Report on the health of the Metropolitan Borough of Battersea for the year 1903.

Contributors

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Metropolitan Borough of Battersea.

REPORT

ON THE

HEALTH

OF THE

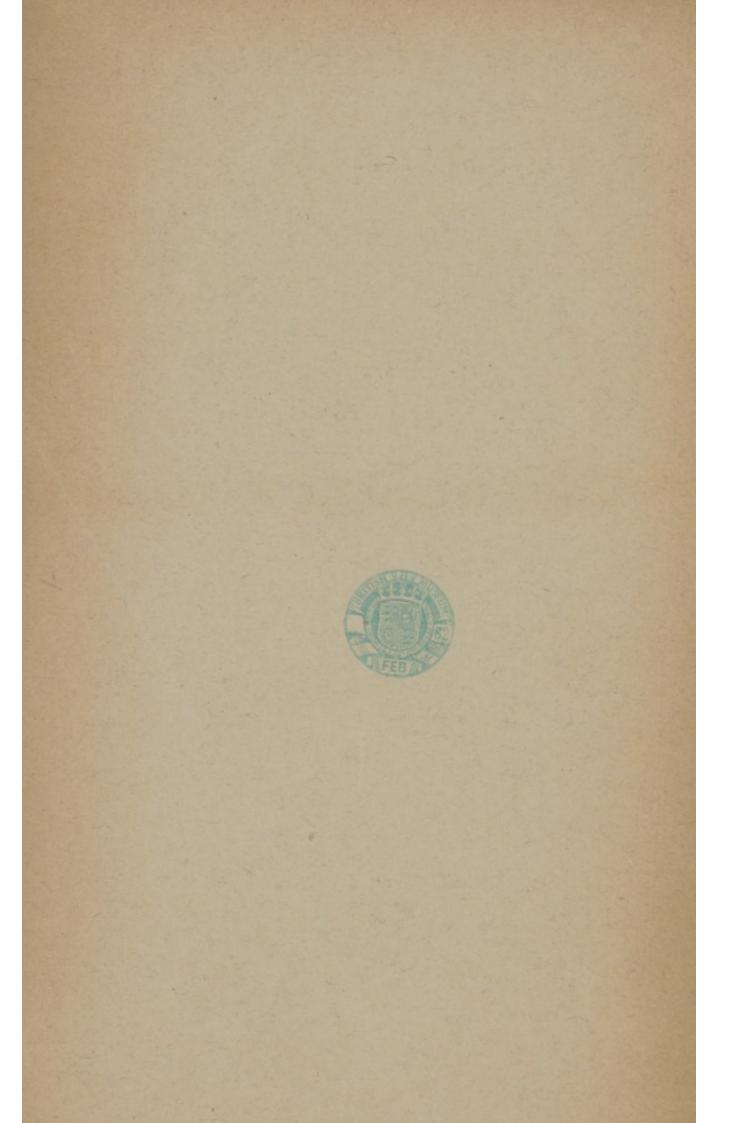
Metropolitan Borough of Battersea

FOR THE YEAR 1903,

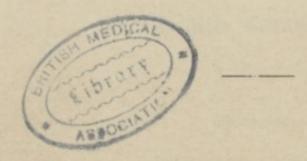
BY

G. F. MCCLEARY, B.A., M.D., D.P.H.,

MEDICAL OFFICER OF HEALTH.



Metropolitan Borough of Battersea.



REPORT

ON THE

HEALTH

OF THE

Metropolitan Borough of Battersea

FOR THE YEAR 1903.

BY

G. F. MCCLEARY, B.A., M.D., D.P.H.,

MEDICAL OFFICER OF HEALTH.



Staff of the Public Dealth Department

Bealth Committee.

Chairman.

COUNCILLOR A. EMERY.

HIS WORSHIP THE MAYOR.

(Councillor W. Watts, J.P.).

ALDERMAN H. BARNES.

ALDERMAN E. W. LONGMAN.

Councillor W. A. ANDREWS.

COUNCILLOR J. C. CHOWN.

COUNCILLOR P. P. HAYTHORNTHWAITE.

COUNCILLOR L. S. McMANUS, M.D.

COUNCILLOR W. J. MAY.

COUNCILLOR A. MOUNCE.

COUNCILLOR T. SHEPPARD.

COUNCILLOR E. G. TAYLOR.

COUNCILLOR F. WILLIS.

Staff of the Public Bealth Department.

Medical Officer of Health.

G. F. McCleary, B.A., M D., D.P H.

Chief Sanitary Inspector.

I. Young, Assoc.San.Inst.

Lady Sanitary Inspector.

Miss E. Dawson, 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.
,, 2 ,,	 VACANT.	
,, 3 ,,	 J. LAWRENCE,	" "
,, 4 ,,	 A. E. PURNELL,	,, ,,
,, 5 ,,	 J. T. BAXTER,	" "
,, 6 ,,	 H. MARRABLE,	" "
,, 7 ,,	 A. ODELL,	" "
,, 8 ,,	 Н. Н. Мау,	" "
	Clerks.	
Senior Office Clerk	 А. Р. Соке,	Cert.San.Inst.
Office Clerk	 B. W. SEARS.	
(F. H. PRESTON,	Cert.San.Inst.
Junior Clerks	 E. BARNES.	
	 E. Cole.	

Manageress of Milk Depôt.
MISS A. Lowe.

Superintendent of Disinfecting Station.

C. H. WOODHOUSE.

Mortuary Keeper.

G. STREAT.

To the Mayor, Aldermen, and Councillors of the Borough Council.

Mr. Mayor and Gentlemen,-

I have the honour to place before you my Annual Report for the year 1903.

In accordance with section 133 of the Factory and Workshop Act, 1901, a special report on the administration of the Act by the Borough Council is included. It will be seen that the work done in connection with the sanitation of factories, workshops and workplaces was considerable.

A special report on the Infants' Milk Depôt is also included. The Depôt has won the confidence of the medical profession of the Borough, and indications are not wanting that a Depôt of this kind bids fair to take its place in the ordinary municipal organisation for the prevention of disease. The full benefit of these institutions, however, will not be reaped until all the processes involved in the production of the milk supplied at the Depôt, from the care of the cow onwards, are under the direct control of the responsible officers of the Sanitary Authority.

Our vital statistics in 1903 compare very favourably with those in any previous year, although 1902 was a year of exceptionally low mortality.

I would take this opportunity of thanking the Staff of the Health Department for their excellent work during the year; my thanks are especially due to Mr. Young, the Chief Sanitary Inspector; and to Mr. Coke, the Senior Office Clerk, who has given me invaluable assistance in the preparation of this Report.

I have the honour to be,

Mr. Mayor and Gentlemen,

Your obedient Servant,

G. F. McCLEARY,

Medical Officer of Health.

March 3rd, 1904.

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Summary of Vital Statistics for 1903.

Area of Bor	ough (excluding	(water)	2,139	9 acres.
Population	(Census 1901)	of awith some	box 21.2	168,907
"	Estimated to m	iddle of 190	3	173,422
Density		81	persons p	er acre.
Inhabited I	douses (Census	1901)	dador	23,462
Marriages		Will Design Co.	- mi - to-u	1,442
Births			e periorio:	4,973
Birth-rate			e de la	28.6
Deaths				2,476
Death-rate	****		and places	14.2
Infantile M	lortality	135	per 1,000	births.

Births, Marriages, Deaths.

Births, Marriages, Deaths.

Population.

The population of Battersea at the middle of 1903, as estimated by the Registrar-General, was 173,422. This estimate is based on the assumption that the rate of increase of population during the last intercensal period was maintained during 1902 and 1903, and although it is almost certainly too high, it has been adopted in this Report, so that the Battersea statistics may be comparable with those in other districts.

Births.

The births registered were 4,973 in number, of which 2,509 were males and 2,464 females, the proportion of male to female births being 1,018 to 1,000. The number of births was 177 below the decennial average, and 252 less than the number in 1893, when the population was only 156,719. The births in the sub-districts were as follows:—

1.61 Post	18	Males.	Females.	Total.
The Borough	010	2,509	2,464	4,973
East Battersea		1,158	. 1,140	2,298
North-West Battersea	4	857	835	1,692
South-West Battersea	***	494	489	983

Table I. shows the birth-rate in each of the sub-districts and in London during the decennium 1893-1902, and in 1903.

TABLE I.

BIRTH-RATE PER 1,000 POPULATION.

Year.	The Borough.	East Battersea.	North-West Battersea.	South-West Battersea.	London.
1893	33.3	34'7	38.6	23.7	30.0
1894	31.4	32.6	36.6	23.2	30.5
1895	32.3	34.3	37.9	22.2	30.6
1896	32.4	34.8	37.8	22.2	30.5
1897	31.7	33.8	36.6	22.7	30.5
1898	30.9	33.6	35.0	21.9	29.7
1899	30.9	33.6	36.0	21.0	29.6
1900	30.6	33'5	35.2	21.3	29.2
1901	29.7	32.6	33.3	21.3	29.0
1902	28.3	30.3	33.1	20.5	29.0
Average 1893-1902	31.1	33.3	36.0	21.9	29.8
1903	28.6	31.3	34.1	19.4	28.4

The birth-rate varies greatly in the three sub-districts, being lowest in South-West Battersea, where the standard of comfort is highest, and highest in North-West Battersea, the district in which there is the greatest poverty. The decline in the birth-rate during the decennium is marked in all three districts, although the rate in 1903 was slightly above that in 1902. In South-West Battersea the rate last year was very low.

The phenomenon of a declining birth-rate is, however, not peculiar to Battersea, as is shown by the following table:—

13

BIRTH-RATE PER 1,000 POPULATION.

Year.	England and Wales.	London.	Battersea.
1875	35*4	35'4	40.3
1876	36.3	35.9	42.2
1877	36.0	35.6	39.9
1878	35.6	35.5	40.2
1879	34'7	35.5	40.8
1880	34.2	35'3	39.6
1881	33'9	34'7	41.8
1882	33.8	34'5	39.9
1883	33.2	34.5	40'2
1884	33.6	34'3	43'4
1885	32.9	33'4	37.0
1886	32.8	33.4	39.5
1887	31.9	32.9	38.6
1888	31.5	32.1	36.5
1889	31.1	31.9	36.1
1890	30.5	30.7	34.6
1891	31.4	31.8	34.7
1892	30.4	30.9	32.4
1893	30.7	31.0	33.3
1894	29.6	30.1	31.4
1895	30.3	30.6	32.3
1896	29.6	30.5	32.4
1897	29.6	30.1	31.7
1898	29.3	29.7	30.9
1899	29.1	29.7	30.9
1900	28.7	59.1	30.6
1901	28.5	29.0	29.7
1902	28.6	28.5	28.2
1903	28.4	28.4	28.6

It will be seen that the English birth-rate has fallen very considerably during the last thirty years, and that the rate in 1903 was the lowest on record. Probably several causes have contributed to bring about this result, but there is no doubt that the chief causes are psychological, and that there is a growing tendency to consciously limit the size of the family. But it is also probable that there have been physiological factors at work. There are reasons for thinking that there has been some impairment of the function of maternity in the modern Englishwoman. But whatever the

causes may be, there is no reason to think they will operate less actively in the future than in the past.

The rapid decline in natality in a country which is the nucleus of a vast Empire, containing immense tracts of undeveloped and unoccupied land, is a matter which affords food for reflection, especially when it is borne in mind that, low as our birth-rate has fallen, the rate in our Colonies is considerably lower, at all events amongst the Colonists of British blood. But there are no signs that the significance of these facts is appreciated by the public.

The excess of births over deaths in the whole Borough was 2,497. In East Battersea the births exceeded the deaths by 1,197, in North-West Battersea by 841, and in South-West Battersea the excess was 459.

The illegitimate births registered numbered 107, or 13 more than in 1902. The number of illegitimate births and their proportion to the total births registered during the decennium and in 1903 are given in the subjoined table:—

TABLE II.

	BATTI	BATTERSEA.		
Year.	No. of Illegitimate Births.	Illegitimate Births to 1,000 Births.	Illegitimate Births to 1,000 Births.	
1893	120	22	36	
1894	143	28	37	
1895	114	21	35	
1896	109	20	37	
1897	109	20	36	
1898	112	21	37	
1899	125	22	36	
1900	114	22	36	
1901	115	22	37	
1902	94	19		
Average 1893-1902	115	21	matters gallers	
1903	107	21	and Let make	

Marriages.

The marriages registered during the year numbered 1,442, or 109 more than the decennial average, and 70 more than the number in 1902. The marriage-rate, i.e., the number of persons married per 1,000 population was 16.6, or 6 above the decennial average. It will be seen that the marriage-rate has increased during the last ten years, while the birth-rate has steadily declined.

TABLE III.

Year.	BATTE	RSEA.	LONDON.
rear.	No. of Marriages.	Marriage-rate.	Marriage-rate.
1893	1,141	14.4	17.2
1894	1,158	14.4	17.0
1895	1,241	15.2	17.2
1896	1,334	16.1	18.0
1897	1,357	16.2	18.5
1898	1,441	17.2	18.8
1899	1,429	17.0	18.6
1900	1,451	17.2	18.0
1901	1,407	16.6	17.6
1902	1,372	16.0	17.8
Average 1893-1902	1,333	16.0	17.8
1903	1,442	16.6	

Deaths.

During the year 2,425 deaths were registered. This number includes 299 deaths of non-residents registered in public institutions in the district. Deducting these and adding 350 deaths of Battersea residents registered in public institutions outside the district, a nett total of 2,476 deaths (males 1,263, females 1,213) is obtained. This gives a death-rate of 14.2, the lowest death-rate ever recorded in Battersea. 1,101 deaths belong to East Battersea, 851 to North-West Battersea, and 524 to South-West Battersea.

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

	Males.	Females.	Total.
First quarter	340	303	643
Second quarter	324	313	637
Third quarter	273	272	545
Fourth quarter	326	325	651

The death-rates in the Borough and in the sub-districts in 1903 and in the preceding decennium are given in the subjoined table.

TABLE IV.

DEATH-RATE PER 1,000 POPULATION.

Year.	The Borough.	East Battersea.	North-West Battersea.	South-West Battersea.
-0	-0	Tall of the last o		
1893	18.9	21.0	21.4	11.9
1894	16.1	16.6	19.5	10.8
1895	18.1	19.9	21.1	11.7
1896	18.1	20.5	21.3	10.4
1897	16.4	17.6	20.2	10.4
1898	17.3	19.4	20.4	10.2
1899	17.3	19.6	19.1	11.7
1900	17.6	18.9	21.0	12.1
1901	16.3	16.4	18.7	11.9
1902	15.0	15.2	18.3	10.9
Average 1893-1902	17.1	18.2	20.1	11.5
1903	14.5	15.0	17.1	10.3

The death-rates given above are "recorded" death-rates that is to say they express the proportion of deaths to each thousand of the population. The recorded death-rate is a valuable test of vitality, but for comparing one district with another it is open to criticism unless the districts have a similar distribution of population as regards age and sex. The mortality amongst young children and old people is very much higher than amongst young adults, and, generally speaking, males have a higher death-rate than females. Consequently, a district with a large proportion of young adults and females will have a lower death-rate than one containing a greater proportion of children, old people and males.

To allow for these differences in age and sex-distribution, the Registrar-General calculates for each of the great towns a "factor for correction," and a "corrected" death-rate is obtained by multiplying the "recorded" death-rate by this factor. The Medical Officer of Health for the County of London has calculated a similar factor for each of the Metropolitan Boroughs.

The following table gives the recorded and corrected death-rates in the Metropolitan Boroughs in 1903, the Boroughs being arranged in order of corrected death-rate.

Borough.		Recorded Death-rate.	Corrected Death- Rate.
Hampstead		9.9	11.1
Lewisham		11.1	11.4
Wandsworth		12.3	12.9
Stoke Newington		12.5	13.0
Greenwich		13.2	13.3
Paddington		13.2	14.0
Camberwell		13.6	14'0
Woolwich		13.4	14'3
Hackney		13.8	14'3
Fulham		13.8	14'4
Hammersmith		14.1	14.6
Islington		14.2	14.6
Kensington		13.8	14.7
City of Westminster		13.5	15.2
Battersea		14'2	15'2
Deptford		14.8	15.5
Lambeth		15.1	15.5
Chelsea	***	15.2	15.7
City of London		14.5	15.8
St. Pancras		19.1	16.8
St. Marylebone		16.3	17.5
Bethnal Green		18.1	18.3
Stepney		17.9	18.6
Southwark		18.0	18.7
Poplar		18.1	18.7
Bermondsey		18.3	18.9
Shoreditch		19.3	20.3
Holborn		+0.=	20.2
Finsbury		20.2	21.0
County of London		15'1	15.8

Deaths in Public Institutions.

The deaths of Battersea residents occurring in public institutions numbered 673. 323 occurred within, and 350 without the Borough. 348 deaths occurred in Workhouses or Workhouse Infirmaries, as against 356 in 1902, and 331 in 1901.

Table VI. gives a list of the institutions in which the deaths occurred.

Table V. shows the number of deaths of Battersea residents in public institutions in the years 1893-1902, and the proportion in each year of such deaths to the total number of deaths.

TABLE V.

Year.	Total Deaths	Deaths in Public Institutions.	Proportion per cent. of Deaths in Public Institu- tions to Total Deaths.
1893	2974	537	18.0
1894	2577	527	20.4
1895	2961	537	16.1
1896	2994	560	18.7
1897	2737	576	20.6
1898	2892	625	21.6
1899	2905	644	22.1
1900	2978	625	20.9
1901	2766	640	23.1
1902	2581	731	28.3
Average 1893-1902	2836	600	21.0
1903	2476	673	27.1

TABLE VI.

DEATHS OF BATTERSEA RESIDENTS IN PUBLIC INSTITUTIONS.

Institu	TION.			TOTAL.	GROUP TOTALS.
Infirmaries and Workhouses.				THE PARTY OF	
Chelsea Infirmary				1	
Chelsea Workhouse				1 /	
Holborn Infirmary, Hox				ī	
Holborn Workhouse, Mi				5	
Lambeth Infirmary				6	
Lambeth Schools			***	7	348
Lambath Workhouse			***	2 }	
St. George's Workhouse	***		***	2	
St. Olave's Infirmary		***	***		
	***		***	1	
Tooting Home	am Ilnian	To Guerra and	***	27 .	
Wandsworth and Claph			***	299	
Wandsworth and Clapha	im Union	Workhouse	***	3	
Metropolitan Asylums Board's	Hospitals.				
Fountain Hospital		1		3)	
Grove				29	
South-Western ,,				4	38
Western				2	
		***	***	- /	
General Hospitals.					
Bolingbroke Hospital	***	***	***	24	
British Hospital for Incu	ırables			1	
Brompton Hospital	***	***	***	6	
Cancer Hospital		***	***	IO	
Charing Cross Hospital				6	
Chelsea Hospital for Wo	men			I	
Children's Hospital, Gre		d Street		I	
City of London Chest H				I	
Clapham Maternity Hos				2	
Evelina Hospital			MARKET STATE	ī	
Friedenheim Hospital			***	I	
General Lying-in Hospit		***	***	I	
Coule Hespital				The second second second	
Heart Hospital, Soho		***	***	7	
Hospital of St. John and		beth	***	I	
Hospital for Woman Eu	eton Road	Jeth	***	I	
Hospital for Women, Eu	iston Road	***	***	- 1	-0-
Hostel of God	***		***	9)	287
London Hospital	***	***		I	
Middlesex Hospital	***		***	2	
Royal Hospital, Stepney				I	
St. Bartholomew's Hospi	ital			3	
St. George's Hospital	***			29	
St. Mary's Hospital				2	
St. Peter's Home, Meade	ow Road			2	
	***	***		49	
Salvation Army Materni				I	
Station Hospital, Roche				I	
Temporary Royal Hospi				I	
Throat Hospital, Golden				ī	
University College Hosp				2	
Victoria Hospital	244		***		
West London Hospital	200	***	***	19	
	***		***	2	
Westminster Hospital	***	***	***	18	
Other Institutions	· · ·		***	14	
County and other Lunatic A	asylums		***		65
					673

All the above Institutions, except the Wandsworth and Clapham Union Infirmary and the Bolingbroke Hospital, are outside the Borough.

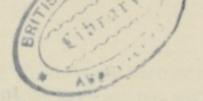


TABLE VII.

COMPARATIVE STATISTICS OF BIRTHS, MORTALITY, &c.

Year.	Mean population	Births.	Birth	Deaths.	Death	Zymotic	Natural
rear.	for year.	Dittiis.	Rate.	Deatus.	Rate.	Deaths.	Increase.
1856	15,069	536	36.2	320	21.5	45	216
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'I	96	292
1860	18,676	680	36.4	399	21.3	62	281
1861	19,582	750	38.3	505	25.7	II2	245
1862	23,108	784	33.9	491	21.5	106	293
1863	26,635	1,042	39.1	522	19.2	86	520
1864	30,161	1,140	37.7	669	22'I	129	471
1865	33,688	1,357	40.5	785	23.3	177	572
1866	37.145	1,386	37'3	1,002	26.9	244	384
1867	40,741	1,734	42.2	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	40.2	1,307	19'9	205	1,352
1874	70,984	2,865	40.3	1,387	19.2	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	40.2	1,803	19'4	322	1,945
1879	97,834	4,001	40.8	1,980	20.5	355	2,021
1880	103,204	4,095	39.6	2,040	19.7	- 383	2,055
1881	108,342	4,452	41.8	2,033	18.7	381	
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	2I'I	568	2,706
1885	125,618	4,654	37.0	2,566	20'4	432	2,088
1886	129,937	5,140	39.5	2,477	10.0	398	2,663
1887	134,256	5,186	38.6	2,451	18.3	502	2,735
1888	138,565	5,061	36.2	2,187	15.7	363	2.874
1889	142,884	5,161	36.1	2,240	15.6	366	2,921
1890	147,203	5,105	34.6	2,854	19.3	543	2,251
1891	150,880	5.237		2,697	17'9	398	2.540
1892	153,778	4,990	32'4	2,782	18.1	439	2,208
1893	156,719	5,225	33.3	2,974	18.9	614	2,251
1894	159,724	5,024	31.4	2,577	19.1	526	2,447
1895	162,787	5,264	32.3	2,961	18.1	460	2,303
1896	165,309	5,358	32.4	2,994	18.1	642	2.364
1897	166,059	5,266	31.7	2,737	16.4	486	2,529
1898	166,814	5,157	30.0	2,892	17.3	531	2,265
1899	167,570	5,179	30.0	2,905	17.3	418	2,274
1900	168,339	5,161	30.6	2,978	17.6	435	2,183
1901	169,100	5,025	29'7	2,766	16.3	491	2,259
1902	171,401	4,844	28.2	2,581	15.0	367	2,263
1903	173.422	4,973	28.6	2,476	14'2	347	2,497

The years marked thus ... were census years.

Infantile Mortality.

The deaths of infants under one year numbered 671, and formed 27:1 per cent. of the total deaths. The "infantile mortality," i.e., the number of deaths under one year per 1,000 births registered, was 135, being no less than 26 below the decennial average. This is the lowest infantile mortality figure ever recorded in Battersea, the lowest figure reached in previous years being 136 in 1902. The infantile mortality in the County of London was 129. The mortality in the Borough and in each of the sub-districts is given in the following table:—

TABLE VIII.

***	THE B	OROUGH.	EAST BA	ATTERSEA.		I-WEST ERSEA.		ERSEA.
YEAR.	Deaths under 1 year.	Deaths per 1,000 Births.						
1893	883	169	415	172	358	185	110	122
1894	734	146	345	151	308	168	81	88
1895	930	176	435	178	365	192	130	139
1896	947	176	465	186	365	193	117	120
1897	853	161	411	169	326	178	116	114
1898	855	165	441	181	311	178	103	104
1899	837	161	437	180	299	166	101	104
1900	822	159	411	169	314	179	97	97
1901	821	163	407	172	296	178	118	116
1902	657	136	312	141	270	164	75	75
Average 1893- 1902	833	161	407	169	321	178	104	107
1903	671	135	316	137	268	158	87	88

The infantile mortality in East and North-West Battersea was not only much lower than the decennial average, but well below the figures in 1902. In South-West Battersea there was an increase from 75 in 1902 to 88 in 1903, there being an increased number of deaths from broncho-pneumonia.

The following table gives the age distribution of the deaths under one year in 1903. The mortality was high in the first week, and 347 deaths, or more than one-half the total, occurred in the first three months:—

manual monintary			long.	11		AGE	I IN	M	ON	TH	s.						
Silvani pin Maja	UNDER I MONTH.						13	1	1	1							2
DISTRICT.	Under 1 week.	r and under 2 weeks.	2 and under 3 weeks.	3 and under 4 weeks.	TOTAL UNDER	1-	2-	3-	4-	5-	6-	7-	8-	9-	10-	11-	TOTAL UNDER
East Battersea	59	12	17	15	103	30	23	17	16	24	23	17	15	15	16	17	316
North-West Battersea	50	15	13	11	89	27	36	11	14	17	17	13	7	16	10	II	268
South-West Battersea	15	I	2	-	18	17	4	7	6	9	5	4	5	6	4	2	87
Borough of Battersea	124	28	32	26	210	74	63	35	36	50	45	34	27	37	30	30	671

The chief causes of infant deaths are set out as follows:-

Cause of Death.	No. of Deaths.	Rate per 1,000 Births.	Rate per 1,000 Births, 1902.	Rate per 1,000 Births, 1901.
Measles Whooping Cough Diarrhœa Enteritis Tuberculosis Premature Birth Debility, Marasmus Convulsions Bronchitis Pneumonia Suffocated in bed All other causes	28 32 78 23 24 110 71 13 57 77 1	5.6 6.4 15.7 4.6 5.0 22.1 14.3 2.6 11.5 15.5 0.2 31.6	5.0 6.1 17.3 4.7 5.8 21.1 14.4 2.7 13.6 14.2 1.9 28.7	5.5 7.5 35.2 3.7 6.9 19.9 16.7 4.3 12.9 18.7 3.3 28.4
Total	671	135	136	163

Although the total infantile mortality last year was much lower than the decennial average or the rate in 1901, the reduction did not effect all causes of death; the mortality from premature birth was higher in 1903 than in 1902 or 1901. The chief reduction was in diarrhœa, the mortality rate falling from 35.2 in 1901 to 15.7 in 1903. This result was chiefly due to the wet, cold weather which prevailed during the summer of the latter year. From the point of view of the holiday-maker the weather was deplorable, but it undoubtedly saved the lives of thousands of children in our Summer diarrhœa is largely due to the urban districts. contamination of food by bacteria-polluted dust, and a copious rain-fall washes the atmosphere and lays the dust. The question arises whether nature's method of reducing diarrhœa mortality by wet cleansing could not with advantage be imitated by Sanitary Authorities. It is not necessary to wait for a wet summer to carry out our cleansing for us any more than it was necessary for Charles Lamb's Chinaman to burn down his house to roast his pig. Systematic frequent hosing of yards and streets in the poorer districts during the summer is a practicable measure, and would do much towards the prevention of diarrhœa. But to reap the full benefit of this procedure impermeable surfaces are necessary, and in this respect much remains to be done in Battersea.

The condition of many of the back-yards recalls the time, not far distant, when Battersea was a district of market-gardens; and the keeping of a large number of fowls, ducks or rabbits in the yard is still a highly popular pursuit in the district. In an urban district such as Battersea now is, these animals are out of place in close proximity to dwelling houses, and back-yards should as far as possible be paved with an impermeable material over their whole area. In 1903 a good deal of work was done in improving the paving and general sanitation of back-yards, and operations will be carried on more energetically during the present year.

Much could be done to improve the paving of the carriageway in side streets and *culs-de-sac* such as Carpenter Street, which are used as play-grounds by children. The substitution of impermeable material such as asphalte for macadam would greatly facilitate the cleansing of the carriage-way. The hose could be used upon it with great effect and the street would be cleansed by every shower of rain. It is to be hoped that a beginning may be made this year in the paving of the carriage-ways of certain side streets with asphalte, and that the work of substituting tall pipes for sewer ventilators at the road level, which has been carried out with so much success during past years will be continued.

The influence of the Council's Infants' Milk Depôt on infantile mortality is dealt with in the special section of the Report on the work of the Depôt. The milk has undoubtedly been of very great value, but it must not be regarded as the only means of attacking the problem of infantile mortality. Disease must be attacked on all sides and with many weapons.

On the 13th January, 1904, the Council decided to appoint a lady inspector whose duties will include the instruction of mothers in the proper methods of infant feeding and the care of infants generally. This is a most important step in advance. The conditions of this appointment are, at the time of writing, being arranged with the Local Government Board.

One of the most satisfactory features of last year's statistics is the great diminution in the mortality due to overlying. Only one death was recorded—that of a baby, said to be suffocated by his sister, aged five, while the whole family were in bed together. The following table gives the number of deaths occurring on each day of the week in each year since 1896. The day refers to the morning on which the death was discovered, and it will be seen that by far the greater number of deaths were discovered on Sunday morning. This suggests that the overlying takes place when the parents are stupified with drink, and there are other facts which support this view. There can be no doubt that most, if not all, of these deaths are due indirectly to alcohol, and they should be taken into account in estimating the mortality due to that drug. That this form of suffocation appears at all in our death returns is a great stain on this country, but until firmer measures are adopted in dealing with the parents it is to be feared that it will continue to appear.

TABLE IX.

	1896.	1897.	1898.	1899.	1900	1901.	1902.	1903.	Total.
Sunday	 6	4	3	4	4	5	3	_	29
Monday	 4	3	3	2	I	3	2	_	18
Tuesday	 4	4	2	1	I	I	I	_	14
Wednesday	 1	5	4	4	I	I	_	-	16
Thursday	 I	I	2	2	4	3	I	_	14
Friday	 4	1	4	I	2	2	I	-	15
Saturday	 -	3	-	3	2	2	I	1	12
Total	 20	21	18	17	15	17	9	I	118

Senile Mortality.

