	63 ,, ,,
218 ,, ,, ,,	151 ,, ,,
335 ,, ,, ,,	13 Park Road
431 ,, ,, ,,	40 Plough Road
491 ,, ,, ,,	138 ,, ,,
503 ,, ,, ,,	35 Queens Road
575 ,, ,, ,,	218 ,, ,,
583 ,, ,, ,,	35 St. Andrews Street
35 Battersea Rise	1c St. Johns Hill
64 ,, ,,	2 ,, ,,
91 ,, ,,	4 ,, ,
94 ,, ,,	17 ,, ,,
21 Bridge Road	18 ,, ,,
41 ,, ,,	64b ,, ,,
42 ,, ,,	85 ,, ,,
68 ,, ,,	146 ,, ,,
70 Chatham Road	45 St. Johns Road
89 Church Road	51 ,, ,,
114 Culvert Road	62 ,, ,,
23 Falcon Road	53 Stewarts Road
101 ,, ,,	45 Webbs Road
125 ,, ,,	24 Winstanley Road
135 ,, ,,	10 York Road
166 ,, ,,	25 ,, ,,
184 ,, ,,	73 ,, ,,
19 High Street	76 ,, ,,
22 ,, ,,	139 ,, ,,
131 ,, ,,	145 ,, ,,
145 ,, ,,	167 ,, ,,
150 ,, ,,	183 ,, ,,
87 Lavender Hill	201 ,, ,,
119 ,, ,,	204 ,, ,,
173 ,, ,,	216 ,, ,,
233 ,, ,,	224 ,, ,,
235 ,, ,,	357 ,, ,,

Milk Shops.

The milk supply of Battersea has, as in past years, been carefully supervised during 1908. This is one of the most important duties of a Sanitary Authority, associated as it is with the question of infantile mortality, and in Battersea strict supervision and systematic inspection of all premises in which it is sold is carried out.

The number of registered milk-shops in Battersea, at the end of 1907, was 254. During 1908 39 new milk-shops were added and 52, which had discontinued, were removed from the register; the total number at the end of the year being 241.

The character of the business carried on in premises in which milk is sold in Battersea was as follows:—

Dairy produce only	70
General shops	131
Confectioners	13
Dwelling-houses	22
Wholesale	5
Total	241

As showing the number of hands through which the milk passes before it reaches the consumer, of the 241 registered milk-purveyors, 142 obtain their supply through milk contractors, 71 are supplied from retail shops in the Borough, and 9 from retail shops outside the Borough. In only 17 instances does the milk vendor obtain his supply direct from the farmer.

The quantity of milk sold per day by these 241 milk vendors is as follows:—

52 (*i.e.*, 21.5 per cent.) sell less than one gallon.
106 (*i.e.*, 43.9 per cent.) sell from one to ten gallons.
83 (*i.e.*, 34.4 per cent.) sell over ten gallons.

A register in the form of a card index is kept of all dairies and milkshops in the Borough, containing full particulars as to nature of business, sanitation, etc.

The following tabulated statement relating to 69 defects under the Public Health Act, and 108 breaches of the Regulations of the London County Council, indicate sufficiently the necessity for constant and systematic inspection of these premises. None of them were of a sufficiently serious character to take legal proceedings, the notices served being complied with, and the cautionary letters sent attended to on reinspection of the premises concerned.

Intimations served under the Public Health (London) Act.		Cautionary letters for breaches of the Regulations made under the Dairies, Cowsheds and Milkshops Order.	
Dirty premises ..	5	Want of covers for utensils	20
Defective paving ..	15	Dirty premises	11
Defective dustbin ..	9	Exposing milk to contamination	3
Accumulation of refuse	4	For not being registered	29
Dirty w.c.	2	Dirty utensils	21
Defective w.c. ..	7	Want of proper water supply for cleansing utensils	3
Dirty drinking-water cistern	3	Dirty covers	10
Keeping of fowls ..	4		
Other defects ..	8		
Total ..	57	Total ..	97

It will be noted in the above list that the defects found and the contraventions of the Milk Regulations had reference mainly to want of cleanliness and neglect of precautions against contamination of milk by dust, dirt, flies, etc. As compared with 1907, there was a distinct improvement in regard to breaches of the regulations, etc., the number of cautionary letters which it

was found necessary to send during 1908 being considerably fewer than in the previous year.

While it is satisfactory to be able to record this improvement, the conditions under which milk is still sold in the Borough are a long way from what can be called satisfactory. It is only by constant watchfulness and systematic inspection on the part of the Council's officers that even fairly safe conditions have been attained. Attention to the subject of milk and the sources of contamination was referred to, at some length, in my Annual Report for 1907, so it will not be necessary here to discuss the question further.

The London County Council (General Powers) Act, 1908, which comes into force on the 1st January, 1909, gives power among other matters to the Sanitary Authorities in London to "refuse to register or remove from the register purveyors of milk whose premises are, on sanitary grounds, unsuitable for the sale of milk." This enactment, it is to be expected, will prove of great assistance in securing that premises in which milk is sold shall be reasonably suitable for the purpose. It is with the general shops that most trouble arises, the nature of the business carried on in such premises being in most cases, so far as the security from contamination of this sensitive article of food is concerned, unsuitable. The new powers will probably be found most useful, therefore, in at least improving the sanitary standard of these premises.

The legislation carried out so far in connection with the protection of milk is piecemeal in character and defective in its application. It is most essential, in the interest of the public health, that milk should be produced under conditions that are reasonably secure as regards cleanliness and danger from disease. Under the present state of the law, or rather the present neglect of enforcement of the law, this, it is well known, is not attained. The reports recently published by the London County Council as a result of the examination of samples of milk obtained by their Officers at railway stations under the provisions of the London County Council (General Powers) Act, 1907, has shown that a

large percentage of the milk coming into London is tuberculous. In view of the conclusions arrived at in the Report of the Royal Commission on Tuberculosis (second interim report) that *the bacillus of Tuberculosis is introduced into the body through drinking cow's milk*, the need for legislation to prevent such milk being consumed by the public is most urgent. It is, however, needless to point out that any legislation which attempts to grapple with the milk problem should be general in its scope, *i.e.*, should apply to the country as a whole, and, further, should deal with the question from "the cow to the cradle." At present an Urban Sanitary Authority has practically no powers until the milk comes into its district.

The Bill which the President of the Local Government Board has promised to introduce this Session in Parliament will doubtless be found to fully recognise the defects of the present system under which the milk supply of the nation is produced, and that at last a co-ordinated and practical attempt will be made to bring into line the various Public Health Authorities who are entrusted with the important duty of protecting the public from infected or polluted milk.

Fish Shops.

There are 68 of these premises in Battersea. In 48 of these places fried fish only is sold; in 16 wet and dried fish is sold; and 4 shops sell wet, dried and fried fish.

These premises are frequently inspected, and during the year notices were served in instances for various insanitary conditions, all of which were complied with. In addition, 54 inspections were made by the Food Inspector at these premises.

Butchers' Shops.

There are 93 butchers' shops in Battersea, all of which are systematically inspected by Inspector Chuter. On 57 of these premises sausage making or meat chopping is carried on, the work being done by hand in 42 cases, and by machinery in 15 cases.

Ninety-one of the shops are provided with ice safes.

The trade refuse is removed as follows:—

Once a week	4	shops.
Twice a week	67	,,
Three times a week	15	,,
Four times a week	2	,,
Daily	5	,,

The premises generally are well kept, and are, on the whole, in a satisfactory condition.

During 1908, 941 inspections of butchers' shops were made.

Sale of Food and Drugs Acts.

The object of these Acts is twofold in character—(*a*) to protect the honest trader from fraudulent competition, and (*b*) to safeguard the public from fraud, imposition and danger to health in regard to food and drugs.

During the year 1908, 1,000 samples were purchased within the Borough of Battersea and submitted to the Public Analyst for analysis. Of the 1,000 samples, 115 (*i.e.*, 11.5 per cent.) were reported by the Analyst to be adulterated, and in addition 4 were reported by him to be "inferior."

The following table gives the details of the number of samples purchased during the year and the number found to be genuine or otherwise :—

Description of Article.	Total No. of Samples taken.	Genuine.	Adulterated.	Inferior.
Arrowroot ..	3	3	..	..
Bread and Butter	9	7	2	..
Butter	181	154	23	4
Camphorated Oil .	6	5	1	..
Cocoa	4	4	..	..
Coffee	28	28	..	..
Cheese	3	1	2	..
Lard	6	6	..	..
Margarine ..	6	6	..	..
Milk	693	619	74	..
Mustard	4	4	..	..
Oatmeal	3	3	..	..
Olive Oil	4	4	..	..
Pepper	4	4	..	..
Preserved Vegetables	2	1	1	..
Sausages	18	9	9	..
Spirits	10	8	2	..
Tinned Goods ..	6	6	..	..
Vinegar	10	9	1	..
Totals ..	1,000	881	115	4

The next table shows the percentage of adulteration during the years 1900 to 1908:—

Year.	No. of Samples taken.	Adulterated.	Percentage of Adulteration.
1900	514	46	8·9
1901	474	35	7·4
1902	500	52	10·4
1903	500	67	13·4
1904*	700	107	153·3
1905	700	90	12·8
1906	925	129	13·9
1907	1,000	105	10·5
1908	1,000	115	11·5

* *Since 1904 a new system has been adopted, a special inspector being appointed to carry out the duties under the Sale of Food and Drugs Act, instead of, as formerly, several of the district inspectors doing this work.*

It will be noted that the percentage of adulteration (11.5) is slightly higher than in 1907, which was the lowest recorded since 1902. This is probably to be accounted for by the increased activity displayed by the Council in the administration of the Sale of Food and Drugs Acts during the past six or seven years. There can be little doubt that the steady increase in the number of samples taken under the instructions of the Council has been followed by a satisfactory decrease in the amount of adulteration carried on by dishonest traders in the Borough. During the last three years the number of samples taken has amounted to 1,000 annually, and the lesson to be learned from the results of the analysis of this increase

in the number of samples taken under the Acts is that a further increase is needed, and must of necessity be followed by even better results.

Milk.

Of the total number of samples purchased during 1908, 693 (*i.e.*, 69.3 per cent.) were milk samples. Of this number, 74 (*i.e.*, 10.7 per cent.) were reported by the Analyst to be adulterated. During 1907, 853 of the total samples purchased referred to milk, 82 (*i.e.*, 9.6 per cent.) of which were reported to be adulterated.

The number of milk samples taken in 1908, it will be noted, is not quite so large as in 1907. The necessity, however, of taking a large proportion of milk samples is obvious, having regard to the fact that it forms the staple article of diet for infants and invalids, and, moreover, is probably by far the most frequently adulterated article of food. This fact has been fully recognised in connection with the administration of the Acts in Battersea, and approximately two-thirds of the total number of samples taken during 1908 were milk samples.

The nature of the adulteration in the 74 adulterated samples of milk were as follows:—

(1) Extraneous water (44), varying from a minimum of 1.5 per cent. to a maximum of 18.5 per cent., viz., 1.5, 1.5, 2, 2, 2, 2.5, 3, 3, 4, 4.5, 5, 5, 5, 6, 6, 6.4, 7, 7.5, 9, 9.5, 10, 10.4, 10.5, 11, 11, 11.5, 12, 13, 14, 15, 18.

(2) Deficiency in milk fat (16), varying from a minimum of 2 per cent. to a maximum of 67 per cent., viz., 2, 3, 4, 6, 8, 9, 10, 11, 12, 12.6, 14, 18, 23, 25, 56, 67.

(3) Extraneous water and fat deficiency (3), viz., 3 and 8.5, 7.5 and 10.5, 8.5 and 9.5.

(4) Added preservatives (5), viz., grains per pint boric acid: 1.389, 1.43, 1.85, 2.076, 3.51.

(5) Skimmed milk (7—4 genuine, 3 adulterated), viz., 4, 4 and 2 per cent. of extraneous water (no proceedings in latter case); fines and costs amounting to £1 12s. 6d.; in the other case defendant absconded.

(6) Separated milk (22—18 genuine, 4 adulterated), as follows: Two (no proceedings); 10.10, 11.5 per cent. extraneous water, and fine and costs, £2 and 12s. 6d. costs) in respect of one sample; in the other two defendants absconded.

Of the total number of milk samples taken during the year under review, 561 were taken on week-days and 132 on Sundays. Samples were taken on 22 Sundays in the year. Of the 561 week-day samples, 58 (*i.e.*, 10.3 per cent.) were adulterated, while out of the 132 samples taken on Sundays, 16 (*i.e.*, 12.1 per cent.) were adulterated.

During the year 1908 samples were taken during the month of August. It had not been the practice, prior to 1906, to take samples during that month, but, in view of the fact that at that period of the year, owing to the heat of the weather, the inducement to dishonest and unscrupulous milk vendors to add preservatives (boric acid, formaldehydes, etc.) is considerable, the Committee decided that in future samples were to be taken during August; and this, I am of opinion, has been followed by satisfactory results.

The following cases will show the need that exists for the strict supervision of milk purveyors of a certain class, especially of those who from previous experience require to be watched. The first was that in which a man had a milk round in one of the poorer parts of the Borough. Prior to 1908, this man had no less than seven convictions recorded against him, the fines inflicted on him varying from 2s. 6d. to £10. In January, 1908, he was under observation by the Inspector, who saw him enter a public-house in Battersea Park Road, and while the barman was serving him, he was seen to take a water jug from the counter and pour its contents into a milk can he had taken in with him. He then returned to his barrow, which he had left outside. Later he was seen manipulating some small cans, afterwards starting on his round. He was followed by the Inspector, who saw him about to place a can on the doorstep of a house in the neighbourhood.

The Inspector ran up to him and took the can from his hand, stating his intention to take it as a sample in course of delivery He then said to the Inspector: "This is not a proper sample. I did not sell it to you." But on the Inspector insisting, he varied this statement by admitting that it was not milk at all, but a drop of water which he had obtained from a public-house for washing his cans out with. He refused to accept the third portion of the sample when it was offered to him. The sample on analysis was found to contain 15 per cent. of extraneous water. He was convicted, and fined £10 and costs, or a month in default. He went to prison rather than pay the fine.

In July following two samples were taken from the same man by Inspector Chuter on the same morning in different parts of the district, one being taken from his son, and the other from himself. These were reported by the Public Analyst to be deficient in fat to the extent of 14 per cent. in each case. Before proceedings were taken, still another sample was taken from this man, which on analysis showed 11 per cent. of extraneous water. Summonses were taken out, but the defendant absconded before the hearing. He was later traced to another address in the Borough, and a warrant having been obtained, he was arrested in bed early one morning.

At the hearing, the Magistrate dealt with one case only, and he was convicted and fined £20 and 12s. 6d. costs, or three months' imprisonment with hard labour, accepting the latter alternative. The other cases against him were withdrawn.

Another example is of interest as showing the uselessness of inflicting small fines on these fraudulent persons, which in no sense appear to act as a deterrent. A milk purveyor, who has his business premises in Battersea, did most of his round in an adjoining Borough. He started on his round very early in the morning, and had only a very short distance to go to get outside the Borough boundary. Early in January he was convicted and fined £4 and £1 3s. costs for selling milk which, on analysis, was reported to contain 33 per cent. of extraneous water. A month or so later a sample was taken from his hand-can on a

Sunday morning early. This was reported to be *genuine*. At the same time a sample was taken from the churn, which was found on analysis to contain 10.4 per cent. of extraneous water. The inference as to the reason for the difference between the two samples appeared to be that the milk in the churn was less likely to be sampled than that in the hand-can. He was fined £5 12s. 6d. (including costs) for this offence. The Inspector, after this conviction, still kept his eye on this man, and noticed that, on his way out of the Borough, he had changed his route, and, instead of making for the direct and shortest one, he took a circuitous course, leaving the lad who assisted him to serve his few customers living in Battersea. The Inspector accordingly laid his plans, and one morning saw his lad leaving a can of milk at a certain house. From this the Inspector took a sample "in course of delivery." The sample was found to contain 13 per cent. of extraneous water and 5.75 grains of boric acid per pint. After taking this sample, the Inspector then hurried up and waylaid the principal. A sample was obtained from his hand-can, which on analysis was reported to contain 5 per cent. of extraneous water and 3.83 grains per pint of boric acid, while another taken from his churn, on analysis, was found to contain 8.5 per cent. fat deficiency, 3.5 per cent. extraneous water, and 3.67 grains per pint of boric acid. This man was convicted and fined £5 on each of three summonses, with 2 guineas costs, and his assistant was fined £5 in respect of the sample taken from him, making in all £22 2s. He has since sold his business.

These cases are remarkable for the persistency with which this class of offender pursues his dishonest practice, and they further illustrate the uselessness of inflicting small fines for repeated offences. It is clear, therefore, that the small penalties inflicted in no case appear to act as a deterrent, and that only by more drastic action being taken is this dishonest practice likely to cease.

A case to which the attention of the Health Committee was drawn was that in which a farmer, who supplied milk to a firm of milk contractors in the Borough, was prosecuted in respect of nine samples of milk taken in course of delivery at the railway

station, and reported to the Public Analyst to be adulterated. These samples had been taken at the request and on the complaint of the consignees as to the quality of the milk supplied from this farmer, and whose representative attended with the Inspector at the railway station for the purpose.

At the time it appeared to me to be open to objection that preconcerted arrangements of this character should take place, but as the samples had already been taken when the matter was reported to me, I could not interfere. My subsequent report to the Health Committee on this matter states:—

". . . . It seemed to me undesirable to sample farmer's milk at the request of a particular contractor, that such procedure laid the Sanitary Authority's action open to misconstruction, and might even, in the hands of an unscrupulous person, lead to actual injustice, and, furthermore, that under such a preconcerted arrangement the Sanitary Authority might be made a catspaw of. I instructed the Inspector accordingly, in future, to take samples in the ordinary way, and promiscuously from several supplies."

The view taken by me was strongly supported at the hearing of the case. It came out in the evidence at the Police Court that there had been a dispute between the contractors and the defendant, and that some agreement had been drawn up, in which, in consideration of the defendant consenting to the deduction of £175 for breach of contract, the contractor was not to take any proceedings for breach of contract in the Police Court or elsewhere. The Council's Solicitor very properly pointed out to the learned Magistrate that until that moment he knew nothing of this private arrangement. The Borough Council was simply there to represent the public.

The defendant was convicted in respect of all the nine samples, and fines and costs amounting to £32 12s. 6d. were imposed.

