# Report on the health of the Metropolitan Borough of Battersea for the year 1913.

#### Contributors

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# Metropolitan Borough of Battersea.

# REPORT

#### ON THE

# HEALTH

OF THE

# Metropolitan Borough of Battersea

For the YEAR 1913

BY

G. QUIN LENNANE, F.R.C.S., L.R.C.P., D.P.H., MEDICAL OFFICER OF HEALTH.

## Ibealth Committee.

(November, 1913.)

Chairman: COUNCILLOR J. W. O'BRIEN.

His Worship the Mayor (COUNCILLOR J. R. ARCHER, J.P.) ALDERMAN J. HOLLY. J. RANSON. 2.2 ,, G. WEADRIFF. COUNCILLOR C. BARRINGTON. W. M. BRADFORD. ,, T. P. BROGAN. " F. E. HOVENDEN. 3.3 J. KENNY. ., J. W. O'BRIEN. 11 Dr. J. T. RICHARDS. 11 J. TAYLOR. 11 J. J. TAYLOR. 23 J. W. TAYLOR. 33



## Staff of the Public Bealth Department.

BAT

Chief Sanitary Inspector: I. YOUNG, M.R.S.I.

Women Sanitary Inspectors:

Miss A. E. Moss, San. Insp. Board's Cert., Cert. C.M.B. Miss E. C. PEACOCK, San. Insp. Board's Cert., Nursing Cert. Miss M. E. Ross Brown, B.A., San. Insp. Board's Cert.

Food Inspector:

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

Workshop Inspector: W. E. BENJAMIN, Cert. San. Inst.

District Sanitary Inspectors:

No. 1 District ... J. HERRIN, Cert. San. Inst. and Meat Insp. Cert.

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

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

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

5 ,, ... J. T. BAXTER, Cert. San. Inst.

,, 6 ,, ... H. MARRABLE, Cert. San. Inst.

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

,, 8 ,, ... H. H. MAY, Cert. San. Inst.

4

..

...

#### Clerks:

Chief Clerk	B. W. SEARS.		
Second Class Clerks	(F. H. Preston, E. Cole.	Cert. San. Inst.	
Third Class Clerks	W. HALSTEAD. F. Ebbutt. W. Roberts.		
Office Youth	R. GRAHAM.		

Manageress of Milk Depôt: Miss A. Lowe.

Superintendent of Disinfecting Station: C. H. WOODHOUSE.

> Mortuary Keeper: G. STREAT.

### ERRATA.

Owing to a printer's error, the pa altered without a corresponding alteration numbers in the latter should therefor The cross references on the following corrected :—	ion in the interview of	he index ncreased	. The by 1.		
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# Summary of Vital Statistics for 1913.

Area of Bo	orough (e	excluding w	vater)	2,13	9.9 acres
Population	(Census	1901)			168,907
,,	( ,,	<b>1911</b> )			167,793
,,	(Estima	ted to mid	dle of 19	13)	167,464
Density			78.2	persons	per acre
Inhabited	Houses (	Census 19	11)		22,078
Marriages					1,282
Births					4,240
Birth-rate	•				25.3
Deaths					2,365
Death-rate					14.1
Infantile M	lortality		111	per 1,0	00 births



#### ANNUAL REPORT

OF THE

## MEDICAL OFFICER OF HEALTH

For the Year 1913.

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

GENTLEMEN,

I have the honour to submit my Eighth Annual Report on the health and sanitary condition of the Borough of Battersea. In doing so, it is my privilege to point to the satisfactory position which your Borough occupies in regard to its morbid and mortality statistics.

It is a matter for regret that some delay has occurred in the formulation of a Tuberculosis Scheme for the Borough. The settlement of this question is a matter of the greatest importance to the public health of the Borough, which it is hoped will be effected at an early date.

Owing to illness, I was absent from my duties during the first quarter of the year, and Dr. A. R. Litteljohn (now of the Local Government Board) was appointed by the Council as Acting Medical Officer of Health.

I have again to express my thanks to the members of the Council for the support extended to me. To my colleagues, the Chief Officers of the Council, and the Public Health Staff, my thanks are also due for assistance always willingly rendered.

G. QUIN LENNANE.

Town Hall, Lavender Hill, S.W.

## Births, Marriages and Deaths.

#### Population.

The population of the Metropolitan Borough of Battersea at the Census taken April, 1911, was 167,793.

The estimated population to the middle of the year 1913, based upon the results of the last Census and that taken in 1901, is 167,464.

The estimated population for each of the sub-districts into which, for registration purposes, the Borough is divided, is as follows :—

East Batters	sea	 	69,657
North-West	Battersea	 	49,043
South-West	Battersea	 	48,764

The natural increase of population by excess of births over deaths during the year 1913, amounted to 1,875.

The area of the Borough (excluding water) is 2,139.9 acres, the density of population being 78.2 persons per acre.

#### Births.

The total number of births belonging to the Borough of Battersea during 1913 was 4,240. Of the total births, 2,157 were males and 2,083 females, showing an excess of 74 males. The births were 15 fewer than in 1912, and were 369 below the decennial average 1903-1912.

	Males.	Females.	Total.
East Battersea North-West Battersea South-West Battersea	 970 786 451	$918 \\718 \\452$	1,883 1,454 903
Borough	 2,157	2,088	4,240

The births in the sub-districts were as follows :---

The birth-rate, i.e., the number of births per 1,000 of the population, was 25.3, which was practically equal to that of 1912, viz., 25.4. There is, it is to be feared, the same downward tendency noticeable in the birth-rate to which attention has specially been drawn in previous annual reports, a decline which



appears to be common to almost all civilised countries. In Battersea, the birth-rate would appear to have fluctuated very considerably during the past five or six years, as will be seen from a glance at the table below showing the decline in the birth-rate in Battersea as compared with that in England and Wales. The marked decline which appears to have taken place in the birth-rate in Battersea, as shown by the figures in the table relating to the years 1909 and 1910 does not, however, probably represent a real decrease, but is accounted for by the fact that the methods of calculating the population of districts in intercensal years have been shown by the recent Census to have been erroneous, the estimated population of Battersea, especially as regards the years immediately preceding the Census of 1911, being much in excess of the actual population as disclosed by the Census returns. The birth- and death-rates for the year are calculated on the figures supplied by the Registrar-General, and after due allowance is made for the fallacy created by these figures there is no reason to believe that there has been any marked change in the birth-rate of the Borough during the past five years. The decline which has taken place as compared with the preceding quinquennium (1902-1906) is, however, most marked, and that the birth-rate since appears to be more or less stationary, but with probably a downward tendency, is not a matter for congratulation. A high birth-rate is a nation's greatest asset, and to those, like myself, who believe this to be so, the decline in the birth-rate of England and Wales, which in recent years is such a marked feature of vital statistics, is not an encouraging sign of the times.

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 :—

Years.	England and Wales.	London.	Battersea.
1877-81	84.9	85.8	40.5
1882-86	88.8	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
1909	25.6	24.2	23.9
1910	24.8	27.6	23.7
1911	24.4	24.8	26.1
1912	23.8	24.5	25.4
1913	23.9	24.5	25.3

BIRTH-RATE PER 1,000 POPULATION.

The next table shows the birth-rate in the Borough and in each of the sub-districts during the ten years 1903-1912.

Year.	The Borough.	East Battersea.	North-West Battersea.	South-West Battersea.
1908	28.6	81.8	84.1	19.4
1904	27.5	30.4	81.9	19.5
1905	27.3	80.5	32.7	17.7
1906	25.9	28.6	81.7	17.0
1907	25.1	28.2	81.8	156
1908	25.1	27.3	32.8	15.8
1909	23.9	26.5	81.9	18.9
1910	23.7	26.6	30.5	14.8
1911	26.1	27.5	82.8	17.8
1912	25.4	28.4	28.9	17.6
Average 1903-1912	25.9	28.5	81.8	16.9
1918	25.3	27.0	29.6	18.5

BIRTH-RATE PER 1,000 POPULATION.

In the above table, it will be noted that very little change is to be observed in the rates in the sub-districts as compared with 1912. In North-West and South-West Battersea there has been an increase; on the other hand, a decrease is to be noted in East Battersea, the most populous of the three subdistricts.

#### Marriages.

The marriages registered in Battersea during 1913 number 1,282, or 100 less than the decennial average. The marriage-rate, i.e., the number of persons married per 1,000 of the population, was 15.3, or 0.2 below the decennial average.

#### Deaths.

The total number of deaths registered in the Borough of Battersea during the year 1913 was 2,429, as compared with 2,125 in 1912, and a yearly average of 2,849 in the old Parish of Battersea for the decennium 1891-1900. Of the total deaths registered, 1,254 were males and 1,175 females, showing an excess of 79 males. The death-rate for Battersea is, therefore, 14.5 per 1,000 inhabitants as compared with 14.2 for London. This rate is, however, uncorrected, and on analysing the 2,429 deaths registered in the Borough of Battersea, it is found that 589 represent deaths occurring within the Borough among persons not belonging thereto. These deaths are to be deducted ; but, on the other hand, there are 525 deaths of Battersea residents registered outside the Borough, and these must be added, giving a corrected number of deaths for Battersea during 1913 of 2,365 (1,257 males and 1,108 females, an excess of 149 males) and a corrected deathrate of 14.1 as compared with 14.2 for London (the total corrected number of London deaths being 65,030).

A more correct method of ascertaining the death-rate of a district is that based upon age and sex distribution. The deathrate of a district will vary according to the character of its population, e.g., a district containing a large number of very young or very old people, will have a higher death-rate than a district where there is a large proportion of people of middle age.

For the purpose of ascertaining this rate, a factor for correction is supplied by the Registrar-General for each Metropolitan Borough, which is obtained by him from the Census returns. This factor varies for each Metropolitan district according to the age and sex distribution of its inhabitants. The recorded death-rate of the district multiplied by this factor gives the death-rate which would obtain in that district if the age and sex distribution of the population of the district were in the same proportion as it is in the country as a whole.

The death-rate for the Borough calculated in this way is 14.2 for the year 1913.

Sub-dividing the death-rate amongst the three registration sub-districts, it will be noted that, as compared with 1912, there has been a marked increase in the death-rate in East and North-West Battersea; while in South-West Battersea there has also to be recorded a slight rise. The following table shows the deathrates per 1,000 of the population in the Borough and sub-districts for the ten years 1903-1912 :—

Year.	The Borough.	East Battersea.	North-West Battersea.	South-West Battersea.
1908	14.2	15.0	17.1	10.8
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
1908	12.3	13.0	15.1	9.1
1909	18.0	14.0	16.5	8.7
1910	11.3	119	13.9	8.8
1911	14.3	14.9	16.8	10.9
1912	12.2	12.8	18.5	10.1
Average 1903-1912	18.2	14.2	15.9	9.5
1913	14.1	15.0	16.3	10.8

DEATH-RATE PER 1,000 POPULATION.

In the following table are shown the number of deaths and the death-rates in the Nine Wards of the Borough :---

Ward.	Population 1913.	Number of Deaths.	Death Rates.
Nine Elms	 27,175	485	16 0
Park	 17,486	289	16.5
Latchmere *	 20,158	309	15 3
Shaftesbury	 15,992	197	11.7
Church	 19,325	287	14.8
Winstanley	 20,178	842	16.9
St. John,	 8,186	78	9.5
Bolingbroke	 18,433	244	13.2
Broomwood .	 20,586	184	8.9

The increase in the death-rate during 1913 has been general throughout the Borough, the increase being, as is to be expected, most evident in those districts of the Borough where the standard of living and the status of the inhabitants is lowest. In all lower Wards there was a marked increase in the rate, Winstanley, Park, Nine Elms and Latchmere showing the highest figures. The first quarter of the year was notable for the large number of deaths registered, due, no doubt, to the effect of unfavourable weather influences, predisposing to a high mortality from diseases of the respiratory system. The increased death-rate was, however, general in London and in England and Wales, and the causes responsible were no doubt similar. On the whole, it may be said that the mortality statistics of the Borough for 1913 show that the improvement which has been such a marked feature of recent years has been maintained.

The position which the Borough occupies during 1913 in the Registrar-General's corrected returns amongst the twentynine Metropolitan Cities and Boroughs is satisfactory. There are fifteen with a higher general death-rate and only eleven have a lower death-rate than Battersea.

Seven Boroughs have a higher zymotic death-rate and nine a higher infantile mortality rate. Taking the ten south Metropolitan Boroughs, Lewisham and Wandsworth have the lowest general death-rate (10.6), and Bermondsey the highest (17.9); only four of the ten southern Boroughs have a lower death-rate than Battersea.

London, as a whole, has a birth-rate of 24.5, a corrected zymotic (death) rate of 1.4 per 1,000, and an infantile mortality (corrected) rate of 105 per 1,000 births. For England and Wales the figures are: birth-rate, 23.9; infantile mortality, 109.

The	corrected	number -	of death	s of r	males	and females	regis-
tered in	each quar	ter of the	year is	set o	out as	follows :	

1 100	Males.	Females.	Total.
First quarter	 401	858	754
Second quarter	 272	262	534
Third quarter	 252	217	469
Fourth quarter	 332	276	608

#### Deaths in Public Institutions.

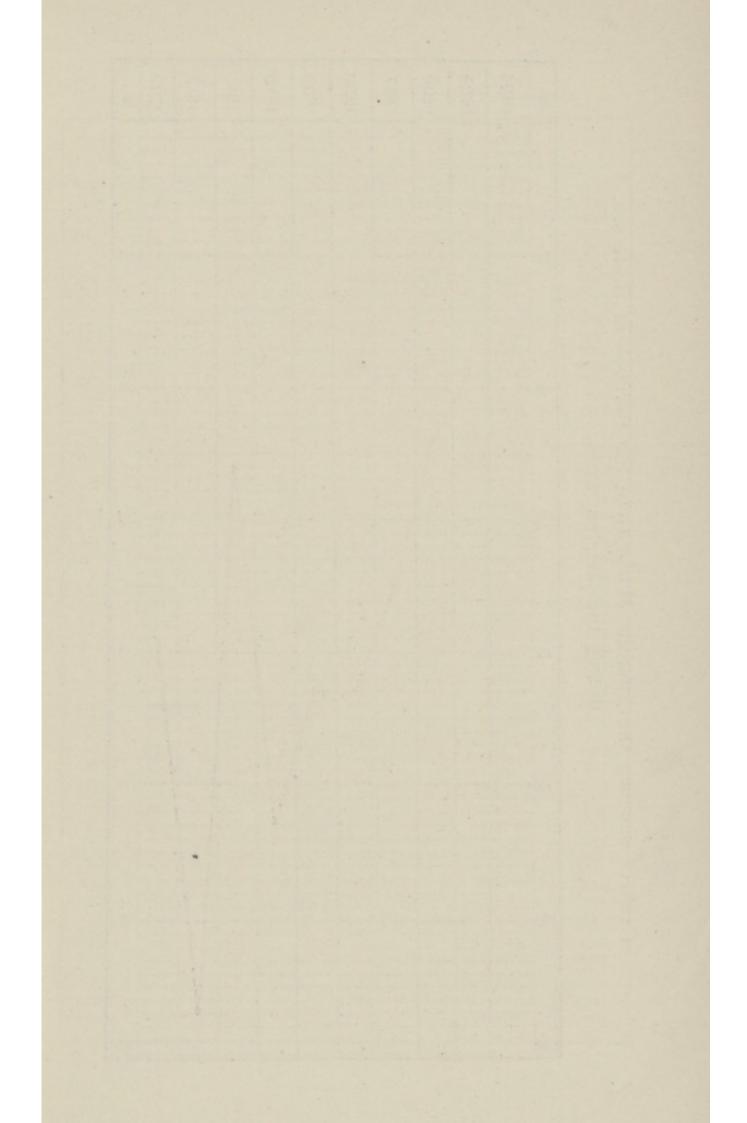
During the year 1913 the deaths of Battersea residents occurring in public institutions numbered 938, as compared with 795 in 1912. Of this number 413 occurred within and 525 outside the Borough. 378 occurred in workhouses or union infirmaries, as against 380 in 1912 and 415 in 1911:

## 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	10 200	750		595			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			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	5,654	37.0	2,566	20.4	432	2,088
1886	129,937	5,140	30.5	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		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 31·4	2,974	18·9 16·1	614	2,251 2,447
1894	159,724	5,024		2,577 2,961	18.1	$526 \\ 460$	2,303
$1895 \\ 1896$	162,787 165,309	5,264 5,358	32·3 32·4	2,961 2,994	181	400 642	2,364
1896	166,059	5,266	31.7	2,994 2,737	16.4	486	2,529
1898	166,814	5,157	30.9	2,892	17.3	531	2,265
1898	167,570	5,179	30.9	2,892	17.3	418	2,205
1900	168,339	5,161	30.6	2,905	17.6	435	2,183
1901	169,100		29.7	2,766	16.3	491	2,259
1902	171,401	4,844	28.2	2,581	15.0	367	2,263
1902	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
1909	186,036	4,450	23.9	2,417	12.9	283	1,033
1910	188,222	4,489	23.7	2,124	11.3	242	1,365
1911	167,765		26.1		14.3	336	
1912	167,589	4,255	25.4	2,052	12.2	138	2,203
1913	167,464	4,240	25.3	2,365	14.1	208	1,875

The years marked thus ... were census years.

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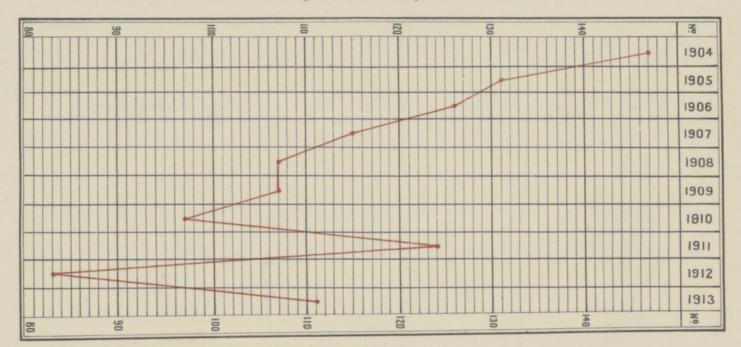


CHART showing the Infantile Mortality in the Borough of Battersea during the last ten years.

#### INFANT MORTALITY.

During the year 1913, the deaths of 472 infants were registered as belonging to Battersea. The total number of births registered during the year was 4,240, a decrease of 15 on the figures for the previous year, giving an infant mortality-rate of 111. This was a marked increase over the infantile mortalityrate of the previous year, and was due mainly to the increased prevalence of diarrhœal and respiratory diseases in 1913. It has to be borne in mind that the infant mortality-rate for 1912 was by far the lowest ever recorded in Battersea, being only 83 per 1,000 births. The meteorological conditions, which play such an important part in relation to diarrhœal disease, were, however, exceptionally favourable to child life during the summer of that year.

Since the formation of the Borough, and for the previous decennium, the infant mortality in Battersea and London is set out in the following table :—

Year.	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	118	107
1909	108	107
1910 .	103	97
1911	129	124
1912	91	83
1913	105	111

TABLE IX.

It will be seen from the above table that the decline in infant mortality in Battersea, which has been such a well-marked feature of the Council's efforts in that direction, has been well maintained.

In the County of London during 1913 there was a total of 11,869 infant deaths registered, giving an infantile mortality-rate of 105 per 1,000 births, as compared with 10,056 deaths, giving an infantile mortality-rate of 91 per 1,000 births in 1912.

The next two tables show the distribution of the 472 infant deaths in the sub-districts and wards :--

Registration	Deaths of Infants	Infantile Mortality				
Sub-Districts.	under 1 year of age.	per 1,000 births.				
East Battersea	219	116·3				
North-West Battersea	189	128·6				
South-West Battersea	64	70·8				
The Borough	472	111.0				

TABLE X.

INFANT DEATH RATES IN WARDS.

Ward.		Births.	Infant Deaths.	Infant Death Rate (per 1,000 births.
1. Nine Elms	 	809	108	133
2. Park	 	492	57	116
3. Latchmere	 	528	61	115
4. Shaftesbury	 	362	36	99
5. Church	 	538	74	137
6. Winstanley	 	625	74	118
7. St. John	 	159	9	57
8. Bolingbroke	 	385	37	96
9. Broomwood	 	342	16	47

The next table shows 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 of life, respectively :---

Certified Causes of Death.	Months 0—3.	Months 3—6.	Months 6—12.	Total.
Diarrhœa	8	18	12	38
Prematurity	84	1	-	85
Marasmus and Debility	42	8	8 2	58 }
Developmental Disease	16	1		19)
Bronchitis	17	10	15	42
Pneumonia	10	11	85	56
Convulsions	2	3	2	7
Suffocation	6	2		8
Measles	- 001	1	16	17
Whooping Cough	5		9	14
Tuberculosis		4	8	7
Meningitis		2	2	4
Miscellaneous	50	24	48	117
	240	85	147	472

#### TABLE XI.

From the above table it will be seen (a) that the mortality is heaviest in the first three months of life; (b) that three groups of diseases between them account for 298 (i.e., 63<sup>.2</sup> per cent.) of the total deaths of infants during 1913, viz., congenital and developmental diseases, respiratory diseases and diarrhœa.

Looking more in detail into these figures it will be seen that of the 472 infant deaths, 162 (i.e., 34.3 per cent.) were due to congenital diseases.

The respiratory group was responsible for 98 (i.e., 20.7 per cent.) of the total infant deaths.

The deaths from diarrhœa numbered 38 (i.e., 8 per cent. of the total infant deaths). This, however, does not represent the total death-rate from this cause, as there was a large number (53) of deaths of infants under one year from enteritis, many of those deaths being doubtless deaths which would be more correctly included under the head of diarrhœal deaths.

There is thus to be recorded a marked increase in the infant mortality-rates in the respiratory and diarrhœal groups of diseases. In the first quarter of the year, influenza, bronchitis and pneumonia were unusually prevalent; while during the third quarter of the year there was a marked rise in the death-rate from summer diarrhœa, the meteorological conditions which prevailed probably favouring an increased incidence. On the other hand, there is to be recorded a decline in the death-rate from the congenital group of diseases as compared with the previous year.

#### Preventive Measures.

The causes responsible for these 472 infants' deaths were inquired into by the Health Department of the Council. The chief preventive measures carried out by the Council in relation to infant mortality may be classified under the following heads :—

- 1. Notification of Births Act;
- 2. Health Visitors;
- 3. Infants' Milk Depôt.

#### Notification of Births Act.

This useful Act was passed to provide for the early notification of births to the Medical Officer of Health, and so to avoid the delay which arose through late registration of births. The Act has now been in force for six years, and has proved a very powerful factor in the reduction which has taken place in the infant mortality-rate of London and other large urban centres. The Act provides that the birth of every child shall be notified to the Medical Officer of Health within thirty-six hours. The notification is " in addition to and not in substitution for the requirements of any Act relating to the registration of births," and applies to any child born " after the expiration of the twenty-eighth week of pregnancy, whether alive or dead." In case of default in notification, a penalty of twenty shillings is provided.

During 1913, 3,633 notifications of births were received. Of this number, 705 (i.e., 20 per cent.) were notified by medical practitioners, 1,026 (i.e., 28 per cent.) by midwives, and 1,902 (i.e., 52 per cent.) by other persons. The number of births notified from each of the three sub-districts of the Borough were as follows :—

East Battersea	 	 1,663
North-West Battersea	 	 1,189
South-West Battersea	 	 781

The number of births registered in Battersea during 1913 was 4,240. The proportion of notified to registered births was therefore 85'4 per cent., as compared with 83'5 per cent. in 1912, and 69 per cent. in 1911.

It will be noted that the obligation to notify under the provisions of the Act is being more readily carried out, and during the year under report no proceedings were taken by the Council to enforce the provisions of the Act in this respect.

#### Health Visitors.

The work done by the Council's Health Visitors during 1913 comprised, amongst other matters, the visiting of the homes from which births of infants were notified. During the year 1913, 1,178 of the total number of births notified were visited by the Council's Health Visitors. In addition, 1,080 revisits were paid, and the voluntary workers of the Battersea Voluntary Health Society also paid a number of visits to the homes of infants visited in the first instance by the Council's Health Visitors. This enabled continuous observation to be kept over those children whose progress it was desirable should be followed up, and the work of the Council was in this way assisted.

As in past years, those districts of the Borough in which the circumstances and status of the inhabitants most required the services of the Health Visitors were specially attended to, and much good work was done. The areas selected were situate mainly in the more congested areas of East and North-West Battersea.

The nature of the work done has been fully set out in past Annual Reports. It included inquiries into the conditions of home life, health of mothers before and after childbirth, health of infants, nature of food given, &c., &c. Special attention was also devoted to the sanitary condition of the homes, e.g., number of rooms occupied, lighting, ventilation, and cleanliness.

The reports of the Health Visitors show that cleanliness of the homes and attention to personal cleanliness is being, on the whole, better observed.

The high rate of mortality from respiratory diseases, apart from the effects of severe weather, is stated in her report by one of the Health Visitors to be due to lack of proper clothing. It is found difficult, she says, to persuade mothers that a small quantity of flannel underclothing is preferable to a large amount of the cheaper and consequently more popular flannelette. The importance of this should be made clear by Children's Care Committees. Another evil to which she considers attention should be drawn is the practice, which appears to be fairly common amongst the poorer class of mothers when short-coating their babies, to omit to protect the child's legs and feet. My own experience confirms this, as, when examining and weighing infants at the weekly weighings held at the Latchmere Baths, I have had repeatedly to draw the attention of the mothers to the danger of this neglect on their part.