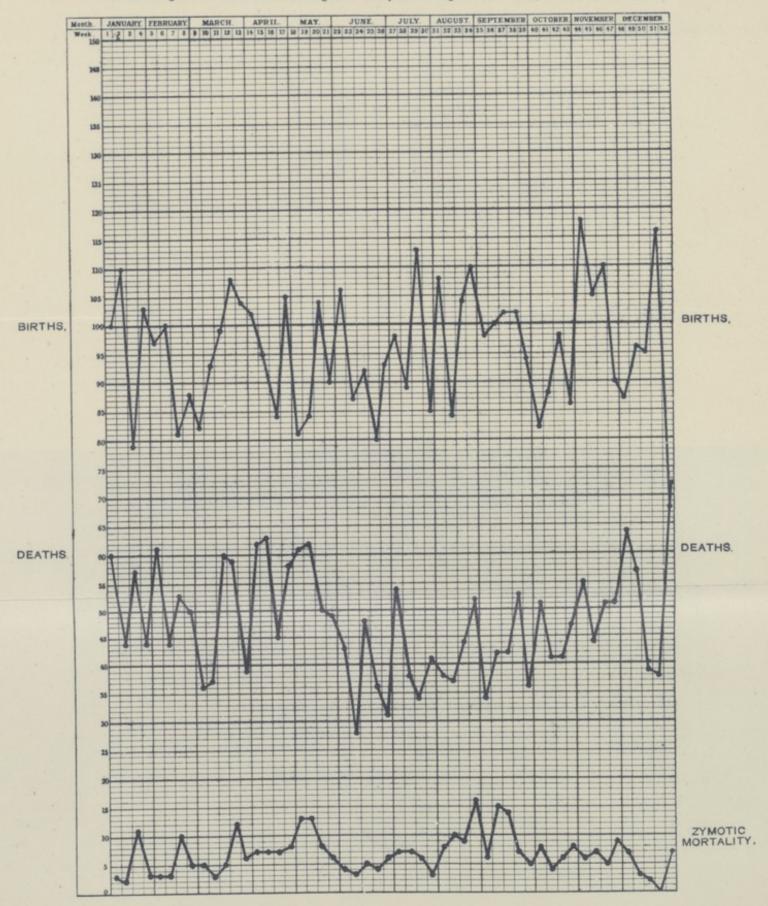
Four hundred and four deaths of Battersea residents occurred at ages of sixty-five and upwards. The age distribution of these deaths in the sub-districts is given below:—

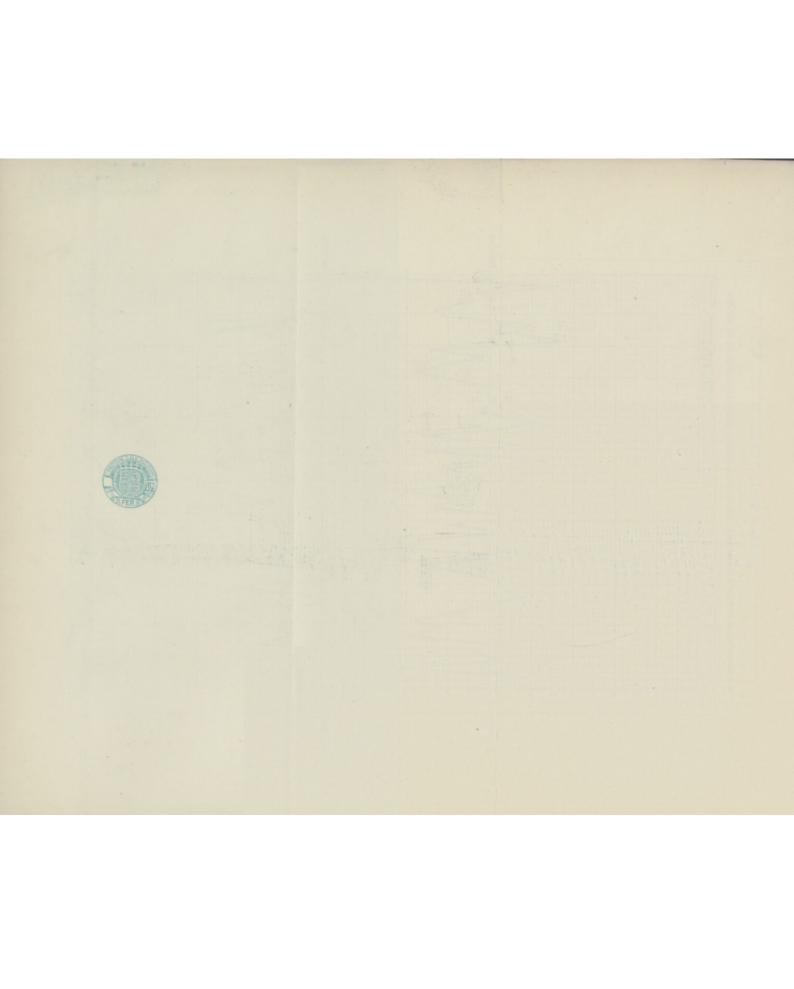
DISTRICT.	65 and under 75.	75 and under 85.	85 and upwards.	Total over 65.
East Battersea	84	50	10	144
North-West Battersea	67	44	8	119
South-West Battersea	71	57	13	141
Borough of Battersea	222	151	31	404

The deaths over sixty-five were 564, 434, and 445 in the years 1900, 1901 and 1902 respectively. The 404 deaths over sixty-five in 1903 were equivalent to 163 per 1,000 deaths at all ages.

Battersea Borough Council.

Chart indicating number of Births and Deaths registered weekly as occurring within the Borough during the year 1903.





Infectious and other Diseases.

Infectious

and other

Diseases.

Infectious and other Diseases.

Causes of Death.

The causes of death are tabulated in Table XXX. (Table IV. of the Local Government Board Series), and are set out in greater detail in Table XXXI.

Zymotic Mortality.

Table X. shows the deaths from the chief zymotic diseases for the ten years 1893-1902, and the year 1903 respectively. The figures for the latter year compare favourably, on the whole, with those in the preceding years, and in every disease the number of deaths was well below the decennial average. There were no deaths from small-pox, and the scarlet fever mortality was exceptionally low. The greater number of deaths from diphtheria, as compared with the two preceding years, indicates the increased prevalence of the disease in 1903. The number of deaths due to diarrhæa is, comparatively speaking very low, but it is high enough to indicate that much yet remains to be done to attack this eminently preventible disease.

TABLE X.

Comparative Table of Zymotic Mortality during the past ten years.

	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	Decen- nial average	1903
Small Pox	12	2	I			***			4	25	4	
Measles	90	151	99	185	76	119	103	81	126	99	113	107
Erysipelas	31	17	6	16	11	18	17	17	10	II	15	11
Scarlet Fever	32	30	28	32	47	28	14	13	9	23	26	7
Diphtheria	176	118	94	82	108	120	63	32	20	18	83	29
Enteric Fever, &c	22	29	23	17	18	15	39	32	18	16	23	17
Puerperal Fever	16	9	6	4	3	6	7	3	8	14	8	5
Whooping Cough	115	77	52	137	82	71	52	108	79	63	84	79
Epidemic Diarrhœa	120	93	151	169	141	154	123	149	217	98	141	92
Totals	614	526	460	642	486	531	418	435	491	367	497	347

TABLE XI.

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).

8 8		SMAL	L-POX.	ERYSI	IPELAS.	DIPHTHE	RIA AND US CROUP.	SCARLET	SCARLET FEVER.		SCARLET FEVER. CONTINUED F				
YEARS	s.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths		
1893		0.68	0.07	2.80	0.17	4.35	1.15	8.97	0.50	0.88	0.14	0.11	0,10		
1894		0.02	0.01	2.03	0.10	3.19	0.43	5.24	0.18	0.96	0.18	0.06	0.02		
1895		0.13	0.00	1.49	0.03	2.22	0.57	5.09	0.12	0.86	0.14	0.06	0.03		
1896		0.03	0.00	1.59	0.09	2.57	0.49	6.72	0.19	0.67	0.10	0.06	0.03		
1897		0.00	0.00	1.35	0.06	3.69	0.65	9.76	0.58	0.57	0.10	0.04	0.01		
1898		0.00	0.00	1.00	0.10	4.74	0.41	4.84	0.19	0.26	0.08	0.05	0.03		
1899		0.00	0.00	1.31	0.10	3.61	0.37	4.30	0.08	0.93	0.53	0.08	0.04		
1900		0.00	0.00	0.08	0.10	1.81	0.19	3.25	0.02	1.55	0.10	0.03	0.01		
1901		0.30	0.03	0.74	0.04	1.26	0.11	3.60	0.02	0.23	0.10	0.04	0.04		
1902		0.98	0.14	1.14	0.09	1.60	0.10	4.98	0:13	0.21	0.09	0.08	0.08		
Aver: 1893-		0.31	0.03	1.43	0.08	2.96	0.20	5.67	0.15	0.76	* 0.13	0.06	0.0		
1903		0.10	0.00	0.85	0.06	1.62	0.19	2.28	0'04	0.49	0.00	0.04	0.0		

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."

The next table gives the death-rate from each of the chief zymotic diseases compared with the mean death-rate in the preceding decennium, and the gain or loss in each case is also given:—

TABLE XII.

Diseases.	Mean Death- rate per 1000 1893-1902.	Death-rate per 1000 1903.	Gain in 1903.	Loss in 1903.
Small-Pox	.02	'00	'02	
Measles	•62	.61	.oı	
Erysipelas	-08	•06	.02	
Scarlet Fever	.12	.04	·II	
Diphtheria	.50	.16	*34	
Enteric Fever	.13	.09	.04	
Puerperal Fever	*04	.02	.02	
Whooping Cough	*50	·45	.05	
Diarrhœa	-8	.53	.32	

It will be seen from the above table that in 1903 the death-rate in every case was below the mean death-rate for the preceding ten years. The reduction is most marked in the case of diphtheria, but is also considerable in diarrhæa and puerperal fever. No deaths from small-pox occurred during the year. The death-rate from the seven principal zymotic diseases—viz., small-pox, scarlet fever, diphtheria, enteric fever, measles, whooping cough and diarrhæa was 1.88, the death-rate from these diseases in the County of London being 1.72.

Notifiable Infectious Disease.

Compulsory notification of certain infectious diseases came into force in Battersea in the year 1889 by the adoption of the Infectious Diseases (Notification) Act, 1889.

The diseases at present notifiable are:—Small-pox, scarlet fever, diphtheria and membranous croup, cholera, erysipelas, typhus, typhoid, continued, relapsing and puerperal fevers. By an Order of the Local Government Board, 19th September, 1900, bubonic plague was also made notifiable.

On 28th January, 1902, the London County Council made an Order under section 56, sub-section 6, of the Public Health (London) Act, 1891, making chicken-pox a notifiable disease in the County of London for a period of three calendar months. The Order came into force on 7th February, and was twice renewed, finally expiring on 7th January, 1903.

The number of cases notified during the year was 1,003, excluding chicken-pox cases. In East Battersea, 387 cases were notified; in North-West Battersea, 385; in South-West Battersea, 231.

The number of cases notified and the proportion per 1,000 population are set out as follows:—

	Total number of cases notified.	No. of cases notified excluding Chicken-pox.	Notifications per 1,000 of the population excluding Chicken-pox.
The Borough	1,048	1,003	5.7
East Battersea	411	387	5.2
North-West Battersea	395	385	7.7
South-West Battersea	242	231	4.5

The notifications included 33 cases of small-pox and 45 cases of chicken-pox. No cases of typhus fever, relapsing fever, cholera, or plague were notified.

TABLE XIII.

Year.	No. of Notifications received.	Notifications per 1,000 of the population.	Percentage of cases removed to hospital.
1893	2798	17.9	31.3
1894	1845	11.2	43.0
1895	1657	10.1	40.5
1896	1929	11.6	46.8
1897	2569	15.4	52.5
1898	1887	11.3	62.9
1899	1702	10.1	70.2
1900	1231	7'3	68.9
1901	1148	6.7	72.1
1902	1597	9.3	78.0
Average 1893-1902	1836	11.1	56.6
1903	1003	5.7	74.6

In the above table the Chicken-pox notifications are excluded.

The largest number of notifications received during any one week was 35, and this occurred in the fourth week of the year. The lowest number notified was 9, this being the number notified in the thirty-third week.

The cost of the notification of infectious disease in Battersea in each year since 1891 is given below:—

Year.		Med	Amour	nt pa	id to		Cost	per i	000 on.
			£	s.	d.		£	s.	d.
1891			150	I	0		0	19	10
1892			224	18	6		I	. 9	3
1893			321	2	6		2	0	II
1894			208	12	0		I	6	I
1895			197	19	6	***	I	4	2
1896			229	16	0		I	7	9
1897			310	3	0		I	17	4
1898			229	0	6		I	7	5
1899			203	17	6		I	4	3
1900			146	12	6		0	17	5
1901			136	IO	0		0	16	I
1902	(including	Chicken-pox)	343	19	0		2	0	I
1903	,,	"	137	II	0		0	15	IO

The amount paid to medical practitioners for notification certificates of cases of Chicken-pox was £5 12s.

The notification fees are repaid to the Sanitary Authorities by the Metropolitan Asylums Board.

Table XIV. gives the number of cases of each of the nctifiable diseases in each week of the year, and the same information is recorded in a graphic form on the chart.

34 TABLE XIV.

Weekly Summaries of Cases of Infectious Disease Notified During the Year 1903.

(Cases of Chicken-pox are excluded).

										_				
	THE REAL PROPERTY.	. K.	C	ASES OF	INF	ECTI	ous :	Dise	ASE NO	TIFII	ED.		TOTALS	
	Монтн.	F YEA	,	a and	.4	ver.	ever.	ever.	Fever		9770			
-		WEEK OF YEAR.	Small-Pox.	Diphtheria and Membranous Croup.	Erysipelas.	Scarlet Fever.	Typhus Fever.	Enteric Fever.	Continued and RelapsingFever	Puerperal Fever.	Cholera.	1903	1902	1901
	January	I		2	3	II		2		***		18	20	16
		2		5	3	II		I				20	45	21
		3		9	5	10		2				26	40	13
		4		7	6	22						35	39	16
	81 63	5		12	2	17	***	1				32	29	τ4
	February	6		6	1	13						20	29	14
		7		6	3	8		I				18	24	13
		8		10	3	14		2		1		30	40	9
	2 3	9		10		II						21	31	18
	March	10		2	3	8		2		***	***	15	42	15
		II		7	4	14						25	22	9
		12		4	9	II		2				26	22	12
	1	13		2	4	12		1	•••			19	30	9
	April	14	I	4	5	5		***		***		15	32	13
		15		9	I	3						13	32	14
		16	I	3	4	7		***				15	28	16
		17		4	5	8						17	35	17
	May	18	3	4	4	12						23	28	16
	Bear.	19	5	5	3	10		***			***	23	30	10
		20	4	4	I	7						16	30	23
		21	7	4	1	6				***		18	29	27
		22	•••	4	2	9						15	27	23
	June	23		I	1	10			***		***	12	22	19
		24		7	4	9						20	II	18
		25	3	4	I	6						14	25	25
		26		9		8					***	17	28	14
					_	_								

TABLE XIV.—continued.

11 30	YEAR.	CA	SES OF	INF	ECTI	ous I	DISE	se No	TIFIE	D.		TOTALS	
Month.	40	ox.	ria and anous up.	elas.	Fever.	Fever.	Fever.	nued _	eral r.				
	WEEK	Small-Pox.	Diphtheria and Membranous Croup.	Erysipelas.	Scarlet Fever.	Typhus Fever.	Enteric Fever.	Continued and Relapsing Fever	Puerperal Fever.	Cholera.	1903	1902	1901
July	27		3	3	8		2				16	24	12
	28	***	7	1	.6		I		I		16	31	26
	29		5		4		2				II	27	19
	30	***	4	2	9		3			***	18	34	16
	31		8	6	5	***	3				22	30	14
August	32		6	I	10				I		18	32	23
	33	1		2	4				2		9	21	17
	34	5	4	3	6		I			***	19	21	16
	35	2	3	3	9		I				18	21	13
September	36	***	4	4	6		2				16	24	24
	37	I	3	2	4						10	26	22
	38	***	6	3	8		I				18	32	33
	39		5	3	8			***			16	36	30
October	40		3	4	9		4				20	51	30
	41	***	7	I	3		7	***			18	50	46
	42	***	6	4	6		7				23	42	52
	43		14	3	12		2				31	35	38
November	44		4		9		3				16	25	42
	45		5	1	5		I				12	41	37
	46		5	4	9		4				22	42	28
	47	***	6	6	10		2				24	21	34
	48		5	5	8		5				23	32	15
December	49		8	2	6		5		I		22	26	31
-	50		6	I	6		8		1		22	24	34
receie	51		4	2	10		I				17	38	27
	52		7	4	6		6				23	41	55
Whole Year		33	282	148	448		85		7		1003	1597	1148

Table XV. gives the cases of each disease occurring in the Wards.

TABLE XV.

Notifications of Infectious Disease received during the Year 1903 arranged in Wards.

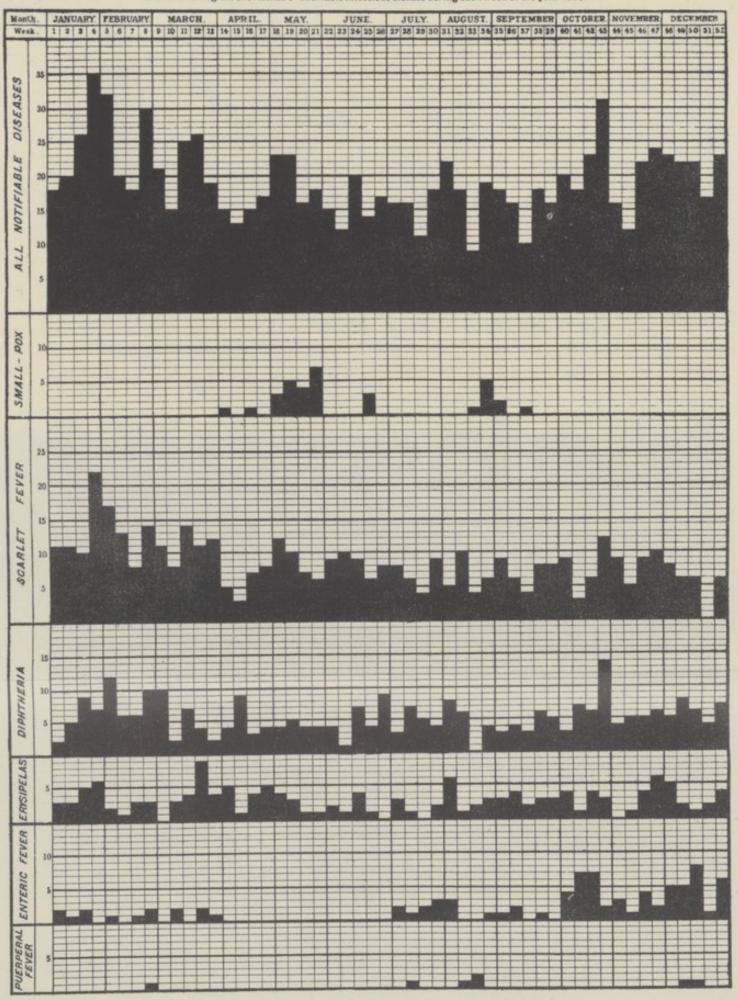
	WARD.	Small-pox.	Chicken- pox.	& Membran-	Erysipelas.	Scarlet Fever.	Typhoid or Enteric Fever.	Puerperal Fever.	Totals
No.	I (Nine Elms)	-	13	35	24	83	7	I	163
,,	2 (Park)	10	7	13	24	50	13	_	117
,,	3 (Latchmere)	5	3	44	21	47	13	2	135
,,	4 (Shaftesbury)	3	6	23	15	29	7	I	84
"	5 (Church)	7	3	45	24	54	11	-	144
,,	6 (Winstanley)	6	2	58	12	69	15	2	164
,,	7 (St. John)	2	I	13	10	21	3	_	50
,,	8 (Bolingbroke)	_	5	25	5	52	8	I	96
"	9 (Broomwood)	-	5	26	13	43	8	-	95
-	10 10 10 10 10 10 10 10 10 10 10 10 10 1								
	Totals	33	45	282	148	448	85	7	1,048

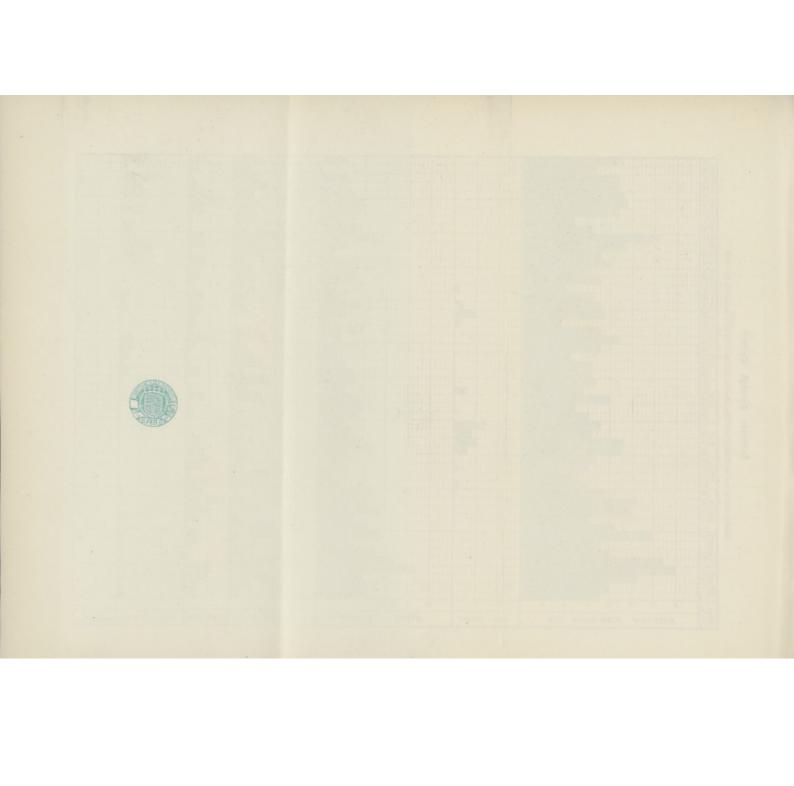
Small-Pox.

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

Battersea Borough Council.

Chart indicating the prevalence of notifiable infectious disease during each week of the year 1908.





YEAR.	BATTER	RSEA.	Lor	NDON.
IEAR.	Cases.	Deaths.	Cases.	Deaths.
1891			114	8
1892	2	1	425	41
1893	108	12	2,815	206
1894	8	2	1,193	89
1895	20	I	980	55
1896	4		225	9
1897	1		104	16
1898	I	-	33	1
1899	- 1	-	29	3
1900	-	-	- 86	4
1901	51	4	1,700	229
1902	169	25	7,797	1,314
1903	33	SE TON	416	13

During the winter of 1902-3 Battersea was entirely free from Small-pox. The last case in 1902 was notified on 27th September, and the first in 1903 on 3rd April. After the latter date several groups of cases occurred; and the last case of the year was notified on 7th September. The total number of cases was 33. Fortunately, nearly all the patients had the disease in a mild form, and no case was fatal.

A list of the cases is given on the following page. The numbers indicate the order in which the patients were notified to or discovered by the Medical Officer of Health:—

No. of Cases.	Initials of Patient.	Street.	Date of Notification.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33	G. W. J. F. E. S. J. H. E. G. J. H. E. G. G. C. G. L. S. W. P. L. G. G. G. E. M. A. M. L. W. G. R. W. G. S. P. L. A. A. C. D. F. K. W. C. M. R. A. B. M. R. A. C. G. R. J. R.	Surrey Lane Ingrave Street Granfield Street Kambala Road Henley Street Granfield Street Granfield Street Granfield Street Granfield Street Strathblaine Road Strathblaine Road Latchmere Grove Kambala Road Henley Street Henley Street Henley Street Henley Street High Street Henley Street Falcon Road Falcon Road Doddington Grove Wycliffe Road Beaufoy Road Wycliffe Road Battersea Park Road Warsill Street Battersea Park Road Blondel Street Battersea Park Road Warsill Street Culvert Road Culvert Road	3 April 12 " 26 " 27 " 28 " 4 May 5 " 8 " 8 " 9 " 11 " 17 " 17 " 17 " 17 " 17 " 17 " 17

The age-distribution of the cases is given below:-

	dan		-	AGE P	ERIODS-	-YEAR	S.		
err said	Under	1-5	5-10	10-15	15-25	25-35	35-45	45-55	55-
Cases	ı	3	2	1	4	18	3	2	-

Sixteen patients were males and seventeen females. Twenty-eight patients had been vaccinated in infancy, and five were unvaccinated.

Most of the cases occurred in groups, each group consisting of a number of patients who contracted the disease directly or indirectly from a common source of infection.

Group I.—Nos. 1 and 2, who were not Battersea residents, were infected probably at Kingston in a common lodging house. They tramped together to Battersea, where they stayed at a common lodging house in Surrey Lane, and where first one and then the other was taken ill. These were the only two cases which occurred amongst the inhabitants of common lodging houses, and, so far as is known, no other cases were infected by them.

Group II.—No. 4 had recently returned from Dublin, where he had been employed in the erection of additional hospital accommodation for Small-pox patients, the disease being at that time prevalent in Dublin. He had been vaccinated in infancy, but had refused re-vaccination. Nos. 7, 8, and 11, all of whom were relatives of his, contracted the disease from No. 4.

Group III.—This group consists of No. 5 and Nos. 12 and 13, who were infected by No. 5. The source of infection in the latter case could not be traced, but as the patient spent the fifteenth day before the appearance of the rash in another part of London, it is probable that she was not infected in Battersea.

Group IV.—No. 9 was a coachman employed by a medical practitioner. His master reported him as a suspicious case to the Medical Officer of Health, who, on visiting the premises, ascertained that the patient's wife, No. 10, was also suffering from Small-pox. She had been taken ill a fortnight before, and had been treated by her husband's employer for Chicken-pox.

Group V.—This group consists of Nos. 6, 14, 15, 18, the three last cases deriving the infection from No. 6, the source of whose infection could not be traced.

Group VI.—No. 16 was reported as a suspicious case to the Medical Officer of Health, who, on visiting the premises, ascertained that the patient was suffering from Small-pox, and that she had been infected by her husband, No. 17, who had just recovered from an exceptionally mild attack of the disease. He had been treated by his medical attendant for Chicken-pox, and, after staying indoors for a few days, had followed his occupation whilst in an infectious condition. Further investigation showed that No. 17 was probably infected by No. 20, who had also had a very mild attack of Small-pox. No. 20 was not even confined to the house at any time during her illness, but had been treated as an out-patient at a hospital, her complaint being diagnosed as ringworm. No. 19 was also infected by No. 20.

Group VII.—No. 22 was infected by her husband, who was living apart from her in Lambeth, but came over to Battersea occasionally to see his wife. At his last visit on 2nd June she noticed he had "spots" on his face, and as he complained of feeling ill she advised him to see a doctor. He returned to Lambeth the next day, and two days later he went to the Lambeth Infirmary, from which he was removed to the Small-pox hospital. No. 24 and, probably, No. 23 were infected by this man.

Group VIII.—No. 25 was a paper-hanger, and fifteen days before his rash appeared he re-papered a house in Lambeth in which a case of Chicken-pox was said to have occurred. This supposed case of Chicken-pox was afterwards proved to have been a case of Small-pox. No. 25 was taken ill early in August, and was treated by his medical attendant for Chicken-pox. After the rash had been out about a week he went to see another doctor, who at once diagnosed the case, and the patient was forthwith removed to the hospital. Nos. 26, 27, 28, 29, 30, 31, 32, and 33 derived the infection directly or indirectly from No. 25.

Nos. 3 and 21 were isolated cases, the sources of whose infection could not be traced.

Of the 33 cases, the source of infection was ascertained in 27 cases, or 81.8 per cent. of the total number, and was found to be personal infection by a previous case. It is possible that some of the remaining 6 cases were infected by those patients in whom the disease was not recognised and who, as has been stated above, pursued their usual avocations without any attempt at isolation.

As soon as the patients came to the knowledge of the officers of the Health Department, they were at once reported by telephone to the Metropolitan Asylums Board and were promptly removed by the Board's Ambulance Department to the Small-pox hospital. Disinfection of the whole house was then carried out. The case was reported to the Vaccination Officer and the Public Vaccinator, and every effort was made to secure the vaccination or re-vaccination of all persons who had been exposed to infection. Unfortunately, these efforts were not infrequently unsuccessful. All persons who had been exposed to infection were kept under supervision during the incubation period, and school children were excluded from school for that period. If any "contact" was found to live or work in another district, the Medical Officer of Health of that district was at once informed of the fact by telephone.

All the officers of the Health Department who were exposed to infection were protected by re-vaccination or by a recent attack of Small-pox, and no case of the disease occurred amongst them.

Most of the cases in 1903 were exceptionally slight—not one was fatal—and for this reason the outbreak well illustrates the difficulties attending the application of methods of isolation and disinfection to Small-pox under existing legal provisions relating to infectious disease. Before a patient can be isolated and his premises disinfected he must be brought to the notice of the Sanitary Authority; but in many cases it is by no means an easy matter to secure that this shall be done. In the first

place the case may be wilfully concealed to avoid compulsory removal to hospital. In the 1901-2 outbreak, wilful concealment was more than suspected in several cases, and, in one case, was proved, and the offender convicted and fined. But the chief difficulty arises from the occurrence of cases so slight as to escape recognition. This difficulty occurs in connection with all infectious diseases, but is most marked in Small-pox owing to the influence of vaccination in modifying the character of the disease. The cases which escape recognition occur in persons who have been vaccinated at a date sufficiently remote for the vaccination to have lost the power of protecting against attack while retaining the power of greatly modifying the severity of the disease. In other words, the cases occur in young adults who have been efficiently vaccinated in infancy. It is not too much to say that the occurrence of the slight, modified cases of Small-pox, which, by escaping recognition, play so prominent a part in the spread of the disease, are in a great measure due to the present state of the law relating to vaccination, which insists on infantile vaccination without making provision for re-vaccination. The slight cases escape recognition for two reasons. In the first place, the patient's health may be so little affected by the attack that he may not think it necessary to consult a medical man, or even to cease following his occupation; and, secondly, although a medical man may be consulted, he may fail to make a correct diagnosis. Mild cases of Small-pox may be mistaken for chicken-pox, influenza, ague, impetigo, measles, syphilis, or other diseases. Four out of the 33 cases in 1903 were treated by their medical attendant for periods varying from one to nearly three weeks for disease other than Small-pox, and while so treated they were following their ordinary occupations as if nothing out of the common had happened.

It must not be supposed, however, that errors of this kind were peculiar to Battersea. Mistakes in diagnosis involving serious consequences occurred all over the country. There can be no doubt that many medical practitioners are unable to diagnose modified cases of Small-pox; but this is

not a matter for surprise, for Small-pox is now, fortunately, so rare a disease in this country that many medical men have practised for years without having ever seen a single case. Medical diagnosis is an art involving the trained use of the senses, and, like all arts, can only be acquired by practice. In order to recognise Small-pox it is necessary to have seen Small-pox, for, obviously, a man cannot be expected to recognise something he has never seen before. As certain diseases become rarer owing to the advance of sanitary science, so does the inability of the medical profession to recognise such diseases increase, and the freedom of a country from any particular disease may be gauged by the degree to which the medical men are unfamiliar with its clinical features, and are, therefore unable to diagnose it. A prolonged period of Small-pox prevalence would undoubtedly vastly increase the diagnostic capacity of the profession in relation to the disease, and mistakes such as those set out in this report would not occur; but this can hardly be regarded as a "consummation devoutly to be wished." It is to be hoped that opportunities for acquiring clinical experience in Small-pox will become considerably less in the future than has been the case in the past.