My report to the Committee in reference to this continues:—

"The facts to which I have drawn the Committee's attention

speak for themselves, and while it would appear that, so far as the actual facts connected with the adulteration of these samples are concerned, the defendant was very properly dealt with, the methods by which the conviction was obtained are not such as will, I feel certain, altogether commend themselves to the Committee.

I have instructed Inspector Chuter that in future he is not to take samples in course of delivery at the request of any milk contractor without first consulting me. I do not, of course, wish to imply that any blame attaches to Inspector Chuter or to any person concerned in this transaction, but I feel sure . . . that it is most desirable that in carrying out the provisions of the Sale of Food and Drugs Acts every precaution should be taken to protect the Council from being unwittingly made use of in cases in connection with which their Statutory powers are being exercised."

No further action was officially taken by the Committee.

Butter.

One hundred and eighty-one samples of butter were taken, and of these 23 (*i.e.*, 12.7 per cent.) were reported by the Analyst to be adulterated. The form of adulteration found to be present in these 23 samples was, in 21 of them, added foreign fat, and in 2 excess of water.

The added margarine ranged from a minimum of 24 per cent. to a maximum of 88 per cent., viz., 24, 33, 36, 39, 39, 39.5, 42.5, 47.8, 48, 50, 55, 56, 74.5, 76.5, 77, 81, 82, 82, 84, 85, 88.

The two cases of adulteration from excess of water, the excess found was 15 and 28 per cent. respectively beyond the legal limit.

In respect of these 23 adulterated samples, 20 convictions were obtained. As regards the three remaining cases, in one instance the Magistrate dismissed the case, not being satisfied that the agent employed had asked for butter ; in another case the defendant absconded ; while in the third case a warranty defence proved successful.

The fines inflicted varied from a minimum of 10s. (with 12s. 6d. costs) to a maximum of £20 (with 14s. 6d. costs).

The practice of adulterating butter is becoming increasingly common, and having regard to the profitable nature of the fraud and the difficulty of detecting these cases, it is not difficult to understand why it should be popular among dishonest traders. While it is true that this form of fraud is not so serious from the health standpoint as adulteration of milk, it is none the less a great injustice to the community. In the present state of the law it is not easy to secure convictions against dishonest persons who lay themselves out to make this form of food adulteration a speciality. It is the practice of such persons to supply new and casual customers with butter when asked for this article, reserving for their regular customers the distinction of supplying them with margarine, although they ask and pay for butter. The reasons for this are obvious. Every new or casual customer asking for butter may be an inspector or his agent, and unless the inspector patiently lays his net by employing an agent to become a regular customer, he is unlikely to succeed in obtaining a conviction, although he may be perfectly aware that the fraud is being carried on. Even when he has succeeded in obtaining a sample of butter which, on analysis, proves to be largely adulterated, he has to run the risk of losing the case through a blunder on the part of his agent. There appears to be considerable difficulty in securing the services of suitably endowed persons for this purpose, and this is not surprising, for the class of person intelligent enough to prove successful at this work is not often found willing to undertake the work.

The following cases will serve as examples of the difficulty experienced in detecting this form of fraud.

A man doing a good business in East Battersea was suspected by the inspector to be retailing large quantities of margarine for butter, and several attempts made with ordinary agents to catch him were unsuccessful. At last, through the agency of a lad more successful than other agents previously employed, a sample was purchased as butter, which on analysis was found to be adulterated.

The inspector, who had had this man under observation for some time, knew that he was on friendly terms with another tradesman in a neighbouring street to whom he supplied large quantities of margarine. He, while testing the sample from the former, sent his usual agent to the latter's shop to keep it under observation. As soon as the inspector walked in to take over the sample of "butter" purchased by his agent, he sent his boy round to warn his friend. The other agent, who was waiting outside this shop, saw the boy deliver the message to the proprietor. The boy, when he came back, admitted that he had been told to warn the other tradesman. The man from whom the sample had been obtained admitted all this when taxed, and naïvely asked the inspector at the same time "to make it as light as possible, in view of the fact that *all samples taken from him previously had been correct.*" The circumstances were explained to the Magistrate, who characterised it as a bad case, and fined defendant £5 12s. 6d. (including costs).

The state of the law, therefore, with respect to the sale of this article requires amending. It is necessarily difficult, under the conditions under which butter and margarine are at present sold, to prevent fraudulent substitution. The profit to be made on the sale of butter is meagre, while the profit to be made on the sale of margarine for butter is considerable, ranging from 50 to 100 per cent.

The case relating to excess of water in butter, which was 28 per cent. in excess of the legal limit of 16 per cent., is of interest in connection with the new Butter and Margarine Act. The defendant in this case supplied to the agent sent by the inspector a sample of butter which was taken from a large block of butter marked "Pure butter," 1s. 2d. per lb. The "butter" was first wrapped up and then placed in a paper bag. The inspector on entering the shop opened the bag, and took out the sample preparatory to dividing it in the usual manner, as prescribed by the Sale of Food and Drugs Acts. On removing the inner wrapper he noticed that this latter had some printed matter, disclosing the fact that the "butter" was sold as "Seeandwi," a milk-blended butter substitute, which may contain as much as 24 per cent. of

water, or 50 per cent. in excess of the legal limit for butter. It was pointed out to the Vendor that the sample was taken from the bulk referred to above, and which was marked "Pure butter," 1s. 2d. per lb. Further, that the outside wrapper should have contained the disclosure. Proceedings were taken in this case, and the Magistrate convicted and imposed a fine of £10 (with 14s. 6d. costs), holding that the outside wrapper should have contained the disclosure.

Proceedings were taken against a man for selling margarine wholesale without being registered. He was convicted, and a fine of 10s. (with 23s. costs) imposed.

A case of considerable importance, which, owing to the serious allegation made against the Council's inspector in the course of his duty, was that in which a grocer and provision dealer in Bridge Road was prosecuted in respect of two samples purchased as butter on the 5th August and 15th September respectively, and both of which on analysis were found to be adulterated—the first to the extent of 39.5 per cent., and the second 88 per cent., with foreign fat.

Earlier in the year (April, 1908) the defendant had been sampled by the inspector, the sample on that occasion being reported by the Public Analyst to contain 50 per cent. of foreign fat. Proceedings were taken against the vendor, but the case was dismissed, the magistrate (Mr. Garrett) stating that he was compelled to do so on the ground that the agent, a boy aged 14 years, who had been employed by the inspector to purchase the sample, under cross-examination, was not sure whether he had asked for "butter," and that if proceedings had been taken for selling the article without a wrapper properly marked, he thought an offence had been committed by the defendant. He further stated that he did not believe the evidence of the defendant's witnesses.

With regard to the second case, two summonses were issued in respect to two samples of butter purchased from defendant on the 5th August and 9th September respectively. The first hearing came on before the Magistrate (Mr. Chapman) on the 9th October,

when the case was adjourned for the third portion of the sample taken on the 5th August to be sent to the Government Analyst. The hearing was resumed on the 4th November, when the Government Analyst's certificate was received, which practically confirmed the Borough Public Analyst's certificate, which declared the sample to be adulterated to the extent of 39.5 per cent. In giving evidence, the defendant charged the inspector with tampering with the sample, her allegation being that after taking it and dividing it in the usual manner, leaving one portion with her, he changed the two portions he took away with him, and that with regard to the sample taken on the 9th September, when his agent purchased the butter, she immediately left the shop, and that five or six minutes later she returned with the inspector, who then divided the sample, which in the meantime had been changed. Defendant stated that she took the portion of the sample taken on 5th August, left with her, to the Government Analyst, and that there she was given the names of several analysts. She went to one of these gentlemen, who analysed the sample and certified that it was genuine. The case was adjourned, the Magistrate suggesting that the Analyst referred should be called at the next hearing.

The case was resumed on the 18th November, when the Analyst who had given the certificate to the defendant in respect of the sample of butter she had submitted to him for analysis attended, and gave evidence in support of his certificate. He admitted that he had not noted whether the sample was sealed, his impression being that it was not ; that if it had been, he would, he thought, have noted it.

The Magistrate convicted on both summonses, and imposed a fine of £5 (and £5 19s. 6d. costs) in respect of the first summons, and £20 (with 14s. 6d. costs) in respect of the second summons, or £31 14s. in all. At the same time he stated there were no grounds for the serious charges made against the inspector.

Sausages.

Eighteen samples of sausages were obtained and submitted for analysis to the Public Analyst. Of the 18 samples taken, 9 (*i.e.*, 50 per cent.) were declared by the Analyst to contain added preservative (*i.e.*, boric acid) in varying proportions, from 12.397 grains per lb. to 49.588 grains per lb.

With regard to these samples proceedings were taken in respect to 5 of the 9 adulterated samples ; in the remaining 4 the adulteration was not large enough to warrant proceedings being taken.

The result of proceedings taken in respect of these 5 adulterated samples was that convictions were obtained in all of them, and fines and costs amounting to £24 8s. 6d. imposed.

In two of these cases the penalty inflicted by the Magistrate (Mr. Hopkins) was £10 (and 12s. 6d. and 14s. 6d. costs) in each case. The learned Magistrate, in giving his decision, laid particular stress on the danger of eating sausages containing this drug, which, he justly pointed out, by delaying the action of putrefaction, prevented the meat from betraying its character, or, as he felicitously phrased it, becoming "wholesomely bad." The other cases came before a different Magistrate (Mr. de Grey), who convicted in each of three cases, inflicting fines and costs amounting to £3 6s. 6d.

The Health Committee had under consideration the question of preservatives in sausages in the early part of the year, and the Committee resolved in future to take proceedings in all cases in which preservatives were found on analysis to be present in this article of food. The Medical Officer of Health was instructed to issue a notice to all sausage manufacturers and vendors of sausages throughout the Borough giving notice of the decision of the Committee.

The following circular letter was accordingly sent to all owners of premises in the Borough in which sausages are either manufactured or retailed :—

PUBLIC HEALTH DEPARTMENT,
Municipal Buildings,
Battersea, S.W.,
September 8, 1908.

DEAR SIR (OR MADAM),

The Health Committee of the Borough Council have had under consideration the question of the use of boric acid and other preservatives in sausages, and they are satisfied that the use of such preservatives is unnecessary, and may be injurious to health.

I am instructed, therefore, by them to inform you that in all cases in which this or suchlike preservative is found on analysis to be present, *proceedings* will be taken against the vendors.

G. Quin Lennane,
Medical Officer of Health.

This procedure appears to have been followed by satisfactory results. There can be no doubt that the use of boric acid in sausages is harmful *per se*, giving rise to tonic effects in those persons especially who are sensitive to its effects. Apart from this, the use of this drug as a so-called preservative in food such as sausages, by delaying putrefaction, and masking its effects, permits meat being used in this way which would otherwise be unsaleable, or, in the words so admirably expressed by the learned Magistrate, prevents it becoming "wholesomely bad." There is no necessity to use boric acid or other preservative in sausages. If these are prepared under cleanly conditions, they will keep in cold storage for several days. The action of the Committee in warning those who are in the habit of using these so-called preservatives in food (an unnecessary proceeding, and one, moreover, in my opinion, likely to give rise to injury to health), that proceedings will be taken against such persons should be effective in stopping the practice in the Borough.

Coffee and Cocoa.

Twenty-eight samples of coffee were taken and submitted for analysis, all of which were reported to be genuine, and four samples of cocoa were taken and similarly dealt with, but all were returned by the Analyst as being genuine.

Other Articles.

Lard, 6 ; arrowroot, 3 ; olive oil, 4 ; oatmeal, 3 ; spirits, 2 ; camphorated oil, 6 ; preserved vegetables, 2 (1 adulterated, but no proceedings taken, amount of adulteration—copper sulphate—being too small) ; cheese, 3 (1 of which was deficient in fat—no proceedings) ; vinegar 10 (1 adulterated, 26 per cent. water, fine 20s. and 14s. 6d. costs) ; mustard, 4 ; pepper, 4 ; making a total of 47.

Factory and Workshop Act, 1901.

Factory and Workshop Act, 1901.

The Factory and Workshop Act, 1901, came into force at the beginning of 1902, and in consequence a number of additional duties devolved on the local authority. Section 132 of the Act lays down that the Medical Officer of Health of every District Council shall every year report specifically on the administration of the Act in workshops and workplaces in the district under his supervision, and transmit a copy to the Secretary of State for the Home Department. In this portion of the Annual Report will be found everything which has concerned the Health Department in relation to factories, workshops and workplaces. The only exceptions are milkshops and restaurant kitchens, etc., which are more appropriately included in the section dealing with the protection of the food supply.

In the following table is shown a summary of the various premises in the Borough where work is done which are now registered in the Health Department:—

Workshops and Workplaces	768
Factories	176
Bakehouses	89
Restaurant Kitchens, &c.	90
Ice Cream Premises	108
Home Workers	208
Stables	589
Total ..	2,028

Factories.

Factories include all places in which mechanical power is used in aid of the manufacturing processes.

The duties of Sanitary Authorities in relation to factories are limited mainly to the enforcement of suitable and sufficient sanitary accommodation for factory employees. The Factory Act contains a sanitary code which is administered by the Factory Inspectors. There is no statutory obligation upon the Sanitary Authority to register factories, but for purposes of convenience the undermentioned register of all factory premises is kept in the Public Health Department.

The following table shows the various trades and occupations carried on in factories in the Borough of Battersea, which are now on the Factory Register in the Health Department:—

TRADE.	Number of Factories on the Register.	Persons Employed.			
		Males.		Females.	
		Adults.	Young Persons.	Adults.	Young Persons.
Barge Builder ..	1	10	3	—	—
Baker	6	115	33	37	34
Bootmaker	7	15	3	—	—
Builder	3	27	—	—	—
Butter Blender ..	3	33	53	2	—
Carpenter	4	39	5	—	—
Chemical Works ..	3	142	18	34	3
Chaff Cutter ..	5	88	—	—	—
Cycle Maker	2	5	2	—	—
Dyer	2	37	2	33	5
Engineer	14	439	70	—	—
Flour Mills	2	182	8	—	—
Firewood	5	33	10	22	3
Founder	3	76	7	—	—
Lift Maker	2	93	22	—	—
Mason	8	176	—	—	—
Mineral Water ..	3	34	2	30	1
Printer	19	91	22	11	1
Steam Laundry ..	35	159	22	823	146
Other Trades ..	49	4,059	431	676	153
Totals ..	176	5,853	713	1,668	346

The following is a list of the defects discovered and remedied in factories during 1908:—

Defects in sanitary conveniences:—	
Defective w.c. apparatus	19
Want of ventilation to w.c.	1
Want of proper flush in urinals	3
Dirty condition of w.c.'s and urinals ..	43
Defective condition of urinals	—
Want of doors to w.c.'s	1
,, screens to w.c.'s	—
,, fastenings to w.c.'s	—
,, separate accomodation for two sexes	1
,, proper and sufficient number of w.c.'s	—
W.C.'s opening direct into factories.. ..	3
Stoppage of drains	4
Defects in drains	—
Want of drainage of wet floor	1
Defective condition of roof	2
Accumulations of refuse	3
Defective condition of yard paving	5
Dilapidations	—
Dirty drinking water cistern	1
Other defects remedied	5
Total ..	92

72 intimations and 8 Statutory notices were served, all of which were complied with.

Workshops.

Workshops include any premises (not being factories) in which manual labour is exercised by way of trade, or for purposes of gain in, or incidental to, the making, altering, repairing, finishing or adapting for sale of any article, and to or over which the employer of the persons working there has the right of access or control.

The workshops in Battersea are under the supervision of the two Workshop Inspectors—one male and one female inspector. The former deals with workshops where men only are employed; the latter with workshops where female labour is utilised. Workshops where both male and female labour is employed are supervised by both inspectors.

The following is a list of the workshops on the Register at the end of 1908:—

Trade.	No. of Workshops on Register	No. of Workrooms.	Persons employed.			
			Males.		Females.	
			Adults.	Young Persons.	Adults.	Young Persons.
Baker	83	123	216	6	—	—
Balloon Maker ..	1	1	2	—	3	—
Billiard Table Maker	1	2	5	2	—	—
Blind Maker ..	2	7	11	—	—	—
Bootmaker	67	71	147	7	4	—
Carpenter	4	5	8	1	—	—
Coach Builder ..	9	18	60	3	—	—
Coffin Maker ..	3	3	5	—	—	—
Cycle Maker ..	12	16	23	6	—	—
Dressmaker	106	140	—	—	320	126
Embroiderer ..	4	13	7	—	108	37
Farrier and Smith ..	13	13	42	—	—	—
Flying Machine Maker	1	1	7	—	—	—
Firewood Cutter ..	9	9	17	6	6	—
Florist	2	2	—	—	3	3
Ironmonger	2	2	3	—	—	—
Jeweller	4	4	9	—	—	—
Laundry	40	103	12	—	195	1
Mason	4	4	59	1	—	—
Milliner	22	27	—	—	57	27
Musical Instrument Maker	2	3	37	—	—	—
Photographer ..	1	3	6	2	5	1
Picture Frame Maker	3	3	8	—	3	—
Plumber	3	4	11	—	—	—
Rag Sorter	8	8	25	—	3	—
Saddler	5	5	9	1	—	—
Sculptor	2	2	4	—	—	—
Tailor	38	62	65	2	66	25
Trunk and Hat Case Maker	2	7	10	—	3	1
Underclothing Maker	5	5	—	—	11	4
Upholsterer	5	9	22	—	8	2
Other Trades ..	47	62	139	12	44	17
Totals ..	510	737	969	49	840	244

At the beginning of 1908 the number of workshops on the Register was 524. During the year the occupation of 69 of these premises was discontinued, while 55 new workshops were registered, so that at the end of 1908 the number of workshops on the Register was 510, in which were employed 2,102 persons: 1,018 males and 1,084 females.

During 1908, 55 new workshops have been added to the Register, and the following table shows the workshops notified to H.M. Inspector during the year in pursuance of Section 133 of the Factory and Workshop Act, 1901:—

Trade.	No. of Workshops.	Protected Persons employed.			
		Women	Young Persons	Children.	Total.
Baker	1	—	2	—	2
Bootmaker	2	—	2	—	2
Bottle-washing	1	3	—	—	3
Confectionery	2	1	2	—	3
Dressmaking	16	13	13	—	26
Embroidery	1	4	—	—	4
Firewood	1	1	1	—	2
Knitting	1	—	2	—	2
Laundry	11	20	—	—	20
Millinery	2	3	—	—	3
Rag-sorting	2	3	1	—	4
Tailor	4	10	2	—	12
Totals ..	44	58	25	—	83

Full particulars concerning these workshops have been entered up in the Register. These particulars show that 61 workrooms were in use in connection with these 44 workshops, and that 83 persons were working therein at the time of inspection: 8 males, 75 females.