The number of mothers visited during the year by this Health Visitor shows an unusual proportion suffering from ill-health, nearly 25 per cent. of 743 mothers visited being in this condition. In many cases these women were not suffering from actual disease, but were in a debilitated condition due to causes which are, alas! too common amongst the poorer classes, viz., insufficient or unsuitable nourishment and too frequent pregnancies. As a rule, the mother is not an insured person, and consequently is slow to seek timely medical advice. The result is disastrous to her child as well, and it is not, therefore, surprising to find, on looking at the table on page 16, a high proportional mortality from congenital and developmental diseases.

The remedy for this unfortunate state of things is to be found in better provision being made for the expectant and nursing mother. Sanitary Authorities are not yet able to deal with this aspect of the problem of infant mortality, but signs are not wanting that the public attention is being increasingly directed to this aspect of the question.

The saving in infant life which has taken place in recent years has been the outcome of the solid spade work carried out in urban areas owing to the activity of the Sanitary Authorities. A glance at the chart next to page 14 will show the extent to which this saving of life has taken place in Battersea, and the same steady rate of improvement is observable throughout the country—most evident in those districts where the energy and enterprise of the Sanitary Authorities in this connection is well marked.

A comparison between the infant mortality in urban and rural communities points, as experience confirms, to the fact that conditions prevailing in most urban districts, especially in industrial centres, are inimical to infant life. It has consequently been the aim of Municipal Authorities to overcome the handicap which children born in towns have to overcome, and the efforts of such Authorities have been directed towards securing, as far as possible, the removal or amelioration of those unfavourable conditions which experience teaches are more prevalent amongst urban than amongst rural populations.

Much has therefore been accomplished by the measures already so successfully in operation in most urban areas, such, for example, as the appointment of a staff of Health Visitors, whose work has proved of incalculable value, owing to their propagandist work in visiting the homes of infants for the purpose of giving advice to mothers which is helpful to them in the rearing of their children through the manifold dangers of infant life, and in securing the removal of insanitary conditions in the homes.

Voluntary organisations working in the same direction, and acting more or less in co-operation with the Health Authorities, have given useful help. The work of such bodies has, however, suffered through absence of co-ordination of effort and the difficulty of providing in poorer districts an adequate supply of trained voluntary workers. The best results in this important field of public health work are only to be attained by the provision of an adequate supply of specially trained Health Visitors, selected with due regard to their tact and industry in carrying out their delicate and important duties. This is a combination which my experience shows is difficult to obtain amongst voluntary workers.

What is required, therefore, is greater facilities being given to Sanitary Authorities to develop their infant mortality work on lines which would enable them to do so while not overburdening their finances. While much attention has been given by most urban authorities to the protection of infants under one year old, and excellent results have been attained, there is room for improvement in regard to the facilities at their disposal. Moreover, any extension of facilities given to them by Parliament in this vitally important and necessary work should have regard to provision for children up to school age. No statutory provision has so far been made to bridge over the interval between children between one year old and school age (in this country five years)—an unsatisfactory state of things which should promptly be adjusted.

It is to be hoped that Sanitary Authorities will shortly be given powers to enable them to organise their infant welfare work on lines which would enable them to co-ordinate the efforts of voluntary and philanthropic agencies working in the same direction. Much greater results would thereby be obtained, and the development of schemes which would place all such work on a satisfactory basis, and which would extend the scope of the work so as to include children up to school age and under the direct supervision of the Public Health Authorities is badly needed.

#### Infants' Milk Depot.

During 1913, the number of infants fed from the Council's Milk Depôt was 401, as compared with 400 in 1912. Of this number, all but one were resident in Battersea, the exception being a baby resident in an adjoining Borough.

The age at which these children commenced taking the milk and the length of time fed are shown in the following table :---

MILK DEPÔT TA	BLE, 1918.	
---------------	------------	--

Age	Period Fed.																
STARTED.	Under 1 wk.	1-2 wks.	2-3 wks.	3-4 wks.	1-2 mths.	2-3 mths.	3-4 mths.	4-5 mths.	5-6 mths.	6-7 mths.	7-8 mths.	8-9 mths.	9-10 mths.		11-12 mths.		TOTALS
Under 1 wk. 1-2 wks 2-3 ,, 3-4 ,, 2-3 ,, 3-4 ,, 4-5 ,, 5-6 ,, 6-7 ,, 7-8 ,, 9-10 ,, 10-11 ,, 11-12 ,, Over 1 yr		2 1 6 1 1 1 8 1 2 1 1 1 1 2 20	2 1 1 5 2 2 1 1 - - - - - - - - - - - - -		$ \begin{array}{c} 1 \\ 4 \\ 2 \\ 1 \\ 12 \\ 8 \\ 4 \\ 2 \\ 4 \\ - \\ 8 \\ 1 \\ - \\ 1 \\ 2 \\ 45 \\ \end{array} $	1 1 1 7 8 6 8 5 8 5 8 - 4 1 1 1 8 4 6	1 	3       4       3       4       3       10       3       2       1       1       1       3       38	1 1 2 6 6 5 1 2 1 1 1 1 1 2 8	1 4 1 6 4 1 1 2 1 	1 1 2 2 7 8 2 1  2 1  2 1  2 1  2 1  2 2 7 8 2 1  2 2 7 8 2 1  2 2 7 8 2 1  2 2 7 8 2 1  2 2 1  2 2 2 7 8 2 2 1  2 2 2 7 8 2 2 1  2 2 2 2 7 8 2 2 1  2 2 2 2 7 8 2 2 1  2 2 2 7 8 2 2 1  2 2 2 2 2 7 8 2 2 1  2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		1 2 3 2 4 3 	2 	8 2 1 6 5 8 	$ \begin{array}{c} 11 \\ 8 \\ 6 \\ 9 \\ 2 \\ 6 \\ 1 \\ 2 \\ 1 \\ 2 \\ 1 \\ 2 \\ 1 \\ 49 \end{array} $	26 21 22 20 72 71 57 23 26 10 15 14 4 7 4 9

Of the 401 infants fed from the Milk Depôt, 279 were admitted during 1913. The majority of the children admitted during the year were suffering more or less seriously from ill-health on admission.

The nature of the diseases or ailments from which the majority of these infants suffered embraced almost all the diseases of infancy, congenital and developmental affections affecting the largest number.

The total number of deaths amongst the children fed from the Depôt was 35, giving a death-rate of 85, as compared with 111, the general infantile mortality for the Borough. Fourteen of the dead children had ceased taking the milk for varying periods before death, and in several cases the children had only been taking the milk for a few days, having been put on as a last resource. The mortality statistics of the Milk Depôt children, all things considered, are very satisfactory.

The weighing of the babies fed from the Council's Milk Depôt is carried out weekly at the Latchmere Baths (two days) and Nine Elms Baths (one day), rooms having been placed at our disposal through the courtesy of the Baths Committee. A very much larger number of babies, visited under the Notification of Births Act, are also weighed periodically at these weighing centres, and the practice serves a very useful purpose as an educational centre for infant care work and in keeping the mothers interested in the progress of their babies. It also enables a regular supervision to be exercised over the infants fed from the Milk Depôt, the weight of each child being recorded and its progress noted in the registers. The mothers are at the same time given advice in such cases as may be found necessary, and any serious deviations from the normal progress of the children are reported at once to the Medical Officer of Health.

The Council's Health Visitor (Miss Moss), who is in charge of the weighing-room at Latchmere Baths, reports :—" I cannot speak too highly of the help that the weekly weighing afternoons are to the work. . . . It is no uncommon thing to receive letters asking for advice from mothers who have removed from the Borough, and they frequently make long journeys to show how the children are progressing." It will be seen, therefore, that this feature of the Council's work is becoming increasingly popular, and that the ignorance of mothers, which in the past has been one of the factors responsible for a high rate of infant mortality, is rapidly disappearing, and a newer, brighter, and happier home life is being created and fostered by measures which have for their object the saving of infant life. The Council contribute a donation to the funds of a large children's hospital in an adjoining district, and in return a large number of letters are placed at our disposal, which enable the Medical Officer of Health to have such cases as require medical or surgical treatment attended to without delay.

In conclusion, it may be said that the infantile mortality work of the Council has been well maintained during the year, as the following summary shows :—

Total visits paid	 	 4,709
New Milk Depôt babies visited	 	 267
Re-visits to Milk Depôt babies	 	 1,096
'Attendances at weighing-rooms	 	 156
Infants' weights registered	 	 3,880
Number of children attending	 	 783
Notified births visited	 	 1,178
Re-visits	 	 1,080
Infant deaths visited	 	 405
Re-visits	 	 79
Puerperal fever cases visited	 	 7
Puerperal fever : re-visits	 	 5
Ophthalmia neonatorum	 	 34
Re-visits	 	 184
Special cases visited	 	 164
Re-visits for sanitary defects -	 	 44
Intimation notices served	 	 85
Statutory notices served	 	 5

#### Senile Mortality.

During the year 1913 in the Borough of Battersea, 631 deaths of persons aged 65 years and upwards were registered. The age distribution of these deaths is set out in the following table :—

District.	65 and	75 and	85 and	Total	
	under 75.	under 85.	upwards.	over 65.	
East Battersea	151	85	25	261	
North-West Battersea	91	58	9	158	
South-West Battersea	118	72	27	212	
Borough of Battersea	855	215	61	681	

The 631 deaths over 65 were equivalent to 26.6 per cent. of the deaths at all ages.

The deaths over 65 in each year during the nine years 1904-1913 were :—

1904	 	 	508
1905	 	 	537
1906	 	 	495
1907	 	 	510
1908	 	 	564
1909	 	 	630
1910	 	 	510
1911	 	 	591
1912	 	 	570
1913	 	 	631

.

# Infectious and other Zymotic 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, simple or continued), and diarrhœa.

In the Borough of Battersea during 1913 there were registered from the principal zymotic diseases 197 deaths (as against 133 deaths in 1912, and 331 deaths in 1911), giving a corrected zymotic death-rate of 1.17 per 1,000, the corrected death-rate for the County of London being 1.4, varying in the different Metropolitan Boroughs from 2.7 in Shoreditch to 0.4 in the City of London. The zymotic death-rate varies considerably for the three registration sub-districts into which, for registration purposes, the Borough is divided. Thus in North-West Battersea the rate was 2.03, in East Battersea 1.14, while in South-West Battersea the rate was only 0.34 per 1,000. This is in accordance with the rule that, generally speaking, the highest incidence and mortality from zymotic disease will be found in the less sanitary areas of the Borough.

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

Diseases.	Mean Death- rate per 1,000 1903-1912.	Death-rate per 1,000 1913	Gain in 1913.	Loss in 1913.
Small-pox	0.00	0.00	_	_
Measles i	0.43	0.53	_	.10
Erysipelas	0.04	0.02	.02	
Scarlet Fever	0.07	0.02	.02	-
Diphtheria	0.10	0.11		·01
Enteric Fever	0 03	0.03	-	-
Puerperal Fever	0.02	0.03		•01
Whooping Cough	0.30	0.16	.14	-
Zymotic Diarrhœa	0.57	0.28	.29	

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

Ward.	Population, estimated to middle 1913.	Small-pox.	Measles.	Erysipelas.	Scarlet Fever.	Diphtheria.	Enteric, &c.	Puerperal Fever.	Whooping Cough.	Zymotic Diarrhœa.	All chief Zy- motic diseases.
<ol> <li>Nine Elms</li> <li>Park</li> <li>Latchmere</li> <li>Shaftesbury</li> <li>Church</li> <li>Winstanley</li> <li>St. John *</li> <li>Bolingbroke</li> <li>Broomwood</li> </ol>	$\begin{array}{c} 27,175\\ 17,486\\ 20,158\\ 15,992\\ 19,325\\ 20,173\\ 8,186\\ 18,433\\ 20,536\end{array}$		$     \begin{array}{r}         \cdot 77 \\         \cdot 17 \\         \cdot 44 \\         \cdot 93 \\         \cdot 28 \\         \cdot 48 \\         \cdot 21 \\         \cdot 09 \\         \cdot 09     \end{array} $	·00 ·00 ·04 ·06 ·05 ·09 ·00 ·00 ·00	·07 ·05 ·00 ·00 ·10 ·04 ·00 ·05 ·04	$     \begin{array}{r}       \cdot 14 \\       \cdot 11 \\       \cdot 29 \\       \cdot 06 \\       \cdot 05 \\       \cdot 19 \\       \cdot 12 \\       00 \\       \cdot 04 \\     \end{array} $	·00 ·05 ·00 ·15 ·04 ·00 ·00 ·00	·00 ·05 ·04 ·00 ·10 ·00 ·00 ·05 ·04	·18 ·22 ·14 ·18 ·15 ·34 ·12 ·00 ·00	·36 ·51 ·34 ·12 ·41 ·49 ·00 ·05 ·00	$\begin{array}{c} 1\cdot 54\\ 1\cdot 20\\ 1\cdot 33\\ \cdot 62\\ 1\cdot 96\\ 2\cdot 52\\ \cdot 73\\ \cdot 37\\ \cdot 29\end{array}$

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

			Cough.			Fever.		rhœa.		'er.				
Quarter No.	Small-pox.	Measles.	Whooping Co	Scarlet Fever.	Diphtheria.	Typhus	Typhoid.	Continued.	Zymotic Diarrhœa	Erysipelas.	Puerperal Fever.	Cholera.	Influenza.	Total.
1 2 3 4	1111		9 10 6 1	1 2 3 2	5 5 8 7	1111	1 - 5		2 41 4	1 2 2	1 2 1 2		14 8 5	98 49 57 81
Year	-	90	26	8	20	-	6	-	47	5	6	-	27	235

Drains and sanitary fittings are tested as a routine procedure in all infected houses in cases of diphtheria, enteric, and puerperal fever, and as regards other diseases in such instances as may be found necessary.

1

	invaded.	Numbe	r showing as to—	ing ts.	ing no ects.			
DISEASE.	No. of houses in	Drains.	Traps, fittings and appliances.	Total.	Percentage showing drainage defects.	Percentage showing drainage defects		
Diphtheria Erysipelas Scarlet Fever Typhoid Puerperal Fever	228 122 694 18 9	$     \begin{array}{c}       17 \\       2 \\       11 \\       2 \\       1     \end{array} $	14 4 88 1 	81 6 49 8 1	$     \begin{array}{r}       18 \\       4 \\       7 \\       28 \\       11     \end{array} $	87 96 93 77 89		
Total	1061	33	57	90	8	92		

The following table gives the drainage defects, &c., in houses in which cases of infectious disease were notified during 1913 :---

#### Notifiable Infectious Diseases.

During 1913, under the Notification Clauses of the Public Health (London) Act, 1891, 1,331 cases of infectious diseases have been notified, as compared with 826 in 1912. Of the 1,331 cases notified, 1,152 (i.e., 86 per cent.) were removed to hospitals of the Metropolitan Asylums Board or to other hospitals, and 179 (i.e., 14 per cent.) remained under treatment at home. The percentage of cases removed to hospital in 1913 exceeded that of 1912, and it is satisfactory to be able to record that the high percentage of hospital isolated cases has been more than maintained.

Examining the removals to hospital more in detail (i.e., nature of disease), it is seen that during 1913 in the Borough of Battersea the following are the percentages :—

Scarlet fever				 96
Diphtheria and	membrai	nous cr	oup	 93
Enteric fever				 100
Erysipelas				 23
Puerperal fever				 77

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

	Total Number of Cases Notified.	Notifications per 1,000 Population.
The Borough	 1,331	 7.9
East Battersea	 596	 8.5
North-West Battersea	 497	 10.1
South-West Battersea	 238	 4.8

The total amount paid in fees to medical practitioners for notifications of infectious disease in Battersea during 1913 was £238 1s. 6d. (This amount includes fees paid for notifications of tuberculosis.)

There was a large increase in the number of scarlet fever notifications during 1913, viz., 110 per cent., as compared with 1912. The number of notifications during the year 1913 was 37 per cent. above the average for the ten years 1903-1912. The 897 cases of scarlet fever occurred in 694 houses.

The number of notifications of diphtheria received during 1913 was 40 in excess of the number notified in 1912. The notifications were 2.4 per cent. above the average for the ten years 1903-1912. The 250 cases of diphtheria occurred in 223 houses, and in only 17 of these were the drains, on testing, found defective.

The enteric fever notifications were 5 fewer than the number received during 1912, and were 62 below the average for the decennium 1903-1912. The 15 enteric fever cases occurred in 13 houses, in 2 of which the drains, on testing, were found to be defective.

The following tables show the number of cases of the principal infectious diseases received during 1913 arranged in Wards, and the case-rate per 1,000 population :—

Ward.	Diphtheria & Membra- nous Croup.	Erysipelas.	Scarlet Fever.	Typhoid or Enteric Fever.	Ophthalmia Neon.	Puerperal Fever.	Polio- myelitis.	Cerebro-spinal Fever.	TOTALS.
No. 1 (Nine Elms)	48	22	165	3	10	1	1	-	245
" 2 (Park)	85	17	76	1	4	-	1	1	185
" 3 (Latchmere)	87	9	138	1	52	2		-	192
" 4 (Shaftesbury)	19	20	85	-	2	-	1	-	127
" 5 (Church)	35	15	170	8	-	8	-	-	226
, 6 (Winstanley)	26	24	113	4	6	1	1	1	176
., 7 (St. John)	17	4	37	-	1		-	-	59
" 8 (Bolingbroke)	26	7	54	1	8	2	-	-	93
" 9 (Broomwood)	12	5	59	2	-	-		-	78
Totals	250	123	897	15	81	9	4	2	1331

Ward.	Population, estimated to middle 1913.	Diphtheria & Membra- nous Croup.	Erysipelas.	Scarlet Fever	Enteric Fever	Ophthalmia. Neon.	Puerperal Fever.	Polio- myelitis.	Cerebro-spinal Fever.	All Notifiable Infectious diseases.
(Nine Elms) (Park) (Latchmere) (Shaftesbury) (Church) (Winstanley) (St. John) (Bolingbroke) (Broomwood)	$\begin{array}{c} 27,176\\ 17,486\\ 20,158\\ 15,992\\ 19,825\\ 20,173\\ 8,186\\ 18,433\\ 20,536\end{array}$	$\begin{array}{c} 1\cdot 58\\ 2\cdot 00\\ 1\cdot 83\\ 1\cdot 18\\ 1\cdot 81\\ 1\cdot 28\\ 2\cdot 07\\ 1\cdot 41\\ \cdot 58\end{array}$		$\begin{array}{c} 6.07 \\ 4.34 \\ 6.84 \\ 5.31 \\ 8.79 \\ 5.60 \\ 4.52 \\ 2.92 \\ 2.92 \\ 2.87 \end{array}$	·11 ·05 ·04 ·00 ·15 ·19 ·00 ·05 ·09		·03 ·00 ·09 ·00 ·15 ·04 ·00 ·10 ·00	·03 ·05 ·00 ·06 ·00 ·04 ·00 ·00 ·00 ·00	$     \begin{array}{r}         \cdot 00 \\         \cdot 05 \\         \cdot 00 \\         \cdot 0 \\     $	$\begin{array}{r} 9 \cdot 01 \\ 7 \cdot 72 \\ 9 \cdot 52 \\ 7 \cdot 94 \\ 11 \cdot 69 \\ 8 \cdot 72 \\ 7 \cdot 20 \\ 5 \cdot 04 \\ 8 \cdot 79 \end{array}$

#### Small-pox.

No case of small-pox was notified in Battersea during 1913. The number of cases of small-pox notified in the County of London during the year was 4.

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

#### Scarlet Fever.

The number of cases of scarlet fever notified in Battersea during 1913 was 897. This was an increase of 110 per cent. over that of 1912. In 1911, 325 cases were notified, the lowest number ever previously recorded in Battersea. In 1912 the number of cases notified was 427, an increase of 31 per cent. over that of 1911. In the Annual Report of 1912 it was stated "that there are indications that the quinquennial wave of epidemic prevalence had begun to rise, and we may probably look forward to a progressive increase in incidence for the next two or three years." That this forecast has been justified is evident from the great increase in the number of scarlet fever cases notified in 1913, and it is probable that a further increase may have to be recorded during the ensuing year.

The tendency of scarlet fever to recur in quinquennial waves of epidemic prevalence has been referred to in past Annual Reports. In 1906, after a period of decline in incidence, a similar upward

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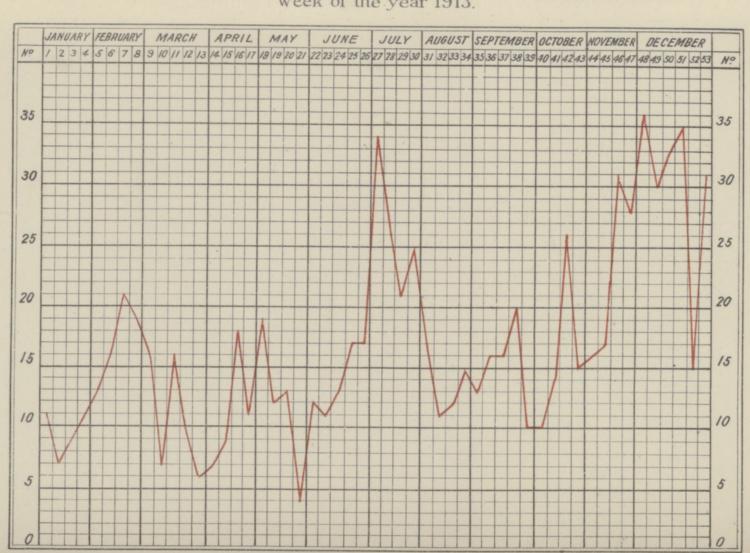


CHART showing the number of cases of Scarlet Fever notified during each week of the year 1913.



wave of epidemicity began to spread over London, and the disease continued to rise in incidence until 1908. The number of cases rapidly declined in 1909 and 1910, until the number of cases recorded in Battersea reached, in 1911, as already stated, the lowest figure ever recorded in the statistics of the Borough.

In the following table are shown the number of cases and the case-mortality per cent. in the Borough and sub-districts during 1913 :—

Registration Sub-Districts.	East Battersea.	NthWest Battersea.		Borough.
No. of Cases	891	847	159 -	897
Case-rate per 1,000 popula- tion	5.61	7.07	3.26	5.85
No. of Deaths	8	8	2	8
Death-rate per 1,000 population	0.04	0.06	0.04	0.02
Case-mortality per cent.	0.8	0.8	1.2	0.9

The causes mainly responsible for the spread of infection from scarlet fever in 1913 are twofold in character :--

1. Mildness of the type of infection ;

2. The Public Elementary Schools.

With regard to the first mentioned, it is evident, from the experience of recent years, that in regard to virulence the disease has assumed a mild type. A large proportion of the Battersea cases (about 25 per cent.) were so mild as to escape detection in the initial stages, and were only discovered owing to the presence of "peeling," or the occurrence of more typical cases drawing attention to cases of suspicious signs or symptoms in some other member or members of the same family or persons living in the same house.

Eight deaths were registered from the disease in the Borough during 1913, giving a death-rate per 1,000 of the population of 0.05.

Of the 897 cases of scarlet fever notified during the year, 593 (i.e., 66.1 per cent.) were children of school age.

In 135 of the houses invaded, multiple cases occurred as follows :---

				NO	o, of time
	cases in	one h	nouse	 	97
3	,,	,,	,,	 	29
4 5	,,	,,	,,	 ***	4
	,,	,,	"	 	3
6	,,	,,	"	 	1

In other words, 897 cases of scarlet fever occurred in 694 houses, two or more members of the same family or persons living in the same house being infected. In a large number of cases the source of infection was traceable to the presence of a mild, unrecognised case. The difficulties of diagnosis was greatly increased by the markedly mild type of infection, giving in the early stage very slight symptoms, which was a characteristic feature of a considerable number of cases occurring in Battersea in 1913; and this was undoubtedly an important factor in the manner in which the disease was spread.

An outbreak of scarlet fever occurred at the Royal Masonic Institution for Girls, St. John's Hill, in November, ten cases being notified between the 20th November and 4th December. The outbreak occurred in the Senior School. Owing to the excellent arrangements for isolation prevailing at the Institution and the prompt steps taken to limit the spread of infection, the course of the outbreak was rapidly checked—a very satisfactory result, having regard to the large number of children resident in the Institution. Careful inquiries failed definitely to trace the source of infection. It is probable that the infection was introduced from without, but in what manner it was impossible to ascertain.

"Return cases," i.e., cases infected by a patient recently discharged from hospital, were slightly less than in the previous year, the percentage of "return cases" to total cases being 3.4, as compared with 3.5 in 1912. The number of cases sent back from hospital notified as scarlet fever, and in which the diagnosis was found to be erroneous, was 52, or 5.4 per cent., as compared with 7.5 per cent. in 1912.

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	88	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	8.8
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	8.4
1899	721	4.30	14	0.08	1.9
1900	548	8.25	13	0.07	2.3
1901	609	8.60	9	0.05	1.4
1902	854	4.98	28	0.18	2.6
1903	448	2.58	7	0.04	1.5
1904	875	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
1909	702	8.77	8	0.04	1.1
1910	439	2.83	7	0.03	1.6
1911	825	1.93	4	0.05	1.2
1912	427	2.54	6	0.03	1.4
1913	897	5.85	8	0.05	09

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	Borougn
No. of Cases	8	15	30	74	82	404	189	69	31	897
No. of Deaths	-	1	4	2	-	- + -	-	-	1	8
Case-mortality per cent.	1	6.7	18.3	2.7	-	1	-		8.2	0.9

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The above table is instructive, and shows that of the 897 persons reported to be suffering from scarlet fever during 1913, 204 (i.e., 22.7 per cent.) were under 5 years of age, and 608 (i.e., 67.8 per cent.) under 10 years, while the mortality was greatest among those under 5 years of age (i.e., 3.4 per cent.). Of the 289 persons over 10 years of age, 1 (i.e., '35 per cent.) died.