It is, of course, open to a practitioner to seek a second opinion, and, although it is, strictly speaking, no part of the duty of a Medical Officer of Health to act as consultant diagnostician to the practitioners of his district, in most districts, and certainly in Battersea, the local medical men are well aware that the Medical Officer of Health, who has naturally had unusual opportunities for making himself familiar with Small-pox, is always willing to render what assistance he Since Small-pox appeared in Battersea in October, 1901, I have been called in to see a large number of cases, and have been glad to have had an opportunity afforded me of seeing possible cases of Small-pox at the earliest possible moment. Some practitioners, however, are disinclined to seek assistance, particularly where the case seems fairly clear, and prefer to take the responsibility of making a decision on their own shoulders. What is needed is an extension of the law relating

to the notification of infectious disease so as to throw a statutory obligation on medical practitioners to notify, not only undoubted cases of infectious disease, but also cases where the medical attendant has reasonable cause for suspecting the patient to be suffering from such disease.* The notification of suspected cases and the appointment by the Sanitary Authorities of an adequate number of competent diagnosticians to examine all such cases would do much to prevent the spread of Small-pox and of other infectious diseases, which takes place under present conditions owing to the non-recognition of slight modified cases presenting points of exceptional difficulty in diagnosis.

Legal proceeding were taken in two instances in connection with the Small-pox cases. One of the patients was prosecuted, on his discharge from the hospital, for exposing himself in a public place while suffering from Small-pox, and was fined 40s. and costs. The medical practitioner who failed to recognise the case which gave rise to the last group of cases was prosecuted for failing to notify the patient. The magistrate, Mr. Garrett, however, dismissed the case, but without costs, on the ground that there was no evidence that the defendant knew the patient to be suffering from Small-pox. Mr. Garrett's judgment in this case contains so excellent and lucid an exposition of the law relating to the notification of infectious disease that it is given in full below.

Mr. Garrett, after hearing the defendant, intimated that the other witnesses for the defence need not be called. This was a case of considerable importance, because of the construction which the Borough Council sought to put upon the section. The section was very clear. A doctor had not to give a certificate that it might be Small-pox, but that in his opinion it was Small-pox. He ventured to say no responsible medical man would sign, or ought to

^{*}The notification of suspected cases of small-pox is compulsory in at least two Australian Colonies, and in New Zealand the provision is extended to other infectious diseases.

sign, such a certificate unless he was satisfied in his own mind that it was Small-pox. It might be that in London there were special precautions to keep doubtful cases separate from undoubted Small-pox, but it was not so everywhere, and if a doctor took the responsibility of certifying what turned out to be Chicken-pox as Smallpox, the results might be extremely serious to the patient. This was a penal section, and must be construed in favour of the defendant. It meant that where a doctor, having used his judgment to the best of his ability, came to the conclusion it was Small-pox, it became his duty to certify. The suggestion had been made that one should go into the question whether the doctor had exercised every possible care in diagnosis. It would be impossible to hold a medical man liable in that way, in his opinion. It was suggested he should have consulted the Medical Officer of Health. He thought a man who wished to avoid a part of his own responsibility would be wise to take such a course, but, after all, that was merely shifting responsibility. If the doctor, having complete confidence in his own judgment, took the responsibility of not certifying, the risk was his from one point of view. But it did not follow that because he did not take the advice of another medical man he should be prosecuted. After going through the evidence carefully, he had come to the conclusion that there was no case against the defendant. The summons would be dismissed.

Scarlet Fever.

The number of Scarlet Fever cases occurring in 1903 was 448, of which 7 were fatal. In 1902 there occurred 854 cases, with 23 deaths. The Scarlet Fever case-rate, death-rate, and case-mortality in 1891 and the subsequent twelve years are given below:—

Year.	Cases.	Case Rate per 1,000 population.	Deaths.	Death-rate per 1,000 population.	Case- mortality per cent.
1891 1892 1893 1894 1895 1896 1897 1898 1899 1900	738 1,171 1,407 837 830 1,111 1,621 809 721 548 609 854	4·89 7·61 8·97 5·24 5·09 6·72 9·76 4·84 4·30 3·25 3·60 4·98	38 42 32 30 28 32 47 28 14 13 9	0.25 0.27 0.20 0.18 0.17 0.19 0.28 0.16 0.08 0.07	5·1 3·5 2·2 3·5 3·3 2·8 2·9 3·4 1·9 2·3 1·4 2·6
1902	448	2.28	23 7	0.04	1.2

In the sub-districts, the number of cases per 1,000 population was as follows:—East Battersea, 2.50; North-West Battersea, 3.00; South-West Battersea, 2.27. The number of cases per 1,000 population in the County of London was 2.7 and the death-rate 0.07.

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

			Ac	e Pe	RIODS	Үел	RS.			TOTAL.
	Under 1	1-2	2-3	3-4	4-5	5-10	10-15	15-25	25-65	
Cases	6	21	27	34	57	179	57	50	17	448
Deaths	_	2	-	2	2	I	-	_	-	7

The disease was of a very mild type, as is shown by the low case mortality. Scarlet Fever has greatly diminished in fatality during recent years, and now gives rise to far less mortality than measles or whooping cough.

Many cases are of so mild a type that medical advice is not sought by the parents, and the nature of the disease is not recognised. The mild cases are, however, infectious, and play an important part in the spread of the disease.

The number of cases removed to hospital was 376 or 83.9 per cent. of the cases notified. In 1902 87.7 per cent., and in 1901 80.6 per cent. of the cases notified were removed to hospital. In the sub-districts the percentage of cases removed to total cases was as follows:—East Battersea, 85.3; North-West Battersea, 86.5; South-West Battersea, 78.2. The high percentage of removals is an indication of the popular confidence in the Metropolitan Asylums Board's hospitals, for in no case was it found necessary to exercise compulsion to effect a removal.

In 84 cases a history of direct personal contact with a previous case in the district was obtained, and 12 other cases were infected outside Battersea. In 24 cases the patients were infected within one month of the return of an inmate of the same house who had been discharged from an isolation hospital after an attack of scarlet fever or diphtheria. In some of these "return" cases the infection was probably derived from the primary case. Of the 376 cases of scarlet fever removed to hospital, 8, or 2.12 per cent., developed diphtheria in hospital, but not one of these cases was fatal. Post-scarlatinal diphtheria was formerly a most fatal disease, but since the introduction of the anti-toxin treatment the mortality has fallen very low.

In 27 of the cases notified as suffering from scarlet fever, the diagnosis was found to be erroneous and the patients sent back from hospital.

Diphtheria and Membranous Croup.

The case-rate, death-rate and case-mortality from Diphtheria and Membranous Croup since 1891 are set out below:—

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	1.13	25.8
1894	505	3.16	118	0.73	23.3
1895	411	2.22	94	0.57	22.8
1896	426	2.57	82	0.49	19.2
1897	614	3.69	108	0.65	17.6
1898	791	4.74	120	0.71	15.1
1899	606	3.61	63	0.37	10.4
1900	306	1.81	32	0.10	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	0.19	10.3

The case-rate in the sub-districts in 1903 was as follows:—East Battersea, 1.11; North-West Battersea, 2.72; South-West Battersea, 1.28.

In the County of London the case-rate was 1.67, the death-rate 0.16, and the case-mortality 9.5 per cent.

The number of cases removed to hospital was 231, or 81.9 per cent. of the total number of cases notified. In 1902 the percentage of cases removed to hospital was 73.4, and in 1901 78.7. The percentage of cases removed in the sub-districts was as follows:—East Battersea, 76.8, North-West Battersea, 91.1; South-West Battersea, 69.2. Seventeen deaths occurred in hospital and 12 at home, the case-mortality at hospital and at home being 7.3 and 23.5 respectively.

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

dbush			Age	PERIO	DS-	YEARS.				
	Under 1	1-2	2-3	3-4	4-5	5-10	10-15	15-25	25-65	At all ages.
Cases	7	13	23	19	31	124	30	19	16	282
Deaths	I	6	3	3	II	4	I			29

The total number of houses invaded by Diphtheria was 251. In 38 houses the drainage was defective, and in 72 insanitary conditions other than drainage defects were found.

In 29 cases a history of direct personal infection was obtained. In addition to these, 8 cases imported the disease from other districts, 8 cases occurred in scarlet fever convalescents in hospital and 11 cases were possibly return cases. Twenty-five cases notified as suffering from Diphtheria and removed to hospital were found not to be so suffering and were returned home.

Ninety-five bacteriological examinations were made, 24 of which gave a positive and 71 a negative result.

Return cases of Scarlet Fever and Diphtheria.

Twenty-four cases of Scarlet Fever occurred at perious varying from 2 to 29 days after the return of a previous patient from hospital. In 22 cases the first patient had had Scarlet Fever, and in 2 cases Diphtheria. Eleven cases of Diphtheria occurred under similar circumstances, the primary case having suffered from Diphtheria in 5 and from Scarlet Fever in 6 instances. Although no other source of infection could be traced in any of these cases it is probable that in some of them the return of the first case before the infection of the second was merely a coincidence. In some instances, however, there appeared to be a causal relationship between the two cases. It is not surprising that this should be so. It is impossible to thoroughly disinfect a human being as one

disinfects a blanket, and in the present imperfect state of our knowledge of the sources of infection in Scarlet Fever the absolute prevention of "return cases" appears hardly practicable. For some time past the London Medical Officers of Health have endeavoured to induce the Metropolitan Asylums Board to furnish them with the dates on which it was proposed to discharge from hospital recovered cases of Scarlet Fever and Diphtheria, and early in 1903 the Board arranged that this should be done. The first intimation of discharge was received in Battersea on March 13th, and since then it has been a duty of the Lady Sanitary Inspector to visit the homes to which recovered patients are to return and to advise the mothers to take certain precautions, for instance, not to allow the child to sleep with other children soon after his return. She also ascertains to what school it is proposed to send the patient, and a letter is then addressed to the Head Teacher requesting that the child be excluded from school for a fortnight after his return home. This procedure appears to have been beneficial. Of the 35 cases which occurred during the year, 16 occurred before and 19 after March 13th, when the first intimation of discharge was received, and in 8 of the latter cases the house was not visited owing to pressure of other work.

Enteric Fever

The case-rate, death-rate and case-mortality from Enteric Fever since 1891 are set out below:—

Year.	Cases.	Case-rate per 1,000 population.	Deaths.	Death-rate per 1,000 population.	Case- mortality per cent.
1891	118	0.78	23	0.12	19.5
1892	82	0.23	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	III	0.67	17	0.10	15.4
1897	95	0.57	18	0.10	190
1898	94	0.26	15	0.08	16.0
1899	157	0.93	39	0.23	24.9
1900	206	1.55	32	0.10	15.2
1901	90	0.23	18	0.10	20.0
1902	88	0.21	16	0.00	18.2
1903	85	0.49	17	0.09	20.0

The reduction in Enteric Fever prevalence and mortality during the last few years, to which attention was called in previous annual reports, was maintained in 1903, both the case-rate and death-rate being exceptionally low.

The death-rate and case-rate in the sub-districts are set out below:—

	se-rate per population.	th-rate per population.
East Battersea	 0.42	 0.02
North-West Battersea	 0.70	 0.18
South-West Battersea	 0:37	 0.02

In the County of London the case-rate was 0.50, and the death-rate '07.

Fifty-nine cases, or 69.4 per cent. of the total were removed to hospital, compared with 73.8 per cent. in 1902, and 64.4 per cent. in 1901.

On 21st May, the Medical Officer of Health for the City of London informed me that he had ascertained that a number of disused army blankets had been supplied to certain addresses in Battersea by two wholesale firms in the City, and that blankets from the same source had been found to be infected with the typhoid fever bacillus and had, in fact, given rise to an outbreak of typhoid fever. It appears that these blankets had been used by the troops during the South African war, and from their appearance it was evident that many had been used in hospital. After the war the blankets had been sold without previous disinfection, and many found their way back to England. The number of these blankets discovered in Battersea was 124, and all were promptly removed to the Council's Disinfection Station and thoroughly disinfected. The Council decided to charge the War Office with the cost of disinfection and submitted an account for £,2 4s., which was paid by the War Office in due course. Special enquiries in this connection were made into all the cases of typhoid fever notified during the first half of the year, but no facts connecting the disease with the returned army blankets could be found.

The number of houses invaded by the disease was 79. In 10 houses the drainage was found to be defective, and in 19 houses defects other than drainage defects were found to exist.

Facilities for bacteriological diagnosis are supplied gratis by the Council to all medical practitioners in Battersea. Each practitioner is supplied with an outfit containing appliances for taking a specimen of blood for examination by the Widal test. The practitioner is apprised of the result of the examination by telegram, and the outfit is returned re-filled. 51 doubtful cases were examined, with a positive result in 24, and a negative result in 27 cases.

Puerperal Fever.

The number of cases notified was 7, that number being 3 below the decennial average. 15 cases were notified in 1902 and 8 cases in 1901. The case-rate was '04, or '02 below the mean case-rate for the preceding ten years, which was '06. Five cases were fatal. The death-rate was '02, or '02 below the decennial average, '04. The death-rate for London was '04. Four cases occurred in East Battersea, 2 in North-West Battersea, and 1 in South-West Battersea.

Puerperal Fever is now considerably less prevalent than was the case in the early part of the preceding decennium, as is shown by Table XI. In each case the nurse attending upon the patient was cautioned personally by the Medical Officer of Health against attending parturient women until after a period of three to four weeks. The clothing of the nurse was disinfected after every case.

Erysipelas.

One hundred and forty-eight cases were notified, 11 of which were fatal. The case-rate was '85, or '58 below the decennial average, and the death-rate '06, or '02 below the decennial average. 48 cases were removed to hospital, the majority going to Union infirmaries, and the remainder to general hospitals.

Measles.

The deaths from this disease numbered 107, or 13 above the decennial average. 79 deaths occurred in East Battersea, 22 in North-West Battersea, and 6 in South-West Battersea.

The death-rate was '61, as compared with '62, the mean death-rate for the preceding ten years, and '44, the death-rate in the County of London. The death-rate in the sub-districts was as follows:—East Battersea 1:07, North-West Battersea '44, South-West Battersea '11.

Twenty-eight deaths were of infants under one year, 78 of children from one to five years. No deaths occurred from five to ten years.

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

First quarter			20
Second ,,			55
Third ,,	***	***	18
Fourth ,,			14

The mortality from Measles in 1903, though lower than the decennial average, was heavy, and as will be seen on referring to Table X, the disease caused considerably more deaths than all the notifiable diseases put together. Unfortunately, the mortality does not tend to diminish. Many deaths from Measles are really due to the serious pulmonary affections, bronchitis and broncho-pneumonia, which often complicate the disease, particularly in patients who are not carefully nursed. There is a tendency in many quarters to make light of Measles, and to treat it as a disease requiring but little attention. This ignorance is undoubtedly the source of many deaths.

On January 20th the London County Council made an Order which had the effect of applying to Measles practically all the provisions of the Public Health (London) Act, 1891, relating to the prevention of infectious disease except notification. This order came in force on April 1st. Early in the year the Health Committee considered the question of disinfection after Measles under the order, and it was at first decided to disinfect only after special cases, but after reconsideration it was decided to disinfect in all cases coming to the knowledge of the Medical Officer of Health. Although Measles is not a notifiable disease, a considerable number of cases are reported to the Medical Officer by the head teachers of elementary schools. Every case reported is now visited by an inspector, who endeavours to secure such measures of isolation as are possible. The following leaflet is handed to the person responsible for the care of the patient:-

An important alteration in the law relating to Measles has lately been made, the main provisions of which are set out below. Any persons offending against these provisions becomes liable to a heavy penalty.

- 1. A person in charge of a patient suffering from Measles must not place the patient in any public conveyance, or expose the patient in any street, public place, shop or inn.
- 2. It is illegal to give, lend, sell, transmit, remove or expose, without previous disinfection, any bedding, clothing or other articles which have been exposed to infection from Measles.
- 3. A person must not knowingly cast, or cause or permit to be cast into any ashpit any rubbish infected by Measles without previous disinfection.
- 4. A person must not knowingly let a house or part of a house in which any person has been suffering from Measles until the premises and all articles therein liable to retain infection have been disinfected.
- 5. A person ceasing to occupy a house or part of a house in which any person has within six weeks previously been suffering from Measles must have the premises disinfected or give notice of the disease to the owner or master of the house.

The above provisions also apply to the following diseases:—Small-pox, scarlet fever, diphtheria, typhoid fever, puerperal fever, and erysipelas.

Measles is a very serious and fatal disease. Last year there were, in Battersea, 99 deaths from Measles as against 82 from small-pox, scarlet fever, diphtheria and typhoid fever put together. Bronchitis and inflammation of the lungs are common complications, and cause many deaths. It is a great mistake to treat Measles as a disease of little consequence.

When a case of Measles has occurred in a house, a careful look-out should be kept on the other children, so that on the first appearance of illness they may be kept at home and properly treated.

When a patient is suffering from Measles, no neighbour's child, or neighbour accompanied by a child, should be admitted into the house, and the provisions set out above must be strictly observed.

By order,

Medical Officer of Health.

MUNICIPAL BUILDINGS, LAVENDER HILL, S.W.

Whooping Cough.

Whooping Cough caused 79 deaths during the year, or 5 less than the decennial average. The deaths were equivalent to a death-rate of '45 per 1,000, or '05 lower than the mean death-rate for the preceding ten years, which was '5. The death-rate in the County of London was '35.

The death-rate in the sub-districts was as follows:— East Battersea '50, North-West Battersea '60, South-West Battersea '23.

Thirty-two deaths were of infants under one year, and 46 of children from one to five. The deaths in each quarter of the year were as follows:—

First quarter	el als		27
Second ,,		·pg-i	24
Third ,,			16
Fourth ,,			12

Whooping Cough in 1902 caused more deaths than any of the notifiable diseases, but its fatality was rather less than in the previous year. Like measles, Whooping Cough is fatal chiefly from pulmonary complications, which could in a large measure be guarded against by proper care and attention. Like measles also, Whooping Cough too often leaves the respiratory organs so seriously impaired that they are rendered peculiarly susceptible to the bacillus of tuberculosis.

Diarrhœa.

Diarrhœa was the cause of 92 deaths, including 31 registered as due to epidemic or zymotic enteritis. The death-rate was '53 per 1,000, or '32 below the decennial average '85. The death-rate in the County of London was '63.

The number of deaths and the death-rate in the sub-districts are set out below:—

		No. of Deaths.	Death-rate per 1,000.
East Battersea	 	44	.60
North-West Battersea	 	41	.82
South-West Battersea	 	7	.13

Seventy-eight deaths, or 84.7 per cent. of the whole, were of infants under one year, and 9 deaths were of children aged from one to five years.

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

First quarter	 	7
Second ,,	 	-
Third ,,	 	64
Fourth ,,	 	21

The death-rate from diarrhoea in 1903 was the lowest ever recorded in Battersea, the lowest previous rate being '57 in 1902. This comparatively low rate is largely explained by the meteorological conditions prevailing during the summer. Diarrhoea is a disease which is closely dependent on temperature and rainfall, and attains its greatest virulence in hot, dry weather. The last two summers have been very wet and cold, and the mortality from diarrhoea has been, consequently, exceptionally low. The conditions favouring a high mortality from diarrhoea are dealt with in greater detail in the section devoted to infantile mortality.

Tuberculosis.

The following table shows the death-rate from Phthisis and other Tubercular Diseases per 100,000 persons in each year since 1892.

TABLE XVI.

Year.	Deaths from Phthisis per 100,000 persons.	Deaths from other Tubercular Diseases per 100,000 persons.
1892	135	18
1893	143	82
1894	137	53
1895	151	65
1896	146	79
1897	151	62
1898	154	71
1899	162	56
1900	155	53
1901	146	60
1902	129	44
1903	128	51

The total number of deaths from Tuberculosis in 1903 was 311, as compared with 299 in 1901. The deaths from the various forms of the disease were as follows:—

Tuberculosis of the Lungs (Consumption)	 222
Tuberculosis of the Brain	 33
Tuberculosis of the Larynx .*.	 4
Abdominal Tuberculosis	 17
General Tuberculosis	 27
Other forms of Tuberculosis	 8

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

TABLE XVII.

DISTRICT.	PHTHISIS.		OTHER TUBER- CULAR DISEASES.		TOTAL.	
District.	No. of Deaths.	Rate.	No. of Deaths.	Rate.	No. of Deaths.	Rate.
East Battersea	93	1.56	32	.43	125	1.70
Nth -West) Battersea	76	1.23	42	.84	118	2*37
SthWest Battersea	53	1.04	15	•29	68	1.34
The Borough	222	1.28	. 89	.21	311	1.79

The deaths from Tuberculosis formed 12 per cent. of the total deaths, and the disease caused a greater mortality than all the "zymotic" diseases, with the exception of diarrhœa, put together.

Disinfection was carried out in 43 per cent. of the fatal cases occurring in private houses.

Forty-three specimens of sputum from doubtful cases of consumption were submitted to bacteriological examination, the result being positive in 13 and negative in 30 cases.

Cancer.

Table XVIII. gives the deaths and the death-rate from Cancer during the last ten years. The table appears to show an increased mortality from Cancer during the decennium, but it is doubtful whether this has really been the case. Probably much, if not all, of the supposed increase is due to improved diagnosis and certification.

TABLE XVIII.

Year.	Deaths.	Deaths per 100,000 persons.
1893	85	54
1894	110	62
1895	114	70
1896	105	63
1897	104	62
1898	122	73
1899	113	67
1900	130	77
1901	117	69
1902	151	88
Average 1893-1902.	114	68
1903	141	81

The anatomical distribution of the disease in both sexes is set out below. 12 deaths were certified as due to sarcoma, the remainder to cancer, carcinoma or malignant disease.

TABLE XIX.

Situation.	to been	Males.	Females.	Total.
Mouth and Jaw	al gam.	7	20	7
Larynx		2	I	3
Stomach and Œsophagu	15	6	14	20
Liver	a suite	6	9	15
Bowels	· · · · · · · · · · · · · · · · · · ·	2	Date she	2
Rectum		7	8	15
Bladder		2	3	5
Breast		-	23	23
Uterus		-	18	18
Ovary		-	4	4
Thorax		2	2	4
Abdomen		4	3	7
Other situations		12	6	18
Totals		50	91	141

At the present time Cancer is, unfortunately, beyond the scope of preventive medicine. Practically nothing is known of the conditions which give rise to the disease, and until something is known of the causes, nothing can be done in the way of prevention. Cancer research is now being vigorously prosecuted all over the world, and we may be on the eve of some great discovery which will throw light on our present ignorance. Unfortunately, the most recent research appears to discredit the parasite theory, and holds out no hope for preventive medicine.

Alcoholism.

Eleven deaths were returned as due to acute and chronic Alcoholism, 4 of the cases being males, and 7 females. 27 deaths (males 13, females 14) were due to cirrhosis of the liver, a disease which, in practically every case, is caused by alcohol. This gives a total of 38 cases in which alcohol was the cause of death, as against 29 in 1902, but there is no doubt that this number greatly understates the real mortality from Alcoholism. Deaths really due to this cause are usually certified under such headings as apoplexy, Bright's disease, heart disease, &c.

The mortality from alcohol cannot, therefore, be even approximately estimated from the death returns.

General Sanitary Administration.

General Sanitary Administration.

General Sanitary Administration.

Table XX. gives a summary of the work of the sanitary inspectors, so far as the work admits of tabulation.

TABLE XX.—SUMMARY OF SANITARY OPERATIONS FOR THE YEAR 1903.

THE REPORT OF THE PARTY.	AND SERVE TO LET	
Total Sanitary Operations 79356	Dust receptacles provided	912
Number of house inspections 30737	Leaky house-roofs and gutters	-
Bakehouse inspections 570 Bakehouse nuisances abated 58	repaired Houses supplied with water, and	1003
Bakehouse nuisances abated 58	Houses supplied with water, and	
Urinal—inspections 366 Do. altered, repaired, or water	fittings repaired Water closets supplied with water	229
laid on 87	or supply disconnected from	
Intimations served, under Sec. 3 4404	drinking water cisterns	857
Notices served under Sec. 4 1447	Cisterns covered, cleansed and	
Notices served under Sec. 62 & 65 978	repaired Keeping of animals in unfit state	822
Complaints received & attended to 2964 Number of houses disinfected 1180	discontinued	.66
Houses supplied with disinfectants 6381	Smoke observations	96
House drains flushed with disin-	Certificates of disinfection granted	1595
fectants after infectious	Houses inspected and certificates	-555
disease 1217 Overcrowding abated 77	granted (Sec. 48)	381
Overcrowding abated 77	Proceedings Ordered by Council	
Premises cleansed and repaired 1750 Drains tested By smoke 1328	and Health Committee Summonses issued	3441
	Magisterial Orders obtained and	113
Drains cleansed and repaired 5771	enforced	90
Drains relaid 734	Factories & Workshops inspec-	9
Frontage drains constructed or	Sanitary conveniences provided	4623
re-constructed 146	Sanitary conveniences provided	
Soil-pipes and drains ventilated 746 Sink and rain water pipes dis-	or improvements effected in Factories & Workshops (Sec.	
connected or repaired 645		168
Water Closets cleansed & repaired 1017	Underground sleeping rooms	
Cesspools abolished 3	disused	55
Mews & Stables drained & paved 42	Gipsy van inspections	232
Yards drained and paved 1144 Accumulations of manure and	Drains laid to new houses and tenements	362
other obnoxious matter re-	Samples taken under the Sale of	302
moved or proper receptacles	Food and Drugs Acts	500
provided 113	Other Sanitary operations	137

House-to-House Inspection.

The number of houses inspected in house-to-house inspection was 2,670 as against 1,740 in 1902. In 1,660 houses defects were found, for which intimations were served. Systematic house-to-house inspection is an important feature in sanitary work, and it is to be regretted that the calls on the staff in other directions made it impossible to give sufficient

TABLE XXI.—House-to-House Inspection.

EAST BATTE	RSE.	Α.	NORTH-WEST BA	ERSEA.	SOUTH-WEST BATTERSEA.			
Name of Road.		No. of houses inspected.	Name of Road.		No. of houses inspected.	Name of Road.		No. of houses inspected.
Beaufoy Road Brynmaer Road Chalmers Street Corunna Place Corunna Road Corunna Terrace Culvert Place Eversleigh Road Gaines Cottages Gideon Road Howie Street Lockington Road Morrison Street Motley Street Oulton Street Raywood Street Savona Street Sterndale Road Tyneham Road Wickersley Road Wycliffe Road		2 61 30 12 65 16 10 217 12 17 25 28 57 47 19 29 67 79 16 15 162	Barmore Street Benfield Street Bridge Road West Britannia Place Church Road Field's Place Freeland Street Granfield Street Gwynne Road Green Lane Hart Street Harroway Road Ingrave Street Orville Road Plough Road Somerset Street Totteridge Road Urswick Road Verona Street Wye Street Yelverton Road		39 5 29 141 23 26 65 90 4 11 32 64 40 38 15 33 44 45 56	Almeric Road Ashness Road Chatham Road Chatto Road Darley Road Dorothy Road Dulka Road Forthbridge Road Gorst Road Lindore Road Plough Road Plough Terrace Rush Hill Mews Sisters Avenue Stonells Road Taybridge Road Union Terrace		149 36 61 74 30 65 30 37 67
Tota	al	986	Tota	1	875	Tota	ıl	809

time to this work. With the increased staff lately sanctioned by the Council, the number of houses inspected in this way should be materially increased during 1904.

The following table gives the number of houses inspected in each of the three sub-districts in 1903.

Houses Let in Lodgings.

The number of houses on the register as houses let in lodgings at the beginning of the year was 82, and during the year 39 were added, making a total of 121. Had the revised bye-laws been sanctioned during 1903 the number of houses registered would have been materially increased.

Some misconception exists as to the object aimed at by those who advocate increased administrative action under the bye-laws relating to houses let in lodgings. That object is to bring under systematic supervision and effective sanitary regulation a class of house which is well known to all who are acquainted with the conditions under which the poor are housed in London. This is the tenement house, especially the house of three or more stories originally built for one family, but now, the character of the locality having changed, occupied by three or more families. It is very seldom that any structural alterations are carried out to fit these houses for occupation by several families, and their sanitary, or rather, insanitary, condition is often deplorable.

It is, however, impossible to frame bye-laws to apply to all the houses which it is desirable to register without also including within the scope of the bye-laws houses which, though technically lodging houses, are occupied by an entirely different class of tenants and do not require frequent inspection. To apply the provisions of the bye-laws to the latter class of houses would be a waste of energy, and would necessitate a much larger number of inspectors than any Sanitary Authority is ever likely to think of employing. The object of the bye-laws, in short, is to bring a special sanitary code to bear on a class of house which is well known to need it, and the work of supervising such houses is enough to tax the energy of the most zealous Sanitary Authority.

The chief advantages which can be secured by registration are as follows:—

(1) The sanitary officers have absolute power to enter a registered house at any time. Entry into an ordinary house

can only be enforced by a Justice's Order, and a magistrate will not grant such order unless it be proved to him that there is reasonable cause to suspect nuisance on the premises. Even then, unless the suspected nuisance be overcrowding, the officer can only enter between 6 a.m. and 9 p.m., whereas for certain purposes, e.g., the detection of small-pox cases, it is important to have power to enter at any time.

- (2) The bye-laws lay down a minimum standard of cubic space. In the new bye-laws drafted by the Council, which have received the preliminary approval of the Local Government Board, the standard is 400 cubic feet per adult in rooms occupied exclusively as sleeping rooms, and 500 cubic feet in rooms used for living and sleeping. This bye-law will be found of great service in dealing with overcrowding. In an ordinary house there is no legal standard of cubic space, and a magistrate can refuse to convict, even if the above standards are not maintained.
- (3) Definite provisions as to cleansing are laid down. These have been found most useful in places where the byelaws have been enforced. There is a large number of houses in Battersea where definite provisions as to periodical cleansing would be of great benefit to the inmates.
- (4) The procedure in dealing with overcrowding, dirty houses, etc., is greatly simplified. At present if overcrowding, for instance, is found, the usual procedure is to serve a notice for abatement. This has effect on that particular house, but the displaced persons merely overcrowd elsewhere. In a registered house the Sanitary Authority can prosecute the landlord direct for a breach of the bye-laws, and apply for penalties. This procedure should be adopted in cases of overcrowding, unless there are very good reasons to the contrary. It has the effect of giving the landlord a pecuniary interest in the prevention of overcrowding, and converts him, practically, into a colleague of the sanitary inspector.