Notices as to "protected persons" (*i.e.*, children, young persons and women) employed were sent on to the Factory Inspectors from time to time, as required, in accordance with the provision of section 133 of the Act, which states that "when any woman, young person or child is employed in a workshop in which no abstract of the Act is affixed, as by this Act required, and the Medical Officer of Health becomes aware thereof, he shall forthwith give written notice thereof to the Inspector for the District."

It will be noted that the above table only shows new workshops in which "protected persons" are employed, and does not include all new workshops registered during the year 1908.

Sanitary Condition of Workshops.

The Local Authority is the authority responsible for the sanitary condition of workshops and workplaces in its district. Sanitary conditions include (*a*) cleanliness, (*b*) air space, (*c*) ventilation, (*d*) drainage of floors, (*e*) provision of sanitary accommodation. For these purposes the provisions of the Public Health (London) Act, 1891, relating to nuisances apply to all workshops supplemented by certain additional provisions in the Factory Act:—

(*a.*) *Cleanliness.*—Every workshop and workplace must be kept in a cleanly state and free from effluvia. Speaking generally, the condition of the workshops in Battersea as regards cleanliness, especially those in which female labour is employed, may be said to be satisfactory. During the year it was found necessary to serve 104 notices for the cleansing of workshops.

(*b.*) *Air Space.*—Workshops and workplaces must not be so overcrowded, while work is being carried on, as to be dangerous or injurious to the health of the persons employed. The standard laid down under Section 3 of the Act (250 cub. ft. per head, and 400 cub. ft. during overtime) is rarely contravened in Battersea, and during the year only 2 complaints of overcrowding have been reported and dealt with. In the majority of the workshops in the Borough the air space is above the standard.

(*c.*) *Ventilation.*—In every room in the factory or workshop sufficient means of ventilation must be provided and maintained. This requirement is in almost every instance carried out. During 1908 it has only been found necessary to serve notice in one instance for defective ventilation in a workshop, and, generally speaking, the condition of the workshops as regards this important requirement has been satisfactory.

(*d.*) *Drainage of Floors in Workshops.*—When wet processes are carried on, Section 8 provides that "in every factory and workshop where the floors are liable to be wet, sufficient means for drainage must be provided." The class of workshop to which this section of the Factory Act mainly applies, so far as the Borough of Battersea is concerned, is the laundry class. In two cases (both laundries) it was found necessary to serve notices for defective drainage of floors, which were complied with. There are at present 40 workshop laundries in the Borough.

(*e.*) *Provision of Sanitary Accommodation.*—Section 9 of the Factory and Workshop Act, 1901, states that "every factory and workshop must be provided with a sufficient number of sanitary conveniences, with separate accommodation for persons of each sex." The Section does not apply to London, the powers of the Metropolitan Sanitary Authorities in this respect being granted by Section 38 of the Public Health (London) Act, 1891, which reads as follows:—

> "Every factory, workshop and workplace, whether erected before or after the passing of this Act, shall be provided with sufficient and suitable accommodation in the way of sanitary conveniences, regard being had to the number of persons in, or in attendance at, such building; and also, where persons of both sexes are, or are intended to be, employed or in attendance, with proper separate accommodation for persons of each sex."

Every attention is paid to the enforcement of this important requirement in respect of the factory and workshop premises in the Borough.

The "standard of accommodation" in Battersea is that fixed by the Home Office Order of 1903.

During the year 3 cases of insufficient sanitary accommodation in relation to factories, workshops and workplaces have been remedied. In addition, in 76 instances in which the sanitary conveniences were found to be in a dirty or defective condition, these were cleansed and repaired.

The following is a summary of the year's work carried out in connection with the sanitary supervision of the workshops, etc. During the year 3,564 visits of inspection (2,878 by the Male, and 686 by the Female Workshops Inspectors) to factories, workshops and workplaces, exclusive of visits to home workers, have been made by the Workshops Inspectors. In addition, the District Sanitary Inspectors have made visits of inspection to factories, workshops and workplaces principally in connection with drainage defects.

Paving.—Intimation notices have been served for defective paving of floors, yards, etc., of premises used as factories, workshops and workplaces as follows:—

Factories	5
Workshops and workplaces	10

In 14 of these cases the notices have been complied with.

The following is a tabulated statement of the work carried out in connection with workshop inspection during the year, so far as it admits of tabulation:—

Workshops inspections and re-inspections	1,616
Workrooms measured	89
Workshops notified to H.M. Inspector	44
Cards distributed showing number of persons legally employed in workrooms	117
Written intimations issued	131
Statutory notices served	36
Defects discovered in Workshops and remedied :—	
Workrooms in a dirty condition	49
,, overcrowded	2
,, badly ventilated	1
,, with defective walls or ceilings ..	18
,, with defective floors	8
Workshops with defective yard paving	6
,, with defective drains	1
,, with blocked drains	1
,, without proper dustbins	15
,, with defective w.c. apparatus ..	7
,, with sanitary conveniences insufficient in number or absent	3
,, with sanitary conveniences opening into workrooms	1
,, with sanitary conveniences without proper doors or fastenings ..	14
,, with sanitary conveniences in dirty condition	17
Coal bins provided in bakehouses	1
Accumulation of refuse removed	7
Other defects remedied	13

The following notice of defects was received from H.M. Inspector of Factories during 1908. Notice was served on the person responsible, and the defects remedied :—

Premises.	Trade.	Nature of Complaint.
54 Meyrick Rd.	—	Only one w.c. for household and workroom in which three women and one man were at work at time of visit.

Underground Workrooms.

Excluding the underground bakehouses, there are 41 underground workshops and workplaces in Battersea, and the number in each trade is given below :—

Workshops.

Laundries	11
Picture-frame making	2
Cycle making	3
Tailoring	1
Fitters	2

Workplaces.

Restaurant kitchens	6
Meat chopping	6
Small exempted laundries ..	10

Bakehouses.

Bakehouses are either factories or workshops within the meaning of the Act, according as mechanical power is or is not used in aid of the processes carried on. They are, therefore, subject to the provisions of the Act, and although in the main the factory bakehouses in the Borough are supervised by the Factory Inspectors, by far the greater part of the work connected with the

sanitary supervision of bakehouses in Battersea devolves on the Council as the Sanitary Authority.

In the Borough of Battersea during 1908, there were on the Register 89 bakehouses, 6 of which were factory bakehouses, with regard to which the duties of the Council are few, and 83 were workshop bakehouses (including 3 unoccupied bakehouses reopened during 1908). Of the latter, 52 are above ground, and 31 under ground, according to the definition given in the Factory Act.

A list of the workshop bakehouses is given below:—

52 Bakehouses Above Ground.

Addresses.	Addresses.
25 Battersea Park Road	148 New Road
257 ,, ,, ,,	205 ,, ,,
292 ,, ,, ,,	10 Northcote Road
343 ,, ,, ,,	23 ,, ,,
1 Battersea Rise	64 ,, ,,
78 ,, ,,	94 ,, ,,
31 Bridge Road	62 Plough Road
84 ,, ,,	76 ,, ,,
64 Castle Street	112 ,, ,,
45 Culvert Road	41 Queen's Road
83 ,, ,,	121 ,, ,,
139 Chatham Road	38 Rowena Crescent
47 Este Road	93 Stewarts Road
29 Falcon Road	29 Stockdale Road
88 Grayshott Road	90 St. John's Hill
45 Harroway Road	— Sugden Road
11 Hanbury Road	32 Tyneham Road
49 High Street	102 Usk Road
80 ,, ,,	46 York Road
173 ,, ,,	70 ,, ,,
137 Lavender Hill	198 ,, ,,
213 ,, ,,	287 ,, ,,
64 Latchmere Road	
93 ,, ,,	Reopened during 1908.
29 Meyrick Road	10 St. Philip Street
48 New Road	47 Tyneham Road
89 ,, ,,	187 York Road

31 Bakehouses Under Ground.

Addresses.	Addresses.
163 Battersea Park Road	103 Falcon Road
189 ,, ,, ,,	30 Lavender Hill
200 ,, ,, ,,	123 Maysoule Road
219 ,, ,, ,,	36 Orkney Street
265 ,, ,, ,,	23 Plough Road
310 ,, ,, ,,	34 ,, ,,
373 ,, ,, ,,	109 Salcott Road
501 ,, ,, ,,	140 St. John's Hill
525 ,, ,, ,,	8 Tyneham Road
48 Broomwood Road	23 Webbs Road
2 Burland Road	47 Winstanley Road
35 Castle Street	79 ,, ,,
83 Chatham Road	6 York Road
83 Church Road	345 ,, ,,
4 Currie Street	46 Francis Street
43 Falcon Road	

Prior to the date at which the Factory and Workshop Act, 1901, came into force, there were 49 underground bakehouses; 18 of these premises have since been closed owing to the action taken by the Council, leaving 31 now in use. These have been greatly improved to meet the requirements of the Sanitary Authority, and certificates have been granted as to their suitability.

The bakehouses in the Borough have been systematically inspected during the year, and, on the whole, may be said to be in a (sanitarily) satisfactory condition.

The following summary of the work done during the year in connection with the supervision of the bakehouses in the Borough of Battersea may, for convenience of reference, be set down here. It should, of course, be remembered that these are all included in the tables giving the results of general factory and workshop inspection.

Aboveground Bakehouses.—18 intimation notices were served for various defects, and in one case it was found necessary to serve a statutory notice which was duly complied with.

Underground Bakehouses.—14 intimation notices were served for various defects, and in 3 cases it was found necessary to serve statutory notices. All these notices were complied with.

The defects for which these notices were served had reference mainly to want of cleanliness, defective sanitary fittings, paving, etc.

Factory Bakehouses.

The following is a list of the 6 factory bakehouses in the Borough:—

Altenburg Gardens ...	... Bread and Confectionery.
Park Road	... ,, ,, ,,
Broughton Street ...	... Biscuits only.
37 Grayshott Road ...	... Bread.
465 Battersea Park Road	... ,,
465 Battersea Park Road	... ,,

Homework.

This term has reference to persons who carry on certain classes of work in their own homes. Under the Factory and Workshop Act very important powers are given to District Councils for controlling the (sanitary) conditions under which the work is done. These powers aim at the prevention of homework being done (1) in dwellings which are injurious to the health of the workers themselves—*e.g.*, through overcrowding, want of ventilation, or other insanitary defects; (2) in premises where there is dangerous infectious disease.

The homeworkers residing in Battersea are employed by firms established in the Borough, and by firms belonging to other Boroughs.

The list of trades specified by the Home Secretary to which Sections 107-110 apply are set out in Orders made by the Home Secretary (*vide* previous Annual Reports). The latest Order is 1907.

During 1908 the names and addresses of 814 outworkers were received, as compared with 787 in 1907 and 520 in 1906. Lists were sent in by employers and by the Medical Officers of Health of the following Metropolitan Boroughs:—

District.	Lists.	Out-workers	District.	Lists.	Out-workers
Bermondsey ..	1	1	Kensington ..	8	27
Bromley ..	1	1	Lambeth ..	9	20
Camberwell ..	1	1	Paddington ..	2	2
Chelsea ..	7	67	St. Marylebone	3	41
City of London	12	26	Shoreditch ..	2	3
Finsbury ..	6	11	Southwark ..	2	11
Fulham ..	1	1	Stepney ..	2	2
Hammersmith	1	2	Wandsworth ..	34	93
Holborn ..	2	2	Westminster ..	7	89
Ince, Lancs. ..	1	1			
			Totals ..	102	401

The names and addresses of 196 outworkers which were sent in by employers were found to refer to other districts, and were accordingly forwarded to the Medical Officers of Health of these districts.

The premises occupied by the outworkers are registered and regularly inspected, and any insanitary conditions found remedied. The premises generally were in a very fair condition, and comparatively few notices were required. The following table shows

the number of such places which have been registered, together with the trades and the number of persons employed:—

Trade.	Number on Register.		Persons Employed.	
	Premises	Rooms.	Males.	Females.
Art Needlework	3	3	—	3
Blousemakers	10	10	—	13
Bootmakers	21	21	20	1
Dressmakers	4	4	—	4
Embroiderers	33	33	—	35
Glovemakers	36	36	1	41
Hosiers	1	1	—	1
Milliners	2	2	—	2
Tailors	59	59	37	38
Underclothing Makers ..	23	23	—	26
Other Trades	16	16	1	17
	208	208	59	181

The systematic inspection of outworkers' premises is carried out by the two Workshop Inspectors (Inspector Benjamin and Miss Fairbairn). The former deals with male outworkers, and the latter with female. In addition, the lists kept by firms established in Battersea of outworkers are regularly inspected, and care taken that these lists are kept in the manner and form prescribed by Section 107 of the Factory and Workshop Act.

During the year 729 inspections were made and 49 notices were served in connection with homework inspection, the results of which are summarised as follows:—

MALE OUTWORKERS (INSPECTOR BENJAMIN).

Number of male outworkers on register ...	87
Total number of inspections	226
Number of notices served to remedy 32 defects.	32

Eighteen outworkers removed during the year, 12 of whom removed to other addresses in the Borough, and 22 new outworkers were registered.

The defects found in outworkers' premises were mainly those referring to want of cleanliness of rooms, defective sanitary fittings, and such like minor sanitary defects.

In the homes of 7 outworkers scarlet fever occurred, one case in each home. Special precautions were taken in each instance to prevent the spread of infection.

FEMALE OUTWORKERS (MISS FAIRBAIRN).

The total number of female outworkers on the Register at the end of the year 1908 was 155. During the year 83 outworkers had removed or discontinued for various reasons. In all cases endeavours are made to trace the whereabouts of these persons, and were successful in all but 18 instances.

Total number of inspections during 1908 ...	503
Number of notices served to remedy 21 defects	17

The defects for which these notices were required had reference mainly to defective sanitary fittings, want of cleanliness of rooms, etc. The condition of the female outworkers' premises were found to be sanitarily much better than those of male outworkers, as will be noted from a comparison of the number of notices served in each class. This is to some extent to be accounted for owing to the fact that the nature of the work carried on in the case of female outworkers in Battersea is, in most cases, such as to necessitate cleanliness being observed.

Legal Proceedings.

Legal Proceedings.

Summary of Legal Proceedings.

The facts relating to the legal proceedings instituted by the Council in connection with the work of the Health Department are set out on pages 163 to 189, and are summarised below:—

	No. of Prosecutions.	No. of Convictions.	Fines.	Costs.
			£ s. d.	£ s. d.
Sale of Food and Drugs Acts	148	85	226 15 0	56 18 0
Smoke Nuisances ..	—	—	—	—
Unsound Food ..	5	3	16 0 0	0 14 0
Contravention of Bye-Laws	1	—	—	1 1 0
Other proceedings ..	40	17	10 7 0	9 15 0
Total ..	194	105	253 2 0	68 8 0

Legal Proceedings under the Public Health (London) Act, 1891, and Metropolis Management Act, 1855.

Date Heard.	Before whom.	Initials and Address of Defendant.	Nature of Offence.	Result of Proceedings.
1908.				
Jan. 1	Mr. Mead	D., 152 Brompton Road, S.W.	Nuisances at 14 and 16 Barmore Street	Summonses adjourned *sine die*, work being in hand
Jan. 29	Mr. Francis	D., 78 Broomwood Road, Clapham Common, S.W.	Allowing an underground room at 23 Barmore Street, Battersea, to be occupied in contravention of the Act	Ordered to pay 2s. costs, on her undertaking not to repeat the offence
Mar. 11 & 18	Mr. Garrett	A. B., 54 Lavender Sweep, Battersea, S.W.	Making drains at Nos. 36, 38, 40 and 42 Mossbury Road contrary to the directions of the late Wandsworth Board of Works	Summonses dismissed, but without costs
,,	,, ,,	A. B., 54 Lavender Sweep, Battersea, S.W.	Constructing drains at the same premises which had been ordered by the late Wandsworth Board of Works not to be made	In these cases a scheme of drainage had been approved by the late Wandsworth Board of Works, but on the drains being opened in May, last, it was found that an entirely different system of drainage had been laid down unknown to the local authority. The defendant proved, however, that this system had been passed by the late Surveyor to the Board, and the magistrate held that, although the local authority were not aware of this, as the system now found to exist was inspected at the time it was laid by the Board's Surveyor, the proceedings were out of time
Mar. 25	Mr. Curtis Bennett	W. P., Gurling's Yard, High Street, Battersea, S.W.	Dirty condition of van in Gurling's Yard	Ordered to pay 2s. costs
,,	,,	Ditto	Failing to comply with notice to abate above nuisance	Fined 10s. with 2s. costs

Legal Proceedings under the Public Health (London) Act, 1891, and Metropolis Management Act, 1855—(*continued*).

Date Heard.	Before whom.	Initials and Address of Defendant.	Nature of Offence.	Result of Proceedings.
Mar. 25 & Apr. 8	Mr. Curtis Bennett	D. P., Gurling's Yard High Street, Battersea, S.W.	Nuisance in van at Gurling's Yard	Fined 3s. with 4s. costs
,,	,,	A. T. (same address)	Overcrowding van in Gurling's Yard	Fined 2s. and 4s. costs
,,	,,	G. (same address)	Do.	Ordered to pay 4s. costs
,,	,,	D. P. (same address)	Do.	Ordered to pay 4s. costs
,,	,,	D., Donovan's Yard, Cabul Road, Battersea, S.W.	Overcrowding van in Donovan's Yard	Ordered to pay 4s. costs
,,	,,	D. T. (same address)	Do.	Order to abate and 5s. costs and £2 fine and 2s. costs for non-compliance with notice to abate
,,	,,	J. G. (same address)	Do.	Fined 2s. and 4s. costs
,,	,,	P. S. (same address)	Do.	Order to abate and 5s. costs and £1 fine and 2s. costs for non-compliance with notice to abate
Mar. 25 & Apr. 8	,,	P.S.,Donovan's Yard, Cabul Road, Battersea, S.W.	Nuisance in van at Donovan's Yard	Ordered to pay 4s. costs
Apr. 8	,,	T. S. (same address)	Overcrowding van in Donovan's Yard	Order for abatement and 5s. costs and £1 fine and 2s. costs for non-compliance with notice to abate
Mar. 25, Apr. 8 & 22	,,	F. H., Donovan's Yard, Cabul Road, Battersea, S.W.	Overcrowding van in Donovan's Yard	An additional van having been provided, nuisance summons withdrawn. Fined 5s. and 4s. costs on penalty summons
,,	,,	W.P., Gurling's Yard, High Street, Battersea, S.W.	Overcrowding van in Gurling's Yard	Nuisance having been abated, nuisance summons withdrawn. Fined 5s. and 4s.costs on penalty summons

Legal Proceedings under the Public Health (London) Act, 1891, and Metropolis Management Act, 1855—(*continued*).