## Diphtheria.

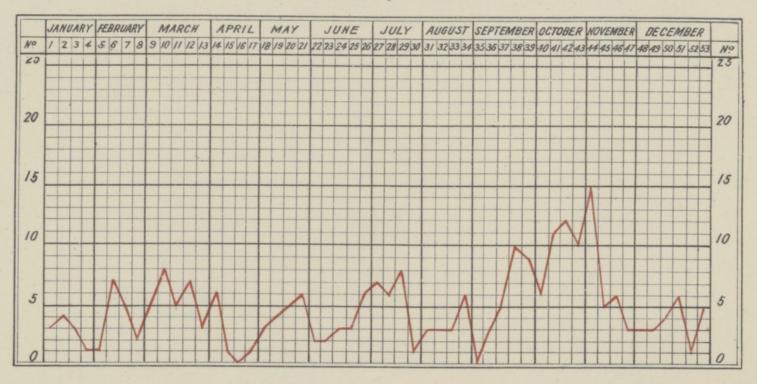
The number of diphtheria notifications (including membranous croup) received during 1913 was 250, as against 210 notified during 1912.

The case-rate, death-rate, and case-mortality from diphtheria and membranous croup since 1891 are set out in the following table :—

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	0.78	23.3
1895	411	2.52	94	0.57	22.8
1896	426	2.57	82	0.49	19.2
1897	614	8.69	108	0.65	17.6
1898	791	4.74	120	0.71	15.1
1899	606	3.61	68	0.87	10.4
1900	806	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	10.8
1904	199	1.18	14	0.07	7.0
1905	166	. 0.98	11	0.06	6.6
1906	251	1.39	17	0.09	6.7
1907	815	1.78	38	0.50	12.0
1908	840	1.84	22	0.11	7.0
1909	265	1.42	23	0.12	8.6
1910	209	1.10	12	0.06	5.7
1911	208	1.28	21	0.12	10.1
1912	210	1.25	17	0.10	8.0
1913	250	1.49	20	0.11	8.0

Twenty deaths were registered from the disease in the Borough, giving a fatality-rate of 0.11 per 1,000 of the population.

CHART showing the number of cases of Diphtheria notified during each week of the year 1913.





The distribution of the disease in the three registration subdistricts of the Borough, together with the number of deaths among both hospital and home-treated patients, during 1913 is shown in the following table :—

	ses .	ed at	oved al.	No.	of Dea	aths.	ulity	per tion.
REGISTRATION SUB-DISTRICTS.	No. of cases notified.	Cases treated home.	Cases removed to hospital.	At home.	At Hospital.	Total.	Case.mortality per cent.	Case-rate p 1,000 populat
North-West Battersea	110 85	3 2	107 83	1	7 9	8 10	7.2	1.5 1.7
South-West Battersea	55	12	43	-	2	2	3.6	1.1

In the above table it will be seen that the incidence of and mortality from the disease has been greater relatively in North-West Battersea.

Two hundred and thirty-three patients were removed to hospital, or 93 per cent. of the total cases notified. In 1912 the percentage of cases removed to hospital was 96, and in 1911 94 per cent. In the sub-districts the percentages of cases removed to hospital were as follows :—North-West Battersea, 97.6; East Battersea, 97.2; South-West Battersea, 78.2.

The following 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	65—	Boro'
No. of Cases	5	9	19	21	28	116	35	18	4	_	250
No. of Deaths	1	8	1	7	1	5	2	-	-	_	20
Case-mortality per cent		33.3	5.2		3.5	4.8	5.7	·00	·00	-	8.0

The total number of houses invaded by diphtheria was 223. In 17 houses (i.e., 7.6 per cent.) the drainage was found to be defective. During the year, 37 cases (i.e., 12.8 per cent.) notified as diphtheria and removed to hospital were found not to be suffering from the disease, and were discharged to their homes.

A slight outbreak of diphtheria occurred amongst the pupils attending a High School in the Borough. Swabs were taken from a large number of children in the affected classroom, and in several instances children were found showing evidence of the presence, on bacteriological examination, of the diphtheria germ in the nose or throat or both. On the exclusion of these children, who were either removed to the isolation hospital or kept under medical observation at their homes, the outbreak, which resulted in seven cases being notified, was stopped.

Six hundred and forty-seven bacteriological examinations of suspected cases of diphtheria were made during 1913, as compared with 554 in 1912 and 384 in 1911. In 138 a positive, and in 509 a negative, result was obtained.

## Enteric Fever.

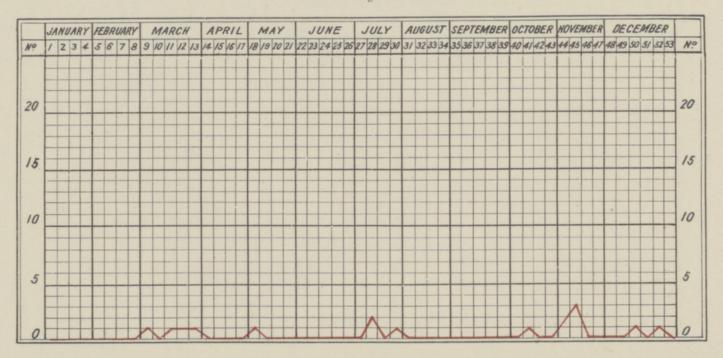
During 1913, 15 cases of enteric fever were notified in the Borough, as compared with 20 in each of the two previous years.

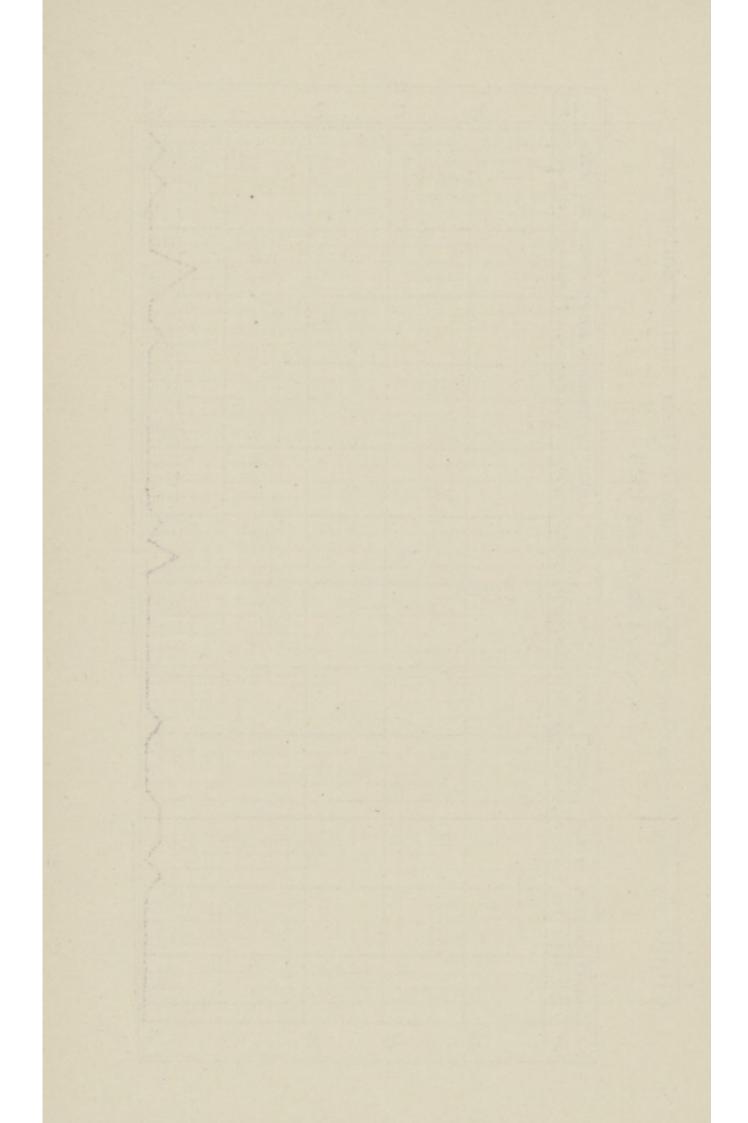
Six deaths were registered from the disease, giving a casemortality of 40 per cent. and a death-rate per 1,000 population of 0.03.

This was the lowest number of cases ever recorded in the Old Parish and Borough of Battersea,

In the following table are set out the case-rate, death-rate, and case-mortality from enteric fever in the Old Parish and Borough of Battersea since 1891 :--

CHART showing the number of cases of Enteric Fever notified during each week of the year 1913.





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	0.58	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	87	0.20	4	0.02	10.8
1908	36	0.19	7	0.03	19.4
1909	48	0.25	7	0.03	14.5
1910	41	0.21	7	0.03	17.0
1911	20	0.12	8	0.02	15.0
1912	20	0.12	2	0.01	10.0
1913	15	0.08	6	0.03	40.0

The age distribution of the cases and the death-rate, caserate, and case-mortality in the Borough and in the sub-districts during 1913 are set out in the following tables :—

Ages.	Under 5.	5-15.	15-30.	Above 30.	Totals.
Males Females	 -	4 2	3 2	$\frac{1}{2}$	8 7
Totals	 1	6	5	8	15

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	Case-rate per 1,000 population.	Death-rate per 1,000 population.	Case- mortality per cent.
East Battersea	 .05	·01	25
North-West Battersea	 .16	•08	50
South-West Battersea	 •06	.02	33
The Borough	 .08	·08	40

In the County of London the case-rate was 0.16 per 1,000 population.

Of the 13 typhoid-infected houses, 3 (i.e., 23 per cent.) showed, on inspection, defective traps, fittings, or appliances. In 2 of the houses the drains as well were found to be defective.

The source of infection in two cases was traceable to personal infection; in one case to shell-fish (mussels); in one case to fried fish; one case contracted the disease outside the Borough; and in the remaining ten cases the source of infection was merely conjectural.

## Puerperal Fever.

13.13

During 1913, in the Borough of Battersea, nine cases of puerperal fever were notified, and six deaths were registered from the disease, giving a case-mortality of 66.6 per cent. The case rate was 0.05, and was equal to the case-rate for the preceding ten years. The death-rate was 0.03, or 0.01 above the decennial average. The death-rate for London was 0.03 per 1,000 population. The six deaths from puerperal fever in 1913 were distributed as follows:—East Battersea, two; North-West Battersea, two; South-West Battersea, two.

In 1912 five cases of puerperal fever and one death was registered from the disease. In 1911 nine cases were notified and two deaths registered from the disease.

#### Erysipelas.

During 1913, in the Borough of Battersea, 123 cases of erysipelas were notified, and five deaths were registered from the disease, as compared with 134 cases and four deaths in 1912. The case-mortality was 4 per cent., as compared with 2.9 per cent. in 1912, and 1.8 per cent. in 1911. The case-rate was 0.73 and the death-rate 0.02, being 0.15 and 0.02 below the decennial average respectively.

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

In London, during 1913, 4,148 cases of erysipelas were notified and 131 deaths registered from the disease, giving a casemortality of 3.1 per cent.

## Epidemic Cerebro-Spinal Meningitis.

During 1913 two cases of epidemic cerebro-spinal meningitis were notified in Battersea. In 1912 no case was notified, and in 1911 seven cases were notified.

The two cases notified during the year ended fatally.

In the County of London 92 cases of epidemic cerebro-spinal meningitis were notified during 1913.

## Acute Polio-Myelitis or Acute Polio-Encephalitis.

During 1913 four cases of acute polio-myelitis were notified in Battersea, as compared with two cases in 1912.

## Opthalmia Neonatorum.

During 1913, 31 cases of ophthalmia neonatorum were notified, as compared with 28 cases in the previous year.

## Measles.

During 1913, 90 deaths from measles were registered in the Borough, as compared with 55 deaths from the disease in 1912, and 111 deaths in 1911.

The death-rate was 0.53 per 1,000 of the population, as compared with 0.43, the mean death-rate from the disease for the preceding 10 years. The death-rate in North-West Battersea was 0.99, in East Battersea 0.44, and in South-West Battersea 0.20.

In London the ceath-rate from measles was 0.34 per 1,000 population, 1,570 deaths from this cause being registered during the year.

The number of deaths registered from measles in each of the registration sub-districts during the past three years is as follows :---

	1913.	1912.	1911.
East Battersea	 31	38	46
North-West Battersea	 49	17	55
South-West Battersea	 10	0	10

Seventeen deaths were of infants under one year of age, and 68 of children aged one to five years.

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

First quarter	 	 67
Second quarter	 	 19
Third quarter	 	 1
Fourth quarter	 	 3

The mortality from measles was high during the first quarter of the year 1913. There was a severe epidemic of measles in Battersea, which commenced towards the end of 1912 and continued up to the end of the first quarter of 1913, 110 deaths occurring from the disease in the six months. The epidemic rapidly declined after March, 1913.

The high death-rate from measles is still a matter for serious concern, and it is clear that under existing circumstances the measures available to Sanitary Authorities for dealing with this fatal scourge of child life are inadequate. With almost automatic regularity every two years an explosive outbreak of measles occurs, resulting in a high mortality amongst children. Although all possible steps are taken by the Health Department, these suffer from the lack of a satisfactory system of notification and lack of means for securing, in the poorer and more congested areas of the Borough, adequate means of isolation. Some two or three years ago the Local Government Board arranged with the Metropolitan Asylums Board for the removal to the Board's hospitals of cases of measles on the recommendation of the Medical Officer of Health. The accommodation available for these cases has at times been found to be limited, and cases have had to be refused admission. It is to be regretted that, having regard to the extremely fatal nature of this disease, those additional measures which have been advocated, viz. :--

- 1. A modified system of compulsory notification ;
- 2. Facilities for hospital removal and isolation;
- 3. Exclusion of children under five years of age from the Public Elementary Schools;

have not yet been adopted. (Vide Special Report in Appendix.)

#### Whooping cough.

During 1913, in the Borough of Battersea, 26 deaths were registered from whooping-cough, as compared with 40 in 1912. The deaths were 29 below the average for the preceding 10 years, and were equivalent to a death-rate of 0.16 per 1,000, as compared with 0.30, the mean death-rate for the previous 10 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.
 13		0.18
 12		0.24
 1		0.05
	Deaths. 13 12 1	Deaths. 13 12 1

The deaths under one year of age were 54 per cent. of the total deaths, and from one to five years of age 46 per cent., the total percentage of deaths under five years of age being 100.

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

First quarter	 	 9
Second quarter	 	 10
Third quarter	 	 6
Fourth quarter	 	 1

The following is a summary of the number of children excluded from school attendance during the year 1913 in connection with the more common infectious diseases, e.g., measles, whoopingcough, &c. :—

Disease.	Children excluded on account of infection in their homes.	Number of children suffering.
Measles	471	815
Chicken-pox	133	839
Whooping-cough	78	891
Mumps	4	190

## Diarrhœa.

During 1913 the number of deaths from (zymotic) diarrhœa registered as belonging to Battersea was 47, as compared with 13 in 1912. The death-rate was 0.28 per 1,000, or 0.29 below the decennial average of 0.57. Of the 47 deaths from summer diarrhœa, all were of children under five years of age, and 38 (i.e., 81 per cent.) were of children under one year of age. During 1912, of the 13 deaths, seven (i.e., 54 per cent.) were of infants under one year old.

Registration Sub-District.	N	o. of Deatl	ns.	Death-rate per 1,000 population.			
Registration Sub-District.	1913.	1912.	1911.	1913.	1912.	1911.	
East Battersea	24	5	72	·84	.07	1.01	
North-West Battersea	22	7	77	•44	·13	1.56	
South-West Battersea	1	1	10	.02	.02	.20	

The number of deaths and the death-rate in the sub-districts in 1913, 1912, and 1911 were as follows :---

In the next table are set out the deaths registered in each of the four quarterly periods in 1913, 1912, and 1911 :--

		1913.	1912.	1911.
First quarter	 		1	6
Second quarter	 2	2	2	2
Third quarter	 	41	8	185
Fourth quarter	 	4	2	16

Of the 38 deaths of infants under one year old from zymotic diarrhœa, 35 occurred in the third quarter of the year, distributed as follows in the three sub-districts of the Borough:—East Battersea, 18; North-West Battersea, 17; South-West Battersea, nil. The effect of environment is strikingly exemplified in these figures, not a single death from summer diarrhœa being recorded among children under one year in South-West Battersea, in which district the standard of living and the status of its inhabitants is in the main higher than in the other two districts.

The next table gives the age-periods at which these 35 infants died during 1913 :--

of Infants under	1 year of age fi	rom Zymotic Di	arrhœa.
3-6 months.	6-9 months.	9-12 months.	Total.
17	7	4	85
		and the later of the	of Infants under 1 year of age from Zymotic Di3-6 months.6-9 months.9-12 months.1774

It will be noted that there was a marked increase in the mortality from summer diarrhœa in 1913, as compared with 1912. This was due, no doubt, mainly to the less favourable meteorological conditions prevailing in the summer of 1913. As is well known, a cool, wet summer is favourable to a low incidence from summer diarrhœa, and these conditions were markedly present in the summer of 1912.

In addition to the 47 deaths registered from zymotic diarrhœa, 88 deaths were registered in the Borough from diarrhœal diseases. The total number of deaths in the Borough from diarrhœal diseases was therefore 135.

## Cancer.

The number of deaths from cancer registered of persons belonging to Battersea during 1913 was 175 (males, 78; females, 97), as compared with 179 in 1912, and 163 in 1911.

The average number of deaths from cancer during the 10 years 1903-1912 was 162. The death-rate from the disease during 1913 was 1.04 per 1,000 population, the number of deaths during the year being 13 in excess of the average for the decennium.

## Alcoholism.

During 1913, in the Borough of Battersea, seven deaths were registered from acute and chronic alcoholism (males, 5; females, 2). In addition to them, 10 deaths (males, 5; females, 5) were registered from cirrhosis of the liver, a disease mainly due to alcohol.

The total number of deaths, therefore, to be ascribed to alcohol was 17, as compared with 21 in 1912 and 26 in 1911. These do not probably represent the whole of the deaths attributable to this cause, many deaths due to alcohol-being registered under less invidious headings.

#### Tuberculosis.

During 1913, 245 deaths from Tuberculosis were registered as belonging to the Borough of Battersea. Of this number, 191 (i.e., 77.9 per cent.) were due to Phthisis (Tuberculosis of the lungs), 33 to Tubercular Meningitis, 6 to General Tuberculosis, 10 to Tubercular disease of the intestines, and 5 to other forms of the disease. In 1912, the total number of deaths from • Tuberculosis was 233, and in 1911, 289.

Year.	Deaths from Phthisis per 100,000 persons.	Deaths from other Tubercular Diseases per 100,000 persons.			
1901	146	60			
1902	129	44			
1903	128	51			
1904	139	41			
1905	182	50			
1906	122	48			
1907	120	46			
1908	119	46			
1909	116	38			
1910	103	80			
1911	129	42			
1912	113	25			
1913	114	. 32			

The following table shows the death-rate from Phthisis and other tubercular diseases in each year since 1901:---

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

District.	Рнтн	ISIS.	OTHER TUBER- CULAR DISEASES.		TOTAL.		
	No. of Deaths.	Rate.	No. of Deaths.	Rate.	No. of Deaths.	Rate.	
East Battersea	103	1.47	23	·88	126	1.80	
NthWest Battersea	51	1.04	20	·40	71	1.44	
SthWest Battersea }	87	•76	11	·22	48	•98	
The Borough	191	1.14	54	·82	245	1.46	

The deaths from Tuberculosis were 10.3 per cent. of the total deaths. The death-rate from Phthisis (the most common form of tubercular disease) was in 1913, 1.14 or 0.01 higher than in 1912 and 0.15 lower than in 1911.

During the year 1913, 743 cases of Tuberculosis were notified in Battersea under the Public Health (Tuberculosis) Regulations of 1908, 1911 (Hospitals), 1911 (Private) and 1912 (all forms), particulars relating to which are set out in the following tables :—

	Age Periods.											
Classification.		1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and over.	Totals.
Pulmonary Males	4	12	33	14	18	29	51	57	84	33	8	288
Pulmonary Females	1	11	29	20	19	23	50	-44	25	8	6	236
Non-pulmonary Males	4	20	85	29	5	. 3	12	7	3	1		119
Non-pulmonary Females	5	15	29	20	10	4	10	6			1	100
TOTAL	14	58	126	88	52	59	123	114	62	42	10	748

Notified under		Arranged in Wards.							Total	
	1	2	3	4	5	6	7	8	9	
P.H. (T) R., 1908-11	7	8	9	5	9	9	3	4	8	62
P.H. (T) R., 1912	141	96	82	57	72	100	36	49	48	681
Total	148	104	91	62	81	109	89	58	56	748

Notified under	East Battersea.	NW. Battersea.	SW. Battersea.	Borough
P.H. (T) R., 1908-11	26	20	16	62
P.H. (T) R., 1912	328	216	137	681
Totals	854	236	158	748

## LOCALIZATION OF DISEASE.

Pulmonary	(524)-				
					 504
	and L				 5
Larynx					 1
		ands of			 1
Lungs,	Kidne	y and I	Bladder		 1
		esentery	·		 1
Lungs					 1
Lungs		eritoneu	m		 1
Lungs		pine			 3 1
Lungs		testines			 1
		odomen			 1
Pleura	and ey			•••	 3
Pleura					 0
Glands (63)	-				
Medias	tinum				 1
Sub-ma	axillary	Glands			 1
	of Neo				 58
Glands	of Neo	ck and (	Groin		 1
		ck and			 1
Glands	of Gro	oin and	Intesti	nes	 1
'Abdominal	(15)				
					8
Intestin Peritor					 4
		nd Mese	nterv		 2
Mesent		ių mese	niciy		 ĩ
Urinary, &	c. (10)-	-			
Kidney	s				 3
Bladde					 2
Testicle	е				 5

Brain, &c., (21)--

Meninges			 	18
Meninges				1
Meninges	and	General	 	 1
Meninges	and	Hip	 	 1

Skin, &c. (16)-

Lupus					13
Conjunctiva					1
Tubercular Cyst	t (body	7)			1
Tubercular Ulce	rs (skir	ı, arm	and l	leg)	1

General (1)-

General Tuberculosis

Bones (93)---

Spine	 	 	20
Hip	 	 	35
Hip and Wrist	 	 	1
Hip, Spine and		 	1
Knee	 	 	15
Knee, Shoulder			1
Femur			1
Tibia		 	2
Ankle	 	 ***	5
Tarsus		 	4
Shoulder	 	 	2
Humerus	 	 	ĩ
Elbow	 	 	3
Wrist	 	 	1
Finger Joints	 	 	1
ringer Joints	 	 ***	1

Total

743

1

	Classification.	New Cases.	Duplicates.	Totals.
	А.	609	215	824
	В.	28	16	44
	Poor Law Institutions	28	129	157
C	Sanatoria	6	61	67
_	Poor Law Institutions	8	55	58
D. S	Sanatoria	7	69	76
P.H. (	(T) R., 1908-11	62	70	182
	Totals	748	615	1358

THE NUMBER OF NOTIFICATIONS RECEIVED DURING THE YEAR, ARRANGED ACCORDING TO SOURCE OF ORIGIN.

The Public Health (Tuberculosis) Regulations, 1912, which extended the principle of compulsory notification to all forms of Tuberculosis, and codified the previous partial systems of notification, only came into force in February, 1913.

In 240 (i.e., 32.3 per cent.) of the cases notified there was a family history of Tuberculosis.

The homes of patients notified were visited during the year, and, where domiciliary treatment was being given, revisits as required were made. These visits and revisits are made by the District Sanitary Inspectors and Health Visitors, adult male cases being visited by the District Inspectors, and women and children cases by the Health Visitors. The measures carried out by the Health Department in the campaign against Tuberculosis have been fully referred to in previous Annual Reports. The District Inspectors paid 1,339 visits and revisits to the homes of patients. It should be stated that some of those visits related to cases notified in previous years.

Women and children patients are visited by the female inspectorial staff, and during the year 1634 visits and revisits were paid to the homes of these patients.

The number of women known to be suffering from Tuberculosis (all forms) at the end of 1913, was 323, classified as follows:—

Tuberculosis	of	the	lungs	(Phth	nisis)	 303
Tuberculosis	of	the	glands			 2
Tuberculosis						 13
Tuberculosis	of	the	skin			 5

Of these 323 women Tuberculosis patients, 162 were married women and 151 unmarried.

There were 51 deaths of women patients during the year (35 married, 14 single). Forty-nine of these deaths were due to Phthisis.

It is evident from the result of the statistics so far rendered available owing to the compulsory notification of Tuberculosis that there is a very widespread distribution of the disease amongst children. Thus in Battersea the number of children known to be suffering from the disease (all forms) is 319, classified as follows:—

Tuberculosis o	of the	lungs	(Phth	isis)	 215
Tuberculosis o	f the	spine			 12
Tuberculosis o	of the	limb			 39
Tuberculosis o	of the	abdon	nen		 4
Tuberculosis o	of the	glands	5		 48
Tuberculosis o	of the	skin		***	 1

Two hundred and seventy-two of these children are of school age, while 47 are under 5 years of age, of whom 13 are attending school.

Thirty-eight deaths from Tuberculosis occurred amongst children during the year, 18 of them being due to Tuberculosis of the lungs (Consumption). Four of the deaths from Consumption occurred amongst children under 5 years of age. In two of these cases, the family history showed that the father was suffering from Consumption; in another, the brother was found to be in an advanced stage of the disease. As usual, poverty played a considerable part in the history of these cases. In 125 cases, the women patients were found to be in straitened circumstances, and in 91 cases practically destitute. In the case of children patients inquired into, similar destitute circumstances were found to exist, 155 being reported to be living under poor, and 82 very poor, circumstances.