The bye-laws in force in Battersea before the present year were made in 1893, and from the difficulties experienced in administering their provisions it was evident that they required amendment in several respects. It has happened, for instance, that landlords have taken advantage of the clause exempting houses where the rent payable by each lodger was not less than seven shillings and sixpence a week in unfurnished rooms and ten shillings a week in furnished rooms, to raise the rents and thus remove the house from the operation of the bye-laws.

Another defect was that under the old bye-laws the person responsible for the cleansing and structural condition of the premises was the landlord, who was defined as the person "by whom or on whose behalf such house or part of a house is let in lodgings or for occupation by members of more than one family, or who for the time being receives, or is entitled to receive, the profits arising from such letting." In many cases the "landlord" would be a weekly tenant sub-letting the house, too poor to undertake structural repairs or to pay the fines imposed for violating the bye-laws. In these cases it would be preferable to proceed against the owner under the ordinary provisions of the Public Health Act than to take action under the bye-laws. The standard of cubic space was low, viz., 300 cubic feet per adult in a bedroom and 400 cubic feet in a room used for both living and sleeping.

In March, 1903, the Council submitted to the Local Government Board a new set of bye-laws, in which the term "landlord" was so defined as to mean the owner of the premises, and the term "master" (afterwards altered, at the suggestion of the Board, to "keeper") was introduced and defined to mean the person letting the house in lodgings and receiving the profits of such letting. In the new bye-laws the owner became responsible for the cleansing and structural condition, and the keeper for the prevention of overcrowding and the proper ordering of the premises. In many cases, of course, the landlord and keeper would be the same person.

The standard of air space was raised to 400 cubic feet per adult in a sleeping room and 500 cubic feet in a room used for living and sleeping, the corresponding figures for children under ten being 200 and 250 cubic feet respectively.

The exemption clause was omitted, as the Council were of opinion that they should have a wide discretion in the matter of registration, and that an exemption clause afforded a loophole for escape for owners of houses which needed registration. The Board, while accepting the other provisions of the bye-laws, objected to the omission of the exemption clause and suggested that an amendment of the clause would meet the case. The Council then obtained particulars as to provisions for exemption in the bye-laws of the other Metropolitan Boroughs, and the information obtained is set out below.

- 1. Boroughs whose bye-laws contain no exemption clause:—Bermondsey, Deptford, Kensington, St. Marylebone, and Stepney.
- 2. Boroughs whose bye-laws contain an exemption clause based on the rental of tenements:-

				RE	NT.	
			Tene	mished ments. d.		ments.
Battersea			 7	6	. 10	0
Camberwell			 8	6	10	0
City of London	n	***	 10	0	12	6
Hackney	***	***	 6	0	8	0
Hammersmith		***	 5	0	8	0
Poplar			 10	0	12	6
Southwark			 4	0	6	0
Wandsworth	***		 8	0	10	0
Westminster			 15	0	18	0

3. Boroughs where all houses let in lodgings are exempt until registered by the Sanitary Authority, or until "the landlord has been required in pursuance of bye-law 5, to furnish the statement of particulars therein mentioned":—

Bethnal Green, Chelsea, Hampstead, Islington, Lambeth, Lewisham, St. Pancras, and Shoreditch.

- 4. In the Finsbury bye-laws houses are exempt "when the landlord resides upon the premises, and the letting by such landlord is to not more than one lodger."
 - 5. The Paddington exemption clause runs as follows:—
 "In any of the following cases a lodging-house shall be exempt from the operation of the bye-laws of 1894, that is to say:—
 - '(a) Where the landlord himself resides on the premises, and the sub-letting by such landlord is to not more than one lodger.
 - '(b) Where the rent or charge payable by each lodger occupying not more than one room, and exclusive of any charge for the use by such lodger of any furniture, is at the rate of four shillings and sixpence per week and upwards, and such room is occupied by more than two persons.
 - '(c) Where the rent or charge payable by each lodger occupying not more than one room, and inclusive of any charge for the use by such lodger lodger of any furniture, is at the rate of six shillings per week and upwards, and such room is occupied by not more than two persons.
 - '(d) Where the rent or charge payable by each lodger occupying two or more rooms, and exclusive of any charge for the use by such lodger of any furniture, is at the rate of seven shillings and sixpence per week and upwards.
 - '(e) Where the rent or charge payable by each lodger occupying two or more rooms, and inclusive of any charge for the use by such lodger of any furniture, is at the rate of ten shillings per week and upwards.'"

The Council asked the Board to sanction an exemption clause similar to that in the Bethnal Green bye-laws, but the Board declined, and suggested the following clause, which was accepted by the Council.

A lodging house shall be exempt from the operation of these bye-laws where the keeper resides on the premises, and where, in addition to such keeper and his family, there are not more than two persons lodging in such house.

The revised bye-laws now await the final sanction of the Local Government Board.

Lady Sanitary Inspector.

Miss Dawson, the Lady Sanitary Inspector, did excellent work during the year and thoroughly justified her appointment. Her chief duties were in connection with workshops, workplaces and out-workers' premises where female labour is employed, but valuable work was done in other directions.

485 houses where deaths of infants under one year occurred were visited by Miss Dawson, and enquiries were made as to the conditions under which the children were brought up, particularly the methods of feeding adopted. The sanitary condition of these premises was investigated, and any defects found remedied. 224 homes to which children, discharged from hospital after recovery from scarlet fever or diphtheria, were about to return were visited, and the mothers advised to keep the children as far as possible separate from other children for a short time after their return home, so as to prevent the occurrence of "return cases."

810 children fed on the Council's milk were visited, and particulars were ascertained as to their progress. Instruction was also given, where necessary, as to the proper method of using the milk.

Miss Dawson also inspected 37 private schools, and made the necessary enquiries in 4 cases of puerperal fever notified.

Special inspections of public sanitary conveniences for women were made from time to time.

The following is a statement of the work done by the Lady Inspector, so far as it admits of tabulation:

New workshops inspected and registered		84
Workshop re-inspections		598
Cards distributed showing number of person	ons	
legally employed in workrooms		112
Houses visited which on enquiry were found	not	
to be workshops		200
Workplace inspections		104
Inspections of out-workers' premises		88
School inspections		41
School-rooms measured		20
Visits to consumers of Council's milk		810
Premises inspected after infantile deaths		485
Premises re-inspected after infantile deaths		101
Visits to premises to which children recover	red	
from infectious disease returned		224
Cases of puerperal fever investigated		4
Other inspections		14.
Written intimations issued		223
Statutory notices issued		22

The work of disinfection last year was not so heavy as in 1902 as there were fewer cases of infectious disease notified, especially fewer cases of small-pox. Still, the work done was

Disinfection.

considerable, as will be seen from the tables given below.

The total number of rooms disinfected was 1,616. most cases the disinfectant used was formic aldehyde, either volatilized in an Alformant lamp or, more usually, applied in solution as "formalin" by means of a spray. In verminous rooms sulphur dioxide was used. After small-pox cases the rooms were first disinfected by formic aldehyde and then the walls were stripped of paper and washed down before and after stripping with a solution of formalin. In all cases the process of disinfection included the removal of all bedding, clothing, and fabrics generally from the infected rooms, and the disinfection of these articles by steam in the Equifex machines at the Council's Disinfection Station. Infected articles which would be destroyed by steam, such as boots, feathers, etc., were disinfected by formic aldehyde in a specially constructed zinc-lined chamber.

The following table shows the number of premises and rooms disinfected during each month of 1903.

TABLE XXII.

	Smal	lpox.	Sca	rlet ver.	Diph	theria		eric ver.	Erysi	ipelas.	Puer	peral ver.	Pht	hisis.		ther eases.	To	otal.
The later	Premises.	Rooms.	Premises.	Rooms.	Premises.	Rooms.	Premises.	Rooms.	Premises.	Rooms.	Premises.	Rooms.	Premises.	Rooms.	Premises.	Rooms.	Premises.	Rooms.
February March April May June August September October November	 6 10 3 9 1	 46 81 27 61 9	70 42 45 41 33 40 33 31 32 19 34 34	79 48 53 45 39 50 37 41 45 21 43 49	37 32 20 22 17 21 27 17 23 29 25 27	40 45 26 24 20 24 32 19 27 30 30 28	6 2 7 2 1 3 8 8 16 16 12	6 2 7 4 1 3 8 8 17 17 13	16 8 12 10 6 4 3 9 9 11 9	17 9 14 11 6 4 3 9 10 11 11 16	I I I 3 I I I	2 I I 3 I I	10 11 10 16 14 13 12 6 8 15 7	15 14 11 20 17 15 14 6 8 20 7	6 2 6 10 15 7 2 6 7 4 6	 6 2 6 12 20 16 16 9 7 0	140 102 96 103 91 99 91 80 87 97 96 105	159 125 113 156 176 143 111 158 116 106 119
Totals	 29	224	454	550	297	345	84	89	109	121	8	9	135	161	71	117	1,187	1,616

Table XXIII. shows the number of articles removed and disinfected at the Disinfection Station.

TABLE XXIII.

		First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Total for year 1903.
Beds		392	308	291	290	1,281
Blankets		939	1,008	604	720	3,271
Bolsters		342	271	250	246	1,109
Carpets		384	296	289	293	1,262
Cushions		418	324	347	334	1,423
Mattresses	.,.	254	254	191	219	918
Palliasses		457	375	298	275	1,405
Pillows		816	691	596	625	2,728
Quilts		571	508	394	447	1,920
Sheets		821	785	629	691	2,926
Wearing Apparel,	&c.	13,457	12,132	10,619	8,551	44,759
Totals		18,851	16,952	14,508	12,691	63,002

The whole work of disinfection was carried out under the immediate supervision of Mr. Woodhouse, the Disinfection Superintendent, and was very well done. The Station, which was opened on March 25th, 1902, has a separate staff on either side, the infected side is completely separated from the non-infected portion of the building and no interchange of duties is allowed to occur between the workers on opposite sides.

The total number of articles of clothing, etc., removed and disinfected was 63,002, and in only 4 cases was any

cases it was proved to the satisfaction of the owner that there was no foundation for complaint, while in the remaining instance a few jacket buttons which had melted in the steam were replaced at a cost of sixpence.

The articles disinfected included the 124 Army blankets which are mentioned on page 52.

Many complaints were, however, received that soiled clothing had been sent home after disinfection unwashed, and until means for washing such articles are provided similiar complaints will continue to be made. The utility of the Station would be greatly increased if a small laundry were added to it so that the infected articles could, where necessary, be thoroughly washed and returned home cleansed as well as disinfected. It is to be hoped that during the present year steps will be taken to provide this much-needed addition to what is otherwise an admirably planned and equipped Disinfection Station.

The total weight of the articles removed and disinfected at the Disinfection Station during the year 1903 was 125 tons 1 qr. 2 lbs.

The disinfection of this weight of articles at the charges made by the contractor formerly employed by the Council would have cost the Council £1,875 4s. od. The actual cost is set out in detail below:—

	£	S.	d.
Wages	 696	13	4
Hire of Council's horses	 200	15	0
Fuel	 43	7	6
Water and Electric Light	 7	17	6
Rates and Taxes	 62	18	I
Insurance and Telephone	 11	13	0
Stores	 53	1	II
Interest on Loan	 104	10	0
Depreciation-			
Buildings, Machinery, etc.	 154	6	5
	£1,335	3	7
			-

It will be seen that by placing the whole work of disinfection in the hands of their responsible officers the Council saved no less than £540 os. 5d. in 1903. This result is highly creditable to the Superintendent, Mr. Woodhouse, and I am glad to take this opportunity of acknowledging the valuable services he has rendered to the Council during the year.

Temporary Shelter or House Accommodation.

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

The sub-section is as follows:-

"The Sanitary Authority shall provide, free of charge,

"temporary shelter or house accommodation with any

"necessary attendants for the members of any family

"in which any dangerous infectious disease has

"appeared, who have been compelled to leave their

"dwellings for the purpose of enabling such dwellings

"to be disinfected by the Sanitary Authority."

The need of such accommodation was much felt during the outbreak of small-pox. In many instances the work of disinfection was carried on under considerable difficulty, and in the poorer districts much hardship was inflicted on the inmates of dwellings under disinfection.

At an early stage in the small-pox outbreak the Health Committee decided to recommend the Council to erect a shelter, but some difficulty was experienced in securing a good site and in arranging for the erection of a suitable building. Eventually, it was decided to provide accommodation for three families, and a residence for the Mortuary Keeper in a two-storey building on the piece of ground adjoining the public Mortuary. An excellent shelter was designed by Mr. Eaton, the Borough Architect, at an estimated cost of £996, and application was made to the Local Government Board for their sanction for a loan for this amount. The Board held an enquiry on July 20th, and suggested certain structural

alterations for the more complete separation of the tenements. These alterations increased the cost of the building by £60, so that the amount of the loan for which the sanction of the Board was received on 9th October was £1,056. The building is now rapidly approaching completion.

Mortuary.

The number of bodies removed to the Mortuary in Sheepcote Lane was 223. 213 were inquest cases, 8 bodies of patients dying from infectious disease, and 7 bodies removed for sanitary reasons from crowded homes.

The following table gives the number of bodies removed to the Mortuary in each year since 1892:—

TABLE XXIV.

Year.	Number of bodies received in the Mortuary.	Number of bodies upon which post-mortem examinations were held.	Number of bodies upon which Coroner's inquests were held.
1892	193	163	187
1893	243	200	237
1894	224	197	208
1895	259	210	232
1896	293	242	278
1897	289	246	273
1898	294	238	267
1899	274	221	260
1900	291	234	273
1901	321	271	304
1902	239	198	224
1903	223	207	213

The largest number of bodies received during any one day of the year was on the 30th April, when four bodies were admitted.

Inquests were held in 213 cases, and verdicts were returned as follows:—

NATURAL CAUSES					117
OPEN VERDICT-					
Found dead				1	
Found drowned	i			5	
				-	6
ACCIDENTAL—					
Misadventure				4	
Suffocation in 1	ped wit	h parents		I	
Falls, &c.		1		21	
Run over in st	reets a	and on rai	ilway	8	
Burns and sca	lds			9	
Poisoning				2	
Asphyxia				11	
Want of attent	ion at	birth	***	I	
Convulsions				1	
Improper feedi	ng			4	
Other injuries,	&c.			5	
				-	67
Suicide—					
Gun shot				4	
Poisoning				10	
Hanging				6	
Drowning				1	
				-	21
Номісіре—					
Strangulation					
Strangulation	***		•••	2	
				-	2
				T-+ 1	
				Total	213

Van Dwellings.

There were 77 dwellings of this description in Battersea in 1903, situated as follows:—

SITUATION OF VANS.	No. of Vans.		OF PANTS.
The second secon	VANS.	Males.	Females.
Mill's Yard, 88 Sheepcote Lane	4	4	8
,, 80 ,,	4	6	2
Gurling's Yard, High Street	. 8	16	14
Barnett's Yard, York Road	10	27	32
Manley's Yard, Falcon Road	2	3	4
,, Cabul Road	18	19	27
Donovan's Ground, ,,	16	22	20
Mill's Yard, Culvert Road	15	21	23
Total	77	118	130

These dwellings, most of which are practically permanent, are regularly supervised and inspected. During 1903 six vans were found to be overcrowded, the standard of air space taken being that laid down in the bye-laws, viz., 150 cubic feet for each person above, and 75 cubic feet for each person below 12 years of age. It has been found that sources of nuisance arise from the defective paving of the yards in which these vans were placed. The ground is specially liable to pollution unless great care is exercised, and the bye-laws now in force in regard to van dwellings do not contain adequate provision for the prevention of insanitary conditions in this connection. These bye-laws were made by the Board of Works for the Wandsworth District in 1887 when Battersea formed a part of that district, and their provisions are inadequate to deal with the conditions which now obtain.

The standard of air space laid down is much too small, considering that the places are now to all intents and purposes permanent dwellings. A set of revised bye-laws, embodying the most useful provisions of the old bye-laws has been drafted by the Council and submitted to the Local Government Board for sanction. The Board have these proposed bye-laws under consideration at the time of writing.

Common Lodging Houses.

The following is a list of the common lodging houses in Battersea:—

Premises.	Authorised number of lodgers.	Whether males or females.	Date registered.
75 Falcon Road	78	Males	March 1890
5 Sheepcote Lane	11	Males	July 1901
7 " "	10	Males	3)))
53 Surrey Lane	39	Females	May 1885
55 ,, ,,	36	Females	" "
57 ,, ,,	22	Males and Females	July 1895
59 ,, ,,	24	Males and Females	Opened since June 1903
89 ,, ,,	28	Males	August 1885
91 ,, ,,	30	Males	Nov. 1887
6 Orville Road	18	Males	June 1902

The common lodging houses are under the control of the London County Council, but they are visited from time to time by the officers of the Sanitary Authority in connection with drainage defects, cases of infectious disease, etc.

The London County Council (General Powers) Act, 1902, gives the County Council power to require the annual licensing

of these premises. This is a step in the right direction. The recent small-pox outbreak has demonstrated what a potent influence in the spread of disease the common lodging house is, and the more stringently these places are regulated the better will it be for the public health.

Block Dwellings.

The following is a list of the artizans dwellings of the "block" type in 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.	185
Lombard Dwellings	Lombard Road	Exors.of Francis Ravenscroft	36
Shaftesbury Chambers	Ashbury Road	Artizans, &c., Dwellings Co.	22

Durham Buildings were opened for occupation during 1903.

All these blocks, except Lombard Dwellings, have an outer gate, but in no case is it locked during the night.

Offensive Trades.

The only premises on which offensive trades, other than the slaughtering of cattle, are carried on, are the following:—

SOAP BOILING.

Price's Patent Candle Co., York Road.

FAT MELTING.

Price's Patent Candle Co., York Road. Bowley and Son, Wellington Road.

Smoke Nuisance.

Emission of black smoke was reported on 126 occasions. 117 reports were made by the Council's inspectors, 2 by the London County Council, and 7 by the Coal Smoke Abatement Society. 84 intimations and 16 statutory notices were served, and 17 summonses were taken out. As a result of the proceedings arising out of these summonses, penalties amounting with costs to £18 7s. were imposed.

Customs and Inland Revenue Acts.

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

Year.	N	o. of Certificates Granted.	Year.	No. of Certificates Granted.
1890	***	243	1897	 27
1891	***	113	1898	 82
1892		165	1899	 68
1893		201	1900	 93
1894		91	1901	 32
1895		91	1902	 28
1896		120	1903	 97

The total number of houses inspected by the Medical Officer of Health during 1903 was 97, all of which, except 6, were houses erected by the Council on the Latchmere Estate.

Châlets.

The following châlets are now in use, under the control of the Health Committee:—

- (1) Lavender Hill, at junction with Falcon Road.
- (2) Battersea Park Road, at corner of Cabul Road.
- (3) Victoria Road, by Victoria Suspension Bridge.
- (4) Victoria Circus (opened 1899).
- (5) York Road, at corner of Plough Road (opened 1900).
- (6) Bridge Road, at corner of Cambridge Road (opened 1902).

Each of the châlets is provided with free accommodation for both sexes, and has two lavatories, one for each sex, attached. There are also 9 public urinals maintained by the Borough Council at:—

Town Hall Road.

Nine Elms Lane (near steam-boat pier).

Do. (by Rifleman public-house).

Battersea Park Road (near S.E. & C.D. Railway Station).

Do. (near L.B. & S.C. Railway Station).

Forfar Road.
Church Dock, Church Road.
Wye Street.
Vicarage Road.

Urinal accommodation, accessible to the general public, is also provided at 97 public-houses.

The number of public conveniences in Battersea is therefore 112, and these are all kept under close supervision by the sanitary staff.

Ambulances.

The Council has for some years provided a wheeled hand-ambulance at the châlets in Battersea Park Road, Victoria Circus and Lavender Hill, and one is stationed at the corner of Nightingale Lane and Bolingbroke Grove. The ambulances are freely accessible to the public, and each is provided with splints and surgical dressings. The ambulances are not infrequently used, particularly by the police, to convey injured persons to hospital, and they are undoubtedly of considerable service to the district.

Water Supply.

The water supply of Battersea is derived from the Lambeth and the Southwark and Vauxhall Water Companies, the latter supplying the whole of the Borough except the southern part of the South-Western sub-district. During the year 14 samples were taken from the rising main service of each Company and submitted to the Public Analyst for analysis. The houses from the mains of which the samples were taken are given in the following table:—

DATE TAKEN.		Water	COMPANY.
		Lambeth.	Southwark & Vauxhall.
Jan.	30	55 Wroughton Road	22 Britannia Road
Feb.	20	44 Sarsfeld Road	2 Chivalry Road
March	27	110 Balham Park Road	72 Lavender Road
May	2	127 Chatham Road	37 Eversleigh Road
"	25	11 Honeywell Road	7 Lindore Road
June	23	24 Broomwood Road	52 St. Andrew's Street
"	27	10 Broomwood Gardens	10 Home Road
,,	29	158 Northcote Road	16 Kingsley Street
Aug.	5	92 Chatham Road	2 St. Philip Street
,,	26	112 Balham Park Road	44 Blondel Street
Sept.	30	34 Honeywell Road	31 Amies Street
Oct.	13	27 Gorst Road	55 Carpenter Street
"	31	133 Chatham Road	98 Grant Road
Dec.	3	2 Honeywell Road	Lancaster Lodge, Boling- broke Grove

According to the reports of the Public Analyst the water supplied by both Companies in the months of January, February, May, August and September, was of "fair" or "tolerably fair" quality; the Lambeth Company's water on 13th October and on 3rd December was of "tolerably fair" quality, and the samples of both Companies taken in March showed the water to be in a condition "approaching

inferiority." The Southwark and Vauxhall sample on 3rd December was of "very inferior," and that on 13th October, of "bad" quality, while the samples from both Companies in June and the latter part of October were certified to be of "very bad quality and quite unfit for public supply and for drinking purposes." In June and November numerous complaints of the bad quality of the water were received at the Municipal Buildings, and it was obvious, without any analysis, that the water was grossly polluted. Upon the receipt of the Public Analyst's reports in these months it was thought advisable to deliver a hand-bill to every house in the Borough advising householders to boil all water intended for drinking or cooking purposes.

The Council's dwellings on the Latchmere Estate are supplied with water from deep wells sunk near the Latchmere Baths. The water from these wells has been several times analysed and found to be of exceptionally good quality.

Slaughter Houses.

Under the London Government Act, 1899, the duty of inspecting slaughter-houses, cow-houses and milk-shops was transferred from the London County Council to the Borough Councils.

There are now 7 slaughter-houses in Battersea, all of which are frequently inspected. They are generally kept in a clean condition.

The following is a list of the premises licensed as slaughter-houses:—

205 St. John's Hill.

163 St. John's Hill.

351 York Road.

49 York Road.

345 Battersea Park Road.

235 Battersea Park Road.

96 Falcon Road.

The slaughter-houses were visited by a sub-committee of the Health Committee before the annual licensing meeting of the London County Council, and it was decided to oppose the renewal of the licence of the premises at 109 Bridge Road West should application for renewal be made, but as no application was made the licence lapsed. The premises at 351 York Road were licensed on the following conditions, viz., "that small cattle only are slaughtered at these premises, that the licensee does not sublet the slaughter-house to any other person, and that not more than 40 pigs are killed on the premises on any one day."

The number of slaughter-houses in Battersea is now 7 as against 9 in 1901. The private slaughter-houses in London generally are being gradually reduced to make way it is to be hoped for public abattoirs.

Cow-houses.

A list of the cow-houses in the Borough is given below:—

14 Belle Vue Road.

122 Usk Road.

17 Wiseton Road.

The cow-houses were as usual visited by a subcommittee of the Health Committee before the annual licensing meeting, and it was decided not to oppose the renewal of any of the licences.

Milk Shops.

Milk purveyors are now registered by the Borough Councils instead of, as formerly, by the County Council. The number on the register at the end of the year 1902 was 213, and during 1903 21 traders removed and 33 others were registered, making a total at the end of the year of 225. In 90 places milk and dairy produce only were sold, and in 135 cases the milk was sold in general shops and, usually, in small quantities.

As regards the quantity of milk sold, the premises may be arranged thus:—

Premises	on wh	ich more t	han 10 imp	erial gallo	ns are sold	daily	 61
"	33	between	ro and r			**	 86
"		"	I and 1	.,	11	**	 6
.,	,,	less than	n one quart	is sold dai	ly	i luis	 II

In the remaining cases information as to the quantity sold was refused.

The premises have been systematically inspected, and any defects found remedied.

Ice Cream.

The London County Council (General Powers) Act, 1902, contains special provisions relating to the manufacture and storage of ice cream. These provisions make it illegal for an ice cream maker or dealer to make, sell or store ice cream in any room used as a living or sleeping room; to do anything which exposes the ice cream to infection or contamination, or to omit to notify the outbreak of any infectious disease amongst his employés.

Every itinerant vendor is obliged to exhibit on his barrow the name and address of the person from whom he obtains the ice cream, or his own name and address if he is himself the maker.

These provisions have been found of great service and there has been a great improvement in the ice cream premises during the past year. Shortly after the Act came into force a systematic inspection of the premises was made by Inspector Benjamin. The number on the register in 1902 was 80. In 1903, 39 were added and 4 discontinued, making a total of 115. A number of defects were found on these premises and were remedied.

Unsound Food.

Nine seizures of unsound food were made during the year, as is set out in Table XXV. The articles seized on 9th January and 22nd and 24th July, were being sold from stalls or barrows in the streets.

200

TABLE XXV.

Date of Seizure.	Name and Address of Defendant.	Nature and Quantity.	Name of Inspector.	Result.
Jan. 9	J. L., 7 Rashleigh Street, Clapham	19lbs of bananas	J. T. Baxter	Fined £1 and 4/- costs.
June 29	J. N. & Sons, Ltd., 57 Charterhouse St., E.C.	62 lbs. of beef and 23 lbs. of mutton.	A. Chuter	Fined £10 and 4/- costs.
July 22	H. S., 1A Poyntz Road	9 lbs. of raspberries	J. Herrin and A. Chuter.	Fined £1 and 4/- costs.
July 19	T. S., 85 High Street	38 lbs. of beef and 4½ lbs. of mutton.		Fined £7 and 4/- costs
., 24	J. R., Jun., 26 Rashleigh Street, Clapham	6½ lbs. of raspberries	,,	Fined £1 and 4/- costs.
,, ,,	J. R., 22 Rashleigh Street, Clapham	12 lbs. of raspberries	,,	Fined £1 and 4/- costs.
Sept. 23	W. H., 27 Queen's Road	Three rabbits	J. T. Baxter	Fined £2 and 4/- costs.
Nov. 3	J. F. P., 62 Glen Eagle Road, Streatham	3 ³ lbs. of bananas	,,	Fined £3 and 10/6 costs.
,, 17	, , , , , , , ,,	93 lbs. of apples	,,	Fined £3 and 10/6 costs.

In cases where the retail vendor has unknowingly purchased articles of food unfit for human consumption, and has made no attempt to sell the articles, it is the practice, when the latter are brought to the Health Office, to grant a certificate, which enables the retailer to claim the return of the money paid for the articles to the wholesale dealer. The food is destroyed at the Council's destructor. During the year certificates were granted in respect to the following articles of food, all of which were first covered with disinfectant and then taken to the destructor and destroyed.

Food.	Quantit	y.	Where purchased.	
Skate and Roker	8 ₄ lbs.		Billingsgate	Market.
Skate	I box		,,	1)
Skate	8 stone		,,	,,
Skate	8o lbs	***	,,	,,
Cod	3-cwt.		,,	,,
Winkles	I bag (6 gall	ons)	,,	,,
Plaice	I box		,,	"
,,		***	,,	"
,,	2 barrels		,,	"
,,			,,,,	"
Tomatoes			Borough	,,
Plaice			Billingsgate	"
Potatoes			Borough	"
D "			"	"
Peas			"	"
Potatoes			"	"
Tomatoes			D:11:	"
Sprats			Billingsgate	"
Plaice			Covent Gard	on Market
Grapes				Market College
Whiting Herrings	70 lbs.		Billingsgate 1	Market

Bread Sold in General Shops.

A considerable quantity of the bread sold in Battersea is retailed in small general shops, many of which also sell articles of a more or less objectionable nature. During the

year an inspection of these premises was made and it was found that there were 227 general shops in which bread was sold. The quantity sold was usually small, but in some cases it was considerable. The information obtained in this connection is summarised below:—

No. of	shops selli	ing less than 10 qu	arterns	daily	 84
,,	,,	between 10 and 20	o ,,	,,	 86
,,	,,	between 20 and 30	0 ,,	,,	 27
,,	,,	more than 30	,,	,,	 16

In 14 cases no information could be obtained.

The total quantity of bread sold in these shops appear to be about 3,000 quarterns daily. The bread is usually obtained from large wholesale firms and comparatively little is baked in Battersea.

One hundred and forty-nine shops were found to be clean, 58 fairly clean, and 20 dirty. Paraffin oil was sold in 132 shops, insect powder or vermin killer in tins or packets in 51, and disinfectants, chiefly carbolic powder, in 18. Many shops sold carbolic soap and blacking, and in a few cases coal was retailed on the premises. If it is important that human food should be clean these articles must be regarded as out of place in a shop where bread is sold. At all events, the sale of such articles as disinfectants and "vermin killer" in the same shop with bread is most undesirable, and should be prohibited. The Legislature has provided Sanitary Authorities with a fairly stringent code to apply to places where bread is made, but there are no special powers to deal with places where it is sold. The registration of all bread-sellers and the power for Sanitary Authorities to make bye-laws to regulate places where bread is made or sold are measures which appear to be needed at the present time.

Licensed Premises.

During the year an enquiry was made into the sanitary condition of the licensed premises in the Borough, which number 217, 85 being fully licensed premises, 77 beer-houses,

and 55 premises with off-licenses only. A considerable number of defects were discovered during the inspection, and these are set out, with other particulars, in the following table:—

reference article analysis in the series in	Fully- Licensed Premises.	Beer Houses.	Off- licences.	Totals.
	FLE	щ	1	
No. of premises	85	77	55	217
No. of premises in which rooms	mom	1		
are let to lodgers		2	3	5
No. of inmates—adults	473	244	175	892
,, ,, children	99	87	58 86	244
No. of persons employed—males	246	118		450
Water supply of house from main	174	112	54	340
hore	42 40	37 28	4	72
No. of intimations served	27	28	18	
No. of statutory notices served	4	2	2	73
Defects discovered :—				100
Dirty premises	I	2	2	5
Premises in bad repair	I	4	2	5 7 6
Defective roofs	2	3	I	6
Defective cisterns	7	7	5	19
Defective yards	4	7	2 .	13
Defective dustbins	9	9 5	5	23
Absence of dustbins Defective w.c.'s	3	5	4	12
Defective w.c. s Defective urinals	-	7 2	4	II
Damp promises	3	3	I	5 4
Other defects	21	14	9	44
off bolding of those him y	lavienty	1400	1	77

Sale of Food and Drugs Acts.