Date Heard.	Before whom.	Initials and Address of Defendant.	Nature of Offence.	Result of Proceedings.
Mar. 25, Apl. 8 & 22	Mr. Curtis Bennett	T. S. (same address)	Overcrowding van in Gurling's Yard	Summonses not served, defendant having gone away
Apr. 22	,,	G., 2 Brussels Road, Clapham Junction, S.W.	Nuisances at No. 130A High Street, Battersea	Summonses (5 in number) adjourned *sine die* on defendant giving an undertaking to abate the nuisances
June 3	Mr. Garrett	H. A.,68 York Road, Battersea, S.W.	Depositing unsound meat for sale	*Magistrate said the Council were right in prosecuting, as there were very suspicious circumstances,* but he was not satisfied that the meat was intended for human food, and therefore dismissed the summons
July 29& Sept. 23	Mr. de Grey	F. C., 511 Battersea Park Road, S.W.	Nuisance from stoppage of frontage drain at 19 York Road	Summons withdrawn, nuisance abated and costs £1 3s. paid
Sept. 23	,,	T, M., 8 Usk Road, Battersea, S.W.	Nuisance from accumulation of offensive rags at shed at the rear of premises in Usk Road	Prohibition order and 5s. costs
	,,	Do.	Non-compliance with notice to abate above nuisance	Ordered to pay 2s. costs
Oct. 21	Mr. Garrett	J. R., 24 Wycliffe Road, Battersea, S.W.	Exposing unsound fruit for sale	Fined £1 and 4s. costs
Oct. 7 & 21	,,	W. H. P. F., 122 Clapham Road, S.W.	Nuisances at 28 and 30 Falcon Terrace	Summonses withdrawn, work having been completed and costs £1 1s. paid
Oct. 7 & 21,Nov. 18	Mr.Chapman	S. and H., 267 Park Lane, Tottenham	Nuisances at 37 and 39 Orville Road (9 summonses)	Fined £5 and 18s. costs
Nov. 18	,,	A. G. D., 152 Brompton Road, S.W.	Non-deposit of drainage plans	Summons withdrawn, plans having been deposited and costs £1 1s. paid

Legal Proceedings under the Public Health (London) Act, 1891, and Metropolis Management Act, 1855—(*continued*).

Date Heard.	Before whom.	Initials and Address of Defendant.	Nature of Offence.	Result of Proceedings.
Dec. 2	Mr. Chapman	C. & Co., 11 York Road, Battersea, S.W.	Exposing 26 lbs. of unsound tomatoes for sale	Fined £10 and 6s. costs
	,,	Do.	Exposing 10 lbs. of unsound tomatoes for sale	Summons withdrawn at Magistrate's suggestion
	,,	W. R. P., 830A Old Kent Road, S.E.	Nuisances at 97, 99, and 100 Latchmere Grove	Summonses withdrawn, work having been done and costs £1 1s. paid
Dec. 2, 16 & 30	Mr. Garrett	T. F. M., 29 East Down Park, Lewisham, S.E.	Nuisance at 41 Gwynne Road	Ordered to pay £1 1s. on penalty summons and nuisance summons withdrawn, work having been done
Dec. 16	,,	J. D.,11 Andoe Road, Battersea, S.W.	Default in providing ashpit at 28 Benfield Street	Summons withdrawn, ashpit having been provided and costs £1 1s. paid
Dec. 16 & 30	,,	A. W. B., 68 York Road, Battersea, S.W.	Deposit of unsound meat for sale	Fined £5 and 4s. costs

Legal Proceedings under Sale of Food and Drugs and Margarine Acts.

No. of Sample.	Date Heard.	Before whom.	Initials and Address of Defendant.	Nature of Offence.	Result of Proceedings.
617	Jan. 1	Mr. Mead	B. H., 24 Spicer Street, Bridge Road, Battersea, S.W.	Selling milk containing 33 per cent. of extraneous water	Fined £4 and £1 3s. costs
626	„	„	W. H., 27 Edna Street, Battersea, S.W.	Selling milk containing 13 per cent. of extraneous water	Fined £3 and £1 3s. costs
633	„	„	H. A., 30 Falcon Terrace, Battersea, S.W.	Selling pasteurised skimmed milk containing 0·0063 per cent. of boron trioxide (B_2O_3)	Summons withdrawn on defendant paying 12s. 6d. costs
	1907.				
547	Nov. 20 & Dec. 18	„ „	J. H., 162 Battersea Park Road, Battersea, S.W.	Selling milk containing 11 per cent. of extraneous water	J. H. fined £3, and, on his taking responsibility, summons against A. B. withdrawn
	1908.				
—	Jan. 1	„	A. B., 2 Winders Road, Battersea, S.W.	Do.	
—	„	„	J. H., 162 Battersea Park Road, Battersea, S.W.	Selling milk from barrow in street without having his name inscribed thereon	Fined £2, with £1 3s. costs for this and above summons
524	„	„	H. H., 90 Castle Street, Battersea, S.W.	Selling milk containing 10 per cent. of extraneous water	Fined £1 10s. and 12s. 6d. costs
656	„ 15	Mr. Francis	G. H. P., 46 Winstanley Road, Battersea, S.W.	Selling butter containing 84 per cent. of foreign fat	Fined £3 and 12s. 6d. costs
698	„ 29	„	E. J., 113 Queens Road, Battersea, S.W.	Selling milk containing 5 per cent. of extraneous water	Summons dismissed, defendant proving warranty
694	Jan. 29 & Feb. 12	„	K. J., 46 New Road, Battersea, S.W.	Selling butter containing 86 per cent. of foreign fat	Fined £2 with 12s. 6d. costs
739	Feb. 12	„	S. S., 71 Battersea Park Road, S.W.	Selling butter containing 30 per cent. of foreign fat	S. S. fined £3 with 14s. 6d. costs, and on his taking responsibility, summons against W. P. withdrawn
—	„	„	W. P. (same address)		

Legal Proceedings under Sale of Food and Drugs and Margarine Acts (*continued*).

No. of Sample.	Date Heard.	Before whom.	Initials and Address of Defendant.	Nature of Offence.	Result of Proceedings.
764	Feb. 12	Mr. Francis	C. S., 29 Hyde Lane, Battersea, S.W.	Selling milk containing 6 per cent. of extraneous water	Fined 10s. with 12s. 6d. costs
791	Feb. 26	Mr. Garrett	W. E., 99 Latchmere road, Battersea, S.W.	Selling separated milk containing at least 10 percent. of extraneous water and not less than 9 per cent. of milk solids	W. E. fined £2 and 12s. 6d. costs, and, on his taking responsibility, summons against W. E., Jun., withdrawn
—	,,	,,	W. E., Jun. (same address)		
790	,,	,,	W. E. (as above)	Selling milk containingthe equivalent of 1·85 grains of boracic acid per pint	W. E. fined £1 and 12s. 6d. costs, and, on his taking responsibility, summons against W. E., Jun., withdrawn
—	,,	,,	W. E., Jun. (as above)		
786	,,	,,	A. M., 18 Lockington Road, Battersea, S.W.	Selling milk containing 15 per cent. of extraneous water. (Sample taken in course of delivery)	Fined £10 and 12s.6d. costs or 1 month
804	,,	,,	D. J. J., 85 Falcon Road, Battersea, S.W.	Selling milk containing 11 per cent. of extraneous water	Summonses dismissed, defendants proving warranty
—	,,	,,	W. C. (same address)		
800	,,	,,	H. L., 6 Dorset Road, South Lambeth	Selling milk from which 8 per cent. of the original fat had been abstracted without disclosure	Defendant, who pleaded warranty, fined £1 and 12s. 6d. costs
775	,,	,,	W. W. C., 1 Newcomen Road, Battersea, S.W.	Selling butter containing 56 percent. of foreign fat	W. W. C. fined £5 with 12s. 6d. costs, and, on his taking responsibility, summons against A. D. withdrawn
—	,,	,,	A. D. (same address)		
—	,,	,,	W. W. C. (as above)	Carrying on business of wholesale dealer in margarine without registration	Fined 10s. with 23s. costs

Legal Proceedings under Sale of Food and Drugs and Margarine Acts (*continued*).

No. of Sample.	Date Heard.	Before whom.	Initials and Address of Defendant.	Nature of Offence.	Result of Proceedings.
701	Jan. 29 & Feb. 26	Mr. Garrett	J. T., 28 Havelock Terrace, Battersea, S.W.	Selling milk containing 9 per cent. of extraneous water	Defendant, who pleaded warranty, fined £2 with 12s. 6d. costs. The third sample had, at defendant's request, been sent to the Government Analysts
817	Mar. 11	,,	M. M., 14 Leopold Street, Vauxhall	Selling pasteurised skimmed milk containing less than 9 per cent. of milk solids, and at least 4 per cent. of extraneous water	Fined £1 and 12s. 6d. costs
848	,,	,,	J. W. T., 10 Lubeck Street, Battersea, S.W.	Selling milk containing 5 per cent. of extraneous water	Fined £1 and 12s. 6d. costs
825	,,	,,	E. H., 1 Gwynne Road, Battersea, S.W.	Selling milk containing 4·5 per cent. of extraneous water	Ordered to pay 12s. 6d. costs
824	,,	,,	G. E. F., 62 High Street, Battersea, S.W.	Selling milk containing 3 per cent. of extraneous water	G. E. F., who pleaded warranty, ordered to pay 14s. 6d. costs, and, on his taking responsibility, summons against H. F. withdrawn
—	,,	,,	H. F. (same address)		
869	,, 25	Mr. Curtis Bennett	B. H., 24 Spicer Street, Battersea, S.W.	Selling milk containing 10·4 per cent. of extraneous water	Fined £5 and 12s. 6d. costs
881	,,	,,	W. F., 23 Eltringham Street, Wandsworth	Selling milk from which 58 per cent. of the original fat had been abstracted without disclosure	The Magistrate held prosecution were right in taking proceedings, but it was not clear from the evidence of the purchaser that she had purchased milk, and he therefore dismissed the summons, but without costs

Legal Proceedings under Sale of Food and Drugs and Margarine Acts (*continued*).

No. of Sample.	Date Heard.	Before whom.	Initials and Address of Defendant.	Nature of Offence.	Result of Proceedings.
907	Apr. 8	Mr. Curtis Bennett	G. H. T., 1 Tennyson Street, Battersea, S.W.	Exposing margarine for sale by retail without attaching a label thereto	Fined £1 and 12s. 6d. costs
923	,,	,,	D. M., 123 York Road, Battersea	Do.	Fined 10s. and 12s.6d. costs
922	,,	,,	D. M., 123 York Road, Battersea, S.W.	Selling butter containing 55 per cent. of foreign fat	D. M. fined £2 and 12s. 6d. costs, and, on his taking responsibility, summons against E. H. withdrawn
—	,,	,,	E. H. (same address)		
—	,,	,,	F. & P., Ltd., 93 Albert Embankment, Vauxhall, S.W.	Giving a false warranty in writing	Summons dismissed, defendants proving to satisfaction of the Court that when they gave the warranty they had reason to believe that the statements or descriptions contained therein were true
900	,,	,,	F. P. C., Green Meadow Farm, Lympsham, Weston-super-Mare	Selling milk from which 8 per cent. of the original fat had been abstracted without disclosure. (Sample taken in course of delivery)	Fined £3 and 12s. 6d. costs in each case.
892	,,	,,	Do.	The like—25 per cent. of fat	
895	,,	,,	Do.	The like—9 per cent. of fat	
896	,,	,,	Do.	The like—18 per cent. of fat	
897	,,	,,	Do.	The like—18 per cent. of fat	
898	,,	,,	Do.	The like—containing 9 per cent. of extraneous water	

Legal Proceedings under Sale of Food and Drugs and Margarine Acts (*continued*).

No. of Sample.	Date Heard.	Before whom.	Initials and Address of Defendant.	Nature of Offence.	Result of Proceedings.
899	Apr. 8	Mr. Curtis Bennett	F. P. C., Green Meadow Farm, Lympsham, Weston-super-Mare	The like—containing 6 per cent. of extraneous water	Fined £3 and 12s. 6d. costs in each case.
894	,,	,,	Do.	The like—containing 7·5 per cent. of extraneous water and 10·5 per cent. deficient in fat	
893	,,	,,	Do.	The like containing 8·5 per cent. of extraneous water and 9·5 per cent. deficient in fat	
961	Apr. 22	,,	G.P.S., Sarisberie, West Clandon, Guildford	Selling milk from which 12·6 per cent. of the original fat had been abstracted without disclosure. (Sample taken in course of delivery)	Fined £1 10s. and 18s. 6d. costs
953	,,	,,	W. J., 46 St. Andrews Street, Battersea, S.W.	Selling margarine in a plain wrapper	Fined 10s. and 12s.6d. costs
955	,,	,,	W. G., 40 Stewarts Road, Battersea, S.W.	Selling butter containing 76·5 per cent. of foreign fat	Fined £5 and 12s. 6d. costs
954	,,	,,	T.W., 25 Gonsalva Road, Battersea, S.W.	Selling butter containing 33 per cent. of foreign fat	T. W. fined £2 and 12s. 6d. costs, and C. D. ordered to pay 2s. costs
—	,,	,,	C. D. (same address)		
940	Apr. 22 & May20	Mr. Garrett	W. H., 132 Northcote Road, Battersea, S.W.	Selling butter containing excess of water	W. H. fined £1 and 14s. 6d. costs, and on his taking responsibility, summons against G. F. P. withdrawn
—	,,	,,	G. F. P. (same address)		

Legal Proceedings under Sale of Food and Drugs and Margarine Acts (*continued*).

No. of Sample.	Date Heard.	Before whom.	Initials and Address of Defendant.	Nature of Offence.	Result of Proceedings.
996	May 6 & 20	Mr. Garrett	W. F., 23 Eltringham Street, Wandsworth, S.W.	Selling milk containing less than 9 per cent. of milk solids and at least 4 per cent. of extraneous water	Summonses adjourned *sine die*, defendant having left address
987	,,	,,	W. F, 23 Eltringham Street, Wandsworth, S.W.	Selling milk from which 67 per cent. of the original fat had been abstracted without disclosure	
2	May 20	,,	A. M., 14 Howie Street, Battersea, S.W.	Selling butter containing 77 percent. of foreign fat	Fined £1 and 12s. 6d. costs
14	May 20	,,	E. J., 113 Queens Road, Battersea, S.W.	Selling milk from which 6 per cent. of the original fat had been abstracted without disclosure	Summons dismissed, defendant proving warranty
1	,,	,,	M. M., 56 Battersea Bridge Road, S.W.	Selling butter containing 50 per cent. of foreign fat	Magistrate not satisfied that butter was asked for and dismissed summons, but he stated he did not believe case set up by defendant
—	,,	,,	W. J. D. (same address)		
948	Apr. 22 & May 6 20 & June 3	,,	L. J., 46 New Road, Battersea, S.W.	Selling milk containing 0·0087 per cent. of boron trioxide and 3 per cent. of extraneous water	Fined £2 and £1 1s. costs or one month
68	June 3	,,	L. E., 116 Chatham Road, Battersea, S.W.	Selling milk containing 10·5 per cent. of extraneous water	Fined 10s. and 12s.6d. costs
35	,,	,,	A. D., 10 Laven-Terrace, Battersea, S.W.	Selling milk containing 5 per cent. of extraneous water	Defendant proving warranty, summons dismissed

Legal Proceedings under Sale of Food and Drugs and Margarine Acts (*continued*).

No. of Sample.	Date Heard.	Before whom.	Initials and Address of Defendant.	Nature of Offence.	Result of Proceedings.
84	June 17	Mr. Garrett	J. F., 49 Motley Street, Battersea, S.W.	Selling milk containing 18·5 per cent. of extraneous water	Fined £2 and 12s. 6d. costs or 14 days
91	,,	,,	G. H. P., 46 Winstanley Road, Battersea, S.W.	Selling butter containing 84 percent. of foreign fat	Fined £5 and 12s. 6d. costs
—	,,	,,	Do.	Selling margarine in plain wrapper	Ordered to pay 2s. costs
90	,,	,,	H. M., 25 Poyntz Road, Battersea, S.W.	Selling butter containing 48 percent. of foreign fat	Fined £2 and 12s. 6d. costs
—	,,	,,	Do.	Exposing margarine for sale without a label	Ordered to pay 2s. costs
—	,,	,,	Do.	Selling margarine in a plain wrapper	Ordered to pay 2s. costs
105	,,	,,	A. & Co., 107 High Street, Battersea, S.W.	Selling butter containing 42·5 per cent. of foreign fat	A. & Co. fined £2 and 14s. 6d. costs, and on their taking responsibility, summons against G. C. withdrawn
—	,,	,,	G. C. (same address)		
—	,,	,,	Do.	Exposing margarine for sale without a label	Summons withdrawn
—	,,	,,	Do.	Selling margarine in a plain wrapper	A. & Co. ordered to to pay 2s. costs
88	June 17 & July 1	,,	H. S., 23 Abercrombie Street, Battersea, S.W.	Selling milk containing 12 per cent. of extraneous water	H. S. fined £1 and 14s.6d. costs; and, on his taking responsibility, summons against A. S. withdrawn
—	,,	,,	A. S. (same address)		
159	,,	,,	D. E., 140 Northcote Road, Battersea, S.W.	Selling milk containing 4·5 per cent. of extraneous water	Summonses withdrawn (by instructions of Health Committee)on payment of 10s. costs
—	,,	,,	P. E., 15 Rinaldo Street, Balham, S.W.		
176	July 15	Mr. Hopkins	A. S., 37 Queens Road, Battersea, S.W.	Selling beef sausages contåining 0·40 per cent. of boron trioxide	Fined £10 and 12s. 6d. costs

Legal Proceedings under Sale of Food and Drugs and Margarine Acts (*continued*).