The results of these inquiries point to the powerful part played by poverty and destitution in the dissemination of Consumption. Under such circumstances, home isolation is difficult or impossible. In 110 of the children's cases investigated in Battersea during the year, the patients were found to be sleeping in the same bed as their parents or other children. The same unsatisfactory conditions as regards isolation were observable amongst the women patients, in 88 cases the isolation of the patient being found to be very unsatisfactory.

It is not difficult, therefore, to appreciate the ease with which this disease is spread in poor and congested districts where the housing accommodation is cramped and otherwise insanitary. Frequently, cases of Tuberculosis have been found occupying underground rooms where the lighting and ventilation, &c., are, as a rule, unsatisfactory. When to these evils is added the absence or scarcity of suitable and nutritious food, Consumption readily finds its victims, a fact the more regrettable when it is remembered that it is a disease known to be largely preventable. If the disease is to be stamped out effectually, it will only be accomplished by raising the standard of living amongst the class of our population most susceptible to attack.

Consumption is not usually a highly infectious disease. It is only where the conditions favour its spread, e.g., bad housing, insufficient food, drink, &c., that its infectious nature becomes formidable.

Of the women patients, 104 are insured persons under the National Insurance Act; 36 of these have received sanatorium benefit during the year, and 19 uninsured patients also received sanatorium treatment.

The number of children notified as suffering from Tuberculosis, and known to have been sent into the country during 1913, is 73. Of these, 33 have been or are being treated at Carshalton. The remainder have been sent away by philanthropic agencies, such as the Invalid Children's Aid Association.

One of the Health Visitors (Miss Ross Brown), in her report to me states that "Effective work is much hindered through lack of power to enforce the removal of the most advanced cases, where the patient is an undoubted source of danger to all the inmates of the house." It is to be hoped that schemes for the prevention of Consumption undergoing consideration will make provision for this class of case, which is undoubtedly a grave source of danger in crowded and insanitary areas.

## Tuberculosis Dispensary.

The Battersea Voluntary Dispensary for the Prevention of Tuberculosis, which was established in 1911, was temporarily approved by the Local Government Board for a period of six months, expiring in January, 1913. Meanwhile, the Health Committee of the Council had been in negotiation with the Authorities of the Dispensary as to the position of the Dispensary in relation to the Tuberculosis Scheme for the Borough, which the Council were required to prepare. No decision was arrived at, and the Council decided on the 8th January, 1913, pending the issue of the General Scheme for London, which it was understood the London County Council had under consideration, to recommend the Local Government Board to extend the period of approval of the Voluntary Dispensary for a further period of six months.

A letter was received from the Board approving of the Dispensary for a further period of six months, expiring in July, 1913.

On the 2nd July, a Deputation from the Health Committee waited on the Local Government Board. In view of the position and pending the issue of the London County Council's Scheme, the Board suggested to the Deputation that the Voluntary Dispensary would serve the needs of the Borough.

The Dispensary was subsequently temporarily approved for a further period of 12 months.

On the 11th December, a letter was received from the London County Council, setting forth the terms on which they were prepared to contribute to the Dispensary Schemes prepared by Metropolitan Borough Councils, and approved by the Local Government Board.

The Health Committee took into consideration this letter, and the Town Clerk and the Medical Officer of Health were directed to prepare reports containing full details as to the arrangements carried out in the various Metropolitan Boroughs in connection with the provision of dispensaries for the treatment of Tuberculosis, so as to enable the Council to be in possession of all available information as to existing arrangements when the scheme for the Borough comes before them for consideration. An important communication was received from the Local Government Board, dated 19th December, 1913, setting forth the Board's detailed requirements for dispensary arrangements.

## Bacteriological Examinations.

During the year 1913, 1,196 bacteriological examinations of specimens sent in by medical practitioners practising in the Borough of Battersea have been made at the Clinical Research Association Laboratories at a cost of £170 16s. 9d., particulars of which are set out in the following table :—

Suspected Disease.	Positive Results.	Negative Results.	Total.
Diphtheria Enteric Fever Tuberculosis Other specimens	188 6 156 —	509 86 851 —	647 42 507
Total	800	896	1,196

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# 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 1913.

Total Sanitary Operations 75,641Number of house inspections 46,374Bakehouse inspections 222Bakehouse nuisances abated 47Urinals—inspections 157Do. altered, repaired or water1aid on	Leaky house-roofs and gutters repaired 582 Houses supplied with water, and fittings repaired 126 Water Closets provided, supplied with water or supply dis- connected from drinking water cisterns 459 Cisterns covered, cleansed and repaired 560 Additional water supplies to upper floors 107 Keeping of animals in unfit state discontinued 43 Smoke observations 40 Certificates of disinfection granted 2,966 Houses inspected and certificates granted (Sec. 48) 43 Proceedings ordered by Council and Health Committee

## Sanitation of House Property.

The systematic inspection of house property is carried out by eight district inspectors, the Borough being divided for this purpose into eight sanitary districts. During 1913 the total number of houses inspected in the course of house-to-house inspection was 2,802, as compared with 2,228 in 1912.

The following is a summary of the number of houses inspected in each year since 1902 :---

1903						2,670
1904						3,020
1905		***				4,503
1906	***					3,609
1907						4,101
1908					***	3,609
1909				***		3,218
1910						3,441
1911						2,736
1912						2,228
Average	for the	10 3	years	1903-1912		=3,313
1913		***				2,802

Notwithstanding the increased duties imposed upon the Public Health Department of the Council owing to recent legislation and the fluctuations in the incidence of infectious disease, it is satisfactory to be able to report that this important work has been well maintained.

The following summary shows the number of houses inspected and the number of defects found in each of the sanitary districts in 1913 :—

District No.	No. of houses inspected.	No. of houses in which defects found.
1	253	178
2	845	249
3	805	180
4	890	257
5	650	284
6	285	183
7	888	284
8	286	175
Totals	2,802	1,740

HOUSE-TO-HOUSE INSPECTION.

The percentage of houses in which sanitary defects were, on inspection, found to exist was 62 per cent., as compared with 66.8 per cent. in 1912, and varied from 36 per cent. in No. 5 District to 84 per cent. in No. 7 District.

EAST	BAT	TERSEA.		NORTH-WEST BATTERSEA.				SOUTH-W	VEST	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 house in which defects existe
Abercrombie Street Acre Street Beaufoy Road Berkeley Street Brougham Street Chatham Street Elcho Street Etruria Street Eversleigh Road Foots Row Howie Street Lockington Road Millgrove Street Mundella Road Radstock Street Russell Street Sleaford Street Sleaford Street Sleaford Street Warsill Street Wellington Road Wycliffe Road Yeovil Street		$\begin{array}{c} 30\\ 28\\ 1\\ 17\\ 57\\ 90\\ 34\\ 86\\ 286\\ 12\\ 25\\ 25\\ 25\\ 25\\ 34\\ 58\\ 27\\ 60\\ 72\\ 43\\ 172\\ 32\\ 6\\ 48\\ 4\\ 4\end{array}$	23 18 1 17 43 68 28 25 69 10 15 21 19 38 20 39 51 32 66 19 32 66 19 32 4	Afghan Road Alfred Place Althorpe Grove Bourne's Place Candahar Road Crescent Place Darien Road Falcon Terrace Gosling's Yard Goulden Street Grant Road Green Lane Kerrison Road Khyber Road Khyber Road Khyber Road Nepaul Road Newcomen Road Newcomen Road Newman Street Orville Road Patience Road Rowena Crescent Stanmer Street Urswick Road		$\begin{array}{r} 43\\ 15\\ 4\\ 14\\ 60\\ 21\\ 25\\ 41\\ 8\\ 45\\ 110\\ 6\\ 45\\ 38\\ 3\\ 3\\ 38\\ 120\\ 11\\ 13\\ 25\\ 65\\ 31\\ 51\\ 25\\ 12\\ \end{array}$	$\begin{array}{c} 25\\1\\2\\6\\32\\8\\21\\34\\5\\28\\92\\6\\27\\19\\3\\23\\49\\10\\4\\17\\40\\21\\37\\11\\12\end{array}$	Amies Street Bennerley Road Bramfield Road Durland Road Chatto Road Dents Road Didcot Street Dorothy Road Dulka Road Gorst Road Grandison Road Kathleen Road Kelmscott Road Leathwaite Road Sugden Road Thirsk Road		13     76     61     28     40     20     14     110     23     50     23     20     55     31     9     71     30     57     57	
Totals		1,197	657	Winstead Street Totals		10 874	540	Totals		731	543

HOUSE-TO-HOUSE INSPECTION.

## Housing, Town Planning Act, &c., 1909.

This Act imposes upon Sanitary Authorities duties of a highly important character in connection with the sanitation of house property. Under Section 17 (1) the duty devolves upon the Sanitary Authority " to cause to be made from time to time inspection of their district, with a view to ascertain whether any dwelling-house therein is in a state so dangerous or injurious to health as to be unfit for human habitation, and for that purpose, it shall be the duty of the local authority and of every officer of the local authority to comply with such regulations, and to keep such records as may be prescribed by the Local Government Board."

The Board made an Order, dated 2nd September, 1910, prescribing regulations under Section 17 (1) of the Act.

During the year, notices under Section 15 were served by Order of the Council upon the landlord to execute the necessary works to make the dwelling houses Nos. 18, 20, 21, 22, 26, 27, 28 and 29 Didcot Street, reasonably fit for human habitation.

## Underground Rooms.

The Housing, Town Planning, &c., Act, 1909, also gives important powers to Sanitary Authorities in relation to underground rooms. The Act provides that an underground room habitually used as a sleeping place must be at least seven feet in height from floor to ceiling, and must comply with such regulations as the Sanitary Authority, with the consent of the Local Government Board, may make. The Public Health Act contained provisions (specified in detail) for preventing the use as sleeping places of underground rooms separately occupied as dwellings, but these provisions were rendered practically useless by the fact that they do not apply if the rooms are at the same time occupied with a room or rooms on the upper floor.

Regulations were made by the Council, as required by the Housing, Town Planning, &c., Act, which were duly approved by the Local Government Board and are now in operation in the Borough.

An inspection of the underground rooms in the Borough which was commenced in 1911 was continued during 1912 and 1913. The total number of rooms inspected during the year was 351, 112 of which were found to be illegally occupied. The structural defects and the number of rooms in which defects were found to exist were as follows :—

No proper area provided	 105
Space beneath floor insufficiently ventilated	 58
Site not concreted	 99
Other defects	 45

In 68 cases the illegal occupation of the rooms was discontinued. In the remaining cases, the owners were called upon to carry out within a reasonable time, the necessary structural alterations to make the rooms comply with the requirements of the Act and the regulations made thereunder; and they were informed that in default of compliance Closing Orders would be made by the Council.

Closing Orders were made by the Council in respect of 44 underground rooms illegally occupied, of which 15 were in respect of underground rooms inspected during 1912. In the case of 14 of these rooms, the illegal occupation was discontinued, and in the case of the remainder the necessary structural alterations were carried out.

#### Houses Let in Lodgings.

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

At the end of 1913, 114 premises were on the register as compared with 123 in 1912. Nine houses in Europa Place were removed from the register, the houses having been acquired for the purposes of extending the premises of a neighbouring factory.

The sanitary condition of houses let in lodgings is governed by by-laws made by the Council. These by-laws have from time to time been revised, and the coming into force of the Housing, Town Planning. &c., Act, 1909, rendered it necessary to re-make the by-laws, so far at least as they relate to houses intended for the working classes, in order to comply with the provisions of Section 16 of that Act. The by-laws were accordingly re-made and submitted to the Local Government Board, and were duly approved, and are now in force.

## Smoke Nuisances.

Emissions of black smoke were reported during the year on 40 occasions. In 17 instances these were reported by the Coal Smoke Abatement Society, in 19 by the Council's Sanitary Inspectors, and in four cases the London County Council was the complainant. Twenty-one preliminary and four Statutory Notices were served by the Council to abate smoke nuisances, and one prosecution was instituted, the summons being withdrawn on payment of the costs.

## Paving of Yards and Forecourts.

The following table shows the number of back yards and forecourts wholly or partly paved during 1913 :---

Sanitary District.		BACKYARDS.	FORECOURTS.			
		Partly				
	Wholly paved.	12 ft. or more from back addition.	Less than 12 ft. from back addition.	Wholly paved.	Partly paved.	
1	6	_	28	30	24	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			27	4	17	
		18	60	9		
4	9	21	-8	12	4	
5	-				-	
6	14	-	. 25	12	43	
7	3	6	4	11	10	
8	-	-	15	-	-	
Totals	44	40	167	78	98	

## Street Paving.

During 1913, the following streets were partly or wholly paved with impervious material :---

Street.			Squ	are Yards
Albert Bridge Road	d			9,112
Battersea Park Ro				1,225
Broomwood Road				840
Chatto Road				1,335
Cupar Road				642
Edmunds Place				80
Elsley Road				5,031
Fields Place				378
Holden Street				1,745
Hope Street		***	4	953
Khyber Road				1,130

Street.		S	quare Ya	rds.	
Latchmere Road		 	5,680		
Longhedge Street		 	2,050		
Marney Road		 	2,714		
Mayford Road		 	544		
Meath Street		 	641		
Oulton Street		 	772		
Patience Road		 	1,078		
Shelgate Road		 	796		
Sisters Avenue		 	2,426		
Wexford Road		 	975		
Windmill Road	·	 	2,142		
		Total	42,289	Sq. Yds.	

The advantage of continuing this form of street-paving has been referred to by me at considerable length in previous Annual Reports. I am still convinced of its utility on public health grounds, and I have not the least doubt that the high position which the Borough occupies in the health statistics of the Metropolis is contributed to in no small degree to the paving with impermeable material of its streets, especially in the more crowded and poorer districts of the Borough.

## Sewer Ventilation.

During the year, complaints were occasionally received of nuisances arising from sewer ventilators on the surface of the roadways or from gulleys or upcast shafts. These complaints were, in each instance, enquired into and dealt with by the Council.

In one instance, it was found necessary to erect an upcast ventilating shaft in the following situation :---

#### Fontarabia Road.

This shaft was erected by the London County Council.

## Van Dwellings.

The number of van dwellings in Battersea during 1913 was 86, as compared with 81 in 1912. In the following table are set out the situation and number of occupants :—

Situation of Vans.		No. of	No. of Occupants.		
Situation of Vans.	Vans.		Males.	Females.	
Mill's Yard, 88 Sheepcote Lane		8*	2	7	
,, 80 ,,		4*	4	8 5	
Manley's Yard, Falcon Road		4	6	5	
" " Cabul Road		28†	31	42	
Donovan's Ground, Cabul Road		27†	46	85	
Mill's Yard, Culvert Road		12*	20	18	
"Gray's Fair," Lavender Hill		8	11	11	
Total		86	120	121	

These vans undergo frequent inspection by the Council's Sanitary Inspectors, both by night as well as day. During the year, 30 vans were found to be overcrowded, and notices under the by-laws were served, where necessary, to abate the nuisance.

Two cases of infectious disease were notified from amongst van dwellers during 1913.

## 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
6 Orville Road	18	Males	June, 1902
67 Winstanley Road	66	Females	July, 1910

Under the Common Lodging Houses Acts, 1853-5, the London County Council has control of all the common lodging houses situate within the Administrative County. All common lodging houses must be licensed annually by the London County Council. [L.C.C. (General Powers) Act, 1902, Part IX., Section 46.] The common lodging houses in Battersea are visited from time to time by the Borough Council's Sanitary Officers in connection with drainage defects, infectious disease, &c., &c.

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## Block Dwellings.

The following is a list of the Artisans' 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 Dwell- ings Asso., Ltd.	189
Lombard Dwellings	Lombard Road	T. Wall & Sons, Ltd.	36
Shaftesbury Chambers	Ashbury Road	Artizans, &c., Dwellings Co.	22

#### Revenue Act, 1903.

During 1913, three applications were received for the certificate of the Medical Officer of Health under the provisions of the Revenue Act, 1903, in respect of seven tenements (or dwellings) so constructed as to afford suitable accommodation for each of the families inhabiting such tenements. After inspection, certificates were granted in respect of five tenements, the remainder having been refused or postponed.

## Water Supply.

During 1913, 81 applications were received for certificates of water supply in accordance with Section 48 of the Public Health (London) Act, 1891, and granted in each instance.

Forty-one notices of withdrawal of water supply for various reasons were received from the Metropolitan Water Board.

Water Supplies to Upper Floors.—Additional water supplies to the upper floors of tenement houses, under the provisions of Section 78 of the London County Council (General Powers) Act, 1907, and Section 48 of the Public Health (London) Act, 1891, were required to be provided by notice served upon the owners and duly complied with during the year 1913, as follows :—

				T	No. of Houses.	
District	No.	1		 	16	
,,	• •	2		 		
••	,,	3		 	6	
**	,,	4 5		 	13	
""	,,	6		 	72	
••	"	7		 		
**	"	8		 		
"	,,	0	***	 		
					and the second second	

Total 107

## Disinfecting Department.

During 1913, 5,401 rooms and 60,749 articles were disinfected by the Council's Disinfecting Staff, as compared with 3,793 rooms and 43,920 articles in 1912.

A total number of 1,331 cases of notifiable infectious diseases was reported during the year, but in addition to these, a large amount of disinfection was carried out in connection with nonnotifiable infectious diseases, e.g., measles, whooping-cough, &c., and in connection with verminous premises.

In 182 instances, schools, or departments of schools, were disinfected in connection with cases of infectious diseases from amongst the children attending such schools.

The following table gives particulars of the work carried out at the Council's Disinfecting Station since it was opened in 1902:—

	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
Premises	1,161	1,187	1,215	2,589	1,991	2,995	2,418	2,656	2,337	3,394	2,285	3,233
Rooms	1,771	1,616	1,637	3,308	,2,848	5,085	4,583	4,192	3,834	4,711	3,793	5,401
Articles disin- fected	92,368	67,001	54,626	64,052	72,531	72,220	85,117	58,474	48,205	38,952	43,920	60,749
Articles destroyed	984	847	1,288	929	1,244	1,084	778	607	720	777	1,014	628
Books disinfected	-	271	215	332	337	399	387	331	230	166	193	286
Persons admitted to shelter	-	-	-	33	31	33	28	4	-		-	l

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The Laundry attached to the station, which was added in 1907, has continued to do useful work. During the year, 27,878 articles were laundered after disinfection before being returned to their owners.

The total weight of articles removed for disinfection during the year was 136 tons 7 cwts. 1 qr. 3 lbs.

In addition to the work carried out in the disinfection of rooms, clothing, &c., bedding belonging to the Council, was lent out to persons whose bedding had to be removed to the Disinfecting Station for disinfection. The total weight of such bedding disinfected after use and returned to store amounted to 7 tons 8 cwts. 3 qrs. This is not included in the above table.

Verminous clothing weighing 9 tons, belonging to verminous persons undergoing cleansing at the Personal Cleansing Station, Sheepcote Lane, was disinfected at the Disinfecting Station during the year. This also is not included in the return shown in the table.

# Temporary Shelter or House Accommodation.

During 1913, at the Reception Shelter situate in Sheepcote Lane, eight midwives and five nurses who had been in attendance on puerperal fever cases, or in contact with other forms of infectious disease, had the use of one of the tenements at the Reception Shelter for purposes of personal disinfection. Four hundred and seventeen persons, including laundry hands, milk vendors, dressmakers, &c., whose occupations rendered it desirable, attended for personal disinfection at the Shelter on account of exposure to infectious disease.

The Shelter was occupied by five persons, whose homes were undergoing disinfection.

# Cleansing of Persons Act, 1897.

During 1913, 2,413 verminous persons attended at the Personal Cleansing Station, Sheepcote Lane. Of the total number cleansed, 1,313 were adult males, 10 adult females, and 1,090 children, the latter coming mainly from the public elementary schools.

The agreement entered into between the London County Council and the Borough Council for the use of the latter Council's Personal Cleansing Station for the cleansing of verminous school children, was extended for another year. By this agreement, the London County Council have the use of the Station on certain days of the week, and payment is made to the Borough Council in respect of each child cleansed. The work of cleansing the verminous school children is supervised by one of the London County Council's Nursing Staff.

I have again to call attention to the unsuitability of the present Cleansing Station for the purpose for which it is used. It is small, structurally unsuitable, and otherwise ill-adapted for carrying on this useful work. The extent to which the facilities provided by the Council at the existing station are utilised shows the popularity of the institution, and, notwithstanding the drawbacks alluded to, very sound and useful work has been accomplished. The importance of attention to personal hygiene from the educational and public health standpoint can hardly be overestimated, and any encouragement in this direction cannot fail to produce useful and permanent results.

The following summary shows the extent to which the work has grown since the Station was opened in 1906 :--

1906	 	 	 141
1907	 	 	 621
1908	 	 	 1,662
1909	 	 	 1,694
1910	 	 	 1,924
1911	 	 	 1,650
1912	 	 	 2,192
1913	 	 	 2,413
	1		

These results speak for themselves, and I desire to emphasise the urgent need of providing more adequate and suitable facilities for carrying on this most desirable work.

# The Midwives Act, 1902.

The Midwives Act as regards London is administered by the London County Council, who are the local Supervising Authority. The disinfection of the nurses is, however, carried out by the Borough Council.

In Battersea, one of the tenements at the Reception Shelter is used for this purpose. The midwife, or monthly nurse, who has been in attendance on a patient suffering from puerperal fever or other infectious illness, is required to attend at the Shelter, and is given a disinfectant bath, her clothing, instruments, &c., being at the same time disinfected at the Disinfecting Station adjoining.

# Mortuary.

The total number of bodies received at the Mortuary in Sheepcote Lane during 1913, was 266, as compared with 264 in 1912 and 287 in 1911, and an annual average for the ten years 1903-12 of 256. On 248 of these bodies inquests were held, and 18 bodies were received at the Mortuary for sanitary and other reasons.

The following table gives the number of bodies received at the Mortuary in each year since 1900 :---

YEAR.	Number of bodies received in the Mortuary.	Number of bodies upon which <i>post-</i> <i>mortem</i> examinations were held.	Number of bodies upon which Coroners Inquests were held.
1900	291	284	273
1901	821	271	804
1902	239	198	224
1903	223	207	218
1904	221	161	204
1905	253	176	236
1906	244	167	239
1907	302	204	288
1908	259	174	247
1909	269 .	170	258
1910	284	187	222
1911	287	178	277
1912	264	174	257
1913	266	. 211	248

Of the 248 bodies upon which inquests were held, in 211 instances post-mortem examinations were made.

# Inquests.

During 1913 inquests were held in 248 cases, with the following results :--

Natural Causes	 •••	 		125
Open Verdict-				
Found dead	 	 	2	
Found drowned	 	 	5	

Accidental Causes-						
Drowning					4	
Burns and Scal					10	
Poisoning					1	
Falls, &c.					31	
Run over (in st	reet an	d on 1	railway	)	26	
					11	
Other Injuries				***	13	00
					-1	96
Suicide-						
Cut Throat					3	
Hanging and S	strangul	lation		***	2	
Poison					7	
Drowning					5	
Other methods					2	
					-	. 19
Homicide-						
Suffocation						1

Ambulances.

Total

248

The Council have provided a wheeled ambulance at each of the following six points in the Borough :---

Queens Road (at Queens Circus).

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

Bridge Road (at junction of Surrey Lane South 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 readily accessible to the public. They are frequently availed of by the Police, and have proved of valuable service in connection with street accidents, &c. Each ambulance is provided with the necessary appliances, dressings, &c., for rendering "first aid" to the injured.

# The Protection of the Food Supply.

During 1913, the food supply was, as in past years, carefully supervised. The work has comprised meat inspection and seizure, registration of milk vendors, and the strict supervision of all milk shops in the Borough. Attention has also been given to the sanitation of bakehouses (vide section of report dealing with the administration of Factory and Workshop Act) and to premises in the Borough wherein food is stored or prepared for sale, e.g., sausages, potted meats, ice-cream, restaurant kitchens, butchers' shops, &c., &c.

# Unsound Food.

The following is a tabulated return of unsound food inspected, condemned, and destroyed under the supervision of the Council's Officers during 1913, having been brought to the Health Department by the respective owners for the purpose :—

Food. Quantity			Where Purchased.
Brussels Sprouts Cod's Roe			Borough Market
Haddock	1 box 1 case		Billingsgate Market
	1 trunk		13 23
Halibut	1 ,, 10 stone		1) )) 1) ))
Herrings Kippers	1 barrel 1 box	••••	"""
,,	5 boxes		37 37 37 27
", … Mackerel …	<b>3</b> ,, 1 box		»» »»
,,	1 ,,		11 11
Plaice Potatoes	2 boxes 1 sack	***	Borough "
Rock Salmon	20 bags 1 box		Covent Garden Market Billingsgate Market
Skate	7 stone		
Tomatoes	20 boxes 6 ,,		Covent Garden Market
	4 ,,		,, ,,
Whiting	1 trunk 1 box		Billingsgate Market
yy :	1 trunk		37 57
Witches	1 box		33 33 -

In connection with these condemned 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 them, to grant a certificate which enables him to claim the return of his money. During 1913, 24 certificates were granted in respect of the articles shown above.

## Slaughter Houses.

There are now only three slaughter-houses in Battersea, in only one of which is there any business of magnitude carried on. These premises have gradually decreased in number in recent years, and the fact is a matter to be recorded with satisfaction, as, from the standpoint of public health, the private slaughter-house is not to be commended. Generally speaking, such places are structurally ill-adapted and badly equipped for the purposes for which they are used, and it is consequently a difficult matter for the Officers of the Council to carry out effectively their duty of inspection and the enforcement of the Council's requirements under the By-laws.