A table showing the number of samples taken under these Acts during the year 1903, and the number found to be adulterated or inferior will be found on page 96.

Although a greater variety of samples was taken than in previous years, the total number includes more samples of milk. Milk is the most important food dealt with under the Acts, as its adulteration is easily effected and is highly profitable to the trader.

In the early part of 1903 a change was made in the administration of the Food and Drugs Acts. Formerly, it was the practice for the eight District Inspectors to take samples in turn, but last year it was thought advisable that the work should be carried out by Inspectors selected to devote special attention to the problem of detecting the adulterating traders. During the greater part of the year the samples were taken by Inspectors Chuter and Herrin, who devoted a great deal of time and thought to the work, with the result that the percentage of samples found to be adulterated was considerably increased. By the exercise of a little strategy these Inspectors were able to secure the conviction of several traders who had for some time prided themselves on the success with which they had evaded the law.

During the hot weather the operations were hampered by the difficulty experienced in preventing samples of milk (some of which were almost certainly adulterated) from turning sour while in course of delivery to the Public Analyst, and becoming, therefore, unfit for analysis. To meet this difficulty Inspector Herrin has invented an ingenious ice-box, which has been constructed by the Works Department, and will no doubt be found of great service during the coming summer. Inspector Herrin has also invented a special bottle with a metal cap which has been found very useful.

The employment of special Inspectors having proved a success, it was decided at the end of the year to continue the work permanently on these lines. At the same time the number of samples taken yearly was increased from 500 to 700. As this number of samples was not sufficient to occupy the whole time of an Inspector in Food and Drugs work, it was decided that the Inspector appointed for this work should also inspect the slaughter-houses, butcher shops, and other premises where food is prepared, and as Inspector Chuter had recently obtained the Meat Inspector's Certificate of the Sanitary Institute, and had moreover, displayed considerable energy and ability in his Food and Drugs work, it was decided to appoint him to perform these duties and to advertise for an Inspector for No. 2 Sanitary District.

On referring to the table on page 96 it will be seen that not only was there a considerable increase in the adulterated samples, but that the number of samples certified as "inferior" was more than double the number in the previous year. According to the Public Analyst these samples cannot be certified as adulterated "having regard to the existing necessity of calculating results upon low standards." It is highly probable that few of these samples represent genuine articles.

In 5 instances the Inspector was unable to take samples owing to obstruction on the part of the trader, and in 2 cases the trader refused to sell to the Inspector. In all these cases there can be no doubt that the articles were adulterated, and the cases should be taken into consideration in estimating the percentage of adulterated samples detected by Inspectors Chuter and Herrin.

The following cases illustrate the nature of the obstruction experienced by the Inspectors:

- (1) A. H., an old offender, was selling milk from a cart on Sunday morning when Inspector Herrin asked to be served from a certain churn. The vendor refused to serve from this churn, but served from a hand can. The Inspector having paid for the milk was about to divide the sample when the vendor's son snatched the jug from his hand and ran off with it. The father then drove off, shouting to the lad to throw away the milk and break the jug, which was promptly done, but the Inspector managed to jump into the cart and was driven a considerable distance. He again demanded to be served from the churn, but was refused.
- (2) Inspector Herrin's agent entered a shop on the Shaftesbury Estate on 24th February, and was served with half-a-pound of "shilling butter." While she was tendering payment, the vendor's brother, who was standing at the shop door, went out, and on going into a side street he discovered the Inspector. He then ran back and

snatched the butter from the purchaser, and took it into a room behind the shop. The Inspector, who endeavoured to overtake him before he reached the shop, but without success, then demanded the butter, but was refused.

(3) H. B. was selling milk in Cambridge Road, on 9th September, when Inspector Herrin asked for a pint of milk. The vendor proceeded to fill the Inspector's jug from a can, but in so doing he tipped up the can and spilt about a quart in the road, saying it was an accident. The Inspector having paid for the milk placed the jug against the wall and was preparing his bottles to receive the samples, when the vendor kicked the jug against the wall and broke the handle off, making a hole in the jug, and allowing some of the milk to escape. The Inspector again demanded a pint of milk and the vendor took up his can, and while serving he turned over the can, emptying its contents into the gutter. He then said he was sorry, and that it was an accident.

In each case an ingenious defence was put forward by the defendant's expert legal adviser, but in vain.

Proceedings under the Sale of Food and Drugs Acts were taken in 68 instances, and fines amounting with costs to £169 158. 6d. were imposed.

96 TABLE XXVI.

Description of Article.	Total No. of Samples taken.	Genuine.	Adulterated.	Inferior.
Arrowroot	6	6		
Beef Dripping	I	I		
Blaud's Pills	6	5	1	
Butter	118	97	14	7
Camphorated	mail was	7	And in the same	THE STATE OF
Oil	II	7	2	2
Cheese	2	2	o odli alli	60 NO
Cocoa	II	4	6	I
Coffee		4 7	2	
Cream of Tartar	9	1		
	3	3		
Demerara Sugar	5 2		4	I
Honey		2	***	***
Lard	5	5	***	***
Lime Water Liniment of	2	2	***	
Iodine	2	2		
Margarine	6	6		
Meat Dripping	2	Y	and inne	I
Milk	208	157	22	29
/1	MATERIA AND AND AND AND AND AND AND AND AND AN	3	***	
7 . 45	3 2	2		
,, (separated)	I	1		
,, (skim)	made Construct	2	1	***
,, (sterilized)	3		*	•••
Milk of Sulphur	2	2	THE PARTY OF	
Mustard	10	10		
Oatmeal	7	7	***	***
Olive Oil	2	2		***
Pepper (Black)	2	2	***	***
" (Cayenne)	2	2	***	
" (White)	2	2		***
Preserved Peas	7	I	6	***
Rice (ground)	I	1	***	
Sago	10	6	4	
Sweets Tincture of	4	I	I	2
Iodine	2	2		
¥7*				4
XX71.:	9	5 28	4	***
whisky	32	20	4	
Totals	500	386	67	47
Totals (1902)	500	427	52	21

Summary of Legal Proceedings.

The facts relating to the legal proceedings instituted by the Council in connection with the work of the Health Department are set out on pages 98—110 and are summarised below:—

	No. of Prosecutions.	No. of Convictions.	Fines.	Costs.
Sale of Food and Drugs Acts	68	56	£ s. d.	£ s. d. 34 5 6
Smoke nuisances	7	5	12 10 0	5 17 0
Unsound Food	10	10	29 0 0	2 9 0
Contravention of Bye- laws	3	3	5 5 0	2 8 0
Other proceedings	10	9	6 0 0	3 12 0
Total	98	83	188 5 0	48 11 6

Legal Proceedings under the Public Health (London) Act, 1891, Metropolis Management Act, 1855, and Railway Clauses Consolidation Act, 1845.

DATE OF HEARING.	Name of Magistrate.	Name and Address of Defendant.	Nature of Offence.	RESULT OF PROCEEDINGS.	
1903. Jan. 7	Mr. Dickenson	J. L., Sen., 37 Rollo Street	Breach of L.C.C. bye-law with respect to water-tight inspec- tion chamber at No. 475 Park Road Battersea	Defendant fined £2 and 23s. costs	
	,	R. Bros., 67 Salcott Road	Breach of L.C.C. bye-law in fixing flushing cistern at No. 13 Gorst Road without giving notice	Defendants fined £3 and 23s. costs	98
Sept. 26 Oct. 31 Nov. 21 & Dec. 4, 1900 & Jan. 7, 27 & 31, & Feb. 6, 1903	Mr. Garrett	L.B. & S.C. Rly. Co., London Bridge Station, S.E.	Black smoke nuisance from brick shaft at Victoria Road Sheds on 6th June, 1900 Do. 16th June, 1900 Do. 19th ,, ,,	Summonses dismissed, no further offences having been reported	00
"	n n	Do. do.	Black smoke nuisance from chimneys of Railway Sheds at same place on 11th June, 1900 Do. 28th August, 1900	Defendants fined 5s. and 2s. costs on each summons	

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DATE OF HEARING	Name of Magistrate.	Name and Address of Defendant.	Nature of Offence.	RESULT OF PROCEEDINGS.	
Jan. 7 27 31 Feb. 6	Mr. Garrett	L.B. & S.C. Rly. Co., London Bridge Station, S.E.	Black smoke nuisance from loco- motive at works in Victoria Road, on July 5th, 1900		
		Do. do.	The like	Defendant for defendance	
**	n n	Do. do	The like	Defendants fined £1 on each summons, in all £6 and £5 5s. costs	
	" "	Do. do.	The like on September 6th, 1902		
"	11 11	Do. do.	The like		99
	11 11	Do. do.	The like	hard a series and a series of the series of	9
March 4	Mr. Francis	M. D., Torkington's Yard, Surrey Lane South	Black smoke nuisance	Defendant fined £2 and 2s. costs	
		F. C. E., Grafton Yard, Hampstead Road, N.W.	Black smoke nuisance	Defendant fined £2 and 2s. costs	
"		J. L., 7 Rashleigh Street, Clapham, S.W.	Exposing for sale unsound bananas	Defendant fined £1 and 4s. costs	
,, 18	. "	M. C. Co., Ltd., Battersea Works, Church Rd.	Black smoke nuisance on the 16th February, 1903	Defendants fined £2 and 2s. costs	
**	11 11	Do. do.	Do, on 18th February, 1903	Defendants ordered to pay 2s. costs	
			Property of the Park of the Control	The state of the s	

DATE OF HEARING.	Name of Magistrate.	Name and Address of Defendant.	Nature of Offence.	RESULT OF PROCEEDINGS.	
May 27 June 10 & 24	Mr. Rose	F. G., 173 High Street	Black smoke nuisance	Dismissed, but without costs, the Magistrate holding that the defendant could not be summoned again on the same statutory notice. He, however, consented to state a case	
June 24 & 26	" "	F. R., trading as R. Bros., ro5 St John's Hill	So constructing or repairing a drain at No. 44 Chatham Road, Battersea, as to be a nuisance The like at No. 46 Chatham Road	Defendant fined £4, i.e., £2 on each summons and £2 2s. costs	
July 22	Mr. Garrett	J. N. & Sons, Ltd., 57 Charterhouse Street, E.C.	Deposit for sale of unsound meat intended for the food of man	Defendants fined £10 and 4s. costs	
June 24 July 22 and	Mr. Rose Mr. Garrett	W. H., 1 Eglantine Road, Wandsworth	Non-compliance with notice to abate nuisance (defective drains) at No. 1 Strath Terrace, Battersea		
Sept. 30	Mr. Rose	Do. do.	Do. No. 2 Strath Terrace Nuisance (defective drains) at No. 1 Strath Terrace	Order made for defendant to pay first costs, the necessary works having been done by the defendant.	
.,,		Do. do.	Do. No. 2 Strath Terrace		
Oct. 14	Mr. Garrett	H. S., 1a Poyntz Road	Exposing for sale unsound rasp- berries	Defendant fined £1 and 4s. costs	
**		J. R., Jun., 26 Rashleigh Street, Clapham	Exposing for sale unsound rasp- berries	Defendant fined £1 and 4s. costs	

DATE OF HEARING	NAME OF MAGISTRATE	Name and Address of Defendant.	Nature of Offence.	RESULT OF PROCEEDINGS.
Oct. 14	Mr. Garrett	J. R., 22 Rashleigh Street, Clapham	Exposing for sale unsound rasp- berries	Defendant fined £1 and 4s. costs
.,		T. S., 85 High Street	Exposing for sale unsound meat	Defendant fined £5 and 2s. costs
.,	., .,	Do. do.	Deposit for sale unsound meat	Defendant fined £2 and 2s. costs
	, ,	J. R., 39 Culvert Road	Exposing himself in Culvert Road while suffering from small-pox	Defendant fined £2 and 2s. costs
		· The Calendary	The like in the "Haberdashers' Arms"	Defendant fined 2s. costs
ov. 3	" "	J. M. W., 435 Battersea Park Road	Failing to notify a case of small- pox	Dismissed, but without costs
lov. II	Mr. Rose	W. H., 27 Queen's Road	Exposing for sale unsound rabbits	Defendant fined £2 and 4s. costs
ec. 23	Mr. Fenwick	J. F. P., 62 Glen Eagle Road, Streatham	Exposing for sale unsound apples	Defendant fined £3 and ros. 6d. costs
	,, ,,	Do. do.	Exposing for sale unsound bananas	Defendant fined £3 and 10s. 6d. costs
MR RI		H. B. & Sons, 66 Robsart Street, Brixton	Breach of L.C.C. bye-law at I Dulka Road with respect to fixing pan and trap to water- closet without giving notice	Defendant fined 5s. and 2s. costs
"		W. H. M. P., 33 Union Road, Clapham	Nuisance at No. 38 Sterndale Road	Order made for premises to be closed if nuisance not abated within six weeks and defendant to pay 5s costs

Legal Proceedings under Sale of Food and Drugs and Margarine Acts.

No. of Sam- PLE.	DATE OF HEARING.	Name of Magistrate.	Name and Address of Defendant.	NATURE OF OFFENCE.	RESULT OF PROCEEDINGS.
280	1903. Jan. 7	Mr. Dickenson	J. S., 593 Wandsworth Road	Selling milk containing 16 per cent. extraneous water	Fined £7 and 23s, costs
	"	,, ,,	A. H., 2 Tennyson Street	Obstructing Inspector Herrin when demanding a sample of milk	Fined £15 and 21s. costs
	"	" " …	A. H., Junr. ,,	Do. do.	Fined £5 and 21s. costs
284			M. D., 2 Hyde Lane	Selling milk containing to per cent. extraneous water	Summons dismissed (Warranty defence)
298	,, 21	Mr. Lane	H. E. B., 245 Lavender Hill	Do. do.	Summons dismissed (Warranty defence)
302	,,		H. E., 73 East Hill	Selling milk containing 6 per cent. extraneous water	Summons dismissed (Warranty defence)
301	"	" "	B. B., trading as B. Brothers, 2 Ashness Road	Selling milk containing 10 per cent. extraneous water	Defendant proved warranty, but as he had omitted to give notice, was ordered to pay 21s. costs
314	Feb. 4	" " ··	S. A., 63 Surrey Lane	Selling as coffee a mixture containing 70 per cent. chicory	Fined £4 and 12s. 6d. costs

No. of Sam- PLE.	DATE OF HEARING.	Name of Magistrate	2.	Name and Address of Defendant.	Nature of Offence.	RESULT OF PROCEEDINGS.
363	Feb. 18	Mr. Francis		G. B., 22 Henley Street	Selling milk from which 10 per cent. of its fat had been extracted	Fined £2 and 12s, 6d. costs
357	"	" "		F. C., 221b Eversleigh Road	Selling milk to which o'07292 Boron Trioxide had been added	Fined £1 and 12s. 6d. costs
355	"	, ,		H. P., 84 Plough Road	Selling butter containing 78 per cent. foreign fat	Fined £2 and 12s. 6d. costs
	March 4	"		J. G., Manor Farm, Newton Toney, Wilts.	Giving false warranty in respect of Sample No. 298	The Magistrate held that Defendant had proved that when the Warranty was given, he had reason to believe the statement contained therein was true, and dismissed the summons. He, however.
				File State Land		cautioned the Defendant, and refused to allow costs
381	,, 18	" " "		T. Bros., 64a Winstanley Road	Selling as coffee, a mixture containing 75 per cent. chicory	Fined £1 and 12s. 6d. costs
390	"	Manager an		B. L. Q., 36 Prairie Street	Selling as cocoa, a powder containing 35 per cent. added starch, and 35 per cent. sugar	Fined 10s. and 12s. 6d. costs

No. of Sam- PLE.	DATE OF HEARING.	Name of Magistrate.	Name and Address of Defendant.	Nature of Offence.	RESULT OF PROCEEDINGS.
392	Mar. 18	Mr. Francis	E. C., 133 St. Philip Street	Selling as cocoa, a powder containing 35 per cent. added starch, and 35 per cent. sugar	Fined ros. and r2s. 6d. costs
406	April 1	Mr. Garrett	A. P., 66 Knowsley Road	Selling butter containing 86 per cent. foreign fat	Fined £1 and 12s. 6d. costs
408	"	., ,,	S. C., 15 Carpenter Street	Selling margarine in a plain wrapper	Fined 10s. and 12s. 6d. costs
421	Marin Control		W. C., 38 Arliss Road	Selling dyed sugar crystals as Demerara sugar	Fined ros. and r2s. 6d. costs
-221	,, 15	Mr. Shiel	H. C., 221b Eversleigh Road	Obstructing Inspector Herrin when demanding a sample of butter	Fined £5 and 2s. costs
700	,,	,	H. N., 24 Hope Street	Refusing to sell a sample of milk to Inspector Herrin	Fined £5 and 2s. costs
No.	1000	Suctioners	E. F., 28 Crichton Street	Refusing to sell a sample of milk to Inspector Chuter	Fined £5 and 2s. costs
453	DVIS	MARK OF	J. B., 50 Lavender Hill	Selling butter containing 78 per cent foreign fat	Fined £5 and 12s. 6d. costs

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No. of Sam- PLE.	DATE OF HEARING.	NAME OF MAGISTRATE.	Name and Address of Defendant.	Nature of Offence.	RESULT OF PROCEEDINGS.
444	April 15	Mr. Sheil	J. E., 80 Taybridge Road	Selling butter containing 80 per cent. foreign fat	Fined £3 and 12s. 6d. costs
424	,,	,, ,,	G. W., 209 Battersea Park Road	Selling milk from which 15 per cent. of its fat had been abstracted	Fined £5 and 12s. 6d. costs
451	"	., ,,	H. B., 17 Latchmere Grove	Selling as cocoa, a powder containing 30 per cent. added starch, 35 per cent. sugar, and 0.143 per cent. red oxide of iron	Fined £2 and 128. 6d. costs
452		,, ,,	J. J., 151 High Street	Selling as cocoa, a powder containing 25 per cent. added starch, and 40 per cent. sugar	Fined £2 and 12s. 6d. costs
467	,, 29	Mr. Rose	W. W., 31 Longhedge Street	Do. do.	Fined 10s. and 12s. 6d. costs
465	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	., .,	J. McG., 3 Savona Street	Selling as cocoa, a powder containing 20 per cent. added starch and 25 per cent. sugar	Fined 10s. and 12s. 6d. costs
494	11	11 11	W. P. K., 66 Falcon Road	Selling tapioca as sago	Fined 10s. and 12s. 6d. costs
4	May 27	" "	D. P., III York Road	Selling butter containing 78 per cent. foreign fat	Fined £6 and 12s. 6d. costs

No. of Sam- PLE.	DATE OF HEARING.	Name of Magistrate.	Name and Address of Defendant,	Nature of Offence.	RESULT OF PROCEEDINGS.
9	May 27	Mr. Rose	H. B., 323 York Road	Selling butter containing 84 per cent. foreign fat	Fined £2 and 12s. 6d. costs
499	"		M. J., 127 Lavender Hill	Selling milk containing 18 per cent, extraneous water	Summons withdrawn, the seller was fined £ 3 and 12s. 6d. costs or, in default, 21 days
24	June 10	,, ,,	T. P., 12 St. Philip Street	Selling dyed sugar crystals as Demerara sugar	Fined £2 and 12s. 6d. costs
23	"	" "	F. W., 12 Austin Road	Selling dyed sugar crystals as Demerara sugar	Fined £1 and 12s. 6d. costs
22	*1	, ,	F. W., 12 Austin Road	Selling as coffee, a mixture containing 47 per cent. chicory	Fined £1 and 12s. 6d. costs
19	"	, ,	M. E. F., 28 Crichton Street	Selling butter containing 82 per cent. foreign fat	Fined £2 and r2s. 6d. costs
13	who et		C. C., 184 High Road, Balham	Selling milk from which 10 per cent. of its fat had been abstracted	The third portion of the sample was forwarded to the Govern- ment Analyst for examination, and he having reported that
	Hereney	Managaran Managaran	patentini	gritain pares	the bottle had burst, and that a portion of the contents was lost, the summons was withdrawn.

No. of Sam- PLE.	DATE OF HEARING.	Name of Magistrate.	Name and Address of Defendant.	Nature of Offence.	RESULT OF PROCEEDINGS.
63	June 24	Mr. Rose	D. E., 16 Shellwood Road	Selling milk containing 3 per cent. extraneous water, and from which 4 per cent. of its fat had been abstracted	Fined ros. and r2s. 6d. costs
21		,, ,,	C. B., 27 Queens Road	Selling butter containing 77 per cent. foreign fat	Fined £3 and 12s. 6d.
104	July 22	Mr. Garrett	E. C., 133 St. Philip Street	Selling butter containing 88 per cent. foreign fat	Fined £2 and 12s, 6d. costs
83	- 11		H. N., 59 Taybridge Road	Selling butter containing 82 per cent. foreign fat	Fined £1 and 128.6d. costs
97	,,	, ,	W. J., 31 Webbs Road	Selling butter containing 75 per cent. foreign fat	Fined £1 and 12s. 6d. costs
79	**	,, ,,	D. R., 78 Taybridge Road	. Selling dyed sugar crystals as Demerara sugar	Fined £1 and 12s. 6d. costs
94	",	., .,	B. & B., 145 Northcote Road	Selling camphorated oil deficient in camphor to the extent of 95'32 per cent.	Ordered to pay 12s. 6d. costs
94		,, ,,	B. S. (seller) do	. Do. do,	Ordered to pay 2s. costs
70		,, ,,	A. H., 68 New Road	Selling camphorated oil deficient in camphor to the extent of II'83 per cent.	Fined 10s. and 12s. 6d. costs

No. of Sam- PLE.	DATE OF HEARING.	Name of Magistrat	Ε.	Name and Address of Defendant.	Nature of Offence.	RESULT OF PROCEEDINGS.
99	July 22	Mr. Garrett		H. N., 24 Hope Street	 Selling milk containing 12 per cent. extraneous water	Summons withdrawn, the bottle containing the third sample having burst
117	August 5	" "		D. L. J., 85 Falcon Road	 Selling milk from which 85 per cent. of its fat had been abstracted	Ordered to pay 12s. 6d. costs
119	"			A. W., 30 Falcon Grove	 Selling milk from which 50 per cent. of its fat had been abstracted	Summons dismissed
23	n	" "		T. R. (seller)	 Do. do.	Ordered to pay 12s. 6d. costs
118	Sept. 30	Mr. Rose	***	D. P., III York Road	 Selling milk containing 7 per cent. extraneous water	Fined £10 and 12s. 6d. costs
168	"	11 11		A. D., 74 York Road	 Selling tapioca as sago.	Ordered to pay 12s. 6d. costs
157	1000	11 11		E. A. F., 28 Crichton Street	 Selling milk containing 23 per cent. extraneous water	Fined £10 and 12s. 6d. costs
86		November 18		W. J. H., 37 High Street	 Selling "Aniseed Balls" containing 0.42 per cent. ferruginous mineral matter	Summons dismissed

No. of Sam- PLE.	DATE OF HEARING.	Name of Magistrate.	Name and Address of Defendant.	Nature of Offence.	RESULT OF PROCEEDINGS.
100	Sept. 30	Mr. Rose	H. N., 24 Hope Street	Selling milk containing 12 per cent. extraneous water	The third sample having been certified by the Government Analyst as genuine, the summons was dismissed, £3 3s. od. being allowed Defendant
133	"	" "	J. D., 113 Queens Road	Selling milk containing 14 per cent. extraneous water	Summons withdrawn, the bottle containing the third portion having burst
212	Oct. 28	Mr. Garrett	A. G., 38 Orkney Street	Selling butter containing 42 per cent. foreign fat	Fined £2 and 12s. 6d. costs
204	"	" "	G. E. F., 62 High Street	Selling milk containing 8 per cent. extraneous water	Fined £1 and 12s. 6d. costs
192	,,		D. L. J., 85 Falcon Road	Selling milk containing 8.2 per cent. extraneous water	Summons dismissed, Defendant proving warranty
LEFT OF THE PERSON NAMED IN COLUMN TO PERSON	Nov. 11	Mr. Rose	J. S., 3 Landseer Street	Obstructing Inspector Herrin when demanding a sample of butter	Fined £3 and 2s. costs

No. of Sam- PLE.	DATE OF HEARING.	OF NAME OF NAME AND ADDRESS OF		NATURE OF OFFENCE.	RESULT OF PROCEEDINGS.		
245	Nov. 11	Mr. Rose	A. D., 17 Latchmere Grove	Selling milk containing 8 per cent. extraneous water, and from which 9.3 per cent. of its fat had been abstracted	Ordered to pay 12s. 6d. costs		
	,, 25	" " "	H. B., 437 Battersea Park Road	Obstructing Inspector Herrin when demanding a sample of milk	Fined £3 and 2s costs		
263	,,	, ,	E. F., 48 Castle Street	Selling butter containing 81.5 per cent. foreign fat	Fined 30s. and 12s. 6d. costs		
227	"	, ,,	The second secon	Selling sago containing 38 per cent. tapioca	Fined 5s. and 12s. 6d. costs		
238	"	., ,,	D. & W., 47 Lavender Hill	Selling tapioca as sago	Fined 5s. and 12s. 6d. costs		
273	Dec. 9	, ,	M. C., 91 Nine Elms Lane	Selling butter containing 78 per cent. foreign fat	Fined £3 and 12s. 6d. costs		
275	,, 23	Mr. Fenwick	J. C., 144 New Road	Selling milk containing 12.4 per cent. extraneous water	Fined £1 and 12s. 6d. costs		
293	*		C. W., 58 Este Road	Selling milk containing 7 per cent. extraneous water	Fined £1 and 12s. 6d. cost		

HOUSING.





BURNS ROAD.

Housing.

During the year many of the dwellings erected by the Council on the Latchmere Estate were opened for occupation.

Under the London County Council (General Powers) Act of 1900 the late Vestry were enabled to erect artisans' dwellings on the Latchmere Allotments, and the Council in that year having adopted Part III. of the Housing of the Working Classes Act, 1890, steps were taken to prepare a housing scheme. In 1901 the Council advertised for competitive designs, offering premiums for the three best sets of designs received. Mr. Blashill, formerly Superintending Architect to the London County Council, was appointed to assist the Housing Committee in selecting the designs, and as no less than fifty-eight sets of designs were sent in four extra prizes were awarded. The scheme finally adopted was to some extent based on the successful designs.

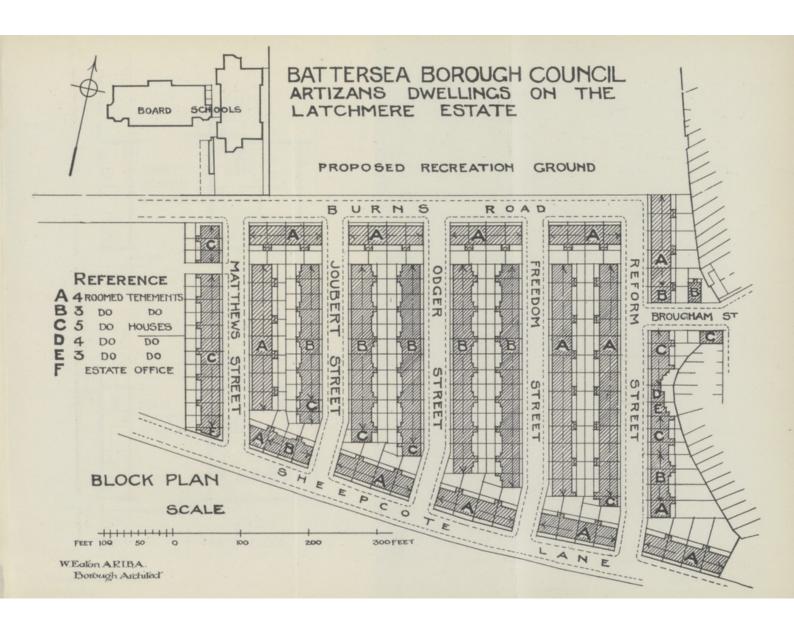
The question was considered as to whether the schemes should include two or three storey dwellings or consist wholly of dwellings of two storeys, and the latter alternative was finally adopted. Each dwelling is self-contained with its front door opening on the street; there is no common staircase on the Estate. Each dwelling is wired for electric light, provided with blinds, shelves, combined food cupboard and dresser, and patent combined kitchen range, copper and bath, and each has a garden at the back, accessible from the upper floor by means of a staircase.

There are 315 dwellings on the Estate as follows:—
28 five-roomed houses with scullery, rent 11s. 6d. per week.
70 houses each containing two tenements of three rooms and scullery, rent 7s. 6d. per week per tenement.

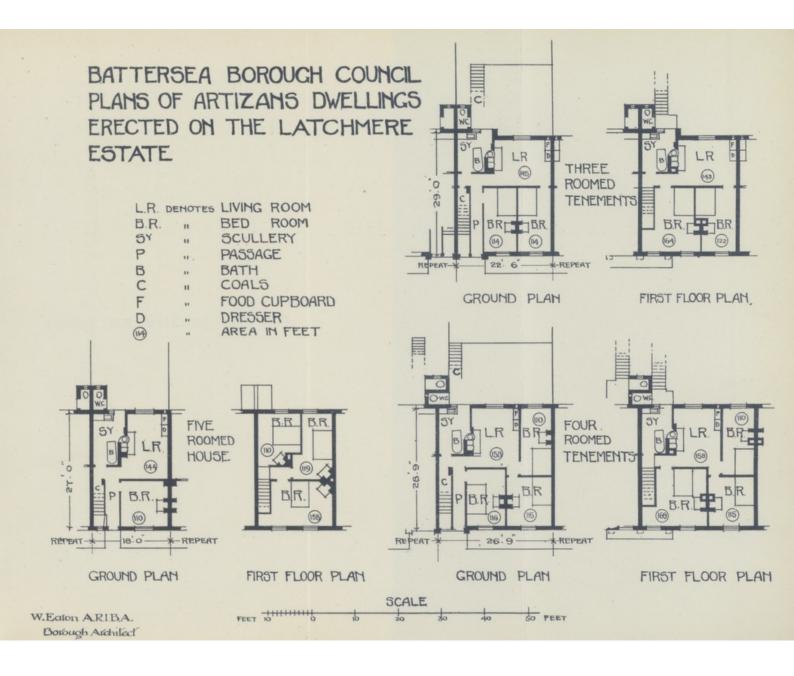
- 73 houses each containing two tenements of four rooms and scullery, rent 10s. and 10s 6d. per week per tenement.
 - I four-roomed house with scullery, rent 10s. per week.