No. of Sample.	Date Heard.	Before whom.	Initials and Address of Defendant.	Nature of Offence.	Result of Proceedings.
177	July 15	Mr. Hopkins	J. H., 4 York Road, Battersea, S.W.	Selling beef sausages containing 0·20 per cent. of boron trioxide	J. H. fined £10 and 14s. 6d. costs, and, on his taking responsibility, summons against J. A. withdrawn
—	,,	,,	J. A. (same address)		
183	,,	,,	B. H., 24 Spicer Street, Battersea S.W.	Selling milk containing 0·023 per cent. of boron trioxide, 3·5 per cent. of extraneous water and 8·5 per cent. devoid of fat	Defendant, who pleaded warranty, fined £5
182	,,	,,	Do.	Selling milk containing 0·024 per cent. of boron trioxide and 5 per cent. of extraneous water	Defendant, who pleaded warranty, fined £5
181	,,	,,	Do.	Selling milk containing 0.036 per cent. of boron trioxide and 13 per cent. of extraneous water (sample taken in course of delivery)	B. H. fined £5 and 2 guineas costs, and E. W. fined £5. Defendants pleaded warranty
—	,,	,,	E. W. (same address)		
—	,,	,,	S. S. & G. D., Ltd., Fisherton, Salisbury, Wilts	Giving a false warranty	Summons withdrawn on analysts differing
157	July 1 & 15	,,	J. M. (trading as T. D.), 17 Wiseton Road, Battersea, S.W.	Selling milk containing 0·013 per cent. of boron trioxide	J. M. fined £5 and 14s. 6d. costs, and, on his taking responsibility, summons against T. P. withdrawn
—	,,	,,	T. P., 69 Trinity Road, Tooting		
230	July 29	Mr. de Grey	S. C., 15 Carpenter Street, Battersea S.W.	Selling milk from which 10 per cent. of the original fat had been abstracted without disclosure	Fined 10s. and 12s.6d. costs

Legal Proceedings under Sale of Food and Drugs and Margarine Acts (*continued*).

No. of Sample.	Date Heard.	Before whom.	Initials and Address of Defendant.	Nature of Offence.	Result of Proceedings.
197	July 29	Mr. de Grey	E. P., 140 Meyrick Road, Battersea, S.W.	(*a*) Selling butter containing 47·8 per cent of foreign fat	F. P. fined £1 and 18s. 6d. costs, and, on his taking responsibility, summonses against E. P. withdrawn
—	,,	,,	F. P. (same address)	(*b*) Selling margarine without a label	
227	,,	,,	J. J. D., 25 Plough Road, Battersea, S.W.	Selling pork sausages containing 0·226 per cent. of boron trioxide	Fined 5s. and 12s. 6d. costs
222	,,	,,	A. H., 146 Bridge Road, Battersea, S.W.	Selling beef sausages containing 0·40 per cent. of boron trioxide	A. H. fined 10s. and 14s. 6d. costs, and on his taking responsibility, summons against W. B. withdrawn
—	,,	,,	W. B. (same address)		
223	,,	,,	J. T., 54 Bridge Road, Battersea, S.W.	Selling beef sausages containing 0·27 per cent. of boron trioxide	J. T. fined 10s. and 14s. 6d. costs, and on his taking responsibility, summons against H. C. withdrawn
—	,,	,,	H. C. (same address		
236	,,	,,	J. R. B., 30a Latchmere Road, Battersea, S.W.	Selling vinegar containing 26 per cent. of extraneous water	J R. B. fined £1 and 14s. 6d. costs, and on his taking responsibility, summons against C. B. withdrawn
—	,,	,,	C. B. (same address)		
281	Sept. 23	,,	T. H., 41 Russell Street, Battersea, S.W.	Selling milk from which 11 per cent. of the original fat had been abstracted without disclosure	Summons dismissed, defendant proving warranty
280	,,	,,	J. T., 28 Havelock Terrace, Battersea, S.W.	Selling milk from which 8 per cent. of the original fat had been abstracted without disclosure	Summons dismissed, defendant proving warranty

Legal Proceedings under Sale of Food and Drugs and Margarine Acts (*continued*).

No. of Sample.	Date Heard.	Before whom.	Initials and Address of Defendant.	Nature of Offence.	Result of Proceedings.
245	Sept 23	Mr. de Grey	H. P., 61 Darien Road, Battersea, S.W.	Selling separated milk containing less than 9 per cent. of milk solids and at least 11·5 per cent. extraneous water Having no name and address on barrow	Defendant did not appear. Warrant granted subject to information being laid
246	,,	,,	Do.	Selling separated milk containing less than 9 per cent. of milk solids and at least 10 per cent. extraneous water	
274	,,	,,	F. A., 145 Stewarts Road, Battersea, S.W.	Selling butter containing 36 per cent. of foreign fat	Fined £2 and 12s. 6d. costs
—	,,	,,	Do.	Selling margarine in a plain wrapper	Ordered to pay 2s. costs
409	Oct. 7	Mr. Garrett	W. N., 40 Falcon Terrace, Battertersea, S.W.	Selling milk containing 7 per cent. of extraneous water	W. N. fined £2 and 14s. 6d. costs, and, on his taking responsibility, summons against M. N. withdrawn
—	,,	,,	M. N. (same address)		
352	,,	,,	F. G. H., 15 Plough Road, Battersea, S.W.	Selling butter containing at least 4·5 per cent. excess of water	F. G. H. fined £10 and 14s. 6d. costs, and, on his taking responsibility, summons against W. J. K. withdrawn
—	,,	,,	W. J. K. (same address		
252	,,	,,	D. E., 146 Northcote Road	Selling milk from which 12 per cent. of the original fat had been abstracted without disclosure	Adjourned *sine die*, defendant ill
—	,,	,,	P. E., 15 Rinaldo Street, Balham		

Legal Proceedings under Sale of Food and Drugs and Margarine Acts (*continued*).

No. of Sample.	Date Heard.	Before whom.	Initials and Address of Defendant.	Nature of Offence.	Result of Proceedings.
278	Oct. 9	Mr. de Grey	A. M., 18 Lockington Road, Battersea, S.W.	Selling milk from which 14 per cent. of the original fat had been abstracted without disclosure	Fined £20 and 14s. 6d. costs or three months
279	,,	,,	Do.	The like	Summonses withdrawn
—	,,	,,	D. M. (same address)		
342	,,	,,	A. M., 18 Lockington Road, Battersea, S.W.	Selling milk containing 11 per cent. of extraneous water	Summons withdrawn
408	Oct. 7 & Nov. 4	Mr. Chapman	L. B., 64 Musjid Road, Battersea, S.W.	Selling milk containing 9·5 per cent. of extraneous water	Fined £1 and 12s. 6d. costs. The third sample had, at her request, been sent to the Government Analysts, who certified 9 per cent. of extraneous water
490	Nov. 4	,,	H. T., 123 York Road, Battersea, S.W.	Selling butter containing 39 per cent. of foreign fat. Selling margarine in a plain wrapper	Summonses not served, defendant having left address
351	Oct. 7, Nov. 4 & 18	,,	M. M., 56 Battersea Bridge Road, S.W.	Selling butter containing 39·5 per cent. of foreign fat	Fined £5 and £5 19s. 6d. costs
—	,,	,,	Do.	Selling margarine in a plain wrapper	
462	Nov. 4 & 18	,,	Do.	Selling butter containing 88 per cent. of foreign fat	Fined £20 and 14s.6d. costs
—	,,	,,	Do.	Selling margarine in plain wrapper	

Legal Proceedings under Sale of Food and Drugs and Margarine Acts (*continued*).

No. of Sample.	Date Heard.	Before whom.	Initials and Address of Defendant.	Nature of Offence.	Result of Proceedings.
488	Nov. 4 & 18	Mr. Chapman	C. F. (trading as C. F. & Co.), 1 Brassey Square, Battersea, S.W.	Selling butter containing 24 per cent. of foreign fat	Fined £3 and 12s. 6d. costs
—	,,	,,	Do.	Selling margarine in a plain wrapper	Ordered to pay 2s. costs
489	,,	,,	J. T., 71 York Road, Battersea, S.W.	Selling butter containing 39 per cent. of foreign fat	Summonses dismissed, defendants proving warranty
—	,,	,,	E. T. (same address		
—	,,	,,	J. T. (same address)	Selling margarine in a plain wrapper	Summons withdrawn
511	Nov. 18	,,	W. H., 1 Simpson Street, Battersea, S.W.	Selling milk containing 6·5 per cent. of extraneous water	Summonses dismissed, defendants proving warranty
—	,,	,,	D. H. (same address)		
515	,,	,,	A. B., 22 Henley Street, Battersea, S.W.	Selling milk containing the equivalent of 3·51 grains of boracic acid per pint	Fined 10s. and 12s.6d. costs
520	,,	,,	B. L. M., 36 Prairie Street, Battersea, S.W.	Selling butter containing 85 per cent. of foreign fat	B. L. M. fined £3 and 14s. 6d. costs, and, on her taking responsibility, summons against A. M. withdrawn
—	,,	,,	A. M. (same address)		
—	,,	,,	B. L. M. (same address)	Selling margarine in a plain wrapper	Ordered to pay 2s costs
478	Nov. 4 & Dec. 2	,,	D. & S., 9 St. Anns Hill, Wandsworth, S.W.	Selling milk containing 5 per cent. of extraneous water	Summonses dismissed, defendants proving warranty
—	,,	,,	A. P., 411 York Road, Battersea, S.W.		

Legal Proceedings under Sale of Food and Drugs and Margarine Acts (*continued*).

No. of Sample.	Date Heard.	Before whom.	Initials and Address of Defendant.	Nature of Offence.	Result of Proceedings.
579	Dec. 2	Mr. Chapman	W. M., 2 Stainforth Road, Battersea, S.W.	Selling milk from which 23 per cent. of the original fat had been abstracted without disclosure	W. M. fined 10s. and 14s. 6d. costs, and, on his taking responsibility, summons against C. L. withdrawn
—	,,	,,	C. L. (same address)		
580	,,	,,	A. S., 19 Wye Street, Battersea, S.W.	Selling milk containing 8 per cent. of extraneous water	A. S. fined 10s. and 14s. 6d. costs, and, on his taking responsibility, summons against E. S. withdrawn
—	,,	,,	E. S. (same address)		
—	Nov. 4 Dec. 2 & 16	Mr. Garrett	F. & P., Ltd., 93 Albert Embankment, Vauxhall, S.W.	(1) Giving a false warranty in writing (2) Do.	Summonses dismissed, Magistrate holding that the defendants had proved to his satisfaction that when they gave the warranties they had reason to believe that the statements or descriptions contained therein were true
591	Dec. 16	,,	L., G. and N.H. D. Co., Ltd., Canterbury Road, Brixton, S.W.	Selling milk containing 5 per cent. of extraneous water	H. B. fined £2 and 12s. 6d. costs, and the Company ordered to pay 2s. costs
—	,,	,,	H. B., 2 Bridport House, Wandsworth Road, S.W.		
635	Dec. 30	,,	E. W., 21 Granfield Street, Battersea, S.W.	Selling milk containing 9 per cent. of extraneous water	E. W. fined £2 and 14s. 6d. costs, and, on her taking responsibility, summons against L.W. withdrawn
—	,,	,,	L. W. (same address)		
613	,,	,,	A. C. H., 30 Chatham Road, Battersea, S.W.	Selling milk containing 14 per cent. of extraneous water	Fined 10s. and 12s 6d. costs

BRITISH MUSEUM 62 FEB

Appendix.

REPORTS AND TABLES.


BRITISH MUSEUM
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TABLE I.

(Required by the Local Government Board to be used in the Annual Report of the Medical Officer of Health.)

Vital Statistics of Whole District during 1908 and Previous Years

Year.	Population estimated to middle of each Year.	Births.		Total deaths registered in the District				Total Deaths in Public Institutions in the District.	Deaths of Non-Residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	Nett Deaths at all Ages belonging to the District.	
				Under 1 Year of Age		At all Ages.						
		Number.	Rate.*	Number.	Rate per 1,000 Births registered	Number.	Rate.*				Number.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1898	166,814	5,157	30·9	840	162	2,762	16·5	495	258	388	2,892	17·3
1899	167,570	5,179	30·9	838	161	2,858	17·0	597	301	348	2,905	17·3
1900	168,339	5,161	30·6	826	157	2,951	17·5	598	293	320	2,978	17·6
1901	169,100	5,025	29·7	828	164	2,729	16·1	603	311	348	2,766	16·3
1902	171,401	4,844	28·2	654	135	2,541	14·2	601	298	428	2,581	15·0
1903	173,422	4,973	28·6	688	138	2,425	13·9	622	299	350	2,476	14·2
1904	175,465	4,849	27·5	706	146	2,517	14·3	725	372	398	2,543	14·4
1905	177,532	4,843	27·3	550	114	2,542	14·3	741	399	418	2,561	14·4
1906	179,622	4,654	25·9	611	131	2,425	13·5	786	444	403	2,384	13·2
1907	181,736	4,574	25·1	534	117	2,431	13·4	817	446	421	2,406	13·2
Averages for years 1898-07.	173,100	4,926	28·4	707	142	2,609	15·1	658	342	382	2,649	15·3
1908	**183,873**	**4,629**	**25·1**	**495**	**116**	**2,265**	**12·4**	**740**	**408**	**415**	**2,272**	**12·3**

* Rates calculated per 1,000 of estimated population.

Note.—The deaths included in Column 7 of this Table are the whole of those registered during the year as having actually occurred within the Borough. The deaths included in Column 12 are the number in Column 7 corrected by the subtraction of the number in Column 1 and the addition of the number in Column 11.

By the term "Non-residents" is meant persons brought into the Borough 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 Borough on account of sickness or infirmity and have died in public institutions elsewhere.

The "Public Institutions" taken into account for the purpose of these Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums.

Area of District in acres (exclusive of area covered by water) 2139·9 acres. Total population at all ages, 168,907; number of inhabited houses, 23,462; average number of persons per house, 7·19—at Census of 1901.

TABLE II.

(Required by the Local Government Board to be used in the Annual Report of the Medical Officer of Health.)

Vital Statistics of Separate Localities in 1908 and Previous Years.

Names of Localities.	1. Borough of Battersea.				2. East Battersea.				3. North-West Battersea.				4. South-West Battersea.			
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.
1898	166,814	5,157	2,892	855	71,942	2,424	1 400	441	49,747	1,744	1,017	311	45,125	989	475	103
1899	167,570	5,179	2,905	837	72,020	2,424	1 412	437	49,719	1,791	954	299	45,831	964	539	101
1900	168,339	5,161	2,978	822	72,119	2,418	1,370	411	49,691	1,749	1,044	314	46,529	994	564	97
1901	169,100	5,025	2,766	821	72,226	2,357	1,271	407	49,663	1,658	932	296	47,211	1,010	563	118
1902	171,401	4,844	2,581	657	72,797	2,208	1,133	312	49,631	1,643	911	270	48,973	993	537	75
1903	173,422	4,973	2,476	671	73,310	2,298	1,101	316	49,593	1,692	851	268	50,519	983	524	87
1904	175,465	4,849	2,543	715	73,931	2,249	1,159	365	49,564	1,584	845	248	51,970	1,016	539	102
1905	177,532	4,843	2,561	636	74,589	2,278	1,159	305	49,536	1,622	873	256	53,407	943	529	72
1906	179,622	4,654	2,384	588	75,169	2,150	1,100	316	49,520	1,570	759	198	54,933	934	525	74
1907	181,736	4,574	2,406	526	75,740	2,139	1,125	257	49,481	1,552	793	211	56,515	883	488	58
Averages of years 1898 to 1907	173,100	4,925	2,649	712	73,384	2,294	1,223	356	49,614	1,660	897	268	50,101	970	528	88
1908	183,873	4,629	2,272	494	76,321	2,087	993	217	49,453	1,624	748	198	58,099	918	531	79

Note.—Deaths of residents occurring in public institutions, whether within or without the Borough, are allotted to the respective localities according t the addresses of the deceased.

TABLE III.

(Required by the Local Government Board to be used in the Annual Report of the Medical Officer of Health.)

Cases of Infectious Disease notified during the Year 1908.

Notifiable Disease.	Cases Notified in Whole District.							Total Cases Notified in each Locality.			No. of Cases Removed to Hospital from each Locality.		
	At all Ages.	At Ages Years.						East Battersea.	N.-West Battersea.	S.-West Battersea.	East Battersea.	N.-West Battersea.	S.-West Battersea.
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.						
Small-pox ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria ..	340	7	117	187	14	14	1	162	79	99	159	75	61
Membranous croup	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas ..	151	1	6	11	15	101	17	82	53	16	27	15	5
Scarlet fever ..	1,099	6	249	714	97	33	..	568	313	218	562	309	195
Typhus fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric fever ..	36	..	2	6	12	16	..	13	17	6	12	17	1
Relapsing fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal fever ..	7	..	..	..	1	6	..	5	2	..	4	1	..
Plague ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cerebro-spinal fever	2	1	1	..	..	..	..	2	..	..	2	..	..
Totals ..	1,635	15	375	918	139	170	18	832	464	339	766	417	262

TABLE IV.

(Required by the Local Government Board to be used in the Annual Report of the Medical Officer of Health)

Causes of, and Ages at, Death during the Year 1908.

Causes of Death.	Deaths in, or belonging to, Whole District at Subjoined Ages.							Deaths in, or belonging to, Localities at all Ages.			Total Deaths in Public Institutions in the District.
	All Ages.	Under 1 year.	1 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 65 years.	65 years and upwards.	East Battersea.	North-West Battersea.	South-West Battersea.	
Small-pox	..	..	..	..	..	..	..	..	..	..	..
Measles	47	10	34	3	..	..	..	22	21	4	7
Scarlet Fever ..	24	..	11	12	..	1	..	17	4	3	..
Whooping Cough ..	39	21	18	..	..	..	..	18	14	7	9
Diphtheria and Membranous Croup	22	2	15	5	..	..	..	7	10	5	1
Croup	..	..	..	..	..	..	..	..	..	..	..
Fever (Typhus ..	..	..	..	..	..	..	..	..	..	..	..
Fever (Enteric ..	7	..	..	..	3	4	..	2	2	3	..
Fever (Other Continued	..	..	..	..	..	..	..	..	..	..	..
Epidemic Influenza ..	33	..	1	1	1	14	16	12	6	15	2
Cholera	..	..	..	..	..	..	..	..	..	..	..
Plague	..	..	..	..	..	..	..	..	..	..	..
Diarrhœa	89	72	11	..	1	2	3	39	40	10	4
Enteritis	61	41	8	1	2	5	4	31	22	8	36
Puerperal Fever ..	5	..	..	..	..	5	..	3	1	1	7
Erysipelas	5	2	..	..	1	2	..	2	3	..	3
Other Septic Diseases ..	10	1	..	..	3	5	1	4	4	2	8
Phthisis	220	..	2	6	45	153	14	108	61	51	80
Other Tubercular Diseases	86	12	43	15	7	7	2	38	33	15	22
Cancer, Malignant Disease	156	..	..	1	2	89	64	55	37	64	49
Bronchitis	233	48	15	2	3	50	115	97	97	39	49
Pneumonia	223	50	51	9	8	61	44	103	80	40	57
Pleurisy	6	..	1	..	1	4	..	2	2	2	..
Other Diseases of Respiratory Organs ..	8	1	..	..	..	5	2	2	4	2	3
Alcoholism .. Cirrhosis of Liver	25	2	..	..	1	17	5	8	10	7	12
Venereal Diseases ..	18	12	..	..	1	5	..	8	6	4	12
Premature Birth ..	84	84	..	..	..	..	..	30	34	20	6
Diseases and Accidents of Parturition	3	..	..	..	..	3	..	1	2	..	3
Heart Diseases ..	110	..	3	7	14	58	28	42	36	32	65
Accidents	45	3	6	7	4	16	9	20	17	8	31
Suicides	23	..	..	..	..	22	1	10	8	5	8
All other causes ..	690	133	30	21	20	230	256	312	194	184	266
All causes ..	2272	494	249	90	117	758	564	993	748	531	740

TABLE V.—*Required by the Local Government Board to be used in the Annual Reports of the Medical Officer of Health.*

Borough of Battersea. Infantile Mortality during the Year 1908.