The following is a list of the slaughter-houses licensed in the Borough of Battersea in 1913 :---

345 Battersea Park Road ;205 St. John's Hill ;351 York Road (small animals only).

At the slaughter-house at 351 York Road, a very considerable business is carried on in connection with the slaughtering of pigs. During the year, the carcases of 3,826 pigs slaughtered at these premises were inspected by the Council's Meat Inspectors. Of this number, nine diseased whole carcases and the heads of 157 pigs which showed slight evidence of incipient tuberculosis in the neck (pharyngeal glands) were surrendered and destroyed under the supervision of the Council's Officers.

The conditions under which the business of this slaughterhouse were carried on have been considerably improved during the year by the structural and other improvements which, as a result of the Council's representations to the owner, have been effected. The lighting and ventilation of the premises are now satisfactory, and the installation of the electric light has further facilitated the important work of inspection of the meat of the animals slaughtered.

The slaughter-houses in the Borough are frequently and systematically inspected by the Council's Officers. During 1913, 556 inspections were made in connection with the inspection of meat, &c. Slaughter-houses are annually licensed by the London County Council, as the Licensing Authority, but the duty of inspection and the enforcement of the By-laws and Regulations made for the sanitation of these premises is carried out by the Borough Council as the Sanitary Authority.

# Cow Houses.

There are now remaining in the Borough of Battersea only two licensed cow-houses, situate as under :---

# 14 Bellevue Road. 17 Wiseton Road.

Very few cows are kept in these sheds, which, on the whole, may be said to be sanitarily in a satisfactory condition. Like slaughter-houses, these premises require to be annually licensed by the London County Council, but the enforcement of the By-laws and Regulations governing the sanitation, &c., devolves upon the Borough Council. The cow-sheds in the Borough were systematically inspected during the year.

## - Ice Cream.

During the year the number of known premises in which icecream is manufactured or sold was 188, as compared with 181 in 1912.

Of the 188 premises, nine are occupied by Italians, who employ 22 barrows in the sale of the article. The premises where ice-cream is made are frequently and systematically inspected by the Council's Officer. During the year, 575 visits of inspection were made to ice-cream dealers' premises. Twenty-one intimation and three statutory notices were served to abate 26 defects, mainly of an unimportant character. As a result of the rigid supervision and prosecution of offenders against the regulations governing the preparation of this popular form of refreshment, the conditions under which it is now manufactured and sold in the Borough are satisfactory.

#### Milk Shops.

The number of milk shops in the Borough of Battersea at the end of 1913 was 170. During the year, three new milk shops were added and 11 removed from the register, the total number on the register at the end of 1913 being 162. The character of the business carried on in premises in which milk was sold in Battersea during 1913, as compared with the five preceding years, is as follows :—

	1908.	1909.	1910.	1911.	1912.	1913.
Dairy produce only	70	72	88	84	86	84
General shops		78	70	65	60	57
Confectioners		11	16	16	15	13
Dwelling-houses	22	14	9	9	7	6
Wholesale		3	2	2	2	2
	241	178	185	176	170	162

The above table shows the great decline which has taken place in the number of general shops and other unsuitable premises where milk is sold in Battersea since 1908. This desirable state of things has been brought about by the Council's action in requiring all premises where this sensitive and indispensable article of food is sold shall be sanitarily suitable, particulars in regard to which have been fully described in past Annual Reports.

Frequent and systematic inspection of the milk shops in the Borough is rigidly carried out, and all milk vendors are required to take all practicable precautions to protect their milk from the risks of contamination, such, for example, as the provision of suitable covers and properly ventilated and lighted safes for holding the counter pans containing the milk. The importance of protecting milk, as far as possible, from the numberless risks of contamination which it runs in its progress from the farm to the consumer cannot, from the public health standpoint, be overestimated.

During the year, 553 visits of inspection were paid to premises where milk is sold in the Borough.

#### Restaurants and Eating Houses.

The total number of these premises in the Borough of Battersea at the end of 1913 was 104, as compared with 94 in 1912, and 100 in 1911.

The systematic inspection of restaurants and eating houses has been carried out in the Borough since 1902, when the Factory and Workshop Act, 1901, came into operation. During the year, it was found necessary to serve 27 preliminary notices and four statutory notices in respect of 37 sanitary defects. These defects were not of a serious character, and had reference mainly to dirty conditions of premises (walls, floors and ceilings), defective sanitary appliances, etc.

#### Fish Shops.

The fish shops in the Borough are 66 in number, a decrease of seven as compared with 1912. In 50 of these premises fried fish is sold; in 10, wet and dried fish is sold; three sell wet, dried, and fried fish; and three sell dried fish only.

Fish-curing is carried on in 11 premises in the Borough.

The fish shops in the Borough are frequently and systematically inspected by the Council's Officers. During 1913, it was found necessary to serve 29 preliminary and four statutory notices in respect of various insan tary conditions, all of which notices were duly complied with. In addition, 148 inspections were made by the Council's Food Inspector at these premises.

# Butchers' Shops.

The number of these premises in Battersea is 92, all of which are frequently and systematically inspected by the Food Inspector. In the majority of them, sausage-making or food chopping is carried on, the work in most cases being done by hand. Practically all are provided with ice-safes, and they are, generally speaking, well kept, the trade refuse being removed quickly from the premises.

During 1913, 871 inspections of butchers' shops were made by the Council's Inspectors.

#### Sale of Food and Drugs Acts.

The object of these Acts is two-fold in character, viz. : (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 1913, 1,000 samples were purchased within the Borough of Battersea and submitted to the Public Analyst for analysis. Of these 1,000 samples, 96 (i.e. 9.6 per cent.) were reported by the Analyst to be adulterated, and, in addition, 19 of these 1,000 samples were certified by him to be of inferior quality. The following table gives details of the number of samples purchased during the year, and the number found to be genuine or otherwise :---

Description of Artic	le.	Total No. of Samples taken.	Genuine.	Adulterated.	Inferior.
Bread Butter Cheese		$\begin{array}{c} 6\\157\\6\end{array}$	$\begin{array}{c} 6\\185\\4\end{array}$	8	$\frac{-}{14}$
Cocoa		18	16		2
Coffee		24	24		
Cream		18	1	17	-
Flour		4	4	-	-
Gin		2	2	_	
Honey		5	5	-	-
Lard		12	12	-	-
Margarine		6	6	-	-
Milk		687	597	40	-
Milk of Sulphur		4	4		
Mustard		4	4	-	-
Oatmeal		8	8		-
Olive Oil		9	8	-	1
Pepper		4	4	-	
Preserved Meat		17	10	7	-
Rice		10		10	-
Rum		8	8	-	-
Sausages		26	13	18	-
Tartaric Acid		4	4	-	-
Vinegar		12	12	-	-
Whisky		9	8	1	-
Totals		1,000	885	96	19

Year.	No. of Samples taken.	Adulterated.	Percentage of Adulteration
1903	500	. 67	18.4
1904*	700	107	15.8
1905	700	90	12.8
1906	925	129	13.9
1907	1,000	105	10.5
1908	1,000	115	11.5
1909	1,000	91	9.1
1910	1.000	87	8.7
1911	* 1,000	99	9.9
1912	1,000	96	• 9.6
1913	1,000	96	9.6

The next table shows the percentage of adulteration during the 10 years 1903-1912 and in 1913 :---

\* 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 Acts, instead of, as formerly, several of the district inspectors doing this work.

It will be seen from the above table that the improvement effected by the vigorous enforcement of the Acts in their District by the Council has been well maintained during the year. It should also be noted that the improvement has been coincident with the increase in the number of samples taken during the past seven years.

#### Milk.

Of the total number of samples taken under the provisions of these Acts during 1913, 637 (i.e., 63.7 per cent.) were milk samples. Of this number, 40 (i.e., 6.2 per cent.) were reported by the Public Analyst to be adulterated. During 1912, 629 of the samples purchased referred to milk of which 53 (i.e., 8.4 per cent.) were found to be adulterated.

The nature of the adulteration in the adulterated samples of milk was as follows :---

1. Extraneous water (22), varying from a minimum of 1 per cent. to a maximum of 12 per cent., viz. :--1, 1, 2, 2, 2, 2, 2, 2, 2, 4, 3, 3, 3, 3, 5, 5, 5, 6, 6, 7, 7, 7, 3, 7, 4, 8, 8, 7, 10, 12.

2. Deficiency in milk fat (14), varying from a minimum of 2 per cent. to a maximum of 26 per cent., viz. :-2, 5, 5, 7, 7, 8, 8<sup>3</sup>, 8<sup>6</sup>, 9, 12, 14<sup>6</sup>, 18, 20, 26.

3. Extraneous water and fat deficiency (1), viz. :-1.6 and 7.1.

4. Separated milk (2), extraneous water, viz. :--8, 8.

5. Skimmed milk (1), viz. :-2.886 grains per pint of boric acid and 50 per cent. deficient in fat.

Of the total number of samples of milk taken during the year under report, 496 were taken on week-days and 101 on Sundays. Samples were taken on 17 Sundays in the year. Of the 496 weekday samples, 40 (i.e., 8 per cent.) were found to be adulterated, while out of 101 samples taken on Sunday, 8 (i.e., 7.9 per cent.) were adulterated.

#### Separated Milk.

The practice of carrying two or three kinds of milk on the same barrow, without even the compulsion of marking the different receptacles, is one which lends itself to fraud, and should not be permitted to continue. An example of the method by which this kind of fraud is worked may be of interest as illustrating the need to protect the public from being victimised and the honest trader from unfair competition. One vendor who comes into Battersea from a neighbouring borough and who sells probably eight or nine churns of separated milk on Sundays, was recently sampled. The inspector, who was keeping observation on one of this man's pony carts, from which he was selling "milk," came quietly up to the cart, and as he approached unobserved, he heard a customer ask for a pint of "new" milk. This was served from one of the three large hand cans standing on the floor of the cart, and 13d., the price charged by this vendor for new milk, was paid for it. The inspector asked for a pint of new milk from the same hand can. The vendor promptly said : "That is skimmed milk." On being asked for an explanation, he said, "I made a mistake," and taking the customer's jug poured back the "milk" and served him from another hand can. The Inspector took a sample of "Separated Milk" from this vendor, and even this was, on analysis, reported to be adulterated with extraneous water to the extent of 8 per cent. This case shows the difficulty of dealing with this class of trader, and it is to be hoped that provision will be made in the Regulations which the Milk and Dairies Bill empowers the Local Government Board to make, with a view to preventing this kind of fraud.

#### Butter.

One hundred and fifty-seven samples of butter were taken and of these eight samples (i.e., 5 per cent.) were reported by the Analyst to be adulterated. The form of adulteration in these samples was found to be the presence of foreign fat, varying from a minimum of 45 per cent. to a maximum of 79 per cent., viz. :-45, 50, 53, 60, 70, 75, 78, 79.

## Sausages.

Twenty-six samples of sausages were taken and submitted to the Public Analyst. Of these 26 samples, 13 (i.e., 50 per cent.) were reported by the Analyst to contain added preservative (boric acid) in varying proportions from 6.195 grains per pound to 30.24 grains per pound. (*Vide* Legal Proceedings, page 88.)

# Other Articles.

Cream, 18 (of which 17 were adulterated with boric acid, varying from 13:51 grains per pound to 44:38 grains per pound); preserved meats, 17 (of which 7 were adulterated with boric acid, varying from 5:082 grains per pound to 30:24 grains per pound); rice, 10 (all of which were adulterated by the process known as "facing," which is done with talc powder, so as to give the rice grain a lustrous appearance); whisky, 9 (of which 1 was 25:99 degrees under proof); cheese, 6; cocoa, 18; coffee, 24; flour, 4; gin, 2; honey, 5; lard, 12; margarine, 6; milk of sulphur, 4; mustard, 4; oatmeal, 3; olive oil, 9; pepper, 4; rum, 3; tartaric acid, 4; vinegar, 12.

# "Facing" of Rice.

The practice of treating rice so as to improve its appearance, technically known as "facing," was referred to, and the process described in the Annual Report for 1912, when the Medical Officer of Health was instructed to call the attention of traders in the Borough to the danger to health which may arise from this practice. Samples of rice taken during 1913 and submitted to the Public Analyst, were reported by him to be adulterated with adventitious mineral matter to a slight extent. The Health Committee did not consider it desirable to prosecute the vendors of these samples, and instructed the Town Clerk to send the following letter to them :—

#### 6th December, 1913.

#### DEAR

It has been reported to the Council that a sample of rice purchased from you recently by the Council's Inspector was found, on analysis, to be adulterated to a small extent with extraneous mineral matter. The Council are advised that the presence of foreign mineral matter in rice constitutes an unnecessary and objectionable form of adulteration and may be injurious to health, and the Medical Officer of Health was instructed to call the attention of vendors of rice in the Borough to the matter in June, 1912, and a circular letter was sent by him to each trader in rice having premises in this Borough at that time, copy of which I enclose.

Although the quantity of the foreign mineral matter reported by the Public Analyst in the sample just purchased from you is small, the Council take a serious view of the danger to health which may arise, having regard to the fact that rice is largely used as diet for infants and invalids. This practice of "facing" rice, as it is termed, can in no sense be justified, and, apart from the danger to health which may be involved, it is to the prejudice of the purchaser. Any apparently improved appearance of the grain disappears on cooking, and the practice detracts from the value of rice as an article of food.

I have to inform you, therefore, that although the Council do not propose to take any legal proceedings in respect of this sample, they trust it will be unnecessary for them to again remind you of the uselessness of this objectionable practice and of the danger which may arise to the public health therefrom.

Yours faithfully,

W. MARCUS WILKINS, Town Clerk.

# Factory and Workshop Act, 1901.

The Factory and Workshop Act, 1901, imposes upon the Council very important duties. Section 32 of the Act directs that the Medical Officer of Health 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 part 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 restaurant kitchens and milkshops, which are more appropriately included in the section of the Report 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 Workplac	.65	***	 1,104
Factories			 205
Bakehouses			 85
Restaurant Kitchens, &c.			 104
Ice Cream Premises			 188
Home Workers			 262
Stables			 548

# Factories.

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

There are 205 of these premises registered in the Health Department, in which are employed 8,997 persons (males, 6,746, females, 2,251) as follows :--

	Number	Ma	les.	Fen	ales.
Trade.	Factories on Register.	Adults.	Young Persons.	Adults.	Young Persons.
Barge Builder	1	. 4			_
D.1.	14	163	2	81	29
Baker Bootmaker	11	41	1	_	
Builder	4	20	_	_	-
Butter Blender	8	70	29	17	
Carpenter	7	71	3		_
Chemical Works	4	116	17	84	13
Chaff Cutting and					
Forage	8	89			
Cycle Maker	3	8	8		
Dyer	1	30	_	14	
Engineer	80	727	19	-	-
Flour Mills	2	109	10		-
Firewood Cutter	8	62	2	24	
Founder	3	78	8		
Lift Maker	2-	15	1	1-00	-
Mason	5	338	_	-	- 1
Mineral Water	2	28	4	22	2
Printer	19	107	24	9	1
Steam Laundry	29	238	8	1,048	120
Other Trades	49	3,872	434	679	208
Totals	205	6,186	560	1,878	878

The duties of Sanitary Authorities in relation to factories are few, and limited mainly to the enforcement of suitable and sufficient sanitary accommodation for factory employees.

During 1913, thirty-nine defects were found on factory premises, for the most part relating to unsuitable and insufficient sanitary accommodation, or to defects in sanitary fittings and appliances. In 34 cases it was found necessary to serve notices to remedy defects, all of which were duly complied with.

Thirty new factory premises were inspected and added to the register during the year. All were found to be provided with suitable and sufficient sanitary accommodation.

# 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 there has the right of access or control.

The workshops in Battersea are under the supervision of two Workshop Inspectors, one male and one female, who deal respectively with premises where male or female labour is employed.

The following is a list of the workshops on the register at the end of 1913:-

				Persons H	Employed.	
Trade.	Number of	Number of Work-	Ma	ales.	Females.	
	Work- shops.	rooms.	Adults.	Young Persons.	Adults.	Young Persons.
		101	150	1		
Baker	71	101	156	1	1	-
Billiard Table	1	2	10	2	Sec. 1	
Maker	1	9	10	1	_	_
Blind Maker	4	65	112	13	1	1000
Bootmaker	63	15	25	10	1	
Carpenter	14	16	42	0	1	1000
Coach Builder	7	16	20	8		and a state of the
Cycle Maker	11	125	20	0	277	77
Dressmaker	87	125	_		88	7
Embroiderer	8	29	63	9	00	
Farrier & Smith	26	16	85	1	12	1
Firewood Cutter	16	80	8	1	104	1
Laundry	81	6	43	1	101	
Mason	6	25	40	1	40	16
Millinery	19	20			01	10
Musical Instru-	2	4	39	2		
ment		7	7	1	8	2
Photographer	.4	3	5	1	0	4
Picture Framer	-	13	86	7	1	
Ragsorter		6	12	1	1	Provense in
Saddler	1	67	71	4	114	24
Tailor	10	11	29	T	5	4
Upholsterer Other Trades	99	112	277	45	76	15
Other Trades	99	112	211	10	10	10
Totals	539	787	1,001	96	728	146

At the beginning of 1913 the number of workshops on the register was 560, as compared with 564 at the beginning of 1912. During 1913, the occupation of 74 of these premises was discontinued, while, on the other hand, 53 new workshops were added, so that at the end of 1913 the total number of these premises was 539, in which were employed 1,971 persons (1,097 males, 874 females). During 1913, 33 workshops were notified to H.M. Inspector in pursuance of Section 133 of the Factory and Workshop Act, 1901, which directs 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."

The following table gives particulars relating to new workshops in which "protected persons" were employed, notices of which were duly sent to H.M. Inspector during 1913:—

	No. of	Protected Persons employed.				
Trade.		Work- shops.	Women.	Young Persons.	Total.	
Bootmaking			2	_	2	2
Dressmaking			18	21	20	41
Laundry			2	13	-	18
Tailoring			4	2	6	8
Miscellaneous			12	1	18	14
Totals			88	87	41	78

# Sanitary Condition of Workshops.

The local authority is the authority responsible for the 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.

During 1913, the number of visits of inspection paid by the Workshop Inspectors to factories, workshops, and workplaces was 3,956, exclusive of visits to home-workers. The following is a tabulated statement of the work carried out in connection with workshop inspection during 1913, so far as it admits of tabulation :—

	CO. ALCON
Workshops inspections and re-inspections	1,588
Workrooms measured	79
Workshops notified to H.M. Inspector	33
Cards distributed showing number of persons legally	
employed in workrooms	71
Written intimations issued	98
Statutory notices served	14
Defects discovered in Workshops and remedied—	11
Workrooms in a dirty condition	00
, overcrowded	29
	5
", badly ventilated	9
" with defective walls or ceilings	-
" defective floors	4
Workshops with defective yard paving	3
" with defective drains	1
,, with blocked drains	5
" without proper dustbins	10
,, with defective w.c. apparatus	21
,, with sanitary conveniences insufficient	
in number or absent	9
with sanitary conveniences opening	
into workrooms	(addidine)
with sanitary conveniences without	The second second
proper doors or fastenings	_
", with sanitary conveniences in dirty	
condition	4
Coal bins provided in bakehouses	-
Accumulation of refuse removed	4
Other defects remedied	12
	State Sec

The following notices of defects were received from H.M. Inspector of Factories during 1913 and received attention :--

PREMISES.	TRADE.	NATURE OF COMPLAINT.
Rear of 37 High Street 220 Queen's Road	Sweet making Cap making	Defective flues and ventilator No ventilation to gas stove

# Underground Workrooms.

Excluding underground bakehouses, there are 31 underground workshops and workplaces in Battersea, as compared with

Wor	KSHO	PS.		WORKPLACES.	
Laundries			7	Restaurant kitchens	5
Cycle-making			5	Meat-chopping	6
Fitters			1	Small exempted	
Rag-sorting	***		1	laundries	4
Coffin-making	• • •		1	Processing and considerable	
Tailor			T		

#### 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 Inspector, by far the greater part of the work connected with the sanitary supervision of bakehouses in Battersea devolves upon the Borough Council as the Sanitary Authority.

In the Borough of Battersea, during 1913, there were on the register 85 bakehouses, 14 of which were factory bakehouses, with regard to which the duties of the Council are few, and 71 workshop bakehouses. There is an increasing tendency to convert workshop bakehouses in Battersea into factories by the addition of small electro-motive machinery, five of the workshop bakehouses having thus technically become factories during the year. Of the workshop bakehouses, 45 are above ground and 26 underground, according to the definition given in the Factory Act. The following is a list of the workshop bakehouses :---

Addresses.	Addresses.		
257 Battersea Park Road 292 ,, , , ,	10 Northcote Road 64 ,, ,,		
343 """""" 1 Battersea Rise	94 ,, ,, 175 ,, ,, 62 Plough Road		
78 ,, ,, ,, 81 Bridge Road 84 ,, ,,	76 ,, ,, 112 ,, ,,		
64 Castle Street 139 Chatham Road	41 Queens Road 121 ,, ,,		
47 Este Road 29 Falcon Road 88 Grayshott Road	38 Rowena Crescent 10 St. Phillip Street 93 Stewarts Road		
45 Harroway Road 11 Hanbury Road	29 Stockdale Road 90 St. Johns Hill		
80 High Street	32 Tyneham Road 47 ""		
<ul><li>213 Lavender Hill</li><li>93 Latchmere Road</li><li>29 Meyrick Road</li></ul>	102 Usk Road 46 York Road 70		
48 New Road 89 ,, ,,	10 ,, ,, 187 ,, ,, 198 ,, ,,		
148 ,, ,, 205 ,, ,,	287 " "		

45 BAKEHOUSES ABOVE GROUND.

Addresses.	Addresses.
163 Battersea Park Road         189       "       "         200       "       "         219       "       "         310       "       "         373       "       "         501       "       "         525       "       "         48 Broomwood Road       "         2 Burland Road       35 Castle Street         83 Church Road       4 Currie Street	43 Falcon Road 103 ", " 46 Francis Street 123 Maysoule Road 23 Plough Road 34 ", " 109 Salcott Road 146 St. Johns Hill 8 Tyneham Road 47 Winstanley Road 79 ", " 6 York Road 345 ", "

The bakehouses in the Borough of Battersea were systematically inspected during the year, and may be said to be (sanitarily) in a satisfactory condition.

The following summary of the work done during the year in connection with the supervision of the bakehouses in the Borough may, for convenience, be set down here. It should, however, be remembered that the summarised results of bakehouse inspection here recorded are included in the tables giving the results of general factory and workshop inspection.

Above-ground bakehouses :— Twenty-three preliminary and four statutory notices were served for defects, all of which were duly remedied.

Underground bakehouses :— Twenty-one preliminary and one statutory notices were served for various defects, all of which were remedied.

The defects for which these notices were required had reference mainly to neglect to carry out, within the prescribed time, the half-yearly lime-washing of the bakehouses, defective sanitary fittings, &c.

#### Factory Bakehouses.

The following is a list of the factory bakehouses in Battersea :---

v.

-	Altenburg Gardens		Bread and Con	fectioner
	Battersea Park Roa		,,	,,
381	,, ,, ,,		,,	,,
49	High Street		,,	,,
30	Lavender Hill		,,	,,
23	Northcote Road		,,	,,
	Park Road		,,	11
	Broughton Street		751	
465	Battersea Park Roa	ad	Bread.	
83	Culvert Road		,,	
37	Grayshott Road		,,	
64	Latchmere Road		,,	
36	Orkney Street		,,	
	Sugden Road		,,	

Three intimations were served for want of cleansing in factory bakehouses, all of which were complied with.

## Homework.

This term has reference to persons who carry on certain classes of work at their 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 (1) in dwellings which are injurious to the workers themselves, viz., through overcrowding, inadequate ventilation, &c., and (2) in premises where there is dangerous infectious disease.

The outworkers 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 of the Factory and Workshop Act, 1901 apply, are set out in Orders made by the Secretary of State (vide previous Annual Reports).

During 1913, the names and addresses of 763 outworkers were received as compared with 825 in 1912 and 749 in 1911. Lists were sent in by employees and by the Medical Officers of Health of the following Metropolitan Boroughs and District Councils :—

District.		Number of Lists.	Number of Out- workers.	District.		Number of Lists.	Number of Out- workers.
Chelsea		2	58	Richmond		1	1
Finsbury		2	12	St. Marylebon	ne	2	28
Fulham		1	3	Shoreditch		1	1
Hackney		1	1	Southwark		5	12
Holborn		1	1	Wandsworth		7	63
Kensington		2	15	Westminster		2	100
Lambeth		9	23	Wimbledon		1	1
Malden and				Corporation	of		
Coombe U.D.	C.	1	1	London		14	51
Paddington		2.	8				
Poplar		1	1	Total		55	875

The names and addresses of 166 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 outworkers are systematically inspected, and any insanitary conditions found remedied. The following table shows the number of outworkers' premises registered in the Borough, together with the trades and the number of persons employed :---

			Number on Register.		Persons Employed.		
Trade.			Premises.	Work- rooms.	Males.	Females	
Blousemaking			8	9	_	10	
Bootmaking			40	40	40	-	
Boxmaking			8	8	_	9	
Dressmaking			6	6	-	6	
Embroidery			44	44	_	45	
Glovemaking			40	40	1	44	
Tailoring			57	57	37	24	
Underclothing			81	33		32	
Other trades			28	28	1	27	
Totals			262	265	79	197	

The systematic inspection of outworkers' premises is carried out by the two Workshop Inspectors (Inspectors Benjamin and Miss Ross Brown). The former deal with male, and the latter with female outworkers. In addition to the inspection of the homes of outworkers, the lists kept by firms established in Battersea of outworkers employed by them are regularly inspected, and care taken to see that these lists are kept in the manner and form prescribed by Section 107 of the Factory and Workshop Act, 1901.