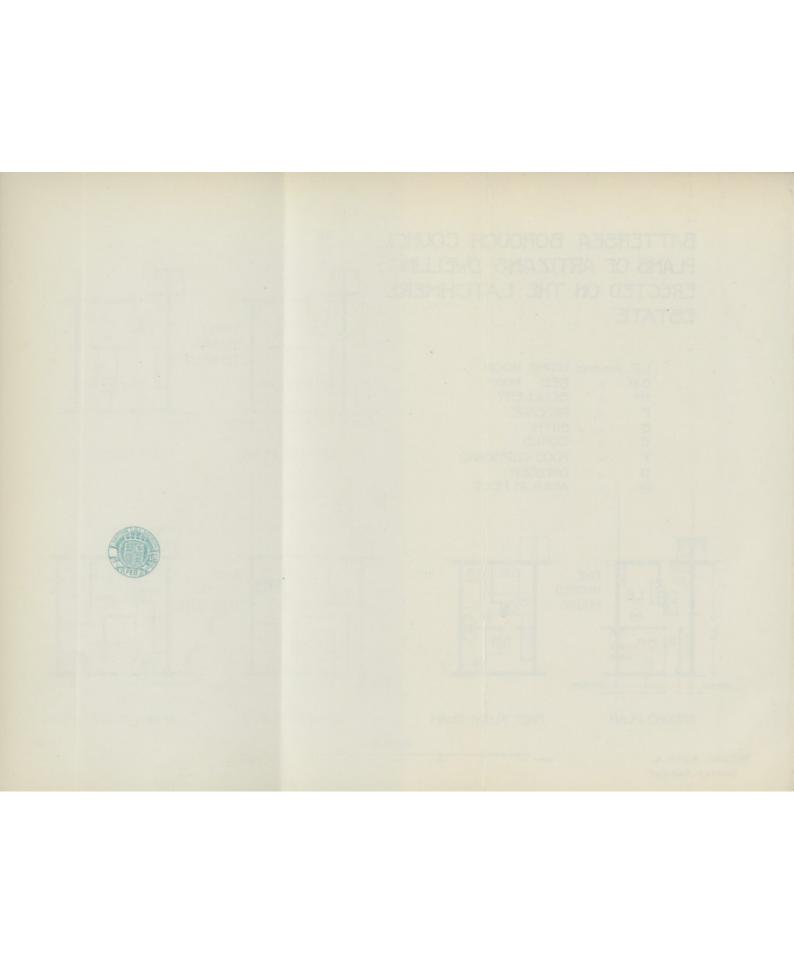
The total estimated cost of carrying out the work is £114,000. This includes the cost of the houses on the west side of Matthews Street and that of the water supply, which is derived from two artesian wells near the Latchmere Baths. The streets and buildings cover an area of nearly 8 acres, and the remainder of the Estate, 3 acres, 3 roods, 35 poles, is reserved for a recreation ground. Each dwelling is fitted with the excellent combined kitchen range, copper and bath, invented by Councillor J. Cornes, of Leek. In this apparatus the range is fixed in the kitchen, the grate being in the centre, with the oven on one side and the boiler on the other. The bath is in the scullery behind the range and the copper is fixed in the wall between the kitchen and scullery and is accessible from both rooms. This arrangement appears to be much appreciated by the tenants.

The dwellings are exceedingly well designed, the utmost use having been got out of the space provided, and the Estate reflects the greatest credit on the Housing Committee and on the Borough Architect. The dwellings are by far the most satisfactory workmen's homes I have yet seen.









Factory and Workshop Act, 1901.





Interior of an Underground Bakehouse, Battersea. This Bakehouse was closed in 1903 under Section 101 of the Factory and Workshop Act, 1901.

Factory and Workshop Act, 1901.

The following part of this report is made pursuant to section 132 of the Factory and Workshop Act, 1901, which provides as follows:—"The Medical Officer of Health of every District Council shall in his Annual Report to them report specifically on the administration of this Act in workshops and workplaces, and he shall send a copy of his Annual Report, or so much of it as deals with this subject, to the Secretary of State." The report, however, is not limited to an account of the administration of the above Act in workshops and workplaces; it contains in addition a statement of the work done by the Council in carrying out their duties in relation to factories under the Public Health (London) Act, 1891.

Workshops.

Before the year 1902 workshop inspection in Battersea was carried out by the District Sanitary Inspectors. excellent work was done, but owing to the heavy calls upon the Inspectors' time by their other duties, it was not found possible to maintain a proper systematic supervision of the workshops. When the Factory Act of 1901 was passed the Council appointed two additional Inspectors, Miss Dawson and Mr. Benjamin, who entered upon their duties about the middle of 1902. Since that time a systematic inspection has been made of the workshops, and they are now kept under proper supervision. Workshops in which women only are employed are inspected by Miss Dawson, Mr. Benjamin has charge of the men's workshops, while those in which both sexes are employed are supervised by both Inspectors. Each workshop is inspected not less than four times a year, and in many cases much more frequently.

Pursuant to section 131 of the Factory Act, a register of workshops is kept, and it has been found that the card register, which has now been in use nearly two years, has many advantages over the ordinary book register. Each workshop has a special dossier, in which are filed all the reports, plans, letters, and other papers relating to that particular workshop.

At the beginning of the year 1903, there were 454 workshops on the register. During the year the occupation of 35 of these premises as workshops was discontinued, while 122 new workshops were registered, so that at the end of the year the number on the register was 541, in which were employed 2,284 persons, 998 males and 1,286 females.

The following is a list of the workshops on the register at the end of 1903.

WORKSHOPS.

TRADE.	No. of Work- shops	No. of Work-			
	on Register.	rooms.	Males	Females	
Bakers	 91	143	212	_	
Billiard Table Makers	 2	6	22	-	
Blindmakers	 2	6	16	_	
Bootmakers	 58	59	147	I	
Carpenters	 7	8	29	_	
Coach Builders	 14	24	90	_	
Coffin Makers	 3	3	6	-	
Crayon Makers	 2	2	2	2	
Cycle Makers	 17	22	43	_	
Dressmakers	 116	131	-	513	
Embroiderers		7	2	29	
Farriers	 3 8	8	26	_	
Firewood Cutters	 6	7	14	2	
Florists	 3	3	_	5	
Furniture Makers	 2	3 3 3 3	8	-	
Glaziers	 2	3	15	-	
Ironmongers	 3	3	8	-	
Jewellers	 4	4	9	-	
Laundries	 67	189	5	506	
Masons	 4	4	27	-	
Milliners	 32	33	-	93	
Musical Instrument Makers	 4		32	_	
Photographers	 3	5 5 4 5	2	6	
Picture Frame Makers	 4	4	II	-	
Plaster Modellers	 3	5	17	-	
Plumbers	 2	3	8	-	
Rag Sorters	 3		14	-	
Saddlers	 3 4	3 5 3 3 37	II	-	
Sculptors		3	IO	-	
Sugar Boilers	 3	3	13	-	
Tailors	 33	37	58	63	
Theatrical Costumiers	 2		22	-	
Trunk and Hat-case Makers	 2	7	II	5	
Underclothing Makers		3 7 5 9 26	-	27	
Upholsterers	 5 5	9	25	14	
Other Trades	 19	26	83	20	
Totals	 541	791	998	1,286	

Dressmakers' workshops form the most numerous class followed by bakers, laundries, bootmakers, tailors and milliners in the order given, but, with few exceptions, the number of persons employed in any particular dressmaker's workshop is not large.

Section 133 of the Act provides that "When any woman, young person, or child is employed in a workshop in which no abstract of this Act is affixed as by this Act required, and the Medical Officer of Health of the District Council becomes aware thereof, he shall forthwith give written notice thereof to the inspector for the district." This section is important, as it provides the procedure by which most workshops become known to the factory inspectors, who, upon receiving the notices, enter the workshops in the Home Office register and send an abstract of the Act to each occupier.

Workshops notified to H.M. Inspector during 1903 in pursuance of Section 133 of the Factory and Workshop Act, 1901.

TRADE.		Number	Protected Persons employed.			
I RADE.		Work- shops.	Women	Young Persons	Chil- dren.	Tota
Carpenters		I	_	4	_	4
Clog Makers		I	_	4	_	4
Coach Builders		2	_	2	-	2
Cycle Makers		I		I	_	I
Dressmakers		35	99	4	-	103
Farriers		3	-	5	-	5
Florists			2	2	-	4
Laundries		3 7	34	-	-	34
Milliners		4	II	-	-	II
Mineral Water						
Manufacture	I	_	I	-	I	
Photographers	2	4	-	-	4	
Scientific Instrument Ma	I	-	I	-	I	
Sculptors		I	10000	1		I
Sugar Boilers		1	-	I	_	I
Tailors		6	II	3	-	14
Theatrical Costumiers		I	20	-		20
Ticket Writers	***	I	100	I		I
Toy Makers		2	7	-		7
Underclothing Makers		2	3	I		4
Wig Makers	***	I	1			I
Totals		76	192	31	_	223

The workshops are fairly evenly distributed over the borough, but the trades vary according to the locality. Most of the laundries are in North-West Battersea, while the dress-makers' workshops are chiefly situated in the Bolingbroke and Broomwood Wards, where they are to be found in localities where their presence is little suspected. The occupiers of the latter class of workshops are often anxious to conceal the fact that work is done on the premises in order to escape the attentions of the Home Office and Borough Council Inspectors, and some ingenuity has to be exercised by the Inspectors to bring these workshops to light.

Very few workshops have been specially constructed for use as workshops; in nearly all cases the work is done in premises more or less imperfectly adapted for it.

Dressmaking and tailoring are carried on in ordinary dwelling houses and usually the number of persons employed is small. Laundries are generally dwelling houses more or less badly adapted for laundry work. The yard is often covered in, thus adding to the difficulties of ventilation.

CLEANLINESS.

In certain trades, chiefly in laundries, and in tailors, bootmakers, and cycle makers' workshops, it was found a matter of some difficulty to maintain a reasonable standard of cleanliness. 173 workrooms were in a dirty condition at the time of inspection.

AIR SPACE.

Twelve workrooms, nearly all of which were in dress-makers' workshops, were found to be overcrowded. In this trade overcrowding is particularly likely to occur, as the work varies in amount according to season. In busy times there is a temptation to crowd in as many workers as possible, and very undesirable rooms are sometimes pressed into service as work-rooms. Bath-rooms and even water closets have been found to be used in this way. The standard of air space adopted is,

perforce, that laid down in section 3 of the Factory Act, viz., 250 cubic feet per adult worker during ordinary hours. From a health point of view this standard is much too low, and in certain specially unhealthy trades, laundries for instance, it should be considerably raised.

VENTILATION.

Additional means of ventilation were provided in 64 instances. Workshop ventilation is a difficult problem, especially in dealing with such sedentary occupations as dress-making and tailoring. It is easy enough to provide a sufficient number of ventilating openings, but the workers insist on keeping them closed on account of the cold.

It is, in fact, impossible to adequately ventilate many of these workshops without warming the incoming air.

Drainage of Floors on which Wet Processes are carried on.

Twelve workshops, all of which were laundries, failed to comply with section 8 of the Act, which prescribes that in workshops where "wet processes" are carried on, adequate means shall be provided for draining off the wet from the floors.

Provision of Sufficient and Suitable Sanitary Conveniences.

One of the most important duties of local authorities in connection with factories, workshops and workplaces is that of securing suitable and sufficient sanitary accommodation for the workers. The powers of the Metropolitan sanitary authorities in this respect, however, are not granted by section 9 of the Factory and Workshop Act, 1901, in which these provisions are set out, as this section does not apply to London, but by section 38 of the Public Health (London) Act 1891, which reads as follows:—

"Every factory, workshop, and workplace, whether erected before or after the passing of this Act, shall be provided with sufficient and suitable accommodation in the way of sanitary conveniences, regard being had to the number of persons employed in or in attendance at such building, and also where persons of both sexes are, or are intended to be, employed, or in attendance, with proper separate accommodation for persons of each sex."

The standard of "suitable and sufficient" sanitary accommodation has hitherto varied in different districts, some authorities taking a much higher standard than others. On 4th February, 1903, the Home Secretary took steps to bring about a much-needed uniformity of administration by issuing an Order determining what "accommodation in the way of sanitary conveniences provided in a factory or workshop shall be deemed sufficient and suitable within the meaning of the said section" (i.e., section 9 of the Factory and Workshop Act, 1901). The order being made under this section of the Act does not technically apply to London or to districts where section 22 of the Public Health (Amendment) Act, 1890, is in force, but the standard laid down in it has been very generally adopted. It was at once adopted in Battersea, and a good deal of work has been carried out in accordance with its provisions.

The provisions of the Order are set out below:-

 In factories or workshops where females are employed or in attendance there shall be one sanitary convenience for every 25 females.

In factories or workshops where males are employed or in attendance there shall be one sanitary convenience for every 25 males: provided that:

(a) In factories or workshops where the number of males employed or in attendance exceeds 100, and sufficient urinal accommodation is also provided, it shall be sufficient if there is one sanitary convenience for every 25 males up to the first 100, and one for every 40 after; (b) In factories or workshops where the number of males employed or in attendance exceeds 500, and the District Inspector of Factories certifies in writing that by means of a check system, or otherwise, proper supervision and control in regard to the use of the conveniences are exercised by officers specially appointed for that purpose it shall be sufficient if one sanitary convenience is provided for every 60 males, in addition to sufficient urinal accommodation. Any certificate given by an Inspector shall be kept attached to the general register, and shall be liable at any time to be revoked by notice in writing from the Inspector.

In calculating the number of conveniences required by this order, any odd number of persons less than 25, 40, or 60, as the case may be, shall be reckoned as 25, 40, or 60.

- 2. Every sanitary convenience shall be kept in a cleanly state, shall be sufficiently ventilated and lighted, and shall not communicate with any workroom except through the open air or through an intervening ventilated space: provided that in workrooms in use prior to 1st January, 1903, and mechanically ventilated in such manner that air cannot be drawn into the workroom through the sanitary convenience, an intervening ventilated space shall not be required.
- 3. Every sanitary convenience shall be under cover and so partitioned off as to secure privacy, and if for the use of females shall have a proper door and fastenings.
- 4. The sanitary conveniences in a factory or workshop shall be so arranged and maintained as to be conveniently accessible to all persons employed therein at all times during their employment.
- 5. Where persons of both sexes are employed, the conveniences for each sex shall be so placed or so screened that the interior shall not be visible, even when the door of any convenience is open, from any place where persons of the

other sex have to work or pass; and, if the conveniences for one sex adjoin those for the other sex, the approaches shall be separate.

- 6. This order shall come into force on the 1st day of July, 1903.
- 7. This order may be referred to as the Sanitary Accommodation Order of 4th February, 1903.

In sixty instances, as is set out in detail on page 125, the sanitary conveniences in workshops failed to comply with the provisions of the order. In two workshops, in both of which human food was being prepared, the water-closet was situated inside the workroom, and in eight cases it was ventilated by openings into workrooms.

The following is a tabulated statement of the work carried out in connection with workshop inspection during the year, so far as it admits of tabulation:—

Workshop inspections and re-inspections		3,369
Workrooms measured		252
Workshops notified to H.M. Inspector		76
Cards distributed showing number of persons lega	ally	
employed in workrooms	,	120
Written intimations issued		229
Statutory notices served		53
Defects discovered in Workshops and remedied:-		
Workrooms in a dirty condition		173
,, overcrowded	***	12
,, badly lighted		50
,, badly ventilated		64
,, with defective walls or ceilings		40
,, with defective floors		46
", floors not properly constructed	to	
drain off wet		12

Defects disc	covered in Workshops and remedied:-	
Worksh	ops with defective yard paving	10
,,	with defective drains	4
,,	with blocked drains	5
,,	without proper dustbins	24
,,	with defective w.c. apparatus	23
,,	with sanitary conveniences insufficient in number or absent	8
,,	with sanitary conveniences badly ventilated	5
,,	with sanitary conveniences inside workrooms	2
,,	with sanitary conveniences opening into workrooms	g
,,	with sanitary conveniences without proper doors or fastenings	27
,,	with sanitary conveniences insuffici- ently screened	4
"	with sanitary conveniences in dirty condition	6
Gullies	removed from bakehouses	9
Proper o	outlets for smoke provided in smith's work-	
shop		9
Other d	efects remedied	16

The following notices of defects in workshops were received from H.M. Inspectors of Factories. In each case a notice was served on the person responsible, and the defects remedied.

Premises.	TRADE.	NATURE OF COMPLAINT.
19 Bridge Road West	Laundry	The method of ventilating ironing room appears to be defective.
73 ,, ,,	,,	Standing water found on wash-house floor likely to cause a nuisance.
131 ,, ,,	,,	The ironing room requires cleansing.
37 High Street	Confectioner	The yard and approaches thereto are in a very dirty and bad state of repair.
8 Lavender Road	Laundry	Standing water found on wash-house floor likely to cause a nuisance.
72 Plough Road	Window- blind Maker	Workshop in a very dirty condition.

Laundries.

Speaking generally it may be said that from a health point of view the laundries are the most unsatisfactory of the Battersea workshops. In no other class of workshops were so many defects found and in none are there so many unhealthy conditions which the Sanitary Authority is powerless to remove. It is not sufficiently realised that as at present carried on, even under conditions which would be described as fairly good for the trade, laundry work is a distinctly unhealthy industry. The atmosphere in the washing rooms is hot and laden with impurities, the floor is constantly wet, and in the hand laundries the workers spend their day bending over a hot steaming wash-tub; the temperature in the ironing rooms is often exceedingly high, and the drying rooms where the wet clothes are often thrown over lines stretched across the room over the workers' heads, are hot and damp. These conditions would be difficult to deal with even in buildings specially constructed for the work, but in the ordinary laundry consisting of a dwelling house with a back-yard hastily covered in and converted into a washing room the difficulties are intensified. These conditions predispose to rheumatism, respiratory diseases and consumption, but in the sorting and marking rooms another danger appears, that of direct infection from the dirty clothing. Tuberculous infection is most to be feared, for while the habit of expectorating into pocket handkerchiefs is so prevalent amongst consumptives the work of sorting and marking these articles must expose the workers to considerable risk of infection by the tubercle bacilli contained in the dried sputum, especially as the sorting room is often one of the worst ventilated rooms in the laundry, and the sorters young women, at a time of life when anaemia is particularly common. It must also be remembered that the laundress lacks the protection against excessive hours of labour which the Factory Act affords other women workers. Not only may she work 60 hours a week, exclusive of overtime, but as the period of legal employment may vary from day to day, and may even vary for each individual worker, the working of illegal overtime is hard to detect, and there is every reason to believe it it extremely common.

Moreover, the hours of labour are irregular; comparatively little is done on Mondays and Saturdays, while long hours are worked on the remaining week-days, and night work is common.

Working at an exhausting occupation, in a hot damp atmosphere charged with saline impurities, days of long hours alternating with days of comparative idleness, the laundress is especially exposed to the temptation of drink and often succumbs.

Alcoholism is prevalent amongst laundry workers, and in some districts the "beer lunch" is an established custom of the trade.

Under such conditions of work it might be expected that laundry workers would have a high mortality figure and that they would be especially subject to consumption, and there can be little doubt that such is the case. Unfortunately, however, it is very difficult to obtain reliable statistics on female occupational mortality, owing to the method which is usually employed in registering female deaths. A man's occupation is always stated on the death register, but in the case of a woman it is customary to state the occupation of the husband or father. Hence the method employed in calculating male occupational mortality is not, except perhaps in certain districts, available for females.

Miss Deane, one of H.M. Lady Inspectors of Factories, in investigating the prevalence of consumption amongst laundresses some years ago, adopted the method of comparing the percentage of phthisis cases to total cases admitted to the Infirmaries of the Wandsworth and Clapham and Isleworth Unions during the years 1898 and 1899, in the case of laundresses and of women other than laundresses respectively. Adopting this method I was able, by the kindness of Dr. J. B. Neal, the Medical Superintendent, of the Wandsworth and Clapham Union Infirmary, to examine the case books of the Infirmary from January, 1894, to June,

1902, and the results of this investigation were communicated to the Industrial Hygiene Section of the British Medical Association in the latter year. Since then the figures have been carried down to the end of 1903, and the results are given on page 129. These figures show that consumption was considerably more prevalent amongst the laundresses attending the Infirmary than amongst the women working at other occupations or unoccupied. The exceptionally high incidence on laundresses aged from 15 to 25 is no doubt explained by the fact that this age period includes the sorters and markers who are specially exposed to infection in sorting and marking dirty handkerchiefs, etc.

The law as it now stands is quite inadequate to deal with the unhealthy conditions of the laundry industry, and additional legislation is needed. Such legislation should include the following provisions:—

- The standard of cubic space per worker to be not less than 500 cubic feet.
- Prohibition of underground workrooms, and of the practice of hanging articles to dry over the heads of the workers.
- 3. Application to workshop laundries of the present provisions relating to factory laundries for
 - (a) Providing fans or other means for regulating the temperature in the ironing room, and carrying away steam from the washhouse; and
 - (b) Separating heating stoves from the ironing room and prohibiting the use of gas-irons emitting noxious fumes.
- 4. Application of the provisions of the Factory Act to institution laundries and small exempted laundries.
- 5. Provision to be made for the disinfection by boiling water or otherwise, of all articles immediately on arrival at the laundry.
- Alteration of the legal periods of employment so as to bring them into line with those obtaining in factories and workshops.

Female Patients, aged from 15 to 65 years, admitted into the Wandsworth and Clapham Union Infirmary from January, 1895 to December, 1903.

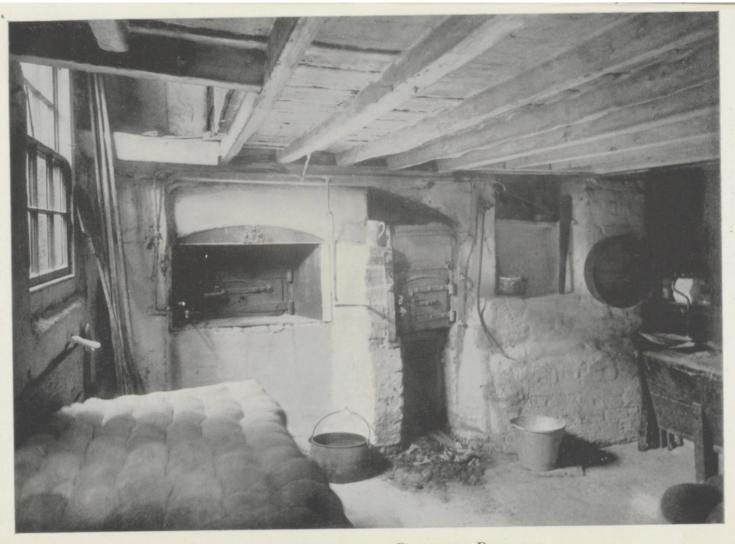
Age Periods.	Laundresses.		Wage-earning women other than Laundresses.		Unoccupied women.		Percentage of Phthisis cases to Total No. of cases.		
	Total No.	No. suffering from Phthisis.	Total No.	No. suffering from Phthisis,	Total No.	No. suffering from Phthisis.	Laundresses.	Wage-earning women other than Laundresses.	Unoccupied women.
15-25	150	16	960	31	279	11	10.66	3.22	3'94
25-45	386	34	1,168	79	1,192	102	8.80	6.76	8.55
45-65	379	32	855	55	843	50	8.44	6.43	5.93
Totals	915	82	2,983	165	2,314	163	8.96	5.53	7.04

Bakehouses.

In 1903 there were 91 bakehouses in Battersea, 48 of which were underground bakehouses within the meaning of the Factory Act of 1901. When the Act passed there were 49 underground bakehouses, but in 1902 the occupier of one of these removed to a bakehouse above ground. A list of the bakehouses is given below. There are also 15 premises which were formerly used as bakehouses, but which are now unoccupied or used for other purposes.

ABOVE GROUND.

AD	DRESS.	Address.
Battersea 78 78 Battersea 78 Battersea 78 Battersea 78 Battersea 78 Battersea 78 Battersea 78 Castle Str 78 Culvert R 78 79 Chatham 79 Falcon R 70 71 Hanbury 73 74 Lavender 73 74 Latchmere 73 75 76 Latchmere 77 78 79 79 79 70 70 71 72 73 74 74 75 76 76 76 76 76 77 76 77 78 78	Rise oad , Road doad , Road Road et , Hill , Road	29 Meyrick Road 89 New Road 148 ,, ,, 10 Northcote Road 23 ,, ,, 76 Plough Road 112 ,, ,, 41 Queen's Road 121 ,, ,, 93 Stewarts Road 29 Stockdale Road 16 St. Philip Street 90 St. John's Hill Sugden Road 47 Tyneham Road 102 Usk Road 46 York Road 70 ,, ,, 187 ,, ,, 287 ,, ,,



INTERIOR OF AN UNDERGROUND BAKEHOUSE, BATTERSEA.

This Bakehouse was closed in 1903 under Section 101 of the Factory and Workshop Act, 1901.



UNDERGROUND.

Address.	Address.		
33 Anerley Street 163 Battersea Park Road 189 ,, ,, 200 ,, ,, 219 ,, ,, 265 ,, ,, 310 ,, ,, 373 ,, ,, 501 ,, ,, 525 ,, ,, ,, 1 The Parade, Battersea Rise 44 Bridge Road 122 Bridge Road West 48 Broomwood Road 2 Burland Road 35 Castle Street 83 Chatham Road 83 Church Road 4 Currie Street 28 ,, ,, 43 Falcon Road 103 ,, ,, 46 Francis Street 29 Gideon Road	49 High Street 30 Lavender Hill 291 ,, ,, 123 Maysoule Road 133 Meyrick Road 205 New Road 64 Northcote Road 94 ,, ,, 36 Orkney Street 23 Plough Road 34 ,, ,, 62 ,, ,, 109 Salcott Road 46 St. John's Road 140 St. John's Road 140 St. John's Hill 8 Tyneham Road 23 Webbs Road 33 Winstanley Road 47 ,, ,, 79 ,, 79 ,, 79 ,, 6 York Road 198 ,, ,, 345 ,, ,,		

In April and October the usual half-yearly inspections to secure the lime-washing of the bakehouses was made, and it was found necessary to serve notices in 27 instances in April and in 31 in October.

Section 101 of the Factory and Workshop Act, 1901, contains important provisions relating to underground bakehouses. Sub-section 1 of this section, re-enacting a similar provision in the Factory Act of 1895, provides that no underground bakehouse shall be used as a bakehouse unless it was so used on the date on which the Act was passed, namely, 17th August, 1901. Sub-section 2 provides that after 1st January, 1904, no underground bakehouse shall be used unless certified by the District Council to be suitable for that purpose. It is evident from these provisions of the

Act of 1901 that the Legislature views the underground bakehouse with marked disfavour. Not only is the opening of a new underground bakehouse absolutely prohibited, but after so short a period as some two-and-a-half years from the passing of the Act it is made an offence to use any underground bakehouse, which has not been certified by the Sanitary Authority as suitable for the purpose. Moreover, it was clearly intended that the expression "suitable" should not be interpreted by local authorities in too lenient a spirit, for sub-section 4 section 101 contains a distinct instruction from Parliament that "an underground bakehouse shall not be certified as suitable unless the District Council is satisfied that it is suitable as regards construction, light, ventilation, and in all other respects."

From these provisions it is evident that it was the intention of the Legislature to close all underground bakehouses which did not conform to a reasonably high standard of sanitation. On the other hand, as a safeguard against the possibly excessive severity of exceptionally zealous Sanitary Authorities, it is provided by sub-section 7 of section 101, that should the District Council refuse the certificate the occupier of the bakehouse may apply to a court of summary jurisdiction who may grant the certificate, which shall have effect as if granted by the Council. The magistrate is, therefore, the ultimate arbiter as to what constitutes suitability " as regards construction, light, ventilation, and in all other respects " in an underground bakehouse. This last provision appears to be entirely unnecessary. It was hardly to be expected that local authorities would be eager to take away the livelihood of rate-paying tradesmen by closing their bakehouses, or to put them to unnecessary expense by insisting upon unjustly elaborate structural alterations. As a matter of fact the standards of sanitation generally adopted have certainly not erred on the side of excessive rigour, and the trade newspaper states that in one district at all events the "certificate was to be had for the asking."

The procedure adopted in Battersea in carrying out the provisions of the Factory Act relating to underground

bakehouses was as follows. Soon after the passing of the Act the question was carefully considered by the Health Committee, and early in 1902 a circular letter was sent to the occupiers of underground bakehouses, setting forth the provisions of the Act which affected them, and asking each occupier to make application for a certificate if it was his intention to use his bakehouse after 1st January, 1904. Each bakehouse was then inspected by the Medical Officer of Health, who reported thereon to the Health Committee. There were 49 underground bakehouses in Battersea at the beginning of the year, and in no case could the certificate be given unless more or less extensive alterations were carried out. In most cases it was evident that certain structural alterations would make the bakehouse fairly suitable, but in some cases it was found to be impossible to suggest any practicable alterations which would have the effect of converting the bakehouse into a place suitable for the preparation of human food. In other cases, although the bakehouse could be made suitable, the cost of carrying out the necessary alterations was practically prohibitive.

In all cases where it appeared to be impossible at any reasonable cost to make the bakehouse suitable, the occupier was strongly advised to abandon it altogether, and in three cases the certificate was definitely refused by the Council. Out of the 49 underground bakehouses no less than 16 or 32 per cent. were closed. In 15 instances the bakehouse was closed with the consent of the occupier or owner, but in one case, that of the bakehouse at 72A Winstanley Road, the owner made an unsuccessful appeal to the magistrate for a certificate under section 101, sub-section 6 of the Factory Act. An account of this case, which is an important one, is given on page 140. In 9 cases a new bakehouse above ground was built by the owner or occupier on or near the same premises, and in 7 cases the premises were closed or occupied for other purposes.

In all cases where it appeared that the bakehouse could be made suitable, a list of requirements was sent to the occupier. It was decided not to issue a general list to apply to all the underground bakehouses, but to consider each case on its merits, and issue a special list of requirements for each. When the bakehouses came to be considered in detail, however, it was found that the following list of requirements would apply with modifications to most of them. This list, more or less altered in certain respects to meet individual cases, was accordingly issued to most of the occupiers as the applications and plans came in and were considered by the Health Committee.