	CAUSE OF DEATH.	Under 1 Week.	1–2 Weeks.	2–3 Weeks.	3–4 Weeks.	Total under 1 Month.	1–2 Months.	2–3 Months.	3–4 Months.	4–5 Months.	5–6 Months.	6–7 Months.	7–8 Months.	8–9 Months.	9–10 Months.	10–11 Months.	11–12 Months.	Total Deaths under One Year.
	ALL CAUSES.—Certified ..	77	28	30	23	158	51	45	34	32	26	23	27	29	20	26	23	494
Common Infectious Diseases.	Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Chicken-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Measles	..	..	..	..	..	..	..	..	..	..	..	..	3	1	4	2	10
	Scarlet Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Diphtheria : Croup ..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	1	..	2
	Whooping Cough ..	..	..	..	..	..	1	2	2	1	1	1	3	3	3	2	2	21
Diarrhœal Diseases.	Diarrhœa, all forms ..	..	..	..	2	2	6	5	13	12	9	3	5	7	2	3	5	72
	Enteritis { Muco- / Gastro- } ..	..	2	..	..	2	7	11	2	4	5	2	2	..	3	2	1	41
	Gastritis, Gastro-intestinal Catarrh ..	..	..	..	..	..	..	2	1	1	..	..	..	..	..	..	..	4
Wasting Diseases.	Premature Birth ..	46	7	16	4	73	7	1	..	..	1	1	..	1	..	..	..	84
	Congenital Defects ..	6	6	2	..	14	2	..	1	..	..	..	..	1	..	1	1	20
	Injury at Birth ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Want of Breast milk ..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	1
	Atrophy, Debility, Marasmus	6	4	..	7	17	3	7	4	1	1	1	4	3	1	1	1	44
Tuberculous Diseases.	Tuberculous Meningitis	..	..		..	..	..	..	..	..	..	1	..	..	1	1	1	4
	Tuberculous Peritonitis : Tabes Mesenterica ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Other Tuberculous Diseases	..	1	..	.	1	..	1	1	..	1	1	1	..	1	1	..	8
	Erysipelas	..	..	..	1	1	1	..	..	..	..	..	..	..		..	..	2
Other Causes	Syphilis	1	1	..	1	3	2	1	1	1	..	3	..	..	..	..	1	12
	Rickets	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	2
	Meningitis (*not Tuberculous*) ..	..	..	..	..	..	..	..	1	..	..	..	3	1	1	..	1	7
	Convulsions	..	1	..	1	2	1	2	..	..	1	1	..	1	..	..	1	9
	Bronchitis	2	..	6	3	11	11	6	5	5	2	2	2	2	1	1	..	48
	Laryngitis	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1
	Pneumonia	..	2	3	..	5	5	3	1	4	4	3	5	3	4	7	6	50
	Suffocation, overlying ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Other Causes	16	4	3	2	25	5	4	2	3	1	4	2	3	1	1	1	52
		77	28	30	23	158	51	45	34	32	26	23	27	29	20	26	23	494

BOROUGH OF BATTERSEA. Population (estimated to middle of 1908).—183,873. Births in the year :—Legitimate, 4,493 ; Illegitimate, 136.
Deaths in the year of Legitimate Infants, 444 ; Illegitimate Infants, 50. Deaths from all Causes at all Ages—2,272.

TABLE V.—(*continued*).

East Battersea. Infantile Mortality during the Year 1908.

	CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
	ALL CAUSES.—Certified ..	29	9	11	12	61	26	22	14	10	10	14	13	13	11	11	12	217
Common Infectious Diseases.	Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Chicken-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Measles	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	1	5
	Scarlet Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Diphtheria : Croup ..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	1	..	2
	Whooping Cough ..	..	..	..	..	..	1	2	..	..	..	..	1	2	2	1	2	11
Diarrhœal Diseases.	Diarrhœa, all forms ..	..	..	..	1	1	4	..	5	5	2	2	2	4	1	1	2	29
	Enteritis { Muco- / Gastro- } ..	..	..	..	..	..	3	6	2	..	4	2	1	..	1	1	..	20
	Gastritis, Gastro-intestinal Catarrh ..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	2
Wasting Diseases.	Premature Birth ..	13	1	7	4	25	5	..	..	..	..	..	..	..	..	..	..	30
	Congenital Defects ..	3	3	1	..	7	..	..	..	..	..	..	..	..	..	1	1	9
	Injury at Birth ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Want of Breast Milk ..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	1
	Atrophy, Debility, Marasmus ..	2	2	..	1	5	1	2	2	1	..	..	3	1	1	1	..	17
Tuberculous Diseases.	Tuberculous Meningitis ..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1
	Tuberculous Peritonitis: Tabes Mesenterica ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Other Tuberculous Diseases	..	..	..	..	..	..	1	..	..	..	1	1	..	..	1	..	4
	Erysipelas	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
Other Causes.	Syphilis	1	1	..	1	3	2	..	1	..	..	1	..	..	..	..	..	7
	Rickets	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Meningitis (*not Tuberculous*) ..	..	..	..	..	..	..	..	1	..	..	..	1	1	1	..	1	5
	Convulsions	..	..	..	1	1	..	1	..	..	1	1	..	1	..	..	1	6
	Bronchitis	1	..	2	2	5	1	5	1	..	1	1	1	1	1	..	..	17
	Laryngitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Pneumonia	..	2	..	..	2	5	2	1	1	1	2	2	2	2	2	3	25
	Suffocation, overlying ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Other Causes	9	..	1	..	10	3	3	..	2	1	3	1	..	1	..	1	25
		29	9	11	12	61	26	22	14	10	10	14	13	13	11	11	12	217

SUB-DIVISION OF EAST BATTERSEA. Population (estimated to middle of 1908)—76,321. Births in the year—Legitimate, 2,030 ; Illegitimate, 57.
Deaths in the year of Legitimate Infants, 190 ; Illegitimate Infants, 27 . Deaths from all Causes at all ages—993.

TABLE V.—(*continued*).

North-West Battersea. Infantile Mortality during the Year 1908.

	CAUSE OF DEATH.	Under 1 Week.	1–2 Weeks.	2–3 Weeks.	3–4 Weeks.	Total under 1 Month.	1–2 Months.	2–3 Months.	3–4 Months.	4–5 Months.	5–6 Months.	6–7 Months.	7–8 Months.	8–9 Months.	9–10 Months.	10–11 Months.	11–12 Months.	Total Deaths under One Year.
	ALL CAUSES.—Certified ..	30	13	13	9	65	21	15	16	15	12	5	9	11	7	14	8	198
Common Infectious Diseases.	Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Chicken-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Measles	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2	..	4
	Scarlet Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Diphtheria : Croup ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Whooping Cough ..	..	..	..	..	..	..	..	..	1	1	..	..	..	1	1	..	4
Diarrhœal Diseases.	Diarrhœa, all forms ..	..	..	..	1	1	2	4	7	5	5	1	2	3	1	2	2	35
	Enteritis { Muco- / Gastro- } ..	..	1	..	..	1	2	4	..	3	1	..	1	..	1	1	1	15
	Gastritis, Gastro-intestinal Catarrh ..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1
Wasting Diseases.	Premature Birth ..	22	3	7	..	32	2	..	..	..	..	..	..	..	..	..	..	34
	Congenital Defects ..	2	2	1	..	5	2	..	1	..	..	..	..	..	..	..	..	8
	Injury at Birth ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Want of Breast milk ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Atrophy, Debility, Marasmus	2	2	..	4	8	2	4	2	..	..	..	1	2	..	..	1	20
Tuberculous Diseases.	Tuberculous Meningitis	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	2
	Tuberculous Peritonitis: Tabes Mesenterica ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Other Tuberculous Diseases	..	..	..	..	..	..	..	1	..	1	..	..	..	1	..	..	3
Other Causes.	Erysipelas	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	1
	Syphilis	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	1	3
	Rickets	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
	Meningitis (*not Tuberculous*) ..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
	Convulsions	..	1	..	..	1	..	1	..	..	..	..	..	..	..	..	..	2
	Bronchitis	1	..	4	1	6	10	1	3	3	1	1	..	1	..	1	..	27
	Laryngitis	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1
	Pneumonia	..	..	..	..	..	..	..	..	1	3	1	3	..	1	5	2	16
	Suffocation, overlying..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Other Causes	3	4	1	2	10	1	..	2	1	..	1	1	3	..	1	..	20
		30	13	13	9	65	21	15	16	15	12	5	9	11	7	14	8	198

SUB-DIVISION OF NORTH-WEST BATTERSEA. Population (estimated to middle of 1908)—49,453. Births in the year—Legitimate, 1,569 ; Illegitimate, 55.
Deaths in the year of Legitimate Infants, 178 ; Illegitimate Infants, 20. Deaths from all Causes at all ages—748.

TABLE V.—(*continued*).

South-West Battersea. Infantile Mortality during Year 1908.

	CAUSE OF DEATH.	Under 1 Week.	1–2 Weeks.	2–3 Weeks.	3–4 Weeks.	Total under 1 Month.	1–2 Months.	2–3 Months.	3–4 Months.	4–5 Months.	5–6 Months.	6–7 Months.	7–8 Months.	8–9 Months.	9–10 Months.	10–11 Months.	11–12 Months.	Total Deaths under One Year.
	ALL CAUSES.—Certified ..	18	6	6	2	32	4	8	4	7	4	4	5	5	2	1	3	79
Common Infectious Diseases.	Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Chicken-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Measles	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
	Scarlet Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Diphtheria : Croup ..	..	..	..		..	..	..	..	..	..	..	..	..	..	..	..	..
	Whooping Cough ..	..	..	..	..	..	..	..	2	..	..	1	2	1	..	..	..	6
Diarrhœal Diseases.	Diarrhœa, all forms ..	..	..	..	..	..	..	1	1	2	2	..	1	..	..	..	1	8
	Enteritis { Muco- / Gastro- } ..	..	1	..	..	1	2	1	..	1	..	..	..	..	1	..	..	6
	Gastritis, Gastro-intestinal Catarrh ..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1
Wasting Diseases.	Premature Birth ..	11	3	2	..	16	..	1	..	..	1	1	..	1	..	..	..	20
	Congenital Defects ..	1	1	..	..	2	..	..	..	..	..	..	..	1	..	..	..	3
	Injury at Birth ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Want of Breast Milk ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Atrophy, Debility, Marasmus	2	..	..	2	4	..	1	..	..	1	1	..	..	..	..	..	7
Tuberculous Diseases.	Tuberculous Meningitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
	Tuberculous Peritonitis: Tabes Mesenterica ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Other Tuberculous Diseases	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
Other Causes.	Erysipelas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Syphilis	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	2
	Rickets	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
	Meningitis (*not Tuberculous*) ..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
	Convulsions	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
	Bronchitis	..	..	..	..	..	..	..	1	2	..	..	1	..	..	..	..	4
	Laryngitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Pneumonia	..	..	3	..	3	..	1	..	2	..	..	..	1	1	..	1	9
	Suffocation, overlying..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Other Causes	4	..	1	..	5	1	1	..	..	..	..	..	..	..	..	..	7
		18	6	6	2	32	4	8	4	7	4	4	5	5	2	1	3	79

SUB-DIVISION OF SOUTH WEST BATTERSEA. Population (estimated to middle of 1908)—58,099. Births in the year—Legitimate, 894 ; Illegitimate, 24.
Deaths in the year of Legitimate Infants, 76 ; Illegitimate Infants, 3. Deaths from all Causes at all ages—531.

Factories, Workshops, Laundries, Workplaces and Homework.

1.—Inspection (including Inspections made by Sanitary Inpsectors or Inspectors of Nuisances).

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (including Factory Laundries)	660	81	—
Workshops(including Workshop Laundries)	1,616	167	1
Workplaces	1,288	182	—
Total	3,564	430	1

2.—Defects Found.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
Nuisances under the Public Health Acts :—				
Want of Cleanliness	171	171	—	*NIL.*
Want of Ventilation	4	4	—	
Overcrowding	2	2	—	
Want of drainage of floors	3	3	—	
Other nuisances	209	209	—	
Sanitary accommodation — Insufficient ..	3	3	—	
Sanitary accommodation — Unsuitable or defective	76	76	—	
Sanitary accommodation — Not separate for sexes ..	2	2	—	
Offences under the Factory and Workshop Act :				
Illegal occupation of underground bakehouse (Sec. 101)	—	—	—	
Breach of Special Sanitary Requirements for Bakehouses (Secs. 97 to 100)	20	20	—	
Other Offences (excluding Offences relating to Outwork which are included in Part 3 of this report)	—	—	—	
Total	490	490	—	

3.—Home Work.

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107.								Inspections of Outworkers' premises.	Outwork in Unwholesome Premises, Section 108.		Outwork in Infected Premises, Sections 109,110.	
	Lists received from Employers.						Addresses of Outworkers.						
	Sending twice in the year.			Sending once in the year.									
	Lists.	Outworkers.		Lists.	Outworkers.		Received from other Councils.	Forwarded to other Councils.		Instances.	Notices served.	Instances.	Orders made (S. 110).
		Contractors.	Workmen.		Contractors.	Workmen.							
Wearing Apparel—													
(1) Making, &c. ..	70	44	325	4	3	7	372	162	705	44	49	7	—
(2) Cleaning & washing	8	12	15	—	—	—	2	22	—	—	—	—	—
Lace, lace curtains and nets	2	—	2	—	—	—	7	2	6	—	—	—	—
Sacks	2	—	2	—	—	—	—	2	—	—	—	—	—
Furniture and upholstery	—	—	2	1	—	1	1	2	1	—	—	—	—
Fur pulling	—	—	—	—	—	—	3	1	—	—	—	—	—
Paper bags and boxes ..	—	—	—	—	—	—	15	5	14	—	—	—	—
Brush making	—	—	—	—	—	—	1	—	3	—	—	—	—
Total	82	56	346	5	3	8	401	196	729	44	49	7	—

4.—Registered Workshops.

Workshops on the Register (Sec. 131) at the end of 1908 :—	
Bakehouses	83
Bootmakers	67
Dressmakers	106
Laundries	40
Milliners	22
Tailors	38
Other Trades	154
	510

5.—Other Matters.

Matters notified to H.M. Inspectors of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (s. 133)	44
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5) :—	
Notified by H.M. Inspector	1
Reports (of action taken) sent to H.M. Inspector ..	—
Other	—
Underground Bakehouses (s. 101) :—	
Certificates granted during the year	—
In use at the end of the year	31

Proceedings during 1908.

(The following tables are suggested by the Medical Officer of Health to the County of London in order to secure uniformity of tabulation in the annual reports of the Medical Officers of Health of the Metropolitan Boroughs.)

Premises.	Number of Places.				No. of Inspections, 1908.	No. of Intimation Notices 1908.	No of Prosecutions, 1908.
	On Register at end of 1907.	Added in 1908.	Removed in 1908.	On Register at end of 1908.			
Milk premises	254	39	52	241	615	48	—
Cowsheds	3	—	—	3	*	—	—
Slaughterhouses	5	—	—	5	8	—	—
Other offensive trade premises	2	—	—	2	2	1	—
Ice-cream premises ..	110	16	18	108	220	36	—
Registered houses let in lodgings	123	—	—	123	603	129	9

* These premises are subject to frequent inspection.

Total number of intimation notices served for all purposes	4,511
Overcrowding—	
Number of dwelling-rooms overcrowded ..	88
Number remedied	88
Number of prosecutions	—
Underground rooms—	
Illegal occupation dealt with during the year	6
Number of rooms closed	6
Insanitary houses—	
Number closed under the Public Health (London) Act	—
Number closed under the Housing of the Working Classes Act	—
Number of verminous premises cleansed under Section 20 of the L.C.C. (General Powers) Act, 1904	3

Shelters provided under Section 60 (4) of the Public Health (London) Act—	
Number of persons accommodated during the year	28
Revenue Acts—	
Number of houses for which applications were received during year	40
Number of tenements comprised therein ..	129
Number of tenements for which certificates were :—(*a*) Granted	—
(*b*) Refused	—
(*c*) Deferred	129
Number of prosecutions under bye-laws under Public Health Act, 1891—	
(*a*) For prevention of nuisance arising from snow, ice, salt, filth, &c.	—
(*b*) For prevention of nuisance arising from offensive matter running out of any manufactory, &c.	—
(*c*) For prevention of keeping of animals in such a manner as to be injurious to health	—
(*d*) As to paving of yards, &c., of dwelling houses	—
(*e*) In connection with the removal of offensive matter, &c.	—
(*f*) As to cesspools and privies, removal and disposal of refuse, &c.	—
(*g*) For securing the cleanliness of tanks, cisterns, &c.	—
(*h*) With respect to water-closets, &c. ..	—
(*i*) With respect to sufficiency of water supply to water closets	—
(*j*) With respect to drainage, &c. (Metropolis Management Act, Section 202) ..	—
(*k*) With respect to deposit of plans as to drainage, &c. (Metropolis Management Acts Amendment (Bye-laws) Act, 1899)	1
Mortuary—	
Total number of bodies removed	259
Total number of infectious bodies removed ..	12

PUBLIC HEALTH DEPARTMENT,
MUNICIPAL BUILDINGS,
BATTERSEA, S.W.
15*th December*, 1908.

To the Health Committee.

MR. CHAIRMAN AND GENTLEMEN,—

In accordance with the instructions of the Committee, I beg to submit my report on the preventive measures adopted by the Sanitary Authorities of the various Metropolitan Boroughs and of the great towns of England and Wales; of Edinburgh and Glasgow, in Scotland; and Dublin, Belfast and Cork, in Ireland, for dealing with Tuberculosis.