During 1913, 808 inspections of outworkers' dwellings were made, 557 of which were carried out by the female Workshop Inspector. It was found necessary to serve 35 notices in connection with homework inspection. The defects found in outworkers' premises were mainly those referring to want of cleanliness of rooms, defective sanitary fittings, &c.

# Appendix.

( 4)

# 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 in Appendix No. 1, pages 87 to 89, and are summarised below :—

	No. of Prosecutions.	No. of Convictions.	I	Tines	s.		Cost	s.
Sala of Food and Dauga			£	s.	d.	£	s.	d.
Sale of Food and Drugs Acts	85	41	58	10	0	24	13	6
Smoke Nuisances	1				~	0	10	6
Unsound Food	1	1	2	0	0	0	5	0
Contravention of Bye-Laws	-	-		-			-	
Other proceedings	8	2	1	0	0	1	15	6
Total	95	44	61	10	0	27	4	6

# APPENDIX No. 1.

Number of Sample.	of Article.			Article. Nature of Offence or Adulteration, &c.				Result of Proceedings.				
536	Milk			4.7% extraneous water	Fined £2 10s. and 14s. 6d costs.							
636				13.6% extraneous water	Fined £3 and 14s. 6d. costs							
639				12.8% extraneous water	Withdrawn.							
613	Butter			33% foreign fat, and selling Margarine in a plain	Fined £10 and 14s. 6d. costs							
678	Milk			9.6% extraneous water	Fined £1 10s. and 12s. 6d costs.							
640				7.4% extraneous water	Fined $\pounds 4$ and 12s. 6d. costs							
818			***	7.0% extraneous water	Fined $£3$ and 14s. 6d. costs							
-				Obstruction of Inspector	Bound over in 40s. for 6 months.							
806				7 1% fat abstracted and 1.6% extraneous water	Dismissed (warranty).							
778				8.7% extraneous water	Fined £5 and 12s. 6d. costs							
845	Butter			70% foreign fat, and selling Margarine in a plain wrapper	Fined £1 and 18s. 6d. costs							
908	••			45% foreign fat, and selling Margarine in a plain wrapper	Fined $\pounds 2$ and 18s. 6d. costs							
906				60% foreign fat, and selling Margarine in a plain wrapper	Fined $f_2$ and 18s. 6d. costs							
-	Milk			Giving false warranty	Dismissed.							
820				20% fat abstracted	Fined £1 and 12s. 6d. costs							
982	-			6.7% extraneous water	Dismissed (warranty).							
57	Butter			53% foreign fat, and selling Margarine in a plain wrapper	Fined $\pounds 1$ and 14s. 6d. costs							
58	Milk			8% extraneous water	Ordered to pay 12s. 6d costs.							
64				7.4% extraneous water	Ordered to pay 12s. 6d costs,							
66				7.3% extraneous water	Fined £1 and 14s. 6d. costs							
91	Butter			75% foreign fat, and selling	Fined $\tilde{f}_1$ and 18s. 6d. costs							
				Margarine in a plain wrapper								
74	Milk			8.3% fat abstracted	Fined 10s. and 14s 6d. costs							
76	"			18% fat abstracted	Withdrawn on payment o 12s. 6d. costs.							
73	**			14.6% fat abstracted	Withdrawn on payment of 14s. 6d. costs.							
3				7% fat abstracted	Dismissed.							
5			***	6% extraneous water	Withdrawn on payment of							

1

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# (i.) Legal Proceedings under the Sale of Food and Drugs and Margarine Acts.

# APPENDIX No. 1-continued.

Number of Samplei	Article.	al a	Nature of Offence or Adulteration, &c.	Result of Proceedings.
167	German Sausage		19.81 grains of Boric Acid	Ordered to pay 14s. 6d
	0		per pound	costs.
198	Pork Sausages		30.24 grains of Boric Acid per pound	Fined $f_2$ and 12s. 6d. costs
182	Milk		8% fat abstracted	
183			7% fat abstracted	Fined $f_1$ and $f_2$ 2s. costs.
184			5% fat abstracted	N N
_			Giving a false warranty	Adjourned sine die.
155	Butter		78% foreign fat, and selling	Fined $\pounds 10$ and 18s. 6d.
			Margarine in a plain wrapper	costs.
270	Milk		10% extraneous water	Dismissed (warranty).
			Giving a false warranty	Withdrawn.
276	Separated Milk		8% extraneous water	Fined £1 and 14s. 6d. costs.
	Milk		Giving a false warranty	Dismissed.
238	Cream		28 grains of Boric Acid per	Fined £2 and 12s. 6d. costs.
	orean		pound	- mod 2 - and - 20. ou. coon.
234			43.386 grains of Boric Acid	Fined £2 and 12s. 6d. costs.
			per pound	
289	Milk		9% fat abstracted	Dismissed (warranty).
349			26% fat abstracted	Dismissed (warranty).
281	Butter		79% foreign fat, and selling	Fined $f_1$ and $f_1$ costs.
	Dutter		Margarine in a plain	T mon L'a mon L'a coord.
383	Milk		wrapper 12% extraneous water	Fined 10s. and 14s. 6d.
000	MIIK		12% extraneous water	costs.
427			12% fat abstracted	Fined 10s. and 12s. 6d.
101	** ***	***	12% fat abstracted	costs.
-	,,		Giving a false warranty	Withdrawn on payment of
				£1 1s. costs.
			Giving a false warranty	Dismissed.

# APPENDIX No. 1-continued.

# (ii.) Legal Proceedings under the Public Health (London) Act, 1891, and the Rag Flock Act, 1911.

Nature of Offence.	Result of Proceeding
Nuisance from drain serving No. 76 Lavender Hill	Order for abatement within 28 days, and 23s. costs.
Nuisances at Nos. 26 and 28 Woodgate Street	Withdrawn, owner having agreed to pay costs.
Smoke nuisances at No. 2 Ingrave Street	Withdrawn on payment of 10s. 6d. costs.
Exposing for sale.unsound strawberries	Fined $\pounds 2$ and 5s. costs.
Nuisances at Nos. 22, 27, 28, 29 Linda Street	Adjourned sine die.
Having in his possession Flock manufac- tured from rags intended to be used for making articles of upholstery, &c.	Fined $\not \in 1$ and 12s. 6d. costs.



DEATHS REGISTERED FROM ALL CAUSES FOR THE YEAR 1918.

Cause of I										A	GES	•							degistrat District		s	ex.
Cause of 1	Jeann.			0 to 1	1 to 2	2 to 5	5 to 10	10 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards	Totals.	E.	N.W.	s.w.	M.	F
General Discases. 1. Enteric Fever									1	2	1		1	1			6	1,	4	1	4	
2. Typhus	4.4.4		***	***																		
3. Relapsing Fever 4. Malaria	***		***		144									***						***	***	**
4. Malaria 5. Small Pox—	***	***		***	***				***												***	**
(a) Vaccinated (b) Not Vaccinated		•••																				
(c) Doubtful		***	***		***		***	***		***	***	***	***	***	***	***						
6. Measles				17	40	28	5	***	***	***	***	***	***	***	***		***		***		***	
7. Scarlet Fever					1	6		***	***	1	***	***	***	***	***		90	31	49	10	47	4
8. Whooping Cough				14	7	5			***			***	***	***	***	***	8	3	3	2	5	
9. (a) Diphtheria				1	3	9	5	2				***		***	***	***	26 20	18	12 10	1	9	1
(b) Croup	***	***	**			1	***						***	***	***	2	20		10	2	13	
10. Influenza		***		1		***				1		9	7	7	1	1	27	10	8		1 14	ï
1. Miliary Fever	***		***					***	***													
2. Asiatic Cholera	***	***				***	***					***									***	*
<ol> <li>Cholera Nostras</li> <li>Dysentery</li> </ol>	***	***	++	***	****				***				***								***	•
5 Diama	***	***	**	***	***	***	***		***	1				1			2	1		1	1	-
6. Yellow Fever		***		***	***	***		***	***	***									***			
7 1		***	-	***	***	***	***	***	***	***		***				***						
8. Ervsipelas		***	-			***	***	***		***	***	***		+++	***	***	***	***			***	
9. (a) Mumps	***			-	***	***	***		1			***	***	2	1		5	2	3		3	
(b) German Mea	sles		***	***	***	***	••••	***	***	***	***	***	***					***	***		***	
(c) Varicella	area		***	***	***		***		***	***	***	***	***	••	***	***	***					.,
(d) Other Epider		Diseases	***		***			***	***	***	***	***			***	***	***	***	***			
(it) a more subserve		- counced	***		***	***	***		***	-**	***	***	***	***		***	***	***	***			

20.	(a) Pyæmia		+1															***			***
20.	(b) Septicæmia			1								1				2		2	***	2	***
	La Transinia		1											***					***		***
21.	Clanden		100.00																***	***	***
00	Anthrax (Splenic Fever)			***																***	***
23.	Dalla	*** **	1000	***	***	***	***	***													***
24.	FET				***	***	***	••••		***	***										
25.	Massan		1000	***	***		***	••••		***											
26.	D-H		1000	***	***	***		•••	***	***	***								***		
20.			10000			•••	***			***	***	1000									
28.	(a) Pulmonary Tuberc	ulosie	2	3	***	4	6	28	40	32	41	20		3		188	102	50	36	112	76
20.			-	0	***	-		40	30	0.0	-			-							
	(b) Phthisis (not define culosis)			1.1.1																	
00	(a) Acute Phthisis	*** **			***		***	***	***	***	***		***								
29.	(b) Acute Miliary Tub		10000	1	***	***	1	1	***	***	***	***	***			3	1	1	1	3	
90			0	5	10	13	î	1	1	1	***	***	***			33	14	14	5	16	17
30.	(a) Tabes Mesenterica	*** **	1					***	0.77			***	•••			1		1		1	
31.		familiantin ha	1		***	***	***	***			***	***	***			-					
	(b) Other peritoneal a		2	3		2	1			1		1.13				9	5	1	3	2	7
	tubercle	**** ***			***		1	***	1		***		1	***		3	2	î		1	2
32.	Tuberculosis of Spinal (			***	***			***	T	***	***	***			18133						
33.	Tuberculosis of Joints	*** **	1.000		***	***	***	***	***	***	***	***	***								
34.			10000	***	***	***			***	***	***	***		***							
	(b) Scrofula		10000	***	***	***	***	***	1		***	1	***	***		2		1	1		2
05	(c) Tuberculosis of oth				2	***	***	1	1	2	***		***			6	2	2	2	8	3
35.	Disseminated Tuberculos			2	ĩ	***	***		-		***	***	***			8	3	5		6	2
36.	Rickets, Softening of Bo		15	1.5		***	1	***	***	1	2	1				10	6	4		6	4
37.		*** **		***	***	- 111		***	***			18.80	***								
38.	Other Venereal Diseases		***	***		***	***	***	1	1	***	5	1			8	4	4		7	1
39.	Cancer of the Buccal Can		1000	***	***		***			4	10	16	16		1	50	20	18	12	36	14
40.	,, Stomach, I			***	***	***			***		10	*0	10		1			1		1000	
41.		n, Intestines,							1	5		9	8	2		25	11	7	7	8	17
40	and rect		***	***	***	***	***	1	î	4		8	5			27	18	6	8		27
42.		enital Organs		***			***			1	9	6	6	2	1	25	8	4	13		25
43.	,, Breast			***		••••		***	***		100	2	1			1			1	1	
44.	, Skin	10.11 0				1	***	2	2		12	6	10	4		39	18	11	10	26	13
45.	Cancer of other or unspe-	cined Organs	***			T	***	-	-		1.0	0	10			00				1	
			1	1	-	-	-		-	-	-	-	-		-						

DEATHS REGISTERED FROM ALL CAUSES FOR THE YEAR 1918-continued.

								AC	GES.								egistrat District		s	iex.
	Causes of Death.	0 to 1	1 to 2	2 to 5	5 to 10	10 to 15	15 to 25	25 to 35	85 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and Upwards	Totals.	E.	N.W.	s.w.	М.	F.
47. 48. 49. 50. 51. 52. 53.	<ul> <li>(b) Osteo-Arthritis</li> <li>(c) Gout</li> <li>Scurvy</li> <li>Scurvy</li> <li>Diabetes</li> <li>Exophthalmic Goitre</li> <li>Addison's Disease</li> <li>Leucocythæmia Lymphadenoma</li> <li>Anæmia, Chlorosis</li> <li>(a) Diabetes Insipidus</li> <li>(b) Purpura</li> <li>(c) Hæmophilia</li> <li>(d) Other General Diseases</li> <li>Alcoholism (acute or chronic)</li> </ul>			······································	···	···· ··· ··· ···	······································	··· 4 ··· ·· ·· ·· ·· ·· ·· ·· ·· ·· ·· ·· ··	$\begin{array}{c}1\\1\\\cdots\\2\\\cdots\\\cdots\\\cdots\\1\end{array}$	··· 1 ··· ·· ·· ·· ·· ·· ·· ·· ·· ·· ·· ·· ··	··· ·· ·· ·· ·· ·· ·· ·· ·· ·· ·· ·· ··	:::311 :8 ::111 ::::	···· 2 ···· ··· ···		$ \begin{array}{c} 1\\11\\3\\2\\3\\1\\9\\1\\\\\\\\\\3\\7\\1\\\\\\\\1\\7\end{array}\right) $	1 4 1 3 1 9  1 1  3	······································	··· ·· ·· ·· ·· ·· ·· ·· ·· ·· ·· ·· ··	.:6313191 .:33 .:1 .:5	$ \begin{array}{c} 1 \\ 5 \\ \\ 1 \\ \\ 10 \\ \\ 4 \\ 1 \\ \\ 1 \\ 2 \end{array} $
58. 59.	(b) Non-occupational Lead Poison- ing Other Chronic Occupational Poison- ings																			•••
	Diseases of the Nervous System and of the Organs of Special Sense. Encephalitis				1					1	•				2	1	1		2	

<ul> <li>67. General Paralysis of the Insane</li> <li>68. Other forms of Mental Alienation</li> <li>69. Epilepsy</li> <li>70. Convulsions (Non-puerperal; 5 years and over)</li> <li>71. Infantile Convulsions (under 5 years)</li> <li>72. Chorea</li> <li>73. Hysteria, Neuralgia, Neuritis</li> <li>74. Other Diseases of the Nervous System</li> <li>75. Diseases of the Eyes and Annexa</li> <li>76. (a) Mastoid Disease</li> </ul>	1 3 1	······································	···· 1 ··· 1 ··· ··· ··· ··· ··· ··· ··· ··· ··· ··		···· ··· ··· ··· ··· ··· ··· ··	······································		······································		··· ··· ··· ··· ··· ··· ··· ··· ··· ··	··· 1 2 34 1 4 ··· ·· ·· ·· ·· ·· ·· ·· ·· ·· ·· ·· ··	···· 1 12 22 ···· ··· ··· ··· ··· ··· ··· ··· ··	4	$\begin{array}{c} & \cdots & & & \\ & 3 & 12 \\ & 4 & & \\ & 10 \\ & 85 \\ & 1 \\ & 10 \\ & 22 \\ & 1 \\ & 6 \\ & 1 \\ & & \\ & 6 \\ & 1 \\ & & \\ & & 6 \\ & 1 \\ & & \\ & & 3 \end{array}$	···· 2 8 2 3 6 10 1 3 ··· 9 ··· 2 1 ··· 1		1 1 1 4 24 3 6  1 1 1 1 1 2 2	2 6 4 38 5 19 1 5 1 7 ; 3 ; 1 1	.:16 .:6 47 15 3 :1 : 3 1 : 3 1 3 2
<ul> <li>3.—Diseases of the Circulatory System.</li> <li>77. Pericarditis</li> <li>78. Acute Myocarditis and Endocarditis</li> <li>79. (a) Valvular Disease</li> <li>(b) Fatty Degeneration of the Heart</li> <li>(c) Other Organic Disease of the Heart</li> <li>80. Angina Pectoris</li> <li>81. (a) Aneurism</li> <li>(b) Arterial Sclerosis</li> <li>(c) Other Diseases of the Arteries</li> <li>82. (a) Cerebral Embolism and Thrombosis</li> <li>(c) Cerebral Embolism and Thrombosis</li> </ul>			···· 1	1  1  	··· 1 4 ··· 1 ··· ·· ·· ·· ·· ·· ·· ··	1 4 6  4  1	···2 7 ··· ··· 1 ··· 1	1 12  4  2  	 21  19 1 3 3 1 1	1 25 1 23  2 5  5	 18 2 36 1  7  3	···· 7 1 14 ··· 2 ···	: : : : : : : : : : : : : : : : : : : :	3 9 103 4 108 2 8 17 1 1 11	7 41 1 43 2 5 12  4	$2 \\ 1 \\ 39 \\ \\ 31 \\ \\ 2 \\ 4 \\ 1 \\ 3$	1 23 3 34  1 1  4	$2 \\ 4 \\ 48 \\ 2 \\ 48 \\ 1 \\ 8 \\ 12 \\ 1 \\ 5$	1 5 55 2 60 1  5  6

DEATHS REGISTERED FROM ALL CAUSES F	FOR THE Y	EAR 1918-continued.
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and the second second							AG	ES.								egistrati Districts		Se	х.
Causes of Death.	0 to 1	1 to 2	2 to 5	5 to 10	10 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards	Totals.	E.	N.W.	S.W.	м.	F.
<ul> <li>(b) Other Embolism and Throm- bosis</li> <li>83. Diseases of the Veins, (Varices,</li> </ul>							1							1		1			1
Hæmorrhoids, Phlebitis, &c.) 84. (a) Status Lymphaticus		••••			••••	••••	••••	***	••••			•••		 1	 1				1
		1												1		1		1	
<ol> <li>Hæmorrrhage; other Diseases of the Circulatory System</li> </ol>																			
<ul> <li>Diseases of the Respiratory System.</li> <li>86. Diseases of the Nasal Fossæ</li> <li>87. Diseases of the Larynx</li> <li>88. Diseases of the Thyroid Body</li> <li>89 &amp; 90 Bronchitis</li> <li>91. Broncho-Pneumonia</li> <li>92. (a) Lobar Pneumonia</li> <li>(b) Pneumonia (type not stated)</li> <li>93. Pleurisy</li> <li>94. Pulmonary Congestion, Pulmonary</li> </ul>	42 39  17	 9 14 3 4 	 1  3 8 3 4 1	1  1 3 1 3 	  1 	  2 1 2	 1  2 8 	.:3 :6 :4 8 1	 13 4 1 9 1	 35 4 5 10	 67 9 2 6 1	 1 23 6 1 3 1	 10 2 	$1 \\ 7 \\ 1 \\ 210 \\ 90 \\ 24 \\ 74 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\$	1 3 93 45 12 36 6	 3  72 31 10 22 	$     \begin{array}{c}             1 \\             1 \\         $	$     \begin{array}{c}                                     $	1 3 96 38 10 31 31
Apoplexy	2	1	***						2	1	1		1	8	4	2	2	4	-4
95. Gangrene of the Lung									3 1 3	1 1 1	1 2 1	3		5 7 5	1 2 1	1 4 1	8 1 3	1 3 3	
(b) Other Diseases of the Respira- tory System								1						1	1			1	

5	Diseases of the Digestive System.																				
99.	(a) Diseases of the Teeth and Gums							1													
	(b) Other Division of the feeth and Gums		1			1440				1 1					1			1 .	1		
	(b) Other Diseases of the Mouth							***		1	***				2	2				2	
100	and Anneva	. 2																		-	
100	Diseases of Pharvny, Tonsilitie	1 2	***							100				1.00	2	2				1	
101	LISCASES OF LESOPHAGUE	1 1			***	***						1 1		1000	2	1 1	***	4.8.8			
102	Perforating Ulcer of Stomach							1					1 1			1	1	***		2	
103.	(a) Inflor of Stomach							î	3				1	+++	2	1		1	2		
4000		4	2	1			***	-	0	1	2				9	2	2	5	7	0	
20.4	[0] Uther Diseases of Storest			1	***	***	***	***	***	1	4	3	1	2	18	6	8	4	lii	. 7	
.104	a 100. (a) Infective Enteritie	0.0		***				***	***										111	11	
	(0) Diarrhoun (not estavo	. 38	- 59	***	***	***									47	1	111			***	
	infective)												111	***	. 97	24	22	1	26	21	
	(a) Entertive)	11	2																1.20		
	(c) Enteritis (not returned as						***	***	***		+++	***			18	7	3	3	G	7	
	infective)	13	3			-		1.00													
	(d) Gastro Enterisia (	10	0	1	***	1	1	1			1		2		23	12	~	1	1		
	turned as infective)	100	201										-		~~	10	7	4	15	8	
	(e) Dyspansis (mal a)	29	13	3		***		1													
	(e) Dyspepsia (under 2 years of											***		4.1.4	46	23	19	4	25	21	
	age																		1	1	
	(7) Colic			***	***	100	***	***					***								
	(g) Ulceration of Intestines		***	***			***	***	***								***	4.4.4			
	(h) Duodenal Ulcer		***	***	***	***	1	1				***			2		***	***	***	***	
106.	ADEVIORIONIANIA			***	***			1	1			1				4	1	***	2		
107.	Other Intertional D	***			***		***	1.3		***	***	-	-	***	4	1	1	2	4	200	
	Other Intestinal Parasites								***	***	***	***	10.11	***	6465	***				200.0	
	Appendicitis			***		***	***	***		***	***	***	***							***	
109.	(a) Hernia		***	***	2	***	2	1	1	2	1	***	1	1	11	1	2		1.12	***	
	(b) Intestinal Obstruction	1	4.6.6	444	***		***				2	1	1		5	5	-	8	9	2	
110.	Other Diseases of the Intestines	3		***	***	***			***	1	0	4		***		· · · ·	+++	***	3	2	
111	Acute Vallow At the Intestines	1	***				1				-		***	***	10	2	4	4	5	5	
112.	Acute Yellow Atrophy of Liver							***	***	***	4.9.4	***	***		2	1	1		2		
4.4.44	nydatid of Liver				***	++*	***	***	***	***	***	***	***						-		
113.	(a) Cirrhosis of the Liver (not			***	***	***	***	***			***							***	***	***	
	returned as alcoholic)																***	***		***	
	(B) Lirrhnois of the T	***			***				1	4	2	1		- 1	8						
	(r) chrinosis of the Liver (re-								-	-	-	4	1	***	9	4	2	3	5	4	
	turned as alcoholic)																			-	
	(c) Diseases formerly classed to	1000		***	***	***	***	***	T	***	***	***	***		1			T		1	
	Other Diseases of Liver and																	-	***	T	
	Gall Bladder "																				
		***	***	***	***													1000	1		
											***	***	***		***	***	***	- ***	***		

DEATHS REGISTER	ED FROM ALL C	LAUSES FOR	THE YEAR	1913-continued.
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							AG	ES.								egistrat District		Se	ex.
Causes of Death.	0 to 1	1 to 2	2 to 5	5 to 10	10 to 15	15 to 25	25 to 35	85 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards	Totals.	E.	N.W	S.W.	м.	F
115. Other Diseases of the Liver									1					1 3			1 1	1 1	
<ol> <li>Diseases of the Spleen</li> <li>Peritonitis (cause unstated)</li> <li>Other Diseases of the Digestive</li> </ol>	••••		1	2	1		1	2	•••	1				8	3	1	4	3	5
System			***	***	•••		***		1	1	1		***	8	1	1	1		3
-Non-Venereal Diseases of the Genito- Urinary System and Annexa.						1		1	1	2	2			8	4		8	2	
19. Acute Nephritis 120. Bright's Disease		***		1	1	2	5	1 8	$1 \\ 10$	14	10	ïï	1	62	24	13	25	33	29
	***				***			***	***	***	***					***			.,
Annexa	***	***	***	***		***	1	3	***		1	***		5	2	2	1	1	
<ol> <li>Calculi of the Urinary Passages</li> <li>Diseases of the Bladder</li> <li>Diseases of the Urethra, Urinary</li> </ol>				•••				1	1	2	 1	2		6	4	1	1	5	
Abscess, &c									***	1				1.			1	1	
27. Non-Venereal Diseases of Male		***	***		***					***	2	2	***	*	1	1	2	4	
Genital Organs 128. Uterine Hæmorrhage (Non-puerperal)				***	***	***			***	***		***				***	***		1
129. Uterine Tumour (Non-cancerous)			***		***				1	1		1		3	1	1	1		
130. Other Diseases of the Uterus 131. Ovarian Cyst, Tumour (Non-Can-							***	1	1	••••	***			2	1	1			
cerous)*				***					1	1		1		3	1	1	1		