Requirements in respect of the Underground Bakehouse at occupied by

- 1. The bakehouse shall not be less than 8 feet in height throughout, measured from the floor vertically to the ceiling.
- 2. The bakehouse shall have a cubic capacity clear of the oven of not less than 1,500 feet.
- 3. The floor shall consist of a hard, smooth, and durable surface on a bed of concrete not less than 6in. thick.
- 4. The walls shall be constructed of a material which is hard, smooth, durable, and impervious to damp.
- 5. The ceiling shall be smooth and durable, and impermeable to damp and dust.
- 6. Any drain or sewer under the bakehouse shall be constructed of gas and water-tight nines. No drain opening, trapped or otherwise, shall be within the bakehouse. The bakehouse must be effectually secured against flooding from drains or sewers, and from the entrance of wet or damp from any source.
- 7. The bakehouse shall be approached by a suitable staircase, adequately ventilated and lighted.

No outside staircase shall terminate within the bakehouse, and such staircase must be so constructed as to prevent the entrance of dust into the bakehouse.

Any entrance from the shop must be so constructed as to prevent the entrance of dust.

- 8. The bakehouse shall be adequately lighted with day-light throughout to the satisfaction of the Sanitary Authority, by means which shall exclude the entrance of dust, and the lighting maintained shall be such that the official copy of the abstract of the Factory Act may be ordinarily read in all parts of such bakehouse between the hours of 11 a.m. and 3 p.m.
- 9. The bakehouse shall be properly ventilated to the satisfaction of the Sanitary Authority by permanent inlets and outlets, other than the windows, communicating directly with the open air in such a way and at such a height above the street level as to prevent the entrance of dust. Over the furnace door a properly constructed hood shall be provided connected with a shaft opening into the external air.

Mechanical means of ventilation shall be provided where in the opinion of the Sanitary Authority such are necessary.

- 10. All troughs, tables or other furniture standing on the floor of the bakehouse shall be provided with castors or wheels, so as to be readily movable for cleansing purposes.
- 11. The water supply shall be drawn from the rising main service.
- in a suitable position, not within the bakehouse, and shall include a water tap and a sink or lavatory basin of an approved character.
- 13. Proper provision shall be made for the depositing of wearing apparel not within the bakehouse.
- 14. There shall be no opening into the bakehouse for any purpose which will tend unduly to the admission of dust from the adjoining street or ground.
- 15. Proper provision shall be made for the storage of coal.
- 16. Properly covered receptacles shall be provided for the storage of all refuse matters, and such receptacles shall be emptied and cleansed at least once every 24 hours.

- 17. No animal shall be allowed in or have access to the bakehouse.
- 18. The bakehouse shall not be used as a room for washing or drying clothes.
 - 19. All statutory obligations shall be fulfilled.
- 20. Before making any alterations with a view to meeting these requirements the owner or occupier of the bakehouse shall submit to the Sanitary Authority a specification of the alterations which it is proposed to make, and no work shall be begun until the applicant has been informed that the specification has been approved.

Before alterations were begun the builder engaged by the occupier was met on the premises by the Medical Officer of Health or the Chief Sanitary Inspector, and detailed instructions were given as to the means by which the Council's requirements could be best carried out. A specification was then submitted by the builder, and until this was approved, the work was not allowed to begin. While in progress the work was supervised by the Workshop Inspector, but frequent visits were paid by the Medical Officer of Health and by the Chief Sanitary Inspector. A considerable amount of the time of the Council's officers was taken up in this work of prescribing and supervising the alterations. Not infrequently the requirements had to be explained to two or even three builders before a specification satisfactory to all parties could be secured.

The constructional work carried out to fulfil the Council's requirements was on the following lines:—

Floors.—The floors were constructed of 6 inch concrete with a smooth surface of cement and granite chippings. In two cases where it was difficult to keep out the damp the concrete was laid on a bed of asphalte or patent impervious paving.

Walls.—The plaster was hacked off, the joints raked out, and the walls rendered in Portland cement trowelled to a

smooth surface. In 7 cases the surface was finished in Keen's cement. In 2 instances the walls were lined with glazed tiles, and in 3 instances it was necessary to line the walls with asphalte, or other special impervious material, to keep out damp.

Ceilings.—Lath and plaster ceilings were hacked off and the underside of the floor covered with No. 14 zinc fixed tight with fillets. The exposed joists were cased and the ceiling painted with three coats of paint.

Lighting.—The whole of the stallboard was used for lighting and windows were inserted elsewhere where required In some cases it was necessary to glaze portions of the shop floor, but on the whole the question of lighting presented little difficulty.

Ventilation.—The most difficult problem was that of ventilation. In each case a hood of No. 16 zinc was placed above the furnace door and connected with a pipe which, wherever practicable was carried above the eaves, terminating with a movable cowl. This was found to have an excellent effect. In some of the cases first dealt with an attempt was made to close all stallboard openings so as to effectually prevent the entrance of street dust, and to ventilate the bakehouse entirely by tubes with external openings well above ground level; but it was found impossible to secure admission of a sufficient amount of fresh air, or to keep the bakehouse cool by this method, without having recourse to fans or other mechanical means of ventilation. It was, therefore, decided to permanently close the stallboard up to a height of from 12 to 18 inches from the street level and fix above this, along the whole length of the stallboard, an open iron grating fitted with a movable flap. In the yard a large skylight was provided with fixed vertical lights to a height of from 12 to 18 inches, and top lights along the whole length hung to open, provision for permanent ventilation being made by fitting a grating about 4 inches deep above the vertical lights, and fixing the top rail of the skylight about 3 inches from the wall under a bearer fixed into the wall. By these means it has been

possible to flush the bakehouse with fresh air from the whole length of the front to the back, and thus to secure perflation as well as ventilation, and the amount of dust admitted is no more than might be found in almost any London room.

Water Supply.—The water supply in every case is from the main.

Drainage.—In each case the drains were tested and re-laid where necessary. All gullies and sinks were removed from the interior of the bakehouse.

Entrance.—Entrances from the shop are guarded by glazed or wooden partitions against the admission of dust, and external staircases are covered in and doors provided at the top of the staircase and at the opening into the bakehouse. These enclosed staircases are freely and permanently ventilated.

Cubic Space.—An air-space of 1,500 feet or more was obtained in every case save one, where for special reasons the Health Committee decided to allow 1,323 cubic feet.

Height.—In eight cases where it was found impossible to excavate to obtain the required height without admitting water, the Committee decided, after careful consideration, the bakehouse being otherwise in a fairly satisfactory condition, to allow a height lower than 8 feet. In all other cases a height of 8 feet was obtained.

In the cases where 8 feet could not be obtained the height was as follows:—

7 feet 10 inches, 7 feet 8 inches, 7 feet 6 inches, 7 feet 6 inches, 7 feet 6 inches, 7 feet 4 inches, 7 feet 3 inches, 7 feet 3 inches, 7 feet 3 inches.

The following is a statement of the height and cubic space in the certified bakehouses before and after the alterations were carried out.

Неіднт.	No. before Alteration.	No. after Alteration.
Above 8 feet	4	13
Eight feet	7	12
Below 8 feet	22	8
CUBIC SPACE.	No. before Alteration.	No. after Alteration.
Below 1,500 cubic feet Between 1,500 and 3,000	5	I
cubic feet	22	20
Above 3,000 cubic feet	6	12

The following is a list of the 31 bakehouses certified as suitable by the Council. In two cases the alterations had not been completed at the time of writing, and the certificates have not yet been granted.

163	Battersea Park	Road	103	Falcon Road
189	, ,,	,,	46	Francis Street
200	,,	. ,,	30	Lavender Hill
219	,,	,,	291	. ,, ,,
265	,,	,,	123	Maysoule Road
310	,,	,,	36	Orkney Street
373	,,	"	23	Plough Road
501	,,	,,	34))))
525	,,	,,	109	Salcott Road
48	Broomwood Roa		140	St. John's Hill
2	Burland Road		23	Webb's Road
35	Castle Street		47	Winstanley Road
83	Chatham Road		79	,, ,,
	Currie Street			York Road
28	,, ,,		345	27 27
	Falcon Road			salara / si sala
-				

In the following 16 cases the use of the bakehouse was discontinued. In 9 cases the occupier removed to a newly-built bakehouse in or near the same premises, in 6 cases the shop was closed or used for another business, and in one case the occupier continues to sell bread, but has it baked by another baker.

33	Anerley Street	205	New Road
	Battersea Rise	64	Northcote Road
44	Bridge Road	94	,, ,,
122	Bridge Road West	52	Plough Road
29	Gideon Road	46	St. John's Road
49	High Street	33	Winstanley Road
137	Lavender Hill	72a	
133	Meyrick Road	198	York Road

The bakehouse at 72a Winstanley Road figured in the case of Schweitzerhof v. Wilkins, where the late Vestry in 1898 attempted to close the bakehouse under the Factory Act of 1895, on the ground that it was not used as a bakehouse at the commencement of the Act, viz., 1st January, 1896. appears that on that date the premises were vacant, but that works of repair were in progress, and a notice was exhibited upon the premises to the effect that they were to be let as a bakehouse. The High Court decided against the Vestry, holding that temporary closing did not necessarily constitute disuse. On 9th July, 1902, the Council decided that this bakehouse could not be certified as suitable, and the occupier was so informed. In June, 1903, the occupier, who did not appeal against the Council's decision, left the premises, the owner came into occupation, and on 5th November applied to the Council for a certificate. The Council declined to re-open the question, and on 5th December the owner applied to the magistrate for a certificate. The case was heard on 12th and 19th January, 1904. It was contended by the Council that as the occupier had not appealed within twenty-one days from the refusal in July, 1902, the appellant was out of Court, but the magistrate, Mr. Garrett, held that the application of November, 1903, being made by a new occupier, was a new application, and that the refusal of the Council to re-open the matter in November, 1903, was the refusal within twentyone days of which the occupier could appeal. Evidence as to the condition of the bakehouse was given by the Council's officers and Mr. Seymour, one of H.M. Inspectors of Factories, and the magistrate himself inspected the premises. It was contended on behalf of the appellant that the Court could prescribe alterations in the event of the bakehouse being found unsuitable, but Mr. Garrett decided that he could only

adjudicate on the condition of the bakehouse then existing, and as he did not consider it to be suitable, he dismissed the case, allowing the Council seven guineas costs.

The effect of the Act of 1901 on the underground bakehouses in Battersea has been, first, to close 16, or 32 per cent., of the total, and, secondly, to greatly improve, in some cases beyond recognition, the remaining 33. It now remains to ensure that the certified bakehouses are maintained in the condition in which they were when certified. For this reason the certificate has been carefully drafted by the Solicitor, and each occupier, upon receiving the certificate, has signed his assent to a written description of the bakehouse at the time it was certified. There is, however, much need for bye-laws for the due ordering of all bakehouses above, as well as below, ground. In London such bye-laws should be made by the County Council, but administered by the Borough Councils.

The following is the form of certificate granted in respect of the bakehouses altered in accordance with the Council's requirements.

BATTERSEA BOROUGH COUNCIL.

Factory and Workshop Act, 1901. Certificate for Underground Bakehouse.

THE MAYOR, ALDERMEN, AND COUNCILLORS of the METROPOLITAN BOROUGH OF BATTERSEA, in pursuance of the provisions of the above-mentioned Act, do hereby certify that the underground bakehouse, situate and being in the said Borough, is at this date suitable to be used as a bakehouse.

Dated this day of Town Hall, Lavender Hill, S.W.

, 190 .

Town Clerk.

CAUTION.—Any alteration of the above bakehouse after the date of this certificate as regards construction, light, ventilation, or in any other respect, may invalidate this certificate.

Workplaces.

Although the term "workplace" occurs in both the Factory Act and the Public Health (London) Act, in neither Act is it defined; but in the case of Bennett v. Harding, under section 38 of the latter Act, it was held that the term "workplace" includes any "place where work is done permanently, and where people assemble together to do work permanently of some kind or other." In this case a stable and stable-yard, where men were employed as cab-cleaners and horse-keepers, was held to be a workplace. The Home Secretary has been advised that kitchens of restaurants, etc., are workplaces.

In 1902 the first systematic inspection of the restaurant and coffee-house kitchens was made by Inspector Benjamin. The kitchens then numbered 83. In 1903 the use of 2 of these places was discontinued, while 2 new kitchens were opened, leaving the same number on the register as in 1902. A list of the kitchens is given on the following page.

Premises.	Premises.
netr addendable Languagegome of	12 appar ouring the alterations
4 Abercrombie Street	23 New Road
16 Battersea Park Road	64 ,, ,,
17 ,, ,,	10 Nine Elms Lane
35 " "	39 ,, ,,
24 ,, ,,	93 ,, ,,
126 ,, ,,	4 Northcote Road
141C ,, ,,	13 Park Road
160 ,, ,,	30 Plough Road
178 ,, ,,	96 ,, ,,
157 ,, ,,	138 ,, ,,
183 ,, ,,	35 Queen's Road
262 ,, ,,	38 ,, ,,
295 ,, ,,	174 ,, ,,
335 ,, ,,	218 ,, ,,
431 ,, ,,	35 St. Andrew's Street
491 ,, ,,	1c St. John's Hill
509 ,, ,,	26
575 ,, ,,	20
64 Battersea Rise	644
94 _ ,, ,,	72
21 Bridge Road	93 ,, ,,
41 ,, ,,	146 ,, ,,
42 ,, ,,	45 St. John's Road
70 Chatham Road	62 ,, ,,
50 Church Road	73 Stewarts Road
114 Culvert Road	159 Usk Road
23 Falcon Road	45 Webbs Road
101 ,, ,,	24 Winstanley Road
125 ,, ,,	10 York Road
135 ", ",	25 ,, ,,
166 ,, ,,	42 ,, ,,
184 ,, ,,	73 ,, ,,
19 High Street	
22 ,, ,,	139 ,, ,,
30 ,, ,, 86 ,, ,,	159 ,, ,,
	* Qa
93 Latchmere Road	007
119 Lavender Hill	216
235 ,, ,,	257
266 ,, ,,	357 " "
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	No. 10 Sept. Super Super St.

The inspection of kitchens and other workplaces is a duty devolving upon Inspector Benjamin, but so much of his time during the latter half of the year was necessarily taken up in supervising the alterations to underground bakehouses that comparatively little was devoted to this work. A systematic inspection was, however, made of the kitchens in the spring, and again in autumn. The number of persons employed in the kitchens was 217, 63 males and 154 females. kitchens were wholly or partly underground. As regards lighting and ventilation, their condition was fairly satisfactory. The chief defect found was want of cleanliness and carelessness in the disposal of refuse. There is a tendency to heap up the refuse in the kitchen or yard instead of placing in a proper receptacle. Since the kitchens have been regularly inspected there has been a marked improvement in their condition, but there is need for bye-laws to deal with the structural conditions of the premises, the way in which they are kept, and the way in which the food is stored and prepared. The restaurant is becoming more and more prominent a feature in modern life, as the tendency of the workers to live at a distance away from their work increases with the growth of large towns; and it is important that the food should be stored and prepared under the best conditions, which is certainly not the case at the present time.

The following is a statement of the work done in connection with restaurant kitchens during 1903:—

				3 2 0		
Insp	ections					186
Intir	mations issued					47
Stat	utory notices s	served				13
No.	of premises lice	ensed to	sell into	xicants		2
No.	of premises v	where ga	s only	is used	for	
	cooking					29
No.	of premises wh	ere sanit	ary conv	reniences	are	
	provided for co	ustomers				2
Def	ects found and	remedied	_			
	Refuse receptad	cles absen	t or defe	ective		21
	Accumulation of	of refuse	in yard			II
	Dirty walls ar	nd ceiling	gs			37

Defects found and remedied—	Archer	
Defeative wells and sellings	4	
Defective floors		
Dirty and defective yards	6	
Drainage defects	7	
Defective sinks	4	
Defective sanitary conveniences	4	
Drinking water cisterns connected to w.c.	's 2	
Other defects	7	

In addition to the eating-house kitchens there are 21 kitchens in connection with cooked meat shops, where the meat is prepared but not consumed on the premises. Five of these places are ham-and-beef shops, and 16 are premises on which sausages and cooked meats are prepared and sold. A considerable number of defects were found in these places, but their condition generally has very much improved since they have been brought under systematic supervision. In one of the sausage shops the meat chopping was done in a cellar in which a horse was stabled, the horse's occupation being to turn the chopping machine. The only way by which the horse could be got out of his underground stable was up an inclined plane let down from the shop floor. There is great need for bye-laws to regulate these places. Indeed, all premises in which human food is prepared, stored or sold should be subject to a much more stringent sanitary code than that which Sanitary Authorities have to administer at the present time. Recent advances in sanitary science have demonstrated how potent an agent in the spread of disease food may become. Much of the disease once attributed to "bad smells" is known to be due to contaminated food. Sanitary legislation has not kept pace with sanitary science in this respect, but it is to be hoped that local authorities will soon be given adequate powers to enable them to protect the public from the consumption of unwholesome food.

Fried Fish Shops.

The following is a list of the fried fish shops in the Borough:—

12 Arthur Street	73 New Road
10 Austin Road	154 ,, ,,
14 Battersea Park Road	19 Plough Road
134 ,, ,,	41 ,, ,,
397 ,, ,,	2 Plough Terrace
573 ,, ,,	17 Ponton Road
98 Battersea Rise	
4A Beaufoy Road	3 Rollo Street
52 Bridge Road	48 St. Andrews Stree
	5 Spicer Street
2 Castle Street	51 Stewarts Road
107 Chatham Road	131 ,, ,,
46 Church Road	12 Tyneham Road
100 Culvert Road	19 ,, ,,
84 Falcon Road	159 Usk Road
91 ,, ,,	65 Wayford Street
176 ,, ,,	13 Webbs Road
27 Gideon Road	44 ,, ,,
18 High Street	44 Winstanley Road
147 ,, ,,	81 ,, ,,
158 ,, ,,	18 York Road
56 Latchmere Road	60 ,, ,,
	125 ,, ,,
43 Livingstone Road	213 ,, ,,
24 Northcote Road	325 ,, ,,
87 Nine Elms Lane	333 " "

The number of persons employed on these premises was 109—males 68, females 41. The work is chiefly done between the hours of 12 and 2, and 7 and 11 p.m. The fuel used was chiefly coal or coke, but in 5 shops gas was used.

The kind of fat employed for frying was mainly dripping, but cotton seed oil was used in 12 shops. Many defects were found on these premises. In 4 cases the w.c. was situated inside the fish store, and in many cases the arrangements for the removal of offal left much to be desired. The condition of the fried fish shops has been greatly improved since the first systematic inspection was made during the spring of 1903, but much yet remains to be done. The frying apparatus generally used is unsatisfactory, as, being open at the sides and

in front, it allows the effluvia from the pans to escape freely, and in many cases it was found that the aperture in the furnace flue through which the steam is supposed to pass was kept closed by a shutter.

Small Exempted Laundries.

These are the small laundries which are exempt from the special provisions of the Factory Act relating to laundries, and can only be dealt with as workplaces. Since the appointment of the Lady Sanitary Inspector these places, which number 66 and employ 106 workers, have been kept under regular inspection, and there has been a distinct improvement in their condition. In the first inspection 45 premises were found to be in a dirty condition, and in the 66 laundries no less than 82 defects were discovered for which intimations were served. From a health point of view these places are more unsatisfactory than either the factory or workshop laundries. workrooms are small and unfit for the work, the hours are often long, and there are exceptional opportunities for the employment of child labour in the evenings. It is much to be hoped that we may soon have more effective provisions for dealing with these small laundries.

Underground Workrooms.

Recent legislation relating to underground bakehouses has drawn attention to the evils of underground workrooms generally, and it is to be hoped that the Legislature will shortly take the whole question in hand. The underground bakehouse is really no worse than the underground kitchen, if as bad, and as far as the workers are concerned the underground washhouse or ironing-room is probably more unhealthy than either bakehouse or kitchen. The underground workroom is nearly always badly lighted and ventilated; it is usually damp, and, like all imperfectly lighted rooms, it is hardly ever clean. As a place for the preparation of human food, the underground workroom is distinctly unsuitable, and its abolition would be a welcome event.

The modern tendency to make the most of land in large towns by burrowing under the surface should, in the interest of public health, be strongly resisted. Man is adapted for life on the surface of the earth and not beneath it, and the habits of the cave-dweller are out of place in modern civilization.

There are 30 underground workrooms in the Battersea workshops and workplaces, not counting underground bake-houses, and the number in each trade is given below.

WORKSHOPS.

Trade.		No. of	Underground orkrooms.
Laundries			5
Dressmaking			2
Embroidery			1
Picture frame making			3
Cycle making			1
Tailoring			1
WORKPLACE	S.		
Restaurant kitchens			7
Meat-chopping			2
Small exempted laundries			8

Out-workers.

The Factory Act of 1901 provides that in certain trades to be specified by the Home Secretary, the employers shall twice a year send to the Sanitary Authority lists of the outworkers employed by them. The trades so far specified by the Home Secretary are as follows:—

The making, cleaning, washing, altering, ornamenting, finishing and repairing of wearing apparel and any work incidental thereto;

The making, ornamenting and finishing of lace and of lace curtains and nets;

Cabinet and furniture making and upholstery work;
The making of electro-plate;
The making of files;

Fur-pulling;

The making of iron and steel cables and chains;

The making of iron and steel anchors and grapnels;

The making of cart gear, including swivels, rings, loops, gear buckles, mullin bits, hooks, and attachments of all kinds;

The making of locks, latches and keys.

The names and addresses of 252 out-workers were received during the year. Lists were sent in by employers and by the Medical Officers of Health of the following Metropolitan Boroughs:—

Borough.	No. of Lists.	Borough. No. of Lists.
Chelsea	2	Southwark 3
City of London	10	St. Marylebone 2
Finsbury	5	St. Pancras 1
Kensington	6	Stepney 1
Hampstead	I	Wandsworth 12
Holborn	I	Westminster 4

Thirty-three out-workers whose names were sent in by employers were found to live outside Battersea, and their names and addresses were sent to the Medical Officers of Health of the respective districts.

The premises occupied by the out-workers are registered and regularly inspected. The appended table shows the number of such places which have been registered, together with the trades and the number of persons employed:—

Trade.		Number on	Persons Employed.		
		Register.	Males.	Females.	
Blouse makers	dood baid	15		20	
Cleaners and Dyers		2	I	2	
Dressmakers		7	-	8	
Embroiderers	10 III	55	-	66	
Florists	of, the re	die		1	
Glove makers	***	54	-	64	
Milliners	*:	4	-	4	
Shoemakers		10	12	-	
Tailors	Souths	24	9	18	
Underclothing make	ers	5	-	6	
Upholsterers	et 12	I	-	3	
Total	ding//"	178	22	192	

Intimations were served in seven instances to remedy defects discovered on out-workers' premises. No case of notifiable infectious disease occurred on these premises during the year.

Factories.

The Factory Act contains a special sanitary code for factories, which is administered by the Factory Inspectors; but for the most part this code supplements but does not replace the provisions of the Public Health (London) Act, which are administered by the Sanitary Authorities. The definition of the word "house" in the latter Act includes a factory, and where there is no express statutory provision to

the contrary, the sections of that Act apply to factories as to dwelling houses. Moreover, section 38 of the Public Health Act lays upon the Sanitary Authorities the duty of securing for the workers "sufficient and suitable accommodation in the way of sanitary conveniences" in all factories.

In order to carry out the duties devolving upon local authorities in relation to factories, a systematic inspection was made of these premises during the year. The following is a list of the factories visited:—

Trade.		Number of Factories	Persons Employed.		
		on Register.	Males.	Females.	
Barge and Boat builders		2	56	_	
Bakers		4	165	112	
Blacking manufacturer	25	I	40	_	
Candle makers		I	1,100	283	
Carpenters		5	42	ob taile	
Chemical manufacture	rs	2	70	2	
Cigar makers		I	90	130	
Colour manufacturers		1	58	-	
-		2	30	27	
Engineers		14	504	5	
Firewood cutters		,	76	33	
Founders		3 2	85	_	
Gas works		I	1,500	_	
Hay cutters		2	20	_	
Helmet makers		I	12	96	
Instrument makers		2	8	_	
Laundries		24	163	828	
Masons		2	34	-	
Mineral water					
manufacturers		I	28	33	
Patent food makers		4	35	12	
Pencil makers		i	27	77	
Printers		5	37	2	
Wheelwrights		I	46	_	
Other trades		10	370	6	
Totals		93	4,596	1,646	

During this inspection	the	following	defects	were
discovered and remedied :-				

NAT WAS ARRESTED FOR THE PROPERTY OF THE PROPE	
Defective walls and ceilings	9
", floors	10
,, yard paving	4
drains drains will be will be will be	II
,, sanitary conveniences—	
conveniences with defective apparatus	19
,, insufficient in number	11
,, badly lighted	II
,, badly ventilated	16
,, opening into work-	
rooms	16
without proper doors	
and fastenings	9
,, insufficiently screened	10
not accessible	2
,, in a dirty condition	14
Other defects	5
a same a superior for	

Fifty-seven intimations and 32 statutory notices were served to remedy defects found in factories during the year.

 Infants' Milk Depôt.

Infants' Milk Depôt.

Infants' Milk Depôt.

The average number of children fed on the milk during the year varied from 300 to 400, but many were on the milk for short periods only.

During the summer the resources of the Depôt were taxed to the utmost to cope with the demand, and the work was carried on under great difficulties. The premises at York Road are much too small for the work which is now done, and it is to be hoped that they may soon be replaced by a larger building specially constructed for the purpose.

On 27th February, 1904, I addressed a circular letter to the medical practitioners in the district, and to the visiting physicians of certain Children's Hospitals to which Battersea children are taken, asking for an expression of opinion as to the value of the milk. Replies were received from 44 practitioners, 3 of whom refrained from expressing an opinion on the ground that they had not had sufficient data. The remaining replies, with one exception, were favourable, in most cases highly so, as will appear from the following extracts from the letters received. Only one practitioner expressed himself as disappointed with the results obtained from the milk.

"It is the greatest possible boon to be able to tell out-patients where they can get milk for their infants in clean bottles, and in proper quantities. I have not seen any infant with symptoms which could be attributed to any fault in the milk supplied by the Borough Council of Battersea."

- "A perfect God-send to the working classes."
- "It is a form of infant food which most of us would advise, but which before the Depôt was started was impossible."
- "In my opinion it is the very best substitute for mothers' milk."
- "It is in my opinion the one 'Progressive' venture of the local Borough Council which has benefited the public."

"The infants have done well on the milk, with one or two exceptions only, and in these cases enquiry showed that the children had been over fed, or had such things as crust of bread or mashed potatoes given them at too early an age."

"It was frequently in cases of rickets that I prescribed your modified milk, and I know of no case in which its use was other than most beneficial."

"It is an education for those who are entirely ignorant of the proper feeding of infants. It is a diet which is at once definite and complete, and a safeguard against the meddlesome neighbour next door."

"I am of opinion that the milk has been the means of saving the lives of a large number of hand-fed infants treated at our dispensary suffering from wasting, rickets, and other disorders brought on by improper feeding."

"In a great many cases it has, in my opinion, been the means of saving the patient's life."

"In cases of rachitis I order it, and have found it beneficial. In my own practice I have not had nearly the number of cases of enteritis since the milk has been in use. It is extremely rare in children fed on the milk, and then is due to some extra food given without advice."

"I have every faith in its efficiency and nourishing power, and invariably recommend it in cases of rickets and other infantile diseases and conditions of ill-health. One of the finest institutions that was ever established."

"Now and again I meet with a case where the milk disagrees, but I have generally to blame the parents rather than the milk."

"I think, generally speaking, the milk is a grand innovation, and by far the best substitute for mother's milk."

"I always recommend the milk and endeavour to induce patients to obtain it, and have observed most satisfactory results after its use."

Two medical men have given evidence of their confidence in the milk by feeding their own children upon it for nine and twelve months respectively. The results were excellent, as appears below:—

"My own child was reared on it until the age of nine months, and I can speak of it in terms of unqualified approval.

. . . It has suited her admirably, and she has never once been sick during the whole period, and has grown up strong and healthy in every way."

"My own child has taken it entirely from the age of twoto fourteen months, and is now a most healthy child in every respect."

In May, 1903, the South-West London Medical Society passed a unanimous resolution approving the action of the Borough Council in establishing the Depôt.

The medical testimony is the most reliable evidence at present available. The opinion of a practitioner who has prescribed the milk largely and has had opportunities of observing its effects must be of more value than the rough results, which are all that can be hoped for from the treatment of the available statistical data. Further experience and reflection confirms the opinion I expressed in my last Annual Report, that it is doubtful whether the valueof these institutions can be expressed in figures. It is well that this should be strongly emphasised, as there is a tendency for the public to demand that for every measure of diseaseprevention there shall be produced a full and ample statistical proof within a short time after its adoption. Asa matter of fact, there are very few preventive measures whose value can be demonstrated inductively by statistics, as in the case of vaccination. To obtain a reliable result it is necessary to disentangle, isolate and measure one only out of a multitude of closely-linked and inter-dependent phenomena, and statistical science is not yet in possession of sufficient data to enable this to be done except in a very few cases. The Fiscal controversy has been an object lesson in the dangers of statistical arguments. A table which appears to demonstrate the case on one side of the question can, by a little re-arrangement and amplification, be made to afford, apparently, crushing evidence on the other side. In dealing with disease the danger is even greater, and in the case of Milk

Depôts it seems almost impossible to suggest a statistical method which is not beset with fallacies. Certain figures which have been given lately in reference to some of the French Depôts prove little save the dangers attending the application of numerical methods to vital phenomena. In my last Annual Report I ventured to offer some figures which, with qualifications, appeared to me to be suggestive, but unfortunately these were used in the public press as a basis for exaggerated statements which can only do harm to the work of the Depôt. For these reasons I do not propose to offer any figures until sufficient material has been collected for a conclusive statement to be made. But it must not be supposed that evidence in favour of the milk is lacking. The medical testimony already quoted fully justifies the action of the Council in establishing the Depôt.

The best method of investigation, however, appears to be that adopted by Drs. Park and Holt in their enquiry into the methods of infant feeding in the tenement houses in New York during 1901-2. In this investigation a number of children fed on different kinds of food were periodically weighed and kept under observation by competent medical observers, and the results obtained with each variety of food compared. This enquiry appeared to show that the best results were obtained from the milk supplied at the Milk Depôts which have been established in the poorer districts of New York by the generosity and public spirit of the Hon. Nathan Straus, and which are conducted on similar lines to the Battersea Depôt. "Of the methods of feeding now in vogue, that by milk from central distributing stations unquestionably possesses the most advantages in that it secures some constant oversight of the child, and since it furnishes the food in such a form that it leaves the mother least to do it gives her the smallest opportunity for going wrong. This method of feeding is one which deserves to be much more extensively employed, and might, in the absence of private philanthropy, wisely be undertaken by municipalities, and continued for the four months from May 15th to September 15th. The use, for infants, of milk delivered in sealed bottles should be encouraged

whenever possible, and its advantages duly explained. Only the purest milk should be taken raw, especially in summer."*

The statistical methods employed by Drs. Park and Holt, however, are not free from objection, and the average period of observation, about ten weeks, might with advantage have been extended.