It will be of interest to the Committee, in the first place, to describe the preventive measures which are at present carried out under their supervision in the Borough of Battersea, so that a comparison between these measures and those carried out elsewhere may be drawn.

Owing to there being no system of either voluntary or compulsory notification in force in the Borough, the work of the Health Department in this direction has been considerably restricted, and in consequence a very small proportion only of the cases are notified to us either by philanthropic bodies or the Council's own Lady Inspectors, who in the course of their ordinary duties get to know of occasional cases. In the majority of instances cases only come to our knowledge on the death of the patient, the District Registrars, who are paid a small fee for the purpose, sending to the Medical Officer of Health a postcard giving the name and address of the deceased. The disadvantage of this system will be obvious, when it is remembered that the patient may have died in the Infirmary to which he had been removed weeks, or perhaps months, previously. It is not possible to do much in the direction of disinfection or other preventive measures under such circumstances as these, as to be effective all such measures depend on the exis-

tence of a capable intelligence department in the shape of a notification system.

Notwithstanding this drawback, it is satisfactory to note that there has been a decline in the mortality from the disease in Battersea during the past few years. This is the more satisfac-factory when it is remembered that the population of the Borough has increased during this period. For example, taking the seven years 1901-7, the average number of total deaths per annum from Tuberculosis (all forms) was 367; in 1905 the figure was 323; in 1906, 308; and in 1907, 304, or 17.6 per cent. less than the average for the seven years. Again taking the decennial period 1892-1901, I find that the average death rate from Tuberculosis is 8.2 per cent. more than the average for the decennium 1898-1907.

These satisfactory results have been brought about by improved methods of Sanitary administration in the direction of house-to-house inspections, cleansing of houses, improved drainage and a more rigid supervision of the food supply, and such special measures, as visits by the Lady Inspectors, in the small number of cases voluntarily notified, to the homes of persons who are suffering from the disease, for the purpose of giving advice as to precautions to be taken by the patients and their friends to prevent the spread of infection. That there remains much more to be done will be apparent when the deaths in the Borough from the principal zymotic diseases is compared with the deaths from Tuberculosis. For example, the average number of deaths from the principal zymotic diseases (*i.e.*, Small-pox, Measles, Erysipelas, Scarlet fever, Diphtheria, Enteric fever, Puerperal fever, Whooping-cough and Epidemic Diarrhœa) for the ten years 1897-1906 was 414 per annum, while the average number of deaths from Tuberculosis during the seven years 1901-1907 was 367 per annum, and in 1907 the total number of deaths from Tuberculosis exceeded the total number of deaths from the principal zymotic diseases by 49.

Recently a system of limited voluntary notification has been arranged by the London County Council with the Brompton

Hospital Authorities, who send the names and addresses of patients whose consent has been previously obtained to the Medical Officer of Health of the first-mentioned body, who in turn forwards the information to the Medical Officer of Health of the district concerned.

Facilities for bacteriological examination of sputum from suspected cases are provided free to medical practitioners by the Council.

The methods adopted by other Municipalities in the United Kingdom are, in the majority of cases, similar to those carried on in Battersea, together with a voluntary system of notification in several instances. For the information of the Committee, I have tabulated the replies to my queries received from the Medical Officers of Health of the various Cities and Boroughs of the United Kingdom to whom I have applied.

Taking the Metropolis first, out of the 28 London Boroughs, in 18 voluntary notification is in operation. In only two are spittoons supplied gratuitously, while in two others arrangements are made to have them supplied in necessitous cases. In one Borough—Southwark—they have not supplied any for some years. Disinfection is carried out in practically all the Boroughs in known cases where permission is given, or on request of the occupier. In addition to these measures, visits by Sanitary Inspectors, either male or female, are made to the homes of patients notified by Sanitary Authorities, and these methods practically comprise everything that is done by Metropolitan Sanitary Authorities in connection with the disease.

In the provinces, from the tabulated return received from the various Cities and Boroughs, there appears to be a considerable diversity in the preventive measures in use. Taking England and Wales, I find that in 24 out of 31 towns, with populations of 100,000 and upwards, a system of voluntary notification is in operation, and in one case (Sheffield), by a special (local) Act, compulsory notification has been in force since 1904. In Birmingham, the Health Committee of the Corporation have decided to

apply for compulsory notification of the disease in their next Bill. In 9 of these 31 towns spittoons are supplied free, and in practically all of them disinfection is carried out in all cases where it is possible to do so, and literature, visits of Health Visitors are the other measures in the majority of instances provided. In some of the larger Cities and Towns the methods of fighting the disease are carried out on a much more extensive scale and in a better organised manner. These towns are Sheffield, Bristol, Manchester, Sunderland, Leicester, Newcastle-on-Tyne, Gateshead and Brighton. A short description of the methods as carried out in these important centres of population may be of interest to the Committee.

Sheffield, the centre of the steel trade, is a town with a population of over 400,000. A large number of persons are engaged in the knife-grinding industry, which greatly predisposes the workers to this disease owing to the irritation produced in the lungs from the inhalation of the fine, sharp particles of dust floating in the air of these works. In 1903, by a special local Act of Parliament, the Corporation adopted compulsory notification of the disease. Two special Inspectors are employed to visit the homes where cases of consumption are notified. The Inspector leaves a copy of printed instructions with the relatives or with the patient, and gives advice as to the ventilation of rooms, and furnishes the poorer of the patients with pocket spittoons free of charge (these spittoons cost 57s. per gross nett).

The Inspector, on his first visit, gets all the particulars of the case, and pays subsequent visits as often as possible. In all cases where the house is dirty or the patient is much confined to the house by his illness, the room is disinfected by the Inspector with a formalin sprayer at the time of his visit, except in the small number of cases where the patient has no other room to go to temporarily while the disinfection is being carried out, and for 2 or 3 hours after.

Accommodation is provided by each of the Boards of Guardians for a certain amount of open-air treatment at the Work-

house Hospitals, and it has been recently decided to adapt a house with about 2 acres of ground, the property of the Corporation, for the purpose of taking in about 20 consumptive patients, the intention being to admit these patients for short periods, with 3 objects, viz :—

1. For the purpose of teaching them to live an open-air life, to use pocket spittoons, and generally to take such precautions as will minimise the danger of the spread of infection when they return home.

2. For the purpose of giving the relatives rest, and enabling the homes to be thoroughly disinfected.

3. For selecting such cases as may be found suitable for sending to a Sanatorium.

It is also intended to have a Municipal Sanatorium, and the City Council are at present negotiating for a suitable site.

The Medical Officer of Health further informed me that no opposition has been experienced either on the part of the public or the medical practitioners. There has doubtless been, he says, some little failure to notify on the part of the medical practitioners, but this is only what one would expect from a new Act.

The number of deaths from Consumption in the City of Sheffield from November 1st, 1903, to October 31st, 1906—three years—is as follows :—

1st year : Nov. 1st, 1903, to Oct. 31st, 1904—594 (38 not notified).

2nd year : Nov. 1st, 1904, to Oct. 31st, 1905—534 (30 not notified).

3rd year : Nov. 1st, 1905, to Oct. 31st, 1906—460 (32 not notified).

The Act is now being fairly well complied with. In a small percentage of cases (1-2 per cent.), the medical man does not wish the Inspector to call, the medical attendant being asked to fill in an enquiry form and to use the printed leaflet provided by the

Sanitary Authority. No friction is being experienced, and he is of opinion that a considerable amount of good is being effected.

In the City of Bristol, in addition to the ordinary routine precautions, voluntary notification, disinfection, literature, etc., as adopted in most of the large cities and towns of the Kingdom, the City Council, on the recommendation of their Health Committee in 1905, contributed a sum of £5,000 towards the acquirement of 20 beds in the Winsley Sanatorium, and they contribute a further sum of £1,300 annually towards the maintenance of those beds, which are reserved at their disposal. The first Bristol case was admitted on February 27th, 1905. During 1907, 68 cases were admitted out of 172 applicants, with the following results: 53 cases have been discharged much improved, and in 11 others some degree of improvement was recorded. In the remaining 4 no improvement was recorded on discharge. In selecting cases for admission to the Sanatorium, a Medical Board, consisting of 5 medical men of the City, has been formed, by whom all applicants are examined.

In Manchester, in addition to voluntary notification, disinfection, etc., hospital accommodation is provided by two Institutions. In one case—the Bowdon Hospital for Consumption—only cases in the early stage are received. This hospital is maintained by voluntary subscriptions. The additional Sanatorium erected by the munificence of a citizen at Delamere Forest has accommodation for 100 patients, and the Manchester Corporation have 20 beds placed at their disposal. In carrying out the system of voluntary notification in operation in Manchester, the Corporation have appointed two medical assistants to the Medical Officer of Health, with the object of thoroughly supervising the work. As a result of the action of the Corporation in the five years 1900-1905, 10,074 cases have been notified, and 17,025 infected houses have been disinfected.

In Birmingham the homes of patients are visited by special Inspectors, and a special Sanatorium has been provided. The Corporation have decided to apply, in their next Bill, for compulsory powers to deal with the disease.

During the summer of 1908 a private experiment was carried out by the Middlesbrough Sanitary Authority in the Small-pox Hospital of the open-air treatment of 25 women suffering from the disease, but I have not yet been favoured with results of the experiment.

In Newcastle-upon-Tyne, in addition to the usual precautions, in special cases bedding is destroyed and replaced by the Corporation. The Sanitary Committee have recently made arrangements for the use of 20 beds in the Barrasford Sanatorium for patients resident in the City. Sunderland provides 2 beds in a Sanatorium, in addition to other measures, and Brighton reserves 20 beds in the Borough Sanatorium for the isolation and education of Consumptives.

In Scotland the methods adopted vary. For example, in Edinburgh Compulsory Notification is in force, and a pavilion is set apart in connection with the City Hospital for the admission of a fixed number up to 50 of advanced cases of Phthisis. Disinfection and cleansing are carried out in each house which appears on the Registrar's list each week, as having been occupied by a case of Phthisis, or in which such a case has died. In Glasgow, on the other hand, voluntary notification is the system in force, and, with the exception of disinfection in all houses where cases of the disease are notified, little else appears to be done. I am informed, however, that other measures are in contemplation by the City Council.

In Ireland, where of recent years, owing to the alarming increase of the disease, special interest and attention have been directed to the causes responsible for this unsatisfactory state of things, a great deal of energy is being displayed in fighting the disease. Compulsory notification is, or is about to be, the law in Ireland. In Dublin, compulsory notification is in force, and pocket spittoons are supplied by the Corporation gratuitously. Disinfection is carried out in all cases, and disinfectants supplied with spittoons. Lady Inspectors visit the homes of patients and give advice, and literature is distributed freely. In Belfast voluntary notification is in force. Disinfection is carried out as a

routine procedure, and spittoons supplied free of cost. In addition, hospital accommodation is provided for 35 patients, as well as a Dispensary. The Board of Guardians have provided a Sanatorium with accommodation for 300 patients. All patients discharged are kept under observation by Health Visitors. Visits are paid to every School, Dispensary, Factory and Workshop in the City, and leaflets are distributed relative to the prevention of the disease.

In Cork voluntary notification is in operation. No spittoons are provided, but disinfection is carried out in all cases where permission is granted. A Sanatorium is at present being erected for the reception of cases, for the foundation and upkeep of which a voluntary rate is paid.

In comparing the methods which are being or about to be carried out in the Provinces with those of the Metropolis, the advantage would seem to be greatly in favour of the former. It is regrettable that in London some uniform system of dealing with this deadly disease is not carried out. In the districts of some authorities a form of voluntary notification is in force, but in others—*e.g.*, Battersea—there is none. While much improvement has been effected in recent years in the Metropolis by the individual efforts of Sanitary Authorities, the movement has, in my opinion, suffered from lack of co-ordination and co-operation. This is peculiarly likely to occur in London owing to the movements of patients from the district of one Authority to that of another. It is of the greatest importance, therefore, that some co-ordination of method should be in force, which can only be successfully carried out by notification. A Conference convened by the Paddington Borough Council, attended by representatives from this Council, was held last year, at which a resolution in favour of Compulsory Notification was carried. The provision of Sanatoria for the Metropolis is a matter for the County Council or some other Central Authority. This form of prevention is one that is coming to be recognised by Sanitary Authorities as the most successful method of dealing with the disease. It is to me astonishing that greater efforts in this direction are not made by those responsible for the Public Health of the Metropolis. What I have indicated

at the beginning of this report with regard to the mortality from this disease in Battersea applies, relatively speaking, with equal force to the rest of London. Under existing circumstances, it it almost impossible to prevent the spread of the disease in districts like Batttersea when patients—more especially in the early stages of the disease—are found living with other members of the family, very often in crowded rooms. Under such conditions it is almost certain that the disease will spread to other members of the family, and be passed on to others.

The measures which, therefore, should commend themselves mainly to the Committee are :—

1. An effective and uniform system of notification.

2. A rigid supervision of the food supply.

3. The effective application of the Public Health and Housing of the Working Classes Acts in connection with insanitary property.

4. The provision of Sanatoria and Dispensaries for the treatment of suitable cases.

5. The removal of advanced cases to special Infirmaries or Isolation Wards.

With regard to the provision of Sanatoria, a double purpose is served. In the first place, suitable cases are permanently cured and enabled to become again useful citizens, while, in the second place, even in cases in which such desirable results are not obtained, the patient is educated as to the nature of the disease and the precautions to be adopted when he or she returns home. When he has obtained this experience, he is practically—to a large extent, at least—in a position to do all that hospital isolation can accomplish.

There are other points connected with preventive measures to which attention might usefully be drawn, but as these would

unnecessarily prolong a report meant to be confined to a description of the measures at present carried out by the various Sanitary Authorities of the United Kingdom, I have intentionally omitted them.

The Local Government Board have just published an Order making the disease compulsorily notifiable (within 48 hours of the disease being diagnosed) in Poor Law Institutions, etc., etc.

I am, Mr. Chairman and Gentleman,

Your Obedient Servant,

G. Quin Lennane,

Medical Officer of Health.

Municipal Buildings,

Lavender Hill, S.W.

11th January, 1908.

REPORT OF MEDICAL OFFICER OF HEALTH AS TO THE ATTENDANCE OF CHILDREN UNDER FIVE YEARS OF AGE IN PUBLIC ELEMENTARY SCHOOLS.

Mr. Chairman and Gentlemen,—

In accordance with your instructions, I beg to submit my report on the question of the attendance of children under 5 years of age in the public elementary schools. When I had the honour of being invited, as previously reported to the Health Committee, by the Consultative Committee of the Board of Education to give evidence on this important subject in November of last year, I dealt with that point of view of most importance to me as your Medical Officer of Health, *i.e.*, the bearing of such attendance as regards the incidence of, and mortality from, infectious disease—notifiable and non-notifiable—and I propose, therefore, to restrict my report largely to this aspect of the question, referring only briefly to the other to me less immediately important matters concerned with this subject.

There is no doubt that the consensus of opinion amongst Medical Officers of Health will be found to be strongly in favour of legislation which will raise the age before which children should not be allowed to attend school to at least 5 years, but in the interest of the children themselves, and of the nation as a whole, the raising of the age limit to 6 or even 7 years would be an increased advantage from the points of view of their mental and physical development and the prevention of the spread of infectious disease.

It can hardly be said that the attendance at school of children under the age of 5 years can be productive of any real value from the educational point of view. Up to this period, and even

later, of its life, the child is not, in the opinion of those best qualified to judge, capable of assimilating knowledge other than that which is not likely to overtax its mental capacity, such for example, as the kindergarten system provides. It is admitted by many educational experts that children who begin to attend school at a later age than five years can reach a higher standard of attainment in a much shorter period than those who had been at school at ages from 3 to 5 years. The deleterious effect on the health and development of children at the early ages at which they now attend infant schools, owing to the discipline and restraint to which they are subjected, is considerable. To anyone conversant with child nature this is not surprising, as it is unnatural to subject a child of tender years to the enforced discipline and constrained postures to which it has to submit in school life, more especially when the overcrowded condition of the classrooms which notoriously prevails in London and other large towns is remembered. The additional danger to the children's health from the insanitary conditions consequent upon this overcrowding, and which must necessarily under such circumstances prevail, is greatly increased.

I am, of course, aware that the Education Acts have reference only to children of 5 years and upwards. Even in this respect England is behind most other countries, where the age at which school attendance commences is the sixth year. The method, however, of giving grants for the attendance of children between 3 and 5 years—a method adopted by the Education Department to encourage attendance at school of children at that age period—has resulted during the past 20 years in a very large number of children between 3 and 5 years of age having passed through the infants' department of the public elementary schools. It is estimated that about 40,000 children under 5 years of age are at present in attendance in public elementary schools throughout the Administrative County of London. In 1905, an attempt was made to close the infant schools as the outcome of the reports of the women inspectors of the Board of Education and the recommendation of the Committee on Physical Deterioration. It is regrettable that owing to the extreme opposition raised by

school authorities and other interested bodies, this was unsuccessful.

It is, however, with the spread of infectious disease that, as Medical Officer of Health, I am most concerned, and I am strongly of opinion that in this connection the continued existence of the infant departments in the public elementary schools is undesirable. As already pointed out, the overcrowded conditions prevailing in most of these schools in the Metropolitan area is an additional danger, inasmuch as this state of things is bound to predispose the children to take any infectious disease which may be about. More especially is this the case in the infants' departments, crowded as very many of them are, with a highly susceptible material. Most of the common infections are, as is well known, readily taken by children under 5 years of age, and for each year after this period the tendency to become infected in many of these diseases steadily diminishes.

Furthermore, the danger to the life of the child attacked, *pari passu*, is also greatly lessened. A double advantage is in this way gained in protecting children at the earlier ages from exposure to infection. It has been shown that the effect of the closure of schools during the summer holidays exercises a marked influence in checking notifiable infectious disease (and, I have no doubt, also non-notifiable). There is no question that many outbreaks of disease, more especially measles and whooping cough, have had their origin in infant schools, and many deaths have resulted therefrom as well as a very great increase of permanent ill-health. Measles and whooping cough have been shown to have an increased incidence of mortality in the first two years of life, accountable probably to increased opportunity of infection due to density of population. This does not, however, account for the relatively increased mortality at ages 3 to 5 as regards these two diseases, which is also evident in the case of diphtheria, and that this increase is the result of school aggregation is, in my opinion, the most probable explanation. To take a special example, the experience of Berlin in this respect as regards diphtheria has been shown to be the same as that of London, but

more significant still is the fact that there is a greater relative incidence of mortality upon the ages 3 to 5 in London than in Berlin, lending support to the view that diphtheria mortality is affected by the age at which compulsory attendance at school begins. In Berlin this age is the sixth year.