132. Other Diseases of the Female Geni-	1	1																		
133. Non-Puerperal Diseases of the			***					1					1	1 1	1,	1		1	1.	
Breast (Non-cancerous)															1		***		1	
7.—The Puerperal State. 134. Accidents of Pregnancy									***			***	***							
100. FuerDeral Hæmorrhame	1.576				***			1						1 .	1 .					
100. Other Accidents of Childhigh		***												1	1	***	***	1	1	
in ruerperal Fever	0.000	***	***		***	1	***	1				***	***		***	***				
138. ", Albuminuria and Convul-		***	***	***		***	3	3				***	***	26	2	***	***		2	
SIONS														0	2	2	2		6	
Embolism and mdd					***		2	***	***	•••	***	***		2	1	1			2	
death																			1	
190. , Insanity			***	***			***							1.0				1.1		
		***	***		***		***								***	***	***			
		- 114	***	***	***	***									***	***	***		***	
8.—Diseases of the Skin and of the Cellular Tissue,														***	***		***	+ + + +	***	
142. (a) Senile Gangrene																				
(0) Gangrene (other turned)		***	***.	1.1.1		***					1		See.							
AND, CALDUDCIE, How	-		***	***	***	***	***	***	***		î	***	***	2	***		1		1	
199. Phlegmon, Acute Abscass	2	***	***	***	***	***				2		***	***	2	1	1	***	2		
And Diseases of the Integramentary	2	***	***	***	***	***	***	1	***		1	***	***	4	2	1	1	1	1	
System	2												***		2	1	1	3	1	
	~	***	***	***	***	***	+++		***	***				2	2					
9.—Diseases of the Bones and of the Organs of Locomotion.															~	***	***	1	1	
146. Diseases of the Bones																				
197. Diseases of the Joints	***	***	***	***	***	1	***	***												
140 Amputations		***	***	***	***	***	***	***					***	1	***	***	1		1	
149. Other Diseases of Locomotor System		***	***	***	***	***						***	***	***	4.8.9		***			
	***	***	***	***	***	***					***	***		***	***	***	***			
10Malformations.											***	***	***	***	***	***		***		
100. Congenital Malformation	19																			
	10	A .	**	***	***	***		***	***					20	8	10				
in the second second	1000			-	-			1					-	20	0	10	2	12	8	

DEATHS REGISTERED	FROM ALL	CAUSES FOR	THE YEAR	1918-continued.
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							AC	GES.								egistrati District:	s.	S	Sex.	
Causes of Death.	0 to 1	1 to 2	2 to 5	5 to 10	10 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards	Totals.	E.	N.W.	s.w.	М.	F.	
<ol> <li>Diseases of Early Infancy.</li> <li>(a) Premature Birth</li></ol>	85													85	33	39	13	45	40	
Sclerema	62	1					***							63	32	17	14	39	24	
Infancy 153. Lack of Care	1										••••			$\frac{15}{4}$	7	4 2	4	11 3	4	
2.—Old Age. 154. (a) Senile Dementia (b) Senile Decay								•••			 29	 89	 27	 148				 54		
						2	4	4	1	4	1			16	7	4	5	11		
164. Poisoning by Food 165. Other Acute Poisonings				2	***	***		***	2	1		***		2 3	22	1		1 3		
166. Conflagration		1	2	2	1	1		***				***	 1			5	 1	5		
168. Absorption of Deleterious Gases (Conflagration excepted) 169. Accidental Drowning														8 8	84	4	1	36		
170 to 176. Injuries			1	2	4	7	4	5	5	10	7	6	3	54	27	16	11	39	1	
78. Excessive Cold	***		***																	
180. Lightning		***	••••																	

180. Fractures (cause not specified) 186. Other Violence 14III-Defined Causes.			1	 1		 1			  1	 1	 1	1		2	1 ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	 3	1	1	1 
188. (a) Syncope (aged 1 year and			•••			***	•••	***	•••	***	***		•••						
(b) Sudden Death (not otherwise	12000	***	•••		***	***			•••	***	•••					***			
defined) 189. (a) Heart Failure (aged 1 year	•••	***	•••	•••					••••	•••									;
and under 70) (b) Atrophy, Debility, Marasmus	1000	***		•••	•••	***)	***			•••									
	1	1												1	1				1
(c) Other ill-defined Deaths				***	***				***										
(f) Cause not energified			***	1		***		1	***		***	***		2	1				
											-						978		100

	Population		BIRTHS.		TOTAL I REGISTERI DIST			THS	NETT DEATHS BELONGING TO THE DISTRICT.					
YEAR.	estimated to middle of each	Un-	Ne	tt.			of Non-	of Resi-	Under 1 Y	ear of Age.	12 2,272 2,417	Ages.		
1	Year. 2	corrected Number. 3	Number. 4	Rate.*	Number. 6	Rate.*	residents registered in the District. 8	dents not registered in the District. 9	Number. 10	Rate per 1,000 Nett Births 11	Number. 12	Rate. <sup>4</sup> 13		
1908	183,873	4,500	4,629	25.1	2,265	12.4	408	415	494	107	2,272	12.3		
1909	186,036	4,253	4,450	23.9	2,445	13.1	502	474	478	107		13.0		
1910	188,222	4,288	4,489	23.7	2,165	11.5	444	403	434	97	2,124	11.3		
1911	167,765	4,154	4,381	26.1	2,437	14.5	506	473	546	125	2,404	14.3		
1912	167,589	4,030	4,255	25.4	2,125	12.7	530	457	353	82.9	2,052	12-2		
1913	167,464	4,058	4,240	25-3	2,439	14.5	589	525	471	111	2,365	14.1		

IADLE 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	1913 AND PREVIOUS YEARS.

\* Rates calculated per 1,000 of estimated population.

Area of District in acres (land and inland water), 2,309 acres. Total population at all ages, 167,793; number of inhabited houses, 22,078; average number of persons per house, 76 at Census of 1911.

			CASH	s Notif	IED IN W	HOLE D	ISTRICT.		Cases N ACH LOCA		No. of Cases Removed to Hospital from each Locality.			
Notifiable Disease.		At all			At Age	s—Years		st rsea.	/est rsea.	est sea.	st rsea.	rsea.	fest sea.	
		Ages.	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.	East Battersea.	NWest Battersea.	SWest Battersea.	East Battersea.	NWest Battersea.	S,-West Battersea.
Small-pox														
Cholera				***										***
Diphtheria		248	5	- 75	151	13	4		108	85	55	106	83	43
Membranous Croup		2		2					2			1		
Erysipelas		123	6	4	9	9	78	17	65	43	15	17	7 .	4
Scarlet Fever		897	3	201	593	69	31		391	347	159	387	346	131
Cyphus Fever														
Enteric Fever		15		1	6	3	5		. 4	8	3	4	8	3
Relapsing Fever														
Continued Fever														
Puerperal Fever		9				9			2	5	2	1	5	1
Plague		***												
Cerebro-spinal Fever		2			2				1	1		1	1	
Glanders							***	***		***				
Anthrax														
Hydrophobia											***			
Ophthalmia Neonatori	m	31	31						20	7	4			
Polio-myelitis, &c.		4		4					3	1		2	1	
Tuberculosis-					1 1 1 1 1 1									
Pulmonary		524	5	23	96	89	301	9	249	170	104			
Non-pulmonary		219	9	35	113	22	39	1	105	65	49			
*Totals		1,331	45	287	761	103	118	17	596	497	238	519	451	182

(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 1913.

TABLE II.

\* The Tuberculosis figures are not included in the total

Years.	Small	dl-pox. E		Small-pox.		Erysipelas. N		eria and ous Croup.	Scarlet	arlet Fever. Enteric and Continued Fever.						al Fever.	Cerebre Fee	o-spinal ver.
	Cases.	'Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.				
1903	 0.19	0.00	0.82	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	0.02	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	0.02	_	-				
1906	 0.00	0.00	0.89	0.02	· 1·39	0.09	5.62	0.13	0.22	0.04	0.02	0.04	-	-				
1907	 0.00	0.00	0.95	0.05	1.73	0.20	5.07	0.11	0.50	0.02	0.07	0.03	0.02	0.00				
1908	 0.00	0.00	0.82	0.02	1.84	0.11	5.97	0.13	0.19	0.03	0.03	0.05	0.01	0.01				
1909	 0.00	0.00	0.83	0.05	1.42	0.12	3.77	0.04	0.25	0.03	0.02	0.03	0.02	0.01				
1910	 0.00	0.00	0.90	0.04	1.10	0.06	2.33	0.03	1.21	0.03	0.08	0.03	0.02	0.02				
1911	 0.00	0.00	0.96	0.05	1.23	0.12	1.93	0.05	0.12	0.05	0.02	0.01	0.04	0.04				
1912	 0.00	0.00	0.79	0.05	1.25	0.10	2.54	0.03	. 0.12	0.01	0.03	0.002	0.00	0.00				
Average 1903-1912	 0.05	0.00	0.88	0.04	1.36	0.10	3.64	0.02	0.32	0.03	0.02	0.05	-	-				
1913	 0.00	0.00	0.73	0.02	1.49	0.11	• 5·35	0.05	0.08	0.03	0.02	0.03	0.01	0.01				

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).

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."

## TABLE III.

# CAUSES OF, AND AGES AT, DEATH DURING THE YEAR 1913.

	NETT DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.										
CAUSES OF DEATH.	All Ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.	Total Deaths whether of "Residents" or "Non- Residents" in Institutions in the District.	
Data da D											
Enteric Fever	6		***		***	1	3	1	1		
Small-pox Measles	90	17	40	28	5					13	
Scarlet Ferrer	8		1	6			1				
Whooping-cough	26	14	7	5							
Diphtheria and Croup	21	1	3	10	7						
Influenza	27	1					1	16	9	2	
Erysipelas	5	1				1			3	2	
Phthisis (Pulmonary Tubercu-					1 0.5			10000			
losis)	188	2	3	***	10	28	72	61	12	81	
Tuberculous Meningitis	33	2	5	10	14		2			11	
Other Tuberculous Diseases	24	3	4	2	5	2	6	1	1	17	
Cancer, malignant disease Rheumatic Fever	175 11			1	1 4	3	21 5	89 1	60	92	
Maningitia	15		2	1	3	3	2	1. 22	•••	$\frac{5}{2}$	
Devenie Henry Disease	215			1	9	10	23	89	83	104	
Bronchitis	210	42		3	1		7	48	100	31	
Pneumonia (all forms)	188	56	21	15	9	3	22	33	29	80	
Other diseases of respiratory											
organs	42	3	2	2	1	2	6	14	12	8	
Diarrhœa and Enteritis	135	91	27	4	1	2	5	1	4	69	
Appendicitis and Typhlitis	11				2	2	2	3	2	8	
Cirrhosis of Liver	10				***		2	6	2	8	
Alcoholism	7						1	6		9	
Nephritis and Bright's Disease Puerperal Fever	70 6		••••		2	3	14 6	27	24	34	
Other accidents and diseases	0						0		***	3	
of Pregnancy and Parturition	5					1	4			3	
Congenital Debility and Mal-											
formation, including Prema-											
ture Birth	168	166	2	·					* • • • •	42	
Violent Deaths, excluding	0.7				10		10	00			
Suicide	91 16	9	1	4	13	12	13	20	19	58	
C	558	59	7		19	2 11	8 65	5 120	$\frac{1}{269}$	8 - 283	
Diseases ill-defined or unknown	4	1	1		10		1		209	285	
Totals	2365	472	135	100	107	87	292	541	631	980	

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## TABLE IV.

## Battersea.

# Infant Mortality, 1913.—Nett Deaths from stated causes at various Ages under 1 Year of Age.

CAUSES OF DEATH.	Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 4 weeks.	4 weeks & under 3 months.	3 months & under 6 months.	6 months & under 9 months.	9 months & under 12 months.	Total Deaths under 1 year.
		1 miles		000						
Small-pox										
Chicken-pox										
Measles							1	7	9	17
Scarlet Fever										
Whooping-cough				1	1	4		6	3	14
Diphtheria and Croup									1	1
Erysipelas							1			î
Tuberculous Meningitis							1	1		2
Abdominal Tuberculosis							2		1	3
Other Tuberculous Diseases							1		î	2
Meningitis (not Tubercul us)							2	1	î	4
Convulsions	1				1	1	3	1	î	7 .
Laryngitis										
Bronchitis	1	2	1	1	5	12	10	7	8	42
Pneumonia (all forms)			2	i	3	7	11	13	22	56
Diarrhœa						8	18	8	4	38
Enteritis		1		1	2	9	14	16	12	53
Gastritis		ī	1		2		1	1		4
Syphilis				1	ĩ	1	1	2		5
Rickets							1	2	2	5
Suffocation, overlying		2			2	4	2			8
Injury at Birth	5				5					5
Atelectasis	9				9	1				10
Congenital Malformations	8	4		1	13	3	1	2		19
Premature Birth	56	11	4	4	75	9	1			85
Atrophy, Debility and Maras- mus	9	7	5	4	25	17	8	5	3	58
Other Causes	7	2	1	4	14	6	6	5	2	33
Totals	96	30	14	18	158	82	85	77	70	472

Nett Births in the year--Legitimate, 4,114; Illegitimate, 126. Nett Deaths in the year of Legitimate Infants, 433; Illegitimate Infants, 39.

## TABLE IV .- (continued).

## East Battersea.

## Infant Mortality, 1913.—Nett Deaths from stated causes at various Ages under 1 Year of Age.

CAUSES OF DEATH.	Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 4 weeks.	4 weeks & under 3 months.	3 months & under 6 months.	6 months & under 9 months.	9 months & under 12 months.	Total Deaths under 1 year.
Small-pox										
Chicken-pox										
Ieasles							1	2	2	5
Scarlet fever										
Whooping-cough				1	1	3		4	1	9
Diphtheria and Croup										
Erysipelas										
fuberculous Meningitis										
Abdominal Tuberculosis							1		1	2
Other Tuberculous Diseases							1			1
Meningitis (not Tuberculous)							1	1	1	3
Convulsions	1				1	1	2	1	1	6
aryngitis										
Bronchitis	1	2	1	1	5	2	3	5	3	18
Pneumonia (all forms)			2	1	3	3	4	8	8	26
Diarrhœa						4	9	4	3	20
Enteritis						4	8	10	4	26
Gastritis										
Syphilis						1 1	1	1		3
Rickets							1	1		2
Suffocation, overlying		1			1	1	1			3
njury at Birth	2				2					2
Atelectasis	5				5					5
Congenital Malformations	2	1			3	3	1	1		8
Premature Birth	22	4		2	28	4	1	140		33
Atrophy, Debility and Maras-		1								
mus	2	5	2	1	10	10	4	4	2	30
Other Causes	2		1	3	6	4	3	2	2	17
TOTALS	37	13	6	9	65	40	42	44	28	219

Nett Births in the year—Legitimate, 1,820; Illegitimate, 63. Nett Deaths in the year of Legitimate Infants, 205; Illegitimate Infants, 14.

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## TABLE IV .- (continued).

## North-West Battersea.

# Infant Mortality, 1913.—Nett Deaths from stated causes at various Ages under 1 Year of Age.

CAUSES OF DEATH	Under 1 week.	1-2 weeks.	2-3 weeks.	8-4 weeks.	Total under 4 weeks.	4 weeks & under 3 months.	8 months & under 6 months.	6 months & under 9 months.	9 months & under 12 months.	Total Deaths under 1 year.
Small-pox										
Chicken-pox										
Measles								4	7	11
Scarlet Fever										
Whooping-cough						1	*	1	2	4
Diphtheria and Croup									1	1
Erysipelas			***				1			1
Tuberculous Meningitis							1	1		2
Abdominal Tuberculosis							1			1
Other Tuberculous Diseases										
Meningitis (not Tuberculous)						i				
Convulsions										
Laryngitis										
Bronchitis						7	5	2	4	18
Pneumonia (all forms)						3	5	4	10	22
Diarrhœa						4	9	4	1	18
Enteritis				1	1	4	4	5	5	19
Gastritis		1	1		2		1	1		4
Syphilis				1	. 1			1		2
Rickets								1	2	3
Suffocation, overlying		1			1	2	1			4
Injury at Birth										
Atelectasis	4				4					4
Congenital Malformations	4	3		1	8			1		9
Premature Birth	23	6	4	1	34	5				39
Atrophy, Debility and Maras- mus	2		2	3	7	5	3		1	16
Other Causes	3	1			4	2	2	3		11
'Totals	36	12	7	7	62	33	33	28	33	

Nett Births in the year – Legitimate, 1,413; Illegitimate, 41. Nett Deaths in the year of Legitimate Infants, 168; Illegitimate Infants, 21.

### TABLE IV .- (continued).

## South-West Battersea.

# Infant Mortality, 1913.—Nett Deaths from stated causes at various Ages under 1 Year of Age.

CAUSES OF DEATH.	Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 4 weeks.	4 weeks & under 3 months.	3 months & under 6 months.	6 months & under 9 months.	9 months & under 12 months.	Total Deaths under I year.
									1.10	
Small-pox										
Chicken-pox	1									
Measles			***	***			***	1		1
Scarlet Fever										
Whooping-cough								1		1
Diphtheria and Croup	1									
Erysipelas										
Tuberculous Meningitis										
Abdominal Tuberculosis										
Other Tuberculous Diseases									1	1
Meningitis (not Tuberculous)							1			1
Convulsions							1			1
Laryngitis										
Bronchitis		-			+++	3	2		1	6
Pneumonia (all forms)						1	2	1	4	8
Diarrhœa										
Enteritis		1			1	1	2	1	3	8
Gastritis										
Syphilis										
Rickets										
Suffocation, overlying						1				1
Injury at Birth	1 0				3					3
Atelectasis						1				1
Congenital Malformations	1 0				2					2
Premature Birth	11	1		1	13					13
Atrophy, Debility and Maras-		2	1		8	2	1	1		12
mus	1		1							
Other Causes	2	1		1	4		1			5
Totals	23	5	1	2	31	9	10	5	9	64

Nett Births in the year—Legitimate, 881; Illegitimate, 22. Nett Deaths in the year of Legitimate Infants, 60; Illegitimate Infants, 4

Factories, Workshops, Workplaces and Homework.

August starting	NUMBER OF								
PREMISES.	Inspections,	Written Notices.	Prosecutions.						
Factories (including Factory Laundries) Workshops (including Workshop Laundries) Workplaces (other than Out-	487 1,588	46 154	-						
workers' premises included in Part 3 of this Report)	1,881	132	-						
Total	3,956	332							

1.—INSPECTIONS (including Inspections made by Sanitary Inspectors or Inspectors of Nuisances).

## 2.—Defects Found.

	NUMBI	ER OF DE	FECTS	đ
PARTICULARS	Found.	Remedied.	Referred to H.M. Inspector.	Number of Prosecutions.
Nuisances under the Public Health Acts :         Want of Cleanliness         Want of Ventilation         Overcrowding         Want of drainage of floors         Other nuisances         Sanitary         accommodation         Insufficient         Workshop Act :	$91 \\ 10 \\ 5 \\ 7 \\ 134 \\ 13 \\ 75 \\ 3$	$91 \\ 10 \\ 5 \\ 7 \\ 134 \\ 13 \\ 75 \\ 3 \\$	NIL.	NIL.
Illegal occupation of underground bakehouse (Sec. 101) Breach of Special Sanitary Requirements for Bakehouses (Secs. 97 to 100) Other Offences (excluding Offences relating to Outwork which are included in Part 3 of				
this Report) Total	377	377		

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			OUTWO	RKERS	' LISTS,	SECTI	ION 107.				REMISES,		OUTWORK IN INFECTED PREMISES, SECS. 109, 110.		
		Lists re	eceived fi	rom Employers.			Notices Prosecu		Prosecutions.						
NATURE OF WORK.	Sending twice in the year.			Sendin	Sending once in the year.			Failing		In-	In- Notices		In-	Orders made	Prose- cutions
		Outwo	rkers.		Outwo	orkers.	piers as to keep- ing or sending	to keep or per- mit in- spection	Failing to send lists.	stances.	served.	cutions.	stances.	(S. 110).	(Secs. 109, 110)
	Lists.	Con- tractors.	Work- men.	Lists.	Con- tractors.	Work- men.	lists.	of lists.							
Wearing Apparel-															
(1) Making, &c.	66	52	303	7	5	8	-	-	-	42	35	-	-	-	-
(2) Cleaning and washing	2	-	10	-	-	-	-	-	-	-	-	-	-	-	-
Furniture and up- holstery	2	-	3	-	-	-	-	-	-	-	-	-	-	-	-
Other Trades	4	-	7	-	-	-	-	-	-	-	-	-	-	-	-
Total	74	52	323	7	5	8	-	-	_	42	35	-	-	-	-

## 3.—Home Work.

## 4.—REGISTERED WORKSHOPS.

Workshops on the Register (Section 131) at the end of the year :--71 Bakehouses 63 Bootmakers 87 Dressmakers 31 Laundries 19 Milliners 43 Tailors 225 Other Trades 539 Total number of workshops on Register 5.—Other Matters. Matters notified to H.M. Inspectors of Factories :--Failure to affix Abstract of the Factory and 33 Workshop Act (Section 133) ... ... Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (Section 5):-2 Notified by H.M. Inspector ... ... Reports (of action taken) sent to H.M. Inspector Other Underground Bakehouses (Section 101) :---

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## Preceedings during 1913.

(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.)

	N	umber	of Plac	es,	1 10	10.2/s.	1.1.4
Premises.	On Register at end of 1912.	Added in 1913.	Removed in 1913.	On Register at end of 1913.	No. of Inspec- tions, 1913.	No. of Intima- tion Notices, 1913.	No. of Prose- cutions, 1913.
Milk premises	170	8	11	162	558	29	-
Cowsbeds	2	-	-	2	*	-	-
Slaughterhouses	8	-	-	8	556	_	-
Other offensive trade pre- mises	2	-		2	19	1	-
Ice-cream premises	181	88	26	188	575	21	-
Registered houses let in lodgings	123	-	9	114	809	84	-

\* These premises are subject to frequent inspection.

Total number of intimation notices served for purposes		4172
Overcrowding-		
Number of dwelling-rooms overcrowded Number remedied		68 68
Number of prosecutions		
Underground rooms-		
Illegal occupation dealt with during the year Number of rooms closed		112     112
Insanitary houses-		
Number closed under the Public Health (Lond Act		_
Number closed under the Housing of the Wo ing Classes Act		_
Number of verminous premises cleansed une Section 20 of the L.C.C. (General Powe	der	•
Act, 1904		

Shelters provided under Section 60 (4) of the Public Health (London) Act—	
Number of persons accommodated during the year	5
Revenue Acts-	
Number of houses for which applications were	
received during the year	. 3
Number of tenements comprised therein	7
Number of tenements for which certificates were :(a) Granted	5
(c) Deferred	2
Number of prosecutions under By-laws under the Public Health (London) 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	
(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)	_
<ul> <li>(k) With respect to deposit of plans as to drainage, &amp;c. (Metropolis Management Acts Amendment (By-laws) Act, 1899)</li> </ul>	_
Mortuary-	
Total number of bodies removed	266
Total number of infectious bodies removed	18

MUNICIPAL BUILDINGS, BATTERSEA, S.W. 6th March, 1913.

## REPORT OF THE ACTING MEDICAL OFFICER OF HEALTH IN RE THE PUBLIC HEALTH (MILK AND CREAM) REGULATIONS, 1912.

#### To the Health Committee,

In submitting my report on these Regulations, I propose giving a brief outline of the purposes of the Regulations before criticising them.

The Local Government Board is empowered by the Public Health (Regulations as to Food) Act, 1907, to make regulations for preventing danger to public health from the importation, preparation, storage and distribution of food or drink intended for sale for human consumption.

Such regulations may provide for the taking and examination of samples and the recovery of any charges authorised to be made by the regulations, and

For the purpose of such regulations, articles commonly used for the food or drink of man, are by the Act to be deemed to be for sale for human consumption until the contrary is proved.

Regulations have now been issued, and they provide as follows :----

### Part 1 (Articles 1 and 2).

This part merely gives definitions of :--- "Preservative Substance," "Thickening Substance" (and specifically excludes cane or beet sugar from both), "Milk," "Cream," "Preserved Cream," &c.

## Part 2 (Articles 3 to 7).

- Article 3.—The addition of preservatives to milk intended for sale for human consumption and also the sale or exposure for sale of such milk is prohibited.
- Article 4.—In cream intended for sale for human consumption the addition of "thickening substances" to any cream, or the addition of "preservative substances" to cream containing *less* than 35 per cent. by weight of milk fat is *prohibited*, but the addition of boric acid, borax or hydrogen peroxide to cream containing 35 per cent., or more, by weight of milk fat is *permitted*, and such cream is termed "preserved cream."

- Article 5.—" Preserved Cream" which is for sale must be described as such in all circulars, price lists, &c. All receptacles containing "Preserved Cream" for sale must be labelled as containing "Preserved Cream" with a label the form of which is prescribed. Except that in the case of restaurants, &c., a conspicuous notice in the room or on the bill of fare informing customers that "Preserved Cream" is supplied for consumption may be substituted.
- Article 6.—The Local Authority shall enforce and execute the Regulations. But before proceedings are taken (1) the person about to be prosecuted must be given an opportunity of furnishing an explanation to the Local Authority (in writing or otherwise), and (2) such explanation must be considered by the Authority.
- Article 7.—Any Officer named in Section 13 of the Sale of Food and Drugs Act, 1875, may, under the direction of the Local Authority, take samples of milk, cream, "preserved cream," &c., and the vendor must afford "all reasonable facilities " for the taking of samples and making of inquiries, &c.

## Part 3 (Articles 8 and 9).

- Article 8.—The importation of foreign milk or cream not complying with certain conditions (Articles 3 and 4) is prohibited.
- Article 9.—Relates to the powers and duties of Officers of Customs and Excise.

## Part 4 (Articles 10 and 11).

- Article 10.—In cases of differences the Local Government Board may act as arbitrator, and their decision shall be final and conclusive.
- Article 11.—The powers given by the Regulations are intended to be additional and not in derogation of any other powers conferred by the Regulations made under the Public Health (Regulations as to Food) Act, 1907.

### SCHEDULE.

- Gives instructions and particulars as to the labelling of "Preserved Cream."
- "Notice." The infringement of the Regulations incurs a penalty of not more than £100, and in the case of a continuing offence a further penalty of not more than £50 per day.