Milk Depôts came in for a good deal of public attention during the year, and though meeting with general approval they did not escape hostile criticism. Some of the objections brought against these institutions can hardly be considered disinterested, while some are merely pedantic, not to say absurd.† One objection, however, deserves consideration. It is contended that when a municipality undertakes a supply of milk, the sources of the milk should be subject to strict supervision and control, and that none but milk of a high degree of bacteriological purity should be used. It must be admitted that there is much to be said for this view. It is true that the process of sterilisation kills the bacteria, but it is better to start operations with as few bacteria as possible, and if the milk were of a high degree of bacteriological purity it should be possible to dispense with sterilisation except in hot weather. But as far as Battersea is concerned, it is incorrect to say that the supply is uncontrolled. The contractor is bound by fairly stringent conditions, as will appear from the following extracts from the form of contract :-

The Contractor shall supply milk which must contain not less than 3.25 per cent. of butter fat and 8.75 per cent. solids not fat, and cream which must contain not less than 50 per cent. of butter fat; and the milk and cream must be free from chemical preservatives or colouring matter, and be drawn from healthy cows only.

The Contractor shall deliver the milk and cream in sealed churns or cans to the Council's Depôt, No. 28 York Road, before 8 a.m. every morning, Sunday excepted.

^{* &}quot;Report upon the Results with Different Kinds of Pure and Impure Milk in Infant Feeding in Tenement Houses and Institutions of New York City." Park and Holt, Medical News, New York, 5th December, 1903.

[†] It has been objected, with apparent seriousness, that Municipal Milk Depôts are wrong "on the abstract principles of political economy."

A warranty ticket must be attached to every churn and can guaranteeing its contents to be in accordance with the specification.

All pails, strainers, railway churns, refrigerators, fittings and other vessels and implements brought into contact with the milk shall be thoroughly inspected before being used, be properly cleansed, scalded and dried immediately after being used, and exposed to the air in a clean place, without lids or covers.

The farms, water supply, drainage system, farm buildings, dairy and cattle shall be open at any reasonable time to the inspection of the Council's Medical Officer of Health, or any person duly authorised by him, and no milk or cream shall be supplied from any farm which has been certified by the said Medical Officer of Health to be in an insanitary condition.

The cows shall be subject, if required, to a periodical veterinary inspection by a veterinary surgeon duly appointed by the Council, and the Contractor shall undertake not to supply milk or cream from any cow which is diseased, newly calved or under physic.

The cows shall during summer be pastured, and during winter so fed that no taint is imparted to the milk. The Contractor undertakes to use no brewers' grains (wet or dry), turnip-tops or vetches.

The udders of the cows shall be carefully cleansed before milking, and the utmost possible cleanliness observed at every point connected with the cows, cowhouse, utensils and attendants.

The milk shall be carefully strained and cooled to at least 56° F., immediately after milking, over a Lawrence, or other cooler of approved design, and shall be delivered at the Council's Milk Depôt at a temperature not higher than 56° F.

The Contractor shall undertake that the refrigerators and the in-flow and out-flow pipes, etc., are examined daily in order to see that everything is in thorough repair, and that there is no leakage. No milk or cream shall be supplied from any farm on which there is a case of infectious disease.

It is clear that these conditions can only be fulfilled by a dealer exercising exceptional care and possessing an unusually complete equipment. Nevertheless, it may be questioned whether the objection under discussion can be completely met while the supply at any point is under indirect control. My own opinion is that all the processes involved in the production of the milk supplied from a municipal milk depôt should be under the direct supervision and control of the responsible officers of the Sanitary Authority. In this connection it is interesting to note the experience of the City of Rochester, N.Y., U.S.A. In 1897 the municipality began a supply of infants' milk on methods similar to those afterwards adopted in several towns in this country. At first the milk was pasteurised or sterilised as at Battersea, but in 1899 the following method was adopted:—

"A central station at which the milk is prepared is organised each season on a farm outside the city, where a trained nurse and assistants have full control of the cows, utensils, bottles, etc., and where all of the milk work is carried on in a portable milk laboratory. Everything coming in contact with the milk is thoroughly sterilised in steam sterilisers. The milk itself it not subjected to any pasteurising or sterilising process. Sterilising and pasteurising are only an open invitation to the milkman to be careless in the production and handling of milk.

"At the milk station on the farm the milk is taken from clean, well-fed, tested cattle into sterile cans, which are carried to the barn in sterile cheesecloth bags. Just before milking the cows' udders are washed. A sterile cheesecloth fly cover is placed over the cow, the first portion of the milk being rejected. So soon as the cans are filled they are immediately covered by a layer of cheesecloth held in position by a rubber band. The cans of milk thus covered are immediately taken from the barn into the laboratory, about 200 yards away, where the milk is properly diluted, sweetened, and turned off into sterile nursing bottles of various sizes of the Siebert type. The bottles are corked with sterile rubber corks, placed in racks, covered

with cracked ice, and immediately transferred to the city for use. Of the cleanliness of milk prepared in this way, 43 daily samples were found to average not more than 14,000 bacteria per cubic centimetre, while city milk for the same period approximated 235,000 bacteria per cubic centimetre."*

This method is far in advance of anything which has yet been done by the English municipalities, and if it were not for the legal difficulties raised by the absence of statutory powers, there is no reason why it should not be adopted in this country. Not only would the quality of the milk be improved and the necessity for sterilisation removed, but an object lesson in clean milk production could be given, which would give an immense impetus to the movement for the "clean milk" which is one of the most pressing needs of the present time, when the question of "physical degeneration" appears at last to be likely to receive some measure of the attention its importance as a national question demands.

I would conclude this report by acknowledging the good work of the staff of the Depôt during the year, particularly the energy and ability with which Miss Lowe, the manageress, discharged her difficult and responsible duties.



^{* &}quot;The Influence of the Municipal Milk Supply on the Deaths of Young Children." Dr. Goler, Health Officer, Rochester, N.Y., U.S.A., New York State Journal of Medicine, December, 1903.

Appendix.

TABLES.

TABLE XXVII.

(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 1903 AND PREVIOUS YEARS.

		BIRT		TOTAL DE	ATHS REGIST	ERED IN THE	E DISTRICT	Total	Deaths of	Deaths of	NETT DEAT AGES BELO	THS AT ALI
		DIKI	ns.	Under 1 Y	ear of Age.	At all	Ages.	Deaths	Non- Residents	Residents registered	THE D	ISTRICT.
Year	Population estimated to middle of each year.	Number.	Rate*	Number.	Rate per 1,000 Births registered.	Number.	Rate*	Public Institu- tions in the District.	registered in Public Institu- tions in the District.	in Public Institu- tions beyond the District.	Number.	Rate*
1893 1894 1895 1896 1897 1898 1899 1900 1901	156,719 159,724 162,787 165,309 166,059 166,814 167,570 168,339 169,100 171,401	5,225 5,024 5,264 5,358 5,266 5,157 5,179 5,161 5,025 4,844	33'3 31'4 32'3 32'4 31'7 30'9 30'6 29'7 28'2	842 718 907 937 845 840 838 826 828 654	161 142 172 174 160 162 161 157 164	2,801 2,404 2,901 2,941 2,620 2,762 2,858 2,951 2,729 2,451	17·8 15·6 17·8 17·7 15·7 16·5 17·0 17·5 16·1 14·2	364 354 477 507 459 495 597 598 603 601	204 204 247 266 270 258 301 293 311 298	377 377 397 319 387 388 348 320 348 428	2,974 2,577 2,961 2,994 2,737 2,892 2,905 2,978 2,766 2,581	18·9 16·1 18·1 18·1 16·4 17·3 17·3 17·6 16·3 15·0
verages or years 1893-02.	165,382	5,150	31.1	823	158	2,741	16.2	505	265	359	2,836	17.1
1903	173,422	4,973	28.6	688	138	2,425	13.9	622	299	350	2,476	14.2

Rates calculated per 1,000 of estimated population.

*Rates calculated per 1,000 of estimated population.

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

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

The "Public Institutions" taken into account for the purpose of these Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums.

Area of District in acres (exclusive of area covered by water), 2139'9 acres. Total population at all ages, 168,997; number of inhabited houses, 23,462; average number of persons per house, 719—at Census of 1901.

TABLE XXVIII.

(Required by the Local Government Board to be used in the Annual Report of the Medical Officer of Health).

VITAL STATISTICS OF SEPARATE LOCALITIES IN 1903 AND PREVIOUS YEARS.

lames of Localities.	I. Boro	UGH OF	BATTERS	EA.	BB 2. 7	EAST BA	TTERSEA	2	3. Nor	TH-WEST	BATTER	SEA.	4. Sour	H-WEST	BATTER	SEA.
YEAR.	Population esti- mated to middle of each year.	Births registered,	Deaths at all ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all ages	Deaths under r year,	Population esti- mated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under
1893 1894 1895 1896 1897 1898 1899 1900 1901	156,719 159,724 162,787 165,309 166,059 166,814 167,570 168,339 169,100 171,401	5225 5024 5264 5358 5266 5157 5179 5161 5025 4844	2974 2577 2961 2994 2737 2892 2905 2978 2766 2581	883 734 930 947 853 855 837 822 821 657	69,023 69,995 70,981 71,753 71,848 71,942 72,020 72,119 72,226 72,797	2399 2284 2439 2500 2431 2424 2424 2418 2357 2208	1456 1168 1418 1472 1265 1400 1412 1370 1271 1133	415 345 435 465 411 441 437 411 407 312	49,889 49,861 49,832 49,804 49,775 49,747 49,719 49,691 49,663 49,631	1929 1825 1892 1886 1824 1744 1791 1749 1658 1643	1069 975 1052 1064 1007 1017 954 1044 932 911	358 308 365 365 326 311 299 314 296 270	37,807 39,868 41,974 43,752 44,436 45,125 45,831 46,529 47,211 48,973	897 915 933 972 1011 989 964 994 1010 993	449 434 491 458 465 475 539 564 563 537	110 81 130 117 116 103 101 97 118 75
Averages of years 1893 to 1902	165,382	5150	2836	833	71,470	2388	1336	407	49,761	1794	1002	321	44,150	967	497	104
1903	173,422	4973	2476	671	73,310	2298	1101	316	49.593	1692	851	268	50,519	983	524	87

Note.—Deaths of residents occurring in public institutions, whether within or without the Borough, are allotted to the respective localities according to the addresses of the deceased.

TABLE XXIX.

(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 1903.

	ned .	Cases	Notifi	ED IN W	HOLE DI	STRICT.			Cases N			Cases Res	MOVED TO H LOCALITY.
NOTIFIABLE DISEASE.	44 -11		540	At Age	es—Year	s.		sea.	est sea.	est sea.	sea.	est sea.	est sea.
Diphtheria and A Croup	At all Ages.	Under I.	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	SWest Battersea.
Small-pox			100	79	35	10	1				36	13	14
Cholera	33	1	3	2	4	23		17	14	2	17	14	2
Diphtheria				***	***		***						8
THE RESIDENCE OF THE PARTY OF T	276	- 6	83	152	19	16		78	135	63	61	123	45
Membranous croup	6	I	3	2	***			4		2	2		
Erysipelas	148	5	6	II	23	93	10	69	50	29	24	16	8
Scarlet fever	448	6	139	236	50	17		184	149	115	157	129	90
Typhus fever													
Enteric fever	85		2	20	28	34	I	31	35	19	21	29	9
Relapsing fever												2.2	323
Continued fever	COL DEV.D						99						230
Puerperal fever	7				I	6		4	2	I	2		E
Plague													F 2 2
Chicken-pox	45	5	19	21	OH SECTION	AING TO A	HALL S TOWNERS	24	10	II	THE PERSON OF	usongao	28
-	13	3			2			7			,		
Totals	1,048	24	255	444	125	189	II	411	395	242	284	311	154

TABLE XXX.

(Required by the Local Government Board to be used in the Annual Report of the Medical Officer of Health.)

Causes of, and Ages at, Death during the Year 1903.

				DEATH		LONGING T	O WHOLE	DISTRICT	AT SUBJOI	NED Ages.	DEATH! LOCALE	IN OR BE	LONGING TO	IN TONS	1
	AUSES OF D	EATH.		All Ages.	Under 1 year.	r and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 65 years.	65 years and upwards.	East Battersea.	North-West Battersea.	South West Battersea.	TOTAL DEATHS IN PUBLIC INSTITUTIONS IN THE DISTRICT.	
Small-pox	24				1										
Measles Scarlet Feve	er			107	28	78			I		79	22	6	I	
Whooping C				7		6	1	***			4	1	2		168
Diphtheria a	nd Mamba			79	32	46	I	***			37	30	12	14	
Croup	Membra		oup	29	1	23	5				12	9	8		
/ Tunhon				•••			***	***	***		***	***			
Enteric						***	***	***				***			
Other C		***	***	17	***		**	7	10		4	9	4		
Epidemic Inf		***				***	***	***	***						
Cholera		***		16	I	I		***	13	1	5	8	3	1	
Plague		***			***										
Diarrhœa		***					***	***	****			***			
	***	***		92	78	9			2	3	44	41	7	4	

ALL CAUSES			2476	671	343	72	114	872	404	1101	851	524	622	
All other causes	•••		813	217	41	28	34	293	200	332	287	194	254	
Suicides			19		***	***	I	16	2	8	8	3	3	
Accidents	***		65	3	9	5	8	27	13	34	18	13	24	-
Heart Diseases			114	2	1	8	5	62	36	54	32	28	63	-
Diseases and Acciden	ts of Partu	rition	10	***	***		3	6	1	3	5	2	2	
Premature Birth			10000	110	***				***	53	43	14	4	
Venereal Diseases			10	7			***	3		4	5	1	10	
Alcoholism Cirrhosis of Liver			38					33	5	13	6	19	9	60.0
Other Diseases of Re-	spiratory O	rgans	15	2	3	1		8	I	4	8	3	3	1
Pleurisy			10	2				6	2	7	1	2	3	
Pneumonia			218	77	48	8	5	60	20	110	65	43	24	
Bronchitis			199	57	21	1	1	57	62	95	74	30	39	
Cancer, Malignant Di	isease		141		2		6	89	44	49	42	50	46	ı
Other Tubercular Dis	seases		81	22	42	5	5	7	***	30	40	II	7	ı
Phthisis	***		222	2	7	7	35	163	8	93	76	53	81	ı
Other Septic Diseases	s		17	5	2	2	I	6	I	7	5	5	4	ı
Erysipelas			II	2	I		I	5	2	8	2	I	7	ı
Puerperal Fever			5				I	4		2	2	I	4	ı
Enteritis	***	***	31	23	3		I	I	3	10	12	9	1 15	1

Proceedings during 1903.

(The tables on pages 170-174 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 O	F PLACE	s.	2 2 3	Nonehan	
PREMISES.	On register at end of 1902.	Added in 1903.	Removed in 1903.	On register at end of 1903.	Number of in- spections, 1903.	Number of Intimation notices, 1903.	Number of pro- secutions 1903.
Milk premises	213	33	21	225	188	20	00
Cowsheds	3	-	-	3	are subject to	-	
Slaughter-houses	8	-	1	7	subjection.	-	
Other offensive trade premises	3	-	-	3	e premises are sub frequent inspection	-	Nil.
Ice-cream premises	80	39	4	115	These premises frequent ins	12	
Registered houses let in lodgings	82	39	-	121	These	(a)* — (b)* 12	

(a)* For overcrowding. (b)* For other conditions.

Overcrowding.

Number of dwelling rooms	ove	rcrowded		77
Number remedied				77
Number of notices issued				13
Number of prosecutions				-
Underground Rooms.				
Number closed during year			1	55
Insanitary Houses.				
	the	Public	Health	
(London) Act, 1891			min in.	-

Shelters provided under sec. 60 (4) of the Public Health London Act, 1891.

A shelter is in course of erection.

Customs and Inland Revenue Acts.	
Number of houses for which applications were	
received during year 97	
Number of dwellings comprised therein 105	
Number of certificates granted 105	
Number of Prosecutions under Bye-laws under Public He	alth
Act, 1891.	
(a) For prevention of nuisance arising from	
snow, ice, salt, filth, etc	
(b) For prevention of nuisance arising from	
offensive matter running out of any	
manufactory, etc	
(c) For the prevention of keeping of animals	
in such a manner as to be injurious to health —	
(d) As to paving of yards, etc., of dwelling	
houses	
(e) In connection with the removal of offensive	
matter, etc	
(f) As to cesspools and privies, removal and	
disposal of refuse, etc	
(g) For securing the cleanliness of tanks,	
cisterns, etc	
(h) With respect to water closets, earth	
closets, etc 2	
(i) With respect to sufficiency of water supply	
to water closets	
(j) With respect to drainage, etc. (Metropolis	
Management Act, section 202) 1	
(k) With respect to deposit of plans as to	
drainage, etc. (Metropolis Management	
Act, section 202)	
Mortuaries.	
Total number of bodies removed 223	
Total number of infectious bodies removed 8	

Inspection of Factories, Workshops and Workplaces.

			Num	BER OF PI	ACES.		Number	Number	Number	
CLASS OF WORKS		On Register		Removed	On Regis	ter at end	of Inspections, 1903.	of Intimation Notices,	of Prosecutions	
		at end of 1902.	in 1903.	in 1903.	Premises	Rooms.		1903.		
(Factory Laundries		4	21	I	24	110	80	18	1	
Factories Factory Bakehouses Other Factories		18	3 49	2	65	10	137	3 36		
Workshop Laundries Workshop Bakehouses Other Workshops		73 89 292		6 29	67 91 383	189 143 459	3,369	57 69 103		
Outworkers' Premises		134	44	-	178	178	356	7	Nil.	
Workplaces Places where Food is pared for Sale*	pre-	83	68	2	149	216	535	88		
Small Exempted Laundri		25	41	-	66	132	132	21	1 5	
Total		719	348	40	1,027	1,437	4,623	402		

^{*} Under this head are included the kitchens of hotels, restaurants, eating-houses of all sorts, tripe, fried fish and eel shops and other places where food is prepared.

MATTERS DEALT WITH IN CONNECTION WITH FACTORIES, WORKSHOPS AND WORKPLACES.

THE RESIDENCE OF	No	MBER OF	DEFEC	TS.	I TO A	ns.
Particulars.	Found.	Notified by Home Office.	Remedied.	Notified to Home Office.	Intimation Notices Issued.	Prosecutions
Matters under the Public Health (London) Act, 1891.	100		injus.		dina	
Want of Cleanliness	260	2	262	2	262	1
Want of Ventilation	64	I	65	1	65	
Want of Air Space: Over- crowding	12	-	12	-	12	
Insufficient	12	-	12	_	12	
Sanitary Accommo- dation. Unsuitable	149	-	149	-	149	
(sec. 38.) Not separate for Sexes	7	-	7	-	7	
Want of Drainage of Floors	12	2	14	2	14	
Other Nuisances	395	1	396	I	396	
Contraventions of Factory and Workshop Act, 1901. Occupying Underground Bakehouse without Certificate Breach of Special Sanitary Requirements for Bakehouses (secs. 97 to 100) Failure as regards Lists of Outworkers (sec. 107) Giving out work to be done in premises which are Unwholesome (sec. 108) Infected (sec. 110) Allowing Wearing Apparel to be made in premises infected by Scarlet Fever or Smallpox (sec. 109) Other Contraventions	13		13		13	Nil.
Total	924	6	930	6	930	

Cases reported to H.M. Inspector.		
Abstract not affixed		76
As to action taken in cases notified	by	
H.M. Inspector		6
Other cases		-
Number of underground bakehouses in	use	
at the end of 1903		42
Certificates granted (sec. 101)		31
Number of workshop rooms measured	freed	252

List of Out-workers (sec. 107.)

2 11 44		Num	BER OF LI	sts Reci	EIVED.	NUMBER OF OF OUT-	Addresses workers.
CLASS OF HOMEW	ORK.	Up to 1	Feb. 1st.	Up to	Aug. 1st.	Forwarded to other Authorities.	Received from other Authorities
		No. of Lists.	No. of Out- workers.	No. of Lists.	No. of Out- workers.	aguniay(1	To say?
Dressmaking		_	-	_	-	-	6
Blouse Makers		-	-	_=	- 1	Consult to	20
Milliners		I	_ 1	2	3	1	8
Glove Makers		I	59	1	65	23	-
Embroiderers		I	ı	1	1	sol a <u>ma</u> mis	5
Underclothing		_	-	-	_	2	22
Tailors		1	5	3	9	5	22
Shoemakers		-		2	8	The same	9
Upholsterers		1	2	I	2	2	4
Total		5	68	10	88	33	. 96

Number of Notices prohibiting homework in unwholesome premises (sec. 108) ... —

Number of Orders prohibiting homework in infected premises (sec. 110) ... —

TABLE XXXI.

CAUSES OF, AND AGES AT DEATH, DURING THE YEAR 1903.

(Exclusive of the deaths of Non-Residents in Public Institutions without the Browngk, but inslusive of the deaths of Residents in Public Institutions without the Browngk)

Series Free	fewerenes of our second of			1	10000	110000			-	Augs	_		0000		-	011000		LL AG	-		Dura	
Manufact	CAUSES OF DEA	Es.			1 and	5 and	10 400	(ts and	(so and			les and	les and	this and	ors and	Ny and	-			East	No.	Sch
Section From				I.	1			1 constant			LEGISTER	1 modes			2 species	waesla	Males	males	Total	Date	Bus-	Bat
Sections 1 1 2 3 4 3 4 4 4 4 4 4 4	Measles Scarlet Fever	-			78	- 11			110		200				***	in		55	107	79		1
Specimen	Epidemic Influenza	111	-	1	T.			111	100	4	- 4	1	4	1	***	***	10			5	- 8	
Carponery	Diphtheria Enteric Fever	411	-		23	4		-110		100				140	110		11	35 18	29.	12	9	1
Company	Diarrhota, Dysentery		-		. 7		And .	1044	***	110	100	2		1	1		38		.64	22		
Severelans	Tetanes	100	H	X	1011	224	100	100	310	1	***	See	277	***	100	110	- 1	1	2	1		
September Endomerische	Gonorrhona			100			110	-	200	111		1	2004		444		-1					
The Affair Disease 1	perperal Fever	100	100	***	-	200	***		1.		1						200					
Debander of Heart	Infective Endocarditis	100	100	1110	1			I.		3							3	3				
Tourendeside of Enable Milkersons of Enables	Choumatic Fever		344			3			2	***		1		test	1	144				3	2	
Substitution of Largess	Fuberculosis of Brain			8	24	1				***	131	100	100	1	***	100	- 1	200	1	***	200	
Schemistry Appendix September Sept	Phthinis				April	294	111	***	page.	2	2	-1	100	-	481	311	4	100	4	3		
Design Character Charact	Jeneral Tuberculosis	***		.8	- 2	1	***	***	1		333	100	200	-	231	100	- 6	11	.17		- 5	3
Seem Albookslouds	Thrush	100	-	- 1	- 1	***	414	100-	1		3	448	1	-	-	***	-4	- 4	8		2	
and Published Company of the Company	Acute Alcoholism Dronic Alcoholism		-	***	-110	200		-	-	104		***	100	100	-	211	- 2	444	2		000	
Section	Lead Polsoning			10.0	1111	110		***	100	100	111	***	***	1	200		-I	3400	1	1		
Tables	Jost	HTT.		***	***			+++			lone.				4			30	11	2		
Tamonham	Diabetes Mellitus		100					100		4 2												5
Common	Liomophilia		-	T.					110			444	***			-	1.1	1	2	2		
Premature Bitch	Lymphadeooma			***	1000	1	-	1	3	1	- 2	- 2	T.	-144	žen.	144			10	3	2	
Debuilty at Blinth	Premature Birth Injury at Birth	100	111		200	100	-	111		***		-	100	***	***	444			110	53	43	1
Section	Debility at Birth Utelectasis	444	-	17	300	444	-		411	146	100	100	0.00	0.00	***	***	9		17	8	2	
New Processing 1	Congenital Defects			35	2	1	100	-	222	***	200	-140	200			+++	32			19	10	
Elicites 13 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Atrophy, Debility, Marau			22		100	140	-	200	211							44	27	7	32		
15 15 15 15 15 15 15 15	Rickets	1000			9	-111	110	-		944	***	***	200			244	14	2	20	3	710	
Scheening of Steam	Convulsions	***	-		. 1	***		***		-	***	***	7775				23	42	65	18	10	3
Semiple Semi	Lpoplexy	011	111								1	948	***	2000	-	411	23	11	34		18	
Totals and a language	temiplegia										400	331	3		2.				9	2	7	
Seminary Number Seminary N	Other forms of Insanity					444	***		100	2004	5		2		100		11	1	12	3		
Agrygicinas Scridules 1 3	Cpiliepsy				1111	-212	****		111	2000	3		-		heat		1	5		2	1	
Paraphegis	Laryngismus Stridulus	***	=	2	3	***	***	100	200	114	100	400	-44	110		711	2		4	1		
Selis	Paraplegia	1000								1	4				-	100		- 1		100000		
Canada C	Otitis	100	Ξ			3	I		1			200								3		
Semile Gangreen.	Endocarditis	100		2						6	14	17		27	100	-		- 0	: 3		100	-
Senie Augreno	Locarism		-				***	***	***		1	1	2	***	1	-	4	1	- 5	2	1	
Placeting Plac	Embolism, Thrombosis		**				214	***	200	110	100	444		3	1	244	3	1	4	2	1.	
Lacyments Lacyment and Traches		Vessels	100		200	100	215	222	***	***	1	110	***	100		-100	0.00	- 1	1	1		++
Note Proceedings	Larvagitis					1	112	141	444	I	600	100	. 004	110			4		7	I.		3
Lobar Possmonia	Acute Bronchitis			55		1	211	***			2	1		5	7		50	50	700	55	20	17
Presumonials	Lobar Pneumonia		14		7	2	1	1									22	39	.46	24	45 11	1
Postario	Pneumonia			13	10	2					5					1		44 27		55 31	33	21
Diseases of Mouth and Annexa	Searisy	100			-	-	111	***	110	1	2 2	***	3	***	1 2	-	3	5	7	3 7	3	
Comment of Progress	Diseases of Mouth and As	nexa	100	3		-	**	***		***	100	644			-		I	***		-		-
Close of Scionach and Disodenam	Diseases of Œsophagus	0.00	100								-			1	***	-		***	X		200	
1	Other Diseases of Stomac	odenam h		8	-		1	211	1	3			3	100	***	-	2		9	3	1	2
Deletrochion of Intestine	Appendicitis	***		23	3	-	****	111	1	225	100	111	- 1	3	1		12	19	31	10	12	- 1
	Obstruction of Intestine Cirrhosis of Liver	100			- 1	100	715	***	2	2		2	3	3	3	200		32	20	21	5	- 3
Color Diseases, Digestive System	Other Diseases of Liver				-		***	- +++	1	1	1.	100	3	1	100	211	4		7		4	1
	Other Diseases, Digestive	System and City	100		0.00	111	100	111		1			***				4	2		3	2	
Casculus	Acute Nephritis	***	-	100	200		I	***	2		2			1		***	- 5			6		*
	Calculus	en e		100		-944							- 1		2		1	27	50		17	1
Pareperal Convulsions	Other Diseases, Urinary 5	System	200	100	14.04	***	***			- 1		***			200			des	36		****	
Calcard Proving Proving Childhorth	Puerperal Convulsions	100						-	-		111	1	1	-	***	110	101	4	4	3	1	-
Totals Control Contr	Other Diseases, Premanc	v & Childhi	irth	1124			100	1	-04	1	117	311	1000	1	++4	1111	100	3	3	2	100	
Comman	Other Diseases, Osseous S	ystem .	3		***	215	I	100	000	***	***	I	1	211	***	****	3	1	4	1	- 2	
Accreary and Negliger 3 1 1 2 1 1 2 2 3 3 2 3 3 3 3 3	Ulcer, Bedscre Eczema	1000		711	100	100	100	-		110	100	4111	feet	1	140	***	100	- 1	- 1	700	1111	
ACCESSENTS AND NEGLIGENCE. 10 Vehicular Traffic 20 In Stallways 21 In I I I I I I I I I I I I I I I I I I	Yemphigus	***																				
No. Railways	n Vehicular Traffic				-																	
By Meapons and Implements	Dis Railways	***		***	411	100	-	1	1	2	1		- 1	101		0-10	- 9		10			
Surma and Scalds	by Machinery	ente	.000	***	100	And .	0.00	***	1	***		-			+++		1 1	*** I		100	1	
Cases Presence P	Jurns and Scalds			1		100		244				1	101	211	444	200		1	2		1	
Securing	Surgical Narcosia	100		***		344		1	1		İ	200	711	***	-	-	T.	2	3	2		
Calls not specified	Suffocation, Overlaid in I	sed	330		110			111	444	2	100	- 1	200	***	+++	-	7	1	8	6	1	-
Distribution not stated	Palls not specified		100	***	600	244	110	111	1		-	100		110	1	200	1	- 3	3	3	***	
Springs Spri	Otherwise, not stated		111	2000	- 1	200	1	111	110.		600	***		1000		224	X	2	3	1		
Dy Poison Dy Poison Dy Poison Dy Poison Dy Poison Dy Hanging and Strangulation Dy Hanging and Strangulation Dy Dy Hanging Dy Dy Hanging Dy Dy Hanging Dy Cut er Stab Dy Cut er Stab Dy Dy Cut er Stab Dy Cut er Stab Dy					200		414	***		-	1000	***	844	***	-	204	1	1	3	- 144		
	By Poison	arion										3	- 1	100	***	-	2	4		4	1	
By Cut of Stab	By Drowning		-944	-	0.01	211	111	100	200		***	***	+++			***	6		- 6	1		
Comparison	By Cut or Stab			-							1	1	-122	100	-	***	4	100	4	2	111	
(a) Found Drowned			-		-																	1
(b) Other Causes 1 1 1	(a) Found Drowned		ES.	100	-	110					-					10	1		4			
TOTALS	(b) Other Causes		100	1										1			5 2			3		
. "" 943 40 32 44 70 175 209 218 270 222 151 31 1263 1213 1476 1101 851 5	Torus	-		fee	454	1000		1000		200								7.00		-	-	
	201613	-	711	-71	343	40	32	44	70	175	209	218	270	222	151	31	1203	1113	2476	1101	831	57