From the point of view of the prevention of infectious disease as well as in many other respects, therefore, the closure of infants' schools should, in my opinion, be enforced, and if the social and financial conditions of the community demand it, some other method of dealing with these children should be found, either by the provision of crèches, infant nurseries, etc., or other suitable arrangements in the (in my opinion, undesirable) absence of the mothers. The provision of crèches, infant nurseries, etc., while not, in my judgment, a perfect method of dealing with the difficulty, would be more adapted to the needs of such young children than infant schools, especially when the conditions which are inseparable from school life are borne in mind (*e.g.*, crowded rooms, mental strain and fatigue) and which are such as would not obtain in the former case, with the obvious result that the vital resistance of the children would of necessity be greater.

The new legislation which came into force this year, *i.e.*, The Education (Administrative Provisions) Act, 1907, which provides for the medical inspection of school children, is an event of the highest public importance in relation to the spread of disease and of the public health generally, and cannot fail to receive the most serious and sympathetic consideration of the Committee and Council. It marks a tremendous advance in the educational development of the nation, and will, if carefully and systematically carried out, be productive of the greatest value to future generations. To the Memorandum recently issued on the subject by the Board of Education, I would desire to draw the attention of the Committee as a Sanitary Authority; the possibilities connected with this measure making it desirable that they should see in what position they stand in relation to this important subject so far as Battersea is concerned.

For the information of the Committee I have appended figures showing the incidence and mortality for five years in the case of diphtheria and scarlet fever occurring amongst children attending public elementary schools, also the number of cases of whooping cough and measles reported from public elementary schools in the Borough for two years, showing the incidence on the age period 3 to 7, as well as the number and percentage of deaths under 5 years of age. These figures, so far as Battersea is concerned, sufficiently, in my opinion, bear out the undesirability of the continued existence of infant schools.

I have the honour to be, Gentlemen,

Your Obedient Servant,

G. Quin Lennane,
Medical Officer of Health.

SCARLET FEVER.

TABLES SHOWING MORTALITY OF CASES OCCURRING AMONG SCHOOL CHILDREN.

1906.

AGE PERIODS.	2–3.	3–4.	4–5.	Total 2–5.	5–7.	Total 2–7.	7–10.	10–15	15–	Total
No. of cases ..	1	7	47	55	213	268	233	169	1	671
No. of deaths	—	—	5	5	3	8	—	2	—	10
Case-Mortality per cent. ..	—	—	10·6	9·09	1·4	2·9	—	1·1	—	1·4

1905.

No. of cases ..	1	19	48	68	168	236	156	127	5	524
No. of deaths	1	3	1	5	3	8	3	1	—	12
Case-Mortality per cent. ..	100·0	15·7	2·0	7·3	1·7	3·3	1·8	0·7	—	2·2

1904.

No. of cases ..	1	3	22	26	75	101	72	72	2	274
No. of deaths	—	—	—	—	3	3	1	2	—	6
Case-Mortality per cent. ..	—	—	—	—	4·0	2·9	1·3	2·7	—	2·4

1903.

No. of cases ..	—	5	26	31	87	118	78	53	1	250
No. of deaths	—	1	—	1	2	3	—	—	—	3
Case-Mortality per cent. ..	—	20·0	—	3·2	2·3	2·5	—	—	—	1·2

1902.

No. of cases ..	—	8	36	44	196	240	151	122	1	514
No. of deaths	—	—	1	1	4	5	1	1	—	7
Case-Mortality per cent. ..	—	—	2·7	2·2	2·0	2·0	0·6	0·8	—	1·3



DIPHTHERIA.

TABLES SHOWING MORTALITY OF CASES OCCURRING AMONG SCHOOL CHILDREN.

1906.

AGE PERIODS.	2–3.	3–4.	4–5.	Total 2–5.	5–7.	Total 2–7.	10.	10–15	15–	Total
No. of cases ..	1	1	10	12	59	71	48	31	2	152
No. of deaths	1	1	1	3	7	10	2	—	1	13
Case-Mortality per cent. ..	100·0	100·0	10·0	25·0	11·8	14·0	4·1	—	50·0	8·5

1905.

No. of cases ..	—	3	9	12	29	41	39	19	2	101
No. of deaths	—	—	—	—	1	1	1	1	—	3
Case-Mortality per cent. ..	—	—	—	—	3·4	2·4	2·6	5·2	—	2·9

1904.

No. of cases ..	—	4	17	21	45	66	35	24	1	126
No. of deaths	—	1	—	1	3	4	2	—	—	6
Case-Mortality per cent. ..	—	25·0	—	4·7	6·6	6·0	5·7	—	—	4·7

1903.

No. of cases ..	—	3	27	30	71	101	42	29	3	175
No. of deaths	—	1	4	5	7	12	3	1	—	16
Case-Mortality per cent. ..	—	33·3	14·8	16·6	9·8	11·8	7·1	3·5	—	9·1

1902.

No. of cases ..	—	1	13	14	42	56	44	28	—	128
No. of deaths	—	—	—	—	2	2	—	1	—	3
Case-Mortality per cent. ..	—	—	—	—	4·7	3·5	—	3·5	—	2·3

WHOOPING COUGH.

1906—

Total number of cases at ages 3 to 7 years ...	291
Percentage of cases at ages 3 to 7 years to total cases	92 per cent.
Total number of deaths under 5 years of age ...	76
Percentage of deaths under 5 years of age to total deaths	96 per cent.

1907 (January to June)—

Total number of cases at ages 3 to 7 years ...	346
Percentage of cases at ages 3 to 7 years to total cases	92 per cent.

1907 (whole year)—

Total number of deaths under 5 years of age ...	62
Percentage of deaths under 5 years of age to total deaths	100 per cent.

MEASLES.

1905—

Total number of cases (suffering and not suffering) reported from schools	900
Total number of deaths under 5 years of age ...	118
Percentage of deaths under 5 years of age to total deaths	95 per cent.

1906—

Total number of cases (suffering and not suffering) reported from schools	903
Total number of deaths under 5 years of age ...	44
Percentage of deaths under 5 years of age to total deaths	100 per cent.



TABLE

CAUSES OF, AND AGES AT DEATH, DUR[illegible] R 1908.

(Exclusive of the deaths of Non-Residents in Public Institutions within the Borough, but inclusive of the deaths of Residents in Public Institutions without the Borough.)

CAUSES OF DEATH.	AGES.													ALL AGES.			SUB-DISTRICTS.		
	Under 1	1 and under 5	5 and under 10	10 and under 15	15 and under 20	20 and under 25	25 and under 35	35 and under 45	45 and under 55	55 and under 65	65 and under 75	75 and under 85	85 and upwards	Males	Females	Total	East Battersea	North West Battersea	South West Battersea
Measles	10	34	3	..	..	..	..	..	..	..	..	..	..	24	23	47	22	21	4
Scarlet Fever	..	11	12	..	..	..	1	..	..	..	..	..	..	14	10	24	17	4	3
Epidemic Influenza	..	1	1	..	..	1	2	2	3	7	8	8	..	16	17	33	12	6	15
Whooping Cough	21	18	..	..	..	..	..	..	..	..	..	..	..	18	21	39	18	14	7
Diphtheria	2	15	4	1	..	..	..	..	..	..	..	..	..	13	9	22	7	10	5
Enteric Fever	..	..	..	..	..	3	2	2	..	..	..	..	..	3	4	7	2	2	3
Diarrhœa, Dysentery	38	6	..	..	1	..	..	..	1	1	1	1	..	28	21	49	23	20	6
Epidemic Enteritis	34	5	..	..	..	..	..	..	..	..	1	..	..	21	19	40	16	20	4
Syphilis	12	..	..	..	..	..	1	1	1	1	..	..	..	10	6	16	8	6	2
Gonorrhœa	..	..	..	..	..	1	..	..	..	1	..	..	..	2	..	2	..	..	2
Erysipelas	2	..	..	..	1	..	..	..	..	2	..	..	..	3	2	5	2	3	..
Puerperal Fever	..	..	..	..	..	..	4	1	..	..	..	..	..	..	5	5	3	1	1
Pyæmia	1	..	..	..	1	1	1	..	1	..	..	..	..	1	4	5	3	1	1
Infective Endocarditis	..	..	..	..	..	1	..	1	..	..	..	..	..	..	2	2	1	1	..
Other Allied Diseases	..	..	..	..	..	..	..	..	..	2	1	..	..	2	1	3	..	2	1
Rheumatic Fever	..	1	1	1	2	..	3	..	..	..	1	..	..	5	4	9	3	4	2
Rheumatism of Heart	..	..	..	..	1	..	..	2	..	..	..	..	..	..	3	3	1	..	2
Tuberculosis of Brain	4	23	5	1	..	1	..	..	..	..	..	..	..	19	15	34	13	13	8
Tuberculosis of Larynx	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	1	..	1	..
Phthisis	..	2	4	2	20	25	37	47	48	21	10	4	..	139	81	220	108	61	51
Abdominal Tuberculosis	..	2	1	..	..	..	..	..	..	1	1	..	..	2	3	5	1	2	2
General Tuberculosis	8	16	3	..	4	..	..	2	2	1	..	1	..	19	18	37	19	14	4
Other forms Tuberculosis	..	2	3	2	1	..	..	..	1	..	..	..	..	6	3	9	5	3	1
Acute Alcoholism	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1	..	..	1
Chronic Alcoholism	..	..	..	..	..	..	..	..	1	1	..	..	..	1	1	2	2	..	..
Osteo-arthritis	..	..	..	..	..	..	..	..	..	4	1	3	..	5	3	8	2	5	1
Cancer	..	..	1	..	1	1	1	9	23	56	45	16	3	69	87	156	55	37	64
Diabetes Mellitus	..	..	..	..	..	..	1	3	2	2	2	1	..	4	7	11	3	5	3
Anæmia	..	..	..	..	..	..	1	1	2	1	..	..	..	3	2	5	3	..	2
Lymphadenoma	..	..	..	..	..	..	2	..	..	..	..	..	..	2	..	2	1	..	..
Premature Birth	84	..	..	..	..	..	..	..	..	..	..	..	..	43	41	84	30	34	20
Debility at Birth	24	..	..	..	..	..	..	..	..	..	..	..	..	14	10	24	10	11	3
Atelectasis	9	..	..	..	..	..	..	..	..	..	..	..	..	4	5	9	6	3	..
Congenital Defects	20	..	..	..	..	..	..	..	..	..	..	..	..	13	7	20	9	8	3
Want of Breast Milk	1	1	..	..	..	..	..	..	..	..	..	..	..	1	1	2	2	..	..
Atrophy, Debility, Marasmus	44	4	..	..	..	..	..	..	..	..	..	..	..	30	18	48	18	22	8
Dentition	3	1	..	..	..	..	..	..	..	..	..	..	..	2	2	4	1	2	1
Rickets	2	6	..	..	..	..	..	..	..	..	..	..	..	4	4	8	5	2	1
Old Age, Senile Decay	..	..	..	..	..	..	..	..	..	..	17	39	22	28	50	78	37	19	22
Convulsions	9	4	1	..	..	..	..	..	..	..	..	..	..	11	3	14	11	2	1
Meningitis	7	4	2	..	..	..	1	..	1	..	..	..	..	6	9	15	7	4	4
Encephalitis	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	1	..	..	1
Apoplexy	..	..	..	..	..	..	..	..	..	3	1	..	2	4	2	6	3	..	3
Softening of Brain	..	..	..	..	..	..	..	..	1	1	1	5	..	1	7	8	3	3	2
Hemiplegia	..	..	..	..	..	..	..	..	2	3	4	2	1	8	4	12	5	5	2
General Paralysis of Insane	..	..	..	..	..	..	3	6	2	5	2	1	..	11	8	19	10	6	3
Other forms of Insanity	..	..	..	..	..	..	..	1	..	..	..	2	..	2	1	3	1	..	2
Cerebral Tumour	..	..	1	..	..	1	2	..	1	1	..	..	..	2	4	6	3	1	2
Epilepsy	..	2	1	..	..	1	1	1	1	1	1	..	..	4	5	9	3	2	4
Laryngismus Stridulus	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1	..
Locomotor Ataxy	..	..	..	..	..	..	1	1	1	2	..	..	..	4	1	5	1	2	2
Paraplegia	1	1	..	..	..	..	1	1	..	3	2	3	..	6	6	12	8	2	2
Other forms, Brain Diseases	..	1	..	..	1	..	2	1	4	1	3	1	..	6	8	14	11	2	1
Otitis	..	..	..	..	1	2	..	1	..	..	..	..	..	2	2	4	1	2	1
Pericarditis	..	2	..	..	..	..	..	..	..	..	..	1	..	2	1	3	2	1	..
Endocarditis	..	1	6	1	12	2	5	14	20	18	15	12	..	44	62	106	39	35	32
Hypertrophy of Heart	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1	1	..	..
Angina Pectoris	..	..	..	..	..	..	..	..	1	..	2	..	..	3	..	3	1	1	1
Aneurism	..	..	..	..	..	..	..	3	3	1	..	..	..	5	2	7	5	..	2
Senile Gangrene	..	..	..	..	..	..	..	..	..	1	1	2	..	1	3	4	3	1	..
Embolism, Thrombosis	..	..	..	..	..	..	..	..	1	3	3	5	..	6	6	12	4	3	5
Phlebitis	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	1	..	..	1
Other Diseases, Heart and Vessels	..	1	1	3	..	..	3	10	17	27	38	27	5	65	67	132	50	34	48
Laryngitis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	..
Acute Bronchitis	48	15	2	..	2	..	1	..	1	9	12	14	2	49	57	106	44	45	17
Chronic Bronchitis	..	..	..	..	..	1	3	3	10	23	42	37	8	60	67	127	53	52	22
Lobar Pneumonia	2	2	3	..	..	1	1	3	2	1	1	1	..	9	8	17	9	4	4
Lobular Pneumonia	35	41	1	1	..	..	1	2	..	2	3	6	2	50	44	94	43	42	9
Pneumonia	13	8	1	3	4	3	6	12	12	19	20	11	..	67	45	112	51	34	27
Emphysema, Asthma	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	1	1	..	..
Pleurisy	..	1	..	..	..	1	1	..	..	3	..	..	..	5	1	6	2	2	2
Other Diseases, Respiratory System	..	..	..	..	..	..	1	..	1	2	2	..	..	4	2	6	1	3	2
Diseases of Pharynx	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	..	..
Diseases of Œsophagus	..	..	..	..	..	..	..	..	1	1	..	..	..	1	1	2	..	..	2
Ulcer of Stomach and Duodenum	..	..	..	..	1	..	..	1	3	..	..	..	..	2	3	5	2	2	1
Other Diseases of Stomach	4	..	..	..	..	..	..	2	1	..	2	..	..	4	5	9	6	1	2
Enteritis	41	8	1	..	1	1	1	..	..	4	3	1	..	30	31	61	31	22	8
Appendicitis	1	..	..	1	3	..	2	1	..	..	..	..	..	7	1	8	4	2	2
Obstruction of Intestine	2	..	..	1	..	1	..	4	1	5	4	3	2	7	16	23	11	4	8
Cirrhosis of Liver	2	..	..	..	..	..	..	3	7	5	3	2	..	8	14	22	6	10	6
Other Diseases of Liver	..	..	..	..	..	..	..	..	2	3	1	1	..	3	4	7	3	2	2
Peritonitis	..	..	1	..	1	..	..	..	1	1	..	..	..	1	3	4	2	2	..
Other Diseases, Digestive System	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	1	1	..	..
Diseases, Lymphatic System & Glands	1	..	..	1	..	..	..	1	1	..	..	1	..	1	4	5	2	1	2
Acute Nephritis	1	2	..	1	..	..	1	1	3	1	1	1	..	6	6	12	6	4	2
Bright's Disease	..	..	..	2	..	2	3	4	9	13	17	4	..	36	18	54	28	10	16
Calculus	..	..	..	..	..	..	..	..	1	..	1	..	..	1	1	2	1	..	1
Diseases of Bladder and Prostate	..	..	..	..	..	..	..	1	2	2	6	2	1	11	3	14	3	5	6
Other Diseases, Urinary System	..	..	..	..	..	..	..	..	..	1	1	1	..	1	2	3	1	1	1
Placenta Prævia, Flooding	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	1	..	1	..
Puerperal Thrombosis	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	1	1	..	..
Other Diseases, Pregnancy & Childbirth	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	1	..	1	..
Arthritis, Ostitis, Periostitis	..	..	..	2	..	..	1	..	..	..	..	..	..	2	1	3	1	2	..
Ulcer, Bedsore	..	..	..	..	..	..	1	..	..	..	1	2	..	2	2	4	2	2	..
Pemphigus	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	..
Accidents and Negligence.																			
In Vehicular Traffic	..	..	3	2	..	..	2	1	3	..	1	..	..	10	2	12	4	5	3
On Railways	..	..	..	1	1	1	2	..	..	..	..	..	..	5	..	5	4	1	..
By Weapons and Implements	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	..	..
Burns and Scalds	..	4	..	..	..	..	..	..	..	1	2	1	..	4	4	8	2	5	1
Poisons, Poisonous Vapours	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1	..	..	1
Drowning	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1	..	1	..
Suffocation	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	2	..	..
Falls not Specified	..	1	1	..	..	..	1	..	..	5	3	..	2	8	5	13	7	4	2
Otherwise, not stated	1	..	..	..	..	..	..	1	..	..	..	..	..	1	1	2	..	1	1
Suicides.																			
By Poison	..	..	..	..	..	..	1	1	2	2	..	..	..	6	..	6	3	1	2
By Hanging and Strangulation	..	..	..	..	..	..	..	..	5	2	..	..	..	7	..	7	2	4	1
By Drowning	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1	..	1	..
By Shooting	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	1	1	..	..
By Cut or Stab	..	..	..	..	..	..	2	1	..	2	..	..	..	5	..	5	4	1	..
By Precipitation from Elevated Places	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1	..	1	..
By other and unspecified methods	..	..	..	..	..	..	..	1	1	..	..	..	..	..	2	2	..	..	2
Ill defined and unspecified causes	..	..	..	1	1	1	1	..	1	..	1	..	..	2	4	6	4	..	2
Found Dead	3	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3	1	..	2
Found Drowned	..	..	..	..	..	..	1	..	..	1	2	..	..	3	1	4	2	2	..
TOTALS	494	249	63	27	61	56	111	155	213	279	291	223	50	1190	1082	2272	993	748	531