The Circular accompanying the Regulations states that :--

- The Regulations are largely the result of representations made to the Local Government Board by Local Authorities (under the Sale of Food and Drugs Act) and the Trade.
- Existing arrangements for the collection and examination of milk samples under the Sale of Food and Drugs Act can readily be extended for the working of these Regulations.
- The Medical Officer of Health is to be instructed to exercise general supervision over the carrying out of these Regulations.

The Milk and Cream Regulations are made under the Public Health (Food Regulations) Act, 1907. They are intended as an additional measure to the Sale of Food and Drugs Act, the working of which Act is not to be affected by them. Under the Regulations either formal or informal samples may be taken.

For taking formal samples the existing officers and machinery working the Sale of Food and Drugs Act can be used.

The taking of informal samples, though perhaps acting as a warning to vendors, will not be useful for prosecutions.

The Sale of Food and Drugs Act provides that the certificate of the analyst is sufficient evidence, but no provision can be made in Regulations for the analyst's certificate to be sufficient evidence in itself, so that the analyst must attend the Court to prove his certificate.

Samples taken in the manner required by the Sale of Food and Drugs Act, can be used for prosecution either under the Sale of Food and Drugs Act or under the Regulations.

The Regulations deal with two articles :--

(1) Cream. (2) Preserved Cream.

(1) "Cream" found to contain Boric Acid incurs a heavy penalty.

(2) "Preserved Cream" must be labelled as such, with a declaratory label stating the amount of Boric Acid present.

- (a) If the amount of the Boric Acid present exceeds the amount stated on the label, the vendor can be prosecuted under the *Regulations*.
- (b) If the amount of Boric Acid present is sufficient in quantity to be injurious to health, the vendor can be prosecuted under the Sale of Food and Drugs Act, even though complying with the requirements of the Regulations by a declaratory label.

In other words, Cream containing Boric Acid may not be sold unless labelled "Preserved Cream," and "Preserved Cream" may only be sold under a declaratory label, provided that the amount of Boric Acid present is not injurious to health.

These Regulations were formed as the result of representations made by the Sanitary Authorities and the Trade.

The Trade, I understand, appear to have adopted a limit of 0.5 per cent. of Boric Acid.

In cases in which the amount appears to be excessive, proceedings can, of course, be taken under the Sale of Food and Drugs Act, even though the vendor has complied with the requirements of the Milk and Cream Regulations.

Preserved Cream is not an article that will be indulged in by large numbers of consumers in this Borough, as the mass of the population is hardly in a position to afford such luxuries. To the best of my knowledge the amount of cream being supplied outside the better-class residential quarters is practically nil, and the obtaining of formal samples will be difficult and the numbers consequently small.

### Sugar in Milk.

It is not very easy to understand why Cane and Beet Sugar were specifically excluded from the list of preservatives or thickening substances (Article 1).

Sugar in the quantities in which it would be added to milk is neither a preservative nor a thickening substance. To add sugar to milk in sufficient quantity to be of any use for either purpose\*would be too expensive to be considered, seeing what the respective prices of milk and sugar are. It is not anticipated that either Cane or Beet Sugar will be added to milk for these reasons. Why these substances are specially permitted is not very clear.

Article 6 requires that before proceedings be taken, the defendant be given an opportunity of explaining. This refers not only to the first offence, but to every offence. This is no doubt provided because of the serious nature of such an offence and the heavy penalty incurred, and is probably intended to enable the Local Authorities to use their discretion, and in the case of first offences to caution and warn the defendant that subsequent offences will result in a heavy penalty. In subsequent offences there need be no delay, for the defendant's explanation can be sent to the Sanitary Authority in writing.

I understand that the Regulations are now being enforced throughout the United Kingdom, and with two or three exceptions in all the Metropolitan Boroughs. I should like to recommend to the Health Committee that all the Milk and Cream Vendors in the Borough be circularised with a copy of the Milk and Cream Regulations and a covering letter, and that the Food Inspector for the Borough of Battersea be instructed to take samples under these Regulations.

I understand from the Inspector that the number of samples it is possible to obtain will be very small indeed.

> (Signed) ARTHUR R. LITTELJOHN, Acting Medical Officer of Health.

Circulated by order of the Health Committee.

W. MARCUS WILKINS, Town Clerk.

29th April, 1913.

#### PUBLIC HEALTH DEPARTMENT,

MUNICIPAL BUILDINGS,

BATTERSEA, S.W.

19th May, 1913.

To the Health Committee.

GENTLEMEN,

In accordance with the instructions of the Committee I beg to submit my Report on Measles.

The question of Measles as a cause of death has occupied the attention of the Health Committee at various times for many years past, and precautions to limit the high mortality from the disease have been taken. Unfortunately, for reasons which will be referred to in this Report, the problem of Measles is a difficult one, and in order to appreciate fully its difficulty it will be necessary to deal with the question in some detail.

### MEASLES-THE DISEASE.

Description.—Measles is an acute specific disease, highly infectious. After infection, there is a period of latency known as the stage of incubation, during which the patient may exhibit no symptoms. This stage usually lasts 12 days and ends with the *invasion stage*, which ushers in the early clinical symptoms, viz., the characteristic coryza or catarrhal symptoms, cough, sneezing and watering of the eyes, popularly known as "running from the eyes and nose." This stage lasts 4 days (and it is during this stage that the disease is so rapidly spread), and ends with the appearance of the well-known Measles rash, commencing first on the face, pinky-red in colour, raised and erescentic in outline. The rash persists for 3 or 4 days, and then dies away, followed by a *branny* shredding of the surface of the skin, the patient becoming convalescent a fortnight after the appearance of the rash.

The disease is most highly infectious during the invasion stage, i.e., the period between the onset of the first symptoms and the appearance of the rash, usually 4 days, and is spread mainly by the sprayed droplets expelled by the coughing and sneezing of the patient of the secretions from the eyes, nose and throat. The disease may be spread by other agencies, e.g., clothing, &c., but there is very little proof of these modes of infection, nor are they important, as in the vast majority of cases the disease is spread by direct contact by patients suffering from the catarrhal stage.

#### MORTALITY FROM MEASLES.

Measles is essentially a disease of childhood, and is undoubtedly the most serious menace to child life. In London the total deaths from Measles exceed those from all the acute infectious diseases. In the five years 1905-1909 Measles was responsible in London for the deaths of 9,301 persons, as compared with 8,585 deaths from all the compulsorily notifiable diseases (viz., Small-pox, Scarlet Fever, Diphtheria, Enteric Fever, &c.); 7,601 of these London deaths from Measles occurred in the first three years of life, viz., 2,049 in the first, 3,988 in the second, and 1,573 in the third year of life. In the Borough of Battersea during the period 1903-12, Measles caused 777 deaths, as compared with 549 deaths from the compulsorily notifiable diseases. The disease is peculiarly fatal to very young children, no less than 741 of these 777 deaths occurring amongst children under 5 years.

#### FATALITY.

The fatality-rate, or case-mortality as it is called, i.e., the percentage of deaths amongst persons attacked is, owing to the absence of a compulsory system of notification, impossible to obtain. In Edinburgh, where the disease is notifiable, the annual fatality-rate varied from 5.9 per cent. to 1.5 per cent. over a period of ten years, the average being 3.1 per cent., and this average has been confirmed by the experience of other investigators.

#### SEASONAL INFLUENCE.

Measles is most prevalent during the cold weather of the year. This is well shown by the diagrams in the Annual Report of the Medical Officer of Health for the County of London. There are, however, two maximal mortality curves in the year, the larger maximum occurring in November and the smaller in June.

#### INFLUENCE OF AGE.

This is one of the most important and significant points in any inquiry into the history and causation of Measles. I have shown that in Battersea during the decennium 1903-12, 777 or 95<sup>.2</sup> per cent. of the deaths from Measles were of children under 5 years of age. In a Report to the Local Government Board on Measles. it was stated :—

(1.) That Measles attacks chiefly children in the third, fourth, and fifth years of life. (2.) That the greatest mortality from Measles occurs in the second year of life, and (3) that Measles is pre-eminently fatal in the second, third and first years of life. At the age period 5-10 in actual outbreaks the fatality was found to be only one-ninth of the fatality in the third year of life. In the fifth year of life it is only one-seventh, and in the fourth year of life it is less than one-half of that for the third year of life.

The influence therefore which age exercises as a factor in the incidence and mortality of Measles is one which has a most important bearing in relation to the administrative control of the disease, as will be referred to further on in this Report.

#### INFLUENCE OF SCHOOL.

It is generally admitted that the channel by which Measles is spread is through the Infants' Departments of the Public Elementary Schools. In discussing the influence of age, it was shown that the incidence of the disease is highest in the third, fourth, and fifth years of life. The practice of sending children to School under five years of age, the statutory period, is thus, to a great extent, responsible for spreading Measles, bringing together as it does, aggregations of a highly susceptible material in rooms in which frequently the air-space and ventilation are insufficient and defective. In a Report submitted by your Medical Officer of Health to the Council in 1908, this question was dealt with, from which the following extracts may be quoted. "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 later of its "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 over-crowded condition prevailing in most 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.

"Further, 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 in the earliest ages from exposure to infection. . . . ."

I may be permitted to quote here the opinion of Dr. Cunzte, of Weisbaden, who, at the second International Congress on School Hygiene, London, 1907, said, "May I express from a German point of view our great and sad surprise that you in England have to deal with this question to such an extent. In Germany it is strictly forbidden by law to admit children under 6 years of age to Public Schools, and even up to  $6\frac{1}{2}$  years the child will be rejected for another year if its condition of health be not fully satisfactory. In Germany the poor widows and mothers of large families are so wisely supported by Public Authorities that they do not need to do outdoor work; they are thus enabled to devote their time to taking care of their children—I should hope that all nations may follow our principles—keep the child in its home and family as long as possible."

### MEANS FOR OBTAINING CONTROL OF MEASLES.

The question of the administrative control of Measles is a most difficult and complex one-almost every other year epidemics of serious magnitude occur with a resulting high mortality. The control of Measles presupposes a knowledge of its existence, and this, owing to the absence of a system of compulsory notification, is, so far as the Sanitary Authority are concerned, a matter largely of conjecture. The main source of information as to the occurrence of cases is that obtained from the Schools for the most part, from data supplied as a result of inquiries into absence by the School Attendance Officers. While a large number of cases are in this way brought to the notice of the Medical Officer of Health, it is probable that these represent only about a third of the total number of cases actually occurring in the Districtfurthermore, the information is often too late for preventive measures to be of much avail. These are difficulties in the application of a compulsory system of general notification in this district. In probably the majority of cases a doctor is not in attendance, and although under the Public' Health Act the duty of notification is placed on the parents as well as the Doctor, experience shows in the case of other diseases that this duty would, if compulsory notification was in force, be more honoured in the breach than the observance. Owing to the long interval between the commencement of the illness and the appearance of the rash, its nature is frequently not realised, and as this is by far the most infective period, the disease has been conveyed to others before steps for securing isolation could be undertaken. Compulsory notification would entail a considerable expenditure in the provision of notification fees (about £8,000 per annum for London). At the same time it is quite apparent that the activities of Local Authorities are greatly impeded by lack of early and complete information of the occurrence of cases, and unless means are found to supply this defect, it is to be feared that control of epidemics of Measles will not be secured.

It has been suggested that immediate notification by the householder to the School should be required in the case of any illness of a suspicious nature in any child of School age, and in the case of children below School age the Medical Officer of Health might be notified.

### HOME ISOLATION AND TREATMENT.

One of the great difficulties in relation to the administrative control of Measles is the apathy and carelessness displayed by the public as regards the importance of the disease. In the majority of cases the Doctor is not called in, at least not in the early stages of the disease, and frequently little or no attempt is

made to isolate the patient even when this is to a greater or less extent possible. The attitude of the public may be summed up in the phrase, "it's only Measles." The unfortunate result of this erroneous attitude is shown by the high mortality and the ease with which the disease in epidemics tends rapidly to spread and get out of control. In the memorandum on Measles issued by the Local Government Board, attention is drawn to the fact "that Measles is often fatal apart from neglect or exposure during convalescence to which greater importance is commonly attached. Thus, in one town in which 419 deaths from Measles were investigated, it was found that one-fourth of the deaths occurred in the first six days of the illness, i.e., within about three or four days from the appearance of the rash, while another third of the total deaths occurred between the seventh and the end of the twelfth day of disease." Owing to the frequency of respiratory complications, e.g., bronchitis, pneumonia, &c., the early and appropriate treatment of Measles is a matter of prime importance, and that this desirable state of things is not being obtained under existing circumstances there is unfortunately every reason to believe.

### HOSPITAL TREATMENT.

Recently some attempt has been made to secure hospital treatment in the case of poor law and other patients. Unfortunately the amount of accommodation available is, during epidemics, as has happened recently, likely to be quickly used up, and if this useful procedure is to be effective there will require to be provided a much larger number of beds than seem to be under existing conditions practicable. It is not contended that hospital isolation will prove very successful in preventing the spread of the disease to any considerable extent, but there is no doubt that such procedure reduces the risk to life, by mitigating the severity of the attack and preventing serious complications arising owing to the care and attention bestowed on the patient, a condition of things impossible to secure to a very great extent in a district such as Battersea, where the opportunities for isolation and home treatment are so frequently inadequate.

## SCHOOL CLOSURE AND EXCLUSION.

Very little benefit appears to have been derived from School closure in the case of Measles, nor is this to be expected when the character and mode of spread of the disease is borne in mind. When a case of Measles breaks out in a Class-room the rest of the Class-room has already been exposed to infection, and the only course to follow is to exclude all children from the Class who have not already had Measles from the ninth to the fourteenth day after the last attendance of the first case. All infected children are by this means excluded before they become infectious to others in the class, and it is often possible in this way to limit the outbreak to the first crop of cases for the time being.

Numerous alterations have from time to time been made by the Education Authority in London in regard to the regulations for the exclusion of children from Schools in connection with outbreaks of Measles. It cannot be said that satisfactory results have followed in diminishing the incidence of the disease. This is not a matter for surprise, as the value of such Regulations is largely dependent on the statements of parents. It cannot be expected that a very high power of diagnostic ability can be shown by mothers, and it must frequently be the case that even with the best intentions erroneous information is conveyed to the School Authorities in this connection. The one and only practicable step in my opinion has been persistently ignored, viz., the closure of the Infants' Departments of the Public Elementary Schools and exclusion of children from the Schools up to the age of six years.

#### DISINFECTION.

A good deal of controversy has centred round the efficacy of disinfection. In the absence of any reliable evidence of the spread of Measles by fomites it is open to question whether disinfection of itself is of much use. In Battersea it has been the custom to carry out disinfection of the infected room, but not to remove the clothing, bedding, &c., as a routine practice, for stoving. The main advantage in continuing the practice is that it possesses some educational value and fixes in the minds of those whose rooms are being disinfected greater regard to the seriousness of the disease. Furthermore, it is a means of securing increased cleanliness of rooms, houses, &c., a matter frequently of obvious necessity and usefulness.

#### WHAT IS BEING DONE.

At the present time the methods carried out in the Borough for dealing with Measles are :—

- 1. Visitation of the home of the patient for purposes of inquiry.
- 2. Giving of oral and printed advice as to nature of disease and precautions to be taken.
- 3. Removal of patient to hospital where such is desirable and practicable.
- 4. Disinfection after removal to hospital or recovery of patient if treated at home.

While doubtless a great deal of good is accomplished by these measures in limiting the spread of the disease when epidemics arise, it cannot be said that they have done much to lower the high rate of mortality which the Death Returns exhibit during such outbreaks. During the exceptional prevalence of the disease in the beginning of 1911, with a view to devising improved methods of dealing with the disease, a Conference of the Medical Officers of Health of London was held on the 13th March, at the Offices of the Local Government Board. As a result of this Conference the Board, on the 10th April, issued a circular letter as follows :—

"I am directed by the Local Government Board to state that they have had under consideration the present outbreak of Measles in London, and on the suggestion of the President, their Medical Officer has conferred with the Medical Officers of the London County Council and of the various Borough Councils as to the measures which may be taken in dealing with it.

"At the Conference the view was generally expressed that Sanitary Authorities have been hampered in their efforts to check the spread of the disease by the absence of early information of cases, and the question was considered whether the difficulty would be removed if Measles were made a notifiable disease.

"On this question widely divergent views as to the value of notification were shown to exist. A very large number of cases are not attended by a doctor, and it was pointed out that in such cases the adoption of the Notification Act would be a dead letter.

"It may also be observed that the notification of Measles has been tried in a large number of towns and then abandoned.

"Without, therefore, expressing any view on the question whether the notification of Measles would be justified, it is clear that such other means of obtaining information as are available should be fully utilised.

"The Board find that the School Attendance Department of the London Education Department have supplied much valuable information as regards Measles in the past, and in view of the proceedings at the Conference it appeared to the Board that it might be practicable to arrange that this source of information should be made more readily available.

"On this question the Board have consulted the Board of Education, and it has now been arranged that so long as the present emergency lasts, the School Attendance Officers will give speedy information to the Medical Officers of Health of all cases of illness coming under their notice. It is hoped that by this means early information of the majority of cases of Measles will reach the Medical Officer of Health.

"The information thus obtained will necessarily require to be followed up. Probably many cases will be reported which are not Measles, and arrangements should be made for obtaining a proper diagnosis for securing that the cases are properly isolated, and for urging on the parents the need of obtaining medical aid where such aid is required.

"No doubt the Council's Official who visits the home will be able to do much in the way of giving advice as to the care and nursing of the patients.

"Removal to Hospital.—The Board have been in correspondence with the Metropolitan Asylums Board, and it is understood that the Board will agree to receive cases of Measles on the recommendation of the Medical Officer of Health. The accommodation of the Metropolitan Asylums Board for this purpose is necessarily limited, and arrangements will be made by which preference will be given to those cases most needing hospital treatment. The Board may also remind the Borough Council that they have power to provide temporary hospitals, and if at a subsequent date the amount of accommodation for Measles which is available in the Hospitals of the Metropolitan Asylums Board should come to be exhausted, this power might have to be utilised.

"Staff required for dealing with outbreak.—For dealing with this outbreak and properly following up the information which will be obtained, it is essential that each Medical Officer of Health should be provided with an adequate staff, and the Board trust that the Council will at once appoint any additional temporary assistants (medical and other) that may be required."

With this letter a copy of a Memorandum which the Board's Medical Officer had prepared on the subject of Measles was enclosed.

This Memorandum was followed by the Metropolitan Asylums (Measles) Order of the 30th May, 1911, which provided that non-pauper cases of Measles might be received into the Hospitals of the Metropolitan Asylums Board, on the recommendation of the Medical Officer of Health. Admission, however, is confined to children of the poorest classes and to urgent cases recommended by the Medical Officers of Health. 3,144 patients suffering from Measles were admitted during the year, and there were 438 deaths, giving a fatality-rate of 13<sup>.9</sup> per cent. The high death-rate is accounted for by the fact that the cases admitted to the Board's Hospitals are specially selected. Again, on the 6th April, 1911, when the wave of Measles had subsided, a Conference of representatives of various public bodies met at the London County Council Hall and passed a series of resolutions, viz. :—

- 1. That a better organization is desirable for London.
- 2. That during a serious outbreak of Measles, children under five years should be excluded from School Attendance.
- 3. That compulsory notification of Measles is desirable.
- 4. That the cleansing of the Infants' Departments and of the furniture, lower walls and floors thereof shall take place once a week.
- That accommodation should be provided in the Metropolitan Asylums Board's Hospitals for urgent nonpauper cases of Measles.
- 6. That in the interest of the public health the School Regulations should provide that all children from houses infected with Measles should be prohibited from School attendance.

It is clear from these pronouncements that the question of the administrative control by Sanitary Authorities of Measles left a good deal to be desired, and it cannot be said that the improved measures rendered available as a result of the Local Government Board's action has been followed by any considerable degree of success. In the Borough of Battersea since the beginning of the year up to date 80 deaths have been recorded from Measles, 64 of which occurred in the first quarter of the year. Something further is required to be done therefore if the terribly high mortality-rate from Measles is to be prevented.

Notification of the disease would, as already pointed out, be not likely to lower the actual incidence of the disease, and therefore, by itself, would have little more than a statistical value. With increased Hospital facilities provided, however, the case in my opinion would be altered, and would enormously increase the value of the measure now being carried out, viz., domiciliary visits to the houses of patients notified and rapid following up of the cases and contacts, and prompt removal to hospital of patients where the home conditions rendered such a step impera-In the Report of the Local Government Board already tive. referred to, it is stated: "In attempting to arrive at a just estimate of the value of compulsory notification as affording means towards obtaining control of Measles, it would not be proper to draw unfavourable conclusions from statistics that might indicate no decrease in prevalence of this disease in those districts

that have resorted to this measure. For, as I have already pointed out, every measure likely to supplement the deficiencies in information provided by compulsory notification should be adopted, and subsequent precautions to prevent the spread of the disease should be thorough. So much as this, however, cannot be said of any district visited where trial has been made of compulsory notification of Measles; and accordingly it would be unjust to draw conclusions as to the value of this measure from any results hitherto apparent in these Districts. The problem of how to obtain control of Measles is one of great difficulty for Sanitary Authorities. It is clear, however, that a necessary preliminary to taking precautions against spread of this disease is the possession of knowledge as to its occurrence, and my investigation of methods that may be employed to this end has led me to the conclusion that compulsory notification of Measles, properly utilised, is likely to prove of no little value. It is a measure which, in my judgment, should be adopted by every Sanitary Authority, whether Urban or Rural, that is desirous of obtaining control of Measles. . . . .''

There is much to be said in favour of the view expressed in the Local Government Board's Report, and in view of the failure of Sanitary Authorities to obtain effective control of the explosive outbreaks of Measles which from time to time spread through the Metropolis with a high resultant of mortality, I am inclined to agree therefore that the time has arrived when compulsory notification of Measles will have to be adopted before the efforts of the Sanitary Authorities will be effective in controlling these outbreaks.

The question of the attendance of children under five years at the Public Elementary schools is, in my opinion, a factor in the spread of Measles which cannot be ignored. In 1909 the Consultative Committee of the Board of Education inquired into the question, before which Committee your Medical Officer of Health had the honour of being invited to give evidence. The terms of reference of the Inquiry suggested by the Board of Education were "to consider and advise the Board of Education in regard to the desirability or otherwise, both on Educational and other grounds of discouraging the attendance at School of children under the age of (say) five years on the assumption that, in the event of the change being found generally desirable, the monies now payable by the Board of Education in the shape of grants in respect of the attendance of such children should still be payable to the Local Education Authorities in greater relief of their expenditure in educating children over five years of age."

In July, 1908 the Consultative Committee issued its Report upon the "School attendance of children below the age of five." The Report proper of the Committee is contained in Part II. of the Volume issued by the Board of Education, and although a very voluminous document, only two pages were devoted to the question of infection. The Report states "That there do not appear to exist at present any figures which show for the country generally the liability of children unprotected by previous attacks to succumb to the attacks of different diseases at different ages." This may be true of the "Country generally," but there were ample figures available which distinctly provided a case for inquiry in regard to Measles. The Report of the Consultative Committee goes on to state "The Committee trust, however, that they will be accurately representing the views of experts if they say on the whole school attendance may unless proper precautions are taken tend to increase the spread of the two most prevalent diseases of childhood, namely, Measles and Whooping Cough. . . . ."

The Consultative Committee conclude their Report by stating that "The Committee do not recommend any change at present in the lower age limit either of voluntary or compulsory attendance at School," and recommending that the Board of Education should appoint a body of experts to make a thorough and conclusive inquiry into the question of the impurity of the air in Public Elementary Schools and the best methods of heating and ventilation.

It is to be regretted that the Consultative Committee did not see their way to adopt the opinion of the Medical experts rather than Scholastic experts on this question. The concensus of opinion amongst sanitarians and medical men would, I think, be found to be in favour of the exclusion of such young children from the Public Elementary Schools. Such a policy would, I am of opinion, enormously strengthen the hands of Sanitary Authorities in preventing the spread of Measles amongst the younger children and *pari passu* lowering the mortality from this disease. The Borough Council have already passed a resolution in favour of this policy, and in any further action which they may undertake in consideration of this Report I would suggest that they reiterate their views on this important question.

#### CONCLUSIONS.

In considering this Report it will be as well to review the facts briefly :--

Measles is a disease which, owing to the explosive character of its onset, is difficult to control. It is responsible annually for the deaths of a very large number of very young children. It is spread almost entirely by the medium of Infant Schools. The measures at present available are clearly shown to be inadequate for enabling Sanitary Authorities to obtain control of outbreaks. What steps therefore can be further undertaken to improve the existing means for dealing with this disease?

I have, I think, fully discussed the nature of the disease and given statistical evidence of its ravages to justify the views I have ventured to put forward for the consideration of the Committee. It is clear, therefore, that the time has arrived when the efforts of Sanitary Authorities must be assisted by further measures than those which so far have proved inadequate to enable them to control the disease. I shall therefore conclude this Report by summarising the further steps which I desire to put forward for the consideration of the Committee.

- 1. A compulsory system of modified notification with increased hospital accommodation.
- 2. The exclusion of children under five years of age from the Public Elementary Schools.
- 3. Parents to be compelled to report all suspicious cases of illness to the Medical Officer of Health and School Authorities, especially when Measles is prevalent.
- 4. The exclusion of children from School from infected homes, whether they have had the disease or not.

(Signed) G. QUIN LENNANE, Medical Officer of Health.

Ordered by the Health Committee to be circulated.

W. MARCUS WILKINS, Town Clerk.

